

Agenda item 4: Implementation of the rolling workplan for 2023–2027

4 (c)ii: Buildings and infrastructure

Report from the open-ended activity group

Policy Brief: Leveraging Data to Accelerate Financing for Climate Technologies in Buildings and Infrastructure

TEC 32 & Joint session of the TEC - CTCN Advisory Board
14 – 16 and 17 April 2026 | Songdo, Republic of Korea



United Nations Climate Change
Technology Executive Committee

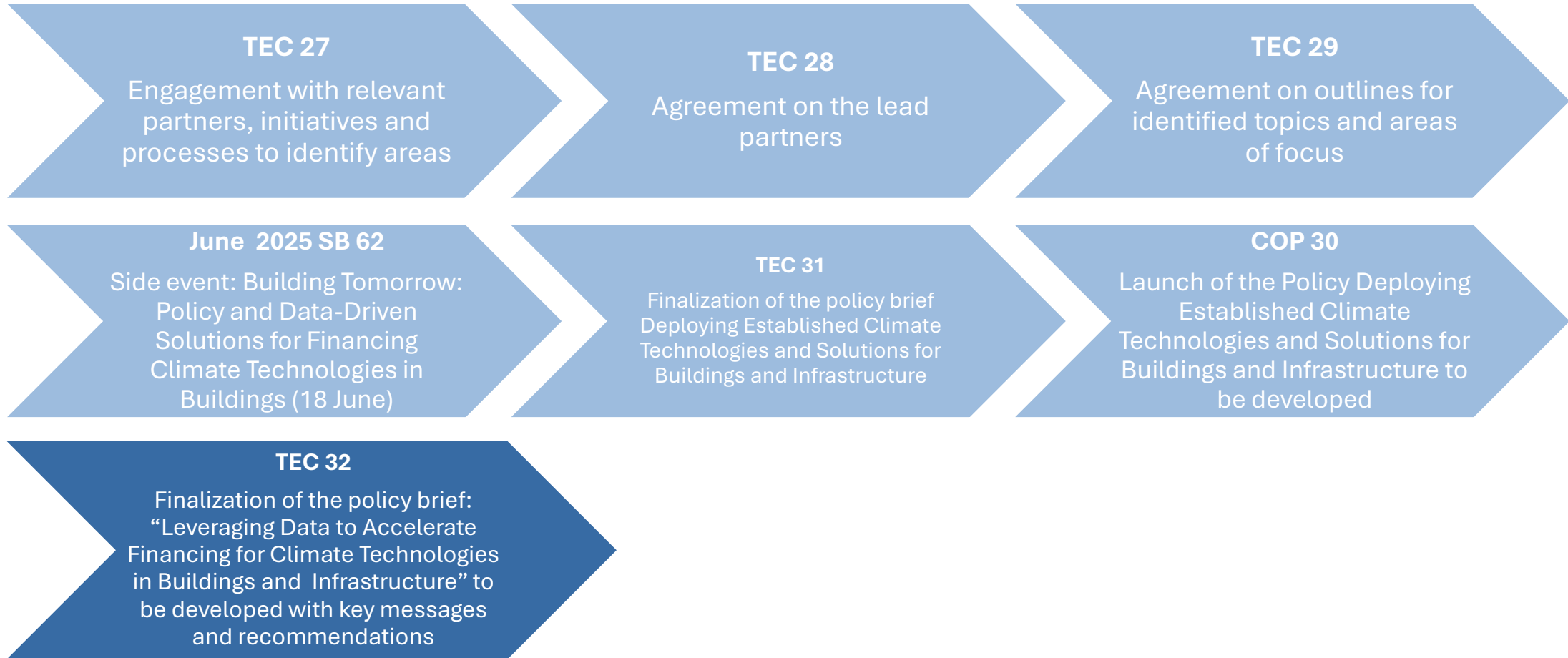
Olena Hrypych
TEC member

TEC rolling workplan 2023-2027

As per activity C.2.1 of the rolling workplan, the TEC is to explore the use of low carbon materials in buildings, green building codes and green zoning systems that promote energy efficiency and resilience, with a view to support countries in the implementation of their NDCs.



