

# Universal Principles for Carbon Pricing in the Real Estate Sector

**CChange**

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C Change is a ULI-led programme to mobilise the European real estate industry to decarbonise. We're a movement empowering everyone to work together for a sustainable future. We connect the brightest minds from across the value chain. We challenge barriers, share expertise, and champion innovation to move swiftly to accelerate solutions that will transform our industry and protect our planet. C Change means real change.

C Change was formed in late 2021 by a group of leading real estate players that was united in its aim to focus on collaboration to ensure companies large and small have access to practical solutions and education on decarbonisation.

# Contents

<b>Introduction</b>	<b>4</b>
How to read this document	5
Definitions of carbon pricing	5
Scope and audience	6
Universal internal carbon pricing principles	6
<b>Principle 1 – Take a whole life carbon approach</b>	<b>7</b>
<b>Principle 2 - Take responsibility for all decisions to spend carbon</b>	<b>7</b>
a) For embodied carbon, the main enablers for projects, such as capital providers, have ultimate collective responsibility for carbon pricing	7
b) For operational carbon, the occupiers and building owners/managers have ultimate responsibility for carbon pricing	7
<b>Principle 3 – Where there is no responsibility for a decision to spend carbon, commit to influencing and educating stakeholders</b>	<b>8</b>
<b>Principle 4 - Engage all key stakeholders, in particular senior leaders</b>	<b>9</b>
a) Carbon pricing needs to be addressed as a strategic priority with senior leadership support from the outset	9
b) Time and attention is required to raise awareness and engage the value chain	9
<b>Principle 5 - Use a uniform internal price</b>	<b>10</b>
<b>Principle 6 - Act now with available data and improve its accuracy over time</b>	<b>10</b>
<b>Principle 7 - Commit to transparency</b>	<b>11</b>
Considerations for implementation	12
Next steps/recommendations	14
<b>Appendix</b>	
The C Change programme, context and background	15
Acknowledgements	16

Leading real estate organisations, EPRA, GREEN, IIGCC, INREV, RICS, ULI, and WBCSD, have teamed up with industry experts from the full real estate value chain to develop a pioneering set of universal internal carbon pricing principles.

The principles and recommendations are designed for all organisations in the real estate sector with a net zero commitment and/or aim to decarbonise that are exploring implementing a voluntary carbon price and want to take action.

## Introduction

**The real estate industry has an opportunity to play a prominent role in accelerating the transition to a low-carbon economy.** To achieve the Paris goals, a tripling of renewable energy capacity and a doubling of the average annual rate of energy efficiency improvements [will be required globally](#), by 2030. Yet in [2022](#), renewable energy's share in buildings' final energy consumption was 6 percent lower than it should be (i.e. 18 percent), and the cumulative investment in energy efficiency and high-performance buildings was underperforming by a seismic US\$2.7 trillion.

**At the heart of this challenge is the mobilisation of private sector capital.** Internal carbon pricing is a powerful tool to support this mobilisation by more closely aligning corporate financial and strategic interests with strategic climate goals, such as net zero. Assigning an internal incentive to reduce company emissions and invest in higher-efficiency solutions can help unlock the scale of capital required for deep decarbonisation. If deployed well, it can also form part of a deeper, strategic shift in an organisation towards more sustainable outcomes.

Although these principles are primarily designed for organisations with a net zero commitment, they can also be useful from a purely financial materiality perspective. In this context, internal carbon pricing is a valuable tool to help organisations understand the financial implications of potential future regulations and taxes (e.g. EU ETS II). It can also be used as part of risk management scenario planning and sensitivity analysis.

**However, adoption and preparedness for carbon pricing within the real estate sector has remained worryingly slow compared to its industry peers.** At last count, nearly half ([226](#)) of the world's largest

500 companies are putting a price on carbon, and [24 percent](#) of the world's greenhouse gas (GHG) emissions are now covered by a carbon pricing instrument. Together with the integration of carbon pricing into the [ISSB reporting standards \(IRFS S2\)](#) (pp 15–16), it is clear this trend is set to grow. Yet McKinsey reported that according to CDP data, the real estate industry was the second [slowest of all industries](#) to adopt.

