

# Where We Stand in 2025: Buildings Performance Through Global Status and Emissions Gap Reports

12<sup>th</sup> November 11:30-12:30 (Belém local time)

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# Opening Remarks



**Yves Laurent Sapoval**  
Co-Chair of the GlobalABC,  
Chair of the ICBC Troika, and  
French Urban Envoy

# Presentation



**Oliver Rapf**  
Executive Director,  
Buildings Performance  
Institute Europe



# **2025** Snapshot on climate action in Buildings and Construction

Tracking progress towards the Paris Agreement goals

Oliver Rapf  
12<sup>th</sup> Nov 2025

# The Global Buildings Climate Tracker - 2025 updates and key insights

## A global tracking effort that includes:

- An update on the drivers of CO<sub>2</sub> emissions and energy demand globally.
- Status of **policies, finance, and key actions** that support a zero-emission, efficient, and resilient buildings and construction sector.

The Global Buildings Climate Tracker is part of the forthcoming **Global Status Report on Buildings and Construction - GSRBC**, a collaborative effort of a global community.

This year's Buildings-GSR Tracker update presentation features contributions from:



## KEY MESSAGES

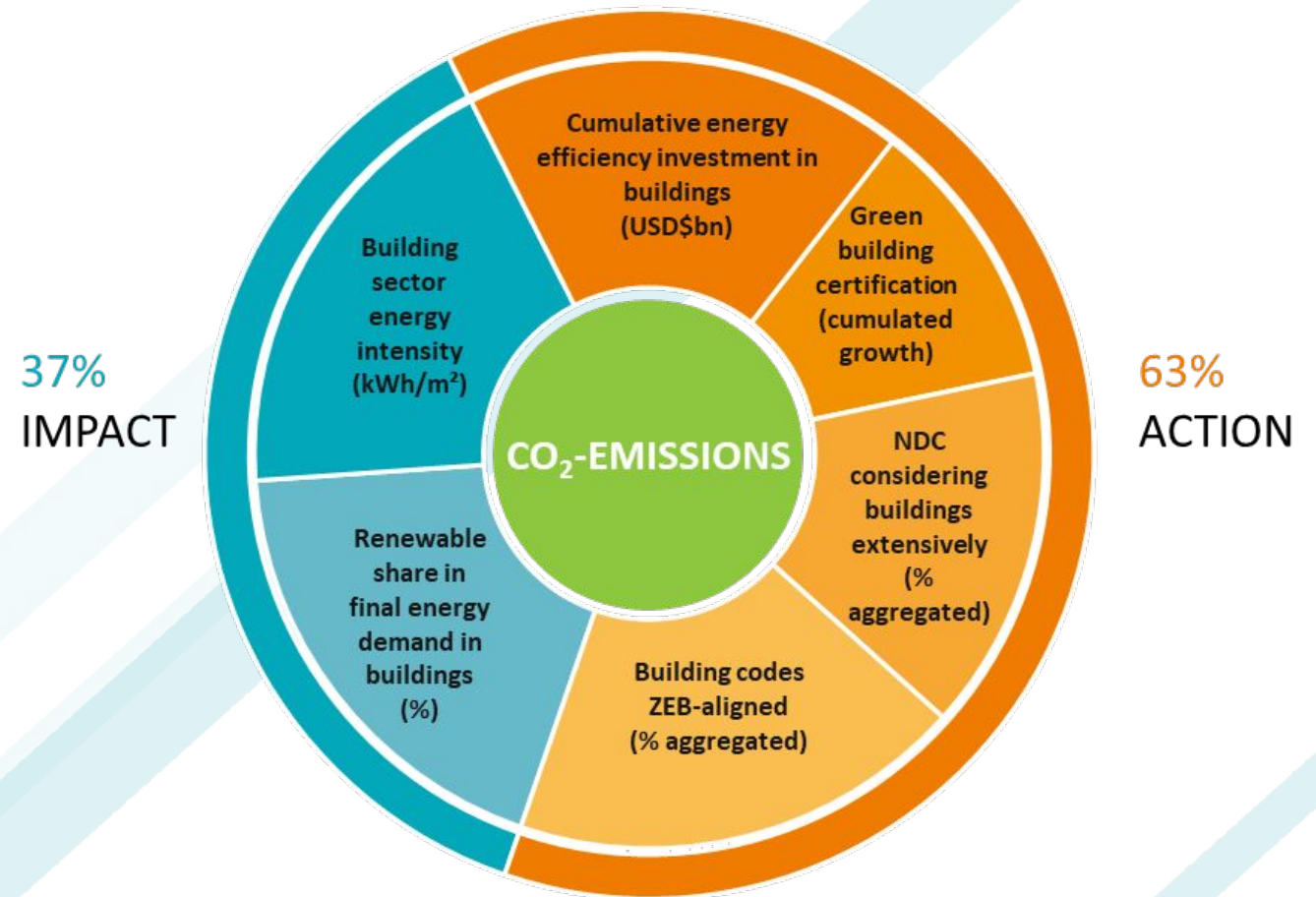
Buildings and construction now account for around **34% of global energy and process related CO<sub>2</sub> emissions.**

