Embodied Carbon in Scope 3 Climate Disclosure

A Real Estate Perspective

Session Objectives

1. Introduction to embodied carbon in corporate Scope 3 climate disclosure
2. Motivations for reporting Scope 3 emissions
3. Strategies for portfolio-wide embodied carbon accounting
4. Current market insights on embodied carbon in real estate

Speakers

Stacy Smedley
Building Transparency

Becca Timms
Jamestown LP

Kara Kokernak
Urban Land Institute

Anish Tilak
RMI

Agenda

- Presentation on Embodied Carbon in Scope 3 Climate Disclosure — 30 mins
- Real Estate Panel Discussion – Current Market Status & Progress — 20 mins
- Q & A / Conclusion — 10 mins

RMI's Embodied Carbon Initiative seeks to create a Zero Embodied Carbon Buildings Sector

POLICY
Drive demand for low carbon materials through policy

CONSTRUCTION
Support homebuilders and commercial real estate build with low carbon materials

INVESTMENT
Provide economic value and accelerate corporate investment in low carbon construction

HomebuildersCAN will support homebuilders to:

INCREASE PERFORMANCE

Increase embodied carbon performance and share your successes

PROFITABLE PRACTICES

Adopt and scale profitable low-carbon building practices

SECTOR ALIGNMENT

Advocate for alignment across the residential building sector

- Standardize approaches and reporting for integrating embodied carbon into **ESG reporting,** incentive programs, and regulator needs
- Advocate for the inclusion of embodied carbon performance in **financing mechanisms**
- Develop approaches for integrating embodied carbon into energy efficiency & green building programs

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Primer on Scope 3 Climate Disclosure

What is Climate Disclosure?

How am I contributing to climate change?

How will climate change impact my business?
(operations, profitability, etc.)

What is Climate Disclosure?

How am I contributing to climate change?

★ **Investors & regulators are seeking climate-aligned business practices**

Categorizing GHG Emissions Impacts

- **Scope 1 –** Direct emissions
- **Scope 2 –** Indirect – purchased energy
- **Scope 3 –** Indirect emissions

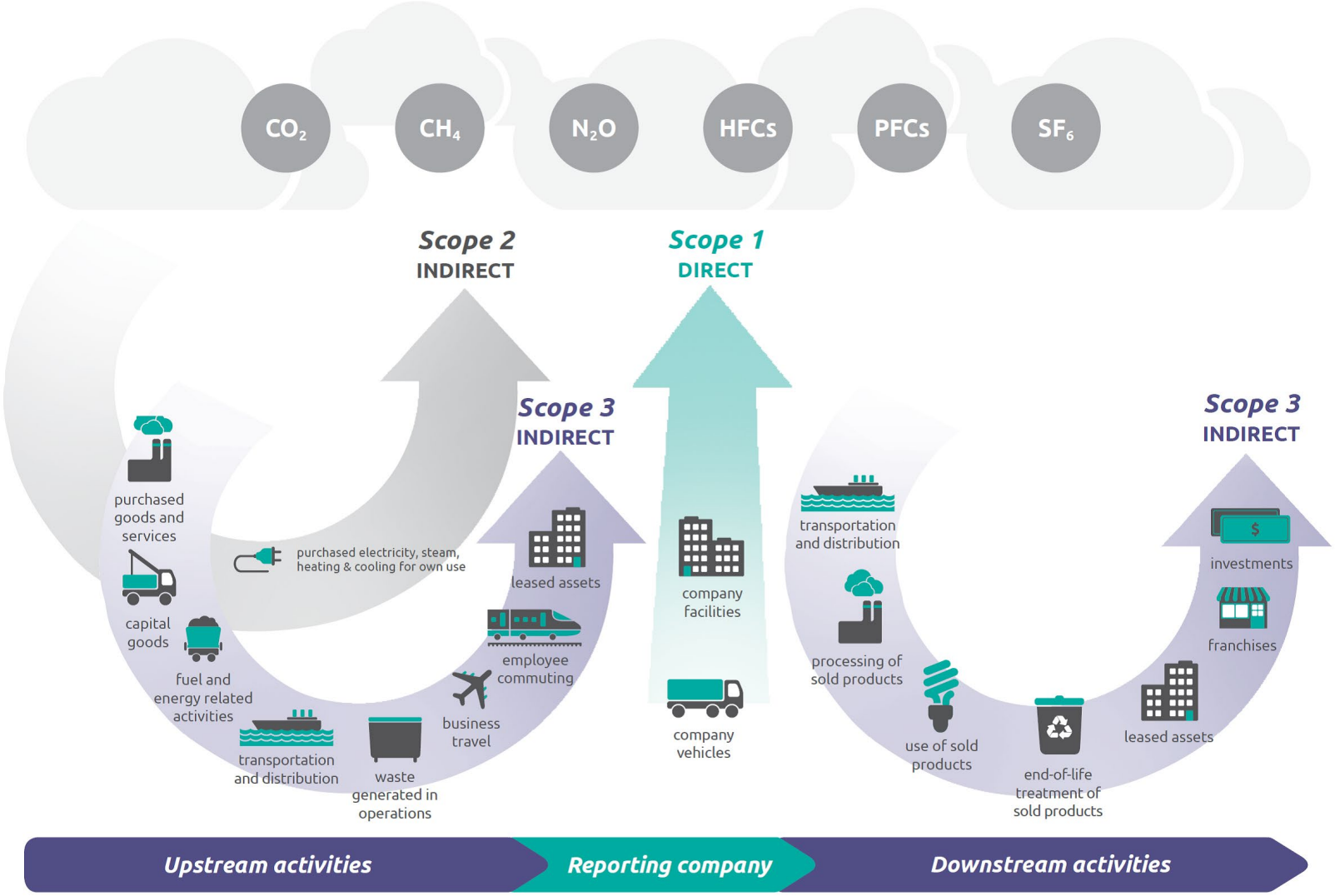

Image Source: GHG Protocol

Real Estate Scope 3 Emissions

- **Purchased goods**
- **Capital goods**
- **Business travel**
- **Employee commuting**
- **Leased assets** (e.g. tenant operational emissions)
- **Leased assets** (tenant fit outs)
- **Waste generated in operations**
- **End-of-life treatment of sold products**

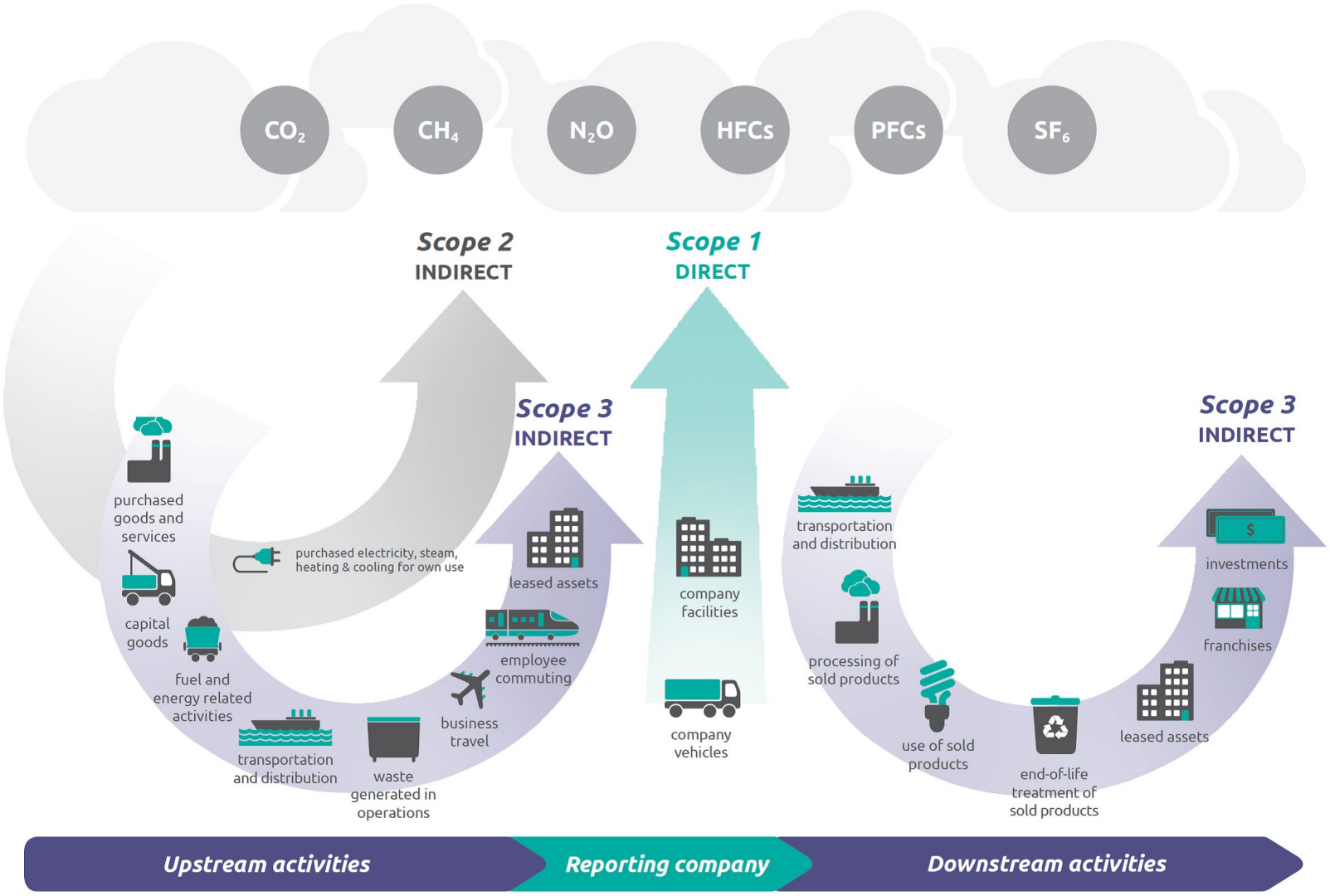

Image Source: GHG Protocol

What is Embodied Carbon

- **Emissions from building materials manufacturing, construction, maintenance, and disposal**

- Excludes operational energy emissions

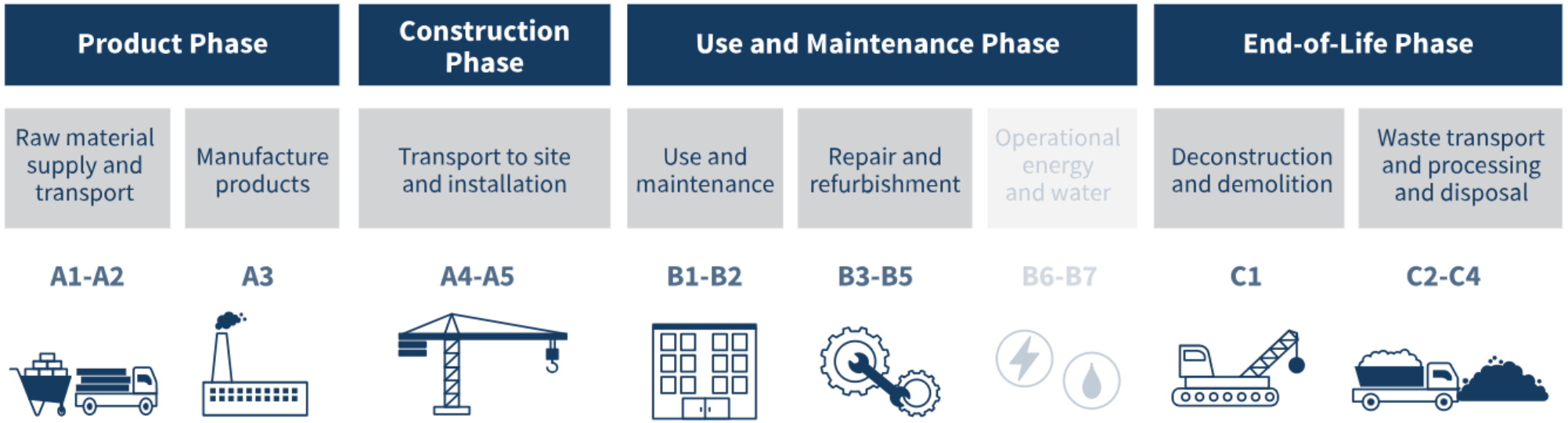

Image Source: RMI

Embodied Carbon in Real Estate Scope 3 Emissions

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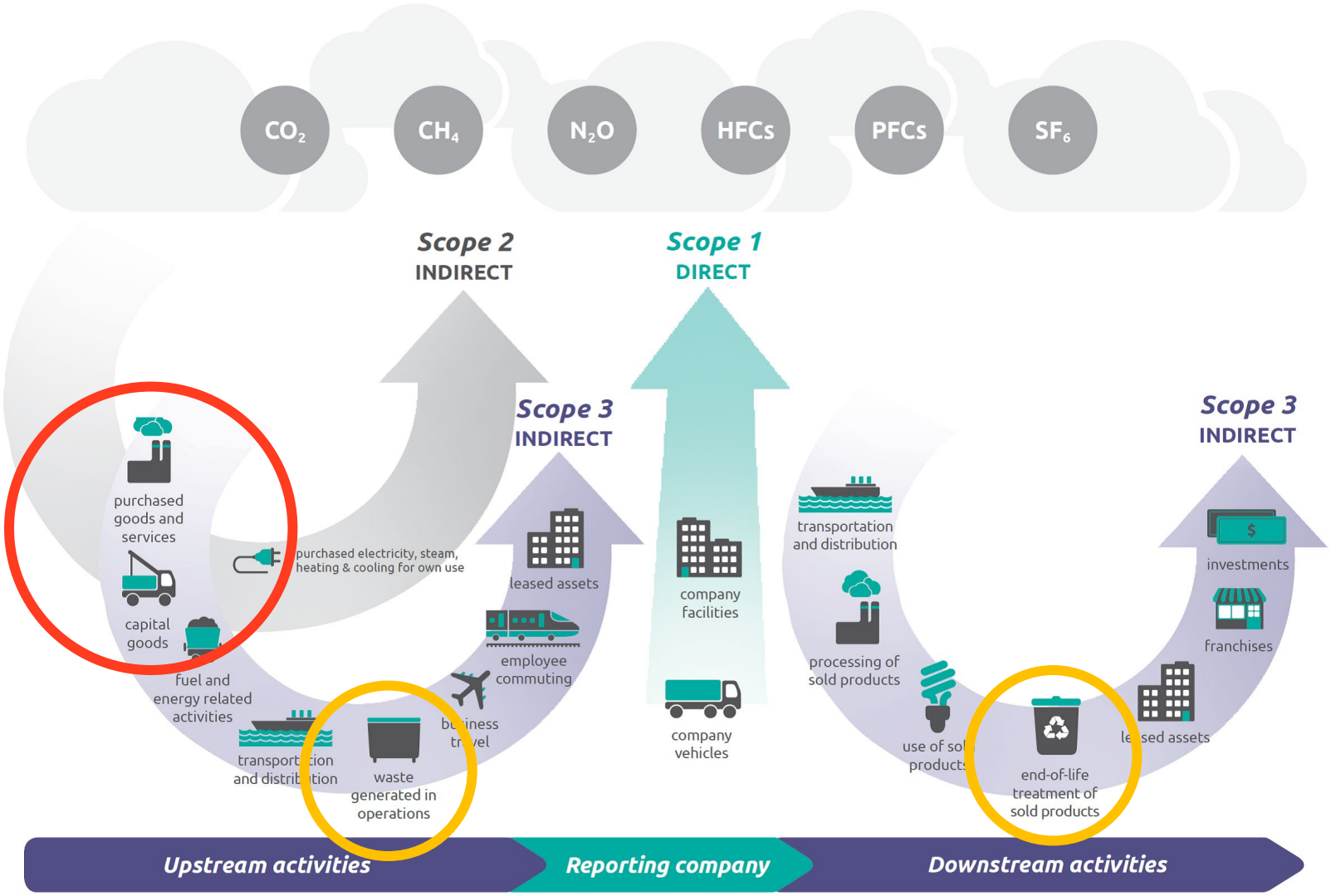

Image Source: GHG Protocol

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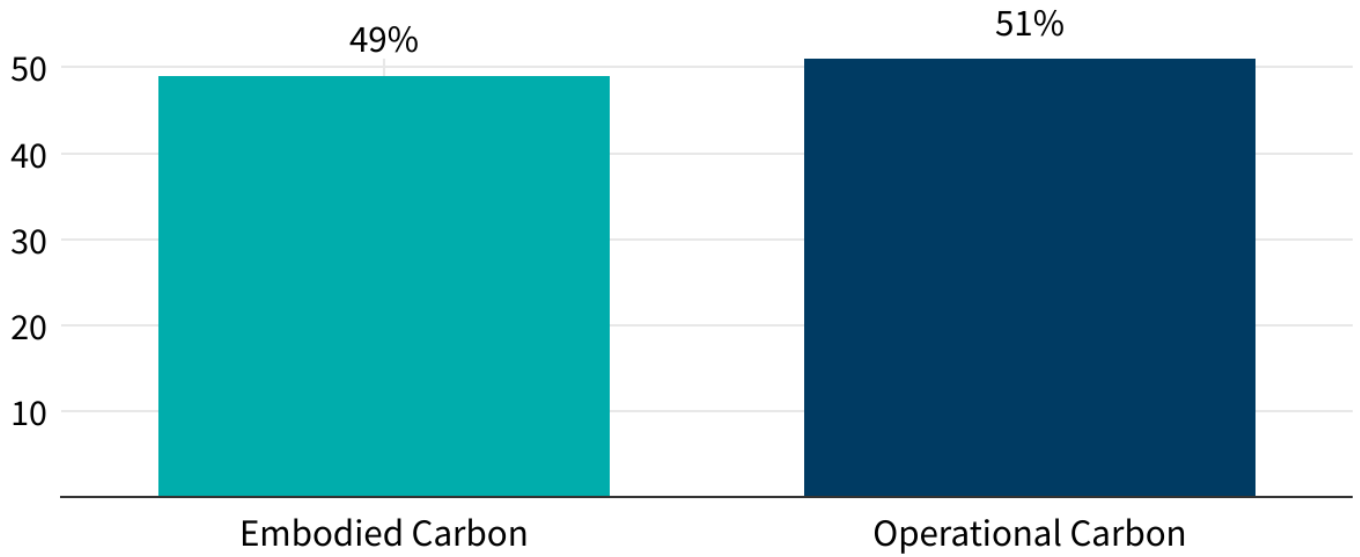
Why Embodied Carbon?

