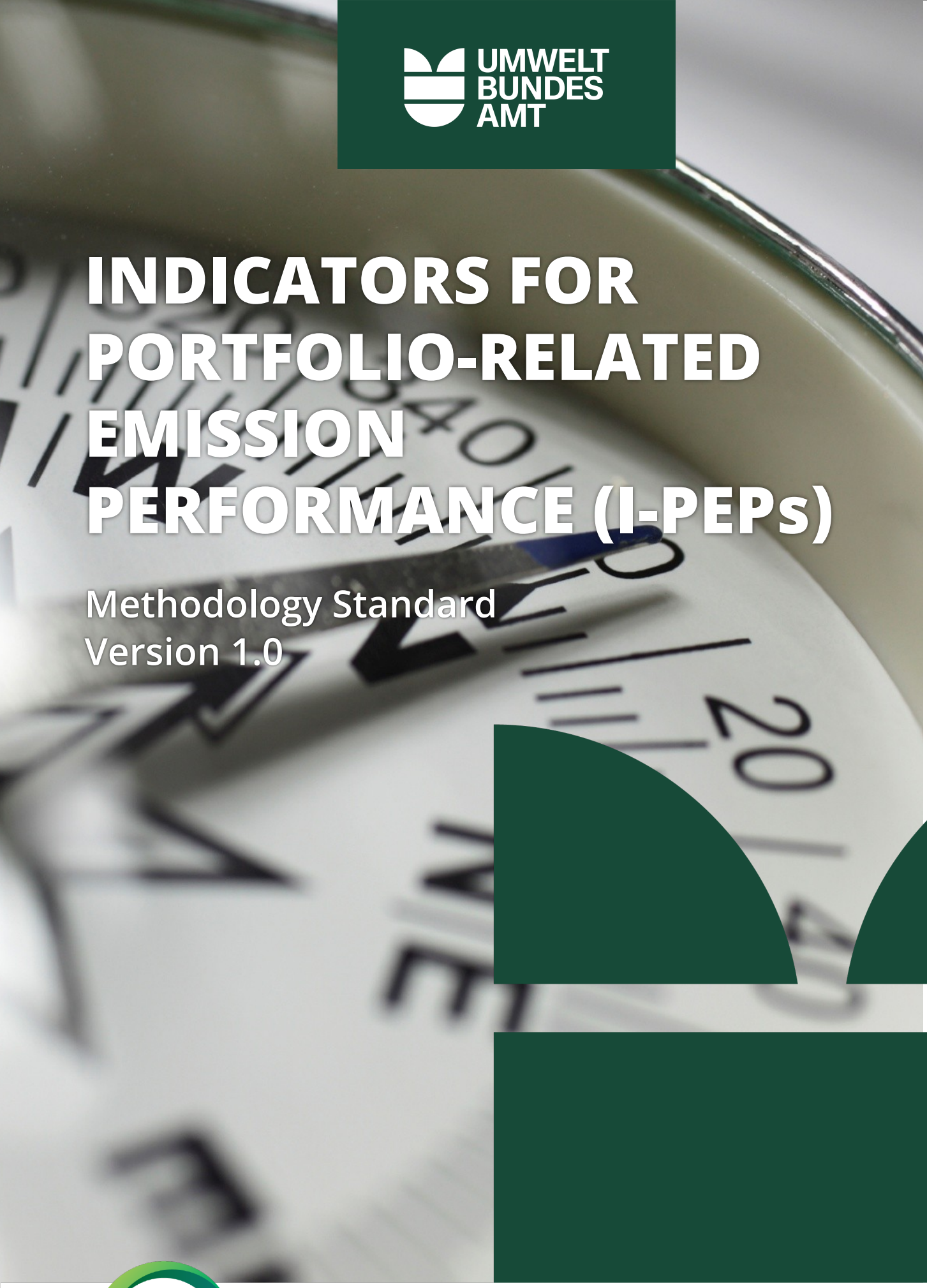

UMWELT BUNDES AMT

INDICATORS FOR PORTFOLIO-RELATED EMISSION PERFORMANCE (I-PEPs)

Methodology Standard
Version 1.0

GREEN FINANCE ALLIANCE

I-PEPs Methodology Standard
Version 1.0

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SUMMARY

The Indicators for Portfolio-related Emission Performance (I-PEPs) introduce a new generation of key performance indicators (KPIs) that enable financial companies, such as banks and insurance companies, to steer the decarbonisation of their core business. This innovative KPI set covers a broad spectrum of the financial sector, with tailored metrics for both the investment and lending portfolio and insurance activities. Despite its wide scope of application, the underlying methodological approach is standardised. It is characterised by its objective traceability, its robustness against adverse influencing factors, and its potential scalability to other types of financial portfolios.

Within a financial company's overall climate strategy, I-PEPs address the specific aspect of portfolio decarbonisation. Other aspects, such as the expansion of green activities, the phase-out of fossil fuels, and proactive engagement, are to be managed using other metrics.

I-PEPs are categorised as ex-post indicators: they assess the actual transition progress (emission performance) of the existing portfolio. However, since credible and ambitious transition plans are fundamental prerequisites for achieving actual transition progress, using I-PEPs also generates important steering signals for the ex-ante evaluation of new business.

Target setting based on I-PEPs also rewards active transition support in greenhouse gas-intensive companies in the real economy, as only the greenhouse gas (GHG) emissions trend over time (and not the absolute emissions level) determines the progression of the indicators.

At the same time, important synergies can be leveraged with I-PEPs, for example with complementary GHG accounting. The often resource-intensive collection of emission data for the purpose of preparing the emission inventories also serves as the basis for calculating I-PEPs, which means that no additional data collection is necessary.

I-PEPs as an innovative set of indicators were examined in the light of international discussions on portfolio metrics and how they are embedded in the theories of change. These theories address the connection between measures taken by financial companies and the actual impact on the real economy.[1]

[1] The term "theories of change" is explained in more detail in Chapter 5.3.

1 INTRODUCTION

1.1 Background to the development of the method

Scope

In recent years, financial companies around the world have begun to integrate climate action into their corporate strategies in order to contribute to limiting global warming. This integration typically also leads to the establishment of other relevant topics, such as the professional management of increasing climate-related risks or the expansion of business areas into new growth segments. This process is guided by various regulatory disclosure requirements. While these requirements bind human and financial resources within financial companies, they also lead to meaningful harmonisation and improved data availability for the financial market.

Choosing KPIs

To integrate climate action into corporate management, financial companies face the challenge of introducing new KPIs for various climate-related objectives (e.g. engagement and expansion of green activities). These indicators must be complementary, meaningful and robust. Financial companies often pursue specific climate targets (such as portfolio decarbonisation) for different core business activities.[2] In such cases, the KPIs should be aligned and based on a common methodological approach. A significant share of financial companies (such as regional banks and smaller pension funds) have only very limited human resources. This must be taken into account when selecting indicators, particularly with regard to complexity and practical applicability.

Note

Climate Navigation Cockpit (CNC) of the Green Finance Alliance

In Austria, the Green Finance Alliance (GFA)[3] was launched in 2022 by the BMLUK (formerly BMK)[4] – a climate action initiative for financial companies. Within the initiative, one particular challenge has emerged for its members: defining metrics to manage their climate efforts. For this purpose, the GFA Coordinating Office developed a comprehensive Climate Navigation Cockpit (CNC)[5] which consists of several steering modules and specific KPIs. They are to be used by the GFA members to manage the expansion of green activities, for proactive engagement with portfolio counterparts and for decarbonising their core business. While the steering modules for the expansion of green activities and engagement are primarily based on existing market approaches, a new set of indicators was developed for the

[2] For example, insurance companies with underwriting and investment activities.

[3] For more information on the GFA, see the website of the BMLUK or the website of the Environment Agency Austria.

[4] Since 1 April 2025: Federal Ministry of Agriculture and Forestry, Climate and Environmental Protection, Regions and Water Management (BMLUK).

[5] For more information on the Climate Navigation Cockpit, see chapter 5.1.1.2 in the GFA – Executive Summary.

portfolio decarbonisation steering module: the Indicators for Portfolio-related Emission Performance (I-PEPs).

1.2 Development of the method

First public consultation

In 2024, the GFA Coordinating Office developed an initial draft of the I-PEPs methodology in close consultation with the Convening Body and the GFA Advisory Council. The results were documented in a detailed consultation paper and the methodological approach was illustrated with calculation examples in a separate file. These documents were made available for public consultation in July and August 2024. The stakeholder dialogue during the consultation process was supplemented with a dedicated webinar in August 2024 and with several bilateral meetings. The GFA Coordinating Office evaluated the extensive stakeholder feedback in autumn 2024. The insights gained were discussed with the GFA Advisory Council and the results were subsequently presented to the GFA Steering Committee and the GFA members.

Second public consultation and pilot test

The evaluation of stakeholder feedback formed the basis for the next development step: the creation of a draft methodology standard. This was again put out for public consultation in the summer of 2025. In order to test the practicality of the method, a pilot phase was carried out in parallel with the public consultation. In this phase, I-PEPs were put through a practical test together with financial companies using actual portfolio data. The results and experiences of the pilot phase and the second consultation were summarised and published in a report.

Methodology Standard Version 1.0

Based on the insights gained from the second consultation and the pilot phase, this Methodology Standard (Version 1.0) has been developed and published.[6] With the market introduction of I-PEPs and the experience expected to be gathered through their application, regular updates, further specification and expansion of the Methodology Standard are envisaged. The first such revision is planned for 2026.

Note

Terminology used in the I-PEPs Methodology Standard

The I-PEPs Methodology Standard contains both mandatory requirements and voluntary implementation recommendations for users. The former are marked with the term **"shall"** and must be implemented for compliance with this methodology standard. For the latter, the term **"should"** is used. These are non-mandatory implementation recommendations.

[6] The I-PEPs Methodology Standard is available on the website of the GFA Coordinating Office.

1.3 New developments compared to the 2025 consultation document

Approach The I-PEPs Methodology Standard is based on the 2025 consultation version and has been adapted in places, primarily on the basis of consultation feedback and experience gained during the pilot phase.

Changes The most important changes compared to the draft for consultation concern the following chapters:

Chapter 2.2.3 – Adjusted calculation method for physical emission intensities

An alternative calculation method for determining the emission performance when using physical emission intensities has been introduced.[7] It is based on the calculation method that uses absolute emissions and is primarily intended for the calculation of I-PEPs for corporate portfolios. For project/real estate portfolios, the original calculation method shall continue to be used.

Chapter 4 – Target setting and definition of decarbonisation pathways

In addition to minor adjustments, the chapter has been expanded to include a concrete application example. This example shows how a corporate pledge to achieve GHG neutrality by 2050 can be translated into specific targets for I-PEPs.

[7] In this document the term “emissions” is used as a synonym for GHG emissions. Related terms such as “emission performance” and “emission intensity” also refer to GHG emissions.

2 GENERAL METHODOLOGY DESCRIPTION

With I-PEPs, a set of KPIs has been developed that allows financial companies to measure progress in portfolio decarbonisation as part of their climate protection efforts and to link this progress to their targets. The I-PEPs were primarily developed for the financial portfolios of banks, insurance companies, asset managers, pension funds and corporate provision funds covering investments, lending and insurance-related underwriting. These types of financial portfolios are typically broken down into sub-portfolios (e.g. by asset class in the case of investment portfolios) and managed at these more granular levels. The methodological structure of I-PEPs allows for flexible application at different levels of granularity, enabling holistic coverage of all relevant sub-portfolios. Despite the highly heterogeneous scope of application, the underlying methodological approach of the I-PEPs remains consistent across all types of financial portfolios and sub-portfolios. This consistency allows (with certain restrictions) for cross-portfolio comparison and aggregation. The data basis for calculating I-PEPs is the same across all areas of application: the GHG data of the portfolio positions.

2.1 Overview of steering indicators

Scope of application

Firstly, the I-PEPs universe can be categorised according to its general scope of application (= action area):

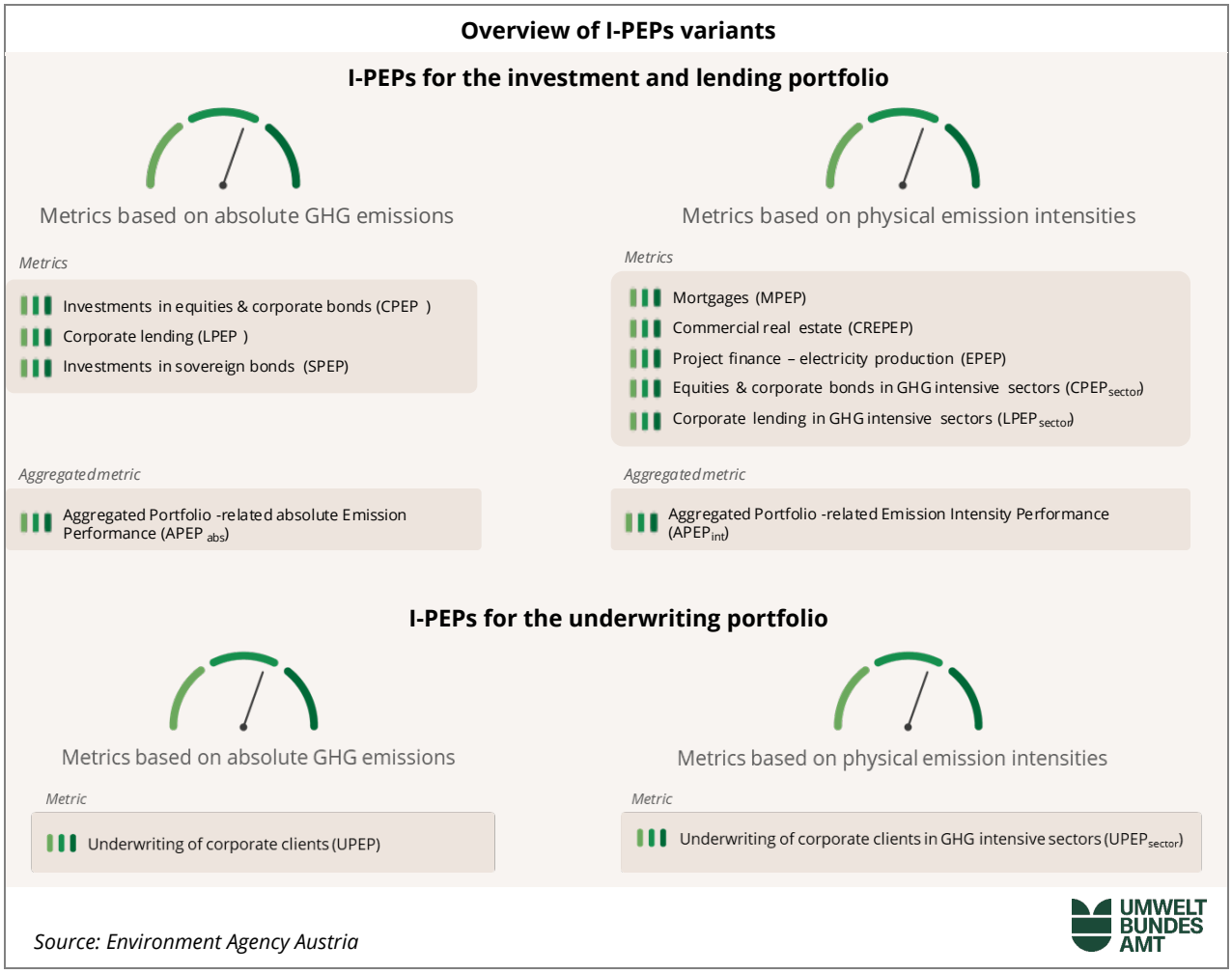
- I-PEPs for the investment and lending portfolio
- I-PEPs for the underwriting portfolio

Secondly, I-PEPs can be considered from two perspectives:

1. Based on the asset classes and business areas covered by each indicator
2. Based on the calculation basis used to determine the emission performance

The figure below shows an overview:

Figure 1: Overview of the I-PEPs KPI set for both action areas.



Annex 6.1 provides an overview of the KPI set.

The following sub-chapters deal with I-PEPs based on the two different perspectives mentioned above.

2.1.1 Breakdown by asset class/business area

To manage the decarbonisation of the respective action areas effectively, it is necessary to divide them into homogeneous sub-portfolios. The investment and lending portfolio are therefore broken down by (sub-)asset class. For the underwriting portfolio, only one business area is currently considered:[8]

[8] The extension of the I-PEPs methodology to other underwriting business areas is possible in principle but is not covered by this version of the methodology standard.

- **Investment portfolio (by asset class)**
  - Equity and corporate bonds
    - Segregated sub-portfolios for GHG-intensive sectors
  - Sovereign bonds
- **Lending portfolio (by asset class)**
  - Corporate lending
    - Segregated sub-portfolios for GHG-intensive sectors
  - Mortgages
  - Commercial real estate
  - Project finance: electricity production
- **Underwriting portfolio**
  - Underwriting of corporate clients
    - Segregated sub-portfolios for GHG-intensive sectors

Segregation

As part of the portfolio management of business activities at companies, I-PEPs envisage segregating portfolio positions that belong to GHG-intensive sectors. Customised I-PEPs are defined for each of these sector-specific portfolios, allowing dedicated steering. Whether such segregation is implemented is up to the financial company to decide, depending on the significance[8] of its sectoral exposure and the availability of required data. The rationale for this approach to segregated steering is discussed in the following chapters.

2.1.2 Breakdown by calculation basis

Data

I-PEPs can be calculated using two different calculation bases: absolute emissions or physical emission intensities of the portfolio positions. In both cases, only reported emission data shall be used. The use of emission factors (e.g. sectoral/regional averages) is not envisaged, as these do not allow for a meaningful assessment of individual emission performance.

Selecting the calculation basis

Both calculation bases have strengths and weaknesses in terms of their informative value and steering effect. Therefore, depending on the individual circumstances of the financial company (including portfolio size and composition, data availability, and strategic objectives) it may be appropriate to use either absolute emissions or physical emission intensities as calculation basis.

[8] Whether a sector-specific portfolio is significant and justifies dedicated steering depends on both the sector-related (absolute and relative) portfolio volume and the quantitative number of sector positions.

2.1.2.1 Use of absolute emissions

Absolute emissions of portfolio positions, such as those of a company, include the emission volumes for which it is directly or indirectly responsible. These emissions are categorised into Scope 1, 2 and 3 in accordance with the GHG Protocol.[9] I-PEPs are calculated separately for Scope 1 and 2 emissions and for Scope 3 emissions. This separation is necessary for several reasons:

- Scope 3 emissions refer to all indirect emissions (not included in Scope 2) that occur in the value chain of the portfolio position, including both upstream and downstream emissions. The availability and quality of data on Scope 3 emissions is generally much lower and more volatile. Their use can therefore lead to significant, unwanted fluctuations in the I-PEPs results and thus dilute the informative value and the steering effects.
- Even if Scope 3 data is available for individual portfolio positions, this is rarely the case for the entire sub-portfolio. Their inclusion in the I-PEPs calculation would result in inconsistent treatment of the scopes covered and distort the calculation of the Combined Weighting Factors (see Chapter 2.2.2).
- As I-PEPs are intended to provide a basis for engagement in the context of portfolio management, the distinction between Scope 1 and 2 and Scope 3 emissions is essential: while companies in the real economy typically have a direct influence on their Scope 1 and 2 emissions, their (indirect) influence on upstream/downstream Scope 3 emissions is more limited. Separate treatment is therefore appropriate.
- The sector affiliation of such emission sources will therefore not usually correspond to that of the company under consideration. This can lead to significant challenges when determining the targeted decarbonisation trajectory (see Chapter 4.1.3) on the basis of sector-specific climate scenarios.