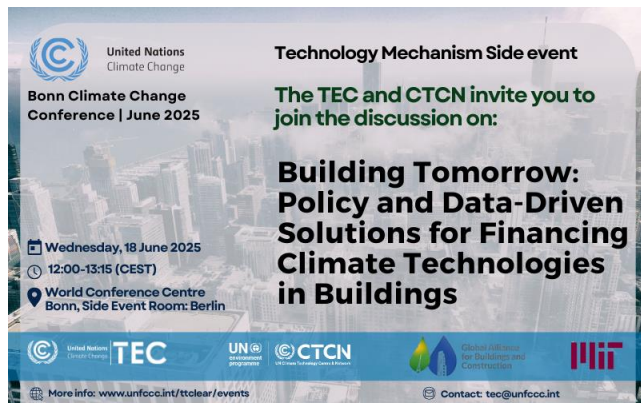
4 (c)ii: Buildings and infrastructure



Building Tomorrow: Policy and Data-Driven Solutions for Financing Climate Technologies in Buildings

The event brought together policymakers, researchers, industry leaders, and financial institutions to explore how policy interventions and data-driven insights can accelerate the financing and deployment of climate technologies in buildings, and facilitated discussions on:

- High-impact, cost-effective, market-ready climate technologies for the buildings sector
- Challenges, opportunities, and good practices for leveraging building performance data to attract and secure project financing
- Ensuring people-centered and inclusive approaches in deploying technologies to achieve global climate goals while meeting the growing demands of urbanization and development.



Driving Global Uptake of Established Climate Technologies and Solutions for Buildings

At the event TEC launched its policy brief Deploying Established Climate Technologies and Solutions for Buildings and Infrastructure

Event spotlighted the vast range of market-ready, economically viable, and scalable solutions that already exist to decarbonise the buildings sector and the enabling environments and public policies that can accelerate their deployment



Objectives of both Policy Briefs

- **Promote policy measures, innovative technology practices, and solutions** related to sustainable and resilient buildings to support countries in the design and implementation of their NDCs.
- Explore the use of **low carbon materials** in buildings, **green building codes**, and **green zoning systems** that promote energy efficiency and **resilience**.
- Offer recommendations to policymakers highlighting **high-impact, cost-effective, affordable, market-ready solutions** for **mitigation** and **resilience**.
- Offer recommendations to policymakers **on critical policy, data, and digital solutions** necessary to **evaluate building sector performance and mobilize financial resources**.



Agenda item 4: Implementation of the rolling workplan for 2023–2027

4 (c)ii: Buildings and infrastructure

Policy Brief 2: Leveraging Data to Accelerate Financing for Climate Technologies in Buildings and Infrastructure

TEC 32 & Joint session of the TEC - CTCN Advisory Board
14 – 16 and 17 April 2026 | Songdo, Republic of Korea



United Nations Climate Change
Technology Executive Committee

Drew Story
MIT Climate Policy Center

Lead Partners

- UN Environment Programme (UNEP) – Copenhagen Climate Centre
- Global Alliance for Buildings and Construction
- Massachusetts Institute of Technology Climate Policy Center



United Nations Climate Change
Technology Executive Committee



copenhagen
climate centre



Global Alliance
for Buildings and
Construction



Policy Brief 2:

Leveraging Data to Accelerate Financing for Climate Technologies in Buildings and Infrastructure

1. Executive Summary
 1. Key Messages
 2. Recommendations
2. Introduction
3. Global Shifts in Climate Finance
4. Building Performance Data is the Missing Link
5. What Investors Need: De-Risk, Return, and Confidence
6. Policy Instruments and Tools
 1. Regulation
 2. Information
 3. Incentives
7. Select Case Studies
8. Annex: Case Study Methodology



United Nations Climate Change
Technology Executive Committee



copenhagen
climate centre



Global Alliance
for Buildings and
Construction



Policy Brief 2:

Leveraging Data to Accelerate Financing for Climate Technologies in Buildings and Infrastructure

