



Global Alliance  
for Buildings and  
Construction

# Global Alliance for Buildings and Construction

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Buildings Breakthrough: Near zero-emission  
and resilient buildings are the new normal  
by 2030

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September 2023

# Overview

- 1 Why buildings?
- 2 About the GlobalABC
- 3 The Buildings Breakthrough and Buildings and Climate Global Forum

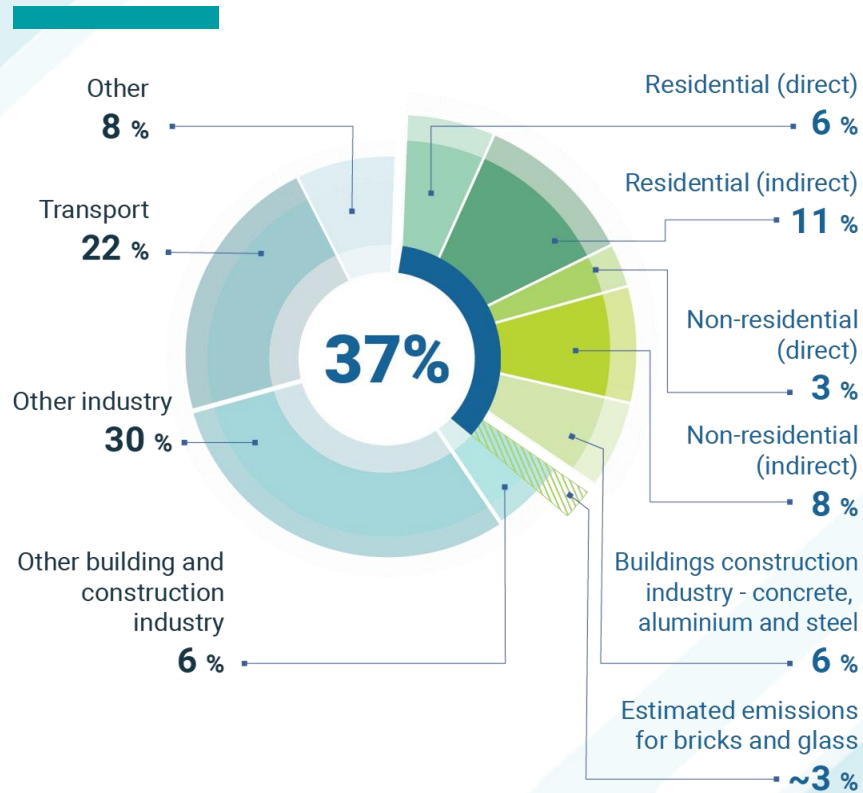


# 1. Why buildings?

- The equivalent of Paris is added in floor space **every 5 days**
- **Half of the buildings standing in 2060** have not yet been built.
- **The most cost-effective mitigation potential** of any industrial sector.
- **Key sector for national economies** (7% of global employment and 11-13% of global GDP)
- Key sector for people's health and well-being

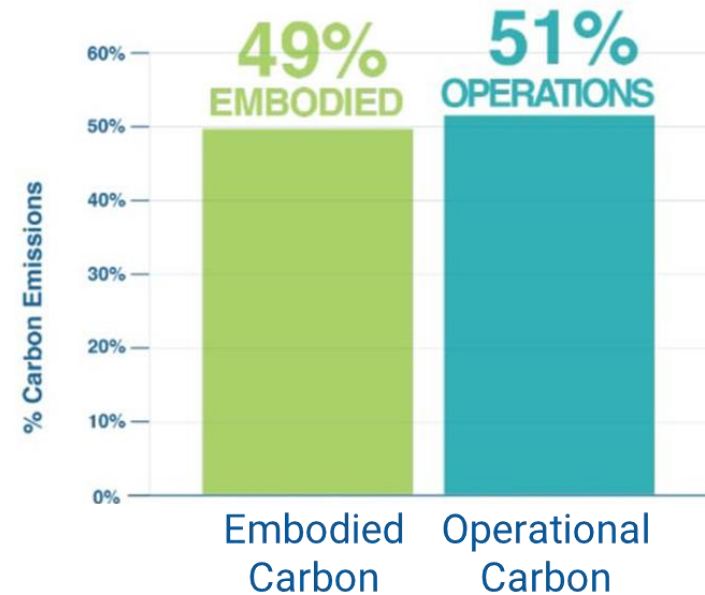


# EMISSIONS: Global share of buildings and construction operational and process CO2 emissions, 2021



Source: International Energy Agency (2022). Tracking Clean Energy Progress. Paris.

