

HOW TO ESTABLISH AN EFFECTIVE ETS

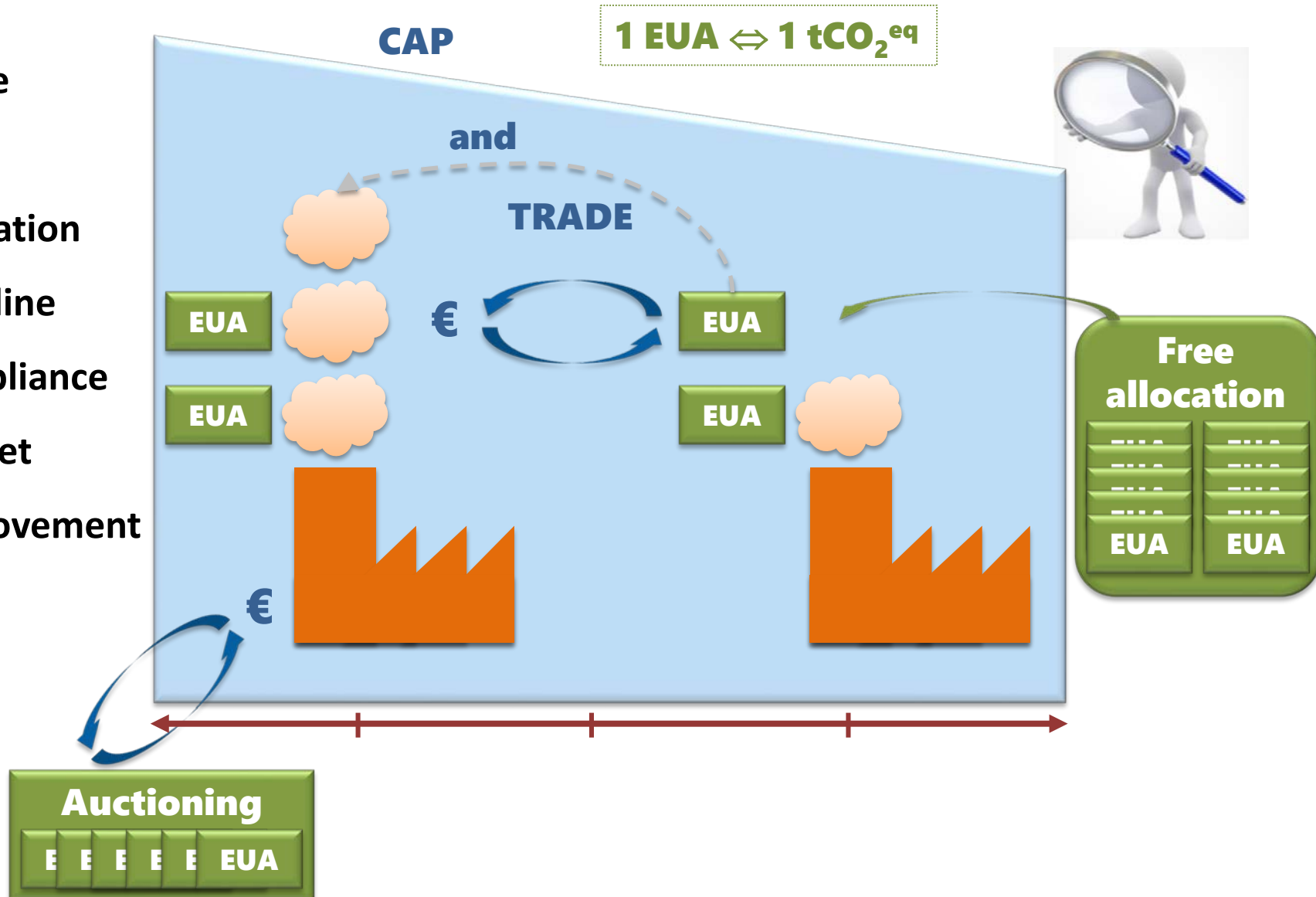
Design elements and implications

*TAIEX RIPAP Technical Workshop on
the EU Emission Trading Scheme*

Ankara – 6 November 2018

MAIN STEPS IN DESIGNING AN ETS

- Scope
- Cap
- Allocation
- Timeline
- Compliance
- Market
- Improvement



KEY CHALLENGES FOR AN EFFECTIVE ETS

- Environmental impact and integrity
- Fairness and trust
- Protecting industry competitiveness
- Market integrity
- Market liquidity
- Price stability
- Acceptance