**Buildings' operational energy CO<sub>2</sub> emissions rose by 6.5% between 2015 and 2024.**

With limited progress on zero-emissions codes, slowing energy efficiency investment and weak national policies, **the goal of net-zero emissions for new buildings by 2030 and the whole building stock by 2050 remains out of reach.**

# The GlobalABC Buildings Climate Tracker (BCT): A decarbonisation trend index for buildings and construction

- The decarbonisation index of the BCT tracker comprises **seven indicators**
- In this edition, the observations cover the period **2015–2024**
- The observations are compared to the reference **path towards the goal to achieve a zero-carbon building stock by 2050**



Source: Adapted by the Buildings Performance Institute Europe (BPIE) 2025.

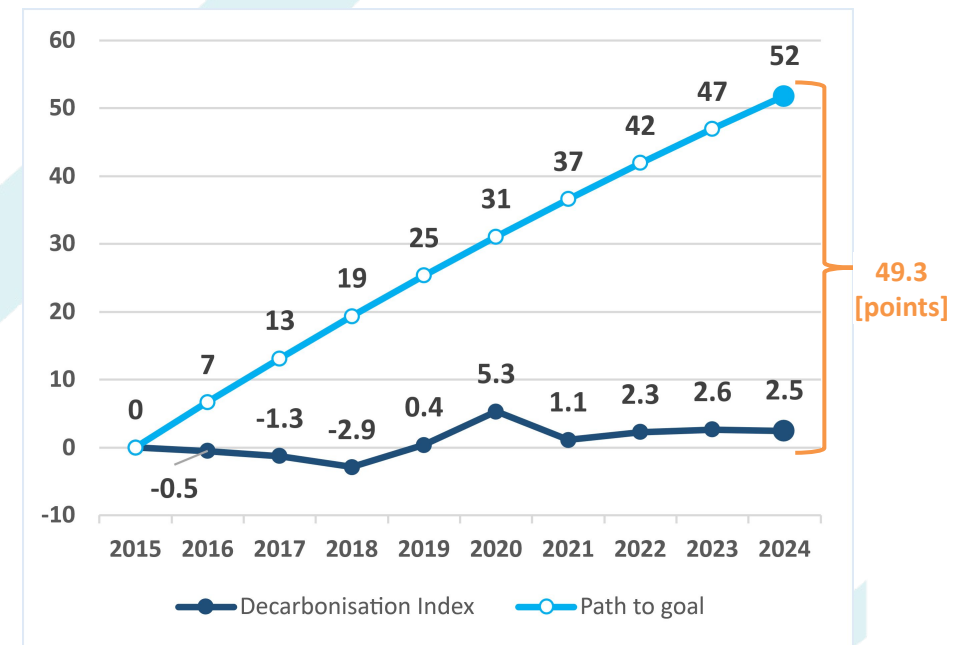
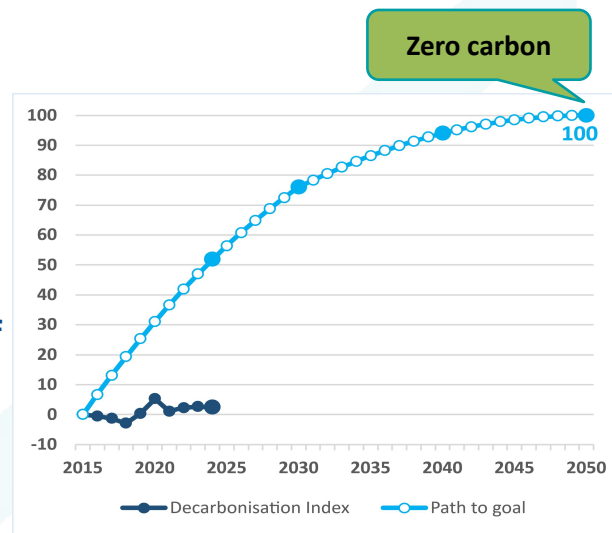
# KEY MESSAGE:

## The buildings and construction sector remains off track to achieve decarbonisation by 2050

By 2024, the decarbonisation gap was over 49 points. There was progress, with the decarbonisation index rising from 1.1 points in 2021 to 2.6 in 2023. Nevertheless, in 2024 this positive trend was interrupted, and the index reduced to 2.5 points.

