



Supporting The UN Sustainable
Development Agenda

2024 Buildings Action Coalition Summit

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Enniscorthy, Ireland

Summary Report

Securing Real Progress Toward Sustainable Buildings



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Executive Summary

In its efforts to shift the culture of the buildings industries, the Buildings Action Coalition (BAC) assembled 150 participants from around the world to explore **how to raise the performance of buildings**. Irish ministers from housing, environment, transport, and agriculture and the chair of the Irish Commission for Regulation of Utilities joined the summit, as did representatives from the UN and the Government of France.

The UN's Global Buildings Climate Tracker indicates that **the buildings and construction sector is not on track** to achieve decarbonisation by 2050. The summit noted the opportunity that exists – **done right, improving the built environment is the one action that can deliver on climate change and quality of life quickly and at global scale**. To achieve that outcome, transformation of the buildings industries is needed. Transformation will require full engagement by all participants and will involve innovation, education, policy reform, training, demonstration, deployment, and communication.

Participants explored challenges from around the world. The cases of Brussels and Washington DC were highlighted. A major takeaway was the value of **setting tight standards from the outset**. Going with tight standards early avoids higher costs of incrementalism and avoids the risk of building structures being by-passed when standards are tightened. Applying the right standards early will deliver real decarbonisation more quickly at scale.

The summit focused especially on education and training. BAC international centres of excellence operate at community level and offer training for building developers, contractors, architects, engineers, and regulatory and planning officials. The BAC network of academic institutions works to reconceive curricula and textbooks, conduct research, and educate both next generation professionals and current practitioners on high performance principles.

The BAC is undertaking to shift the culture of building communities through its networks of academia and centres of excellence, through engagement with youth organisations, and by using creative and performing arts to inspire youth on high performance principles.

The summit connected with Ukrainian community leaders to explore **meeting the urgent needs of Ukraine** while preparing the country for a longer-term, sustainable future. The BAC plan is first workforce training and then real projects in collaboration with local communities.

The summit advanced the BAC's **buildings-grid integration project** and initiated discussion on **how to manage the many data centres** the world will build (reduce stored data; design data centres properly; decarbonise energy supply; and use the waste heat).

Next steps for the BAC involve resourcing – staffing, building project teams, and fundraising. Project priorities include discussing a draft UN protocol, developing retrofit best practices, revising curricula/textbooks, elaborating novel finance models for high performance, assessing integration of buildings and grids, supporting collaboration among cities to disseminate best policy practices, extending the use of performing arts for culture change, and mobilising a youth movement and social action league.

Communications will continue via monthly webinars, a regular podcast, campaigns, and social media. The **BAC will extend its membership** geographically and throughout the stakeholder industries. **Upcoming events** include a regional summit being organised in the autumn in Los Angeles, engagement with the Clean Energy Ministerial in Brazil and COP29 in Azerbaijan, and the next BAC summit in Enniscorthy anticipated for June 2025.



Introduction

The Enniscorthy Forum's 2024 Buildings Action Coalition (BAC) Summit gathered 150 partners and stakeholders from across the world both on-line and in person over the course of three days to explore “Metrics of Success: Securing Real Progress Toward Sustainability in Buildings”. The agenda is presented in Annex 1. The Summit was designed to advance the agenda of the Buildings and Climate Global Forum hosted by France and the UN Environment Programme in March 2024 in Paris and its Chaillot Declaration.

The point of departure for the summit was that there is a need to act quickly and at global scale to deliver high performance buildings in order to meet the climate challenge and deliver on quality-of-life aspirations around the world. Buildings are responsible for round 40% of greenhouse gas emissions by virtue of the energy they consume and the energy used to produce the materials used to build them. Add in the energy used to deliver mobility and other services of the built environment, and the share of greenhouse gas emissions is higher. Further, the climate is changing, resilience in the face of a changing climate is essential, and the built environment is at the heart of resilience.

The essence of the summit can be summarized as “done right, the building sector and the built environment is the one area that can deliver on climate change and quality of life quickly and at global scale”. It is essential that all players in the sector remain pragmatic, accept the range of technology options, and deliver high performance in tangible ways – it is necessary to share knowledge, disseminate best practices, and change the culture of the industries and administration involved in buildings and the built environment. The transformation will involve education, training, demonstration, and communication.

With the Building Breakthrough Target as a beacon, COP28 as a status report, and quality of life uneven around the world, the vast gap between goal and accomplishment on sustainable buildings could not be more apparent. The summit explored mechanisms by which the BAC community can “move the needle” worldwide on carbon emissions, environmental impact, quality of life, and social and environmental justice.

High Level Policy Context

Irish ministers from housing, environment, transport, and agriculture joined the summit to observe that:

- Improving buildings and the built environment is key to meeting the climate challenge and the objectives of sustainable development.
- The improvement will involve not only improving the operational performance of buildings, but also addressing the materials that go into buildings, an area where agriculture can play an important role, and taking care in how communities are designed, which involves decarbonization of mobility, managing utility services (water, telecoms, gas, power), and providing waste and other community services.

- Done right, these efforts will lead to improved quality of life – that is, improved health, better economic, social, and environmental resilience, social justice, better levels of comfort, affordability, indoor and broader urban air quality.
- Ireland is working to deliver 33,000 new homes each year from 2021 to 2030 and the Irish standards for buildings are world class. The administration seeks to support home ownership and increase affordability; eradicate homelessness, increase social housing delivery and support social inclusion; increase new housing supply; and address vacancy and the efficient use of existing stock.

The Chair of Ireland’s Commission on the Regulation of Utilities noted the role that buildings and the built environment can and must play in decarbonisation while maintaining quality of life. Proper and interactive integration of community structures with networks will enable better integration of renewable energy, contribute to affordability and reliability, and moderate concerns over security of supply.

The United Nations Environment Programme presented an overview of the Global Alliance for Buildings and Construction, of which Enniscorthy Forum is a member, and highlighted the following key points:

- The Global Buildings Climate Tracker indicates that the buildings and construction sector remains off track to achieve decarbonization by 2050.
- The Buildings Breakthrough Target, added to the Glasgow Breakthrough Agenda at COP28, reads ‘Near-zero emission and resilient buildings (NZERBs) are the new normal by 2030’.
- The 2024-2025 Priority International Actions under the breakthrough target were launched at Buildings and Climate Global Forum and are intended to help close the gap on the decarbonisation track. These fall into five broad categories:



The French Ministère de la Transition Écologique presented the outcomes of the Buildings and Climate Global Forum that the Government of France and the United Nations Environment Programme hosted in Paris on 7-8 March. Enniscorthy Forum had hosted two events associated with the forum – one workshop on the reconstruction of Ukraine and a seminar on



“Engaging policy to advance low carbon, resilient communities and quality of life”. The outcome of the forum, the Chaillot Declaration, has succeeded in attracting the endorsements of 70 countries so far and has as an aim to create momentum for buildings decarbonisation and climate resilience by reinforcing international collaboration and calling for commitments from governments, state, and non-state actors in the building and construction sectors.

