



Federal Ministry for the
Environment, Nature Conservation,
Building and Nuclear Safety

EU ETS Experiences

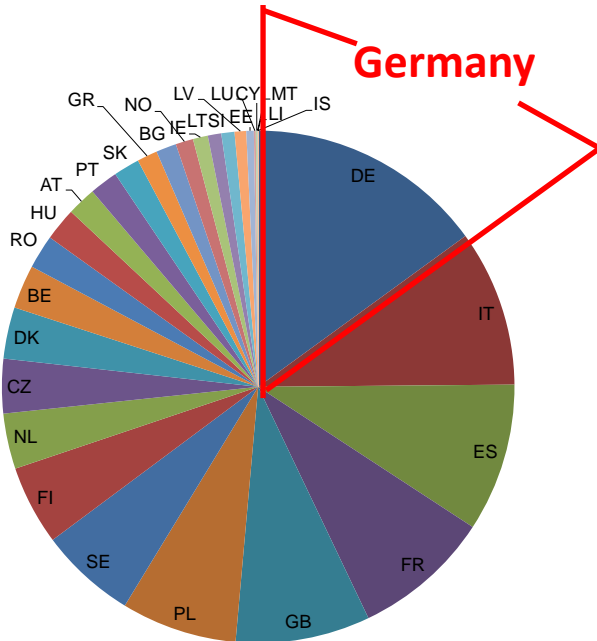
Machali, 27 August 2018

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Federal Ministry for the Environment,
Nature Conservation, Building and Nuclear Safety
Germany

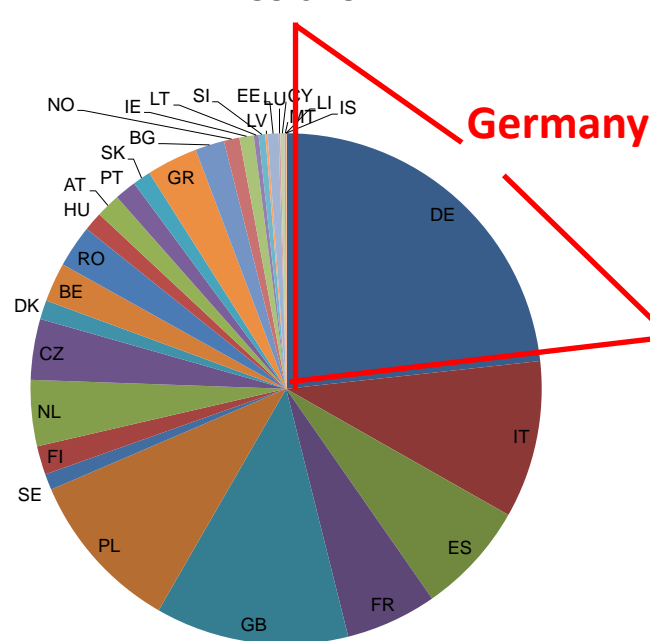


EU ETS Overview

Number of installations



Emissions



Current - 2016:

Germany:

- 1,863 installations
- 453.5 million t CO_{2e}
- 0.6 % < 2015
- 68 aircraft operators
- 9.3 million t CO_{2e}
- 3.8 % > 2015

Europe:

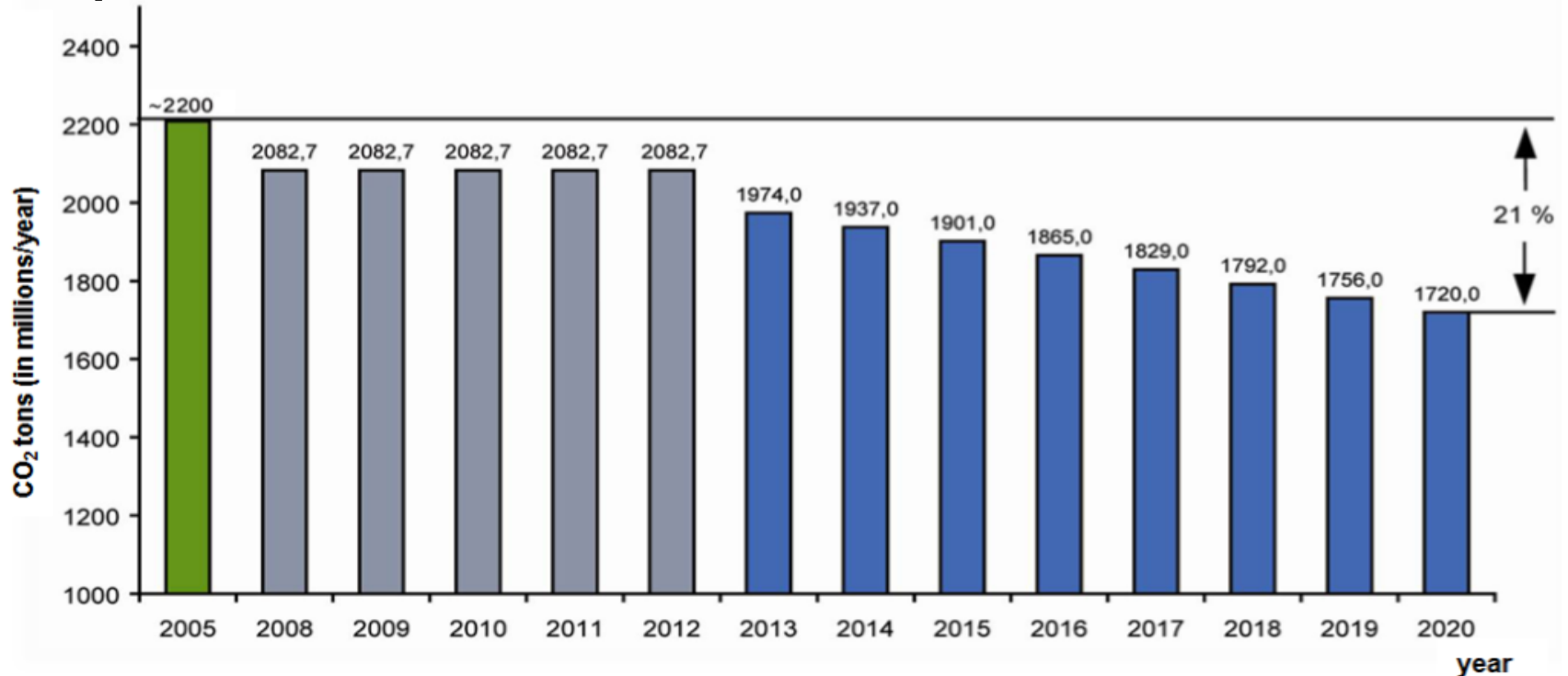
- 11,672 installations
- 1.75 billion t CO_{2e}
- 2.9 % < 2015
- > 40 % of EU GHG
- 774 aircraft operators
- 61.4 million t CO_{2e}
- 7.6 % > 2015

Source: EEA, Trends and projections in the EU ETS 2017
UBA/DEHSt, VET Bericht 2016



EU ETS Phase I - III overview

Caps from Phase I to Phase III



Phase III: EU ETS wide cap, decreased by 1.74 % annually (38 Mill t CO_{2e})



EU ETS Phase I - III overview

2005 – 2007

**EU ETS
1st Phase**

Pilot phase:
learning by doing

2008 – 2012

**EU ETS
2nd Phase**

Stabilisation:
first commitment
period under the
Kyoto Protocol

2013 – 2020

**EU ETS
3rd Phase**

European
harmonization &
consolidation

2021
and beyond

**EU ETS
4th Phase**

Structural
reform, further
development



EU ETS Achievements

- **ETS infrastructure works well, robust database available, high compliance level**
- **EU-wide harmonization from Phase I to Phase III** (e.g. EU-wide cap, allocation rules, MRVA, Union registry...)
- **Learned from mistakes** (overallocation, windfall profits, criminal actions...)
- **Emissions reductions have been achieved**
 - EU: – 24,2 % in 2015 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