**These universal principles, together with the “Accelerating accountability: the case for carbon pricing” report, have been designed to home in on the opportunities and practicalities of implementing a voluntary carbon price for real estate, specifically.** The principles provide a key set of considerations to assist companies looking to take action. They have been developed by a group of industry leading experts, representing the full real estate value chain, who have already implemented carbon pricing within their companies.

**Industry alignment on carbon pricing is critical to ensure that a strong and consistent message reaches the full real estate value chain.** This is why this work is being published by a task force of seven leading industry organisations (EPRA, GREEN, IIGCC, INREV, RICS, ULI, and WBCSD) that have supported the development of these principles from the outset.

For companies that would like to take action now, recommendations for how to do that, together with industry peers, are included in the next steps.

*NB: These universal principles were delivered as part of the carbon pricing workstream of the ULI Change programme. For more information on this initiative, please refer to the Appendix.*

## How to read this document

This document sets out a series of high-level universal principles for implementing a voluntary carbon price. They can be used by any organisation in the real estate sector, anywhere in the world.

These principles are

- not intended to be a new sustainability-related standard, certification, or reporting requirement.
- voluntary in nature and do not seek to replace external carbon taxes or policies.
- provided for educational purposes to support greater industry adoption and accelerate decarbonisation efforts.

They are a comprehensive set of principles and intended to be followed as a complete set, rather than choosing only one or two.

Each principle and sub-principle has a headline, an explanation, and some practical examples or deep explanations to help guide the reader. (NB: The detailed information included is shared for illustrative purposes only and does not necessarily represent endorsements of specific initiatives or approaches). This information is followed by a set of recommendations for how to harness these principles to accelerate the adoption of internal carbon pricing at the industry level. (More about the audience for these principles can be found in the Appendix.

### Definitions of carbon pricing

For the purposes of this document we use the general umbrella term *carbon pricing*. *Carbon pricing* means applying a monetary value to the amount of [GHGs](#) accounted for by an organisation's activities. This can be undertaken in different ways when applied *internally*:

- A shadow carbon price is a monetary value that is accounted for internally, in management reporting, and integrated into investment decisions about acquisitions, retrofitting, and the like.
- A fee-paying carbon price is similar to a shadow price; it is also applied internally, but with an additional feature: the monetary value is converted to an actual cost to the business and usually ring-fenced into a fund or accounting mechanism for distribution. For instance, the fees are moved to a separate bank account or budget, which can then be managed and used to finance decarbonisation activities (e.g. energy efficiency measures, research to support reducing emissions, and so on.)

Approaches to carbon pricing can mature over time. For example, an organisation can start with a shadow carbon price and, when ready, move to a fee-paying model, which is more effective for reaching the goal of decarbonisation. Furthermore, a carbon price might start with application to a limited part of a business portfolio and expand to full coverage over time, depending on the strategic priorities of the organisation.

This document does not focus on external carbon pricing. External carbon pricing is the application of a monetary value to a tonne of carbon by an external body through local, regional, or national taxes, levies, or emissions trading schemes. As explained in the introduction, such mechanisms are a growing policy trend, so internal carbon pricing can be considered a useful preparedness measure.

## Scope and audience

These principles are designed to support all relevant industry stakeholders within the real estate value chain, globally. This includes leaders at architects, designers, engineers, consultants, developers, construction firms, the raw materials or machinery industry, asset owners, asset managers, banks, and occupiers. This does not include the closely linked energy, transport, and infrastructure stakeholders, although in many cases some stakeholders' interests may overlap and insights be transferable to other contexts (e.g. consultants and engineers, or asset owners).

The principles are provided at a high level to be easily digestible, allowing for personal interpretation based on specific company context. They do not go into the underlying detailed specifications of how to deliver, e.g. carbon accounting calculations and specific whole life carbon methodologies, in order to be more universally applicable and avoid contention. To support implementation, relevant links have been included as reference materials, which could help deepen understanding on the topics.

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## Universal internal carbon pricing principles

In this section we present a set of universal principles for the real estate sector, developed as a result of industry-leading input from practitioners who have already implemented carbon prices in their own organisations. It is acknowledged that organisations along the full value chain of the real estate sector will face different circumstances, and hence the application of these principles in practise is expected to diverge.

As stated, these principles are a comprehensive set and intended to be followed as a complete set, rather than choosing one or two. Even if the principles cannot be implemented in their entirety from the outset, it is acknowledged that getting started on the journey is preferred, with phased approaches to implementation (e.g. starting regionally).



