



CO₂ PERFORMANCE LADDER

VERSION 4.0

STEP 1

JANUARY 2025

Stichting Klimaatvriendelijk
Aanbesteden & Ondernemen



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FOREWORD

We proudly present version 4.0 of the CO₂ Performance Ladder. The number one decarbonisation tool to assist organisations in taking concrete steps in our collective goal towards zero emissions. Since its introduction in 2009, the CO₂ Performance Ladder has been continuously developed without losing sight of its core principles. The Ladder offers organisations a structured approach for gradually implementing ambitious changes that will reduce CO₂ and save energy. The additional advantages include certified organisations gaining an advantage in procurement processes and immediate compliance with energy reporting requirements.

The use of the Ladder has increased more than ever in recent years. At the beginning of 2025, more than 7,500 organisations are using the CO₂ Performance Ladder in the Netherlands and Belgium. In another five European countries, we are testing the use of the Ladder in their specific national context with local partners. The CO₂ Performance Ladder is quickly becoming one of the most important instruments in the field of socially responsible purchasing within Europe.

CO₂ Performance Ladder 4.0 aligns better with what is expected in 2025 of organisations in how they approach emissions reduction. It rewards ambitious progress and, above all, actual results. The new CO₂ Performance Ladder is better aligned with our (inter)national context and European standards and legislation. At the same time, it continues to guide large and small organisations, in an accessible manner, in their first steps towards CO₂ reduction.

This new version took more than three years to develop and the result of a completely new Ladder is impressive. As chair of the Foundation for Climate Friendly Procurement and Business (SKAO), I would like to thank everyone who contributed. All those companies, procuring authorities, industry bodies, certification bodies and civic organisations that contributed to the analysis and writing. Together with the driven SKAO staff, this active community has made this outcome possible.

We expect the CO₂ Performance Ladder 4.0 to further challenge and inspire all companies, procuring authorities and organisations to complete their unique path to zero emissions. We have been working towards this goal together since SKAO was founded. Because only together can we prevent further climate change.

Dimitri Kruik
Chair of the Foundation for Climate Friendly Procurement and Business

INTRODUCTION

The CO₂ Performance Ladder is the sustainability instrument that helps companies and governments reduce energy consumption, CO₂ emissions and related costs. This involves reductions across operational management, in *projects*, and the value chain. The CO₂ Performance Ladder is used as a CO₂ management system and as a procurement instrument. *Organisations* that use the Ladder will see this investment immediately pay off in terms of lower energy costs, material savings and innovation gains.

Organisations can obtain certification from accredited certification bodies for the CO₂ Performance Ladder. This requires *continual improvement* in insight, energy and CO₂ reduction measures, communication and collaboration. In the execution of *projects*, but also in the value chain. *Organisations* satisfying the requirements are often more likely to win a (public) procurement.

The CO₂ Performance Ladder has three steps that increase from 1 to 3¹. Each step has a Handbook containing the requirements for the energy and CO₂ performance of the *organisation* and its *projects*. These requirements cover four different angles: insight, reduction of *energy consumption* and emissions, communication and collaboration. The position of an *organisation* on the CO₂ Performance Ladder is determined by the highest step at which the *organisation* meets all requirements.

Contracting authorities and companies can use the CO₂ Performance Ladder in procurement. The principle behind the CO₂ Performance Ladder is that effort is rewarded. A higher score on the Ladder means a concrete advantage in the procurement process, in the form of a – fictitious – discount on the tender price. All information about procurement with the CO₂ Performance Ladder can be found on the CO₂ Performance Ladder website.

¹ At the time of publication, Step 4 is still being worked on. This is expected at a later date.

READER'S GUIDE

This Handbook for Step 1 of the CO₂ Performance Ladder contains all the requirements that *organisations* must meet in order to obtain and maintain a CO₂ Performance Ladder Certificate at Step 1.

The Handbooks are part of the *certification scheme* of the CO₂ Performance Ladder. This scheme consists of the following normative documents:

- **The certification regulation** This contains the requirements for the *audit*, *CBs* and auditors.
- **The Harmonisation Acts** These are interpretations of requirements adopted after the publication of the Handbook.
- **The audit days table** This indicates the minimum audit time and applicable criteria.
- Any **other normative documents** that are specified at a later time.

The current overview and currently applicable versions (including any transition periods) of normative documents can be found on the CO₂ Performance Ladder website under 'normative documents'.

Each Handbook consists of two parts:

- **Part 1** This is the general part that is the same for each step. It contains all the general requirements relevant to all certificate holders regardless of the step. The classification in Part 1 follows the ISO-Harmonised Structure (HS)².
- **Part 2** This part is different for each step of the CO₂ Performance Ladder. It contains all the requirements that apply to the specific step, including the requirements of the underlying steps that apply. It is divided into four angles: A – Insight, B – Reduction, C – Communication and D – Collaboration.

Certification at a desired step requires satisfying the requirements of Part 1 and the requirements of Part 2 for that particular step. There is therefore no need to consult the Handbooks of the underlying steps.

² Note that the chapter format, but not the paragraph format, matches the HS throughout

PART 1

1

SUBJECT AND SCOPE

This document lists the requirements, criteria and explanations to establish, implement, maintain and improve an *energy and CO₂ management system*. The goal of the CO₂ Performance Ladder is that energy and CO₂ reduction are a permanent part of the *organisation's* strategy, policy and actions. *Organisations* do this both independently and with *organisations* in the sector and/or *value chain*.

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NORMATIVE REFERENCES

Below are all the norms and standards that Handbook 4.0 and the CO₂ Performance Ladder certification scheme refer to. Only the named version applies to standards and norms with a publication year³. Elements of these norms and standards relevant to the CO₂ Performance Ladder are explained with the requirements or are included in normative Appendix A. So, in general, it is not necessary to download and/or purchase the standards and norms.

EN 15804:2012+A2:2019 *Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products*

GHG Protocol Corporate Standard:2004 *A Corporate Accounting and Reporting Standard*

GHG Protocol scope 2 Guidance:2015 *An Amendment to the GHG Protocol Corporate Standard*

GHG Protocol scope 3 Calculation Guidance:2011 *Technical Guidance for Calculating scope 3 Emissions*

GHG Protocol scope 3 Standard:2011 *Corporate Value Chain (scope 3) Accounting and Reporting Standard*

IAF MD-1:2023 *IAF Mandatory Document for the Audit and Certification of a Management System Operated by a Multi-Site Organization*

IAF MD-2:2023 *IAF Mandatory Document for the Transfer of Accredited Certification of Management Systems*

IAF MD-5:2023 *Determination of Audit Time of Quality, Environmental, and Occupational Health & Safety Management Systems*

IPCC AR6:2021 *Working Group 1 Contribution to the Sixth Assessment Report of the IPCC: TSM*

ISO 14064-1:2018 *Greenhouse gases – Part 1: Specification with guidance at the organization step for quantification and reporting of greenhouse gas emissions and removals*

ISO 14064-3:2019 *Greenhouse gases – Part 3: Specification with guidance for the verification and validation of greenhouse gas statements*

ISO/IEC 17021-1:2015 *Conformity assessment – Requirements for bodies providing audit and certification of management systems – Part 1: Requirements*

ISO 50001:2018 *Energy management systems – Requirements with guidance for use*

ISO 14067:2018 *Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification*

³ For the sake of readability, publication years have been omitted in the rest of the Handbook.

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TERMS AND DEFINITIONS

The list below defines key terms as they appear in the Handbook and certification scheme. Some terms are followed by the abbreviation in brackets. Any definition based on an outside source is noted as such.

Accreditation body This is a government organisation responsible for accrediting and maintaining accredited *Certification Bodies* for the CO₂ Performance Ladder. In other countries, these are *organisations* that entered into a Multi-Lateral Agreement (EA/IAF) with the RvA, including BELAC in Belgium. In the Netherlands this is the Dutch Accreditation Council (RvA).

Action Plan This is a *short-term strategy* involving the intended preparatory actions and concrete measures to achieve an *organisation's* targets. If the *organisation* has a *Climate Transition Plan*, the *Action Plan* aligns with the objectives and targets described therein.

Annual audit This *external audit* is performed by a *CB* one or two years after the *initial audit* or after the *recertification audit* where the certification step remains unchanged.

Audit criteria (Source: ISO 50001) Any policies, procedures or requirements used as a reference against which *audit evidence* is tested.

Audit evidence (Source: ISO 50001) Records, factual claims or other information relevant and verifiable to the *audit criteria*.

Avoided emissions (Comparative emissions)⁴ These are reduced emissions (positive) or increased emissions (negative) that occur or can occur outside the *organisation's value chain* (and thus outside

scopes 1, 2 and 3), relative to a baseline due to the *organisation's* action or measure.

Base year (Source: ISO 14064-1) A specific historical period identified to compare with other years of energy consumption, energy generation, greenhouse gas emissions, CO₂ *removals* or other energy or greenhouse gas information.

Branch A permanent branch site of one or more entities belonging to the same *organisation*.

- **Head office** The place of business where the *main entity* is located.
- **Branch offices** The other branches.

Business travel (Source: GHG Protocol scope 3 Standard) These emissions are due to passenger transportation for work-related activities, including business air travel, business travel by private cars and business travel by public transportation. These emissions are a separate *scope 3* category per the GHG Protocol.

Category A, B and C measures Various steps of implementation have been defined for each measure on the *Measure list*.

- **Category A** This refers to a 'standard' step of implementation. This means that more than 50% of the *organisations* for whom this measure is relevant have implemented it.
- **Category B** This involves a 'progressive' step of implementation. This means that 20% to 50%

⁴ Although comparative emissions are more appropriate, the Ladder uses the term *avoided emissions* because it is a well-recognised term.

of the *organisations* for whom this measure is relevant have implemented it.

- **Category C** This involves an ‘ambitious’ step of implementation. This means that only a few *organisations* have implemented this measure (at most 20%).

Certification Body (CB) A *certification body* is a third party authorised to conduct a certification or *audit* to assess an *organisation’s* compliance with the CO₂ Performance Ladder. A prerequisite for this authority is that the CB has an agreement with SKAO and has relevant accreditation by a national *accreditation body* (or is in the process of obtaining such accreditation).

Certification scheme All normative documents required for certification for the CO₂ Performance Ladder, consisting of the various Handbook versions (Part 1 and Part 2), the certification scheme, the *Harmonisation Acts*, the audit days table and any other normative documents to be designated later.

Climate Transition Plan An *organisation’s* long-term and/or medium-term strategy for CO₂ reduction. The deadline, scope and targets of the *Climate Transition Plan* depend on the certification step.

Consolidation approaches (Source: GHG Protocol) Corporate Standard Methods for determining whether entities partially owned by the *main entity* are wholly, partially or not within the *organisational* boundaries of the organisation. There are three *consolidation approaches*: equity share, operational control and financial control.

Consortium A legal entity through which several *organisations* (the consortium members) jointly execute one or more *projects*. Often the organisational form is a VOF (The Netherlands) or Tijdelijke Maatschap (Belgium).

Continual improvement (Source: ISO 50001) Repetitive activity to improve performance.

Corrective action Measure to remove the cause of a *nonconformity* and to prevent repetition.

CO₂ compensation The implementation of CO₂ reductions or CO₂ *removals* outside the *organisation’s value chain* by purchasing tradable carbon credits. For example, for planting forests or investing in renewable energy projects. Therefore it does not contribute to achieving targets or a (higher) step on the CO₂ Performance Ladder⁵.

CO₂ emissions inventory (Source: GHG Protocol) Corporate Standard An emissions inventory is a quantified list of an *organisation’s* CO₂ emissions and CO₂ *sources*.

CO₂ equivalent (Source: GHG Protocol Corporate Standard) This unit of global warming potential is used for comparison with a non-CO₂ greenhouse gas to CO₂. **Note to the term:** *Wherever the Handbook states CO₂ it should be read as: CO₂ including non-CO₂ greenhouse gases relevant to the organisation expressed in CO₂ equivalents, unless it is specifically stated to be CO₂ only.*

CO₂ footprint This is the sum of CO₂ emitted by an *organisation* broken down into *scope 1*, *scope 2* and *scope 3* and expressed in kg or tons of CO₂ *equivalents*.

CO₂ Performance Ladder Certificate A document showing that an *organisation’s energy and CO₂ management system* meets the requirements of the *certification scheme* for the step of the CO₂ Performance Ladder stated on the certificate. This document has been issued by an authorised CB.

CO₂ Performance Ladder Project A tendered *project* where the CO₂ Performance Ladder plays a role in the procurement process and/or where the contracting authority grants a benefit for holding or obtaining a CO₂ Performance Ladder Certificate. For example, by giving a fictitious discount on the tender price. If there is any advantage in awarding by having, or achieving, a CO₂ Performance Ladder Certificate, it is always a CO₂ *Performance Ladder Project*. It is not

5 The CO₂ Performance Ladder does not make any judgements about the social relevance of CO₂ compensation.

relevant here whether the award advantage was or was not decisive when being awarded the contract or in which manner the CO₂ Performance Ladder was requested in the tender. **SKAO explicitly advises against this practice** (see the Procurement Guide) but the CO₂ Performance Ladder is sometimes used as a selection criterion or eligibility requirement. This also constitutes a *CO₂ Performance Ladder Project*. If there are partial *projects* within a framework agreement, these *projects* may be jointly considered as one *CO₂ Performance Ladder Project*.

CO₂ removals (negative CO₂ emissions or CO₂ sequestration) (Source: ISO 14064-1) The quantification of the sequestration of CO₂ from the atmosphere within the *organisation's value chain*.

CO₂ sink The process, action or mechanism the *organisation* contributes to that results in CO₂ removal. For example, this includes the storage of biogenic CO₂ in the soil or materials within the *organisation's value chain*. If this occurs **outside** the *organisation's value chain*, it is equated with CO₂ compensation.

CO₂ source (Source: ISO 14064-1) A process that releases CO₂ into the atmosphere.

(Direct and indirect) biogenic CO₂ emissions CO₂ emissions from burning or oxidising biogenic material from human activities. These emissions are short-cycle. That is, they have a cycle from CO₂ emission to CO₂ sequestration within a few centuries. This contrasts with a cycle of several million years (as with fossil fuel combustion). *Biogenic CO₂ emissions* can occur in the *value chain* (indirect) or as a result of the actions of the *organisation* itself (direct). *Biogenic CO₂ emissions* explicitly refer only to CO₂ and not to *non-CO₂ greenhouse gases*.

Direct emissions See *Scope 1*

Direct relations Parties in the *value chain* with which the *organisation* has a contractual relationship, such as suppliers, buyers, customers and commissioning parties.

Downstream emissions (Source: GHG Protocol scope 3 Standard) *Indirect CO₂ emissions* of sold products and services, this also includes products and services that are distributed but not sold (i.e. without payment). See also *scope 3 emissions*.

Emissions due to energy consumption on a (the) project CO₂ emissions resulting from the *energy consumption of a project*.

Energy and CO₂ management system (Source: ISO 50001) All related or interacting elements of an *organisation's* efforts to establish an *energy and CO₂ policy* and targetss, as well as the processes to achieve those targets.

Energy and CO₂ management team The person or persons with responsibility and authority for implementing an *energy and CO₂ management system* and improving CO₂ and energy performance.

Energy and CO₂ policy (Source: ISO 50001) The intentions and direction of an *organisation* regarding *energy consumption* and CO₂ emissions as formally stated by its *management* in, among other things, the *Climate Transition Plan* and *Action Plan*.

Energy balance A quantified list of all energy purchased, self-generated, sold and all *final energy consumption* of an *organisation*. The list is broken down into (groups of) facilities, systems, processes or equipment, expressed in joules (kJ, MJ, etc.) or watt-hours (kWh, MWh, etc.) within a one-year period.

