

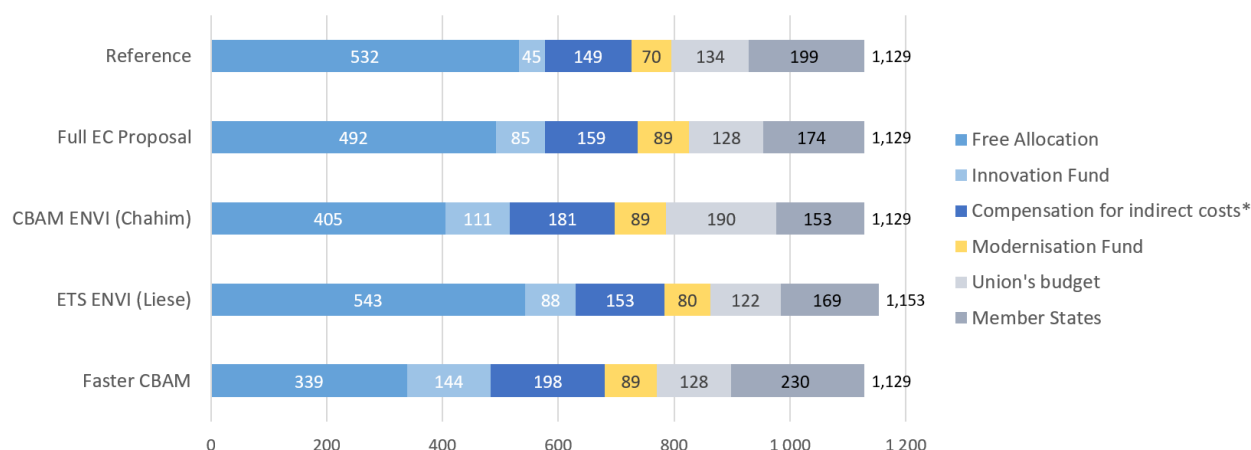
EU ETS Revenues: Who Receives What? The Trillion Euro Question



February 2022

This brief gives an analysis of the EU ETS Revenues, and aims to highlight, under various scenarios (outlined below), how much is allocated to industry, Member States, and the Union’s budget respectively. The European carbon market, currently under review, will likely generate emission allowances worth over a trillion euros over 10 years, which is more than the EU’s entire recovery budget. Therefore, the question becomes ‘who should receive what?’ as currently, of this substantial sum, the largest part is given **for free to industrial installations as protection against carbon leakage**. Accordingly, in this brief we outline the drawbacks of the current system, and propose an alternative scenario where revenues can be utilised to ensure large-scale emissions reductions.

Value of ETS allowances over 2021-30 (€bn)



Assuming €100 per EUA on average (Dec25 futures closed at €100.7 on 4 Feb 2022)

* 25% limit of revenues generated from the auctioning of allowances

In July 2021, the European Commission proposed a reform package of its climate policies ('Fit-for-55'), increasing the ambition of the ETS scheme from 43% to 61% reduction in greenhouse gas emissions by 2030. The package included a proposal for the introduction of a Carbon Border Adjustment Mechanism (CBAM), which would gradually replace the free allocation of permits to a number of sectors. In December 2021, the ENVI Rapporteur on the CBAM file, Mohammed Chahim MEP published a counter-proposal in his Draft Report which would make ambitious changes to the Commission’s original proposal. Following this, within the Draft Report published by Peter Liese MEP, the ENVI Rapporteur on the ETS Revision file, another proposal was made. The two proposals made by the respective rapporteurs on each file (ETS Revision and the CBAM) do not align on several aspects, including the handling of the ETS and CBAM revenues.

The above chart gives the estimated revenues for each of these scenarios, with a carbon price of €100/EUA. Results can also be seen in our [ETS Simulator](#).

The revenue waterfall

Under the current system, up to 43% of the emission cap can be **distributed each year to industry** (the rest being sold by Member States or the Commission to raise revenues). However, additional reserves of allowances can be used to increase that share: up to 3% of the cap (the “buffer”) can be used if industry needs it; the New Entrant Reserve can release up to 320m permits in excess of that limit.

The permits that are not given for free to industrial installations (and airlines) are sold or auctioned by the European Commission (via the EIB) or by Member States. A share of the proceeds is dedicated to the **Modernisation Fund** for poorer Member States to upgrade their energy infrastructure; another share is for the **Innovation Fund**. In a separate legislative proposal¹, the Commission is proposing to allocate 25% of the remaining funds to the Union budget to repay the recovery package, and the remainder to Member States. Of this last share, part is spent by Member States to support their industry, as **compensation for indirect carbon costs**.

