I4CE
INSTITUTE FOR CLIMATE ECONOMICS
Une initiative de la Caisse des Dépôts et de l'Agence Française de Développement

THE EU ETS CHALLENGE: INTRODUCING FLEXIBILITY IN THE EMISSION CAP TO GUARANTEE A LONG-TERM CARBON PRICE

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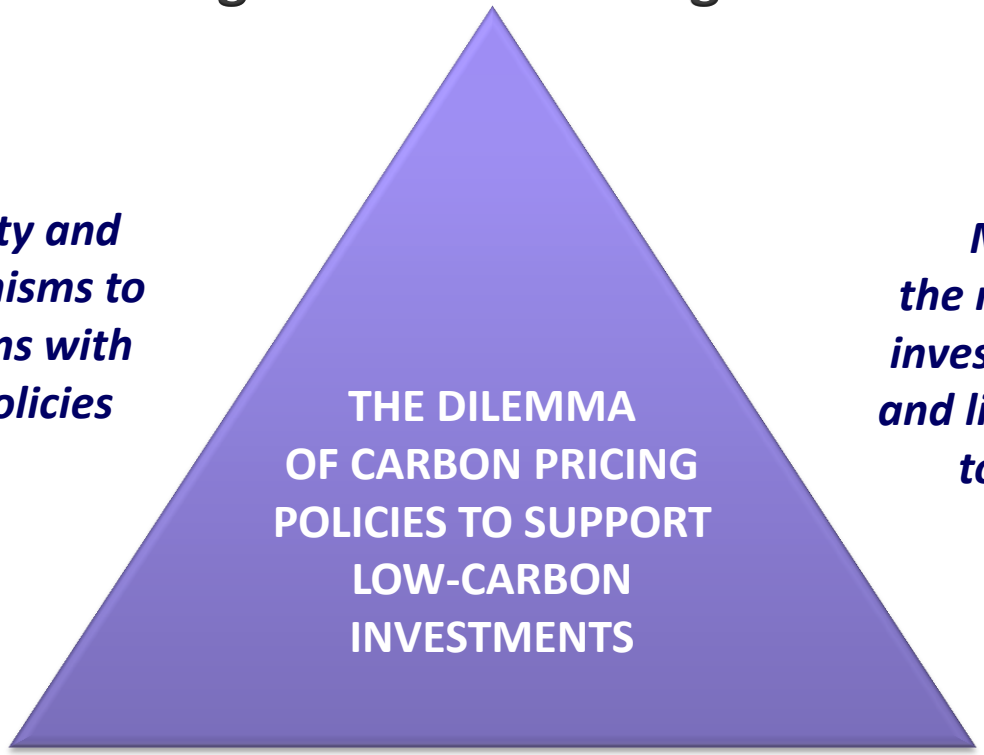
Carbon pricing and low-carbon investments: the dilemma for governments

Defining
long term climate targets



Introducing stability and adjustment mechanisms to manage interactions with complementary policies