Energy consumption (Source: ISO 50001) The amount of energy used.⁶

Energy consumption on a (the) project *Energy consumption* for transportation to and from the project site (*LCA Stage A4*) and *energy consumption* at the project location (*LCA Stage A5*).

Energy efficiency (Source: ISO 50001) The ratio between the performance, service, goods or energy obtained and the energy input.

⁶ For example, an *organisation* consumes 10,000 kWh of electricity in a month.

Energy review (Source: ISO 50001) The analysis of *energy efficiency, energy use and energy consumption* based on information. This results in the *organisation* identifying significant *energy consumption* and opportunities for improving energy performance.

Energy use (Source: ISO 50001) The application of energy.⁷

Final energy consumption The *energy consumption* of the *organisation* consists of: the sum of the energy purchased and self-produced by the *organisation* minus the energy sold. This involves only fuels and energy carriers consumed for energetic applications. Fuels and energy carriers consumed as raw materials (such as petroleum for asphalt production) are not included.

Flexibility in the energy system The capacity to temporarily adjust or store the electrical production or consumption of a plant or process. The goal is for *organisations* to reduce congestion and/or increase the share of renewable energy in the energy system.

Global Warming Potential (of GWP-100) (Source: IPCC) This is a factor that gives the radiative forcing of one unit of a particular *non-CO₂ greenhouse gas* relative to one unit of CO₂ over a 100-year period. (This is the degree of damage to the atmosphere.) The unit for *global warming potential* is *CO₂ equivalent*. Refer to the IPCC for accurate values.

Green electricity Electricity from renewable non-fossil sources that meets the criteria⁸ for sustainability and additionality described in requirement 1.A.2/2.A.2/3.A.2.

Green gas Gas from biomass upgraded to natural gas quality. Note that this is different from natural gas whose CO₂ emissions are compensated through the purchase of tradable carbon credits, i.e. *CO₂ compensation*.

Greenhouse gases (Source: ISO 14064-1) Gaseous component of the atmosphere that absorbs and reflects radiation emitted by the earth, atmosphere and clouds in the infrared spectrum. A greenhouse gas can be either of natural origin or from human activity. The absorptive capacity of various *greenhouse gases* is expressed in terms of *global warming potential*.

Grey electricity Electricity that is not *green*.

Guarantee of Origin (GoO) A digital certificate that serves as proof that the energy carrier in question (including *green electricity* and *green gas*) has a sustainable origin. A GoO represents 1 MWh of sustainably generated energy.

Harmonisation Act The normative interpretations of requirements published after the publication of the Handbook.

Indirect emissions See *Scope 2* and *Scope 3*.

Independence (Source: ISO 50001) This means having no responsibility connected to the *energy and CO₂ management system* or being free from bias and conflict of interest.

Initial audit This *external audit* is performed by a *CB* to award the first *CO₂ Performance Ladder Certificate* or to award a certificate at a new step or in the event of major changes in the activities or organisational boundaries of the *organisation*.

Intensity value This is an indicator for *energy consumption*, the use of sustainable energy or CO₂ emissions of the *organisation* during the reporting year based on *energy consumption* (in MJ/kWh) or CO₂ emissions per self-chosen reference unit, such as net sales⁹ (e.g. kg CO₂/euro), number of staff (e.g. kg CO₂/FTE) or production size (kg CO₂/kg product).

⁷ For example, an *organisation* consumes energy to heat a furnace.

⁸ These criteria for sustainability and additionality are supplemental to the definition from the EU Renewable Energy Directive (and the Dutch Energy Act, among others). This means that electricity that may be called 'green' in Europe does not automatically count as green electricity for the CO₂ Performance Ladder.

⁹ The CSRD prescribes an *intensity value* per net revenue.

Interested party (Source: ISO 50001) A person or *organisation* that can influence a decision or activity, can be influenced by a decision or activity or considers itself influenced by a decision or activity.

(Internal and external) audit (Source: ISO 50001) A systematic, independent and documented process used to obtain *audit evidence*. This objectively assesses the extent to which the *audit criteria* have been met. An *internal audit* is conducted either by the *organisation* itself or by an outside party on behalf of the *organisation*. An *external audit* is performed by a *CB* at an *organisation*. The CO₂ Performance Ladder has four types of *external audits*: the *initial audit*, *annual audit*, *recertification audit* and *special audit*. **Note 1 to the term:** *an audit can be a combined audit (of two or more disciplines)*. **Note 2 to the term:** *wherever the word ‘audit’ appears it means an external audit unless it is specifically stated to be an internal audit*.

Issuing body An *organisation* responsible for issuing GoOs and recognised by a government. Examples of issuing bodies include VertiCer (the Netherlands), VREG (Flanders), CWaPE (Wallonia) and BRUGEL (Brussels).

Key persons Employees who by virtue of their role or function have, or can have, a significant influence on the *organisation’s* CO₂ and energy policy, *energy consumption*, consumption, storage or generation of renewable energy, and/or CO₂ emissions. Employees include persons performing work under the authority of the *organisation*.

Knowledge institute This independent and professional *organisation* has the relevant knowledge regarding LCAs and CO₂ emissions. This can be, for instance, a university or consultancy.

Large organisation An *organisation* that does not meet the requirements of a *small organisation*.

Leased assets Capital assets used by the *organisation* that are owned by a third party, such as leased cars, leased buildings or leased equipment.

Life Cycle Assessment (LCA) (Source: EN 15804) An analysis of the potential environmental impacts (including CO₂ emissions) of a product or activity

throughout its life cycle. A distinction is usually made within an *LCA* for construction works by its stage in the life cycle:

- **Stage A1-3** Product stage
- **Stage A4-5** Construction process stage
- **Stage B1-7** Usage stage
- **Stage C1-4** Demolition and disassembly stage
- **Stage D** Opportunities for reuse, recovery and recycling.

See normative Appendix A for more detail on the *LCA* stages for construction work.

Location-based method for scope 2 (Source: GHG Protocol scope 2 Guidance) This is a method that quantifies an *organisation’s* scope 2 emissions from electricity consumption that assumes an average emission factor for electricity generation within a defined location. The demarcation consists of local, sub-national or national boundaries. The role of the *location-based method for scope 2* is limited in the CO₂ Performance Ladder to obtaining and providing (§7.3.1 in Part 1) insight. In all other places in the Handbook where reference is made to scope 2, this should be read as *scope 2* per the *market-based method for scope 2*.

Long-term A period until no later than the year 2050.

Main entity The highest entity within an *organisation*.

Management (level) (Source: ISO 50001) A person or group of persons that direct and manage an *organisation* at the highest level. **Note 1 to the term:** *Management has the power to delegate authority and provide the organisation with resources*. **Note 2 to the term:** *If the energy and CO₂ management system is only applied to part of an organisation, the management refers to those who direct and manage that part of the organisation*.

Management review Review of an *energy and CO₂ management system* by the *management* of the *organisation* to ensure the continued suitability, implementation, adequacy, effectiveness and efficiency of the system.

Market-based method for scope 2 (Source: GHG Protocol scope 2 Guidance) A method to quantify an *organisation’s* scope 2 emissions from electricity consumption that assumes the CO₂ emissions of

the energy *supplier* with whom the *organisation* has a contractual agreement. These emissions may be offset against GoOs. All requirements for *scope 2* in the CO₂ Performance Ladder assume the *market-based method* for *scope 2* **unless** explicitly stated to be *scope 2* using the *location-based method*.

Materiality (Source: ISO 14064-3) The concept that individual or multiple inaccuracies combined can affect the decisions of internal and external *interested parties*. Inaccuracies are defined as errors, omissions, incorrect representations or misrepresentations. Whether something is material requires the judgment of an expert.

Measure list A list of CO₂ and/or energy reduction measures broken down by common activities of *organisations* participating in the CO₂ Performance Ladder. The purpose of the list is to inspire new measures. This list is also intended to help determine the level of ambition for the targets with *category A, B and C measures*.

Medium-term A period of 5 to 10 years.

Nonconformity (Source: ISO 17021-1) An *organisation* fails to meet a requirement. This can be a major or minor *nonconformity* depending on the severity of the *nonconformity*.

Non-CO₂ greenhouse gases All *greenhouse gases*, excluding CO₂, that are recognised in the Kyoto Protocol: methane (CH₄), nitrous oxide (N₂O), HFCs, PFCs, SF₆ and NF₃ and can be converted to CO₂ *equivalents* with their *global warming potential*.
Note to the term: *Wherever the Handbook states CO₂ it should read: CO₂ including non-CO₂ greenhouse gases relevant to the organisation expressed in CO₂ equivalents unless it is specifically stated to be CO₂ only.*

Organisation All entities within the same organisational boundary per Chapter 4.

Other influenceable emissions (OIE) Emissions that fall outside *scope 1, 2 or 3* per the GHG Protocol for the *organisation*. The reason is that these are short-cycle or occur outside the *organisation's value chain*. If the *organisation* can significantly influence these emissions, they are relevant to contributing to global

climate neutrality. A distinction is made between three *OIE* types: *biogenic CO₂ emissions*, *CO₂ removals* and *avoided emissions*. *CO₂ compensation* is explicitly not part of *OIE*.

Partnerships Formal or informal collaborations between (groups of) parties that are affiliated through their *sector, value chain* or location and that aim to research or implement energy saving, renewable energy or CO₂ reduction measures that directly relate to the *organisation's* environment, activities or *value chain*.

Pool of experts This is a public list on the CO₂ Performance Ladder website of SKAO-approved climate or energy experts who can review an *organisation's Climate Transition Plan* in a particular *sector* or *value chain*.

Project A *project* is a work, service or delivery performed by one *organisation* under contract from another *organisation*. Project activities belong to the *organisation* and are explicitly covered by the targets and requirements of the CO₂ Performance Ladder. If it is a tendered *project*, it may be a *CO₂ Performance Ladder Project*.

Project plan This is an *Action Plan* for a specific *CO₂ Performance Ladder Project*.

Recertification audit This *external audit* is performed by a *CB* every three years after the *initial audit*, where the certification step remains unchanged and based on which a *CO₂ Performance Ladder Certificate* is awarded on the same step.

Regular frequency The frequency with which requirements are followed must be regular. This means that the requirement is met on the same date – with a margin of one month earlier or later – as the previous time the requirement was met.

Relevant scope 3 emissions and relevant OIE If *scope 3* emissions or *OIE* affect the deliberations and estimates of the *interested parties* of and associated with the *organisation*, they are relevant to the *organisation*. An *organisation* determines its relevant emissions based on

- their relative volume compared to *sector* emissions;

- their relative volume compared to the *organisation's* other scope 3 emissions or OIE;
- the *organisation's* influence on emissions;
- the risk the *organisation* would face should it not report emissions;
- the value placed on it by *interested parties* of the *organisation*;
- outsourcing of work that the *organisation* first performed itself;
- identification by the *sector* as relevant.

Wherever it states *scope 3 emissions* and/or *OIE*, this should be read as *relevant scope 3 emissions* and/or *relevant OIE*.

Scope 1 emissions (direct emissions) (Source: GHG Protocol Corporate Standard) *Scope 1 emissions, or direct emissions* (term used in ISO 14064-1), are CO₂ emissions that come from CO₂ sources that the *organisation* owns or controls. Examples include emissions from burning fossil fuels in its own boilers, furnaces or in its own vehicles. For more explanation, see normative Appendix A.

Scope 2 emissions (indirect emissions from imported energy) (Source: GHG Protocol Corporate Standard) *Scope 2 or indirect emissions* from imported energy (term used in ISO 14064-1) are CO₂ emissions that arise from the generation of consumed electricity, heat, cooling and steam that the *organisation* has purchased (or otherwise brought within organisational boundaries). For more explanation, see normative Appendix A.

Scope 3 emissions (other indirect emissions) (Source: GHG Protocol Corporate Standard) *Scope 3 emissions or other indirect emissions* (term used in ISO 14064-1) are CO₂ emissions that are a result of the *organisation's* activities, but arise from sources that are neither owned nor controlled by the *organisation*. Examples are emissions from the production of purchased materials (*upstream*) and fulfilment of the work, *project*, service or delivery supplied or sold by the *organisation* (*downstream*). For more explanation, see normative Appendix A.

Sector A *sector* (trade) is a label for all *organisations* together that are active in a certain category of products or services.

Sector agreement An agreement that is demonstrably supported by multiple (international) market

players (or industry associations) and NGOs and/or government.

Short-term A period of one to three years.

Small organisation An *organisation* that meets at least two of the following conditions for the previous year:

- staff size was equal to or less than 250 FTE;
- annual turnover was equal to or less than 50 million euros;
- the balance sheet total was equal to or less than 25 million euros.

Special audit A *special audit* for the CO₂ Performance Ladder is an unannounced *external audit*, which a *CB* performs at an *organisation* when

- SKAO or another (*interested*) *party* informs the *CB* of possible significant *nonconformities*;
- there are indications causing the *CB* to doubt the proper functioning of the *energy and CO₂ management system*.

A *special audit* does not always have to be carried out at the location of the certified *organisation*. The *CB* may also reach an opinion by requesting relevant information.

Substantial and relevant emissions substantial and relevant energy use If *materiality* relates to *scope 1* or *scope 2* emissions (not applicable to *scope 3* emissions), these are *material emissions*. If *materiality* relates to *energy consumption*, this is *material energy consumption*. The limit above which reported emissions or *energy consumption* is material (the materiality threshold) is 5% for the CO₂ Performance Ladder. Non-material *scopes 1* and *2* emissions may be omitted from the emissions inventory and footprint (for lower administrative burden). However, this means these may only add up to a maximum of 5% of total *scopes 1* and *2* emissions. Wherever it states *scope 1 emissions* and/or *scope 2 emissions* and/or *energy consumption*, this should be read as 'material *scope 1 emissions* and/or material *scope 2 emissions* and/or *material energy consumption*'.

Supplier An entity that provides works, services and/or goods to the *main entity* including any subsidiary *organisations*.

- **A-Suppliers** the largest *suppliers* who collectively account for at least 80% of the purchase value of the *main entity* including any subsidiaries;
- **A&C-Supplier** these *A-Suppliers* belong to the same corporate group as the *main entity* and, as such, must be included in the *organisation*.

Tank-to-Wheel (TtW) emissions CO₂ emissions from the use of a fuel or energy carrier, excluding emissions from extraction and production.

Technology Readiness Level (TRL) (Source: NASA)

A type of measuring system used to assess the maturity level of a particular technology. Each technology project is evaluated with the parameters for each technology level and this *project* is then given a *TRL* rating based on the progress of the *project*. There are nine *TRLs*. *TRL* 1 is the lowest and *TRL* 9 is the highest. *TRL* 1 represents technology at the beginning of development and *TRL* 9 represents technology that is technically and commercially ready.

Upstream and downstream emissions on a (the) project Upstream emissions result from purchased materials (*LCA* stages A1, A2 and A3) and downstream emissions include at least those while result from energy or material use in the usage stage of completed construction works (at least *LCA* stage B).

Upstream emissions (Source: GHG Protocol scope 3 Standard) Indirect CO₂ emissions of purchased

or acquired products and services. See also *Scope 3* emissions.

Value chain (Source: GHG Protocol scope 3 Standard)

A *value chain* is the combination of all upstream and downstream activities associated with the *organisation*. This *value chain* includes the use and disposal of products sold by consumers.

Value chain analysis This is the inventory and analysis of CO₂ emissions from a *value chain* in which the *organisation* operates. This analysis focuses on understanding the extent and origin of CO₂ emissions and the *organisation's* ability to reduce these emissions by modifying the production process. These may occur due to different design choices and/or by choosing, influencing or collaborating with *organisations* in the *value chain*.

Wheel-to-Tank (WtT) emissions These CO₂ emissions are from the extraction and production of fuels and energy carriers.

Well-to-Wheel (WtW) emissions These CO₂ emissions are from the full life cycle of a fuel or energy carrier. Thus, this is the sum of emissions from extraction and production (*Well-to-Tank emissions*) and use (*Tank-to-Wheel emissions*).