Many of these challenges are interrelated

ESTABLISHING AN EFFECTIVE ETS

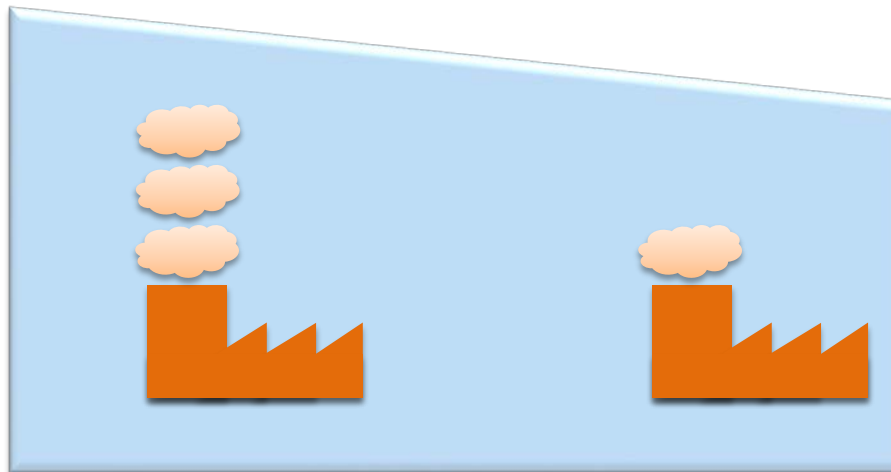
- I. Cap
- II. Allocation
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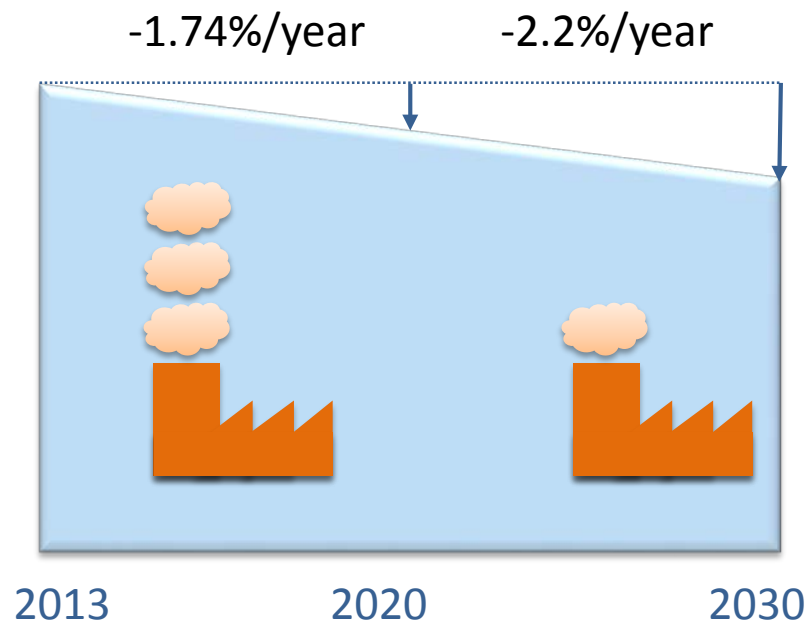
CAP

- Aim: set a limit on the number of allowances issued
- Contributes to environmental impact
 - A lower cap will lead to a higher carbon price and stronger incentive to reduce emissions
 - Banking provisions can increase the cap, thereby increasing supply and reducing price (and increasing unpredictability)



