

REVIEW OF EU EMISSIONS TRADING SCHEME

Survey Results



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PREFACE

The EU Emissions Trading Scheme (EU ETS) was launched in January 2005. It is the largest cap-and-trade scheme in the world and the core instrument for Kyoto compliance in the EU. This first environmental market established in the EU involves thousands of operators who have obligations for limiting the carbon dioxide emissions from their plants. In an average week more than 10 million allowances are traded, resulting in a market worth several billion Euro already in the first year of operation.

Article 30 of the Directive implementing the EU ETS requires the Commission to review the application of the EU Emissions Trading Scheme and report to the European Parliament and to the Council. The report may be accompanied by proposals for amendments to the scheme.

The European Commission's DG Environment appointed McKinsey & Company and Ecofys to support it in developing the review. Amongst other things, they were asked to develop an understanding of the impact of the scheme on the competitive position of participants and to analyse possibilities for the design of the scheme after the second trading period.

Their work deals with a number of the issues listed in Article 30 as ones that should be addressed in the Commission's report, as well as other relevant issues. Each report discusses approaches taken in the first phase and important lessons learnt. The analyses focus on the post-2012 design. For each design element, future options are investigated. This involves discussion of the advantages and disadvantages of design options, harmonization opportunities, and impact on competitiveness.

The work conducted in the period June 2005–July 2006 consists of a web survey to consult stakeholders on their views on the EU ETS, as well as extensive topical analyses.

This report reflects the views of McKinsey & Company and of Ecofys and does not constitute official views or policy of the European Commission.

Other reports delivered in the scope of this work are available at http://ec.europa.eu/environment/climat/emission/review_EN.htm.

1 INTRODUCTION

The European Commission is currently reviewing the EU Emissions Trading Scheme (EU ETS). McKinsey & Company and Ecofys assist DG Environment in this review in 2005 and 2006 by providing a fact base for the discussion.

This document presents the results of a web-based survey conducted under McKinsey's guidance from June to September 2005.¹ The Survey was open to all key stakeholders willing to participate. Log-in data was sent out to 517 companies, government bodies, industry associations, market intermediaries and NGOs (Non-Governmental Organisations).

The overall response rate was around 60%: Of 517 e-mails sent out, 302 responses were made on behalf of entire organisations. This generated 330 responses in total, since some companies responded more than once if their organisations were active in a number of sectors.² The survey responses show a good spread among the various stakeholders: 167 industrial companies (representing 51% of all responses), 84 associations (25%), 35 NGOs (11%), 24 government bodies (7%), and 20 market intermediaries (6%).

Of the 167 industrial companies that responded, 66% fall within the five main sectors covered by the EU ETS. These companies represent a large share of the respective sectors. Power generation and cement respondents cover an estimated 75% of the total market in the EU25 (measured by installed capacity); steel respondents some 60%, refineries 50%, and pulp & paper 40%.³ In addition, we received responses from the most relevant industry associations, representing an even larger share of production. These responses are not presented individually, in accordance with confidentiality assurances outlined on the survey website.

For reasons of clarity and transparency, results displayed in this document are not weighted or rated; all responses have equal weight.

Most stakeholders have explicitly allowed us to mention their organisation's name in this report. These organisations are listed on page 79.

DG Environment, McKinsey, and Ecofys would like to thank all stakeholders for their contribution.

¹ This report and the analyses and conclusions set forth herein are based on information that has not been generated by McKinsey & Company. It has, therefore, not been subject to their independent verification and is presented to you for information purposes only. McKinsey makes no representation or warranty, express or implied, as to the accuracy or completeness of the underlying assumptions, estimates, analyses or other information contained in this report, and expressly disclaims any and all liabilities based on such information or on omissions therefrom.

² Note that response rates can vary slightly by question since it was possible to skip survey questions. However, this did not occur often and the response rate was high for most questions. Readers can judge validity for themselves, as we reveal the response rate for each question.

³ The percentage for pulp & paper is for the EU15.

2 SURVEY HIGHLIGHTS

2.1 Executive summary

The EU Emissions Trading Scheme (EU ETS) is already impacting corporate behaviour.

- Based on this scheme, CO₂ involves a real cost. About half the companies already “price in” the value of CO₂ allowances and over 70% intend to do so in the future.
- For half of the companies, the EU ETS is one of the key issues in long-term decisions; for the other half, it is only one among many issues.
- About half of the companies claim that the EU ETS has a strong or medium impact on decisions to develop innovative technology.

Companies, industry associations, governments, and NGOs mostly share similar priorities. They all rank long-term topics – those that determine how the EU ETS system is designed – as the most important. Only market intermediaries see short-term topics within the current EU ETS system design as being more important.

- *Companies, industry associations, and governments* all rank topics such as emission reduction targets, allocation rules, and rules for new entrants and closures as the most important topics concerning the EU ETS. These topics all relate to long-term uncertainty. Currently, ground rules for allocation, new entrants/closures, etc. are not determined beyond the second trading period and may vary in their application and thus in their impact on businesses.

A large majority of *companies and associations* would prefer allocation periods of ten years or more and would opt for announcement of decisions on the National Allocation Plans (NAPs) two to three years prior to the beginning of the subsequent allocation period. Companies and associations seek clarity and long-term stability regarding the rules; and this, over longer periods. This would ensure a stable climate for investments and the renewal of asset portfolios. The main reason is that asset lifetimes in capital-intensive industries are roughly between 20 and 60 years, with construction times spanning several years.

The priorities of *government bodies* differ from the priorities of companies and associations in some aspects.

– Government bodies rank allocation intervals not as high as companies and associations.

A majority of government bodies would like to continue the five-year allocation intervals, with allocation decisions one year before the interval beyond 2012.

– Government bodies also see longer-term topics relating to the scope of the scheme as important, such as the definition of combustion installations and the inclusion of other sectors and gases. Companies and associations, in contrast, rank these topics lower in their prioritisation. More than 70% of government bodies prefer a broad definition of combustion installations. Companies and associations slightly prefer a narrower definition. Also, government bodies give priority to the inclusion of chemicals, aviation and aluminium in the EU ETS when they have to make the choice to include other sectors beyond the combustion installations.

The current uncertainty about the long-term development of fundamental rules has short-term impact as well: uncertainty is seen as one of the biggest obstacles to liquidity in the

CO₂ allowance market. Liquidity in this market is largely driven by emission reduction efforts that would free up allowances to they can subsequently be traded on the market. Some companies fear that emission reduction efforts could be sanctioned (by possible changes) in the next allocation plan, so they refrain from reducing emissions in the current period. This impacts liquidity in the CO₂ market negatively.

- *NGOs* share the desire to reduce long-term uncertainty with companies, industry associations and government bodies. They rank topics such as emission reduction targets, potential inclusion of other sectors and gases, and domestic action in order to maximise the scheme’s long-term environmental benefit as the most important EU ETS topics. They also regard the use of credits from project mechanisms as a highly important topic. As is the case with government bodies, NGOs rank allocation intervals not as high as companies and associations. A majority of NGOs would like to continue the five-year allocation intervals with allocation decisions one year before the interval beyond 2012. Also, NGOs – like government bodies – give the highest priority to including the chemicals sector in the EU ETS when given the choice to include other sectors beyond the combustion installations.
- *Market intermediaries* focus more on short-term issues such as the liquidity of the allowance market and the use of credits from project mechanisms. In addition, they regard the longer-term issue of emission reduction targets as important.

Despite the fact that a majority of companies, associations, government bodies, and NGOs rank longer-term topics as the most important, no clear recommendations can be derived from the survey responses regarding these topics.

Allocation methods and rules are a crucial system design choice. Grandfathering, as currently implemented in the EU ETS, is a topic that has triggered much debate. This includes the respective allocation rules in the NAPs, e.g., for new installations and plant closures. However, the survey responses do not provide a sufficient basis to conclude that alternative approaches, i.e. benchmarking or auctioning, would be less controversial.

- Benchmarking is seen as a feasible alternative, but it is also clear that practical acceptance will largely depend on the way benchmarking would be implemented. Implementation factors include a European scale of benchmarks, a sufficient number of correction factors, and the production basis to which benchmarks would apply.
 - Over 60% of respondents judge benchmarking as feasible, while only 15% disagree. Pulp & paper companies and refineries are the most sceptical towards the feasibility of benchmarking.
 - However, for more than 50% of companies, EU-wide benchmarks are only desirable with national correction factors. Also, the majority of companies and associations favour three or more benchmarks in their industry to adjust for their specific situations.
 - Companies and associations favour benchmarking based on expected production, while government bodies favour recent or “standardised” production as a basis.
- Auctioning raises difficult challenges surrounding the distribution of the resulting revenues.
 - While government bodies, market intermediaries, and NGOs would like to see more auctioning, most companies and associations oppose it.
 - The majority of companies and associations vote for redistribution of revenues in the affected industries, while a large majority of government bodies, market intermediaries, and NGOs favour “earmarked for special purposes” – which means using the money in an area related to emissions reduction – or “other”.

Beyond the basic allocation method, the rules for new entrant reserves and plant closures also prove to be highly relevant issues.

- A large majority of all respondents favour a harmonised approach to new entrants and free allocation.
 - Over 85% of respondents favour harmonisation.
 - Nearly 75% of all respondents favour free allocation to new entrants.
- The survey results reveal that companies and government bodies have divergent views on closure rules.
 - The majority of companies and associations would like to keep allowances at closure, while government bodies would rather not allow this.
 - Companies would prefer to be able to transfer allowances to new assets across borders at closure.

It has to be added that a combination of a free new entrant reserve with the possibility of keeping allowances upon plant closure – the desired combination for companies – might be questionable from a system design perspective.

The implementation of any significant change requires sufficient lead time and should be based on improved interaction.

- There is agreement among all survey participants that the first implementation of the EU ETS took place under considerable time pressure. Going forward, this indicates the need to set up a schedule that allows more time to prepare for implementation. Such a schedule, which would also need to address the timely publication of the national allocation plans, would help ease the perceived need to reduce uncertainty mentioned above.
- The interaction between government bodies and companies during the preparation of the first NAPs seems to have been unsatisfactory. While companies, in part, do not find their feedback reflected in NAPs, government bodies find feedback from companies difficult to incorporate in many instances. This might indicate the need to make the trade-offs between different system design choices more transparent during the preparation period.

2.2 EU ETS already has impact on corporate behaviour

The EU Emissions Trading Scheme (EU ETS) is already impacting corporate behaviour. Companies are “pricing in” the value of CO₂ allowances, the EU ETS affects long-term decisions, and it has an impact on the development of innovative technologies.

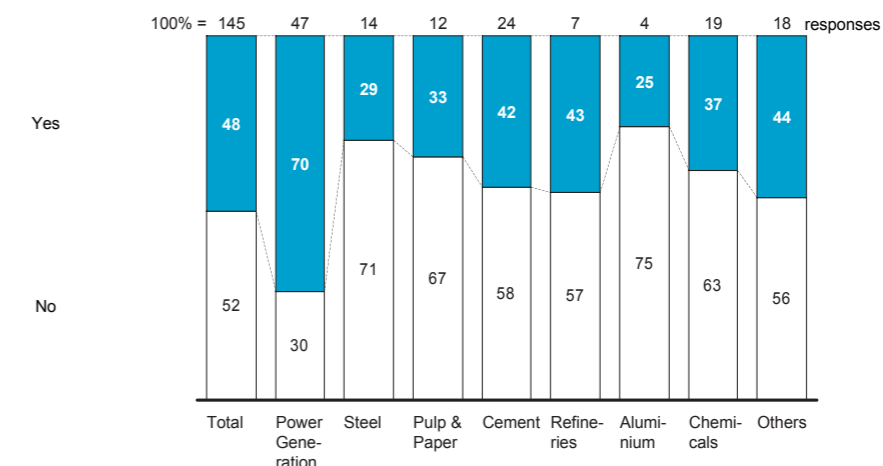
2.2.1 CO₂ involves a real cost based on the scheme

We asked survey participants if they already “price in” the value of CO₂ allowances now or if they intend to do so in the future. Almost half of the companies surveyed already price in the value of CO₂ allowances. This group comprises about two thirds of companies in the power generation sector and one third of companies in other sectors.

PRICE-IN OF CO₂ IN CURRENT MARGINAL PRICING DECISIONS

Companies

Question: Are you already now “pricing in” the value of CO₂ allowances into your daily operations?



Source: Survey EU ETS Review

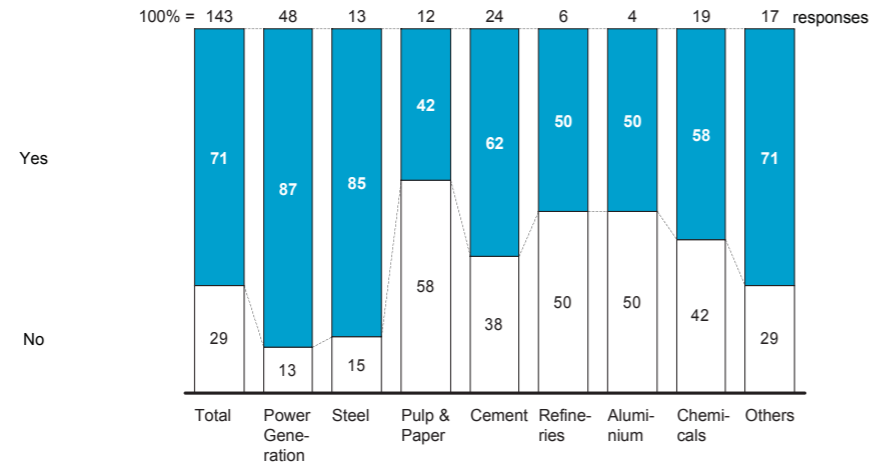
Figure 2-1: Price-in of CO₂ in current marginal pricing decisions

About 70% of the companies plan to include the value of CO₂ allowances in their future marginal pricing decisions. This group comprises the majority of companies within power generation, steel, cement, and chemicals along with those categorized as “other”; about half of the refineries and aluminium producers; and a minority of pulp & paper companies.

PRICE-IN OF CO₂ IN FUTURE MARGINAL PRICING DECISIONS

Companies

Question: What are your plans going forward: Will you "price in" the value of CO₂ allowances into your daily operations, meaning will you factor it into your marginal production decisions (irrespective of how many allowances you get for free)?



Source: Survey EU ETS Review

Figure 2-2: Price-in of CO₂ in future marginal pricing decisions

2.2.2 EU ETS is one of the key issues in long-term decisions for half of the companies; for the other half, it is one of many issues

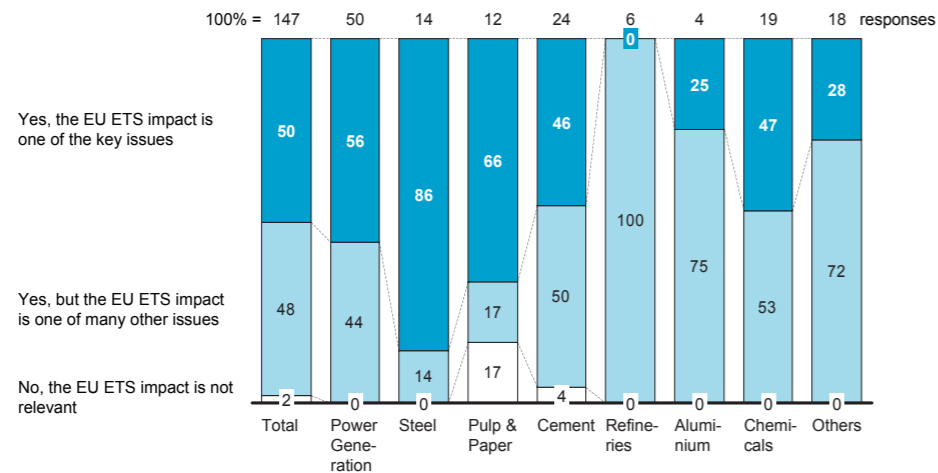
We asked participants if the EU ETS would affect long-term decision making – for example, investment decisions.

For 50% of the companies, the EU ETS plays a key role in long-term decisions; for 48% it is merely one among many issues; while only 2% consider it irrelevant. The sectors in which a majority of companies claim that the EU ETS impact is one of the key issues in long-term decision making are steel, pulp & paper and power generation.

