



# **Session 4: Role and obligations of covered entities – EU ETS/Germany**

**2<sup>nd</sup> Seminar on “Sharing Experiences on Legal Development and Implementation of ETS”  
Bangkok, 11 June 2019**

**Alexander Handke**  
Emissions Trading Division  
Federal Ministry for the Environment, Nature  
Conservation and Nuclear Safety  
**Germany**

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

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

## **Accreditation & Surveillance of Verifiers**

## **Allocation of Allowances**



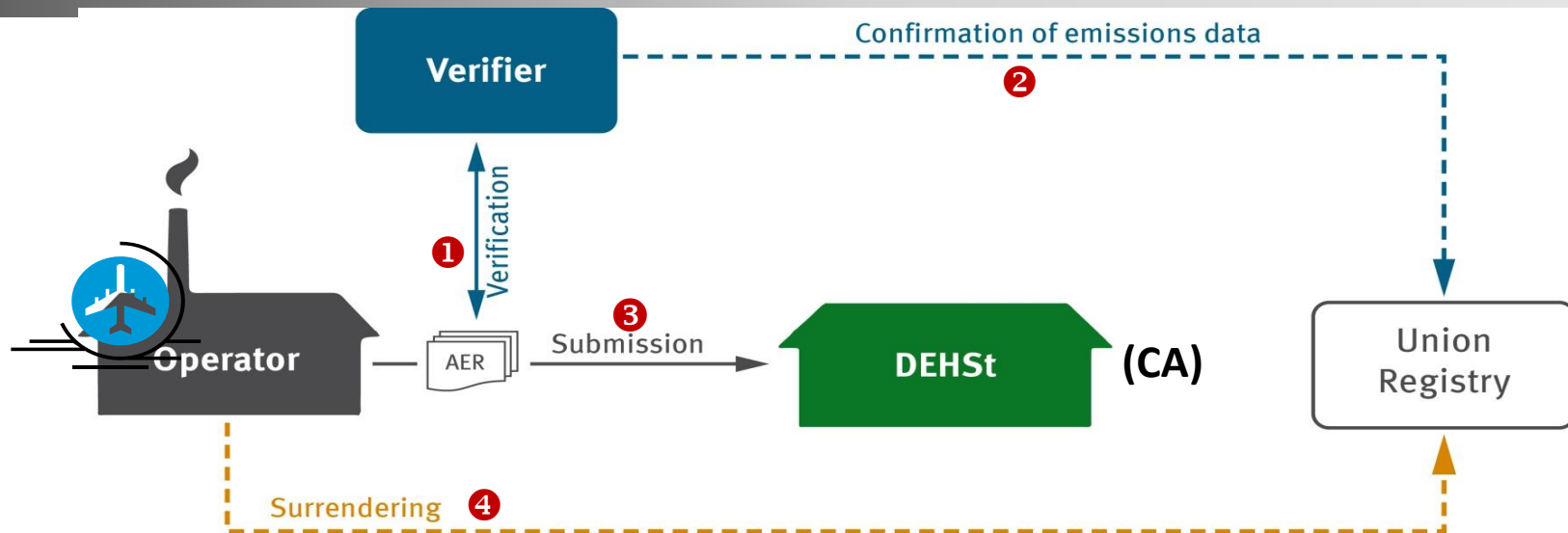
# EU ETS Compliance Cycle



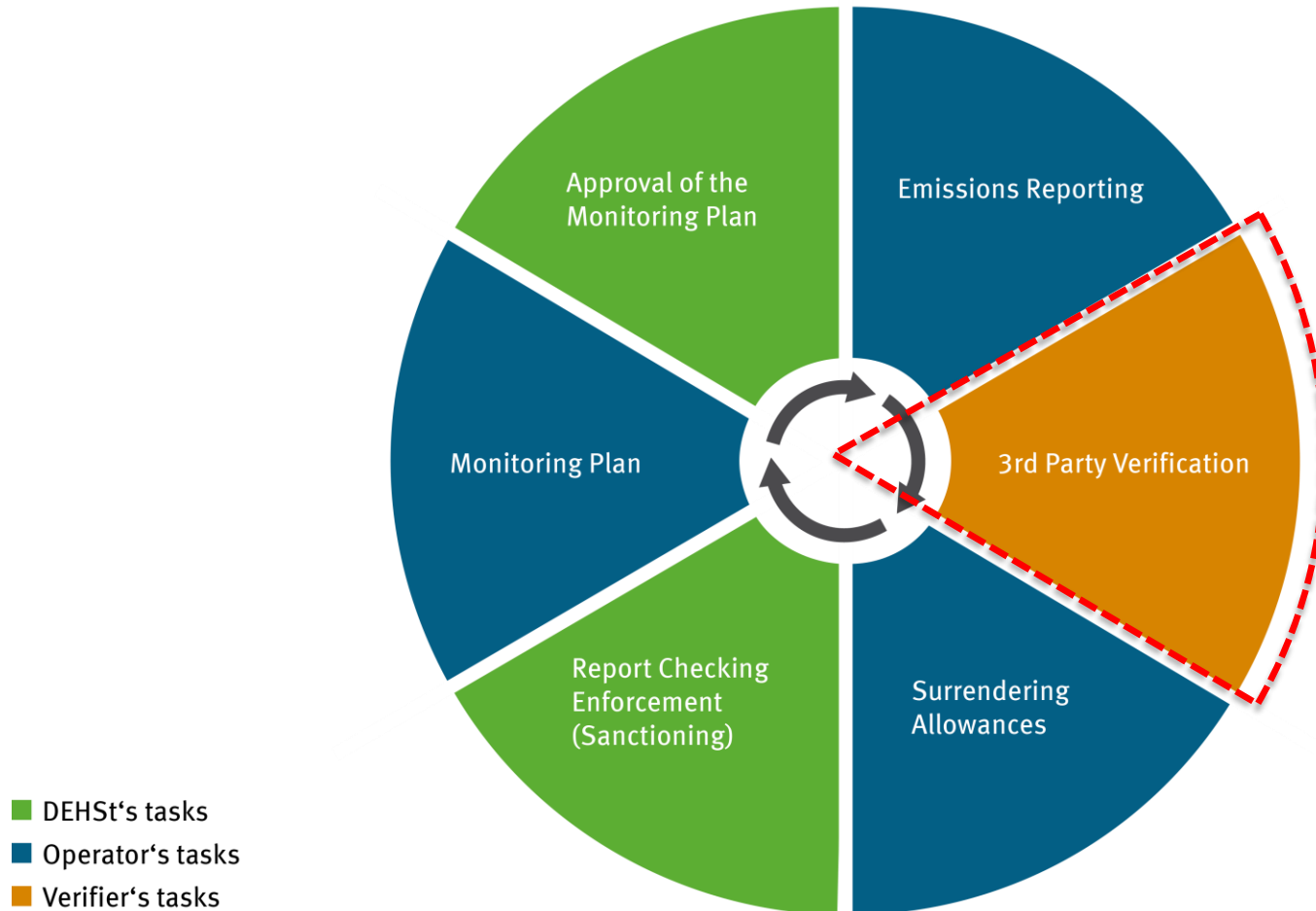