EU ETS CAP

- In phase 3 (2013-2020), an EU-wide cap is set by Directive 2003/87/EC (*the EU ETS Directive*)
- The cap is reduced annually by a linear reduction factor of 1.74% for the duration of the current trading period
- In phase 4 (2021-2030), the pace of emission reductions will increase: the linear reduction factor will reduce the cap by 2.2% annually

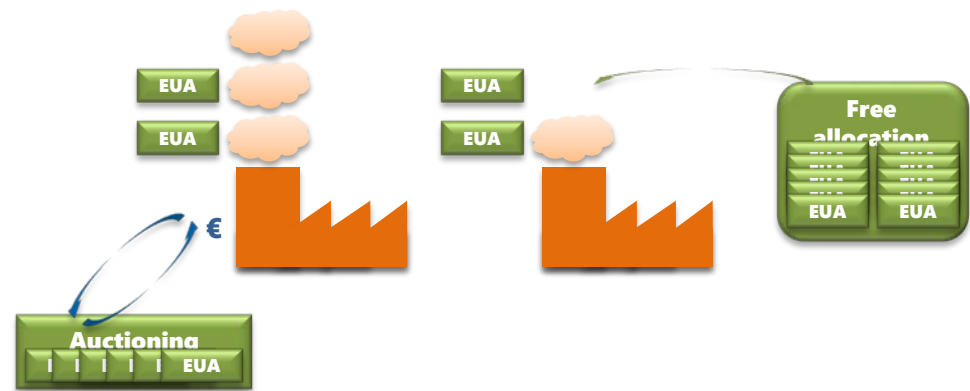


Environmental
impact

ESTABLISHING AN EFFECTIVE ETS

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ALLOCATION



- Match allocation methods to policy objectives, in a transparent way
- Define eligibility and method for free allocation and balance with auctions over time
- Define treatment of entrants, closures, and removals
- Contributes to price stability, environmental impact, fairness and trust, protecting competitiveness of industry and acceptance

Fairness and
trust

EU ETS AND FREE ALLOCATION

- Among key changes from Phase 2 to Phase 3
 - Move from grandfathering to benchmarks
 - Awards early action
 - Prevents perverse incentives
 - No more free allocation for electricity production
 - Avoids windfall profits
 - Incentivises emission reductions
- For Phase 4
 - Benchmarks will be updated twice
 - Allocation changes will be based on production and no longer on capacity

Fairness and
trust

Environmental
impact

CARBON LEAKAGE IN EU ETS

Environmental
impact

11

Protecting
competitiveness

Acceptance

- “Carbon Leakage” is the risk to see GHG industrial emissions rise outside EU-ETS, in countries where industry has less carbon constraints
- For Phase 3, a list of products ‘deemed to be exposed to a significant risk of CL’ was defined, for which free allocation is higher
- For non-CL sectors, free allocation is reduced based on a CL factor:
 - In Phase 3, the CL factor reduces from 80% in 2013 to 30% in 2020
 - In Phase 4, the CL factor is expected to decrease from 30% to 0 in 2030
- The Carbon Leakage List was regularly revised during Phase 3. A new version is currently being finalized, applicable for Phase 4.

CL: Carbon Leakage

GHG: greenhouse gas

Non-CL sectors: sectors not deemed to be exposed to a significant risk of CL

AUCTIONING IN EU ETS

- In Phase 3, auctioning has replaced free allocation as the main method for allocating allowances to all EU ETS sectors except aviation: all allowances not allocated free of charge must be auctioned, which incentivises emission reductions
- The auction share is 57% of allowances
- Frequent auctioning (*several times a week*)
- Revenue recycling (*see other presentation*)

Environmental
impact

Price stability

Acceptance

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COMPLIANCE

- Aim: ensure environmental integrity , maintain fairness and trust and contribute to acceptance
- Ensure a robust infrastructure
 - Identify and manage regulated entities
 - Manage emission reporting
 - Design and implement penalty and enforcement approach
- Compliance is based on 'MRVA'
 - Monitoring: knowing how many tonnes are emitted
 - Reporting: informing the responsible authorities
 - Verification: controlling to safeguard confidence
 - Accreditation: ensuring quality of verification