This revenue waterfall is slightly different between legislative proposals, as summarised below:

mEUA, 2021-2030	Reference	Full EC Proposal	CBAM ENVI (Chahim)	ETS ENVI (Liese)	Faster CBAM
Total allowances	11 287	11 287	11 287	11 529	11 287
Given for free to industry	5 316	4 924	4 054	5 428	3 385
Auctioned	5 971	6 363	7 232	6 101	7 902
Modernisation Fund	700	893	893	797	893
Innovation Fund	449	851	1 110	876	1 444
<i>Incl. CBAM allowances</i>	0	352	611	1 221	945
Union's Budget	1 336	1 285	1 895	1 217	1 285
Member States' Budget	3 487	3 334	3 334	3 212	4 279
<i>Incl. compensation for indirect costs (25%)</i>	1 493	1 591	1 808	1 525	1 975
MS revenues	1 994	1 743	1 526	1 686	2 304

- Our **Reference scenario** reflects the changes proposed by the Commission in its ‘Fit For 55’ package related to scope and ambition (new cap, extension to the maritime sector and inclusion of additional activities such as biofuels refining and hydrogen production from all sources; slight acceleration of the benchmark yearly reduction; revision of the MSR); but leaving out proposed rebalancing related to the CBAM, the Innovation Fund and Modernisation Fund.
- The **Full EC Proposal** scenario reflects all the changes proposed by the Commission for the ETS, including a top-up of 50m EUAs for the Innovation Fund (40m from free allocation and 10m from the auctioning share), an additional 2.5% of the cap for the Modernisation Fund and a Carbon

¹ https://ec.europa.eu/commission/presscorner/detail/en/QANDA_20_1024

Border Adjustment Mechanism gradually replacing some free allocation from 2026 onwards with auctioning to the benefit of the Innovation Fund.

- The **ETS ENVI** scenario reflects the ENVI's proposal for the ETS, including a top-up of the Innovation Fund and of the Modernisation Fund and assumes that the CBAM is implemented but not 'efficiently' (as per the proposed wording), meaning that all free allowances from the CBAM sectors return to industry for free instead of being channelled into the Innovation Fund. Free allocation is increased due to the 'CSCF (Cross-sectoral correction factor) reserve' and a bonus-malus mechanism using EUAs from the maritime and aviation sectors or bringing back allowances which would have otherwise been invalidated by the MSR. Free allocation is increased for the best performing installations (we assume no "malus" for other installations because of the very weak condition imposed). Article 10c, allowing free allocation for electricity generation, is cancelled.
- The **CBAM ENVI** scenario reflects ENVI's CBAM proposal of a broader and faster implementation of CBAM. Free allocation that are no longer given to the new CBAM sectors are channelled into the Innovation Fund (50%) or auctioned for the Union's budget (50%).
- The **Faster CBAM** scenario reflects the EC's ETS proposal and an immediate full phase-out of free allocation for CBAM sectors in 2024 (extended scope, as in ENVI's proposal). Free allowances that are no longer given to the new CBAM sectors are channelled into the Innovation Fund (50%) or auctioned by Member States (50%).

Detailed description and results of these scenarios are given in appendix.

The Industry Loop

ENVI's proposal leads to a **higher overall supply of EUAs** under the action of the CSCF reserve (+216m EUAs in 2029 and 2030) and bonus to best performers (+18m EUAs over 2024-30). This will add to an expected surplus of over 1.1bn allowances by 2030, as we [recently calculated](#).

All scenarios foresee **EUR400-550bn worth of allowances given for free to industry**, indicating that, despite some differences, free allocation remains the dominant protection against carbon leakage. This is despite the multiple obstacles created by free allocation to industrial decarbonisation and a well-functioning carbon market, as we warn in [another note](#). Of all the proposals, the CBAM ENVI proposal goes the furthest towards tackling these issues, by removing free allocation from more sectors covered by the CBAM, although still too slowly to make a big enough dent.

Under the different proposals, **the Innovation Fund** receives **EUR85-144bn**. The fund provides grants to ad-hoc project finance investment vehicles carrying innovative projects, based on largely declarative ex-ante emission avoidance claims. Investors in such structures are mostly large industrial groups.

	Sponsors/participants	Technology	Sector
#1	Air Liquide; BASF; Antwerpen NV	CCS	Chemical
#2	Enel	Solar PV	Power
#3	Fortum; city of Stockholm	CCS	Buildings
#4	Air Liquide; VDZ	CCS	Cement
#5	Repsol; Energkem; Aguas Barcelona	CCU	Chemical
#6	SSAB; Vattenfall	H-DRI	Steel
#7	Neste Oyj	CCS	Refining

Pursuant to the ETS Directive, Member States also have the option to support their electricity intensive industry in the form of state-aid compensation for indirect carbon costs. The limit is set at 25% of allowance revenue², although some derogations exist. The actual percentage in 2019 and 2020 was 8% and 14% across the EU, but there could be an uptick as electrification intensifies in the continent. As a result, only a small portion of the value created by the EU ETS is to benefit Member States. Under all proposals, Member States are required to spend 100% of these revenues (as per the Commission’s proposal) on a list of climate-related measures such as adaptation, support to technology and forestry, but also “addressing social aspects”. “Promoting skill formation” is mentioned, but only as a social measure and not a decarbonisation instrument. Disappointingly, no mention is made of circularity.

A new addition in the different proposals is the use of **free allocation as a tool** to incentivise lower-carbon products and processes, by extending the scope of the ETS or even giving ‘bonus’ permits to ‘performant’ installations. The FF55 package will be followed in 2025 by a **reform of the ‘benchmarks’**, a list of coefficients used to determine the free allocation of permits to industrial installations, in proportion to their production output. That other reform may further increase the allocation of free permits to industry.

Who is paying?

