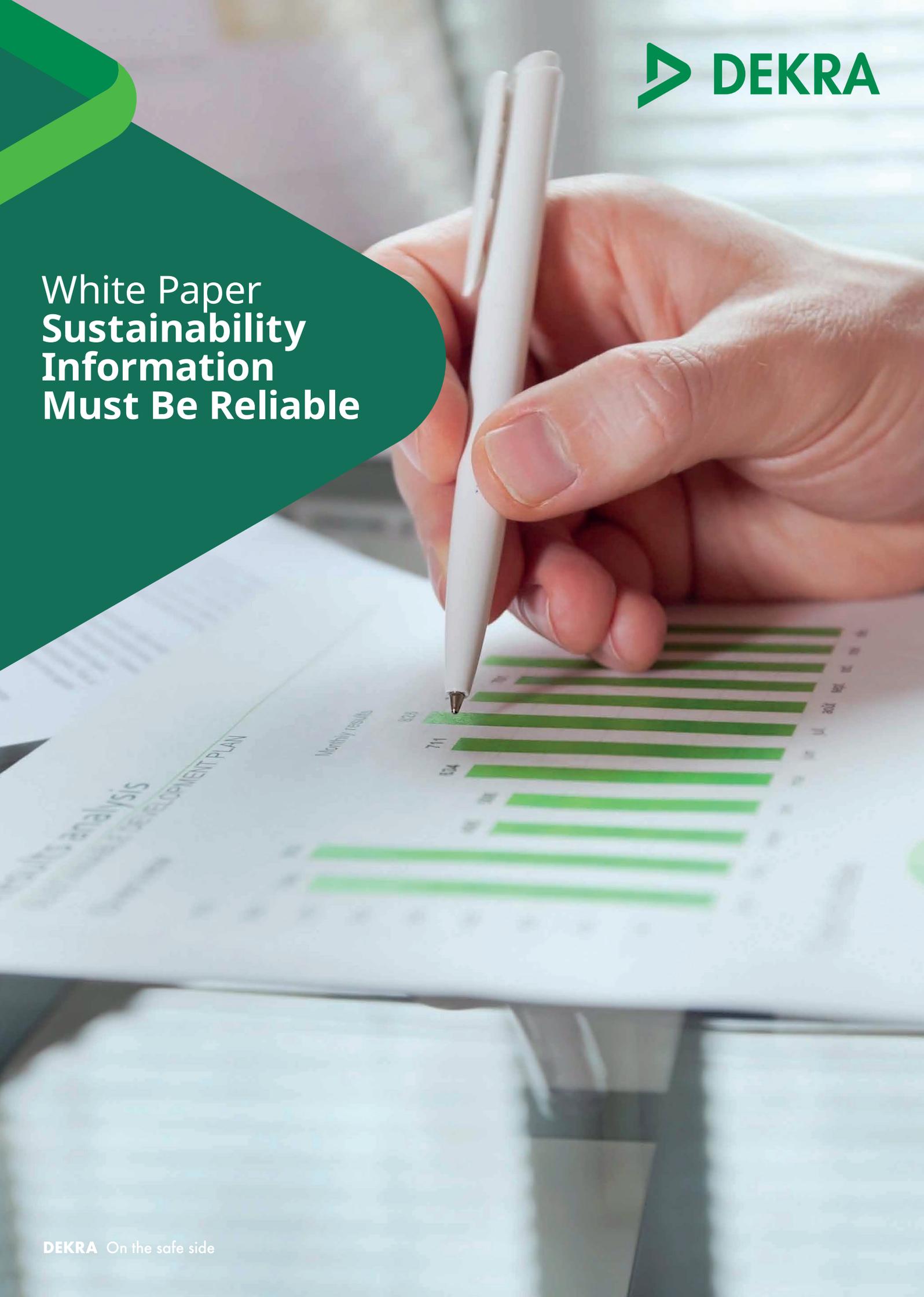


White Paper Sustainability Information Must Be Reliable



Identifying and avoiding any risk of misrepresentation in sustainability information represent challenges for reliable evaluation. Individual company statements basically have different time horizons, giving rise to different degrees of certainty.