The declaration had seven parts, listed here (with the full text at <https://www.ecologie.gouv.fr/sites/default/files/declaration-de-chaillot-forum-batiments-climat.pdf>):

- 1- Review of international texts contributing to the sector's transition objective(s)
- 2- Issues identified by international organisations
- 3- Recognition of countries' specific contexts and the role of buildings and construction in climate policies
- 4- Concerns/risks of a widening gap between the desired trajectory and the current situation
- 5- Principles for urban planning/construction to align with goals of the Paris Agreement
- 6- A commitment to strategies, policies and measures to pursue these principles
- 7- A decision on international collaboration and calls for action

Enniscorthy Forum closed this segment of the summit with its vision of how the BAC can contribute to meeting the challenges of climate change and sustainable development.

Presentation and discussion of the S.T.E.E.P. learning curve¹ concluded that **the buildings agenda is even more relevant now in these times of uncertainty and the right one to pursue with tangible results given its contributions to economic, environmental, and social resilience.**

A session dedicated to discussion of a draft UN protocol on high performance buildings observed that Enniscorthy Forum is not the entity that will prepare and submit a protocol to the UN for endorsement. That is a responsibility that falls to one or more UN nation states. On the other hand, discussion and debate of the elements of an eventual protocol among experts, industry, and academia would be a worthwhile endeavour in light of the multitude of national and international initiatives on the subject.

The BAC aims to transform buildings and the built environment – how buildings are conceived, built, operated, maintained, and eventually dismantled – to deliver quality of life, community energy performance and cohesion, embodied energy and carbon, and atmospheric decarbonisation. To meet the goals of the Paris Climate Agreement, the 2030 Agenda for Sustainable Development, and the Chaillot Declaration, quality of life, the energy performance of buildings, and embodied energy and carbon must be addressed urgently.

¹ **S**=social tensions are evident throughout the world, whether from migration, refugees, class, race, religion, medical; **T**=technology that is evolving, with pushes on electric vehicles, renewables, AI, and the like, not all of which are pragmatic solutions to the challenges faced; **E**=economics, which leaves the world on tenterhooks with high interest rates and supply chain issues; **E**=environment, most notably climate change as the world bursts through the 1.5°C and 2°C levels and appears headed past climate tipping points and much higher temperatures; and **P**=politics or more specifically geopolitics with open conflict and tension in Europe, the Middle East, and Asia and other tensions in Africa and Latin America.



The imperative to act quickly and at scale has been evident for some time, but the sound and fury of the evidence of the inadequacy of efforts to date reached a crescendo with the data and reports leading up to COP28. One of the projects of the BAC is to develop a draft protocol for consideration by the United Nations. If one thinks in terms of the successful Montreal protocol on ozone-depleting chemicals, the possible scope and framework for an eventual buildings protocol becomes clear.

BAC members will be considering distinct aspects of a possible protocol:

Exploration – examine and advance the key outcomes expected from proper management of the built environment. The first challenge is to explore whether outcomes that have been posited reflect the full spectrum. Once there is consensus on the outcomes, the group will explore indicative targets for each, recognizing that each country will have its own starting point and its own perspectives on quantified objectives and pathways. The results of this exploration will be an indicative set of objectives for countries.

Development – prepare a menu of strategies, concrete policies, and actions in support of the GlobalABC’s work on pathways, one that could assist countries in achieving their objectives and meeting their commitments recognising countries’ specific contexts, including development of building codes.

Promotion – deploy and disseminate the full slate of policies and actions using local, national, regional, and international platforms to accelerate the contribution of the built environment to quality of life and sustainability globally.

Measurement and Reporting – contribute to the GlobalABC Buildings Climate Tracker as appropriate with results of monitoring activities.

The outcomes that have been posited to date and that will require further refinement and quantification include:

- **Energy Efficiency**
- **Carbon Efficiency** (affordable clean energy)
- **Energy Security** (affordable access; no interruptions)
- **Resilience** (affordability, weather - heat, cold, wind, natural disasters)
- **Health** (comfort, air pollution, disease)
- **Social justice, equity, employment**
- **Water** (deluge, drought, contamination, sanitation)
- **Mobility**
- **Resources** (land use, materials, waste, natural environment)
- **Technology access** (including digitalization)
- **Systemic effectiveness & technical efficiency**



Education and Training: Creating the Professions for Sustainable Buildings

A focus throughout the summit was education and training. The BAC comprises several pillars, the centres of excellence and the academic networks, whose primary focus is on education and training, but the other pillars (industry, thought leadership, and youth movement/social action) have a connection into the topic as well.

The international centres of excellence that work with the BAC are organisations and institutions that operate at community level and that provide implementation-oriented education and assistance to building developers, contractors, architects, and engineers, as well as regulatory and planning officials. These organisations provide community-centric knowledge development and sharing, connecting with resources and accelerating uptake of high-performance buildings. During the summit a number of these centres provided overviews of the approaches they take to create an industrial/urban ecosystem capable of delivering high performance buildings. Topics such as finance (carbon taxes, novel finance instruments, monetizing the spectrum of outcomes, and including the range of beneficiaries in the finance equation), retrofit (do it correctly from the outset), building codes (development and enforcement), and trades (integrated, holistic approaches) were all addressed.

The BAC network of academic institutions also was present and active. The academic coalition members are working to rethink curricula and textbooks, conduct research on the science and social dimensions of buildings and the built environment, and educate both next generation professionals and current practitioners on high performance principles. The then-executive vice president and provost of Penn State University summed up the BAC perspective on education very succinctly – the unfolding crises of sustainability makes it imperative to reconsider the relationship between humanity and the natural environment. That reconsideration in turn obliges us to think in terms of holistic, integrative knowledge as opposed to the stove-piped education that we have today. Leaders in academia need to restructure their approaches to education, to offer a new idea of what a “university” is, to break down the silos that exist within and between universities, and to develop a new kind of collaboration between the university world and society writ large (communities, government, industry, economy). The proposition was put on the table to work through the BAC to bring about those changes.

Enniscorthy Forum has engaged with a group of students unions to establish the Youth Movement and Social Action League (YSL) to advance the vision and agenda of the Buildings Action Coalition. In particular, the summit recognised the value that students bring to rethinking curricula, engaging academic institutions and 'training the next generation of engineers.'

At the close of the second day, one of the highlights of the summit was a gathering at Senan House, the first high performance commercial building in Ireland, for a presentation of technology innovations emerging from Trinity College of Dublin's Innovation and Entrepreneurship Centre.

The final reference on education and training that was raised during the summit was to the webinars that Enniscorthy Forum hosts on the second Wednesday of every month. Various coalition members present an idea at each webinar as a means to show off their activities and to describe activities that they undertake.

