

**Accreditation of GHG Verification Bodies
according to
ISO/IEC 17029:2019 & ISO 14065:2020
Standards**

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The European Green Deal

11.12.2019

Set of proposals for policies aiming at

- **First climate-neutral continent by 2050 → *No net emissions of greenhouse gases by 2050 - Reduction of net greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels***
- **Economic growth decoupled from resource use → *New economic model***
- **No person and no place left behind (*Just & Inclusive Transition*)**

The European Green Deal

- *Provides a roadmap with actions to*
 - *Boost the efficient use of resources by moving to a clean, circular economy*
 - *Stop climate change*
 - *Revert biodiversity loss*
 - *Cut pollution*

- *Covers all sectors of the economy*
 - *Transport*
 - *Energy*
 - *Agriculture*
 - *Buildings*
 - *Industries (steel, cement, ICT, textiles, chemicals, ...)*

The European Green Deal

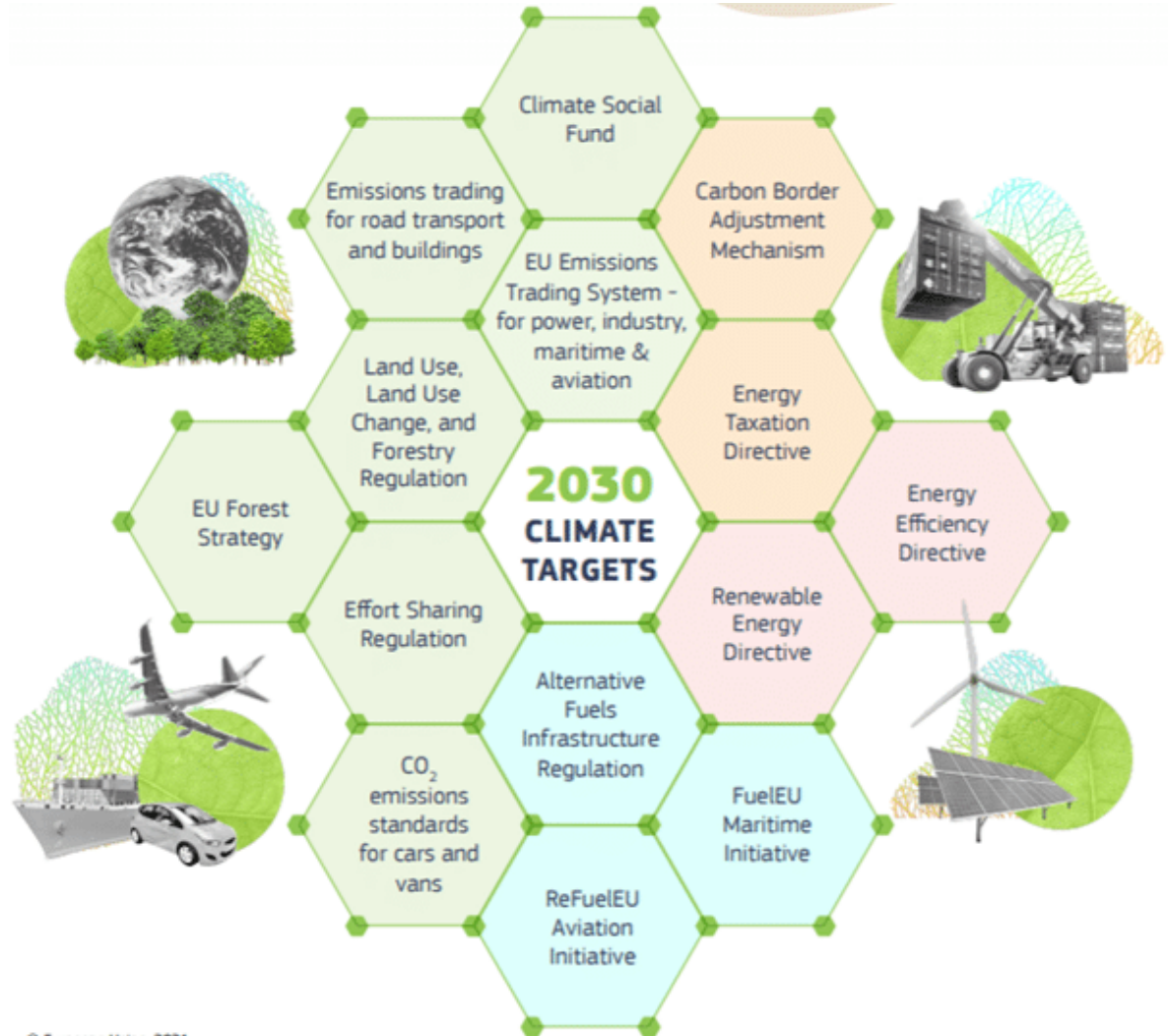
Brussels, 11.12.2019
COM(2019) 640



The Fit for 55 package

14.07.2021

Set of proposals to revise and update EU legislation with the aim to ensure that EU policies are in line with the 2030 climate targets



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The European Climate Law

29.07.2021

- Sets out *a binding objective of climate neutrality in the Union by 2050*

The European Climate Law sets a legally binding target of net zero greenhouse gas emissions by 2050.

The EU Institutions and the Member States are bound to take the necessary measures at EU and national level to meet the target, in a socially fair and cost-efficient manner.

The European Climate Law

29.07.2021

- Sets out *a binding Union target of a net domestic reduction in greenhouse gas emissions for 2030*

Based on a comprehensive impact assessment, the EU has set a new target for 2030 of reducing net greenhouse gas emissions by at least 55% compared to levels in 1990.

The European Climate Law

29.07.2021

- ***Creates a system for monitoring progress and taking further action, if needed***

The European Climate Law includes measures to keep track of progress and adjust actions accordingly, based on existing systems such as the governance process for Member States' national energy and climate plans, regular reports by the European Environment Agency, and the latest scientific evidence on climate change and its impacts.

The European Climate Law

29.07.2021

- Aims to ensure that *all sectors of the economy and society play their part*
- Provides *predictability for investors and other economic actors* (commitment to engage with sectors to prepare sector-specific roadmaps charting the path to climate neutrality in different areas of the economy)
- Aims to ensure that *the transition to climate neutrality is irreversible* (commitment to negative emissions after 2050)

The EU Emissions Trading System (EU ETS)

1997: The Kyoto Protocol to the UN Framework Convention for Climate Change (UNFCCC) is agreed upon by 37 industrialised countries, setting legally-binding GHG reduction targets or caps for the first commitment period (2008-2012).

2003: The EU ETS Directive is adopted, establishing a scheme for greenhouse gas emission allowance trading within the Community, as a policy instrument to meet the Kyoto commitments.

2005: The EU Emissions Trading System is introduced.

The EU Emissions Trading System (EU ETS)

The EU ETS is a “cap and trade” system.

- *The system sets a cap (quantity limit) on the total amount of certain greenhouse gases that can be emitted by installations and aircraft operators.*

The cap is reduced over time in order to enhance reduction of total emissions.

- *The system allows trading of emission allowances so that the total emissions of the installations and aircraft operators stays within the cap and the least-cost measures can be taken up to reduce emissions.*

The EU Emissions Trading System (EU ETS)

- *Within the cap, installations and aircraft operators buy or receive emissions allowances, which they can trade with one another as needed.*
- *Each year, an installation or aircraft operator shall surrender enough allowances to fully cover its emissions. Otherwise, heavy fines are imposed.*

If an installation reduces its emissions, it can keep the spare allowances to cover its future needs or sell them to another operator.