This is due to the increase of emissions and slow reduction of buildings' energy intensity, which stagnated in the last two years, and slow growth of the share of renewables in buildings.

All this combined with gaps in cumulative investments, limits in the number of NDCs with extensive details on buildings and lack of building codes that are zero-emissions aligned.



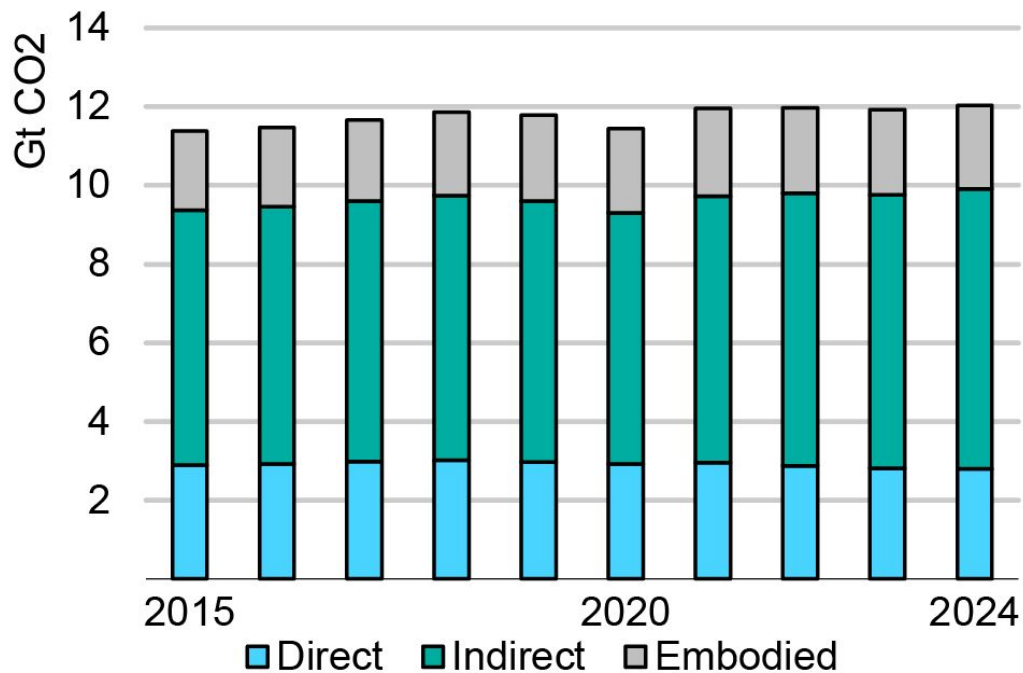
\*The path to goal corresponds to the weighted aggregation of the path to goal for all the indicators multiplied by the CO<sub>2</sub> emissions indicator. Each year, the path to goal is updated to the latest information available and may adjust baseline numbers.

Source: Adapted by the Buildings Performance Institute Europe (BPIE) 2025.

# KEY MESSAGE:

In 2024, global buildings operational and embodied emissions increased by around 1% from 2023 to 12 GtCO<sub>2</sub>

Carbon emissions in buildings by source 2015-2024



Buildings are responsible for around 34% of global emissions due to direct, indirect and embodied carbon in buildings construction and operation.

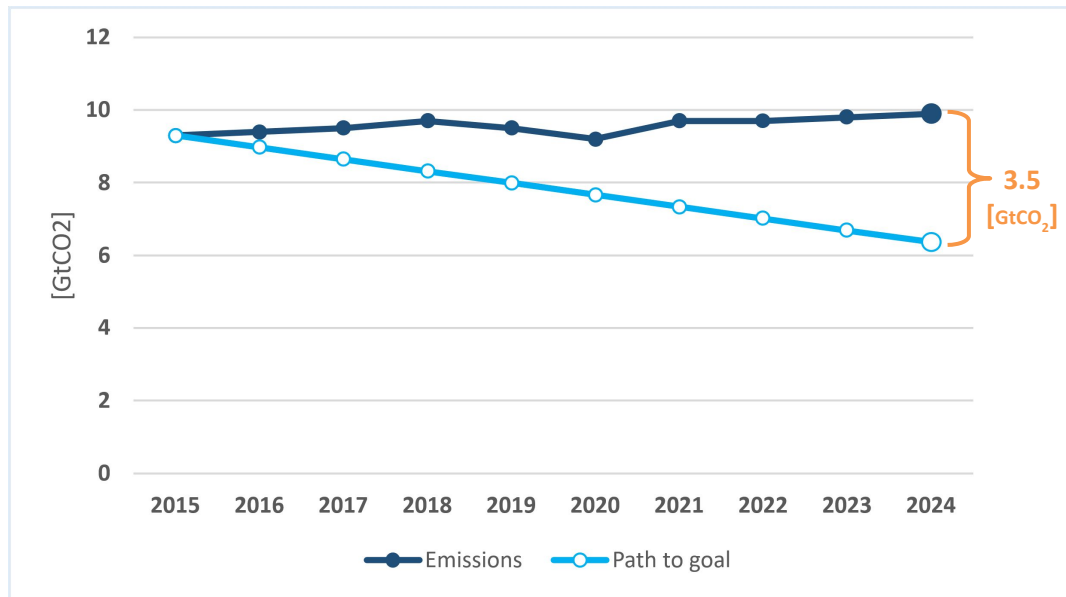
Rising to around 12 GtCO<sub>2</sub>, buildings and construction related emissions have increased by over 1%, highlighting the lack of action in decarbonisation efforts over past years.