Application for Scope 3 emissions

Due to better data availability (in terms of quality and coverage), I-PEPs shall be calculated on the basis of Scope 1 and 2 emissions. Whether financial companies additionally calculate and use I-PEPs based on Scope 3 emissions should primarily depend on the data quality and the degree of coverage of the available Scope 3 emissions, as well as the sector affiliation of portfolio companies. This assessment may vary depending on the sub-portfolio.

2.1.2.2 Use of physical emission intensities

Physical emission intensities are usually used at the sector level. The emissions of the portfolio position are set in relation to a sector-specific reference value (e.g. steel production in the case of a steel company). This allows for a sector-specific assessment of the emission efficiency, but it requires additional data points.

[9] The instructions of the GHG Protocol shall be used to account for/calculate the relevant emissions (Scope 1, 2 and 3).

Real estate portfolios

The extent to which absolute emissions or physical emission intensities are used as a calculation basis is partly determined by the sub-portfolio characteristics. For example, for real estate portfolios (commercial real estate or mortgage portfolios), actual annual energy consumption data as a basis for calculating absolute emissions is not available to the lending banks. Physical emission intensities (usually $kgCO_2e/m^2$) are therefore used since this information can be gathered from energy performance certificates. Therefore, financial companies shall use physical emission intensities when calculating I-PEPs for real estate portfolios.

Corporate portfolios

An alternative use of physical emission intensities is intended for the corporate investment/lending portfolio as well as the underwriting portfolio. For these portfolios, it may make sense to create sub-portfolios for companies from GHG-intensive sectors and to manage them with separate I-PEPs (using sector-specific physical emission intensities as the calculation basis). Prerequisites for such sub-portfolios are an appropriate portfolio depth (i.e., sufficient portfolio positions in the relevant sectors) and a sufficiently large portfolio volume, as well as data availability. I-PEPs users can therefore independently decide whether to segregate and independently manage sector portfolios using physical emission intensities.

GHG-intensive sectors

Table 1 lists the GHG-intensive sectors for which the I-PEPs Methodology Standard intends the use of physical emission intensities. The table also presents the units that should be used to calculate the sector-specific I-PEPs. This overview is based on the Financial Institutions Net-Zero Standard released by SBTi (Science Based Targets initiative)[10], on the recommendations of the UN-Convened Net-Zero Asset Owner Alliance[11] for production-based metrics, and on Template 3 of Implementing Regulation (EU) 2022/2453[12], which requires sectoral disclosure of alignment metrics for the banking book.

Scope 3 emissions

Handling Scope 3 emissions in physical emission intensities

The extent to which Scope 3 emissions (in addition to Scope 1 and 2 emissions) of portfolio companies are included in the calculation of physical emission intensities, and thus also in I-PEPs, depends on various sector-specific considerations:

Materiality of Scope 3 emissions

- To what extent is the emission profile of the sector significantly influenced by certain Scope 3 categories?

[10] SBTi. *"Financial Institutions Net-Zero Standard Version 1.0 (Table 2)"*. July 2025, sciencebasedtargets.org/net-zero-for-financial-institutions

[11] UNEP FI. *"Target-Setting Protocol Fourth Edition"*. April 2024, unepfi.org/industries/target-setting-protocol-fourth-edition/

[12] EU. *"Commission Implementing Regulation (EU) 2022/2453"*. 19 December 2022, eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32022R2453

Data availability and cross-period comparability

- Do companies report Scope 3 emissions (or fossil fuel consumption, from which Scope 3 emissions can be directly derived) in their disclosures?
- If so, are these Scope 3 emissions robust and comparable across periods in terms of the covered emission scope and the calculation method?

Conclusion If the sector's emission profile is significantly influenced by emissions occurring along the value chain and sector companies report these annually on a comparable basis, users of the I-PEPs Methodology Standard should include these emissions in their calculations. Regardless, when disclosing I-PEPs results, it shall be stated to what extent Scope 3 emissions are included.

Reference

IIGCC guidance: Identification of material Scope 3 emissions in GHG-intensive sectors

In 2024, the international investor initiative IIGCC[13] published a supplementary guidance[14] that provides a more detailed assessment of Scope 3 emissions in the portfolio context. One outcome is a comprehensive overview of material Scope 3 categories across numerous GHG-intensive sectors. This overview also covers sectors for which the I-PEPs Methodology Standard, as outlined in Table 1, intends the use of physical emission intensities. The overview can therefore serve as a reference for assessing the materiality of Scope 3 emissions.

Table 1: Overview of GHG-intensive sectors for the use of physical emission intensities.

Sector	Sub-sectors	Recommended unit(s)
Construction and real estate	Commercial real estate	$kgCO_2e/m^2$
	Residential buildings	$kgCO_2e/m^2$
Energy	Electricity production	tCO_2e/MWh
Industry	Steel production	tCO_2e/tonne of output
	Cement production	tCO_2e/tonne of output
Transport	Automotive (passenger vehicles)	gCO_2e/v.km[15]
	Aviation	gCO_2e/RPK or gCO_2e/RTK[16]
	Shipping	gCO_2e/TKM[17]

[13] Abbreviation for Institutional Investors Group on Climate Change

[14] IIGCC. *"IIGCC Supplementary Guidance: Scope 3 emissions of investments"*. July 2024, iigcc.org/resources/iigcc-supplementary-guidance-scope-3-emissions-of-investments

[15] v.km stands for vehicle-kilometre, i.e. the kilometres travelled by a vehicle.

[16] RPK stands for "Revenue Passenger Kilometres" and is based on the number of revenue-generating passengers and the distances travelled. RTK stands for "Revenue Tonne Kilometres" and is based on the revenue-generating tonnes of passengers and freight and the distances travelled. The use of RTK is recommended as it covers transport of freight.

[17] Tonne-Kilometres

Note Table 1 lists the GHG-intensive sectors for which this I-PEPs Methodology Standard intends the use of physical emission intensities. As part of the regular updates to the methodology standard, this list will be reviewed and, if needed, adjusted or expanded.

2.2 General calculation method

Three steps are defined for the description of the I-PEPs calculation method:

1. Determination of the general weighting approach
2. Calculation of the Combined Weighting Factor (portfolio position level)
3. Calculation of emission performance

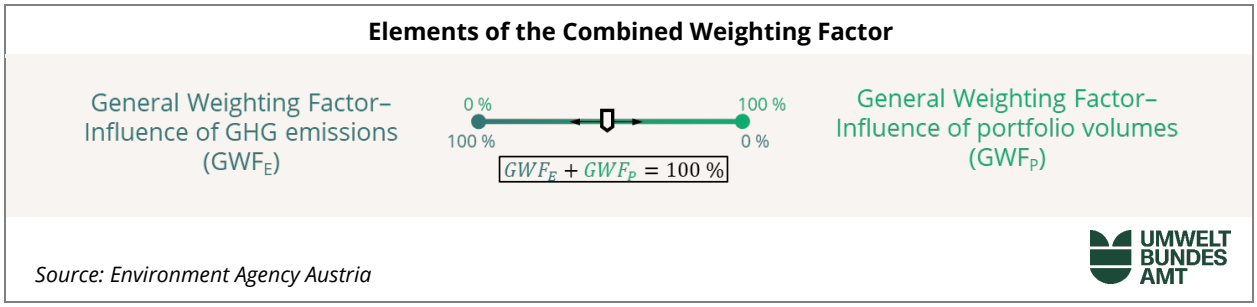
2.2.1 Determination of the general weighting approach

Firstly, an approach for calculating the Combined Weighting Factors (CWF) is determined. The CWF is used to aggregate the individual emission performances of portfolio positions into a steering indicator at portfolio level. It is therefore the weighting factor used to consider the individual emission performance of a portfolio position in the overall result (I-PEPs).

Weighting factors The CWF is determined by two complementary General Weighting Factors (GWF):

- **General Portfolio Weighting Factor (GWF_P):** This factor determines the influence of the relative portfolio volume on the Combined Weighting Factor. The relative portfolio volume reflects the individual financial exposure of each portfolio position in relation to the portfolio volume.
- **General Emissions Weighting Factor (GWF_E):** This factor determines the influence of the relative level of emissions on the Combined Weighting Factor. This emission share reflects the relationship between individual emission levels and the total emission levels of all portfolio positions.

Figure 2: Schematic illustration of the Combined Weighting Factor.



General weighting approaches

The degree to which the portfolio or emission volumes affect the Combined Weighting Factor, and thus the I-PEPs outcome, is determined by the weighting approach selected by the financial company. Three general weighting approaches are available:

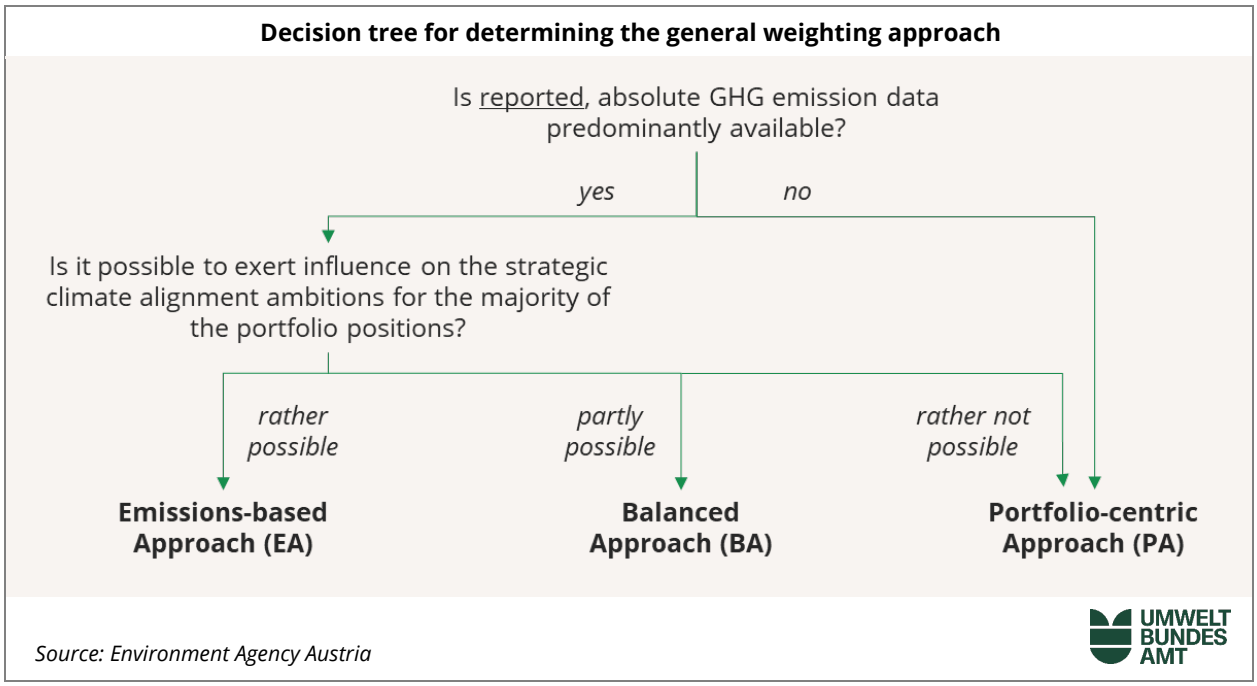
- Balanced Approach (BA)
- Portfolio-centric Approach (PA)
- Emissions-based Approach (EA)

I-PEPs should primarily be used to steer the portfolio decarbonisation. For this use case, two parameters determine which general weighting approach shall be used:

- The financial company's ability to influence the climate strategy of the portfolio position.
- The availability of annual absolute emission data for the portfolio position.

The following figure outlines the process for determining the appropriate general weighting approach:

Figure 3: Determining the general weighting approach.



Balanced Approach (BA)

- Exertion of influence on climate alignment ambitions: partly possible
- General Weighting Factors: $GWF_P = GWF_E = 50\ \%$

In the Balanced Approach, the portfolio weighting and emissions weighting are given equal consideration in the I-PEPs calculation. This approach is applied when, in principle, there is the possibility of direct engagement and therefore

direct influence, however this influence is significantly limited. Examples of typical applications for the Balanced Approach include equity investments (e.g. shareholder engagement at annual general meetings), corporate bond investments (contact as a direct creditor) and corporate lending (contact as a direct lender).

Portfolio-centric Approach (PA)

- Exertion of influence on climate alignment ambitions: rather not possible
- General Weighting Factors: GWF_P = 100 %; GWF_E = 0 %

The Portfolio-centric Approach aggregates individual emission performances of portfolio positions using only the portfolio weighting. This approach is used when direct engagement is, in principle, not possible. This is typically the case with investments in third-party funds where there is unlikely to be any meaningful direct influence on either the fund's investment strategy or the selection of individual securities. Examples include investments in ETFs (Exchange-Traded Funds), mutual funds or funds of funds from third-party providers. In addition, investments in sovereign bonds can be assumed to be associated with a low degree of influence, as financial companies have a very limited influence on the national emission inventory and climate performance (compared to engagement with companies).

Emissions-based Approach (EA)

- Exertion of influence on climate alignment ambitions: rather possible
- General Weighting Factors: GWF_P = 0 %; GWF_E = 100 %

The Emissions-based Approach aggregates individual emission performances using only the emissions weighting. This approach is applied if the financial company can exert significant influence on the climate alignment ambitions of most portfolio positions. As such conditions are rare, this weighting approach is only expected to be used in special cases.

In addition to the potential of financial companies to exert influence on the climate alignment ambitions of portfolio positions, the availability of (reported) absolute emissions must be taken into account. For specific types of project finance (mortgages, commercial real estate and electricity production infrastructure), it is assumed that annual absolute emissions are rarely available. As a result, weighting based on emission volumes is not feasible and the Portfolio-centric Approach must be applied. The table below provides an overview of the different I-PEPs variants and the corresponding general weighting approaches.

Table 2: Overview of the I-PEPs variants and corresponding general weighting approaches.

KPI	Availability of absolute emissions[18]	Influence on climate alignment ambitions	General weighting approach
CPEP and CPEP$_{sector}$	Available	Rather not possible	PA
		Partly possible	BA
		Rather possible	EA
SPEP	Available	Rather not possible	PA
LPEP and LPEP$_{sector}$	Available	Partly possible	BA
CREPEP	Not available	-	PA
MPEP	Not available	-	PA
EPEP	Not available	-	PA
UPEP and UPEP$_{sector}$	Available	Rather not possible	PA

If financial companies choose to deviate from the described weighting logic when using I-PEPs, this deviation must be disclosed and justified.

2.2.2 Calculation of the Combined Weighting Factor (portfolio position level)

Once the general weighting approach to be used has been defined in step one, the next step is to determine the weightings of the individual portfolio positions, referred to as Combined Weighting Factors. To do this, the share of each portfolio position in the total portfolio volume and in the summed absolute emissions is calculated.[19] When calculating the share of absolute emissions, it is essential to ensure consistency regarding the emission scopes covered. For example, if Scope 1 and 2 emissions are used as the I-PEPs calculation basis, only these scopes should be used to calculate the emissions weighting.

When calculating the Combined Weighting Factor at portfolio position level, a distinction must be made between the investment and lending portfolio and the underwriting portfolio.

Calculation: investment and lending portfolio

To determine the share in the portfolio volume for each portfolio position, the individual outstanding portfolio volumes at the end of the reporting year are considered in relation to the total analysed portfolio volume. The analysed portfolio volume corresponds to the summed portfolio volume of all portfolio positions that are included in the I-PEPs calculation.

[18] Simplified categorisation into “Available” and “Not available”.

[19] If the Portfolio-centric Approach is used, only the share of the portfolio volume is relevant. If the Emissions-based Approach is used, only the share of the emission volume is relevant.

Note

Definition: Portfolio volume in lending

For the lending portfolio, the I-PEPs calculation is based on the actual outstanding lending volume at the end of the reporting year. Undrawn credit lines are therefore not included. This approach is consistent with the methodology applied for GHG accounting under the PCAF standard.

Equation 1: Calculation of the portfolio volume shares and emission volume shares for the portfolio positions.

$$\omega_{i_P} = \frac{V_i}{V_P}$$

ω_{i_P} ... share in the portfolio volume – portfolio position i
V_i ... outstanding portfolio volume – portfolio position i
V_P ... total analysed portfolio volume

$$\omega_{i_E} = \frac{E_i}{E_P}$$

ω_{i_E} ... share in the emission volume – portfolio position i
E_i ... absolute GHG emissions – portfolio position i
E_P ... sum of absolute GHG emissions from all portfolio positions

Source: Environment Agency Austria

The calculated shares of the portfolio volume and the emission volume are then weighted using the two General Weighting Factors and summed to derive the Combined Weighting Factor for the portfolio position.

Equation 2: Calculation of the Combined Weighting Factor (investment and lending portfolio).

$$CWF_i = \omega_{i_E} * GWF_E + \omega_{i_P} * GWF_P$$

CWF_i ... Combined Weighting Factor for portfolio position i

Source: Environment Agency Austria

Calculation: underwriting portfolio

The calculation of the Combined Weighting Factor for the corporate underwriting portfolio generally follows the same logic as for the investment and lending portfolio. However, two aspects must be considered for the underwriting portfolio:

- The Portfolio-centric Approach is intended to be used for weighting the underwriting portfolio positions (see Table 2). This means that only the portfolio weighting (ω_{i_P}) is required to calculate the Combined Weighting Factor.
- The annual gross written premiums are used to calculate the portfolio weighting instead of the outstanding investment/lending volume.

This means that to calculate the portfolio weighting (= Combined Weighting Factor) of an insured company in the underwriting portfolio, its share of gross written premiums paid to the insurance company are set in relation to the total gross written premiums received[20] by the insurance company in the reporting year.

Equation 3: Calculation of the Combined Weighting Factor (underwriting portfolio).

$$CWF_i = \omega_{i_P} = \frac{Premium_i}{Premium_P}$$

CWF_i ... Combined Weighting Factor for insured company i (corresponds to its portfolio weight (ω_{i_P})).

$Premium_i$ ... total gross premiums paid by the insured company i to the insurance company in the reporting year

$Premium_P$ ... total gross premiums received by the insurance company in the reporting year

Source: Environment Agency Austria

2.2.3 Calculation of the emission performance

Calculation basis

The calculation of the emission performance can differ depending on whether absolute emissions or physical emission intensities are used as calculation basis:

Emission performance calculation (calculation basis: absolute emissions)

When absolute emissions are used as the calculation basis, the individual emission performance for each portfolio position is first calculated by comparing its absolute emissions in the reporting year with those of the previous year.

Equation 4: Calculation of the portfolio position-specific emission performance (based on absolute emissions).

$$\rho_i = \frac{E_{i,t+1}}{E_{i,t}} - 1$$

E_i ... absolute GHG emissions from portfolio position i in the reporting year (t+1) / previous year (t)

ρ_i ... emission performance from portfolio position i

Source: Environment Agency Austria

[20] The term "total gross written premiums received" refers to the analysed underwriting portfolio, which only includes the gross written premiums of insured companies that are included in the I-PEPs calculation.

The resulting performance values are then weighted and aggregated using the respective Combined Weighting Factor. The result is the I-PEPs value for the analysed portfolio.

Equation 5: Calculation of the I-PEPs result (based on absolute emissions).

$$\rho_P = \sum_i (CWF_i * \rho_i)$$

ρ_P ... emission performance of the portfolio (I-PEPs)

Source: Environment Agency Austria

Emission performance calculation for sectoral corporate portfolios (calculation basis: physical emission intensities)

As described in Chapter 2.1.2, I-PEPs users can create sub-portfolios for companies in GHG-intensive sectors and manage them with separate I-PEPs.

Following the same process as for calculations based on absolute emissions, the individual emission performance of each individual portfolio position is first calculated. However, physical emission intensities are used instead of absolute emissions.

