



Advancing ETS Readiness in Türkiye – Technical work on ETS benchmarks

This activity is part of the European Union Climate Dialogues Project (EUCDs)

Training Presentation

Verification and Accreditation

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Agenda

- 1 **Verification & reasonable assurance**
[Explain what verification is and the meaning of reasonable assurance]
- 2 **The verification process**
[Follow the verification process end to end]
- 3 **Materiality & findings**
[Apply materiality and handle misstatements and non-conformities]
- 4 **Verifier accreditation**
[Describe how verifiers are accredited (NABs, ISO standards, AVR)]
- 5 **Benchmark verification**
[Explain benchmark verification of the BDR and the ALR]
- 6 **EU ETS verification framework**
[Place it all inside the EU ETS verification framework and TR ETS design]

Why verification and accreditation matter

Trust Builds trust in reported data (independent assurance that reported figures are correct)

Level playing field	Ensures a level playing field (every operator is checked to the same standard)
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Gatekeeper Acts as a gatekeeper (no verified report – no surrender, no allocation change)

Accreditation	Confirms verifier competence (guarantees the verifiers themselves are competent and impartial)
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CBAM Underpins CBAM (the same assurance underpins the carbon cost of imports)

What verification is - reasonable assurance

Verification An independent check of a report against the rules and the plan

Reasonable assurance	A high, but not absolute, level of assurance
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Free of material error	The opinion states the report is free from material misstatement
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Evidence-based	Built on analysis, checks, recalculation and a site visit
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Foundation	Rests on approved plans, monitored data and the control system
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Reasonable assurance

Verifier's opinion

Evidence: analysis, checks, recalculation, site visit

Approved plans + monitored data + control system

High but not absolute assurance that the report is free from material misstatement

Reasonable vs limited assurance

**Reasonable
(ETS/CBAM)** High assurance; extensive evidence; positive-form opinion

**Limited (other
schemes)** Lower assurance; less evidence; negative-form conclusion

Why reasonable Allowances and CBAM certificates have real financial value

Consequence The verifier must gather enough evidence to be confident

Not a guarantee Reasonable assurance is not a 100% certainty of no error

The verification principles

Independence The verifier must be free of conflicts with the client

Impartiality	No bias; threats to impartiality are identified and managed
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Competence Technical and regulatory knowledge of the sector verified

Professional scepticism	Question the evidence; do not assume it is correct
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Faithful representation Report the true picture, including uncorrected errors

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The verification process - overview

Strategic analysis	Understand the installation and the scope
Risk analysis	Find where misstatements are most likely
Verification plan	Design tests proportionate to the risks
Process analysis	Test data and controls; visit the site
Findings	Assess misstatements against materiality
Report & opinion	Issue the verification report and opinion



Strategic analysis

Purpose Get a complete, high-level understanding of the installation

Inputs	The monitoring plan / MMP, permit, previous reports, data flows
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Scope Confirm boundaries, source streams and sub-installations

Complexity	Judge the size and complexity to scale the verification
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Output The basis for the risk analysis that follows

Risk analysis

Inherent risk The chance of error before any controls (complex data, many streams)

Control risk	The chance a control fails to catch an error
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Detection risk The chance the verifier's own tests miss an error

Combination	The verifier sizes its testing to the combined risk
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Focus More testing where the risk of material error is highest

The verification plan

What A documented plan of the verification activities

Risk-based	Tests are proportionate to the risks identified
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Sampling A sampling plan sets what and how much to check

Test plan	Analytical procedures, data checks and recalculations
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Living Updated if the risk picture changes during the work

Process analysis and the site visit

Process analysis Test the data flow and the control activities in practice

Recalculation	Independently re-compute key figures
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Site visit Physically verify meters, boundaries and processes on site

Virtual visit	Only exceptionally, under strict conditions
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Evidence Findings are documented as verification evidence

The data management chain – why primary data matters

Primary data The origin of the chain – meter readings, invoices, weighing, lab analyses: the raw source records

Data flow	Primary data is aggregated, converted and calculated up to the final reported figure
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Verifier's focus Trace every reported value back to its primary source – no primary data, no assurance

Data quality	Errors at the origin propagate through the whole chain and corrupt the final result
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Controls Control activities must protect primary-data integrity from source to report

Materiality and misstatements

Materiality The threshold above which an error would change the reader's decision

Category A/B	Materiality level 5% of total reported emissions
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Category C Materiality level 2% (large emitters)

