

Consultation Paper: Guidance for Scope 3 Emissions Reporting in Commercial Real Estate

May 2019

With thanks to the UKGBC Advancing Net Zero programme partners

Lead Partners:



Programme Partners:



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Background

Project aim

The UK Green Building Council (UKGBC) is leading a project to develop a focused guidance document on scope 3 emissions reporting for the commercial real estate sector. The aim of the project is to build industry consensus on the sector-specific guidance and enable reporting companies to work towards a consistent outcome. This should improve the accuracy of reporting overall within the industry and, ultimately, drive industry-wide carbon reductions.

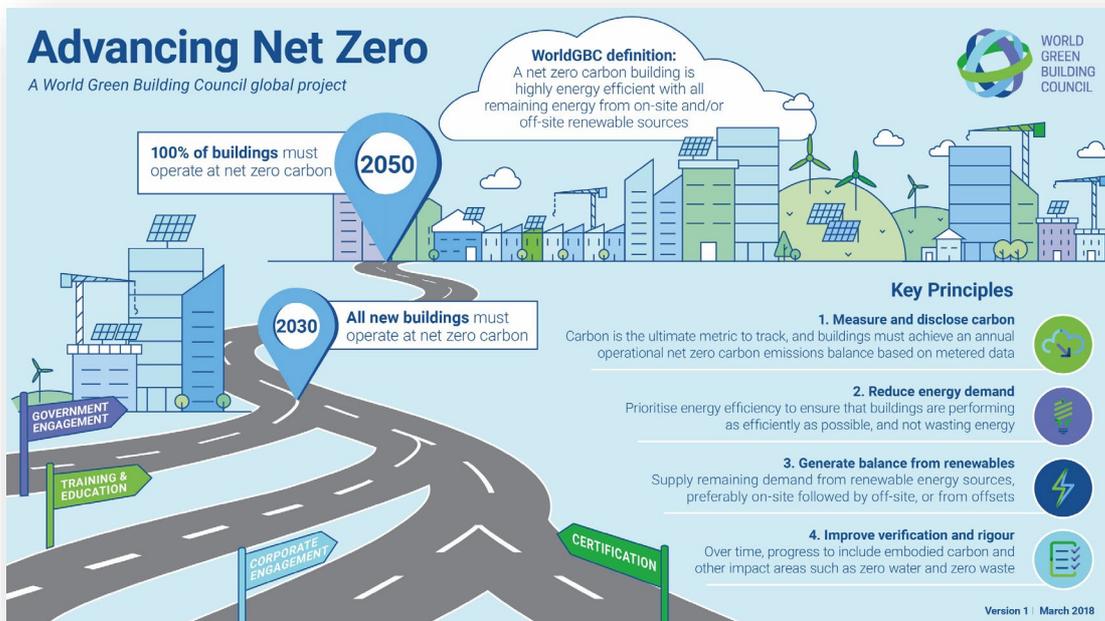
The guidance is being developed through industry workshops and engagement, and authored by a group of industry representatives with expertise in undertaking scope 3 reporting. As part of this process, a public consultation on the draft guidance document is currently open from **Thursday 9th May until Friday 31st May** - please see the 'Consultation Process' section of this paper for information on how you can feed in your views.

UKGBC is working with member companies Carbon Credentials, HS2 and TFT to produce the guidance and the project is being supported by BBP, BPF and RICS.

Advancing Net Zero Campaign

The Paris Climate Agreement represented a turning point in efforts to tackle climate change with a commitment to limit global temperature rises to between 1.5 and 2 degrees. To meet this challenge, the World Green Building Council (WorldGBC) established the [Advancing Net Zero](#) Campaign in 2016 which is calling for a net zero carbon built environment.¹

UKGBC has launched a major new [Advancing Net Zero programme](#) to help drive this transition to a net zero carbon built environment in the UK. The programme is kindly supported by Lead Partners the Redevco Foundation and Programme Partners BAM Construct UK, Berkeley Group, Grosvenor Britain & Ireland, Hoare Lea and JLL.



¹ WorldGBC report *From Thousands to Billions*: <http://www.worldgbc.org/news-media/thousands-billions-coordinated-action-towards-100-net-zero-carbon-buildings-2050>

Industry engagement

A key criterion of success for this guidance document is to ensure applicability for stakeholders from across the commercial real estate sector, including building developers, owners and investors. A series of industry engagement activities, including this consultation process, are being undertaken to ensure a wide range of views can be fed in to the development of the guidance document.

The activities undertaken in the first half of this year are described below:

- **Industry roundtable** – in February, UKGBC convened a group of industry stakeholders with expertise in scope 3 reporting to outline the main challenges faced by the commercial real estate sector.
- **Survey to BBP Members** – in March, a short ‘needs analysis’ survey was issued to BBP Members (which represent over £200bn assets under management) to understand the key priorities for the guidance document.
- **Industry workshop** – later in March, UKGBC convened a group of industry representatives to provide critical feedback on the initial outline of the guidance document.
- **Public consultation process** – in May, UKGBC is undertaking a public consultation process to gain wider feedback from the industry on the draft guidance document prepared (purpose of this document).

The final guidance document is due to be launched in July 2019.

Supporter organisations

The project is additionally being supported by three industry bodies which represent a broad cross-section of companies from across the commercial real estate sector. The three supporting bodies are the **Better Buildings Partnership (BBP)**, **British Property Foundation (BPF)**, and **Royal Institute of Chartered Surveyors (RICS)**.

Consultation Process

Draft guidance document

UKGBC is seeking broad industry input on a draft version of the guidance document developed by the author group in order to refine the content. The guidance is in roughly 50% draft format to allow sufficient flexibility for any changes required based on the feedback received. The draft guidance is presented from the following section onwards in this paper.

The consultation period is open from **Thursday 9th May until Friday 31st May**.

All feedback received will be reviewed by UKGBC and the author group in order to refine the guidance document. The review of feedback will take place in June with the final output published in July.

Quick instructions

1. **Save a local copy** of this document to your computer to enable you to save and return to your responses. Please note, if you open this document in your web browser, you may not be able to use the 'Submit Form' function.
2. **Review the content** and provide your feedback at the prompts.
3. **Select 'Submit Form'** in the PDF once completed – this will send us an email with your responses. If you are unable to select 'Submit Form', please email your completed PDF to Karl.Desai@ukgbc.org.

What to consider when reviewing the draft

The guidance document is intended to benefit any relevant industry stakeholder involved in scope 3 reporting. You are encouraged to provide feedback that is specific to your intended purposes as this will provide the greatest level of diversity in the feedback received.

Some questions to consider as you review this paper include:

- **Approach** – do you agree with the general guidance approach that is being set out?
 - If not, how could the guidance be updated to align with your thinking?
- **Benefit** – do you find this guidance to be helpful specifically to your intended purposes?
 - If not, how could it be made more applicable to you?
- **Clarity** – do you find this guidance to be clear and easy to understand for your level of knowledge?
 - If not, how could it be made more so?
- **Coverage** – do you find this guidance covers the topic in a sufficient amount of detail?
 - If not, what additional guidance could be provided?

How to provide your feedback

As you read this paper, you will be asked to provide feedback as either a polling response or open-text response. Please provide your feedback in the text box with as great (no word limit) or as little amount of detail as you like. There is no requirement to provide feedback at every prompt – you can respond to as many as you wish.

Please provide feedback that is constructive and helpful for the author group to address. This includes, providing suggested improvements that may be adopted in the guidance (either summarised or suggested text), providing specific comments on any particular item for detailed feedback (e.g. "under row 5 of the table, in column 3"), and providing links to any additional sources of information. In summary, the higher the quality of feedback received, the higher the quality of the final guidance document will be.

Feedback prompts are presented as follows:

Please rate your level of satisfaction with the content provided in this section. Please consider whether the content is sufficiently detailed and accessible, and whether any additional information is required.



Highly satisfied (5)



Satisfied (4)



Neutral (3)



Dissatisfied – needs
some improvement (2)



Highly dissatisfied –
major improvement (1)

Please provide any feedback you have for improvement:

Your contact details and any responses you provide will not be published. Your contact details will only be used by UKGBC to provide updates on the project and your responses will only be reviewed by UKGBC staff.

Please save a local copy of this document to your computer to enable you to save and return to your responses. Please note, if you open this document in your web browser, you may not be able to use the 'Submit Form' function. Once you finish providing feedback, please click the 'Submit Form' button. This will send us an email with your responses.

If you are unable to submit your feedback or have additional documents that you would like to share with us, please save the completed PDF and email to Karl.Desai@ukgbc.org.

Questions?

If you have any additional queries or concerns around the consultation process, please email Karl.Desai@ukgbc.org or Philip.Box@ukgbc.org and we will be happy to help.

Your details

Name

Email

Job Title

Organisation

Respondent Type

Draft Guidance Document

The draft guidance is presented from this page onwards in the consultation paper.

Please review and provide your feedback on this draft guidance.

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Please provide your feedback on the document structure. Are there any additional topics that you would like to see included?

Introduction

Purpose of this document

This document is intended to reduce barriers to scope 3 reporting for commercial real estate companies and improve consistency across the industry by providing sector-specific guidance. The guidance presented has been developed through a multi-stakeholder engagement process, including with building developers, owners and investors, and industry bodies.