COMPLIANCE IN EU ETS

- No or insufficient surrendering of allowances should entail high penalties (*in the EU ETS, the fine is EUR 100 €/t_{CO2e} not covered by surrendered allowances + 'make good' provision*)
- The EU ETS has a very high compliance rate: each year around 99% of the emissions are covered by the required number of allowances on time.
- **Solid MRV system with 3rd party verification**, strengthened over time:
 - 2007 MRG
 - 2012 MRR and AVR
 - On-going review for Phase 4

Environmental
integrity

Fairness and
trust

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MARKET

■ Market design

Market liquidity

- Ensure sufficient market size (*geographical scope, linking*) and stability, avoid over-supply
- Contributes to market liquidity, environmental integrity, price stability

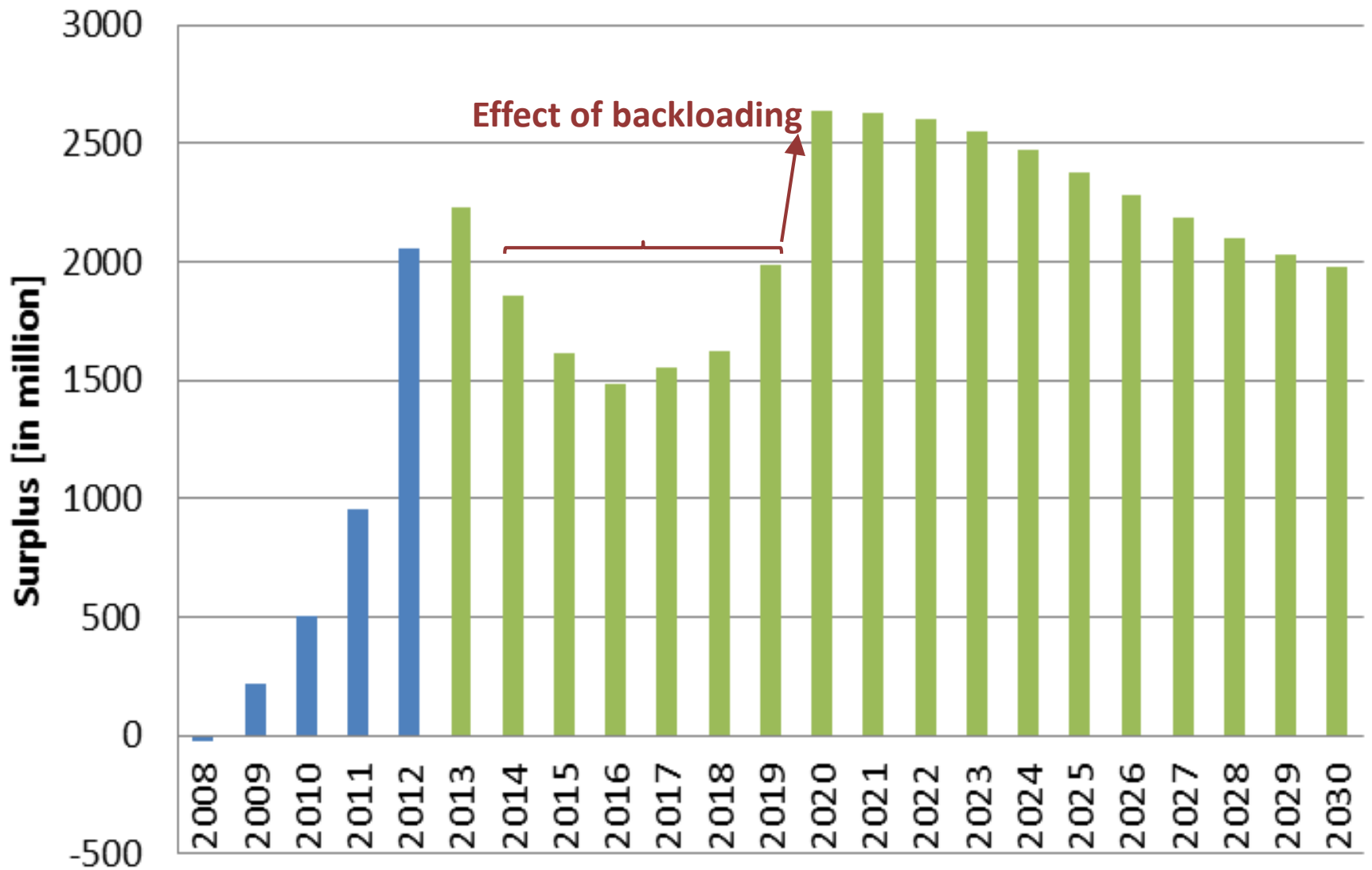
■ Market oversight

- Define auctioning rules and platforms
- Establish and oversee ETS registry
- Regulate and oversee the market for ETS emissions units (*VAT/tax rules, prevent fraud, define mechanisms to show prices and market volume*)