Managing the risk of carbon investment lock-in and little incentives to innovate

Fixing the credibility of the carbon price-signal

Supporting a cost-effective decarbonisation pathway

Containing carbon costs and preventing carbon leakage

Outline

1. **A LONG TERM CLIMATE TARGET:**
   THE EU COMMISSION PROPOSES A REVISED EU ETS BY 2030

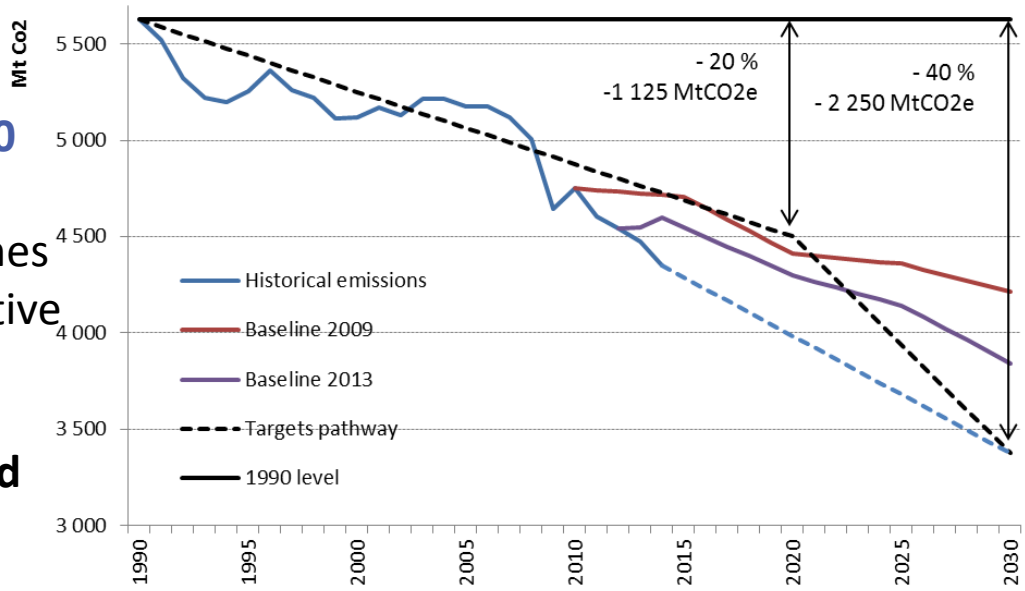
2. **THE CREDIBILITY OF THE CARBON PRICE:**
   COMPLEMENTARY ENERGY POLICIES HAVE AFFECTED THE EU ETS

3. **STABILITY AND ADJUSTEMENT MECHANISM:**
   THE EU CHOICE OF TO IMPLEMENT THE MARKET STABILITY RESERVE

Climate ambition: the EU commission proposes a new 2030 target in line with the 2050 decarbonisation roadmap

- **A 40% GHG reduction compared to 1990, representing a 2,250 MtCO2e GHG emission reduction compared to 1990.**
- This emission target **in line with the 2050 roadmap** which proposes 40%, and 60% reductions by 2030 and 2040 as milestones on the way to reach the long term objective of **80 – 95% emission reduction by 2050**
- **A continued distinction between ETS and non ETS sectors (transport, building …)** has been delineated.
  - The ETS cap will decrease by 2.2% from 2020 onwards to reach **a EU ETS target of -43% by 2030 compared to 2005**

FIGURE 1 – EU GHG EMISSIONS AND TARGETS TO 2030



Source: I4CE - Institute for Climate Economics, based European Commission and Eurostat data 2015

By 2030, 70% of EU ETS abatements are expected to come from the power sector

The EU ETS 2020 emissions reduction target has been overachieved since 2014

- From 2005 to 2014, **CO2 EU ETS emissions decrease in all EU Member States :** - 24 % in 2014/2005

