

## Taiwan-Germany Climate Policy and Carbon Pricing Forum

**“Fit for 55”: Advances in European Climate Policy**

## **“Fit for 55”: Advances in European Climate Policy**

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# Overview

Introduction

EU ETS I

Carbon Border Adjustment Mechanism (CBAM)

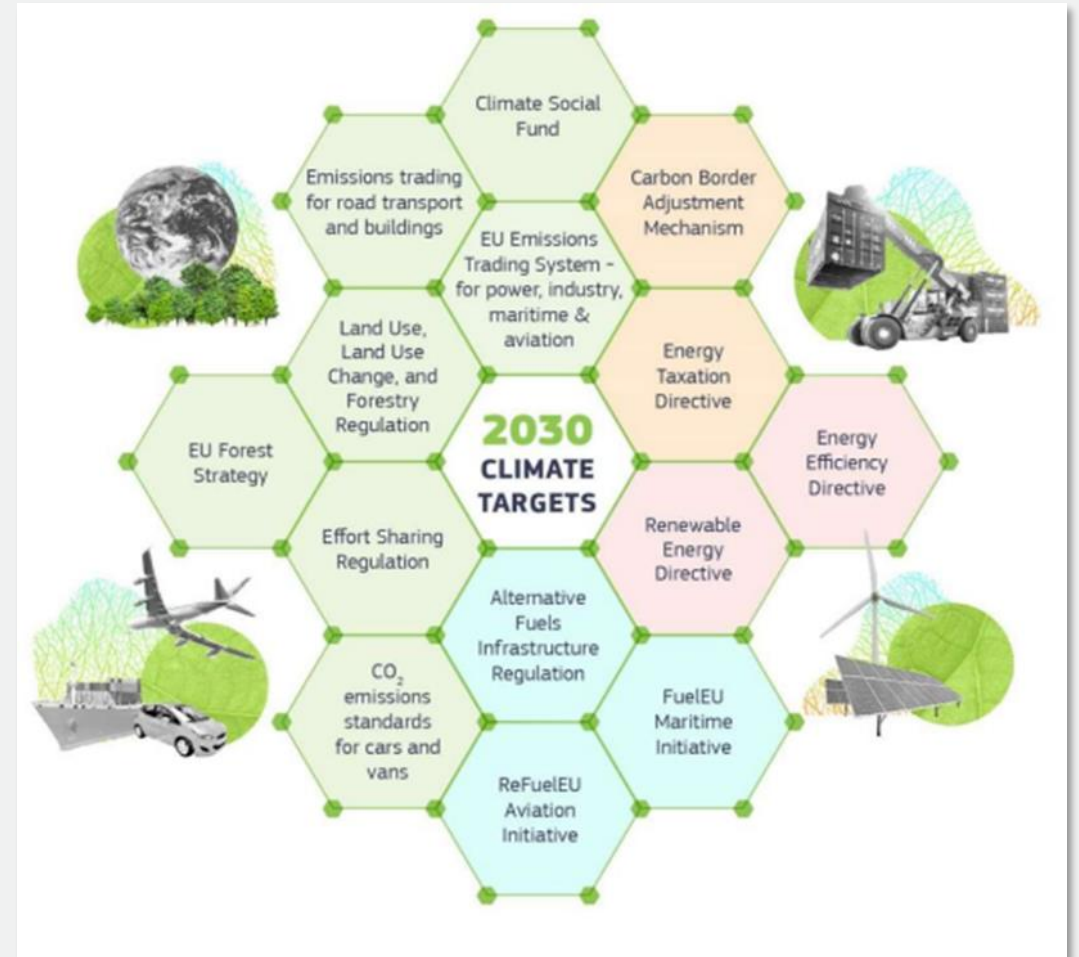
The Maritime Sector

The Aviation Sector

Conclusions

# The "Fit for 55" legislative package

- **Set of legislative proposals and strategies:** broad range of policies for energy supply, industry, transport, households, and LULUCF
- Aligning energy and climate policy with the new EU climate policy goal for 2030 (at least minus 55 % in GHG emissions compared to 1990).
- Also includes very extensive changes and adjustments to the EU ETS
- A political agreement on the ETS dossiers was reached in the Trilogue on 17/18 December 2022
- Formal adoption by Council / EP and entering into force: May 2023
- Implementation in the various fields of action is now taking place gradually



source: EU COM

# Overview on the ETS Dossiers under the Fit for 55 Package

Substantial reform of the existing EU ETS and significant extension of the scope

## Carbon Leakage Protection

Introduction of a CBAM  
Reform of free allocation

## Ambition

Cap reduction  
Market Stability Reserve (MSR)