There is currently a lack of understanding on the scale of scope 3 emissions – up to 87% of total carbon impacts for some real estate companies² – in the industry, as determined by UKGBC through industry workshops and surveys. This is due in large part to a lack of sector-specific guidance for reporting scope 3 emissions using the Greenhouse Gas Protocol's *Corporate Value Chain (Scope 3) Accounting and Reporting Standard*³ (hereafter referred to as the 'GHG Protocol').

This reporting barrier presents a challenge, as it limits the potential for companies to drive significant carbon reductions for activities that are underreported, or simply not reported at all. Additionally, this issue pervades the industry through a lack of general consistency. Reporting companies may apply poor screening exercises, undertake incorrect assessments and, ultimately, under-report the true scope 3 emissions, thereby reducing comparability across companies.

This guidance has been specifically developed to build industry consensus and promote a common approach to scope 3 reporting. It aims to provide clarity on interpretation of the GHG Protocol for commercial real estate companies to enable consistency in reporting across the industry. This will enable the industry to more accurately report and reduce scope 3 emissions.

The guidance is intended to reduce, if not remove, the scope 3 reporting barrier and advance the sector's understanding of scope 3 emissions. It is envisioned that by enabling increased reporting, the carbon impacts can also have a greater influence on business decision-making. This includes reporting in line with the Task Force on Climate-related Financial Disclosure (TCFD) and Science Based Targets (SBTs).

The guidance represents the preferred approach as determined by industry, however is not prescriptive. Stakeholders may interpret the guidance for their own purposes, however central to it will be industry consensus, enabling a common grounding of how scope 3 reporting should be undertaken.

Target audience

This document is aimed at any relevant stakeholder in the commercial real estate sector interested or involved in scope 3 reporting. The commercial real estate sector refers to building developers, owners and investors.

Whilst the guidance has been developed for the UK industry, the general intent and methodologies outlined may be applied internationally. Due consideration should be made to adapt the guidance to a local context.

The document is suitable for a non-technical audience, except for the sections covering scope 3 screening, reporting decisions and carbon reductions where a working knowledge of the GHG Protocol will assist in understanding.

² Landsec (2019), Climate change & carbon [online], available at: <https://landsec.com/sustainability/efficient-use-natural-resources/climate-change-carbon> [accessed: 18/04/19].

³ Greenhouse Gas Protocol (2013), Corporate Value Chain (Scope 3) Accounting and Reporting Standard [online], available at: <https://ghgprotocol.org/standards/scope-3-standard> [accessed: 18/04/19].

Relationship with the GHG Protocol

The Greenhouse Gas Protocol's *Corporate Value Chain (Scope 3) Accounting and Reporting Standard* (referred to as the GHG Protocol) is the only internationally accepted method for companies to account for scope 3 emissions. Any recognised scope 3 reporting currently undertaken will be in line with this standard, however interpreted differently by commercial real estate companies.

From section 1.9 'Sector guidance' of the GHG Protocol:

The development of sector-specific implementation guidance and tools can drive more consistent corporate GHG measurement, reporting, and performance tracking practices for a particular sector. Helpful sector-level information could include guidance on interpreting the standard for a specific sector, guidance and tools for calculating emissions from sector-specific activities, recommended performance metrics, specific guidance for identifying the largest sector emissions sources, and suggested data sources and emissions factors.

Sectors should develop guidance through an inclusive multi-stakeholder process to ensure broad acceptance and facilitate increased consistency and credibility.

This document is intended to meet the suggested sector-specific guidance as set out in the GHG Protocol. It builds upon the GHG Protocol to promote additional completeness and consistency in the way commercial real estate companies account for and report on scope 3 emissions. As the GHG Protocol represents best practice, this guidance is aimed to align closely and/or exactly with the standard.

This document should be considered as a supplement to the GHG Protocol. It should be read in conjunction with the GHG Protocol, and the more detailed *Technical Guidance for Calculating Scope 3 Emissions*⁴ document (when undertaking calculations).



This sector-specific guidance should be read in conjunction with the relevant scope 3 documents from the GHG Protocol

⁴ Greenhouse Gas Protocol (2013), *Technical Guidance for Calculating Scope 3 Emissions* [online], available at: <https://ghgprotocol.org/scope-3-technical-calculation-guidance> [accessed: 18/04/19].

Please rate your level of satisfaction with the content provided in this section. Please consider whether the content is sufficiently detailed and accessible, and whether any additional information is required.

Highly satisfied (5)

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Neutral (3)

Dissatisfied – needs
some improvement (2)

Highly dissatisfied –
major improvement (1)

Please provide any feedback you have for improvement:

What are Scope 3 Emissions?

Scope 3 definition

The GHG Protocol divides a company's emissions into direct and indirect emissions. From the GHG Protocol:

- **Direct emissions** are emissions from sources that are owned or controlled by the reporting company.
- **Indirect emissions** are emissions that are a consequence of the activities of the reporting company, but occur at sources owned or controlled by another company.

This is further broken down into 'scopes' as described in the diagram below.

Emissions type	Scope	Definition	Examples
Direct emissions	Scope 1	Emissions from operations that are owned or controlled by the reporting company	Emissions from combustion in owned or controlled boilers, furnaces, vehicles, etc.; emissions from chemical production in owned or controlled process equipment
	Scope 2	Emissions from the generation of purchased or acquired electricity, steam, heating, or cooling consumed by the reporting company	Use of purchased electricity, steam, heating, or cooling
Indirect emissions	Scope 3	All indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions	Production of purchased products, transportation of purchased products, or use of sold products

Overview of scopes from the GHG Protocol

Scope 3 definition: all indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.

Scope 3 or 'value chain' emissions represent all indirect upstream and downstream greenhouse gas emissions not owned or controlled by a company. Whilst emissions from energy generated directly (scope 1) and indirect emissions from energy used from third-party suppliers (scope 2) are relatively well understood in the industry, scope 3 remains a nascent field of carbon reporting.

In large part, this is due to the scale of a company's activities accounted for, otherwise known as 'everything else'. This can range from areas with some level of control, such as energy used by tenants and development activities, to areas with limited level of control, such as supply chain behaviour and financial investment decisions.

The reporting boundaries for a company's activities can be set at its own discretion. This variability, and lack of an industry-accepted approach can result in one company simply 'scoping out' activities that should rightfully be reported on. This shifting of responsibility from the relevant company reduces the potential for driving carbon reductions, and ultimately creates inconsistency in the industry.

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Please provide any feedback you have for improvement:

Benefits of scope 3 reporting

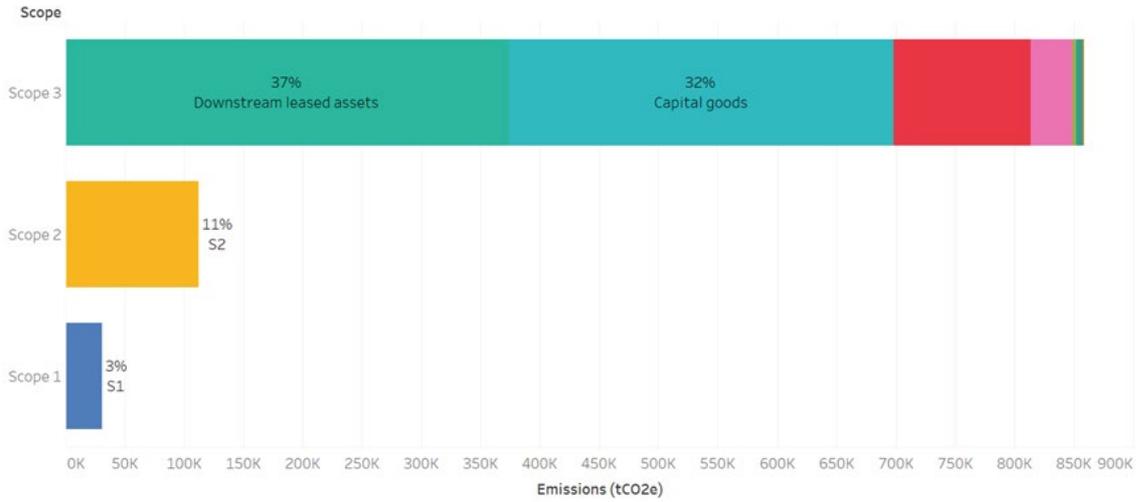
Scope 3 emissions often represent a company's largest contribution to climate change, and as a result, quantifying and reporting scope 3 emissions presents many business benefits.

The reporting of scope 3 emissions can be used to reduce business risk, in terms of a better understanding and management of business activities. The reduction of business risk is achieved through the following:

- Appropriately assessing value chain risks.
- Reporting a complete carbon footprint to investors and other stakeholders.
- Acknowledging embodied carbon in materials.
- Engagement with tenants over emissions (where appropriate).

The benefits of using scope 3 reporting as a tool to drive improved business decision-making include:

- A clearer understanding of climate change risks and opportunities within the value chain.
- Better data with which to optimise the sustainability performance of the company's assets.
- Improved collaboration with supply chain partners to improve efficiency and reduce environmental impacts.
- Clear demonstration of scope 3 screening required for submission of targets to the Science Based Targets initiative (SBTi), as companies must set targets on 66% of value chain emissions to achieve approval for their science-based targets.