LONG-TERM DECISION MAKING AFFECTED BY EU ETS?

Companies

Question: Is your decision making on long-term issues (e.g., investment decisions) affected by the EU ETS?



Source: Survey EU ETS Review

Figure 2-3: Effect of EU ETS on long-term decision making

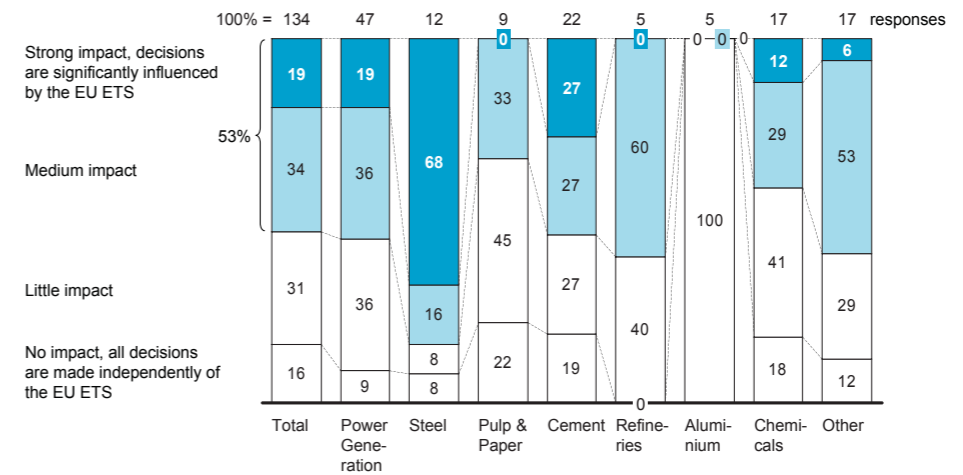
2.2.3 About half of the companies claim a strong or medium impact on decisions to develop innovative technology

We asked companies how strong the EU ETS impacts decisions within companies to develop innovative technologies. About half of the companies claim that the EU ETS has a strong or medium impact on these decisions, with the strongest impact in the steel industry.

EU ETS IMPACT ON INNOVATION

Companies

Question: How strong is the impact of the EU ETS on decisions to develop innovative technologies in your company?



Source: Survey EU ETS Review

Figure 2-4: EU ETS impact on innovation

2.3 Long-term topics are highest priority for most stakeholders

Most companies, industry associations, governments, and NGOs share similar priorities. They all rank long-term topics – those that determine how the EU ETS system is designed – as the most important. Only market intermediaries see short-term topics within the current EU ETS system design as being more important.

2.3.1 Companies, industry associations and governments rank similar long-term topics as most important

Companies, industry associations, and governments all rank topics such as emission reduction targets, allocation rules, and rules for new entrants and closures as the most important topics concerning the EU ETS. These topics all relate to long-term uncertainty. Currently, ground rules for allocation, new entrants/closures, etc. are not determined beyond the second trading period and may vary in their application and thus in their impact on businesses.

IMPORTANCE OF EU ETS TOPICS

All stakeholders

Question: Which of the following 12 topics concerning the EU ETS are most important to you? Please distribute 100 points. More points = more important

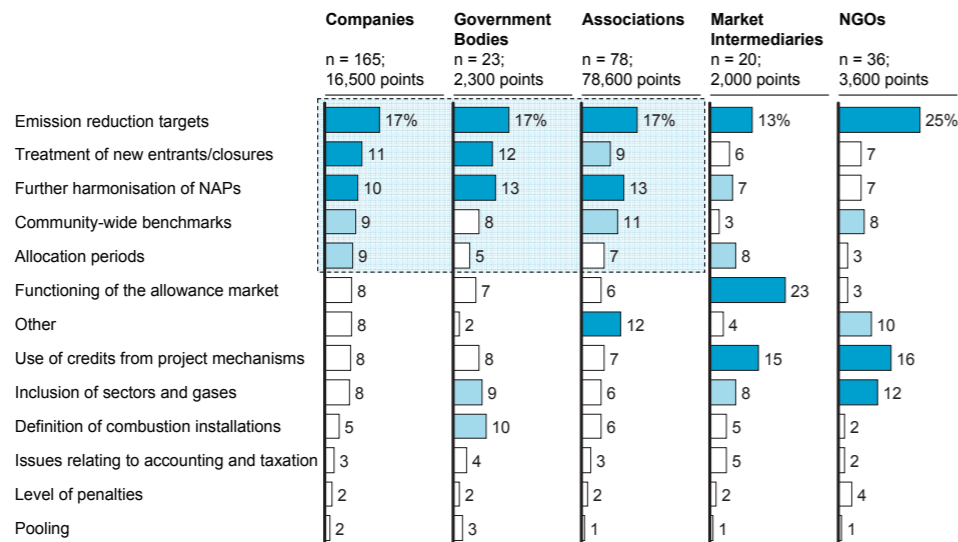


Figure 2-5: Importance of EU ETS topics for all stakeholders

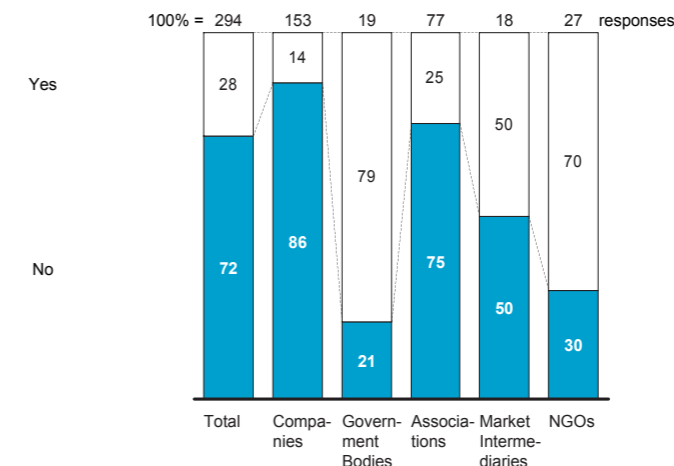
The Emissions Trading Directive, which is the legal foundation for the EU ETS, currently provides for determining allocations in five-year intervals (five-year trading periods) beyond 2012, with the ultimate decision taking place one year before the trading period begins. We asked survey participants if they would like to see this approach continued or if they would prefer longer trading periods and earlier announcements. Almost 90% of the companies and 75% of the associations would welcome the discontinuation of the current allocation intervals.

However, a majority of government bodies and NGOs want to retain the current interval and allocation decision. Market intermediaries are neutral.

5-YEAR ALLOCATION INTERVAL BEYOND 2012 AND ALLOCATION DECISIONS 1 YEAR BEFORE?

All stakeholders

Question: The Emission Trading Directive foresees that allocations are determined in five-year intervals beyond 2012 and finally decided a year before the start of a trading period. Do you consider that this approach should be continued and provides sufficient certainty?



Source: Survey EU ETS Review

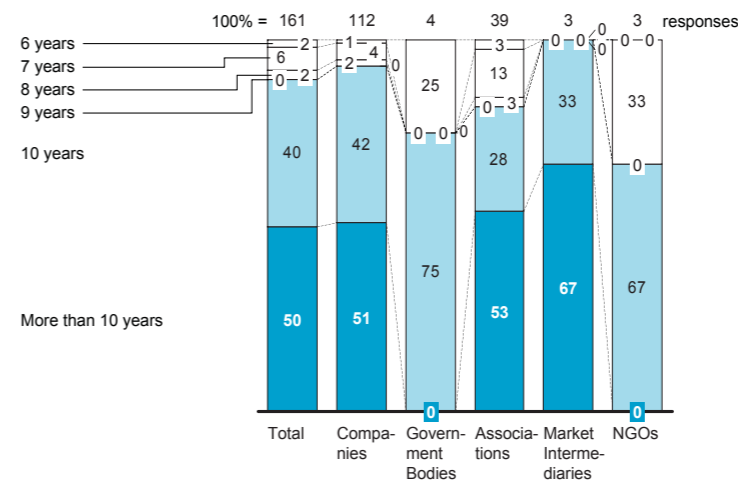
Figure 2-6: Allocation interval and allocation decision

The majority of those stakeholders who want to extend the trading period think it should be extended to at least ten years. Over 90% of companies (and market intermediaries) and over 80% of associations that want to extend the trading period see a period of ten years or even longer as appropriate. For government bodies, this share lies at 75%; for NGOs, at 67%.

HOW LONG SHOULD THE TRADING PERIOD BE?

All stakeholders that want to extend the trading period

Question: If the length of the trading period should be extended, how long should the trading period be?



Source: Survey EU ETS Review

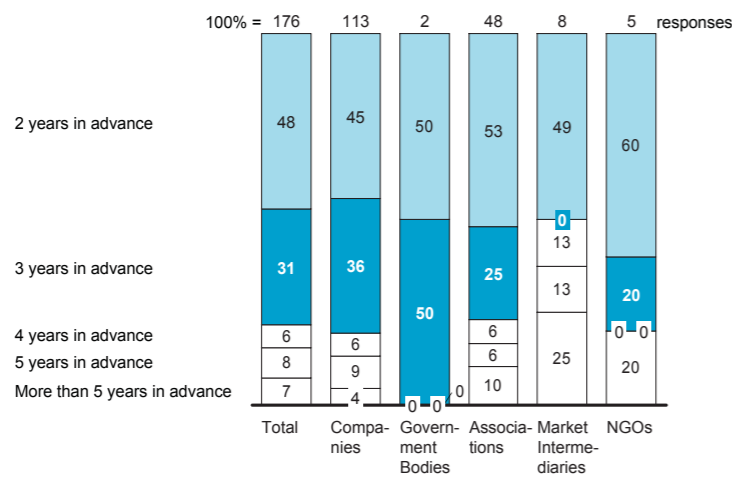
Figure 2-7: Length of trading period

The large majority of all stakeholders who would like to see the allocation decision made earlier stated that National Allocation Plans (NAPs) should be decided at least two to three years prior to the subsequent trading period.

HOW EARLY IN ADVANCE SHOULD ALLOCATION BE DECIDED?

All stakeholders who would like to see the allocation decision made earlier

Question: If the decision about the allocation should be made further ahead of the start of a trading period, how early in advance should the allocation be decided?



Source: Survey EU ETS Review

Figure 2-8: Preferred timing of advance allocation decision

Companies and associations would prefer allocation periods of ten years or more and would opt for announcement of decisions on the NAPs two to three years prior to the beginning of the subsequent allocation period. Companies and associations seek clarity and long-term stability regarding the rules; and this, over longer periods. This would ensure a stable climate for investments and the renewal of asset portfolios – especially considering the fact that asset lifetimes in capital-intensive industries are roughly between 20 to 60 years, with construction times spanning several years.

The priorities of government bodies differ from the priorities of companies and associations in some aspects.

- Government bodies do not rank allocation intervals as high as companies and associations do (see figure 2-1). A majority of government bodies would like to continue the five-year allocation intervals with allocation decisions one year before the interval beyond 2012 (see figure 2-2).
- Government bodies attach importance to longer-term topics relating to the scope of the scheme, for example, the definition of combustion installations and the inclusion of other sectors and gases. Companies and associations, in contrast, rank these topics lower in their prioritisation.

More than 70% of government bodies prefer a broad definition of combustion installations. Companies show a slight preference for a narrower definition.

BROAD OR LESS-BROAD DEFINITION?

All stakeholders

Question: Do you prefer a broad or less-broad definition of combustion installations larger than 20MW thermal?

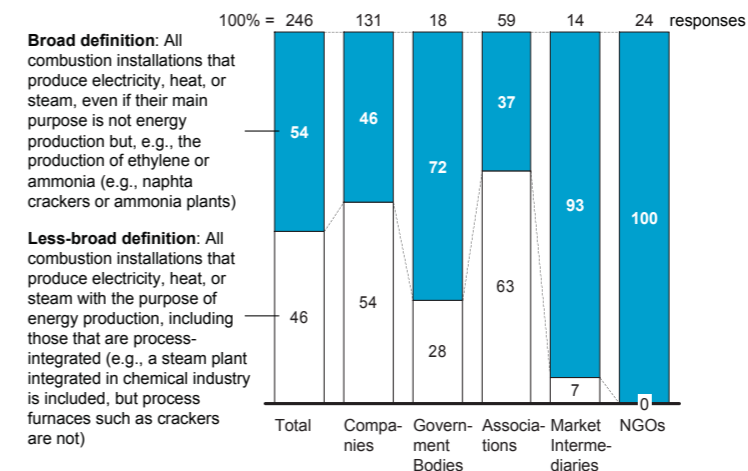


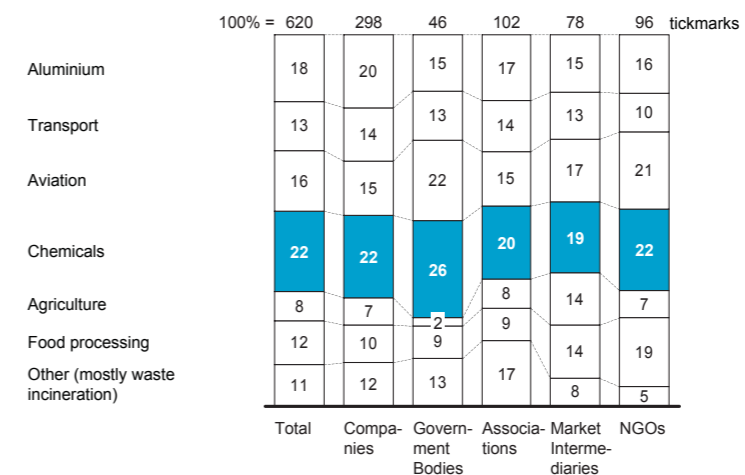
Figure 2-9: Combustion installations: broad vs. less broad definition

When presented with the choice to include other sectors beyond the combustion installations in the EU ETS, government bodies and other stakeholders give priority to the inclusion of chemicals, aviation and aluminium.

OTHER SECTORS TO BE INCLUDED IN THE EU ETS

All stakeholders

Question: Which other sectors should be included in the EU ETS beyond the combustion installations? Please tickmark



Source: Survey EU ETS Review

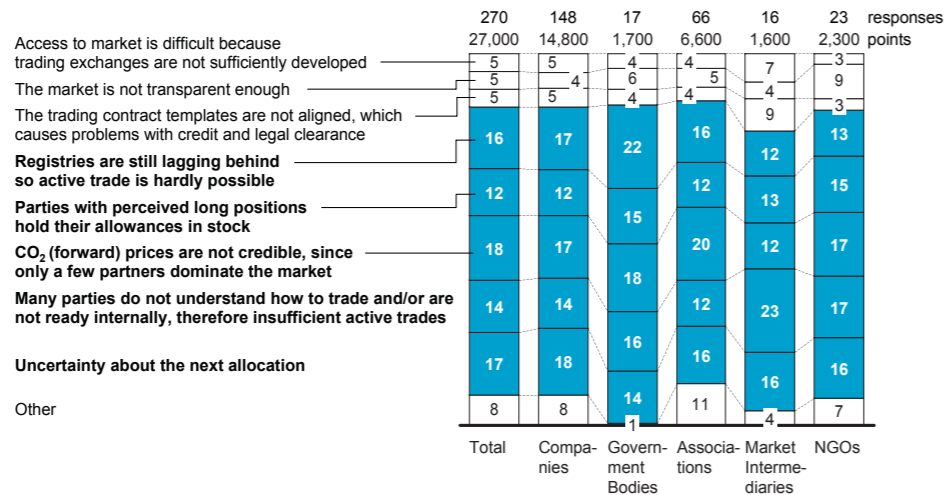
Figure 2-10: Inclusion of other sectors in the EU ETS

The current uncertainty about the long-term development of fundamental rules has short-term impact as well: uncertainty about the next allocation is seen as one of the biggest obstacles to liquidity in the CO₂ allowance market. Companies find that reducing uncertainty regarding

the forthcoming allocation could be the most important lever to improving liquidity in the EU allowances market. All other stakeholders also rate this as an important lever. Liquidity in the EU allowances market is largely driven by emission reduction efforts that would free up allowances, which could then be traded on the market. Since some companies fear that emission reduction efforts could be sanctioned (by possible changes) in the next allocation plan, they might refrain from reducing emissions in the current period. This impacts liquidity in the CO₂ market negatively. In addition, uncertainty may be the underlying reason why parties with perceived long-term positions tend to stockpile their allowances.

