



Federal Ministry  
for the Environment, Nature Conservation  
and Nuclear Safety

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# **MRV, Compliance & Enforcement – Case Study: EU ETS / GERMANY**

**ETS ACADEMY MEXICO  
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## **Introduction to the (EU) ETS Compliance Cycle**

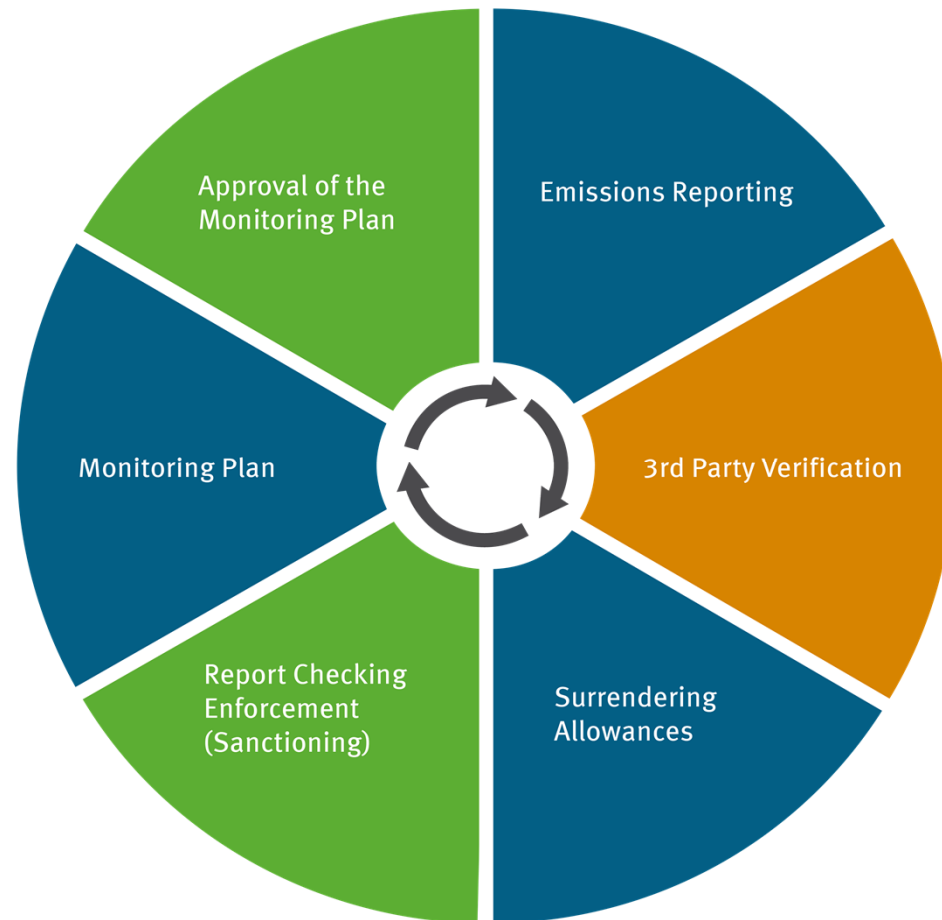
- **Monitoring**
- **Reporting**
- **Verification**
- **Assessment of Reports (AERs) & Enforcement**

## **Accreditation & Surveillance of Verifiers**

## **Lessons Learnt MRVA**



# EU ETS Compliance Cycle





## Legal Framework

- Current Framework reflects experiences made with Monitoring, Reporting, Verification & Accreditation during Phase I and Phase II
- 2003: EU Emissions Trading Directive 2003/87/EC; transposed into national law by all Member States
- 2012: European Commission adopted
  - **Monitoring & Reporting Regulation (MRR)**
  - **Accreditation & Verification Regulation (AVR)**
    - Comprehensive, sophisticated and harmonized framework laying down **detailed requirements on all MRVA issues**
    - MRR & AVR: Legally **binding & directly applicable in all MS**