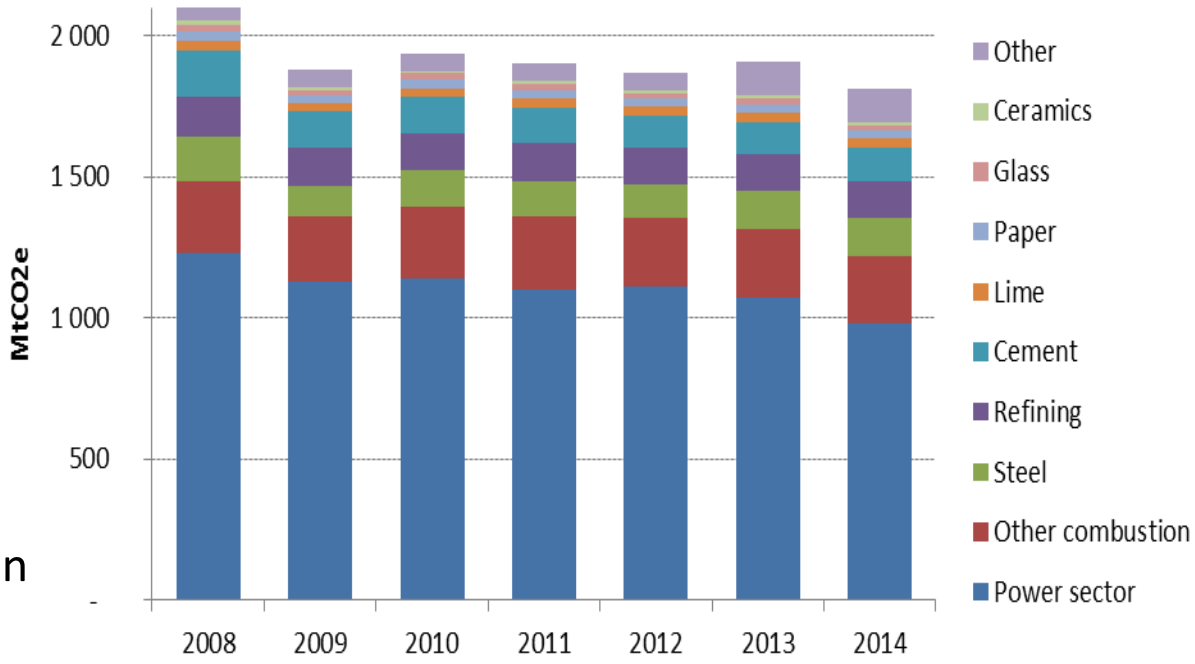
- From 2005 to 2014, **CO2 emissions decrease in all EU ETS sectors :**

  - 18% in the power sector 2005/2013

  More in cement, ceramics, iron steel sectors

- **The EU ETS 2020 emissions target of – 21% in 2020** compared to 2005 **was already reached in 2014.**

FIGURE 2 – CO2 EMISSIONS IN PHASE II AND III OF THE EU ETS



Source: I4CE - Institute for Climate Economics, based on EUTL 2015

EU ETS emissions decreased from 2 375 MtCO2 to 1813 Mt between 2005-14 compared to the EU ETS cap of 1 816 MtCO2 in 2020

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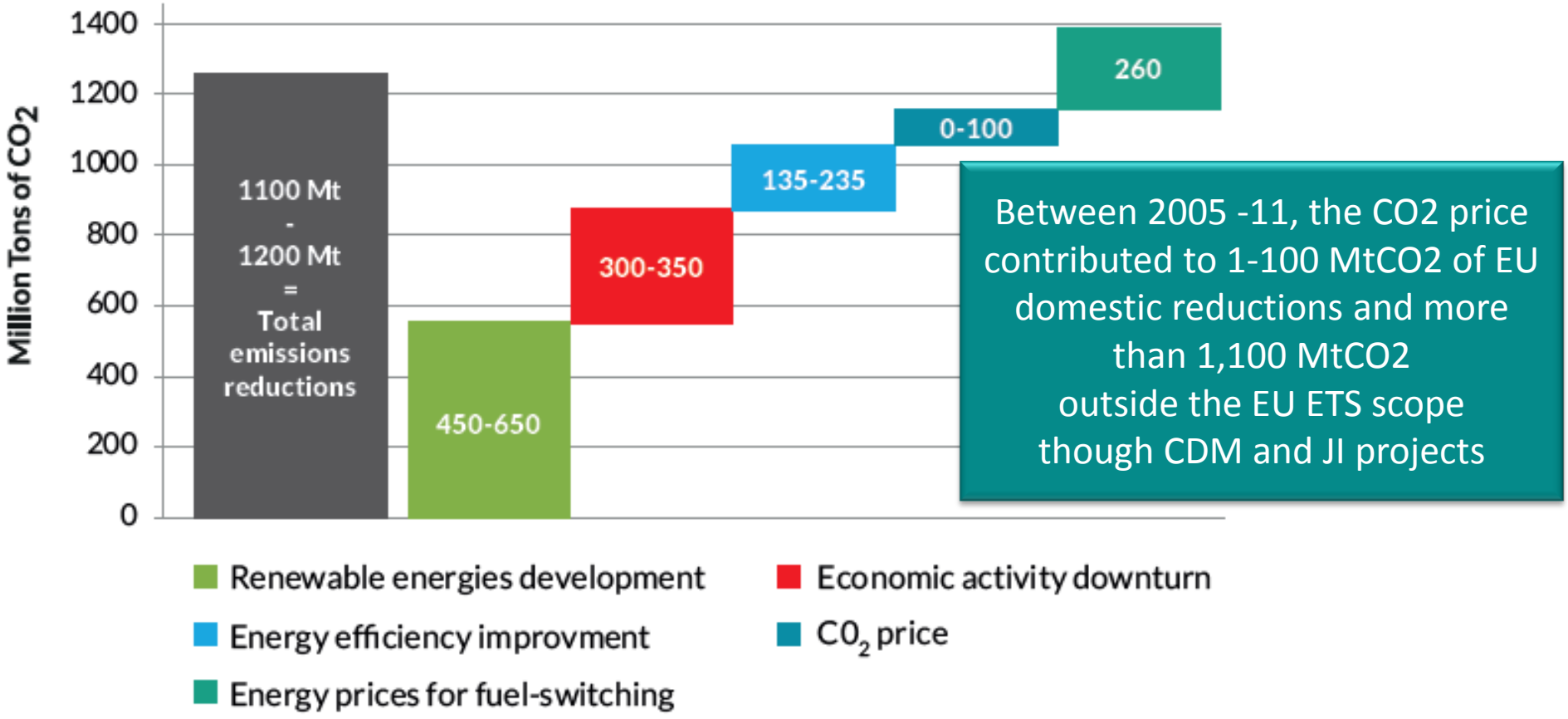
Complementary climate policies have played a major role in EU ETS abatements