## Principle 1 - Take a whole life carbon approach

**Description:** All stakeholders measure carbon emissions for the full life cycle within their scoped boundaries and consider both operational and embodied emissions.

**Explanation:** To calculate a carbon price, stakeholders ensure that they are clear about the boundaries for the emissions they are responsible for and assume a whole life carbon approach in assessing the cost of carbon. This means including embodied *and* operational carbon emissions and the relevant responsibilities within the whole life cycle of a building, from raw material and supply

to reuse and recovery, before calculating the total cost of carbon. Carbon emissions information should be shared with relevant stakeholders to ensure a full understanding across the value chain.

**Further information:** Specific protocols and standards are available for different stakeholder groups, e.g. GHGs ([Scope 1 and 2](#), [Scope 3](#)); full value chain for buildings/real estate: [SBTi](#); finance specific: [PCAF](#) and [IIGCC](#) standards, which build on the GHG protocol.

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## Principle 2 - Take responsibility for all decisions to spend carbon

**a) For embodied carbon, the main enablers for projects, such as capital providers and developers, have ultimate collective responsibility for carbon pricing**

**Description:** Stakeholders who initiate or ultimately decide on the embodied carbon emission spend are responsible for the carbon cost.

**Explanation:** Using the “initiator or decision maker pays” principle, a carbon price is considered and implemented by organisations that are decisive in whether the embodied carbon spend of a project (e.g. new construction, retrofit) goes ahead. Each project is unique, but the shortlisted stakeholders are considered to be those responsible for (i) financing the project across both equity and debt, e.g. the asset owner, asset manager, developers or lending institution, or (ii) in some cases, occupiers who request a building be built/regenerated to a certain specification.

**Further information:** Determining to what degree each stakeholder is responsible for the total emissions is considered too subjective and not recommended. Instead, it is recommended that the responsible stakeholders take collective responsibility for the spend, as well as assuming total cost responsibility for the emissions spent, individually (e.g. if the total emissions cost is €25,000, then each responsible stakeholder would assume that responsibility). This is not

considered double counting, because the reason for a carbon price in this context is primarily to change behaviour by applying a monetary value to an indicator metric (e.g. GHG emissions).

**b) For operational carbon, the occupiers and building owners/managers have ultimate responsibility for carbon pricing**

**Description:** Stakeholders who initiate or decide on the operational carbon emission spend are responsible for pricing the carbon emissions associated with their direct consumption and activities.

**Explanation:** Using the “initiator or decision maker pays” principle, both the occupier and the building owner/manager are often responsible for applying a carbon price to the operational emissions related to their direct consumption. Consumption can be identified using energy bills. Each building is different, but occupiers are responsible for the electricity and resources they consume (e.g. with their own office space) or share (e.g. through shared spaces) while they are occupying a building, whilst owners/managers are responsible for the common parts of a building, in places where an occupier does not have responsibility. Whilst at some properties owners/managers may have locked-in decisions related to fuel types and energy efficiency, it is considered the ultimate responsibility of occupiers to choose the

property to rent or lease. In addition, while building operators can affect a building's energy efficiency, it is considered the responsibility of building owners/managers to ensure suitable responsible providers are secured.

**Further information:** Measuring operational carbon emissions is often best achieved using real-time monitoring of performance data through smart metering. As this is not a universal practise

yet, there are other methods that occupiers can work with to gauge emissions before deciding to rent or lease a building. For example, requesting performance data in the negotiations and, in some locations, [energy performance certifications](#) and/or utility invoices can provide brackets for energy performance data. When measuring operational carbon, corporate real estate managers with large portfolios as well as asset owners can benefit from using the [CRREM](#) tool.

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## Principle 3 - Where there is no responsibility for a decision to spend carbon, commit to influencing and educating stakeholders

**Description:** All remaining stakeholders in the value chain of the real estate sector have an important role in influencing carbon pricing.

**Explanation:** The remaining stakeholders, designers, architects, engineers, construction companies and in some case developers, have an important influencing role to play in carbon pricing. If they have a net zero commitment of their own, having an internal carbon price is an example of best practise. As part of a typical real estate project, specifications are drawn up and shared with organisations in the industry value chain. These organisations then influence the types of materials used for the design or build. These stakeholders can choose to apply their own shadow carbon price and, importantly, to use carbon pricing to better inform their clients about the decisions they are making and/or suggest to their clients to apply one (which could in turn affect the decision-making).