Scope 3 typically makes up over 85% of emissions – summary of emissions reported by UK commercial real estate companies to CDP in 2017 © CDP, Carbon Credentials

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Dissatisfied – needs some improvement (2)

Highly dissatisfied – major improvement (1)

Please provide any feedback you have for improvement:

Relationship with whole life carbon

There is a strong and important relationship between scope 3 reporting and whole life carbon assessments. These two carbon reporting tools are connected and support one another.

A general description of how each is typically used is provided below:

- **Whole life carbon assessment** is used to help developers make design decisions for a project, over the entire life of that project. It includes the total embodied carbon of the materials chosen within that design, but also models projected operational emissions. It typically considers a single site or project, from development to demolition.
- **Scope 3 reporting** is used as part of a wider greenhouse gas assessment which is a time-bound analysis, typically undertaken at an organisation or entity-level, to help assess strategic climate change risks.

For example, a company might collate a total annual scope 3 value for inclusion in an annual report, as a part of its overall greenhouse gas reporting. The scope 3 value would include the embodied carbon of materials, but only those values within that reporting year. It would also collate all embodied carbon from each and every development project and add it to other scope 3 values such as tenant data and business travel.

Table 1: Comparison between carbon reporting tools

Type of Carbon Reported	Assessment Level	Decision Maker
Embodied carbon	Material (e.g. concrete, steel)	A whole life carbon assessment helps designers choose materials and processes typically for the construction stage of a building's lifecycle.
Whole life carbon	Specific development project	A whole life carbon assessment helps design teams consider whole life carbon impacts over the life of a building.
Scope 3	Organisation	A scope 3 report helps companies make decisions on their material impacts across their portfolio on an annual basis.

Please rate your level of satisfaction with the content provided in this section. Please consider whether the content is sufficiently detailed and accessible, and whether any additional information is required.

Highly satisfied (5)

Satisfied (4)

Neutral (3)

Dissatisfied – needs
some improvement (2)

Highly dissatisfied –
major improvement (1)

Please provide any feedback you have for improvement:

Relationship with scope 1 and 2 emissions

The reporting of energy use, and its associated carbon impacts, by building owners and operators is relatively well understood in the industry. There are several recognised reporting frameworks (e.g. GRESB, NABERS) and actual data is typically available i.e. through energy meters. These carbon impacts are under the direct or indirect control of reporting companies and fall under scopes 1 and 2.

These scopes are outlined in the GHG Protocol and described in the diagram below.

<i>Emissions type</i>	<i>Scope</i>	<i>Definition</i>	<i>Examples</i>
Direct emissions	Scope 1	Emissions from operations that are owned or controlled by the reporting company	Emissions from combustion in owned or controlled boilers, furnaces, vehicles, etc.; emissions from chemical production in owned or controlled process equipment
	Scope 2	Emissions from the generation of purchased or acquired electricity, steam, heating, or cooling consumed by the reporting company	Use of purchased electricity, steam, heating, or cooling
Indirect emissions	Scope 3	All indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions	Production of purchased products, transportation of purchased products, or use of sold products

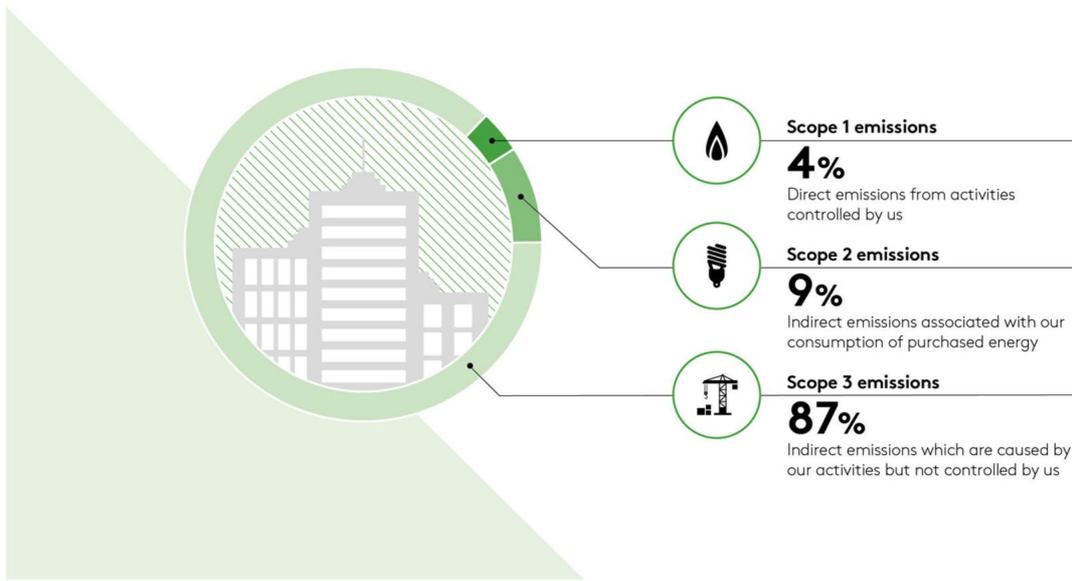
Overview of scopes from the GHG Protocol

UKGBC has undertaken a series of activities as part of its [Advancing Net Zero programme](#) to reduce scope 1 and 2 emissions. Importantly, this includes the release of the 'Net Zero Carbon Buildings: A Framework Definition'⁵ which sets out an industry-agreed path to achieving net zero carbon buildings. Readers of this guidance document seeking to address scope 1 and 2 emissions are encouraged to read this report.

Scope 3 emissions include all other carbon impacts not accounted for under scopes 1 and 2, also referred to as 'everything else'. These carbon impacts are significant, making up up to 87% of total impacts for some real estate companies.⁶ These impacts represent significant opportunity for driving carbon reductions, outside of scopes 1 and 2.

⁵ UKGBC (2019), Net Zero Carbon Buildings: A Framework Definition [online], available at: <https://www.ukgbc.org/ukgbc-work/net-zero-carbon-buildings-a-framework-definition/> [accessed: 8/05/19].

⁶ Landsec (2019), Climate change & carbon [online], available at: <https://landsec.com/sustainability/efficient-use-natural-resources/climate-change-carbon> [accessed: 18/04/19].



Breakdown of carbon emissions by scope © Landsec

Readers of this document are encouraged to report and reduce all carbon impacts as far as practicable by reviewing UKGBC's 'Net Zero Carbon Buildings: A Framework Definition' and this guidance document.

Please rate your level of satisfaction with the content provided in this section. Please consider whether the content is sufficiently detailed and accessible, and whether any additional information is required.

Highly satisfied (5)

Satisfied (4)

Neutral (3)

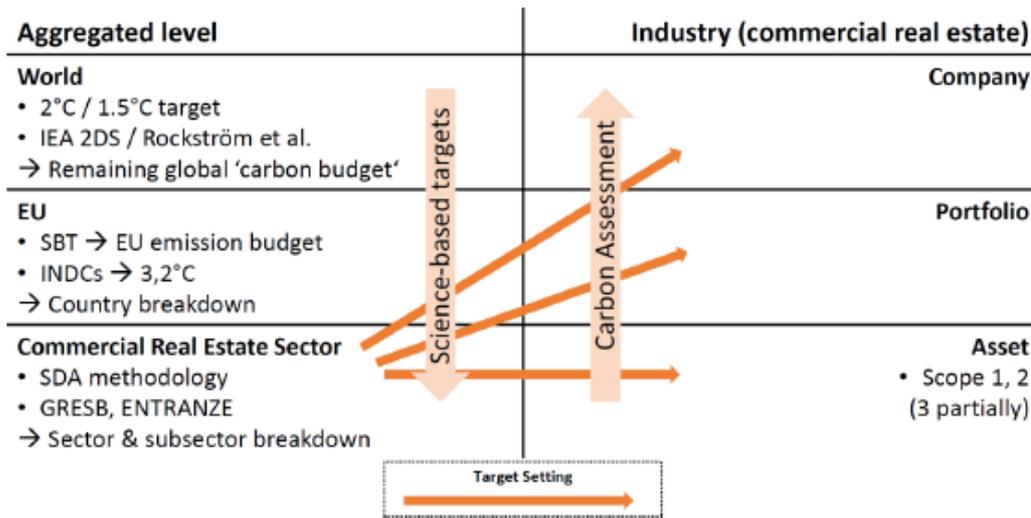
Dissatisfied – needs some improvement (2)

Highly dissatisfied – major improvement (1)

Please provide any feedback you have for improvement:

Scope 3 reporting map

The reporting of scope 3 emissions is important as the GHG Protocol is central to an 'ecosystem' of carbon reporting tools and mechanisms. These ultimately feed into the ambitions of the Paris Climate Agreement, but also wider initiatives such as the Taskforce for Climate Related Financial Disclosure (TCFD) or Science Based Targets initiative (SBTi). This is described in the diagram below.