Case Study in a Time of Crisis

Ukraine

The tragedy of destructive conflict or natural disasters sets the stage and hence a regrettable “opportunity” to rebuild affected areas to a new standard of performance. It is unfortunate that examples of such opportunities abound around the world. Ukraine is one such opportunity for reconstruction over both the near and long term. Design and deployment of high-performance buildings that are truly sustainable and that support a just transition away from fossil energy will enable the country to rebound from the war with buildings that deliver on a broad spectrum of quality-of-life measures including, notably, health, comfort, resilience, affordability, security, and the like. The summit brought together experts in high performance buildings and Ukrainian community leaders to consider what is needed that meets the immediate, urgent needs of Ukrainians while preparing the country for a longer-term, sustainable future.

The session recalled the findings of the workshop that the Enniscorthy Forum hosted in Paris in the context of the Buildings and Climate Forum on March 5:

- ➔ The war isn’t going to end any time soon, but reconstruction cannot wait - it must start now. In many sectors, including building renovation, it has started despite associated risks.
- ➔ Training of professionals to deliver high performance buildings is needed to carry out the enormous task of the reconstruction of the country for a secure and sustainable future.

Resilience and Quality of Life for Ukraine

Ukrainian experts presented a full picture of the situation in Ukraine:

- **The reconstruction of Ukraine will be comparable to the post-WWII reconstruction of Europe.** The level of destruction is enormous: more than 250,000 buildings have been damaged or destroyed. Reconstruction costs just for buildings is estimated at €80 billion - as much as the EU’s annual investment in building energy efficiency for the whole EU. Ukraine cannot rebuild by itself, so attracting needed funding and making reconstruction an international priority is the government’s focus.
- **A prosperous Ukraine can ensure EU security** in the coming decades, and the only path ahead is through strengthened partnership and cooperation.
- **Integrating Ukraine into EU markets and value chains**, establishing common production of energy efficient equipment and materials, and making Ukraine an important partner in implementing the EU Green Deal are as important as the physical reconstruction of infrastructure both during and after the war.
- **Building back better** ➔ adapting this perspective to Ukrainian realities and capabilities means applying the following criteria to reconstruction of the buildings sector: (1) establishing and enforcing minimum energy efficiency requirements for all buildings, (2) basing building systems on renewable energy solutions to the extent possible, (3) improving the energy performance of buildings, (4) supporting climate change adaptation measures, (5) addressing material circularity, (6) prohibiting the use of environmentally dangerous materials in (re)construction, (7) promoting fossil-free energy systems for new buildings.

- ➔ Reconstruction will require massive funding to rebuild or, as is often the case given the level of destruction, to build a new community nearby.
- ➔ Regional differences within Ukraine are significant: while the western part of the country has to date preserved its capacities and is able to access resources, the cities in the East must be rebuilt from scratch. There will be a persistent danger of new Russian assaults. These realities make tailored approaches imperative, which can only be adequate if the local conditions, knowledge, and experience are taken into account.

The technical challenge of building performance transformation is vast and focused not only on individual buildings, but how buildings are designed to leverage one another and to coordinate with community systems, especially the electricity system. These systems form the infrastructural ecosystem within which buildings deliver needed services efficiently to their occupants. The transformation of the energy system of Ukraine likely will involve deployment of distributed and intermittent generation, reconstitution as a smoothly operating national grid, and possibly reorientation and connection to the electrical grid of western Europe. Elements of the holistic equation include residential, commercial and industrial buildings, green power generation, distribution and load management, explosion of data and data centres with district energy potential from recovered heat, and links to water, wastewater, transportation, and other essential community services and activities.

Key recommendations emerged from the session in Paris:

1. While it is essential to deliver short-term reconstruction of destroyed communities and infrastructure, it is also important to set out a long-term strategy for a resilient, economically viable, and sustainable Ukraine so that action taken in the near-term is not in conflict with a long view;
2. Training and education in the professions needed for reconstruction, including project management and support, will be vital; actions in this area must start now and be fully resourced;
3. Developing a fully-interconnected ecosystem to enable delivery of high-performance communities will require efforts to align and coordinate the range of industries involve as well as the citizens, policy-makers and financiers;
4. The needs of the different regions in Ukraine will vary. Financing sources and effective financial models are required for the reconstruction of Ukrainian cities, focused on the specific needs identified by the local stakeholders.

Addressing these recommendations, the Enniscorthy Forum is launching an initiative to support Ukraine and other conflict zones in leveraging the opportunity they confront – first with workforce training but followed on quickly with in-the-field, fully-resourced projects with support from the EU and the North Atlantic community and in collaboration with local communities. The summit set the stage for Enniscorthy Forum's Ukraine reconstruction task force to outline actions in multiple sectors and milestones in education, tangible projects, and building-infrastructure interdependence to enable a rapid and sustainable recovery from the tragedy of war.

Case Studies in Leadership

Brussels

The city of Brussels, a major world capital, is recognized widely for the historic steps it has taken to transition its building stock. Combining incentives with code reformation, experimental first steps and later city-wide strategies, Brussels has an exemplary record in guiding transformation, addressing the complex challenges of retrofit, and both thinking and acting strategically on a historic, and historically difficult, issue of community design. Many have travelled to Brussels to see what it has accomplished and to learn how it was done. One of the visits to Brussels led first to development and endorsement of the UN's framework guidelines for energy efficiency standards in buildings and subsequently to launch of the UN's High Performance Buildings Initiative.

Washington, D.C.

The city of Washington DC, another world capital, stands out for the attention it has given to all there is to learn from Brussels' experience. They have established a close working relationship with the city – which happens to be a sister city. They sent a delegation of public and private sector leaders to Brussels for an in-depth study of what was done and how. They then brought those lessons home and began implementation, forming a practical partnership between the public and private sectors, both of which have important roles to play.

The session at the summit set out the stories of Brussels, the connection to the UN initiative and the institution of the Enniscorthy Forum and its BAC, and the collaboration with Washington, DC. The story has become one of collaboration of two world capitals to create a model of thoughtful but fast paced transition. The two cities are working with the BAC to tell their story – and help all who can learn from it move further faster. The cities propose to collaborate with other communities through field trips, online resources and case studies, and opportunities to meet with the public and private sector actors who have managed to bring real change to both cities.

Achieving High Performance In Africa

For Africa, setting “tight” standards from the outset must be in an African context. Socioeconomic challenges limit access to resources and skills, so the focus must be on achieving, with existing conditions and local knowledge, the best possible outcomes for occupants in both the present and the future.

The summit learned of a global south project applying this approach with pilot projects under a range of circumstances that require moving away from generalised solutions to context-specific approaches.

With urbanisation and global warming increasing the challenge for comfort and health, action is needed to reduce use of air conditioning that only exacerbates the problem. The approaches taken integrate high performance building techniques to include cool spaces in buildings for occupants who are vulnerable in extreme temperature conditions. The approaches are based on passive house principles while relying on adaptive comfort principles where contextually appropriate.

Pittsburgh and Glasgow

Inspired by the collaboration between Washington, DC, and Brussels, Pittsburgh and Glasgow have launched a similar collaboration through the BAC to drive both communities toward high performance outcomes, but in their case the drive is specifically in a post-industrial context. The two cities have much to learn from other examples in the BAC community and from one another as they seek to achieve energy efficiency, carbon efficiency, resilience, and broad-based quality of life.