## Legal Framework

- 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**



- **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





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**

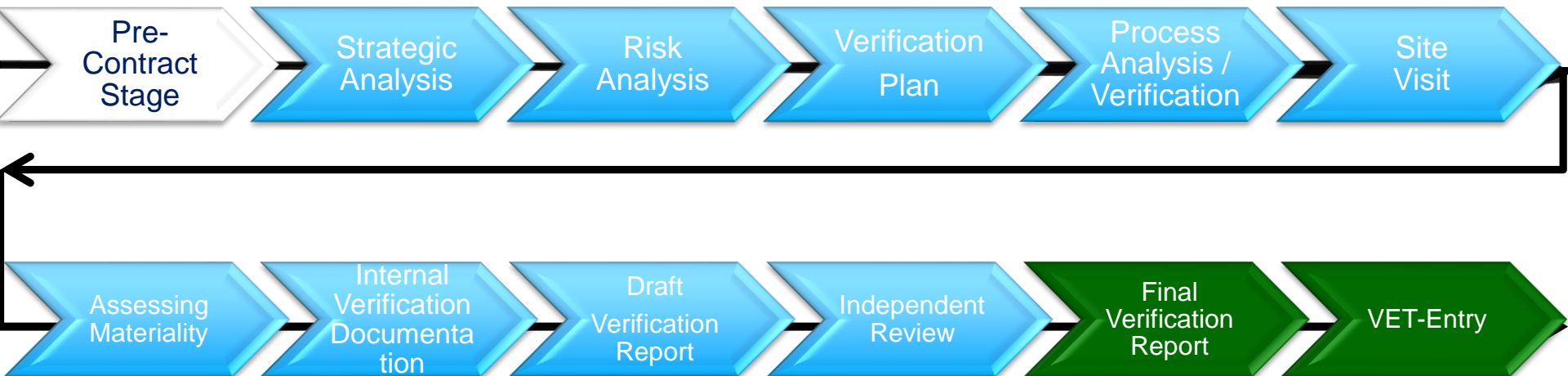
- with **reasonable assurance** that the report
- is **free from material misstatements**

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

- $\leq 500.000 \text{ t CO}_{2e} \text{ p.a.}$ : 5 %
- $> 500.000 \text{ t CO}_{2e} \text{ p.a.}$ : 2 %



## Verification as a risk-based and iterative procedure







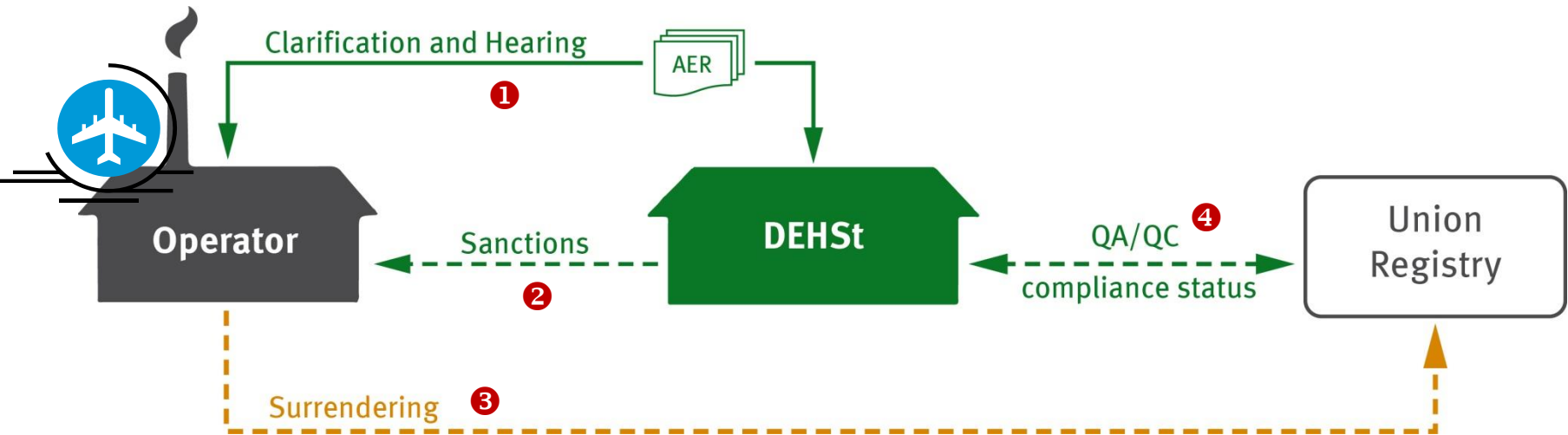
## Distribution of the Emissions covered in Germany