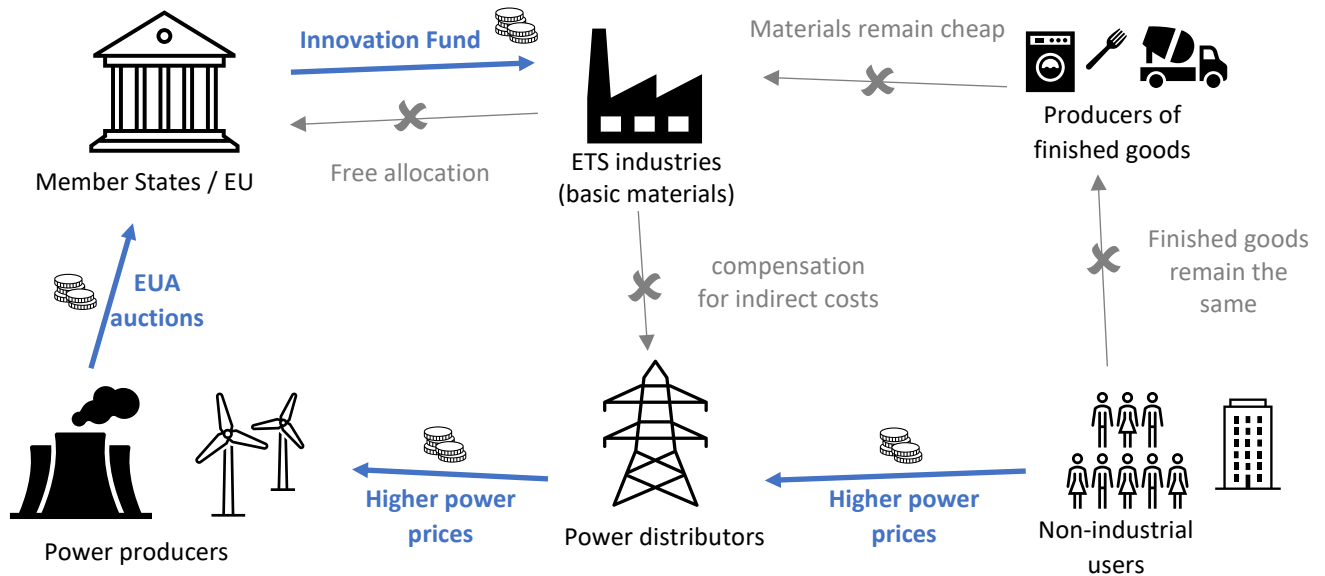
The carbon costs paid by manufacturers are typically (more than) **recovered through higher prices** charged for the goods they sell. For example, the market price of electricity is driven by the marginal cost of production, which typically uses fossil gas, so electricity prices include an element of carbon cost as if all electricity was produced from fossil gas. Higher power prices also make low-carbon electricity more profitable and encourage energy savings.

The free allocation of emission allowances was adopted for a list of sectors deemed less able to raise their selling prices by fear of foreign competition taking over instead: this is the theory behind carbon leakage. As a result of free allocation, the prices of industrial basic materials such as steel and chemicals remain low, which makes the carbon price less effective in changing consumption habits. Retail and

² Article 62 of [Guidelines on certain State aid measures in the context of the system for greenhouse gas emission allowance trading post 2021](#)

industrial users keep consuming those goods as they always have, and the fundraising mechanism in place for electricity does not work for industrial manufacturing.

A locked up market: financial flows related to the EU ETS



Therefore, we are asking to **accelerate the implementation of the CBAM and phasing out of free allocation in sectors which do not face low-carbon competition from overseas on a large scale**: for those sectors, a CBAM would not create any competitive disadvantage (maybe rather the opposite), and making it faster would:

- unlock emission reductions in those sectors;
- improve the functioning of the carbon market, making carbon prices trigger industrial abatement;
- free up much needed funds for EU citizens and public finances.

We are also proposing that the extra revenues raised from reducing free allocation should not all go to the Innovation Fund in its current form, but rather support other types of initiatives:

- **50%** would be dedicated to supporting additional, **public and private initiatives** that can deliver rapid large-scale emission reductions, such as:
 - o scaling-up projects with no significant innovation content but able to deliver deep decarbonisation;
 - o measures of support to circularity, carried by public or private entities; and
 - o support measures which would be more efficient as EU-wide programmes than if uncoordinated between Member States.

- **50% would go back to Member States** to help them implement policies accompanying the necessary changes, including retraining their workforce or addressing the social consequences of rising carbon prices.

Appendix

Scenarios

	Reference (No CBAM)	Full EC Proposal (FF55 CBAM)	CBAM ENVI (Chahim) (accelerated + extended CBAM)	ETS ENVI (Liese) (accelerated + extended CBAM but not 'effective')	Faster CBAM (immediate and extended CBAM)
Free Allocation	43% + max. 3% cap (Buffer) + NER - 325m (FA)				
	+Article10c	+Article10c -40m (FA) -CBAM	+Article10c -40m (FA) -CBAM	-40m (FA) +CBAM Reserve +CSCF Reserves +/- Bonus Malus	+Article10c -40m (FA) -CBAM
Innovation Fund ³	325 (FA) + 75 (Auction) + max. 50m (Buffer)				
		+40 (FA) +10 (Auction) +100% CBAM	+40 (FA) +10 (Auction) +50% CBAM	+40 (FA) +290 (Auction) +1.25% (Cap 24-30)	+40 (FA) +10 (Auction) +50% CBAM
Modernisation Fund	2% (cap 21-30) + max. 2% cap (Buffer) + 368m (transfers) + 25m (Greece)				
		+2.5% (cap 24-30)	+2.5% (cap 24-30)	+1.25% (cap 24-30)	+2.5% (cap 24-30)
Union's Budget	25%				
			+50% CBAM		
Member States	Remaining EUAs +/- MSR Release/Intake				
					+50% CBAM

These estimates are based on our baseline emissions scenario, whereby industrial emissions remain nearly constant over the decade and the power sector follows the route dictated by the EC's MIX scenario. More details on scenarios, assumptions and methodology can be found in our [ETS Simulator](#) and in our latest [supply-demand analysis](#)⁴.