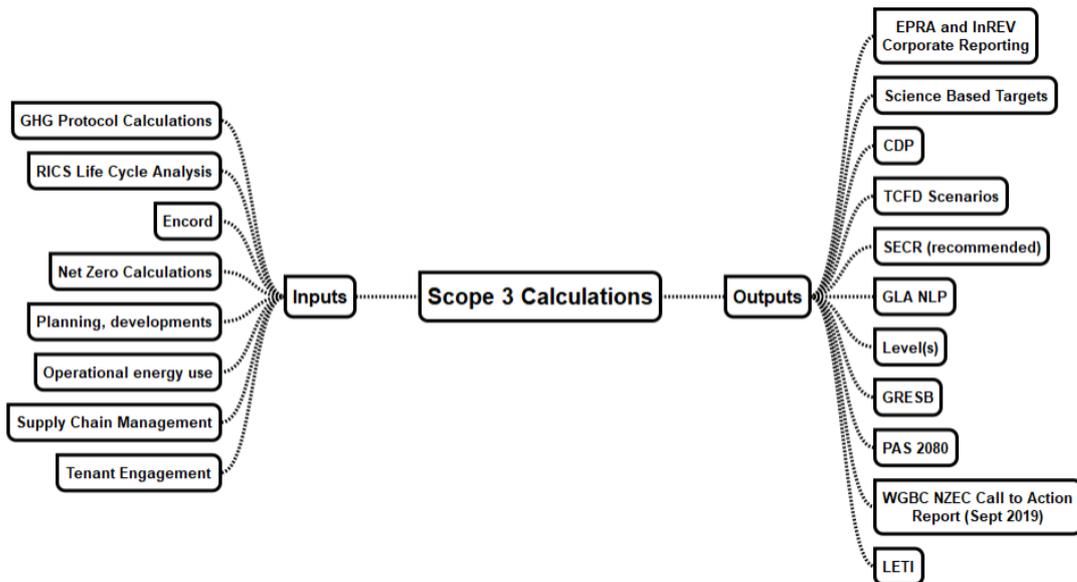


The 'ecosystem' of carbon reporting, into which scope 3 reporting falls © CRREM⁷

There are a range of standards, protocols, legislation, initiatives and frameworks for commercial real estate companies which touch on or directly address scope 3 emissions. As such, the reporting of scope 3 emissions can assist in providing input or output to the various other reporting frameworks already being used by a company (or potentially new ones).

The below diagram describes the most commonly used frameworks and the potential flow-on benefits for undertaking scope 3 reporting.

⁷ Carbon Risk Real Estate Monitor (2019), Stranding Risk & Carbon: Science-based decarbonising of the EU commercial real estate sector [online], available at: <https://www.crrem.eu/wp-content/uploads/2019/04/CRREM-Stranding-Risk-Carbon-Science-based-decarbonising-of-the-EU-commercial-real-estate-sector.pdf> [accessed: 8/05/2019]



Various reporting tools which scope 3 reporting feeds into and out of

This guidance has selected the most commonly used initiatives from the above and provided further detail on its connection to scope 3 reporting. These eight initiatives are listed below in order of relevance:

1. [RICS Professional Statement: Whole life carbon assessment for the built environment](#)
2. [CDP](#)
3. [Science Based Targets Initiative](#) (SBTi)
4. [Task Force on Climate Related Financial Disclosures](#) (TCFD)
5. [Streamlined Energy and Carbon Reporting](#) (SECR)
6. [Global Real Estate Sustainability Benchmark](#) (GRESB)
7. [ENCORD Construction CO2e Measurement Protocol](#)
8. [PAS 2080 Carbon Management in Infrastructure](#)

The below tables maps out these reporting initiatives and provides guidance on their relationship to scope 3 reporting. The table can assist companies currently reporting scope 1 and 2 emissions to explore which other reporting mechanisms may help to identify existing sources of scope 3 data for future reporting. It will also help in understanding how the different initiatives tie together and used to inform a wider strategic exercise on emissions reporting.

The table classifies how carbon is treated under each reporting initiative as generally either a carbon 'stock' or 'flow'. These are defined as:

- **Stock** – emissions locked into materials and one off processes that are calculated on a one off basis at capital delivery (and possibly in large scale refurbishments). These locked-in emissions cannot be transferred at portfolio level i.e. an asset owner doesn't inherit "stock" emissions in an acquisition. It also cannot remove these emissions when disposing of assets.
- **Flow** – operational flows of carbon generated from cyclical business activities.

These two definitions haven't been tested, as their definition depends on which entity is doing the calculations – one organisation's stock is another organisation's flow. At a project level, embodied carbon in materials is a stock, but at a developer level, it could be interpreted as a flow of carbon.

The way we report these emissions at the moment means that developers/asset owners can treat embodied carbon of multiple projects over time as a flow (although this is not what they actually do), however it should be treated as a stock by designers in order to make good design decisions.

Please rate your level of satisfaction with the content provided in this section. Please consider whether the content is sufficiently detailed and accessible, and whether any additional information is required.

Highly satisfied (5)

Satisfied (4)

Neutral (3)

Dissatisfied – needs
some improvement (2)

Highly dissatisfied –
major improvement (1)

Please provide any feedback you have for improvement:

Table 2: Map of reporting initiatives against scope 3

Reporting Initiative	Description	Sector / Industry	Emission Scopes / Treatment / Reporting Cycle	Boundary Issues	Metrics Used (for scope 3 emissions)	Mandatory / Voluntary
RICS Whole life carbon assessment for the built environment	A methodology to standardise the practical approach to calculating lifecycle emissions of buildings using the EN15978 assessment framework. In use since 2017.	Specific to buildings	Scope 1 and 2 (operational emissions of the building - Module B6) Scope 3 (embodied emissions in materials, transport, assembly, maintenance, repair, deconstruction - Modules A1-A5, B3-B5, B7, C1-4, D). Emissions are treated as a stock of carbon in a one-off calculation.	Uses the EN 15978 modular approach. Boundary of the calculation is selected by client (cradle-to-gate etc).	tonnes or kg CO2e (absolute) Can be normalised to kgCO2e/m2	Voluntary implementation for construction clients. Mandatory for RICS members if appointed by construction clients to undertake an assessment.
CDP	A global disclosure system that enables companies, cities, states and regions to measure and manage their environmental impacts. It relies on self reporting of environmental data. Data and insights can be used for improving decision making, managing risks and maximising opportunities. In use since 2002.	Used across all industries and sectors	Scope 1, 2 and 3 reported separately and annually. All scopes are reported as an annual flow of emissions.	Organisational Boundary options: - Financial control - Operational control - Equity share - Other	Metric tons CO2e Intensity metric (per unit of total revenue, plus any other relevant denominator)	Voluntary
SBTi	An initiative (set up by CDP, WRI, UNGC and WWF) to: a) help companies transition to a low-carbon economic profile; and b) make target setting in line with climate science a standard business practice and part of the emissions data infrastructure of companies. It champions the role and ability of corporations as a powerful force in driving down emissions. In use since 2015.	Used across all industries and sectors	Measurement of scope 1, 2 and 3 is mandatory. All scopes are reported as an annual flow of emissions (aligned to CDP)	Uses same boundary as CDP	Metric tons CO2e Intensity metric (per unit of total revenue)	Voluntary
TCFD	Voluntary, consistent climate-related financial risk disclosure methodology for use by companies in providing information to investors, lenders, insurers, and other stakeholders. Risks associated with climate change are physical, liability and transitional. TCFD recommendations give direction in what constitutes effective disclosure. In use since 2017.	Used across all industries and sectors - has specific recommendations for construction and real estate	Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks. All scopes are reported as an annual flow of emissions (use of GHG Protocol required and reporting is aligned to CDP).	Uses same boundary as GHG Protocol	- Disclose the metrics used by the organization to assess climate related risks and opportunities in line with its strategy and risk management process. - Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	Voluntary

Reporting Initiative	Description	Sector / Industry	Emission Scopes / Treatment / Reporting Cycle	Boundary Issues	Metrics Used (for scope 3 emissions)	Mandatory / Voluntary
GRESB	Real estate sector-specific ESG assessment and benchmarking of assets, with requirements related to fuel, energy, and water consumption and efficiencies as well as low carbon products. Covers infrastructure as well. Provides standardized and validated data to the capital markets. In use since 2008.	Specific to real estate assets/portfolio owners	Scope 1, 2 and 3 reported separately and annually as a flow of emissions.	Equity share, financial control or operating control.	Absolute MWh MWh/unit of floor area Absolute GHG emissions (tonnes) GHG emissions (tonnes)/unit of floor area	Voluntary
SECR	Replaces the CRC and mandatory reporting for quoted companies; builds on existing reporting requirements for ESOS, CCA, ETS. In use since 1 April 2019.	Used across all industries and sectors	Scope 1 and 2 (mandatory) Scope 3 (recommended) reported as an annual flow of emissions.	TBC	UK quoted companies should disclose - Annual global GHG emissions from activities for which the company is responsible inc combustion of fuel, electricity, heat, steam, cooling (Scope 1&2) - underlying global energy use - at least one intensity metric - Energy use and GHG emissions figures from previous year - details of methodology Unquoted companies should disclose: - energy use (comprising gas, electricity and transport i.e. Scope 1&2) - associated GHGs - at least one intensity metric - Energy use and GHG emissions figures from previous year - details of methodology	Scopes 1 and 2 are mandatory. Scope 3 is encouraged.
Encord	Guide to reporting against the Green House Gas Protocol for construction companies. In use since 2012.	Construction	Scopes 1, 2 and 3 reported as an annual flow of emissions.	Equity share, financial control or operating control. Operating control is recommended.	- tCO ₂ e - Tonnes CO ₂ e / unit of product - Tonnes CO ₂ e / (€ / £ / \$) 1 million turnover (primary indicator) - Tonnes CO ₂ e / m ² gross internal floor area (secondary indicator) - Tonnes CO ₂ e / km of road / rail (secondary indicator) - Kilograms (kg) of CO ₂ e / m ² gross internal floor area / annum - Kilograms (kg) of CO ₂ e / km road or rail	Voluntary
PAS 2080	A common framework for all infrastructure sectors and value chain members, on how to manage whole life carbon when delivering infrastructure assets and programmes of work	Construction (infrastructure)	Scope 1, 2 and 3 reported in one off calculations (stock of emissions) and cyclical (flows of emissions) according to the management framework.	Uses the EN 15978 modular approach adapted for infrastructure projects (includes guidance on inclusions/exclusions within asset owner/manager control or influence).	No specific metrics are endorsed.	Voluntary

Please rate your level of satisfaction with the content provided in this section. Please consider whether the content is sufficiently detailed and accessible, and whether any additional information is required.