Zero CO₂ emissions Reducing scope 1, 2 and 3 emissions to zero.

4

CONTEXT OF THE ORGANISATION

4.1



ORGANISATIONAL BOUNDARIES

Before an *organisation* is certified, the *organisation* must determine which entities it wants certified in their entirety or in part using methods described in this section. We call this defining the organisational boundary. All subsequent steps in certification depend on the appropriate determination of organisational boundaries. Thus, we recommend doing this at an early stage and submitting the outcome to a *CB*.

In determining organisational boundaries, the following conditions apply:

- a. These are always legal entities only, i.e. not unincorporated departments, branches or trade names;
- b. The *organisation* chooses to use
 - i. the top-down method or lateral method (see §4.1.1 and §4.1.2), and
 - ii. one of the three *consolidation approaches* from the GHG Protocol: operational control, financial control or equity share (see GHG Protocol Corporate Standard, Chapter 3 and/or the brief summary in normative Appendix A).
- c. The preferred choice for the CO₂ Performance Ladder is the combination of the top-down method and operational control.¹⁰ If the *organisation* departs from this, it must justify its choice;
- d. The *organisation* publishes its choices of methods under b. on the organisation page on the CO₂ Performance Ladder website;
- e. The *organisation* may switch between methods and/or *consolidation approaches* in each *audit* provided it provides adequate justification;
- f. Determining organisational boundaries may require crossing national borders. Organisational boundaries may not be limited by a geographic boundary;
- g. The *organisation* annually checks that its organisational boundaries are still current, and if necessary, adjusts them. If these changes (may) have major consequences, such as acquisitions, mergers or a method change (see e.), this may result in the next *audit* being an *initial audit*.

¹⁰ This combination is also prescribed in the CSRD.

METHOD 1: THE TOP-DOWN METHOD

The top-down method requires a complete organisational chart showing all legal entities that are wholly or partially, directly or indirectly, property or owned by the legal entities for which certification is sought. The entity located at the highest point in the organisational chart is the *main entity*. This is the holding company in the diagram below (e.g. this could be a ministry or municipality outside of the business sphere). The next step depends on the chosen *consolidation approach* and the operational or financial control or equity share for which legal entities are (partially) within the organisational boundaries and thus part of the *organisation*.

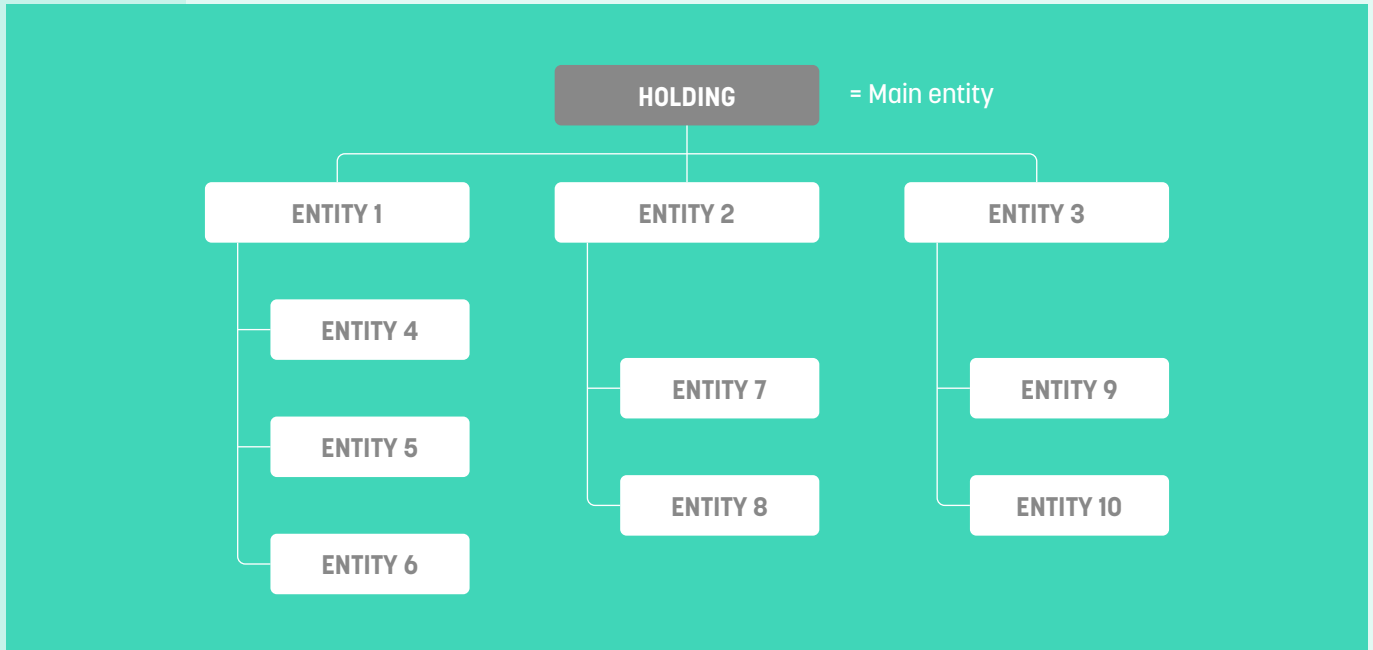


Figure 1 Example of determining the main entity with the top-down method

METHOD 2: THE LATERAL METHOD

The lateral method is used to choose a *main entity* at a lower step in the organisation chart (at the level of entity 1, 2, 3, 4, 5, etc.).

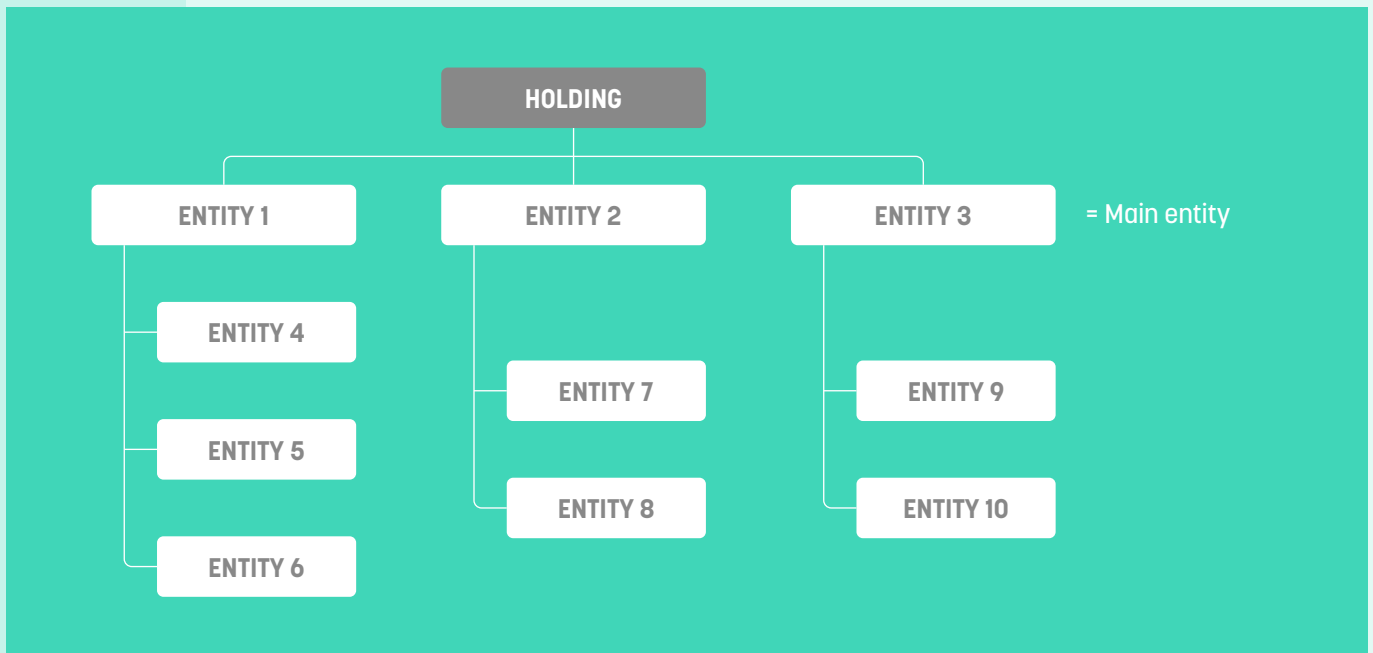


Figure 2 Example of determining the main entity with the lateral method

Therefore the lateral method can lead to a smaller *organisation* than the top-down method. This may be desirable when an *organisation* prefers to keep certain entities out of the scope of the *energy and CO₂ management system*, such as in the case of a foreign entity that operates completely independently. This is conditional on the excluded entities not having significant financial control over the entities that do belong to the *organisation* or vice versa. This method requires a detailed step-by-step process: the AC analysis. This prevents relevant entities from being excluded.

AC ANALYSIS, PART OF THE LATERAL METHOD

- **Step 1** Create the complete organisational chart described in the top-down method and note all legal entities within it. This is the list of group relationships.
- **Step 2** Choose a legal entity¹¹ at a lower step within the organisational chart that is preferably desired as an alternate *main entity*.
- **Step 3** Include all *suppliers* who supply to this alternative *main entity* and its subsidiary organisations. This includes all subsidiary organisations unless they are under shared ownership. The consolidation approach (see §4.1(b)) then determines whether to include the subsidiary organisation. Place the *suppliers* in order of financial purchase value, excluding VAT, from large to small. The supplier where the most purchases are made will be ranked number 1 in the list. See an example in figure 3. In this example there are 200 *suppliers* with a total cost of sales of more than €1 billion. The largest supplier generates more than 100 million euros.

¹¹ This is usually the operating unit that wants to obtain a CO₂ Performance Ladder Certificate.

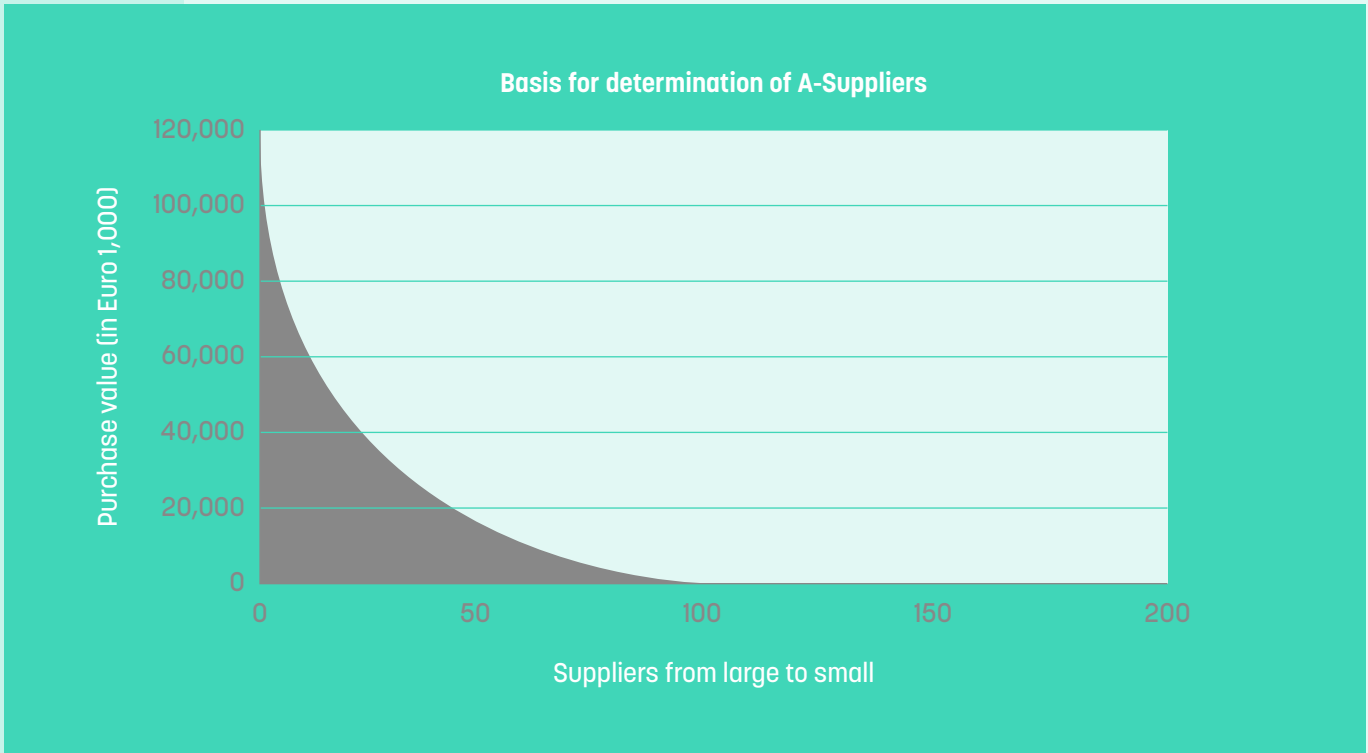


Figure 3 Suppliers from large to small based on purchase value

- **Step 4** Express the purchase value per supplier as a percentage of the total (based on Step 3). This is represented cumulatively in figure 4. In this example, supplier number 1 provides almost 10% of the total purchase value and number 1 and 2 combined, over 18%. Figure 5 is the expanded beginning part of figure 4.

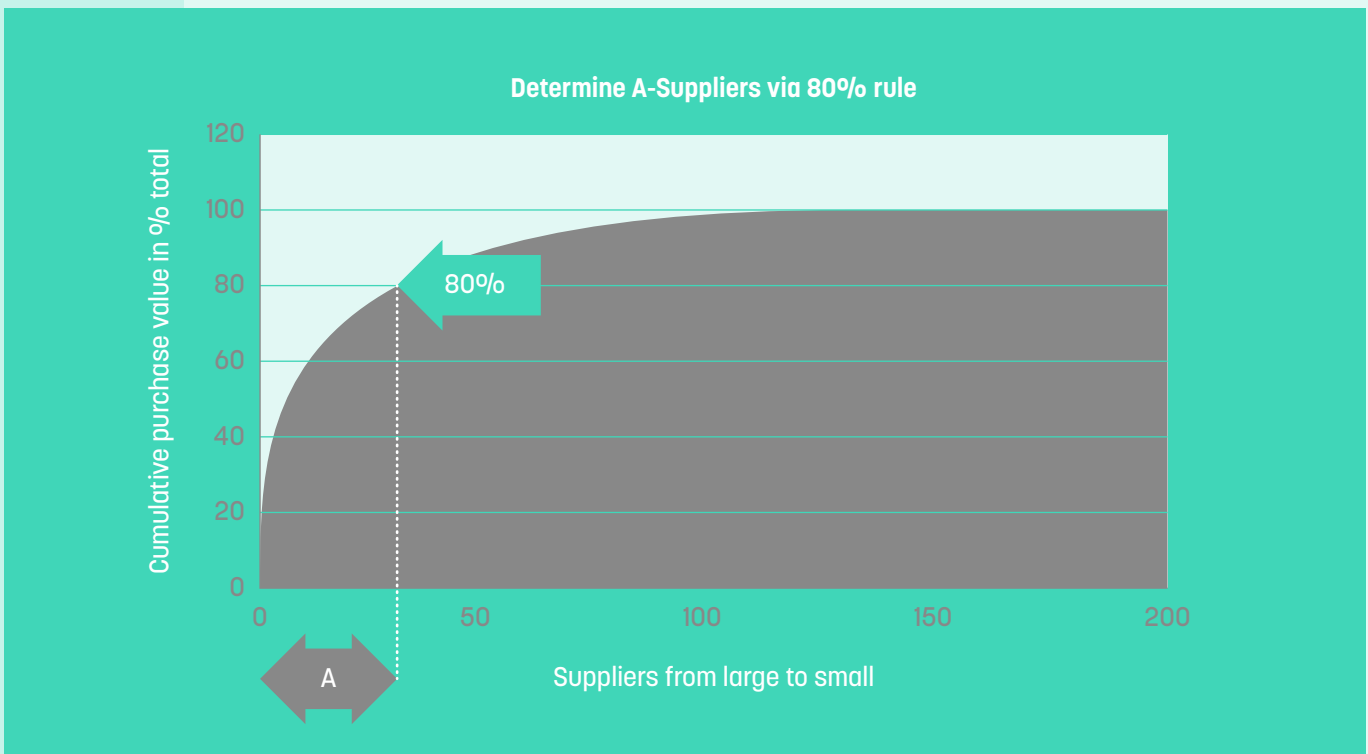


Figure 4 Cumulative suppliers' purchase value as a percentage of total



Figure 5 Expanded beginning part of figure 4

- **Step 5** Select all *suppliers* that fall within the 80% limit of the *organisation's* total purchase value, including the supplier whose purchase value exceeds this 80% limit. We call these *suppliers* the *A-Suppliers*. In the example, this is *supplier* Number 31 with a turnover of more than 6 million (more than 0.6% of the total), see figure 5. Thus, the supplier with Number 32 is not an A-Supplier.
- **Step 6** Select all A&C *suppliers*. These are all group relationships that are also A-Suppliers. Include them in the organisational boundaries and remove them from the *supplier* file.
- **Step 7** Start again with Step 3. Repeat this process until there are no new A&C *suppliers*. The organisational boundaries ultimately consist of
 - * the *main entity*;
 - * the (parts of) subsidiary organisations determined using the consolidation approach (see §4.1, item b);
 - * the A&C *suppliers*.

