



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

Session 2: Framework legislation and policy on climate change – EU/Germany

**2nd Seminar on “Sharing Experiences on Legal Development and Implementation of ETS”
Bangkok, 10 June 2019**

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



- **EU Climate & Energy Targets**
- **German Climate Policy Targets**
- **German Climate Change Act (draft)**



- **European Union is Party to**
 - **United Nations Framework Convention on Climate Change (UNFCCC)** of 1992
Aim: "preventing dangerous anthropogenic interference with Earth's climate system"
 - **Kyoto Protocol (KP)** to the UNFCCC laying down "*Quantified Emission Limitation and Reduction Objectives*" (QELROs) regarding six greenhouse gases for developed countries (EU: - 8 % between 2008 and 2012 compared to 1990; - 20 % until 2020)
 - **Paris Agreement (PA)** under the UNFCCC
Aim: holding the global average temperature increase to "well below 2° C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5° C" (EU NDC: at least - 40 % 2030 compared to 1990)



EU Climate and Energy Targets

	GHG emissions reduction	Share of renewable energy	Improvements in energy efficiency
2050	– 80-95 %	To be defined	To be defined
2030	– 40 % (at least)	32 % (at least)	32,5 % (at least)
	➤ ETS: – 43 %*		To be reviewed in 2020
	➤ Non-ETS: – 30 %*		
2020	– 20 %	20 %	20 %
	➤ ETS: – 21 %*		
	➤ Non-ETS: – 10 %*		

*(as compared to 1990 (*2005) level)*

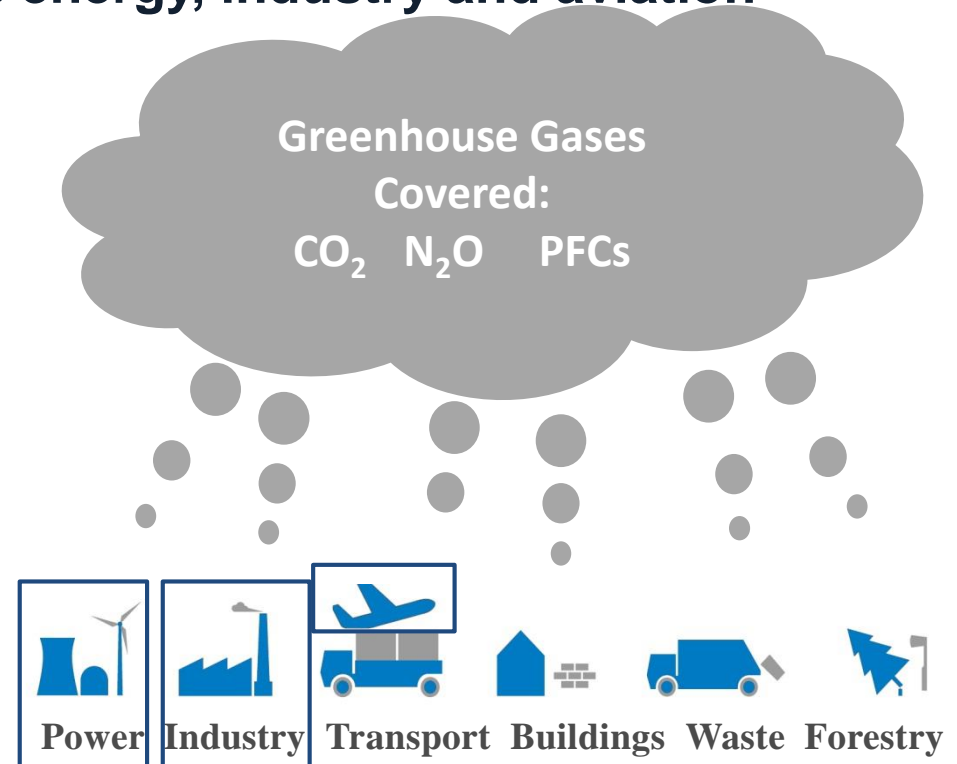


Distribution of Climate Targets

ETS

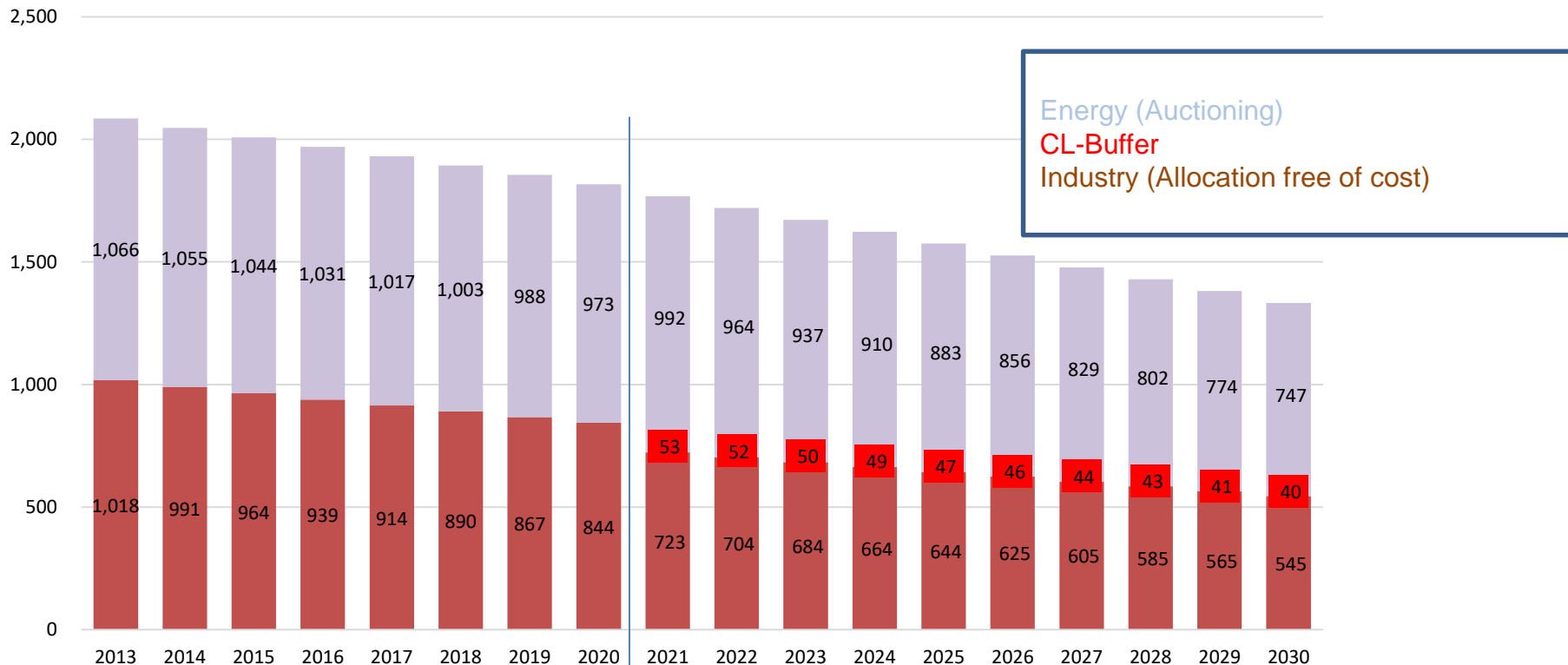
EU ETS covers about 40 % of the EU's total greenhouse gas emissions in the sectors energy, industry and aviation