The assessment of greenhouse gas emissions as specified in ISO 14065 has highlighted the fundamental need to verify and validate environmental information and statements on sustainability (in reports, advertisements, comparisons, etc.) in accordance with uniformed criteria. Based on defined principles and its application to a wide range of forward-looking statements, ISO/IEC 17029 provides a standardized framework for the validation and verification of sustainability-related claims, ensuring credibility and consistency in reported information.

Table of contents

- 1** Sustainability Reporting Obligations
- 2** Greenwashing Risks
- 3** Auditing of Sustainability Information
- 4** Standards for Reliable Statements on Sustainability
 - 4.1** The DIN EN ISO 14065 Standard for Validation and Verification Bodies
 - 4.2** ISO/IEC 17029: Verifications and Validations of Sustainability Statements
- 5** Conclusion

Sustainability Reporting Obligations

Reliable information is a basic prerequisite for making sensible investments. Verifiable statements, including in non-financial areas such as sustainability, are becoming more crucial. They allow investors, end customers and industrial clients (B2B, B2C) to support sustainable products and business models, and can be used as the basis for successfully accessing critical funding. Due to growing sustainability demands, the number of companies adhering to reporting requirements will grow steadily in the coming years.

Increasingly, companies will have to provide information on how their business operations affect employees, the community and the environment as well as information as to how sustainability aspects impact their own economic activities. In terms of reporting, the main priorities are to identify statements that are misleadingly portrayed as sustainable and to avoid the risk of greenwashing.

Despite the growing demand for sustainability information, most companies are still not obliged to report on their sustainability activities. Nevertheless, increasingly more actors and larger system manufacturers within the supply chains will demand such information in the future in order to comply with their own reporting obligations.

Sustainability reporting not only meets the information needs of stakeholders, but also increases the resilience of the reporting companies. Reporting on their sustainability activities allows them to identify and manage future (critical) risks and opportunities.

What do companies need to bear in mind?



The new EU Corporate Sustainability Reporting Directive (CSRD) came into force on 5. January 2023. As of 2024, the Corporate Sustainability Reporting Directive (CSRD) has come into effect, with reporting obligations expanding progressively. While some EU member states have transposed the directive into national law, others are still in the process of implementation. Companies already subject to the Non-Financial Reporting Directive (NFRD) are the first to comply, with additional entities phased in over the coming years. Reporting obligations are gradually being extended from public-interest entities with more than 500 employees and larger companies under accounting law, to listed small and medium-sized enterprises (SMEs). As of 2024, member states have implemented the new CSRD rules, with reporting obligations expanding progressively.



The growing number of investment products aligned with sustainability goals shows that good sustainability reporting is already providing better access to financial capital. Companies of all sectors and sizes are increasingly required to disclose reliable and comparable information on the sustainability of their economic activities.



It is estimated that the number of reporting companies in the EU is set to increase from around 11,000 to 50,000. Although micro-enterprises are exempt from sustainability reporting obligations, mandatory reporting standards impact most supply chains and all supplier levels (up to Tier 3).



Companies required to comply with CSRD from January 1, 2024, are now publishing their first sustainability reports in 2025, covering data from the 2024 financial year. This marks a significant step toward greater corporate sustainability transparency in the EU.

Greenwashing Risks

The list of environmental and climate goals relevant to companies is now so long that it is almost impossible to keep track of. The United Nations (UN) 2030 Agenda includes 169 goals. The EU's Fitfor-55 Green Deal programme contains 11 action packages aimed at achieving climate neutrality by 2050. The taxonomy, as a concrete specification of the EU's Sustainable Finance Action Plan, identifies around 90 sustainable economic activities for the forestry, energy, industry, building, transport and communications sectors. Companies seeking to undertake sustainability reporting face three hurdles at once:

- ▶ Many goals for climate protection and the preservation of social standards are not (or not yet) anchored in binding laws. The large number of ESG-related frameworks and guidelines make it difficult to compare and verify the data.
- ▶ So far, most climate change programs have relied on quantitative determination, monitoring, reporting and verification of greenhouse gas emissions and/or their elimination. However, some plants contain thousands of data points requiring accurate collection and conversion thus representing potential sources of error and imprecision.
- ▶ Operationalization of carbon emission reduction (Scope 1, 2, 3) is already well developed whereas the other environmental and social goals and requirements for corporate governance need to be set out in an implementable and comparable way.