TOP 5 IMPROVEMENT LEVERS FOR LIQUIDITY
All stakeholders

Question: What are the most important reasons that prevent the EU allowances market from further improving liquidity? Please distribute 100 points. More points = more important



Source: Survey EU ETS Review

Figure 2-11: Top 5 improvement levers for liquidity

2.3.2 NGOs also rank long-term topics as most important, but topics are partly different

NGOs share the desire to reduce long-term uncertainty with companies, industry associations and government bodies. They rank topics such as emission reduction targets, potential inclusion of other sectors and gases, and domestic action in order to maximise the scheme's long-term environmental benefit as the most important EU ETS topics. They also see the use of credits from project mechanisms as a highly important topic.

As is the case with government bodies, NGOs do not rank allocation intervals as high as companies and associations do.

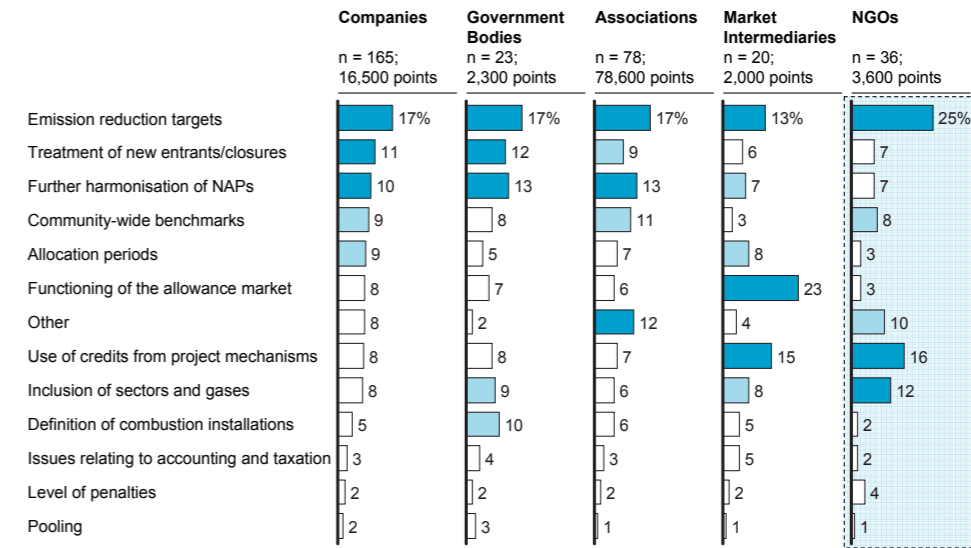
A majority of NGOs would like to see the continuation of the five-year allocation intervals with allocation decisions one year before the interval beyond 2012. Also, NGOs – like government bodies – give the highest priority to including the chemicals sector in the EU ETS when given the choice to include other sectors beyond the combustion installations (see figure 2-6).

IMPORTANCE OF EU ETS TOPICS

All stakeholders

Top 3 ranking
Top 5 ranking
NGOs

Question: Which of the following 12 topics concerning the EU ETS are most important to you? Please distribute 100 points. More points = more important



Source: Survey EU ETS Review

Figure 2-12: Importance of EU ETS topics for NGOs

2.3.3 Market intermediaries give higher priority to short-term topics

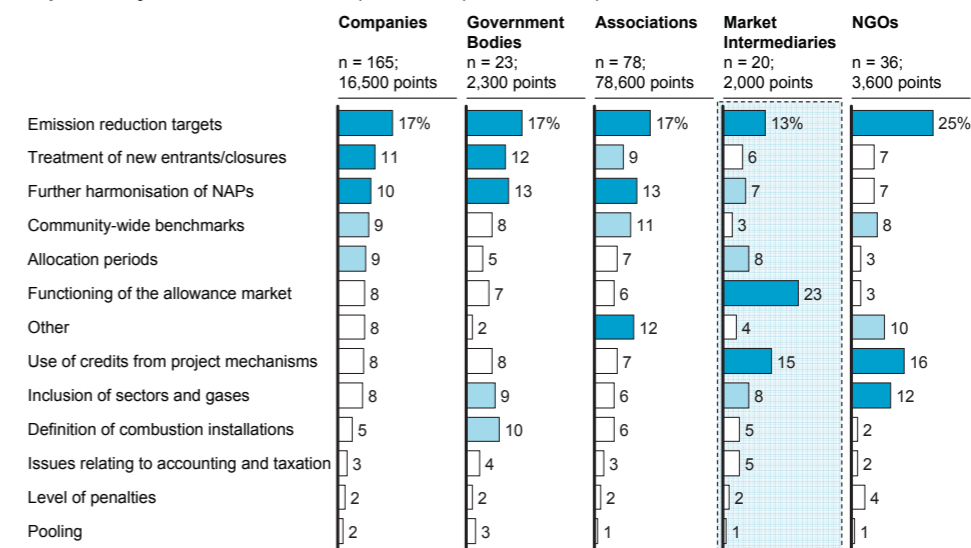
Market intermediaries focus more on short-term issues such as the liquidity of the allowance market and the use of credits from project mechanisms. In addition, they regard the longer-term issue of emission reduction targets as important.

IMPORTANCE OF EU ETS TOPICS

All stakeholders

Top 3 ranking
Top 5 ranking
Market Intermediaries

Question: Which of the following 12 topics concerning the EU ETS are most important to you? Please distribute 100 points. More points = more important



Source: Survey EU ETS Review

Figure 2-13: Importance of EU ETS topics for market intermediaries

2.4 No clear recommendations from respondents on long-term topics

Allocation methods and rules are a crucial system design choice. Grandfathering as currently implemented in the EU ETS is a topic that has triggered much debate. This includes the respective allocation rules in the NAPs, e.g., for new installations and plant closures. However, the survey responses do not provide a sufficient basis to conclude that alternative approaches, i.e. benchmarking or auctioning, would be less controversial. Beyond the basic allocation method, the rules for new entrants and plant closures also prove to be highly relevant issues.

2.4.1 Benchmarking seen as feasible alternative but practical acceptance will largely depend on the way it would be implemented

There are a number of arguments in favour of using benchmarking as a method of allocating allowances. However, benchmarking entails a series of difficulties as well. Bringing a benchmarking approach into operation will involve making trade-offs.

We asked the survey participants about their preferences concerning benchmarking. In general, survey participants see benchmarking as an interesting alternative, provided three issues are resolved:

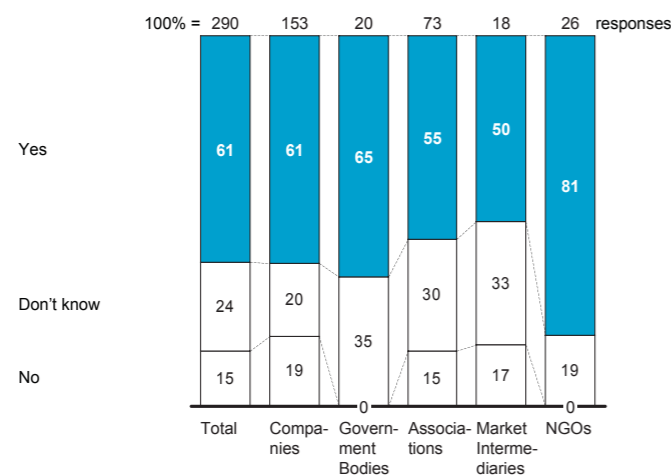
- Is benchmarking possible on a European scale?
- How should correction factors be dealt with?
- What should serve as the basis for production (estimates)?

More than 60% of all respondents consider benchmarking viable; only 15% disagree.

FEASIBILITY OF BENCHMARKING (1)

All stakeholders

Question: Do you believe a benchmarking system would be feasible?



Source: Survey EU ETS Review

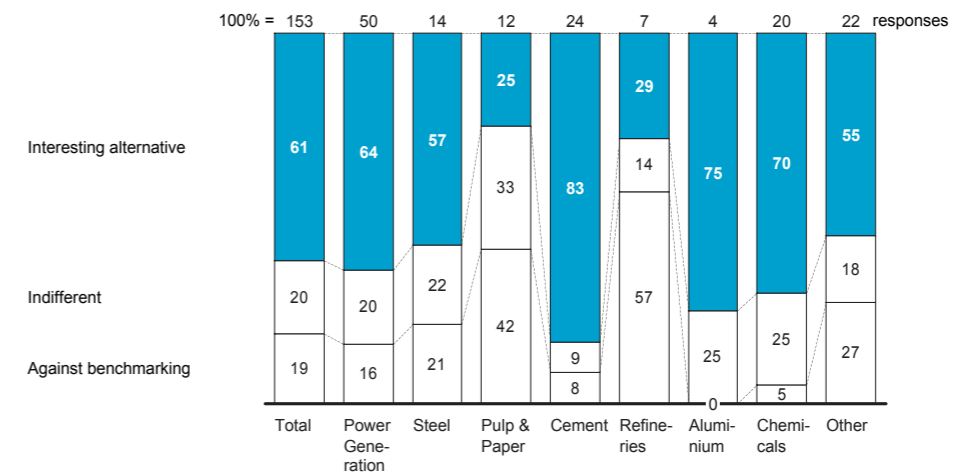
Figure 2-14: Feasibility of benchmarking (1)

Pulp & paper companies and refineries are the most sceptical. The majority of companies within all other sectors consider benchmarking an interesting alternative.

FEASIBILITY OF BENCHMARKING (2)

Companies

Question: Do you believe a benchmarking system would be feasible?



Source: Survey EU ETS Review

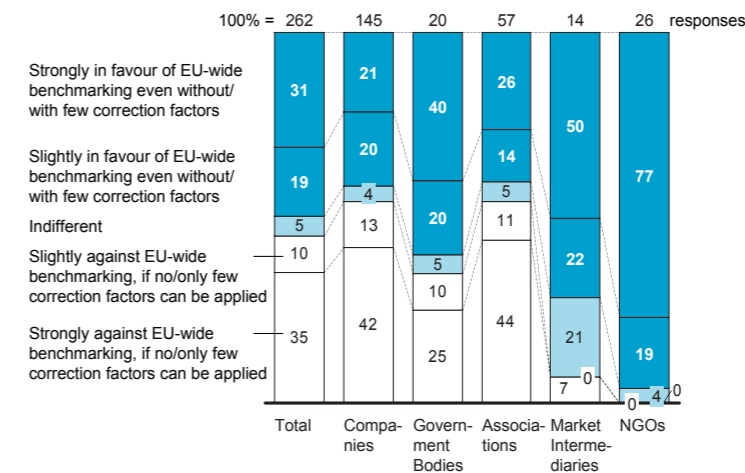
Figure 2-15: Feasibility of benchmarking (2)

Government bodies, market intermediaries, and NGOs are in favour of EU-wide benchmarking, even if no or few correction factors are applied. For more than 50% of the companies, EU-wide benchmarks are acceptable only if they are adjusted using national correction factors. Companies and associations tend to be against EU-wide benchmarking if no or few correction factors can be applied.

EU-WIDE BENCHMARKING AND CORRECTION FACTORS

All stakeholders

Question: Assume EU-wide benchmarking would be workable only with few or no correction factors for your specific situation. That means, for example, that no correction would be made for age, size, or location, but only for climate-relevant differences such as combined heat and power (CHP). What would you value most: increased harmonisation/equality across Europe due to equal treatment of all competitors, or the consideration of companies' specific situation?



Source: Survey EU ETS Review

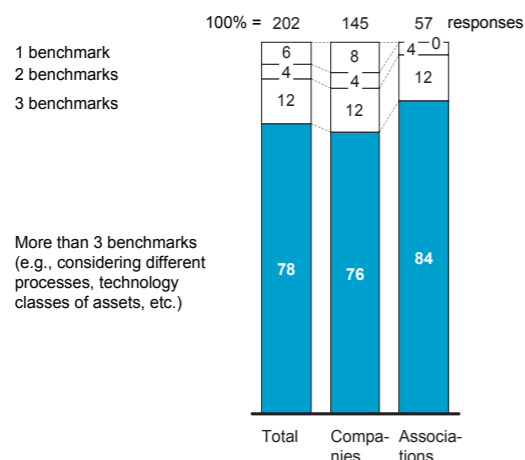
Figure 2-16: EU wide benchmarking and correction factors

The majority of companies and associations favour more than three benchmarks in their industry to allow for their specific situations.

MINIMUM NUMBER OF BENCHMARKS NEEDED

Companies and associations

Question: What is the minimum number of benchmarks that you expect to need in your industry?



Source: Survey EU ETS Review

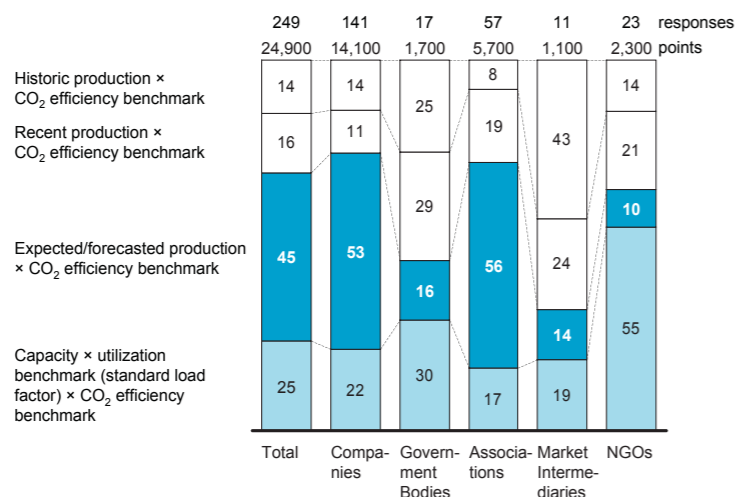
Figure 2-17: Preferred number of benchmarks

Companies and associations favour benchmarking based on expected production, while government bodies favour benchmarking based on recent or “standardised” production.

PREFERRED ALLOCATION METHODS FOR EXISTING ASSETS

All stakeholders

Question: Please distribute 100 points to the following allocation methods for existing assets according to your preferences.



Source: Survey EU ETS Review

Figure 2-18: Preferred allocation methods

2.4.2 Auctioning raises difficult challenges around the distribution of the revenues

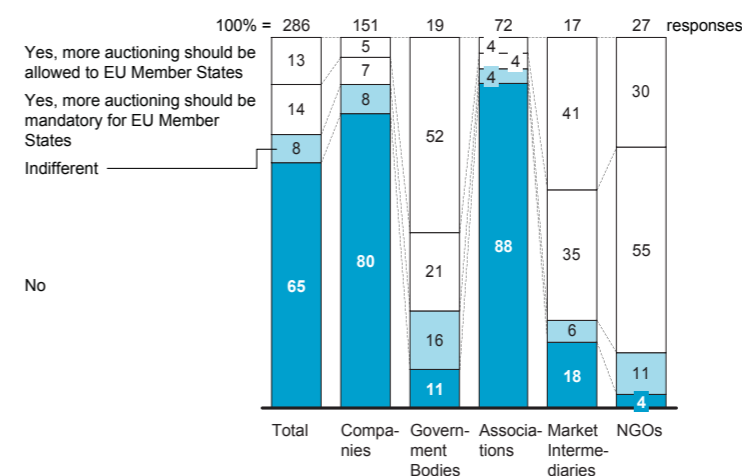
The EU Emissions Trading Directive allows for auctioning of up to 10% of the total allocated EU allowances in the 2008 to 2012 period. We asked survey participants for their opinion regarding auctioning.

Companies and associations are strongly against more than 10% auctioning beyond 2012. Government bodies, market intermediaries, and NGOs are in favour of more auctioning, either by allowing it or making it mandatory.

MORE AUCTIONING BEYOND 2012?

All stakeholders

Question: The EU Directive on emissions trading allows for auctioning of up to 5% of the allocation in the 2005-07 period and 10% in the 2008-12 period. We would like to ask you for your opinion on auctioning. Should the EU Directive allow for more auctioning beyond 2012?