## Total Carbon Emissions of Global New Construction from 2020-2050

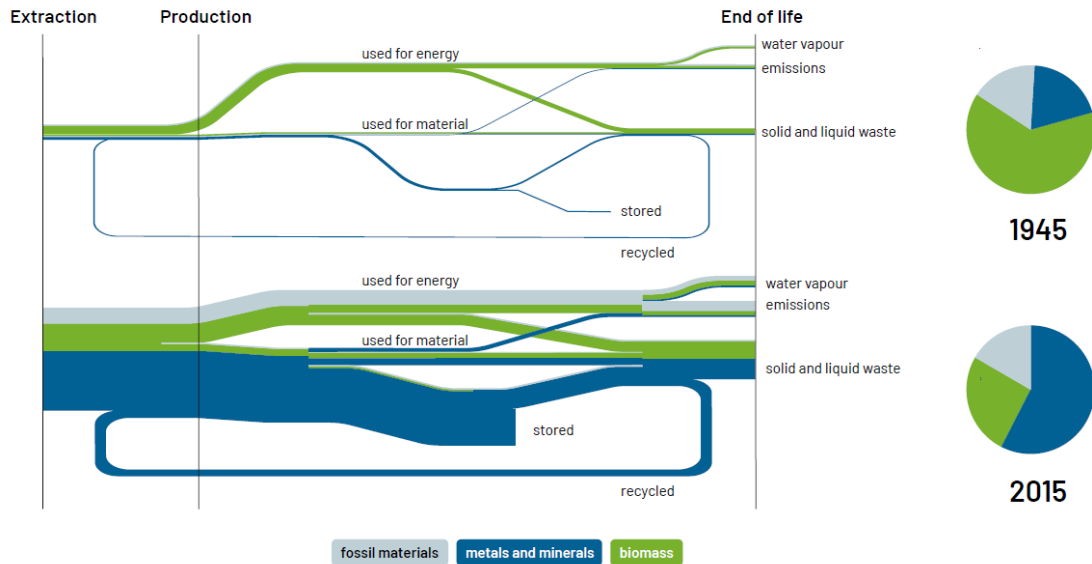


Source: IEA 2022. All rights reserved. Tracking Clean Energy Progress 2022.

# A heavyweight for climate action, nature and pollution



## 1.2 Global material flows, by type, 1945 versus 2015



## A major consumer of materials

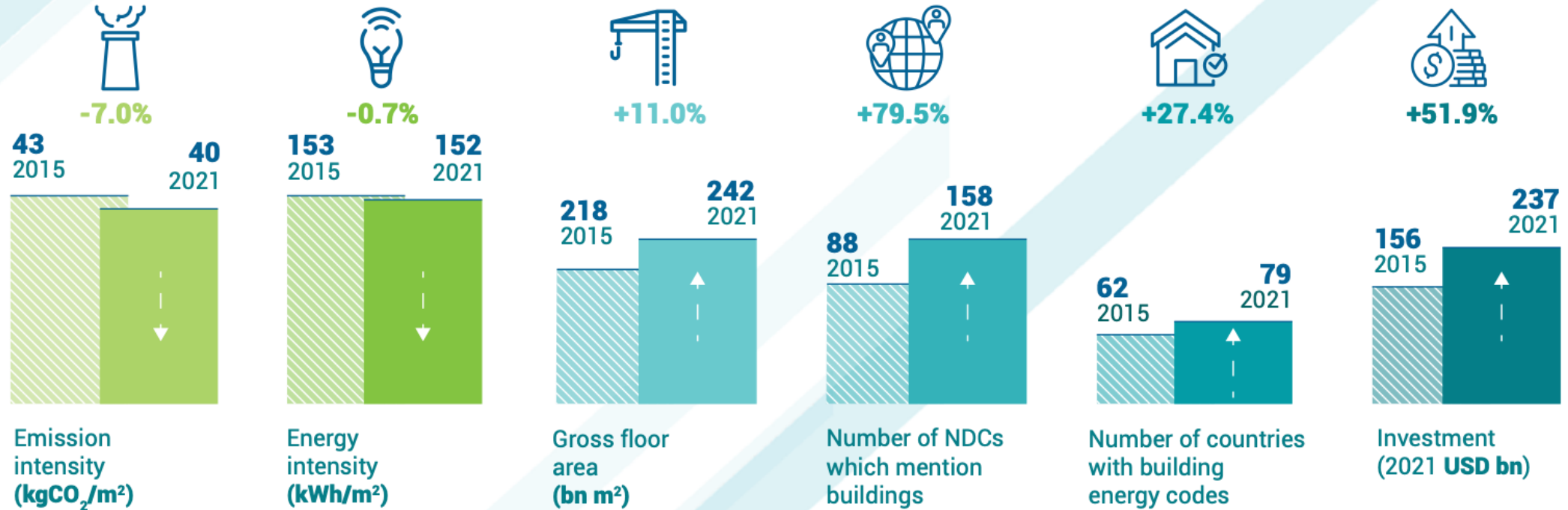
The majority of building materials come from **extractive, toxic, non-renewable processes**. Just three materials – concrete, steel and aluminium – are **responsible for 23% of overall global emissions today**.