**Further information:** Member organisations such as Architecture 2030 and the International Union of Architects have signed the [2050 Imperative](#) to promote the planning and design of carbon neutral cities. At the company level, UNStudio has developed a "Carbon Builder" tool to help architects intricately study numerous options to reduce the carbon footprint of projects, and Arup has provided an [international data set](#) capturing the total forecast emissions of 1,000 building design projects to improve the accuracy of carbon data for the sector.

Beyond the real estate lens, some organisations – such as [Unilever](#) – have used their influence to demonstrate leadership publicly and in their value chain. From Unilever's 2021 Climate Action Transition Plan:

*"Carbon pricing – Unilever supports calls for the introduction of carbon pricing at levels consistent with the delivery of the Paris Agreement and as recommended by the Carbon Pricing Leadership Coalition's High-Level Commission on Carbon Prices (\$40–80/tonne by 2020 rising to \$50–100/tonne by 2030, provided a supportive policy environment is in place)."*



## Principle 4 - Engage all key stakeholders, in particular senior leaders

### c) Carbon pricing needs to be addressed as a strategic priority with senior leadership support from the outset

**Description:** Senior leadership support and making carbon pricing a strategic priority will dramatically improve the chances of successful adoption.

**Explanation:** Senior leaders have a critical role to play to ensure carbon pricing can become a strategic priority for an organisation. Board buy-in from the outset ensures the appropriate tone and direction is set from the top. Internal sustainability, finance, and change management teams can also then be engaged, so internal carbon pricing can be implemented in a similar way to other business transformation projects. Senior management support and robust change management processes help enable cascading behavioural and cultural changes throughout an organisation. Wider internal stakeholder management is crucial as the impacts of a carbon price can cut across multiple different departments with conflicting priorities, e.g. commercial teams who target higher revenues and profits, procurement and legal teams who minimize risk, and investor relations teams who prioritize reputation and reporting. In all these cases, careful consideration of the roll-out of engagement, clear and concise explanations, and internal training are key. In the case of fee-paying carbon pricing, explanations of how fees will be used are recommended (e.g. energy efficiency projects and innovation).

**Further information:** As part of [ULI C Change](#), a series of webinars for practitioners has been held for those getting started on carbon pricing. A part of the focus has been on building the case and on live examples of successfully engaging internal stakeholders. Details and recordings are available on request.

### d) Time and attention is required to raise awareness and engage the value chain

**Description:** Engaging relevant external stakeholders (e.g. suppliers, investors) requires time and attention to ensure plans are well communicated and understood.

**Explanation:** Once internal alignment is secured, it is recommended that organisations pay particular attention to external stakeholder management in the preparation and implementation phases of internal carbon pricing. Relevant stakeholders such as joint venture partners, suppliers, and investors should be informed at the appropriate times, and where necessary, educated on the benefits of carbon pricing. It is also recommended to prompt a focus on carbon pricing each time contracts are put in place between stakeholders. Doing so can create a formal reminder for stakeholders to discuss and agree whether internal carbon pricing is appropriate for a project and if so, at what level. Asking questions of this sort can also be a way for stakeholders to learn from each other.

**Further information:** For many companies these relationships with external stakeholders are some of the most sensitive to carbon pricing. Helping these stakeholders to understand the growing trend of carbon pricing will be important. Informative resources like the World Bank's annual [State and Trends of Carbon Pricing](#) can help build a strong picture. In addition, the associated "Accelerating accountability: the case for carbon pricing" document has some excellent examples of stakeholder engagement to learn from.

## Principle 5 - Use a uniform internal price

**Description:** One uniform carbon price is applied to both [operational and embodied carbon](#).

**Explanation:** It is recommended that the same uniform monetary amount be charged across all emissions that an organisation is responsible for or influences. Taking this approach reduces complexity and ensures more efficient implementation, as processes (e.g. training) can be standardized across multiple teams and organisations. Building upon the concept of implementing across multiple organisations in a value chain, as described in Principle 2b, tenants are often directly responsible for the operational emissions for a building they rent. An architect can influence the design of a building but this is usually based on specifications which have been pre-defined by capital providers and/or developers. In both cases, whether there is responsibility

or influence, applying uniform internal carbon prices can be considered for both operational and embodied emissions.