- **EU-wide targets compared to 2005:**
 - 2020: - 21 %
 - 2030: - 43 %
- **Sectors**
 - Energy: Power and heat generation
 - Industry: Energyintensive sectors and sectors with process emissions
 - Civil aviation: intra-EEA flights
- **Reduction target to be achieved within the covered sectors; no specific national targets**





Distribution of Climate Targets 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})

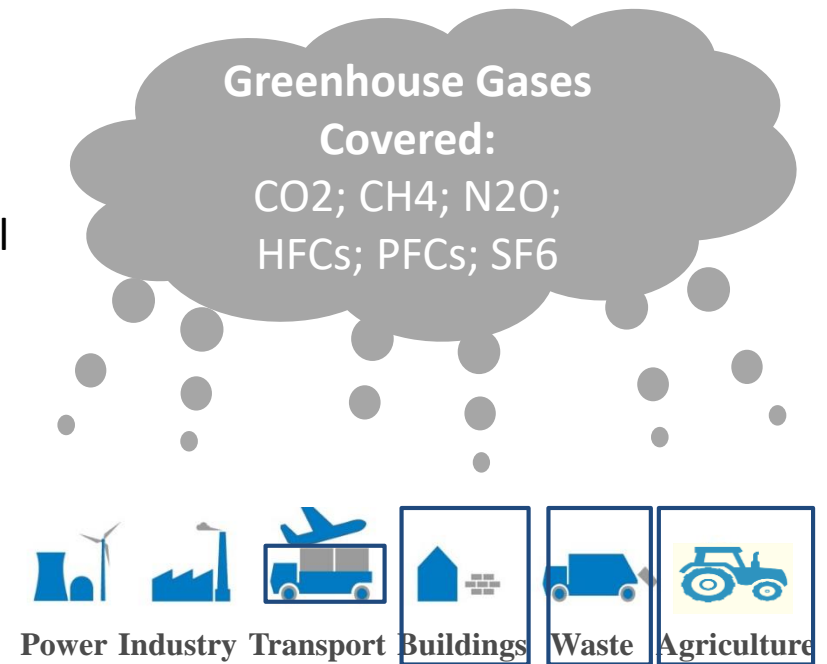


Distribution of Climate Targets

Non-ETS (Effort Sharing)

Member States (MS) remain responsible for emission reductions not covered by the EU ETS

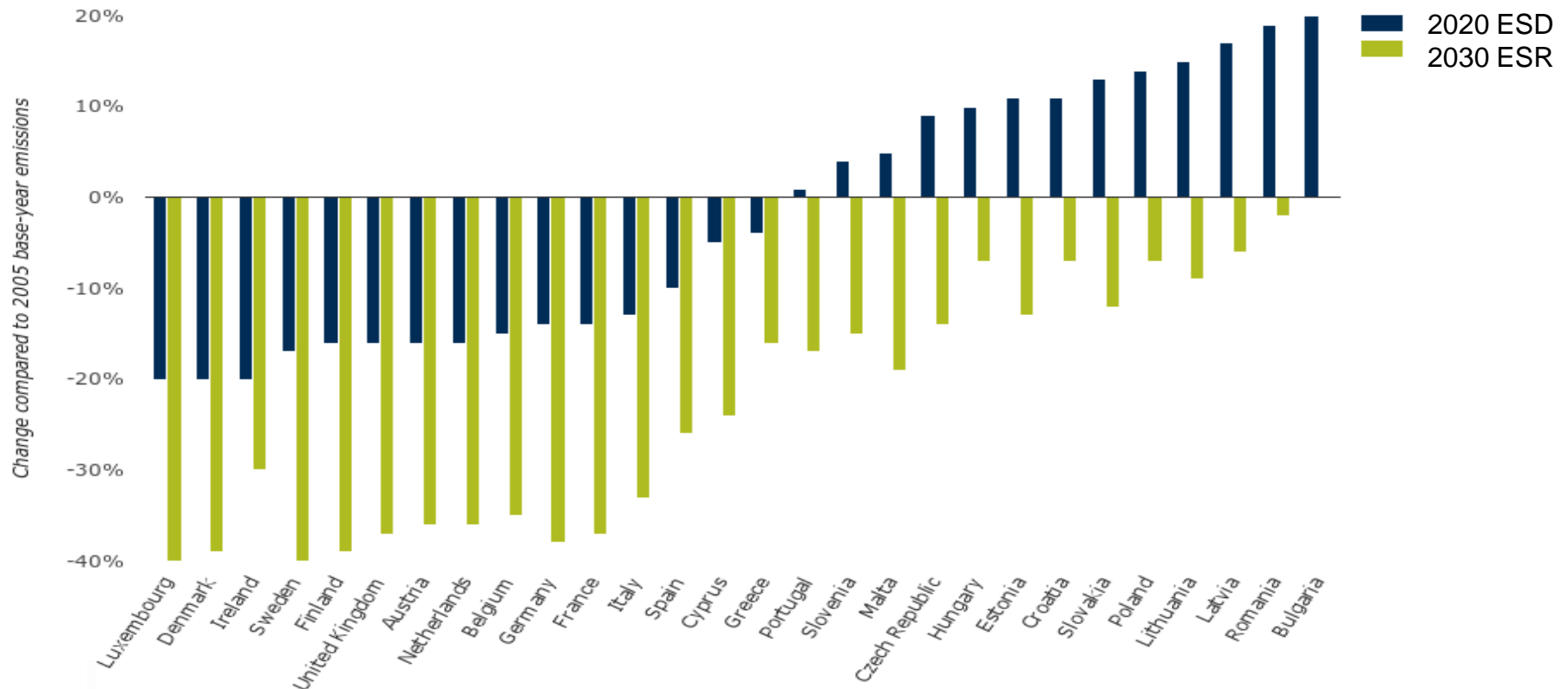
- **EU-wide targets compared to 2005:**
 - 2020: - 10 % (ESD)
 - 2030: - 30 % (ESR)
- **National targets** to contribute to the overall reduction **target based on GDP/capita** and cost effectiveness
- **MS required** to implement policies and measures **to achieve national targets;**