³ Not included in this analysis, the Fund also includes 50m from the MSR that were auctioned in 2021 as well as unspent funds from projects awarded funding under the second call of the NER programme, [estimated at €735m](#). The Innovation Fund could also benefit from additional revenues generated by the auctioning of allowances that are not issued to aircraft operators due to their closure, and from any penalties raised in case of non-compliance with the FuelEU Maritime Regulation

⁴ <https://sandbag.be/index.php/2021/09/30/impact-of-eu-ets-reform-letting-industry-loose/>

ETS Supply (2021-2030), mEUAs

	Reference	Full EC Proposal	CBAM ENVI (Chahim)	ETS ENVI (Liese)	Faster CBAM
Total EUAs	11 287	11 287	11 287	11 529	11 287
Total Free EUAs	5 316	4 924	4 054	5 428	3 385
Standard	4 979	4 587	3 717	3 717	3 048
Buffer	54	54	54	54	54
NER	202	202	202	202	202
Art10c	82	82	82	0	82
ENVI CSCF Reserve + Bonus	0	0	0	234	0
<i>Diverted to IF</i>	-325	-365	-365	-365	-365
<i>CBAM demand</i>	0	352	1 221	1 221	1 891
Total Auction	5 971	6 363	7 232	6 101	7 902
Modernisation Fund	700	893	893	797	893
Pre FF55 Endowment	247	247	247	247	247
Top up	0	194	194	97	194
Buffer	60	60	60	60	60
Extra	393	393	393	393	393
Innovation Fund	449	851	1 110	876	1 444
Pre FF55 Endowment	400	400	400	400	400
Top up	0	50	50	427	50
Buffer	49	49	49	49	49
CBAM top up	0	352	611	1 221	945
Regular auctioning	4 822	4 618	5 229	4 428	5 564
Union Budget	1 336	1 285	1 895	1 217	1 285
MS	3 487	3 334	3 334	3 212	4 279
25% indirect cost	1 493	1 591	1 808	1 525	1 975
Remaining revenues	1 994	1 743	1 526	1 686	2 304

Proposed ETS Amendments on Revenue Use

Member States

Original text (EC Proposal July 2021)	Amendment
<p>Article 10 (3)</p>	<p>Article 10 (3)</p> <p><i>In paragraph 3, the following points are added:</i></p> <p><i>“(l) to promote skill formation in line with the need to adjust professional practices to circularity and the use of low-carbon materials;”;</i></p> <p><i>“(m) to support the development of a circular economy;”;</i></p>
<p>Justification</p>	
<p>The scaling up of substitution of materials with high-carbon contents for lower-carbon materials often faces the barrier of inadequate professional practices. It is necessary for the workforce to be trained to use the types of materials adapted to the transition to a low-carbon economy. No funding mechanism currently exists for such transition.</p> <p>Circularity should be one of the main pillars of a low-carbon economy, yet no funding mechanism exists for such measures.</p>	

Innovation Fund

Original text (EC Proposal July 2021)	Amendment
<p>Recital 33</p> <p>The scope of the Innovation Fund referred to in Article 10a(8) of Directive 2003/87/EC should be extended to support innovation in low-carbon technologies and processes that concern the consumption of fuels in the sectors of buildings and road transport.</p> <p>In addition, the Innovation Fund should serve to support investments to decarbonise the maritime transport sector, including investments in sustainable alternative fuels, such as hydrogen and ammonia that are produced from renewables, as well as zero-emission propulsion technologies like wind technologies. Considering that revenues generated from penalties raised in Regulation xxxx/xxxx [FuelEU Maritime]19 are allocated to</p>	<p>Recital 33</p> <p>The Innovation Fund referred to in Article 10a(8) of Directive 2003/87/EC should be renamed ‘Carbon Neutrality Fund’ and its scope extended to support measures aiming to reduce large amounts of GHG emissions that are not project-based or innovative, as well as innovation in low-carbon technologies and processes that concern the consumption of fuels in the sectors of buildings and road transport.</p> <p>In addition, the Carbon Neutrality Fund should serve to support investments to decarbonise the maritime transport sector, including investments in sustainable alternative fuels, such as hydrogen and ammonia that are produced from renewables, as well as zero-emission propulsion technologies like wind technologies. Considering that revenues generated from penalties raised in Regulation xxxx/xxxx [FuelEU Maritime]19 are allocated to the Carbon</p>

the **Innovation** Fund as external assigned revenue in accordance with Article 21(5) of the Financial Regulation, the Commission should ensure that due consideration is given to support for innovative projects aimed at accelerating the development and deployment of renewable and low carbon fuels in the maritime sector, as specified in Article 21(1) of Regulation xxxx/xxxx [FuelEU Maritime]. To ensure sufficient funding is available for **innovation** within this extended scope, the **Innovation** Fund should be supplemented with 50 million allowances, stemming partly from the allowances that could otherwise be auctioned, and partly from the allowances that could otherwise be allocated for free, in accordance with the current proportion of funding provided from each source to the **Innovation** Fund.

