



# **Carbon Pricing: Implementation & Challenges (EU ETS/Germany)**

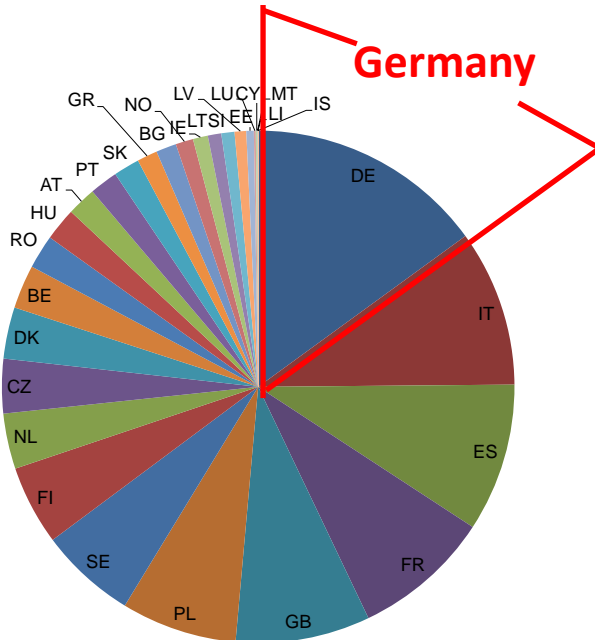
**Regional Dialogue on Carbon Pricing and MRV**  
Santiago de Chile, 22 – 24 January 2018

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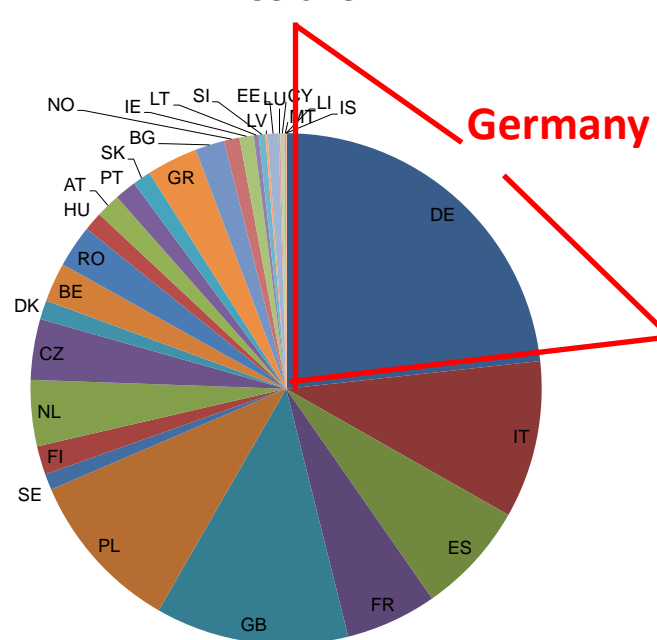


# EU ETS Overview

Number of installations



Emissions



## Current - 2016:

### Germany:

- 1,863 installations
- 453.5 million t CO<sub>2e</sub>
- 0.6 % < 2015

### Europe:

- 11,000 installations
- 1.75 billion t CO<sub>2e</sub>
- 2.9 % < 2015

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



# EU ETS Phase I - III overview

## Gases

Initially, the EU ETS focused on CO<sub>2</sub>  
N<sub>2</sub>O 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