The EU Emissions Trading System (EU ETS)

- *Installations and aircraft operators covered by the EU ETS have to buy an increasing proportion of allowances through auctions.*

Auctioning is the most transparent method for allocating emission allowances, which puts into practice the principle “the polluter shall pay”.

- *Auctioning is the default method for allocating emission allowances. However, in sectors other than power generation, some allowances continue to be allocated for free.*
- *The free allocation is based on benchmarks that reward most efficient installations in each sector.*
- *Installations that meet the benchmarks and are therefore among the most efficient in the EU will, in principle, receive all the allowances they need to cover their emissions.*

The EU Emissions Trading System (EU ETS)

The implementation of the system has been divided up into distinct trading periods over time, known as phases.

The current phase 4 of the EU ETS began in 2021 and will last until 2030.

**Phase 1
(2005-2007)**

**Phase 2
(2008-2012)**

**Phase 3
(2013-2020)**

**Phase 4
(2021-2030)**

The EU Emissions Trading System (EU ETS)

The EU ETS covers the following sectors and gases, focusing on emissions that can be measured, reported and verified with a high level of accuracy:

- carbon dioxide (CO₂) from
 - *electricity and heat generation*
 - *energy-intensive industry sectors, including oil refineries, steel works, and production of iron, aluminium, metals, cement, lime, glass, ceramics, pulp, paper, cardboard, acids and bulk organic chemicals*
 - *commercial aviation within the European Economic Area*
- nitrous oxide (N₂O) from *production of nitric, adipic and glyoxylic acids and glyoxal*
- perfluorocarbons (PFCs) from *production of aluminium*

The EU Emissions Trading System (EU ETS)

Participation in the EU ETS is mandatory for companies in these sectors, but:

- in some sectors, only installations above a certain size are included
- certain small installations can be excluded if governments put in place fiscal or other measures that will cut their emissions by an equivalent amount
- in the aviation sector, until 31 December 2023, the EU ETS will apply only to flights between airports located in the European Economic Area

The European Legislative Framework in the field of GHG Validation & Verification

- *Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC*
- *Commission Implementing Regulation (EU) 2018/2066 of 19 December 2018 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council and amending Commission Regulation (EU) No 601/2012*
- *Commission Implementing Regulation (EU) 2018/2067 of 19 December 2018 on the verification of data and on the accreditation of verifiers pursuant to Directive 2003/87/EC of the European Parliament and of the Council*
- *Commission Delegated Regulation (EU) 2019/331 of 19 December 2018 determining transitional Union-wide rules for harmonised free allocation of emission allowances pursuant to Article 10a of Directive 2003/87/EC of the European Parliament and of the Council*

The European Legislative Framework in the field of GHG Validation & Verification

Monitoring and Reporting Regulation (MRR): Guidance and templates

- ***Guidance document No. 1*** - *The MRR – General guidance for installations*
- ***Guidance document No. 2*** – *The MRR - General guidance for aircraft operators*
- ***Guidance document No. 3*** – *Biomass issues*
- ***Guidance document No. 4*** – *Uncertainty assessment*
- ***Guidance document No. 5*** – *Sampling and analysis*
- ***Guidance document No. 6*** – *Data flow activities and control system*
- ***Guidance document No. 7*** – *Continuous Emissions Monitoring Systems (CEMS)*
- ***Guidance document No. 8*** – *EU ETS inspections*

The European Legislative Framework in the field of GHG Validation & Verification

Accreditation and Verification Regulation (AVR): Guidance and templates

- ***Explanatory Guidance Document (EGD) I - The Accreditation and Verification Regulation***
- ***Explanatory Guidance Document (EGD) III - Verification Guidance for EU ETS Aviation***
- ***Key Guidance Note II.1 on scope of verification***
- ***Key Guidance Note II.2 on risk analysis***
- ***Key Guidance Note II.3 on process analysis***
- ***Key Guidance Note II.4 on sampling***
- ***Key Guidance Note II.5 on site visits concerning installations***
- ***Key Guidance Note II.6 on the verification report***
- ***Key Guidance Note II.7 on competence of verifiers***
- ***Key Guidance Note II.8 on the relation between EN ISO 14065 and AVR***
- ***Key Guidance Note II.9 on the relation between EN ISO/IEC 17011 and AVR***
- ***Key Guidance Note II.10 on information exchange***
- ***Key Guidance Note II.11 on certification***
- ***Key Guidance Note II.12 on time allocation in verification***

The EU Monitoring and Reporting Regulation (MRR)

- Lays down rules for the monitoring and reporting of greenhouse gas emissions and activity data pursuant to Directive 2003/87/EC
- Applies to the monitoring and reporting of greenhouse gas emissions specified in relation to the activities listed in Annex I to Directive 2003/87/EC and activity data from stationary installations, from aviation activities and to the monitoring and reporting of tonne-kilometre data from aviation activities
- Stipulates the principles of completeness, consistency, comparability, transparency, accuracy, integrity of the methodology and of the emissions report, continuous improvement

The EU Monitoring and Reporting Regulation (MRR)

- Each operator or aircraft operator shall ***monitor greenhouse gas emissions on the basis of a monitoring plan approved by the Competent Authority*** in accordance with Article 12, taking into account the nature and functioning of the installation or aviation activity to which it applies.
- The ***monitoring plan*** shall be ***supplemented by written procedures*** which the operator or aircraft operator establishes, documents, implements and maintains for activities under the monitoring plan, as appropriate.
- ***Each operator or aircraft operator shall submit a monitoring plan to the competent authority for approval.***
- The ***monitoring plan*** shall consist of a ***detailed, complete and transparent documentation of the monitoring methodology*** of a specific installation or aircraft operator.

The EU Monitoring and Reporting Regulation (MRR)

- *Each operator* shall determine the category of its installation and, where relevant, of each source stream and of each emission source.
- The *operator* shall classify each installation in a category, considering the average verified annual emissions in the trading period immediately preceding the current trading period:
 - **Category A** – equal to or less than 50.000 tonnes of CO_{2(e)}
 - **Category B** – more than 50.000 tonnes of CO_{2(e)} and equal to or less than 500.000 tonnes of CO_{2(e)}
 - **Category C** – more than 500.000 tonnes of CO_{2(e)}

The EU Monitoring and Reporting Regulation (MRR)

- Each source stream shall be classified by the operator as:
 - **Minor source stream**, where the source streams selected by the operator jointly account for less than 5.000 tonnes of fossil CO₂ per year or less than 10%, up to a total maximum of 100.000 tonnes of fossil CO₂ per year, whichever is greater in terms of absolute value
 - **De minimis source stream**, where the source streams selected by the operator jointly account for less than 1.000 tonnes of fossil CO₂ per year or less than 2%, up to a total maximum of 20.000 tonnes of fossil CO₂ per year, whichever is greater in terms of absolute value
 - **Major source stream**, where the source streams do not fall within any other category
- Each emission source shall be classified by the operator as:
 - **Minor emission source**, where the emission source emits less than 5.000 tonnes of fossil CO_{2(e)} per year or less than 10%, of the installation's total fossil emissions, up to a maximum of 100.000 tonnes of fossil CO_{2(e)} per year, whichever is greater in terms of absolute value
 - **Major emission source**, where the emission source does not classify as a minor emission source

Source stream: a specific fuel type, raw material or product a) giving rise to emissions of relevant greenhouse gases at one or more emission sources as a result of its consumption or production, b) containing carbon and included in the calculation of greenhouse gas emissions using a mass-balance methodology

Emission source: a separately identifiable part of an installation or a process within an installation, from which relevant greenhouse gases are emitted.