## Adaptation

The buildings and construction sector is suffering the full force of physical climate risks but it is also one of the sectors that has the **most leeway to adapt and protect users**.

# Change in global drivers since 2015

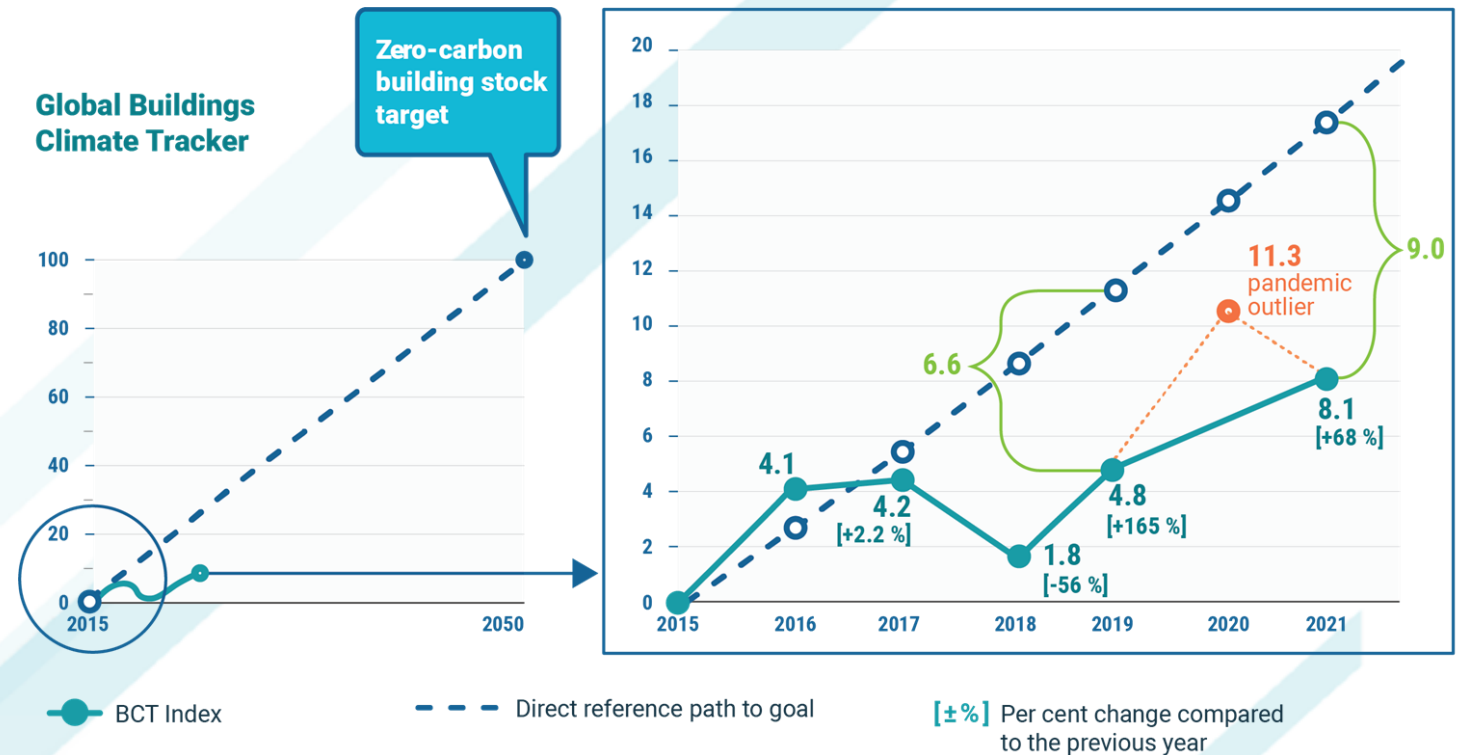


<sup>1</sup> Values included for the baselines have been updated from previous versions of the Buildings-GSR due to both historic input data updates for emissions and floorspace, and also deflation factors for USD. The proportional changes between previous years remains similar.