The complexity of the sustainability goals makes it difficult to set robust evaluation criteria. The risk of greenwashing increases if statements from companies can neither be validated nor verified.



The European Union has introduced both the EU Taxonomy and the Corporate Sustainability Reporting Directive (CSRD) in order to improve the way in which sustainability information is communicated in the corporate world, and to increase the credibility of statements. Using progress reports and scientific findings to describe in detail the main economic activities which contribute to achieving the EU's environmental goals in sectors with high levels of resource consumption, the taxonomy also aims to promote sustainable investment in the capital market (institutional investors, financial institutions, asset managers and large companies listed on the stock exchange).

EU Taxonomy

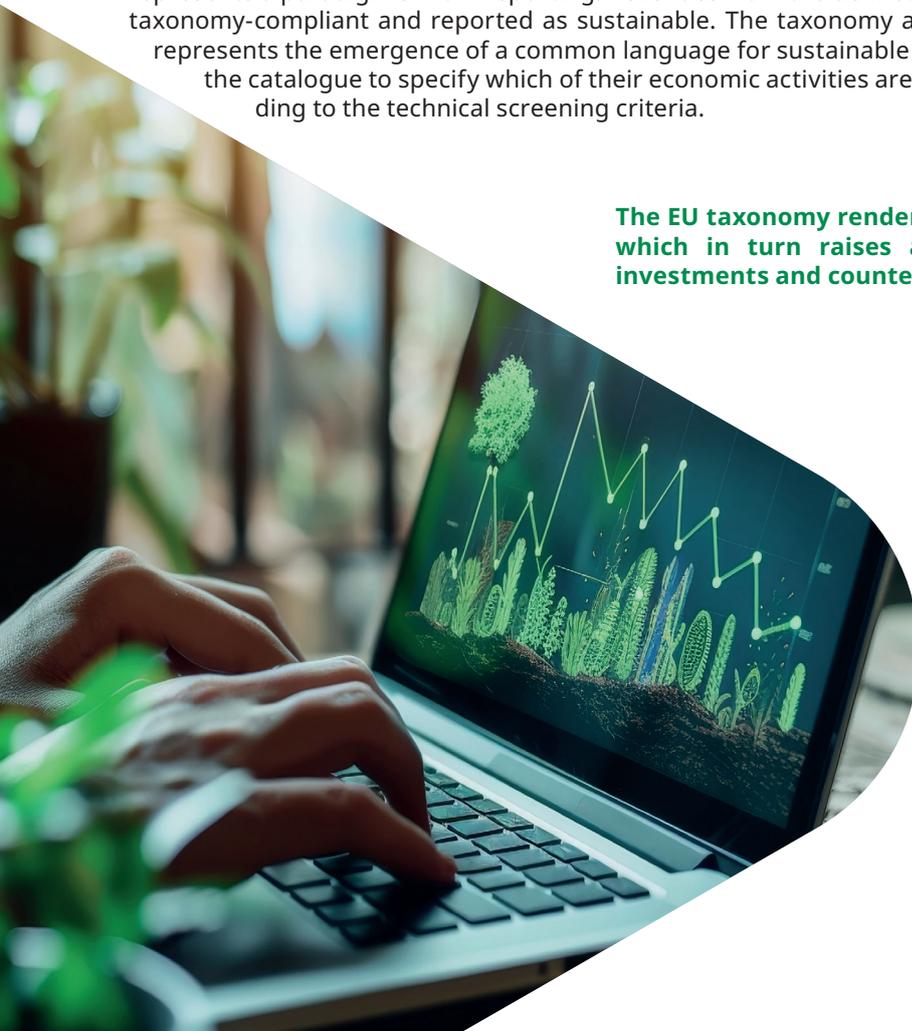
The taxonomy categorizes green economic activities for all major sectors based on “technical screening criteria”. These uniformed criteria are verifiable and intended to help meet the following environmental goals:

- I. Climate change mitigation**
- II. Climate change adaptation**
- III. Sustainable use and protection of water and marine resources**
- IV. Transition to a circular economy**
- V. Pollution prevention and control**
- VI. Protection and restoration of biodiversity and ecosystems**

The EU Taxonomy was introduced on January 1, 2022, initially covering climate change mitigation and adaptation. The remaining four objectives—sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control, and protection and restoration of biodiversity and ecosystems—came into effect on January 1, 2024.