The EU Monitoring and Reporting Regulation (MRR)

For the monitoring of the emissions of an installation, *the operator* shall choose to apply

- a calculation-based methodology

- consists in *determining emissions from source streams* on the basis of activity data obtained by means of measurement systems and additional parameters from laboratory analyses or default values
- may be implemented according to the standard methodology or the mass-balance methodology

- a measurement-based methodology

- consists in *determining emissions from emission sources* by means of continuous measurement of the concentration of the relevant greenhouse gas in the flue gas and of the flue-gas flow

subject to specific provisions.

The EU Monitoring and Reporting Regulation (MRR)

- The operator shall determine the activity data of a source stream in one of the following ways:
 - on the basis of continual metering at the process which causes the emissions
 - on the basis of aggregation of metering of quantities delivered separately, taking into account relevant stock changes
- With respect to the measurement systems used for the determination of activity data, the operator must:
 - carry out an uncertainty assessment and ensure that the uncertainty threshold of the relevant tier level is met,
 - ensure at least once a year and after each calibration of a measuring instrument that the calibration results multiplied by a conservative adjustment factor are compared with the relevant uncertainty thresholds.

Activity data: data on the amount of fuels or materials consumed or produced by a process relevant for the calculation-based monitoring methodology

The EU Monitoring and Reporting Regulation (MRR)

- The operator shall determine calculation factors either as default values or values based on analyses, depending on the applicable tier.
- With respect to the determination of calculation factors based on analyses, the operator shall:
 - ensure that any analyses, sampling, calibrations and validations are carried out by applying methods based on corresponding EN, ISO or national standards,
 - submit to the competent authority for approval, for each fuel or material, a sampling plan in the form of a written procedure, which contains information on methodologies for the preparation, storage and transport of samples, including responsibilities, locations, frequencies and quantities,
 - ensure that laboratories used to carry out analyses are accredited in accordance with EN ISO/IEC 17025, for the relevant analytical methods.

Laboratories not accredited in accordance with EN ISO/IEC 17025 may be used for the determination of calculation factors only where the operator can demonstrate to the satisfaction of the competent authority that access to accredited laboratories is technically not feasible or would incur unreasonable costs, and that the non-accredited laboratory meets requirements equivalent to EN ISO/IEC 17025.

The EU Monitoring and Reporting Regulation (MRR)

The operator shall establish, document, implement and maintain

- written procedures for data flow activities for the monitoring and reporting of greenhouse gas emissions
- an effective control system

to ensure that the annual emissions report resulting from data flow activities does not contain misstatements and is in conformance with the monitoring plan, those written procedures and the Regulation.

The control system shall consist of:

- *an operator's assessment of inherent risks and control risks based on a written procedure for carrying out the assessment*
- *written procedures related to control activities that are to mitigate the risks identified, which shall address **quality assurance of the measurement equipment, quality assurance of the information technology system used for data flow activities, including process control computer technology, internal reviews and validation of data, corrections and corrective actions, etc.***

The EU Accreditation and Verification Regulation (AVR)

- Lays down provisions for the verification of reports submitted pursuant to Directive 2003/87/EC and for the accreditation and supervision of verifiers
- Applies to the verification of greenhouse gas emissions and tonne-kilometre data, reported pursuant to Article 14 of Directive 2003/87/EC, and to the verification of data relevant for the update of ex ante benchmarks and for the determination of free allocation to installations pursuant to Article 10a of the Directive

The EU Accreditation and Verification Regulation (AVR)

- The ***verifier*** shall carry out the verification and the activities required by the Regulation with the aim of **providing a verification report** that concludes **with reasonable assurance** that **the operator's or aircraft operator's report is free from material misstatements**.
- The verifier shall **plan and perform the verification** with **an attitude of professional scepticism**, recognising that **circumstances may exist that cause the information in the operator's or aircraft operator's report to contain material misstatements**.
- The verifier must carry out verification **in the public interest**, and **be independent of the operator or aircraft operator** and the **competent authorities** responsible for Directive 2003/87/EC.

Verifier: a legal person carrying out verification activities pursuant to this Regulation and accredited by a national accreditation body pursuant to Regulation (EC) No 765/2008 and this Regulation or a natural person otherwise authorized, without prejudice to Article 5(2) of that Regulation.

The EU Accreditation and Verification Regulation (AVR)

During the verification, the *verifier* shall assess whether:

- the *operator's report* is complete and meets the requirements laid down in Implementing Regulation (EU) 2018/2066,
- the *operator* has acted in compliance with the requirements of the greenhouse gas emissions permit and the monitoring plan approved by the competent authority,
- the data in the operator's report are free from material misstatements,
- information can be provided in support of the operator's data flow activities, control system and associated procedures to improve the performance of their monitoring and reporting.

The EU Accreditation and Verification Regulation (AVR)

Before accepting a verification engagement (**pre-contractual stage**), a **verifier** shall obtain a proper understanding of the operator and assess whether it can undertake the verification by:

- evaluating the risks involved with the **particular verification engagement**,
- undertaking a review of the information supplied by the operator to determine the scope of the verification,
- assessing whether the engagement falls within the scope of its accreditation
- assessing whether it has the competence, personnel and resources required and whether it is capable of successfully completing the verification activities within the timeframe required,
- determining, for each verification engagement requested, the time allocation needed to properly carry out the verification.

The EU Accreditation and Verification Regulation (AVR)

At the beginning of the verification, the *verifier* shall assess the likely nature, scale and complexity of the verification tasks by carrying out a strategic analysis of all activities relevant to the installation in order to confirm that:

- the verification team is sufficiently competent to carry out the verification,
- the time allocation indicated in the contract has been set correctly,
- it is able to conduct the necessary risk analysis.

The EU Accreditation and Verification Regulation (AVR)

The *verifier* shall *identify and analyse associated risks* to design, plan and implement an effective verification, and in particular:

- the *inherent risks*,
- the *control activities*,
- the *control risks*, concerning the effectiveness of the applied control activities.

The operator's risk assessment of relevant inherent and control risks shall be challenged.

The EU Accreditation and Verification Regulation (AVR)

The *verifier* shall draft a verification plan commensurate with the *information obtained* and the *risks identified* during the *strategic analysis* and the *risk analysis*, and including at least:

- a verification programme describing the *nature and scope of the verification activities* as well as the *time and manner in which these activities are to be carried out*,
- a test plan setting out the *scope and methods of testing the control activities* as well as *the procedures for control activities*,
- a data sampling plan setting out the *scope and methods of data sampling* related to data points underlying the aggregated emissions in the operator's report.

The verifier shall set up and implement the verification plan such that the verification risk is reduced to an acceptable level to obtain reasonable assurance that the operator's report is free from material misstatements.

The EU Accreditation and Verification Regulation (AVR)

The **verifier** shall implement the verification plan and, based on the risk analysis, shall:

- check the implementation of the monitoring plan as approved by the competent authority and in particular the monitoring methodology,
- check the data flow activities and the systems used in the data flow, including information technology systems,
- check whether the control activities of the operator are appropriately documented, implemented, maintained and effective to mitigate the inherent risks,
- carry out substantive testing by applying analytical procedures to identify *outliers, fluctuations, data gaps or data that are inconsistent with other relevant information or that differ significantly from expected amounts or ratios*,
- perform data verification by applying detailed testing of the data, including *tracing the data back to the primary data source, cross-checking data with external data sources, performing reconciliations, checking thresholds regarding appropriate data and carrying out recalculations*.