- Contributes to price stability, market integrity

MEASURES TO REDUCE ALLOWANCE SURPLUS IN EU ETS

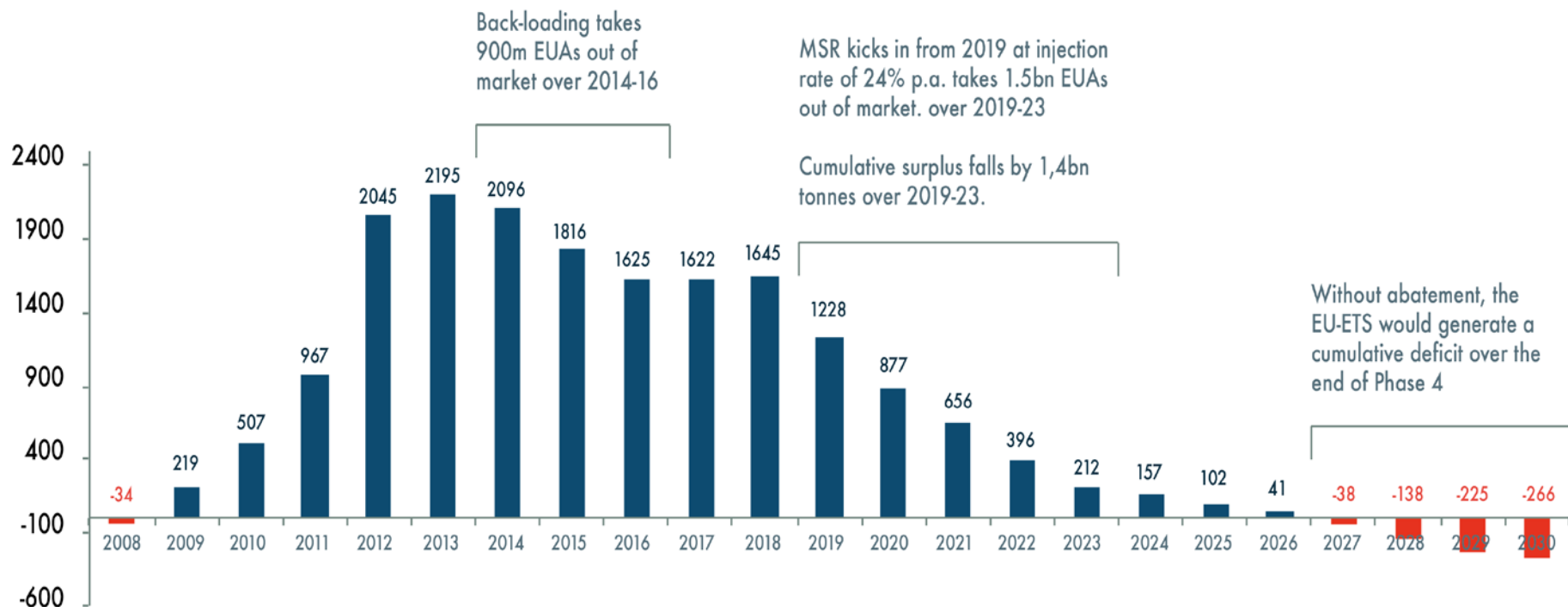
- 2008 economic crisis and banking resulted in substantial over-allocation (*almost 2 billion allowances*)
 - Price stability?
 - Environmental impact?
- Backloading (*temporary measure*)
 - EUAs reduced on a one-off basis
 - 900 million EUAs intended for auktioning were postponed from 2014-2016 to 2019-2020
- Market Stability Reserve (MSR)
 - Price stability
 - Structural measure
 - Aim is to neutralise negative impacts of existing EUA surplus, and improve system's resilience to future shocks
 - In 2019: the 900 million back-loaded EUAs will be transferred to reserve rather than auctioned
 - In Phase 4, « automatic » adjustment of auction volumes:
 - If surplus > 833 million EUAs: 12% of surplus will be withheld from auctions
 - If surplus < 400 million EUAs, up to 100 million EUAs returned to auctions
 - Environmental impact