Note: You may add a group relationship that is discovered not to be an A-Supplier at Step 5 to the organisational boundaries.¹² In that case, a separate AC analysis must be performed for this group relationship beginning at Step 3. The results are then merged once the AC analysis of the main entity and the separate AC analysis of this group relationship are fully completed.

¹² This means this group relationship is also listed on the certificate. This can be advantageous, for example, when this group relationship bids for tenders that reward use of the CO₂ Performance Ladder.

SUPPLEMENT TO STEP 6 IN AC ANALYSIS: ADDITIONAL OPPORTUNITIES TO EXCLUDE AN A&C SUPPLIER

At Step 6 in the lateral method, the desired *main entity* may not have sufficient control over an A&C supplier to include it in the *organisation*. The obvious solution is to choose a *main entity* that is at a higher step in the hierarchy (if this is the highest entity, this is essentially equivalent to the top-down method). This increases control in many cases.

However, mandatory inclusion of an A&C supplier in the *organisation* or choosing a *main entity* at a higher step in the hierarchy may be disproportionate. For example, if this leaves a large number of foreign entities within organisational boundaries with limited control over the originally intended *main entity*.

When faced with such a dilemma, the *CB* must weigh this up within the following framework:

1. It is always permitted to exclude an A&C supplier if on average over a term of the last three years
 - a. The proportion of the purchase value of the A&C supplier at the *organisation* is less than 5% of the total purchase value of the *organisation* and
 - b. The proportion of the sales value (revenue) of the A&C supplier at the *organisation* is also less than 5% of the total sales value of the A&C supplier.
2. An A&C supplier should never be excluded just because it exists temporarily (for example, because it was established for a specific contract);
3. An A&C supplier should never be excluded solely because it produces relatively low greenhouse gas emissions;
4. Finally, the A&C *suppliers* that are not included in the *organisation* should be removed from the entire AC analysis and the process should continue at Step 7.

The available methods and above framework allow for flexibility in determining organisational boundaries. Nevertheless, it is not always possible to arrive at workable organisational boundaries, for example for large (international) companies or complex government organisations. In these cases, customisation is sometimes possible by seeking a binding opinion from a Boundary Committee. In this case, the *organisation* must submit an application to SKAO in coordination with its *CB*. Thereafter, an ad hoc committee – at the cost of the *organisation* – makes its decision within three months. The conditions and procedure for a Boundary Committee are listed on the CO₂ Performance Ladder website.

CONSOLIDATION APPROACHES IN LEASED ASSETS AND CONSORTIUM PROJECTS

Although the *organisation* is free to choose one of the three *consolidation approaches* from the GHG Protocol (see §4.1, item b.), the CO₂ Performance Ladder provides further elaboration on how to consolidate *leased assets* and *projects* carried out by a *consortium*.

For *leased assets*, the *organisation* must always consolidate them per operational control, even when it opted for equity share or financial control. If it is unclear whether the tenant or the landlord has the most operational control, the party responsible for paying the fuel or electricity bill is the party with the most operational control.

For *consortium projects*, the *organisation* must consolidate them per its consolidation approach (see §4.1(b)), unless this results in a significant portion of the *energy consumption* or emissions in the *project* being included by none of the consortium members within its boundaries. In this case, there are three possibilities:

- the consortium members agree jointly and with good argumentation on an allocation key, or
- the *organisation* must include *energy consumption* and emissions from the *project* within its boundaries on an equity share basis, or
- the entity carrying out the *consortium project* (the project entity) independently implements operational *energy and CO₂ policies*¹³ and, per the GHG Protocol, records the *energy consumption* and emissions of the *project* within its boundaries.

It is very important to avoid double counting of *energy consumption* and emissions and the complete elimination of *energy consumption* and emissions. Note that double counting is preferable to the situation where no one reports on (part of) *energy consumption* or emissions.

DETERMINING THE SIZE OF THE ORGANISATION

*Small organisations*¹⁴ may qualify for a limited number of exemptions at Step 3 (listed under the requirements themselves) based on their organisation size. *Organisations* are small when they meet at least two of the following three conditions over the previous year:

- staff size was equal to or less than 250 FTE;
- annual turnover¹⁵ was equal to or less than 50 million euros;
- the balance sheet total was equal to or less than 25 million euros.

¹³ An independent operational *energy and CO₂ policy* exists, for example, when the project entity has its own certificate for the CO₂ Performance Ladder.

¹⁴ This is the same definition used for the CSRD on the publication date.

¹⁵ For *organisations* without turnover (e.g. public authorities), this should be read as 'income'.

4.3



PROJECT REQUIREMENTS

Many *organisations* carry out *projects*. They do this alone or with others. These *projects* may include works, services or deliveries. The CO₂ Performance Ladder distinguishes between CO₂ Performance Ladder Projects and all other *projects*. All *projects* must always be part of the *organisation's energy and CO₂ management system*, but for CO₂ Performance Ladder Projects, the CO₂ Performance Ladder imposes specific requirements on the documented information for each individual *project* (see §7.3.1). This documentation, supplemented with general *project* data (such as the name, client and location of the *project*), must be shared with the CB via 'My CO₂ Performance Ladder' before the *audit* so that they can take a sample¹⁶ from the CO₂ Performance Ladder Projects, currently running or that have been completed since the previous *audit*.

4.4

UNDERSTANDING LEGAL OBLIGATIONS

The *organisation* must understand its legal obligations related to energy conservation, renewable energy and CO₂ reduction.

The *organisation* must:

- be familiar with national and international legal obligations related to energy conservation, renewable energy and CO₂ reduction;
- determine how these legal obligations apply to the *organisation* and how it takes them into account.

These legal obligations are both current and adopted (but not yet in force) local, national and/or international legislation that applies to all aspects of the *organisation's* operations, including activities for *projects*, human resources and housing. For upcoming legislation, this is only the legislation that has been enacted by the competent authorities but has not yet entered into force.

4.5

ENERGY AND CO₂ MANAGEMENT SYSTEM

The *organisation* must establish, implement, maintain and continuously improve an *energy and CO₂ management system*. This includes the necessary processes and their interactions. The *organisation* must also continuously improve energy and CO₂ performance per the requirements of this scheme.

Note: The processes required may vary from *organisation* to *organisation* because of:

- the size of the *organisation* and the type of activities, processes, products and services;
- the complexity of the processes and their interactions;
- staff competence.

¹⁶ This method is described in the certification regulation.

5

LEADERSHIP

5.1

LEADERSHIP AND COMMITMENT

Management must show leadership, direct responsibility and commitment to *continual improvement* of energy and CO₂ performance and the effectiveness of the *energy and CO₂ management system*. The management does so by:

- a. ensuring that the scope of the *energy and CO₂ management system* is defined (see §4.1);
- b. ensuring that *energy and CO₂ policies* and targets are established and that they are part of the *organisation's* strategic direction;
- c. ensuring that *energy and CO₂ management system* requirements are integrated into the *organisation's* business processes;
- d. ensuring that the *Action Plan* and (if applicable) the *Climate Transition Plan* are approved and implemented;
- e. ensuring that the necessary resources for the *energy and CO₂ management system* are available;
- f. communicating the importance of effective energy and CO₂ management and of meeting *energy and CO₂ management system* requirements;
- g. ensuring that the *energy and CO₂ management system* achieves the intended results;
- h. promoting *continual improvement* of energy and CO₂ performance and the CO₂ management system;
- i. establishing an *energy and CO₂ management team*;
- j. directing and supporting the *key persons* identified in §7.2 to make the *energy and CO₂ management system* more effective and to improve CO₂ and energy performance.

5.2

ENERGY AND CO₂ POLICY

Management must establish an *energy and CO₂ policy* that

- a. fits the purpose of the *organisation*;
- b. provides a framework for setting and reviewing targets and plans (such as the *Climate Transition Plan* and/or *Action Plan*);
- c. includes a commitment to ensure that information is available and that all necessary resources to achieve the targets are available;
- d. includes a commitment to meet the legal requirements for energy conservation, renewable energy and CO₂ reduction, as stipulated in §4.4;
- e. includes a commitment to *continual improvement* (see §10.1) of energy and CO₂ performance and the *energy and CO₂ management system*;

The *energy and CO₂ policy* must:

- be communicated within the *organisation*;
- be available to *interested parties* in an appropriate manner;
- be reviewed regularly and updated as needed.

6

PLANNING

6.1

ACTIONS TO ADDRESS RISKS AND OPPORTUNITIES

The *organisation's* planning for the CO₂ Performance Ladder must be consistent with the *energy and CO₂ policy* (see §5.2) and must result in actions that continuously improve energy performance. The *organisation* must identify risks and opportunities that must be acted upon to:

- provide assurance that the *energy and CO₂ management system* can achieve its intended result(s), including improvement in energy and CO₂ performance;
- prevent or reduce unwanted effects;
- continuously improve the *energy and CO₂ management system* and energy and CO₂ performance.

6.2

TARGETS AND PLANNING TO ACHIEVE THEM

The targets of the *organisation* must

- be monitorable;
- be established relative to the *base year* and relative to the last *initial* or *recertification audit*;
- take into account applicable requirements such as legal obligations (see §4.4);
- consider opportunities to improve energy and CO₂ reduction performance.

If the *organisation* creates plans to achieve its targets, the *organisation* must document and maintain:

- what will be done;
- what resources are needed;
- who is responsible;
- when it will be completed;
- how the results will be evaluated. This includes the method(s) used to verify the improvement in energy and CO₂ performance.

For implementing **all requirements of the CO₂ Performance Ladder unless, the organisation must maintain at least at an annual regular frequency** unless

- a higher *regular frequency* suits the specific organisational processes better (for example, if there is otherwise insufficient time for adjustment);
- a requirement explicitly (under the heading ‘planning’) prescribes a different minimum regular frequency. Requirements to which this applies are:

REQUIREMENT	PRESCRIBED MINIMUM REGULAR FREQUENCY
1.A.2/2.A.2/3.A.2 Estimate whether <i>non-CO₂ greenhouse gases</i> are material to <i>scope 1</i> and <i>scope 2 emissions</i>	Before each <i>initial audit</i> and triennially
2.A.2/3.A.2 Estimate whether <i>non-CO₂ greenhouse gases</i> are relevant to <i>scope 3 emissions</i>	Before each <i>initial audit</i> and triennially
2.A.2/3.A.2 Conduct the qualitative <i>OIE</i> analysis (only when the previous <i>OIE</i> analysis substantiated that all three <i>OIE</i> types are not relevant)	Before each <i>initial audit</i> and triennially
2.A.5/3.A.5 Investigate whether <i>value chain analysis/(es)</i> should be completely revamped, including implementation	Before each <i>initial audit</i> and triennially
2.B.1/3.B.1 Review the <i>Climate Transition Plan</i>	Before each <i>initial audit</i> and triennially
2.D.4/3.D.5 Dialogue on the <i>Climate Transition Plan</i> with an organisation in the value chain	Every six months
The documented information on <i>CO₂ Performance Ladder Projects</i> (see table in §7.3.1 for all requirements in which this appears)	At <i>project</i> start and completion. If it is a multi-year <i>project</i> , the <i>organisation</i> also does this annually.

7

SUPPORT

7.1

RESOURCES

The *organisation* must establish and make available the resources necessary to establish, implement, maintain and continuously improve energy and CO₂ performance, the *energy and CO₂ management system* and the achievement of targets. These resources minimally consist of:

- Capacity and budget for setting up, maintaining and implementing the *energy and CO₂ management system*;
- Capacity and budget for the annual *external audit*;
- Capacity and budget to implement the *Action Plan* and the *Climate Transition Plan*, including measures to be taken;
- Capacity and budget to participate in required initiatives and collaborations;
- The annual contribution to SKAO.¹⁷

7.2

KEY PERSONS AND THEIR COMPETENCE



The *organisation* must identify the *key person* or *key persons* and ensure that they have the necessary competencies for their role and required level of CO₂ awareness as defined in 1.C.1/2.C.1/3.C.1. The *organisation* must

- identify these *key persons* at all levels of the *organisation* based on their position or job profile;
- always identify at least one of the *organisation's* own employees as a *key person*;
- always identify at least one *key person* for each *CO₂ Performance Ladder Project*.

When establishing competency, the *organisation* must:

- a. be able to demonstrate that *key persons* are educated, trained and have the necessary skills or experience;
- b. take actions to acquire the necessary competence, and evaluate the effectiveness of these actions, as appropriate.

¹⁷ The CO₂ Performance Ladder Certificate is not valid until the *organisation* pays the required annual contribution to SKAO. (See: www.co2performanceladder.com). Before issuing a new certificate or a positive annual Ladder assessment, the *CB* checks whether the *organisation* has met its payment obligations toward SKAO. A new certificate cannot be issued if the *organisation* cannot demonstrate that it has met its payment obligations.

DOCUMENTED INFORMATION AT THE ORGANISATIONAL AND PROJECT LEVEL

The *organisation's energy and CO₂ management system* must contain documented information for which

- the *organisation* is free to determine the form and bundling of information;
- it is always permitted to reuse (parts of) existing documented information in subsequent *audits*, as long as the content is still usable;
- the frequency of updating or renewal is prescribed in §6.2;
- information related to the entire *organisation* must be partially published on the *organisation* page on the CO₂ Performance Ladder website;¹⁸
- information related to CO₂ Performance Ladder Projects must be partly shared digitally with the client¹⁹ and the CB via 'My CO₂ Performance Ladder'. The *organisation* does so at the start and completion of the *project*. If it is a multi-year *project*, the *organisation* also does this annually.