Tackling embodied carbon is critical to getting ahead of future emissions

Total Global Emissions of Global New Construction from 2020-2050

Business as Usual Projection



Data from IEA, originally drawn by Architecture 2030

Source: IEA, 2019

RMI

By 2050:
Embodied carbon will account for almost **half the total carbon emissions** from global new construction

Real Estate Sector - Characterization of Scope 3 Impacts

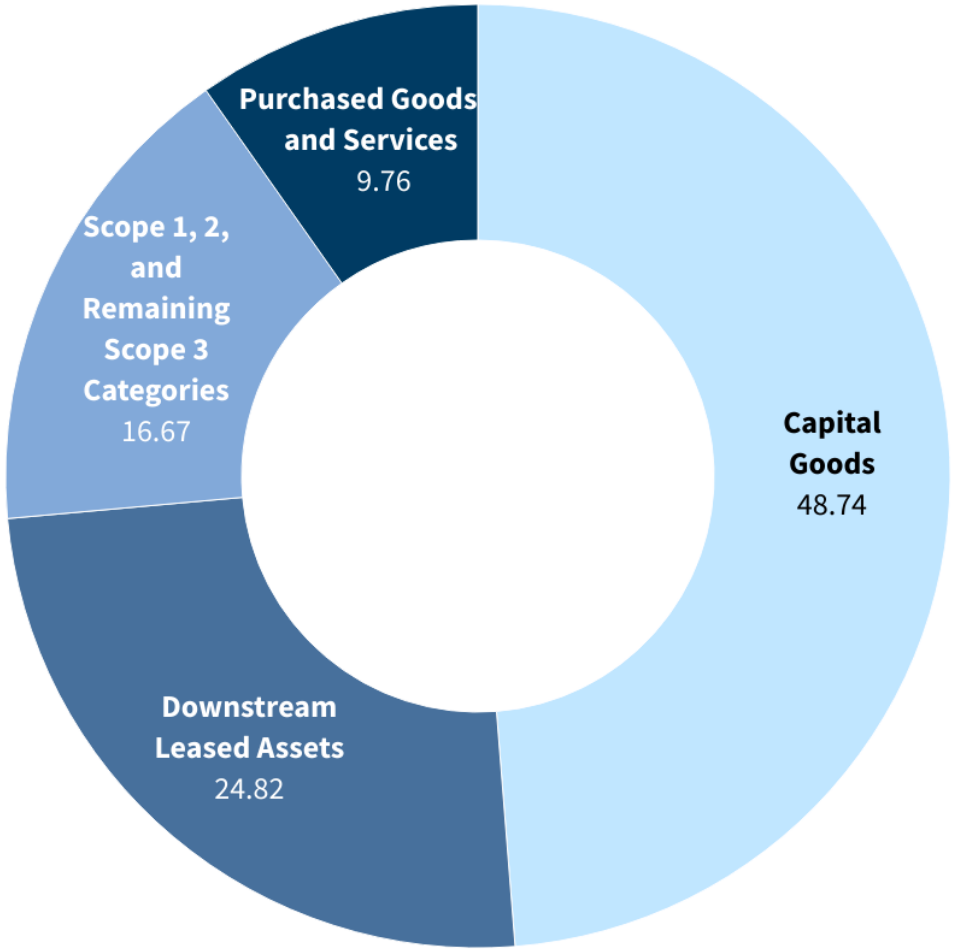


Chart: RMI • **Source:** CDP

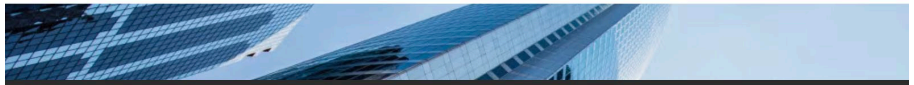
Capital goods contribute 49% of the real estate sector's GHG emissions impact.

Reporting on building materials and construction emissions is crucial yet overlooked in Scope 3

pwc

Industries Services Issues About us

PwC Global > Services > Sustainability services > Research and insights > Making the transition to net zero



What is the big news at COP26 for ESG reporting?

Bloomberg Law News

Voluntary ESG Rules Reframed to Fit Global Reporting Standards

The International Sustainability Standards Board published changes Wednesday designed to make the voluntary rules underpinning its global...

Dec 20, 2023

ETF Trends

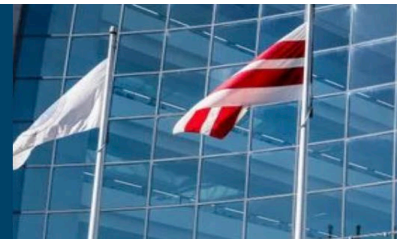
Positive News Emerges on ESG Reporting

If there's one thing that's hindered adoption ESG it is lack of clarity and uniformity surrounding ESG disclosures and reporting.

Nov 20, 2023

Regulatory bodies are moving towards standardizing ESG disclosures

Breaking news: SEC set to adopt climate disclosure rules on March 6



REUTERS®

World Business Markets Sustainability Legal Breakingviews

Sustainable Finance & Reporting | Industry Insight | ESG Investors | Boards | Climate Change

ESG Watch: Investors hail end to ‘alphabet soup’ of sustainability disclosure with new ISSB standards

California + Europe Reporting Rules

- **European Union –** Corporate Sustainability Reporting Directive (CSRD) Scope 3 emissions reporting required

- **California –**SB 253 requires companies with revenues exceeding $1 billion to report Scope 3 emissions starting in 2027 (Scope 1 & 2 starting in 2026)

Major ESG-focused investors and organizations are advocating for Scope 3 accounting

Engaging with companies to disclose Scope 3 emissions as part of its ESG-focused efforts.

BlackRock®

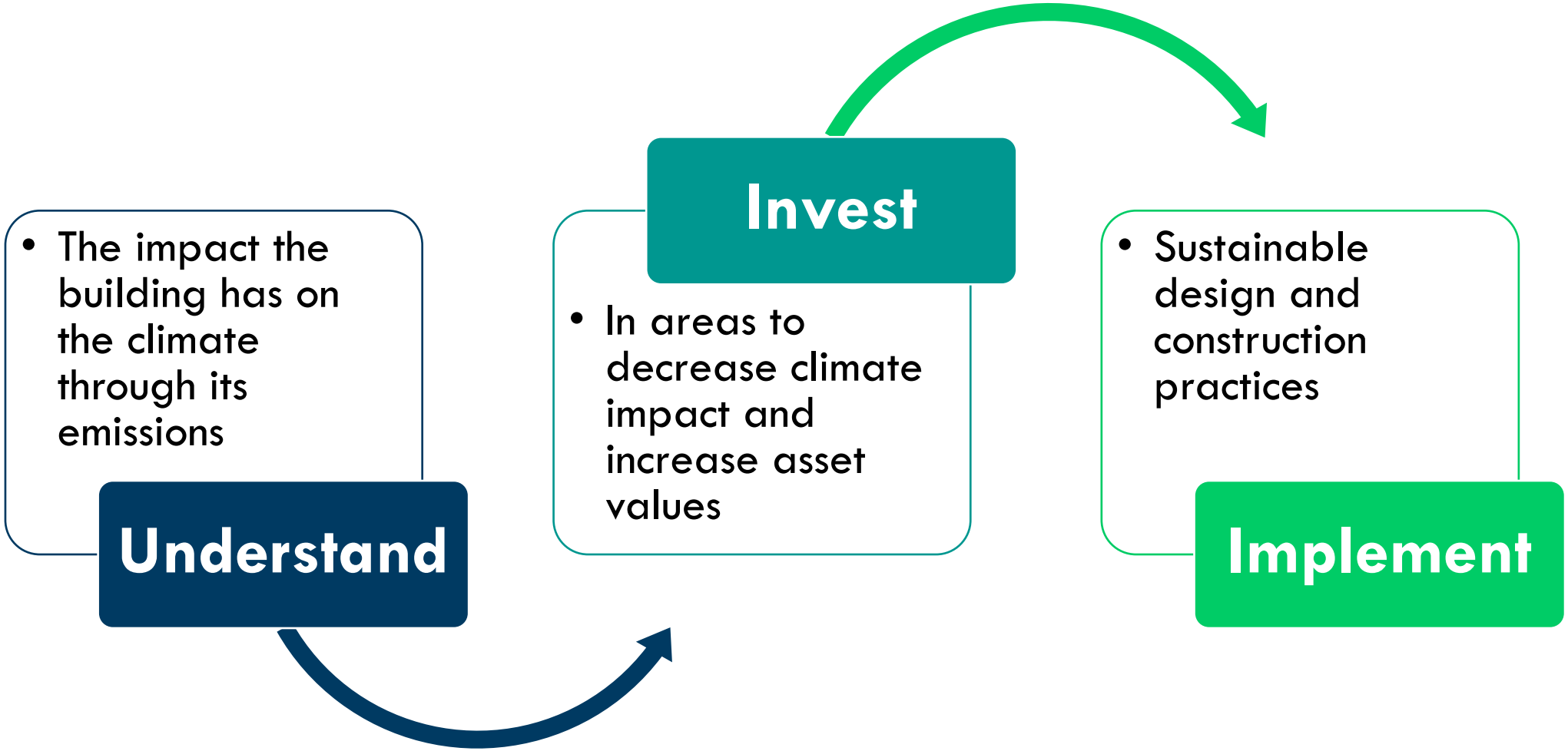
Urging companies to disclose Scope 3 emissions and set reduction targets.

STATE STREET GLOBAL ADVISORS

Actively pushing for Scope 3 accounting among its portfolio companies.

CalPERS

Climate disclosure creates a path to mitigating climate change while providing economic value



Varying Standards and Methodologies (Resources)

Greenhouse Gas Protocol (GHGP)

- Global standardized framework for GHG emissions.
- Complexity in application across sectors.

CDP (Climate Disclosure Project)

- Environmental impact reporting framework.
- Sector-specific questionnaires add to reporting complexity.

Sustainability Accounting Standards Board (SASB)

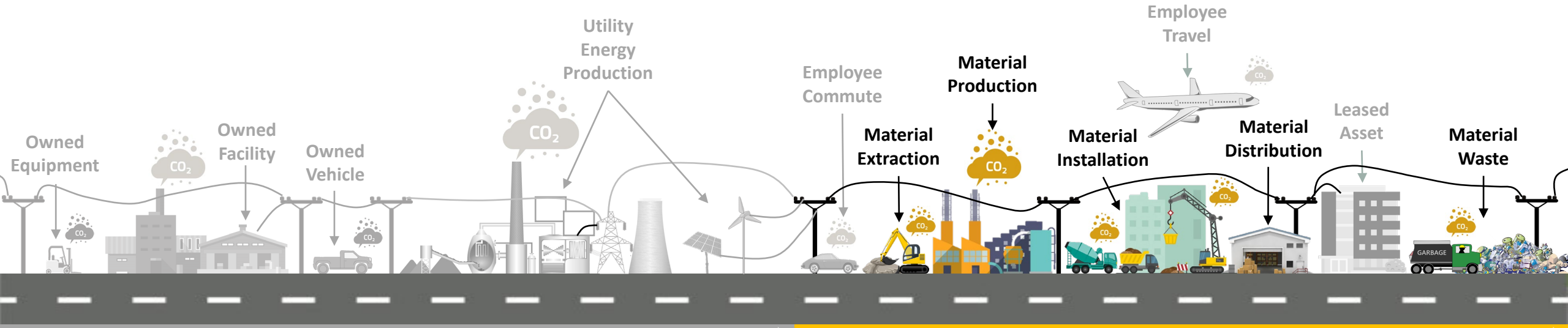
- Industry-specific sustainability reporting standards.
- Leads to different reporting practices across sectors.

Task Force on Climate-related Financial Disclosures (TCFD / ISSB)

- Focuses on financial risks and opportunities from climate change.
- Different emphasis compared to environmentally focused standards.

Building Transparency

Understanding Scope 1, 2 and 3 emissions



Scope 1

Direct (Owned) Emissions

ONSITE facility emissions
direct combustion
OWNED equipment emissions
company owned vehicles/equipment

Scope 2

Indirect (Purchased) Emissions

PURCHASED facility energy
for electricity, heating/cooling, steam

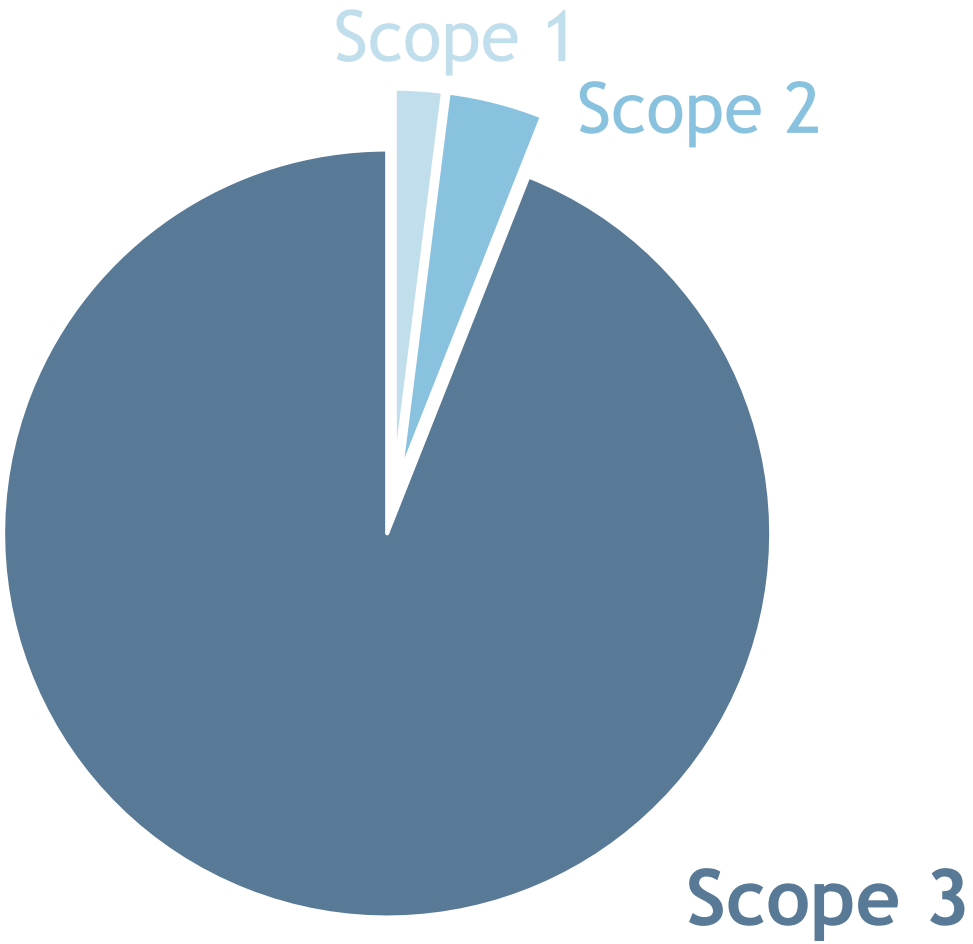
Scope 3

Other Indirect (Purchased) Emissions

EMPLOYEE emissions
travel, commuting
LEASED ASSETS emissions
operations of leased assets
SUPPLY CHAIN emissions
material extraction/production, purchased goods/services, sold goods/services, material waste

Graphic by Stacy Smedley, 2021

Scope 3 emissions include embodied carbon of construction materials



Skanska: 90 %

Source: 2022 Annual and Sustainability Report

Microsoft: 96.7%

Source: 2022 Environmental Sustainability Report

Building Transparency

Scope 3 accounting is currently flawed

$ spent on material **x**
average kgCO2e

= INACCURATE ACCOUNTING

quantity of material **x**
product specific kgCO2e

= ACTUAL EMISSIONS

Company X spends more to purchase a lower carbon product.

Using spend based accounting means their **reported Scope 3 emissions go up even though their actual emissions went down.**

Product specific emissions leads to accurate Scope 3 accounting.