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 AER & 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**

## 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**

## Allocation of Allowances



# Accreditation & Surveillance of Verifiers

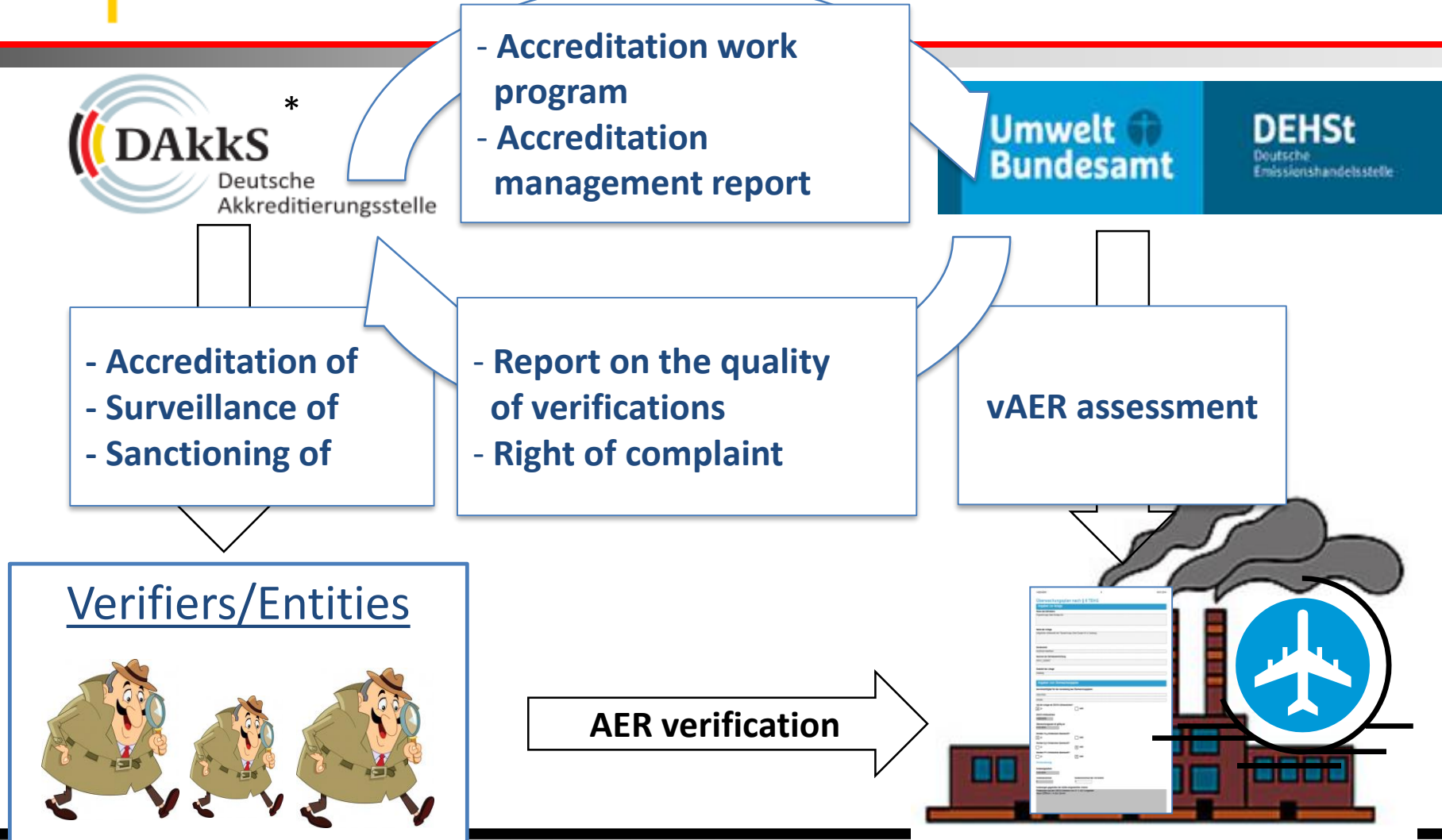
## EU Accreditation & Verification Regulation (AVR)



- **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



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

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

## **Accreditation & Surveillance of Verifiers**

## **Allocation of Allowances**

## **EU Emissions Trading Directive**

- No allocation free of cost for electricity producers
- Industry: Benchmark allocation
- Special treatment of sectors with Carbon Leakage Risk
- European Commission to adopt EU wide allocation rules

## **Decision of the European Commission on EU wide free allocation rules**

## **German Greenhouse Gas Emissions Trading Act (TEHG) & Allocation Ordinance 2020 (ZUV 2020)**

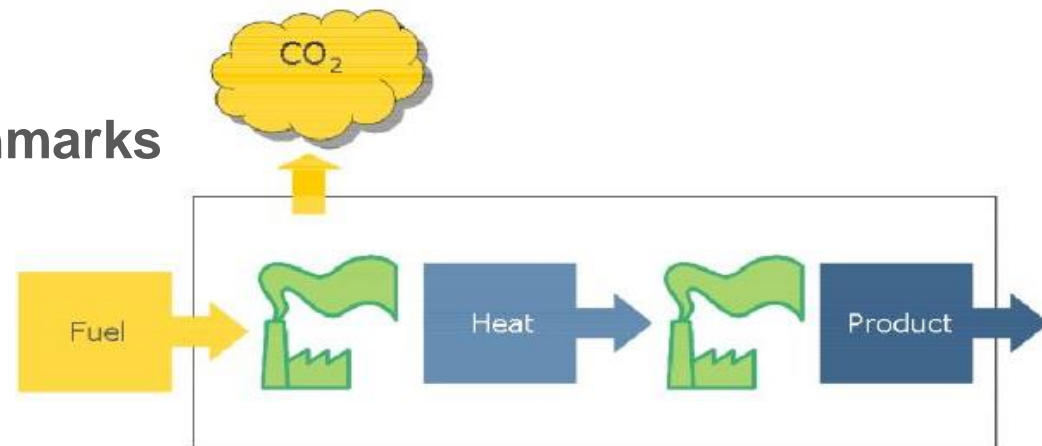


## 52 product benchmarks

- On the basis of average performance of the 10 % most efficient installations
- Resulting from consultation with industry
- Based on emission intensity data for 2007/2008 collected by European industry associations, verified by third parties and checked by the Commission