2. Introduction

- Buildings and infrastructure are responsible for nearly 40% of global energy-related CO₂ emissions.
- Buildings represent a significant share of national wealth, public spending, and employment, particularly in growing urban areas within developing countries, especially in small island developing states (SIDS) and least-developed countries (LDCs).
- Because built assets are long-lived, the carbon intensity of current investments in buildings and infrastructure will have profound consequences for future generations.
- Every USD 1 invested in low-carbon, energy-efficient buildings generates multiple returns, including lower energy costs, healthier indoor environments, job creation, and increased climate resilience. Yet, the sector remains critically underfinanced in the global climate agenda.
- Deep decarbonization pathways, particularly those targeting both operational and embodied emissions, have yet to receive the capital flows necessary to deploy and scale across the globe.
- This policy brief places a strong focus on the applicability and adaptation of regulatory and finance innovations in developing and emerging economies, where the data-finance gap is most pronounced and urban growth is accelerating.



United Nations Climate Change
Technology Executive Committee



copenhagen
climate centre



Global Alliance
for Buildings and
Construction



Policy Brief 2:

Leveraging Data to Accelerate Financing for Climate Technologies in Buildings and Infrastructure

3. Global Shifts in Climate Finance

- Investors and financial institutions are under increasing pressure to demonstrate alignment with net-zero targets and climate disclosure frameworks.
- Multilateral and development finance institutions are shifting their priorities, increasingly linking funding to mitigation outcomes that are measurable, reportable, and verifiable.
- National policy frameworks and local capacity play a critical role in enabling multilateral development bank (MDB)-aligned projects to scale.
- Ensuring that local institutions have the tools and incentives to evaluate climate performance is essential to leverage multilateral support effectively.
- Market demand for sustainable and green assets is growing, with more capital seeking climate-aligned portfolios. Yet, the building sector remains underrepresented. A key reason for this is the lack of standardized, transparent, and comparable building data, making it difficult for investors to evaluate and price climate performance of building projects.
- Many developing countries lack the institutional capacity, technical expertise, or data systems needed to meet the reporting requirements of established frameworks and standards. Closing this gap requires targeted technical assistance and simplified entry points.



United Nations Climate Change
Technology Executive Committee



copenhagen
climate centre



Global Alliance
for Buildings and
Construction



Policy Brief 2:

Leveraging Data to Accelerate Financing for Climate Technologies in Buildings and Infrastructure

4. Building Performance Data is the Missing Link

- Financial institutions rely on building performance data to evaluate the risk and return of individual investments, but in the building sector, emissions and performance data are often:
 - **Fragmented** across different formats, tools, and jurisdictions
 - **Inaccessible** to external stakeholders and investors
 - **Non-standardized**, making comparisons across projects difficult
- This data gap obscures the value of investing in climate-smart buildings and obstructs competitive financing.
- Whole Life Carbon Assessments (WLCA) combine **operational carbon** and **embodied carbon**
- Despite the importance and immense utility of WLCAs in fully understanding the climate impact and financial resilience of a building, they remain underutilized in most markets, particularly in developing economies.
- Table 1 describes several different building performance data frameworks currently in use.



United Nations Climate Change
Technology Executive Committee



copenhagen
climate centre



Global Alliance
for Buildings and
Construction



Policy Brief 2:

Leveraging Data to Accelerate Financing for Climate Technologies in Buildings and Infrastructure

4. Building Performance Data is the Missing Link

Table 1. *Comparative Overview of Building Carbon Metrics in Selected Frameworks and Standards*