Massachusetts

A final example of communities pressing forward with tightening building standards comes from Massachusetts. As part of its Next Generation Roadmap Bill of 2021, the state was required to develop a “net zero stretch code” for municipalities to opt-into.

The Department of Energy Resources (DOER) was the state agency charged with developing this code, including:

- net-zero performance standards
- a definition of net-zero building
- designed to achieve MA GHG emission limits and sub-limits
- possibility to phase in by building type
- 50% emission reduction in 2030 (sub-limits to be established for buildings sector)

The new Stretch Code automatically applies to all existing Stretch Code communities. The Passive House standard, which is at the foundation of the UN’s principles for energy efficiency standards in buildings, is now a pathway for multifamily, schools, and offices and is an alternative to other available pathways, while residential buildings must meet Passive House certification or achieve a tight high efficiency residential standard. The Specialized Opt-In Code is now available for municipalities to adopt and will go into effect in those towns approximately six months after adoption. This code will require Passive House certification for all large multifamily buildings over 12,000 square feet while including it as a possible pathway for all other types. Communities across the state are adopting the new Stretch Code.

Advancing China

China has a vast construction industry and values sustainable, safe housing and commercial buildings. Many cities and rural areas in China have been devastated by failure to develop and apply adequate building standards and proper construction practices. China seeks to achieve its climate goals, improve its overall environmental performance, and raise the living conditions of its citizens.

The Enniscorthy Forum can engage Chinese interests as coalition members through recognition of the Chinese context:

- China is aware of and interested in sustainable building.
- The country seeks recognition for its climate change efforts and will note that sustainable building practices offer tangible benefits on climate and quality of life.
- Chinese government agencies, industry associations, and businesses are all possible partners.
- One possibility would be training and capacity-building programs for Chinese professionals and organizations to enhance their knowledge and skills in sustainable building practices.
- A second area would be working with Chinese national and local governments on policy and regulatory initiatives (e.g., tax incentives, subsidies, mandatory green building standards) in a Chinese context.
- There would be great interest in the exchange of best practices, development of case studies, and research on sustainable building practices.
- There would be value in conducting campaigns to raise public consciousness (education campaigns, workshops, and sponsored events).

One of the takeaways during the summit from the discussions of all of these communities was the value of setting a very tight target from the outset to let the industry know the direction and the goal. A flaw in previous approaches has been deploying a step-by-step approach that increases costs enormously over the long run as a consequence of stuttering incrementalism. Going tight early and fast avoids the increased costs of incrementalism and investment in structures that are quickly passed by tightening standards and delivers effective decarbonisation more quickly at scale.

Challenges in Research & Development

Building- Grid Integration – a Bridge to a Sustainable Future

The buildings where people in the developed world spend 90 percent of their time, the electricity grid that increasingly powers them, and ICT systems that can link almost everyone and everything are at the heart of the infrastructure of a community. Historically, the relationship between buildings and the grid was that of a user and a delivery system. But decarbonization of electricity is now essential and, in order to meet demand for electricity with non-carbon sources, demand must be cut radically. This imperative holds even as reliance on electricity is being emphasised. The decarbonization imperative also requires that electricity consumption interact dynamically with supply. The performance of buildings and the grid must be optimized holistically, not separately as is the case today.

Building-grid integration is critical to achieving those goals, and the questions involved are at the foundation of community design. The era of centralized fossil generation is ending as is the traditional view of buildings as “only” consumers of power. Both tenets are unsustainable. On the grid side, there is a secular trend away from centralized generation and coordination whose objective is to maintain grid stability and toward distributed generation resources that contribute to decarbonization, relieve the burden

Water Always Wins!

The summit benefitted from a powerful presentation on issues associated with water: drought, flood, extreme climate events, rising oceans, depleting aquifers, water quality, and sanitation. Water is critically important for health (clean drinking water, sanitation), agriculture, fisheries and habitat, stormwater management and flooding, commerce and transportation, and power systems (cooling and hydro-generation). Water has been at the origin of many conflicts and has an enormous legislative anthology around the world dedicated to the rights and responsibilities that it imposes. The takeaways from this session included:

- Cities around the world are running out of water.
- Water management is more than a drought issue for the built environment → flooding and water quality are extremely important.
- National, state/province, local laws matter.
- Basin management & cross-border cooperation are essential for water management.
- There are opportunities in the built environment for living with water– absorbing water, buffering drought and floods, increasing biodiversity.
- Properly conceived and enforced building codes are critical.
- There are opportunities to stack benefits such as water infiltration and biodiversity, public parks and flood protection.
- Thinking pro-actively about climate impacts, especially on the most vulnerable, can render communities more resilient.



that dense load centres impose on grid managers, and assure energy security in the case of grid failure. For buildings, the shift is toward highly integrated whole building systems that deliver comfort and affordability for occupants with a light or no carbon footprint. The objective of effective building-grid integration is to optimize the operations of both in a coordinated way to contribute more thoroughly to decarbonization, notably in relation to accommodating variable renewable energy resources with dynamic flexible loads. This session explicitly launched the buildings-grid integration project as a means of building a bridge to a sustainable energy future.

Data and Data Centres

The session on data and data centres explored how the world can produce and operate the volume of data centres required in the future. The demand for data centres is growing exponentially in line with the production and retention of data, and that in turn is pressuring the transformation and decarbonization of energy systems. In essence, four critical elements were identified:

1. Reduce the volume of data stored – improved data management systems and elimination of both duplicative and unneeded data to reduce the demand for data storage.
2. Design data centres both to reduce their individual sizes and to minimize energy requirements for storage.
3. Decarbonize the energy supply needed for cooling.
4. Use the waste heat generated to displace other energy that might have been required for heating or other purposes.

The volume of data generated in the coming years is expected to grow exponentially. The resource implications of storage demand are mind-boggling, and this is a major issue that requires close attention. The data requirements to enable sustainability appear to be incongruous with the objectives of sustainability. The Buildings Action Coalition has assembled a task force to address this challenge explicitly.

Changing the Culture

One of the key objectives under the vision of the Buildings Action Coalition is to change the culture of the buildings industries, including that of buyers and occupants. Enniscorthy Forum is undertaking to achieve that shift in culture not only through its networks of academia and centres of excellence, but also through engagement with youth organisations and use of the creative and performing arts to both teach and inspire youth on the principles of high performance.

The summit featured launch of a fifth pillar of the Buildings Action Coalition, the Youth Movement and Social Action League (YSL), and the Enniscorthy Forum signed letters of intent with the Youth Democracy Movement (YDM), the Union of Students in Ireland (USI), the Organising Bureau of European School Student Unions (OBESSU), the Commonwealth Students Association (CSA), and the Irish Second-Level Students Union (ISSU).

In the closing segment of the summit, students from New York City working with Passive House for Everyone! (PHfE!) and the city of New York presented an inspiring set of art, music, and demonstration projects, notably an ice cream challenge (!) that was conceived to minimize melting by proper design. PHfE! Is working with 150 schools and the Pratt Institute in New York City to



spread their approach of using the arts to raise awareness of and enthusiasm for high performance. BAC will be assisting PHfE! to carry these types of projects to other cities around the world.