FAR reports	5% for baseline / activity-level data
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Use Findings are judged against materiality for the opinion

Materiality thresholds (AVR Art. 23)

Category A / B installations	Category C (large emitters)	FAR reports (BDR / ALR)
5%	2%	5%

Materiality = the level above which misstatements matter for the opinion

Misstatements, non-conformities and corrections

Misstatement An error, omission or misrepresentation in the reported data

Non-conformity	A departure from the approved monitoring plan / MMP
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Non-compliance A breach of the MRR/FAR requirements

Correction	The operator corrects issues before the report is finalised
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Uncorrected Material uncorrected items lead to an adverse/qualified opinion

The verification report and opinion

Verification report Documents the work, findings and conclusion

Opinion - satisfactory	The report is verified as free of material misstatement
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Qualified Some issues remain but within limits stated

Adverse	Material misstatements or scope limitations remain
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To the authority The opinion is submitted with the operator's report

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[Place it all inside the EU ETS verification framework and TR ETS design]

Verifier competence and independence

Competence Auditors and technical experts qualified for the activity group

Team	A verification team with the right sector knowledge
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Independent reviewer	An internal review before the report is issued
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Impartiality	Threats (self-review, familiarity, advocacy) are managed
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Rotation & limits Restrictions on non-verification services to the client

Information management and confidentiality

Records The verifier keeps full records of the verification

Confidentiality	Client data are handled confidentially
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Traceability The opinion can be traced back to the evidence

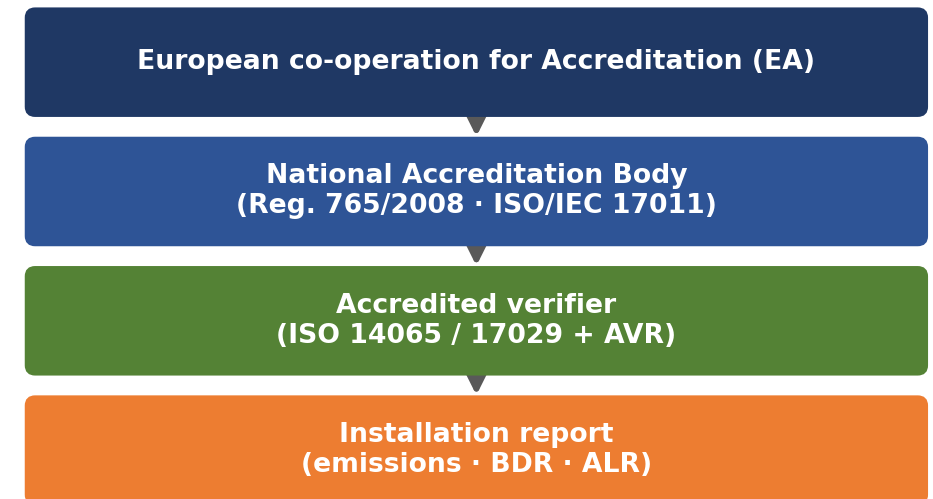
Retention	Documentation is retained for the required period
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Oversight Records are available to the accreditation body and authority

The accreditation chain

EA	European co-operation for Accreditation coordinates NABs
NAB	Each Member State designates one National Accreditation Body
Reg. 765/2008	The legal basis for accreditation and mutual recognition
Verifier	Accredited against ISO 14065 / ISO/IEC 17029 and the AVR
Installation	Whose reports the accredited verifier then checks

The accreditation chain



National Accreditation Bodies and Reg. 765/2008



One per country Each Member State has a single NAB, not for profit

Legal basis	Regulation (EC) 765/2008 governs accreditation in the EU
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Operates to	ISO/IEC 17011 (requirements for accreditation bodies)
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Peer-evaluated	NABs are peer-evaluated within EA to stay equivalent
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Public authority	Accreditation is exercised as a public authority activity
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The ISO standards behind verification

ISO/IEC 17011 Requirements for accreditation bodies (the NABs)

ISO 14065	Requirements for GHG validation/verification bodies
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ISO/IEC 17029 General conformity-assessment / validation & verification

ISO/IEC 17025	Competence of testing and calibration laboratories
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Together A coherent stack from labs to verifiers to accreditation bodies

Scope of accreditation - activity groups

Scoped A verifier is accredited only for defined activity groups

Annex I	The AVR lists the activity groups (e.g. combustion, metals, minerals)
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Competence match The team's expertise must match the sector verified