The EU Accreditation and Verification Regulation (AVR)

The *verifier* shall conduct a site visit in order to:

- assess the boundaries of the installation,
- assess the completeness of source streams and emission sources,
- assess the operation of measuring devices and monitoring systems,
- conduct interviews,
- gather sufficient information and evidence.

The site visit may be waived provided that specific conditions apply which are detailed in the Regulation.

The EU Accreditation and Verification Regulation (AVR)

The *verifier* shall prepare and compile internal verification documentation containing at least:

- the results of the verification activities performed,
- the strategic analysis, risk analysis and verification plan,
- sufficient information to support the verification opinion, including *justifications for judgements* made on whether or not *the misstatements identified have material effect on the reported emissions*,
- the identified misstatements and non-conformities and evidence of the applied corrections and corrective actions,
- the verification report.

The EU Accreditation and Verification Regulation (AVR)

- The *verifier* shall submit the internal verification documentation and the verification report to an independent reviewer prior to the issuance of the verification report.
- The *independent reviewer* shall not have carried out any verification activities that are subject to their review.
- The *independent review* shall encompass the complete verification process.
- The *independent reviewer* shall assess whether the evidence gathered is sufficient to enable the verifier to issue a verification report with reasonable assurance.
- The *verifier* shall properly authorise a person to authenticate the verification report.

The EU Accreditation and Verification Regulation (AVR)

The *verifier* shall establish, document, implement and maintain a competence process to ensure that *all personnel entrusted with verification activities are competent for the tasks that are allocated to them*, which includes:

- general competence criteria for all personnel undertaking verification activities,
- specific competence criteria for each function within the verifier undertaking verification activities, in particular for the *EU ETS auditor, EU ETS lead auditor, independent reviewer* and *technical expert*,
- a method to ensure the continued competence and regular evaluation of the performance of all personnel that undertake verification activities,
- a process for ensuring ongoing training of the personnel undertaking verification activities,
- a process for assessing whether the verification engagement falls within the scope of the verifier's accreditation, and whether the verifier has the competence, personnel and resources required to select the verification team and successfully complete the verification activities within the timeframe required.

The EU Accreditation and Verification Regulation (AVR)

A *verifier* shall establish, document, implement and maintain a process to ensure continuous impartiality and independence of the verifier, parts of the same legal entity as the verifier, other organizations related to the verifier, and of all personnel and contracted persons involved in the verification.

That process shall include a mechanism to safeguard the impartiality and independence of the verifier.

*When verifying the same operator as in the previous year, the verifier shall consider the risk to impartiality and *take measures to reduce the risk to impartiality (due to familiarity).**

The EU Accreditation and Verification Regulation (AVR)

- A *verifier* issuing a verification report to an operator shall be accredited for the scope of activities referred to in Annex I.
- The accreditation certificate shall be valid for a period not exceeding five years after the date on which the national accreditation body has issued the certificate.
- The *national accreditation body* shall carry out an annual surveillance of each verifier to which it has issued an accreditation certificate.

The EU Accreditation and Verification Regulation (AVR)

- By 31 December of each year, the ***national accreditation body*** shall make available ***an accreditation work programme to the competent authority*** of each Member State containing ***the list of verifiers*** accredited by that national accreditation body and which have notified it that they intend to carry out verifications in those Member States.
- By 1 June of each year, the ***national accreditation body*** shall make available ***a management report to the competent authority.***
- If the ***national accreditation body*** has imposed ***administrative measures on the verifier,*** it shall inform

 - (a) the competent authority of the Member State where the verifier is accredited
 - (b) the competent authority and the national accreditation body of each Member State where the verifier is carrying out verifications.

The GHG Validation & Verification Accreditation Scheme

- ***ISO/IEC 17029:2019*** *Conformity assessment – General principles and requirements for validation and verification bodies*
- ***ISO 14065:2020 (2013)*** *General principles and requirements for bodies validating and verifying environmental information (revised version applicable by 31 December 2023)*
- ***ISO 14064-3:2019 (2006)*** *Greenhouse gases – Part 3: Specification with guidance for the verification and validation of greenhouse gas statements (revised version applicable by 30 April 2023)*
- ***ISO 14066:2011*** *Greenhouse gases – Competence requirements for greenhouse gas validation teams and verification teams (under revision)*
- ***IAF MD6:2014*** *Application of ISO 14065:2013 (under revision)*
- ***Applicable legislative framework***

Other Requirements Documents

- *EA-6/03 M:2022 Accreditation of Verification Bodies for the purpose of EU ETS Directive*

Requirements for NABs in the field of GHG Validation & Verification

- *IAF MD14:2014 Application of ISO/IEC 17011 in Greenhouse Gas Validation and Verification (ISO 14065:2013) (to be revised)*
- *IAF MD20:2016 Generic Competence for AB Assessors: Application to ISO/IEC 17011*
- *Applicable legislative framework*

Validation and Verification as Conformity Assessment Activities

Confirmation of reliability of information declared in claims*

**information declared by the client*

Object of conformity assessment by validation and verification:

- *claim*
- *statement*
- *declaration*
- *assertion*
- *prediction*
- *report*

Statements of conformity themselves, issued as a result of another conformity assessment activity, are not considered to be objects of validation / verification.

Validation and Verification as Conformity Assessment Activities

Environmental information (ISO 14065:2020):

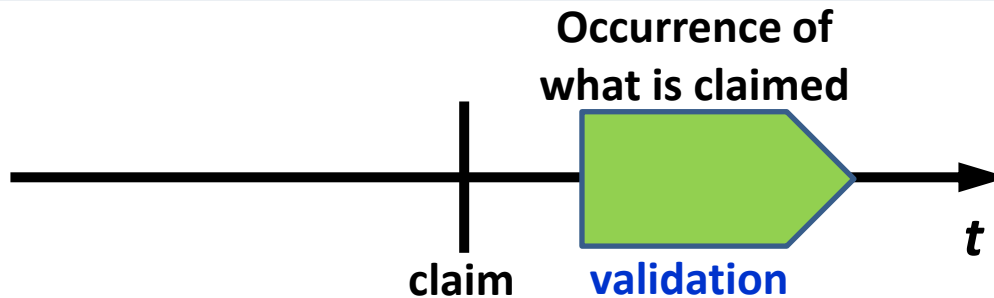
- *greenhouse gas statements*
- *environmental footprints (e.g. carbon and water)*
- *environmental performance*
- *environmental labelling claims, including environmental product declarations*
- *environmental information as part of sustainability reporting*
- *calculations associated with the valuation of environmental resources*
- *environmental information related to “green bonds”, “climate finance” and other financial instruments*

Environmental information: subject matter of a qualitative or quantitative nature that is related to environmental conditions or environmental performance.