A summary of the mandatory documented information per paragraph or requirement is listed below. This summary also states whether the information must be published or, in the case of CO₂ Performance Ladder projects, shared with the client and the CB. For detailed explanation of the content of the documented information, refer to the specific paragraph or requirement. All paragraphs and requirements subject to this obligation are marked with a symbol in the rest of the handbook:



**DOCUMENTATION
REQUIREMENT AT THE
ORGANISATIONAL LEVEL**



**PUBLICATION
REQUIREMENT AT
ORGANISATIONAL
LEVEL (ON THE CO₂
PERFORMANCE
LADDER WEBSITE)**







**DOCUMENTATION
REQUIREMENT FOR CO₂
PERFORMANCE LADDER
PROJECTS**












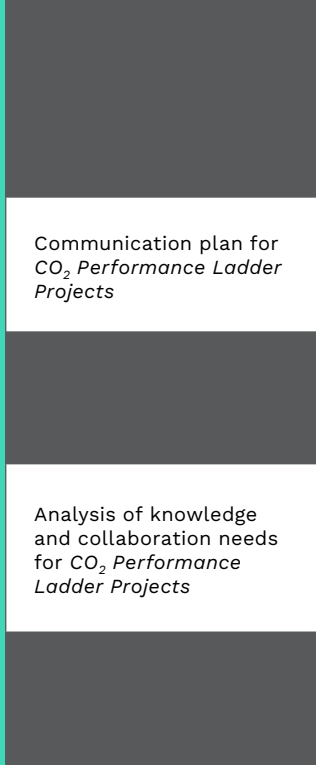




**OBLIGATION TO SHARE
DOCUMENTATION FOR
CO₂ PERFORMANCE
LADDER PROJECTS WITH
CB AND CLIENTS VIA A
CLOSED PLATFORM (AT
START AND COMPLETION,
AND AT LEAST ANNUALLY)**

18 To do this, an *organisation* must log in to 'My CO₂ Performance Ladder'. Login codes and instructions will be sent upon registration with SKAO. If the *organisation* does not have a valid certificate at the time of the *audit* (it is the first certification or there is an expired or suspended certificate), the *organisation* can upload documents, but the *organisation* page is not yet public. Publication occurs only after the certificate is issued. In such situations, it is sufficient to upload the mandatory documents in 'My CO₂ Performance Ladder'.

19 Dialogue on CO₂ reduction during the implementation of CO₂ Performance Ladder Projects The purpose of sharing this documentation digitally with the client is to facilitate a 'dialogue on CO₂ reduction' during the implementation of a CO₂ Performance Ladder project. The CO₂ ambition and possible opportunities for further reduction are regularly discussed by making the dialogue about CO₂ reduction an explicit part of the collaboration between contractor and client during the implementation of projects. The method of the 'dialogue on CO₂ reduction' is detailed in the Procurement Guide.

PARA/ REQ	 DOCUMENTATION REQUIREMENT AT THE ORGANISATIONAL LEVEL	 PUBLICATION REQUIREMENT AT ORGANISATIONAL LEVEL (ON THE CO ₂ PERFORMANCE LADDER WEBSITE)	 DOCUMENTATION REQUIREMENT FOR CO ₂ PERFORMANCE LADDER PROJECTS	 OBLIGATION TO SHARE DOCUMENTATION FOR CO ₂ PERFORMANCE LADDER PROJECTS WITH CB AND CLIENTS VIA A CLOSED PLATFORM (AT START AND COMPLETION, AND AT LEAST ANNUALLY)
§4.1	Documenting organisational boundaries	YES (only the chosen methods for determining the organisational boundaries)		
§4.3			General project details	YES
§7.2	Inventory of key persons			
§9.1.2	Data quality management plan			
§9.1.3	Base year emissions inventory			
§9.2	Internal audit report			
§9.3	Management review report			
§10.2	Action plan for corrective actions			
1.A.1 2.A.1 3.A.1	Energy review and energy balance	YES (final energy consumption only)	Energy balance of energy consumption on the CO ₂ Performance Ladder Project	YES
1.A.2 2.A.2 3.A.2	Emissions inventory and footprint scope 1 and scope 2	YES (footprint for scope 1, market-based scope 2 and location-based scope 2 only)	Quantitative estimation of emissions due to energy consumption on the CO ₂ Performance Ladder Project	YES

 PARA/ REQ	DOCUMENTATION REQUIREMENT AT THE ORGANISATIONAL LEVEL	 PUBLICATION REQUIREMENT AT ORGANISATIONAL LEVEL (ON THE CO₂ PERFORMANCE LADDER WEBSITE)	 DOCUMENTATION REQUIREMENT FOR CO₂ PERFORMANCE LADDER PROJECTS	 OBLIGATION TO SHARE DOCUMENTATION FOR CO₂ PERFORMANCE LADDER PROJECTS WITH CB AND CLIENTS VIA A CLOSED PLATFORM (AT START AND COMPLETION, AND AT LEAST ANNUALLY)
2.A.2 3.A.2	Emission inventory and footprint for scope 3	YES (footprint for scope 3 only)	Quantitative estimate of the <i>upstream</i> and <i>downstream emissions</i> on the CO ₂ Performance Ladder Project	YES
2.A.2 3.A.2	Qualitative <i>OIE</i> analysis		Qualitative estimation of <i>OIE</i> at the CO ₂ Performance Ladder Project	
3.A.2	Qualitative <i>OIE</i> analysis		Quantitative estimation of <i>OIE</i> at the CO ₂ Performance Ladder Project	YES (if applicable)
2.A.3 3.A.3	Overview of organisational activities			
2.A.3 3.A.3	Quantifying emissions by activity			
2.A.4 3.A.4	Impact and influence analysis	YES (only the ranking of organisational activities)		
2.A.4 3.A.4	Determining most important activities	YES		
2.A.5 3.A.5	<i>Value chain analysis</i>	YES (including a brief summary)		
3.A.5	Inventory possible strategies toward zero CO ₂ emissions for most important activities			
3.A.5	Inventory possible strategies toward zero CO ₂ emissions for other activities			
2.B.1 3.B.1	<i>Climate transition plan</i> , including targets	YES		

PARA/ REQ	 DOCUMENTATION REQUIREMENT AT THE ORGANISATIONAL LEVEL	 PUBLICATION REQUIREMENT AT ORGANISATIONAL LEVEL (ON THE CO₂ PERFORMANCE LADDER WEBSITE)	 DOCUMENTATION REQUIREMENT FOR CO₂ PERFORMANCE LADDER PROJECTS	 OBLIGATION TO SHARE DOCUMENTATION FOR CO₂ PERFORMANCE LADDER PROJECTS WITH CB AND CLIENTS VIA A CLOSED PLATFORM (AT START AND COMPLETION, AND AT LEAST ANNUALLY)	
1.B.1 2.B.2 3.B.2	<i>Action plan and Measure list, including targets</i>	YES	<i>Project plan and Measure list for the CO₂ Performance Ladder Project</i>	YES	
1.B.2 2.B.3 3.B.3	Progress Report	YES	Evaluation/progress report for the measures on the CO ₂ Performance Ladder Project	YES	
2.C.2 3.C.2	Process for key persons to submit comments and suggestions for improvement				
1.C.2 2.C.3 3.C.3	Communication Plan				<i>Communication plan for CO₂ Performance Ladder Projects</i>
3.C.4	Report of Climate Transition Plan review by independent expert				
1.D.1 2.D.1 3.D.1	Analysis of knowledge and collaboration needs				<i>Analysis of knowledge and collaboration needs for CO₂ Performance Ladder Projects</i>
1.D.2 2.D.2 3.D.2	Identification of opportunity for fulfilling knowledge and collaboration needs				
2.D.3 3.D.3	Collaboration agreement or established arrangements	YES (only a description of the collaboration and progress)			
2.D.4 3.D.5	Report on consultation Climate Transition Plan with relevant organisation				

8

OPERATION

See Part 2 for operation requirements.

9

PERFORMANCE EVALUATION

9.1

MONITORING, MEASURING, ANALYSING AND EVALUATING ENERGY AND CO₂ PERFORMANCE AND THE ENERGY AND CO₂ MANAGEMENT SYSTEM

9.1.1

GENERAL

The *organisation* must establish for the *energy and CO₂ management system*:

- a. what must be monitored and measured to attain sufficient insight, including minimally whether the targets in the *Action Plan* will be met;
- b. the methods for monitoring, measuring, analysing and evaluating to get valid results;
- c. when to monitor and measure;
- d. when to analyse and evaluate the results of monitoring and measurement.

The *organisation* must investigate and respond to significant *nonconformities* in the performance of the *energy and CO₂ management system*.

9.1.2

DATA QUALITY MANAGEMENT PLAN

The *organisation* must establish a data quality management plan. This plan must describe how the organisation strives for *continual data improvement*, such as:

- the data needed to be able to manage the effect of energy and/or CO₂ reduction measures and
- the data related to material or relevant emissions or material *energy use*.



A data quality management plan details how energy and emissions data will be reported as accurately as possible. The plan also states how the *organisation* systematically strives to improve, broaden and refine its data. GHG Protocol Corporate Standard (Chapter 7) provides a clear checklist of the elements for a data quality management plan.

DATA QUALITY ROADMAP BASED ON GHG PROTOCOL, CHAPTER 7


1. Establish a quality person/team.
2. Develop a data quality management plan.
3. Perform generic data quality checks based on the data quality checks.
4. Carry out specific data quality checks.
5. Review the *energy balance* and emissions inventory and related reporting.
6. Establish formal feedback loops to improve data collection, handling and documentation processes.
7. Draw up reporting, documentation and archiving procedures.

For *scope 1* and *scope 2*, the calculation method is mostly fixed (see §9.1.3). For *scope 3* and *OIE*, there is more freedom and calculations will be partly based on assumptions. This increases the importance of properly recording the calculation method and the assumptions in the data quality management plan.

9.1.3

USING CO₂ EMISSION FACTORS

When an *organisation* calculates (parts of) its CO₂ *emissions inventory*, it must use CO₂ emission factors. SKAO designates a list of national CO₂ emission factors for each country as a standard list because CO₂ emission factors can differ internationally.²⁰ At the time of publication of this Handbook, this is for:

- Netherlands: www.co2emissiefactoren.nl 
- Belgium: www.co2emissiefactoren.be 

If SKAO designates lists for other countries, this will be mentioned on the CO₂ Performance Ladder website.

The following principles apply to the use of emission factors for the CO₂ Performance Ladder:

1. The emission factors on the national list designated by SKAO are the standard values;
2. If no list is designated for a particular country, the *organisation* must select an accurate list itself. If this is not available, the *organisation* can use the list designated by SKAO for the Netherlands;

²⁰ For example, this might be due to differences in the electricity mix (including more or less generated with natural gas, coal, nuclear or renewable), different blending ratios for fuels or differences in the origin of fuels (including which continent they come from).

3. If the designated list is (partially) updated, the new emission factors should not be used until the *organisation* reports on the period in which the update occurred;²¹
4. The *organisation* may use other (officially recognised) factors in the following situations.
 - i. if this results in a more accurate outcome. For example, this applies to emissions that are highly dependent on the local context.²²
 - ii. If there is no appropriate emission factor in the national list for a particular fuel, mode of transport, etc.
5. If there is a deviation from the national list of emission factors, the assumptions used to establish this list and the calculation method must remain the same.
6. If an *organisation* deviates from the national list for one or more factors, it must clearly indicate the origin of the alternative factor(s) and make a plausible case for why their use leads to a more accurate outcome.

To determine *scope 3* emissions, the above principles also apply, and the national list of emission factors should be used as much as possible for energy carriers and coolants. With respect to materials, an *organisation* is advised to use the CO₂ emissions data based on *LCA* data that fits the context of the *organisation*. If the *organisation* uses *LCA* data, the *LCA* must be prepared per ISO 14067²³ or EN 15804²⁴ for building products. The *organisation* can also use data established in an EPD or MRPI certificate. Nonconformities must be substantiated.

9.1.4

BASE YEAR AND RECALCULATION

The *organisation* must establish a *base year* to compare the current data with historical *energy consumption*, energy generation and CO₂ emissions data. When choosing a *base year*, it is important that

- reliable energy and emissions data are available for that year;
- the *base year* in the *initial audit* is no further in the past than three years before the year in which the *initial audit* takes place. Note: An *organisation* must always have an emissions inventory for the past year (see requirement 1.A.2/2.A.2/3.A.2). Thus, choosing an earlier *base year* means that two emissions inventories must be prepared during the *initial audit* (one for the base year and one for the past year);
- an *organisation* can simultaneously choose different base years for *energy consumption*, energy storage, energy generation, *scope 1* emissions, *scope 2* emissions, *scope 3* emissions and *OIE*;
- when substantiated, a *base year* may be reselected at each *audit*.

²¹ An example: the update will take place in January 2025. The new factors will be used once reporting for the period January – December 2025.

²² An example would be the fuel mix for electricity production.

²³ Greenhouse gases — Carbon footprint of products — Requirements and guidelines for quantification

²⁴ Sustainability of construction work – Environmental declarations of products – Basic rules for the building products product group

COMPLETE RECALCULATION OF THE BASE YEAR

A new *base year* must be selected when there are

- significant changes in the organisational boundaries of the *organisation*, for example, due to acquisition or mergers;
- significant changes in the *organisation's* activities. These are internal changes and changes in the *value chain(s)* in which the *organisation* operates.

If the *base year* is (voluntarily or mandatorily) changed, the energy balance and *emissions inventory* (for *scope 1* and *scope 2* and if applicable *scope 3*) must be fully recalculated for the new *base year*.

PARTIAL RECALCULATION OF THE BASE YEAR

If an *organisation* does not change the *base year*, it may still be necessary to recalculate some of the historical energy or emissions data.

- The *energy balance* and/or emissions inventory for *scopes 1* and *2* require a partial recalculation when an energy or CO₂ emission factor changes due to a methodology change. This includes a different calculation method or source of information for determining the energy or emission factor. Changes in the energy or CO₂ emission factor as a result of technological progress, change in fuel type or changed market conditions does not constitute a methodology change.
- For the *scope 3* emissions inventory, partial recalculation must occur when changes in methodology or availability of more accurate data lead to significant changes in (parts of) the emissions inventory. If information about the *base year* is not available in sufficient detail, the recalculation may be based on an educated guess based on information about later years that is available (backcasting). If this is not possible, the recalculation may be omitted and must be stated with the emissions inventory.

RULES FOR RECALCULATION OF INTERMEDIATE YEARS

It may be necessary to recalculate all or part of not only the *base year*, but also any intermediate years. This is the case if the energy and/or emission data from the intervening years are relevant to the information that the *organisation* must be able to demonstrate at the next *audit* (i.e. CO₂ *footprints*, CO₂ emissions inventories, reduction targets, progress reports, communication statements, etc.).

The *organisation* must clearly document any full or partial recalculation of the *base year* and any intervening years. Also see the rules on recalculation in ISO 14064-1, §6.4.2.



INTERNAL AUDIT

The *organisation* must conduct an *internal audit* through which it examines whether the *energy and CO₂ management system* meets the requirements of the *certification scheme*, and thus that the *organisation* is ready for the *external audit*, and whether work within the *organisation* is done per the arrangements in the *energy and CO₂ management system* (such as targets, procedures, communication, publication, planned measures, etc.). Apart from the actual assessment, the *internal audit* also assesses the possibility of improving the system and/or the execution. In an *energy and CO₂ management system* the *internal audit* is a very important source of information for the *management review*.

Without undue delay, the *organisation* must take all *corrective actions* to eliminate *nonconformities* from requirements and the *energy and CO₂ management system* and their causes within an appropriate time frame. In addition, the *organisation* must verify that sufficient points have been achieved in Part 2 to achieve or maintain its step. To guarantee the execution of the *internal audits*, it is important to properly lay down the process, planning/execution and responsibilities.

An *organisation* can combine and/or integrate the *internal audit* according to the CO₂ Performance Ladder with the *internal audit(s)* for other management system standards.

The results of the *internal audit* are recorded in an *internal audit report*. This report includes at least the following:

- the date of the *audit*;
- the names of auditor(s) and auditee(s);
- the *audit's* objective;
- the scope;
- the locations visited;
- the *audit's* findings;
- the effectiveness of the system to improve CO₂ and energy performance and meet (reduction) targets.