Challenges: Oversupply

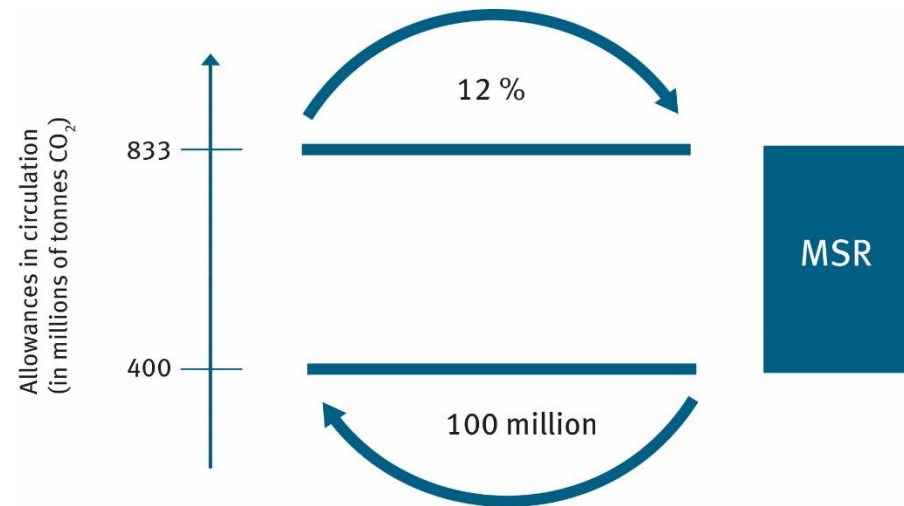
- **Accumulated surplus of approx. 1,7 billion allowances in 2016 and decline in CO₂ allowance prices**
(2008: 25 - 30 €; 2016 5 €)
- **Surplus caused by ...**
 - **Financial and economic crisis** – resulted in reduction of output and emissions, which has not been anticipated
 - Considerable proportion of **credits from project-based mechanisms**
- **Scarcity needs to be restored** to give incentives for **long-term investments**
- **EU ETS can not contribute to the 2050 long-term goal of 80 – 95 % emission reduction**



EU ETS Structural Reform Phase III

- Establishing a “Market Stability Reserve” (MSR)
- Start Date:
 - First publication of “Allowances in Circulation” in 2017: 1.7 billion t CO₂
 - **First transfer of allowances into the MSR in 2019**
- Backloading 2014 - 2016:
 - 900 million t CO₂ to be directly transferred to MSR
- Unallocated Allowances:
 - To be directly transferred to MSR at the end of 3rd trading period

Allowances Issued
minus Verified Emissions
= **Allowances in Circulation**
(Surplus)