## Standardised fall-back benchmarks

- Heat benchmark
- Fuel benchmark





- **Incumbent installations** had to submit a **verified application** for the **whole Phase III (2013 – 2020)** in 2011
- **Historic activity level** of the installation in a reference period as the **basis for allocation** (x Benchmark)
- **DEHSt checked applications** and decided upon the individual **allocation amount**
- **Issuance** of allowances **annually per 28 February**
- **Annual reporting obligation** regarding the **activity level** (reduction of allocation if < 50 % resp. < 75 %)
- **Special Rules for New Entrants (Reserve) & Sectors with Carbon Leakage Risk**



**Thank you!**

**Thank you for your attention**

**Alexander Handke**

Emissions Trading Division

Federal Ministry for the Environment,  
Nature Conservation and Nuclear Safety

Germany

Alexander.Handke@bmu.bund.de



# Backup



## 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: 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



# EXAMPLE: Gas-fired power plant; highest tiers applied

$$\text{CO}_2\text{-Emissions} = \text{Activity data} * \text{Emission factor} * \text{Oxidation factor}$$

Amount of fuel \* NCV

Tier 4

Tier 3

Tier 3

Tier 3

Determination of  
fuel amount  
 $\pm 1.5\%$   
(focus on quality of  
measurement  
instruments)

Requirements on:

- sampling
- analysis
- laboratories
- standards

See NCV

See NCV  
(DE: OF=1)

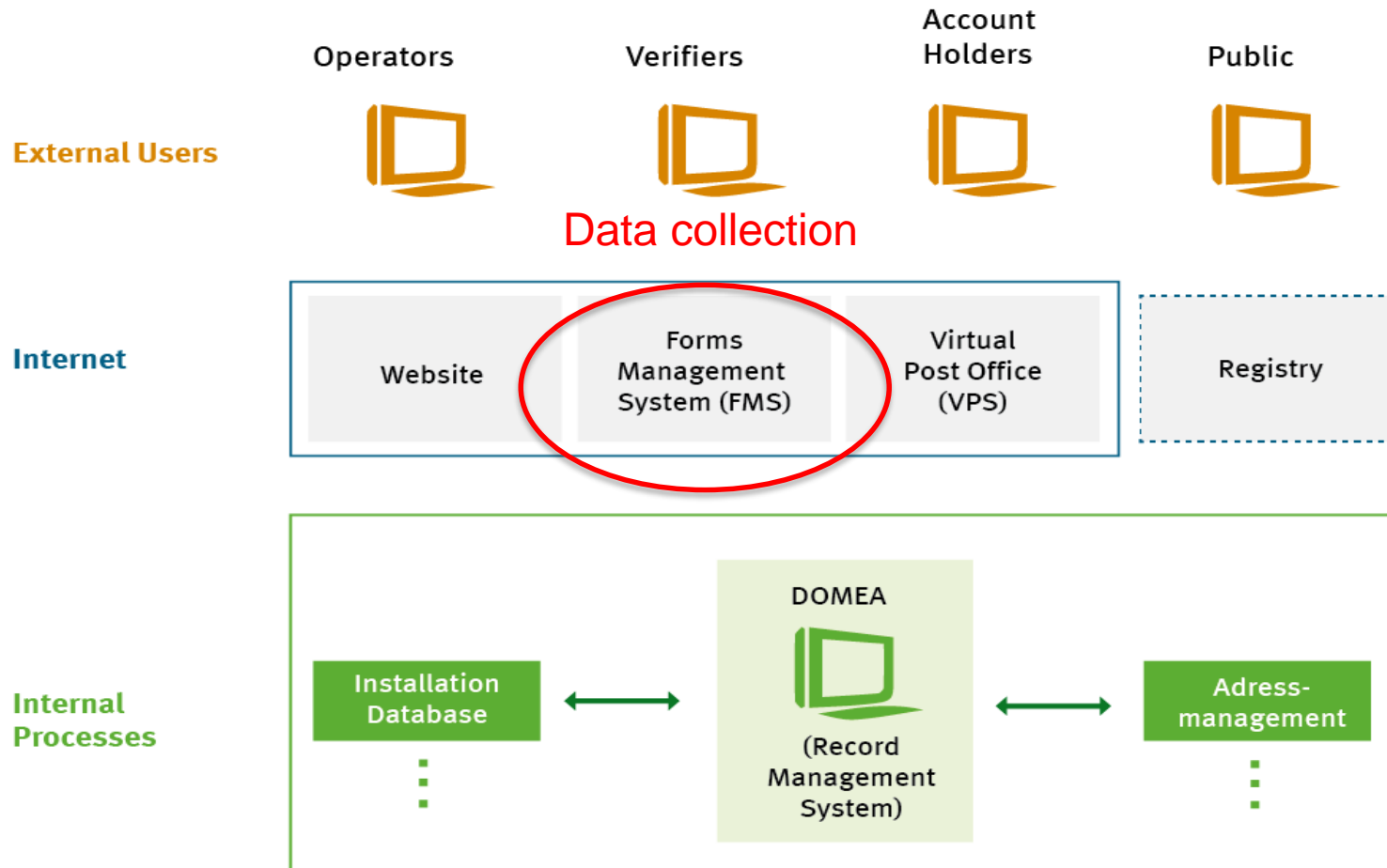


- **ETS infrastructure in place** and works well, robust database available
- **EU-wide harmonization** from 1<sup>st</sup> to 3<sup>rd</sup> trading period (e.g. EU-wide cap, standards for emissions monitoring and accreditation of verifiers, Union registry,...)
- **Learned from mistakes** (overallocation, windfall profits, criminal actions,...)
- **Emissions reductions have been reached**
  - EU: – 24 % in 2014 compared to 2005 in ETS sector\*
- **Behavioral changes** within companies – higher awareness of carbon costs and inclusion in investment decisions
- **Market** of emission allowances **has matured** and performs comparably to other markets of related commodities