To curb emissions going forward, greater effort to increase energy efficiency, investment in renewables and electrification is needed.

Source: IEA 2025. All rights reserved. Breakthrough Agenda Report 2025.

# KEY MESSAGE:

Buildings' operational emissions reached a new high record in 2024 and are 56% higher than the target to be on track



## Status:

- Buildings' operational emissions **have increased by 6.5% since 2015**, a sustained high trend, reaching **9.9 GtCO<sub>2</sub> in 2024**
- By 2024, the actual emissions are **56% higher than the target for that year**
- Since 2016, **the gap between the actual emissions and path to goal has increased by an average of 34% annually**

Source: IEA 2025. Breakthrough Agenda Report 2025 IEA. Adapted by BPIE 2025.  
Trend established from previous years

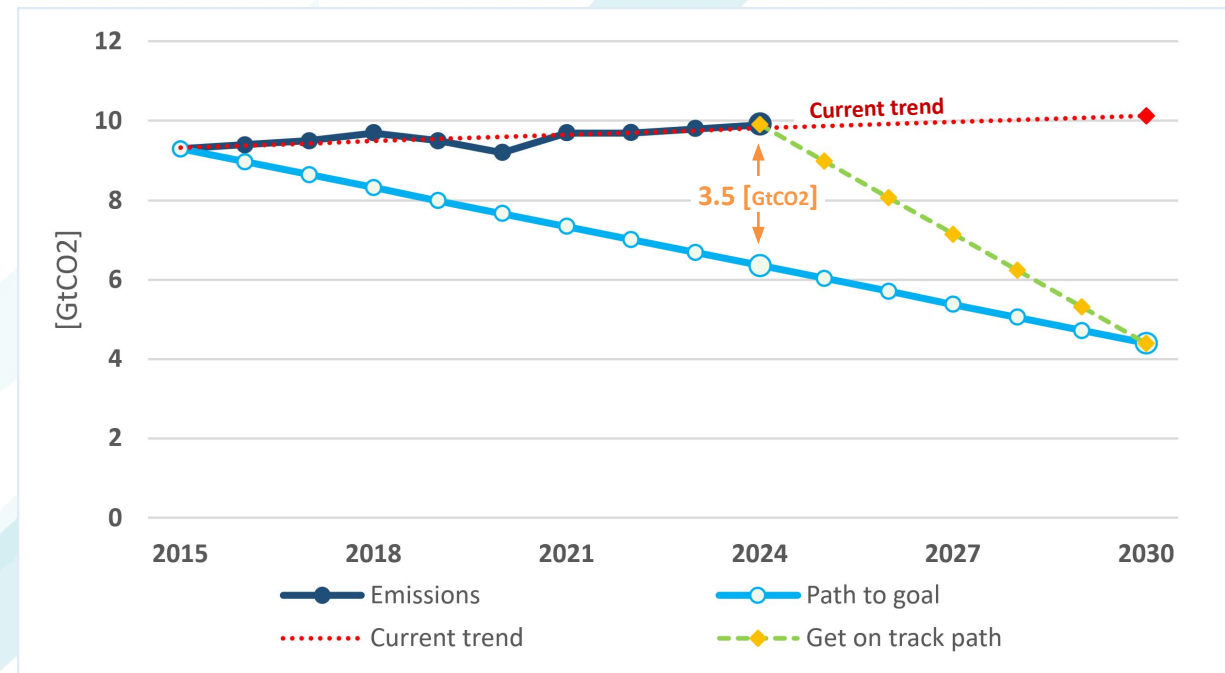
# KEY MESSAGE:

To get back on track, the operational emissions from buildings need to be reduced by more than half until 2030

## Call for quick and effective action

There is an imperative **need to accelerate actions to correct the current trend** and increase progress to unlock the reduction of buildings' emissions.