Equation 6: Calculation of the portfolio position-specific emission performance based on physical emission intensities.

$$\rho_i = \frac{EI_{i,t+1}}{EI_{i,t}} - 1$$

EI_i ... emission intensity of portfolio position i in the reporting year (t+1) / previous year (t)

ρ_i ... emission performance of portfolio position i

Source: Environment Agency Austria

The portfolio-related emission performance (I-PEPs), as shown in Equation 5, is then calculated by aggregating the performance values of the individual portfolio positions using the respective Combined Weighting Factors. This approach is appropriate for sectoral corporate portfolios, as the physical emission intensities of the portfolio positions generally change over time. Therefore, calculating individual performances is meaningful.

By applying this calculation approach for corporate portfolios, incentives to categorically exclude companies with high physical emission intensities from portfolios are avoided. Instead, the KPI provides incentives for financial companies to support the decarbonisation of their real-economy counterparts.

Note

Alternative calculation approach for sectoral corporate portfolios in exceptional cases

In certain cases, for example to comply with external standards or regulations, financial companies may be required to calculate reporting date-specific emission intensities at the (sub-)portfolio level and compare these across previous reporting years. This alternative calculation approach corresponds to the approach that the I-PEPs Methodology Standard intends for project/real estate portfolios (see below). To ensure consistency, I-PEPs users may apply this alternative calculation approach also for sectoral corporate portfolios and therefore deviate from the predefined approach in this standard. In such cases I-PEPs users shall justify and disclose this deviation.

Emission performance calculation for project/real estate portfolios (calculation basis: physical emission intensities)

For project/real estate portfolios, the physical emission intensities of the portfolio positions usually show only limited variation over time. In these cases, the emission performance of the portfolio is influenced less by the individual emission performances, but rather by changes in the portfolio composition. Therefore, an adapted calculation approach is needed for such portfolios.

In a first step, the emission intensities are calculated for both the reporting year and the previous year. To do this, the individual emission intensities are weighted and aggregated using the respective Combined Weighting Factors.

Equation 7: Calculation of the emission intensity (portfolio level) in the reporting year and the previous year.

$$EI_{P,t+1} = \sum_i (CWF_{i,t+1} * EI_{i,t+1})$$

$EI_{P,\ t+1}$ ... emission intensity of the portfolio in the reporting year (t+1)
$EI_{i,\ t+1}$ ... emission intensity of the portfolio position i in the reporting year

$$EI_{P,t} = \sum_i (CWF_{i,t} * EI_{i,t})$$

$EI_{P,\ t}$ ... emission intensity of the portfolio in the previous year (t)
$EI_{i,\ t}$ ... emission intensity of the portfolio position i in the previous year

Source: Environment Agency Austria

Subsequently, the portfolio intensities for the reporting year and the previous year are set in relation to each other to calculate the I-PEPs value.

Equation 8: Calculation of the I-PEPs result (calculation basis: physical emission intensities).

$$\rho_P = \frac{EI_{P,t+1}}{EI_{P,t}} - 1$$

ρ_P... emission performance of the portfolio (I-PEPs)

Source: Environment Agency Austria

Note

Alternative calculation approach for project/real estate portfolios

Generally, individual portfolio positions can also contribute to decarbonisation in real estate and project portfolios. This can occur, for example, when renovation or energy efficiency measures are specifically financed for buildings, thereby reducing their physical emission intensities. In such cases, it may make sense to use the same calculation approach for project and real estate portfolios as for sectoral corporate portfolios. In such a case, it must be ensured that the emission data of the individual portfolio positions (e.g., based on energy performance certificates of renovated buildings) are updated and taken into account in the calculation of emission performance. In practice, it is currently assumed that a deviation from the previously described standard calculation approach for project and real estate portfolios is not feasible due to limited data availability. If I-PEPs users nevertheless deviate from the standard calculation approach intended for project/real estate portfolios, this shall be disclosed and justified.

The following table provides an overview of the calculation bases and calculation approaches for the different I-PEPs variants.

Table 3: Overview of calculation approaches by calculation basis and portfolio type, including the corresponding I-PEPs variants.

Calculation basis	Portfolio type (Sectoral) corporate portfolios	Project/real estate portfolios
Absolute emissions	Calculation of the emission performance for each portfolio position followed by aggregation. *I-PEPs variants: CPEP, SPEP, LPEP, UPEP*	Not intended.
Physical emission intensities	Standard approach: Calculation of the emission performance for each portfolio position followed by aggregation. Exception (alternative approach): Calculation of the emission performance by comparing the aggregated emission intensities (reporting year vs. previous year). *I-PEPs variants: $CPEP_{sector}$, $LPEP_{sector}$, $UPEP_{sector}$*	Standard approach: Calculation of the emission performance by comparing the aggregated emission intensities (reporting year vs. previous year). Exception (alternative approach): Calculation of the emission performance for each portfolio position followed by aggregation. *I-PEPs variants: CREPEP, MPEP, EPEP*

Dealing with divergences between the reporting year of the financial company and those of the portfolio positions

When financial companies prepare their GHG inventory for their reporting year, emission data might not yet be available for all portfolio positions (e.g. companies) for that same reporting year. In addition, reporting periods can vary by region and company: while many companies align their financial years with calendar years, there are numerous companies that use diverging reporting periods.

When determining I-PEPs, the financial company can take into account different comparison periods[21] for individual portfolio positions, provided these meet the minimum requirements (see info box). Generally, the most recent available comparison period for each portfolio position shall be used.

Note

Minimum requirement for the comparison period

To ensure a minimum level of timeliness, comparison periods may be no more than two years prior to the relevant reporting year of the financial company. This means: If the financial company calculates I-PEPs for the reporting year 2024, the comparison period for calculating the individual emission performance at the portfolio component level may at most be the financial years 2023 versus 2022.

[21] The comparison period refers to the two consecutive financial years of the underlying portfolio position for which the individual emission performance is determined.

In order to interpret the I-PEPs results correctly and thus ensure their significance, it is essential that financial companies make appropriate disclosures in their own reporting when different comparison periods are taken into account. I-PEPs users shall break down the total analysed portfolio volume by the different comparison periods and disclose the relative shares.

The following table shows an example of how a financial company can deal with different emission reporting years available for its portfolio positions. The financial company's reporting year is assumed to be 2024:

Table 4: Example of dealing with different available GHG reporting years for portfolio companies.

Portfolio company	GHG reporting year (previous year) of the portfolio company	Considerations for the I-PEPs calculation
A	2024 (2023)	The company's reporting year corresponds to that of the financial company.
B	2023 (2022)	The company's reporting year deviates, but does meet the minimum requirement for the comparison period and is therefore taken into account.
C	2021 (2020)	The company's reporting year deviates and does not meet the minimum requirement for the comparison period. The company must be excluded from the calculation.

Finally, it should be mentioned that the challenge described above is not specific to I-PEPs, but concerns all emission-based indicators as well as the accounting of financed emissions.

Note

Explanation of the terms "reporting year", "previous year" and "comparison period"

In this methodology standard, the terms "reporting year" and "previous year" are used to define two different time periods, depending on whether they refer to the financial company or to the portfolio position:

Financial company level: The reporting year refers to the financial year for which the financial company prepares the reporting and calculates I-PEPs. The previous year refers to the preceding financial year.

Portfolio position level: The reporting year is the financial year in which the reported emissions of the portfolio component are taken into account in the I-PEPs calculation. The previous year refers to the preceding financial year. The term "comparison period" covers the reporting year and the previous year of the portfolio position.

3 STEERING INDICATORS IN DETAIL

The steering indicators are used at a granular level for specific (sub-)asset classes and business areas. As described in Chapter 2, different calculation bases and different weighting approaches are used. Nevertheless, all performance indicators are linked by the same calculation method presented in Chapter 2.2. The following sub-chapters describe how the general calculation methodology is applied to different I-PEPs variants and which methodological aspects need to be considered.

3.1 Investment portfolio

The current methodology standard covers direct and indirect investments in equities, corporate bonds and sovereign bonds. These are navigated using the following key performance indicators:

- Investments in equity and corporate bonds (CPEP)
  - *Segregated sub-portfolios for GHG-intensive sectors ($CPEP_{sector}$)*
- Investments in sovereign bonds (SPEP)

3.1.1 Steering indicator: CPEP[22]

CPEP is used to steer investments in equities and corporate bonds. These can be both direct investments and indirect investments (primarily via investment funds). As described in Chapter 2.2, all three weighting approaches can be used to calculate CPEP, depending on the potential to exert influence on the climate alignment ambitions and the availability of absolute emission data. As influence and data availability might vary amongst portfolio positions within the analysed sub-portfolios, the weighting approach should be selected based on how the majority of the portfolio positions are evaluated (see Chapter 2.2.1).[23]

The absolute emissions of the invested companies are used as the basis for calculating CPEP. The emission scopes that are to be covered are discussed in Chapter 2.1.2.

[22] Abbreviation for Corporate Investment Portfolio-related Emission Performance.

[23] An alternative option would be to subdivide the sub-portfolio again to obtain homogeneous portfolios in terms of influence and emission data availability. However, as this approach makes I-PEPs more complex and difficult to understand, this subdivision is not recommended.

3.1.2 Steering indicator: $CPEP_{sector}$[24]

Sector-related metrics

Financial companies that want to steer their investments in GHG-intensive sectors with a dedicated KPI can use $CPEP_{sector}$. This indicator uses physical emission intensities as a calculation basis. Each financial company must determine on an individual basis the extent to which such sector-specific sub-portfolios are possible and useful. The following guiding questions should be considered for this decision:

- Does the financial company have sufficient portfolio depth (number of individual securities) and a relevant portfolio volume to justify separate steering?
- Does the financial company have sufficient data to calculate physical emission intensities?

The I-PEPs Methodology Standard lists GHG-intensive sectors and reference metrics for the use of $CPEP_{sector}$ in Chapter 2.1.2.

By using $CPEP_{sector}$, financial companies implicitly determine how they deal with the growth of invested companies: as only the development of physical emission intensities (and not that of absolute emissions) determines the steering indicator, emission changes caused by growing/shrinking business activities do not have a direct influence on the indicator. Therefore, for an invested company's emission performance, it is decisive to determine the extent to which it can improve its emission efficiency regardless of the growth/decline of its business activities.

The use of physical emission intensities makes it also possible to take into account the way sectoral leaders and laggards[25] are handled in the context of target setting. This is made possible by using the convergence approach when determining the target values (see Chapter 4.1.3).

3.1.3 Steering indicator: SPEP[26]

Sovereign bonds

Sovereign bonds are an important asset class, particularly for asset owners such as pension funds and insurance companies. In recent years, initial approaches to assessing climate risks and climate performance of sovereign bonds[27] have been developed, as well as approaches for attributing emissions to financial portfolios, which were introduced as part of the Partnership for Carbon Accounting Financials' (PCAF) updated GHG accounting standard

[24] Abbreviation for Corporate Investment Portfolio-related Emission Intensity Performance (sector).

[25] The terms "leaders" and "laggards" refer to the physical emission intensity of the companies compared to the average sector value.

[26] Abbreviation for Sovereign Bond Portfolio-related Emission Performance.

[27] See, for example, ASCOR (Assessing Sovereign Climate-related Opportunities and Risks), CCPI (Climate Change Performance Index), Climate Action Tracker.

published in December 2022.[28] The basis for this approach is sovereign emissions, i.e. the emissions of a country, for which the scope, calculation method and current limitations are explained in more detail in the PCAF standard.[29]

Note

Categorisation of a country's emissions

There are different accounting approaches for sovereign emissions. The most common approach in the financial sector is the categorisation according to Scope 1, 2 and 3 emissions as defined by PCAF, based on the GHG Protocol:

- **Scope 1:** Domestic emissions from sources located within the country territory.
- **Scope 2:** Emissions resulting from the domestic use of grid-supplied electricity, heat, steam and/or cooling which is imported from another territory.
- **Scope 3:** Emissions attributable to non-energy imports as a result of activities taking place within the country's territory.

Scope 1 emissions are also referred to as territorial emissions or production-based emissions and correspond to the national GHG inventories according to the United Nations Framework Convention on Climate Change (UNFCCC). Emission data collected by countries (especially Annex I countries[30]) are directly accessible via the UNFCCC. Scope 1 emissions can reflect the emission performance of a country's economic activities. Scope 1 emissions from countries can include emissions from Land Use, Land-Use Change and Forestry (LULUCF). These emissions can distort trends in other sectors relevant to decarbonisation efforts. The consideration of LULUCF emissions in the SPEP indicator should be taken into account separately, if they are taken into account at all.

Using exclusively Scope 1 emissions can result in overlooking emissions from carbon leakage, i.e. the shift of production away from countries where goods and services are consumed. This also refers to the relocation of GHG-

[28] PCAF. *"The Global GHG Accounting and Reporting Standard for the Financial Industry/Part A"*. December 2022, carbonaccountingfinancials.com/en/standard.

Important note on PCAF: Simultaneously with the publication of the I-PEPs Methodology Standard Version 1.0 (German edition) in December 2025, PCAF published an update to its Part A standard (3rd edition). While including new asset classes, several updates and new reporting recommendations, the PCAF update leaves the methodological approach and key elements unchanged. This English translation of the I-PEPs Methodology Standard therefore keeps the references to the 2nd edition, unless the referenced contents have been substantially changed.

[29] See PCAF Standard, page 109 ff.

[30] For a definition of Annex I countries, see unfccc.int/parties-observers.

intensive industries to countries outside the EU in order to circumvent the stricter European requirements for emissions.

To avoid this, Scope 2 and Scope 3 emissions or consumption-based emissions can be taken into account, although data availability and quality might be limited.

Equation 9: Calculation of consumption-based emissions according to PCAF.

$$\rho_{P} = \frac{EI_{P,t+1}}{EI_{P,t}} - 1$$

ρ_P... emission performance of the portfolio (I-PEPs)

$$\text{Consumption emissions} = Production\ emissions - Exported\ emissions + Imported\ emissions$$

$$\text{Consumption emissions} = Scope\ 1 + 2 + 3\ emissions - Exported\ emissions$$

Source: PCAF

Production-based emissions

The method for calculating the emission performance of a sovereign bond portfolio corresponds to the one for corporate portfolios: this means that a country's relative emissions development between the reporting year and the previous year is calculated and reflected in the steering indicator based on the portfolio weighting. However, for SPEP only, the portfolio-centric weighting approach is intended to be used, as the financial company generally has no or only very limited influence on the emissions of a country.

Due to better data quality and availability, production-based emissions (i.e. Scope 1 emissions) are currently to be used for the SPEP calculation. If financial companies calculate the SPEP using consumption-based emissions, this must be done consistently for all portfolio positions and be explicitly indicated in the reporting.

Link with PCAF standard

The primary use of production-based emissions for SPEP harmonises with the GHG accounting requirements of the PCAF standard, which provides for mandatory disclosure of production-based emissions and optional, recommended disclosure of consumption-based emissions. This ensures that the PCAF-based complementary GHG accounting and the I-PEPs calculation are subject to the same calculation basis.

3.2 Lending portfolio

The current methodology standard provides steering indicators for the following business areas of the lending portfolio:

- Corporate lending
  - *Segregated sub-portfolios for GHG-intensive sectors*
- Mortgages
- Commercial real estate
- Project finance: electricity production

3.2.1 Steering indicator: LPEP[31]

Corporate lending

LPEP is used to steer the corporate-related part of the lending portfolio. This steering indicator is similar to CPEP (corporate investments) as both have the same type of underlying portfolio positions, namely companies. Accordingly, the approach for determining the calculation basis is identical: the absolute emissions of the financed companies are used as the calculation basis, with the option of steering the financing of GHG-intensive sectors with a separate indicator based on physical emission intensities.

Weighting approach

The methodological difference between LPEP and CPEP lies in the applicable general weighting approaches: while all three general weighting approaches are applicable for calculating CPEP, only the Balanced Approach (BA) is applicable for LPEP (see Chapter 2.2.1, Table 2). This is because in the case of corporate lending, it is generally assumed that it is partly possible to exert influence on the climate alignment ambitions of the financed company.

3.2.2 Steering indicator: $LPEP_{sector}$[32]

GHG-intensive sectors

Financial companies that want to steer their corporate lending in GHG-intensive sectors by means of a separate steering indicator can use $LPEP_{sector}$. This indicator is based on physical emission intensities. As the methodological approach is identical to that of $CPEP_{sector}$, the explanations described in Chapter 3.1.2 also apply to $LPEP_{sector}$.

[31] Abbreviation for Lending Portfolio-related Emission Performance

[32] Abbreviation for Lending Portfolio-related Emission Intensity Performance (sector)

3.2.3 Steering indicators: MPEP[33] and CREPEP[34]

Real estate portfolios

Real estate portfolios are typically divided[35] into mortgages and commercial real estate. One reason for this subdivision is the different counterparties and characteristics of the financed buildings. This subdivision is therefore also used in the I-PEPs methodology, following the asset class classification of the PCAF standard, resulting in two separate steering indicators:

- CREPEP: steering indicator for commercial real estate portfolios
- MPEP: steering indicator for mortgage portfolios

Portfolio-centric weighting approach

For both steering indicators, physical emission intensities are used as the calculation basis and the Portfolio-centric Approach is applied as the general weighting approach. Both choices are due to the very limited or non-existent availability of absolute annual emission data for buildings.

The portfolio dynamics for both steering indicators are primarily driven by changes in the portfolio composition between the reporting year and the previous year. These changes are triggered by repayments of existing real estate loans and new financing being issued. Renovation activities that lead to an improvement in the property-specific emission intensity also lead to improvements in MPEP and CREPEP. Financial companies that use these indicators to steer their real estate portfolios are therefore incentivised to consider the emission intensity of new financings and to offer additional financing for renovation and refurbishments.

3.2.4 Steering indicator: EPEP[36]

Project finance

Project finance refers to financing activities where the use of proceeds is known and serves a clear project-specific purpose. One such project-specific purpose can be the construction and operation of infrastructure for electricity production. The decarbonisation of electricity production is one of the cornerstones for achieving climate targets. For this reason, it should be navigated, if relevant, with its own steering indicator – the EPEP. The following questions in particular should be taken into account to evaluate the relevance of EPEP:

- Does the financial company have sufficient portfolio depth (number of financed projects) and a relevant portfolio volume to justify separate steering?
- Does the financial company have sufficient data to calculate the physical emission intensities of the financed projects?

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[33] Abbreviation for Mortgage Portfolio-related Emission Intensity Performance

[34] Abbreviation for Commercial Real Estate Portfolio-related Emission Intensity Performance

[35] See, for example, the PCAF standard or SBTi standard.

[36] Abbreviation for Electricity Production Portfolio-related Emission Intensity Performance

Physical emission intensity

The physical emission intensity of electricity production, measured as gCO_2e/kWh or tCO_2e/MWh, is to be used as the calculation basis for EPEP. These well established units are useful indicators for steering the decarbonisation of financed electricity production projects.

Only the portfolio-centric weighting approach is envisaged as the general weighting approach for EPEP, since it can be assumed that information on project-specific annual emissions is only available to a very limited extent.

3.3 Underwriting portfolio

Application area

The insurance industry is characterised by a high level of heterogeneity. This is reflected in both the large number of market participants and the diversity of business areas.[37] The scope of this methodology standard is limited to steering indicators for the following area of application:

- Target group: primary insurers
- Insurance segment: commercial lines
- Business areas: see PCAF standard Part C 1st edition (table 5.1) on accounting for insurance-associated emissions

This methodology standard is aimed at primary insurers for steering the climate-related ambitions of their insurance business with commercial customers. The business areas covered are based on those for which PCAF provides guidance in its Part C standard (1st edition). This alignment is intended to ensure consistency between I-PEPs-based target setting and the complementary GHG accounting according to PCAF.