\*EEA 2015, scope corrected



# IT Infrastructure





## Data Collection: Forms Management System (FMS)

### Why?

FMS provides for an user-friendly data collection  
Other approaches possible (Excel-templates)

### What?

Different roles (operator/verifier)

Tooltips/texts to explain required entries

Provides for first completeness and plausibility  
checks

Provides different export possibilities

- Backup
- Emissions Reporting (xml, pdf)

**Emissionsbericht nach § 5 TEHG**

**Angaben zur Anlage**

Name des Betreibers  
RWE Power AG

Name der Anlage  
Kraftwerk Niederaußem

Bundesland  
Nordrhein-Westfalen

Nummer der Betriebseinrichtung  
NW-30\_0326774

Standort der Anlage  
Bergheim

**Angaben zum Emissionsbericht**

Berichtsjahr  
2013

Bezeichnung der beauftragten akkreditierten oder zertifizierten Prüfstelle (Firma oder Name, Vorname)  
TÜV NORD CERT GmbH

DEHSt-Aktenzeichen  
14310-1153

Versionsnummer  
NIA\_002

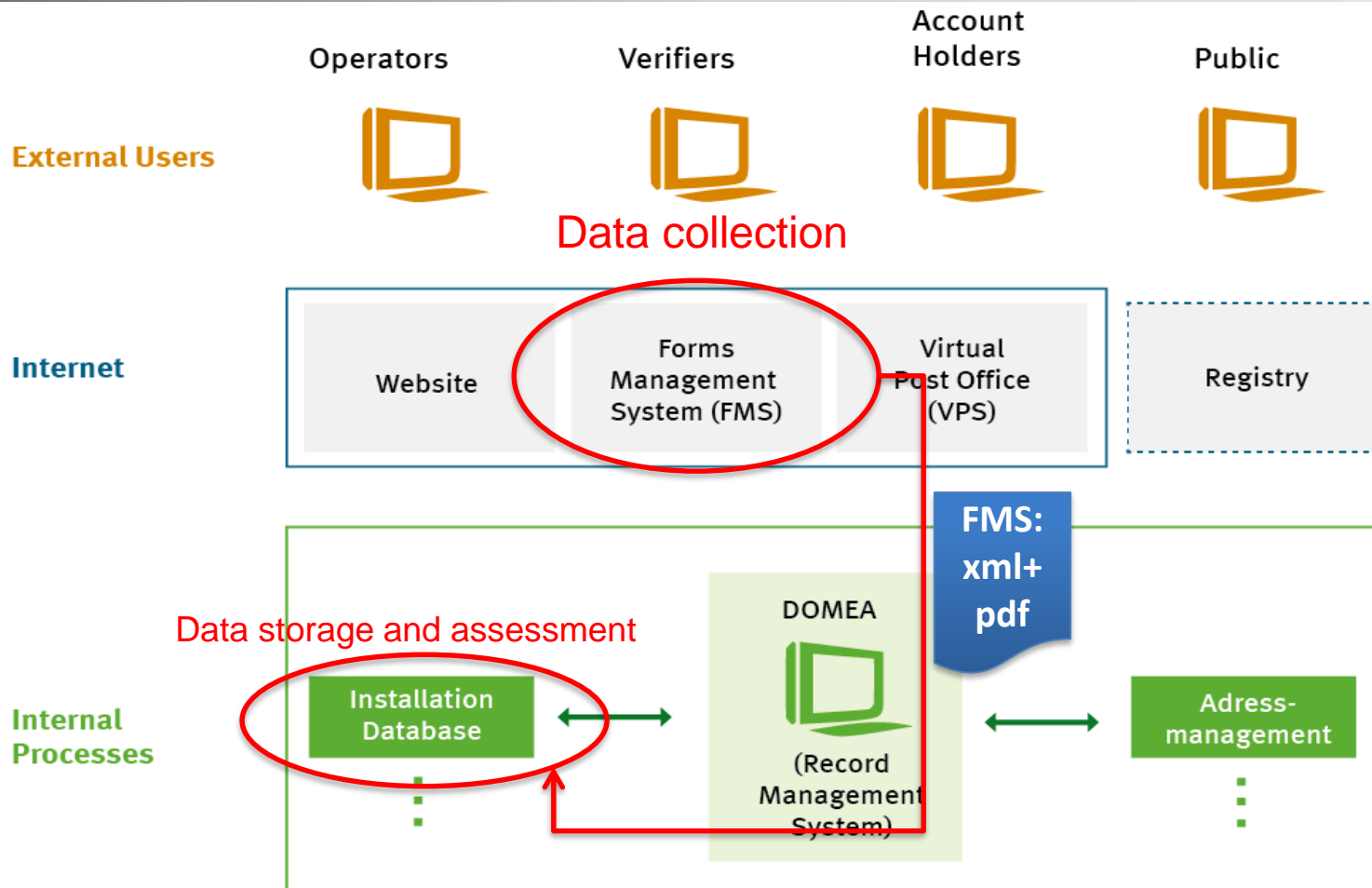
Datum des Berichts  
26.02.2014

Berichtszeitraum von  
01.01.2013

bis  
31.12.2013

Emissionen der Anlage im Berichtszeitraum  
29474441 t CO<sub>2(e)</sub>

Die Anlage hat im Berichtszeitraum Emissionen verursacht.  
 zutreffend  nicht zutreffend