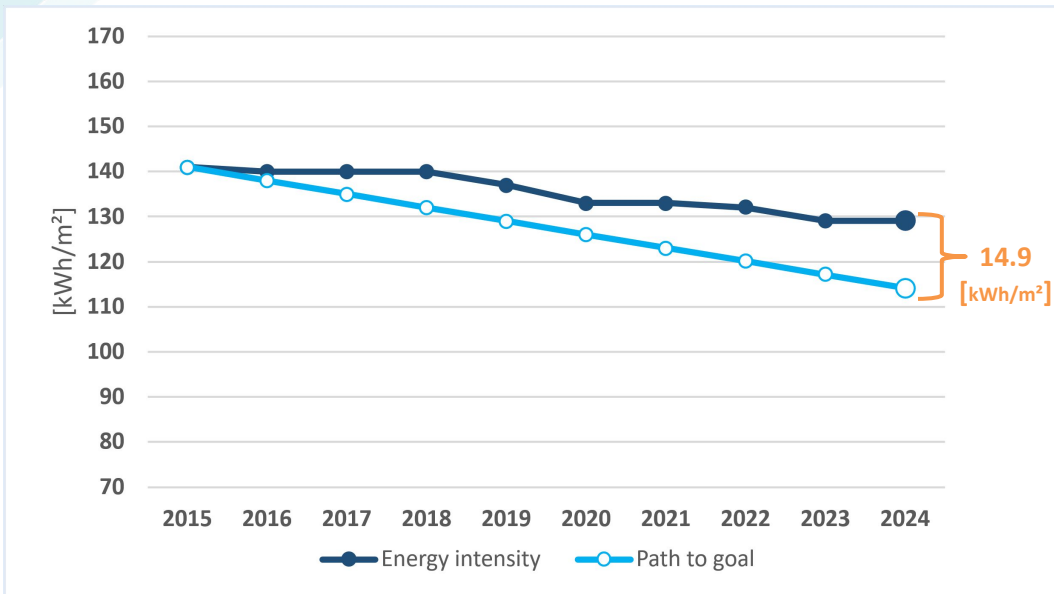
- Develop clear **definitions for near-zero and zero-emission buildings**, in conjunction with definitions of **resilient buildings**
- Define clear principles on **how to measure, disclose and limit life-cycle emissions** of buildings
- Promote the **integration of behavioral changes, energy efficiency, electrification, and renewable energies** when adequate



Source: IEA 2025. Breakthrough Agenda Report 2025 IEA. Adapted by BPIE 2025.  
Trend established from previous years

# KEY MESSAGE:

## Buildings' energy intensity is 13% above the required target to be on track



Source: IEA 2025. Breakthrough Agenda Report 2025 IEA. Adapted by BPIE 2025.  
Trend established from previous years

### Status:

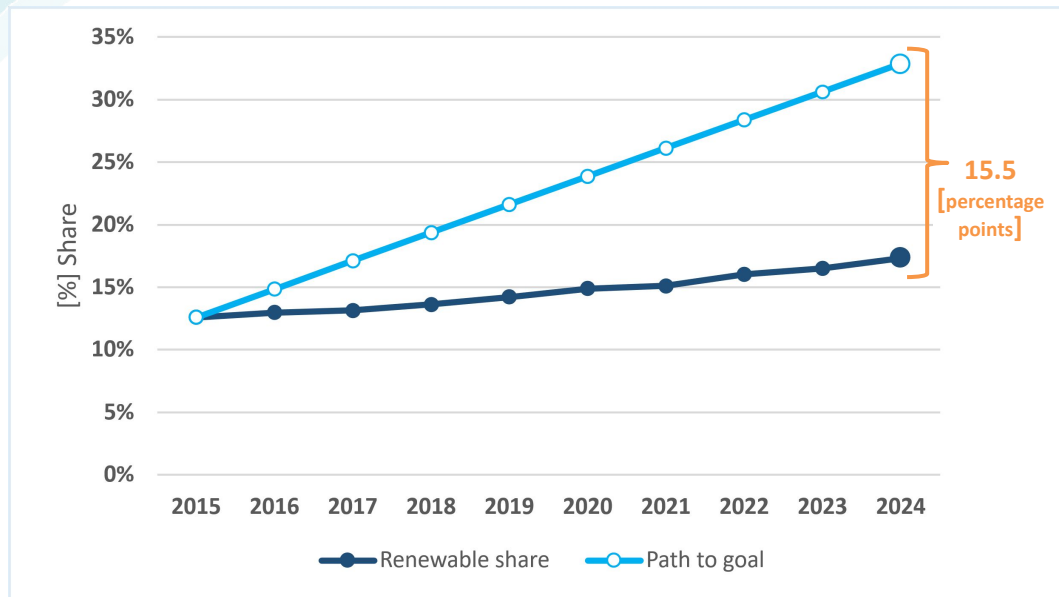
- The buildings' energy intensity **has decreased by 8.5% since 2015**, but despite the progress, the trend has stagnated in the last two years
- By 2024, buildings' energy intensity was **13% higher than the target for that year**
- Since 2016, **the gap** between the actual buildings' energy intensity and "Path to goal" **has increased by an average of 36% annually**