Highly satisfied (5)

Satisfied (4)

Neutral (3)

Dissatisfied – needs
some improvement (2)

Highly dissatisfied –
major improvement (1)

Please provide any general feedback you have for improvement:

Please provide any specific feedback on the information provided in the table by making reference to individual reporting initiatives e.g. “for SECR the boundary issues should be updated to...”:

Getting started

For a company beginning its scope 3 journey, a manageable approach to scope 3 reporting can be challenging given the broad definition and wide range of potential inputs. For this reason, close alignment with the GHG Protocol's methodology of screening and reporting will improve the usefulness of the scope 3 data. This also provides a pragmatic approach to scope 3 reporting which can clearly identify areas of risk, but allow organisations to develop a more accurate understanding of the emissions over time.

From the outset, the company does not need to actively seek to reduce all carbon sources at once, or even any, but rather to understand the true impact of its activities. This understanding can be established based on estimations and proxies, so that more detailed accounts on material impacts can be developed. Over time, further investigation and potential reduction activities can be planned on those areas that will have the largest potential return on investment.

The scope 3 Screening process provides a detailed breakdown of estimated emissions, and it can help to determine what the material scope 3 impacts are. Material impacts are those which the company's decisions can have an evident impact upon.

Two examples of 'material impacts'

- Decisions over staff commuting may be limited if the majority of staff commute by public transport. It could be that the screening process identifies a value which can be used for reporting, to demonstrate the minor impact employees commuting to work have on the company's overall footprint.
- The screening process may determine that tenant emissions and embodied carbon are significant and material. Therefore, it would be reasonable and justifiable to collect as accurate data as possible for these activities in order to ultimately take action on reducing their impacts.

The general steps when undertaking scope 3 reporting are: **screening**, **reporting**, and **reductions**. These steps are detailed in the following three sections of this guidance document.

Please rate your level of satisfaction with the content provided in this section. Please consider whether the content is sufficiently detailed and accessible, and whether any additional information is required.

Highly satisfied (5)

Satisfied (4)

Neutral (3)

Dissatisfied – needs
some improvement (2)

Highly dissatisfied –
major improvement (1)

Please provide any feedback you have for improvement:

Scope 3 Screening

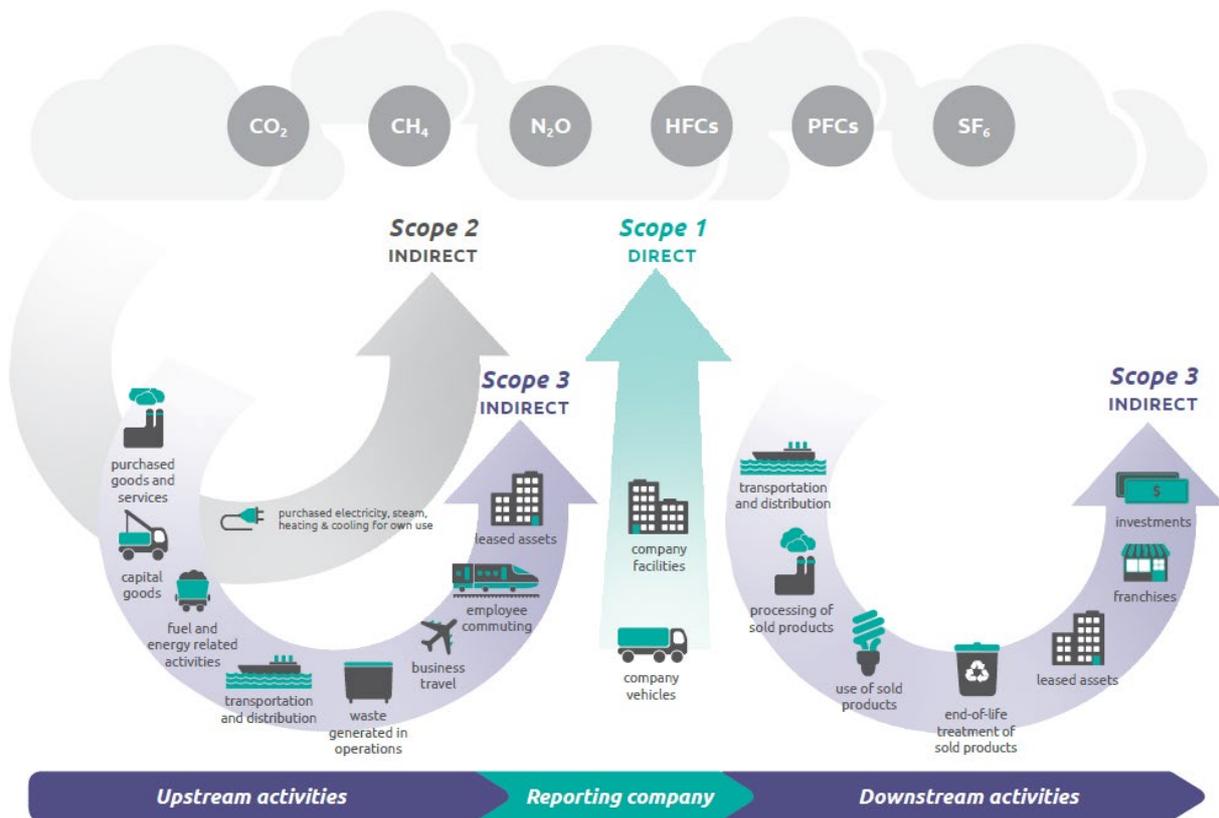
Screening process

Scope 3 reporting requires a screening process before reporting, in order to correctly assess relevant emissions sources, and material impacts. This sets out the levels of scope 3 impacts and improves reporting clarity and consistency.

The screening is a high-level evaluation to model the scope 3 emissions categories that are most relevant to the company. Determining the hotspots in your value chain will then allow you to understand where it is most important to focus efforts to improve calculations and set targets for emission reductions.

According to the GHG Protocol, there are 15 categories of scope 3 emissions that are categorised into upstream and downstream emissions. The GHG Protocol distinguishes between upstream and downstream based on the financial transactions of the company:

- **Upstream emissions** refer to those related to purchased or acquired goods and services.
- **Downstream emissions** to those related to sold goods and services.



Overview of scopes and reporting categories across the value chain from the GHG Protocol

There are three steps to undertaking a scope 3 screening:

1. Assessing the applicability of each of the scope 3 categories – see following section titled ‘GHG Protocol reporting categories’.
2. Assess the relevance of each category – see following section titled ‘Screening criteria’.
3. Estimate the size of each category (use industry-average data, proxy data, rough estimates).

Please rate your level of satisfaction with the content provided in this section. Please consider whether the content is sufficiently detailed and accessible, and whether any additional information is required.

Highly satisfied (5)

Satisfied (4)

Neutral (3)

Dissatisfied – needs
some improvement (2)

Highly dissatisfied –
major improvement (1)

Please provide any feedback you have for improvement:

GHG Protocol reporting categories

The GHG Protocol outlines 15 scope 3 reporting categories, based on upstream and downstream activities. The below table provides an overview of these categories and a general relevance assessment for commercial real estate companies.

Please note, this general relevance assessment does not take the place of a screening process. Any company that wishes to undertake scope 3 reporting should use the below table as a starting point before undertaking their own screening process.

Each reporting category is described in line with the following:

- **GHG Protocol Category Description** – as per the GHG Protocol.
- **Relevance** – likely relevance of that reporting category for building developers, or investors.
- **Activities Reported** – most material activities likely to be reported for a commercial real estate company.
- **Data Collection** – data that should be gathered when undertaking scope 3 reporting for the first time i.e. 'low-hanging fruit'.
- **Emission Factors** – sources of emission factors for the activities reported.