The *internal audit* should explicitly address the following questions:

- Does the *organisation* find that the activities (on whose basis the *organisation* meets the requirements) achieve progress within the *organisation*?
- What substantiates this?
- Do the procedures established by the *organisation* and the processes within the *organisation* contribute to the achievement of the targets?
- What decisions are required of management regarding possible *corrective actions*?

The internal auditor

- a. must be objective and impartial. Among other things, this means that the internal auditor may not *audit* the content of their own work;
- b. must have relevant knowledge and skills;
- c. may be an outside party (e.g. a consulting firm), as long as the requirements in a. and b. are met.



MANAGEMENT REVIEW

The management must review the *organisation's energy and CO₂ management system* to achieve its continuous suitability, adequacy, effectiveness.

The input for the *management review* includes at least:

- a. the points in §5.1 on leadership;
- b. the status of actions from previous *management reviews*, *internal audits* and *external audits*;
- c. changes in external and internal developments relevant to the *energy and CO₂ management system*;
- d. information about the performance and efficacy of the *energy and CO₂ management system*, including:
 - i. energy policy and reduction measures;
 - ii. the energy performance, emissions and the *energy review* (requirement 1.A.1/2.A.1/3.A.1);
 - iii. the progress towards the reduction targets and the extent to which they have been achieved;
 - iv. internal and external communications and initiatives;
 - v. the concerns of the independent expert (requirement 3.C.4);
 - vi. the *audit results: internal audit and external audit*;
 - vii. *nonconformities and corrective actions*;
- e. the effectiveness of actions taken to address reduction opportunities;
- f. opportunities to improve.

The output of the *management review* includes at least decisions and actions related to:

- a. opportunities to improve;
- b. the need to change the *energy and CO₂ management system*, reduction targets, reduction measures and (participation in) collaborations;
- c. conclusions on the probability of achieving reduction targets previously published internally or externally;
- d. efficacy of the *energy and CO₂ management system*, including an explicit statement about the extent to which the CO₂ Performance Ladder functions as intended. This statement is based on the results of the *internal audit*;
- e. the need for resources.

The *organisation* must maintain documentation as evidence of the results of the *management review*. An *organisation* can combine and/or integrate the *management review* according to the CO₂ Performance Ladder with the *management review(s)* for other management system standards.

EXTERNAL AUDIT

The *organisation* must ensure an annual *audit* is performed. The requirements that apply to the *initial audit*, *annual audit*, *recertification audit* and the *special audit* and the scores required to pass a particular step of the CO₂ Performance Ladder are contained in the certification regulation.

During each *audit*, the *organisation* itself is responsible for communicating with the auditor. If an external party (e.g. a consulting firm) is present during the *audit*, their role should be limited to the passive role of prompter.

10

IMPROVEMENT

10.1

CONTINUAL IMPROVEMENT

The Ladder system is based on the principles of a *management system* and aims for *continual improvement*. This means that continual, repeated processes should exist in the *organisation* that are geared toward improving the energy and CO₂ performance as well as the management system. This system can also be thought of as Plan-Do-Check-Act (PDCA). In brief, PDCA can be described as follows:

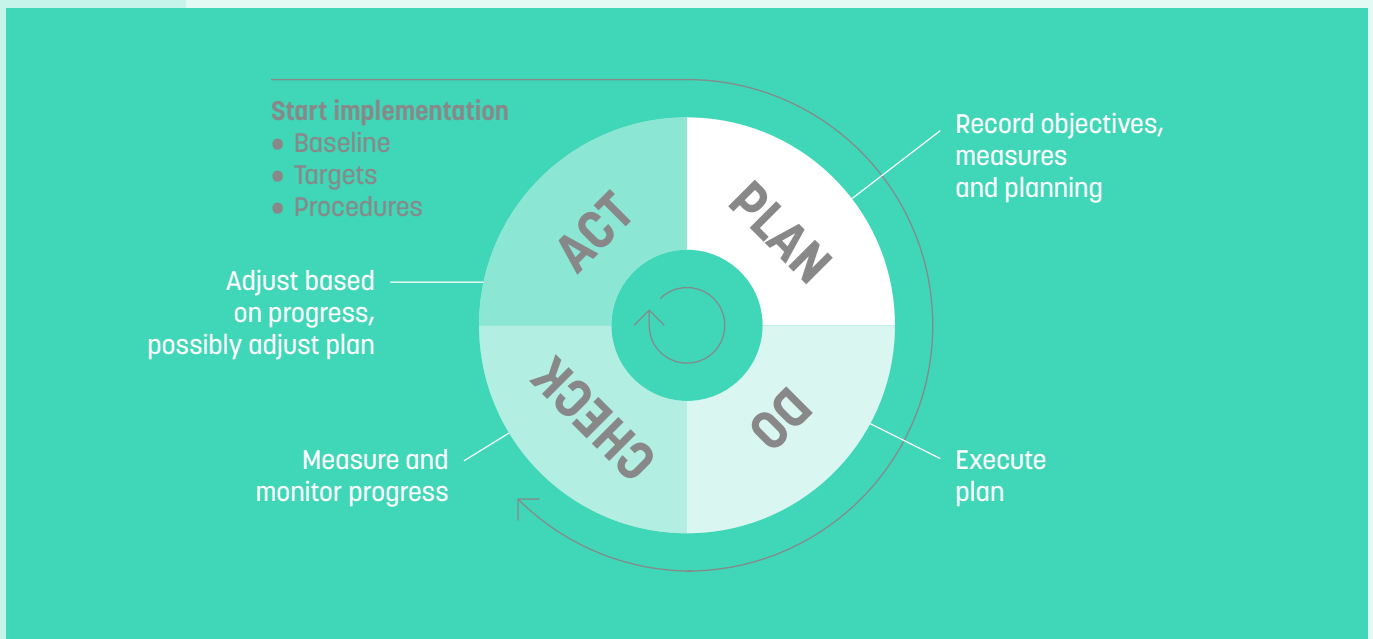


Figure 6 Plan-Do-Check-Act cycle

10.2

NONCONFORMITIES AND CORRECTIVE ACTIONS

If a *nonconformity* is identified, the *organisation* must:

- Respond to the *nonconformity*, and as applicable:
 - Take measures to manage and correct the *nonconformity*;
 - Address the consequences;
- Evaluate the need to take measures to eliminate the cause(s) of the *nonconformity* so that the *nonconformity* does not recur or occur elsewhere, by
 - Assess the *nonconformity*;
 - Identify the causes of the *nonconformity*;
 - Determine whether similar *nonconformities* occur or could occur;
- Implement the necessary measures;
- Assess the effectiveness of *corrective actions* taken;
- If necessary, make changes to the *energy and CO₂ management system*.

Corrective action should be appropriate to the effects of the *nonconformities* that have occurred. The *organisation* must maintain documented information of:

- The nature of *nonconformities* and subsequent actions taken;
- The outcomes of *corrective actions*.

For significant *nonconformities* found during an *external audit*, the *organisation* must take *corrective action* within three months. For minor *nonconformities*, the *organisation* must develop and implement a *corrective Action Plan* before the next *audit*.

The background is a solid teal color. Overlaid on this are several large, semi-transparent spheres. The top-most sphere is covered in small, realistic water droplets, giving it a wet, metallic appearance. The other spheres are smooth and semi-transparent, creating a layered, geometric effect.

PART 2

OVERVIEW

STEP 1 REQUIREMENTS

ANGLE A INSIGHT	ANGLE B REDUCTION	ANGLE C COMMUNICATION	ANGLE D COLLABORATION
<p>Requirement 1.A.1 The organisation has quantitative insight into its own energy consumption</p>	<p>Requirement 1.B.1 The organisation has short-term preparatory actions, measures and target(s) and has established them in an Action Plan</p>	<p>Requirement 1.C.1 The organisation ensures that key persons are demonstrably aware of their role in the organisation's energy and CO₂ policy</p>	<p>Requirement 1.D.1 The organisation analyses its own knowledge and collaboration needs related to the 1.B.1 Action Plan</p>
<p>Requirement 1.A.2 The organisation has quantitative insight into its scope 1 and scope 2 emissions</p>	<p>Requirement 1.B.2 The organisation succeeds in achieving the targets and/or preparatory actions and measures in the 1.B.1 Action Plan</p>	<p>Requirement 1.C.2 The organisation communicates about its 1.B.1 Action Plan, including progress, internally and to its key external target groups</p>	<p>Requirement 1.D.2 The organisation identifies opportunities by which it can meet the knowledge and collaboration needs of 1.D.1</p>

A

ANGLE A INSIGHT

REQUIREMENT 1.A.1

1.A.1

THE ORGANISATION HAS QUANTITATIVE INSIGHT INTO ITS OWN ENERGY CONSUMPTION

CRITERION 1.A.1-1

1.A.1-1

ENERGY BALANCE AND ENERGY REVIEW

To meet this criterion, the *organisation* needs three things: The *organisation* has an *energy balance* for its own *energy consumption*, an *energy review* per §6.3 from ISO 50001, and an analysis of the *organisation's* (potential) role in *energy system flexibility*.

The following three conditions apply to *energy balance*:

- a. It is quantified with measurements and/or plausible estimates;
- b. Quantification includes at least 90% of the *organisation's final energy consumption*. Very small *energy consumption* and production need not be included when substantiated on the basis of *materiality*;
- c. The calculation uses accurate conversion factors, based on final energy, of fuels and energy carriers.²⁵

An *energy review* per §6.3 from ISO 50001 is subject to the following four conditions:

- a. This is an analysis of *energy efficiency, energy use and energy consumption* based on information. This results in the *organisation* identifying significant *energy consumption* and opportunities for improving energy performance.
- b. This is an analysis of the main features of the current and past *energy consumption* and production. This involves comparing it with the *base year* and with developments from that point onward;
- c. This is a detailed *energy balance* analysis to identify the facilities, systems, processes or equipment that have a significant impact on *energy consumption* and production;
- d. It is designed to identify and record priorities and document opportunities for energy performance improvement based on consumption and/or the potential for energy performance improvement;

For more information and examples on *energy reviews*, see also (informative) Annex A.6.3 of ISO 50001.

²⁵ For this purpose, for example the energy content of fuels at www.co2emissiefactoren.nl can be used.

The following two conditions apply to the analysis of the *organisation's* (potential) role in *energy system flexibility*:

- a. This describes whether the *organisation* and/or its branches are located in one or more regions with an increased probability of congestion on the local electricity grid;
- b. This describes the measures the *organisation* can take, alone or with others, that contribute to *flexibility in the energy system* including
 - i. temporary reduction or increase in its own electricity consumption from the grid;
 - ii. temporary reduction or increase in its own electricity production delivered to the grid;
 - iii. temporary storage of self-generated or off-grid electricity;
 - iv. purchasing renewable electricity that is demonstrably (e.g. through time-based certificates²⁶) produced at the time the *organisation* uses it.

DOCUMENTED INFORMATION IN CO₂ PERFORMANCE LADDER PROJECTS

For each *CO₂ Performance Ladder Project*, the *organisation* must draw up an *energy balance* for the *energy consumption on a project* and must provide insight into the *project's* contribution to the *energy balance* at the organisational level. This also applies if the *CO₂ Performance Ladder Project* is implemented in a *consortium* (see §4.1.3 in Part 1 for how to consolidate). The *organisation* does so at the start and completion of the *project*. If it is a multi-year *project*, the *organisation* also does this annually.

For each *CO₂ Performance Ladder Project*, the *organisation* must identify opportunities for energy performance improvement, prioritise and document opportunities based on consumption and/or potential for energy performance improvement.

REQUIREMENT 1.A.2

1.A.2

THE ORGANISATION HAS QUANTITATIVE INSIGHT INTO ITS SCOPE 1 AND SCOPE 2 EMISSIONS

CRITERION 1.A.2-1

1.A.2-1

EMISSIONS INVENTORY SCOPES 1 AND 2

The *organisation* must draw up a report that details the *CO₂ emissions inventory* for its *scopes 1* and *2* emissions, per ISO 14064-1 (supplemented by elements from the GHG Protocol Corporate Standard). This report also includes a *CO₂ footprint* of the *organisation*. The following requirements are imposed on the report and inventory:

²⁶ These are certificates that do not match renewable energy production and consumption on an annual basis (as with GoOs), but, for instance, on a quarterly basis.

- a. Reliability and timeliness:
 - i. the emissions inventory is based on actual energy consumption figures for an entire year;
 - ii. the CO₂ emission factors and any recalculation have been applied per Section 9.1.3 from Part 1 and are provided with source citations;
 - iii. the data used can be traced back to the sources (for example, fuel invoices, electricity bills or consumption data);
 - iv. the substantiation is correct for the differences in CO₂ emission factors, methods and reported emissions with the previous emissions inventory;
 - v. an emissions inventory is up to date up to a maximum of 15 calendar months after the end of the year for which the emissions are reported.

- b. Completeness:
 - i. the organisation must make an educated guess as to whether emissions of *non-CO₂ greenhouse gases*²⁷ are material. If this is the case, the material *non-CO₂ greenhouse gases* should be listed separately and quantified by greenhouse gas in kg or tons of CO₂ equivalents;
 - ii. the emissions inventory meets all requirements of §9.3.1 Point a through t of ISO 14064-1 as adopted in normative Appendix A, using the scope classification from the GHG Protocol;
 - iii. the emissions inventory contains all (groups of) facilities, systems, processes or equipment from the *energy balance* of requirement 1.A.1 and is complete with respect to *material scope 1 and scope 2 emissions*;
 - iv. the emissions inventory lists the *CO₂ footprint* for *scope 1* and *scope 2* separately;
 - v. the *organisation* may include emissions from business travel (*scope 3 – Category 6*) in its *scopes 1* and *2* emissions inventory as long as it reports it separately;²⁸
 - vi. the emissions inventory covers all organisational units and the *organisation's* activities to the extent they fall within organisational boundaries, including the *organisation's projects*;
 - vii. for fuels and energy carriers, you may
 - * report the *Well-to-Wheel (WtW)* emissions in *scope 1* and *scope 2*, or
 - * report *Tank-to-Wheel emissions (TtW)* in *scope 1* and *scope 2* and *Well-to-Tank emissions (WtT)* in *scope 3* (under *Category 3*). If the *organisation* chooses to do this, it must be clearly stated;
 - viii. If the *organisation* demonstrably purchases *green gas*, it may use a *green gas* emission factor for the quantity purchased. This is demonstrable when *green gas* GoOs for the same quantity, by the *organisation* or its energy supplier, are entered as settled in the register of the *issuing body* in the country in which the *green gas* is used.

²⁷ Up until Handbook 3.1, reporting on material *non-CO₂ greenhouse gases* was optional. From Handbook 4.0 onward, it is mandatory.

²⁸ Up until Handbook 3.1, reporting on emissions from business travel was mandatory with the *scopes 1* and *2* emissions inventory. In Handbook 4.0, this requirement is linked to reporting on *scope 3* and therefore mandatory from Step 2. At Step 1, reporting is not required but is recommended. Especially for *organisations* where these emissions are material relative to *scopes 1* and *2*.