## Funds and revenue recycling

100% of revenues utilized for climate and social purposes  
Strengthening and creation of new EU funds

## Aviation

Scope remains for intra EWR flights  
Phase out of free allocation

## Maritime

Stepwise inclusion in the EU ETS 1

## EU fuel ETS

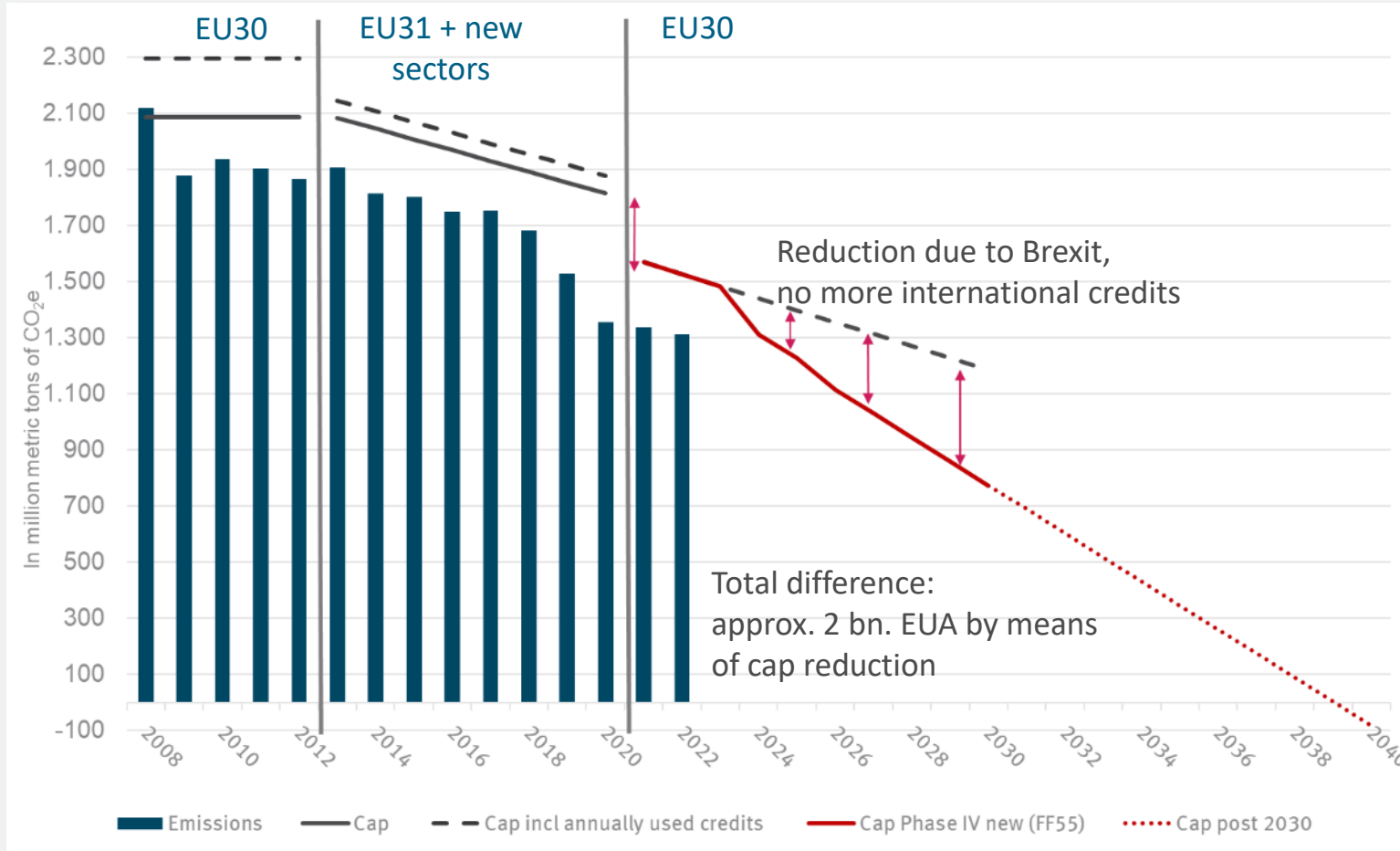
Creation of a new upstream ETS for fuel emissions (EU ETS 2)