Distribution of Climate Targets

ESD 2013 – 2020 & ESR 2021 - 2030



Source: EEA, based on COM proposal which was finally adopted



- **EU Climate & Energy Targets**
- **German Climate Policy Targets**
- **German Climate Change Act (draft)**



- Adopted by the **Federal Government in 2016**
- Laying down **long-term** and **mid-term goals**, including **sectoral targets** for **2030**
- First „**Programme of Measures 2030**“ to achieve the 2030 sectoral targets in the different sectors **under development**



Germany Climate Action Plan 2050

	Status quo*	Targets			
		2020	2030	2040	2050
Greenhouse gas emissions					
Greenhouse gas emissions (compared with 1990)	27.7 % (2017)	min. -40 %	min. -55 %	min. -70 %	extensively greenhouse gas neutral
Renewable energy sources					
Percentage of gross final energy consumption	14.8 % (2016)	18 %	30 %	45 %	60 %
Percentage of gross electricity consumption	36.2 % (2017)	min. 35 %	min. 50 % EEG 2025: 40 to 45 %	min. 65 % EEG 2035: 55 to 60 %	min. 80 %
Percentage of heat consumption	12.9 % (2017)	14 %			
Percentage of transport sector	5.2 % (2017)	10 %**			
Efficiency and consumption					
Primary energy consumption (compared with 2008)	-5.8 % (2017)	-20 %	→		-50 %
Final energy productivity (2008–2050)			2.1 % per annum (2008–2050)		
Gross energy consumption (compared with 2008)	-3 % (2017)	-10 %	→		-25 %
Primary energy requirement for buildings (compared with 2008)	-15.9 % (2015)		→		-80 %
Heating requirement for buildings (compared with 2008)	-11.1 % (2015)	-20 %			
Final energy consumption for transport (compared with 2005)	1.3 % (2015)	-10 %	-15 to -20 %	→	-40 %

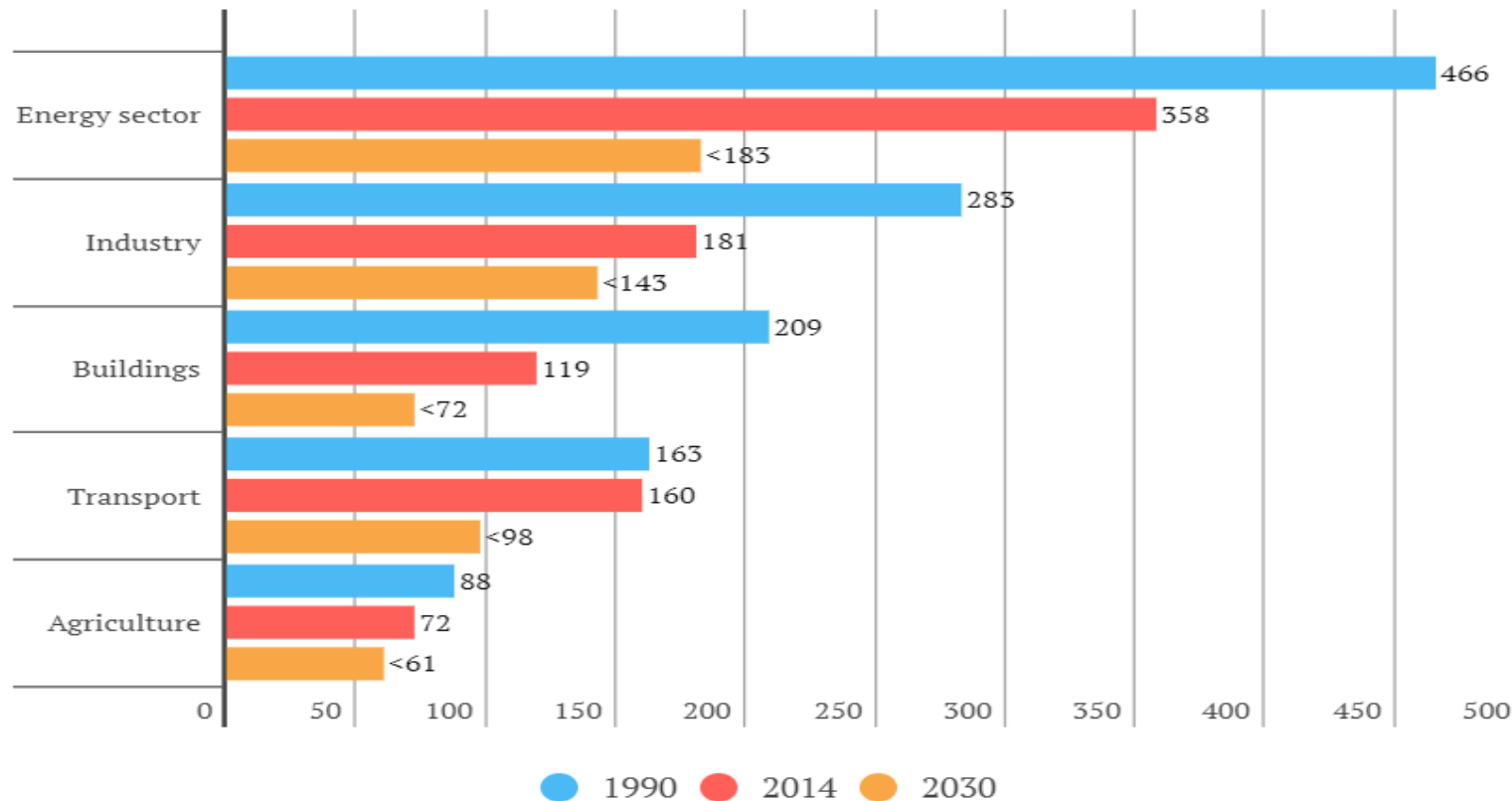
* Latest available figures, as of: April 2018