Because it is based on the implementation and quantifiability of the individual sustainability measures, the taxonomy represents a paradigm shift in reporting. Revenues from the defined activities can be deemed taxonomy-compliant and reported as sustainable. The taxonomy and its catalogue of defined economic activities represents the emergence of a common language for sustainable transformation. Companies can use the catalogue to specify which of their economic activities are classified as environmentally sustainable according to the technical screening criteria.

The EU taxonomy renders sustainability reporting more comparable, which in turn raises awareness of environmentally sustainable investments and counteracts greenwashing.



Auditing of Sustainability Information

Despite all the new programs and initiatives, there is often a gap between sustainability reporting requirements and information provided by the companies themselves. In order to rectify this asymmetry, it will be necessary to externally audit sustainability reporting in the future, just like financial reporting. Under CSRD, companies subject to mandatory sustainability reporting have been required to obtain limited assurance on their reports since 2024. Over time, this requirement will expand to reasonable assurance, aligning sustainability disclosures with financial reporting standards.

Different time frames must be harmonized if complex sustainability goals are to be reconciled with the need to provide accurate information.

Forecasts and the usefulness of long-term measures must be validated or subjected to plausibility checks. Retrospective verification can be used, on the other hand, to determine whether the disclosed results were actually obtained on the basis of the calculations and the criteria used.

Users of environmental information are indeed appreciative of forward-looking statements. However, the further away the time horizon, the greater the fuzziness and risk of false statements. This ambiguity directly impacts levels of reporting assurance. The CSRD therefore distinguishes between limited assurance and reasonable assurance.

As of 2024, companies subject to the CSRD are required to obtain limited assurance for their sustainability reports. In the medium term, the depth of testing is to be increased and, as with financial reporting, reasonable assurance will be required.

Limited assurance:

Limited assurance is based exclusively on controls and appropriate evidence for determining whether the facts as reported are plausible. The focus is on interrelationships in the reporting company that may carry an increased risk of misrepresentation. For example, it may emerge that no systematic process for reporting has been established, or that no verifiable indicators or overall risk assessment have been provided.

The limited assurance approach has a reduced depth of testing and no audit of internal controls, meaning that auditors formulate their final finding in a negative statement: "... that no matters have come to our attention that lead us to believe that the facts have been materially misrepresented."

Reasonable assurance:

Reasonable assurance involves a greater depth of focus than limited assurance. Auditors collect sufficient evidence – based on a larger sample size, their own surveys and site visits – which enables them to make a positive statement issued with the corresponding assurance. Accordingly, the target of the audit is consistent in all material respects with the relevant (pre-determined) criteria

Characteristics of limited assurance:

- ▶ Fewer control tests. Focus is on greenhouse gas inventory and underlying data. Limited range of audit procedures.
- ▶ Audit based exclusively on documents. Although appropriate evidence is collected, the scope is limited for reasons of cost and time efficiency. No site visits, e.g., to check emission sources and data.
- ▶ Lower audit costs than for reasonable assurance audit.
- ▶ Qualifying concluding statement by the auditors (negative statement).

Characteristics of reasonable assurance:

- ▶ Gathering of evidence based on a systematic audit of the risk assessment and the measures derived from it.
- ▶ More comprehensive testing, including audit of data as well as assessment of underlying assumptions, indicators and methods. Site visits and auditing of internal controls, including for the reporting process.
- ▶ Higher costs due to travel expenses and extended scope of audit.
- ▶ Final audit statement issued as a positive statement asserting that all claims comply with the set criteria. Reasonable assurance is deemed to offer greater reliability than limited assurance.

Levels of assurance for sustainability information

	Limited assurance	Reasonable assurance
Depth of controls	Small sample size	Systematic audit of the risk assessment
Degree of certainty	Audit based exclusively on documents.	More exacting criteria for evidence, site visits, own analyses
Audit costs	Lower consumption of internal resources	Higher costs due to greater scope of audit, testing, higher travel costs and internal resources
Degree of certainty	Accepted credibility	Greater credibility for increased confidence

There is a great need for accurate environmental information, however the concepts of limited and reasonable assurance demonstrate how forward-looking statements can have varying degrees of certainty. In its Corporate Sustainability Reporting Directive (CSRD).