3.3.1 Steering indicator: UPEP[38]

Underwriting portfolio

UPEP is intended to be used for steering portfolio decarbonisation of the underwriting business with commercial customers. As with CPEP and LPEP, the underlying portfolio positions are companies and therefore the same calculation basis can be used here, namely the absolute emissions of the (insured) companies. The emission scopes to be covered are presented in Chapter 2.1.2.

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[37] As elaborated on in the following references:

PCAF. *"The Global GHG Accounting and Reporting Standard for the Financial Industry/Part C (1st edition)"*. November 2022, carbonaccountingfinancials.com/en/standard.

NZIA. *"Insuring the net-zero transition: Evolving thinking and practices"*. April 2022, unepfi.org/publications/insuring-the-net-zero-transition-evolving-thinking-and-practices/.

[38] Abbreviation for Corporate Underwriting Portfolio-related Emission Performance

Portfolio-centric weighting approach

As the business relationship between the insurance provider and the insured company is generally limited to insurance business, the possibility of influencing climate ambitions is very limited. For this reason, the portfolio-centric weighting approach is used, as presented in Chapter 2.2.1. It should be noted that an adapted calculation logic is used for UPEP to determine the Combined Weighting Factor (see Chapter 2.2.2). This is based on gross written premiums instead of investment/lending volumes.

3.3.2 Steering indicator: $UPEP_{sector}$[39]

As for the investment and lending portfolio, insurance companies can navigate their insurance-related underwriting portfolio in GHG-intensive sectors by using a separate steering indicator based on physical emission intensities. As the methodological approach is identical to that of $CPEP_{sector}$, the explanations given in Chapter 3.1.2 also apply to $UPEP_{sector}$. Please note the adapted calculation logic for determining the Combined Weighting Factor (see Chapter 2.2.2).

3.4 Investment and lending portfolio (aggregated)

As mentioned in the introduction to Chapter 3, portfolio steering using I-PEPs is based on granular KPIs for the respective asset classes/business areas. However, there is a need for an aggregated indicator, particularly for communicating progress to internal and external stakeholders. The two I-PEPs variants $APEP_{abs}$ and $APEP_{int}$ enable this aggregated view for the investment and lending portfolio.

Steering at sub-portfolio level

However, as with most aggregated KPIs, important information regarding the dynamics at sub-portfolio level is lost through the aggregation. Meaningful operational steering based solely on the aggregated KPIs is therefore not possible. Therefore, although the calculation of the aggregated KPIs is described below, **no approach for possible target setting is described** in this methodology standard.

[39] Abbreviation for Corporate Underwriting Portfolio-related Emission Intensity Performance (sector)

3.4.1 Aggregated steering indicator: $APEP_{abs}$[40]

Composition

$APEP_{abs}$ is the aggregated metric for those I-PEPs variants that use absolute emissions as the calculation basis and cover the investment and lending portfolio. These are:

- CPEP – investments in equities and corporate bonds
- LPEP – corporate lending
- SPEP – investments in sovereign bonds

Depending on the portfolio structure of the financial company, not all three KPIs may be calculated. Calculating $APEP_{abs}$ only makes sense if at least two of the three KPIs are available.

Weighting approach

To calculate the aggregated KPI, the indicators of the sub-portfolio must be weighted using the Portfolio-centric Approach. Due to the heterogeneity of the sub-portfolio positions (countries vs. companies), weighting based on emission shares does not lead to a meaningful outcome here. It is important to note that the application of the Portfolio-centric Approach for $APEP_{abs}$ is independent of the selected general weighting approach at sub-portfolio level.

Equation 10: Calculation of the emission performance for the aggregated investment and lending portfolio ($APEP_{abs}$).

$$\rho_{APEP_{abs}} = \sum_{P} (\rho_P * \frac{V_P}{V_{total}})$$

ρ_P... emission performance of I-PEPs for sub-portfolio P
V_P ... analysed portfolio volume of sub-portfolio P
V_{total} ... analysed total volume of sub-portfolios considered

Source: Environment Agency Austria

If a financial company intends to present the evolution of $APEP_{abs}$ over multiple accounting periods, the approach described in Chapter 4.3 can be used accordingly.

3.4.2 Aggregated steering indicator: $APEP_{int}$[41]

Composition

$APEP_{int}$ covers those I-PEPs variants that are based on physical emission intensities and are used to steer the investment and lending portfolio. These are:

- MPEP – mortgages
- CREPEP – commercial real estate
- EPEP – project finance: electricity production

[40] Abbreviation for Aggregated Portfolio-related absolute Emission Performance

[41] Abbreviation for Aggregated Portfolio-related Emission Intensity Performance

- $CPEP_{sector}$ – equities and corporate bonds in GHG-intensive sectors
- $LPEP_{sector}$ – corporate lending in GHG-intensive sectors

Financial companies will typically not use all of these KPIs. Determining $APEP_{int}$ only makes sense if at least two of the five above-mentioned KPIs are determined.

For the general weighting approach, the calculation of emission performance and evolution over multiple accounting periods, please refer to the explanations provided for $APEP_{abs}$ in Chapter 3.4.1.

4 TARGET SETTING AND DEFINITION OF DECARBONISATION TRAJECTORIES

I-PEPs are a KPI set that financial companies can use as a basis for a sub-section of their climate-related targets. Unlike PCAF-based target setting, their use is not intended to implement emission reduction targets based on a GHG inventory of Scope 3 Category 15 emissions. Instead, the emission trend of portfolio positions is used directly as the basis for calculating performance (see explanations in Chapter 5.2).

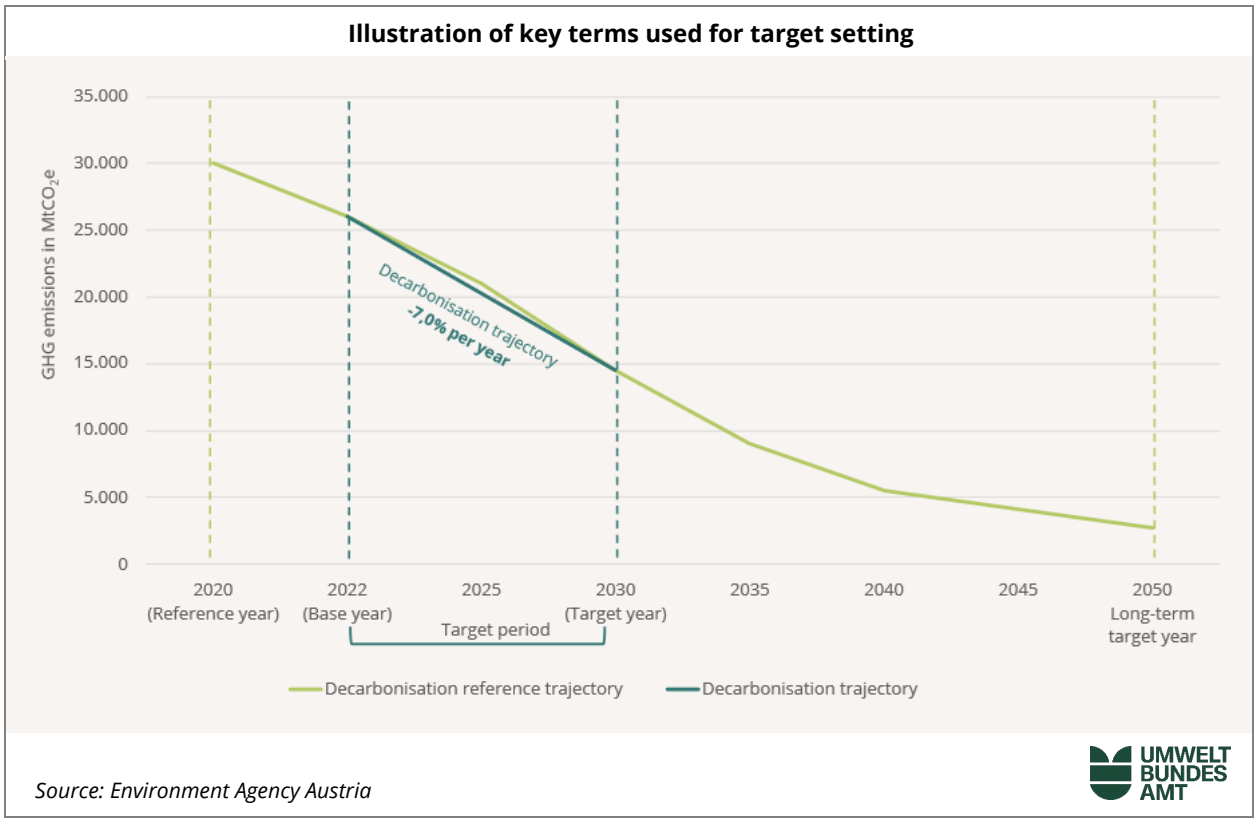
The aim of this methodology standard is to explain the function and application of I-PEPs with regard to indicator calculation and target setting. As far as target setting is concerned, the necessary steps are outlined in the following chapter, assuming that these targets are science-based and aligned with a climate scenario or an ambitious long-term climate target.[42]

Before the steps for target setting are described, the relevant terms are explained below and illustrated schematically in Figure 4:

- **Base year:** The base year is the year preceding the first reporting year within the target period.
- **Reporting year:** Corresponds to the financial year of the financial company for which the I-PEPs calculation is performed.
- **Target year:** The final reporting year within the target period.
- **Target period:** Covers the short- to medium-term timeframe (from base year to target year) for which the financial company has set decarbonisation targets.
- **Long-term target year:** Refers to the year associated with the financial company's long-term climate commitment.
- **Reference year:** The year for which actual emission data of the decarbonisation reference trajectory is available and that is closest prior to the base year. It serves as the starting point for deriving the long-term decarbonisation reference trajectory.
- **Decarbonisation reference trajectory:** Represents the long-term, science-based reference trajectory (for example a climate scenario) between the reference year and the long-term target year. It serves as the basis for deriving the decarbonisation trajectory.
- **Decarbonisation trajectory:** Is based on the decarbonisation reference trajectory and corresponds to the annual I-PEPs target value pursued within the target period.

[42] It should be mentioned at this point that financial companies can, in principle, also use bases other than climate scenarios for determining targets. If this is the case, the financial company must provide a corresponding justification and description of the target value determination in their disclosures.

Figure 4: Schematic illustration of the terminology used.



4.1 Target setting using I-PEPs

The following sub-chapters provide a step-by-step description of the target setting process using I-PEPs.

4.1.1 Definition of the target period

Note The target period covers a short- to medium-term timeframe for which the financial company defines its decarbonisation trajectory. This timeframe is defined by the base year and the target year. The base year is the year preceding the first reporting year, and the target year the last reporting year within the target period. The following aspects need to be considered when defining the target period:

- **Regulatory requirements:** Depending on the region and type of financial company, there may be regulatory requirements containing provisions for selecting the target year, base year and target period that must be considered.

- **Consistency:** I-PEPs-based targets are one of several steering elements in navigating a financial company's climate targets. These in turn are embedded in other environmental and non-environmental (e.g. financial) targets of the financial company. To enable effective target steering with I-PEPs, the determination of the target period shall be harmonised with the financial company's other targets in a meaningful way.
- **Maturity:** To have real steering effects, the targets shall cover a strategically relevant period. The focus shall therefore be on the short- to medium-term time horizon (e.g. three to a maximum of 15 years).

The base year is the first year of the target period and refers to the year preceding the first reporting year.

- **Data availability:** Sufficient and meaningful emission data for the portfolio positions as well as the decarbonisation reference trajectory should be available (or calculable) for the base year.
- **Representativeness:** The emission data for the base year should provide a realistic basis (negative example: 2021 may be unsuitable due to temporary COVID-related emission reductions).[43]
- **Recency:** The definition of the base year needs to consider the recency of the selected reference period. This is important for mirroring the latest portfolio structure in the base line.
- **Data availability in the target year:** As for determining the base year, the availability of emission estimates in the decarbonisation reference trajectory is important for determining the target year. While some climate scenarios, for example, publish emission estimates for ten-year periods, others do so at five-year intervals. The granularity may also vary within a climate scenario, depending on the sectoral or regional level of detail. Therefore, the determination of the target year should be closely aligned with the selected climate scenario or decarbonisation reference trajectory.

4.1.2 Definition of the decarbonisation reference trajectory

The basis for determining the financial institution's specific decarbonisation target pathway is the selection or definition of a corresponding decarbonisation reference pathway. The decarbonisation reference pathway generally covers a much longer period and is bounded by a past reference year and a long-term target year. The reference source must contain emission data for at least these two points in time to determine the decarbonisation reference pathway. If further data points for intermediate years are available, these can also be taken into account. The following aspects shall be considered when determining the reference year and the long-term target year:

[43] Theoretically, a reference period over multiple years, e.g. a three-year average, can also be used as a basis to increase the informative value of the base value.

- **Reference year:** The reference year shall ideally correspond to the base year. If the reference source does not provide data for this year, the closest preceding year shall be used as the reference year.
- **Long-term target year:** The long-term target year shall correspond to the year for which the financial company has defined a long-term climate target. If the financial company intends to use a target value for the long-term target year, this value shall be taken from the reference source. If the data point is missing, the target value shall be determined by linear interpolation between the adjacent data points in time.

Climate scenarios are usually used as references from which the emission values for the reference year, emission estimates for the long-term target year, and for any intermediate years are taken, and thus the decarbonisation reference pathway is derived.[44] In addition to climate scenarios, other sources can also be used to derive the decarbonisation reference pathway, such as:

- national or international climate targets
- long-term climate commitments as part of memberships in climate initiatives.

The prerequisite is that all the information required for creating the decarbonisation reference pathway is available. This means that at least the corresponding emission data for the reference year and the long-term target year must be available. If these cannot be fully derived from the source, the complementary use of an appropriate climate scenario is a possible alternative.

Application example

Deriving of a decarbonisation reference trajectory for a net zero 2050 commitment

Chapter 4.2 illustrates how to derive a decarbonisation reference trajectory based on a long-term climate target to achieve net zero GHG emissions by 2050.

Although the I-PEPs Methodology Standard offers flexibility regarding the selected reference source and its level of ambition, certain minimum requirements are defined:

- **Adequacy of granularity:** As described in Chapter 2, I-PEPs shall be used for different portfolios and sub-portfolio levels (e.g. sectors). In order to derive adequate decarbonisation targets from climate scenarios, these should have a suitable level of granularity with regard to emission estimates. This also applies to regionally exposed portfolios (e.g. lending portfolios with a focus on one region), for which the best possible

[44] In general, climate scenarios include, in addition to the emission data for the reference year and the target year, data for intermediate years. These are also used as data points for the decarbonisation reference trajectory.

congruence with the emission estimates in the climate scenario should be ensured.

- **Coherence of ambition:** Financial companies often publish voluntary commitments that refer to long-term climate targets, which must then be translated as effectively as possible into operationally feasible short- and medium-term targets and measures. When selecting climate scenarios, long-term commitments – such as climate neutrality goals or temperature alignment pledges – must be taken into account. Best possible coherence needs to be ensured and the following key question is to be considered: can the short- and medium-term target values derived from the climate scenario place the financial company on a realistic target trajectory towards achieving its long-term commitment?
- **Consistency (when using multiple climate scenarios):** Financial companies with heterogeneous sub-portfolios often use multiple climate scenarios. This is usually necessary if climate scenarios do not have the necessary granularity for all sub-portfolios and therefore complementary climate scenarios are required. This may also be necessary when using I-PEPs. If financial companies use several climate scenarios for the different I-PEPs, the best possible consistency between different climate scenario assumptions needs to be ensured. This includes the macroeconomic parameters on which the climate scenarios are based, the assumptions regarding the expansion and use of Carbon Dioxide Removal (CDR) and the assumed residual budget of emissions.

4.1.3 Determination of the decarbonisation trajectory

Once the decarbonisation reference trajectory has been defined, it is applied to the financial company's target period. The purpose of this is to determine the target value for the annual percentage emission reduction rate which corresponds to the decarbonisation trajectory.

Determination of the decarbonisation trajectory (I-PEPs based on absolute emissions)

To derive the decarbonisation trajectory, the emission value from the decarbonisation reference trajectory for the target year is compared with the emission value for the base year.[45] To calculate the annual reduction, a geometric progression is applied for the target period. The resulting decarbonisation trajectory corresponds to the average annual reduction in absolute emissions that the financial company is aiming to achieve.

[45] If the source of the decarbonisation reference trajectory does not provide an explicit data point for the base year and/or target year, this value shall be calculated by linear interpolation of the available adjacent data points.

Equation 11: Calculation of the decarbonisation trajectory based on absolute emissions.

$$Decarbonisation\ trajectory_P = \sqrt[\Delta t_{ty-by}]{\frac{Emissions_{Decarbonisation\ reference\ trajectory,t_{ty}}}{Emissions_{Decarbonisation\ reference\ trajectory,t_{by}}}} - 1$$

t_{by} ... base year
t_{ty} ... target year
$\Delta t_{ty\text{-}by}$ ... target period

Source: Environment Agency Austria

Remark This approach corresponds to the rate of reduction approach presented for I-PEPs based on physical emission intensities.

Note

Disaggregation of GHG budgets

When deriving target trajectories based on absolute emission data from climate scenarios, it is implicitly assumed that all companies within the region/sector covered by the climate scenario must achieve the same percentage reduction in emissions. While this approach has the advantage of being easy to understand and user-friendly, it overlooks several factors:

- No differentiation is made between leaders and laggards. This means that companies that have already implemented effective climate protection measures in the past are subject to the same targets as those that have not yet taken any action.
- Organic company growth is not taken into account. Companies that are successful, gain market share and thus grow disproportionately are still required to meet the same percentage reduction targets as shrinking companies.

The I-PEPs Methodology Standard offers two possible solutions for this:

1. Since I-PEPs are used at portfolio level and not at company level, financial companies may argue that the ratio between leaders and laggards, as well as growing and shrinking companies within the portfolio, reflects the broader market. Therefore, it is adequate to apply target trajectories for the broader market to the financial portfolio.
2. The financial company uses physical emission intensities (see Chapter 2.1.2) rather than absolute emissions as the basis for the performance calculation.

Another challenge is how to handle green technology companies, which often operate in fast-growing industries. In cases of sufficient data availability, using physical emission intensities as a performance calculation basis would offer one way to steer the desired growth and GHG efficiency. However, in general, such companies should not be navigated using I-PEPs, but rather with KPIs intended to steer the expansion of green activities (see Chapter 5.3).

Determination of the decarbonisation trajectory (I-PEPs based on physical emission intensities)

Options for target setting

For I-PEPs based on physical emission intensities (see Chapter 2.1.2), there are two options for determining the decarbonisation trajectory. The choice between these two approaches depends on whether the financial company assumes that it is disproportionately exposed to leaders or laggards and wants to account for this portfolio characteristic in the target setting process.

1. Rate of reduction approach

In this approach, it is assumed that the portfolio structure reflects the corresponding reference market and that the relevant emission reduction rates that are derived from the decarbonisation reference trajectory are therefore applicable. To this end, the estimated physical emission intensities of the decarbonisation reference trajectory for the target year and the base year must be set in relation to each other. The resulting percentage reduction is converted into a geometric annual reduction rate to determine the decarbonisation trajectory.