Figure 9 - Contributions to CO_2 emissions reductions in the 2005 to 2011 period.



Source: I4CE - Institute for Climate Economics, 2013.

Without a credible long-term climate target, the growing surplus of allowances undermines the functioning of the EU ETS.

- A large surplus has been building on in the EU ETS **without any perspective to decrease before 2030 - amounting to 2.1 billion in 2014, and is expected to reach 2.6 billion in 2020**

FIGURE 3: THE SURPLUS OF ALLOWANCES WITHOUT MSR: UNTIL 3.25 GT CO2 BEFORE 2030

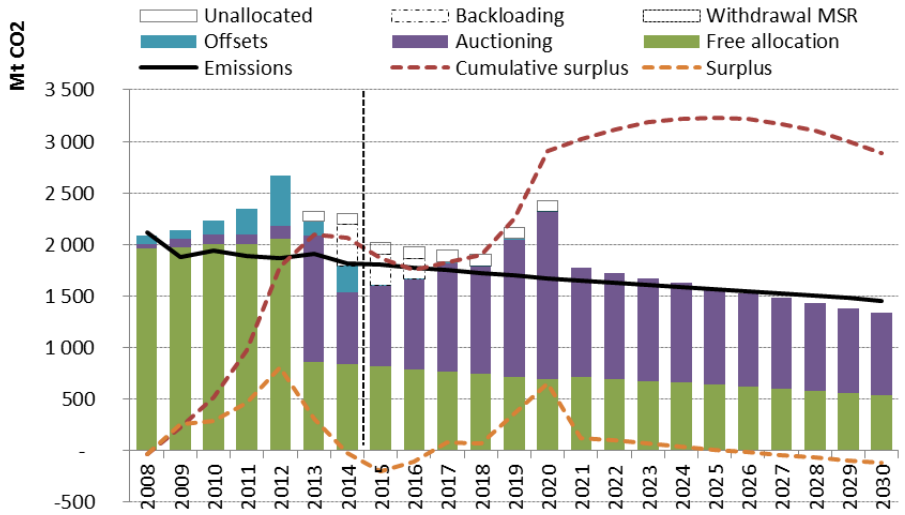
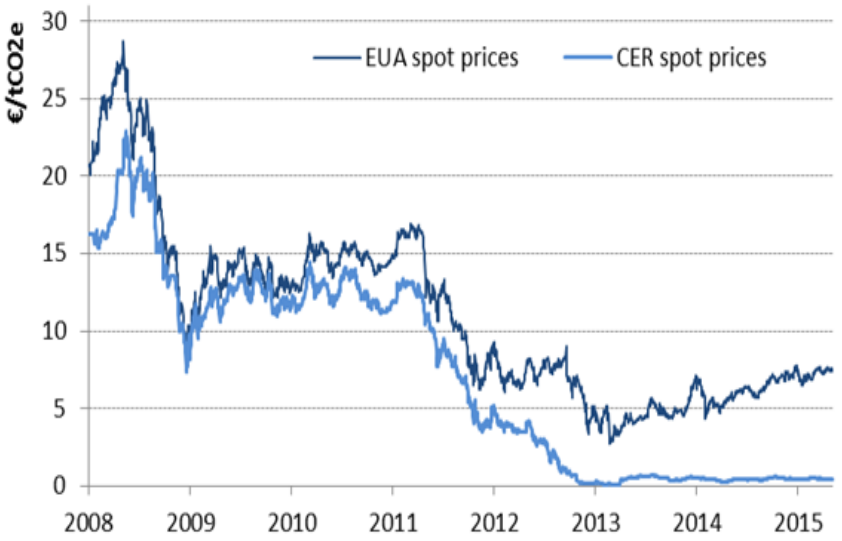