Not universal	No verifier may verify outside its accredited scope
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Benchmark data Allocation-data verification also needs the right scope

Granting accreditation - from application to certificate

Application The verification body applies to a NAB

Document review	The NAB reviews the management system and procedures
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Witnessing The NAB observes real verifications (witness audits)

Decision	Accreditation is granted for defined scopes
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Certificate A public accreditation certificate with the scope

Surveillance, reassessment and extension

Surveillance Annual checks that the verifier still meets the requirements

Reassessment	A full re-evaluation on a multi-year cycle
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Extension Adding new activity groups requires assessment

Witnessing	Continued observation of live verifications
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Ongoing Accreditation is a continuing status, not a one-off badge

Sanctions - suspension and withdrawal

Non-conformity Serious or unresolved issues trigger action by the NAB

Suspension	Accreditation can be suspended for a period
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Reduction The scope can be narrowed

Withdrawal	Accreditation can be withdrawn entirely
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Consequence A verifier without valid accreditation cannot issue opinions

Mutual recognition of verifiers across the EU

Accredited once A verifier accredited in one Member State...

Recognised EU-wide	...may operate in the others for its scope
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Basis Equivalence of NABs under Reg. 765/2008 and EA peer review

Notification	Cross-border activity is notified to the host authority
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Benefit One market for verification services

Competent authority vs accreditation body

Competent authority Approves plans, receives reports, decides allocation

Accreditation body	Accredits and supervises the verifiers
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Separation Two different bodies, deliberately kept apart

Verifier	Independent third party between operator and authority
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Why Separation of duties protects the integrity of the data



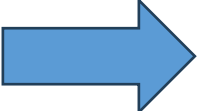
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MINISTRY OF ENVIRONMENT,
URBANIZATION AND CLIMATE CHANGE

Interactive Q&A – Part 1



 <https://partici.fi/23503622>

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Why benchmark verification is special

Different data Not emissions, but activity levels, heat and energy flows

Different plan	Verified against the MMP, not the emissions plan
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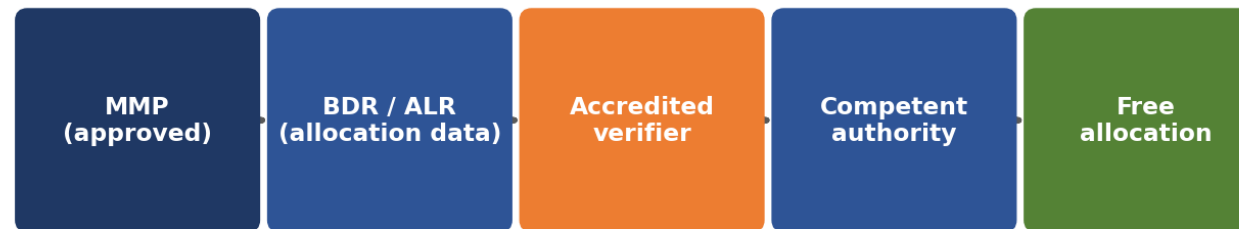
Different reports The Baseline Data Report and the Activity Level Report

Same rigour	Same accredited verifiers, principles and process
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High stakes Errors here change the free allocation an installation receives

What gets verified - BDR and ALR

MMP	The approved methodology plan is the reference
BDR	Baseline Data Report - sets historical activity levels
ALR	Activity Level Report - annual activity for the adjustment
Verifier	Accredited verifier issues the opinion
Authority	Competent authority uses it to set/adjust allocation



The Monitoring Methodology Plan as the basis

Reference document The MMP defines how allocation data are produced

Verifier checks	That the data follow the approved MMP
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Non-conformity A departure from the MMP is a finding

Changes	Significant MMP changes need CA approval before use
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Consistency Ensures BDR and ALR are produced the same way

Materiality for allocation data

Level Materiality for BDR / ALR is 5% of the relevant total

Per element	Applied to the key reported elements of the report
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Judgement Findings are weighed against this threshold

Conservative	Uncertain items resolved so as not to over-state activity
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Opinion Material uncorrected items block a satisfactory opinion

Verifying activity levels and sub-installations

Activity levels Tonnes of product, TJ of heat, energy consumed - checked to source

Sub-installations	Correct assignment of inputs, outputs and emissions
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Boundaries No gaps or double counting across sub-installations

Product definitions	Output matches the FAR Annex I product definition
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Evidence Production records, meters, invoices reconciled