# The Global Buildings Climate Tracker

## Decarbonisation index trend for buildings and construction

- The BCT shows a negative rebound since 2020 in the decarbonization of the buildings sector, with increased energy intensity and higher emissions.
- No structural, systemic improvement was achieved in the buildings sector, leaving it vulnerable to external factors.



Source: Adapted by the Buildings Performance Institute Europe.

## 2. About the Global Alliance for Buildings and Construction (GlobalABC)



Global Alliance  
for Buildings and  
Construction



Founded at COP21, hosted by UNEP and with **289 members** the GlobalABC is the leading global platform for ALL buildings stakeholders committed to a common vision: **A zero-emission, efficient and resilient buildings and construction sector.**

### Aims

- Global advocate and a catalyst to action
- Trusted platform to set targets and track progress
- Supporting governments (countries & cities) in setting priorities and measures based on their situation
- Supporting the private sector with priorities and strategies towards building decarbonizing and resilience.



**40 countries**



**11 public agencies**



**93 private sector enterprises/networks**



**62 civil society & foundations**



**41 research/think tanks**



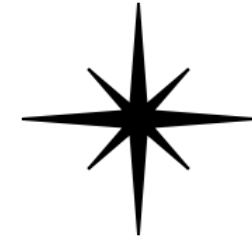
**18 cities/networks**



**16 Intergovernmental organizations**



# Advocating for climate action since COP21



## 1 Global and 3 Regional Roadmaps for B&C

30+ roadmaps under development (India, Senegal, Ghana, Bangladesh, Türkiye...)

## 7 Global Status Report for Buildings and Construction

### Flagship products

- Materials
- Adaptation
- NDCs
- Building Passport
- Market transformation
- ... and many more

### International advocacy

- 7 UNFCCC COPs, including 2 Buildings Pavilion
- 2 G20 events
- 3 CEM events
- Regional Climate Weeks Action Track Events
- ... and many more

### The North Star of the Buildings and Construction Community

Co-lead of the MPGCA Human Settlements Area

“By 2030, the built environment should halve its emissions, whereby 100 per cent of new buildings must be net-zero carbon in operation.

By 2050, all buildings must be decarbonized along the lifecycle.”

# 3. The Buildings Breakthrough



## The Breakthrough Agenda context

GLASGOW  
**BREAKTHROUGHS**

### Sector

### Breakthrough

#### Power

*Clean power is the most affordable and reliable option for all countries to meet their power needs efficiently by 2030*

#### Road transport

*Zero emission vehicles are the new normal and accessible, affordable, and sustainable in all regions by 2030*

#### Steel

*Near-zero emission steel is the preferred choice in global markets, with efficient use & near-zero emission steel production established and growing in every region by 2030*

#### Hydrogen

*Affordable renewable and low carbon hydrogen is globally available by 2030*

#### Agriculture

*Climate-resilient, sustainable agriculture is the most attractive and widely adopted option for farmers everywhere by 2030*