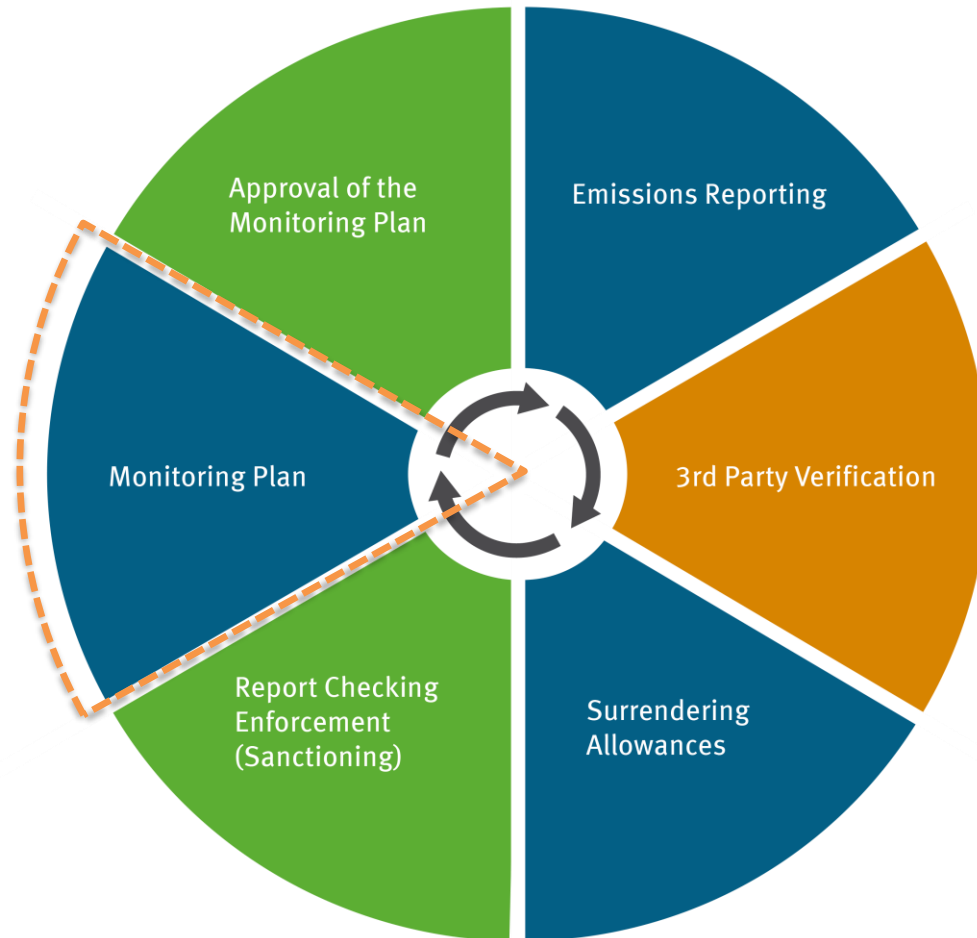


## Legal Framework

- 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 601/2012 (MRR)**
  - **Accreditation & Verification Regulation 600/2012 (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





- **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**



## Competent Authorities provide:

- Electronic Templates
- Guidance Documents, FAQs
- User Manual & XML Interface for the Electronic MP

**CONTENTS**

- [Guidelines and conditions](#)
- [Monitoring Plan versions](#)
- [Identification of the aircraft operator](#)
- [Contact details](#)
- [Emission sources and fleet characteristics](#)
- [Eligibility for simplified approaches](#)
- [Activity data](#)
- [Uncertainty assessment](#)
- [Emission factors](#)
- [Simplified calculation of CO2 emissions](#)
- [Data Gaps](#)
- [Management](#)
- [Data Flow Activities](#)
- [Control Activities](#)
- [List of definitions and abbreviations used](#)
- [Additional information](#)
- [Member State specific further information](#)

**Information about this file:**  
This monitoring plan was submitted by:  
Unique Identifier of the aircraft operator (CRCD No.):   
Version Number of this monitoring plan:

If your competent authority requires you to hand in a signed paper copy of the monitoring plan, please use the space below for signature:

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name and Signature of legally responsible person

**Template version information:**

Template provided by:	European Commission
Publication date:	16.07.2012
Language version:	English
Reference filename:	IMP P3 Aircraft_CO2_en_160712.xls

Template of the European Commission

or

**Monitoring Plan Annual Emissions**

Identification of the Aircraft Operator

EU unique identifier:

Name of the aircraft operator:

German representation:

Name of the aircraft operator on the EU Commission's list of operators:

Is there an ICAO designator attributed to your aviation company?  
 yes  no

ICAO unique designator:

Registration marking of the aircraft (set number):  (1 max)

Competent Authority for European Union Emissions Trading Scheme

Assigned administering EU Member State (German):

Previous administering EU Member state:

Do you have a DEHST reference number?  
 yes  no

DEHST reference number:

Monitoring Plan

Date of update: 04.07.2012

Monitoring plan is valid from:

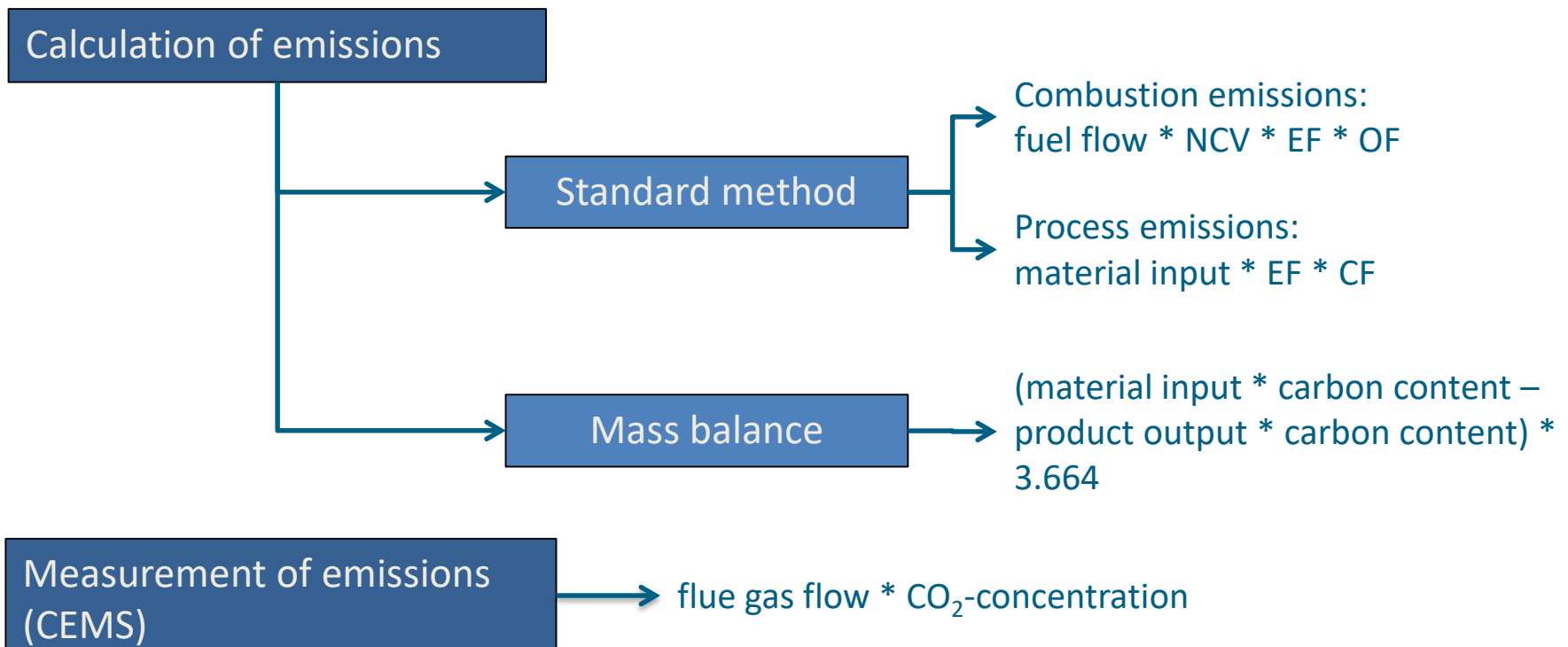
Electronic Form if required by Member State





# Monitoring Plan Main Requirements

## Methods for determination of emissions



→ Operator may also combine methods

## 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

## 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**



# 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**





# Surrendering Allowances







# Surrendering 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**

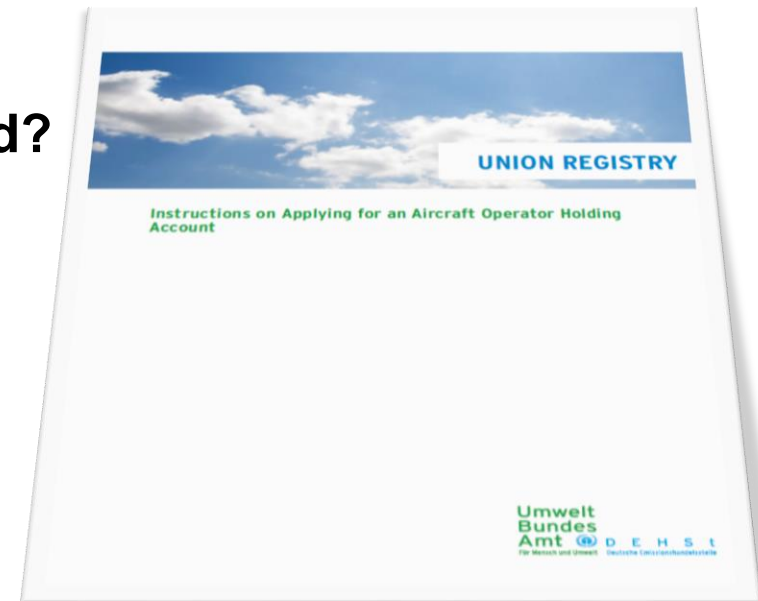




# Surrendering Allowances

**CAs provide useful information on:**

- **How to open an account?**
- **What type of account is needed?**
- **What kind of certificates can be used?**





# Assessment of AER & Enforcement





# Accreditation & Surveillance of Verifiers

## Requirements on Verifiers

- **Accreditation is (required and) granted scope specific**
  - **29 different (industrial) activities are covered by the EU-ETS**
  - **Annex I AVR: For accreditation purposes activities are categorised into 13 groups of activities based on similarities in the complexity, industry type, processes and technical characteristics**
  - **Each group forms a specific scope, e.g. „*mineral processing industries*“**
- **Applicant verifiers have to be legal entities (verification bodies)**



# Accreditation & Surveillance of Verifiers

## Requirements on Verifiers

- Appropriate **Quality Management System**
- **Procedures** to carry out verification activities in line with AVR, including an independent review of all verification reports
- **Mechanism** (e.g. committee) to ensure independence and impartiality
- **Competence process**, including
  - General and specific **competence criteria** for its staff (Lead Auditors, Auditors, Technical Experts, Independent Reviewer)
  - A process to **maintain, develop and monitor/evaluate the competence** of its staff and performance
- **Internal verification documentation**