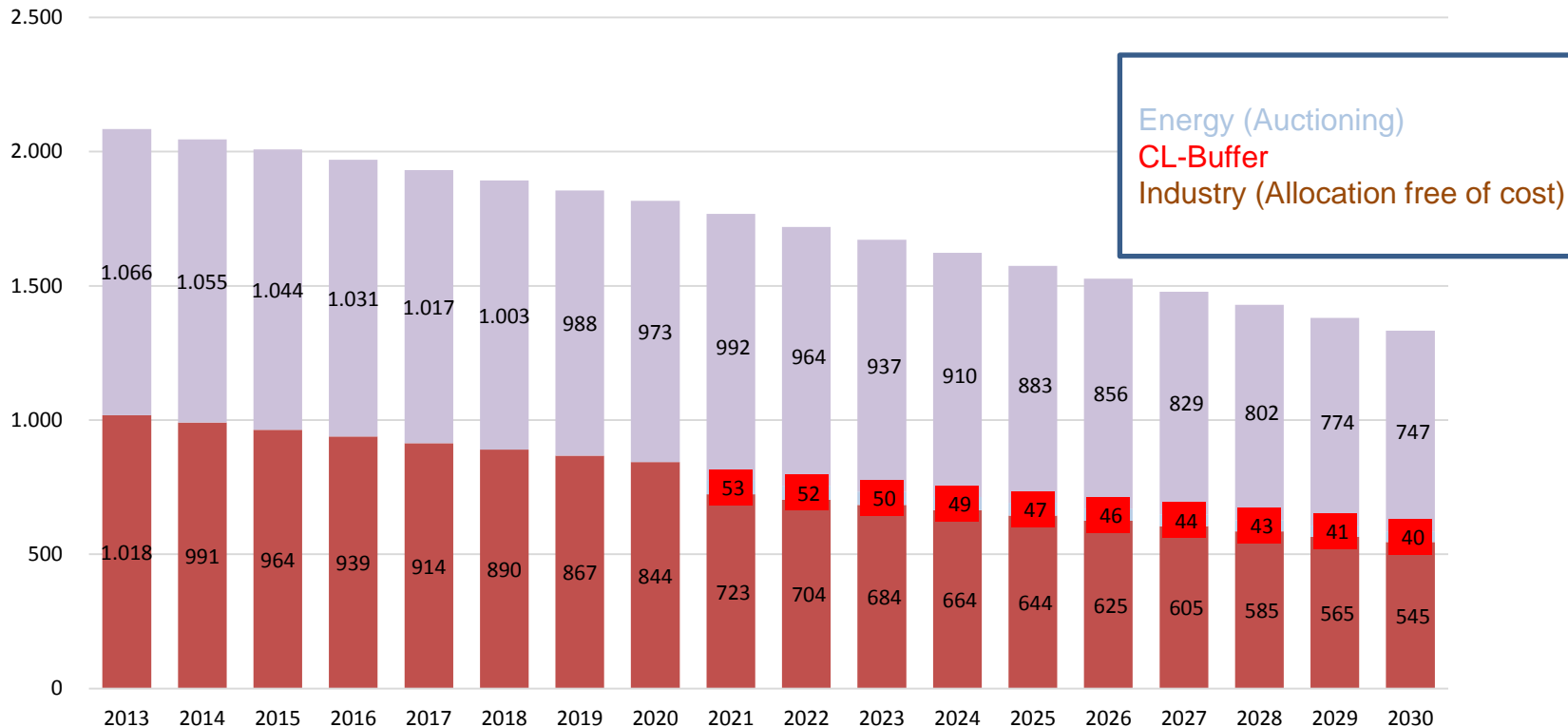
EU ETS

Structural Reform Phase IV

- **9 November 2017:** EU legislative bodies agreed on **EU ETS reform for Phase IV to strengthen the ETS again**
 - **Cap reduction by 2.2 % p.a.** instead of 1.74 %
 - **Doubling MSR intake rate** from 12 % to **24 % between 2019 and 2023** to restore scarcity in the early years of Phase IV
 - **2023: Cancellation of allowances** in the MSR exceeding the total amount of allowances auctioned in the previous year (approx. 2 billion EUAs will be invalidated)
 - **Avoiding „Waterbed Effect“: Member States phasing out coal may cancel allowances** for installations that ceased operation