# The statement



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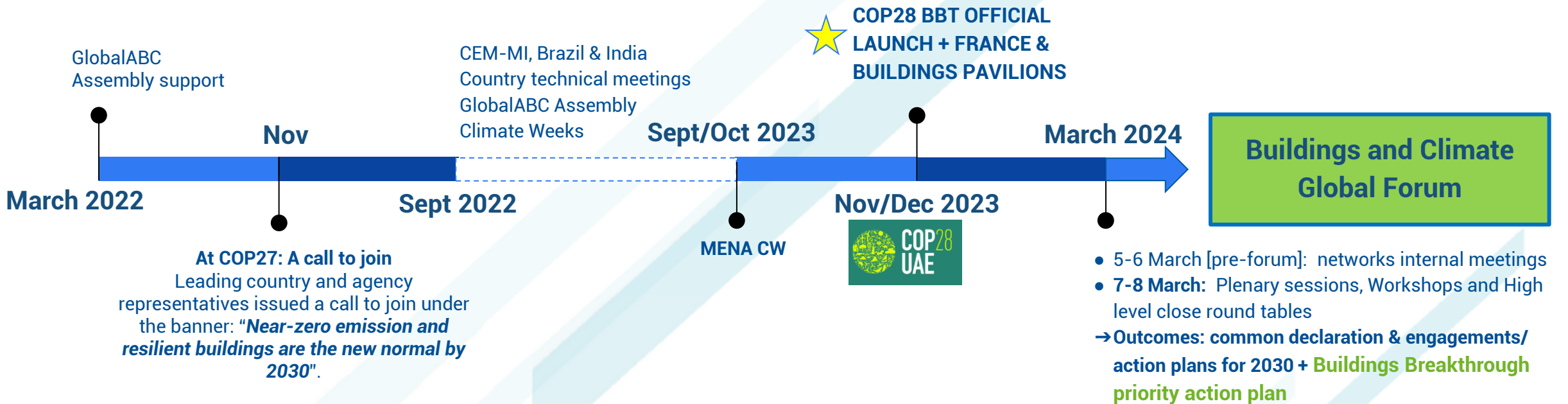
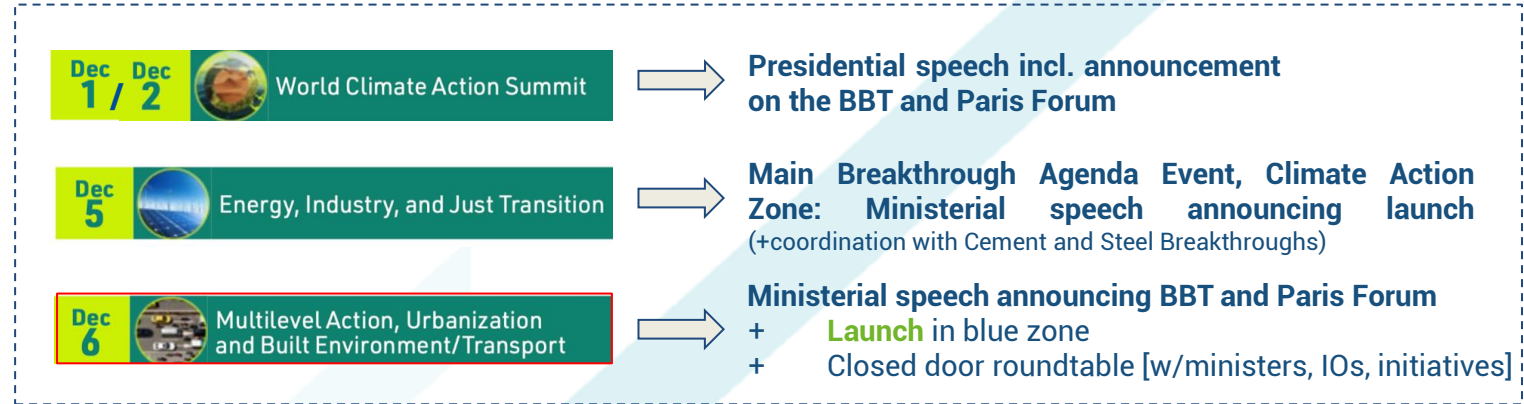
**Near zero-emission and resilient  
buildings are the new normal by  
2030**

”




























Visit the [Buildings Breakthrough webpage](#)

# Next steps



# Participating countries

*In alphabetical order*

- |   |  |   |   |
|---|--|---|---|
|  <b>Armenia</b> - Urban Development Committee                                  |  <b>Finland</b> - Ministry of the Environment                                   |  <b>Kenya</b> - Ministry of Lands, Public Works, Housing and Urban Development                                 |  <b>Norway</b> - Ministry of Climate & Environment                           |
|  <b>Austria</b> - Ministry of Climate Action and Energy                        |  <b>France</b> - Ministry of Ecological Transition                              |  <b>Liberia</b> - Ministry of Mines and Energy   |  <b>Senegal</b> - Ministry of Environment and Sustainable Development        |
|  <b>Canada</b> - Natural Resources Canada, Environment & Climate Change Canada |  <b>Germany</b> - Federal Ministry for Economic Affairs and Climate Action      |  <b>Mauritania</b> - Ministry of Environment & Sustainable Development   |  <b>Sweden</b> - Ministry of Environment, Climate Department                 |
|  <b>Côte d'Ivoire</b> - Ministry of Environment and Sustainable Development    |  <b>Guinea-Bissau</b> - Ministry of Public Works, Housing and Urban Development |  <b>Mongolia</b> - Ministry of Environment & Tourism   |  <b>Tunisia</b> - Ministry of Equipment and Housing                          |
|  <b>Egypt</b> - Ministry of Housing, Utilities, and Urban Communities          |  <b>Japan</b> - Ministry of Land, Infrastructure, Transport and Tourism         |  <b>Morocco</b> - Ministry for National Territory Planning, Land Planning, Housing and City Policy             |  <b>Türkiye</b> - Ministry of Environment, Urbanization and Climate Change   |
|  <b>Ethiopia</b> - Ministry of Urban Development & Infrastructure            |  <b>Jordan</b> - Ministry of Energy and Mineral Resources                     |  <b>The Netherlands</b> - Ministry of the Interior and Kingdom Relations; Construction and Energy Department |  <b>UK</b> - Department for Energy Security and Net-Zero                   |
|   |  |   |  <b>Zambia</b> - Ministry of Infrastructure, Housing and Urban Development |