Equation 12: Calculation of the decarbonisation trajectory based on physical emission intensities (rate of reduction approach).

$$Decarbonisation\ trajectory_P = \sqrt[\Delta t_{ty-by}]{\frac{EI_{Decarbonisation\ reference\ trajectory,t_{ty}}}{EI_{Decarbonisation\ reference\ trajectory,t_{by}}}} - 1$$

EI ... emission intensity
t_{by} ... base year
t_{ty} ... target year
$\Delta t_{ty\text{-}by}$ ... target period

Source: Environment Agency Austria

2. Convergence approach

With this approach, the financial company assumes that it is disproportionately invested in leaders or laggards and intends to take this into account when setting targets. For this purpose, the average portfolio-related physical emission intensity must be calculated for the base year using the following formula:

Equation 13: Calculation of the portfolio-related physical emission intensity in the base year.

$$EI_{P,t_{by}} = \sum_i (CWF_{i,t_{by}} * EI_{i,t_{by}})$$

t_{by} ... base year
$EI_{P,\,t_{by}}$ ... portfolio-related emission intensity
$EI_{i,\,t_{by}}$ ... emission intensity of portfolio position i
$CWF_{i,\,t_{by}}$ ... Combined Weighting Factor of portfolio position i

Source: Environment Agency Austria

The portfolio-related emission intensity reflects the emission efficiency of the portfolio in the base year. To calculate the decarbonisation trajectory, the estimated emission intensity in the target year derived from the decarbonisation reference trajectory is set in relation to the portfolio-related emission intensity in the base year. The result of this is used as an adjusted basis for determining the decarbonisation trajectory.

Equation 14: Calculation of the decarbonisation trajectory based on physical emission intensities (convergence approach).

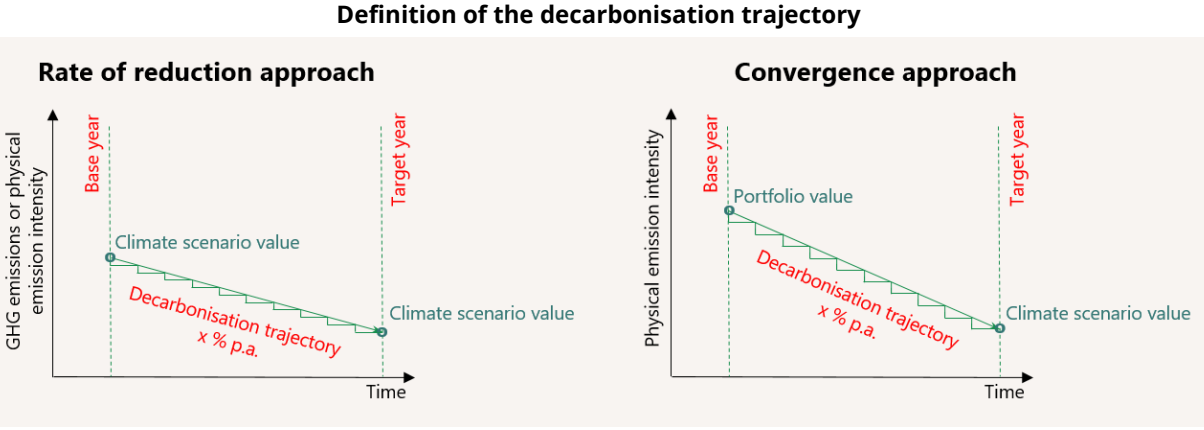
$$Decarbonisation\ trajectory_P = \sqrt[\Delta t_{ty-by}]{\frac{EI_{Decarbonisation\ reference\ trajectory,t_{ty}}}{EI_{P,t_{by}}}} - 1$$

Source: Environment Agency Austria

As a result, the convergence approach takes into account the implemented sector strategy of the financial company and its portfolio structure when determining the decarbonisation trajectory.

The figure below visualises the determination of the decarbonisation trajectory and thus the annual I-PEPs target value for both approaches.

Figure 5: Simplified illustration of calculating the decarbonisation trajectory for the rate of reduction approach and convergence approach, based on a climate scenario.



Source: Environment Agency Austria

4.2 Application example: Target setting aligned with GHG neutrality by 2050

Numerous countries, regions, and stakeholder groups have defined long-term climate targets in recent years and publicly communicated these commitments. The I-PEPs Methodology Standard enables financial companies to incorporate such targets as the basis for their decarbonisation trajectory.

For this application example, a globally and sectorally diversified corporate portfolio is assumed. The financial company's long-term target is a climate neutrality commitment for 2050.[46] In this context, climate neutrality refers to GHG neutrality and applies to the financial company's core business (investment/lending portfolio and/or underwriting portfolio). The financial company aims to determine a decarbonisation reference trajectory that provides for continuous emission reductions between the reference year and the long-term target year. Residual gross emissions in 2050 are to be neutralised thereafter.[47]

Table 5: Parameters of the application example.

	Base year	Target year	Target period	Reference year	Long-term target year
Parameters	2024	2030	2024–2030	to be determined[48]	2050

Definition of the target period

The base year is defined as the financial year 2024. The target period is set as a short-term timeframe ending in 2030 (target year).

Definition of the decarbonisation reference trajectory

To define a decarbonisation reference trajectory, emission data for a reference year (2024 or earlier), an estimate for the residual gross emissions for the year 2050, and (if available) estimates for intermediate years are needed. In this application example, climate scenarios are used to calculate these reference values. Two different sources for climate scenarios are used as examples: 1. the modelled global emission pathways of the Sixth Assessment Report (AR6) of the

[46] Climate neutrality by 2050 is the goal of the European Green Deal as well as the goal to which the members of the Austrian Green Finance Alliance are committed.

[47] For further details, refer to the Green Finance Alliance Handbook (Chapter 1.3) – available in German only.

[48] Subject to the data availability of the climate scenario.

Intergovernmental Panel on Climate Change (IPCC), and 2. the Net Zero Emissions by 2050 (NZE 2050) of the International Energy Agency (IEA).

- **IPCC AR6 – Working Group III Report:**[49] Table SPM.1 is used, which shows modelled global emission pathways for different levels of global warming. In this example, category C1a[50] is used.
- **IEA NZE 2050:**[51] Data from the IEA's World Energy Outlook for the NZE 2050 scenario is used. This is a 1.5 °C scenario with high overshoot.[52]

To determine the reference year, the data availability of both reference sources is considered.

For the IEA NZE 2050 scenario, the most recent emission data indicated in the reference publication is for 2024 and therefor corresponds to the base year. In contrast, the respective IPCC report used 2019 as the reference year and therefore does not take into account recent developments.

To address this challenge, two options exist:

1. **Option 1 – Using the reference year provided in the climate scenario:**[53] In this approach, the actual emission development between 2019 and the base year (2024) is not considered when defining the decarbonisation reference trajectory. The trajectory is therefore derived based on the emission values for 2019 and the estimates from the reference source.
2. **Option 2 – Using the base year as the reference year (recommended option):** The emission values for 2019 provided in the IPCC report are extrapolated using the EDGAR database to reflect actual emission developments up to the base year 2024 (+4.7 percent[54]).

[49] IPCC. *"Climate Change 2022. Mitigation of Climate Change. Technical Summary*". 2022, ipcc.ch/report/ar6/wg3/

[50] Limitation to 1.5 °C with no or low overshoot and net zero GHG emissions.

[51] IEA. *"World Energy Outlook 2025*". November 2025, iea.org/reports/world-energy-outlook-2025

[52] Note: While the scenarios considered by the IPCC refer to emissions (taking into account all relevant GHGs), the IEA scenario only considers CO_2 emissions from fossil energy sources.

[53] IPCC. *"Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the IPCC"*. 2022, ipcc.ch/report/ar6/wg3/

[54] The emission increase of +4.7 percent results from the comparison of global GHG emissions in 2019 and 2024, based on data from the EDGAR database.

The following table summarises the results for all three options.

Table 6: Data to define the decarbonisation reference trajectory.

	IPCC, AR6 Option 1	IPCC, AR6 Option 2	IEA, NZE 2050[52]
Reference year	2019	2024	2024
Emissions in the reference year, in Mio. tCO_2e	**55,000**	**57,572**	**38,153**
Emissions in intermediate years, in Mio. tCO_2e	**33,000** (2030) 18,000 (2040)	-	**17,606** (2035) 8,137 (2040)
Residual gross emissions in the long-term target year, in Mio. tCO_2e	8,000	**8,000**	2,100

*Emission values that are used to define the decarbonisation trajectory are highlighted in **bold**.*

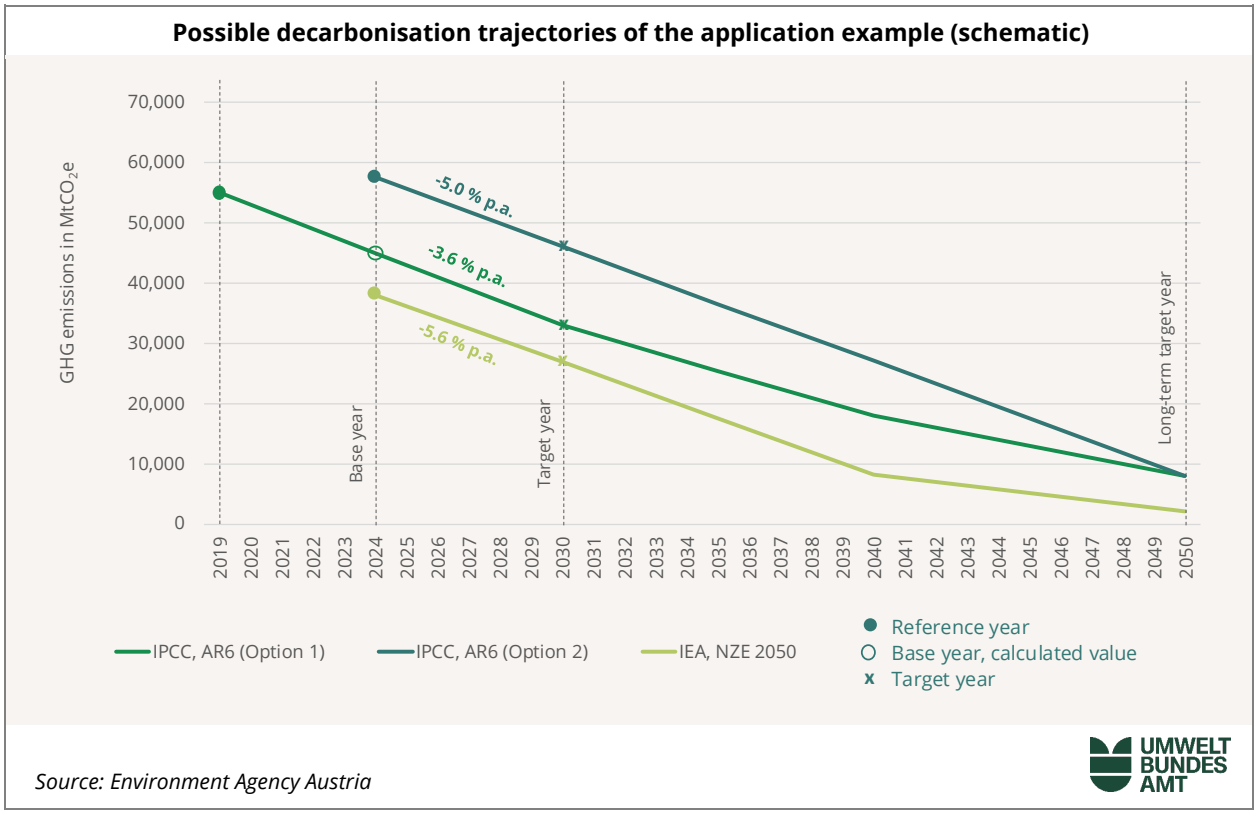
The decarbonisation reference trajectory is defined by the emission value in the reference year, the scenario values for intermediate years and that for the long-term target year.

Determination of the decarbonisation trajectory

Once the data points for the reference year, the intermediate years and the long-term target year have been fixed and thus the decarbonisation reference trajectory has been defined, the next step is to determine the decarbonisation trajectory. To do so, the data points for the base year and the target year are taken from the decarbonisation reference trajectory, and the annual reduction rate is calculated.

The used reference scenario data and the derived decarbonisation target trajectory are illustrated in the following figure.

Figure 6: Application example – Schematic illustration of possible decarbonisation trajectories to achieve GHG neutrality by 2050.



Source: Environment Agency Austria

The results for the three options can be summarised as follows:

- **IEA NZE 2050:** The reference source (World Energy Outlook 2025) provides energy-related CO_2 emissions for the year 2024 as well as scenario values for 2035, 2040 and 2050. To determine the data point for the target year 2030, a linear path between the data points for 2024 and 2035 is assumed. The resulting decarbonisation trajectory for the target period from 2024 to 2030 corresponds to -5.6 percent per year.
- **IPCC Option 1:** The reference source provides global emissions for the year 2019 as well as scenario values for 2030, 2040 and 2050. For the decarbonisation trajectory, the data points for 2019 and 2030 are used, resulting in a reduction rate of -3.6 percent per year.
- **IPCC Option 2:** Since the time gap between the reference year (2019) and the base year (2024) is very large, the value for 2019 is extrapolated to reflect the emission development of recent years up to 2024. The decarbonisation reference trajectory corresponds to a linear path up to the residual emissions in 2050. The derived decarbonisation trajectory corresponds to -5.0 percent per year.[55]

[55] Since IPCC AR6 Option 1 does not take into account the divergence between the emission trajectory outlined in the assessment report and the actual development, the resulting annual reduction target of -3.6 percent should be interpreted with caution from an ambition perspective. Consequently, its use is not recommended.

4.3 Tracking progress using I-PEPs

Purpose

The aim of tracking progress is to compare the annual, period-specific I-PEPs results with the annual reduction target defined by the decarbonisation trajectory. The financial company thus seeks to assess the extent to which the portfolio's decarbonisation development across multiple accounting periods aligns with the targeted decarbonisation trajectory. To perform this comparison, the following values are analysed in the reporting year:

- Annual I-PEPs values since the base year
- Arithmetic average of annual I-PEPs values since the base year
- Annual reduction target according to the decarbonisation trajectory

Base year/target year comparison

The annual reduction target defined by the decarbonisation trajectory (see Chapter 4.1.3) specifies the target value that the I-PEPs development should achieve **on average.** This means that the average I-PEPs values between the base year and the target year should correspond to the annual reduction target of the decarbonisation trajectory. To perform this comparison, the arithmetic average of the annual I-PEPs results since the base year is required (see Equation 15).

Equation 15: Calculation of the arithmetic average of the annual I-PEPs results since the base year.

$$I-PEPs_{\emptyset} = \frac{\sum_i I-PEPs_i}{\Delta t_{ry-by}}$$

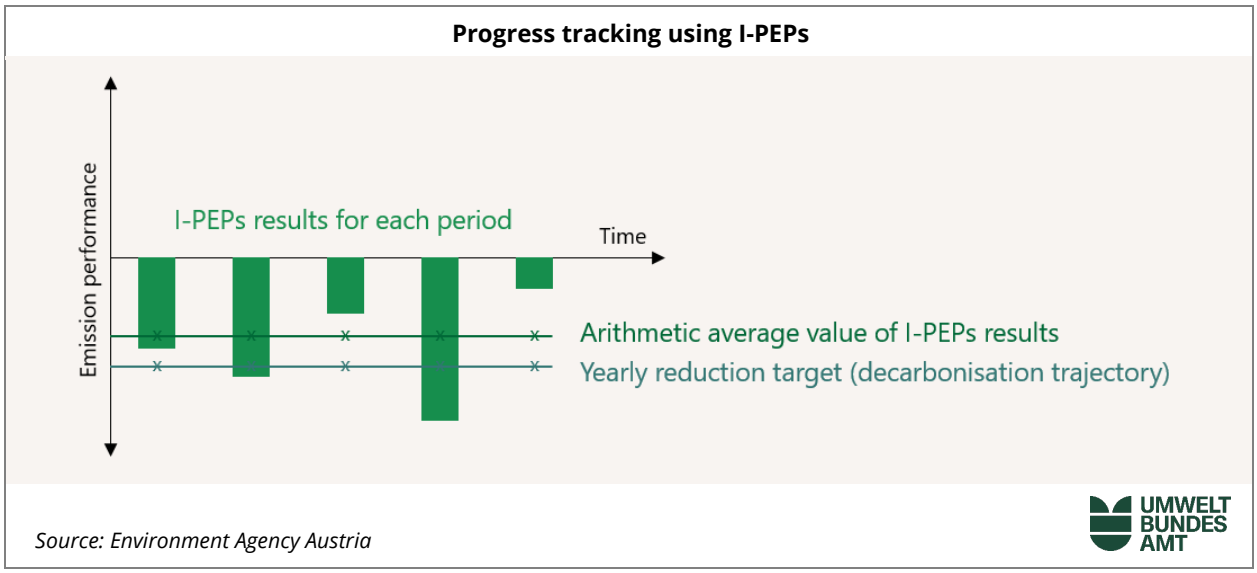
I-PEPs$_{\emptyset}$ ... arithmetic average of I-PEPs

$\Delta t_{ry\text{-}by}$ ... number of years between reporting and base year

Source: Environment Agency Austria

Calculating the arithmetic average value determines the financial company's average annual performance, thereby enabling a comparison with the decarbonisation trajectory across multiple accounting periods, as illustrated in the following figure.

Figure 7: Schematic illustration of tracking progress using I-PEPs.



Following Equation 15, each annual I-PEPs result is equally weighted in the average I-PEPs result, thereby influencing progress measurement equally. In theory, a delayed emission reduction compared to the climate scenario may lead to a divergence between the intended decarbonisation trajectory and the actual decarbonisation, while the average I-PEPs result could still suggest target achievement. This effect would be particularly relevant when applying I-PEPs on long-term target periods. However, since I-PEPs are intended for short- to medium-term target setting, this limitation is negligible in practice. Nevertheless, I-PEPs users should seek to avoid delayed decarbonisation throughout the target period.

Note

Sample calculation

Chapter 6.2.4 in the Annex contains a sample calculation for tracking progress using I-PEPs along with a graphical illustration.

Target coverage

When reporting progress in yearly disclosures, it is important to disclose the target coverage – i.e. the portfolio share of the analysed portfolio volume in relation to the total volume of the respective sub-portfolio. The degree of coverage can vary significantly depending on the sub-portfolio and the availability of reported emission data.

5 INTERPRETATION AND CATEGORISATION OF I-PEPS

Significance as a performance indicator

I-PEPs belong to the category of performance indicators used to quantify the progress of a financial company across multiple accounting periods. They focus on the progress made in decarbonising core business activities. The indicators compare the evolution of emissions (absolute or intensities) from portfolio positions over two accounting periods and reflect this development as a percentage change.

To understand the role and significance of I-PEPs, they need to be analysed and discussed more holistically as one of several instruments that financial companies can deploy to realise their climate strategies.

5.1 Influencing factors and their significance for I-PEPs

To steer portfolio decarbonisation using I-PEPs in a meaningful way, it is important to understand the possible direct and indirect factors influencing the result. These influencing factors affect I-PEPs on two levels:

1. Calculation of individual emission performances
2. Calculation of Combined Weighting Factors

The factors influencing these two levels are described in more detail below.

5.1.1 Influencing factors: calculation of individual emission performances

Consistency across periods

As described in Chapter 2.1.2, the emission performance of I-PEPs can be determined using two calculation bases: the individual, absolute emissions of the portfolio positions or their physical emission intensities. For the performance calculation to be meaningful, consistency of emission data across accounting periods is essential for both calculation bases. Emission data is considered consistent between the reporting year and the previous year if there is meaningful comparability. This means that any changes in the emission values are exclusively due to the actual emission performance. The following examples show where influencing factors can lead to inconsistencies.

Changes in the covered, reported emission sources due to data quantity/quality

Reasons for inconsistency

Companies' GHG accounting has developed significantly in recent years, with regard to both the quantity and the quality of the emission sources reported and included in the emission inventories. However, this dynamic is a challenge for financial companies, as these changes make it difficult to compare the emission data for the reporting year and the previous year. This particularly affects the data on Scope 3 emissions, as the emission sources along the value chain (upstream and downstream) are varied and often complex to determine.