Neutrality Fund as external assigned revenue in accordance with Article 21(5) of the Financial Regulation, the Commission should ensure that due consideration is given to support for ~~innovative~~ projects aimed at accelerating the development and deployment of renewable and low carbon fuels in the maritime sector, as specified in Article 21(1) of Regulation xxxx/xxxx [FuelEU Maritime]. To ensure sufficient funding is available for **measures** within this extended scope, the **Carbon Neutrality** Fund should be supplemented with 50 million allowances, stemming partly from the allowances that could otherwise be auctioned, and partly from the allowances that could otherwise be allocated for free, in accordance with the current proportion of funding provided from each source to the **Carbon Neutrality** Fund.

Justification

See justification for Article 10a (8).
 We highly recommend caution about increasing the size of the Innovation Fund, given the absence of funding programmes dedicated to measures with high abatement potential in non-innovative areas such as education, public infrastructure or circularity, which are disadvantaged by ETS incentives focused on industrial output. An increase in size would only be justified by the adequate extension of scope.

Original text (EC Proposal July 2021)

Recital 34
 Pursuant to Article 10 of Commission Regulation (EU) No 2019/112220, where aircraft operators no longer operate flights covered by the EU ETS, their accounts are set to excluded status, and processes may no longer be initiated from those accounts. To preserve the environmental integrity of the system, allowances which are not issued to aircraft operators due to their closure should be used to cover any shortfall in surrenders by those operators, and any leftover allowances should be used to accelerate action to tackle climate change by being placed in the **Innovation** Fund.

Amendment

Recital 34
 Pursuant to Article 10 of Commission Regulation (EU) No 2019/112220, where aircraft operators no longer operate flights covered by the EU ETS, their accounts are set to excluded status, and processes may no longer be initiated from those accounts. To preserve the environmental integrity of the system, allowances which are not issued to aircraft operators due to their closure should be used to cover any shortfall in surrenders by those operators, and any leftover allowances should be used to accelerate action to tackle climate change by being placed in the **Carbon Neutrality** Fund.

Justification

See the justification for Article 10a(8).

Original text (EC Proposal July 2021)

Amendment

<p>Recital 35</p> <p>Carbon Contracts for Difference (CCDs) are an important element to trigger emission reductions in industry, offering the opportunity to guarantee investors in innovative climate-friendly technologies a price that rewards CO2 emission reductions above those induced by the current price levels in the EU ETS. The range of measures that the Innovation Fund can support should be extended to provide support to projects through price-competitive tendering, such as CCDs. The Commission should be empowered to adopt delegated acts on the precise rules for this type of support.</p>	<p>Recital 35</p> <p>Carbon Contracts for Difference (CCDs) are an important element to trigger emission reductions in industry, offering the opportunity to guarantee investors in climate-friendly technologies a price that rewards CO2 emission reductions above those induced by the current price levels in the EU ETS. The range of measures that the Carbon Neutrality Fund can support should be extended to provide support to projects through price-competitive tendering, such as CCDs. The Commission should be empowered to adopt delegated acts on the precise rules for this type of support.</p>
Justification	
See the justification for Article 10a(8).	

Original text (EC Proposal July 2021)	Amendment
<p>Recital 54</p> <p>Innovation and development of new low-carbon technologies in the sectors of buildings and road transport are crucial for ensuring the cost-efficient contribution of these sectors to the expected emission reductions. Therefore, 150 million allowances from emissions trading in the buildings and road transport sectors should also be made available to the Innovation Fund to stimulate the cost-efficient emission reductions.</p>	<p>Recital 54</p> <p>Innovation and development of new low-carbon technologies and measures in the sectors of buildings and road transport are crucial for ensuring the cost-efficient contribution of these sectors to the expected emission reductions. Therefore, 150 million allowances from emissions trading in the buildings and road transport sectors should also be made available to the Innovation Carbon Neutrality Fund to stimulate the cost-efficient emission reductions.</p>
Justification	
See the justification for Article 10a(8).	

Original text (EC Proposal July 2021)	Amendment
<p>Article 10a (8):</p> <p>“8. 365 million allowances from the quantity which could otherwise be allocated for free pursuant to this Article, and 85 million allowances from the quantity which could otherwise be auctioned pursuant to Article 10, as well as the allowances resulting from the reduction of free allocation referred to in Article 10a(1a), shall be made available to a Fund with the objective of supporting</p>	<p>Article 10a (8):</p> <p>“8. 365 million allowances from the quantity which could otherwise be allocated for free pursuant to this Article, and 85 million allowances from the quantity which could otherwise be auctioned pursuant to Article 10, as well as the allowances resulting from the reduction of free allocation referred to in Article 10a(1a), shall be made available to a Fund with the objective of supporting</p>

innovation in low-carbon technologies and processes, and contribute to zero pollution objectives (the 'Innovation Fund').

Allowances that are not issued to aircraft operators due to the closure of aircraft operators and which are not necessary to cover any shortfall in surrenders by those operators, shall also be used for innovation support as referred to in the first subparagraph...

...The **Innovation** Fund shall cover the sectors listed in Annex I and Annex III, including environmentally safe carbon capture and utilisation ("CCU") that contributes substantially to mitigating climate change, as well as products substituting carbon intensive ones produced in sectors listed in Annex I, and to help stimulate the construction and operation of projects aimed at the environmentally safe capture and geological storage ("CCS") of CO₂, as well as of innovative renewable energy and energy storage technologies; in geographically balanced locations.