# Breakthrough Agenda Report



Includes an inaugural **Buildings Chapter** with:

- State of International Collaboration and what more needs to be done
- The 2023 key recommendations for international collaboration in five areas:
  - Standards and certification
  - Demand creation
  - Finance and investment
  - Research and innovation
  - Capability and skills

# Global Forum on Buildings and Climate



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PARIS



7-8 March 2024

## THE FIRST BUILDINGS AND CLIMATE GLOBAL FORUM

- **First international ministerial meeting** (8 March) focused on buildings and climate change issues and solutions
- **2 days** (7-8 March): Plenary sessions, Workshops and High level round tables gather for the first time governments, IO, private sector (companies, organisation) and collectives initiatives engaged for the decarbonisation and climate resilience of buildings.
- **Pre-forum** (5-6 March): organisations and initiatives organise internal meetings of their network dedicated to climate
- **Outcomes: common declaration & engagements/action plans for 2030 (including the Buildings Breakthrough priority actions)**

# Global Alliance for Buildings and Construction

**Find out more:**

[www.globalabc.org](http://www.globalabc.org) / <https://globalabc.org/our-work/fostering-collaboration>  
[global.abc@un.org](mailto:global.abc@un.org)



# The statement - terms used



For joining, countries are only expected to endorse the statement; any priority actions will be determined together with the countries who joined.

Explanation of terms:

- **Near zero emission buildings** are high energy efficient buildings with a low carbon footprint taking into account a whole LCA approach (meaning using a low GHG energy source, and built with low GHG building materials and equipment)
- **Resilient Buildings** are buildings which integrate in their design, construction, and operation maintenance specifications related to the future climate
- **New normal** means above concepts are generalised in engineered buildings (formal and semi-formal)
- **New buildings and deep renovation** (global and partial) are both concerned.
- This target is a step towards a **full decarbonised and resilient building stock by 2050**

# Supporting Initiatives



- The WBCSD Built Environment Transformation Program.
- WorldGBC Advancing Net Zero; Net Zero Carbon Buildings Commitment.
- WorldGBC BuildingLife Programme.
- Programme for Energy Efficiency in Buildings (PEEB; co-led by GIZ/AFD).
- WRI Zero Carbon Building Accelerator.
- WRI Building Efficiency Accelerator.
- C40 Clean Construction programme, including the Clean Construction Accelerator.
- C40 Private Building Efficiency (PBE)
- C40 New Building Efficiency (NBE) networks and the associated Net Zero Buildings Accelerator.
- The GlobalABC Market Transformation Work Area.
- The Clean Heat Forum.
- The BuildingToCOP coalition.
- The Solar Impulse Foundation.
- The Building Capacity for Resilient Buildings Program (led by the International Code Council)
- Cool Coalition

## What role?



- Channel for specific **actions/collaboration**
- Bring **non-party** stakeholder perspective and contribution
- Ensure **united voice** for different stakeholder groups

# Breakthrough Agenda Report



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We invite the IEA and IRENA **in close collaboration with the GlobalABC secretariat** to work with the United Nations High Level Climate Action Champions, and other institutions, bodies and industry leaders; and undertake an annual assessment of global progress towards this breakthrough **(building on/in close cooperation with the annual Global Status Report for Buildings and Construction or Buildings-GSR)** in line with the already established breakthrough reporting mechanism, including reporting on evidence of indicators following the below framework.

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 → *add-ons to general Breakthrough framework*