Globalizing BAC networks

One of the objectives of the agreement with the United Nations is the extension of the BAC networks to global scale.

International Centres of Excellence coalition members who have signed onto the MOU include:

- The Building Energy Exchange (New York City, USA),
- Built Environment – Smarter Transformation (Scotland),
- passivhausMaine (Freeport, Maine, USA),
- Passive House Network (national network headquartered in New York City),
- Passive House Institute (Darmstadt, Germany),
- Passive House Canada (Vancouver, Canada),
- Passive House Trust (London),
- River Clyde Homes (Glasgow, Scotland), and
- Onion Flats (Philadelphia, Pennsylvania).

Coalition members who signed onto the MOU at this summit in 2024 include:

- A2M Architecture (Brussels, Belgium)
- The Energy Coalition (Los Angeles, California), and
- EnEffect (Sophia, Bulgaria)

In process to join the MOU are:

- Buildings Innovation Hub (Washington, DC)
- Passive House for Everyone!, (Brooklyn, New York)
- Zero Ambition Partners (Dublin, Ireland)
- AECB (Lancashire, UK), and
- Passive House Massachusetts (Boston, Massachusetts).

Academic institutions that are members of or working with the BAC include Penn State University, South West College (northern Ireland), Trinity College of Dublin, and Carnegie Mellon University.

Additional Letters of Intent to join the MOU were signed in 2024 by MosArt Architects, the Youth Democracy Movement, USI, OBESSU, CSA.

The Path Forward

The immediate next steps for the BAC will involve resourcing. The Enniscorthy Forum and its BAC are described in Annex 3. As part of its MOU with the UN Environment Programme, the BAC is undertaking a wide range of projects and activities to deliver – the BAC comprises partners who are dedicated to making real and rapid differences in the built environment to enhance quality of life globally while meeting the climate challenge

The full set of projects and activities of the BAC are set forth on the Enniscorthy Forum website (<https://enniscorthyforum.org/buildings-action-coalition/>). They fall into 6 broad categories, each with a range of specific projects and activities that have been conceived to support the UN agenda:

- **Communicate** – disseminate vision, knowledge, opportunities for policy makers, building industry, and end users (webinars, podcasts, capital cities collaboratives)
- **Collaborate** – engage all stakeholders to deliver superior outcomes (cooperation among centers of excellence, engagement with policy-makers, codes/regulations)
- **Implement** – in-the-field action with reinforced measurable impact (mobilisation, commitments, financing/investment, case studies, tracking and reporting progress)
- **Research** – advance the science of buildings, the built environment, and approaches to transformation (supporting policy, codes, and regulation).
- **Educate** – transform curricula and textbooks for tomorrow for youth and for workforce professionals; extend training infrastructure of all types for current and future building professionals.
- **Macro Policy and Strategy** – develop policy approaches to advance the principles of high performance buildings.

The projects advance and change over time and the information provided on the website is updated regularly updated. The various projects and activities will require physical, financial, and human resources. The specific projects that are current priorities are set forth in this report, for example the reconstruction of Ukraine, organising and supporting dialogues on a draft UN protocol, development of best practices for retrofits, revising curricula and textbooks, elaborating novel financing models for high performance buildings and built environment, assessing opportunities to integrate the operations of buildings and grids (power, gas, water), supporting a broad collaboration among cities to disseminate best policy practices, and mobilising a youth movement and social action league.

In addition, providing adequate secretariat support for a coalition that is growing and both expanding and deepening its activities requires attention to a commensurate level of staffing and coverage of the costs of a going concern (office costs such as rent, equipment, subscriptions, supplies, and utilities; IT costs including web management, webinars/podcasts, and communications; consultancies and project costs; publications/subscriptions; travel; support for UNEP's GABC secretariat, as their staff and budget are limited; and other costs that cover the running costs for a fully staffed secretariat driving forward the BAC programme and GABC). Resourcing also involves convening the experts who will work under the various project umbrellas.

Communications will continue via monthly webinars, a regular podcast, and preparation of interview and articles for journals and for posting on social media.



The BAC will extend its membership geographically and throughout the spectrum and value chains of stakeholder industries. Most of the current membership is based in North America and Europe. BAC intends to work with specific countries, notably France, the UK, India, China, and the United States, to extend the networks of international centres of excellence and academia globally (Latin America, Africa, Asia/Pacific). Further, most current members are affiliated with the passive house movement – which is understandable given that passive house standards underpin the United Nations Framework Principles for Energy Efficiency Standards in Buildings. But the full stakeholder community includes those who produce, install, and operate buildings systems, the information and communications technology industries, energy suppliers, mobility suppliers, providers of water, waste, and other building services, and the financiers (banks, insurance, realtors). In each of these spaces there is a need to consider the full value chain of industries that deliver buildings.

Finally, the Enniscorthy Forum and its BAC will look forward to future events. The most immediate is a regional summit being organised with a BAC member, The Energy Coalition, in the autumn of 2024 in Los Angeles (see Annex 2). As the BAC extends its geographic membership, other regional summits will be organised. The next Clean Energy Ministerial (CEM) will take place in Brazil, also in the autumn, and there is the prospect of contributing to the CEM in Brazil as the Enniscorthy Forum did in the CEM in Pittsburgh in 2022. COP29 will take place in Baku in Azerbaijan and, given the growing visibility of buildings and the built environment for climate mitigation and resilience, the BAC would have an important role to play. Which brings us to the BAC summit that will be held in Enniscorthy in June 2025 – stay tuned!

Annex 1: Summit Programme

Monday: Policy and Social Action

1000 Ireland, France & United Nations Environment Programme

Welcome: Tomàs O’Leary, Managing Director, MosArt

Moderator: Barbara-Anne Murphy, CEO, Enniscorthy Forum

Darragh O’Brien

Minister for Housing, Local Government and Heritage, Ireland

Ireland Welcomes this Global and Growing Network

1030 Buildings Action Coalition Vision and Action

Gulnara Roll, Head of the Cities Unit of UNEP and

Head of the GlobalABC Secretariat hosted by UNEP

How UNEP Sees the Role of Buildings & Energy

in Meeting Climate Objectives

Yves-Laurent Sapoval, Advisor to the Director General of Planning,

Housing and Nature at the French Ministry of Ecological Transition.