** Target per EU Directive 2009/28/EC

Source: BMU Climate Action in Figures 2018



Sectoral Targets by 2030

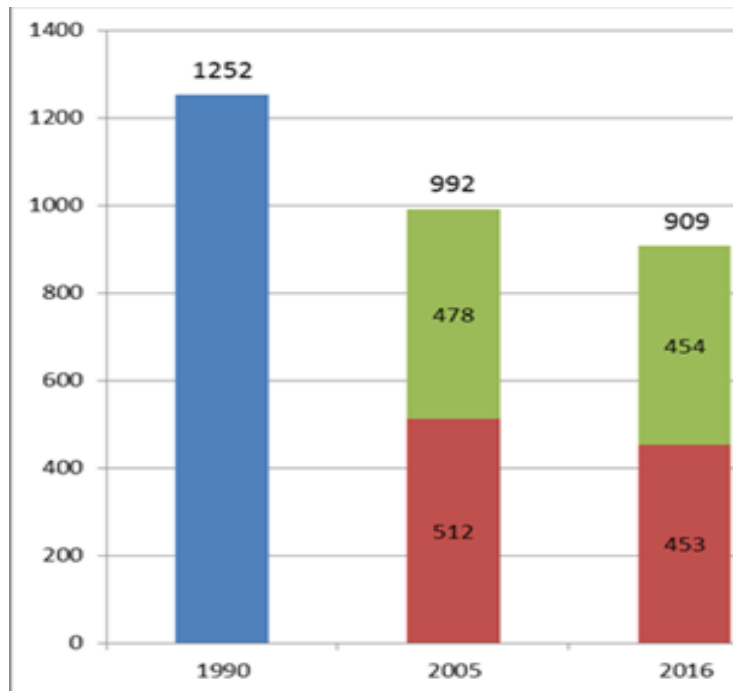




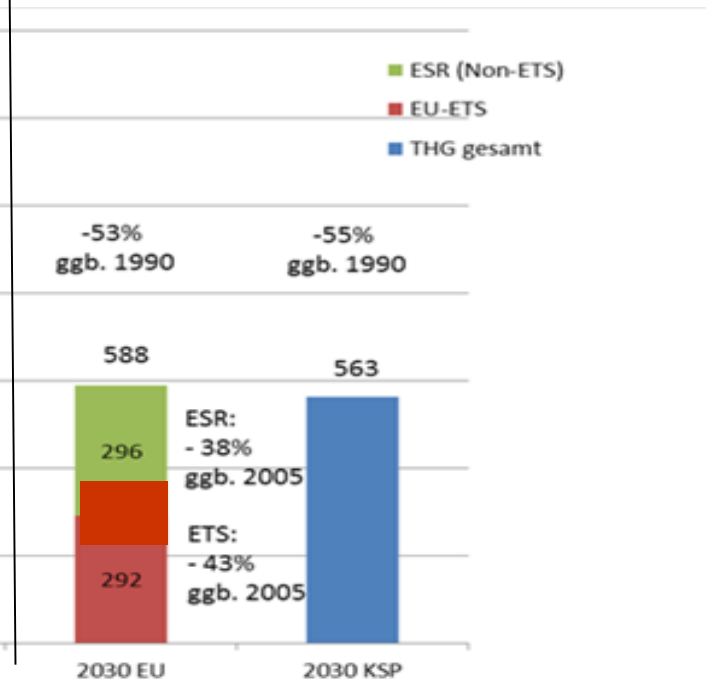
Germany National & EU Policy Targets

million tonnes CO₂ equivalents

Actual emissions in Germany



2030 target emissions for Germany



→ 2030 targets largely coincide



- **EU Climate & Energy Targets**
- **German Climate Policy Targets**
- **German Climate Change Act (draft)**



Climate change act

- Coalition agreement:
Legal provisions ensuring fulfilment of 2030 climate targets to be adopted by 2019 at the latest

2030 climate programme of measures

- Serves to achieve 2030 sectoral targets set out in the Climate Action Plan 2050
- Climate Cabinet to ensure these goals are achieved



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

Germany

Climate Change Act (draft)