# Monitoring Plan



- DEHSt's tasks
- Operator's tasks
- Verifier's tasks



# Monitoring Plan

- **Concept, how the general monitoring & reporting rules** laid down in the MRR will be applied **in a specific installation**
- **Operators have to draft and to submit** the MP to the CA for **approval**
- **Main advantages for operators**
  - The **MP supports** the operator by
    - **Structuring** the monitoring of emissions/data
    - **Predertiming** the Annual Emissions Report (**AER**)
      - ⇒ **AER = MP + Figures/Data monitored**
  - **Legal Certainty: Conformity** with the approved MP **guarantees compliance**



# Approval of the Monitoring Plan





# Approval of the Monitoring Plan

## Importance of the approval for CAs

- **Approved MP** is the **starting point for all verification activities** carried out by 3<sup>rd</sup> party verifiers
  - ⇒ **MP should be as clear as possible** to support verification
- **Conformity** with approved plan **guarantees compliance**
  - **Mistakes are not borne by operators** until withdrawal of the approval
- **Incorrect monitoring can lead to**
  - Distortion of competition
  - Violation of the “polluter-pays-principle”
  - Threats regarding the integrity of the ETS

**Surrender of allowances**  
=  
**Backbone of any ETS**

⇒ **Hence, approval by CAs should be done carefully (!)**





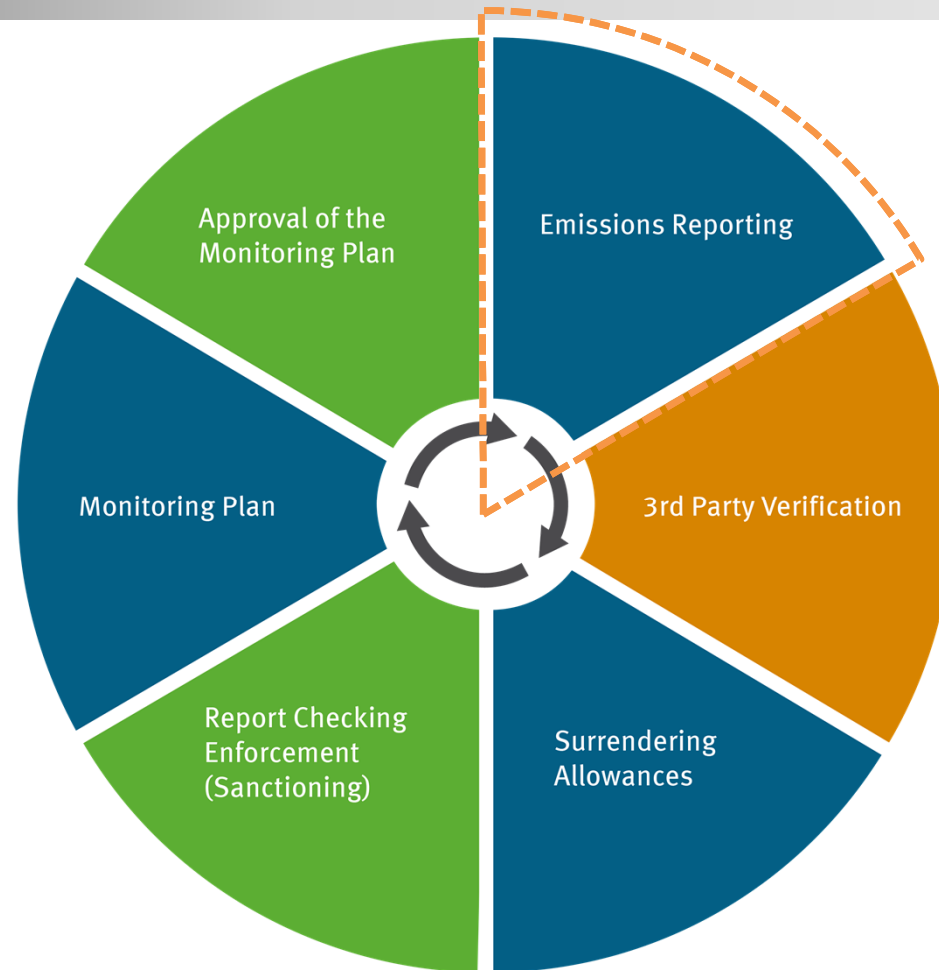
# Approval of the Monitoring Plan

## Which assessments are required by the Competent Authority?

- **Compliance of the MP with legal requirements (MRR)**
- **Main focus on monitoring methods** (measuring, sampling, analyzing)
- **A rough check of the internal procedures of the operator** to support his monitoring and reporting obligations
- **Completeness** of emission sources
- **If necessary: Approval is granted under conditions**