The **Innovation** Fund may also support break-through innovative technologies and infrastructure to decarbonise the maritime sector and for the production of low- and zero-carbon fuels in aviation, rail and road transport. Special attention shall be given to projects in sectors covered by the [CBAM regulation] to support innovation in low carbon technologies, CCU, CCS, renewable energy and energy storage, in a way that contributes to mitigating climate change. Projects in the territory of all Member States, including small-scale projects, shall be eligible. Technologies receiving support shall be **innovative** and not **yet** commercially viable at a similar scale without support but shall represent **breakthrough** solutions or be sufficiently mature for application at pre-commercial scale...

... Projects shall be selected on the basis of objective and transparent criteria, taking into account, where relevant, the extent to which projects contribute to achieving **emission reductions well below the benchmarks referred to in paragraph 2...**

emissions avoidance, including through innovation in low-carbon technologies and processes, and contribute to zero pollution objectives (the 'Innovation Fund', **which shall be renamed 'Carbon Neutrality Fund'**).

Allowances that are not issued to aircraft operators due to the closure of aircraft operators and which are not necessary to cover any shortfall in surrenders by those operators, shall also be used for innovation support as referred to in the first subparagraph...

...The **Carbon Neutrality** Fund shall cover the sectors listed in Annex I and Annex III, including **large scale emission reduction projects using mature technologies, public and private initiatives supporting circularity, EU-wide programmes for emission reduction,** environmentally safe carbon capture and utilisation ("CCU") that contributes substantially to mitigating climate change, as well as products substituting carbon intensive ones produced in sectors listed in Annex I, and to help stimulate the construction and operation of projects aimed at the environmentally safe capture and geological storage ("CCS") of CO₂, as well as of innovative renewable energy and energy storage technologies; in geographically balanced locations.

The **Carbon Neutrality** Fund may also support break-through innovative technologies and infrastructure to decarbonise the maritime sector and for the production of low- and zero-carbon fuels in aviation, rail and road transport. Special attention shall be given to projects in sectors covered by the [CBAM regulation] to support **circularity measures, professional training to use low-carbon products,** innovation in low carbon technologies, CCU, CCS, renewable energy and energy storage, in a way that contributes to mitigating climate change. Projects **and measures** in the territory of all Member States, including small-scale projects, shall be eligible. Technologies receiving support shall be **of deep decarbonisation** and not commercially viable at a similar scale without support but shall represent solutions or be sufficiently mature for application at pre-commercial scale...

...Projects **and measures** shall be selected on the basis of objective and transparent criteria, taking into account, where relevant, the extent to which projects contribute to achieving **the Union's carbon neutrality objective...**

...taken into account under paragraph 7.”;

...taken into account under paragraph 7.”;

Justification

The Innovation Fund is one of the main sources of climate funding, yet it's restricted to innovative technologies, which suggests the Commission's belief that the main obstacle to decarbonisation is a lack of innovation.

However, there are many technologies (or, simply put, “measures”) with vast abatement potential that are ready, not particularly innovative but simply not economical, in need for support to be deployed. It is the case of the substitution of concrete with timber, or the reuse of steel products, in the construction sector. Those measures, which would require public funding (not least in education, e.g. to train builders to new materials), are not eligible for funding from the Innovation Fund by lack of innovation content, or to any other funding instrument.

In the same way as feed-in tariffs to (un-innovative) renewable energies helped decarbonising the power sector in the 2010s, support to the deployment of uneconomical, high-potential abatement measures should help decarbonising our economy. This would be more effective than a risky gamble on innovation, which the failed NER300 subsidy programme already demonstrated in that same decade. Feed-in tariffs are an example of programme run by individual Member States in an uncoordinated fashion (some MS have no tariffs at all), whereas coordination at EU level would sometimes be preferable. Similar programmes could be more efficiently applied to many types of subsidies, if coordinated and financed at EU level, including to support circularity, carbon-free mobility etc. Another example of lack of coordination is hydrogen, for which some MS plan large-scale transport infrastructure while others plan production near consumption sites.

Using free allocation benchmarks as reference to assess environmental performance is too weak a comparison:

- Those benchmarks were initially based on the 10% best installations, but that is not always true (e.g. the heat benchmark is just based on natural gas heating),
- They are backward looking, only being based on a reference observed in 2016-17. For example, projects are selected by comparing their GHG emissions with the 2016-17 reference, which for hydrogen production represent 6.73 tCO₂ per tonne of hydrogen produced, even though efficient “grey hydrogen” plants in Europe only emit 4.09 tCO₂.
- Their yearly reduction is limited to 2.5%, whereas improvements have been much faster in some process types, meaning those benchmarks are drifting behind state-of-the-art and are definitely far from zero-emissions.

Instead of aiming at a level only below the free allocation benchmarks, Innovation Fund activities should therefore aim at carbon neutrality.

We urge to refocus the Innovation Fund on environmental impact rather than innovation, and recommend caution about increasing its already large size unless it also supports:

- Projects with large-scale abatement potential regardless of their innovation content
- measures not based on individual projects, to support circularity. These could include support to the retraining of workforce to using low-carbon types of materials.
- Programmes of support at EU level which could improve sector-based coordination in emission reductions.