Source: Survey EU ETS Review

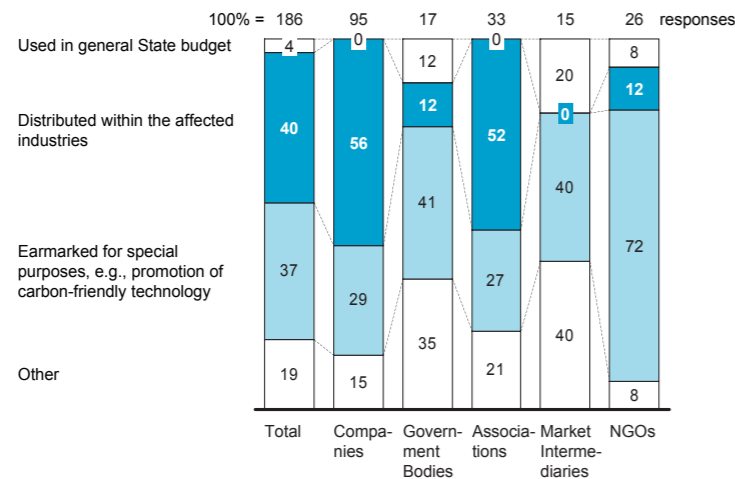
Figure 2-19: Share of auctioning

The majority of companies and associations vote for redistribution of revenues in the affected industries, while a majority of government bodies, market intermediaries, and NGOs favour “earmarked for special purposes” – which means using the money in an area related to emissions reduction – or “other”.

USE OF MONEY RAISED THROUGH AUCTIONS

All stakeholders

Question: What should be done with the money raised through the auctions?



Source: Survey EU ETS Review

Figure 2-20: Use of money raised through auctions

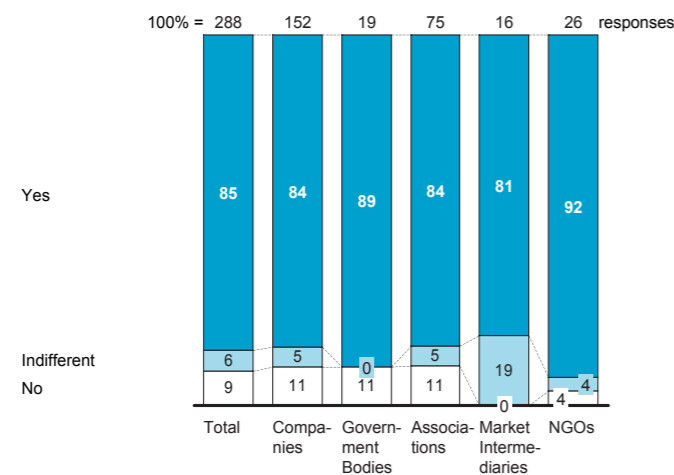
2.4.3 Large majority of all respondents favour harmonised approach to new entrants and free allocation

All stakeholders see the way that new entrants are treated in the EU ETS as a key topic. We asked the survey participants if the approach for new entrants and closures should be harmonised across Europe and if the new entrant reserve should be provided for free. 85% of all respondents favour harmonising the provisions on new entrants and closures across Europe.

APPROACH FOR NEW ENTRANTS AND CLOSURES HARMONISED ACROSS EUROPE?

All stakeholders

Question: Should the approach for new entrants and closures be harmonised across Europe?



Source: Survey EU ETS Review

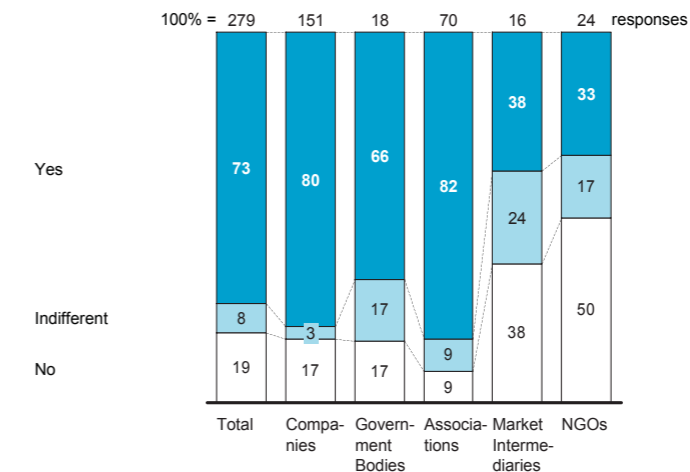
Figure 2-21: Harmonisation new entrants and closures

Nearly 75% of all respondents think that allocation to new entrants should be free of charge; fewer than 20% oppose this.

NEW ENTRANT RESERVE PROVIDED FOR FREE?

All stakeholders

Question: Should a reserve for newly constructed assets (new entrant reserve) be provided for free? Please bear in mind that the overall allocation will not change, so the new entrant reserve will reduce the allocation to existing assets.



Source: Survey EU ETS Review

Figure 2-22: Cost of new entrant reserve

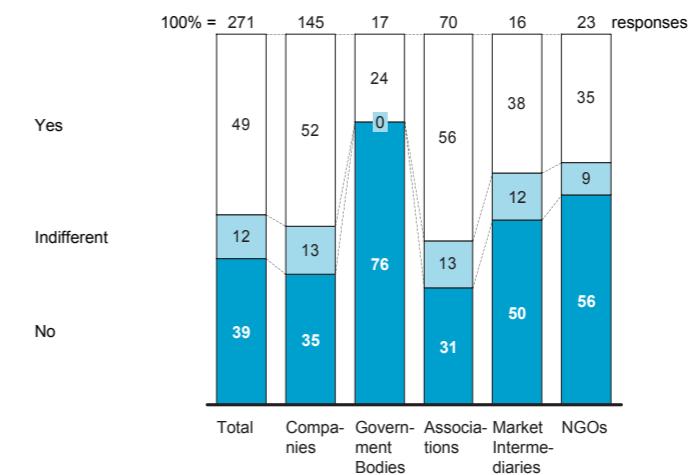
2.4.4 Companies and governments have divergent views on closure rules

Another important topic for stakeholders is the way closure rules are treated in the EU ETS. Government bodies are strongly against the idea of allowing facilities that close to keep their allowances for the remainder of the allocation period. NGOs share this preference, albeit to a much lesser degree. Companies and associations lean more towards favouring allowance retention for the remainder of the allocation period.

KEEP ALLOWANCES AT CLOSURE OF FACILITY FOR REMAINDER ALLOCATION PERIOD?

All stakeholders

Question: Should closing facilities be allowed to keep their allowances at closure for the remainder of the allocation period?



Source: Survey EU ETS Review

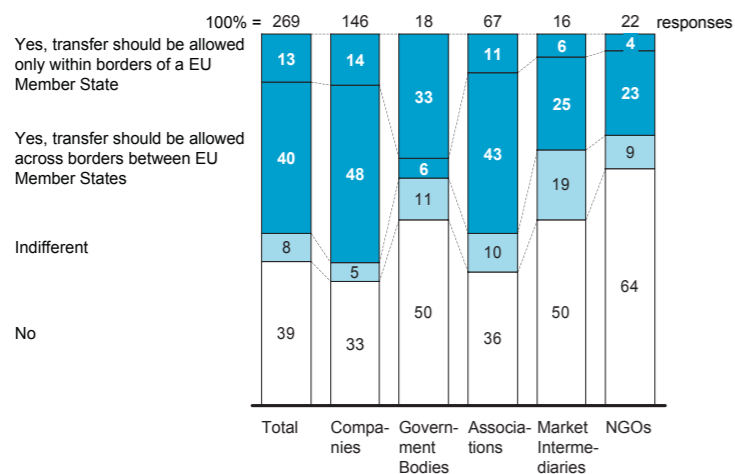
Figure 2-23: Allowance retention at closure (1)

Companies and associations show a slight preference for permitting closing facilities to keep their allowances beyond the actual allocation period in order to be able to transfer allowances to new assets across borders at closure. NGOs are against this. Government bodies and market intermediaries give a mixed picture.

KEEP ALLOWANCES AT CLOSURE OF FACILITY BEYOND ALLOCATION PERIOD?

All stakeholders

Question: Should closing facilities be allowed to keep their allowances beyond the actual allocation period, e.g., via transfer to a new asset or other arrangements?



Source: Survey EU ETS Review

Figure 2-24: Allowance retention at closure (2)

Companies have indicated a preference for a combination of a free new entrant reserve with the possibility of keeping allowances upon plant closure. However, this combination might be questionable from a system design perspective.

2.5 Implementation of changes requires sufficient lead time and improved interaction

Because the EU Emissions Trading Scheme is a relatively new policy instrument, we asked survey participants what they thought to be or have been the key challenges to implementing the EU ETS.

- There is agreement among all survey participants that the first implementation of the EU ETS took place under considerable time pressure. This indicates that, in going forward, there is a need to set up a schedule that allows more time to prepare for implementation. Such a schedule – which would also need to address the publication of the national allocation plans – would help ease the perceived need to reduce uncertainty.
- The interaction between government bodies and companies during the preparation of the first NAPs seems to have been unsatisfactory. While companies, in part, do not find their feedback reflected in the NAPs, government bodies find feedback from companies difficult to incorporate in many instances. This might indicate the need to make the trade-offs between different system design choices more transparent during the preparation period.

The survey results show a remarkable similarity between the top recommendations from companies and those from government bodies. Both rate a longer implementation time frame for the EU ETS as the top priority. Companies see a clear monitoring⁴ process (once the measure has been passed) as their second priority, and government bodies also demand such a process.

RECOMMENDATIONS FOR FUTURE IMPLEMENTATION

√ = Joint priority

Top five priorities for change from respondents' point of view

Companies	Percentage suggesting*	Governments	Percentage suggesting*
√ 1 Provide longer time-frame for implementation	70% (n = 122)	√ 1 Provide longer time-frame for implementation	88% (n = 17)
√ 2 Once the measure has been passed, make sure the monitoring process is clear	69% (n = 126)	2 Consider that during preparation resources are scarce	69% (n = 16)
3 Try to consider feedback more thoroughly	67% (n = 111)	√ 3 Provide accurate and complete info during preparation phase	69% (n = 16)
√ 4 Provide accurate and complete info during preparation phase	65% (n = 124)	√ 4 Once the measure has been passed, make sure the monitoring process is clear	62% (n = 13)
5 Provide clear and precise info on time-frame for implementation	60% (n = 116)	5 Consider that during operation resources are scarce	56% (n = 16)

* Percent answering between 7 and 10 on a scale 1-10
Source: Survey EU ETS Review

Figure 2-25: Recommendations for future implementation

4 “Monitoring” refers to any reporting or direct observation system or activity designed to ensure compliance with the rules of EU ETS, overseeing its diligent implementation, or determining areas where further action is needed.

Since the EU ETS poses challenges in implementation for companies and associations, both would welcome:

- More information (especially on the issue of monitoring) earlier in the process
- A more careful consideration of their contributions in consultations
- Government support during implementation

Governments acknowledge that opportunities for companies to engage in consultations may be limited and feel that companies' feedback is hard to consider appropriately. Across the board, they are even more concerned about the short implementation time frame than companies are. Governments' number two concern - a lack of resources - may contribute to this. NGOs share their view on the time frame.

Overall, we can observe a broad consensus among stakeholders that any changes to the design of the scheme should be implemented with sufficient lead time and improved interaction.

3 DETAILED SURVEY RESULTS

In chapter 2, we summarized the main survey results. In chapter 3, we present the complete results of all pre-structured survey questions by topic. Graphs that appeared in chapter 2 are duplicated here.

We restrict the content of this chapter to the questions and their corresponding answers, without added comments. The answers to the free text fields will be published in an additional appendix as a separate document, but this document will include only the answer of those associations that explicitly permit us to do so, and even then only in a form that makes it impossible to trace the answers to individual respondents.

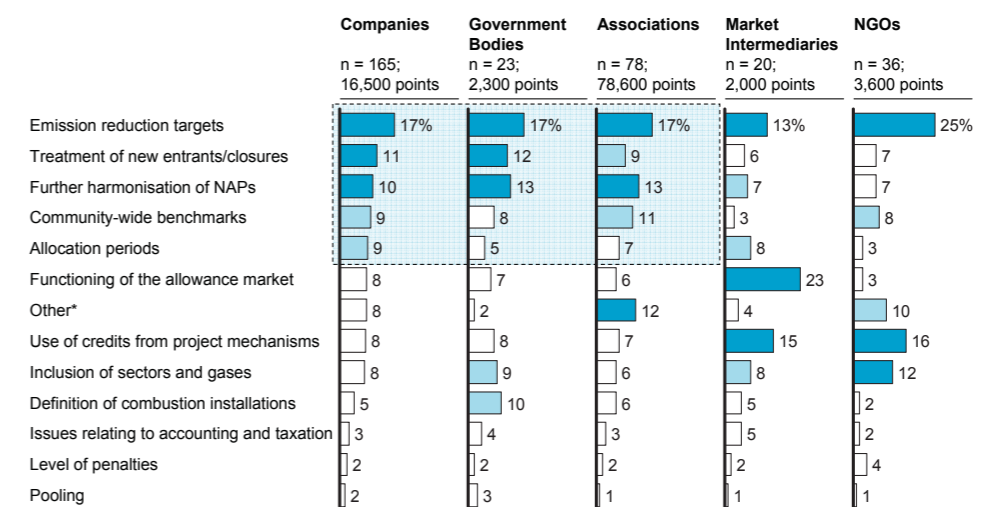
3.1 Introductory questions

IMPORTANCE OF EU ETS TOPICS (1)

All stakeholders

Question: Which of the following 12 topics concerning the EU ETS are most important to you? Please distribute 100 points. More points = more important

- Top 3 ranking
- Top 5 ranking
- Mostly similar (long term) priorities



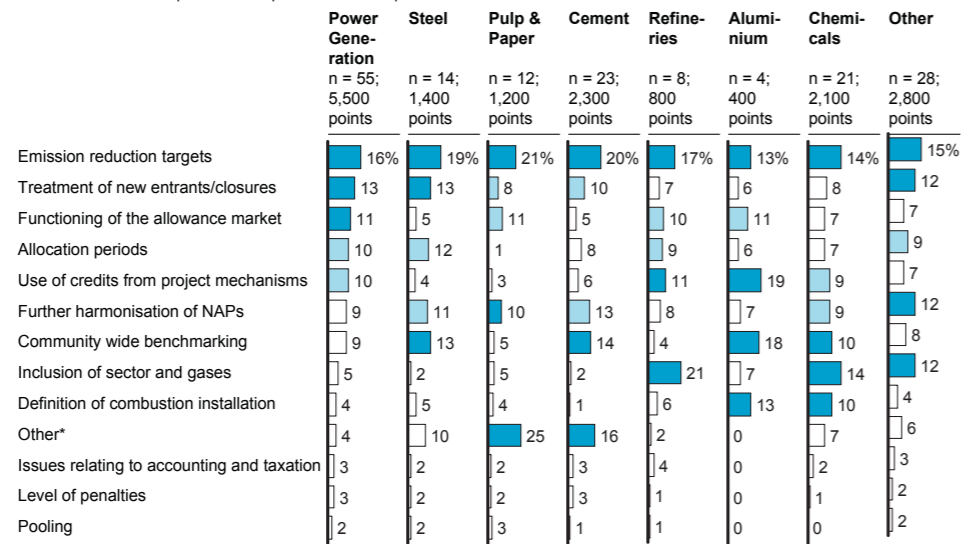
* "Other" for Associations: Competitiveness (impact on electricity prices), Definition of process emissions, Functioning of JI/CDM Market, Trading versus non-trading sector, Impact on raw material prices; "Other" for NGOs: Geographical expansion-> border tax adjustments for imports, Verification/accreditation
Source: Survey EU ETS Review

Figure 3-1: Importance of EU ETS topics for all stakeholders (1)

IMPORTANCE OF EU ETS TOPICS (2) Companies

■ Top 3 ranking
■ Top 5 ranking

Question: Which of the following 12 topics concerning the EU ETS are most important to you?
Please distribute 100 points. More points = more important

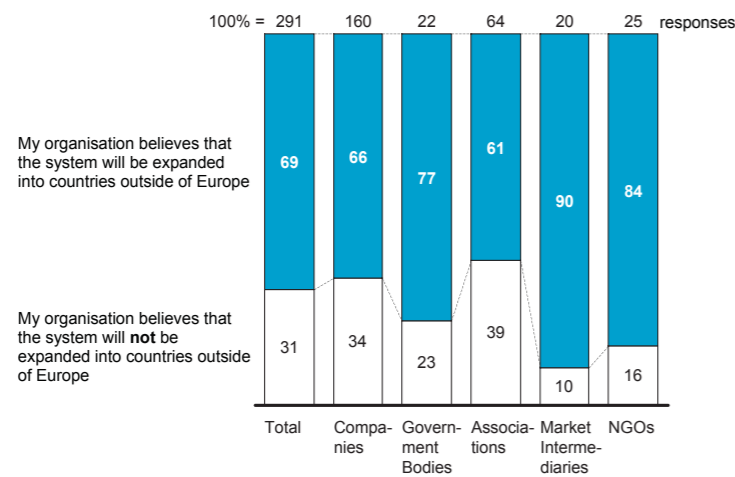


* "Other" for Pulp & Paper: Mostly impact of EU ETS on electricity prices and competitiveness issues; "Other" for Cement: Mostly impact of EU ETS on electricity prices and competitiveness issues
Source: Survey EU ETS Review

Figure 3-2: Importance of EU ETS topics for all stakeholders (2)

EXPECTATIONS ABOUT EXPANSION EU ETS (1) All stakeholders

Question: What are your expectations concerning the expansion of the scheme into other regions?