Using verified product emissions factors and quantities of product purchased enables anyone to **report actual emissions and real reductions.**

Building Transparency

Understanding EPDs

Kg CO2e from Environmental Product Declarations

Nutrition Facts

Serving Size 2/3 cup (55g)
Servings Per Container About 8

Amount Per Serving

Calories 230 Calories from Fat 40

	% Daily Value*
Total Fat 8g	**12%**
Saturated Fat 1g	**5%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Sodium 160mg	**7%**
Total Carbohydrate 37g	**12%**
Dietary Fiber 4g	**16%**
Sugars 1g	
Protein 3g	

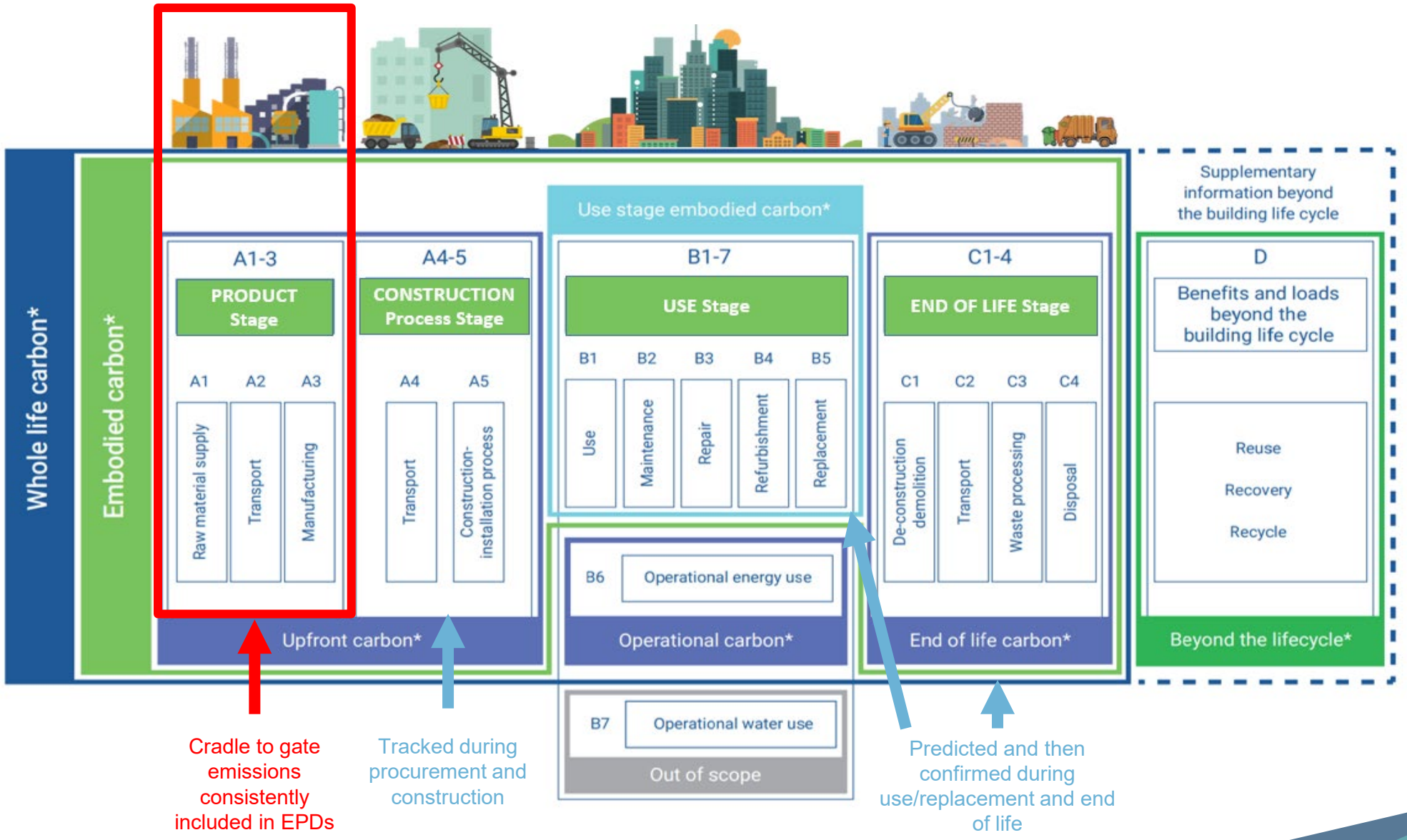
Life Cycle Impact Results (per m^3)
Declared Unit: 1 m^3 of 10,000 psi concrete at 28 days

OPERATIONAL IMPACTS	*PerformX™ PECC10K*
Plant Operating Energy (MJ)	38.6
On-Site Plant Fuel Consumption (MJ)	11.1
Concrete Batch Water (m^3)	1.68E-01
Concrete Wash Water (m^3)	1.91E-02
On-Site Waste Disposal (kg)	0.0
ENVIRONMENTAL IMPACTS	
Total Primary Energy (MJ)	3,017
Climate Change (kg CO_2 eq)	445
Ozone Depletion (kg CFC 11 eq)	1.31E-08
Acidification Air (kg SO_2 eq)	2.96
Eutrophication (kg N eq)	0.09
Photochemical Ozone Creation (kg O_3 eq)	0.61

An EPD = A 3rd party verified environmental impact nutrition label for a material/product.

Building Transparency

Understanding the stages of embodied carbon



Building Transparency

Standards are moving to realized Scope 3 accounting

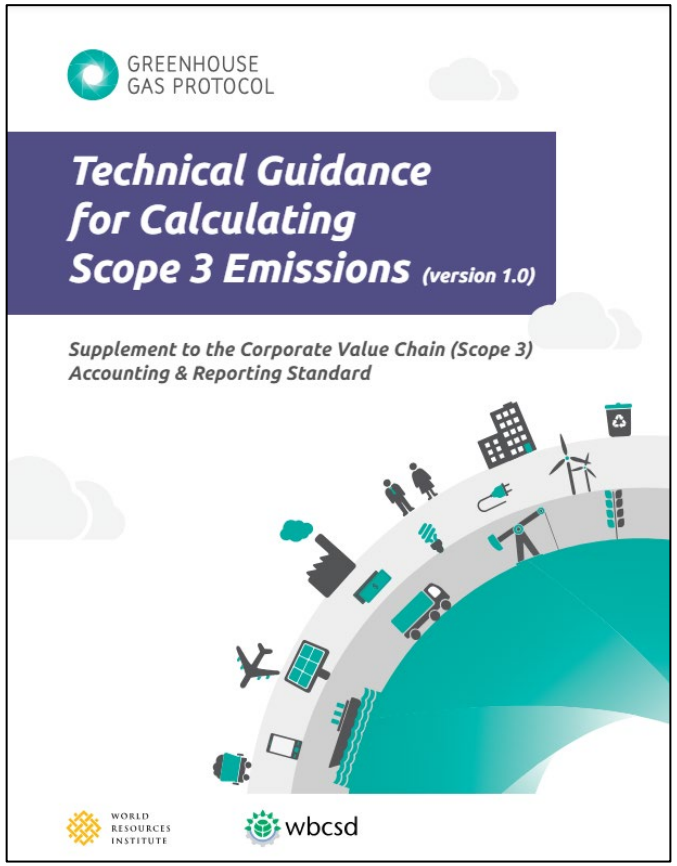
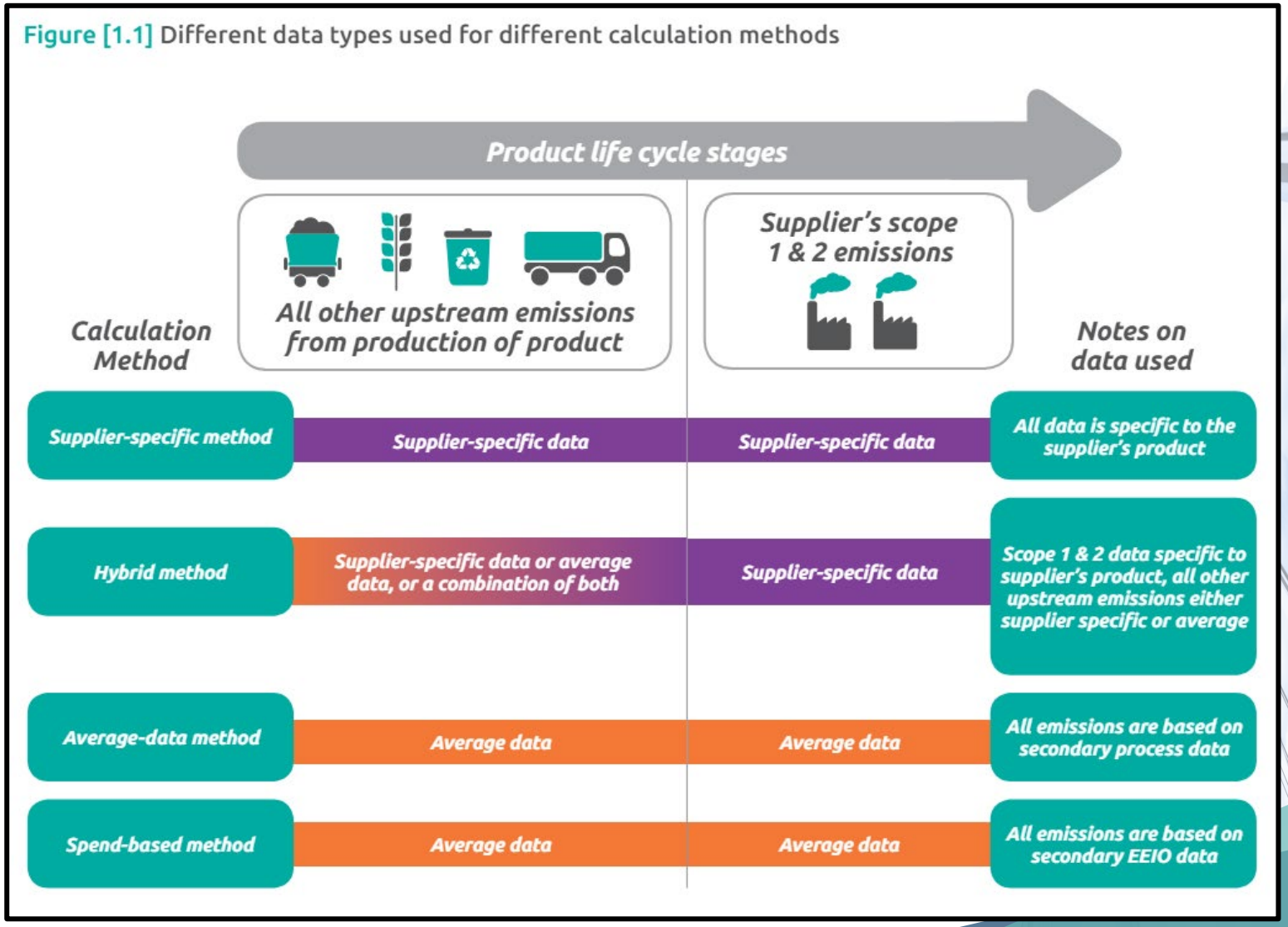


Figure [1.1] Different data types used for different calculation methods



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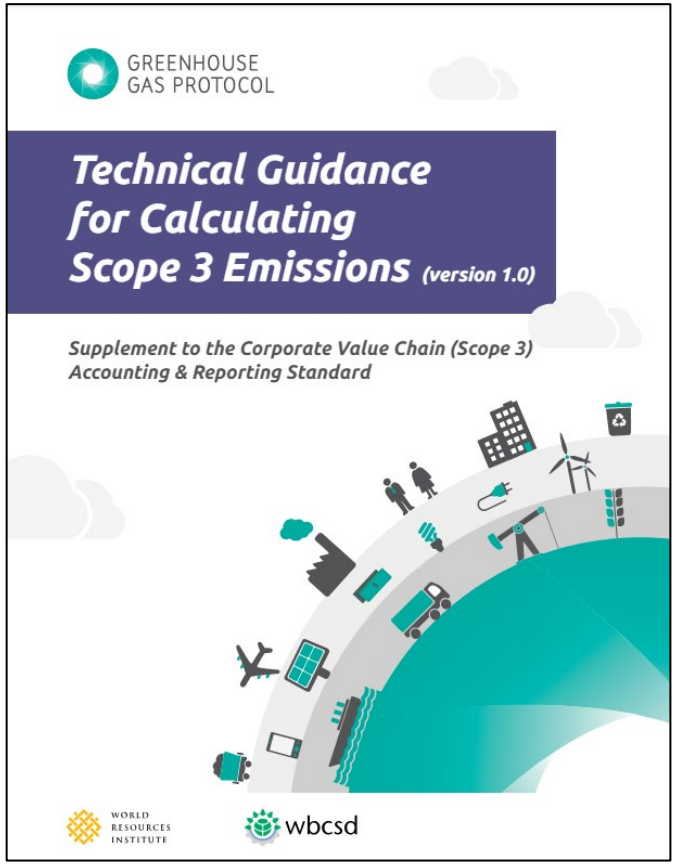