Separate presentation

# ETS I



# Strong need for action: Structural mismatch of cap and emissions



- In 2022 Emissions from energy and industrial installations remain well below the cap (>200 Mio. EUA)

## Significant increase in ambition through FF55:

- - 62% (vs 2005), previously: - 43%
- LRF: 4.3% from 2024, 4.4% from 2028 (previously: 2.2%)
- Extraordinary reduction of the cap in 2024 and 2026 (- 90 and - 27 million certificates, respectively)

Source: DEHSt Calculations based on data from the European Environment Agency (EEA) and the European Commission.

If the LRF of 4.4% is continued, the stationary cap would already be negative in 2040 → No more new emission allowances from 2040? ETS post-2040?

# Reform of ETS 1 – free Allocation


- Basically, the system of free allocation remains unchanged
- But: **Tightening** of allocation rules **and** creation of **new reduction incentives**.
  - **Gradual** reduction of the free **allocation** for products subject to the **CBAM** (CBAM factor)
  - **Increase** in the **reduction rates** for the **benchmarks**
  - **Introduction of conditionalities:**
    - Implementation of recommendations for an **energy management system**
    - Obligation of operators of installations whose greenhouse gas emission levels are higher than the 80th percentile of emission levels for the relevant product **to submit and implement climate neutrality plans**.
- **In the event of non-compliance, reduction of the free allocation by 20%.**
- The **top 10% of all installations** in terms of the respective product benchmarks **do not receive any reduction** by the cross-sector correction factor (SCF)



# Reform of ETS 1 - an important and major step towards greenhouse gas neutrality, but much remains to be done

- **Making sure that the climate target is reached** through binding caps, disproportionate reduction contribution from ETS 1
- **Cancellation of surpluses** from the past (2.5 billion EUA)
- **Use of revenues** more targeted and more European:
  - Topping-up of innovation and modernisation funds
  - Financing of RepowerEU: faster expansion of renewables and moving away from fossil gas
  - National revenues 100% for climate protection or relief measures
- High time pressure for next steps: negotiation of **secondary legislative acts**, amendment of the TEHG (National legislation on EU ETS 1) and **preparation for enforcement**
- **Preparation for 2040 climate target** (EU Commission communication by end 2023):
  - Extension to other GHG gases + sectors
  - Integration/Non-Integration of ETS 1 + 2, Interplay of ESR and ETS 2
  - Integration or exclusion of negative emissions: Perspective for ETS post-2040



An aerial photograph of a large shipping yard filled with numerous colorful shipping containers in shades of red, blue, yellow, and white. A large orange gantry crane is positioned in the center-left area. The containers are arranged in neat rows on a paved surface. The overall scene depicts a busy port or logistics hub.

# Carbon Border Adjustment Mechanism (CBAM)



# The idea: Combining carbon leakage protection and effective CO<sub>2</sub> pricing

Equal CO<sub>2</sub> price for imported and EU-manufactured products (basic industrial materials)

Protection against Carbon Leakage (CL)

Incentives for Climate Change Mitigation

Political agreement on 13/12/2022  
Approval in Committee on 08/02/2023  
Formal adoption in plenary and Council 10/05/2023

## Replacing free allocation as instrument for carbon leakage protection:

- ✓ Reducing competitive disadvantages vis-à-vis third countries and thus
- ✓ Avoiding relocation of industrial production.