The Vision of the Chailot Declaration: What We Hope to Achieve

Scott Foster, Member, Enniscorthy Forum Strategic Advisory Board

Buildings Action Coalition Vision and Action

1100 Challenges from Around the World

James Gannon, Chairperson, Commission for Regulation of Utilities, Ireland

Member, Enniscorthy Forum Strategic Advisory Board

Advancing a Sustainable Grid: The Irish Vision

Viktor Kipiani, Chairman, Geocase

Headwinds to Sustainability in the South Caucasus

David Chikvaidze, Vice President, Swiss Forum for International Affairs

Member, Enniscorthy Forum Strategic Advisory Board

Global Conditions for Action on Buildings and the Built Environment

- 1230** **Lunch**
Youth Movement & Social Mobilization
 Moderator: Breandán Goss, Senior Innovation and Accelerator Manager,
 Tangent, Trinity College Dublin
 Henry Wright, Chair, Youth Democracy Movement
Introduction of Movement
- Colette Murphy, Vice President for Welfare, Union of Students in Ireland
 Iffah Rahmat , International Officer, Irish Second-Level Students Union
 Andrew Victory, Board Member, Organising Bureau of European
 School Student Unions (OBESSU)
 Anna Weinrich, Board Member, Organising Bureau of European
 School Student Unions (OBESSU)
 Bradly Yombo-Copio, Commonwealth Students Association
- 1400** Paula Glover, President, Alliance to Save Energy
 Member, Enniscorthy Forum Strategic Advisory Board
US Policy Regarding High Performance Buildings: Recent Developments
- 1445** Moderator: Barbara-Anne Murphy
 Justin Schwartz, Executive Vice-President and Provost, Penn State University
 Member, Enniscorthy Forum Strategic Advisory Board
Knowledge and Action: Universities for a Sustainable Age
- 1515** **Coffee Break**
- 1545** *Financing Buildings Transformation*
 Moderator: Scott Foster
 Jillian Mahon, Council Member, Climate Change Council
 Louise O'Mahony, Head of Sustainable Banking,
 Banking & Payments Federation
 Patrick (Paddy) Kelly, Co-Founder, Collectivity
- 1700** Andreas Breuer, Chair, The European Utilities Telecom Council
 Member, Enniscorthy Forum Strategic Advisory Board
European Trends in Policy and Technology
- 1830** **Dinner**
1930 **Departure for Evening**

Tuesday: Innovation: Regions, Projects & Products

- 0900** *Ukraine: Crisis and Opportunity*
Moderator: Scott Foster
Dragomir Tzanev, Executive Director, EnEffect
Anne Ackerman, Board Member, Centre for Environmental Initiatives
Svyatoslav Pavlyuk, Executive Director,
 Association of Energy Efficient Cities of Ukraine
Andreas Breuer, Chair, Utilities Technology Council,
 Member, Enniscorthy Forum Strategic Advisory Board
Kay Aiken, Founder and Chief Product Officer, Dynamic Grid
- 1015** **Coffee**
- 1030** *Brussels - DC: A Collaboration of World Capitals*
Moderator: Scott Foster
Introduction: Richard Yancey, Executive Director, Building Energy Exchange
Sebastian Moreno-Vacca, Managing Director, A2M
Michel Wallemacq, Senior Economic Advisor,
 Embassy of Belgium to the United States
Daniel Conner, Chief of Staff, Department of Energy & Environment,
 District of Columbia
- 1130** *Glasgow - Pittsburgh Collaboration on Sustainable Buildings*
Richard Orr, Head of Asset and Regeneration, River Clyde Homes
Erica Cochran Hameen, Assistant Professor, Co-Director of Center for
 Building Performance and Diagnostics, Carnegie Mellon University
David Parker, Architect, Executive Director, Passive House Pennsylvania
Maureen Guttman, Senior Fellow, Policy and Ratings, Energy Solutions
- 1200** *Community Transformation in the North: Issues and Strategies*
Moderator: Barbara-Anne Murphy
Timothy McDonald, President and CEO, Onion Flats
Theresa Backhus, Director, Building Innovation Hub,
 Institute for Market Transformation
Marc Costa, Director of Policy & Planning, The Energy Coalition

- 1300** **Lunch**
 Jeff Colley, Editor, Passive House Plus Magazine
High Performance Buildings: The Global South
- Joan McEntee, Chairman and CEO, Middle Kingdom Business Consulting
High Performance Buildings: China
- 1430** *Passive House, Near-Zero, and Built Environment*
 Jessica Grove-Smith, Senior Scientist and Joint Managing Director,
 Passive House Institute
 Pat Barry, CEO, Irish Green Building Council
 Sebastian Moreno-Vacca, Managing Director, A2M
 Peter Graner, CEO, P.G. Solar Greener
- 1530** *Grid-Building Integration*
 Moderator: Kay Aikin, Founder and Chief Product Officer, Dynamic Grid
 Andreas Breuer, Chair, The European Utilities Telecom Council
 Member, Enniscorthy Forum Strategic Advisory Board
 Mike Oldak, Senior Advisor, Enniscorthy Forum
 Scott Foster, Member, Enniscorthy Forum Strategic Advisory Board
- 1630** *Visit to Senan House*
 Ed Murphy, CEO, GreenTech HQ
 Barbara-Anne Murphy, CEO, Enniscorthy Forum
 Breandán Goss, Senior Innovation and Accelerator Manager,
 Tangent, Trinity College Dublin
*Trinity Entrepreneurs in Buildings and the Built Environment:
 Emerging Innovations*
 Briefing & Tour of Building
- 1830** Reception & Signing Ceremony at Enniscorthy Castle
- 2000** Dinner on own, recommendations to be provided



Wednesday: Education for Sustainability

0900 *Ireland Engaging With the World on Buildings and Climate*

Introduction and Moderator: Barbara-Anne Murphy

Jack Chambers,

Minister of State Department of Environment, Climate and Communications,
Department of Transportation

Comment by William O'Connor, Board of Directors, Enniscorthy Forum

0930 *Training & Education: Priorities, Facilities and Ensuring Results*

Moderator: Breandán Goss

Tomàs O'Leary, Managing Director, MosArt

Dragomir Tzanev, Executive Director, EnEffect

Barry McCarron, Head of Industry and Business Support, South West College

Carl Halbach International Communications Manager,

International Passive House Association

1030 **Charlie McConalogue**

Minister of Agriculture

1045 *Local Action and Cultural Change*

Moderator: Barbara-Anne Murphy

Erica Cochran Hameen, Assistant Professor, Co-Director of Center for
Building Performance and Diagnostics, Carnegie Mellon University