Targets

Sectoral budgets

Responsibility

Monitoring

Enforcement

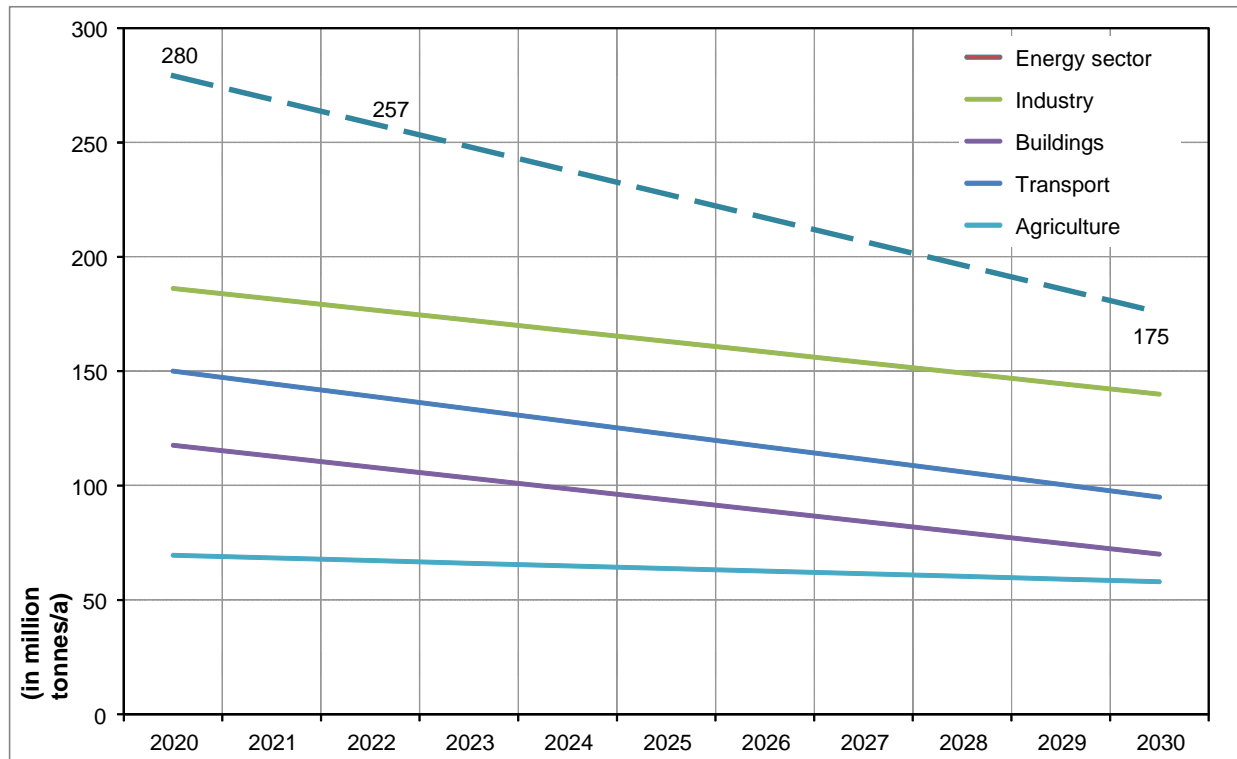
Planning

Consultation

Contribution of Federal Administration

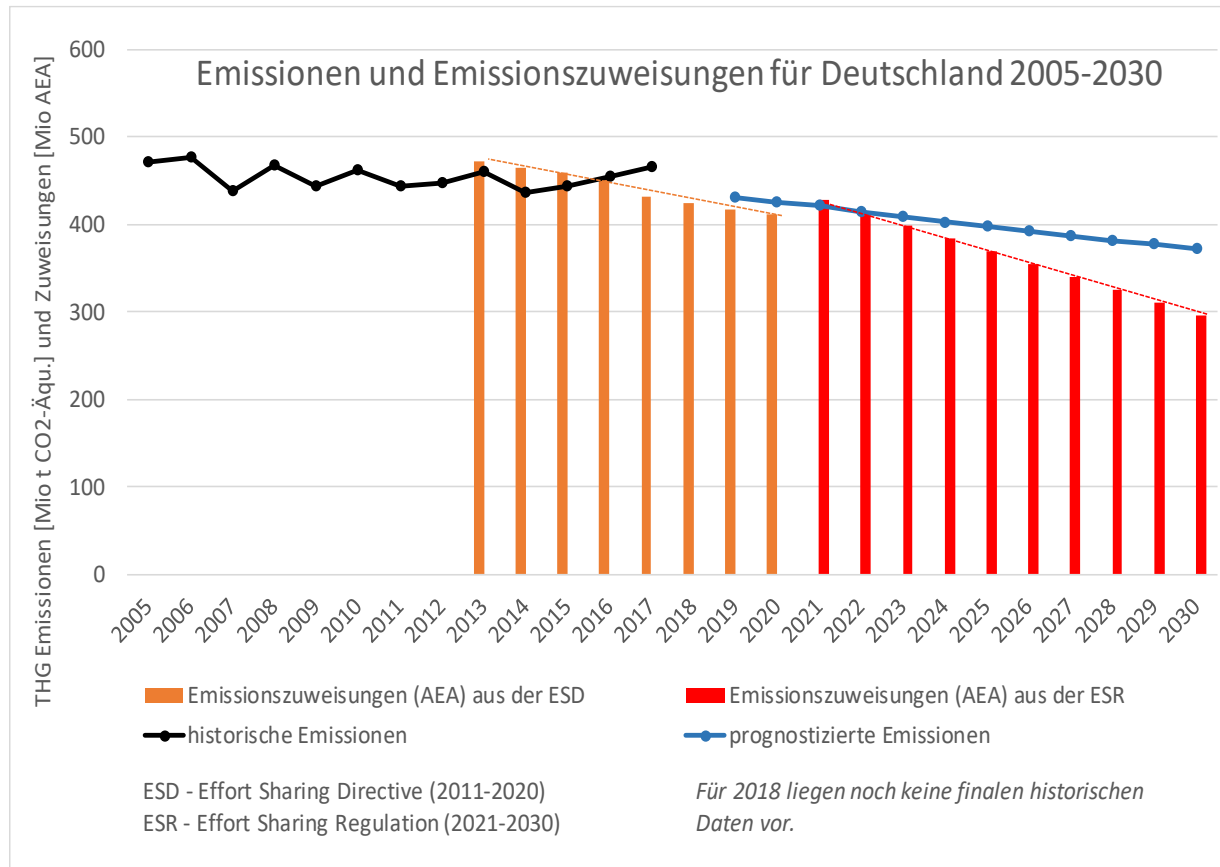


Sectoral targets and annual emission levels





Emissions Trends





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

Thank you for your attention

Alexander Handke

Emissions Trading Division

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

Alexander.Handke@bmu.bund.de



Climate change act

Climate targets

- 2030, 2040, 2050 reduction targets
- Long-term greenhouse gas neutrality 2050

Annual emission levels

- Budget approach prescribed by EU Climate Legislation



Climate change act

Responsibility

- Responsibility for greenhouse gas reduction in individual sectors assigned in line with competence

Budgetary law

- No change in existing budgetary law
- Responsible ministries must apply to use budget funds to purchase annual emission allocations if annual budgets have not been complied with in non-ETS sectors.



Climate change act

Reporting

- Federal Environment Agency (UBA) publishes emissions data for previous year in March
- Emissions data submitted to EU one year later

Immediate action programme

- German government can and has to make swift adjustments
- Competent ministries have duty to initiate action



Climate change act

Relationship Climate Action Plan - ETS

- ETS is part of Climate Action Plan 2050, our long-term strategy under the Paris Agreement.
- National inventory under international law

Special conditions for ETS sectors

- No payment obligation under EU climate action regulation
- Consequences of exceeding annual emissions levels:
 - Industrial sector: ETS differentiation for immediate action programme
 - Energy sector: review only every three years (cf. Commission on Growth, Structural Change and Employment)



Climate change act

Flexibilities

- Offsetting possible between non-ETS sectors
- Year-to-year flexibility within limits of EU climate action regulation
- Postponement through purchase of annual emission allocations
- Changes to annual emissions possible (through regulation)



Climate change act

Climate Action Plan and Reports

- Legal basis for Climate Action Plan and programme of measures
- Legal regulation of existing climate reports

Board of experts

- Independent advisory board
- Members appointed by Bundestag
- Models in other EU member states (UK, Sweden)



Climate change act

Model function of Federal Government

- Climate neutral federal administration
- Investments of Federal Government
- Cooperation between Federal Government and Federal States (Länder)



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

Session 3: Oversight and institutional arrangements – EU ETS/Germany

**2nd Seminar on “Sharing Experiences on Legal Development and Implementation of ETS”
Bangkok, 10 June 2019**

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

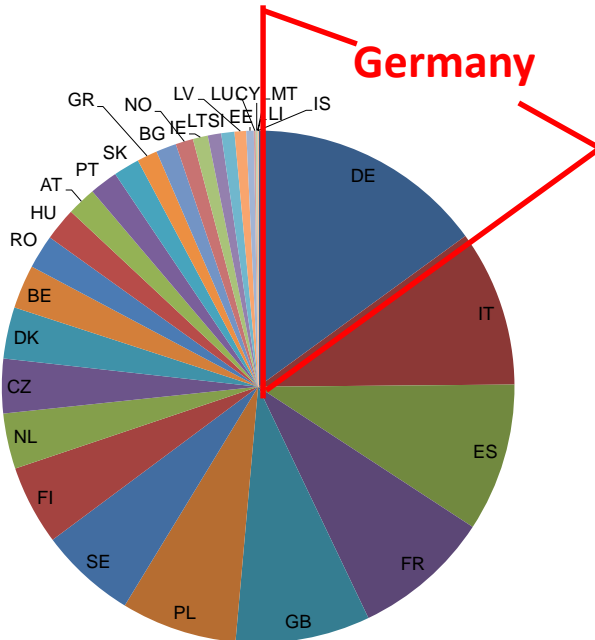


- **EU ETS Overview**
- **EU ETS Legal Framework**
- **EU ETS Institutional Framework**