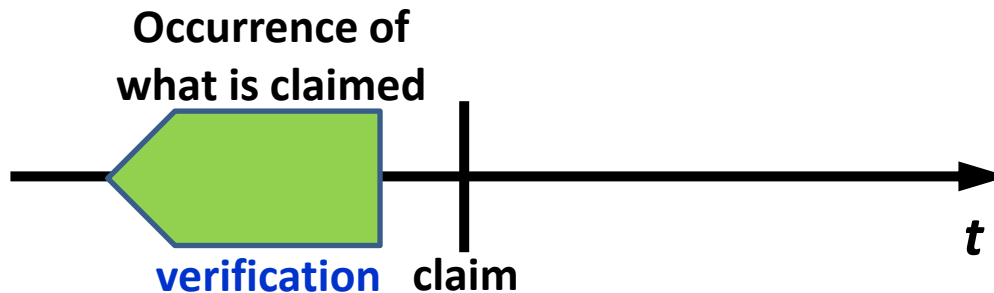
Environmental information statement: declaration of environmental information (by the responsible party).

Validation and Verification as Conformity Assessment Activities

Validation is applied to claims regarding an intended future use or projected outcome (confirmation of plausibility).



Verification is applied to claims regarding events that have already occurred or results that have already been obtained (confirmation of truthfulness).



Validation and Verification as Conformity Assessment Activities

A validation / verification programme specifies definitions, principles, rules, processes and requirements for validation / verification process steps, as well as for the competence of validators / verifiers for a specific sector.

Programmes can be:

- *legal frameworks*
- *international, regional or national standards*
- *global initiatives*
- *sector applications*
- *individual agreements with clients*

Validation and Verification as Conformity Assessment Activities

Scope of validation / verification

Identification of:

- *the claim to be the object of validation or verification, including the boundaries of the claim,*
- *the applicable validation programme / verification programme, and*
- *the standards and other normative documents, including their date of publication, to which the claim is validated / verified.*

Validation and Verification as Conformity Assessment Activities

Level of Assurance

Degree of confidence in the claim

The levels of assurance and the conditions to achieve them can be defined in the programme (e.g. absolute, reasonable, limited).

Material

Significant to end users

Materiality is the concept that misstatements, individually or aggregated, can influence the reliability of the claim or decisions made by the intended user.

Validation and Verification as Conformity Assessment Activities

Validation statement

Declaration by the validation body of the outcome of the validation process

[Validation opinion (ISO 14065:2020)

Formal written declaration to the intended user on the reasonableness of the assumptions, methods and limitations used to develop forecasts and projections contained in the environmental information statement]

Verification statement

Declaration by the verification body of the outcome of the verification process.

[Verification opinion (ISO 14065:2020)

Formal written declaration to the intended user that provides confidence that the environmental information statement is materially correct and conforms with the criteria]

- Validation / verification statements can be referred to using specific programme terminology, such as “decisions”, “opinions” or “reports”.
- The validation / verification statement reflects only the situation at the point in time it is issued.

Accreditation Requirements – Impartiality

ISO/IEC 17029:2019 - ISO 14065:2020

Chapter 5. GENERAL REQUIREMENTS – Clause 5.3 Management of Impartiality

- Validation / verification activities shall be *undertaken impartially*.
- The validation / verification body shall *monitor its activities and its relationships* to *identify threats to its impartiality*. This monitoring shall include the *relationships of its personnel*.
- If a threat to impartiality is identified, *its effect shall be eliminated or minimized* so that the impartiality is not compromised.
- *Review and decision* shall be made by *personnel different from those who carried out the validation / verification execution*.
- When *providing both validation and verification to the same client*, the validation / verification body shall *consider the potential threat to impartiality* (e.g. self-review and familiarity) and shall *manage this risk accordingly*.

Accreditation Requirements – Impartiality

ISO/IEC 17029:2019 - ISO 14065:2020

Chapter 5. GENERAL REQUIREMENTS – Clause 5.3 Management of Impartiality

- The validation / verification body shall **not offer or provide both consultancy and validation / verification for the same claim from the same client.**
- Where the **relationship between a body that provides consultancy and the validation / verification body poses an unacceptable threat to the impartiality of the validation / verification body,** the validation / verification body shall ***not provide validation / verification activities to clients who have received consultancy relating to the same claim.*** This includes potential clients with which the validation / verification body is pre-engaged.

Consultancy: participation in establishing the claim that will be the object of validation / verification

The term “consultancy” is used in relation to ***activities of validation bodies / verification bodies, their personnel and organizations related or linked to the validation bodies / verification bodies.***

Participation in establishing the claim also includes ***involvement in design of the object leading to the claim or providing object specific expertise that supports the preparation of the claim.***

Arranging training and participating as a trainer is not considered as consultancy, provided that, where the course relates to the claim that will be the object of validation / verification, it is confined to the provision of generic information.

Accreditation Requirements – Impartiality

ISO 14065:2020

Chapter 5. GENERAL REQUIREMENTS – Clause 5.3 Management of Impartiality

The body shall ensure, *through a mechanism independent of its operations*, that *impartiality is being achieved*.

Accreditation Requirements – Liability

ISO/IEC 17029:2019 - ISO 14065:2020

Chapter 5. GENERAL REQUIREMENTS – Clause 5.4 Liability

The validation / verification body shall be able to demonstrate that it ***has evaluated the risks arising from its validation / verification activities*** and that it ***has adequate arrangements*** (e.g. insurance or reserves) to ***cover liabilities arising from its activities in each validation / verification programme and *the geographic areas it operates.****

Accreditation Requirements – Organizational Structure

ISO/IEC 17029:2019 - ISO 14065:2020

Chapter 6. STRUCTURAL REQUIREMENTS – Clause 6.1

- The validation / verification body shall be ***organized and managed*** so as to enable it to ***maintain the capability to perform its validation / verification activities.***
- Validation / verification activities shall be ***structured and managed*** so as to ***safeguard impartiality.***
- The validation / verification body shall ***document its organizational structure, duties, responsibilities and authorities of management and other personnel involved in the validation / verification activities and any committees.***

Accreditation Requirements – Operational Control

ISO/IEC 17029:2019 - ISO 14065:2020

Chapter 6. STRUCTURAL REQUIREMENTS – Clause 6.2

- The validation / verification body shall have **a process for the effective control of validation / verification activities delivered by entities under its operational control, branch offices, partnerships, agents, franchisees, etc**, irrespective of their legal status, relationship or geographical location.
- The validation / verification body shall ***consider the risk that these activities pose to the competence, consistency and impartiality*** of the validation / verification body.

Accreditation Requirements – Resources / Personnel

ISO/IEC 17029:2019 - ISO 14065:2020

Chapter 7. RESOURCE REQUIREMENTS – Clauses 7.1 - 7.2

- The validation / verification body shall have *access to personnel, facilities, equipment, systems and support services* that are necessary to perform its validation / verification activities.
- The validation / verification body shall require *all personnel involved in validation / verification activities* to enter into *a legally enforceable agreement* by which the personnel commit themselves to the following:
 - a) to comply with the processes and instructions of the validation / verification body, including those relating to impartiality and confidentiality,
 - b) to *declare any prior and/or present association on their own part, or on the part of another person or organization with which they have a relationship* (e.g. a family member or their employer), *with a client of the validation / verification body,*
 - c) to *reveal any situation known to them that can present them or the validation / verification body with a perceived or actual conflict of interest.*

Accreditation Requirements – Personnel

ISO/IEC 17029:2019 - ISO 14065:2020

Chapter 7. RESOURCE REQUIREMENTS – Clause 7.2

- The validation / verification body shall use *this information as input into identifying threats to impartiality raised by the activities of such personnel, or by the persons or organizations related to them.*
- Within *a period specified by the validation / verification body, personnel who have provided consultancy on the claim to be the object of validation / verification shall not perform validation / verification activities in relation to their previous involvement.* The period shall be *long enough to ensure that the threats to impartiality are minimized or eliminated.*

Accreditation Requirements – Personnel

ISO 14065:2020

Chapter 7. RESOURCE REQUIREMENTS – Clause 7.2

- The *period specified* shall *not be less than two years*.