## Gradual phasing out of free allocation in EU:

- ✓ Rising auction revenues
- ✓ Passing on the CO<sub>2</sub> price signal

## Incentives for third countries:

- ✓ Introducing CO<sub>2</sub> pricing for industry
- ✓ Strengthening GHG MRV capacities

# CBAM: General functioning



Importers („Declarants“): Annual submission of a declaration on embedded emissions of imported goods

In the beginning only direct emissions and emissions from heat/cooling, indirect emissions from electricity consumption only for cement / fertilisers

Purchase + Submission of CBAM certificates

CBAM obligation is reduced by free allocation in EU ETS

CBAM obligation is reduced by carbon price paid in third countries

**1.10.2023:**  
Reporting Obligation



**1.1.2026:**  
Obligation for Reporting and Submission of CBAM Certificates



Phase-out of free allocation in EU ETS (until 2034)



Expansion of coverage (indirect emissions/other products)

# CBAM: What does it mean for importers of CBAM goods into EU?

2023

## Transitional Period

- ▶ Regulated entity is the importer located in EU
- ▶ Quarterly reporting of embedded direct + indirect emissions to EU Commission (common platform), no verification
- ▶ Customs authorities report amounts and types of imported CBAM goods, importers and country of origin to EU Commission
- ▶ nCAs implement correction procedure in case of non-compliance (after notification by the EU Commission)

2026

## Full Operation of CBAM

- ▶ Importers of CBAM goods have to be authorized as CBAM Declarants
- ▶ Annual submission of CBAM declaration and CBAM certificates (31/05)
  - ▶ Verified embedded emissions of imported goods
  - ▶ Minus free allocation in EU ETS
  - ▶ Minus carbon price paid in third country => no double pricing!
  - ▶ Copy of verification report

2034

Free allocation is phased out  
→ Full carbon price is charged.

# Chances and challenges of CBAM

## Chances for climate protection:

- ▶ End of free allocation within Europe
- ▶ Pass on the carbon price along the value chain
- ▶ Incentive to lower CO<sub>2</sub> and other relevant emissions during the production process worldwide
- ▶ Enhance transparency on embedded emissions of goods, basis for international agreements on MRV of embedded emissions

## Building of robust governance structures and processes:

to ensure a fair and equal treatment

## Overcoming international critique and resistance:

with cooperation and communication,  
Capacity Building → **climate club**

## Challenges:

- ▶ Time pressure (transitional phase starts already in October 2023, full system running by January 2026)
- ▶ Building of robust MRV systems and structures difficult within such a short time period
- ▶ Trade-offs between effective carbon leakage protection, administrative burden and strain of international trade relations

# The Maritime Transport Sector



# Maritime transport emissions and GHG reduction measures

## ■ Emissions:

- **Global:** approx. 1 billion metric tons of annual maritime transport CO<sub>2</sub> emissions, equivalent to 2-3 % of global emissions.
- **EU:** over 140 million metric tons of annual maritime transport CO<sub>2</sub> emissions, equivalent to 3-4 % of EU-wide emissions.
- **significant increase** of maritime transport CO<sub>2</sub> emissions **expected** for the future
- **international maritime transport** would be the **6th largest CO<sub>2</sub> emitter** if it were a country

## ■ Measures for GHG reduction:

- So far, **no sufficient action** on a global or EU level

### EU:

- since 2018 Monitoring, Reporting and Verification system (MRV system), neither reduction targets nor surrender obligations
- as of 2024 maritime transport will be included in EU-ETS 1

### Global:

- since 2018, **IMO's first GHG strategy:** contains mitigation targets, but mitigation measures not yet elaborated nor agreed upon
- In **July 2023**, IMO Member States adopted a **revised IMO GHG Strategy** with enhanced targets



# Inclusion of maritime sector in EU-ETS 1 as of 2024

## ■ Geographical Scope:

- Voyages between ports of Member States: 100% of emissions (incl.at berth)
- Voyages between ports of one Member State: 100% of emissions (incl. at berth)
- Voyages between EU und international ports: 50% of emissions