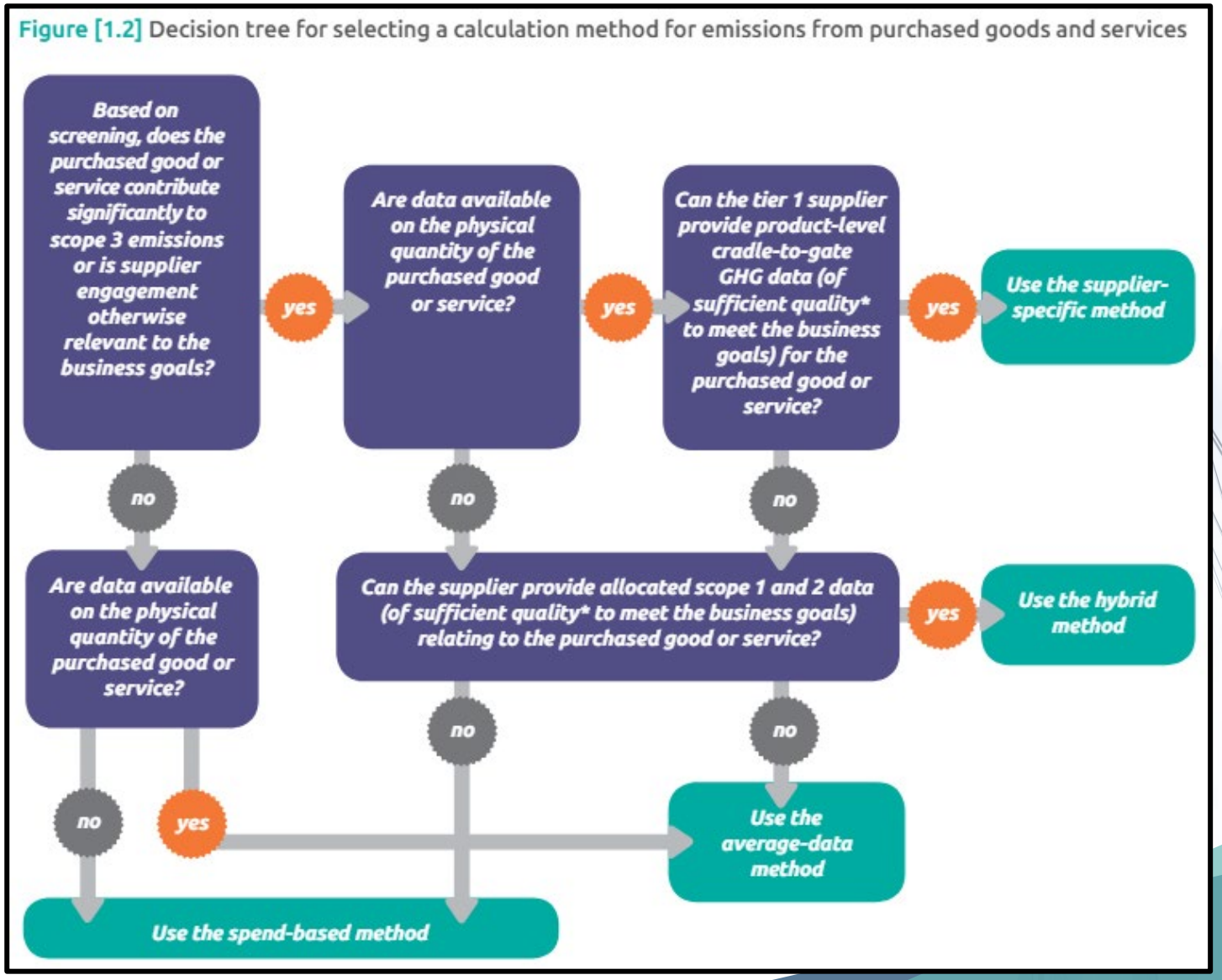

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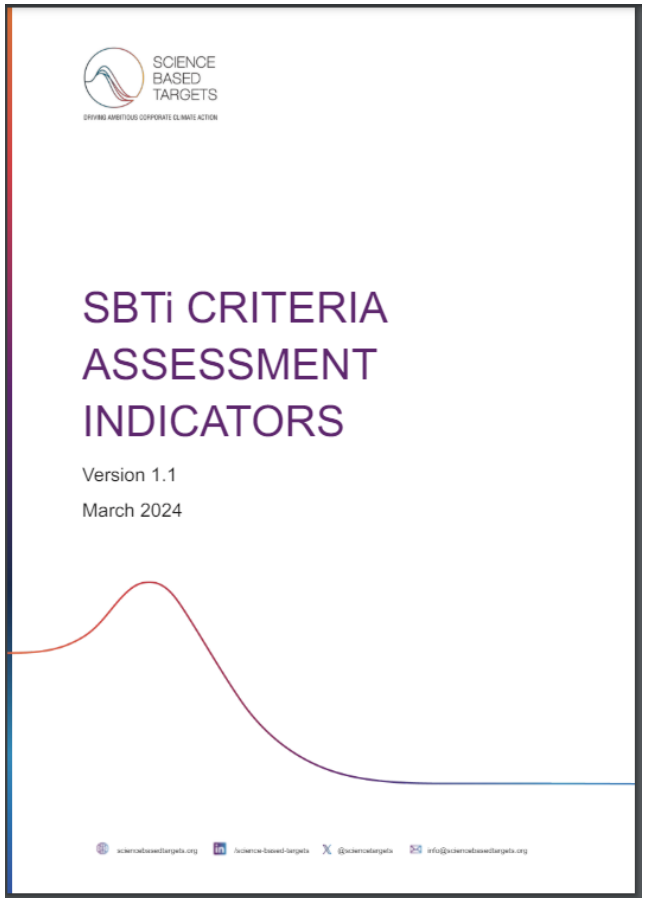
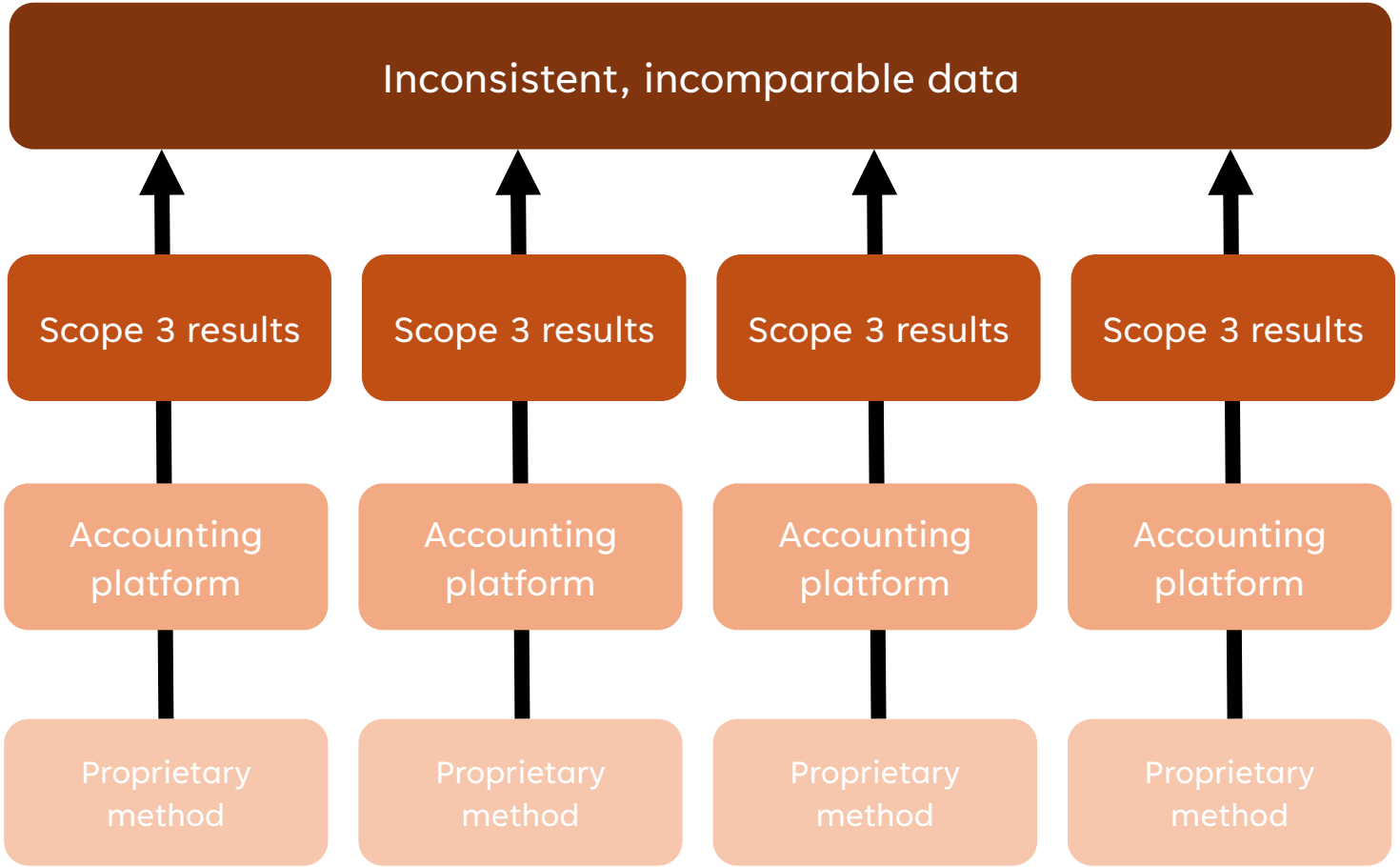


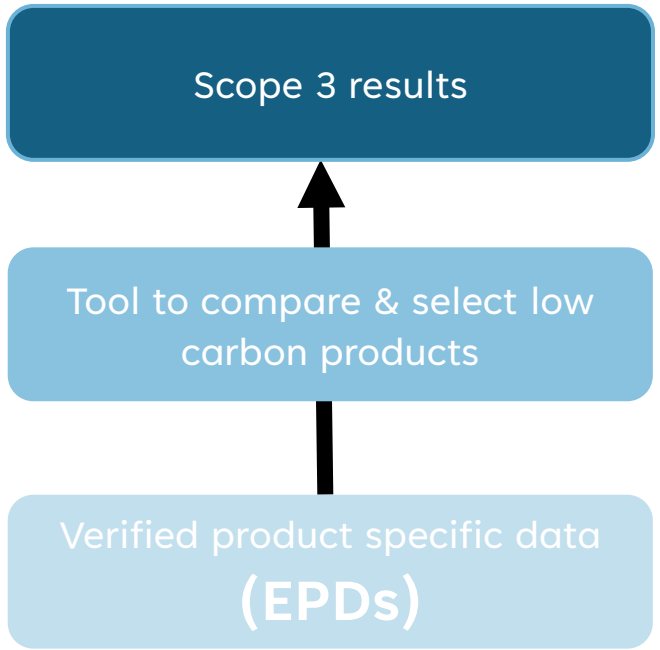
https://sciencebasedtargets.org/resources/files/SBTi-Criteria-Assessment-Indicators.pdf

Criteria Assessment Indicator	Applicability	Description	Minimum Documentation Required
2.3 Use of scope 2 quality criteria	GHG Accounting	Companies must follow the scope 2 Quality Criteria (Chapter 6 of the GHG Protocol Scope 2 Guidance) for market-based approaches as indicated in the GHG Protocol Scope 2 Guidance when reporting market-based scope 2 emissions.	Written confirmation in Question 2.8.3 of the submission form.
GHG C3 - Suitable GHG accounting scope 3 category 1: Purchased goods and services.			
3.1 Conformity to GHG Protocol minimum boundary	GHG Accounting	In category 1, companies must include all emissions associated with the extraction, production, and transportation (from tier-1 suppliers and beyond) of all goods and services purchased or acquired by the reporting company in the reporting year(s) in conformance with Table 5.4 of the GHG Protocol Corporate Value Chain Standard. Emissions must be reported using data that represents 100% of the purchased goods and services from the reporting year. All purchased goods and services must be included in the GHG accounting.	Provision of breakdown of Table 3.1 of the submission form.
3.2 Calculation methods	GHG Accounting	Companies must use calculation methods consistent with the GHG Protocol Technical Guidance for Calculating Scope 3 emissions. All emissions from purchased goods and services from the reporting year must be reported on a cradle-to-gate basis.	Provision of documentation of calculation methods, assumptions, data sources and related material in Table 3.1 of the submission form and confirmation that category 1 emissions are reported on a cradle-to-gate basis in Question 2.9.1.2 of the submission form.
3.3 Justification of aggregation	GHG Accounting	Companies must disaggregate emissions outside of the minimum boundary of category 1 unless data collection methods make this unachievable at the time of submission	Accurate disaggregation of all scope 3 categories, or written confirmation stating legitimate reason for

Building Transparency

The role of EPDs in Scope 3 accounting

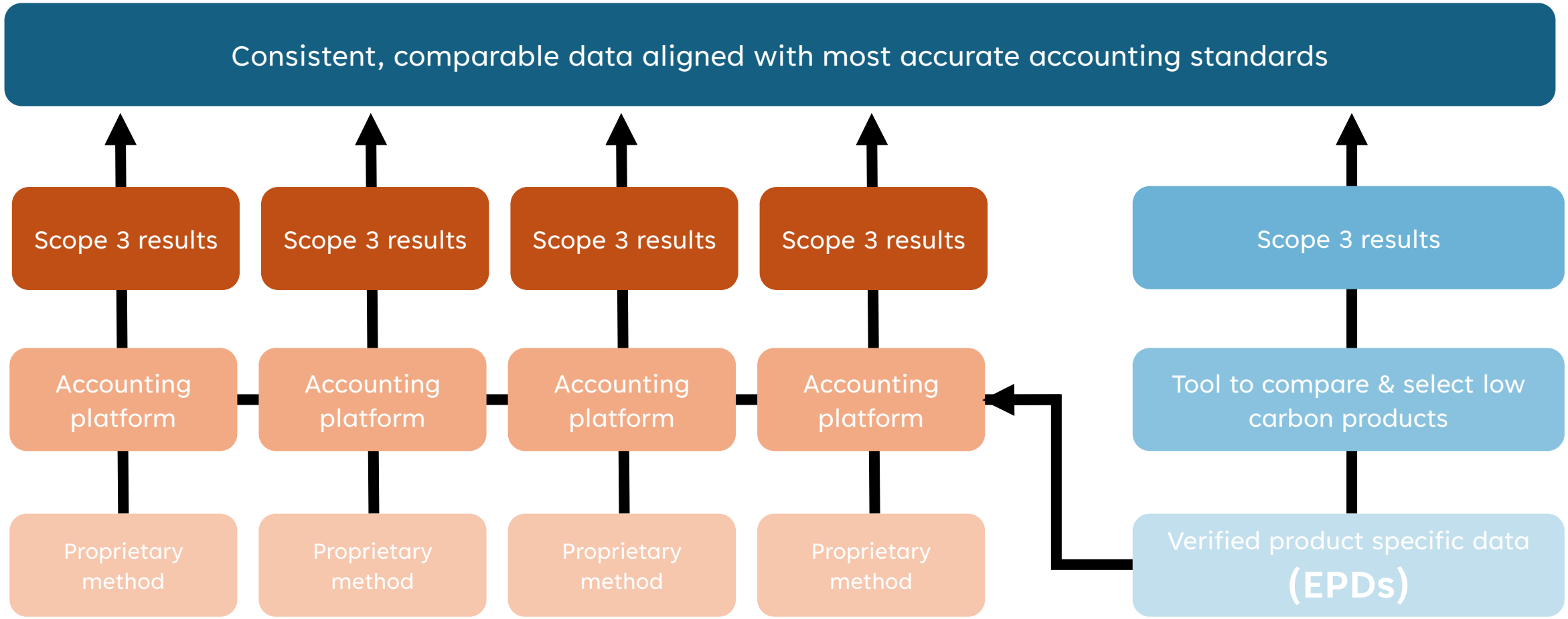




EC3

Building Transparency

The role of EPDs in Scope 3 accounting



EC3

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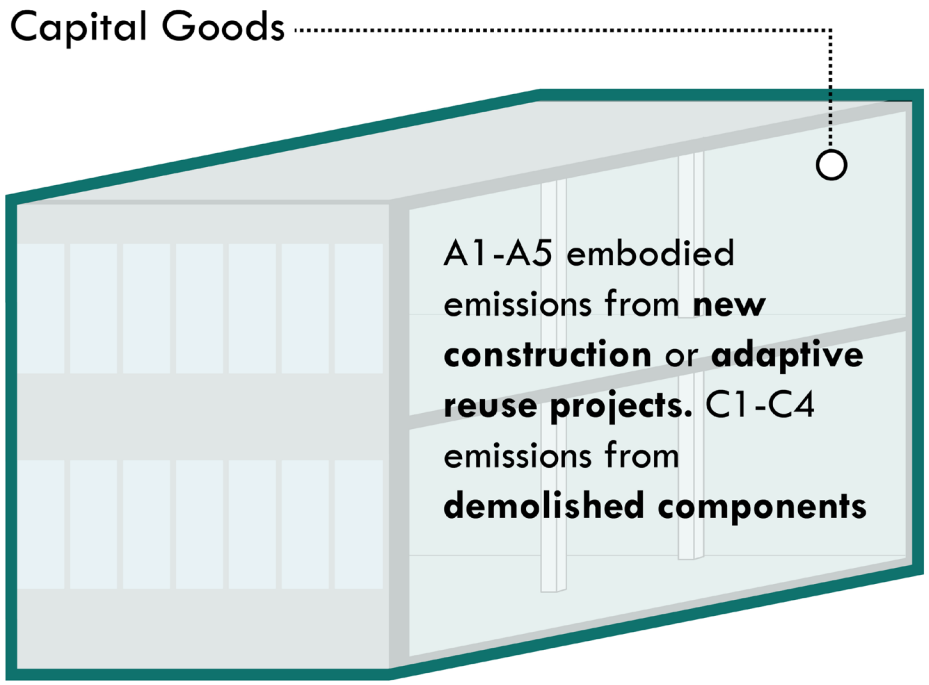
Standardizing the Reporting Process

Scope Boundaries

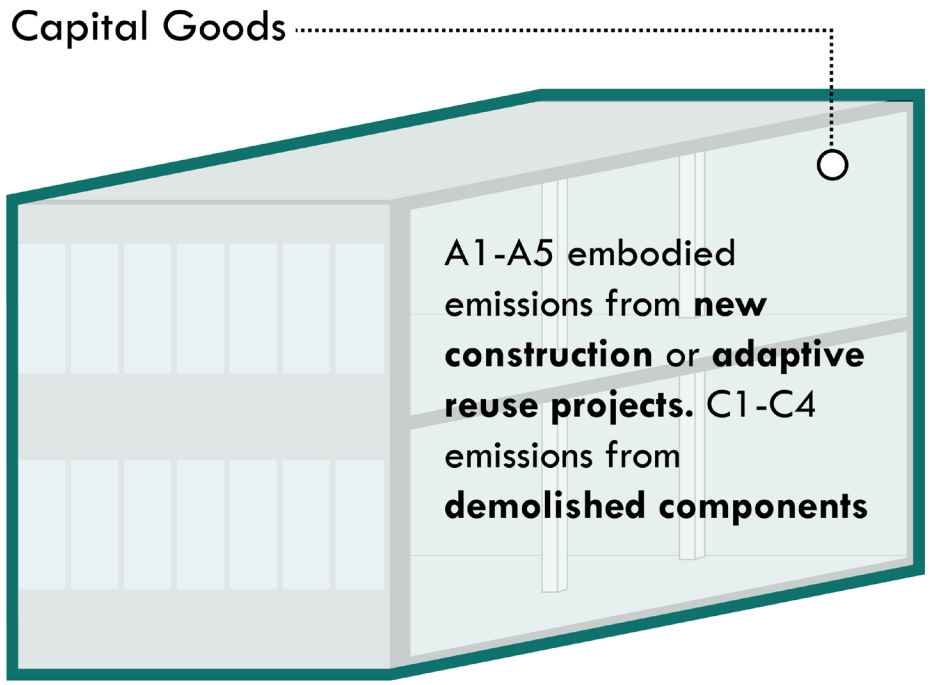
Material Categories

Scope Boundaries

Building Developer, Investor, First Owner

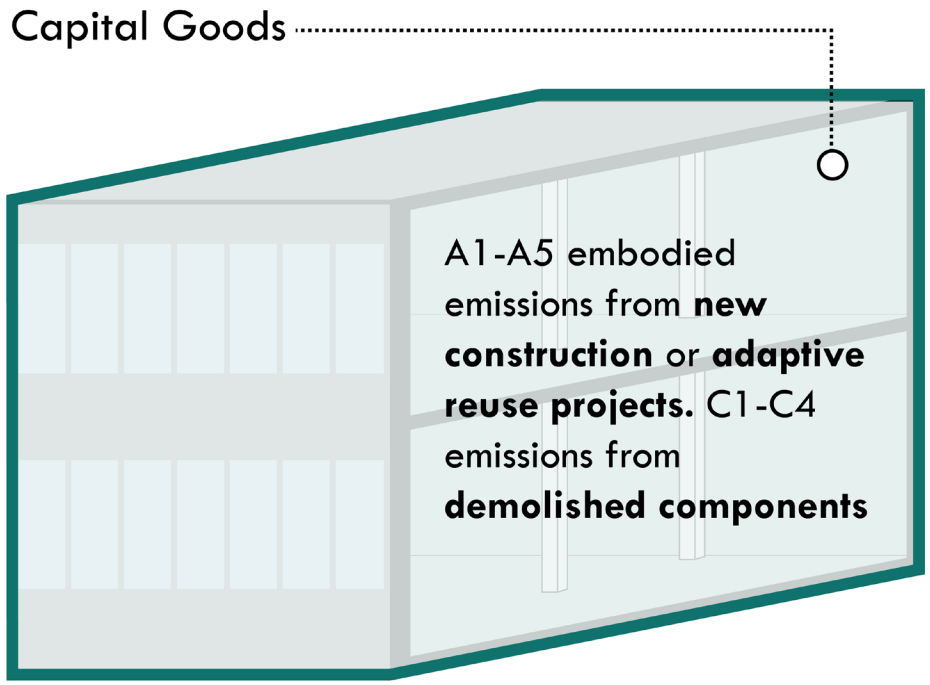


Building Developer / Owner – *At Point of Sale*



$ At Sale $ - **Estimated** end of life emissions for all materials should be included in GHG Protocol **Category 12: End-of-life treatment of sold products**