- ix. the *organisation* reports *scope 2 emissions* from electricity consumption dually (see normative Appendix A for more information). This means that the *organisation* calculates emissions from electricity consumption using two methods:
- * **Method 1: location-based method:** the *organisation* uses one accurate emission factor²⁹ that reflects the average emissions from electricity generation on the local, sub-national or national grid;
 - * **Method 2: market-based method:** the *organisation* uses a separate accurate emission factor for each power source. In doing so, the *organisation* makes a division between *grey* and/or *green electricity* purchased from the grid:
 - **Grey electricity:** The *organisation* must as far as possible make a distinction by *grey electricity* source (e.g. coal, gas or nuclear) and use a supplier-specific emission factor.³⁰ If the *organisation* cannot discover the exact origin of (part of) its *grey electricity*, if there's no supplier-specific emission factor available, or it purchases *grey electricity* from abroad, it must use (for that part) a single accurate average emission factor for all *grey electricity* sources on the local, sub-national or national grid.
 - **Green electricity:** The *organisation* must demonstrate *green electricity* that meets the following conditions.³¹
 - * The electricity is demonstrably renewable. This means that
 - it is generated from renewable sources, such as wind, solar, geothermal, ambient, tidal, wave and other ocean energy, hydropower, and energy from biomass, landfill gas, sewage treatment plant gas, and biogas;
 - electricity from biomass, landfill gas, sewage treatment plant gas and biogas is certified to an EU approved scheme³² or equivalent;
 - the *organisation*, or its energy supplier, debits GoOs to the *issuing body's* registry in the country in which the *green electricity* is used. This can be demonstrated through settlement statements or with an electricity label (or equivalent) in combination with a contract or invoice from the supplier showing how much of this product was taken in that calendar year;
 - * The electricity is additional. This means it comes from
 - the country in which the electricity is used or
 - another country and the *organisation* can adequately substantiate the additionality of the electricity it purchases based on
 - * the importance of its (financial) contribution to the realisation or continued existence of the renewable energy project, and

²⁹ In the Netherlands and Belgium, this is the emission factor 'power unknown' at www.co2emisiefactoren.nl and www.co2emissiefactoren.be.

³⁰ In the Netherlands, the electricity label can be used for this purpose.

³¹ These conditions for electricity consumption in the Netherlands are in line with SMK's Milieukeur Groene Elektriciteit (Ecolabel Green Electricity). A *green electricity* product with a valid SMK quality mark thus automatically meets the conditions in the Netherlands.

³² At the time of publication of this Handbook, they are 2BSvs, Better Biomass, Bonsucro EU, ISCC EU, KZR INiG, REDcert, Red Tractor, RSB EU RED, RTRS EU RED, SQC, TASCC, UFAS, SURE, SBP and AACs.

- * the presence of a physical connection (interconnection) for electricity transmission between the user country and the producer country and
- * the *issuing body*'s membership in the producing country in the Association of Issuing Bodies (AiB).

PLANNING

The substantiated assessment of whether *non-CO₂ greenhouse gas emissions* are among *material scope 1* and *scope 2 emissions* (item 1) must minimally occur before each *initial audit* and triennially.

DOCUMENTED INFORMATION IN CO₂ PERFORMANCE LADDER PROJECTS

For each *CO₂ Performance Ladder Project*, the *organisation* has a quantitative estimate of the *emissions due to energy consumption on a project*. For this estimate, the emissions due to the energy consumption on the project may be derived from an *LCA* calculation³³ if requested by the *project* client. If the *organisation* wishes to use an *LCA*, it must be prepared per ISO14067³⁴ or EN15804³⁵ and cover at least *LCA* stages A4 to A5. This may involve an *LCA* of the entire *project* or of part of the *project*. There is an *LCA* of the entire *project* if the *organisation* can plausibly demonstrate that the *LCA* covers at least 80% of the combined *emissions due to the energy consumption on the project*. In all other cases, there is an *LCA* of part of the project and the *organisation* can only use it to substantiate this particular part of the CO₂ calculation.

The *organisation* does so at the start and completion of the *project*. If it is a multi-year *project*, the *organisation* also does this annually.



³³ An example here is a calculation of an Environmental Cost Indicator (ECI)

³⁴ Greenhouse gases — Carbon footprint of products — Requirements and guidelines for quantification

³⁵ Sustainability of construction work – Environmental declarations of products – Basic rules for the building products product group

B

ANGLE B REDUCTION

REQUIREMENT 1.B.1

1.B.1

THE ORGANISATION HAS SHORT-TERM PREPARATORY ACTIONS, MEASURES AND TARGET(S) AND HAS ESTABLISHED THEM IN AN ACTION PLAN

CRITERION 1.B.1-1

1.B.1-1

SHORT-TERM CO₂ TARGET

The *organisation* must draw up an *Action Plan* that includes one *short-term* CO₂ reduction target that:

- a. is formulated as an absolute target (kg or tonne CO₂) or as a relative target (CO₂ *intensity value*) compared to the *base year* as well as to the last established *short-term* target;
- b. is broken down into separate sub-objectives for each scope or activity such that the target can be monitored;
- c. is ambitious given the *organisation's* own situation and which is ambitious compared to the CO₂ reduction target of relevant *organisations* in its *sector* and in relation to applicable legal obligations. The *organisation* substantiates which (groups of) *organisations* in its *sector* it considers relevant;
- d. uses the Trias Energetica³⁶ as a starting point where CO₂ reductions that simultaneously result in final energy savings should be preferred over CO₂ reductions that result in no or less final energy savings.

CRITERION 1.B.1-2

1.B.1-2

SHORT-TERM ENERGY SAVINGS AND RENEWABLE ENERGY TARGET

The *organisation* must include quantitative targets in its *Action Plan* for saving 1.A.1 *energy consumption* and for self-generation, storage and use of renewable energy for the *short-term* that:

- a. are established relative to the *base year* and relative to the last *initial* or *recertification audit*;
- b. are formulated as an absolute target (in MJ/kWh or as a percentage) or relative target (*energy consumption intensity value*);

³⁶ This refers to the order of preference for setting targets and taking measures based on 1. minimising *energy use*, 2. using renewable energy, and 3. using fossil fuels efficiently.

- c. is as ambitious as possible given the *organisation's* own situation and in comparison to the energy saving target(s) of relevant *organisations* in its *sector* and in relation to applicable legal obligations.³⁷ The *organisation* substantiates which (groups of) *organisations* in its *sector* it considers relevant;
- d. have the Trias Energetica as a starting point, where CO₂ reductions that simultaneously result in final energy savings should be preferred to CO₂ reductions where no or less final energy is saved.

CRITERION 1.B.1-3

1.B.1-3

SHORT-TERM ACTION PLAN

The *Action Plan* is a concrete *short-term* plan containing all the planned preparatory actions and measures to achieve the targets. These preparatory actions and measures must

- be practical and clearly articulated;
- be planned for, wherein taking preparatory actions and measures earlier is more ambitious;
- include expectations for their contribution to CO₂ reduction, energy conservation, deployment of renewable energy and/or *flexibility in the energy system*;
- include who is responsible for implementation (department/function/person);

The *Action Plan* may cover a longer term than just the *short term*.

In addition to the *Action Plan*, the *organisation* indicates how its proposed and/or actual preparatory actions and measures and CO₂ *intensity value* compare to relevant *organisations* in its *sector*. To this end, the *organisation* fills in the *Measure list* and its CO₂ *intensity value* in 'My CO₂ Performance Ladder'. The *organisation* includes the output of the completed *Measure list* in its *Action Plan*. Next, the *organisation* analyses and substantiates

- how its measures and CO₂ *intensity value* compare with the number of measures, the type of measures (e.g. mainly related to 'construction site' or 'passenger mobility') and the category of measures (are they mainly *A*, *B* or *C measures*) of relevant *organisations* in its *sector*;
- how its CO₂ *intensity value* compares with that of relevant *organisations* in its *sector*;
- whether, based on its proposed and/or actual measures and CO₂ *intensity value*, it considers itself to be a front runner, average achiever or low performer.

The *organisation* should indicate which (types of) *organisations* it considers relevant in its *sector* (e.g. based on country, *sector* or *organisation size*).

Completing the *Measure list* is normative. If the *organisation* proposes and/or takes measures that are not already on the *Measure list*, the *organisation* must add them.

³⁷ If applicable, the energy savings target from the Energy Efficiency Directive (EED) applies explicitly.



DOCUMENTED INFORMATION IN CO₂ PERFORMANCE LADDER PROJECTS

For each CO₂ Performance Ladder Project, the organisation has a *Project Plan* containing preparatory actions and measures. The *Project Plan* will be implemented according to a schedule (the planning).

The organisation does so at the start and completion of the *project*. If it is a multi-year *project*, the organisation also does this annually.

The measures in the *Project Plan* are clearly derived from the quantitative target at the organisation level. The organisation indicates

- which *Action Plan* measures it includes in the *Project Plan*;
- which *Action Plan* measures, and which are suitable for projects, it does **not** include in its *Project Plan*. The organisation can justify why it does not implement these measures;
- what additional measures it includes in the *Project Plan* that are not from its *Action Plan*.

If measures have not yet been defined in the *Project Plan*, the organisation must define when the measures will be named that the organisation will implement in the *project*.

It is explicitly not necessary to formulate a separate target at project level for individual *projects*.

REQUIREMENT 1.B.2

1.B.2

THE ORGANISATION SUCCEEDS IN ACHIEVING THE TARGETS AND/OR PREPARATORY ACTIONS AND MEASURES IN THE 1.B.1 ACTION PLAN

CRITERION 1.B.2-1

1.B.2-1

IMPLEMENTATION AND/OR COMMITMENT REQUIREMENT

The organisation must demonstrate for the *short-term* CO₂ target (1.B.1-1) and for the *short-term* energy savings and renewable energy targets (1.B.1-2) that the targets and/or the preparatory actions and measures from the past year's 1.B.1-3 *Action Plan* have been achieved. It documents this progress in a progress report.

PLANNING

If the deadline for achieving the short-term targets has not yet passed, the organisation must substantiate, based on demonstrable results achieved that it is on a realistic path to achieving the targets and/or the preparatory actions and measures in the *Action Plan*.

DOCUMENTED INFORMATION IN CO₂ PERFORMANCE LADDER PROJECTS

Upon completion of the *project*, the measures for that specific *Project Plan* have been implemented and evaluated, assessing their effectiveness (regarding possible application in other *projects*). In addition, if it is a multi-year *project*, the progress of the measures is documented at least annually. The organisation documents the results in a progress or evaluation report.



C

ANGLE C

COMMUNICATION

REQUIREMENT 1.C.1

1.C.1

THE ORGANISATION ENSURES THAT KEY PERSONS ARE DEMONSTRABLY AWARE OF THEIR ROLE IN THE ORGANISATION'S ENERGY AND CO₂ POLICY

CRITERION 1.C.1-1

1.C.1-1

KEEPING KEY PERSONS INFORMED

Key persons are identified in §7.2. They must be demonstrably aware of their role. This is when the person knows and can explain why and how they are (partly) responsible for the *organisation's* CO₂ and energy policy.

Key persons should

- be informed about their specific role and their specific influence, or what it could be, on the *organisation's* CO₂ and energy policy, on its *energy consumption* and CO₂ emissions, and on the use, storage or generation of renewable energy;
- know what is expected of them appropriate to the level of CO₂ awareness, distinguishing the following levels (higher levels include those below it):
 - i. Insight: be familiar with the *organisation's energy and CO₂ policies* and understand the important energy and CO₂ aspects in their work;
 - ii. Support: actively provide ideas and information for action, monitoring and policy;
 - iii. Feel engaged: participate in developing and realising elements of policy, the *energy and CO₂ management system*, savings measures, monitoring, communication and/or reporting;
 - iv. Feel responsible: feel responsible for developing and achieving elements of policy, the *energy and CO₂ management system*, savings measures, monitoring, communication and/or reporting.
- know the consequences of not complying with *energy and CO₂ management system requirements*.

REQUIREMENT 1.C.2

1.C.2

THE ORGANISATION COMMUNICATES ABOUT ITS 1.B.1 ACTION PLAN, INCLUDING PROGRESS, INTERNALLY AND TO ITS KEY EXTERNAL TARGET GROUPS

CRITERION 1.C.2-1

1.C.2-1

COMMUNICATION PLAN

The *organisation* has prepared a communication plan and is implementing the plan as scheduled. The goal is to create accountability and collaborative opportunities. The communication plan requirements are:

TARGET GROUPS

- It includes a description of the communication's internal target groups, including at least the *key persons* identified in §7.2;
- It includes a description of the communication's key external target groups.

OBJECTIVES

- It contains the communication objectives (in terms of familiarity with the message);

MESSAGE AND RESOURCES

- It contains the message (by target group), which should be related to the *Action Plan* of 1.B.1, including progress.
- It includes an overview of communication tools tailored to the target group and objectives, including at least its own website;
- It contains an overview of the information the *organisation* publishes on its own website. For this information the following applies
 - * it contains, as a minimum, a description of the *organisation's energy and CO₂ policy* and progress (possibly supported by the full publication of its *Action Plan*);
 - * the information relevant to the CO₂ Performance Ladder must be easily findable and visible to website visitors;
 - * the published information can have any format. This means the *organisation* decides how it communicates;
 - * the published information must not contradict its other documented information, including communications on the public organisation page on the CO₂ Performance Ladder website;
 - * it must include a digital link to the organisation page on the CO₂ Performance Ladder website;
 - * it must include the *organisation's* current certificate.

RESPONSIBILITIES AND PLANNING

- It includes the communication managers and implementers;
- It contains the schedule, including the frequency of communication activities, with annual being the minimum for each activity. In addition, for *CO₂ Performance Ladder Projects*, communication activities must take place at the start and completion of the *project*.





COMMUNICATION ON CO₂ PERFORMANCE LADDER PROJECTS

- It includes a description of the internal target groups of communication within the organisation's *CO₂ Performance Ladder Projects*, including at least one *key person* for the *CO₂ Performance Ladder Project* identified in §7.2;
- It includes a description of the external target groups of the *organisation's CO₂ Performance Ladder Project* communications, including at least the *project's client*;
- It contains the approach for communication on *CO₂ Performance Ladder Projects*, minimally consisting of regular internal project consultation and consultation with project partners (including subcontractors) and the *project client*.
- During both internal and external consultations, attention should be paid to
 - * the choice of and progress on the implementation of measures;
 - * the progress and trends related to *energy consumption on the project*;
 - * the progress and trends related to *emissions due to energy consumption on the project*.

D

ANGLE D

COLLABORATION

REQUIREMENT 1.D.1

1.D.1

THE ORGANISATION ANALYSES ITS OWN KNOWLEDGE AND COLLABORATION NEEDS RELATED TO THE 1.B.1 ACTION PLAN

CRITERION 1.D.1-1

1.D.1-1



INVENTORY OF KNOWLEDGE/COLLABORATION REQUIREMENTS

The *organisation* analyses knowledge and collaboration needs in relation to The (potential) measures included in the *Action Plan* (requirement 1.B.1) that can contribute to:

- accelerated or further implementation of measures;
- accelerated achievement of targets;
- realisation of more ambitious targets in a subsequent *Action Plan*.

The *organisation's* analysis of knowledge and collaboration needs should distinguish between energy conservation, the generation, storage or use of renewable energy and CO₂ reduction.

DOCUMENTED INFORMATION IN CO₂ PERFORMANCE LADDER PROJECTS

For each *CO₂ Performance Ladder Project*, the *organisation* analyses what the knowledge and collaboration needs are in relation to the (potential) measures included in the *Project Plan*.

The *organisation* does so at the start and completion of the *project*. If it is a multi-year *project*, the *organisation* also does this annually.

REQUIREMENT 1.D.2

1.D.2

THE ORGANISATION IDENTIFIES OPPORTUNITIES BY WHICH IT CAN MEET THE KNOWLEDGE AND COLLABORATION NEEDS OF 1.D.1

CRITERION 1.D.2-1

1.D.2-1

KNOWLEDGEABLE KEY PERSON

The *organisation* shall designate one or more *key persons* responsible for retrieving and maintaining knowledge already available outside the *organisation* that may meet the knowledge needs of 1.D.1.

CRITERION 1.D.2-2

1.D.2-2



INVENTORY OF PARTNERSHIPS

The *organisation* identifies existing relevant *partnerships* that match the knowledge and collaboration requirements of 1.D.1. The *partnerships* must have a relationship with the *organisation's* sector and/or *value chain* and/or *CO₂ Performance Ladder Projects* and/or must play a role in local³⁸ energy and CO₂ reduction. The *organisation* knows the goal of relevant collaborations, the parties involved and the added value the collaboration can bring to the *organisation*.