IMPACT OF ECONOMIC CRISIS AND BANKING ON ALLOWANCE SUPPLY



EFFECT OF MSR ON MARKET SURPLUS

CTI base-case EU-ETS total system cumulative deficit/surplus, 2008-30, EUAs/EUAAs (m)



Source: European Commission, EU Council, CTI research estimates

RECENT CARBON PRICES

European carbon credits price

Euros per tonne



Source: Thomson Reuters

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EU ETS REGISTRY SYSTEM

- 2012: national registries merged into EUTL
- The registry is a centralized database keeping track of the ownership of allowances in the same way as a banking system keeps track of the ownership of money
- The EUTL automatically checks, records, and authorises all transactions that take place.
- This verification will ensure that any transfer of allowances from one account to another is consistent with the EU ETS rules.

Market integrity

EUTL – EUROPEAN UNION TRANSACTION LOG

CLIMATE ACTION
European Union Transaction Log

EUROPA > European Commission > Environment > Climate Change > European Union Transaction Log

Welcome

ETS
ESD
Fees

Operator Holding Account - Search Criteria

National Administrator: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia

Main Activity Type: All, None

Compliance Status: A, B

Account Holder Name:
Installation/Aircraft ID:
Installation Name/Aircraft Operator Code*:
Permit/Plan ID:

Search Export

Operator Holding Account - Search Results

National Administrator	Account Type	Account Holder Name	Installation/Aircraft ID	Installation Name/Aircraft Operator Code*	Company Registration No	Permit/Plan ID	Permit/Plan Date	Main Activity Type	Latest Compliance Code	Options
Austria	Aircraft Operator Account	Jettalliance Flugbetriebs GmbH	200103	27702	FN 203001g	BMFLUW-UV 1.3.2/0304-V/4/2009	2010-01-01	Aircraft operator activities	C	Details - Current Phase Details - All Phases Details - Select Phases
Austria	Aircraft Operator Account	Glock GmbH	200108	194	FN64142b	BMFLUW-UV 1.3.2/0084-V/4/2010	2010-01-01	Aircraft operator activities	A	Details - Current Phase Details - All Phases Details - Select Phases

CLIMATE ACTION
European Union Transaction Log

EUROPA > European Commission > Environment > Climate Change > European Union Transaction Log

Welcome

ETS
ESD
Fees

A participant in the EU ETS must open an account in the Union Registry.