## ■ Gases:

- as of 2024: CO<sub>2</sub>
- as of 2026: CH<sub>4</sub>, N<sub>2</sub>O



## ■ Types of ships:

- as of 2024: Ships with gross tonnage over 5,000
- as of 2027: Offshore-ships with gross tonnage over 5,000



## ■ Obligations:

- Monitoring, reporting and submission obligations of the shipping companies
- No free allocation, but **gradual phase-in of the obligation to surrender**, i.e.
  - 2024: 40% of verified emissions
  - 2025: 70% of verified emissions
  - as of 2026: 100% of verified emissions



# Upcoming tasks for UBA

## ■ Competence:

- By February 2024, **EU COM** shall develop a list of shipping companies covered by the EU ETS, including the **attribution to the competent authorities** of the Member States
- **DEHSt** is the **competent authority** in Germany
- As of 2024 there will be approx. **220 shipping companies** and approx. **1,600 ships** under the **administration of Germany (DEHSt)**

## ■ Upcoming administrative tasks:

- **Assessment and approval of monitoring plans** + changes to monitoring plans.
- **Assessment of aggregated emissions data** at company level + enforcement of surrender obligation through **initiation and implementation of sanctions**

## ■ Preparatory administrative measures:

- Establishment of an **Expert Group on Maritime Transport** + a **new Section** in Division V currently being implemented
- **Establishment of new administrative procedures** (IT infrastructure; registers) + **Supporting** ongoing **legislative procedure on EU level**
- **Transposition** of the EU Emission Trading Directive **into national legislation**

# The Aviation Sector



# Aviation emissions and European reduction measures

## ■ Emissions:

- **Global:** approx. 1 billion metric tons of annual CO<sub>2</sub> aviation emissions (pre-Covid), equivalent to 2-3 % of total emissions → very similar to maritime emissions
- **EU ETS:** approx. 70 million metric tons of annual CO<sub>2</sub> emissions (pre-Covid)\*
- Significant increase in aviation emissions expected for the future

## ■ European measures for CO<sub>2</sub> reduction:

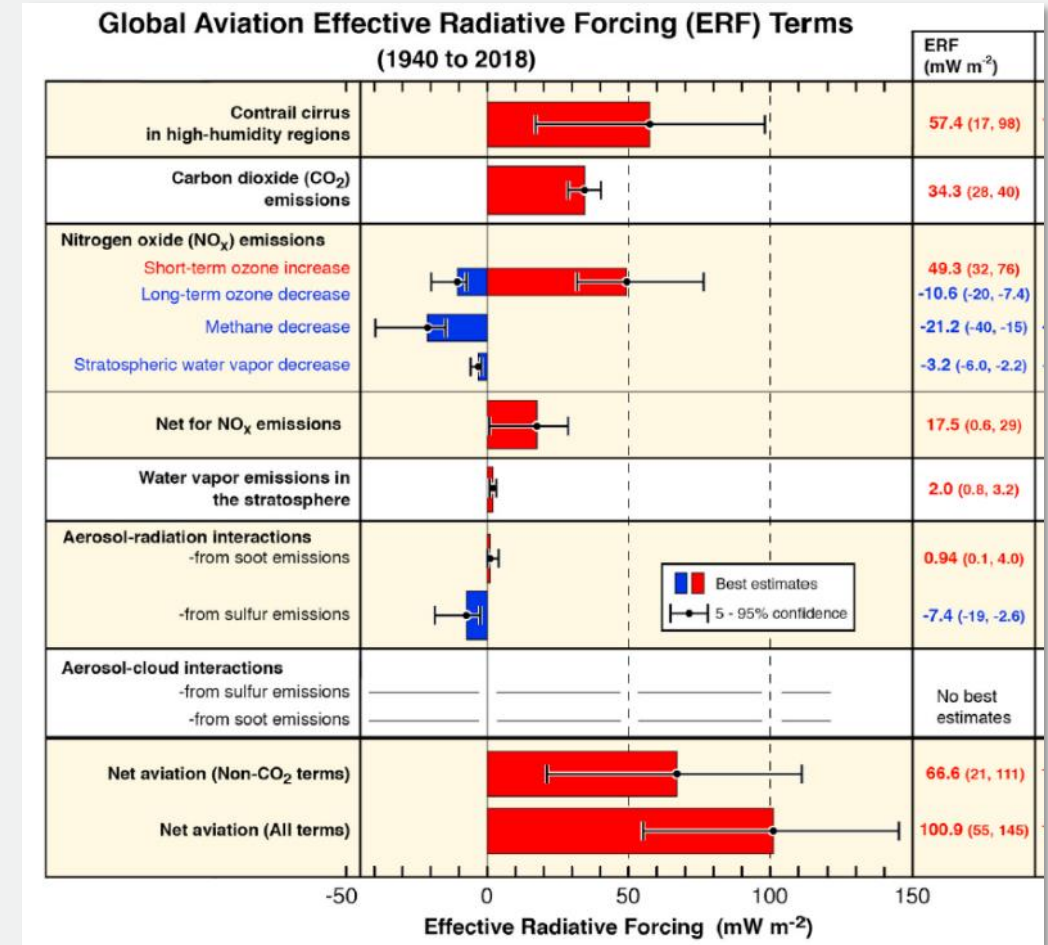
- 2010: Inclusion of aviation CO<sub>2</sub> emissions in EU ETS, MRV system only
- 2012: Surrender obligation for intra-EEA aviation CO<sub>2</sub> emissions, 85% of allowances allocated for free
- 2019: Provisional Implementation of ICAO's Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) via Regulations to the Emissions Trading Directive
- 2021: Linking of the EU ETS with the Swiss ETS
- 2022: Linking of the EU ETS with the UK ETS