³⁸ By 'local' is meant: in the *organisation's* immediate vicinity, such as in the *organisation's* industrial park or neighbourhood.

APPENDIX

A

APPENDIX A (NORMATIVE)

RELEVANT CONCEPTS FROM EXTERNAL STANDARDS

This appendix contains a summary of the main concepts used in the CO₂ Performance Ladder that come from external standards. If the descriptions in this appendix differ from the descriptions in the listed standards, the standards take precedence.

CONSOLIDATION APPROACHES

(Source: GHG Protocol Corporate Standard, Chapter 4)

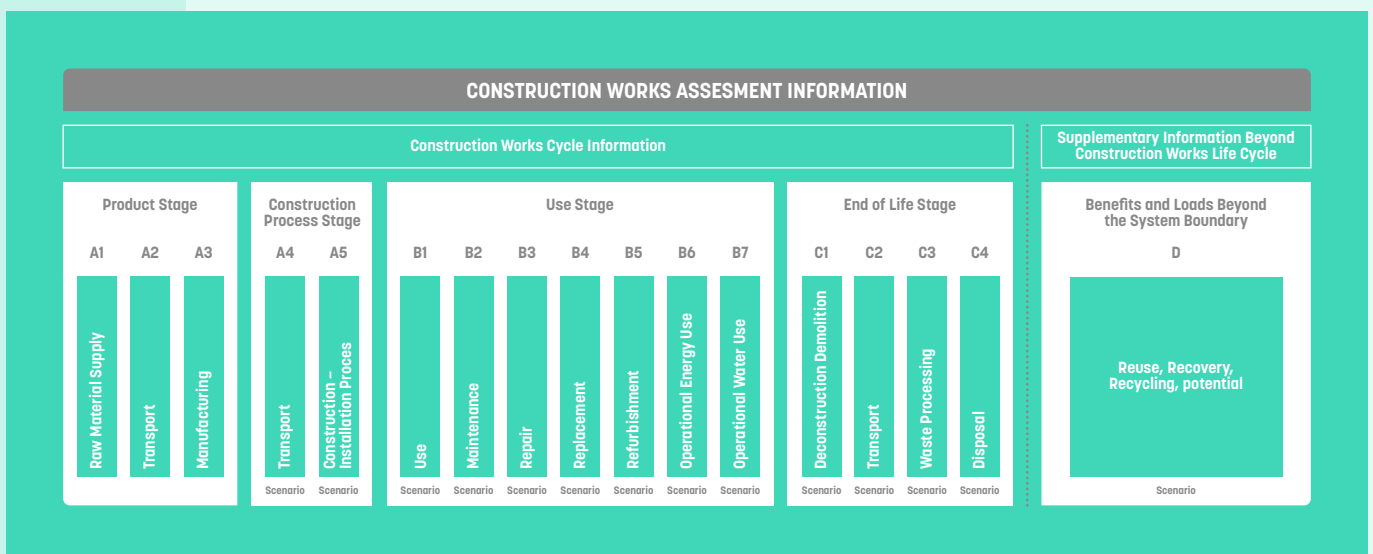
There are three consolidation approaches:

1. **Equity share:** the *organisation* reports emissions for the proportion of entities it legally owns. The percentage in emissions equals the percentage of ownership (0 to 100%).
2. **Operational control:** the *organisation* reports on an entity's emissions (always 100%) when the *organisation* has the authority to introduce and implement policies.
3. **Financial control:** the *organisation* reports emissions (always 100%) for an entity when the *organisation* has the greatest financial interest expressed in terms of the entity's financial risks and revenues.

LCA STAGES FOR CONSTRUCTION WORK

(Source: EN 15804)

Construction work has the following LCA stages:



EMISSIONS INVENTORY REPORTING REQUIREMENTS

(Source: ISO 14064-1, §9. 3.1)

The following topics should be included in the emissions inventory reporting:

- a. Description of the reporting *organisation*;
- b. Person or entity responsible for reporting;
- c. Period reported on;
- d. Documentation of organisational boundaries;
- e. Documentation of reporting boundaries, including the criteria by which the *organisation* determines its significant emissions;
- f. Direct greenhouse gas emissions, quantified separately for CO₂, CH₄, N₂O, NF₃, SF₆ and other relevant groups of *greenhouse gases* (HFCs, PFCs, etc.) in tons of CO₂ *equivalents*;
- g. Descriptions in the emissions inventory of how the *organisation* addresses *biogenic CO₂ emissions* and biogenic removals and a quantification of the relevant CO₂ emissions and biogenic removals in tons of CO₂ *equivalents*;
- h. If quantified: direct greenhouse gas removals in tons of CO₂ *equivalents*;
- i. A statement that the *organisation* excludes significant greenhouse gas sources or CO₂ *sinks* from quantification;
- j. The indirect greenhouse gas emissions quantified separately by category in tons of CO₂ *equivalents*;
- k. The selected historical *base year* and emissions inventory from the *base year*;
- l. Explanation of any change in the *base year* or other historical greenhouse gas data or categorisation and an explanation of any recalculation in the *base year* or any other historical emissions inventory, and documentation of any limitation in comparability resulting from such recalculation;
- m. A reference to, or documentation of, the methods of quantification chosen including the reasons for this choice;
- n. An explanation of any change in the previously chosen ways of quantifying;
- o. A reference to, or documentation of, selected greenhouse gas emission factors or removal factors;
- p. A description of the impact of uncertainties on the accuracy of GHG emissions and removals data by category;
- q. A description of uncertainty analysis and results;
- r. A statement that the emissions inventory was prepared per ISO 14064-1;
- s. A statement whether the emissions inventory, report or statement has been verified, including the type of verification and the level of assurance achieved;
- t. The GWP values used in the calculation, including their sources. If the GWP values are not from the latest IPCC report, the *organisation* should include the emission factors or a reference to the database used, including their source.

SCOPE 1, SCOPE 2 AND SCOPE 3

(Source: GHG Protocol Corporate Standard and ISO 14064-1)

SCOPE 1 EMISSIONS ('DIRECT GREENHOUSE GAS EMISSIONS')

Scope 1 emissions, or *direct emissions* (term used in ISO 14064-1), are CO₂ emissions, including *non-CO₂ greenhouse gases*, from sources owned or operated by the *organisation*, such as emissions from burning fossil fuels in its own boilers, furnaces or vehicles.

ISO 14064-1 (Annex B) distinguishes the following optional subcategories for *direct emissions*:

- *Direct emissions* from stationary combustion, such as heaters, gas turbines or boilers;
- *Direct emissions* from mobile combustion, such as in motor vehicles, ships and aircraft;
- Direct process emissions, such as in cement production;
- *Direct emissions* from leakage losses (intentional or unintentional), such as from refrigerants from cooling systems, spillage of CH₄ or N₂O from sewage treatment plants, or leakage from LNG facilities;
- *Direct emissions* from land use, land use change and forestry.

SCOPE 2 EMISSIONS ('INDIRECT EMISSIONS FROM IMPORTED ENERGY')

Scope 2 emissions are emissions generated from the generation of electricity, heat, cooling and steam purchased and consumed by the *organisation*. *Scope 2 emissions* physically occur at the location where electricity, heat, cooling, steam and compressed air are generated.

ISO 14064-1 distinguishes the following optional subcategories for *indirect emissions* from imported energy:

- *Indirect emissions* from purchased electricity;
- *Indirect emissions* from purchased energy delivered through a physical network, including heat, cooling, steam and compressed air, excluding electricity.

The *organisation* must report emissions from electricity consumption (as part of *scope 2*) in two ways: *location-based* and *market-based*. More information can be found in the GHG Protocol *scope 2 Guidance* and ISO 14064-1 (Annex E).

Location-based emissions are calculated by multiplying the *organisation's* purchased electricity by one accurate emission factor representing the average emissions from the local, sub-national or national electricity grid.

Market-based emissions are calculated as follows: multiply purchased electricity by emission factors that most accurately reflect CO₂ emissions from the generation source. For example, the production source could be a gas plant or wind farm of the electricity supplier with whom the *organisation* has a contractual agreement. Offsetting these emissions against GoOs is permitted when applicable.

An *organisation* may not offset the emissions from electricity it produces and delivers to the grid against the emissions from electricity it takes from the grid at any other time. However, it may record *avoided emissions* from electricity delivered to the grid separately under *avoided emissions*.

SCOPE 3 EMISSIONS ('OTHER INDIRECT EMISSIONS')

Scope 3 emissions are emissions that are a result of the *organisation's* activities but arise from sources that are neither owned nor controlled by the *organisation*.

The GHG Protocol Scope 3 Standard (Chapter 5) distinguishes 15 categories of *scope 3* emissions during the production stage of a product or service (*scope 3 upstream*) and the use and disposal stage of a product or service (*scope 3 downstream*). These are briefly explained below:

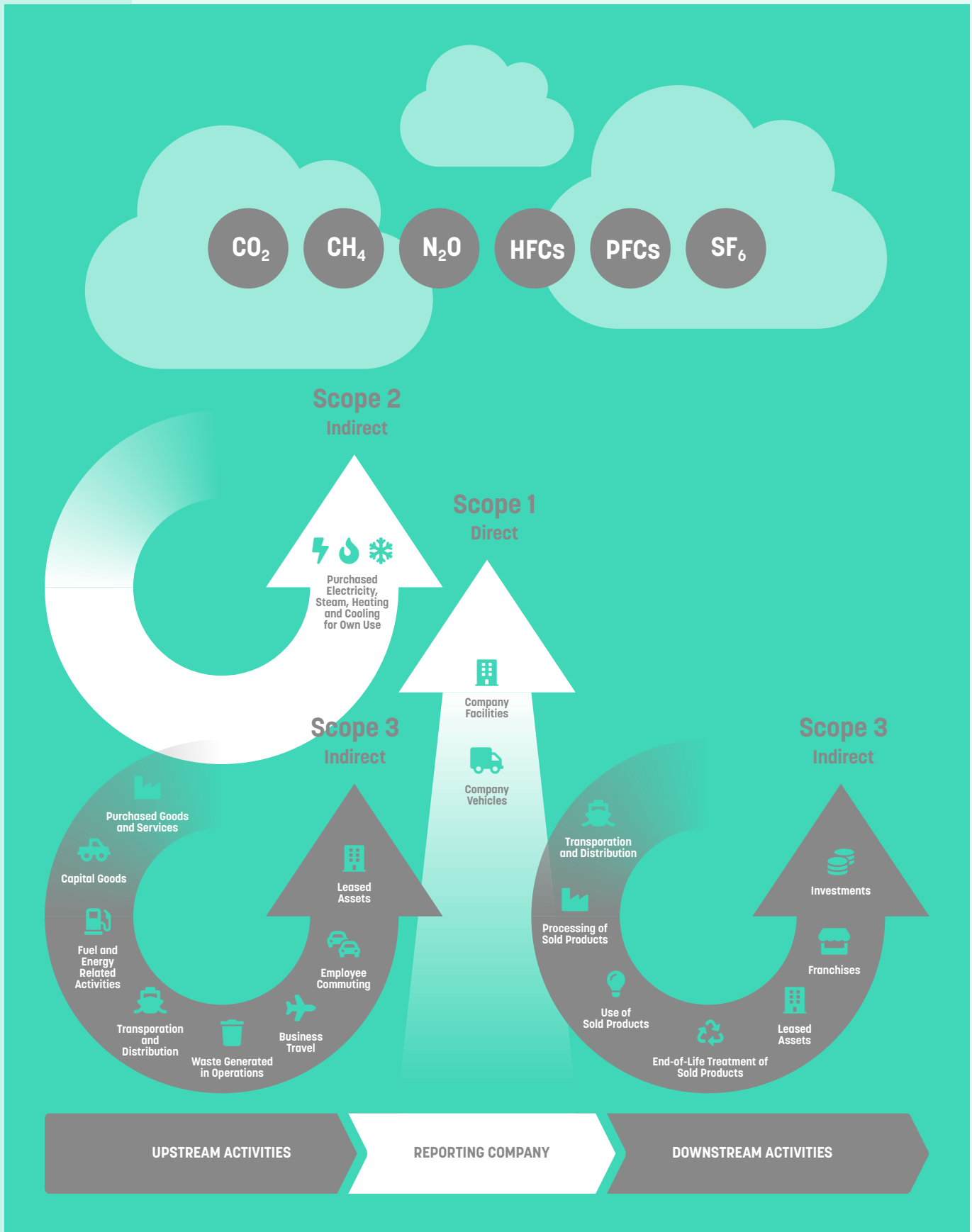
SCOPE 3 UPSTREAM	
1 Purchased goods and services ³⁹	Extraction, production and transportation of goods and services purchased or obtained by the <i>organisation</i> during the reporting year that fall outside categories 2 to 8 of this list.
2 Capital goods	Extraction, production and transportation of capital assets purchased or acquired by the <i>organisation</i> during the reporting year.
3 Fuel and energy-related activities (not included in <i>scope 1</i> or 2)	Extraction, production and transportation of fuel or energy purchased or obtained by the <i>organisation</i> during the reporting year that falls outside <i>scope 1</i> or 2.
4 Upstream transportation and distribution	Transportation and distribution during the reporting year of products purchased by the <i>organisation</i> between its direct <i>suppliers</i> and <i>organisation's</i> facilities (in vehicles not owned or operated by the <i>organisation</i>). Transportation and distribution services purchased by the <i>organisation</i> during the reporting year, including inbound and outbound logistics (e.g. of products sold) and transportation and distribution between the <i>organisation's</i> own facilities (in vehicles and facilities not owned or operated by the <i>organisation</i>).
5 Waste generated in operations	Disposal and treatment of waste generated in the reporting year during the <i>organisation's</i> activities (in facilities not owned or operated by the <i>organisation</i>).

³⁹ A possible subcategory (Source: CSRD) is 'cloud computing and data centre services'

6 Business travel	Passenger transportation for work-related activities in the reporting year.
7 Employee commuting	The transportation of employees between their homes and work locations during the reporting year (in vehicles not owned or operated by the <i>organisation</i>).
8 Upstream leased assets	The operation of assets leased by the <i>organisation</i> (lessee) in the reporting year that fall outside <i>scope 1</i> or <i>2</i> .

SCOPE 3 DOWNSTREAM

9 Downstream transportation and distribution	Transport and distribution during the reporting year, of products sold by the <i>organisation</i> , between the <i>organisation's</i> facilities and those of the end user (if not paid for by the <i>organisation</i>), including retail and storage (in vehicles and facilities not owned or operated by the <i>organisation</i>).
10 Processing of sold products	The processing of intermediate products by downstream companies (e.g. manufacturers) that the <i>organisation</i> sold during the reporting year.
11 Use of products and services sold	The end use of goods and services sold by the <i>organisation</i> during the reporting year.
12 End-of-life treatment of sold products	The disposal and processing of products sold by the <i>organisation</i> during the reporting year at the end of their life.
13 Downstream leased assets	The operation of assets owned by the <i>organisation</i> (lessor) and leased to other entities during the reporting year, which fall outside <i>scope 1</i> or <i>2</i> .
14 Franchises	Operation of franchises in the reporting year that fall outside <i>scope 1</i> or <i>2</i> .
15 Investments	Operating investments (including equity and debt investments and project financing), which fall outside <i>scope 1</i> or <i>2</i>



The scope diagram of the GHG Protocol Scope 3 Standard



CO₂ PERFORMANCE LADDER

The CO₂ Performance Ladder is developed in the Dutch language and is approved for accreditation by the Dutch Accreditation Council (RvA) and the Belgian BELAC. For all translations of normative documents, the Dutch version is leading in case of discrepancies or differences in interpretation. In case of ambiguity, please contact SKAO, info@co2performanceladder.com. No rights can be derived from translations.

Stichting Klimaatvriendelijk
Aanbesteden & Ondernemen