Irene Cadogan, Assistant Principal Officer,

Department of the Environment, Climate, and Communications,

Richard Orr, Head of Asset and Regeneration, River Clyde Homes

1145 *Data and Data Centers*

Introduction and Moderator: Scott Foster

Steve Naumann, Senior Advisor, Data Centers,

US General Services Administration

Richard Orr, Head of Asset and Regeneration, River Clyde Homes

David Sutherland, Co-Owner, Measurable Energy Solutions

Andreas Breuer, Chair, The European Utilities Telecom Council,

Member, Enniscorthy Forum Strategic Advisory Board



- 1245** **Lunch**
Lara Fowler, Director, Penn State Sustainability and
 Chief Sustainability Officer, Penn State University
Rivers and Community Design
- 1400** *US Training Expansion*
Tomas O’Leary, Managing Director, MosArt
Beverly Craig, Program Director, Massachusetts Clean Energy Center
Richard Yancey, Executive Director, Building Energy Exchange
Naomi Beal, Executive Director, passivHausMaine
- 1500** *Reports from the Field*
Moderator: Scott Foster
Jessica Grove-Smith, Senior Scientist, and joint Managing Director,
 Passive House Institute
Developments in Passive House
James Freihaut, Department Head and Professor,
 Department of Architectural Engineering, Penn State University
Tomàs O’Leary, Managing Director, MosArt
Developments in Retrofit
- 1600** *Creating a Draft United Nations High Performance Buildings Protocol*
Moderator: Barbara-Anne Murphy
Ciarán Cuffe, Member of the European Parliament
Scott Foster, Member, Enniscorthy Forum Strategic Advisory Board
Vivian Loftness, Professor and former Head,
 School of Architecture, Carnegie Mellon University
Craig Stevenson, President, AUROS Group
Beth Eckenrode, Co-founder, AUROS Group
Maureen Guttman, Senior Fellow, Policy and Ratings, Energy Solutions
- 1700** *Education: Passive House Through The Arts*
In Cho, Co-Founder, Cho-Shields Studio and Passive House for Everyone!
- 1745** *Special Youth Performance*
- 1800** **Close**
- 1830** **Dinner**

Annex 2 About Enniscorthy Forum and the Buildings Action Coalition

Enniscorthy Forum is a civil society non-profit organisation established in 2021 to support the United Nations sustainable development agenda. The Forum works with locally-focused initiatives around the world to strengthen their global impact.

The Enniscorthy Forum and our partners have been in discussions with the UN since 2015 to see how we can work together to reduce carbon emissions from buildings and the built environment and meet global quality of life aspirations. One of the core activities of the Enniscorthy Forum is our work on high performance buildings, as described in more detail below.

The Forum's greatest strength is our model of working through collaboration to expand the reach and depth of our activities and to ensure that development is both high quality and conceived to endure.

The Enniscorthy Forum has signed an MOU with the United Nations Environment Programme that has been endorsed not only internally at UNEP but also by collaborating countries. The MOU helps extend the reach of the Forum's activities to global scale.

The world faces an existential threat from climate change caused by accumulations of greenhouse gases in the atmosphere resulting from human activity. The world will not act collectively nor seriously to address the challenge of climate change if the perceived self-interests of people and nations are not satisfied. That means that quality of life must be secured and (geo-)political realities be acknowledged. It is imperative that global and societal objectives and personal motivations be brought into alignment. Of all the actions that can be taken, improving the performance of buildings and the built environment stands out as it can deliver on climate, development, resilience, health, affordability, water, waste, resources, social justice, and more, while accommodating politics, and it can do so quickly, at global scale, and with meaningful results.

The Forum is a recognized hub of worldwide activities on a UN priority issue. It has developed membership-based networks that provide global access to leading-edge knowledge and training, that offer innovative products and services, solutions, support and best practices, and that help meet climate & quality of life challenges in built environment.

The Forum's work will drive carbon emissions reduction and global development in the built environment. The action-oriented programme is conceived to:

- Recruit, develop, and coordinate high-performance building Centres of Excellence worldwide.
- Assemble knowledge, ideas, best practices, and data
- Disseminate new learnings and best practices globally and through UN agencies
- Undertake financed projects to advance the concepts of high performance buildings
- Provide webinars, podcasts, conferences, symposia and tailored meetings.

Buildings Action Coalition

As of 2023 the Enniscorthy Forum is coordinating several networks of actors working on buildings and the built environment (the Buildings Action Coalition, or BAC) and the Forum has engaged in a close collaboration with the UN Environment Programme (UNEP).

The Enniscorthy Forum applied for membership in the GlobalABC and, following a successful due diligence assessment and consideration by the Steering Committee, that application was approved. The substantial programme set forth by the Forum on buildings complements ongoing activities of the GlobalABC, notably in the areas of research, education, and community-centric activities.

The Enniscorthy Forum's work on buildings is informed by a vision of a world that achieves high performance in the built environment to meet climate and resource challenges while delivering quality of life. The Enniscorthy Forum's Buildings Action Coalition (BAC) seeks to raise the performance of buildings and the built environment to deliver the 2030 Agenda for Sustainable Development and the Paris Climate Agenda. The mission is to make real, rapid, and measurable improvements in buildings and the built environment to enhance quality of life globally and meet the climate challenge.

UNEP hosts the Secretariat for the Global Alliance for Buildings and Construction (GlobalABC), a voluntary partnership launched in 2015 and comprising national and local governments, inter-governmental organisations, businesses, associations, networks and think tanks committed to a common vision: a zero-emission, efficient and resilient buildings and construction sector. The GlobalABC brings together initiatives and actors focusing on the buildings and construction sector. The GlobalABC network currently includes over 130 members, among which are 29 countries.

The BAC's agenda is conceived to inspire and harness ambition, reconceive industry practice, policies, education, training, and workforce development, and activate critical investments, thereby "moving the needle" on decarbonization, resilience, and improving quality of life quickly and at global scale. Rapid action at scale is imperative if the world is to rise to the dual challenges of development and climate.

The BAC is activating a global movement to deliver on the vision. The BAC comprises community-level organizations, industry, universities, and thought leaders from around the world dedicated to making real and rapid differences in the built environment to enhance quality of life globally while meeting the climate challenge. The BAC has a broad slate of projects and activities to improve the performance of buildings and the built environment. The slate is a living agenda, which means it will evolve and progress over time.

- ➔ The BAC is not fixed on specific solutions but rather embraces those alternatives that are best adapted to local circumstances. The consequence is a movement that is pragmatic, technology neutral, action- and results-oriented.
- ➔ The BAC is comprehensive in its vision – coalition members are focused on multiple social objectives in addition to energy efficiency and climate change – and therefore silo-breaking in its quest to achieve deployment of high-performance buildings at global scale.
- ➔ The BAC is global and local – its global networks extend to every continent with members functioning at community level. Attention to the built environment has focused on the developed world, whereas future challenges for the built environment are evident in the Global South.



- The BAC is engaged with both public and private entities – coordinating across communities, nations, and multiple UN bodies.
- The BAC will work on communications, education, deployment, outreach and dissemination, and research. This initiative will not achieve its objectives without active dissemination, engagement, and deployment.

There is an important need to think systemically – while buildings might be considered on an individual basis, in fact they are parts of a larger, integrated built environment. State-of-the-art buildings that are carbon negative within their walls nevertheless can lead to significant CO₂ emissions by virtue of the millions of miles their occupants travel to get to and from them. Communities of buildings can deliver superior results if their respective systems are connected and interact with supply through grids.

Carbon neutrality is not the only relevant topic as the built environment touches on the whole social and cultural fabric of communities and neighborhoods. There is a need for systematic consideration of neighborhoods that goes beyond simply carbon neutrality or energy efficiency. Many cities are trying to generate solutions for transport, energy, and waste at the same time but in isolation. There is a need to demonstrate effective, integrated solutions.

Securing the energy services required by both existing and new buildings is a huge challenge but it can be done in ways that reduce energy consumption with concomitant benefits for trade balances, employment, pollution, and the like. The opportunities to improve energy efficiency in existing buildings exist with today's technology, and these opportunities could be significantly enhanced by digitalization if applied throughout the value chain.