Accreditation Requirements – Competence

ISO/IEC 17029:2019 - ISO 14065:2020

Chapter 7. RESOURCE REQUIREMENTS – Clause 7.3

The validation / verification body shall have *a process for managing competence of its personnel* involved in the validation / verification activities, which shall require:

a) to determine the *criteria for the competence of personnel for each function in the validation / verification process*, including at least:

- the *ability to apply generic validation / verification concepts* (e.g. evidence gathering, risk, misstatements, level of assurance, materiality),
- *knowledge about the type and typical content of the client's claim*,
- *knowledge of the programme requirements* (e.g. competence required for specific validation / verification process)

b) to *identify training needs* and *provide*, as necessary, *training on validation / verification processes, requirements, methodologies, activities and other relevant validation / verification programme requirements*,

c) to *demonstrate that the personnel have the required competence for the duties and responsibilities they undertake*,

d) to *formally authorize personnel for functions in the validation / verification process*,

e) to *monitor the performance of the personnel*.

Accreditation Requirements – Competence

ISO 14065:2020

Chapter 7. RESOURCE REQUIREMENTS – Clause 7.3

The body shall establish, implement and maintain a process for:

- a) defining required competencies for each programme and sector in which it operates
- b) ensuring that verifiers, validators, technical experts and reviewers have appropriate competencies,
- c) ensuring that there is access to relevant internal or external expertise for advice on specific matters relating to the environmental information programme, validation / verification activities, sectors or areas within the scope of their work.

Accreditation Requirements – Outsourcing

ISO/IEC 17029:2019 - ISO 14065:2020

Chapter 7. RESOURCE REQUIREMENTS – Clause 7.4

- In the *absence of applicable programme prohibitions on outsourcing*, the validation / verification body *may outsource validation / verification activities*.
- The validation / verification body shall:
 - a) *not outsource the engagement activities, the decision on the confirmation of the claim* and *the issue of the statement*,
 - b) *have a legally enforceable agreement*, including confidentiality and management of impartiality requirements, *with each body that provides outsourced activities*,
 - c) have ensured that *the body that provides outsourced activities conforms with the applicable requirements of the standard*, including competence, impartiality and confidentiality and *to any applicable programme requirements*.

Accreditation Requirements – Validation/Verification Programme

ISO/IEC 17029:2019 - ISO 14065:2020

Chapter 8. VALIDATION / VERIFICATION PROGRAMME

The validation / verification body shall ***apply one or more validation / verification programme(s) that are consistent with, and do not exclude the requirements of the standard.***

A validation / verification programme is ***a set of rules, procedures and management for carrying out validation / verification activities in a specific sector*** containing the following elements:

- ***scope of validation / verification,***
- ***specific competence criteria for the validation / verification team and body,***
- ***process for validation / verification,***
- ***evidence gathering activities of validation / verification,***
- ***reporting of validation / verification.***

Accreditation Requirements – Validation / Verification Process

ISO/IEC 17029:2019 - ISO 14065:2020

Chapter 9. PROCESS REQUIREMENTS – Clause 9.1

The validation / verification body shall complete the following *process steps* as *validation / verification activities*:

- *Pre-engagement*
- *Engagement*
- *Planning*
- *Validation / verification execution*
- *Review*
- *Decision and issue of the validation / verification statement*
- *Facts discovered after the issue of the validation / verification statement*
- *Handling of appeals*
- *Handling of complaints*
- *Records*

Accreditation Requirements – Validation / Verification Process

ISO/IEC 17029:2019 - ISO 14065:2020

Chapter 9. PROCESS REQUIREMENTS – Clause 9.2 Pre-engagement

The validation / verification body shall conduct *a pre-engagement review of the information received from the client* to ensure that:

- a) *an applicable programme exists* or *a programme is to be established*
- b) *the claim is understood* (e.g. context, content and complexity)
- c) *the objectives and scope of the validation / verification have been agreed with the client*
- d) *the specified requirements against which the claim will be validated / verified have been identified and are suitable*
- e) where applicable, *the materiality and level of assurance have been agreed*
- f) *the process for validation / verification activities can be achieved* (e.g. evidence gathering activities, evaluation of gathered evidences)
- g) *the validation / verification duration can be estimated*

Accreditation Requirements – Validation / Verification Process

ISO/IEC 17029:2019 - ISO 14065:2020

Chapter 9. PROCESS REQUIREMENTS – Clause 9.3 Engagement

The validation / verification body shall have *an agreement with each client for the provision of validation / verification activities* in accordance with the *relevant requirements of the Standard* and the *requirements specified in the applicable validation / verification programme*:

a) *for second- and third- party validation / verification activities, a legally enforceable agreement* (e.g. a contract),

b) *for first party validation / verification activities, an internal agreement* such as service level agreement, internal contract, statement of work, or other enforceable internal agreement.

Accreditation Requirements – Validation / Verification Process

ISO/IEC 17029:2019 - ISO 14065:2020

Chapter 9. PROCESS REQUIREMENTS – Clause 9.4 Planning

The validation / verification body shall undertake the following **planning activities** taking into account **the requirements specified in the applicable validation / verification programme** before undertaking the validation / verification activities:

- a) **determine the validation / verification activities based on the understanding of the claim**
- b) **assess the risk of a material misstatement regarding the claim**
- c) **determine evidence-gathering activities needed to complete the validation / verification in accordance with the specified requirements**
- d) **prepare an evidence-gathering plan**, taking into account **materiality** and **any measures that the client has in place to control sources of potential errors, omissions and misrepresentations**
- e) **prepare a validation / verification plan considering the evidence gathering plan as an input**

Accreditation Requirements – Validation / Verification Process

ISO 14065:2020

Chapter 9. PROCESS REQUIREMENTS – Clause 9.4 Planning

- The validation / verification team shall:
 - a) perform *a strategic analysis* to understand *the nature and complexity related to the environmental information statement* and to determine *the extent of the validation / verification activities based on the engagement type*
 - b) assess *the risk of nonconformity to the criteria.*
- The *validation / verification plan* shall include *the level of assurance and materiality.*

Accreditation Requirements – Validation / Verification Process

ISO/IEC 17029:2019 - ISO 14065:2020

Chapter 9. PROCESS REQUIREMENTS – Clause 9.5 Validation / Verification Execution

- The validation / verification body shall perform the validation / verification execution activities in accordance with the validation / verification plan.
- The validation / verification plan shall be revised as necessary during the validation / verification execution activities. Any revisions to the validation / verification plan shall be internally documented, including reasons, and communicated to the client.
- The body shall undertake the following activities:
 - a) collection of sufficient objective evidence on original data / information, ensuring its traceability through the data / information management process, any further analysis and calculation
 - b) identification of misstatements and consideration of their materiality
 - c) assessment of conformity with specified requirements, taking into account the validation / verification programme.
- The validation / verification body shall prepare the following:
 - a) a conclusion on the outcome of the activities
 - b) a draft validation / verification statement
 - c) a report, if applicable

Accreditation Requirements – Validation / Verification Process

ISO/IEC 17029:2019 - ISO 14065:2020

Chapter 9. PROCESS REQUIREMENTS – Clause 9.6 Review

- The validation / verification body shall undertake review activities.
- The *review* shall be carried out by persons who have not been involved in the validation / verification execution.
- The *review* shall confirm:
 - a) that *all validation / verification activities* have been completed in accordance with the agreement and the programme
 - b) sufficiency and appropriateness of evidence to support the decision
 - c) whether significant findings have been identified, resolved and documented.
- The *reviewer* shall communicate with the validation / verification team when the need for clarification arises. The validation / verification team shall address concerns raised by the reviewer.
- The *review* shall have available all records of the validation / verification activities.

