

SCRAP BONUS CONCRETE

The scrap bonus and the European Emissions Trading System – Reform options for achieving fair competition



Six recommended actions for policymakers

A study by the Fraunhofer IMW in collaboration with the German Steel Scrap Association – Bundesvereinigung Deutscher Stahlrecycling- und Entsorgungsunternehmen e. V. (BDSV)

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BDSV. THE steel scrap association.

 **BDSV**
DER Stahlschrott-Verband.

Prevention of environmental pollution must be rewarded



The “Scrap bonus concrete” study is an advanced version of the “Scrap bonus” study. The scrap bonus represents the welfare gains associated with the use of one tonne of scrap in steel production. The new study examines the extent to which European climate policies are integrating the scrap bonus into the price mechanism and uncovers where gaps are still preventing fair competition. It proposes measures to close these gaps and create incentives for efficient and climate-friendly steelmaking.

The market does not reflect the environmental benefits stemming from the use of steel scrap adequately. The environmental pollution avoided using scrap is not sufficiently priced in. Yet integrating the scrap bonus into the price mechanism makes macro-economic sense. Globally coordinated pricing of CO₂ would be ideal but is not achievable in the short and medium term. Currently, only European or national solutions can help.

Climate protection is made from scrap!

Yearly saving of environmental costs from using steel scrap
in Germany and Europe (in 2018)



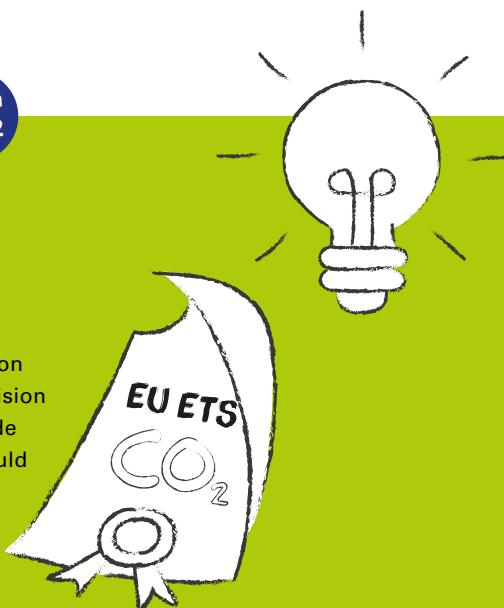
Recommended actions for policymakers

Following six recommendations for policymakers are described which could close the gaps that remain in the European Union's Emissions Trading System (EU ETS) and the Carbon Border Adjustment Mechanism (CBAM). It reflects the fact that a global CO₂ price and full incorporation of indirect emissions and exports in the CBAM are unrealistic in the short to medium term.

From
2022

RECOMMENDED ACTION 1: **LINK ALLOCATION OF FREE CERTIFICATES TO USE OF STEEL SCRAP**

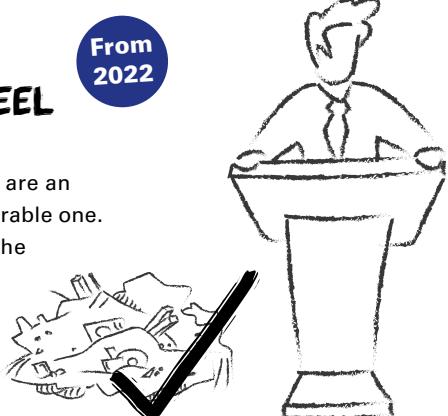
The linking of the allocation of free emission allowances to criteria, envisaged in the revision of the EU ETS, could be extended to include recycled-content targets for steel. This would make using steel scrap cheaper than using ores.



From
2022

RECOMMENDED ACTION 2: **MANDATORY RECYCLED- CONTENT TARGETS FOR STEEL**

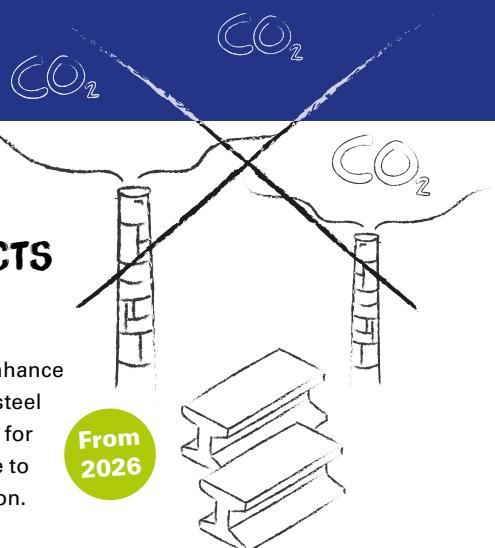
Mandatory recycled-content targets for steel are an alternative to the first option, albeit a less favorable one. Although they would result in an increase in the demand for scrap, they would represent a significant intervention in the free market.



RECOMMENDED ACTION 3: INTEGRATE MINING INTO THE EU ETS

From
2022

Integration would ensure fairer competition between primary materials and raw materials from recycling. One argument in favour of integration into the EU ETS is that other emission sources, such as the release of methane or explosives, could also be taken into account. It will also be possible to include the emissions of imported raw materials in the price in the CBAM.



RECOMMENDED ACTION 4: INCLUDE RAW MATERIALS AND INTERMEDIATE PRODUCTS IN THE CBAM

The inclusion of imported raw materials will enhance fair competition between the raw materials in steel and stainless-steel production. The exceptions for ferroalloys in the CBAM should be deleted, due to the high level of emissions from their production.