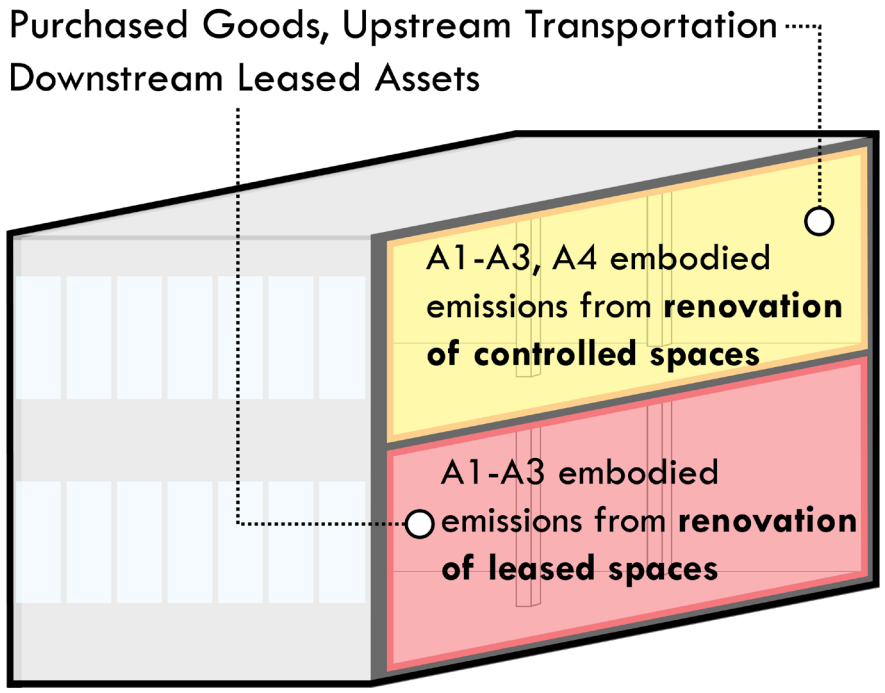
Building Developer / Owner

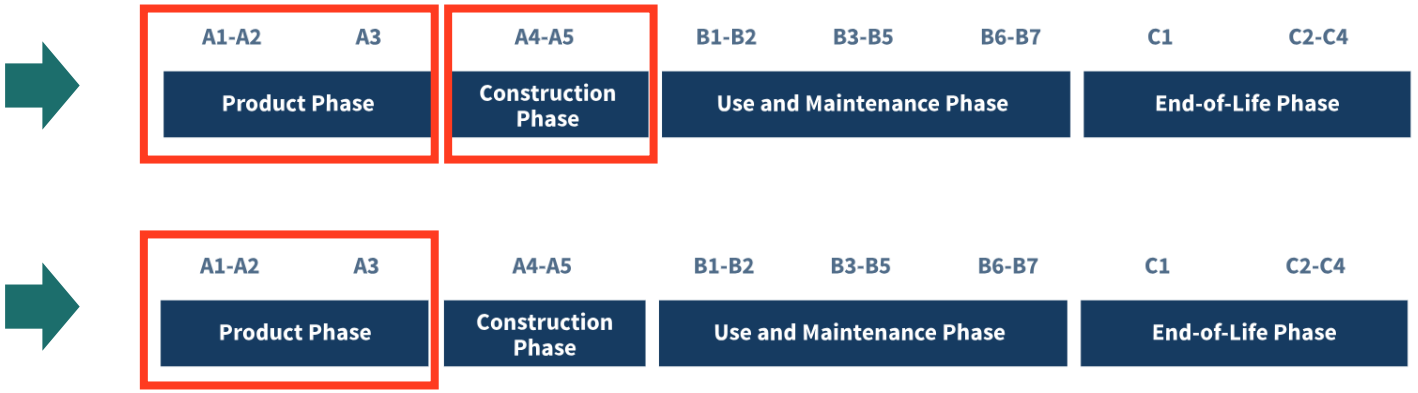


We recommend **whole-building lifecycle assessment (WBLCA),** with **product-specific EPDs,** for new construction projects

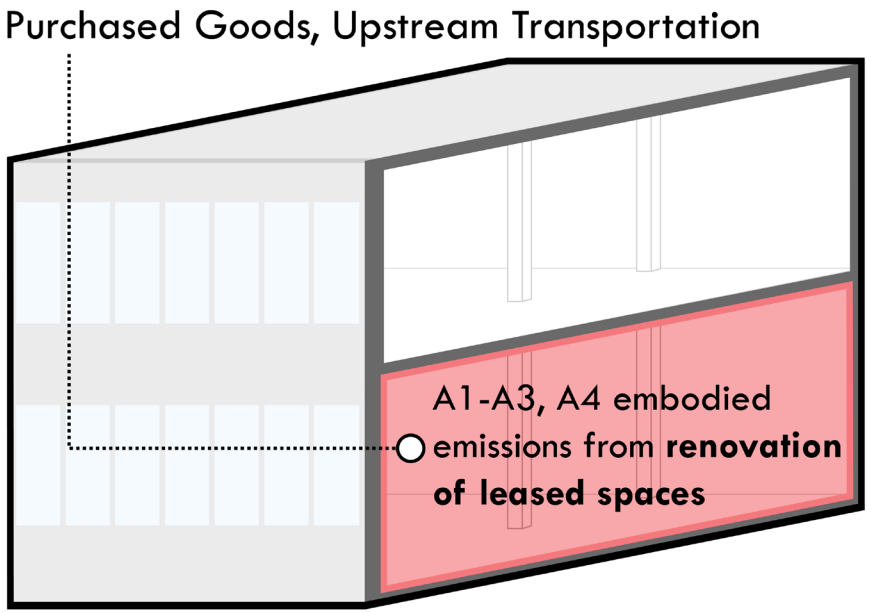
Extract relevant data for climate disclosure report

Existing Building Owner – Renovations, Maintenance

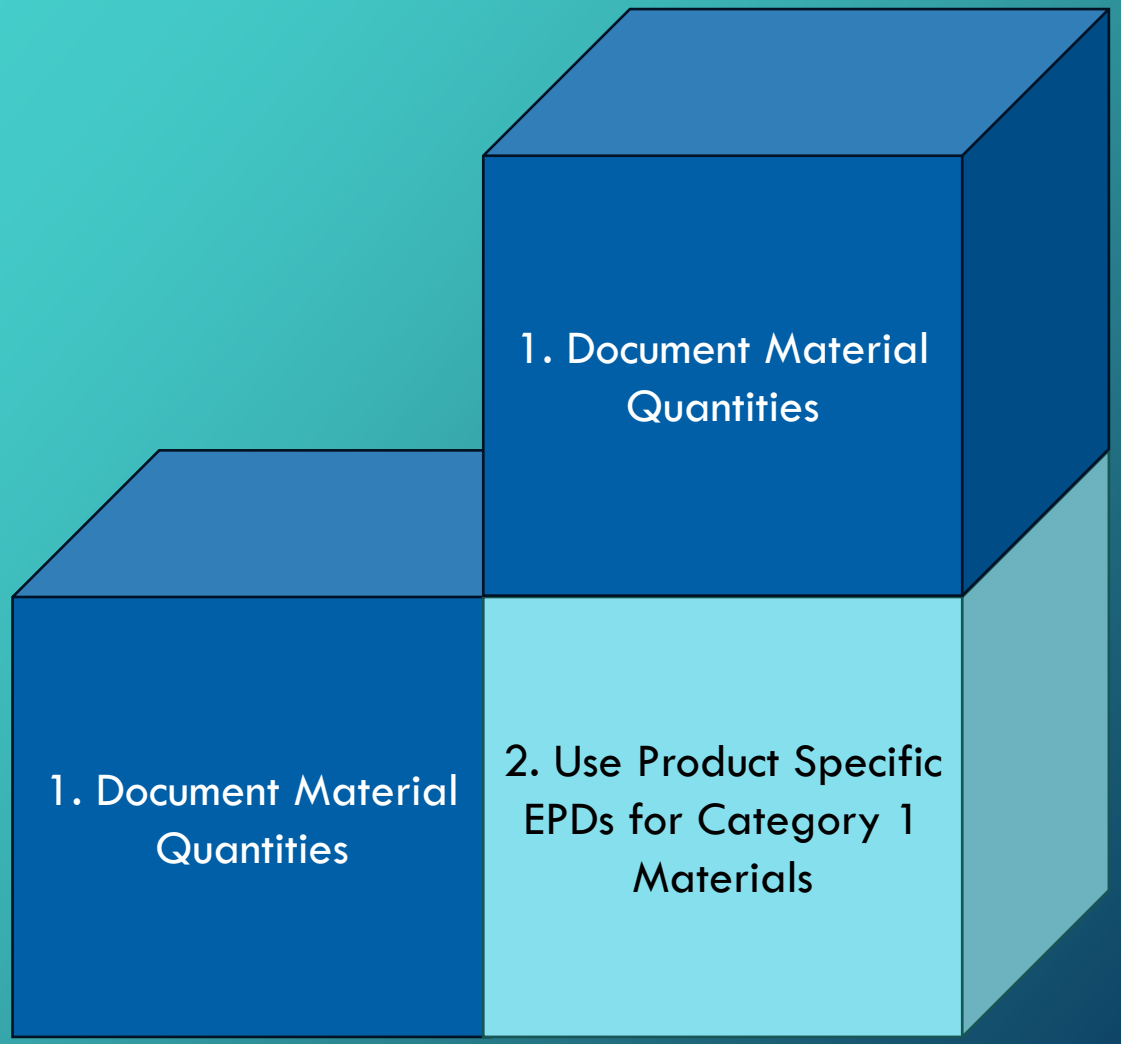




Tenant Fit Outs



Material Categories



Disclosing the Bare Minimum

Calculate material quantities

Use product-specific EPDs for Category 1 materials

Good: Product-specific EPDs for high-volume materials

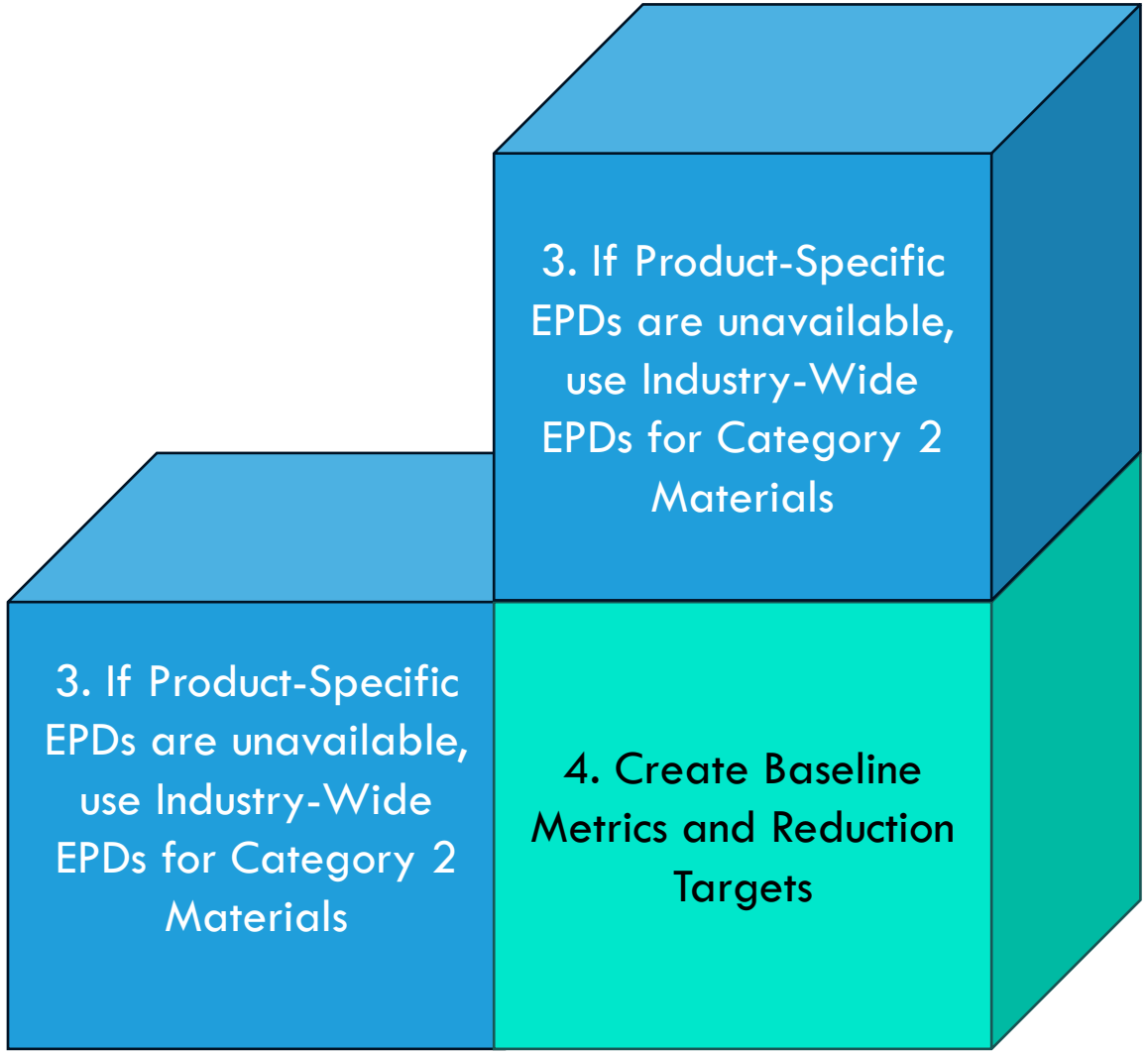
Product Specific EPDs

Category 1 Materials

- Concrete
- Structural Steel
- Thermal Insulation
- CMU
- Asphalt
- Processed Glass

Category 2 Materials

- Acoustic Ceiling/ Insulation
- Paint
- Carpet
- Aluminum
- Flooring
- Dry Wall



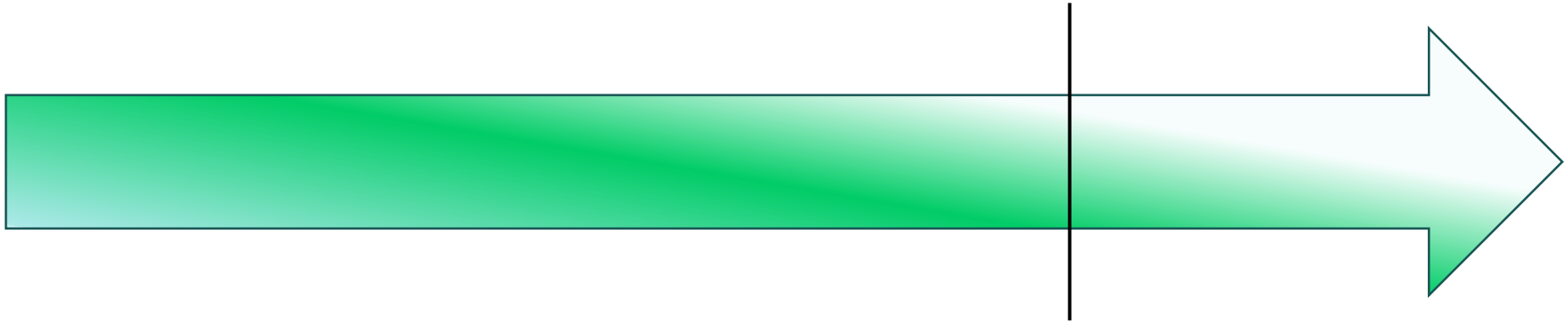
Next Steps

Use industry-wide EPDs when specific Category 2 ones are unavailable

Create baseline emissions data and reduction targets

Better: Product-specific EPDs for a wider set of materials

Product Specific EPDs



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Best: Achieve full mass-based disclosure using product-specific EPDs