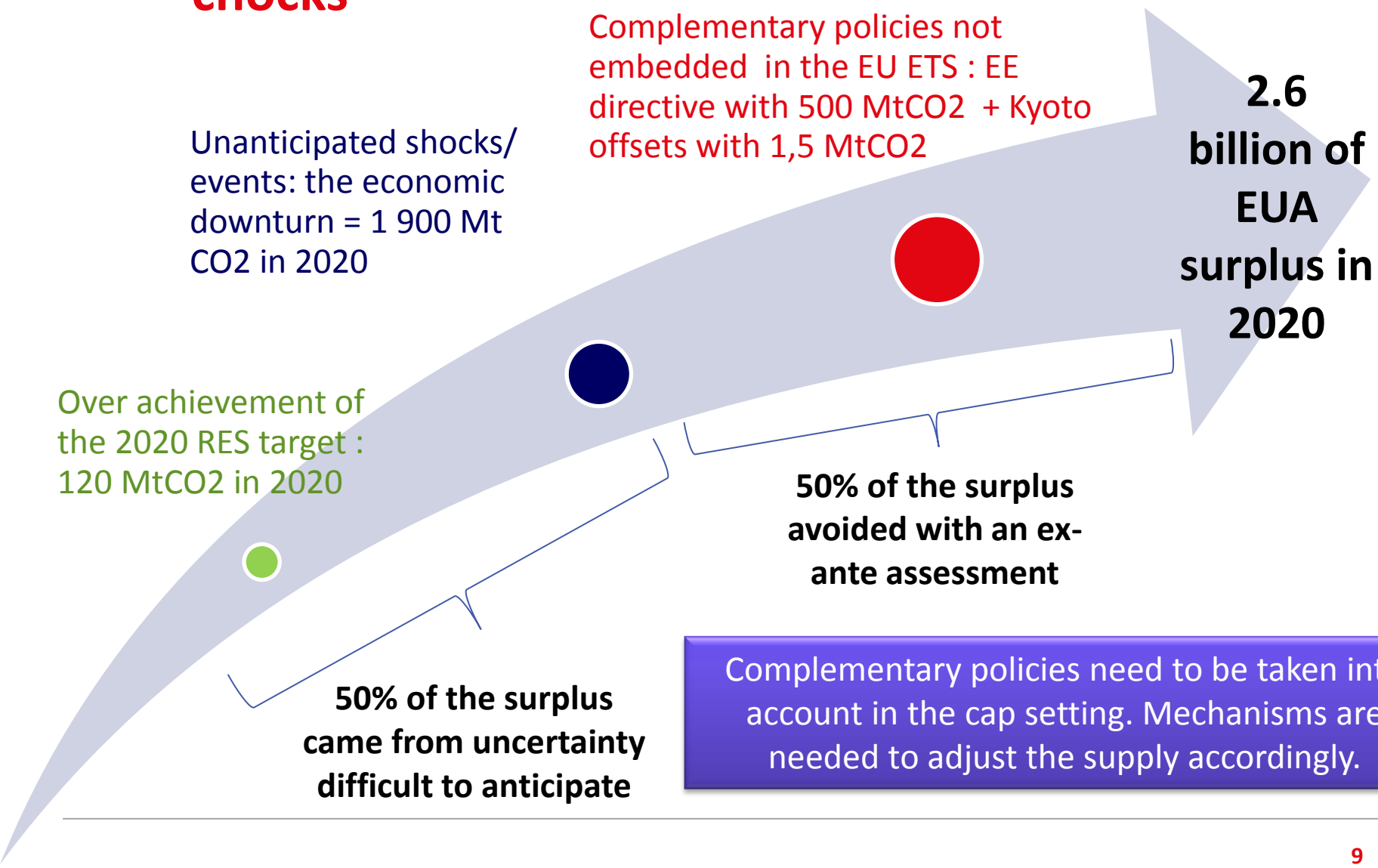
FIGURE 4: THE EUA AND CER PRICES



There are no perspectives for a balanced EU ETS and an efficient carbon price by 2030.

Source: I4CE- Institute for Climate Economics, based on data from EC, EU TL, 2015

Drivers of the growing surplus by 2020: interactions with complementary policies and unanticipated chocks