From
2026

RECOMMENDED ACTION 5: DO NOT RESTRICT STEEL SCRAP EXPORTS

Perma-
nently

No trade restrictions should be placed on exports. Export barriers for steel scrap would reduce the price of scrap compared to the ore price in Europe and stimulate additional demand there, however, it would also be expected that the use of scrap in the global market would be reduced and therefore greenhouse gas emissions would be increased.



RECOMMENDED ACTION 6: REVIEW INCLUSION OF EXPORTS AND INDIRECT EMISSIONS IN CBAM

From
2030

A more comprehensive Carbon Border Adjustment Mechanism that covers indirect emissions and exports appears unrealistic at present. Nevertheless, the European Commission should regularly review a corresponding expansion of the CBAM. This could prevent the migration of energy-intensive industries owing to the costs of climate protection.



The “old” EU ETS has gaps in it

The 4th phase of the EU ETS (EU Emissions Trading System), which started in 2021 and was supposed to last in this form until 2030, has gaps in it which place steel scrap as a raw material from recycling at a disadvantage compared to primary raw materials (iron ores, coal). CO₂ emissions caused by (stainless) steel production from ores are only partially priced in. This creates a competitive disadvantage for steel scrap, which is a climate-saving recycled material.

In July 2021, the European Commission published the “Fit for 55” package: It is designed to implement the European Green Deal, as part of which the European Union has significantly ramped up its climate targets. By 2030 the aim is to reduce greenhouse gas emissions in Europe by 55% compared to the 1990 levels.

“Fit for 55”: Revision of the EU Emissions Trading System



**AMBITIOUS REDUCTION PATH IN EMISSIONS TRADING:
FROM 43 % TO 61 % BY 2030 (COMPARED TO 2005)**



INCORPORATE SEA TRANSPORT INTO EU ETS



**INTRODUCTION OF A SEPARATE EMISSIONS TRADING
FOR BUILDINGS AND ROAD TRAFFIC**



**CARBON BORDER ADJUSTMENT MECHANISM (CBAM)
INSTEAD OF FREE ALLOCATION OF EMISSION ALLOWANCES**

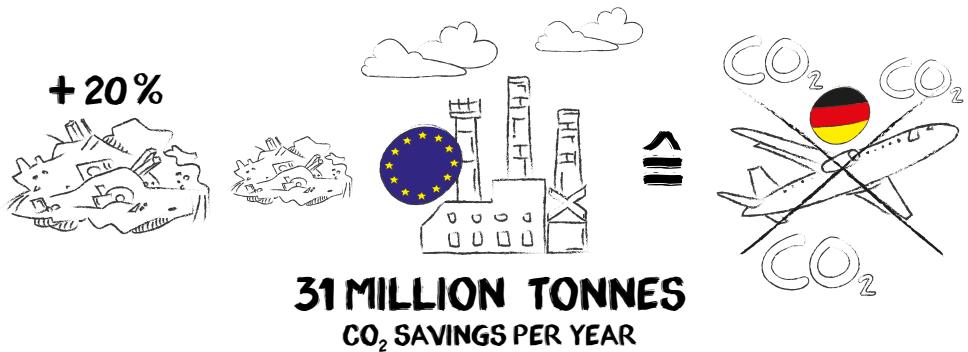


**TIGHTENING OF THE CONDITIONS FOR FREE ALLOCATION
OF EMISSION ALLOWANCES**

The measures outlined in the “Fit for 55” package close the gaps in the EU ETS to a small extent only

	“Old” EU ETS	“Fit for 55”
Mining	Greenhouse gas emissions caused by mining only taken into account in exceptional cases; relative prices distorted to the detriment of steel scrap.	Greenhouse gas emissions which are produced from mining ores and coal are still barely priced in.
Raw material imports	The machinery and equipment which is used in mining iron ore for Europe on its own produces 1.3 million t of CO ₂ each year – this is not priced in.	Imported raw materials and ferroalloys are still not captured, the use of steel scrap is still at a disadvantage.
Steel imports	Steel imports from countries without CO ₂ pricing are not covered by the EU ETS. Companies from these countries can manufacture at lower costs.	Emissions from steel production abroad are priced in by the CBAM. The scrap bonus will partially be taken into account, gradually from 2026.
Scrap exports	If scrap is exported to regions which do not pursue (ambitious) climate policies, emissions savings are not compensated for.	Exports of steel and scrap continue to be disregarded by the CBAM. Disadvantage in markets in third countries still exists.
Transport	Transport is only partially covered. For example, transport by ship is not part of the EU ETS.	Disadvantage in the EU ETS is becoming smaller here. Shipping partially integrated; separate ETS for road traffic.

An increase of 20% in the ratio of steel scrap use in European steel production would reduce CO₂ emissions by another 31 million tonnes (Mt) a year. This would be equivalent to compensating for the CO₂ emissions of all the national and international air traffic in Germany.



German Steel Scrap Association – Bundesvereinigung Deutscher Stahlrecycling- und Entsorgungsunternehmen e. V. (BDSV)

The BDSV represents the interests of German companies and companies operating in Germany that are active in the areas of steel recycling and waste disposal services. It is the largest steel recycling association in Europe. The association's goals are focused on the economic and ecological framework conditions of the recycling industry. The association stands for the preservation of the environment and the conservation of raw material reserves. However, the ecological goals must be translated into an economically realistic and competition-promoting environment.

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Fraunhofer IMW

The experts at the Fraunhofer Center for International Management and Knowledge Economy IMW in Leipzig use applied socio-economic research to develop solutions to safeguard the long-term success of customers and partners from business, industry, research and society.

The Center for Economics of Materials (CEM) at the Fraunhofer IMW in Halle (Saale) conducts research into the transformation of energy-intensive industries and the regions that have been shaped by them to create sustainable value-added systems in global value chains. The CEM is thus helping to shape the transformation towards a sustainable industrial society.

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