Product Specific EPDs

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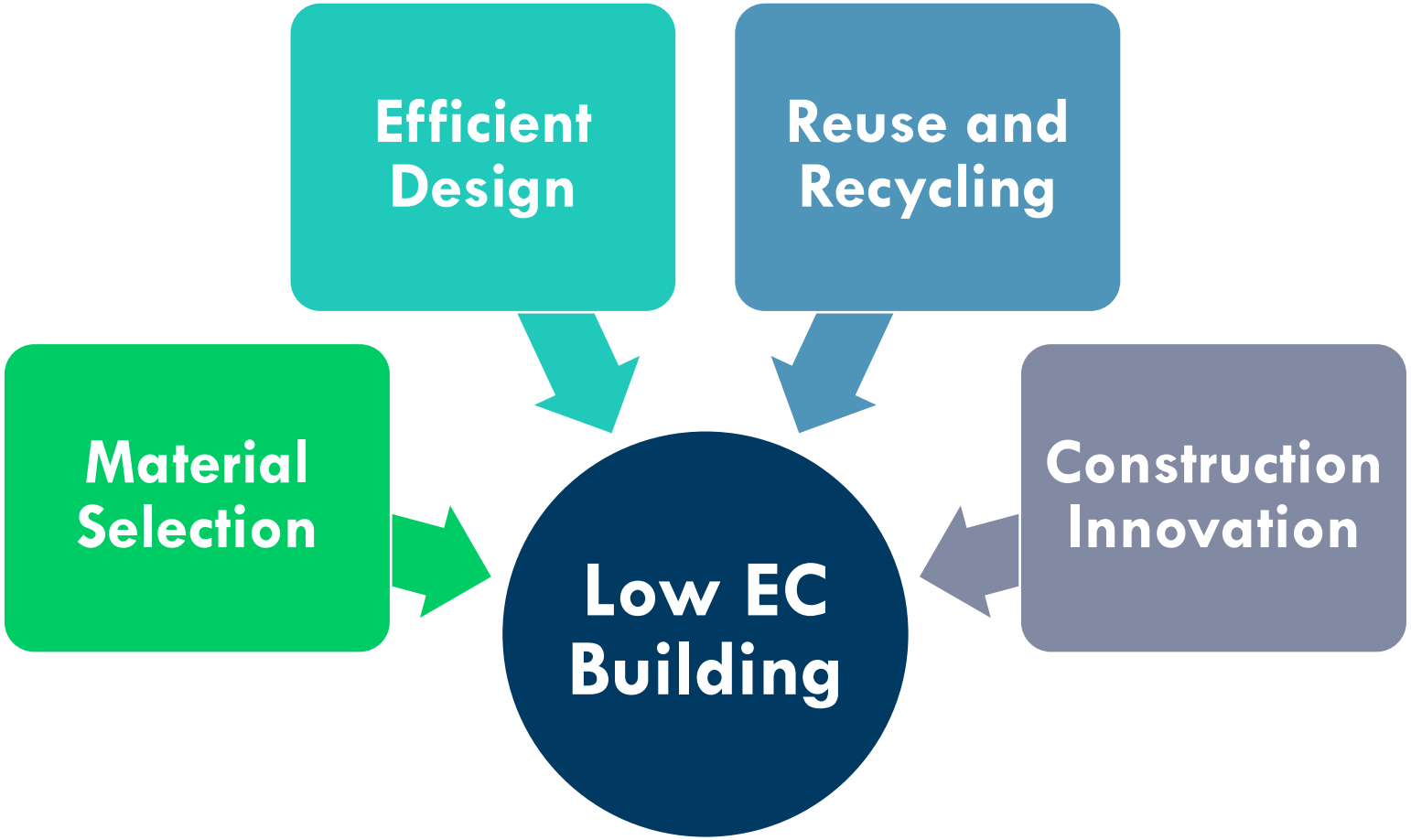
Strategies for Embodied Carbon Reduction



Using Standards to achieve Net Zero Carbon

SBTi

- Setting and fulfilling long-term Net Zero Carbon targets

TCFD / ISSB

- Guidelines to assess and disclose climate-related financial risks

GHG Protocol

- Framework for categorizing and reporting emissions impact

Building Momentum for Change

Embracing Assessments: Requiring embodied carbon assessments in all new building and adaptive reuse projects.

Sustainable Procurement: Establishing mass-based low-embodied-carbon material procurement and tracking practices, especially for high-volume materials like concrete and steel.

WBLCAs: Conducting Whole Building Life Cycle Assessments to document full scope embodied carbon in real estate development projects.

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Panel Discussion

Urban Land Institute

Scope 3 Emissions in Real Estate

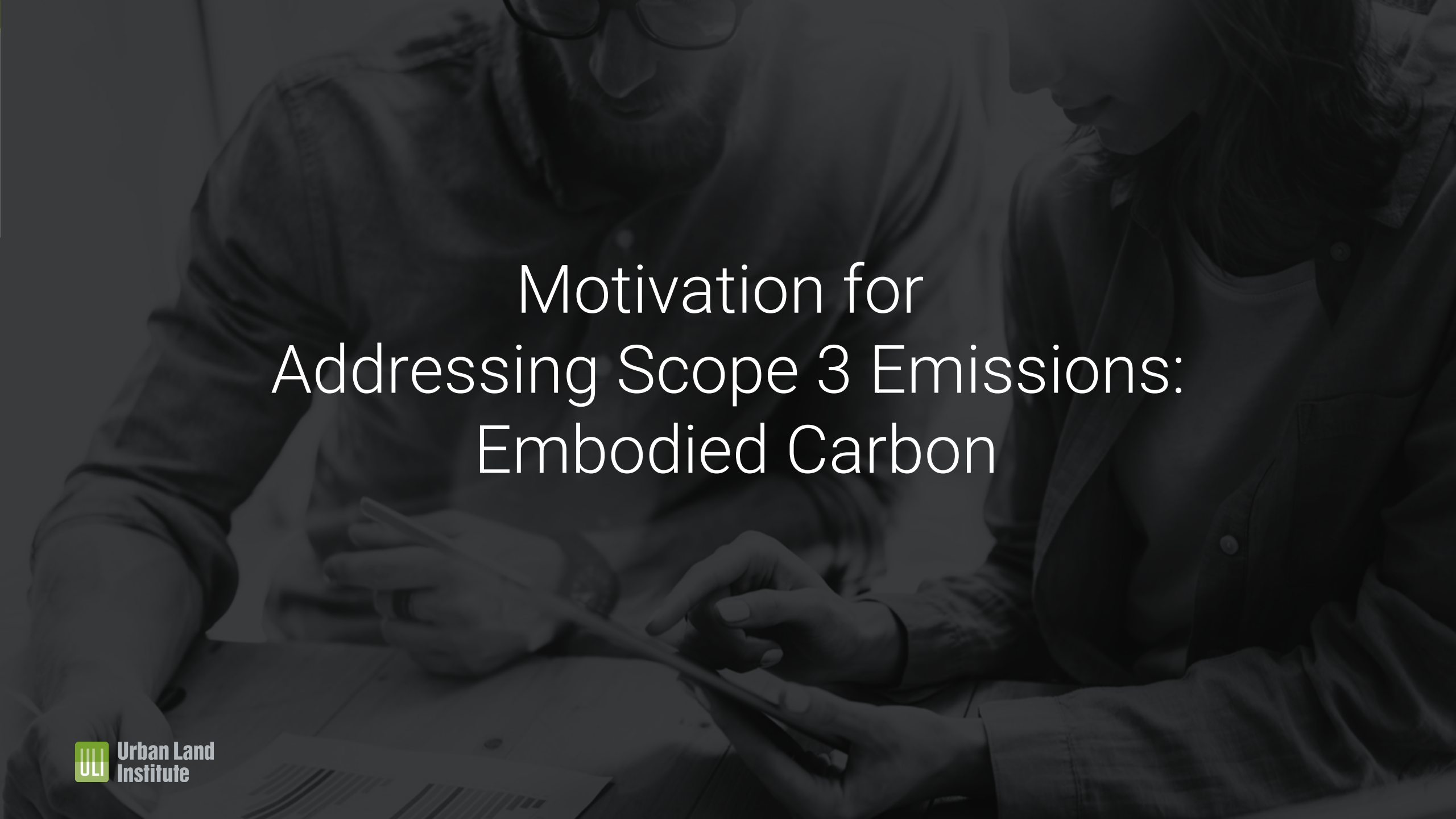
ULI RANDALL LEWIS CENTER FOR SUSTAINABILITY IN REAL ESATEE

MAY 8TH, 2024

Convenings for cross-sector leaders

Focused on aligning goals for embodied carbon reduction

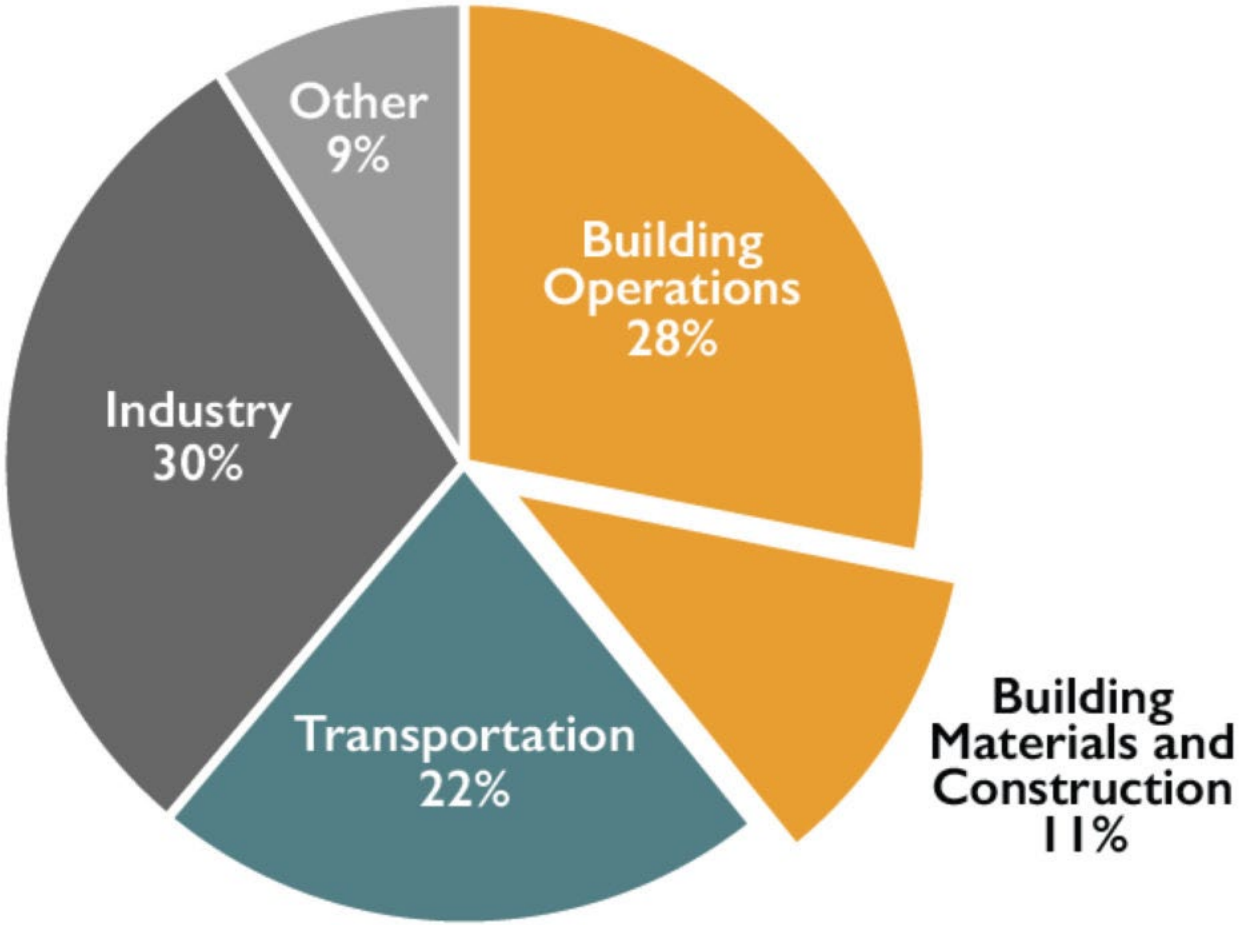
- 1st convening: January 2023 – Executives from Construction and Developer firms
- 2nd convening: Sept 2023 – Professionals from Concrete/Steel Suppliers and Construction/Developer firms
- Open “Embodied Carbon 101” special programming as part of ULI Fall Meeting in Oct 2023
- 3rd convening: June 2024 – AEC Professionals



Motivation for Addressing Scope 3 Emissions: Embodied Carbon

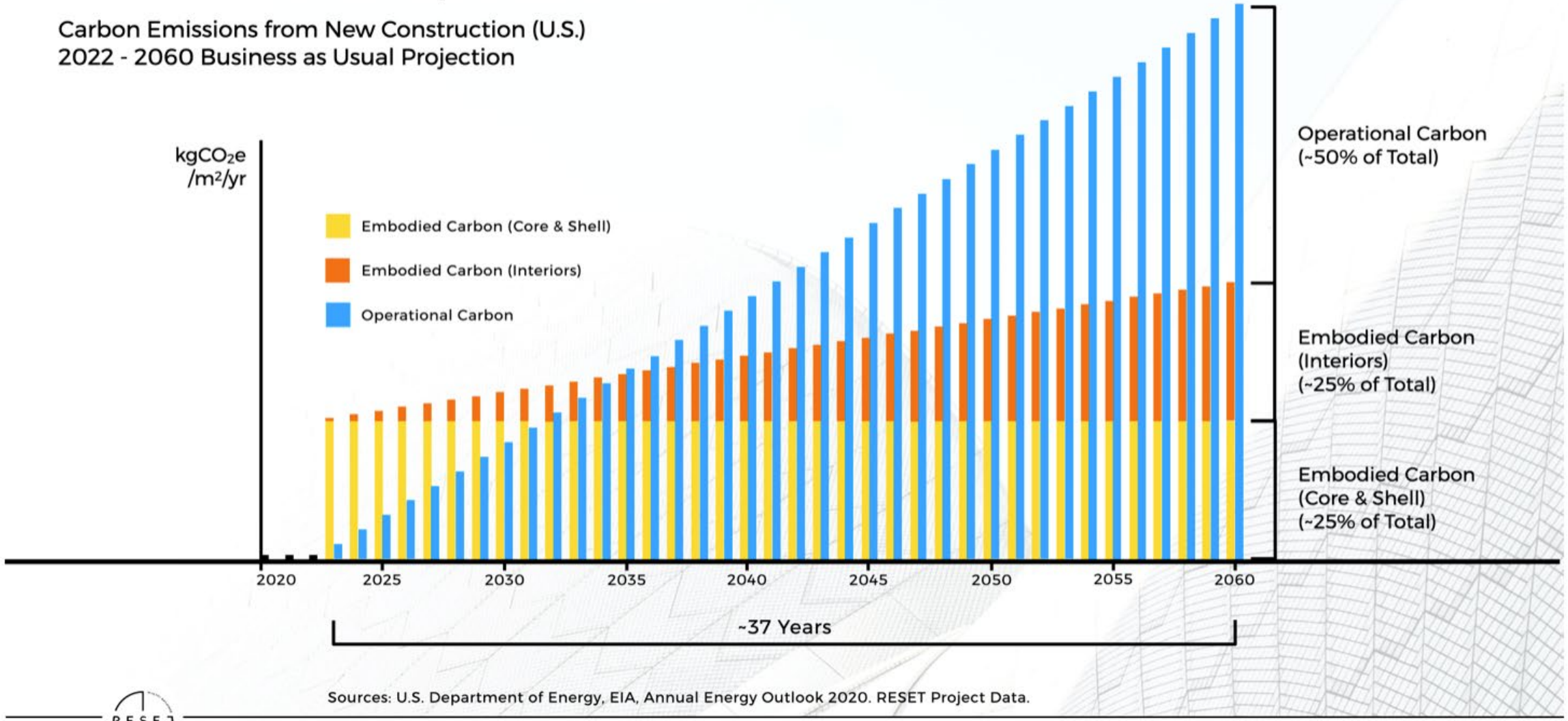
Urban Land Institute

Global CO_2 Emissions by Sector



Embodied vs. Operational

Carbon Emissions from New Construction (U.S.)
2022 - 2060 Business as Usual Projection



Sources: U.S. Department of Energy, EIA, Annual Energy Outlook 2020. RESET Project Data.