### Rising to the challenge:

- Include **energy efficiency principles** within **building codes**, and create other strategies to prioritise energy efficiency, combined with electrification and the deployment of renewables when adequate
- Stimulate the **integration of the construction value chain** to enable the **scaling of existing effective renovation and new-built energy efficiency measures**
- **Integrate sufficiency and efficiency-first principles** in regulation, procurement, and financial and technical support schemes

# KEY MESSAGE:

The share of renewables in final energy demand in buildings is 15.5 percentage points below the target to be on track



Source: IEA 2025. Global Energy and Climate Model IEA. Adapted by BPIE 2025.

Trend established from previous years

## Status:

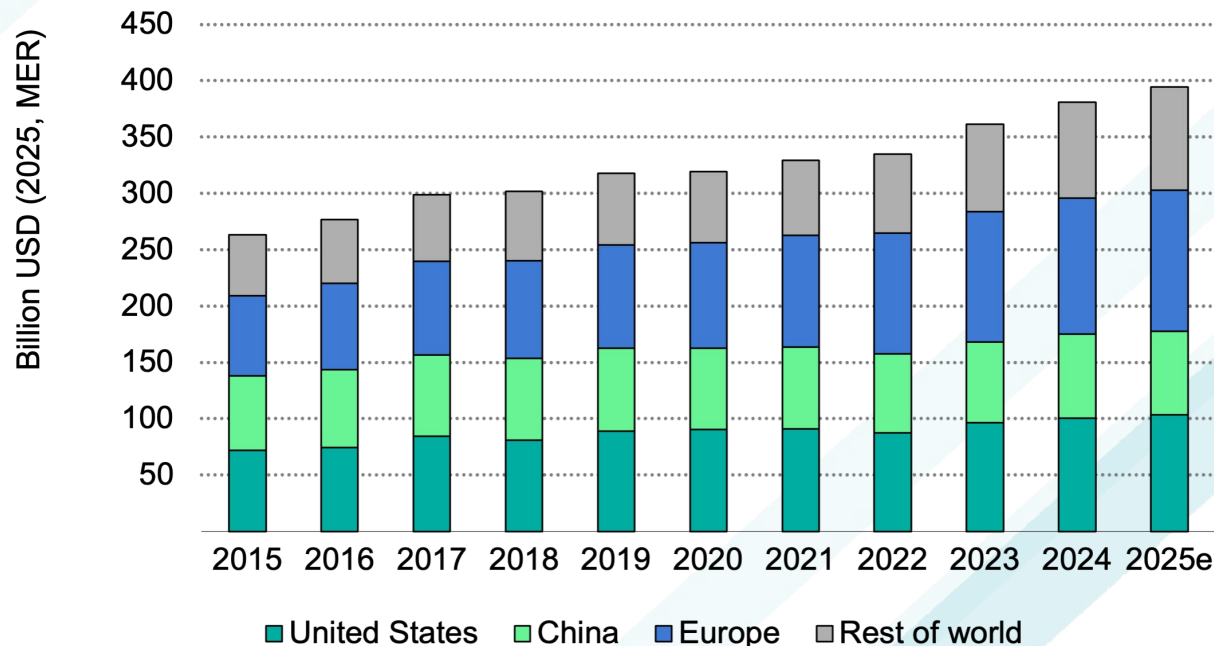
- The share of renewables in buildings has increased by only 4.7 percentage points since 2015
- By 2024, the share is 15.5 percentage points lower than the target for that year
- Since 2016, the gap between the actual renewable share in buildings and “Path to goal” has increased by an average of 33% annually

## Rising to the challenge:

- Design roadmaps for renewable energies for heating and cooling, including policies to phase-out fossil fuels and support the diffusion of clean technologies
- Align heating and cooling policies, and promote the integration and coupling of diverse energy systems when adequate
- Develop the regulatory frameworks for the deployment of energy communities to boost the use of local renewable energy and attract private investments to accelerate the energy transition

# KEY MESSAGE:

Investment in building energy efficiency, renewables and electrification increased by 5% in 2024, slower than 2023, and is projected as 3% in 2025



Source: IEA 2025. World Energy Investment 2025 IEA. All rights reserved.