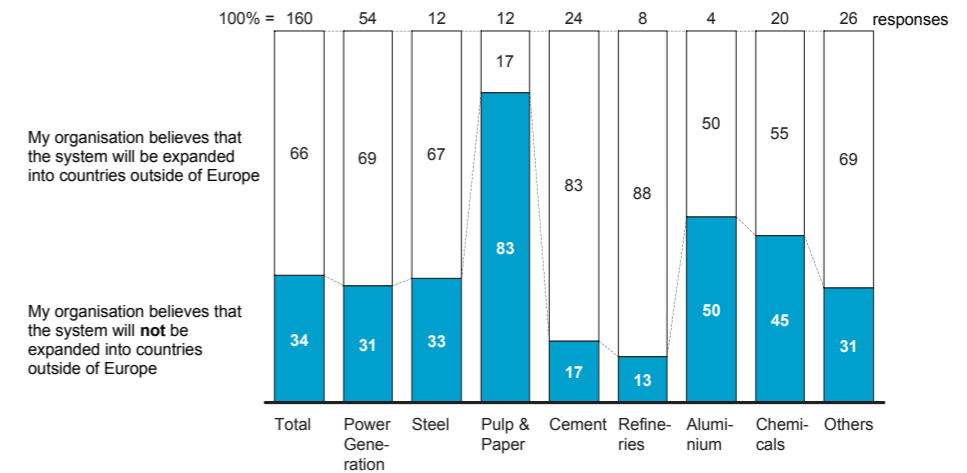


Source: Survey EU ETS Review

Figure 3-3: Expectations about expansion EU ETS (1)

EXPECTATIONS ABOUT EXPANSION EU ETS (2) Companies

Question: What are your expectations concerning the expansion of the scheme into other regions?



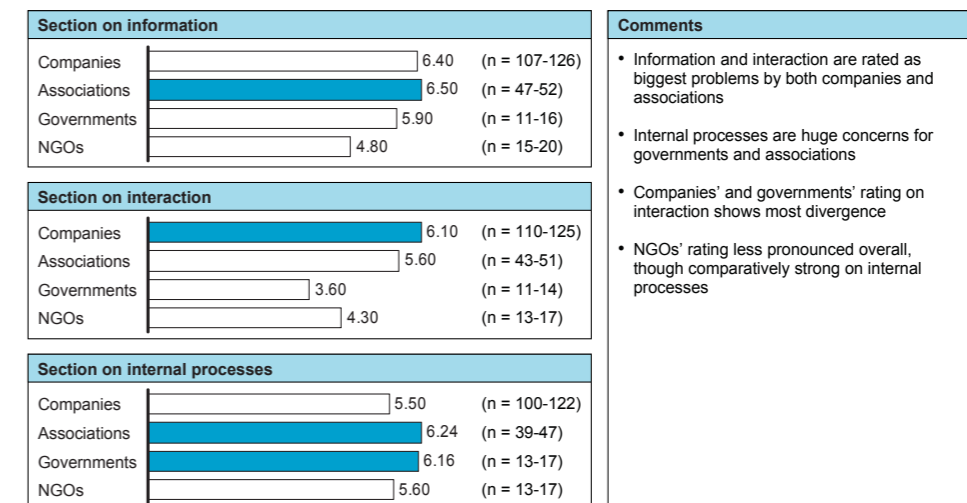
Source: Survey EU ETS Review

Figure 3-4: Expectations about expansion EU ETS (2)

IDENTIFICATION OF CHALLENGES IN IMPLEMENTATION Average of respondents' answers (scale 1-10)

■ Areas of biggest challenges

Question: What are or have been the key challenges to implementing the EU ETS?
Please rank challenges on scale 1-10. More points = bigger challenge

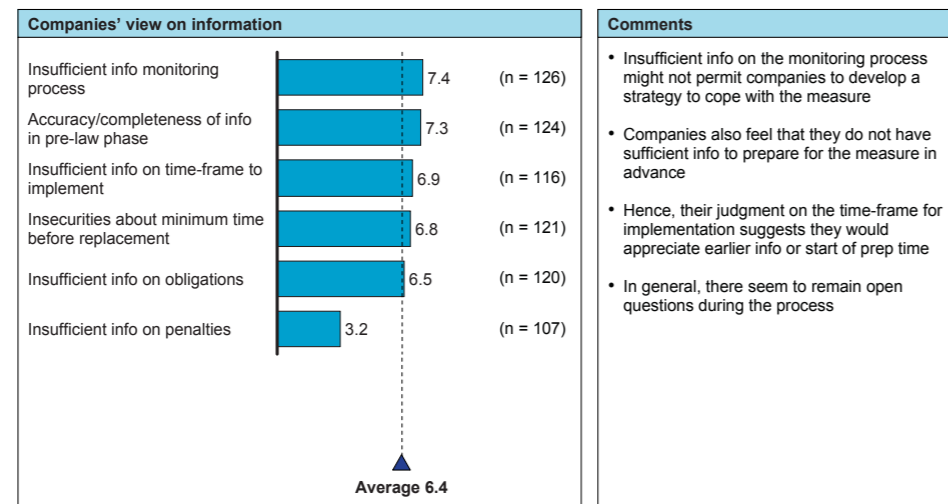


Source: Survey EU ETS Review

Figure 3-5: Identification of challenges in implementation

CHALLENGES IN IMPLEMENTATION: INFORMATION (1)

Average of respondents' answers (scale 1-10)

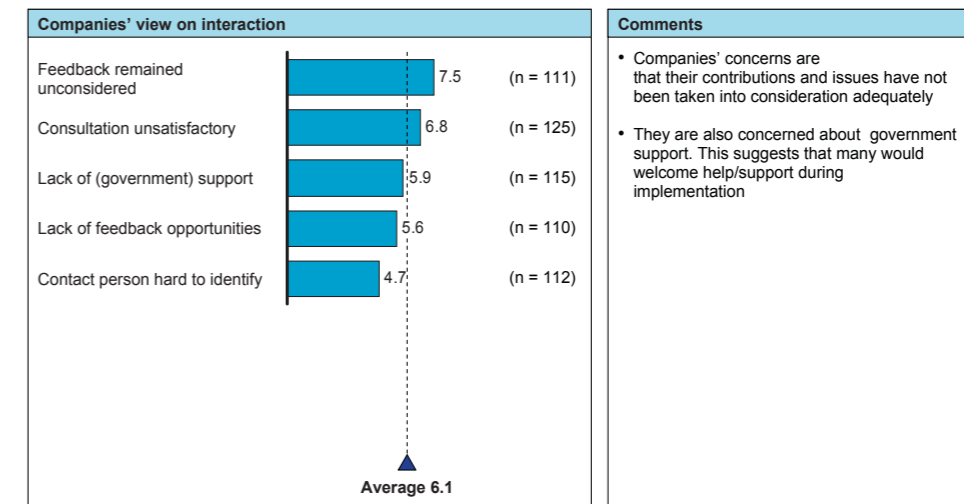


Source: Survey EU ETS Review

Figure 3-6: Challenges in implementation: Information (1)

CHALLENGES IN IMPLEMENTATION: INTERACTION (1)

Average of respondents' answers (scale 1-10)

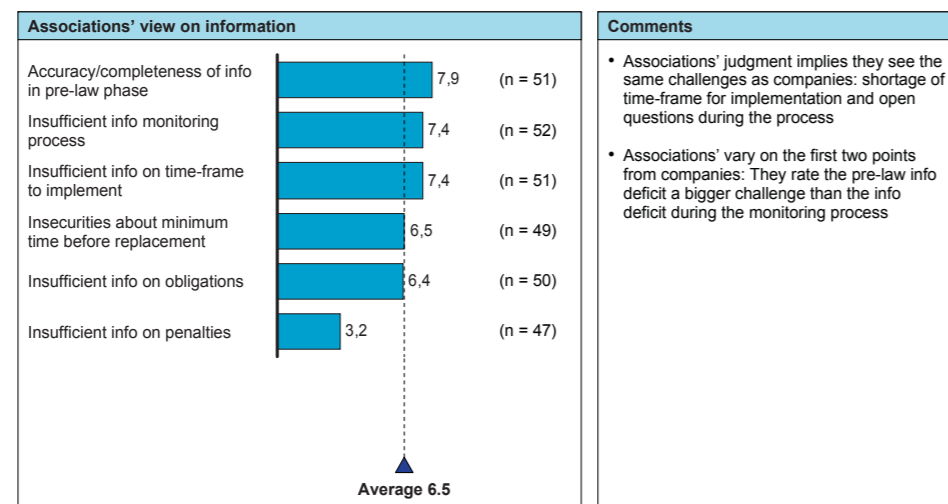


Source: Survey EU ETS Review

Figure 3-8: Challenges in implementation: Interaction (1)

CHALLENGES IN IMPLEMENTATION: INFORMATION (2)

Average of respondents' answers (scale 1-10)

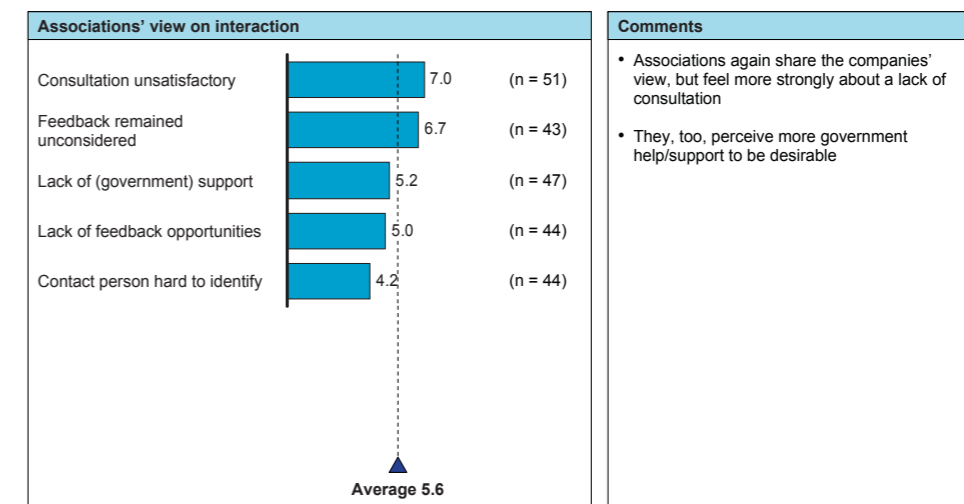


Source: Survey EU ETS Review

Figure 3-7: Challenges in implementation: Information (2)

CHALLENGES IN IMPLEMENTATION: INTERACTION (2)

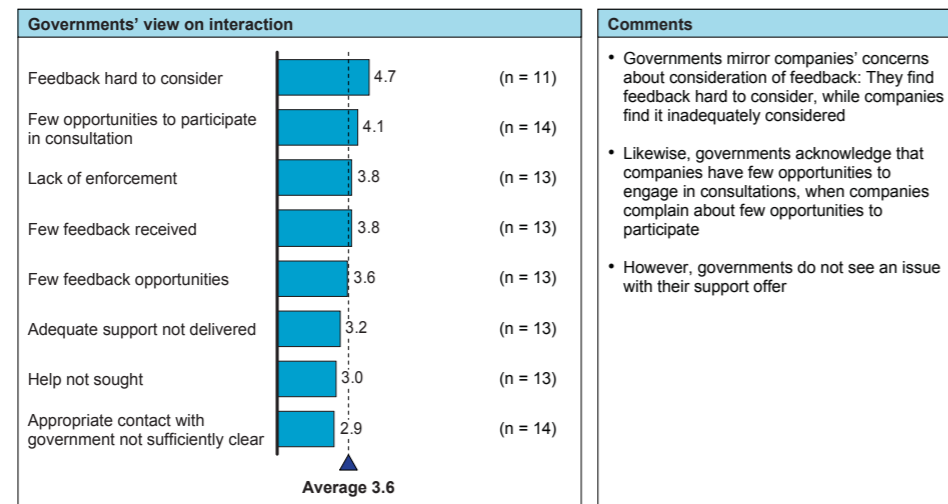
Average of respondents' answers (scale 1-10)



Source: Survey EU ETS Review

Figure 3-9: Challenges in implementation: Interaction (2)

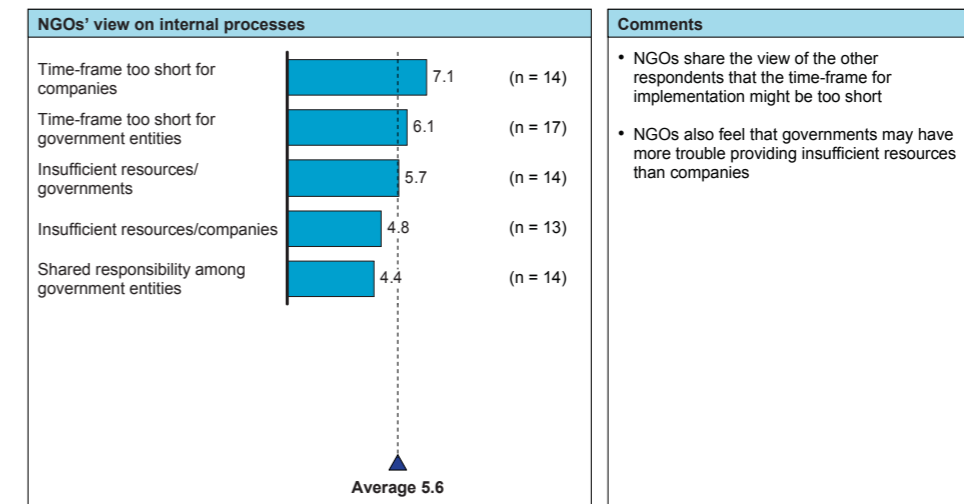
CHALLENGES IN IMPLEMENTATION: INTERACTION (3)
Average of respondents' answers (scale 1-10)



Source: Survey EU ETS Review

Figure 3-10: Challenges in implementation: Interaction (3)

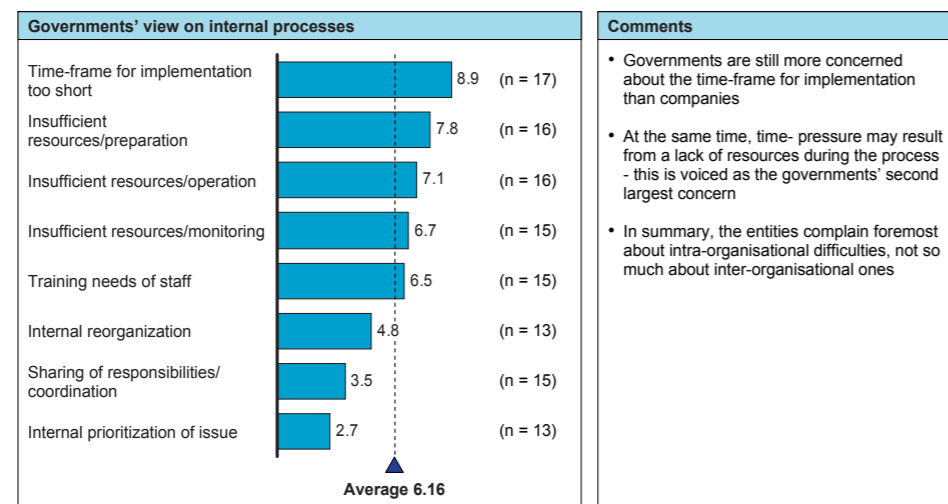
CHALLENGES IN IMPLEMENTATION: INTERNAL PROCESSES (2)
Average of respondents' answers (scale 1-10)