# Changes for aviation in the Emissions Trading Directive (I)

- **Phasing-out of free allocation**
  - In 2024 only 75%, in 2025 only 50% of the original free allocation (i.e. of 85%)
  - **Complete auctioning as of 2026**
- **Allocation of 20 million allowances for use of sustainable aviation fuels (SAFs)**
  - Compensation for **price difference** compared to conventional **kerosene** when using SAFs
  - **Allowances** are deducted from auction quantity, so they are **not generated additionally**
  - With current prices for allowances **subsidy** for SAFs amounts to approx. **1.7 billion Euro**
- **Incorporation of CORSIA rules into the ETS Directive**
  - **Reduced scope** (only intra-EEA flights) for surrender obligation in the **EU ETS retained until the end of 2026**; therefore no intra-EEA CORSIA obligation
  - **CORSIA compensation obligation** on remaining int. routes expected **to start in 2024**
  - Re-evaluation of CORSIA in 2026 by EU COM

# Changes for aviation in the Emissions Trading Directive (II): Non-CO<sub>2</sub>-Effects

- Total climate impact of aviation three times higher than CO<sub>2</sub> emissions alone; but no linear relation to CO<sub>2</sub> emissions on single flights
- Most important non-CO<sub>2</sub> effects of aviation
  - Contrails and contrail-cirrus
  - NO<sub>x</sub> emissions
- UBA research and policy advice on how to include non-CO<sub>2</sub> effects for all EU ETS flights since 2017
- **Consideration of non-CO<sub>2</sub> effects**
  - **from 2025, MRV system for all flights taking off or landing in the EEA, initially without surrender obligation**
  - Proposal for full integration by the end of 2027 by EU COM



Source: Lee et al, 2020; The contribution of global aviation to anthropogenic climate forcing for 2000 to 2018 (abridged)

# Conclusions

## “Fit-for-55” strengthens emissions trading as EU’s key instrument

- Status of emissions trading as EU's **central climate protection instrument** is underlined by the reform package
- For **ETS 1**, significant **reduction of the cap** from currently -43 % to **-62 %** compared to 2005.
- The **scope of emissions trading is expanded to maritime emissions**
- **CBAM** to gradually replace free allocations for Carbon Leakage protection  
→ strengthen the incentives for transformation to climate neutrality in the industry
- **New ETS 2** for emissions from **buildings, transport and small industry** installations
- **Upstream system** (→ suppliers of fuels liable for submitting allowances); all allowances **auctioned**





**Umwelt**   
**Bundesamt**

**DEHSt**  
Deutsche  
Emissionshandelsstelle

**Thank you for your attention!**

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