Framework / Country	Operational Carbon	Embodied Carbon	Whole-Life Carbon	Lifecycle Scope	Notes
France – RE2020	Mandatory measurement and performance thresholds	Mandatory limits for new residential buildings from 2022	Yes (calculated but embodied currently weighted higher)	50-year period	Progressive tightening of thresholds by 2031
UK – Future Homes Standard / RICS	Energy performance required by building regs; optional metering tools	RICS Whole-Life Carbon Assessment optional but gaining traction	Partial / recommended via RICS WLC methodology	Variable (RICS recommends cradle-to-grave)	UKGBC and LETI promote WLC assessments
Germany – Building Energy Act (GEG)	Mandatory energy efficiency standards, based on EnEV	Optional, included in DGNB certification	Partial / integrated in sustainability certifications	50-year or design life (DGNB)	No legal limits on embodied carbon yet
Netherlands – BENG / MPG	Nearly Zero Energy Building (nZEB) standard required	Mandatory MPG (material performance) score for embodied carbon	Partial / MPG addresses embodied; operational separate	50-year lifespan standard	MPG must meet threshold ≤ 0.8 €/m ² /year
United States – LEED / State Codes	LEED credits for energy efficiency; varies by state	Optional LEED credits; state-led pilots (e.g., Buy Clean CA)	Partial / only in advanced certifications	Depends on project scope	No federal requirement; varies by jurisdiction
India – ECBC / GRIHA	ECBC requires minimum energy performance	Embodied carbon included in GRIHA voluntary rating	Partial in voluntary schemes	Project-based, no national LCA requirement	Data availability and enforcement are challenges
Colombia – Green Taxonomy (2022)	Includes operational thresholds for green classification	Recognizes embodied carbon in green definitions	Yes, included in green investment taxonomy	Whole-life, non-prescriptive	Linked to access to green finance
Sweden – Klimatdeklaration	Required for permitting, via energy declarations	Mandatory for new buildings ≥ 100 m ² since 2022	Yes, but used primarily for transparency	Estimated 50-year basis	No maximum limits yet, but review planned for 2025
Global - IFC's EDGE	Requires minimum 20% improvement over baseline	Requires minimum 20% improvement over baseline	Currently covers all major lifecycle stages and developing to cover all stages	Estimated 50-year lifespan of buildings	Covers 100% operational carbon neutrality through EDGE Zero Carbon plus partial embodied carbon.

Policy Brief 2:

Leveraging Data to Accelerate Financing for Climate Technologies in Buildings and Infrastructure

5. What Investors Need: De-Risk, Return, and Confidence

- The climate risks most relevant to buildings can be broadly categorized as:
 - **Physical risks**, such as extreme weather events, flooding, heatwaves, and sea-level rise, which can damage assets and disrupt operations, and
 - **Transition risks**, including future policy changes (e.g., carbon pricing, building codes), stranded assets, and reputational exposure, all of which can reduce asset values and profitability.
- Benefits associated with mitigation are typically indirect, long-term, and globally distributed, making them more difficult to quantify with traditional investment models.
- To bridge this data-finance gap, **clear, standardized, and verified carbon performance data at the building level is essential**. This data will empower investors to:
 - Understand their exposure to regulatory or reputational risk,
 - Accurately price climate-related benefits and costs into ROI valuations, and
 - Make informed decisions about long-term asset performance.
- Increasing climate-aligned buildings requires simultaneous action on both sides of the market: supply-side reforms within financial institutions and demand-side activation among developers and building owners.



United Nations Climate Change
Technology Executive Committee



copenhagen
climate centre



Global Alliance
for Buildings and
Construction



Climate Policy
Center

Policy Brief 2:

Leveraging Data to Accelerate Financing for Climate Technologies in Buildings and Infrastructure

6. Policy Instruments and Tools

- Regulation

- Mandatory whole-life carbon and energy standards for new buildings and major renovations, ensuring climate alignment across the building stock.
- Develop sector-specific metrics for high intensity assets (e.g., data centers, hospitals) that reflect operational profiles (e.g., PUE) alongside water and materials metrics.
- Embodied carbon limits and phase-out timelines of high-carbon materials and practices, targeting emissions embedded in materials and construction processes.
- Minimum information disclosure requirements, such as digital building passports or emissions certificates, to support valuation and comparison.
- Green public procurement mandates, requiring public agencies to lead by example and create baseline market demand while supporting professional capacity.