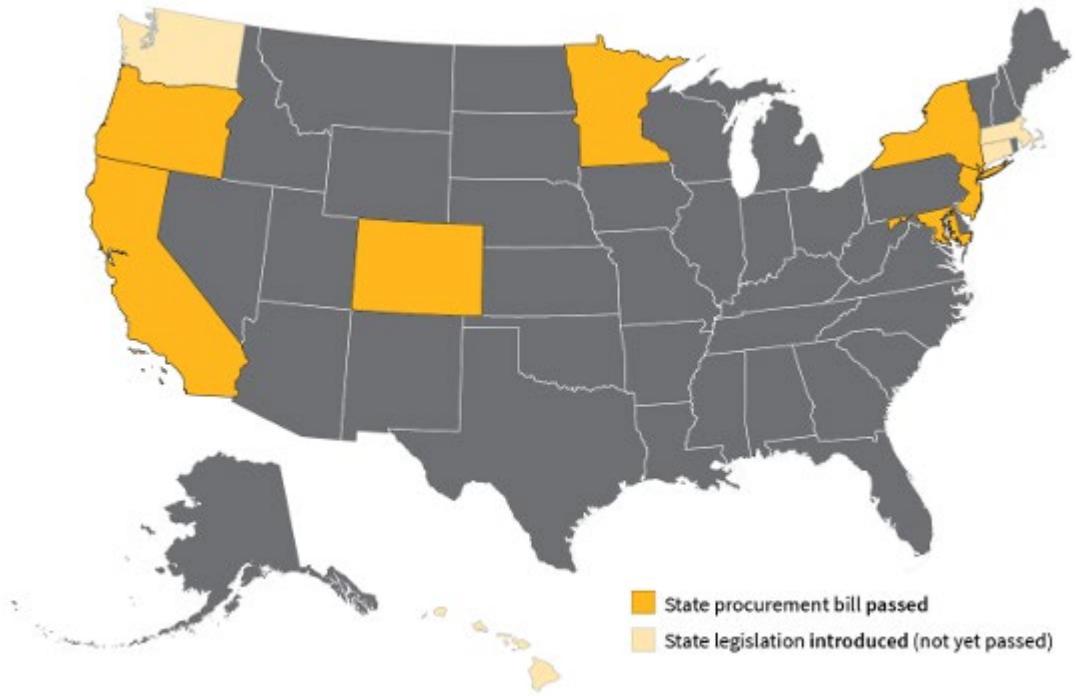
RESET

Urban Land Institute

Identifying Gaps and Opportunities in Current Disclosure Practices

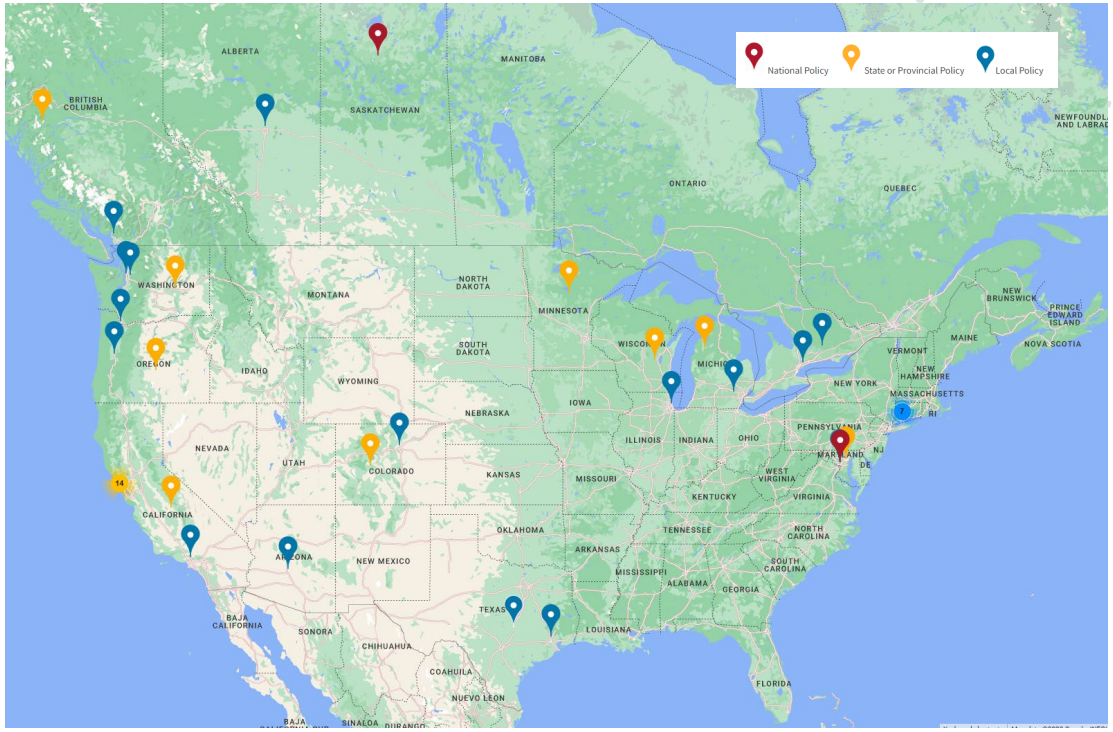
Urban Land Institute

Policy Landscape – Carbon



A growing number of states are passing clean procurement policies to support low-embodied-carbon material supply chains. Map current as of 2023. *(Carbon Leadership Forum)*

Current US & Canada Embodied Carbon Policies for New Construction



Source: Carbon Leadership Forum Policy Toolkit
https://carbonleadershipforum.org/clf-policy-toolkit/#map

Federal, State, and Local Carbon Policies

OPERATIONAL

- Benchmarking Ordinances
- Audit/Tune-Up Mandates
- Energy Rating System/Letter Grades
- Building Performance Standards
- All-Electric New Construction
- Net Zero Building Codes

EMBODIED

- Procurement policies (like Buy Clean and material-specific variations)
- Climate Action Plans
- Building Codes
- City zoning, land use, and building regulations and incentives, including building and material reuse policies
- Executive orders addressing embodied carbon of building and industrial sector emissions

Product Innovations & Leadership in Low-Carbon Development

- Innovations in reducing Embodied Carbon across the market
- There are important grant and loan programs at the U.S. Department of Energy (DOE) and the Environmental Protection Agency evaluating innovative products.
- Performance-based specs for the Embodied Carbon of materials is the next step.
  - Performance-Based Buyers Alliance (as recommended in the DOE Cement Liftoff Report) formed to teach other buyers how to specify low carbon concrete

ENVIRONMENTAL IMPACTS

Declared Product:
Mix PN4888 • Quivas Plant
Description: 4,000 Non-Air Entrained
Compressive strength: 4000 PSI at 28 days

Declared Unit: 1 m^3 of concrete

Global Warming Potential (kg CO_2-eq)	457
Ozone Depletion Potential (kg CFC-11-eq)	1.19E-5
Acidification Potential (kg SO_2-eq)	1.36
Eutrophication Potential (kg N-eq)	0.55
Photochemical Ozone Creation Potential (kg O_3-eq)	28.0
Abiotic Depletion, non-fossil (kg Sb-eq)	8.00E-6
Abiotic Depletion, fossil (MJ)	503
Total Waste Disposed (kg)	3.76
Consumption of Freshwater (m^3)	0.63

Product Components: natural aggregate (ASTM C33), Portland cement (ASTM C150), admixture (ASTM C494), batch water (ASTM C1602)

Additional detail and impacts are reported on page three of this EPD

41-year track record

Design-focused real estate firm

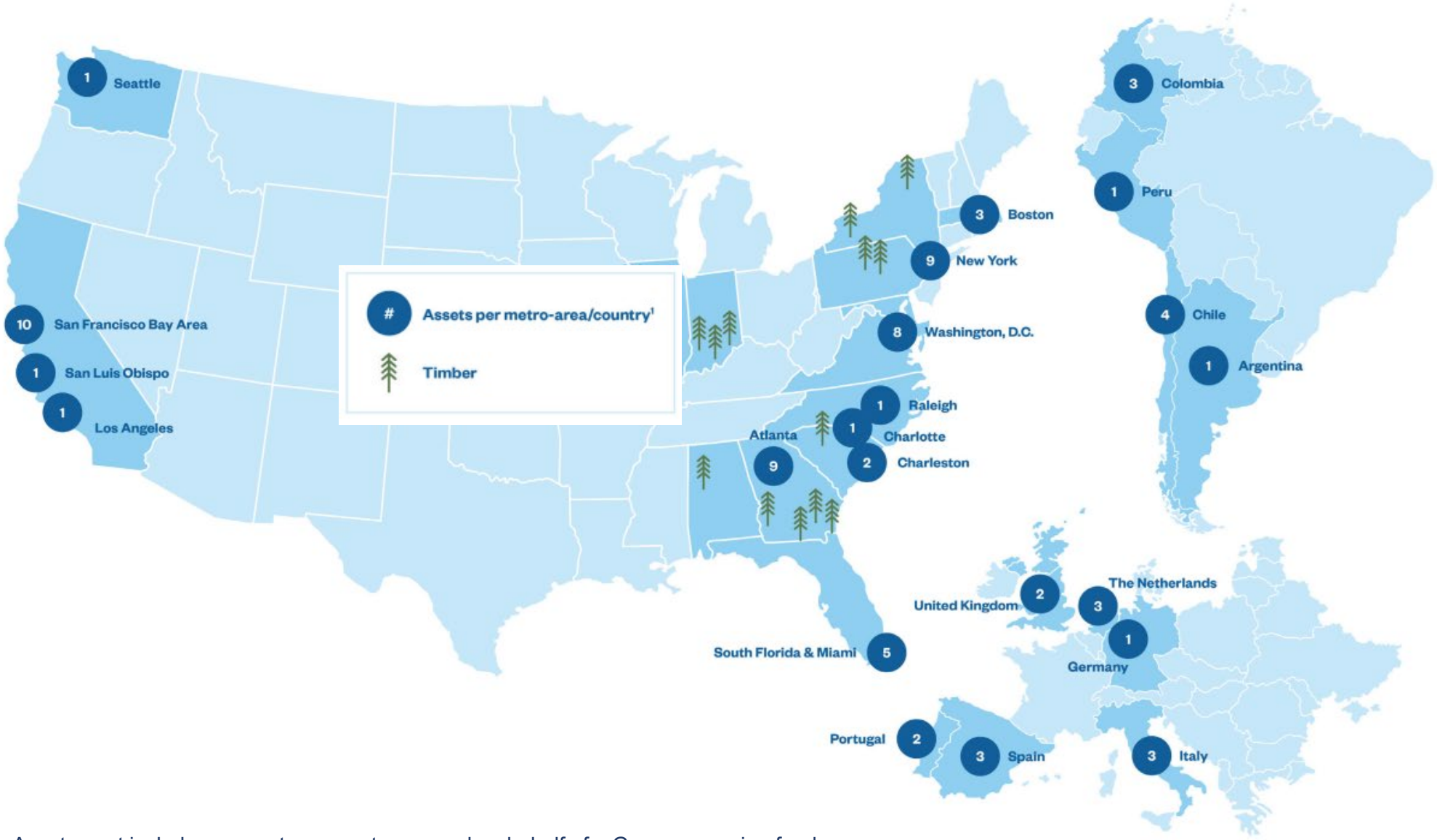
$11.6 billion and 28 million SF of assets under management[1]

1. As of December 31, 2023

Transforming spaces into innovation hubs and community centers

Value creation driven by consistent focus on NOI growth

Portfolio Summary



1. Asset count includes separate account managed on behalf of a German pension fund.

Jamestown's ESG Focus Areas

Jamestown Green

	Environmental						Social		Governance
Commitments	**Emissions**	**Energy Efficiency**	**Water Efficiency**	**Waste Management**	**Materials and Supply Chain**	**Resilient Site Selection and Design**	**Health and Wellbeing**	**Social and Community Impact**	**Transparency and disclosure**
2024 Goals	25% Reduction in emissions	3% annual energy efficiency improvement	20% reduction in water usage	40% waste diversion rate	Explore mass timber opportunities	Draft energy resilience assessment + action plan for all assets	Indoor Air Quality (IAQ) Assessments: 100% of office assets	Increase BIPOC/ women-owned businesses at properties	Evaluate feasibility of sustainability/ wellness certifications: 100% of portfolio
External Goals	SUSTAINABLE DEVELOPMENT GOALS **Targets in place to support all 17 goals**	SCIENCE BASED TARGETS **30% ↓ carbon emissions by 2030**	Urban Land Institute **50% ↓ carbon emissions by 2030** **100% ↓ net zero carbon by 2050**	Better Buildings **20% ↓ energy use intensity by 2024**	Better Climate CHALLENGE U.S. DEPARTMENT OF ENERGY **50% ↓ carbon emissions by 2030**				
Why It Matters	45% reduction in emissions/sf reduces regulatory risk and aligns with investor and tenant requests	45% reduction in energy/sf saves Jamestown and its tenants money and supports emissions reduction	31% reduction in water used/sf reduces Jamestown's exposure to water scarcity	44% average diversion rate supports material re-use and operational best practices for landfill diversion	619 Ponce showcases best practices for regional mass timber to be scaled across the portfolio	Resilience measures integrated into asset-level business plans, and high level assessments illustrate portfolio risk reduction priorities	Occupants in green buildings with improved IAQ scored 61% higher on cognitive tests compared to those in conventional buildings[1]	Jamestown believes that increasing BIPOC- and women-owned businesses at properties supports an authentic experience that reflects the communities in which we operate	Building Performance, Ratings, and Certifications are the largest opportunity areas for the Premier Fund to increase GRESB scores

INNOVATION & SUSTAINABILITY VISION

Enabled by Digital Transformation

DRIVE CONSTRUCTION EFFICIENCIES
- Pre-construction solutions
- Project management platforms

ENABLE EFFECTIVE LEASING
- Test-fit / feasibility solutions
- Virtual/3D tour solutions
- Lease prep + mgmt. solutions

DATA FOR DECISION-MAKING + STORYTELLING
- Location intelligence
- Consumer / brand data
- Onsite traffic

TRANSFORM INTERNAL OPERATIONS
- Data governance program
- Data warehouse + portfolio dashboard + analytics tools
- Integrated artificial intelligence

Frictionless Tenant Experiences

- Fully-integrated tenant experience app (inclusive of property mgmt.)
- Competitive amenities
- Digital payment platforms
- Loyalty programs
- Streamlined package/ freight delivery
- Hands-free access control
- Frictionless parking + EV infra.
- Turnkey Wifi/telecom
- Space occupancy monitoring
- Restroom modernization
- Healthy buildings: Materials + air quality sensors
- Nature-based solutions: Bioswales, daylighting

Retain + Unlock Capital

- Reporting (LEED, etc.) for funds + regulations
- Site-level emissions plans
- Embodied carbon strategy
- Building materials index
- Building certifications
- Natural capital solutions
- Resilience + climate change strategies
- Electrification

Building Efficiency + NOI Growth

RESPONSIBLE WATER USE + WASTE MANAGEMENT
- High efficiency water fixtures
- Leak detection
- Rainwater harvesting
- Waste analytics + diversion tracking
- Onsite recycling + composting

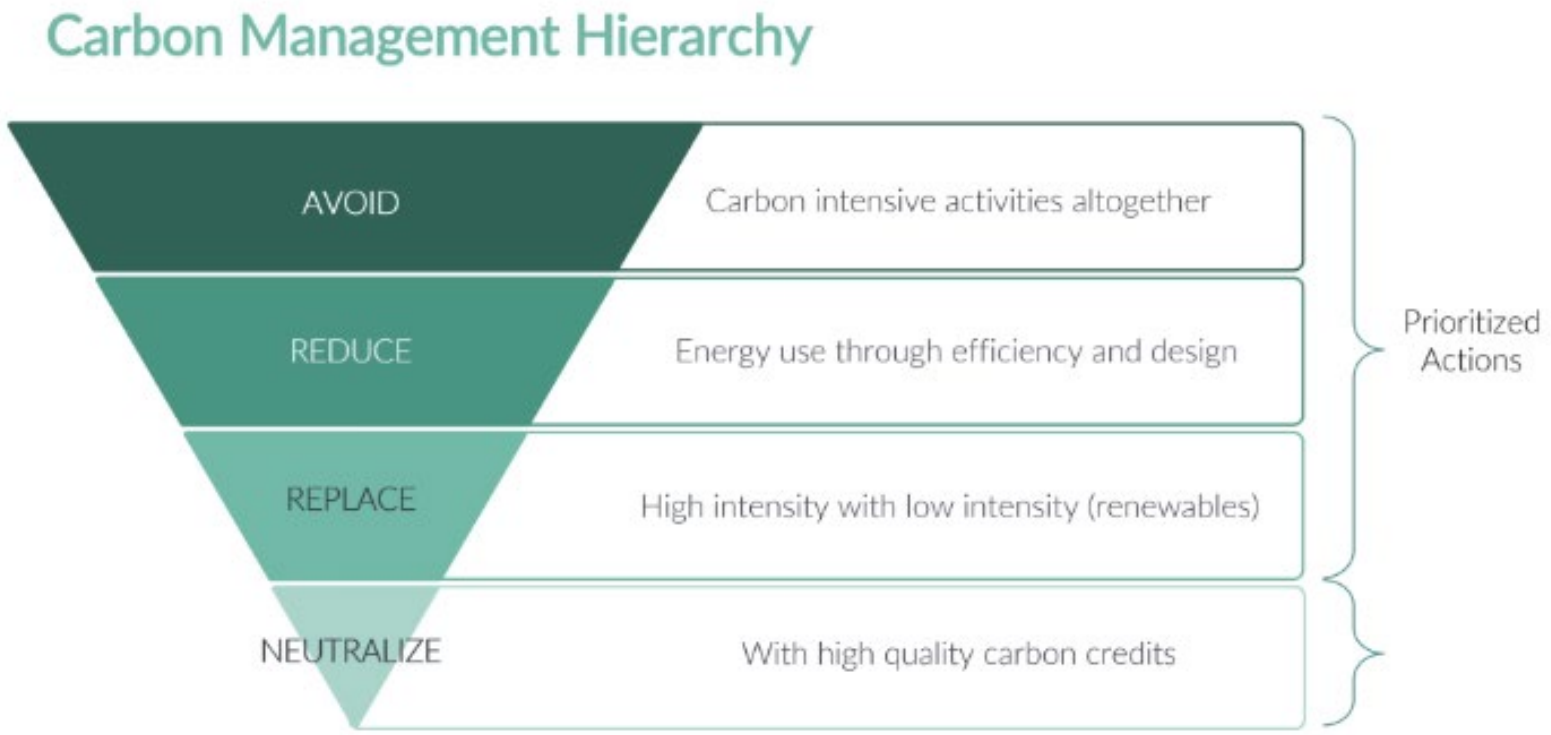
ENERGY + CARBON EFFICIENCY
- Tenant/floor submetering solution
- Portfolio energy manager
- Live performance dashboard
- Offsite renewables for hedging + revenue
- Battery storage