Complementary policies need to be taken into account in the cap setting. Mechanisms are needed to adjust the supply accordingly.

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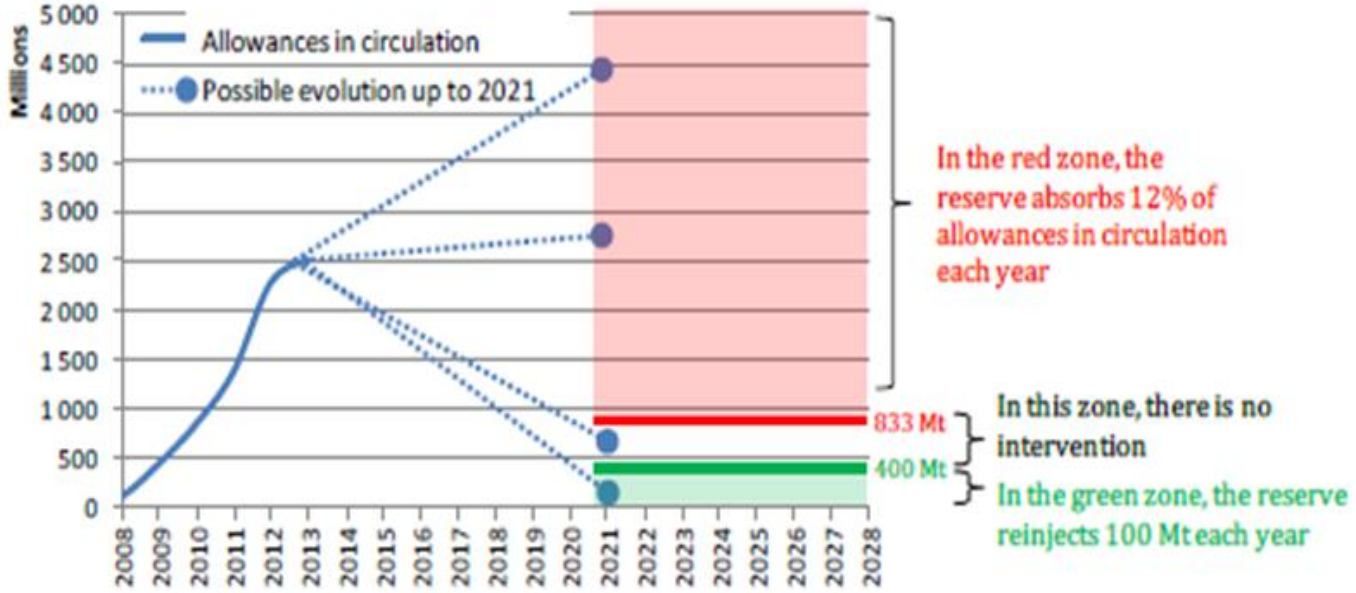
Introducing adjustment in the EU ETS supply is necessary to support its ambition