# Breakthrough Agenda Report



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## Buildings summary

Area	State of international collaboration	What more needs to be done
<b>B1. Standards and certification</b>	<ul style="list-style-type: none"> <li>Whole-life carbon assessments for buildings exist in many countries, mostly voluntary. There is a limited availability of resilience assessments frameworks.</li> <li>Some limited collaboration among developed countries and some private sector organisations to advance compliance with standards and associated certification</li> </ul>	<ul style="list-style-type: none"> <li>Governments to harmonise and upgrade definitions of near zero emission and resilient buildings, defining and using a common set of concepts and nomenclature.</li> <li>Governments to align frameworks for whole-life carbon assessments and data collection and define resilience assessments.</li> </ul>
<b>B2. Demand creation</b>	<ul style="list-style-type: none"> <li>Strong aggregated procurement campaigns and policy commitments focused on building appliances and materials, albeit not for heating and cooling and whole building or-project-level.</li> <li>A broad representation of international private sector initiatives, with public sector collaboration at an earlier stage.</li> </ul>	<ul style="list-style-type: none"> <li>Governments to work in partnership with existing forums to aggregate and amplify the demand signal for near zero emission and resilient buildings, expanding public sector participation and commitment.</li> <li>A greater focus on whole building procurement commitments, covering materials, appliances and construction.</li> </ul>
<b>B3. Finance and investment</b>	<ul style="list-style-type: none"> <li>Investment in energy efficiency and electrification for buildings at an all-time high, but not yet on track for net zero emissions by mid-century, and already showing early signs of slowdown.</li> <li>Some engagement of IFIs and business in unlocking private sector investment through several forums, although it is still challenging to match requests for support with the right funding and technical partners.</li> </ul>	<ul style="list-style-type: none"> <li>Governments should increase the scale of financial and technical assistance made available for developing countries.</li> <li>Improved co-ordination of IFIs and private sector investments to target flagship projects which can then unlock major pipelines of projects in emerging and developing economies in particular.</li> </ul>
<b>B4. Research and innovation</b>	<ul style="list-style-type: none"> <li>Several well-established collaborative R&amp;D forums already exist – with success in major technologies, such as heat pumping technologies, superinsulation and ventilative cooling.</li> </ul>	<ul style="list-style-type: none"> <li>Governments to co-ordinate on research, development and demonstration priorities to understand knowledge gaps, which can be overcome via joint working.</li> <li>Accelerate the creation of joint programmes to test and demonstrate new technologies, supporting developing country involvement and a diverse range of climate and development settings.</li> </ul>
<b>B5. Capability and skills</b>	<ul style="list-style-type: none"> <li>Several collaborative forums deliver successful training programmes for construction and engineering roles that will be vital for the buildings sector and can be strengthened to build capacity and skills to deliver near zero emission and resilient buildings.</li> </ul>	<ul style="list-style-type: none"> <li>Countries and companies should jointly define training and capacity-building priorities, strengthening the role of existing networks to provide guidance, tools and resources for curriculum design, as well as international accreditation for education and training.</li> <li>Countries should focus on delivering technical capacity for the implementation and upgrade of building energy codes in countries where most growth in floor area is forecast.</li> </ul>

# Breakthrough Agenda Report



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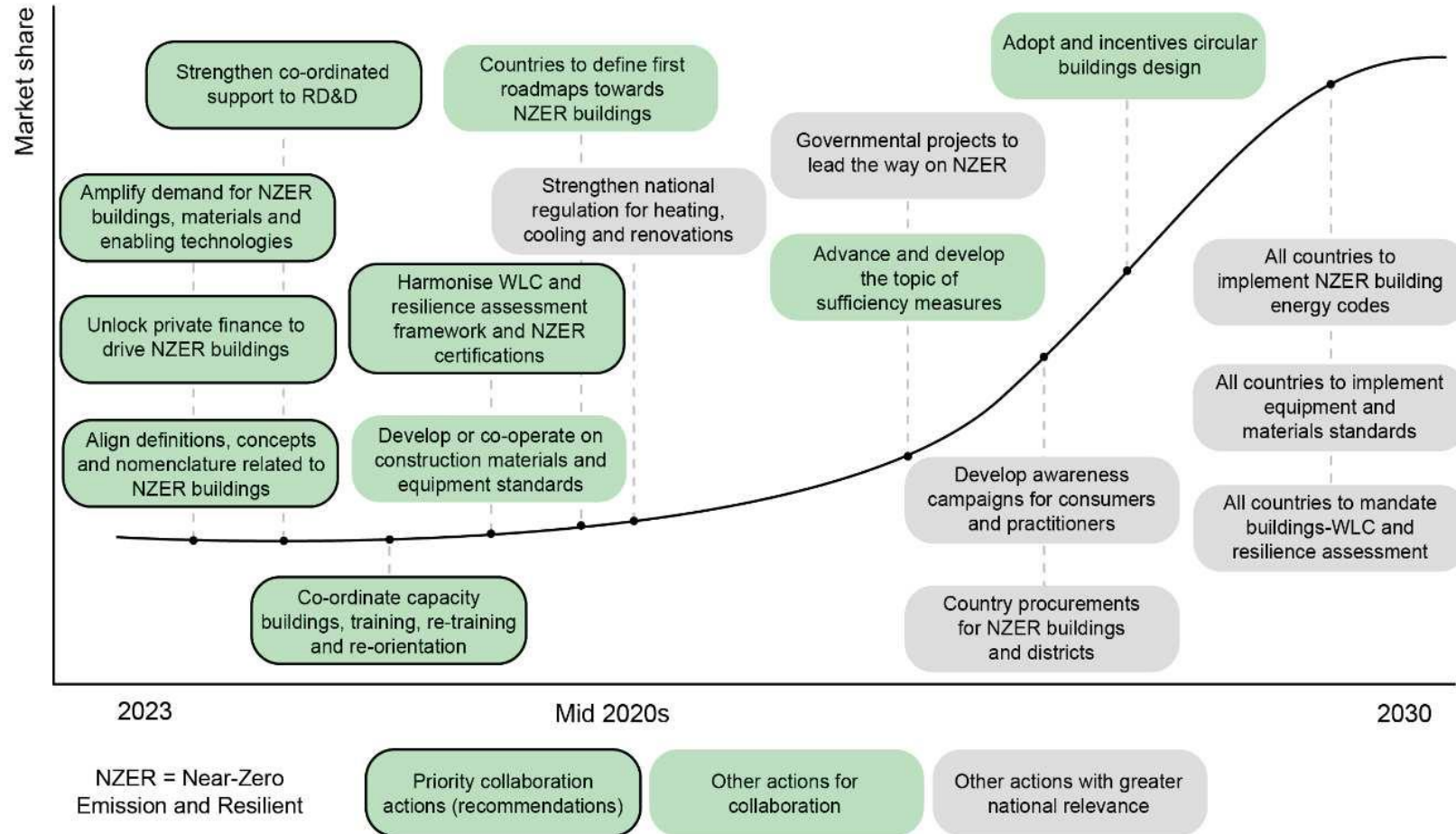
## 2023 Breakthrough Agenda report - Buildings priority recommendations