FACILITIES EFFICIENCY
- Property management platform inclusive of a tenant portal
- Janitorial efficiency solutions
- Equipment tracking
- Package/logistics solutions
- Robotics + automation solutions

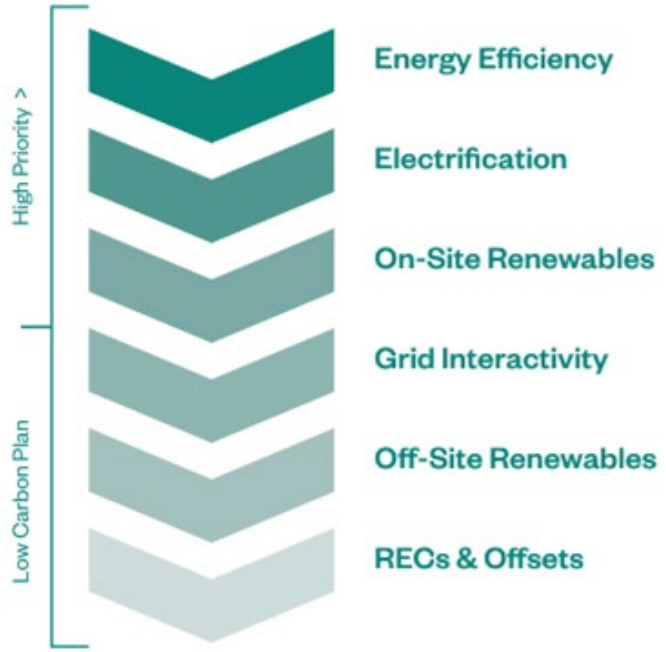
ID INCREMENTAL REVENUE
- Electric vehicle charging
- Parking solutions
- Data-driven advertising
- ESG incentives

100% ↓ NET ZERO CARBON BY 2050

Carbon Management Hierarchy



Source: Stok



Source: U.S. DOE

Real Estate Project Life-cycle

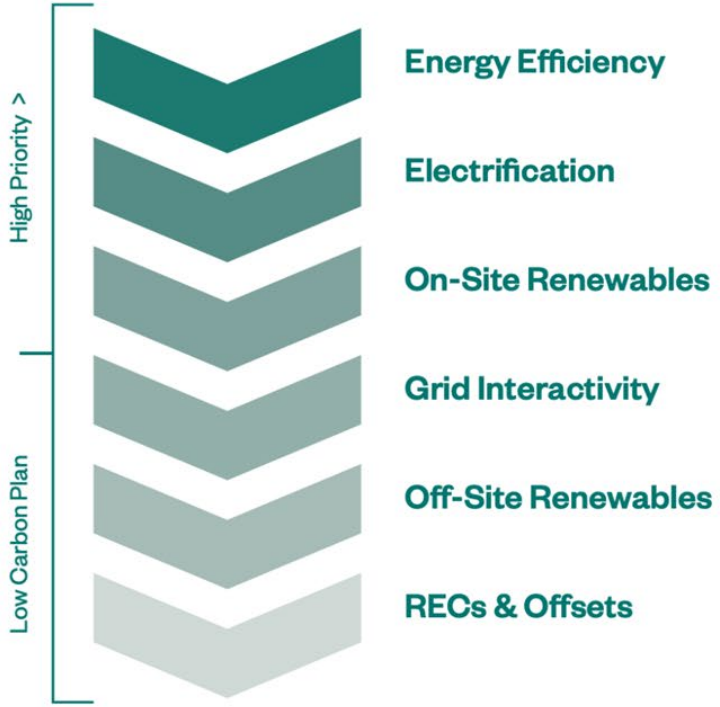
Source: Urban Land Institute, “Embedding Sustainability in Real Estate Transactions”

An Existing Building Campus Approach

Jamestown Green

Levi's Plaza

In 2021, Jamestown announced it will invest in a clean energy transition at Levi's Plaza to reach net zero carbon operations by 2025. The effort positions the property to be the first existing, large-scale commercial campus in San Francisco to reach net zero carbon. To achieve this goal, Jamestown has leveraged the U.S. Department of Energy decarbonization priority waterfall below.



- Partnered with utility for free retro-commissioning and utilizes a real-time energy management information system
- Converted first of four buildings from a natural gas boiler to all electric heat pump system
- Finalized first power purchase agreement (PPA) for 1160 Battery with additional buildings under diligence
- Participated in CleanPowerSF Peak Day Pricing Pilot to support the utility grid during times of high demand
- Began purchasing 100% carbon-free electricity from the grid via CleanPowerSF SuperGreen
- Will prioritize high quality renewable energy credits (RECs) and offsets for any remaining energy consumption after retrofits completed

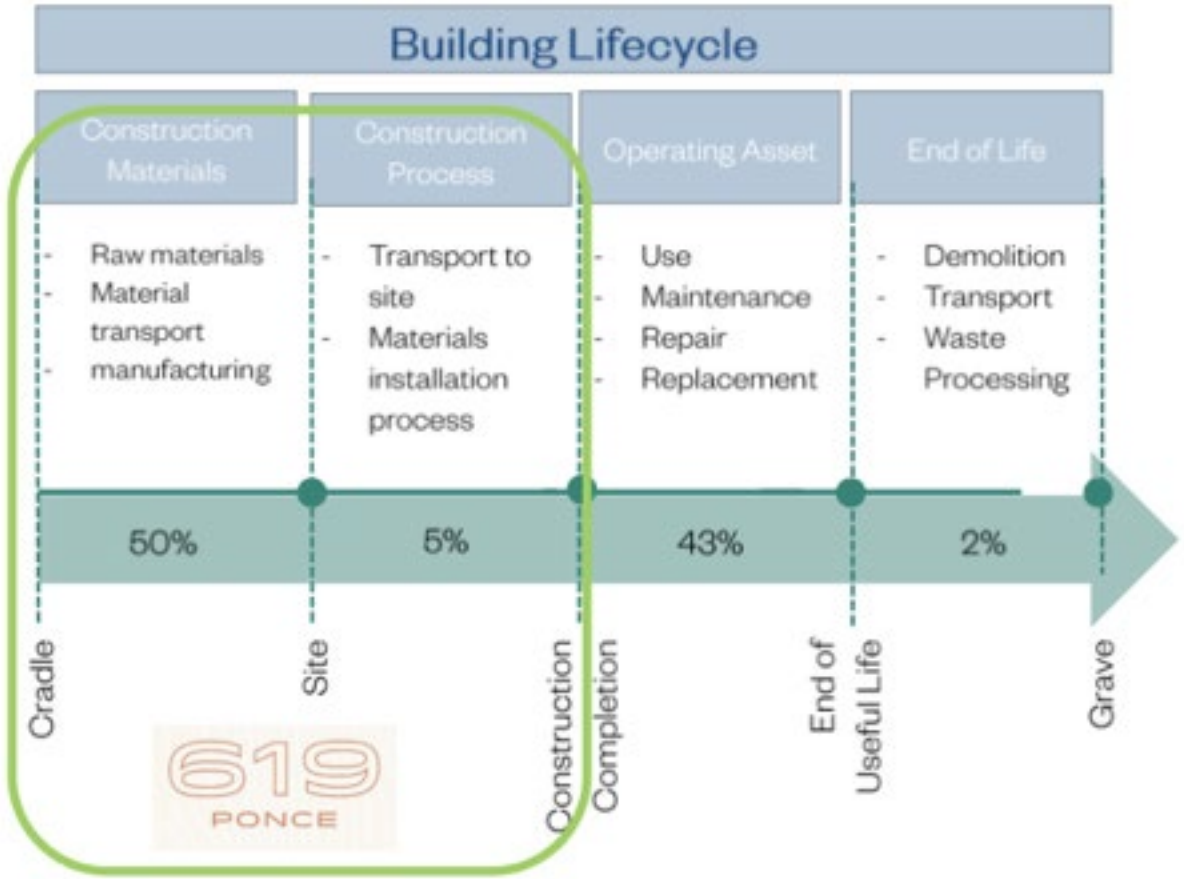
619 Ponce – Project Overview

Jamestown Green

619 Ponce – Project Overview

Jamestown Green

Carbon Impacts



619 Ponce – Project Overview

Jamestown Green

Jamestown Green

Designed for:

3D Planning

Sourcing

Manufacturing

Transportation

Installation

Re-use

CLT Components of 619 Ponce

Jamestown Green

Underside of **CLT** slab

Glulam purlins (10' on center E-W)

Glulam beam (spans 30')

Glulam columns

Topside of **CLT** slab
will be covered and protected by floor assembly (which provides add'l acoustical separation and place for tenants to run electrical service too)

Hidden from sight are the **steel** connections!

LCA Results

Jamestown Green

Global Warming Potential Equivalent for 619 (without embedded carbon)

176 people consuming meat, dairy and beer for 1 year

219 flights from New York to London

117 average family cars running for 1 year

16,129 mature trees absorbing CO_2 in 1 year

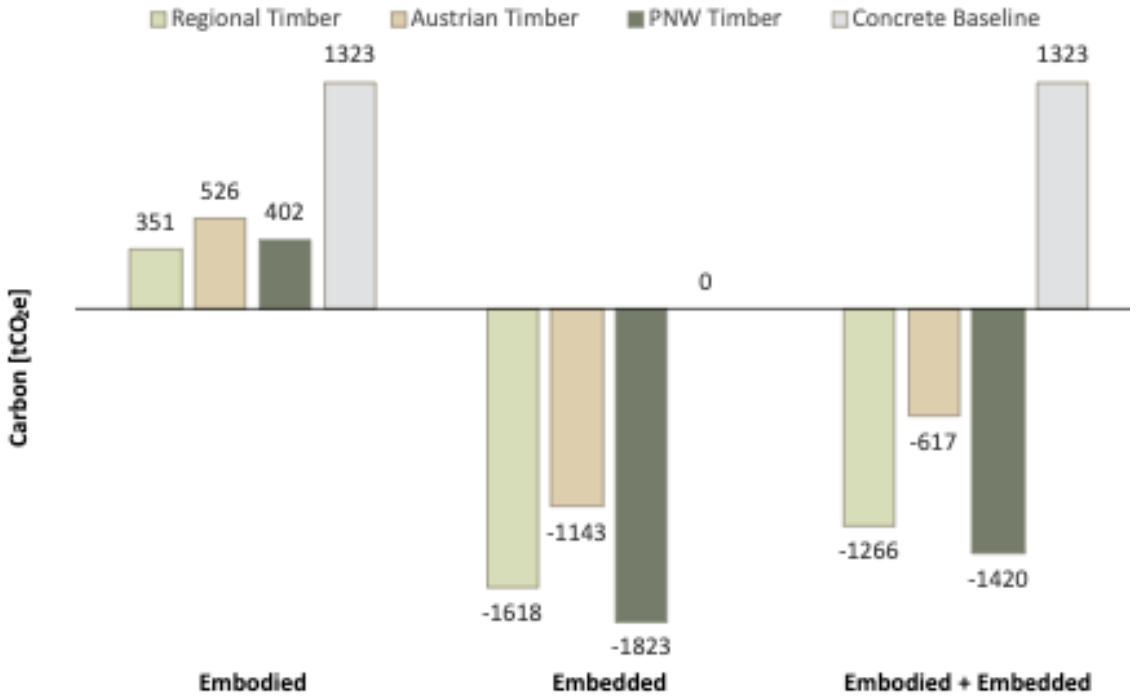


Figure 1. Summary of Total Embodied and Embedded Carbon

Note: Carbon results include gravity beams and floor systems only and should not be compared to entire building assessments. See section 3.3 for a discussion of building elements included in this report.

Building a Portfolio Strategy

Jamestown Green

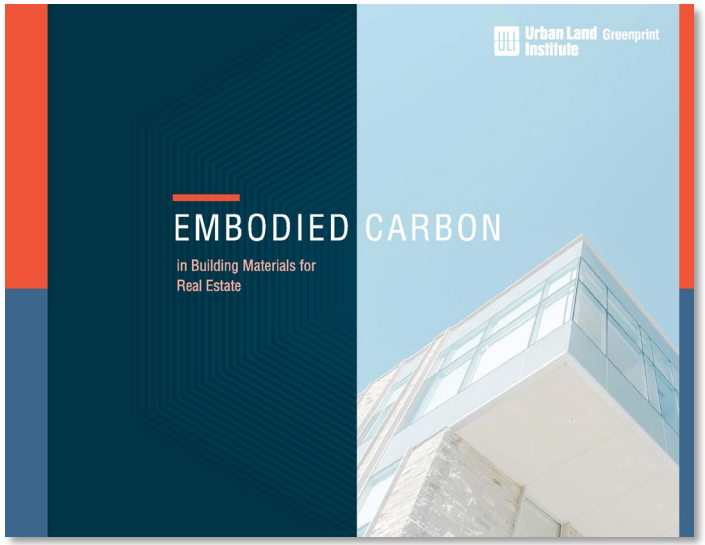
Materials and Embodied Carbon Playbook:

- Material Selection Flowchart
- Ecosystem of providers + partner summary
- Scoping guidelines for cost awareness
- FF & E Catalogue

Transparency Drivers:

- Regulatory
- Investors and Tenants

ULI Resources on Embodied Carbon for Real Estate



https://uli.org/embodiedcarbon

https://uli.org/greenprintblueprint

https://uli.org/materialsmovement

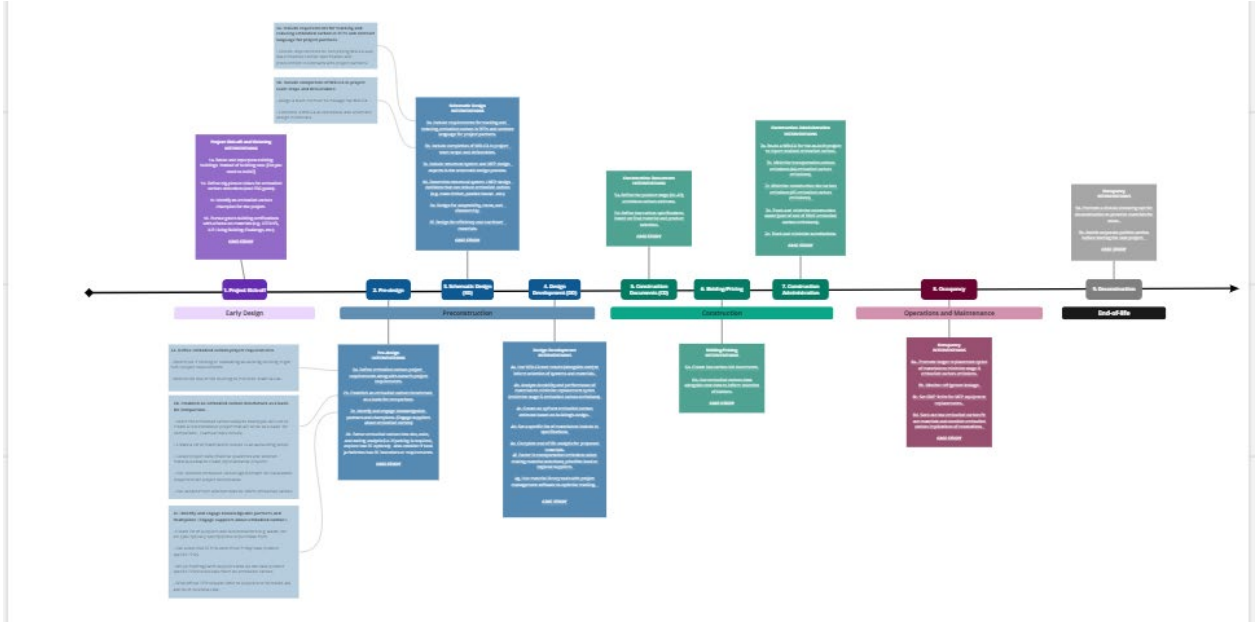
Urban Land Institute

ULI’s Upcoming Embodied Carbon Intervention Points Resource

Urban Land Institute

Embodied Carbon Intervention Points

- Purpose: Develop a comprehensive timeline of the real estate development process that highlights specific intervention points for reducing embodied carbon.
- Format: A digital interactive timeline of the development process in Flourish.
- Project profiles: Each sub-phase will have a short profile of an inspiring project that has been successful in reducing embodied carbon at that stage.
- Primary audience: Owners/developers
- Anticipated Completion: Summer 2024
- Contributors/Research Partners:
  - Gensler
  - Carbon Leadership Forum
  - (+ECHO project partners)
  - ULI Greenprint members
  - Building Transparency



Urban Land Institute

RMI
ENERGY. TRANSFORMED.

Conclusion

Time for Collective Action

Harnessing Momentum: The real estate industry must unite to channel this momentum into collective action.

Consistent Reporting: Begin with consistent mass-based emissions reporting for new building projects and renovations as part of Scope 3 climate disclosures.

Unlocking Opportunities: This action will enable real estate businesses to attract ESG-oriented capital, align with emerging Scope 3 disclosure regulations, and adopt strategies to achieve zero emissions buildings.