- Introducing adjustment in the EU ETS supply : **the choice to implement "a robot" like a mechanism to absorb the surplus** with **the Market Stability Reserve.**
- MSR = a dynamic adjustment based on **a quantity corridor for the volume of allowances in circulation in the EU ETS**

FIGURE 5 : THE MSR FUNCTIONING BASED ON THE EU COMMISSION'S PROPOSAL



Source: Trotignon et al. (2014)

Will this MSR be efficient to recalibrate the EU ETS by 2030 ?

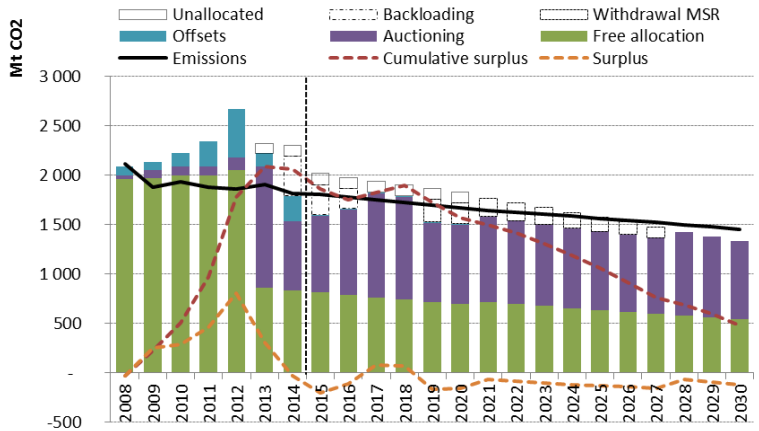
- **Restoring the short term scarcity**
  - With MSR, the surplus = 500 million in 2030
  - Without MSR, the surplus = more than 3 billion

YES

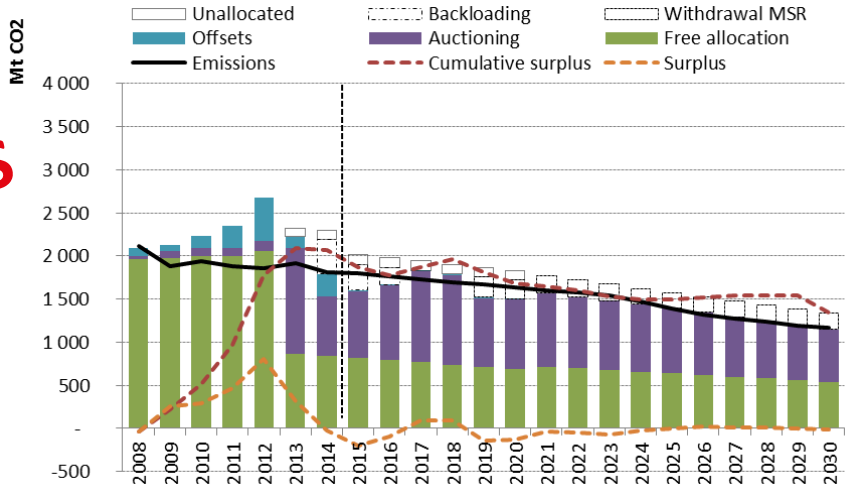
- **Improving the EU ETS resilience to external shocks**
  - Simulation of overachieving RES policies (55% in 2030 in power sector) and a strong downturn in 2025 similar to 2008
  - With MSR, surplus = 1,300 MtCO2 in 2030, against 4 GtCO2e without MSR