BAC members advance the principles of high-performance buildings to drive enduring change in building performance and in how the buildings industries work. The coalition is comprised of different types of actors with different capabilities and commitments but with a common goal to drive global transformation – the BAC comprises community-level organizations, industry, universities, and thought leaders from around the world. The types of coalition members that comprise the BAC to date include:

- **Action hubs** (or international centres of excellence). The mission of an action hub/center of excellence in BAC is to advance the principles of high performance in buildings by connecting professional communities to high performance outcomes (energy efficiency, carbon efficiency, affordability, resilience, and water, waste, and mobility solutions) through education, training, technical assistance, demonstrations, resources, and research.
- **Thought Leaders**. The thought leadership group of the BAC is working to elaborate the outcomes expected of high-performance buildings and the built environment. It will: 1) work to develop and help deploy a protocol and action plan for the built environment with objectives, solutions, and priority actions to deliver required outcomes; 2) examine the key outcomes that could be expected from proper management of the built environment and explore quantitative targets for each; 3) prepare a menu of concrete policies and actions that could assist countries in achieving their objectives and commitments; 4) promote wide deployment and dissemination of the full slate of policies and actions using local, national, regional, and international platforms to accelerate the contribution of the built environment to quality of life globally; and 5) prepare a draft international protocol for high performance buildings and the built environment that sets out outcomes, targets, policies, and actions to support governments' commitments and objectives.
- **Academia**. The mission of the academic network of the BAC is: 1. to educate building professionals to deliver high performance buildings; 2. to advance the science of buildings



and the built community to accelerate attainment of the objectives of the 2030 Agenda for Sustainable Development; 3. to modernise curricula and textbooks to reflect the principles of high performance in buildings (energy efficiency, carbon efficiency, affordability, resilience, and water, waste, and mobility solutions); and 4. to raise awareness among youth and citizens of the opportunities to improve building performance.

- **Industry Leadership Group.** The mission of the industry leadership group in BAC is to advance the principles of high performance in buildings through innovation, investment, and demonstration of their application.
- **Media Group.** The mission of the media group of the BAC is : 1. to assist in proselytizing the vision of the BAC and the principles of high performance buildings and the built environment; 2. to advance press releases and other news about activities of the BAC secretariat and membership; and 3. to assist in outreach to the public, the industry, and governments.
- **Youth Movement and Social Action League (YSL).** This pillar of the BAC was conceived to engage youth to disseminate the vision and key messages of the BAC and to mobilize changes in culture, practices, and government policy with respect to buildings and the built environment. Enniscorthy Forum is seeks to shift the buildings culture through engagement with youth organisations and use of the creative and performing arts to both teach and inspire youth on the principles of high performance.

Other types of coalition members might be specified in the future, and as time goes by the descriptions of any or all of the categories might be modified.

MOU with the United Nations Environment Programme

In June 2023, the Enniscorthy Forum inked a memorandum of understanding (MOU) with the UN Environment Programme (UNEP) to collaborate on a worldwide mission to improve buildings to reduce carbon emissions while keeping them affordable, comfortable, and healthy. The BAC will work with UNEP to disseminate the transformative benefits of high-performance buildings and to deploy best practices in planning, design and construction across the world.

UNEP considers that collaboration with the Enniscorthy Forum will help raise the performance of buildings and the built environment on a global scale. Experts from Ireland helped initiate the UN's High Performance Buildings Initiative that in turn prompted creation of the Enniscorthy Forum. UNEP has expressed appreciation for the Irish Government's support of the Enniscorthy Forum and the activities of the BAC.

Improving the performance of the built environment is the most effective way to meet the climate challenge while improving quality of life globally. Delivering on the promise requires collaboration among all stakeholders in the built environment working quickly and at scale around the world. That is the shared vision on which the Enniscorthy Forum's Buildings Action Coalition and UNEP's GlobalABC partnership is built.

The agreement between the buildings action coalition and UNEP calls for collaboration on the following activities:

- Advocate for market transformation and catalyze real action.
- Develop specific projects and activities, for example, best practices for retrofits, notably for historic buildings; best practices for data centres; and best practices for buildings/grid interface.
- Track progress towards zero emission, efficient, and resilient buildings and construction.
- Develop policy guidance and capacity building for the transition.
- Work with the community of stakeholders and UN bodies to develop objectives, targets, and recommendations to support attainment of the Buildings Breakthrough Target.
- Work with academia worldwide to advance the science of buildings and the built environment and to ensure comprehensive education of the professional communities needed to improve building performance.
- Extend the network of BAC members globally to support countries and construction industry stakeholders to transition towards zero emission, efficient, and resilient buildings and construction.
- Mobilize resources and develop joint projects to support countries and construction industry stakeholders to transition towards zero emission, efficient, and resilient buildings and construction.
- Disseminate knowledge, experience and best practices and work with industry groups to provide demonstrations and proofs of concept.

Annex 3: Regional Summit – Autumn 2024

The Enniscorthy Forum is joining forces with one of its Buildings Action Coalition members, The Energy Coalition of Los Angeles, to organise a regional summit on the theme of “Delivering Comprehensive Outcomes for the Built Environment.”

Of everything that can be done to meet the climate challenge while delivering quality of life, improving the performance of the built environment is the most urgent as it is the most effective option in terms of economics, scope, scale, and timeframe for impact. Done right, improving the performance of the built environment can deliver significant benefits not only for climate change mitigation and energy efficiency, but also for climate adaptation, resilience (economic, social, and environmental), energy security, human health and well-being, social equity, and economic vitality. There often is discussion of electrifying the energy system and decarbonizing electricity, but there is little appreciation of the reality that most electricity is used in buildings specifically and in the built environment generally. The summit will explore what “Done Right” actually means.

While buildings might be considered on an individual basis, in fact they are parts of a larger, integrated built environment – communities of buildings and the infrastructure that permeates and surrounds them. For example, state-of-the-art buildings that are carbon negative within their walls nevertheless can lead to significant CO2 emissions by virtue of the millions of miles their occupants travel to get to and from them. Further, carbon neutrality is not the only relevant topic as the built environment touches on the whole social and cultural fabric of communities and neighbourhoods. There is a need for systematic consideration of neighbourhoods that goes beyond simply carbon neutrality or energy efficiency. Many cities are trying to generate solutions for transport, energy, and waste at the same time but in isolation. There is a need to demonstrate effective, integrated solutions.

Whether in retrofitting or new construction, there are multiple stakeholders in a spectrum of key areas: Building Envelopes, Building Systems, Energy Sources, Information and Communications Technology, Mobility, Water, Food, Waste Disposal and Recycling Services Transacting, and Urban Planning and Regulation.



Depending on the specific objectives and life stage of buildings, the stakeholder community can be expected to evolve. The eight facets of high-performance buildings describe the professional communities that must be engaged in raising the performance of the built environment. The summit will assemble these communities to debate and discuss their individual and collective imperatives.