**Further information:** Although a specific price is not prescribed as part of these principles, as a starting point, there are a few ways or proxies to set an internal price:

- i) Use of a benchmark, such as the [EU-ETS](#) and [China-ETS](#)
- ii) Calculating the actual internal costs of decarbonisation activities (e.g. expenses undertaken to decarbonise a portfolio of buildings)
- iii) Reviewing international organisations and/or government policies for national abatement costs, such as the [IEA](#) and the [UK cost abatement curve](#)

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## Principle 6 - Act now with available data and improve its accuracy over time

**Description:** Get started using the carbon emissions data already available for your assets and/or operations.

**Explanation:** An internal carbon price can successfully be applied to an estimated set of emissions data; for example, where carbon emissions are accounted for using proxy data or emission factors, or for operational carbon, through the previous year's data and partial information in e.g. multi-tenanted buildings, supported by strong estimations.

Imperfect data should not be seen as a barrier to getting started. Stakeholders are to account for their whole life carbon responsibility using the most accurate available data and rely on credible proxies to support data gaps. This will require considering a local or national approach, given the close relationship to available data. The commitment to transparency links closely to this principle.

**Further information:** Many organisations are working to support the improvement of data quality and estimation for stakeholders in the real estate sector, including PCAF's [emissions factor database](#). As carbon reporting moves to become mandatory (e.g. [ISSB](#), [CSRD](#)), organisations are actively supporting data quality standardization, carbon accounting for different types of financial instruments (e.g. debt and equity), and alignment with scoring (e.g. [CDP and PCAF](#)). It is expected that overall quality, comparability, and understanding will improve over time. Furthermore, change management tools and processes, such as [Agile](#), can support dealing with different data sets and integrating into technology systems.

## Principle 7 - Commit to transparency

**Description:** Regularly and consistently disclose carbon pricing information in the annual report within the financial accounts, in the sustainability report, and through external reporting mechanisms.

**Explanation:** Transparency is crucial, as it helps to shape and communicate a strong signal to the wider industry. Disclosure should include the sources for the use of estimates and assumptions in carbon accounting, some descriptions of the level of proxies adopted (such as emission factors), and an accompanying basis of preparation (i.e. what price was used, why it was selected, and what level of emissions is covered by the price).

**Further information:** Carbon pricing can be disclosed through existing reporting mechanisms (e.g. such as those generally applied across different industries using [CDP](#), and for real estate assessments using [GRESB](#)) and by publishing it in an organisation's own annual reports. Carbon pricing is also part of the new ISSB standards, which are currently being adopted at the national level. [IFRS S2 cross-industry metric categories item 6](#) requires the disclosure of "internal carbon prices that the company uses to assess the costs of its emissions".



# Considerations for implementation

In practise, carbon pricing in the real estate sector can be complicated to implement. This is due to known complexities such as the fragmentation of the value chain, lack of data access, differing investment or management strategies, and local regulation and protocols for assets spanning multiple geographies. More broadly, this is [evidenced across different industries](#) that are at different levels of maturity related to internal carbon pricing.

Given that these complexities show up quite differently depending on the individual situation, it was resolved that a greater level of stakeholder-specific detail should not be added to the core principles. This is to ensure the widest possible adoption. Instead, further general and stakeholder-specific considerations are included here, as further reading.

## General implementation considerations

Four key themes were repeatedly raised by experts and practitioners, indicating the need to single them out for consideration in this document.

Overarching the four themes, the recommendation is to move to a fee-paying internal carbon price. This is because attributing a real cost has the most impact on driving change inside an organisation. That said, implementing internal carbon pricing is a journey. Getting started is a priority and getting started could be implementing a shadow price in the first instance.

### 1. Relationship to carbon offsetting

Carbon pricing is regularly associated with carbon offsets; for example, through a carbon price being attributed to the residual emissions after exceeding the CRREM 1.5°C and 2°C pathways in the United States, Europe, and Asia. ([CRREM tool guidance, p 34](#)). However, carbon pricing and carbon offsets are not the same thing. As detailed in SBTi's [Net Zero Standard](#), after a company has cut emissions by more than 90 percent, it must use permanent and high-quality offsets to neutralize the final 10 percent of residual emissions. If carbon pricing is only used to account for residual emissions, organisations will be missing a significant opportunity to harness this strategic tool to influence wider decision-making.