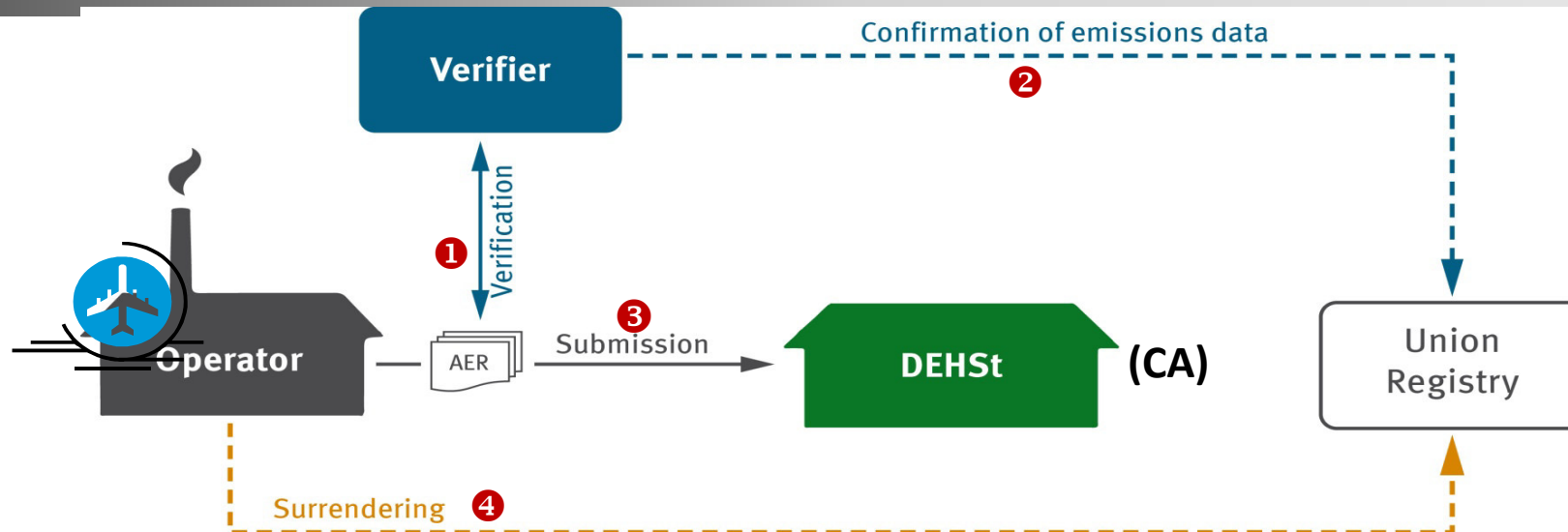
# Reporting



- DEHSt's tasks
- Operator's tasks
- Verifier's tasks



# Reporting



- **Operator** drafts the **Annual Emissions Report (AER)**; **verifier 1** verifies the AER and issues a Verification Report (VR)
- **Verifier 2** **confirms** the total amount of CO<sub>2</sub>e emissions in the Union Registry (VET – Verified Emissions Table),
- **Operator 3** **submits** verified **AER** to the **CA** by 31<sup>st</sup> March
- **Operator 4** **surrenders** the verified amount of **allowances** by 30<sup>th</sup> April



# Verification





## Which data / documents have to be verified?

### Stationary Installations

- Annual Emissions Reports (AER)
- *Applications for free allocation of allowances*