CLIMATE ACTION

European Union Transaction Log

[EUROPA](#) > [European Commission](#) > [Environment](#) > [Climate Change](#) > [European Union Transaction Log](#)

Welcome

ETS

ESD

Fees

Operator Holding Account Information

General Information

Details on Contact Information

Installation Information

Address Information

Contact Information

Compliance Information

National Administrator

Austria

Account Type

100-Holding Account

Account Holder Name

AGRANA Starke GmbH

Installation ID

47

Company Registration No

FN 252477 s

Account Status

open

Type

Account holder

Name

AGRANA Starke GmbH

Main Address Line

Friedrich Wilhelm Radtzen, Post 1

Secondary Address Line

Postal Code

1020

City

Wien

Country

Austria

Installation Information

General Information

Address Information

Contact Information

Installation ID

47

Installation Name

AGRANA Group

Permit ID

BLE166

Permit Entry Date

2005-01-26

Permit Expiry/Revocation Date

Subsidiary Company

Parent Company

E-PRTR Identification

Main Address Line

20, Contribution of fuels

Secondary Address Line

Postal Code

3053

City

Gmund

Country

AT

Latitude

Longitude

Name

Main Address Line

Secondary Address Line

Postal Code

City

Country

Compliance Information

EU ETS Phase

Year

Allowances in Allocation

Verified Emissions

Units Surrendered

Cumulative Surrendered Units**

Cumulative Verified Emissions***

Compliance Code

Options

2013-2020

2013

26705

34983

34983

34983

34983

A

[History](#)

2013-2020

2014

27505

34983

34983

69370

69370

A

[History](#)

2013-2020

2015

27245

35812

35812

105168

105168

A

[History](#)

2013-2020

2016

26279

37509

37509

142598

142598

A

[History](#)

2013-2020

2017

25505

39282

39282

181970

181970

A

[History](#) [Details on Surrendered Units](#)

2013-2020

2018

24384

[History](#)

2013-2020

2019

23455

[History](#)

2013-2020

2020

22541

[History](#)

* Verified Emissions entered/updated after deadline of EU ETS Phase Year

** Total allowances, ERUs and CERs surrendered in current EU ETS Phase before 30 April of Phase Year

*** In current EU ETS Phase before 30 April of Phase Year

**** Allowances for Operators under Article 10c of ETS Directive

***** Allowances for Operators from New Entrant Reserve (NER)

Verified Emissions for 2013 of aircraft operators are not taken into account while calculating the Compliance Status for 2013 on 1st of May 2014

Compliance Code Explanation

Compliance Codes

A

B

C

D

E

X

Compliance Code Explanation

The number of allowances and ERUs/CERs surrendered by 30 April is greater than or equal to verified emissions

The number of allowances and ERUs/CERs surrendered by 30 April is lower than verified emissions

Verified emissions were not entered until 30 April

Verified emissions were corrected by competent authority after 30 April of year X. The competent authority of the Member State decided that the installation is not in compliance for year X-1

Verified emissions were corrected by competent authority after 30 April of year X. The competent authority of the Member State decided that the installation is in compliance for year X-1

Entering verified emissions and/or surrendering was impossible until 30 April due to the allowance surrender process and/or verified emissions update process being suspended for the Member State's registry

Verified emissions are published in April each year

Price stability

Fairness and trust

Acceptance

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EVALUATE AND IMPROVE OVER TIME