EU ETS Cap in Phase III & Phase IV

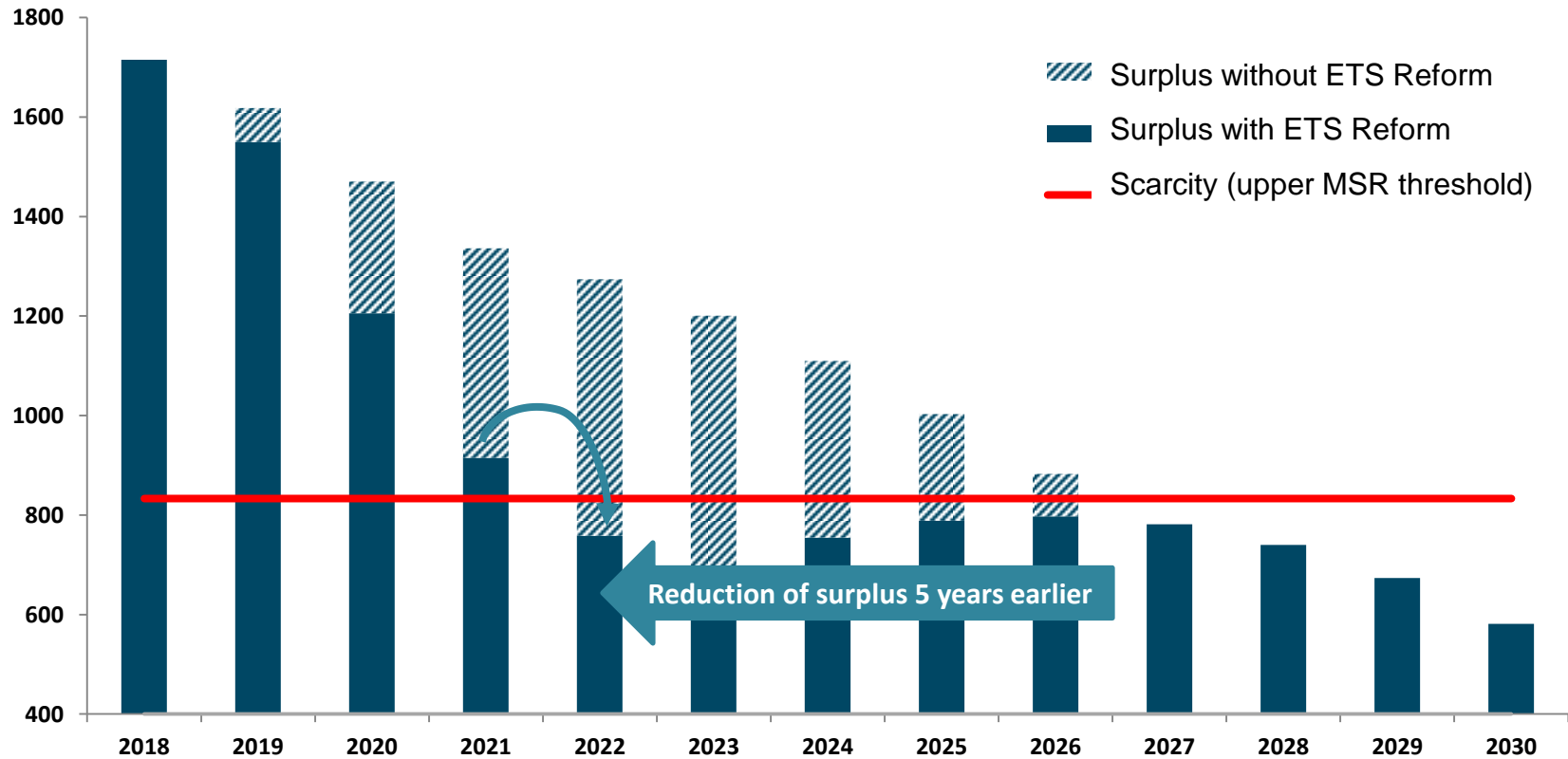


Phase III 2013 - 2020: reduction factor 1.74 % annually (38 Mill t CO_{2e})
Phase IV 2021 - 2030: reduction factor 2.2 % annually (48 Mill t CO_{2e})



EU ETS Strengthening in Phase IV

Surplus
[in mln. allowances]





Further Reform Elements Phase IV

- **Addressing competitiveness concerns**
 - **43 % of the Cap** to be **allocated free of costs** (benchmarking based on 10 % of the most efficient installations, updated annually between 0,2 and 1,6 %)
 - **Comprehensive Carbon Leakage List**
 - **100 % allocation** based on benchmarking for **Carbon Leakage Sectors** 2021 – 2030 (non-CL sectors 30 %, phasing out 2026 - 2030)
 - **Avoidance** of „**Cross Sectoral Correction Factor**“ (CSCF)
 - „**Dynamic Allocation**“ regarding increases/decreases of the activity levels of installations



Further Reform Elements Phase IV

- **Innovation & Solidarity Mechanisms**
 - **Innovation Fund** (400 – 450 million EUAs)
 - Supporting the **demonstration of innovative technologies** (Renewable Energies, CCS, low-carbon technologies)
 - Eligibility: All Member States
 - **Modernisation Fund** (310 – 385 million EUAs)
 - Modernisation of power sector and energy systems
 - Eligibility: Lower-income Member States
- **Up to 60 % of auctioning amounts** to be used for **allocation** free of cost for the **energy sector** in **low-income** Member States



EU ETS

What comes next?