### Aviation

- Annual Emissions Reports
- Tonne-Kilometre Reports / Applications for free allocation of allowances

### Validation (Verification) of Monitoring Plans?

- Not applied in EU ETS
- Approval by CA required



The **scope/objective** of verification is **to ensure** that

- **emissions** have been **monitored in accordance with**
  - **approved MP**
  - **legal requirements** (esp. MRR)
- **reliable and correct emissions data** are reported (“a ton must be a ton”)

**Satisfactory verification**

=

**Verification opinion states**

- with **reasonable assurance** that the report
- is free from **material misstatements**

**Materiality Levels to be applied in EU ETS:**

- $\leq 500.000$  t CO<sub>2e</sub> p.a.: 5 %
- $> 500.000$  t CO<sub>2e</sub> p.a.: 2 %

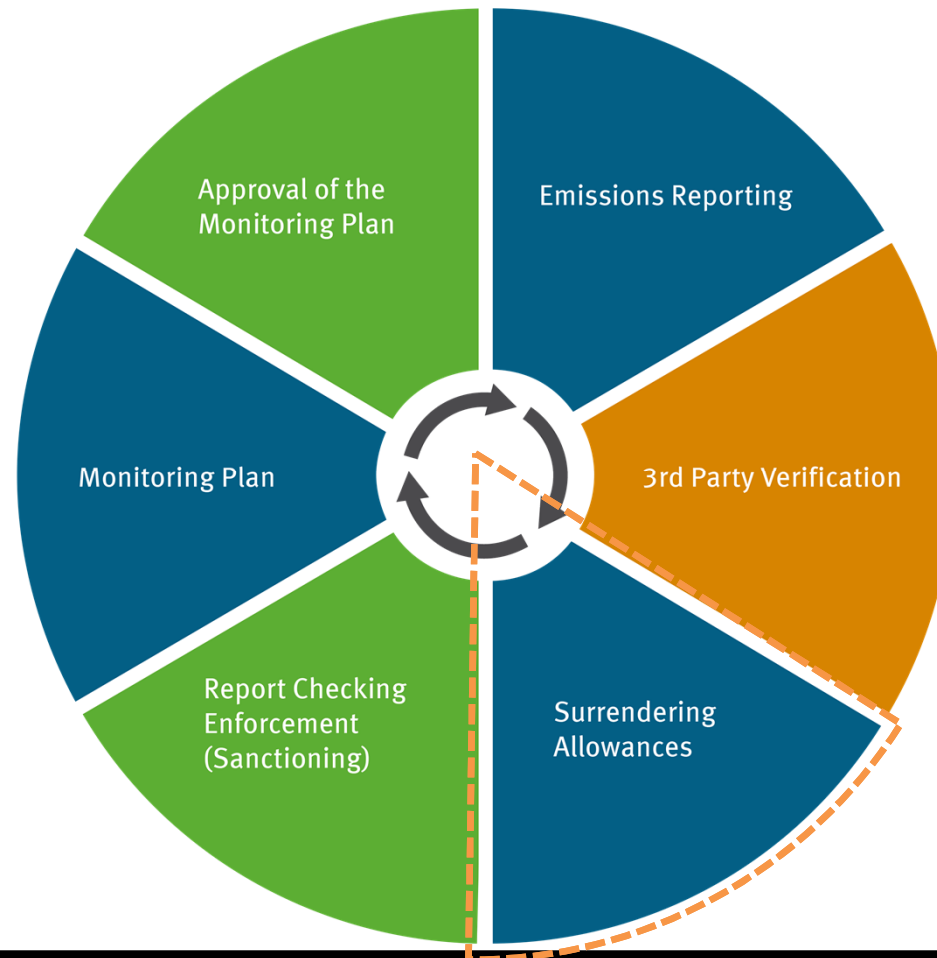


## Verification as a risk-based and iterative procedure





# Surrender of Allowances







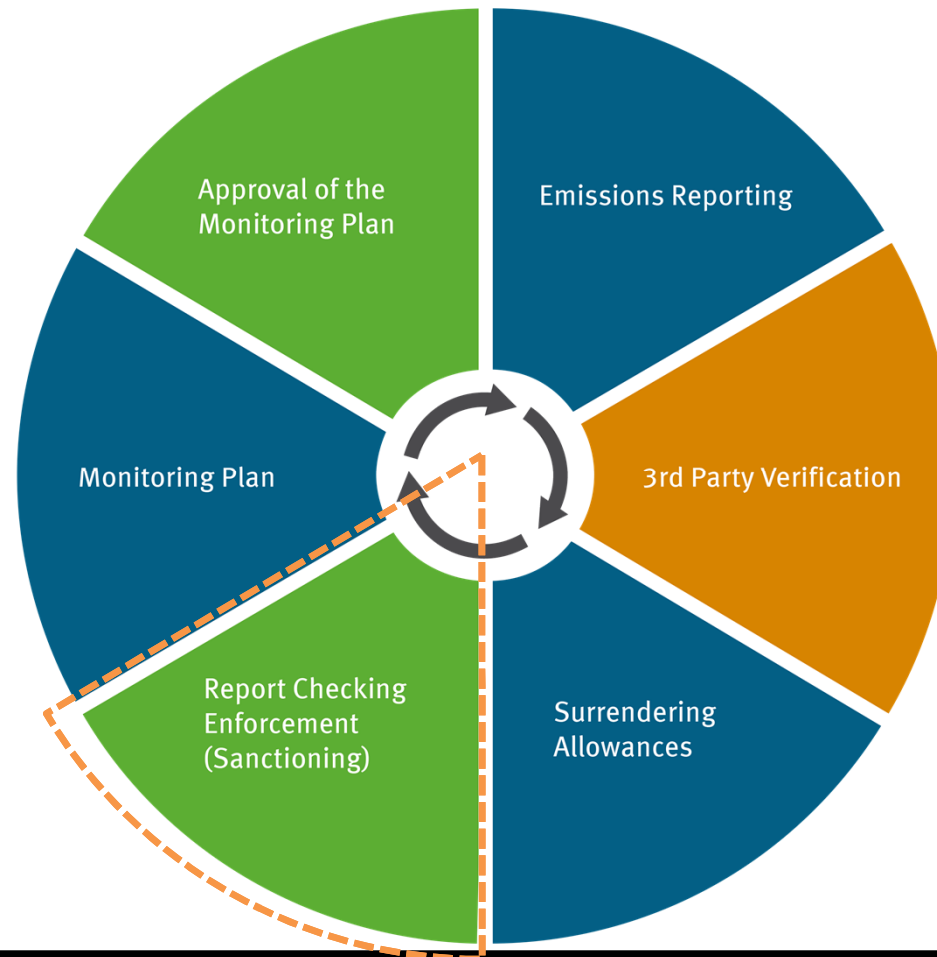
# Surrender of Allowances

- **Operators have to surrender allowances** equivalent to their verified emissions in the reporting period
- Operators in the EU ETS need an **operator holding account (OHA)** in the **European Union Registry**
- **European Union Registry is divided into national parts**





# Assessment of AERs & Enforcement



- DEHSt's tasks
- Operator's tasks
- Verifier's tasks



# Assessment of AER & Enforcement

## Different approaches possible

- Some CAs just perform **follow-up checks** on (non-material) misstatements or non-conformities **found/reported by verifiers** or some **random checks**
- Other CAs perform **comprehensive in-depth assessments** of AERs, incl.
  - **Automated checks of all AERs** in a database
  - In-depth checks of primary data by **requests of information on relevant sources** or randomly
  - **On-site inspections** in installations