Source: Survey EU ETS Review

Figure 3-12: Challenges in implementation: Internal processes (2)

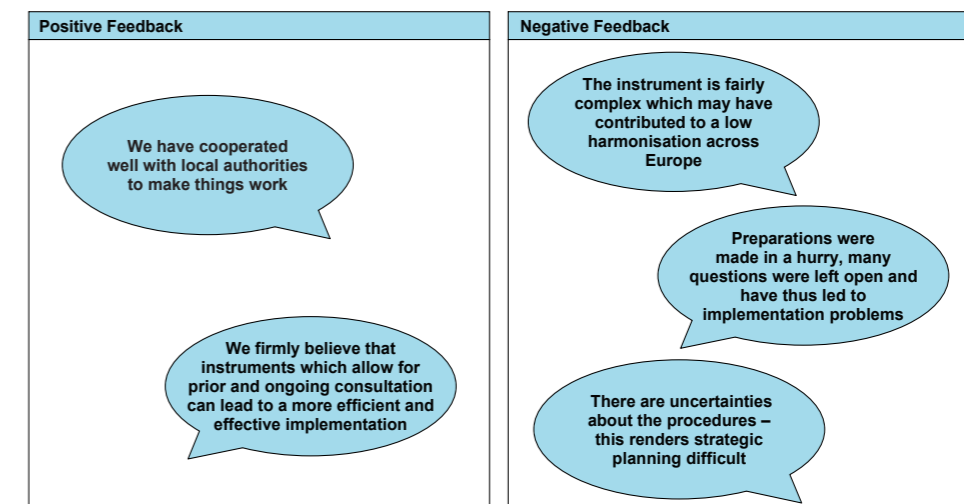
CHALLENGES IN IMPLEMENTATION: INTERNAL PROCESSES (1)
Average of respondents' answers (scale 1-10)



Source: Survey EU ETS Review

Figure 3-11: Challenges in implementation: Internal processes (1)

RESPONDENTS' REACTIONS TO EU ETS IMPLEMENTATION
Quotations from respondents



Source: Survey EU ETS Review

Figure 3-13: Respondents' reactions to EU ETS implementation

RECOMMENDATIONS FOR FUTURE IMPLEMENTATION
Top five priorities for change from respondents' point of view

√ = Joint priority

Companies		Governments	
	Percentage suggesting*		Percentage suggesting*
√ 1 Provide longer time-frame for implementation	70% (n = 122)	√ 1 Provide longer time-frame for implementation	88% (n = 17)
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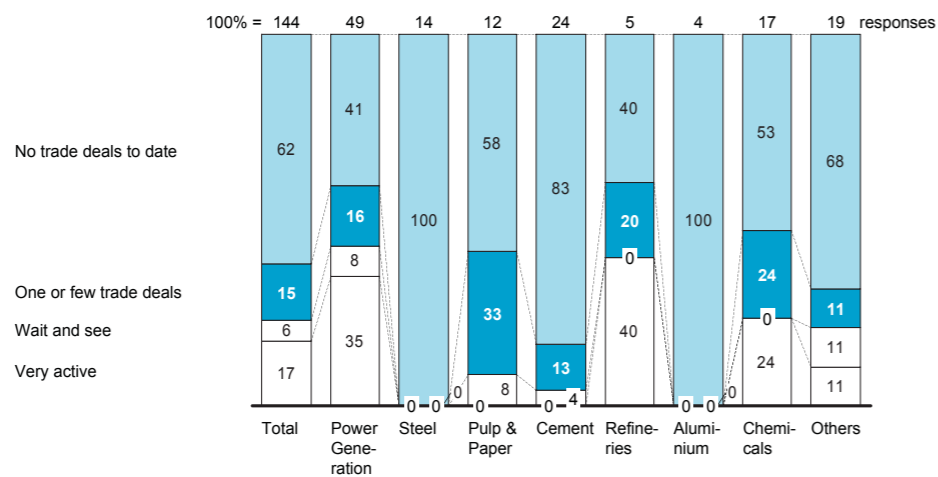
* Percentage answering between 7 and 10 on a scale 1-10
Source: Survey EU ETS Review

Figure 3-14: Recommendations for future implementation

3.2 Functioning of the allowance market

EXTENT OF TRADING
Companies

Question: To what extent has your company traded in the EU allowances market between January 2004 and June 2005?

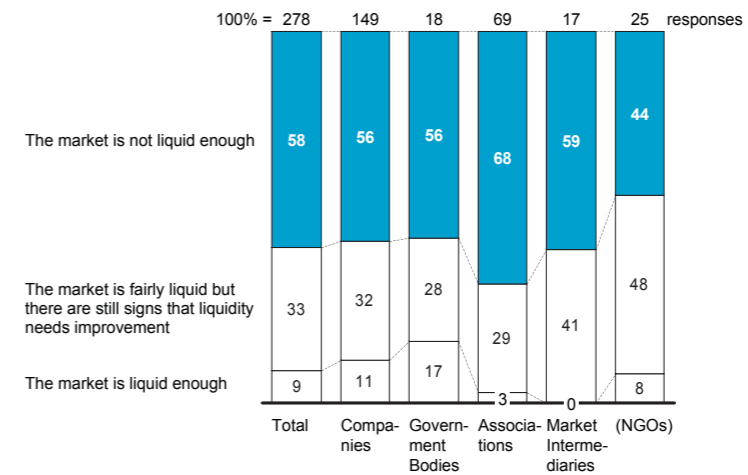


Source: Survey EU ETS Review

Figure 3-15: Extent of trading

JUDGEMENT ABOUT LIQUIDITY (1)
All stakeholders

Question: How do you judge the liquidity of the EU allowances market as of June 2005?

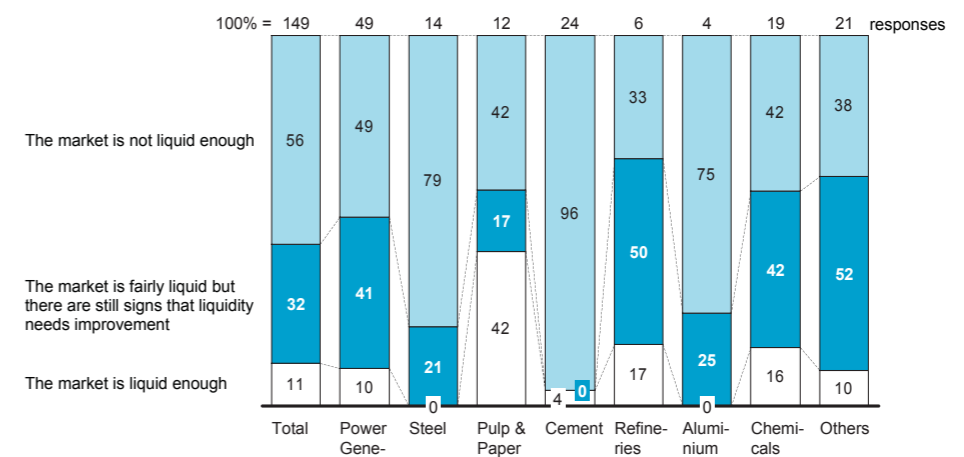


Source: Survey EU ETS Review

Figure 3-16: Judgement about liquidity (1)

JUDGEMENT ABOUT LIQUIDITY (2)
Companies

Question: How do you judge the liquidity of the EU allowances market as of June 2005?



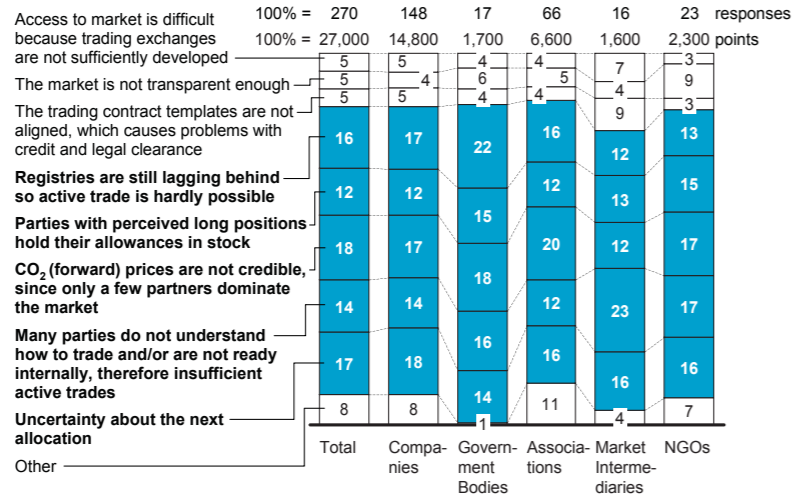
Source: Survey EU ETS Review

Figure 3-17: Judgement about liquidity (2)

TOP 5 IMPROVEMENT LEVERS FOR LIQUIDITY (1)

All stakeholders

Question: What are the most important reasons that prevent the EU allowances market from further improving liquidity? Please distribute 100 points. More points = more important



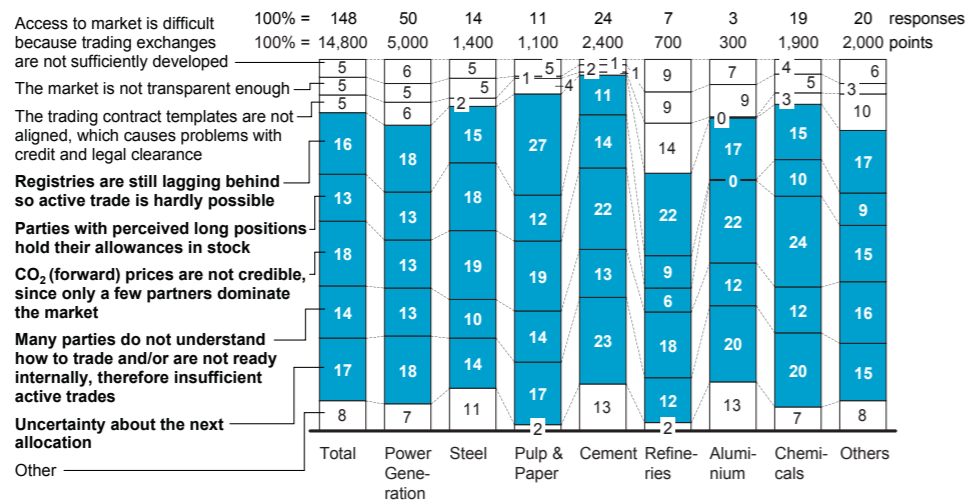
Source: Survey EU ETS Review

Figure 3-18: Top 5 improvement levers for liquidity (1)

TOP 5 IMPROVEMENT LEVERS FOR LIQUIDITY (2)

Companies

Question: What are the most important reasons that prevent the EU allowances market from further improving liquidity? Please distribute 100 points. More points = more important



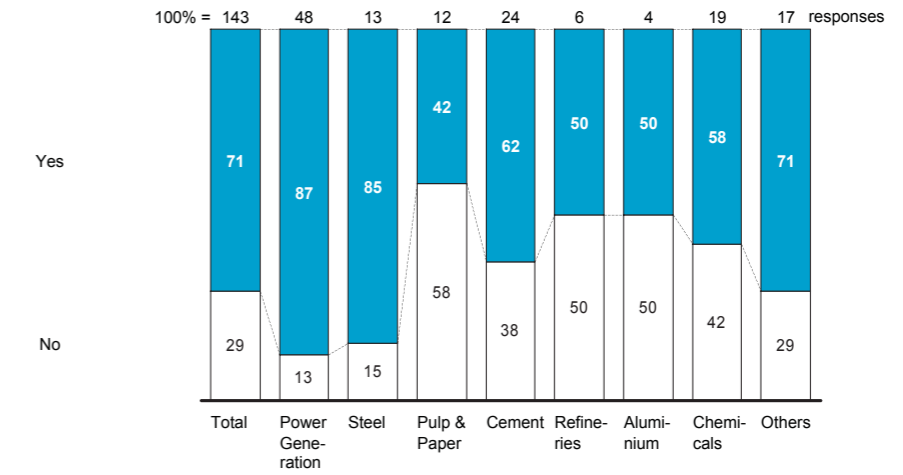
Source: Survey EU ETS Review

Figure 3-19: Top 5 improvement levers for liquidity (2)

PRICE-IN OF CO₂ IN FUTURE MARGINAL PRICING DECISIONS

Companies

Question: What are your plans going forward: Will you "price in" the value of CO₂ allowances into your daily operations, meaning will you factor it into your marginal production decisions (irrespective of how many allowances you get for free)?



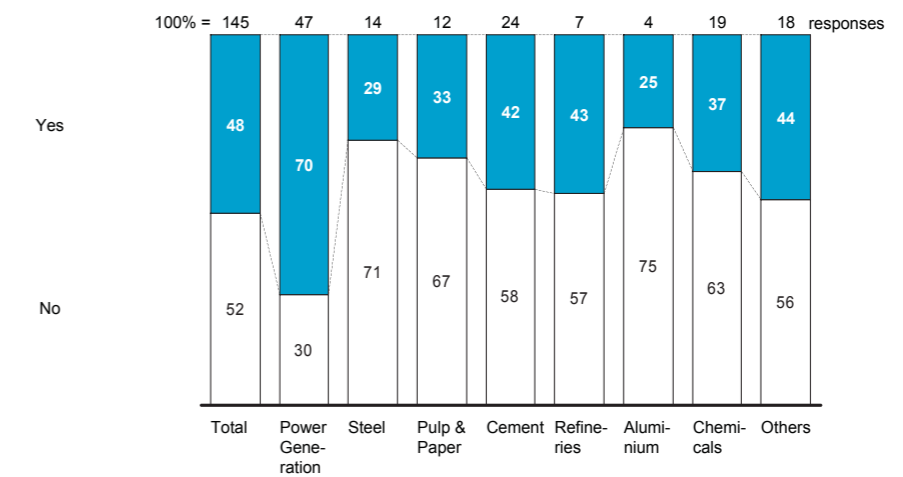
Source: Survey EU ETS Review

Figure 3-20: Price-in of CO₂ in future marginal pricing decisions

PRICE-IN OF CO₂ IN CURRENT MARGINAL PRICING DECISIONS

Companies

Question: Are you already now "pricing in" the value of CO₂ allowances into your daily operations?

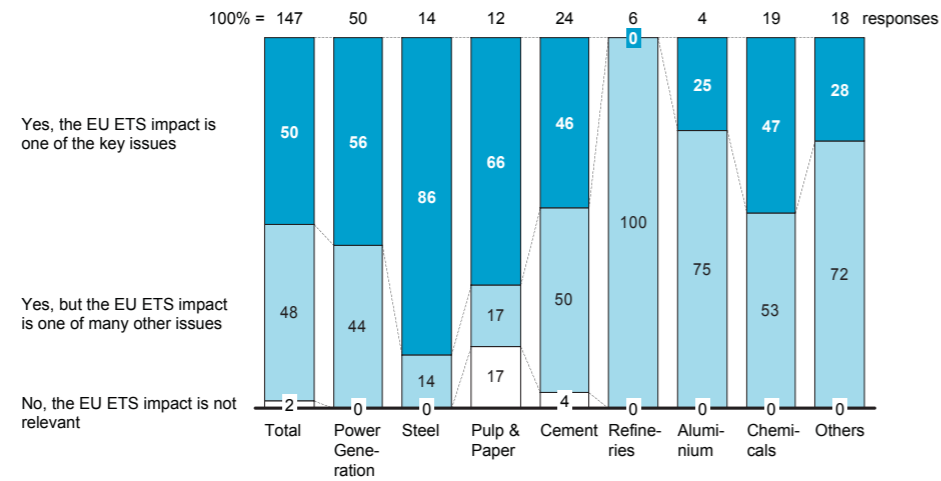


Source: Survey EU ETS Review

Figure 3-21: Price-in of CO₂ in current marginal pricing decisions

LONG-TERM DECISION MAKING AFFECTED BY EU ETS?
Companies

Question: Is your decision making on long-term issues (e.g., investment decisions) affected by the EU ETS?