Changes in the covered, reported emission sources due to amendments in company boundaries

Changes in company boundaries in the reporting year can have various causes, such as mergers and acquisitions or changes in reporting boundaries. These can have a significant influence on the company's reported absolute emissions and physical emission intensities, which reduces the informative value of the emission performance.

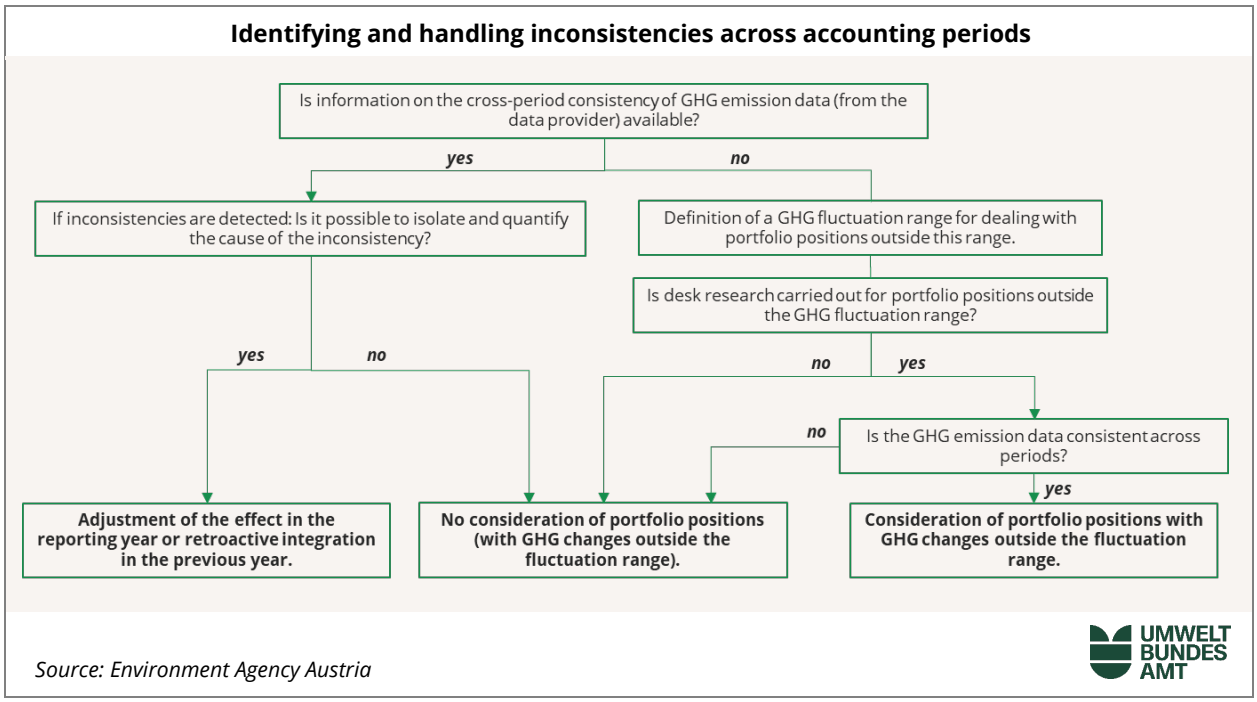
Changes to the GHG accounting methodology

Often, companies can use different methods to determine their emission inventories. For example, a company may use a market-based or a location-based approach to calculate Scope 2 emissions. If companies make changes to their methodology, this can lead to significant changes in their reported emissions, making it difficult to compare them with the previous year (unless a respective adjustment is made).

Another challenge for financial companies is how to identify such changes in the first place. If the financial company obtains emission data from a data provider, a time-efficient option would be to retrieve and take into account any additional information to identify such changes. If this is not possible, financial companies can – alternatively – define a fluctuation range for the change in reported emissions. In this case, all portfolio positions that lie outside this fluctuation range must be analysed individually or excluded from the calculation.

The following decision tree is intended to help I-PEPs users deal with such challenges.

Figure 8: Decision tree for dealing with influencing factors affecting individual emission performance.



Adjusted calculations

In an ideal scenario, changes that lead to an inconsistency across different periods would be labelled as such by the company (or sovereign) or data provider and adjusted emission values would be provided for the previous year. Alternatively, the effect could also be segregated and eliminated in the reporting year to ensure consistency. After such an adjustment, financial companies can determine the individual emission performance and include it in the I-PEPs calculation.

GHG fluctuation range

It is more challenging when such data is not available. To avoid distorted I-PEPs results due to extreme outliers, a GHG fluctuation range shall be used. Portfolio positions whose individual emission performance exceeds a value of **+50 percent** or is lower than **-40 percent** are to be analysed more closely.[56] I-PEPs users shall disclose if they diverge from the specified limits of the GHG fluctuation range. Depending on the financial company's resources, desk research is part of a bottom-up analysis. This is used to evaluate whether there is coherence across periods despite emission changes exceeding the fluctuation range. If desk research is only partially or not possible due to limited resources, individual portfolio positions can be excluded from the I-PEPs calculation.

[56] The defined limits of the GHG fluctuation range approximately correspond to the 95th percentile (upper limit) and the 5th percentile (lower limit) of the distribution of emissions performance observed during the I-PEPs pilot phase. The observed distribution and approach are comparable to external literature. See for example: Scientific Portfolio. *"Measuring the alignment of portfolio emissions"*. April 2025, cdn.prod.website-files.com/672cea0ae7889396005b1e87/68b7fa79dd5c29b90a909457_measuring-the-alignment-of-the-portfolio-emissions-2025.pdf

Please note the following:

- **Transparency:** Both the GHG fluctuation range and the number of portfolio positions affected by the exclusion, and their corresponding portfolio share, shall be disclosed. If a hybrid approach is used to handle outliers that exceed the limits of the GHG fluctuation range (i.e., a combination of direct exclusion from calculation and conducting desk research for individual portfolio positions), the procedure, including the prioritisation approach for the desk research, must be disclosed. Any distortion of results through selective treatment of outliers is to be avoided.
- **Consistency:** The GHG fluctuation range used shall be defined once and only adjusted in justified exceptional cases.

Note

I-PEPs in an overall climate strategy context

Influencing factors and uncertainties regarding the reliability of reported emissions for portfolio positions are not only a challenge for I-PEPs but affect all emission-based performance indicators.

In addition to a clearly defined approach on how to deal with these influencing factors (see Figure 8), it is important for financial companies to use complementary indicators besides emission-based indicators for climate-steering their core business. The GFA's Climate Navigation Cockpit (CNC) provides an overview of possible additional indicators (see GFA – Executive Summary).

5.1.2 Influencing factors: calculation of Combined Weighting Factors

The result of I-PEPs can be driven not only by individual emission performances, but also by changes in the Combined Weighting Factors. Depending on whether the weighting approach used (see Chapter 2.2.1) is based solely on the portfolio share and/or the emission share, the influencing factors may differ.

Figure 9: Overview of possible influencing factors affecting the calculation of Combined Weighting Factors.

Influencing factors affecting the calculation of Combined Weighting Factors

Portfolio position existent/considered?			Impact on the Combined Weighting Factor?		
Previous year	Reporting year	Possible influencing factors	Emissions-based Approach	Balanced Approach	Portfolio-centric Approach
x	✓	New business (lending), new investments, inclusion in the I-PEPs calculation	yes	yes	yes
✓	x	Matured business, divestments, exclusion from the I-PEPs calculation	yes	yes	yes
✓	✓	Change in relative portfolio share (driven by dynamics in the individual or total portfolio volume)	no	yes	yes
✓	✓	Change in relative emission share (driven by dynamics in the individual or total GHG emissions)	yes	yes	no

Source: Environment Agency Austria

To categorise the possible influencing factors affecting the Combined Weighting Factor of a portfolio position, a distinction is made in Figure 9 as to whether the portfolio position was in the portfolio on the reporting dates in the reporting and previous year or whether it was included in the I-PEPs calculation in these years.

Influencing factors: new portfolio positions or new inclusions in the calculation

This category of influencing factors concerns portfolio positions that were not included in the I-PEPs calculation in the previous year. This may refer to actual new activities, such as new financing or investments. However, this category also includes portfolio positions that were already in the portfolio in the previous year but were not included in the I-PEPs calculation (e.g. due to a lack of data). This category of influencing factors has an impact on the calculation of emission shares and portfolio shares and therefore on all three weighting approaches.

Influencing factors: portfolio exclusion or exclusion from the calculation

This category of influencing factors concerns portfolio positions that were part of the I-PEPs calculation in the previous year but are no longer part of it in the reporting year. The reasons for this are primarily expiring loans, divestments or the termination of insurance contracts. When calculating I-PEPs, however, existing portfolio positions may also be excluded from the calculation, for example due to lacking consistency in GHG data (see Chapter 5.1.1). This category of influencing factors has an impact on the calculation of emission shares and portfolio shares and therefore on all three weighting approaches.

Influencing factors: changes in portfolio volumes

The relative portfolio share of portfolio positions is determined by the dynamics of the individual and total portfolio volume. For example, the share of a portfolio position with a constant volume decreases when the total volume grows at the same time. As these changes only affect the portfolio shares and not the emission shares, their relevance is limited to the Balanced Approach and Portfolio-centric Approach.

Influencing factors: changes in emission volumes

The relative emission share of a portfolio position depends on its absolute emission volume and the summed total emissions of all analysed portfolio positions. For example, despite decreasing emissions, the individual emission share of a portfolio position increases if the aggregated emissions of all other portfolio positions decrease even more. The impact of this influencing factor category is limited to the emission shares and therefore to the Balanced Approach and the Emissions-based Approach.

Attribution analysis: decomposition of the factors influencing the I-PEPs result

In an attribution analysis, the impact of individual influencing factors on the I-PEPs result is isolated and quantified. This provides the financial company with valuable insights into the main drivers of the I-PEPs result. This knowledge can be used for the interpretation of results and for portfolio management.

It is important to note that this is solely a **granular analysis aimed at gaining a better understanding of the result drivers and not a required result adjustment**. The use of an attribution analysis is therefore useful and recommended, but not mandatory.

5.2 Comparison with GHG accounting according to PCAF

The Partnership for Carbon Accounting Financials (PCAF) was founded in 2015 by 14 Dutch financial institutions. The aim was to develop a transparent, harmonised methodology to measure and report financed emissions from investments and loans in conformance with the requirements of the GHG Protocol (Scope 3, Category 15). The basic idea behind the PCAF standard is to allocate emissions from the real economy (e.g. from companies) to a portfolio using an attribution factor. This is intended to quantify the responsibility of financial companies with regard to the emissions generated in the real economy. Various financed emissions metrics can be calculated based on the PCAF methodology. These include, for example, the absolute financed emissions and different types of emission intensities.

5.2.1 Methodological comparison with the metric "absolute financed emissions"

The best-known metric in the area of GHG accounting for Scope 3 Category 15 emissions from financial companies relating to the investment and lending portfolio is the calculation of absolute financed emissions based on the PCAF standard (Part A). In its second standard edition[58] published in December 2022, PCAF defined seven asset classes whose attribution logic follows a common pattern: the outstanding financial portfolio volume (e.g. lending volume) in the asset is set in relation to its asset value. For listed companies and the respective asset classes (listed equity, corporate bonds and business loans) the Enterprise Value Including Cash (EVIC) is used as the asset value. In the case of mortgages and commercial real estate, the property value at origination is considered. The evolution of this metric over the years is therefore also substantially characterised by the dynamics of this attribution factor. As I-PEPs are not weighted using the attribution of financed emissions, the results of I-PEPs and the evolution of absolute financed emissions can differ significantly.

Note

Sample calculation: comparison of I-PEPs versus evolution of PCAF-based financed emissions

In the Annex (Chapter 6.2.2), an exemplary lending portfolio is used to compare the results of the CPEP calculation and the performance measurement based on the evolution of PCAF-based financed emissions.

5.2.2 Methodological comparison with physical emission intensity indicators

Sector-specific statements

Physical emission intensities are typically used at sector level. The emissions are compared with a sector-specific reference value (such as steel production volumes of a steel company). They therefore enable a sector-specific assessment of emission efficiency. However, they require additional data points. Currently, the PCAF standard is typically used as the basis for calculating physical emission intensities at a portfolio level. In accordance with the PCAF attribution logic, the absolute financed emissions are calculated and then set in relation to the attributed activity data (e.g. steel production volume).[57]

[58] PCAF. *"The Global GHG Accounting and Reporting Standard for the Financial Industry/Part A"*. December 2022, carbonaccountingfinancials.com/en/standard.

[57] Please note that the I-PEPs Methodology Standard refers to the 2nd edition of the PCAF Standard Part A which includes a distinct formular to calculate physical emission intensities. While keeping references to physical emission intensity metrics based on financed emissions in their updated 3rd edition, PCAF no more indicates a distinct formular for calculating it.

Differences in the calculation method

I-PEPs provide the possibility of using physical emission intensities for the sector-specific I-PEPs and for certain asset classes/business areas (see Chapter 2.1). In contrast to the PCAF-based calculation, emission intensities from the portfolio companies are directly used, weighted and aggregated in the I-PEPs results.

The different calculation approaches of I-PEPs and PCAF lead to divergent results for similar reasons as those mentioned in Chapter 5.2.1.

Note

Sample calculation: comparison of I-PEPs based on physical emission intensities and PCAF-based intensity metrics

The sample calculation in the Annex (Chapter 6.2.2) of a sector-specific electricity production portfolio simulates the influence of changing input parameters on the physical emission intensities calculated according to the PCAF standard and $CPEP_{sector}$.

5.2.3 Comparison of the effects of using the EVIC (PCAF) versus avoiding it (I-PEPs)

For listed equity and corporate bonds, for example, the attribution calculation is based on a company's EVIC, which is an established financial indicator. However, its value can be subject to significant fluctuations due to various influencing factors (such as the share price), which in turn affect the attribution factor.[58] While these fluctuations can potentially be ignored for reporting date-related analyses and statements regarding the GHG inventory, this is a major problem in the context of analyses of climate-related portfolio development across accounting periods. With I-PEPs, the challenge of emission attribution is avoided by using the relative emission trend (= emission performance) of companies and aggregating them according to their weighting factor. There is therefore no need to use EVIC.

5.2.4 Discussion

Supplementary application areas

In contrast to PCAF, I-PEPs focus exclusively on calculating performance. While the primary PCAF result is the **financed emission inventory**, the result of I-PEPs reflects the **weighted trend** of the **real economy emissions** of the underlying business activities. Accounting metrics and performance indicators typically fulfil different purposes. For example, a GHG inventory enables a period-specific analysis of the financed emissions in the reporting year and thus, for example, the identification of hot spots and key areas for engagement. Performance indicators such as **I-PEPs cover multiple accounting periods** and

[58] See the discussion in the PCAF standard (p. 61).

therefore represent the **trend in emissions** from the portfolio positions over time. Such indicators are used for **target setting and steering decarbonisation** efforts. This results in complementary areas of application for both types of metrics.

Suitability across accounting periods

It remains to be seen to what extent PCAF-based metrics are suitable for use as performance indicators across accounting periods without extensive corrective measures. These concerns relate to influencing factors that determine the denominator of the attribution factor and therefore have a significant impact on the financed emissions. As these influencing factors change over time, their changes, in addition to the actual emission development of the financed/invested company, also have an influence on the absolute financed emissions of the financial company. Some financial market players have already developed approaches to isolate and quantify these influencing factors.[59] However, applying these adjustments is time-consuming and technical expertise is required to implement them, along with a solid understanding of the underlying content.

With PCAF-based metrics, the possibility of making a statement on the real emission dynamics of the positions underlying the portfolio is therefore significantly limited without performing such an in-depth attribution analysis.[60] I-PEPs, by contrast – beyond their intended purpose of measuring decarbonisation progress – do not make any additional claim to serve as a reporting-date-specific accounting metric. Nor do they aim to quantify the responsibility of financial companies for the induced emissions.

5.2.5 Conclusion

PCAF vs. I-PEPs

The use of the PCAF standard for GHG accounting of financial companies enables these financial companies to report on their date-specific financed emission inventory. However, financial companies are faced with challenges when using PCAF-based metrics to **track emission development over time** in order to disclose statements on real-economy decarbonisation progress. This is because financed emission metrics are subject to influencing factors which need to be quantified and segregated before making conclusions on the real-economy impact. I-PEPs results do not require such extensive adjustments before conclusions regarding portfolio decarbonisation progress can be derived

[59] See the following publications as examples:

UN-convened Net-Zero Asset Owner Alliance. *"Understanding the Drivers of Investment Portfolio Decarbonisation"*. December 2023, unepfi.org/industries/understanding-the-drivers-of-investment-portfolio-decarbonisation/.

Bouchet, V. *"Decomposition of Greenhouse Gas Emissions Associated With an Equity Portfolio"*. May 2023, scientificportfolio.com/knowledge-centre/.

[60] Please note that in its 3rd edition of the Part A Standard, PCAF explicitly recommends to apply an attribution analysis (so -called fluctuation analysis) to explain the drivers of changes to financed emissions between reporting period.

from them. They are therefore intended as a **complementary KPI set to steer the portfolio decarbonisation** alongside PCAF-based GHG accounting metrics.

Finally, it should be noted that financed emissions according to PCAF and I-PEPs are based on the same underlying data, namely the emissions of the portfolio positions. This results in 1) synergies in data collection (the data required for I-PEPs is also required for a robust GHG inventory) and 2) consistent scope between the GHG inventory and the decarbonisation target (deviations from this scope may still occur due to limited data availability and quality).

5.3 Classification of I-PEPs in the theories of change

Analysis of impact

In the field of sustainable development, the focus is on achieving real-world impact. Non-profit organisations, initiatives and supranational institutions[61] have therefore long been engaged in a holistic, critical analysis of sustainable initiatives and their activities in terms of actual impact. This involves a holistic approach that analyses the entire impact chain (inputs-actions-outputs-outcomes-impact) and the underlying assumptions.

Real economy changes

International financial market initiatives in the area of climate action are also increasingly turning to theories of change.[62] Central to these is the question of the extent to which actions at the financial market level actually have an impact in the real economy and thus contribute to a reduction in emissions. In other words: which measures taken by financial companies actually drive changes in the real economy? In particular, the following two approaches are being discussed on a scientific basis:

Two approaches

- Divestments from and avoidance of GHG-intensive industries and fossil fuel sectors: what are the effects on the cost of capital for affected companies? Does redirecting capital drive actual changes in the business strategy of the affected companies?
- Engagement: to what extent does regular, structured dialogue with invested and financed companies drive changes in their climate-related business strategy?

Three steering modules

To better position I-PEPs in these international discussions, it is useful to look at them from the perspective of theories of change. However, applying these theories to I-PEPs in isolation is not meaningful, as this KPI set was developed within the GFA as a steering module of a multidimensional Climate Navigation Cockpit (CNC). This consists of three steering modules: Portfolio Decarbonisation, Impact Engagement and Expansion of Green Activities. Each of

[61] Examples include the United Nations and its numerous sustainability programmes and initiatives.