# Assessment of AERs & Enforcement

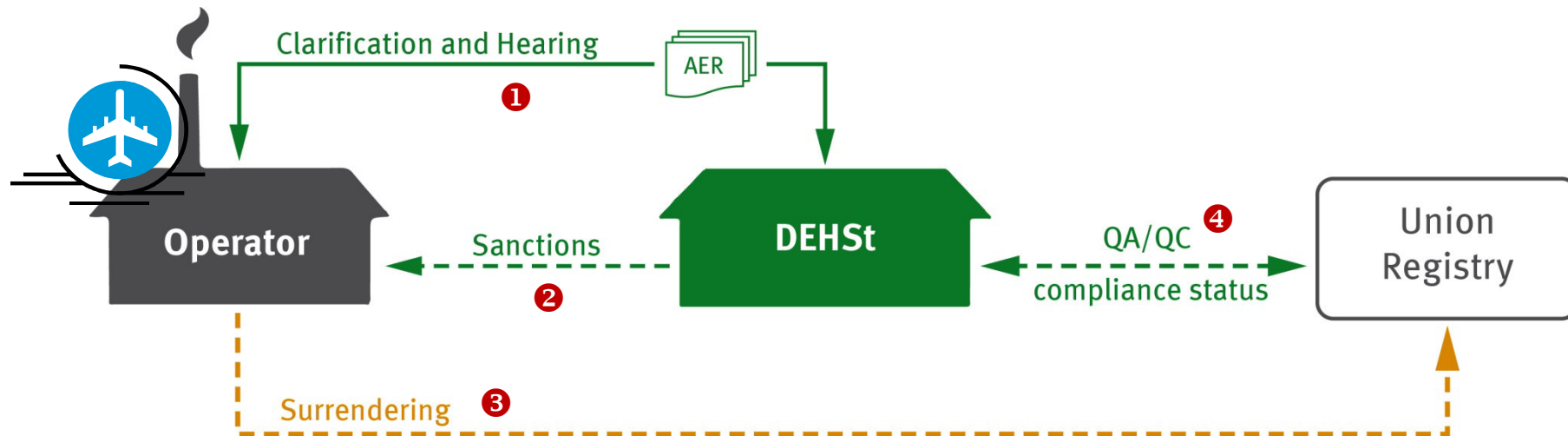
## Distribution of the Emissions covered in Germany

Installation category	Installations in Germany*	Total annual emissions*	
Category C (>500 kt CO <sub>2</sub> -eq/a)	142	375.5 Mio. t CO <sub>2</sub> -eq	82 %
Category B (>50 kt CO <sub>2</sub> -eq/a)	412	61.8 Mio. t CO <sub>2</sub> -eq	14%
Category A (≤ 50 kt CO <sub>2</sub> -eq/a) [installation with low emissions, < 25 kt]	1,326 [1,064]	18.1 Mio. t CO <sub>2</sub> -eq [8.8 Mio. t CO <sub>2</sub> -eq]	4% [1,9%]

\*VET 2015; 1,880 installations, 455,4 Mio t



# Assessment of AERs & Enforcement



- **CA checks AERs and ① asks for clarification**, if required
- If emissions were underestimated the **CA ② may estimate the additional amount of emissions** for the reporting year; **operator may be fined**
- **Operators ③ have to surrender additional allowances**; **CA ④ checks the compliance status**



# Assessment of AERs & Enforcement

## Penalties – if a company doesn't „play by the rules“

- Remember: Obligation to **surrender allowances** is the „backbone“ of any ETS
- EU ETS: **Operators not surrendering allowances to cover the verified emissions** of the reporting year have to
  - pay an „**Excess Emissions Penalty**“ per outstanding allowance
  - **surrender the outstanding amount** of allowances in the subsequent year
- „**Excess Emissions Penalty**“: **100 € per t CO<sub>2e</sub>** (Phase I: 40 €)



## Introduction to the (EU) ETS Compliance Cycle

- Monitoring
- Reporting
- Verification
- Assessment of AERs & Enforcement

## **Accreditation & Surveillance of Verifiers**

## Lessons Learnt MRVA



# Accreditation & Surveillance of Verifiers

## EU Accreditation & Verification Regulation (AVR)



- **Based upon international standards**
  - **EN ISO 17011:** General requirements for accreditation bodies accrediting conformity assessment bodies
  - **EN ISO 14065:** Requirements for greenhouse gas validation and verification bodies
- **Detailed provisions on**
  - Scope, objective & procedures concerning **verification**
  - **Requirements for verifiers** applying for Accreditation
  - Requirements for **National Accreditation Bodies (NABs)**
  - **Accreditation** Procedure, Surveillance, Administrative Measures
  - **Information exchange** between **NABs** and **CAs**