- **Phase IV reform will strengthen the EU ETS again and will restore its price signal (DE Auction August 24th: € 20,55)**
- **Performance of the MSR will be reviewed in Phase IV**
- **Further improvements?**
 - Cap reduction of **2.2 % p.a.** is still **not** in line with the 2050 long-term goal for a **net ghg neutral economy (- 95 %)**
 - **Improved monitoring and alignment of EU ETS and other climate policies**



Thank you for your attention

Alexander Handke

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EU ETS Phase I - III overview

Gases

Initially, the EU ETS focused on CO₂
N₂O and PFCs were added in phase III.

Point of regulation

Downstream

Sectors

Energy: Power and heat generation

Industry: Energy-intensive sectors incl. oil refineries, iron and steel, aluminium, metals, cement, lime, glass, ceramics, pulp, paper, cardboard, acids, and bulk organic chemicals

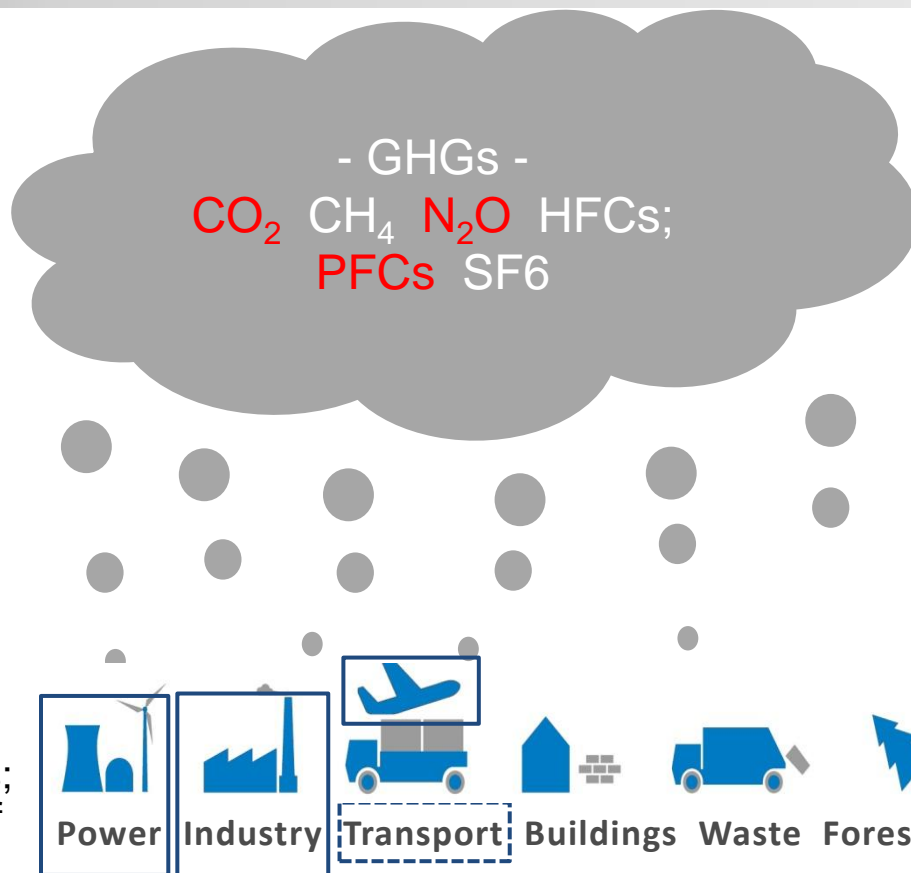
Aviation

Thresholds

Energy: > 20 MW total rated thermal input

Industry: Varying thresholds for different sectors;
Small installations with fewer than 25,000 tons of CO₂e may be excluded

Aviation: 10,000t CO₂/year



EU ETS: ca. 11,000 installations & 45 % GHG emissions.