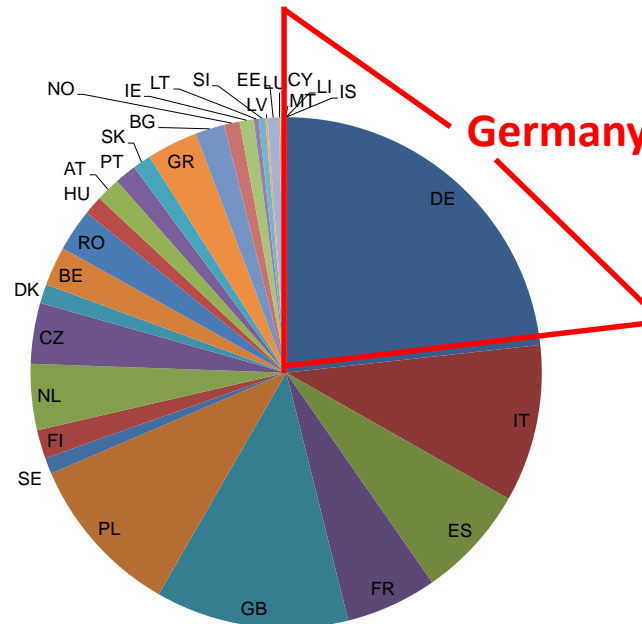


EU ETS Overview

Number of installations



Emissions



Current key figures - 2017:

Germany:

- 1,833 installations
- 438 million t CO_{2e}
- 3,4 % < 2016
- 72 aircraft operators
- 9.1 million t CO_{2e}
- 1.8 % < 2016

Europe:

- 11,781 installations
- 1.75 billion t CO_{2e}
- 0,2 % > 2016
- > 40 % of EU GHG
- 511 aircraft operators
- 64 million t CO_{2e}
- 4.5 % > 2016

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



EU ETS 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: 11,800 installations & 40 % GHG emissions.



EU ETS Overview

Development from Phase I to IV

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 Overview
- **EU ETS Legal Framework**
- EU ETS Institutional Framework



EU ETS Legal Framework





EU ETS Legal Framework European Level

Emissions Trading Directive
(2003/87/EC)

Linking Directive
JI-/CDM projects
(2004/101/EC)

Directive amending
EU ETS from 2013 onwards
(2009/29/EC)

Directive
on aviation
(2008/101/EC)

EC Decision
on free
allocation
of emission
allowances
(2011/278)

EC Regulation
on auctioning
of GHG
emissions
(1031/2010)

EC Decision
on list of
sectors and
subsectors
which are
deemed to be
exposed to
a significant
risk of carbon
leakage
(2010/2)

EC Regulation
of establishing
a Union
Registry
(No 389/2013)

EC Regulation
on the
monitoring
and reporting
of greenhouse
gas emissions
(No 601/2012)

EC Regulation
on the
verification of
greenhouse gas
emission reports
and
tonne-kilometre
reports and the
accreditation
of verifiers
(No 600/2012)

EC Decision
on the effort
of Member States
to reduce their
greenhouse gas
emissions to
Meet the
Community's
greenhouse gas
emission
reduction
commitments
Up to 2020
(No 406/2009)

EC Regulation
on determining
international
credit
entitlements
(No 1123/2013)

EC Regulation
on
establishing a
scheme for
GHG emission
allowance
trading in view
of the
implementation
by 2020 of an
international
agreement
applying
a single global
market-based
measure to
international
aviation
emissions
(No 421/2014)



EU ETS Legal Framework European Level

Emissions Trading Directive

**Revised with regard to Phase IV
2021 - 2030**

Linking Directive
JI-/CDM
(2004/101/EC)

(2009/29/EC)

Directive
(2008/101/EC)





EU ETS Legal Framework National Level: Germany



EU Law

Emissions Trading Directive (2003/87/EC)

Linking Directive
JI-/CDM projects
(2004/101/EC)

The Regulation on International
Credit Entitlements (RICE) (No
1123/2013)

Directive
on aviation
(2008/101/EC)

EC Regulation (No 600/2012)
on the verification of reports
and accreditation of verifiers

EC Registry Regulation
(No 389/2013)

Directive amending EU ETS
from 2013 onwards
(2009/29/EC)

Auctioning Regulation
(No 1031/2012)

EC Regulation (No 601/2012)
on the monitoring and reporting
of greenhouse gas emissions

Effort Sharing Decision
(406/2009/EC)

EC Decision on free allocation
of emission Allowances
(2011/278/EU)

Carbon Leakage
Decision (No 2010/2)

EC Regulation on aviation
(No 421/2014)



German Federal Law

Greenhouse Gas
Emission Allowance
Trading Act
(TEHG 2004 & 2011)

Project
Mechanisms Act
(ProMechG 2005)

Auction Ordinance 2012
(EHV 2012)

Allocation Ordinance
2020
(ZuV 2020)

Emissions Trading
Ordinance 2020 (EHV
2020)

Project Mechanisms Act
Fee Ordinance
(ProMechGebV 2007)

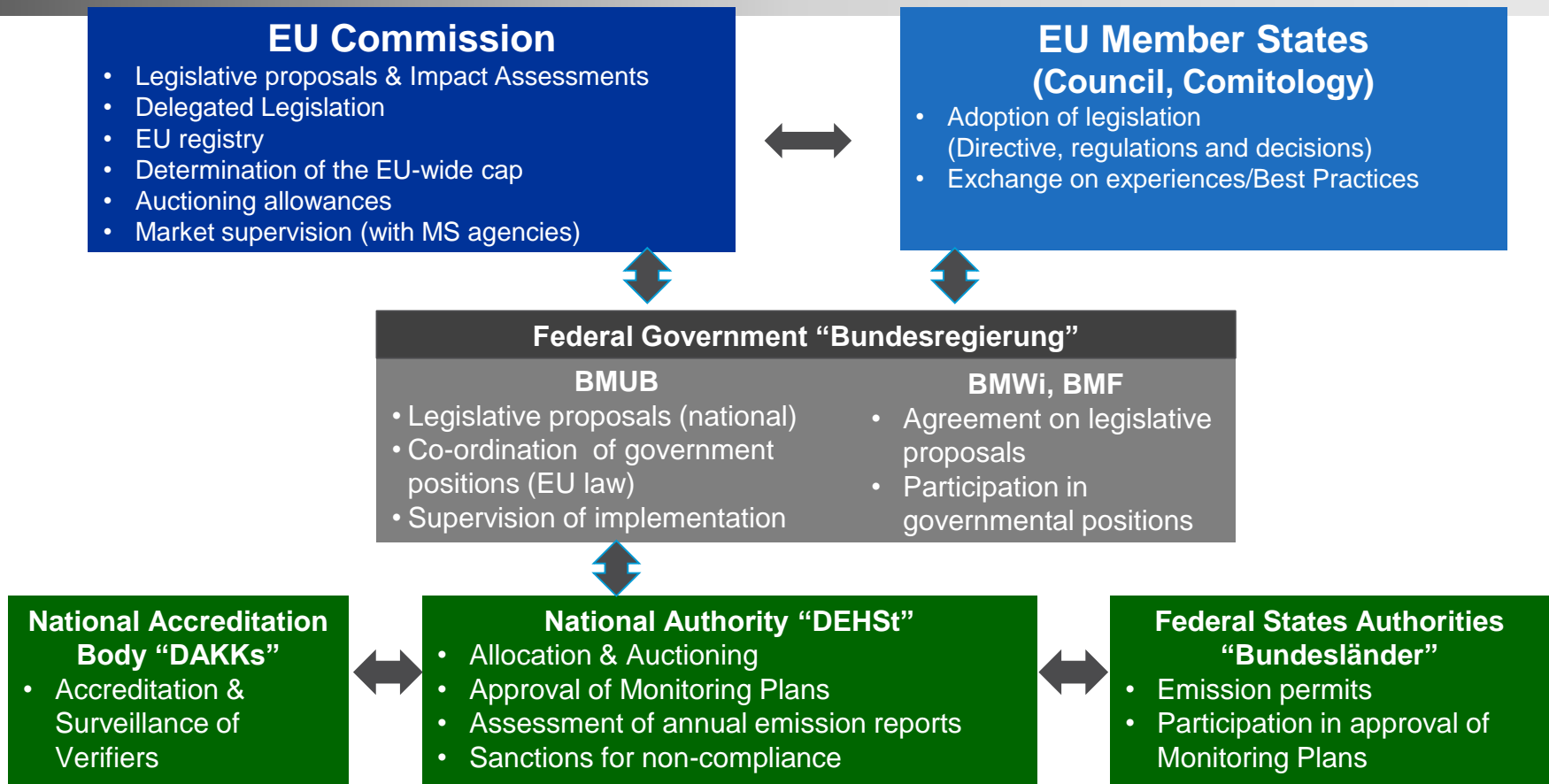
Data Collection
Ordinance 2020 (DEV
2020)