United Nations Climate Change
Technology Executive Committee



copenhagen
climate centre



Global Alliance
for Buildings and
Construction



Policy Brief 2:

Leveraging Data to Accelerate Financing for Climate Technologies in Buildings and Infrastructure

6. Policy Instruments and Tools

- Information

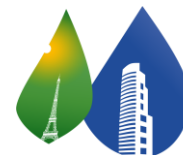
- Open-access digital tools for whole-life carbon and energy accounting, tailored to national contexts and user capacities.
- Standardized methodologies and verification protocols, aligned with international frameworks (e.g., ISO, EN, IPCC, ISSB).
- Provide a simple, standardized assessment tool that estimates savings, costs, and payback against local baselines to reduce transaction costs and support aggregation.
- National building performance databases, centralizing operational and embodied emissions data to enable benchmarking and risk assessment.
- Update benchmarks periodically to tighten baselines as market practice improves, maintaining ambition while reflecting market evolution.
- Training and awareness campaigns for developers, investors, and public officials, enhancing capacity to interpret and act on emissions data.



United Nations Climate Change
Technology Executive Committee



copenhagen
climate centre



Global Alliance
for Buildings and
Construction



Policy Brief 2:

Leveraging Data to Accelerate Financing for Climate Technologies in Buildings and Infrastructure

6. Policy Instruments and Tools

- Incentives

- Carbon pricing instruments targeted at buildings (e.g., carbon taxes, rebates), creating a direct price signal for emissions.
- Green guarantees, concessional loans, and blended finance mechanisms to de-risk investments and attract private capital.
- Tax credits and investment allowances for verified low-carbon upgrades, retrofits, and materials.
- Integration with Article 6 of the Paris Agreement, allowing verified emissions reductions from building projects to access international carbon markets and generate revenue streams.



United Nations Climate Change
Technology Executive Committee



copenhagen
climate centre



Global Alliance
for Buildings and
Construction



Policy Brief 2:

Leveraging Data to Accelerate Financing for Climate Technologies in Buildings and Infrastructure

6. Policy Instruments and Tools

Table 2. *Policy Instruments and Tools: Cost-Effectiveness and Leverage Potential*

Category	Policy Tool	Government Cost	Private Finance Leverage	Comments
Regulation	Lifecycle carbon/energy standards	Low	High	Creates clear benchmarks for new investments and reduces future retrofit costs.
	Embodied carbon limits and phase-out timelines	Low to Moderate	Medium to High	Signals long-term market shift; encourages innovation in low-carbon materials.
	Mandatory building performance disclosure (e.g. passports)	Moderate	Medium	Enables risk assessment, supports data transparency, and aligns with global taxonomies.
	Green public procurement	Moderate	High	Government purchasing power can catalyze market uptake and drive supply chain shifts.
Information	Open-access carbon accounting tools	Moderate (initial investment)	Medium	Reduces friction in project design and financing; useful for SMEs and public developers.
	Standardized methodologies and verification protocols	Low	Medium	Enables comparability, MRV, and trust in reported emissions.
	National building performance databases	Moderate to High	Medium	Improves decision-making across the value chain; requires consistent updates and governance.
	Training and awareness programs	Low to Moderate	Low to Medium	Builds technical capacity, especially in emerging markets and subnational governments.
Incentives	Carbon pricing (e.g. tax or rebates)	Revenue-raising / Moderate	High	Effective when paired with data infrastructure; price signal improves investment calculus.
	Integration with Article 6 and international carbon markets	Moderate	High	Enables new revenue streams for verified low-carbon projects; needs strong MRV.
	Green guarantees, concessional loans, blended finance	High	Very High	De-risks first-mover projects and attracts private capital; useful for deep retrofits.
	Tax credits and investment allowances for green upgrades	Moderate to High	High	Time-bound incentives can accelerate early adoption, especially in retrofit markets.