# Accreditation & Surveillance of Verifiers

## Requirements on National Accreditation Bodies (NAB)

- Each **Member State** has to appoint a NAB
- Accreditation has to be carried out as a **public authority activity**
- **Impartial/Independent**
- Principle of **non-competition** between NABs in Europe
- Publication of a **register** of accredited verifiers
- Verifiers have to be assessed during **document reviews, office audits, witness audits**
- **Annual surveillance** audits on all accredited verifiers
- NABs have to be members of the “**European Co-operation for Accreditation**” and are subject to “**peer reviews**”



# Accreditation & Surveillance of Verifiers

## Accreditation Procedure

- NAB appoints an **Assessment Team**, which
  - Conducts a Document Review
  - Visits the premises of the applicant verifier (**office audit**)
  - Assesses competence and performance of a representative part of the staff of an applicant verifier during verification procedures (**witness audits**)
- **Non-conformities/deviations** found during the assessments have **to be rectified** within a certain timeframe
- Assessment team submits a **detailed report to the NAB** containing a recommendation whether to grant Accreditation or not
- NABs “**Accreditation Committee**” checks the assessment reports and takes the final decision
- **Accreditation Certificates** are valid up to **5 years in all**



# Accreditation & Surveillance of Verifiers

## Surveillance

- **Responsibility for a functioning Emissions Trading System (ETS) lies with the CAs**
- **But: NABs are responsible for surveillance of verifiers**
- **NABs**
  - **have to carry out annual “office visits” and “witness audits” to safeguard the ongoing compliance of Verification Bodies**
  - **may conduct extraordinary assessments at any time**
- **CAs**
  - **get information on verifier’s performance by checking verified Annual Emissions Reports**
  - **may carry out further investigations (e.g. check the verifier’s internal documentations)**
- **CAs may file complaints with regard to specific verifiers**





# Accreditation & Surveillance of Verifiers

## Surveillance & Administrative Measures

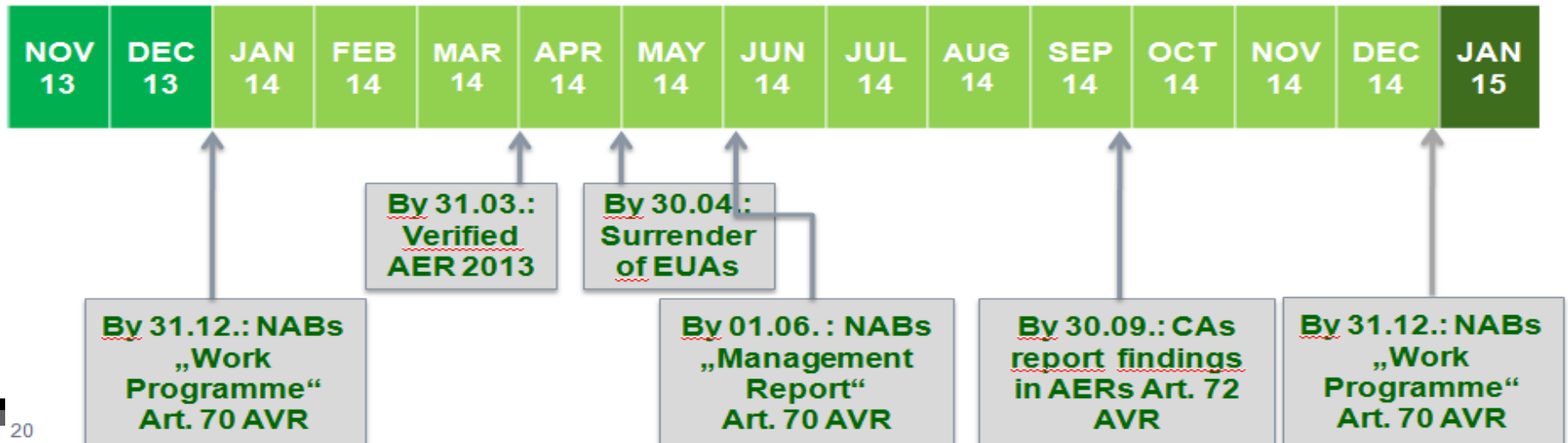
- **NABs *may* suspend, reduce or withdraw** the accreditation in cases of **non-compliance**
- **NABs *shall* suspend or restrict** the accreditation in cases of **serious or persistent /repeated breaches** of the AVR
- **NABs *shall* withdraw** the accreditation,
  - if the Verification Body has failed to remedy the grounds for a decision to suspend the accreditation
  - in cases of fraud



# Accreditation & Surveillance of Verifiers

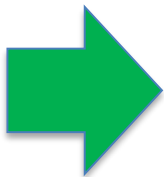
## Surveillance & Information Exchange

- NABs and CAs have to establish an **effective information exchange**
- **NABs** have to submit to **CAs**:
  - Accreditation Work Programme (by end of December)
  - Management Report (by June of every year)
- **CAs** have to report to **NABs** on relevant results from AER assessment





- About **1900 stationary** installations have to **submit verified AERs** to the CA in **Germany**
- **Verification** of the AERs **is carried out by**
  - **17 verification bodies accredited** by the National Accreditation Body (**NAB**) of Germany (DAkkS - Deutsche Akkreditierungsstelle GmbH)
  - **3 verification bodies accredited** by **NABs** of other EU **Member States** (2 UKAS; 1 Cofrac - France)



About **120 to 130 persons** are acting as Lead Auditors / Auditors / Technical Experts and Independent Reviewer

## Different approaches possible

- Just to perform **follow-up checks** on (non-material) misstatements or non-conformities **found/reported by verifiers** or some **random checks**
- **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