Accreditation Requirements – Validation / Verification Process

ISO 14065:2020

Chapter 9. PROCESS REQUIREMENTS – Clause 9.6 Review

- The *review* shall be carried out by persons who have not been involved in the planning and are not part of the validation / verification team.
- The *review* shall confirm:
 - a) the *competencies of validation / verification team members*
 - b) whether the validation / verification planning has been designed appropriately, including whether the objective, scope and materiality are addressed by the strategic analysis and risk assessment, the validation / verification plan and the evidence-gathering plan
 - c) significant decisions made by the validation / verification team during the validation / verification
 - d) whether the opinion is appropriately drafted
 - e) whether the environmental information statement is fairly stated and conforms to criteria.
- The *review* may be started at any time during the process before the opinion is issued to allow significant issues identified by the reviewer to be resolved.

Accreditation Requirements – Validation / Verification Process

ISO/IEC 17029:2019 - ISO 14065:2020

Chapter 9. PROCESS REQUIREMENTS – Clause 9.7 Decision and issue of the validation / verification statement

- Upon *completion of the validation / verification review*, the validation / verification body shall make the *decision on whether or not to confirm the claim.*
- The *decision* shall be *made by persons who have not been involved in the validation / verification execution.*
- Based on this decision, *a validation / verification statement is issued or not issued according to the programme requirements.*

Accreditation Requirements – Validation / Verification Process

ISO 14065:2020

Chapter 9. PROCESS REQUIREMENTS – Clause 9.7 Decision and issue of the validation / verification statement

- The person assigned to make the decision may be the reviewer. The decision shall be made by persons who have not been involved in the validation / verification planning.
- If an opinion is issued, the body shall select one type of opinion, such as:
 - a) unmodified
 - b) modified
 - c) adverse

Accreditation Requirements – Validation / Verification Process

ISO/IEC 17029:2019 - ISO 14065:2020

Chapter 9. PROCESS REQUIREMENTS – Clause 9.8

- If *new facts or information that could materially affect the validation / verification statement* are discovered *after the issue date*, the validation / verification body shall:
 - a) *communicate the matter* as soon as practicable *to the client* and, if required, *the programme owner*
 - b) *take appropriate action*, including the following:
 - *discuss the matter with the client*
 - *consider if the validation / verification statement requires revision or withdrawal.*
- If *the validation / verification statement requires revision*, the validation / verification body shall implement *processes to issue a new statement* including *specification of the reasons for the revision*. These can include *repeating relevant steps of the validation / verification process.*
- The validation / verification body may also *communicate to other interested parties* the fact that *reliance of the original statement can now be compromised* given the new facts or information.

Transition to ISO 14064-3:2019

IAF Resolution 2019-18 – Transitional Arrangements for ISO 14064-3:2019

The General Assembly, acting on the recommendation of the Technical Committee, resolved that the transition arrangement for the revision of ISO 14064-3 shall be **four years from 30 April 2019**. *Any Greenhouse Gas Validation and Verification engagements commenced after 30 April 2023 shall be performed to ISO 14064-3:2019.*

Within this transition timeline:

- *ABs shall be ready to carry out ISO 14065 assessments using 14064-3:2019 for conformity assessment schemes that reference ISO 14064-3 **within 18 months from April 2019**.*
- *Where local legislation / regulation requires accredited validation / verification referencing ISO 14064-3:2006 and has not been amended to reference ISO 14064-3:2019, **the use of ISO 14064-3:2006 in accredited validation / verification may be extended**.*

Transition to ISO/IEC 17029:2019 & ISO 14065:2020

IAF Resolution 2019-19 – Transitional Arrangements for ISO 14065:202x

The General Assembly, acting on the recommendation of the Technical Committee, resolved that the transition arrangement for the revision of ISO 14065 shall be three years from the date of publication of ISO 14065:202x.

December 2020

Within this transition timeline:

- *ABs shall be ready to carry out transition assessment against the new version of ISO 14065 within 12 months from the date of publication.*
- *All accreditation against the new version of ISO 14065 shall require accreditation to ISO/IEC 17029.*
- *Where local legislation / regulation requires accredited validation / verification referencing ISO 14065:2013 and has not been amended to reference the new version of ISO 14065, the use of ISO 14065:2013 in accredited validation / verification may be extended.*

IAF MLA Validation & Verification

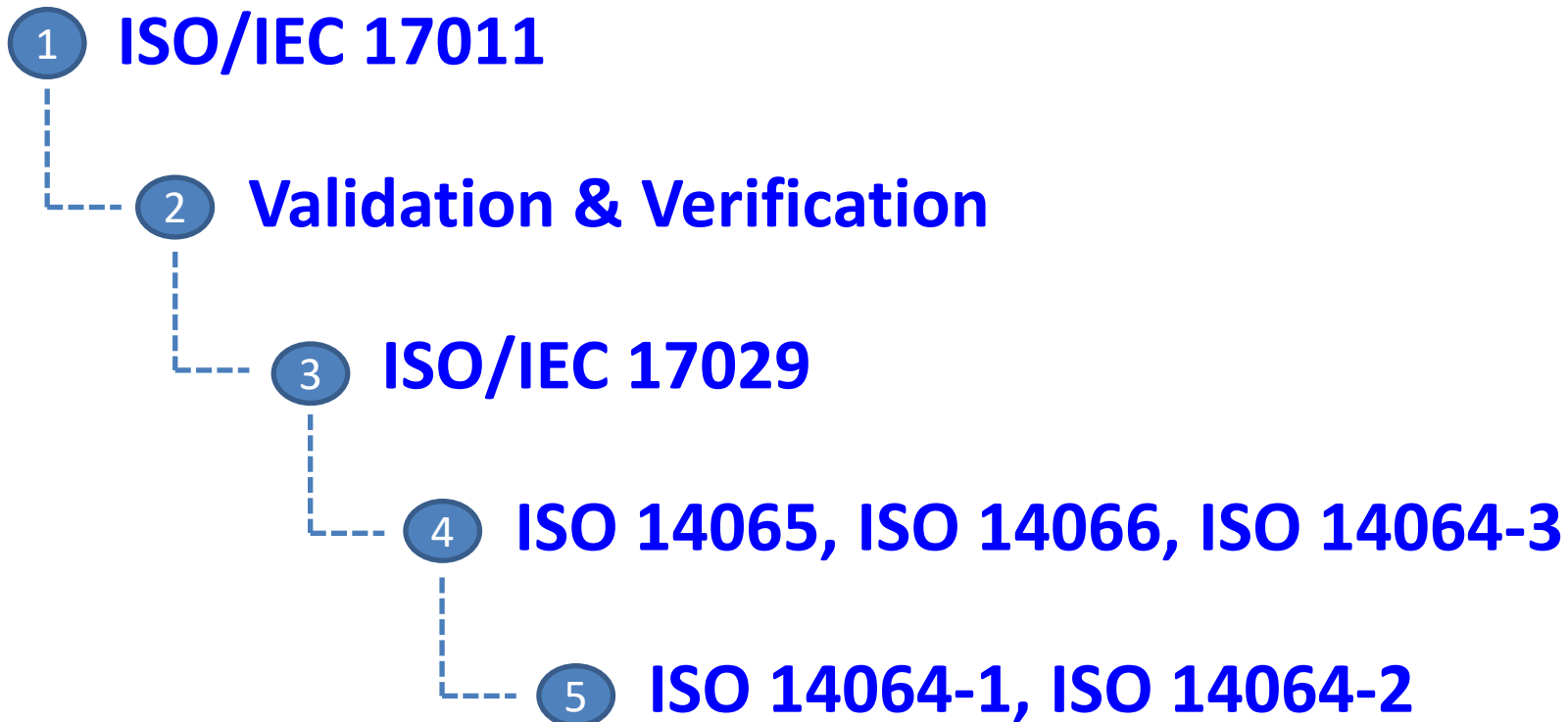
IAF Resolution 2019-25 – IAF MLA Scope Extension to ISO/IEC 17029