- Compared to 2023, global investment in energy efficiency, renewables and electrification of buildings **increased by 5% in 2024** to around USD 380 billion, most of this in Europe and the United States.
- Investments to support the decarbonisation of the global buildings sector for 2025 are estimated to be around **USD 395 billion, marking a 3% growth from 2024**; however, this marks a continued trend of slowing from a 5% rate since 2020 for these investments.
- To address this slowing investment, it is critical to **scale and align sustainable finance mechanisms**, such as green lending, de-risking strategies, and transparent performance standards, to accelerate global investment in energy-efficient, low-carbon buildings.

# KEY MESSAGE:

## Most NDCs include building sector targets, but few offer detailed policies, timelines, or financial plans for implementation

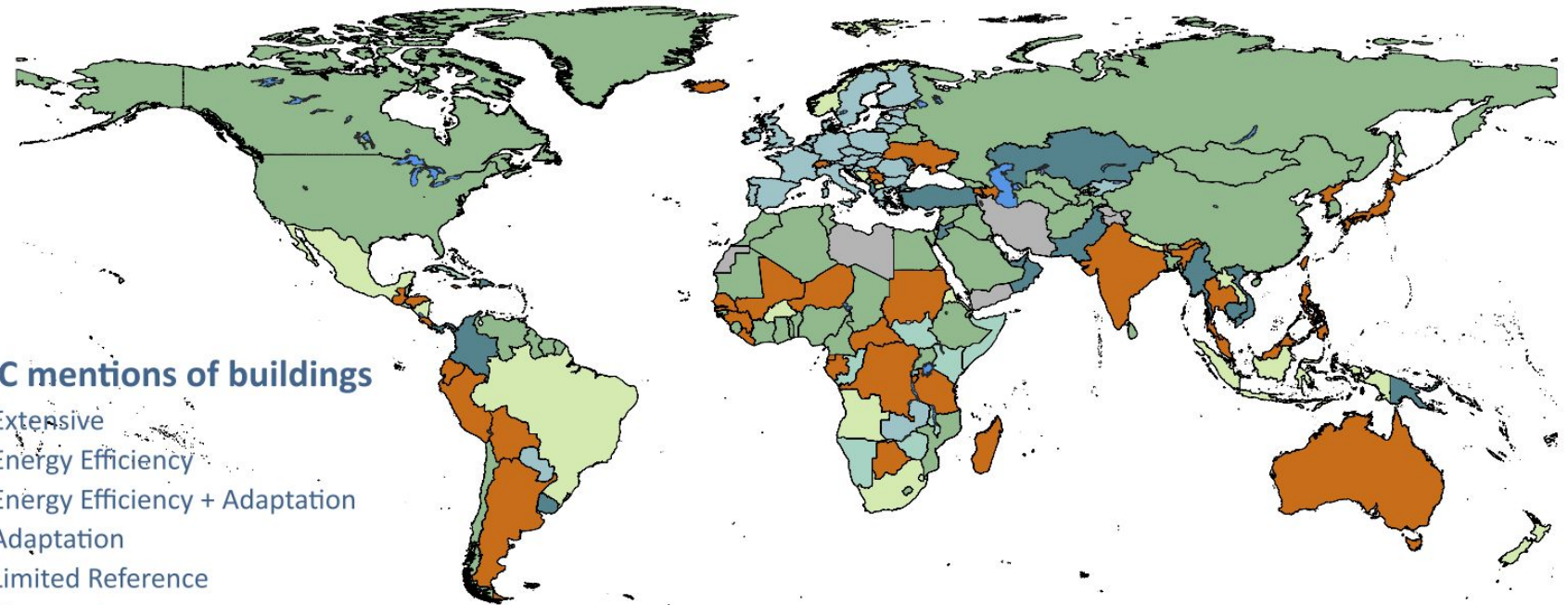
In 2025, 112 parties updated their NDCs, with around 80% of NDCs citing actions for the buildings and construction sector, and 26 NDCs having extensive details.

Since the 2024/25 GSR, 70 parties have adjusted or updated their NDCs, ranging from Angola to Norway and Zambia.

As of November 2025, more than 112 NDC 3.0s have been submitted and many have expanded their buildings sector, but more effort is needed to reflect extensive actions.

### NDC mentions of buildings

- Extensive
- Energy Efficiency
- Energy Efficiency + Adaptation
- Adaptation
- Limited Reference
- No mentions