Policy Brief 2:

Leveraging Data to Accelerate Financing for Climate Technologies in Buildings and Infrastructure

6. Policy Instruments and Tools

Table 3. *Policy Tools and Stakeholder Audiences*

Policy Tool	Primary Audience	Secondary Audience
Lifecycle carbon standards	National governments	Local authorities, developers
Embodied carbon limits and phase-out timelines	National governments	Material manufacturers, developers
Mandatory building performance disclosure and consumption tools (e.g., passports)	National governments	Financial institutions, developers
Green public procurement	National and local governments	Suppliers, construction sector
Open-access carbon accounting tools	National and local governments	Project developers, consultants
Standardized methodologies and verification protocols	Standard-setting bodies, Governments	Verification bodies, developers
National building performance databases	National governments	Investors, developers, local authorities
Training and awareness programs	Governments, Educational institutions	Project developers, municipalities
Carbon pricing (e.g., tax or rebates)	National governments	Financial institutions, project developers
Integration with Article 6 and international carbon markets	National governments	Carbon market stakeholders, project developers
Green guarantees, concessional loans, blended finance	Development banks, Ministries of Finance	Commercial banks, project developers
Tax credits and investment allowances for green upgrades	National governments	Property owners, developers
Co-benefits monetization assessment frameworks (including job creation and local economic impacts)	National and local governments	Investors, developers, municipalities

Policy Brief 2:

Leveraging Data to Accelerate Financing for Climate Technologies in Buildings and Infrastructure

7. Select Case Studies

Project/Program Name	The Green Fund – Development Bank of South Africa
Brief Description of Project / Program	The Green Fund is a blended finance facility managed by the Development Bank of Southern Africa (DBSA) that offers grants and concessional loans to pilot and scale up green and low-carbon initiatives. It supports projects in sustainable infrastructure, including green buildings, energy efficiency, renewable energy, waste and water management, and climate resilience. The Fund is designed to de-risk investments and catalyze private sector capital by providing early-stage finance, technical assistance, and performance incentives.
Location	South Africa (national scope, with projects implemented in multiple provinces such as Gauteng, Western Cape, KwaZulu-Natal)
Climatic Zone	Predominantly warm temperate, semi-arid and subtropical zones
Level of Economic Development	Upper-middle income country; emerging market with growing urbanization and sustainability policy frameworks.
Building Type(s)	<ul style="list-style-type: none"> • Public and commercial buildings • Mixed-use developments • Affordable housing with sustainability features • Energy-efficient retrofit projects
Building Performance Data	Projects supported by the Green Fund are evaluated based on measurable environmental performance criteria including energy savings, water efficiency, greenhouse gas emission reductions, and waste reduction. While there is no single mandatory whole-life carbon standard, proposals must demonstrate robust baseline data and quantifiable performance improvements over business-as-usual. Monitoring and reporting frameworks emphasize operational energy and emissions performance.

Policy Brief 2:

Leveraging Data to Accelerate Financing for Climate Technologies in Buildings and Infrastructure

7. Select Case Studies

Project/Program Name	The Green Fund – Development Bank of South Africa
Policy Tools and Instruments	<ul style="list-style-type: none">● Grant funding to cover early-stage project risk● Concessional loans to improve financial viability● Technical assistance for project preparation and performance measurement● Alignment with South Africa’s climate policies, including the National Climate Change Response and Green Economy Strategy● Private sector engagement incentives to leverage additional capital
Impacts	<ul style="list-style-type: none">● Mobilization of private investment into green building and sustainable infrastructure● Demonstrated energy and water savings in funded projects● Increased deployment of climate-aligned practices among developers and local authorities● Enhanced project bankability and replication potential● Strengthened capacity of project sponsors and financiers in climate investment
Additional Information	The Green Fund operates as a catalytic finance mechanism, explicitly aiming to crowd in private capital and share risk in early-stage green projects. It has become a key policy instrument in South Africa’s transition to a low-carbon economy by bridging public-sector leadership and private-sector finance.