Establishing an ETS

Steps to implement the ETS

- **Define key design features**

- What kind of system suits best regarding your **national circumstances**?
- Will existing **data** suffice for your decisions or do you need to collect additional data?
- How to ensure the ETS will be **compatible with** systems you envision **linking** with or being part in the future?

- **Legal Basis**

Establish legal basis needed for the key design elements

- **Institutional Basis**

Define or create institutions responsible for implementing the ETS



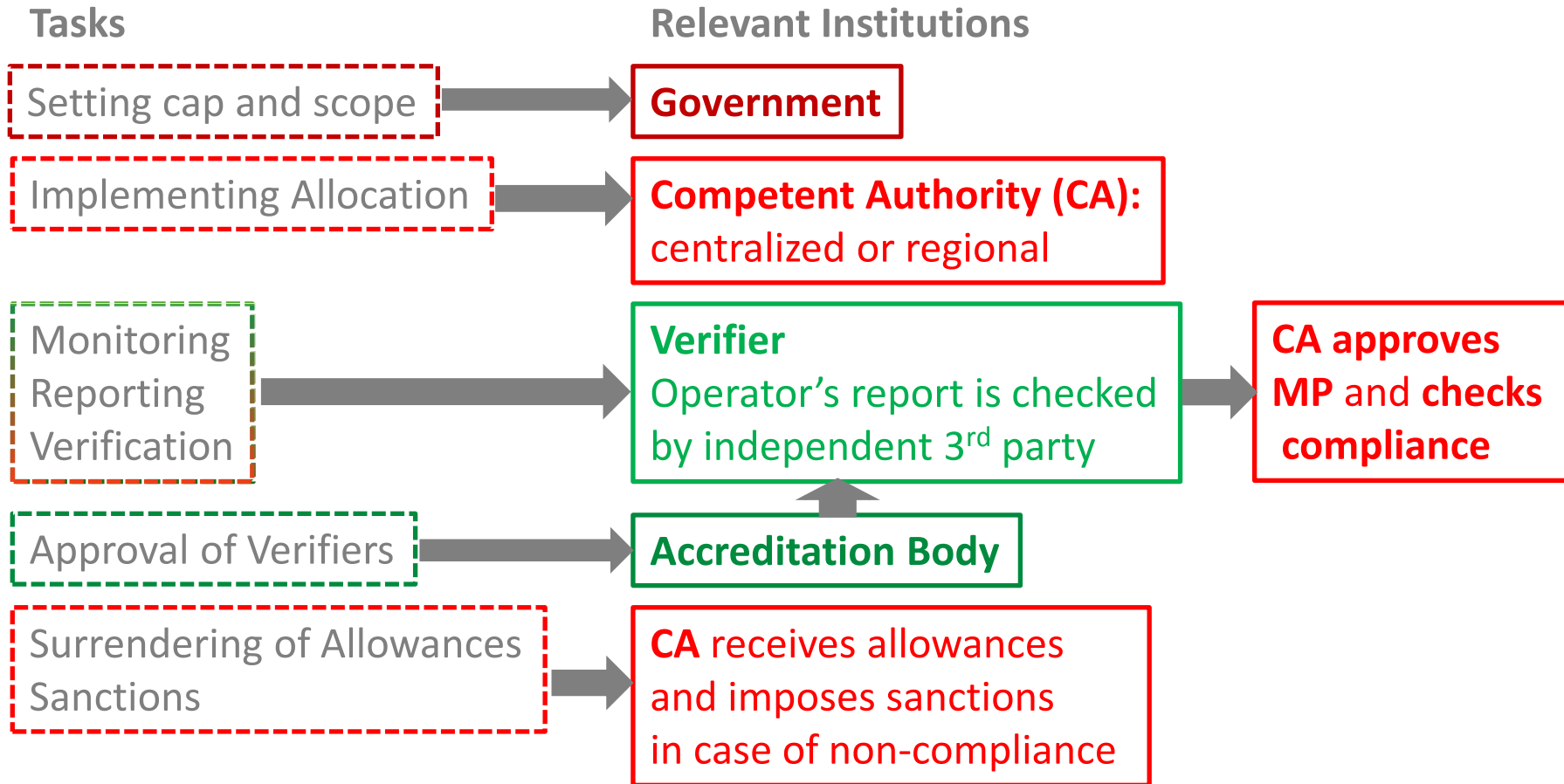
Establishing an ETS

Key Design Features

- **Coverage** : Sectors / Greenhouse Gases
- **Cap** : Achievable Reduction & Required Contribution to national GHG target
- **Allocation** : Auctioning / Benchmarking / Grandfathering / Carbon Leakage Protection
- **MRV** : “a tonne must be a tonne”
- **Compliance** : Checks to be carried out / Sanctions and Penalties
- **Registry** : Electronic infrastructure to facilitate compliance & trading
- **Flexibility** : Managing supply & demand



Establishing an ETS Institutional Capacity Needs





Establishing an ETS

Organizing Support on all Levels

Consultations with ...

- **Other Ministries involved**
e. g. in Germany “Interministerial Committee for Climate”