Table 3: GHG Protocol reporting categories

GHG Protocol Category Description	Relevance		Activities Reported	Data Collection	Emission Factors
	Developers	Investors			
Upstream Activities					
Purchased goods and services - Emissions from the extraction, production, and transportation (i.e. cradle-to-gate emissions) of goods and services acquired by a company in the reporting year, not otherwise included in another upstream category.	High	High	Spend may be largely on facilities management, contractors, lawyers and consultants. For developers, this is likely to a large component will be on building materials.	Request a breakdown of spend for the reporting year from procurement team, broken down by procurement category and/or supplier. Later on in the process, be sure to subtract spend for areas that have already been reported, e.g. energy costs, or can be reported in other upstream scope 3 categories.	<ul style="list-style-type: none"> Use spend-based emission factors (CO₂e/£) from Quantis Scope 3 Evaluator to identify hotspots; or Use DEFRA consumption based emissions factors based on spend per industry category (£).
Capital goods - Extraction, production, and transportation of capital goods purchased or acquired by the company in the reporting year (e.g. plant, property, and equipment that the company uses to manufacture a product, provide a service, or sell, store, and deliver merchandise).	High	Medium	Embodied carbon in the capital goods procured in the reporting year, e.g. HVAC plant, building consumables, computers, etc.	Using your spend data, understand the breakdown of operating and capital costs. Alternatively, speak to finance for a list of capital goods. This list should include the date the good was acquired to separate so that embodied carbon emissions from the capital goods acquired in the reporting year can be calculated.	<ul style="list-style-type: none"> Use spend-based emission factors (CO₂e/£) from Quantis Scope 3 Evaluator to identify hotspots; or Use DEFRA consumption based emissions factors based on spend per industry category (£).
Fuel-and-energy-related activities - Extraction, production, and transportation of fuels and energy purchased or acquired by the company in the reporting year, not already accounted for in Scope 1 or 2.	Medium	Medium	This would include the well-to-tank and transmission and distribution losses from fuels and electricity purchased.	Electricity and fuel figures as reported in the reporting company's scope 1 and 2 footprint.	UK Government Department for Business, Energy & Industrial Strategy
Upstream transportation and distribution - Transportation and distribution of products purchased by a company in the reporting year between suppliers and its own operations (in vehicles and facilities not owned or controlled by the company).	Medium	Low	Emissions from logistics for developments or pre-fab logistics paid for. Any courier or other logistics services.	Speak to the procurement team or use spend data to find out if any logistics were procured in the reporting year. Request mileage data from the supplier as data is often readily available.	UK Government Department for Business, Energy & Industrial Strategy
Waste generated in operations - Disposal and treatment of waste generated in the company's operations in the reporting year (in facilities not owned or controlled).	Low	Low	Waste from own operations and developments where the company has the ability to implement policies to influence waste generation.	Data on quantity of waste produced broken down by disposal route. This can often be easily obtained from waste collection providers and landlords. Waste data from any construction projects. <i>Note that this category only includes emissions from waste generated in own operations, so including tenant waste is optional.</i>	UK Government Department for Business, Energy & Industrial Strategy

GHG Protocol Category Description	Relevance		Activities Reported	Data Collection	Emission Factors
	Developers	Investors			
Business travel - Transportation of employees for business-related activities during the reporting year (in vehicles not owned or operated by the company).	Low	Low	Emissions from flights, taxis, rail and personal vehicles.	<p>Business travel is often procured through a central system, and travel providers often readily provide data to enable companies to calculate emissions.</p> <p>The data required would include, where applicable:</p> <ul style="list-style-type: none"> • Mode of transport • Origin and destination, including country • Distance of journey • Class of journey 	UK Government Department for Business, Energy & Industrial Strategy
Employee commuting - Transportation of employees between their homes and their worksites during the reporting year (in vehicles not owned or operated by the company).	Low	Low	Regular journeys by employees from home to work by car or public transport.	<p>Information on employee commutes is sometimes collected by HR. Consider conducting a travel survey if you feel there is opportunity to reduce employee commuting emissions.</p> <p>In the absence of this information, government bodies often publish information on commuting patterns.</p> <p>For UK employees, the Department for Transport publishes details on commuting trends which can be used to estimate travel.</p>	UK Government Department for Business, Energy & Industrial Strategy
Upstream leased assets - Operation of assets leased by the company (lessee) in the reporting year and not included in scope 1 and scope 2 – reported by lessee.	Low	Low	Emissions from office space leased from other companies not already included in scope 1 or 2.	<p>Electricity and fuel use data can be requested from the landlord or energy supplier.</p> <p>Floor area can be used as a benchmark if this information is not available. See “downstream leased assets” for more information on these benchmarks.</p>	UK Government Department for Business, Energy & Industrial Strategy
Downstream Activities					
Downstream transportation and distribution - Transportation and distribution of products sold by the company in the reporting year between the company’s operations and the end consumer (if not paid for by the company), including retail and storage (in vehicles and facilities not owned or controlled by the company).	Unlikely to be applicable	Unlikely to be applicable	Unlikely to be applicable as any assets sold would probably not be transported.		
Processing of sold products - Processing of intermediate products sold in the reporting year by downstream companies (e.g. manufacturers).	Unlikely to be applicable.	Unlikely to be applicable.	N/A		

GHG Protocol Category Description	Relevance		Activities Reported	Data Collection	Emission Factors
	Developers	Investors			
Use of sold products - End use of goods and services sold by the company in the reporting year.	Medium	Low, see section below.	Expected operational emissions from buildings (module B, as per the RICS Professional Statement) sold in the reporting period over their lifetime.	<ul style="list-style-type: none"> Details of assets sold Expected lifetime of assets (60 years is the indicative lifetime as per EN15978 and RICS Guidance) Expected energy consumption of assets 	UK Government Department for Business, Energy & Industrial Strategy , plus an understanding of future grid emissions factors
End-of-life treatment of sold products - Waste disposal and treatment of products sold by the company (in the reporting year) at the end of their life.	Low	Low, see section below.	Expected emissions from buildings sold in the reporting period when they are demolished (module C, as per the RICS Professional Statement).	<ul style="list-style-type: none"> Details of assets sold, including material use within building Expected disposal / reuse rate Expected disposal method 	UK Government Department for Business, Energy & Industrial Strategy , plus an understanding of future grid emissions factors
Downstream leased assets - Operation of assets owned by the company (lessor) and leased to other entities in the reporting year, not included in Scope 1 and Scope 2 – reported by lessor.	High, see note below.	High	The emissions from the assets leased to other organisations over the reporting year.	<p>Where tenant energy consumption data is readily available, these figures should be multiplied.</p> <p>Where tenant consumption is not readily available, an estimate can be made using floor areas. Use CIBSE / REEB Benchmarks.</p>	UK Government Department for Business, Energy & Industrial Strategy
Franchises - Operation of franchises in the reporting year, not included in Scope 1 and Scope 2 – reported by Franchisor.	Unlikely to be applicable.	Unlikely to be applicable.	N/A		
Investments - Operation of investments (including equity and debt investments and project finance) in the reporting year, not included in Scope 1 or Scope 2.	Low	Low	This applies where the company has indirect funds or is a minor or J/V partner and would include operational emissions of those investments in the reporting year if material.	<p>Where tenant energy consumption data is readily available, these figures should be multiplied.</p> <p>Where tenant consumption is not readily available, an estimate can be made using floor areas. Use CIBSE / REEB Benchmarks.</p>	UK Government Department for Business, Energy & Industrial Strategy

Please rate your level of satisfaction with the content provided in this section. Please consider whether the content is sufficiently detailed and accessible, and whether any additional information is required.

Highly satisfied (5)

Satisfied (4)

Neutral (3)

Dissatisfied – needs
some improvement (2)

Highly dissatisfied –
major improvement (1)

Please provide any general feedback you have for improvement:

Please provide any specific feedback on the information provided in the table by making reference to individual reporting initiatives e.g. "for the Franchises category the activities report could be updated to ...":

Screening criteria

A company can determine which of the scope 3 reporting categories are relevant by evaluating each of the applicable emission sources against the criteria in the table below. The results from the assessments against these criteria will be unique to each company and their activities.

Where a company has already determined that a category is not applicable (for example, franchises), then there is no need to apply the screening criteria to that category.

Table 4: Criteria for identifying relevant scope 3 activities
(Table 6.1 from GHG Protocol)

Criteria	Description
Size	These emissions are expected to make up a significant portion of the company's total expected scope 3 footprint (see next section for guidance on initial estimation methods).
Influence	Scope 3 emissions, by definition, are indirect emissions outside of operational control and therefore there is less potential to influence. Despite this, there are potential actions that can be undertaken to reduce these emissions.
Risk	These emissions contribute to a company's potential climate change risk exposure. It is important to consider the following items: <ul style="list-style-type: none"> • Regulation, i.e. climate change legislation be introduced that impacts suppliers or customers. • Supply chain costs and reliability, i.e. increased costs that are passed to the company, or climate change impacts affect supply chain availability. • Product and technology, i.e. increased or decreased demand due to market changes. • Litigation, i.e. climate change related court cases against company in value chain. • Reputation, i.e. negative reactions from stakeholders or media related to GHG management practices, emissions in the value chain, etc.
Stakeholders	Stakeholders such as employees, customers, suppliers, investors, or society care about reducing these emissions.
Level of outsourcing	Scope 3 emissions are related to outsourced operations. Companies in the commercial real estate sector perform some activities in-house (and would be accounted for in scope 1 & 2), or out-source them to other organisations. Where the latter, it is important that companies that outsource these activities are included in the scope 3 footprint.
Sector guidance	These emissions have been identified as significant by sector-specific guidance, see RICS Guidance or EN15978.

Screening criteria example

As an example, a company might look at waste to understand whether these emissions are relevant.