[62] Examples include the UN-convened Net-Zero Asset Owner Alliance, UNEP FI Principles for Responsible Banking and the Science Based Targets initiative.

the three steering modules consists of multiple indicators that are intended to be used together to steer the climate efforts of a financial company. I-PEPs is one element of this, under the Portfolio Decarbonisation module.[63] This means that financial companies that use I-PEPs to steer their decarbonisation efforts should simultaneously use complementary indicators for proactive engagement and the expansion of green activities.[64] Financial companies that use the CNC have the following mission:

> **Expansion of business activities in innovative, green growth markets and simultaneous transition support for existing, future-proof industries towards sustainable business models.**

Impact

While the indicators from the CNC steering module "Expansion of Green Activities" are intended to support the strategic expansion of a growing green portfolio, I-PEPs aim to support the transition (and thus decarbonisation) of other sectors of the economy. However, this transition can only be achieved through active engagement with corporate clients, which is facilitated by the use of steering indicators from the CNC steering module "Impact Engagement". It should be noted that, in exceptional cases, the steering signals from the "Expansion of Green Activities" steering module and those from I-PEPs may diverge, specifically in the case of green technology companies:

Dealing with companies in green technology sectors

Dealing with target conflicts

Corporates that primarily offer solutions for the green transition can only be steered to a very limited extent using decarbonisation metrics. The reason for this is that their solutions (e.g. wind turbines) are the foundation of a green transition and their success depends on rapid and significant expansion. Despite their substantial contribution to a low-carbon future, this production growth generally goes along with rising emissions from the companies concerned. Portfolio steering using I-PEPs would, however, aim to decarbonise such companies, while the objectives under the steering module "Expansion of Green Activities" would implicitly have the opposite effect. To avoid this conflict, it is recommended that such companies are excluded from the application of the "Portfolio Decarbonisation" steering module and are controlled using the module on expansion of green activities. Such segregations should be actively communicated to the public in the climate strategy and in annual reports.

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[63] For more information on the Climate Navigation Cockpit (CNC), see chapter 5.1.1.2 in the GFA – Executive Summary.

[64] To ensure comprehensive climate navigation, financial companies should manage the phase-out of fossil fuels in addition to pursuing proactive engagement and the expansion of green activities. In the Green Finance Alliance, this is done in line with predefined phase-out criteria for coal, oil and natural gas (see annex in the GFA – Executive Summary).

Dealing with companies in the oil and gas and thermal coal sectors

Global phase-out

At the opposite end of the spectrum from green companies are those in the fossil fuel sector. From a science-based climate perspective, a timely and gradual phase-out of their core activities is envisaged for oil, gas and coal companies. Unlike other GHG-intensive sectors (e.g. steel or cement), a global phase-out is therefore envisaged rather than technological transition support towards sustainable solutions within their core business.

Possible solution

In contrast to other GHG-intensive sectors, the use of physical emission intensities as the basis for calculating I-PEPs is not expedient. This is because, despite improvements in this indicator, fossil fuel production and therefore emissions can increase. The use of absolute emissions based on reported Scope 1 and 2 emissions from those companies would, in turn, not take into account the significant Scope 3 emissions from the fossil fuel sector. As described in Chapter 2.1.2 , financial companies have the option to use an additional I-PEPs variant for Scope 3 emissions from the sub-portfolio. The challenge here would be that Scope 3 emissions from a wide range of sectors would be mixed and aggregated with those from the fossil fuel sector and therefore the significance of the latter might not be adequately reflected. One solution would therefore be to use a segregated I-PEPs variant for the oil, gas and coal sectors, based on absolute Scope 3 emissions, and to use the corresponding sector pathways for target setting.

Significant effort

However, such a separate analysis would require its own indicators and sufficient human resources to manage them. It is therefore only a sensible option for financial companies with significant portfolio exposures in the fossil industry. An alternative solution for dealing with fossil fuel companies is to use criteria (such as the one from the GFA) for a gradual phase-out of fossil fuels. Additional management by means of I-PEPs is superfluous in this case.

Note

Case example: Green Finance Alliance (GFA) fossil fuel phase-out criteria

The GFA has defined transparent and science-based phase-out criteria for the coal, oil and gas sectors. These criteria apply to projects and companies throughout the vertical fossil fuel value chain and support GFA members in implementing their phase-out from the fossil fuel industry.[65] Therefore, GFA-members steer fossil fuel exposures not with I-PEPs but separately with dedicated phase-out requirements.

[65] See annex in the GFA – Executive Summary.

6 ANNEX

6.1 Overview of steering indicators (I-PEPs)

The following table provides an overview of the steering indicators presented in the I-PEPs KPI set.

Table 7: Overview of I-PEPs by portfolio, (sub-)asset class or business area.

Abbreviation	Name	Portfolio / (sub-) asset class / business area	Calculation basis
$APEP_{abs}$	Aggregated Portfolio-related absolute Emission Performance	Total analysed investment and lending portfolio	Absolute emissions
$APEP_{int}$	Aggregated Portfolio-related Emission Intensity Performance	Investment and lending portfolio: project finance (commercial real estate, mortgages, electricity production), equities, corporate bonds and corporate lending in material, emission-intensive sectors	Physical emission intensities
CPEP	Corporate Investment Portfolio-related Emission Performance	Investment portfolio: equities and corporate bonds	Absolute emissions
$CPEP_{sector}$	Corporate Investment Portfolio-related Emission Intensity Performance (sector)	Investment portfolio: equities and corporate bonds in material, emission-intensive sectors	Physical emission intensities
LPEP	Lending Portfolio-related Emission Performance	Lending portfolio: corporate lending	Absolute emissions
$LPEP_{sector}$	Lending Portfolio-related Emission Intensity Performance (sector)	Lending portfolio: corporate lending in material, emission-intensive sectors	Physical emission intensities
SPEP	Sovereign Bond Portfolio-related Emission Performance	Investment portfolio: sovereign bonds	Absolute emissions
CREPEP	Commercial Real Estate Portfolio-related Emission Intensity Performance	Lending portfolio: commercial real estate	Physical emission intensities
EPEP	Electricity Production Portfolio-related Emission Intensity Performance	Lending portfolio: project finance – electricity production	Physical emission intensities
MPEP	Mortgage Portfolio-related Emission Intensity Performance	Lending portfolio: mortgages	Physical emission intensities
UPEP	Corporate Underwriting Portfolio-related Emission Performance	Underwriting portfolio: corporate clients	Absolute emissions
$UPEP_{sector}$	Corporate Underwriting Portfolio-related Emission Intensity Performance (sector)	Underwriting portfolio: corporate clients in material, emission-intensive sectors	Physical emission intensities

6.2 Sample portfolio simulations

In the following sample calculations, the methodological approach of I-PEPs is illustrated using simplified sample portfolios.

6.2.1 Application of the calculation method

As described in Chapter 2.1.2, I-PEPs can be calculated using two calculation bases: absolute emissions or physical emission intensities. The latter calculation basis is only intended for certain GHG-intensive sectors (such as electricity production), as well as project and real estate portfolios. Using a sample investment portfolio and a sample project portfolio, the following two I-PEPs variants are calculated:

- CPEP: calculation based on absolute emissions for the entire corporate-related investment portfolio.
- EPEP: calculation based on physical emission intensities for a lending portfolio to finance electricity production projects.

Sample calculation: CPEP

The application of the CPEP calculation methodology is illustrated using a sample investment portfolio with an investment volume of EUR 10 million, spread across investments in four companies. Two of these companies belong to the GHG-intensive electricity production sector.[68] For the purpose of simplification, it is assumed that the investment volumes at reporting dates in the reporting year and the previous year are identical.

Table 8: Sample calculation – investment portfolio data.

	Sector	Investment volume Previous year	Investment volume Reporting year
Company A	Non-GHG-intensive sector	EUR 3 million	EUR 3 million
Company B	Non-GHG-intensive sector	EUR 3 million	EUR 3 million
Company C	Electricity production	EUR 2 million	EUR 2 million
Company D	Electricity production	EUR 2 million	EUR 2 million
Total		EUR 10 million	EUR 10 million

[68] In Chapter 6.2.2, $CPEP_{electricity}$ is calculated in addition to CPEP for comparison with PCAF-based metrics. CPEP and $CPEP_{electricity}$ follow the same calculation approach.

The reported absolute Scope 1 and 2 emissions of the portfolio companies for the reporting year and the previous year are required to calculate CPEP. These are shown in the following table:

Table 9: Sample calculation – emissions of the portfolio companies.

	Scope 1+2 emissions in tCO_2e Previous year	Scope 1+2 emissions in tCO_2e Reporting year
Company A	50,000	40,000
Company B	80,000	60,000
Company C	12,000,000	12,000,000
Company D	600,000	750,000
Total	12,730,000	12,850,000

CPEP is calculated using the general calculation method described in Chapter 2.2. In the **first step**, the general weighting approach is chosen. For this sample calculation, the Balanced Approach (BA) is used as this is typically most relevant for investment portfolios consisting of equities and corporate bonds based on the decision tree (see Figure 3, Chapter 2.2.1). With the Balanced Approach, the General Portfolio Weighting Factor and the General Emissions Weighting Factor are equally weighted (GWF_P = GWF_E = 50 percent).

In the **second step**, the Combined Weighting Factors (CWF) of the portfolio companies are calculated. To do this, the share of the portfolio volume and the emission volume in the reporting year are determined for each portfolio company. In accordance with the Balanced Approach, these two shares are aggregated using equal weighting to form the Combined Weighting Factor.

Table 10: Sample calculation – Combined Weighting Factors (CWF).

	Share of portfolio volume	Share of emission volume	CWF
Company A	30 %	0.3 %	15.2 %
Company B	30 %	0.5 %	15.2 %
Company C	20 %	93.4 %	56.7 %
Company D	20 %	5.8 %	12.9 %
Total	100 %	100 %	100 %

The emission performance is then calculated in the **third step**. To do this, the emission performance of the individual portfolio companies is calculated by comparing their absolute emissions (see Table 9) in the reporting year with

those of the previous year. CPEP, i.e. the emission performance of the investment portfolio, is determined by weighting and aggregating the emission performance of the portfolio companies with their Combined Weighting Factor.

Table 11: Sample calculation – emission performances of portfolio companies and CPEP.

	Emission performance
Company A	-20.0 %
Company B	-25.0 %
Company C	0.0 %
Company D	+25.0 %
Portfolio (CPEP)	-3.6 %

The following points summarise the key findings from the results:

- **Companies A and B** have a positive impact on CPEP, as they each have a good emission performance (-20 percent and -25 percent respectively) and together account for 60 percent of the portfolio volume. However, their influence on the CPEP result is limited as their relatively low share of emissions (less than one percent for both companies) is reflected in the Combined Weighting Factor since the balanced weighting approach is used.
- **Company C** has by far the largest emission share (over 90 percent) and a significant portfolio share (20 percent). This results in the highest Combined Weighting Factor (56.7 percent) and therefore the greatest influence on CPEP, which is closest to the emission performance of company C.
- **Company D** has the lowest weighting in the CPEP calculation, despite having the second-largest share of emissions. Nevertheless, its poor emission performance (+25 percent) has a notable impact and minimises the positive influence of companies A and B.
- The results indicate a **need for action at company C** (highest CWF and a poor emission performance) and **company D** (CWF over 10 percent and an even poorer emission performance).

Sample calculation: EPEP

For the sample calculation of EPEP, a lending portfolio with three electricity production projects is considered. These are projects A, B and C. The reported physical emission intensities of the three projects in the reporting year and the previous year are used as the calculation basis for EPEP. These are shown in Table 12.

Table 12: Sample calculation (electricity project portfolio) – physical emission intensities.

	Emission intensity in tCO_2e/MWh Previous year	Emission intensity in tCO_2e/MWh Reporting year
Project A	0.80	0.80
Project B	0.20	0.20
Project C	-	0.30

As with CPEP, the **first step** for calculating EPEP is to define the general weighting approach. For EPEP, the Portfolio-centric Approach is applied.

In the **second step**, the Combined Weighting Factors for the three electricity production projects are calculated. In contrast to CPEP, the Combined Weighting Factors for EPEP must be determined for both the reporting year and the previous year.

Table 13: Sample calculation (electricity project portfolio) – Combined Weighting Factors (CWF).

	Previous year		Reporting year	
	Portfolio volume	**Portfolio share (=CWF)**	**Portfolio volume**	**Portfolio share (=CWF)**
Project A	EUR 2 Mio.	40.0 %	EUR 2 Mio.	33.3 %
Project B	EUR 3 Mio.	60.0 %	EUR 3 Mio.	50.0 %
Project C	-	-	EUR 1 Mio.	16.7 %
Total	EUR 5 Mio.	100.0 %	EUR 6 Mio.	100.0 %

In the **third step**, the emission performance is determined. To do this, the weighted physical emission intensity for the electricity production portfolio is first calculated for the reporting year and the previous year by multiplying the emission intensities of the projects (Table 12) with the corresponding Combined Weighting Factors (Table 13). The physical emission intensities of the electricity project portfolio for the two years are then compared with each other. The result is EPEP.

Table 14: Sample calculation (electricity project portfolio) – physical emission intensities of the portfolio and EPEP.

	Emission intensity in tCO_2e/MWh Previous year	Emission intensity in tCO_2e/MWh Reporting year
Project portfolio (electricity production)	0.44	0.42
EPEP	-	-5.3 %

The results can be interpreted as follows:

- The individual projects are characterised by constant emission intensities. Therefore, the individual emission intensity developments have no influence on the EPEP result.
- The inclusion of **project C**, which has a lower physical emission intensity than the portfolio-related emission intensity in the previous year, results in a reduction of the portfolio-related emission intensity and thus in an EPEP of -5.3 percent.

6.2.2 Comparison with PCAF-based metrics

In the following sample calculations, I-PEPs results are compared with PCAF-based emission metric developments. The results for the following metrics are compared with each other:

1. CPEP and the development of PCAF-based financed emissions
2. $CPEP_{electricity}$ and the development of PCAF-based emission intensity

Both comparative calculations are based on the sample corporate portfolio and its portfolio data from Chapter 6.2.1. The data presented in Chapter 6.2.1 is expanded to include data required to calculate $CPEP_{electricity}$ and the PCAF-based metrics.

It should be stressed that the PCAF standard is primarily intended for GHG accounting of Scope 3 Category 15 emissions. However, as financial companies also use PCAF to calculate emission performance indicators, a comparison with the I-PEPs method makes sense.

Comparison: CPEP and the development of PCAF-based financed emissions

For this comparison, CPEP is compared with the development of financed emissions based on the PCAF standard. The PCAF standard defines formulas calculating financed emissions, which differ depending on the asset class. The formula shown in Equation 16 is defined for listed equities and corporate bonds. It allocates corporate emissions to the financial company according to an attribution factor and aggregates emissions for all portfolio companies. The attribution factor is determined by the ratio between the outstanding amount in the portfolio company and its Enterprise Value Including Cash (EVIC).[69]

[69] PCAF. *"The Global GHG Accounting and Reporting Standard for the Financial Industry/Part A"*. December 2022, carbonaccountingfinancials.com/en/standard.

Equation 16: Calculation of financed emissions for listed equities and corporate bonds based on the PCAF standard.

Formula to calculate financed emissions

$$\text{Financed emissions} = \sum_i \frac{Outstanding\ amount_i}{EVIC_i} \times Company\ emissions_i$$

Source: PCAF

In addition to the absolute emissions of the portfolio companies already stated in Chapter 6.2.1, the EVIC of the portfolio companies is required for the reporting year and the previous year to calculate the financed emissions. This information is summarised in Table 15.

Table 15: Sample calculation – company data (EVIC and absolute emissions).

Company	EVIC (in EUR)			Absolute emissions (in tCO_2e)		
	Previous year	Reporting year	Change (relative)	Previous year	Reporting year	Change (relative)
A	50 million	50 million	0.0 %	50,000	40,000	-20.0 %
B	10 million	10 million	0.0 %	80,000	60,000	-25.0 %
C	110 million	150 million	+36.4 %	12,000,000	12,000,000	0.0 %
D	35 million	35 million	0.0 %	600,000	750,000	+25.0 %

Development The company data presented in Table 15 shows the following trends:

- **Development of absolute emissions:** companies A and B reduced their absolute emissions, while company D's emissions increased. Company C's emissions have remained constant.
- **Development of EVIC:** with the exception of company C, all companies have a constant EVIC. The EVIC of company C has increased by 36.4 percent. This increase is based, for example, on a higher share price and does not correlate directly with actual company growth or production output.

CPEP comparison In the next step, the results of CPEP and the development of financed emissions are calculated and compared. As the company data has remained unchanged compared to the sample calculation in Chapter 6.2.1, the same CPEP result (-3.6 percent) is used. The formula in Equation 16 is applied to calculate the financed emissions for the reporting year and the previous year. In both cases, the absolute emissions of the portfolio companies are weighted and aggregated based on their respective attribution factors (share of the outstanding amount in EVIC). The information required for this is taken from Table 8 (outstanding amount) and Table 15 (EVIC and absolute emissions). The results are shown in Table 16.

Table 16: Sample calculation – comparison of CPEP and the development of financed emissions.

	Previous year	Reporting year	Development
CPEP	-	-	-3.6 %
PCAF-based financed emissions (in tCO_2e)	279,468	223,257	-20.1 %

The comparison shows a clear difference between CPEP and the development of the PCAF-based financed emissions:

- The CPEP's emission performance of -3.6 percent is a direct result of the portfolio companies' emission trends and their relative portfolio and emission shares.
- The greater reduction in financed emissions (-20.1 percent) is mainly due to the increased share price of company C. This explains the increase in EVIC, which leads to a smaller attribution factor for company C and thus to reduced financed emissions, assuming the investment volume remains constant.[70]

Attribution analysis

As regards the financed emission development, a granular attribution analysis would be needed to draw correct conclusions from the result and understand the actual contribution to real economy decarbonisation. Such an analysis would assess the influencing factors that have an impact on the financed emission development and facilitate a better interpretation of the result.

Comparison: $CPEP_{electricity}$ and the development of PCAF-based physical emission intensity

For this comparison, $CPEP_{electricity}$ is compared with the development of the portfolio-level physical emission intensity based on PCAF. The PCAF standard[71] indicates the formula presented in Equation 17. For this calculation, the financed emissions are set in relation to the total attributed activity data. Depending on the sector, this activity can be, for example, the amount of electricity produced (kWh), the production output (e.g. tonnes of steel) or another physical unit.

[70] In this example, the outstanding volume does not correlate with the change in share price. This would be possible with an investment in corporate bonds, for example.

[71] PCAF. *"The Global GHG Accounting and Reporting Standard for the Financial Industry/Part A"*. December 2022, carbonaccountingfinancials.com/en/standard.

Please note, that the I-PEPs Methodology Standard refers to the 2*nd* edition of the PCAF Standard Part A which includes a distinct formular to calculate physical emission intensities. While keeping references to physical emission intensity metrics based on financed emissions in their updated 3*rd* edition, PCAF no more indicates a distinct formular for calculating it.

Equation 17: Calculation of the physical emission intensity based on the PCAF standard.

$$Physical\ emission\ intensity = \frac{\sum financed\ emissions}{\sum total\ attributed\ activity}$$

Source: PCAF

Segregation sub-portfolio

For the comparative calculation, a sub-portfolio is formed with the two electricity-producing companies from Table 8. All data relevant for the calculation is summarised in Table 17.

Table 17: Sample calculation (electricity sub-portfolio) – company data.

	Company C			Company D		
	Previous year	**Reporting year**	**Change**	**Previous year**	**Reporting year**	**Change**
EVIC (in EUR)	110 million	150 million	+36 %	35 million	35 million	0 %
Absolute GHG emissions (tCO_2e)	12,000,000	12,000,000	0 %	600,000	750,000	+25 %
Electricity production (MWh)	15,000,000	15,000,000	0 %	3,000,000	3,000,000	0 %
GHG intensity (tCO_2e/MWh)	0.80	0.80	0 %	0.20	0.25	+25 %
Portfolio volume (in EUR)	2 million	2 million	0 %	2 million	2 million	0 %

The following information can be taken from the company data:

- **Company C:** electricity production, emission intensity, and consequently absolute emissions, have remained constant. However, the EVIC has increased by 36 percent, for example due to an increased share price.
- **Company D:** the EVIC and electricity production have remained constant. However, the absolute emissions have increased by 25 percent due to an increased emission intensity (e.g. because of a change in the electricity mix).
- The outstanding amount in both companies remains constant at EUR 2 million over time.