- EU ETS Overview
- EU ETS Legal Framework
- **EU ETS Institutional Framework**



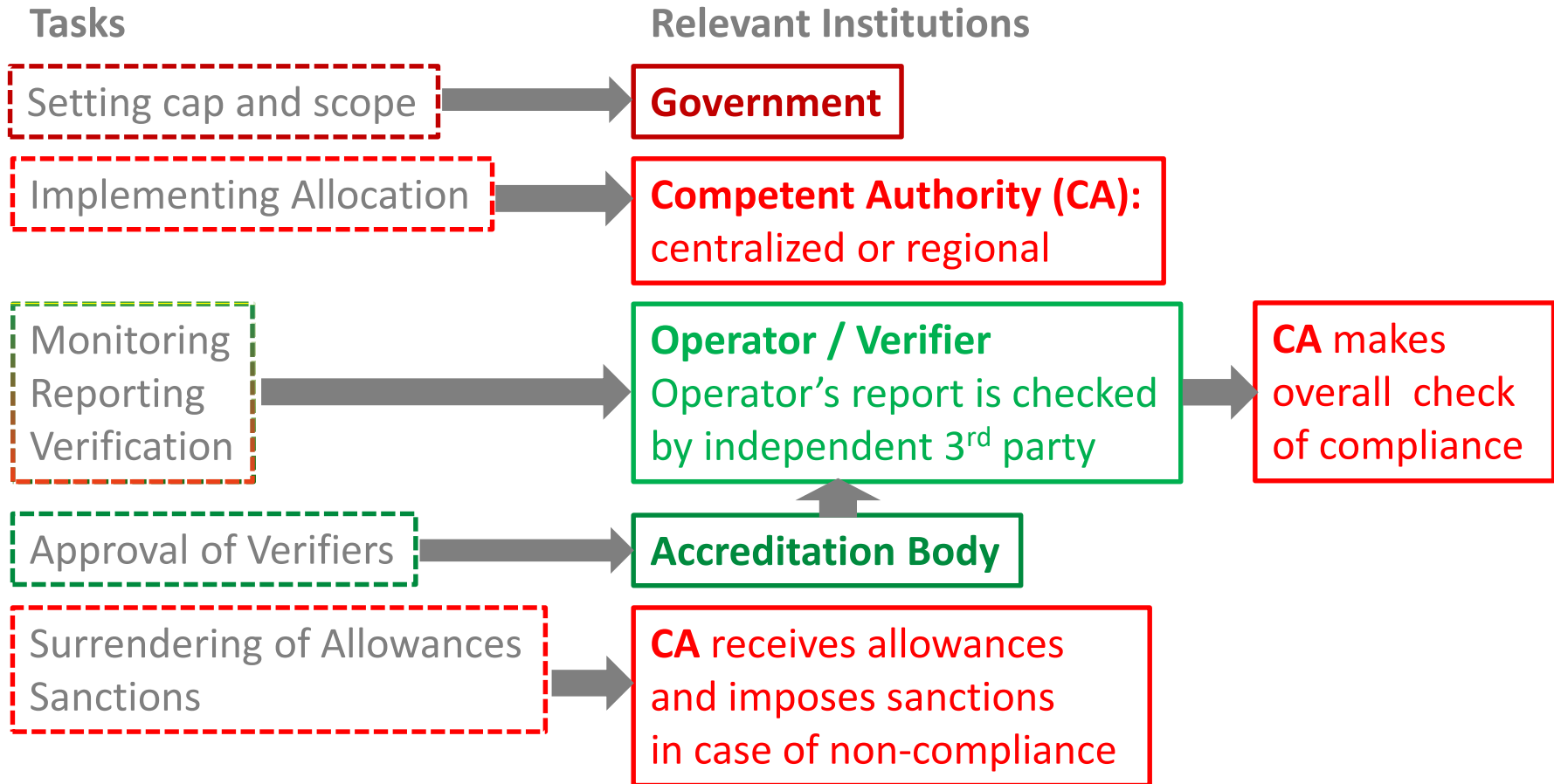
EU ETS Institutional Framework





Institutional Framework

Institutional Capacity Needs for an ETS





Federal Ministry for the Environment

Political oversight

- Formulation of laws and regulations
- Coordination with other Ministries
- Cooperation with interest groups and stakeholders
- Communication with the EU COM and participation in EU Working Groups and Climate Change Committee
- Supervising the Competent Authority
- International cooperation to build up national and regional ETS