- 1. Governments should work together** to harmonise and upgrade the **definitions** and **nomenclature** for net zero and resilient buildings and their performance. Countries should work towards **harmonising whole-life carbon assessments**, developing **resilience assessments**, and aligning **certification scheme** with net zero and resilient requirements. Harmonisation should permit the flexibility to accommodate **different regional contexts** and should be supported by establishing shared international mechanisms, platforms and formats for **data sharing** of best-in-class net zero and resilient projects.
- 2. Governments** should jointly create and strengthen **procurement commitments** for net zero and resilient buildings, as well as joining existing **low-carbon material procurement alliances**. Countries should work to establish new joint commitments on deploying **clean and efficient heating and cooling** technologies.
- 3. Countries** should **increase the scale of funding** available for net zero and resilient building projects as well as **improving the coordination of assistance** going forward through the establishment of a **matchmaking platform** dedicated to the delivery of net zero and resilient building projects. This platform would act as a single point of contact **for emerging and developing countries**, with support from donor countries, MDBs, NDBs, private financial institutions and investors, philanthropic organisations, buildings and real estate companies and technical assistance partners.
- 4. Countries and companies should work together** to identify **knowledge gaps** that can be overcome via joint working, and **align RD&D priorities to shared policy goals**. Countries should also facilitate the expansion of **existing networks** to bring in new expertise and country members, and work through those networks to **improve communication of high-quality research and best practice**, deliver **training** to deploy innovative technologies, construction practices, tools and business models at scale, using **government projects** to lead the way.
- 5. Countries and companies** should jointly identify **knowledge gaps** and define **training and capacity building priorities**, strengthening the role of **existing networks** to share knowledge and provide guidance, tools, and resources to build capacity across all regions. This includes a focus on **supporting developing countries** with **implementing and increasing the stringency of building energy codes**. Countries should also **work together** to assist in **curriculum design**, implementation of **training programmes and accreditation frameworks** to enhance the transferability of skills and qualifications, and ultimately promote net zero and resilient building practices.

# Breakthrough Agenda Report



## Critical path to 2030 for the building sector:



# Socio-economic opportunities



Decarbonising the buildings and construction sector means:

- **Job creation and economic prosperity**
  - One of the biggest investment opportunities, worth an estimated \$24.7 trillion by 2030 in emerging market cities
  - The sector is responsible for 7% of global employment and 11-13% of global GDP
  - Between 9-30 jobs created for every \$1 million invested in renovation and new construction
- **Improved wellbeing and health:**
  - Green buildings deliver better air circulation, reduced pollution, more comfort for homes and businesses, and greater access to electricity.
  - Building sector mitigation policies can lift up to 2.8 billion people in developing countries out of energy poverty
- **Opportunities for innovation**



# COP27 - Call for a Buildings Breakthrough as a Rallying Point



COP27 Buildings Pavilion



17 November 2022

The co-leading countries together with the UK High Level Climate Champion, the UNEP Executive Director, and multiple high-level country and initiative representatives joined forces issuing an **official call to all countries to join the Buildings Breakthrough to accelerate the transition to sustainable buildings for everyone everywhere.**