Calculation indicators

The next step is to determine $CPEP_{electricity}$ based on the company data in Table 17. $CPEP_{electricity}$ amounts to +7.0 percent (see table below).

Table 18: Sample calculation (electricity sub-portfolio) – CWF, emission performance of companies and $CPEP_{electricity}$.

	Company C	Company D	Portfolio
CWF (Balanced Approach)	72.1 %	27.9 %	-
Emission performance (based on physical emission intensities)	0.0 %	25.0 %	-
$CPEP_{electricity}$	-	-	+7.0 %

To calculate the physical emission intensities according to PCAF, the formula in Equation 17 is used with the data from Table 17. The results of the two indicators are summarised in Table 19 and differ significantly from one another.

- $CPEP_{electricity}$ reflects a poor emission performance, with an increase of +7.0 percent.
- However, the PCAF-based emission intensity (financed emissions per unit of attributed physical activity) has decreased by -3.9 percent.

Table 19: Sample calculation – Comparison of $CPEP_{electricity}$ and development of PCAF-based emission intensities.

	Previous year	Reporting year	Development
$CPEP_{electricity}$	-	-	+7.0 %
PCAF-based emission intensity (in tCO_2e/MWh)	0.57	0.55	-3.9 %

Interpretation of results

The comparison shows that the performance calculations for $CPEP_{electricity}$ and the PCAF approach differ significantly:

- The $CPEP_{electricity}$ result shows a deterioration in physical emission intensity of +7.0 percent. This is driven by the development of company D, whose physical emission intensity increased.
- The PCAF-based physical emission intensity decreased by -3.9 percent from the previous year to the reporting year. The most important influencing factor for this development is the increased EVIC of company C. Due to the constant investment volume, this causes a decrease in the corresponding attribution factor. At the same time, the attribution factor for company D remains constant. As the emission intensity of company C is significantly higher than that of company D, this change leads to a decrease in the overall physical emission intensity. To correctly interpret the PCAF result and determine the actual emission intensity development, a granular attribution analysis is therefore necessary.

6.2.3 Dealing with inconsistent emission performances

In the sample calculations in Chapters 6.2.1 and 6.2.2 , it was assumed that no inconsistency across accounting periods influenced the quality of the emission data. In Chapter 5.1.1 (Figure 8), a decision tree was presented that enables financial companies to detect and correct such inconsistencies. The following example shows how the decision tree can be applied in practice using three scenarios:

- Scenario 1: **required information** on the consistency of emission data across accounting periods **is available**.
- Scenario 2: **required information** on the consistency of emission data across accounting periods **is not available**.
- Scenario 3: **required information** on the consistency of emission data across accounting periods is **individually collected using desk research**.

To illustrate the scenarios, the data from Chapter 6.2.1 is used and extended to include company E.

Table 20: Sample calculation – portfolio data and company emission data.

	Investment volume, reporting year (in EUR)	**Emissions (tCO_2e), previous year**	**Emissions (tCO_2e), reporting year**
Company A	3 million	50,000	40,000
Company B	3 million	80,000	60,000
Company C	2 million	12,000,000	12,000,000
Company D	2 million	600,000	750,000
Company E	2 million	1,500,000	100,000
Total	12 million	14,230,000	12,950,000

Without a more detailed analysis regarding the consistency of the emission data and using the Balanced Approach to weight portfolio companies, the calculations yield the Combined Weighting Factors shown in Table 21 and a CPEP of -11.0 percent.

Table 21: Sample calculation – CWFs and emission performance of portfolio companies and CPEP without adjustment for inconsistencies.

	CWF	Emission performance
Company A	12.7 %	-20.0 %
Company B	12.7 %	-25.0 %
Company C	54.7 %	0.0 %
Company D	11.2 %	+25.0 %
Company E	8.7 %	-93.3 %
Portfolio (CPEP)	100.0 %	-11.0 %

Scenario 1: use of information on the consistency of emission data

Information on emission data consistency for individual portfolio positions can often be obtained from external data providers. As an example, relevant data points are disclosed in the CDP questionnaire.[72] This includes data points on the changes in Scope 1 and 2 emissions due to various influencing factors (in tCO_2e):

Table 22: Influencing factors covered in the CDP questionnaire (simplified illustration) and their consideration in the I-PEPs calculation.

Factors influencing Scope 1 + 2 emissions based on CDP questionnaire	Impacts on I-PEPs to be adjusted?
Emission reduction measures and change in renewable energy consumption	No
Changes in production volumes, e.g. due to organic growth	No
Structural changes, e.g. acquisitions, disposals and mergers	Yes
Methodological changes, e.g. calculation methodology and company boundaries	Yes
Other influencing factors, e.g. errors in previous emission values	Yes

The following additional data points, based on the CDP questionnaire, are assumed for this sample calculation:

[72] CDP. *"Full Corporate Questionnaire – Module 7"*. April 2025, cdp.net/en/disclosure-2025.

Table 23: Sample calculation – influencing factors causing changes in emissions based on the CDP questionnaire.

Company	Influencing factors and changes in absolute emissions (tCO_2e)					
	Reduction measures	**Change in production**	**Structural changes**	**Change in methodology**	**Other influencing factors**	**Total**
A	-10,000	0	0	0	0	-10,000
B	-20,000	0	0	0	0	-20,000
C	0	0	0	0	0	0
D	+150,000	0	0	0	0	+150,000
E	-25,000	0	-800,000	-575,000	0	-1,400,000
Total	+95,000	0	-800,000	-575,000	0	-1,280,000

The following can be concluded from the data presented in Table 23:

- The trends in emissions from companies A to C are the result of emission reduction activities or an increased GHG intensity in the case of company D. The emission trends for these companies are therefore not distorted by any unwanted influencing factors and the emission performance does not require adjustment.
- While company E achieves part of the total emission decline through reduction activities, the majority of the emission reductions are based on structural or methodological changes. These influences distort the calculated emission performance and must be adjusted.

Adjustment of results

To adjust the emission performance of company E, the absolute emissions from the previous year are adjusted by accounting for the changes in emissions caused by structural and methodological changes. This results in emission values for company E of 125,000 tCO_2e in the previous year and 100,000 tCO_2e in the reporting year – resulting in an emission performance of -20.0 percent. The CPEP changes from -11.0 percent (without adjustment) to -4.7 percent (with adjustment).

Table 24: Sample calculation – CWFs and emission performance of portfolio companies and CPEP with adjustment for inconsistencies (scenario 1).

	CWF	**Emission performance**
Company A	12.7 %	-20.0 %
Company B	12.7 %	-25.0 %
Company C	54.7 %	0.0 %
Company D	11.2 %	+25.0 %
Company E	8.7 %	-20.0 %
Portfolio (CPEP)	100.0 %	-4.7 %

Scenario 2: definition of a GHG fluctuation range

If the information used in scenario 1 is not available, distortions in the I-PEPs calculation can be mitigated using a GHG fluctuation range. In general, there are different statistical approaches for identifying outliers and, at the same time, taking account of the considerations in Chapter 5.1.1 on transparency and consistency.

In this example, a GHG fluctuation range as defined in Chapter 5.1.1 is used (+50 percent and -40 percent). Emission performance values of portfolio companies that exceed the limits of the GHG fluctuation range are considered outliers and excluded from the I-PEPs calculation. In this sample calculation, this leads to the exclusion of company E. The Combined Weighting Factors for companies A to D must therefore be recalculated. The result is a CPEP of -3.6 percent, which corresponds to the result of the sample calculation before the introduction of company E in Chapter 6.2.1.

Table 25: Sample calculation – CWFs and emission performance of portfolio companies and CPEP with adjustment for inconsistencies (scenario 2).

	CWF	Emission performance
Company A	15.2 %	-20.0 %
Company B	15.2 %	-25.0 %
Company C	56.7 %	0.0 %
Company D	12.9 %	+25.0 %
Company E[73]	-	-
Portfolio (CPEP)	100.0 %	-3.6 %

Scenario 3: hybrid approach – definition of a fluctuation range and desk research to collect the required data

As in scenario 2, scenario 3 corresponds to the case where no information on possible inconsistencies in the emission data is available. Consequently, a GHG fluctuation range is introduced. However, instead of categorically excluding portfolio positions exceeding the limits, desk research is carried out to identify the drivers behind the high volatility in emissions. To further reduce the workload, users can focus their desk research on companies having a high Combined Weighting Factor.

[73] Excluded from the calculation due to breach of the lower limit.

6.2.4 Tracking progress

When tracking progress, the annual, period-specific I-PEPs results are compared with a defined decarbonisation trajectory. The period under review is the period between the base year and the reporting year of the financial company.

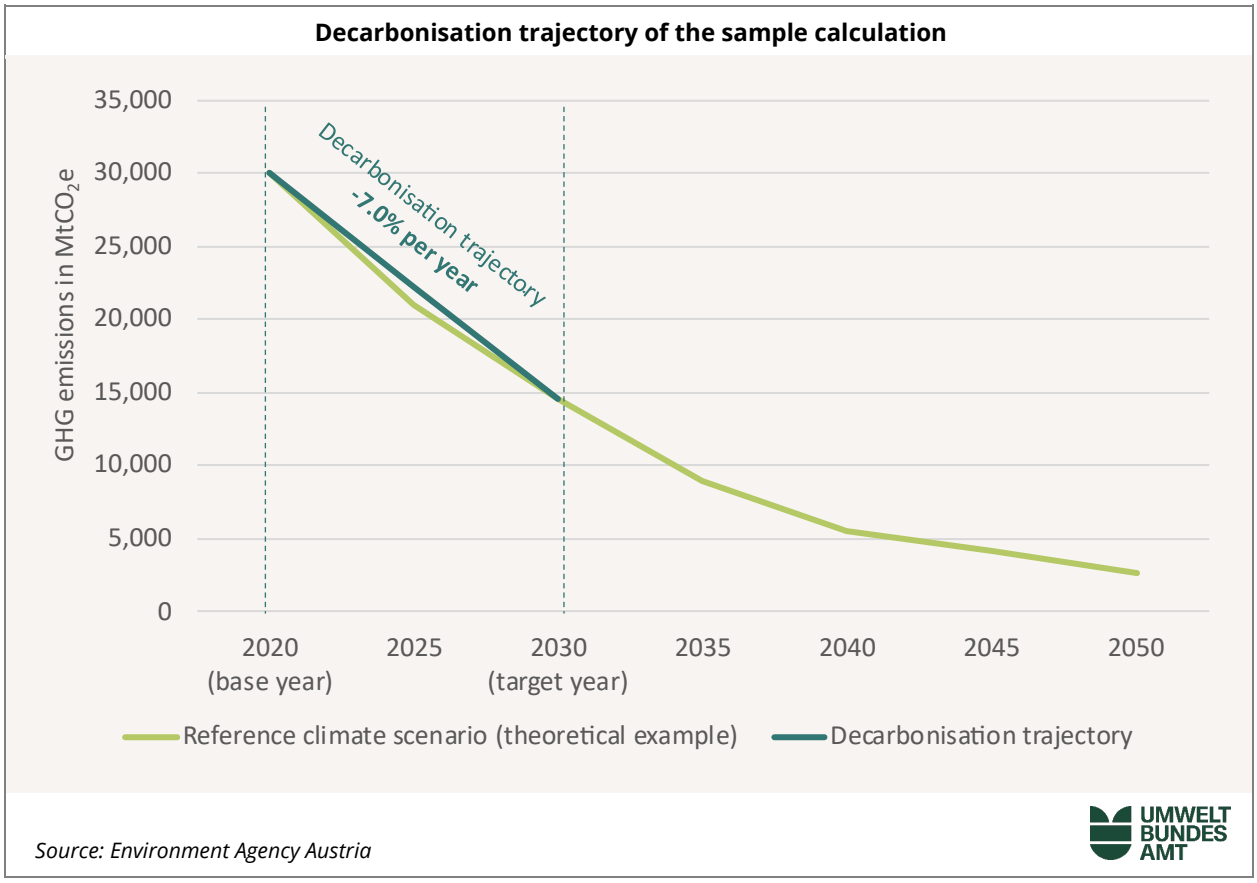
For this sample calculation, examples of annual CPEP results are considered. As described in Chapter 3.1.1, the development of absolute emissions is used as the basis for calculating CPEP. As described in Chapter 4.3, the rate of reduction approach is used to determine the decarbonisation trajectory for I-PEPs based on absolute emissions. A theoretical example of a reference climate scenario that covers the period up to 2050 (net-zero) is used to derive the decarbonisation trajectory. The decarbonisation trajectory covers part of this period, namely the period between the base year and the target year, and is derived from the emission values of the reference climate scenario for the two years.

To measure progress, the base year, the target year and the reference climate scenario must be defined. The following data is assumed for this sample calculation:

- Base year: 2020
- Target year: 2030
- Reporting year: 2025
- Reference climate scenario (theoretical example): emission path based on a net-zero emissions by 2050 scenario
- CPEP results: exemplary values for the period from 2020 to 2025 (see Table 26)

The following figure shows the underlying information for the sample calculation, as well as the decarbonisation trajectory.

Figure 10: Illustration of the emission path from the reference climate scenario (theoretical example) and the derived decarbonisation trajectory.



Source: Environment Agency Austria

The values of the climate scenario in the base year and the target year yield an annual reduction target of -7.0 percent. This annual reduction target specifies the decarbonisation trajectory and thus corresponds to the targeted arithmetic average of the I-PEPs results over the target period.

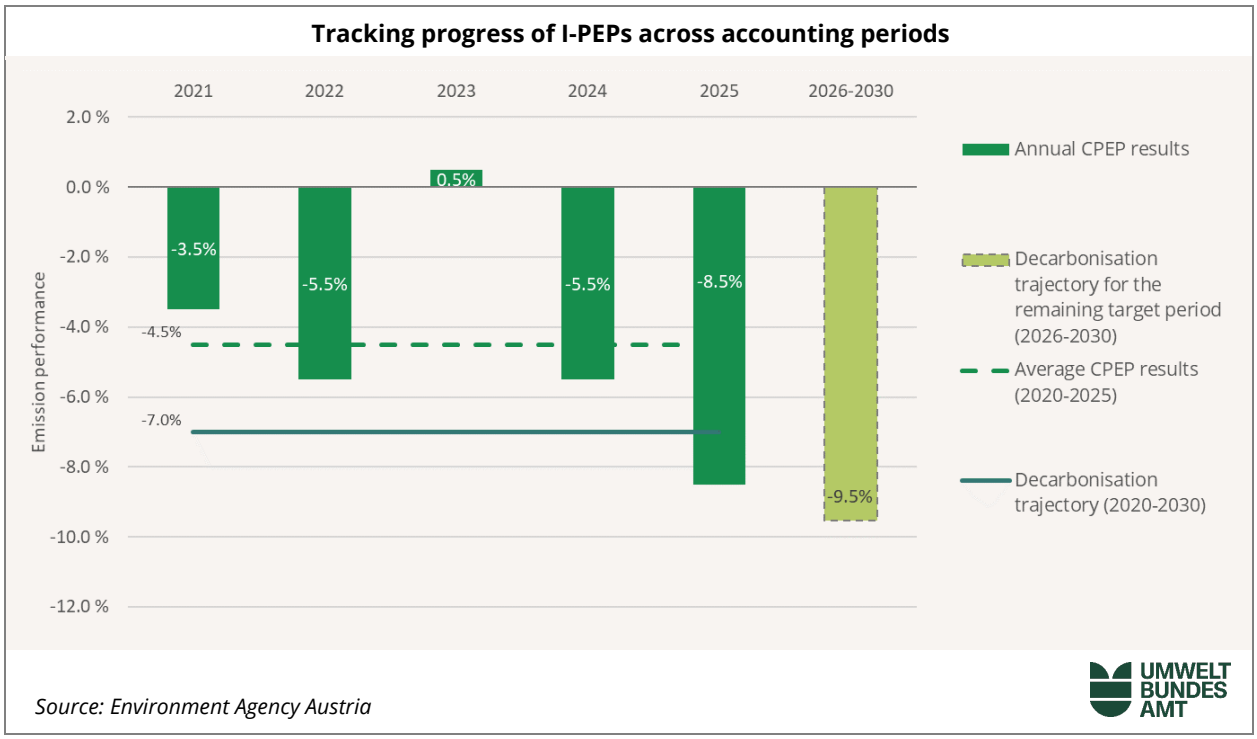
The following values are assumed for the annual, period-specific CPEP results:

Table 26: Annual, period-specific CPEP results of the sample calculation.

	2021	2022	2023	2024	2025
CPEP results	-3.5 %	-5.5 %	+0.5 %	-5.5 %	-8.5 %

Over the period from the base year to the reporting year, the arithmetic average value for CPEP is **-4.5 percent**. The target value of -7.0 percent will therefore not be achieved over this period. In order to successfully achieve the target, the original target value of -7.0 percent must be exceeded over the remaining target period (i.e. the period from the reporting year to the target year). This means that the financial company needs an average I-PEPs result of **-9.5 percent** in the period from 2025 to 2030 to achieve the initial target value of -7.0 percent over the entire target period (2020–2030).

Figure 11: Comparison of achieved CPEP results and the decarbonisation trajectory.



This sample calculation illustrates how users can employ I-PEPs to measure progress towards science-based targets. It also shows how necessary emission reduction measures must be adjusted depending on the progress achieved in order to attain the desired targets.

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LIST OF ABBREVIATIONS

$APEP_{abs}$	Aggregated Portfolio-related absolute Emission Performance
$APEP_{int}$	Aggregated Portfolio-related Emission Intensity Performance
BA	Balanced Approach
BMLUK	Bundesministerium für Land- und Forstwirtschaft, Klima- und Umweltschutz, Regionen und Wasserwirtschaft (Federal Ministry of Agriculture and Forestry, Climate and Environmental Protection, Regions and Water Management)
CNC	Climate Navigation Cockpit
CO_2e	Carbon dioxide equivalents
CPEP	Corporate Investment Portfolio-related Emission Performance
$CPEP_{sector}$	Corporate Investment Portfolio-related Emission Intensity Performance (sector)
CREPEP	Commercial Real Estate Portfolio-related Emission Intensity Performance
CWF	Combined Weighting Factor
EA	Emissions-based Approach
EPEP	Electricity Production Portfolio-related Emission Intensity Performance
ETF	Exchange-Traded Fund
EVIC	Enterprise Value Including Cash
FINZ	Financial Institutions Net-Zero Standard
GFA	Green Finance Alliance
GHG	Greenhouse Gases
GHG Protocol	Greenhouse Gas Protocol
GWF_E	General Emissions Weighting Factor
GWF_P	General Portfolio Weighting Factor
I-PEPs	Indicators for Portfolio-related Emission Performance
LIA	Linear Intercept Approach

LPEP	Lending Portfolio-related Emission Performance
$LPEP_{sector}$	Lending Portfolio-related Emission Intensity Performance (sector)
MPEP	Mortgage Portfolio-related Emission Intensity Performance
NZAOA	Net-Zero Asset Owner Alliance
UPEP	Corporate Underwriting Portfolio-related Emission Performance
$UPEP_{sector}$	Corporate Underwriting Portfolio-related Emission Intensity Performance (sector)
PA	Portfolio-centric Approach
PCAF	Partnership for Carbon Accounting Financials
SBTi	Science Based Targets initiative
SPEP	Sovereign Bond Portfolio-related Emission Performance

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