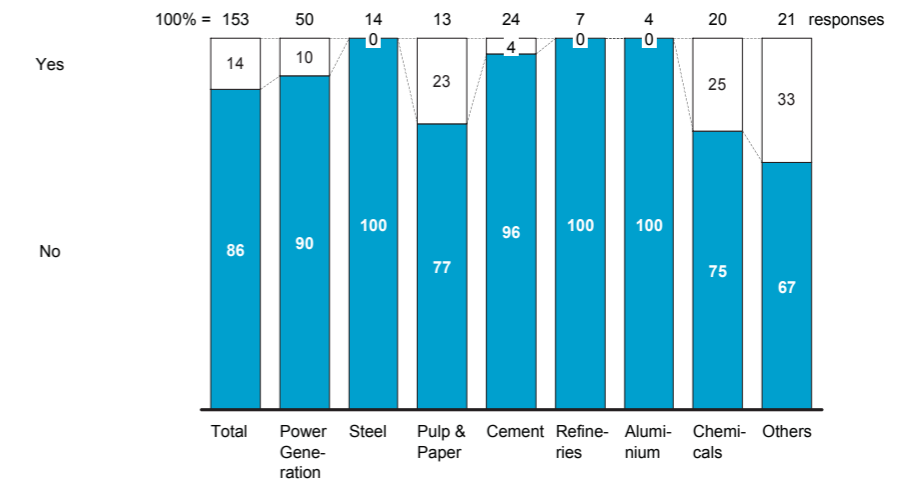


Source: Survey EU ETS Review

Figure 3-22: Effect of EU ETS on long-term decision making

5-YEAR ALLOCATION INTERVAL BEYOND 2012 AND ALLOCATION DECISIONS 1 YEAR BEFORE? (2)
Companies

Question: The Emission Trading Directive foresees that allocations are determined in five-year intervals beyond 2012 and finally decided a year before the start of a trading period. Do you consider that this approach should be continued and provides sufficient certainty?



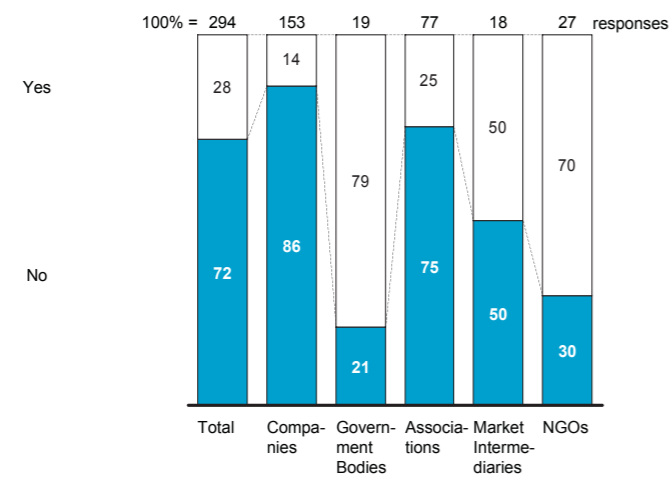
Source: Survey EU ETS Review

Figure 3-24: Allocation interval and allocation decision (2)

3.3 Allocation periods

5-YEAR ALLOCATION INTERVAL BEYOND 2012 AND ALLOCATION DECISIONS 1 YEAR BEFORE? (1)
All stakeholders

Question: The Emission Trading Directive foresees that allocations are determined in five-year intervals beyond 2012 and finally decided a year before the start of a trading period. Do you consider that this approach should be continued and provides sufficient certainty?

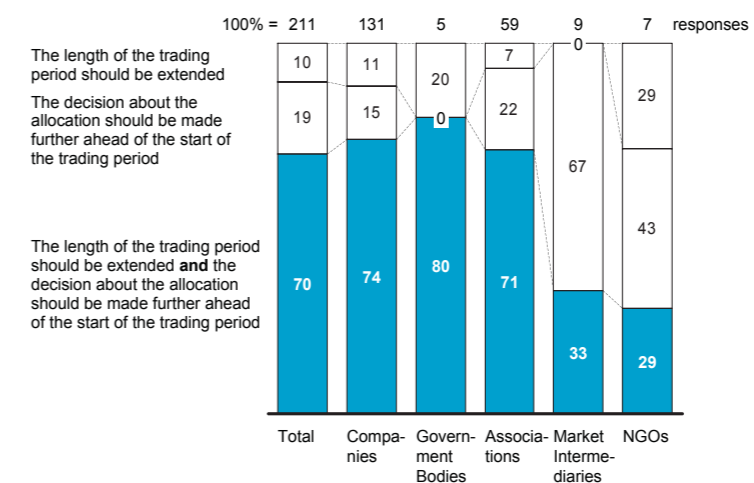


Source: Survey EU ETS Review

Figure 3-23: Allocation interval and allocation decision (1)

IF NO, EXTENDED TRADING PERIOD AND/OR EARLIER ALLOCATION DECISION? (1)
All stakeholders

Question: If no, do you think the length of the trading period should be extended and/or the decision about the allocation should be made further ahead of the start of a trading period?

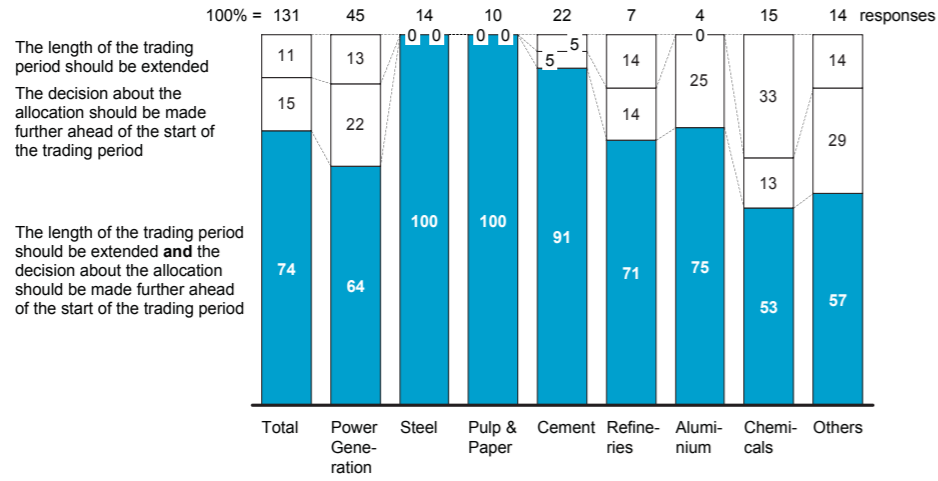


Source: Survey EU ETS Review

Figure 3-25: Extension of trading period and earlier decision (1)

IF NO, EXTENDED TRADING PERIOD AND/OR EARLIER ALLOCATION DECISION? (2)
Companies

Question: If no, do you think the length of the trading period should be extended and/or the decision about the allocation should be made further ahead of the start of a trading period?

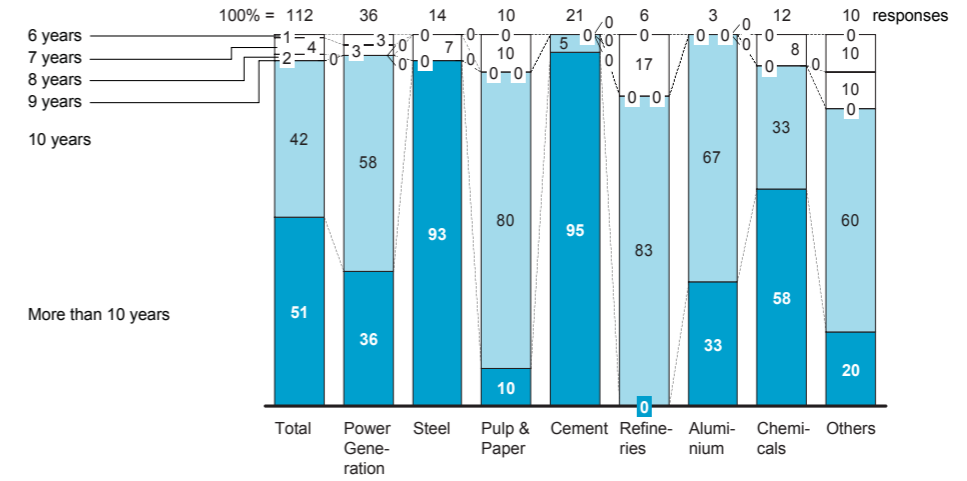


Source: Survey EU ETS Review

Figure 3-26: Extension of trading period and earlier decision (2)

IF NO, HOW LONG SHOULD THE TRADING PERIOD BE? (2)
Companies

Question: If the length of the trading period should be extended, how long should the trading period be?

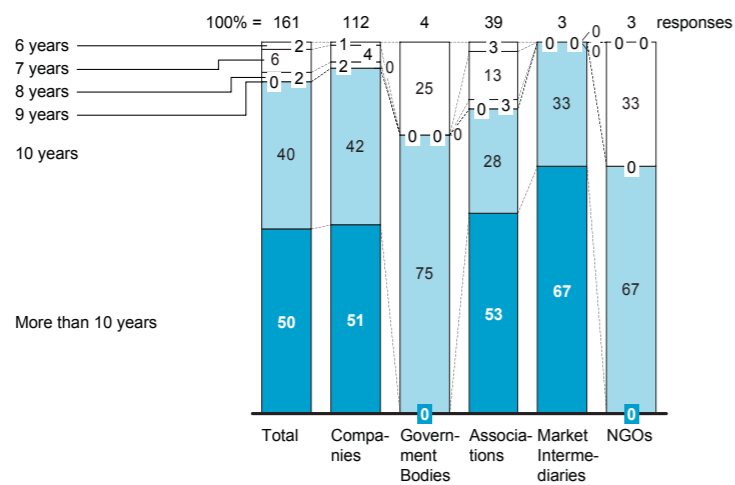


Source: Survey EU ETS Review

Figure 3-28: Length of trading period (2)

IF NO, HOW LONG SHOULD THE TRADING PERIOD BE? (1)
All stakeholders

Question: If the length of the trading period should be extended, how long should the trading period be?

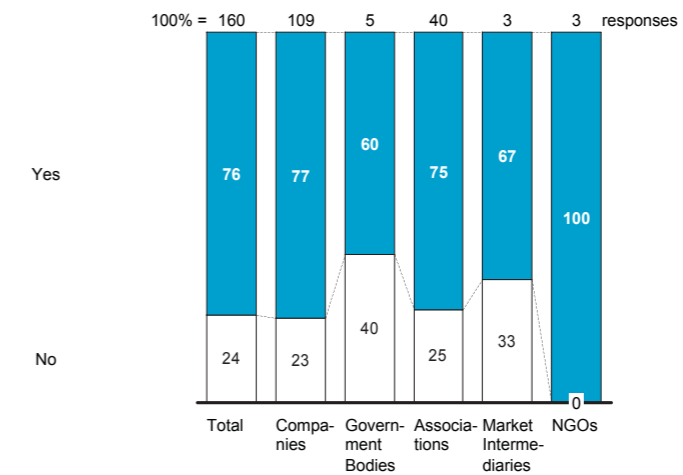


Source: Survey EU ETS Review

Figure 3-27: Length of trading period (1)

IF NO, ALLOCATION PERIOD LONGER THAN 5 YEARS EVEN WITH REVISION? (1)
All stakeholders

Question: The longer the allocation period, the more likely it is that the level of allocation may have to be revisited at some stage in the light of international commitments agreed at government level. Would you still be in favour of a longer than five-year allocation period, even if the Directive would foresee that at a certain point in time the allocation may be revisited and changed?

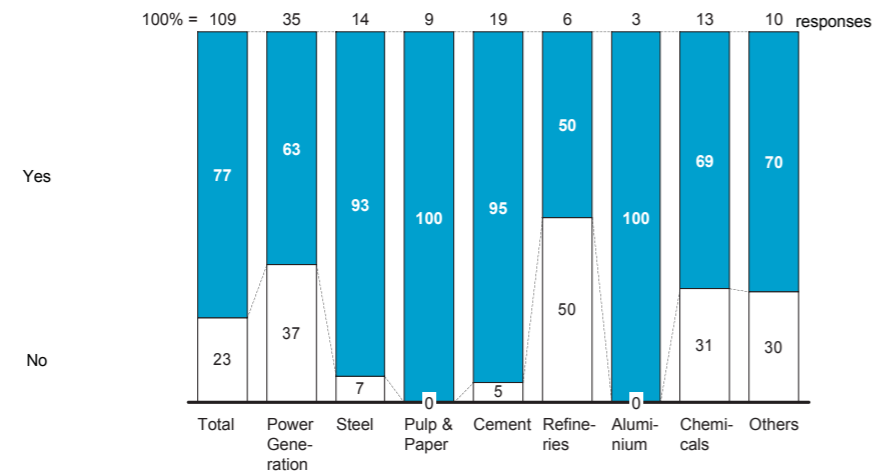


Source: Survey EU ETS Review

Figure 3-29: Allocation period longer than 5 years even with revision? (1)

IF NO, ALLOCATION PERIOD LONGER THAN 5 YEARS EVEN WITH REVISION? (2)
Companies

Question: The longer the allocation period, the more likely it is that the level of allocation may have to be revisited at some stage in the light of international commitments agreed at government level. Would you still be in favour of a longer than five-year allocation period, even if the Directive would foresee that at a certain point in time the allocation may be revisited and changed?

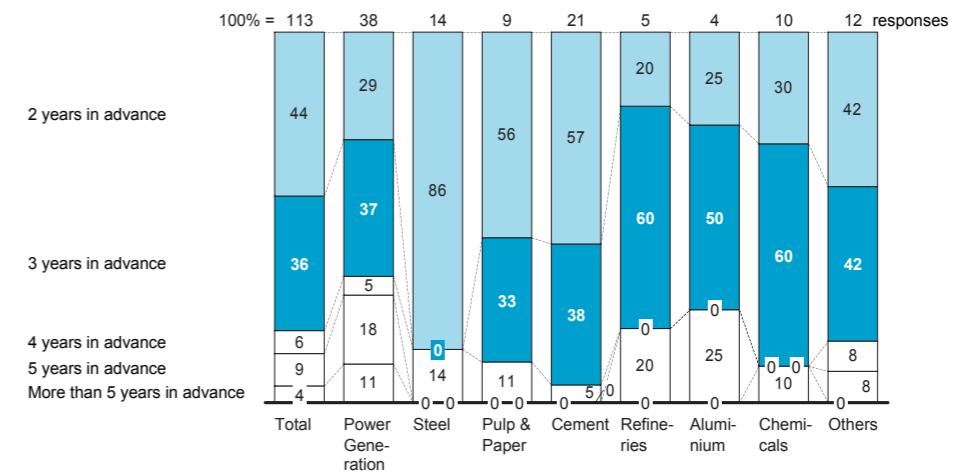


Source: Survey EU ETS Review

Figure 3-30: Allocation period longer than 5 years even with revision? (2)

IF NO, HOW EARLY IN ADVANCE SHOULD ALLOCATION BE DECIDED? (2)
Companies

Question: If the decision about the allocation should be made further ahead of the start of a trading period, how early in advance should the allocation be decided?



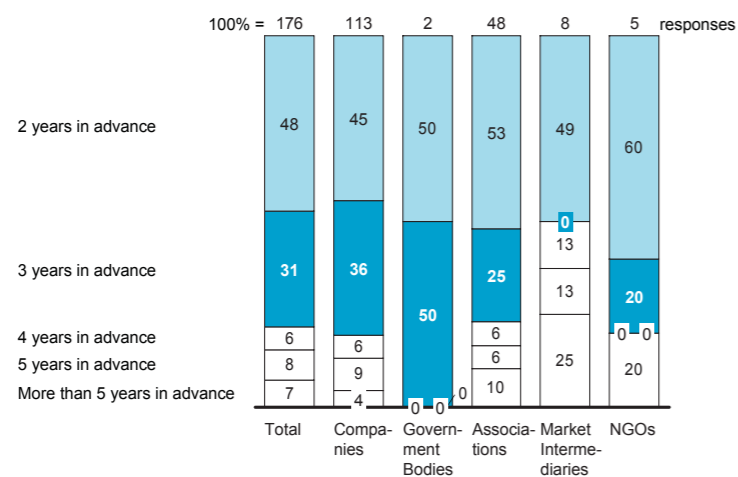
Source: Survey EU ETS Review

Figure 3-32: Preferred timing of advance allocation decision (2)

3.4 Practicality of developing community-wide benchmarks as a basis for allocation

IF NO, HOW EARLY IN ADVANCE SHOULD ALLOCATION BE DECIDED? (1)
All stakeholders

Question: If the decision about the allocation should be made further ahead of the start of a trading period, how early in advance should the allocation be decided?