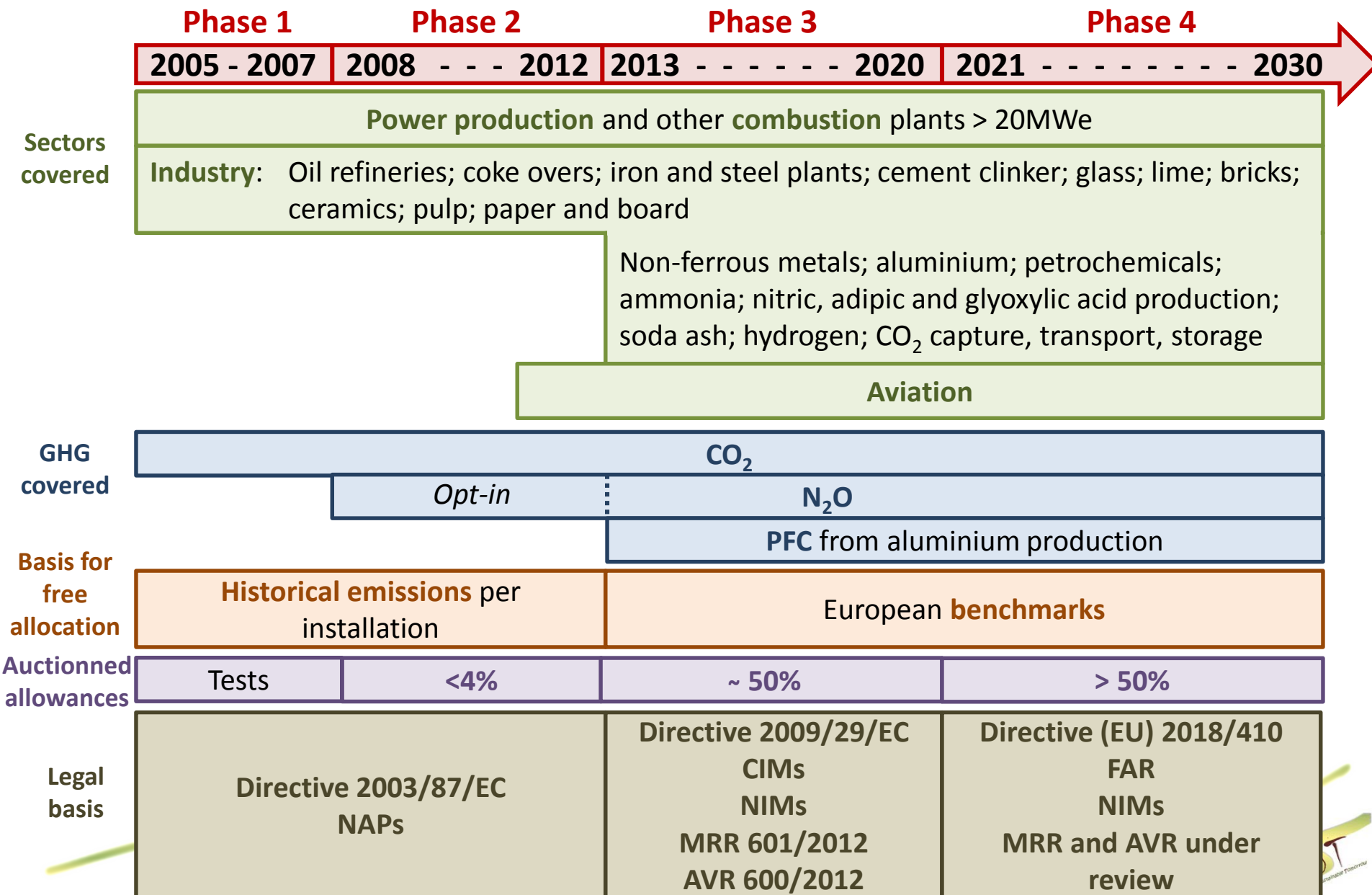
- Decide on the process and scope of reviews
- Evaluate the ETS to support review
- Phasing may ease burden on institutions and sectors
- Providing a predictable review process and schedule can reduce policy uncertainty
- Good governance and stakeholder engagement processes are key to successful implementation

Fairness and
trust

Environmental
impact

Acceptance

EVOLUTION OF THE EU-ETS OVER TIME



KEY LESSONS LEARNED ABOUT (IN)EFFECTIVE DESIGN IN EU ETS

- The **environmental impact** of the ETS is **influenced by many design choices**: definition of the cap (*reduction over time*), strictness in free allocation (*benchmarks, no allocation to electricity*), amount of auctioning, market tools to limit risks of over-supply (*MSR*),...
- **Transparency** on defined rules and on results (*emissions, exchanged volumes*), **fairness and acceptance** are essential to ensure long-term predictability and contribute to market stability
- Acceptance challenge may lead to less ‘effective’ choices (*reduced constraints with CL, free allocation*), but **acceptance is crucial** for the system to be politically decided and implemented
- **Phasing may help** to progressively move towards more effective measures

THANK YOU FOR YOUR ATTENTION



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