Policy Brief 2:

Leveraging Data to Accelerate Financing for Climate Technologies in Buildings and Infrastructure

7. Select Case Studies

Project/Program Name	EDGE (Excellence in Design for Greater Efficiencies) - Colombia
Brief Description of Project / Program	EDGE is an IFC-developed green building certification system designed to make resource-efficient buildings fast, affordable, and scalable in emerging markets. In Colombia, the EDGE program has been implemented with support from the World Bank Group to encourage private sector investment in energy-, water-, and materials-efficient buildings. The program provides a standardized tool, certification, and market recognition to help developers design, finance, and deliver low-carbon buildings while reducing costs and risks.
Location	Colombia (national implementation, with projects concentrated in major urban centers such as Bogotá, Medellín, Cali, and Barranquilla)
Climatic Zone	Multiple climatic zones, including tropical, temperate, and highland climates, reflecting Colombia's geographic and climatic diversity.
Level of Economic Development	Upper-middle-income country; emerging market with a growing construction sector and increasing demand for sustainable urban development.
Building Type(s)	<ul style="list-style-type: none">• Residential (multi-family housing, social housing)• Commercial (offices, retail)• Hospitality• Mixed-use developments
Building Performance Data	<p>EDGE certification requires projects to demonstrate, at the design stage, minimum performance improvements of:</p> <ul style="list-style-type: none">• At least 20% reduction in energy use• At least 20% reduction in water use• At least 20% reduction in embodied energy in materials <p>Performance is assessed using the EDGE software tool, which provides standardized, comparable metrics and third-party verification. While EDGE does not require a full whole-life carbon assessment, it serves as a practical proxy for operational and partial embodied carbon performance in markets with limited data availability.</p>

Policy Brief 2:

Leveraging Data to Accelerate Financing for Climate Technologies in Buildings and Infrastructure

7. Select Case Studies

Project/Program Name	EDGE (Excellence in Design for Greater Efficiencies) - Colombia
Policy Tools and Instruments	<ul style="list-style-type: none">• Voluntary green building certification recognized by financial institutions• IFC technical assistance to developers, banks, and public authorities• Integration of EDGE certification into green finance eligibility criteria• Preferential financing and incentives from domestic banks for EDGE-certified projects• Alignment with Colombia's Green Taxonomy and sustainable finance frameworks
Impacts	<ul style="list-style-type: none">• Increased private sector participation in green building markets• Improved access to green finance for developers through reduced perceived risk• Measurable reductions in energy and water consumption across certified buildings• Market transformation by establishing a clear, data-driven benchmark for building efficiency• Strengthened capacity among developers, financiers, and local professionals
Additional Information	EDGE has been particularly effective in Colombia as a transitional tool, bridging data and capacity gaps while building the foundation for more advanced lifecycle-based standards. The program demonstrates how simplified, standardized performance data can unlock private finance in emerging markets and support alignment with MDB climate objectives.

Policy Brief 2:

Leveraging Data to Accelerate Financing for Climate Technologies in Buildings and Infrastructure

1. Executive Summary
 1. Key Messages
 2. Recommendations
2. Introduction
3. Global Shifts in Climate Finance
4. Building Performance Data is the Missing Link
5. What Investors Need: De-Risk, Return, and Confidence
6. Policy Instruments and Tools
 1. Regulation
 2. Information
 3. Incentives
7. Select Case Studies
8. Annex: Case Study Methodology



United Nations Climate Change
Technology Executive Committee



copenhagen
climate centre



Global Alliance
for Buildings and
Construction



Agenda item 4: Implementation of the rolling workplan for 2023–2027

4 (c)ii: Buildings and infrastructure

Key messages and recommendations

Leveraging Data to Accelerate Financing for Climate Technologies in Buildings and Infrastructure

TEC 32 & Joint session of the TEC - CTCN Advisory Board
14 – 16 and 17 April 2026 | Songdo, Republic of Korea



United Nations Climate Change
Technology Executive Committee

Olena Hrypych
TEC member

Key Messages

Buildings are central to climate and economic goals, yet finance remains misaligned

The global finance system is shifting; policymakers must help the building sector catch up or risk falling behind

Without reliable, comparable and contextually relevant data, low-carbon buildings are undervalued and underfinanced

Better building performance data and early-stage business-case metrics improve investment pricing, lowers perceived risk, and attracts capital to climate-aligned buildings

Policy instruments and tools are available to improve the incorporation of building performance data and have been demonstrated to correct market distortions and unlock green financing for buildings.