Original text (EC Proposal July 2021)

Amendment

Recital 30

Recital 30

The Carbon Border Adjustment Mechanism (CBAM), established under Regulation (EU) [.../...] of the European Parliament and of the Council¹⁸, is an alternative to free allocation to address the risk of carbon leakage. To the extent that sectors and subsectors are covered by that measure, they should not receive free allocation. ~~However, a transitional phasing-out of free allowances is needed to allow producers, importers and traders to adjust to the new regime.~~ The reduction of free allocation should be implemented by applying a factor to free allocation for CBAM sectors, while the CBAM is phased in. ~~This percentage (CBAM factor) should be equal to 100 % during the transitional period between the entry into force of [CBAM Regulation] and 2025, 90 % in 2026 and should be reduced by 10 percentage points each year to reach 0 % and thereby eliminate free allocation by the tenth year.~~ The relevant delegated acts on free allocation should be adjusted accordingly for the sectors and subsectors covered by the CBAM. ~~The free allocation no longer provided to the CBAM sectors based on this calculation (CBAM demand) must be auctioned and the revenues will accrue to the Innovation Fund, so as to support innovation in low carbon technologies, carbon capture and utilisation ('CCU'), carbon capture and geological storage ('CCS'), renewable energy and energy storage, in a way that contributes to mitigating climate change.~~ Special attention should be given to projects in CBAM sectors. To respect the proportion of the free allocation available for the non-CBAM sectors, the final amount to deduct from the free allocation and to be auctioned should be calculated based on the proportion that the CBAM demand represents in respect of the free allocation needs of all sectors receiving free allocation.

The Carbon Border Adjustment Mechanism (CBAM), established under Regulation (EU) [.../...] of the European Parliament and of the Council, is an alternative to free allocation to address the risk of carbon leakage. To the extent that sectors and subsectors are covered by that measure, they should not receive free allocation.

The reduction of free allocation should be implemented by applying a factor to free allocation for CBAM sectors, while the CBAM is phased in. ***The CBAM factor shall be equal to 100% in 2023, 90 % in 2024, 80 % in 2025, 60 % in 2026, 40 % in 2027, and reach 0 % by the end of 2028.***

The relevant delegated acts on free allocation should be adjusted accordingly for the sectors and subsectors covered by the CBAM. ***50 % of the allowances resulting from the reduction of free allocation shall be made available to the Carbon Neutrality Fund (formerly the Innovation Fund). The other 50 % shall be auctioned by Member States.***

Special attention should be given to projects in CBAM sectors. To respect the proportion of the free allocation available for the non-CBAM sectors, the final amount to deduct from the free allocation and to be auctioned should be calculated based on the proportion that the CBAM demand represents in respect of the free allocation needs of all sectors receiving free allocation.

Justification

See the justification for Article 10a paragraph 1, and Article 10a(8).

CBAM

Original text (EC Proposal July 2021)	Amendment
<p>Article 10a</p> <p>(b) the following paragraph 1a is inserted: "1a. No free allocation shall be given in relation to the</p>	<p>Article 10a</p> <p>(b) the following paragraph 1a is inserted: "1a. No free allocation shall be given in relation to the</p>

production of products listed in Annex I of Regulation [CBAM] as from the date of application of the Carbon Border Adjustment Mechanism. By way of derogation from the previous subparagraph, for the first years of operation of Regulation [CBAM], the production of these products shall benefit from free allocation in reduced amounts. A factor reducing the free allocation for the production of these products shall be applied (CBAM factor). The CBAM factor ~~shall be equal to 100 % for the period during the entry into force of [CBAM regulation] and the end of 2025, 90 % in 2026 and shall be reduced by 10 percentage points each year to reach 0 % by the tenth year.~~ The reduction of free allocation shall be calculated annually as the average share of the demand for free allocation for the production of products listed in Annex I of Regulation [CBAM] compared to the calculated total free allocation demand for all installations, for the relevant period referred to in Article 11, paragraph 1. The CBAM factor shall be applied.

Allowances resulting from the reduction of free allocation shall be made available to support **innovation** in accordance with Article 10a(8).

production of products listed in Annex I of Regulation [CBAM] as from the date of application of the Carbon Border Adjustment Mechanism. By way of derogation from the previous subparagraph, for the first years of operation of Regulation [CBAM], the production of these products shall benefit from free allocation in reduced amounts. A factor reducing the free allocation for the production of these products shall be applied (CBAM factor). The CBAM factor **shall be determined for each sector covered by the CBAM depending on the sector's transition readiness, exposure to carbon leakage and relative carbon-intensity of international competitors. There will therefore be a CBAM factor unique to each sector. The CBAM factor shall be equal to 100% during the year of entry to force of the CBAM regulation and shall be reduced linearly each year to reach 0% by or prior to 2028.** The reduction of free allocation shall be calculated annually as the average share of the demand for free allocation for the production of products listed in Annex I of Regulation [CBAM] compared to the calculated total free allocation demand for all installations, for the relevant period referred to in Article 11, paragraph 1. The CBAM factor shall be applied.

50% of the allowances resulting from the reduction of free allocation shall be made available to support **deep decarbonisation** in accordance with Article 10a(8).

Justification

To be perfectly clear, we shall repeat the European Commission's statement that the CBAM should be "an alternative to the measures that address the risk of carbon leakage in the EU's Emissions Trading System"⁵, such as free allocation.