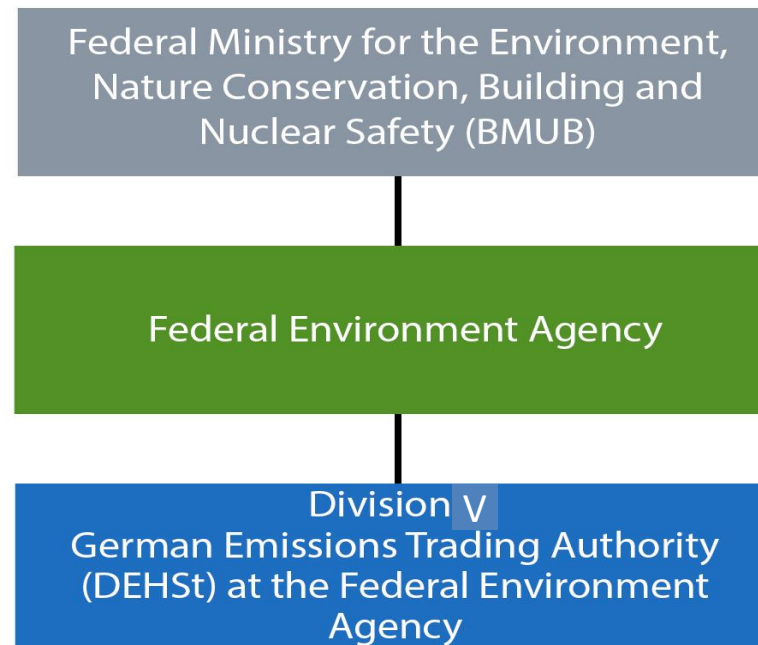
Competent Authority (DEHSt)

Technical ETS implementation in Germany

- Allocation and issuance of emission allowances
- Approval of monitoring plans
- Assessment of emission reports, imposing of sanctions where applicable
- Management of national installations and trading accounts
- Supervision of auctioning
- Approval and review of CDM and JI projects

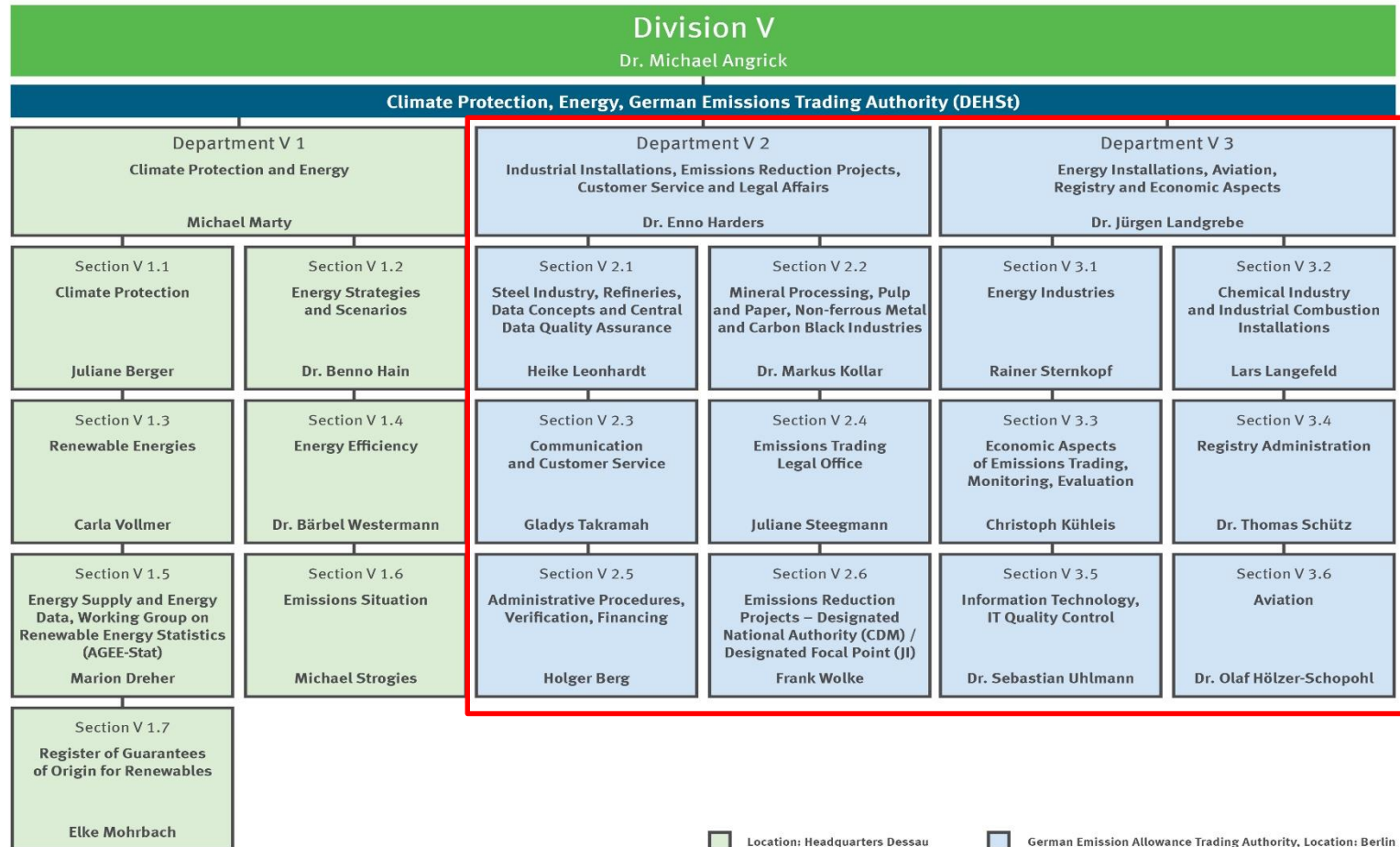


Structure of the German administration on the federal level





EU ETS Institutional Framework: DEHSt as part of the Environment Agency





Institutional Framework: DAkkS as Accreditation Body for Verifiers

- **German Accreditation Body: DAkkS**
- Established under **EU Regulation on Accreditation & Market Surveillance**
=> one National Accreditation Body per Member State
- **EU Monitoring Regulation** requires **Emission Reports to be verified** by independent third-party **verifiers**
- **EU Accreditation & Verification Regulation** requires **ETS Verifiers** to be **accredited and surveillanced**





EU ETS

Institutional Framework: EEX as Auctioning Platform

- **European Energy Exchange (EEX)** located in **Leipzig** (State of Saxonia) is an **exchange/trading platform** for **Energy** and **Emission Allowances** and other **commodities**
- **Electricity producers** covered by the EU ETS **don't receive free allocation** => electricity budget has **to be auctioned**
- **Under the EU Auctioning Regulation EEX has been chosen to be the auctioning platform for the auctions of**
 - European Commission* (on behalf of 25 Member States)
 - Poland
 - **Germany**





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

EU ETS

Institutional Framework

Financial Oversight



General Financial Supervision (BaFin):

Supervision tasks on national level; implementation of the German Securities Trading Act (WpHG); economic analysis and data exchange with other European supervision bodies



Exchange Supervision (SMWA):

Specific oversight for stock exchange trading – supervision of the orderly conduct of exchange trading and the work performed by HÜSt



Market Surveillance (HÜSt)

Located in the exchange – monitors the trading and settlement of exchange transactions both in the primary and secondary market; economic analysis; algorithms to detect market abuse, money laundering



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

Thank you for your attention

Alexander Handke

Emissions Trading Division

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

Alexander.Handke@bmub.bund.de