Criteria	Questions to determine relevance	Rating (1 - 10)
Size	<p>What portion of my expected Scope 3 footprint do I expect these emissions to account for?</p> <p>Please note, this is a 'chicken and egg' situation, and all relevant emission categories should be estimated to answer this question.</p>	3
Influence	<ul style="list-style-type: none"> • Can I implement policies to reduce waste in my operations? • Can I implement recycling programmes? • Can I influence waste management companies to improve waste treatment methods? 	7
Risk	Is there a risk that waste management companies might be subject to legislation?	8
Outsourcing	Do other commercial real estate companies typically manage waste internally?	1
Sector guidance	Have guidance documents highlighted emissions from waste as being an important to account for?	4
Relevance rating		4.8

Please rate your level of satisfaction with the content provided in this section. Please consider whether the content is sufficiently detailed and accessible, and whether any additional information is required.

Highly satisfied (5)

Satisfied (4)

Neutral (3)

Dissatisfied – needs
some improvement (2)

Highly dissatisfied –
major improvement (1)

Please provide any feedback you have for improvement:

Scope 3 Reporting Decisions

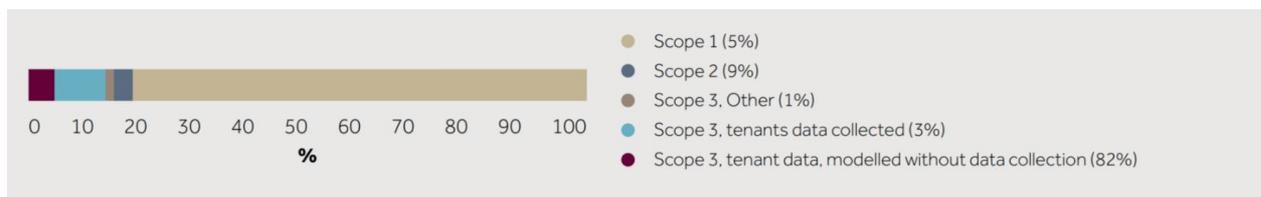
Following the scope 3 screening process, it is best practice to develop a scope 3 inventory for relevant emissions. A scope 3 inventory is an iterative process of collecting data, assessing data quality and improving data quality. It should appropriately reflect carbon impacts of activities and serve the decision-making needs of users.

The concept of materiality is key in developing the greenhouse gas emissions inventory. This will be based on key decisions being made during the reporting process which affect the accuracy of the data. These decisions are likely to vary between different reporting companies; however, the following section aims to set in place industry-accepted methods when making key reporting decisions.

Using estimated data where actual is not available

A reporting company should report on all carbon impacts, even those which cannot be controlled, or those which must be estimated due to lack of available data. This will allow for more accurate reporting and assessment of climate risks. Even sources of carbon that can't be controlled by the company should still be assessed if it has a scope 3 value. This will establish a consistent methodology of reporting climate risks within the industry.

Where actual data for scope 3 reporting categories are not available, this should be estimated. This provides a complete picture of the company's footprint and allows for better management of carbon risks. Without providing some understanding of the complete carbon footprint, decisions will underestimate aspects of the challenge and not reflect the relevant categories of emissions.



Example of estimated data from IPUT's 2018 Sustainability Report © IPUT⁸

The process for undertaking estimates should be in line with the following:

- Credible methodology used, and noted in the data qualifying notes.
 - Example: use floor area, asset class and industry benchmarks to extrapolate missing data. Or historical data for the same site, or similar site to estimate.
- Embodied carbon estimated, with basis of estimations in the data qualifying notes.

Please rate your level of satisfaction with the content provided in this section. Please consider whether the content is sufficiently detailed and accessible, and whether any additional information is required.

Highly satisfied (5)

Satisfied (4)

Neutral (3)

Dissatisfied – needs
some improvement (2)

Highly dissatisfied –
major improvement (1)

⁸ IPUT (2018), 2018 Sustainability Report [online], available at: <https://www.iput.ie/sustainability> [accessed: 18/04/19].

Please provide any feedback you have for improvement:

Do you agree or disagree that a reporting company's entire carbon footprint should be reported, even when estimated data is used in place of actual data? Please explain your answer:

Do you agree or disagree that GRESB should accept estimated data, where actual data is not available? Please explain your answer:

Do you have a proposed methodology for estimating tenant emissions data?

Accounting for new buildings purchased

The ‘purchased goods & services’ reporting category includes emissions from the extraction, production, and transportation of goods and services purchased or acquired by the reporting company in the reporting year, not otherwise covered by other upstream emission categories (GHG Protocol scope 3 categories 2 to 8).

The GHG Protocol states that companies should include all upstream emissions from the production of products acquired in the reporting year, and this includes buildings. For a developer, this includes all upstream (cradle-to-gate) emissions of purchased goods and services (modules A1 to A3, per the RICS Professional Statement). For an investor, this includes emissions from ‘embodied carbon to practical completion’ (modules A1 to A5, per the RICS Professional Statement).

This guidance recommends including the emissions for ‘embodied carbon to practical completion’ only when purchasing the building from a developer.

After this point, the level of influence that a company has over the design and build of a building diminishes and therefore it can be deemed immaterial. However, when considering the level of influence that commercial real estate companies have over these emissions it is important to recognise the relevance of accounting for these emissions.

If the emissions for ‘embodied carbon to practical completion’ are readily available, then a company could include these for transparency, however the benefits of collecting and reporting this data may not outweigh the work required if this data is difficult to obtain.

Worked examples:

- A. For a new building, when a property owner purchases a building from a building developer, the new property owner should include the embodied carbon of the development within their scope 3 reporting. The original developer should include the lifecycle emissions (less the embodied carbon already reported in previous years) of the sold asset within their scope 3 reporting.

While this approach may be considered “double counting”, it does recognise the climate risks in the embodied carbon of a purchased development, the lifecycle emissions of a building developed and sold, and reduces the risks of not acknowledging or accounting for these risks.

- B. For an existing building, when a property owner purchases a building from some entity other than a developer (i.e. a “second hand” building), the reporting of lifecycle and embodied carbon emissions is not required.

In both examples, the reporting companies have a requirement to include reasoning for the inclusion or exclusion in each case within the scope 3 assessment notes.

Please rate your level of satisfaction with the content provided in this section. Please consider whether the content is sufficiently detailed and accessible, and whether any additional information is required.

Highly satisfied (5)

Satisfied (4)

Neutral (3)

Dissatisfied – needs
some improvement (2)

Highly dissatisfied –
major improvement (1)

Please provide any feedback you have for improvement:

Do you agree or disagree with the recommended guidance that the emissions for ‘embodied carbon to practical completion’ should be included in the purchaser’s scope 3 report in that year, when purchased from a developer? Please explain your answer:

Accounting for buildings sold

The ‘use of sold products’ reporting category refers to emissions from the end use of goods and services sold by the company in the reporting year over their lifetime. In other words, this refers to the operational emissions of a building over its whole lifecycle and these emissions should be reported by a company in the year the asset is sold.

According to the GHG Protocol, reporting emissions from ‘use of sold products’ is required when the ‘product’ sold directly consumes energy. Buildings do directly consume energy and therefore should be reported on. However, as with the ‘purchased goods & services’ reporting category, it is important to consider the level of influence that real estate companies have over these emissions.

This guidance recommends that only developers include emissions from ‘use of sold products’ in their scope 3 emissions footprint.

Method for developing calculations for buildings sold

Given operational emissions over the lifetime of a building occur in the future (modules B1 to B7, per the RICS Professional Statement), these emissions can only be estimated. The following is an example of providing lifetime emissions for a building, based on an example from the GHG Protocol.

Worked example:

A developer sells a total ‘A’ amount of building floor area in 2018. Each asset has an expected lifetime of ‘C’ years. The developer reports the expected energy use of those buildings over their expected lifetime. The developer could also report the average energy efficiency (kWh/m²) and average emissions (kg CO_{2e}/m²) as a relevant intensity metric.

Total floor area sold in reporting year	Average energy efficiency	Average expected lifetime	Expected energy consumption
A (m ²)	B (kWh/m ² p.a.)	C (years)	= A x B x C

An automaker sells one million cars in 2010. Each car has an expected lifetime of ten years. The company reports the anticipated use-phase emissions of the one million cars it sold in 2010 over their ten year expected lifetime. The company also reports corporate average fuel economy (km per liter) and corporate average emissions (kg CO₂e/km) as relevant emissions-intensity metrics.

Box 5.7 from GHG Protocol: Example of reporting product lifetime emissions

Please rate your level of satisfaction with the content provided in this section. Please consider whether the content is sufficiently detailed and accessible, and whether any additional information is required.

Highly satisfied (5)

Satisfied (4)

Neutral (3)

Dissatisfied – needs
some improvement (2)

Highly dissatisfied –
major improvement (1)

Please provide any feedback you have for improvement:

Do you agree or disagree with the recommended guidance that only developers include emissions from 'use of sold products' in their scope 3 emissions footprint? Please explain your answer:

Accounting for supply chain emissions

The table below outlines calculation methods for accounting for supply chain emissions ordered by level of accuracy. The reporting company should always aim to improve the accuracy for all scope 3 reporting data, including for supply chain emissions.