# Wrap-up: Accreditation & Surveillance of Verifiers



- Accreditation work program
- Accreditation management report

Umwelt  
Bundesamt

DEHSt  
Deutsche  
Emissionshandelsstelle

- Accreditation of
- Surveillance of
- Sanctioning of

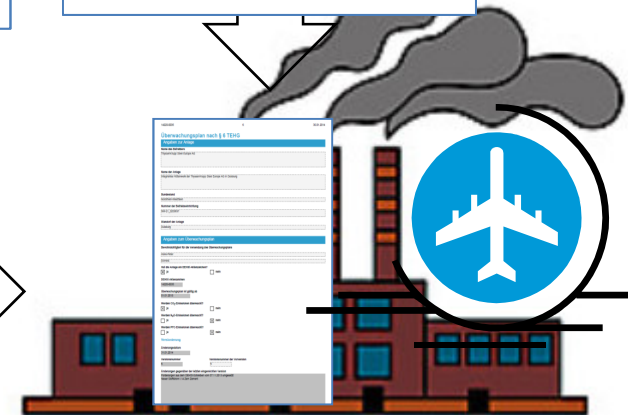
- Report on the quality of verifications
- Right of complaint

vAER assessment

## Verifiers/Entities



AER verification





## Introduction to the (EU) ETS Compliance Cycle

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## Accreditation & Surveillance of Verifiers

## Lessons Learnt MRVA



## Establishing a MRVA-scheme takes some time

- **Drafting of sound legal texts**
- **Preparation of (electronic) templates**
- **Setting up procedural instructions and priorities**
- **Training of CA inspectors** (procedural instructions, workshops)
- **Training of operators** (and verifiers)
  - How? By guidance, workshops and permanent help desk
  - What? Practical implementation, regular communication with CA (FMS + additional information)

## Scope: Cost. vs. benefit

- **Efforts for small emitters are disproportional higher**



## Challenges for Competent Authorities/Inspectors

- **Technical understanding** of production processes, measuring, sampling and analysis etc.
- **Juridical knowledge** (principles of administrative law, principles of interpretation of monitoring rules)
- **Exercising discretion** ('principle of proportionality')
- **Harmonized enforcement**



## **Verification & Accreditation play a key role: Rules need to be set up as sound and clear as for Monitoring & Reporting**

- **Detailed provisions** for the **verification process**
- **Mandatory (internal) independent review** of each verification procedure
- **Detailed competence requirements** and **competence process** for all verifiers
- **Strengthening of independence/impartiality**
- **Assessment of practical competence** „on the job“ (witness audits)
- **Detailed requirements** for the **internal verification documentation**
- **Annual surveillance** activities (office audits & witness audits)
- **Information exchange** between NABs and CAs