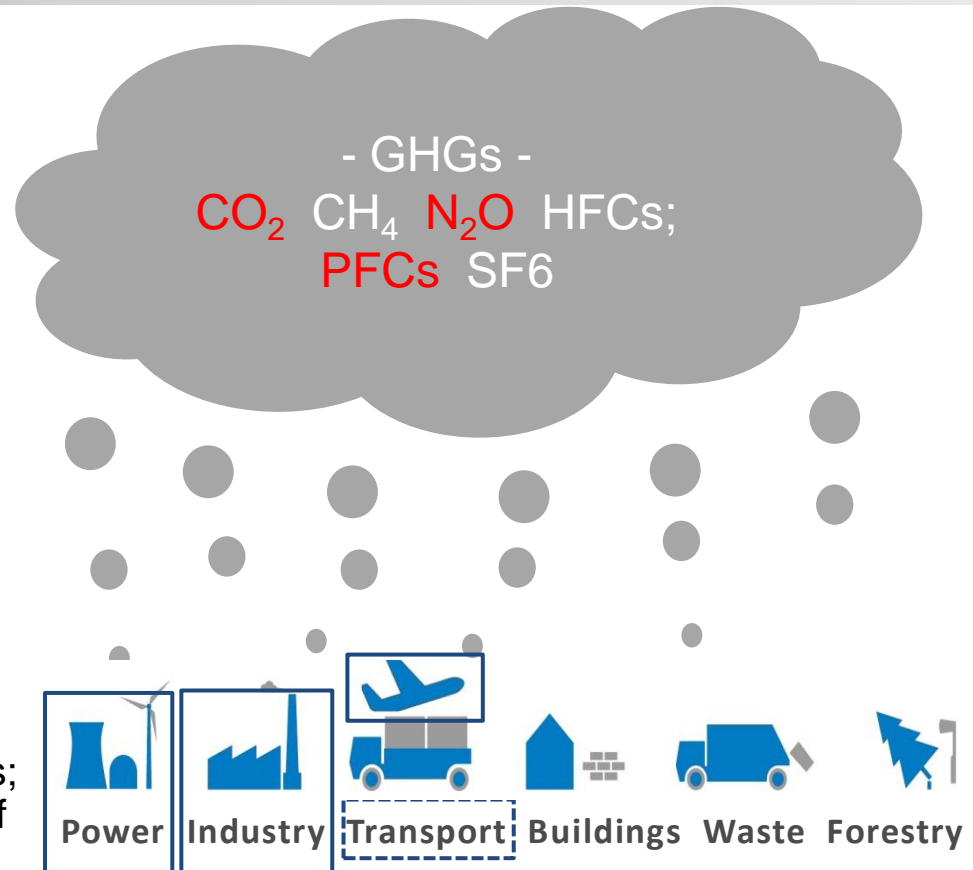
## Aviation

## Thresholds

**Energy:** > 20 MW total rated thermal input

**Industry:** Varying thresholds for different sectors;  
Small installations with fewer than 25,000 tons of CO<sub>2</sub>e may be excluded