Table xx: Methods for accounting for supply chain emissions

Calculation Method	Detail	Accuracy
Supplier-Specific Method: Use of product-level cradle-to-gate GHG inventory data from goods or services suppliers.	Engage with key suppliers across each product to obtain product-specific LCA information.	High
Hybrid Method: Specific emissions data from key suppliers and, where there are gaps, using this data to extrapolate across the procurement category by volume or spend.	If unable to obtain specific LCA information from key suppliers, the company should seek LCA information from one supplier for each product category and extrapolate out using volume data unless any reason is known that would make this an inappropriate assumption.	Low
Average-Data Method: Utilization of volume and quantity data associated with products and product emission factors from LCI databases, e.g. Ecoinvent.	Procurement should provide the volumes and quantities purchased per product category and with some additional detail it may be possible to match the products purchased with appropriate industry average emission factors.	Low
Spend-Based Method: Utilization of spend emission factors (as done in this screening exercise).	If more specific emissions factors are not available, the company can estimate emissions for goods and services by collecting data on the economic value of goods and services purchased and multiplying it by relevant secondary (e.g., industry average) emission factors (e.g., average emissions per monetary value of goods).	Low
Extrapolation of emissions based on similar or other appropriate category spend and emissions data	Where there are gaps, we can use the emissions calculated via all methods above and extrapolate out to cover the remaining spend of purchased goods and services.	Low

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Highly satisfied (5)

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Neutral (3)

Dissatisfied – needs
some improvement (2)

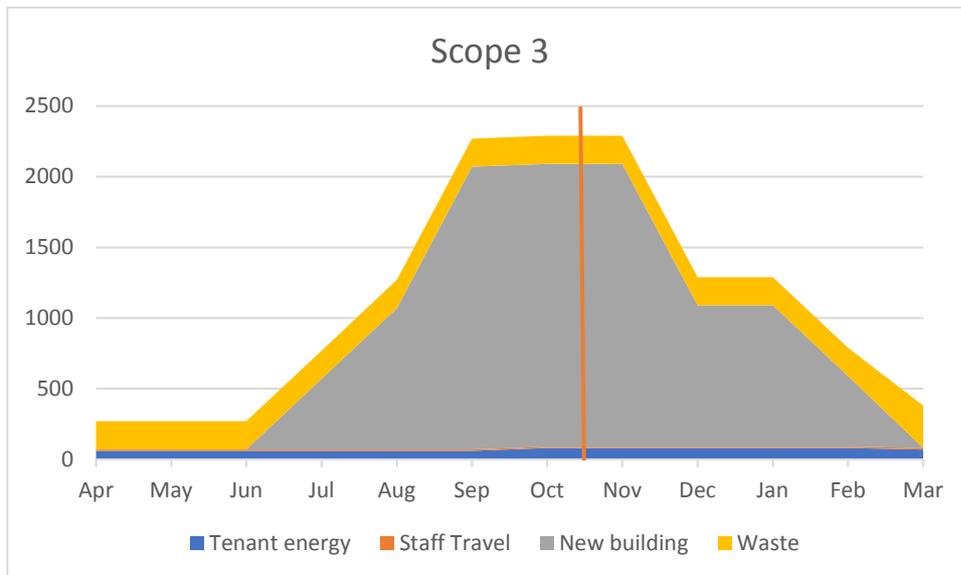
Highly dissatisfied –
major improvement (1)

Please provide any feedback you have for improvement:

Scope 3 reporting over time

Scope 3 reporting provides the organisation’s carbon at a given point in time and is affected by both fixed and variable impacts. There will be fixed activities with consistent impact materiality, by their nature they should be easier to track and target for reduction activities (e.g. tenant energy, staff travel). There are also variable activities that will have short term high impact effects that must be understood (e.g. constructing a new building).

These differing sources mean the organisation needs to evaluate fixed and variable elements separately, whilst also understanding their combined total. For example, a decision to upgrade all buildings may result in a significant increase in the short term, but substantive reductions in the long term. To appreciate these benefits the reporting company needs to understand the total impacts of its activities.



Example of the fixed and variable nature of a company’s activities and its impact on scope 3 reporting

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Highly satisfied (5)

Satisfied (4)

Neutral (3)

Dissatisfied – needs some improvement (2)

Highly dissatisfied – major improvement (1)

Please provide any feedback you have for improvement:

Scope 3 Carbon Reductions

Once accurate scope 3 reporting data is taking place, the ultimate aim is for this to inform activities to reduce carbon. This will need to be tailored to the reporting company, however one example and a framework for targeting these reductions are provided below.

Worked example:

1. **Scope 3 impact identified** – consumable items within the supply chain.
2. **Relevant internal parties engaged** – HR, procurement, facilities management, etc.
3. **Tracking method** – see screening section of this document.
4. **Evaluated for relevance and plan reduction activity** – potential low impact but cumulative over time, track and understand current use, judge potential action undertaken against potential benefit, make a change and track change, repeat.
5. **Organisation control or industry change** – develop solution in isolation or engage industry for coordinated shift in approach.

To achieve this carbon reduction, departments need to understand the impact of decisions taken and how improvements can be achieved. This will require cultural buy-in and targeted up skilling of key individuals and departments.

Once a source of scope 3 carbon has been identified as an area the reporting company wants to engage on all areas of the business should be utilised to achieve this aim. The responsible should not be placed solely on the environmental teams to resolve, especially where other departments have control of the process.

After the organisation has tackled the impacts under its internal control it can expand into areas which would require an industry shift, working with the supply chain to make diametric shifts in how they operate across the industry.

Emissions reduction levers, from 'Best Practices in Scope 3 Greenhouse Gas Management'⁹:

Business model innovation

- Put a price on carbon.
- Increase product lifespans.
- Consider shifting toward product-service systems.
- Increase efficiency in logistics.

Supplier engagement

- Engage with suppliers so that they reduce their emissions, ideally in line with climate science.
- Identify key suppliers to engage and maintain a collaboration via two-way communication channels, monitor progress regularly, and create incentives for action.

Procurement policy and choices

⁹ Science Based Targets Initiative (2018), Value Change in the Value Chain: Best Practices in Scope 3 Greenhouse Gas Management [online], available at: https://sciencebasedtargets.org/wp-content/uploads/2018/12/SBT_Value_Chain_Report-1.pdf [accessed: 8/05/2019]

- Continue purchasing the same products, but from suppliers with lower carbon footprint.
- Shift toward low-carbon alternatives.

Product and service design

- Design products that are more efficient so that lifecycle emissions intensity is lower.
- Integrate circular economy principles in product and service design.

Customer engagement

- Engage customers either directly through education, collaboration or compensation, or indirectly through company regulation or customer motivation via marketing and choice architecture.

Operational policies

- Develop operational protocols.
- Launching operational incentive programs.

Investment strategy

- Invest in low-carbon projects and companies and resilient development, and shift investment away from fossil fuels, accelerating the transition to a low-carbon economy.

Science-Based Targets for Buildings

The World Business Council for Sustainable Development (WBCSD) are currently undertaking the [Science-Based Targets for Buildings](#) (SBT4buildings) project to assist real estate companies to set carbon reduction targets in line with their own ambitions and the Science Based Targets initiative (SBTi). The outputs from this project may also be applied by commercial real estate companies to drive carbon reductions from scope 3 data.

Please rate your level of satisfaction with the content provided in this section. Please consider whether the content is sufficiently detailed and accessible, and whether any additional information is required.

Highly satisfied (5)

Satisfied (4)

Neutral (3)

Dissatisfied – needs
some improvement (2)

Highly dissatisfied –
major improvement (1)

Please provide any feedback you have for improvement:

Can you provide any further examples of initiatives to encourage carbon reductions using scope 3 reporting?

Glossary

Downstream emissions (from GHG Protocol)	Indirect GHG emissions from sold goods and services. Downstream emissions also include emissions from products that are distributed but not sold (i.e., without receiving payment).
Operational control (from GRESB)	Operational control is defined as having the ability to introduce and implement operating and/or environmental policies and measures.
Reporting year (from GHG Protocol)	The year for which emissions are reported.
Scope 3 emissions (from GHG Protocol)	All indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.
Upstream emissions	All the emissions that occur before a product or service reach the organisation, i.e. cradle-to-gate. This includes the extraction, production, and transportation of goods and services.

Please rate your level of satisfaction with the content provided in this section. Please consider whether the content is sufficiently detailed and accessible, and whether any additional information is required.

Highly satisfied (5)

Satisfied (4)

Neutral (3)

Dissatisfied – needs
some improvement (2)

Highly dissatisfied –
major improvement (1)

Please provide any feedback you have for improvement:

Appendix A: Best Practice Examples of Scope 3 Reporting

Company	Link to Scope 3 Report	Comments
Landsec	Sustainability performance, methodology and data 2018	See 'Scope 3 emission reporting methodology' on pages 7-8.
The Crown Estate	Performance against our capitals 2017/18	See pages 4-5 for discussion on scope 3 impacts.

Can you provide any further best practice examples of scope 3 reporting from within the commercial real estate sector?

You have now finished reading the draft guidance document. Do you have any general feedback or suggestions on improving the guidance provided? The more specific your requests are, the better the guidance can be suited to address your and industry's needs, so please, don't hold back.

Thank you

Thank you for reviewing this consultation paper and providing your valued feedback. Your input will help us in developing a guidance document that is truly developed by, and suited for, industry.

We will be in touch via email with updates on the guidance document prior to its launch in July. If you have any further questions on this project, please contact Karl.Desai@ukgbc.org.