The General Assembly, acting on the recommendation of the Executive Committee, endorsed that the extension of the IAF MLA under the IAF Level 2 Validation and Verification to **ISO/IEC 17029 as new IAF MLA Level 3 standard** in accordance to IAF PL3 Policies and Procedures for the Expansion of the Scope of the IAF MLA.

IAF Resolution 2021-21 – IAF Validation & Verification MLA Structure

The General Assembly noted that, on the recommendation of the IAF Executive Committee, IAF Members had endorsed by letter-ballot the **IAF MLA sub-scope expansion to the IAF Validation & Verification MLA under ISO/IEC 17029:2019** to include sub-scopes as included in IAF TC paper “IAF TC-04.1.1.20-1”.

IAF MLA Validation & Verification



IAF MLA Validation & Verification

IAF Resolution 2021-22 – IAF Validation & Verification MLA Structure

The General Assembly noted that, on the recommendation of the IAF Executive Committee, IAF Members had endorsed by letter-ballot the transition to a single IAF Validation & Verification MLA under ISO/IEC 17029:2019 under the following conditions:

- **Assessor competence requirements for the transition to ISO/IEC 17029:2019:**
competent for ISO 14065:2013, IAF MD 14, IAF MD6 + training on ISO/IEC 17029:2019 by competent persons.
- **An on-site or remote assessment against the full ISO/IEC 17029:2019 be done on Validation and Verification Bodies before granting accreditation against ISO/IEC 17029:2019.**
- *For ABs currently an MLA signatory to the main scope ISO 14065:2013: After the AB successfully transitions its IAF MLA signatory status to include ISO/IEC 17029:2019, the AB will be a signatory to both the main scope ISO/IEC 17029 and the level 4 sub-scope ISO 14065.*
- **The IAF MLA for the main scope ISO 14065:2013 will cease existing at the end of the transition deadline to ISO 14065:2020 as stipulated in IAF Resolution 2019-19.**

Required actions from Regional Accreditation Groups that are signatories to the IAF Validation & Verification MLA under ISO 14065:2013 have to be followed as included in the report of the IAF MLAC of 29 April 2021.

AWARENESS WORKSHOP

Accreditation in the field of GHG Validation & Verification

EA MAC Transition Plan

from ISO 14065:2013 to ISO/IEC 17029:2019 + ISO 14065:2020
(EA MAC 46th meeting – 06-07.04.2022)

1. Adoption of IAF Resolution 2021-22

2. EA transition plan for the transition to a single EA MLA on ISO/IEC 17029

Considering that *the level of complexity of the requirements of ISO/IEC 17029 + ISO 14065:2020 is very similar to the requirements of the current ISO 14065:2013*, EA decided to adopt, for the transition to a single EA MLA on ISO/IEC 17029, a process that is similar to the one applied for the transition to other standards, instead of a process that is usually undertaken for the new EA MLA main scopes. This approach is also confirmed by the IAF Resolution 2021-22.

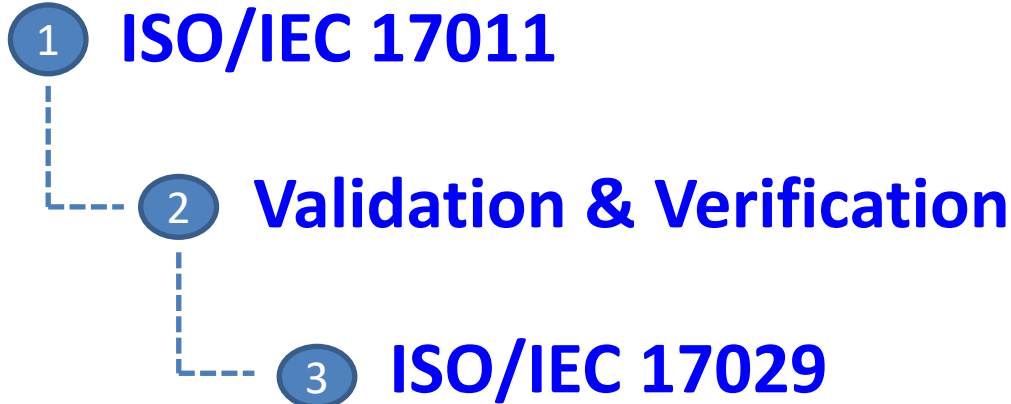
In this regard, the following steps will be taken:

1. A survey will be launched with a deadline until 15th September 2022 (launched 1 June 2022) for the MAC members to provide information.
2. Decision on launching the EA MLA on ISO/IEC 17029 during the MAC October 2022 meeting.
3. After the EA MLA on ISO/IEC 17029 has been launched, when the NABs have issued an accreditation to ISO/IEC 17029 + ISO 14065:2020, then the NAB has to inform the Secretariat and their EA MLA signatory status for the validation and verification will be updated to include ISO/IEC 17029.
4. A survey will be launched one month after the transition deadline of ISO 14065:2013 to ISO 14065:2020, to ensure that all NABs finalized the transition of all their CABs by 31 December 2023, as it is done for all transitions.
5. **The EA MLA on ISO 14065:2013 will cease on 31 December 2023.**

EA will stop receiving applications for extension of EA MLA to validation and verification according to ISO 14065:2013 – 1 June 2022.

EA will start receiving applications for extension of EA MLA to validation and verification to ISO/IEC 17029 – 1 June 2022.

EA MLA Validation & Verification



The EA MLA refers to the level 2 and 3 areas only i.e.:

Validation and Verification Bodies

EN ISO/IEC 17029

Validation and Verification Bodies (GHG) EN ISO 14065 *(it relates to EN ISO 14065:2013)*

EA-INF/11:2022 (27.09.2022)

EA MLA Validation & Verification

Level 3 standards:

ISO/IEC 17029:2019*

ISO 14065:2013* (*applicable until 31.12.2023*)

Level 4 standards:

ISO 14065:2020

ISO 14064-3:2019* (2006)

Regulation (EU) 2018/2067 (AVR) for sub-scope EU ETS

Level 5 standards:

Regulation (EU) 2018/2066 (MRR) for sub-scope EU ETS

EA MLA Sub-scopes:

EU ETS, EU MRV, ICAO CORSIA, ISO 14064-1, ISO 14064-2

****EA-INF/01:2023 (02.02.2023)***

AWARENESS WORKSHOP
Accreditation in the field of GHG Validation & Verification

THANK YOU FOR YOUR ATTENTION!