The implementation schedule of a CBAM for a particular sector should depend on three factors: 1) actual risk of carbon leakage (a function of exposure to international trade and carbon costs); 2) the carbon content of products manufactured by international competitors, and 3) the readiness of EU manufacturers to transition to lower carbon production.

As free allocation is phased out, the ability of a CBAM to protect EU installations against competition impacts depends on the cost difference between the phased-out free allowances for EU plants and the CBAM fee paid by importers of similar products: competition impacts will only be negative if imported products have significantly lower carbon content than EU-made products because they will pay less CBAM than EU plants pay for their carbon.

For products with little or no risk of such imports, competition impacts will either be small or even positive, so the CBAM can be implemented immediately. For sectors with low carbon competitors that can quickly

⁵ [Communication on the European Green Deal](#), European Commission, December 2019

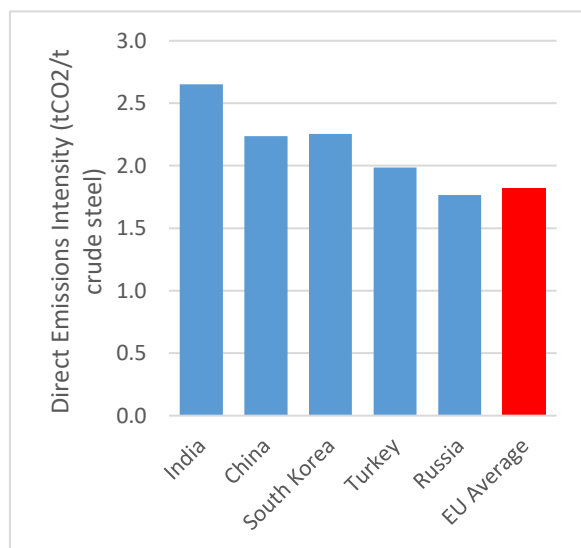
transition to lower carbon production, implementation can be fast although not immediate. Only the sectors with high risk of carbon leakage, low carbon competitors, and low readiness may require a higher implementation time.

For **flat steel products**, typically made via the primary production route (Blast furnaces), the EU's average direct emissions intensity is lower than the majority of its largest steel trade partners. As such, the EU is unlikely to lose a significant share of trade in the steel sector and EU producers should be able to pass through most of the additional costs due to the EU ETS.

It should be noted that some countries produce flat steel products from slightly less emitting direct reduced iron (DRI) but none has the capacity to massively penetrate the EU market.

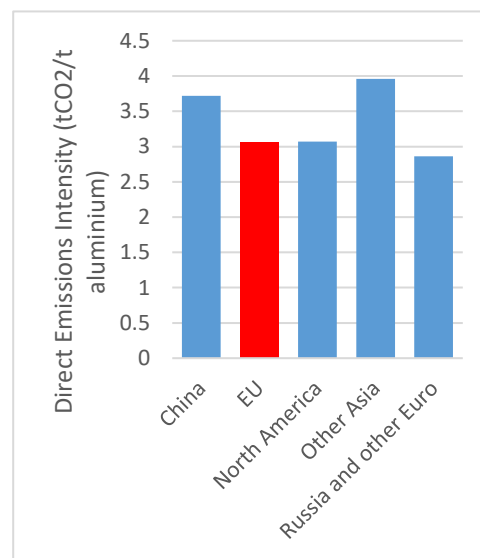
In the Aluminium sector, the EU, again has a competitive emissions intensity, with only Russia having a slightly lower direct emissions intensity. Data used is from the International Aluminium Institute Life Cycle Inventory Summary by Region and Unit Process.

Steel from blast furnace



Source: <https://www.globalefficiencyintel.com/us-steel-industry-benchmarking-energy-co2-intensities>

Aluminium



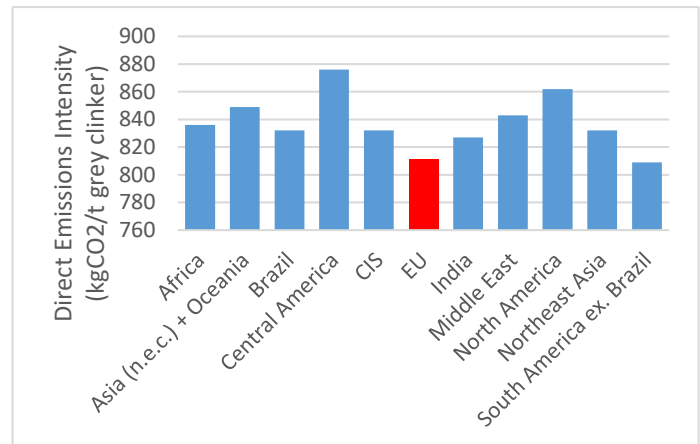
Source: International Aluminium Institute Life Cycle Inventory Summary by Region and Unit Process

Cement

It is a similar situation in the cement sector, where on average the EU has the second lowest emissions intensity for producing grey clinker, the main polluting component of cement. This is based on 2019 data from the Global Cement and Concrete Association.

Source: Global Cement and Concrete Association

https://gccassociation.org/gnr/geo/GNR-Indicator_59cAG-geo.html



Important assumptions for the data in these graphs are that all the country or region values are average values. So, whilst the EU as a whole has one of the lowest emissions intensities, specific countries within the EU have higher emissions intensities which will be less competitive.