Setting a carbon price linked to carbon offsets available on the market can often skew a carbon price to the lowest-priced carbon offset instead of to a credible benchmark. Furthermore, carbon offsets and credits are often held for trading or speculation. This is clearly different to the use of carbon pricing to influence internal decision-making and aid strategic thinking about decarbonisation by management. For this reason, we differentiate between the two concepts in these principles but align with the SBTi Net Zero Standard.

### 2. Potential for double counting

When implementing these principles, some stakeholders may believe that carbon emissions are at risk of being double counted between different entities in the value chain. For example, this could happen if an asset manager and a bank assumed total embodied carbon emissions responsibility for an asset and both applied a carbon price. The existence of double counting in carbon accounting is acknowledged as part of these principles. However, no efforts to eliminate the double count are suggested at this stage, because the purpose of a carbon price is to change behaviour, and therefore it can be used as an important indicator to reflect the responsibilities and relationships between actors even if double counting is present.

Elsewhere, double counting may present itself in the form of applying an internal carbon price in a region that has a local tax or levy, such as [New York's Local Law 97](#) or Germany's [Building Heating Tax](#). This is different to the previous form of double counting as it is not between entities, but within one organisation. In this context, a company may choose to (i) deduct the external tax from the internal carbon price if it is lower, or (ii) use this tax as the internal carbon price if it matches the value of a suitable credible benchmark.

### 3. Adapting for local or specific circumstances

Across the real estate value chain, there are many examples where complexities can emerge, which could be considered a case for applying different measures, prices, or terms to each situation. For example, asset owners may enter into joint venture agreements with peer organisations that

have different carbon prices; asset managers may have funds in multiple territories with significant differences in the price of carbon and local solutions; and materials companies may have offices in different regions and thereby be subject to a range of external regulations.

Industry experts recommended starting with as simple a carbon price as possible. Implementing a material fee-paying carbon price will usually ensure the most rapid low-carbon transition, although a shadow carbon price is a good start. According to CDP data presented in the report “Putting a Price on Carbon,” almost [three times the number of carbon price disclosing respondents](#) (p 16) choose to keep a single and simple carbon price over multiple variations, despite having complex and global operations. If coupled with removal of a double-counting risk as detailed above, this can be a strong strategy to reduce complexity and potentially accelerate adoption. However, for organisations that would like to continue on the path of unique, localised carbon prices, it is recommended to start in one pilot region as

part of a standard change management process, learn from that, and then roll carbon pricing out iteratively over time. As mentioned in principle 2b, a useful tactic for working with regional offices, joint venture partners, or suppliers is to home in on the contract as a single standardized place where carbon pricing can be prompted and addressed by common agreement between both or all parties.

#### 4. The time value of carbon

Finally, it is recognised there is a [time value](#) to carbon accounting. This is because emission reduction has more impact and value if achieved sooner rather than later. However, while this concept has grown in significance, sector-specific modelling to enable such a principle to be adopted in the real estate sector has not yet been developed. For this reason, the concept has not been incorporated into these universal principles. The principles advocate and support the underpinning logic of this concept: to invest sooner to reduce the diminishing prospects of an orderly and reciprocally, lower-cost transition.



## Next steps/recommendations

These universal principles represent an initial step to align multiple stakeholders in the real estate value chain on a common approach to carbon pricing. The ultimate goal of these principles is to accelerate the adoption of carbon pricing to a tipping point in adoption: critical mass (about 20 percent of major industry stakeholders).

To support the next steps towards achieving this goal, we recommend the following activities:

### Building solid foundations for the industry with education and sharing of best practises

Although the adoption of carbon pricing has been slow in real estate, there are many examples of leading companies that have successfully implemented a carbon price to learn from. If your company has an internal success story, we recommend that you share it through your closest industry association to support wider industry adoption. Furthermore, we recommend that industry associations support their members with targeted education on the preparation and implementation of carbon pricing.

In this process, we recommend that organisations move beyond the reporting and compliance mindset by taking the time to clearly articulate the benefits of implementation. Communicating benefits such as stronger tenant demand and retention in sustainable buildings, the enablement of wider corporate goals, and greater investment in sustainable innovation will encourage the wider industry to adopt carbon pricing.