Under the CSRD, companies have been required to obtain limited assurance on sustainability reports since 2024. The EU aims to progressively increase the level of assurance to reasonable assurance by 2028.

Above all, companies with a larger carbon footprint should increasingly be given the tools to disclose reliable future-related information in their sustainability reports.

Standards for Reliable Statements on Sustainability

ESG reporting and sustainability assurance are evolving, with increasing regulatory clarity. Under CSRD, companies have been required to obtain limited assurance on their sustainability reports since 2024, with a transition to reasonable assurance expected by 2028.

The European Sustainability Reporting Standards (ESRS), adopted in July 2023, provide the framework for sustainability disclosures. While ESRS defines reporting criteria, assurance engagements are typically conducted in line with existing standards such as ISAE 3000 and ISO 14064.

To ensure high-quality and independent verification, companies can leverage third-party auditors and assurance providers ESG reporting and sustainability assurance are evolving, with increasing regulatory clarity. Under CSRD, companies have been required to obtain limited assurance on their sustainability reports since 2024, with a transition to reasonable assurance expected by 2028.

The European Sustainability Reporting Standards (ESRS), adopted in July 2023, provide the framework for sustainability disclosures. While ESRS defines reporting criteria, assurance engagements are typically conducted in line with existing standards such as ISAE 3000, which is widely used for the assurance of non-financial information, including sustainability reports.

To ensure high-quality and independent verification, companies are expected to follow future assurance requirements under ESRS while leveraging established standards such as ISAE 3000. This will allow companies to align their sustainability reporting with best practices in financial and non-financial auditing in sustainability assurance, aligning their practices with CSRD and international best practices.



This leads to another key question: What quality frameworks can be used to ensure that published data and statements have a high degree of reliability (avoidance of greenwashing)?

The ISO 14064 series of standards – including ISO 14064-1, ISO 14064-2, and ISO 14064-3 provides internationally recognized methodologies for quantifying, monitoring, reporting, verifying, and validating greenhouse gas emissions.

ISO 14064-1: In line with the Greenhouse Gas Protocol, this standard defines the framework for quantifying, monitoring, and reporting greenhouse gas emissions to ensure accuracy and avoid double counting. It helps companies develop their GHG inventories, measure their carbon footprint, and communicate emissions data in a structured manner.

ISO 14064-2: This standard provides a framework for organizations to quantify, monitor, and report greenhouse gas reductions and removals from projects aimed at mitigating climate impact.

ISO 14064-3: This standard establishes requirements for the verification of greenhouse gas statements and the validation of GHG reduction claims. It ensures that emissions reporting meets defined criteria through independent third-party verification.

As international programs and regional initiatives for climate and environmental protection become more extensive, reporting principles that can be applied both across different sectors and within individual companies become increasingly important.

The DIN EN ISO 14065 Standard for Validation and Verification Bodies

Derived from the commitment to counteract climate change by reducing greenhouse gas emissions, the DIN EN ISO 14065 standard sets relevant requirements for European emissions trading and greenhouse gas-related validation or verification. However, the scope of the new DIN EN ISO 14065:2022 for validation and verification bodies on the auditing of greenhouse gas emissions has since been extended to include all types of environmental information such as water footprints, thus ensuring consistent and comparable reporting across different sectors.

The general requirements of DIN EN ISO 14065 include legal and contractual agreements, responsibilities, and impartiality as well as questions of liability and financing. Specific requirements include organizational structures, resource requirements, qualifications, the management of information and records, and the validation and verification processes including appeals and corrections.

The standard provides sustainability managers and those responsible for climate protection programs a basis for assessing and recognizing the qualifications of validation and verification bodies providing services in the following areas:

- ▶ EU emissions trading (EU-ETS)
- ▶ Maritime transport emissions
- ▶ International air transport (CORSIA)
- ▶ Greenhouse gas inventories/reports at organizational or project level according to DIN EN ISO 14064-1 or DIN EN ISO 14064-2

ISO/IEC 17029: General Framework for Verification and Validation (Including Sustainability Statements)

As companies navigate complex regional and international climate and environmental initiatives, the need for reliable and standardized verification processes is increasing. ISO/IEC 17029 provides a general framework for the independent verification and validation of various types of information, including sustainability statements.