**Aviation:** 10,000t CO<sub>2</sub>/year

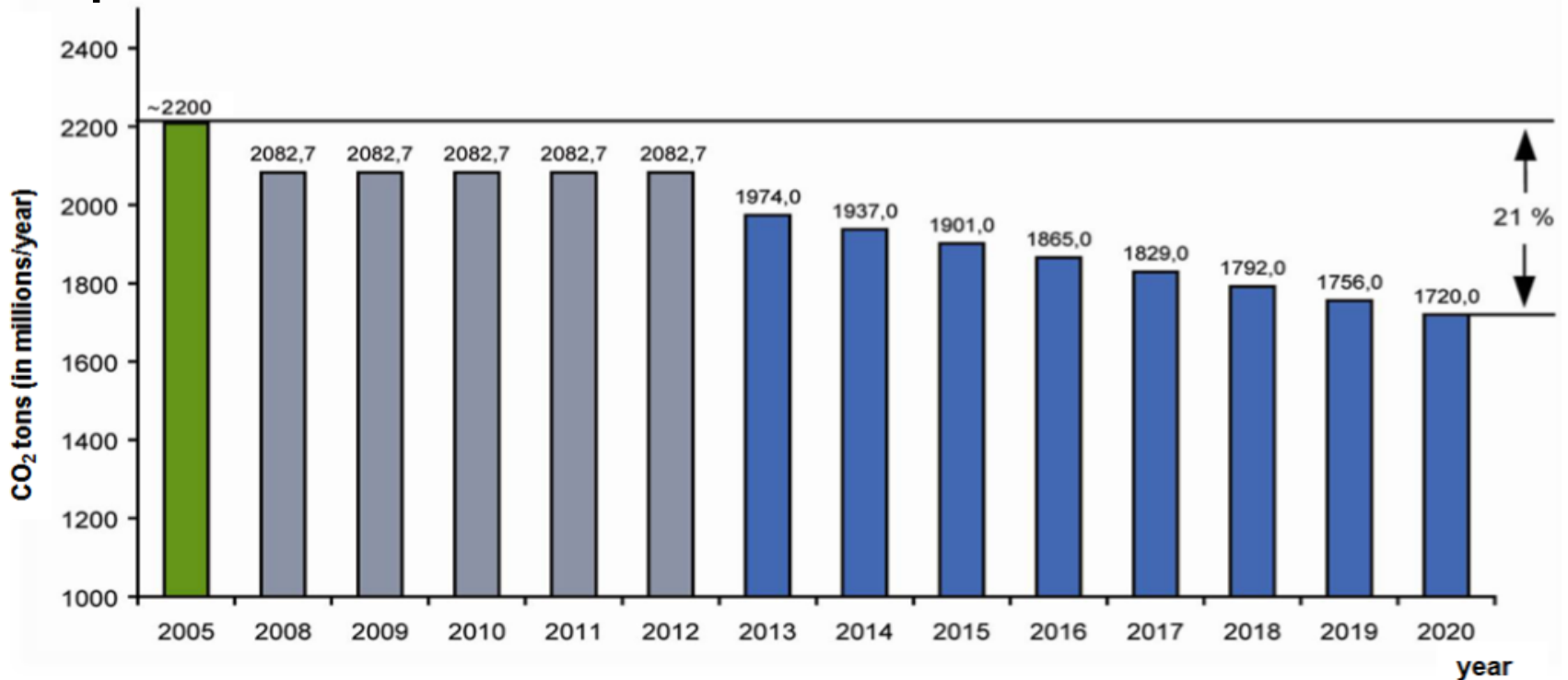


**EU ETS: ca. 11,000 installations & 45 % GHG emissions.**



# 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<sub>2e</sub>)



# 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



# 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

## 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

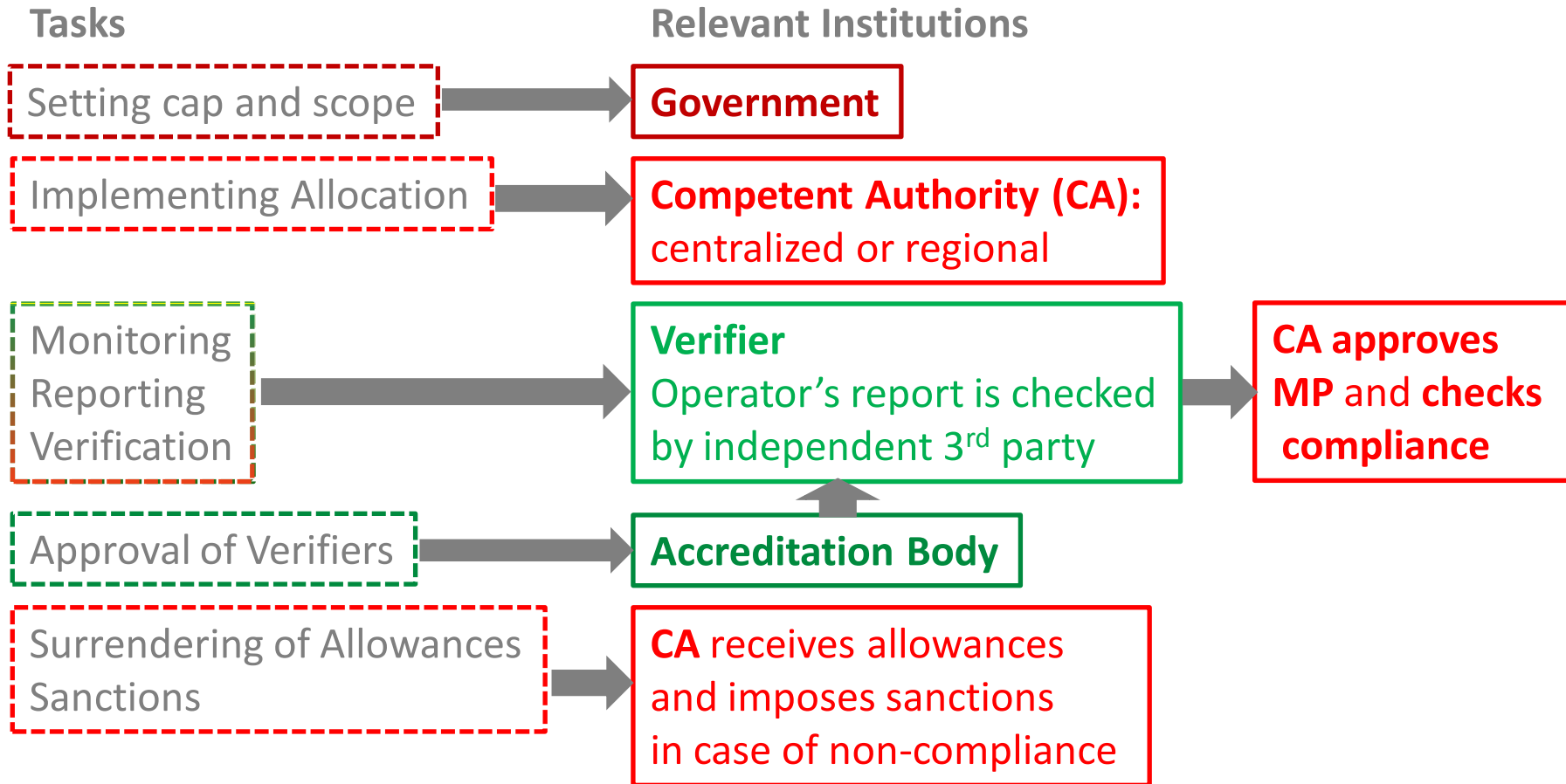
## Key Design Features

- **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 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)



# 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

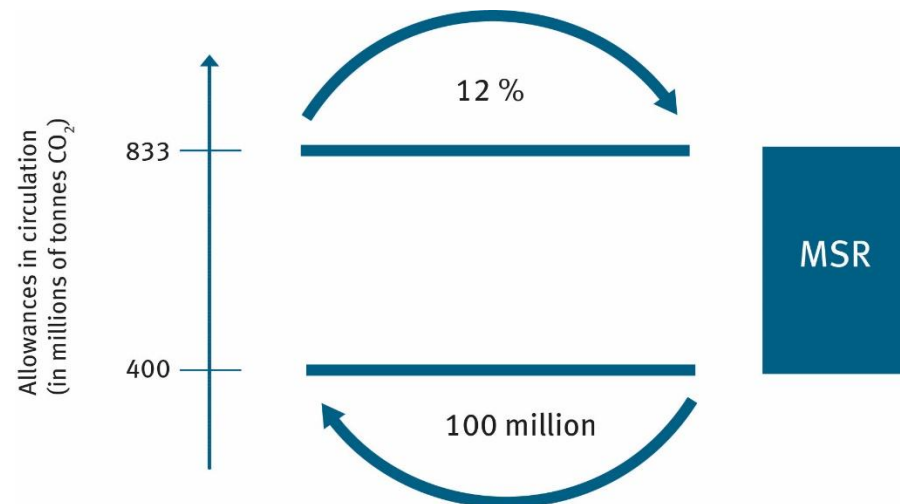
- **Accumulated surplus of approx. 1,7 billion allowances in 2016 and decline in CO<sub>2</sub> allowance prices**  
(2008: 25 €; 2016 5 €)
- **Surplus caused by ...**
  - **Financial and economic crisis** – resulted in reduction of output and emissions, which has not been anticipated
  - Considerable 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 CO<sub>2</sub>
  - **First transfer of allowances into the MSR in 2019**
- Backloading 2014 - 2016:
  - 900 million t CO<sub>2</sub> 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, i.a.
  - **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 **are enabled to cancel allowances** for the installation that ceased operation



# EU ETS

## What comes next?

- **Phase IV reform will strengthen the EU ETS again and will restore its price signal**
- **Performance and results 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 %)
  - **Better monitoring and alignment** of EU ETS and **other climate policies**



# Thank you for your attention

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