Recommendations: Short-Term (1-2 Years)

1. Launch voluntary whole-life carbon disclosure pilots for new public buildings and major renovations, aligned with international standards (ISO, EN, IPCC, ISSB). In developing countries, recognize established third-party certifications (EDGE, LEED, DGNB) as qualifying interim measures where national data systems are not yet in place. **Responsible actors:** National governments (Ministries of Environment, Finance, and Works), development finance institutions, and technical assistance providers.
2. Provide training and capacity-building programs for developers, investors, financial institutions, and public officials on interpreting and acting on building emissions data. Governments should prioritize technical assistance to developing economies, especially to SIDS and LDCs, where the data-finance gap is most pronounced. **Responsible actors:** National governments, multilateral development banks, and international technical cooperation programs.
3. Integrate verified building carbon performance data into existing or emerging national green finance taxonomies. Where taxonomies do not yet exist, governments should recognize established certifications (LEED, EDGE, DGNB) as qualifying criteria for concessional financing and green bonds, with clearly defined performance tiers for transparent classification. **Responsible actors:** Ministries of Finance, central banks, and financial regulators; multilateral development banks where taxonomies are under development.
4. Deploy targeted financial incentives, including blended finance, green guarantees, and concessional loans, to de-risk early-mover investments in low-carbon buildings. In markets with limited regulatory frameworks, these incentives serve as the primary lever to build a pipeline of bankable green projects. **Responsible actors:** Development finance institutions, Ministries of Finance, MDBs.



Recommendations: Medium-Term (3-5 Years)

5. Establish mandatory whole-life carbon disclosure requirements for new buildings and major renovations, including both operational and embodied emissions. Frameworks should include locally calibrated performance baselines and be scaled to market readiness, relying on simplified approaches for early-stage markets and more comprehensive requirements for more advanced jurisdictions. **Responsible actors:** National governments (Ministries of Environment, Works, and Housing); supported by standard-setting bodies and international technical assistance.

6. Implement green public procurement mandates requiring publicly financed and publicly owned buildings to meet minimum performance thresholds. Governments should lead by example, creating baseline market demand for climate-aligned construction and supporting professional capacity throughout supply chains. **Responsible actors:** National and subnational governments; Ministries of Finance and Public Works; procurement agencies.

7. Establish national building performance databases centralizing operational and embodied emissions data. Governments should deploy open-access digital tools for whole-life carbon accounting and require independent third-party verification aligned with international frameworks (ISO, EN, IPCC, ISSB). MRV systems should capture energy, water, and embodied impacts and be interoperable with national NDC tracking systems. Developing country governments should seek technical and financial support to build these systems. **Responsible actors:** National governments; statistical agencies; climate finance and technology bodies; MDBs providing technical assistance.



Recommendations: Long-Term (6+ Years)

8. Transition from voluntary disclosure to binding performance standards, including mandatory embodied carbon limits, whole-life carbon targets, and phase-out timelines for high-carbon materials. Governments should progressively tighten thresholds as market capacity matures, ensuring policy evolution is paired with sustained capacity support, particularly in developing countries. **Responsible actors:** National governments; regulatory bodies; building standards agencies.

9. Integrate building sector emissions reductions into Article 6 of the Paris Agreement, enabling verified reductions to access international carbon markets. Governments should develop robust MRV frameworks for buildings-related carbon credit transactions to ensure environmental integrity and generate new revenue streams for low-carbon projects. **Responsible actors:** National governments; climate finance authorities; carbon market regulators; international bodies including UNFCCC.

10. Leverage accumulated building performance data and mature market capacity to mobilize private capital at scale, reducing dependence on public de-risking instruments. Governments should enable performance-based financing where market actors can independently evaluate and price climate risk across building portfolios. **Responsible actors:** National governments; financial regulators; institutional investors; commercial banks.



Thank You



United Nations Climate Change
Technology Executive Committee

TEC 32 & joint session of the TEC - CTCN Advisory Board