Sustainability information must cover short-, medium-, and long-term business actions, considering product specifications, supply chain relationships, and business impacts. However, ensuring the accuracy of these disclosures presents challenges, leading some companies to limit the scope of future-related sustainability statements. Nevertheless, long-term sustainability commitments remain valuable for stakeholders and investors.

While ISO/IEC 17029 is not exclusively for sustainability reporting, it serves as the foundation for verification and validation processes across multiple domains, including sustainability-related disclosures.

Individual details and statements depend on the time horizon and respective starting point or data basis. This means that the assertions are made with varying degrees of certainty. As a consequence, it is important to distinguish between the different methods of assessment.

The verification and validation of greenhouse gas emissions according to ISO 14065 has emphasized the fundamental importance of verifying and validating environmental information and sustainability statements (in reports, product advertising, comparisons, etc.) based on uniformed criteria.

ISO/IEC 17029 contains general requirements and is neutral with regard to specific validation or verification programs. Accreditation for greenhouse gas auditing bodies (verification and/or validation) is only possible in combination with the new ISO 14065 and a validation or verification programme. The requirements of ISO/IEC 17029 have already been adopted for the new version of ISO 14065:2022-02.

ISO/IEC 17029 is principles-based, allowing it to be used for a wide range of forward-looking statements regarding sustainability.

ISO/IEC 17029 sets cross-sectoral requirements for validation/verification bodies to confirm that claims are either plausible in terms of intended future use (validation) or correctly disclosed on the basis of real data already obtained (verification). What is essential here is the point in time to which the evaluated assertion refers.

Validation refers to claims about the use of a product or a predicted outcome (confirmation of plausibility). By contrast, verification is used for claims that are based on real events or on real results/data (confirmation of veracity).

Example

Validation: If a company claims that the consumption of a product helps to increase biodiversity, this can only be validated, or its plausibility checked using model calculations and simulations based on scientific parameters.

Verification: If a company reports that it has been able to improve biodiversity or biodiversity in the supply chain in the past five years, this statement can be verified (to a limited or reasonable extent) on the basis of concrete results.

The regulations of ISO/IEC 17029 provide a uniform framework for verification that is not the result of other conformity assessments, e.g. from audits, inspections and certification. The fundamental difference to the previous standards is that validations and verifications apply to the individual details provided by organizations about their products or activities, and not to their conformity with a standard. Most of the requirements of the standard are of a general nature, which is why each of them must be underpinned with sector-specific criteria. These may include definitions, principles and rules, or may specify the steps of the respective validation/verification process and the competence profile of the validators/verifiers.

In order to be able to verify a company's sustainability claims, it is first important to:

- ▶ obtain a comprehensive overview of the extent to which the specified requirements have been met,
- ▶ define different degrees of certainty for the claims in the form of a requirements profile (limited or reasonable),
- ▶ carry out an appropriate evaluation. This can be based on data, plans and documentation, as well as on alternative calculations, site visits or surveys.



Conclusion

- ▶ The new EU Corporate Sustainability Reporting Directive (CSRD) came into force on 5. January 2023. Reporting obligations are gradually being extended. Companies which conduct sustainability reporting increase their resilience by being able to identify their own risks and blind spots and manage opportunities in a structured way.
- ▶ Companies rarely disclose future-related information on their sustainability activities. Longer-term sustainability information is of great value to stakeholders. The concepts of limited and reasonable assurance enable the reporting to include forward-looking statements and forecasts which have different levels of certainty, but which are nevertheless reliable.
- ▶ Long-term statements on sustainability must be as accurate and reliable as possible. The ISO/IEC 17029 standard offers a solution for this dilemma, providing certainty that the forecast information is based on clear assumptions and methods.
- ▶ ISO/IEC 17029 contains general requirements and is neutral with regard to specific validation or verification programs. Requirements are based on sectorspecific criteria. These may include definitions, principles and rules, or may specify the steps of the respective validation/verification process





DEKRA Audit Services

DEKRA Audit is your partner for audits and certifications according to recognized international, national and house standards. We are holding over 200 accreditations for the certification of quality management systems, health safety and environment (HSE) and information security management systems (ISMS). Our offer includes independent audits and assessments as well as personnel certifications for various industries. DEKRA Audit operates with around 560 in-house experts and 1,200 external industry-experienced auditors and partners in 18 countries.

www.dekra.com

[Would you like more information?](#)

[Contact Us!](#)