YES

FIGURE 1 - IMPACT OF THE MSR ON ALLOWANCE SURPLUS IN EU ETS PHASE IV



Source: CDC Climat Research, based on data from EC, EU TL

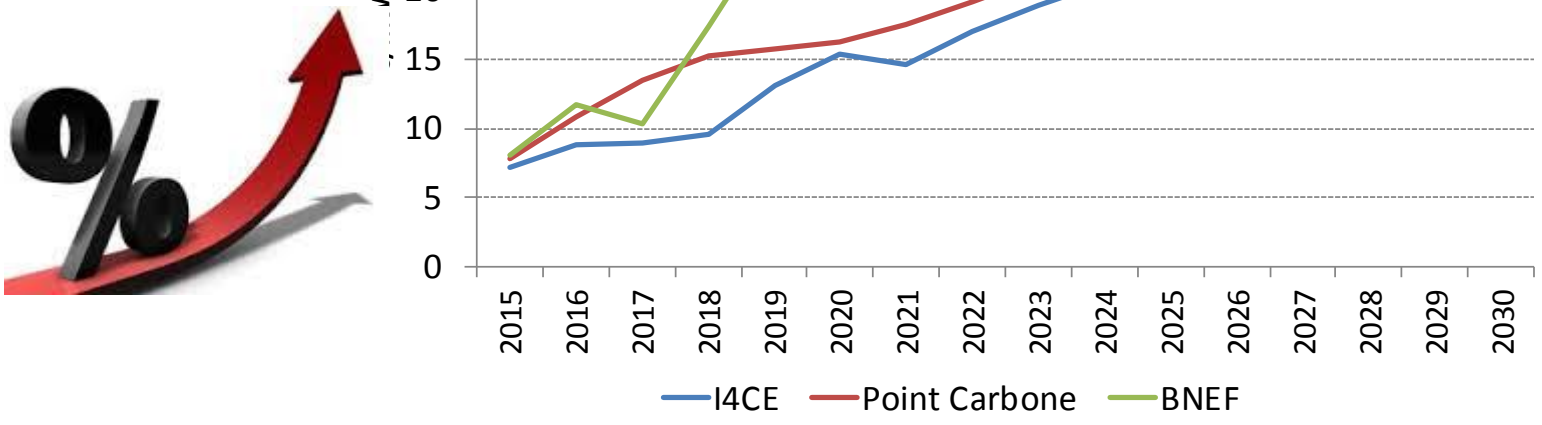


Source: I4CE- Institute for climate Economics (2015) based on European Commission, EUTL

With the MSR, the carbon price in the EU ETS is expected to increase by 2030

- In the longer term, the MSR is expected to reduce the surplus until 500 MtCO2e in 2030, and **prices are expected to steadily increase until 30€/tCO2e to 40€/tCO2e.**

FIGURE 8 : Long term price forecasts in the EU ETS (€2014/tCO2e)



Source: I4CE- Institute for climate Economics (2015)

On track to recalibrate the EU ETS for a cost-effective decarbonisation by 2030, with an enhanced governance

- **A long term climate target is necessary** to support a cost-effective decarbonisation with low-carbon investments with a robust carbon price : As voted before 2017, the new 2030 EU ETS target should increase the credibility of operators.
- **Stability and adjustment mechanism in Europe: the MSR is welcomed** but guaranteeing its effectiveness call for a governing framework to be established before 2030.
- **To reinforce the credibility of the EU ETS, moving forward to an explicit role of complementary policies.**
  - Their interactions with the EU ETS should be carefully assessed and justified in a transparent and comprehensive way.

Calibrating the EU ETS in a sustainable way requires an enhanced governance (– with a committee of experts !) to provide an ex-ante assessment of complementary policies, to guarantee the MSR effectiveness, to monitor reductions drivers and to formulate of recommendations for the EU ETS design

Thank you for your attention

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