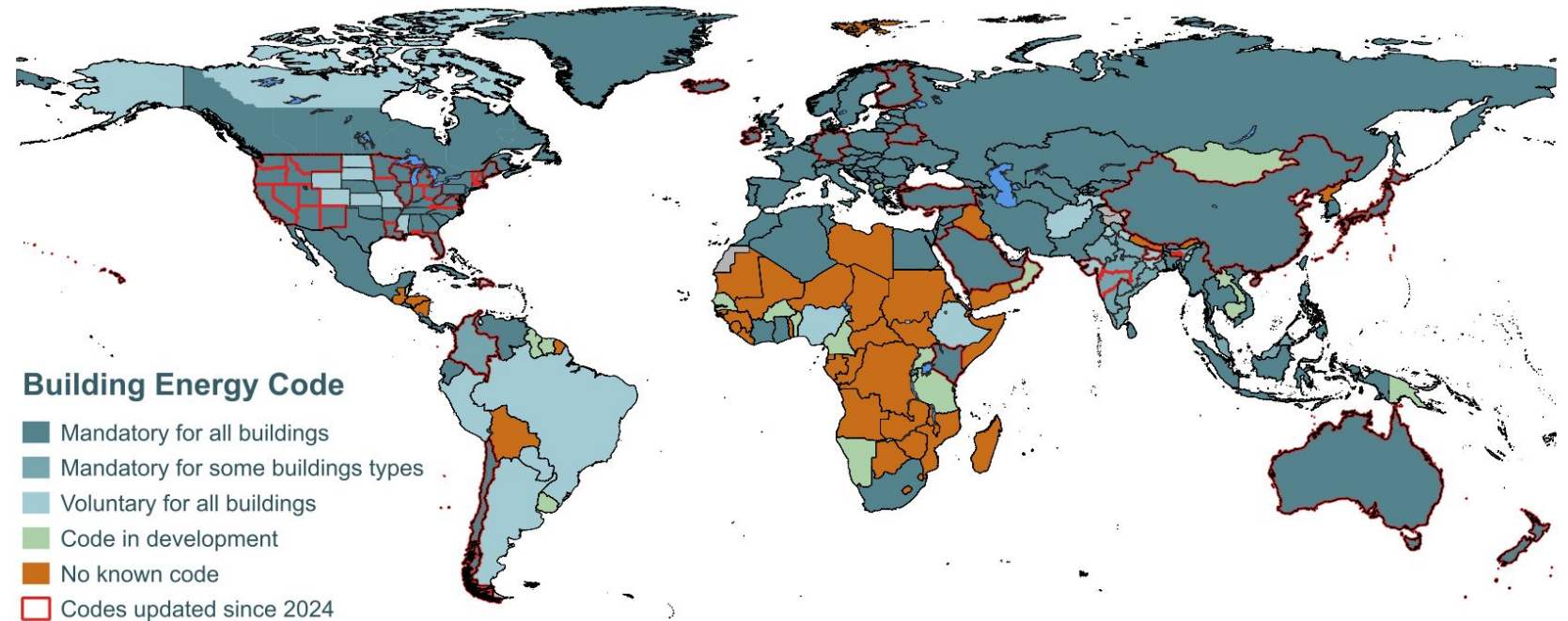
N.B. Several countries have further details in the Biennial Update Reports (BUR), e.g. Australia and New Zealand. NDC analysis is ongoing as nations continue to submit.

This map is without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries, and to the name of any territory, city, or area.

# KEY MESSAGE:

While around 95 countries have mandatory building energy codes for all or some buildings, few of them are aligned to net zero carbon

- In 2025, there were 95 countries with mandatory residential and non-residential building energy codes for all buildings, and a further 2 with mandatory codes for some buildings.
- 8 countries and 12 sub-national jurisdictions have updated their codes since 2024.
- Only a handful of countries have net-zero carbon building codes, while Europe is developing nearly zero-carbon aligned standards, countries such as Canada and USA have voluntary zero-emissions standards.



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# SUMMARY MESSAGES

## 6 essential actions the sector should take to get back on track

**Urgent action  
is needed.**

1. Reactivate progress for the reduction of energy intensity in the buildings sector to achieve at least 25% reduction by 2030.
2. Accelerate adoption of renewable energy – on-site generation should triple to 18% and total renewable energy use should increase to 46% by 2030.
3. Major emitters and G20 governments need to adopt mandatory zero-emissions building energy codes by 2028, with upgrades and pathways for others by 2030 and 2035.
4. Major emitters must adopt embodied carbon limits in their building codes by 2030, while other countries must promote low-carbon materials.
5. Major emitters and G20 governments must translate the priority actions and commitments expressed in initiatives such as the Buildings Breakthrough and Declaration de Chaillot into NDC 3.0 submissions and track progress.
6. Global building energy efficiency investment should double by 2030 – this requires leveraging both public and private funds.

**2025 FORTHCOMING  
GLOBAL STATUS REPORT  
ON BUILDINGS AND CONSTRUCTION  
IN Q1 2026**

**Find out more:**  
[www.globalabc.org](http://www.globalabc.org)  
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# Panel: Where We Stand in 2025 in the Buildings and Construction Sector

*moderator*



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# Closing Remarks



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# Thank you!

Learn more at [GlobalABC.org](https://www.GlobalABC.org) and [UNEP.org](https://www.UNEP.org)