- **Members of Parliament**
to ensure support by relevant political parties
- **Stakeholders from covered sectors**

in Germany

- **Working Group on Emissions Trading (AGE):**
 - Permanent stakeholder consultation on all questions of ETS
 - including representatives from companies, trade associations, environmental NGOs, trade unions, parliamentary factions of political parties, federal states and agencies
- Complemented by **high-level consultations with CEOs** of major companies in the implementation phase



Establishing an ETS

Pilot Phase - Learning by Doing

Learning is possible only in a “real” system

- **“Hard Framework”**

- Clear obligations for covered participant and providing for sanctions to **ensure compliance**
- **Verified data** ensure information basis for subsequent more ambitious trading periods

- **“Soft Start”**

- Starting with a cap providing for **manageable reduction efforts**
- **Cost free allocation & Phasing-in Auctioning**
- **Additional policies** can reconcile economic impacts (e.g. by developing renewable energy, improving energy efficiency, solutions for carbon leakage)



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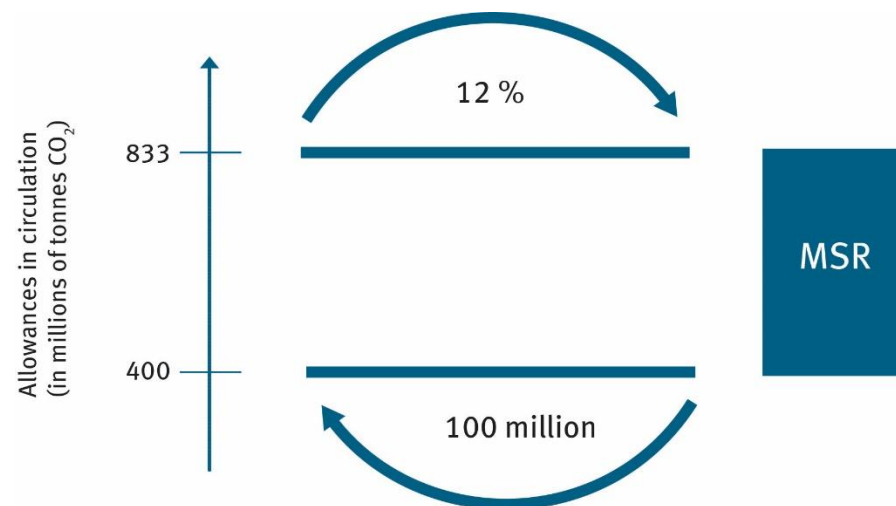
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