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**Thank you!**

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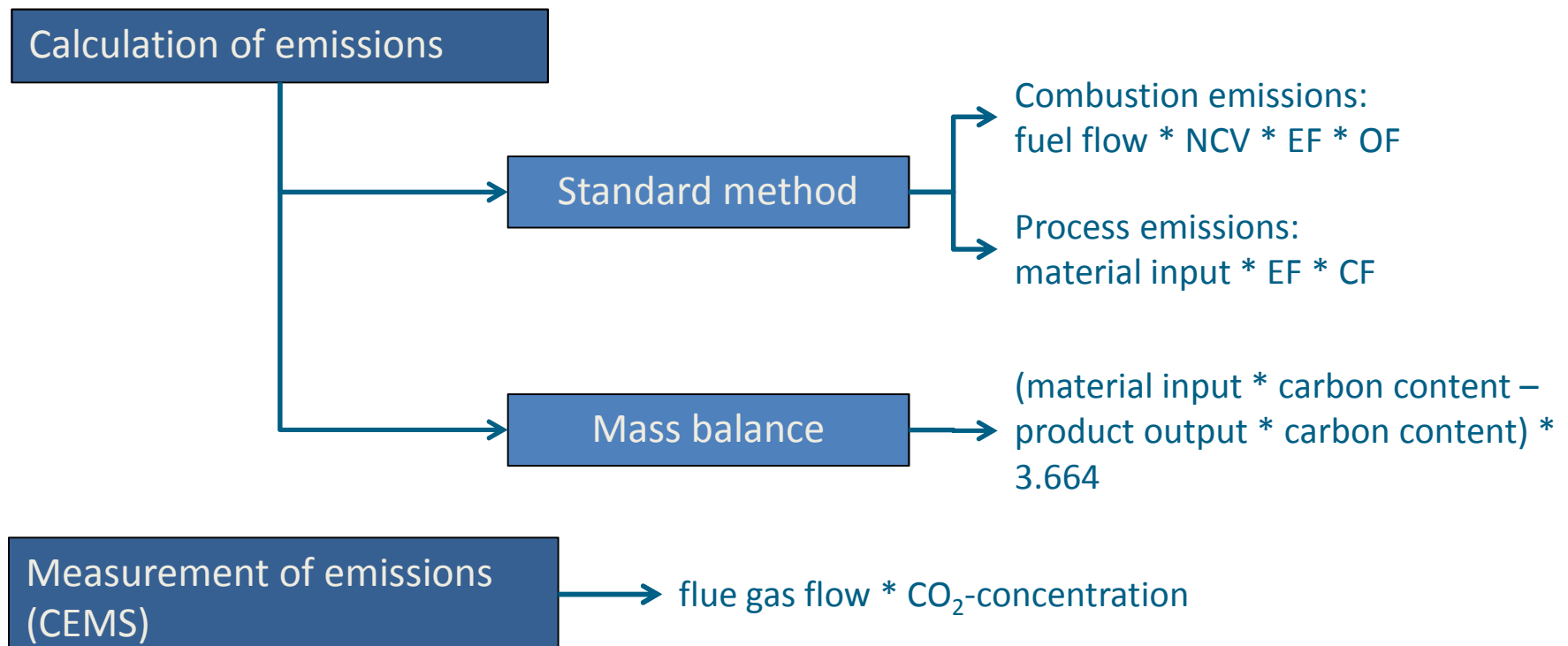
**Thank you for your attention**

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# Monitoring Plan Main Requirements

## Methods for determination of emissions



→ Operator may also combine methods



# Monitoring Plan Main Requirements

## Categorization of Installations (A/B/C) and Source Streams

- **C installations** ( $> 500,000$  t CO<sub>2</sub>/a) and **B installations** ( $> 50,000$  t CO<sub>2</sub>/a): **highest tiers** have to be applied
- **A installations** ( $\leq 50,000$  t CO<sub>2</sub>/a): **minimum tier** requirements
- Installations with low emissions ( $< 25,000$  t CO<sub>2</sub>/a): additional monitoring simplifications
- **Lower tiers** are allowed for
  - “minor source streams” and “de-minimis-source-streams”
  - source streams with biomass fraction  $\geq 97\%$
  - commercial standard fuels
- **Temporary or individual deviations** are allowed for technical or economic reasons (“**unreasonable costs**”) upon approval by CA





# Monitoring Plan Main Requirements

## Tier Definitions for the Calculation Based Approach

- **Activity data (Source stream amount):**
  - Tier 1: Uncertainty  $\pm 7.5\%$  up to
  - Tier 4: Uncertainty  $\pm 1.5\%$
- **Calculation Factors** - Emission Factor, Net Calorific Value, Carbon Content, Conversion Factor:
  - Tier 1: IPCC standard factors
  - Tier 2: Standard factors from national inventories, nationally agreed factors for fuel streams
  - Tier 3: Based on chemical analysis
- **Sector specific deviations possible**