### Taking a targeted approach to stimulating adoption – communities of practice

Throughout the industry workshops and one-to-one meetings that made this work possible, the biggest insight was that each company context is different and ultimately relies on deep stakeholder engagement and a hands-on, test-and-learn approach. To support this, we recommend inviting the key cornerstone companies in the industry to join a community of practice for the course of one year, to work together on the practical steps it takes to implement a carbon price. These companies can work in parallel to others in the industry and pool learnings to help advance practice. The non-confidential insights

of this community of practice can be shared to support the wider industry. If you are interested in participating, please contact [sophie.chick@uli.org](mailto:sophie.chick@uli.org).

Building upon this more specifically, it is acknowledged that for some organisations, particularly those with a diverse and large range of activities or geographies, applying carbon pricing can be challenging because of the level of complexity. For example, many investors – by design – have a diverse portfolio of building types, located in diverse jurisdictions and geographies. They could also have chosen to focus strategically on developing new assets, retrofitting, and/or managing existing assets, depending on their business model. They could also have a combination of different asset classes, such as debt and equity. Moving beyond a uniform internal carbon price, and considering the interaction between internal/external prices more deeply could be considered as future steps.

### Supporting adoption with indirect demand signalling

These principles will initially be supported by seven industry organisations, EPRA, GREEN, IIGCC, INREV, RICS, ULI Europe, and WBCSD. Further supporting and endorsing organisations include C40, CRREM and GRESB. As part of the next phase of this work, we recommend integrating these principles into a wider group of membership organisations and, where possible, integrating them into existing or future guidance/recommendation notes for the industry.

### Policy sandboxing

Ultimately, with enough stakeholders supporting the adoption of carbon pricing internally, a united message needs to reach local, national, and regional municipalities and governments – a message that the industry is ready and willing to accept a carbon price. We recommend supporting a number of municipalities in learning from existing case studies such as national or regional implications within the [EU-ETS](#) as well as [Utrecht](#) and [New York](#), to adapt and trial in their own regions, as well as share learnings for the wider industry.

# Appendix

## The C Change programme, context and background

[C Change](#) is a ULI-led programme to mobilise the European real estate industry to decarbonise. Created in 2022, it focuses on working with industry stakeholders to identify, co-create, and scale solutions to some of the biggest barriers to decarbonisation for the industry.

Carbon pricing was first identified as a critical [intervention point](#) for reducing emissions across real estate as part of the C Change programme in 2022 for its pivotal role in helping organisations more closely align their financial and climate goals. At the same time, it was also featured in the [Transition Risk Assessment Guidelines](#), published in 2023.

In 2023, in response to rising interest from senior leaders, carbon pricing featured in the [Global Emerging Trends in Real Estate](#) report, and extensive multi-stakeholder research was conducted to identify the barriers and opportunities to accelerate the adoption of carbon pricing in the industry. Over the course of the year, three multi-stakeholder workshops involving more than 75 stakeholders with more than 40 one-to-one meetings helped identify the root causes of slow progress in the sector and the clear need for a coordinated approach between industry associations to help accelerate adoption.

As a result, in 2024, a [new industry task force](#) representing the full value chain of the real estate sector, comprising EPRA, GREEN, IIGCC, INREV, RICS, ULI, and WBCSD, was set up to achieve the following objectives:

1. Create a united recommended approach for internal carbon pricing for the full real estate value chain
2. Reduce fragmentation by ensuring that key industry associations co-create and co-own the findings/recommendations
3. Accelerate the uptake of internal carbon pricing in the industry to a critical mass

To achieve this work, two workstreams were designed to support different stakeholder groups:

1. The experts: those who had already implemented a carbon price and could help share their experiences and learnings to support the wider industry
2. The practitioners: those who were interested in exploring or implementing an internal carbon price, but didn't know how to deliver it

The experts workstream focused on downloading the expertise of these leaders to help co-create a set of universal principles grounded in industry practice. Three carbon pricing workshops were held with leading practitioners who were already implementing a carbon price, as well as multiple dialogues with a range of experts from across the industry.

The practitioners workstream focused on building the capacity of practitioners through a series of webinars focused on understanding and implementing internal carbon pricing on the ground. This was achieved by learning from case studies of best practise from across the real estate sector and other industries, and practitioners' feedback and needs were fed into the expert workstream and was attended by 130+ individuals.

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Aneta Rusiniak, Invesco Real Estate (Poland, Asset Manager)  
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