Verifying heat and energy flows and attribution

Measurable heat Metered flows checked; import/export factors applied

Cross-boundary	Heat between installations reconciled on both sides
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Attribution Fuels, heat and emissions attributed to the right sub-installation

Waste gases	Correct split between energy and process surplus
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Consistency Energy balance of the site must close

Common findings in benchmark verification

Boundary errors Source streams or products mis-assigned between sub-installations

Heat mis-attribution	Cross-boundary heat counted twice or on the wrong side
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Weak evidence Activity levels not fully reconciled to primary records

MMP drift	Methods used differ from the approved MMP
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Late/again Recurring issues from year to year signal control gaps

Verifier competence for allocation data

Scope The verifier's accreditation must cover the activity group

Skills	Understanding of benchmarks, sub-installations and the FAR
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Not just emissions Emissions competence alone is not enough

Team	Technical experts for heat, energy and process flows
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Check first Operators should confirm the verifier can verify allocation data

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The EU ETS verification framework at a glance

Legal base Directive 2003/87/EC Art. 15; AVR (EU) 2018/2067

Who	Accredited verifiers supervised by National Accreditation Bodies
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What	Emissions (AER) and allocation data (BDR, ALR)
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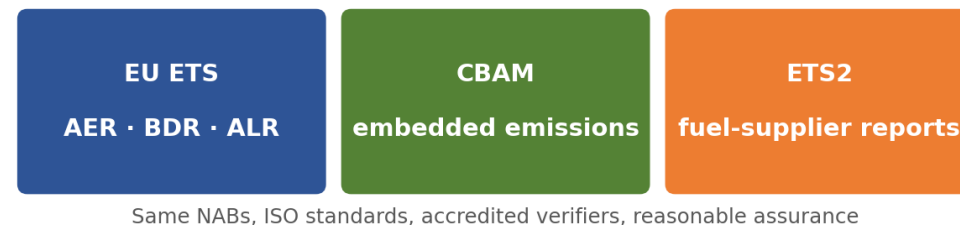
How	Reasonable assurance, risk-based, against approved plans
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Result	Trusted data for surrender and for free allocation
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One verification philosophy - ETS, CBAM, ETS2

EU ETS	AER, BDR and ALR verified under the AVR
CBAM	Embedded emissions verified by accredited verifiers
ETS2	Fuel-supplier reports verified under the same MRV logic
Shared	Same NABs, ISO standards and reasonable-assurance approach
Efficiency	One skill set serves all three instruments

One verification philosophy



Building the verification framework for the TR ETS

Designate a NAB A national accreditation body operating to ISO/IEC 17011

Accredit verifiers	To ISO 14065 / ISO 17029 and TR-ETS rules
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Define scopes Activity groups matching Turkish industry

Reasonable assurance	Adopt the same assurance level and materiality
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Seek recognition Aim for equivalence to ease trade and CBAM

Key takeaways

Assurance Verification gives reasonable, evidence-based assurance

Process	Strategic -> risk -> plan -> testing/site visit -> opinion
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Accreditation NABs (765/2008, ISO 17011) accredit verifiers (ISO 14065/17029)

Benchmark focus	BDR and ALR are verified against the MMP; 5% materiality
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One framework ETS, CBAM and ETS2 share it - a strategic asset for Türkiye

References / legal basis

Instrument	Scope used in this session
Directive 2003/87/EC	EU ETS Directive - Art. 15 (verification & accreditation)
AVR (EU) 2018/2067	Accreditation & Verification Regulation - process, materiality, accreditation
Regulation (EC) 765/2008	Accreditation and market surveillance; NABs
FAR (EU) 2019/331	Allocation data & MMP; Guidance GD4 (verification of BDR/ALR)
ISO standards	ISO/IEC 17011, ISO 14065, ISO/IEC 17029, ISO/IEC 17025
CBAM Reg. (EU) 2023/956	Verification of embedded emissions; Impl. Reg. 2025/2546



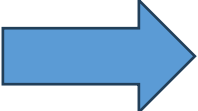
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Thanks for your Attention!



Next: Day 5 – Fertilizers, CBAM declaration, compliance and implementation & Data quality assurance in MRV



Back-up slides

CBAM verification specifics

Who Verifiers accredited by an EU Member State NAB

Standards	Knowledge of ISO 14065 / ISO 17029 and the CBAM rules
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What Embedded emissions of imported goods (actual values)

Report	A verification report (CBAM Annex VI principles)
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For Türkiye Turkish exporters' installations are verified under this framework