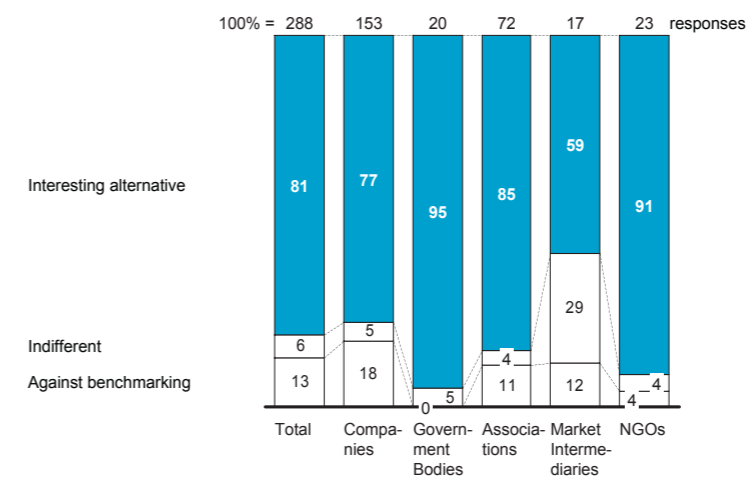


Source: Survey EU ETS Review

Figure 3-31: Preferred timing of advance allocation decision (1)

GENERAL OPINION ON BENCHMARKING (1)
All stakeholders

Question: What is your general opinion on benchmarking as an allocation method?



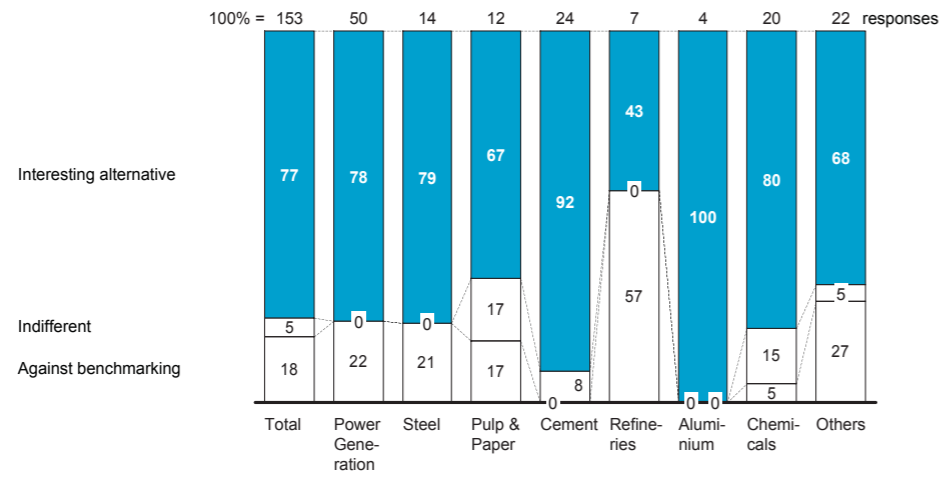
Source: Survey EU ETS Review

Figure 3-33: General opinion on benchmarking (1)

GENERAL OPINION ON BENCHMARKING (2)

Companies

Question: What is your general opinion on benchmarking as an allocation method?



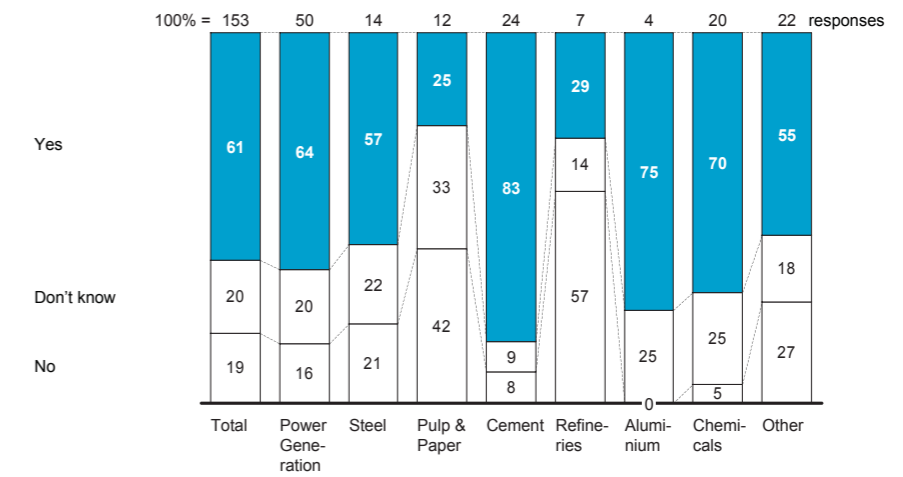
Source: Survey EU ETS Review

Figure 3-34: General opinion on benchmarking (2)

FEASIBILITY OF BENCHMARKING (2)

Companies

Question: Do you believe a benchmarking system would be feasible?



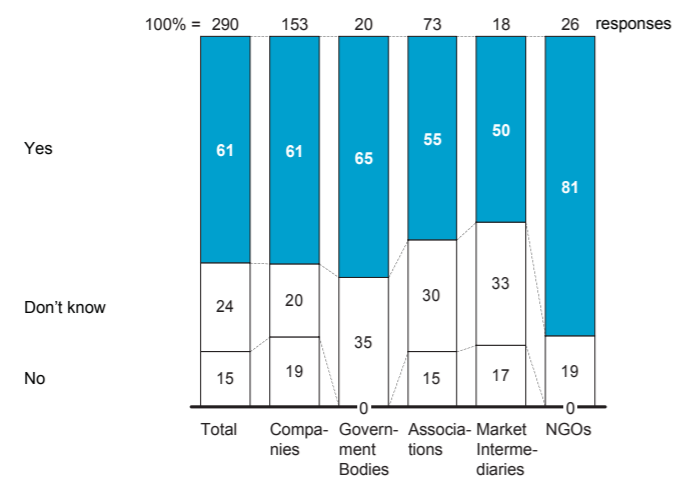
Source: Survey EU ETS Review

Figure 3-36: Feasibility of benchmarking (2)

FEASIBILITY OF BENCHMARKING (1)

All stakeholders

Question: Do you believe a benchmarking system would be feasible?



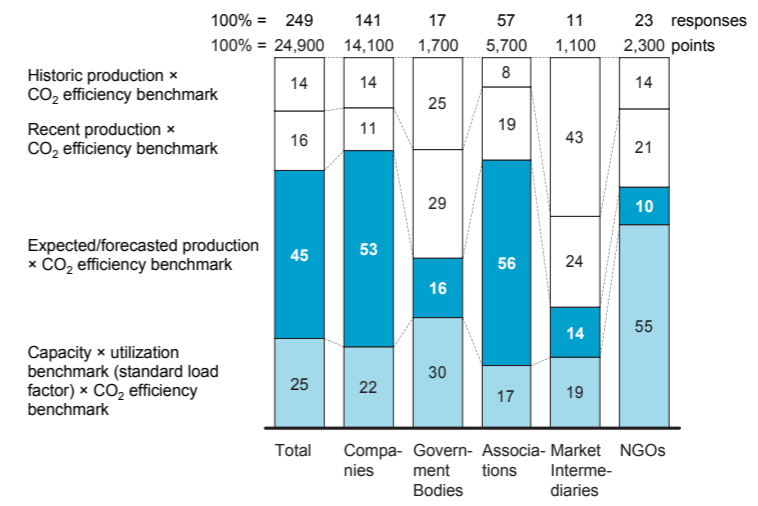
Source: Survey EU ETS Review

Figure 3-35: Feasibility of benchmarking (1)

PREFERRED ALLOCATION METHODS FOR EXISTING ASSETS (1)

All stakeholders

Question: Please distribute 100 points to the following allocation methods for existing assets according to your preferences.

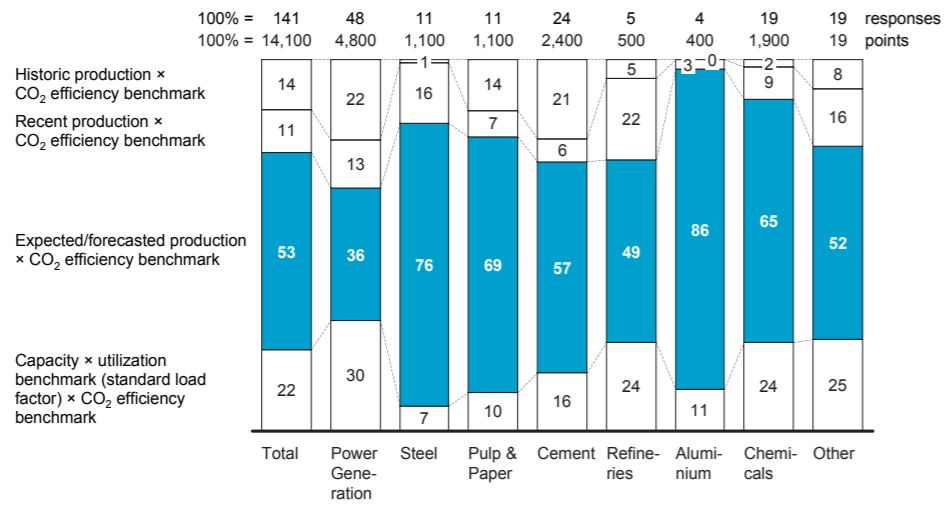


Source: Survey EU ETS Review

Figure 3-37: Preferred allocation methods for existing assets (1)

PREFERRED ALLOCATION METHODS FOR EXISTING ASSETS (2)
Companies

Question: Please distribute 100 points to the following allocation methods for existing assets according to your preferences.

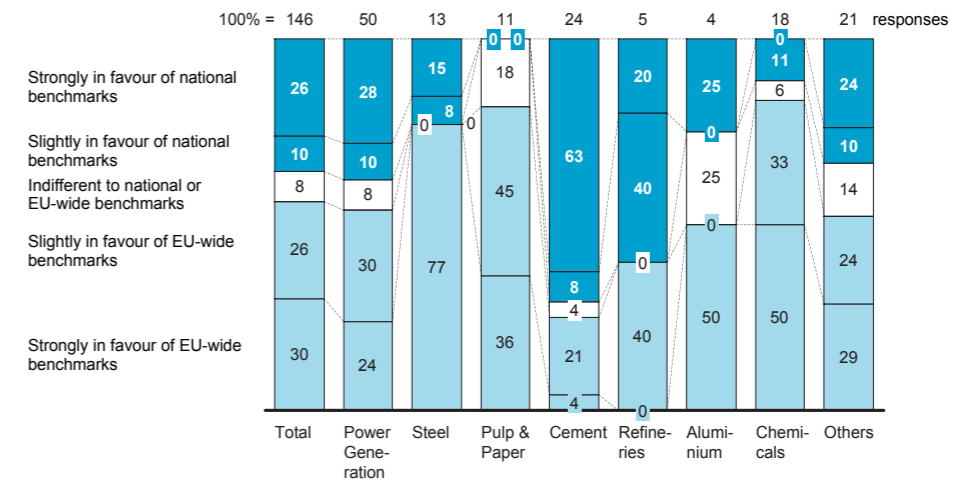


Source: Survey EU ETS Review

Figure 3-38: Preferred allocation methods for existing assets (2)

NATIONAL OR EU-WIDE BENCHMARKS? (2)
Companies

Question: For the benchmarking options, would you favour national or EU-wide benchmarks?

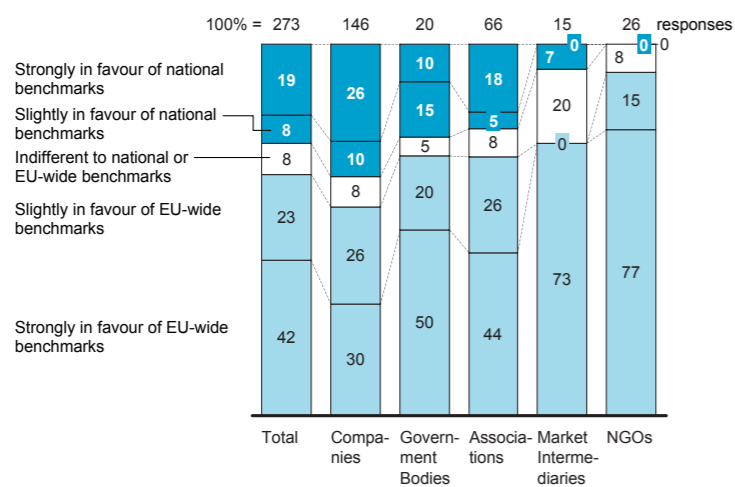


Source: Survey EU ETS Review

Figure 3-40: Preference for national or EU-wide benchmarks (2)

NATIONAL OR EU-WIDE BENCHMARKS? (1)
All stakeholders

Question: For the benchmarking options, would you favour national or EU-wide benchmarks?

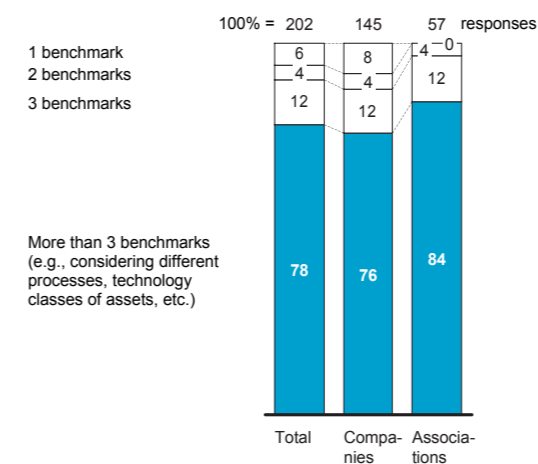


Source: Survey EU ETS Review

Figure 3-39: Preference for national or EU-wide benchmarks (1)

MINIMUM NUMBER OF BENCHMARKS NEEDED (1)
Companies and associations

Question: What is the minimum number of benchmarks that you expect to need in your industry?



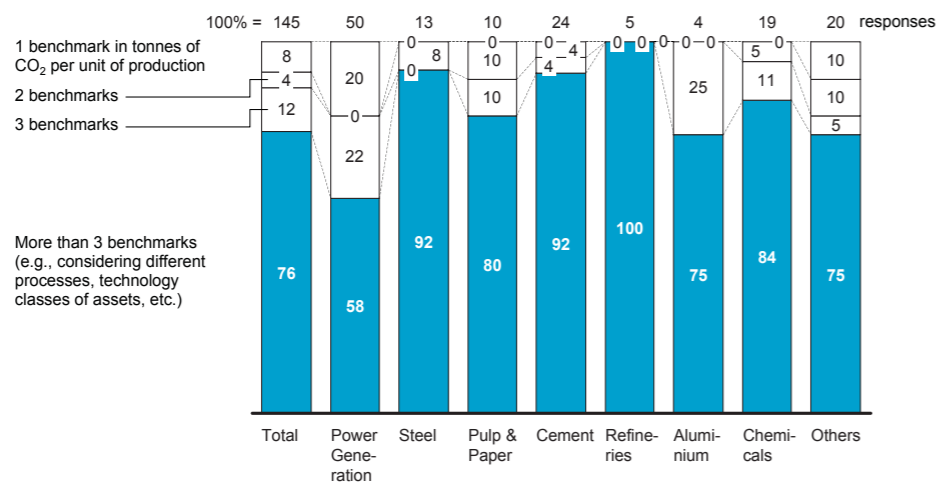
Source: Survey EU ETS Review

Figure 3-41: Minimum number of benchmarks needed (1)

MINIMUM NUMBER OF BENCHMARKS NEEDED (2)

Companies

Question: What is the minimum number of benchmarks that you expect to need in your industry?



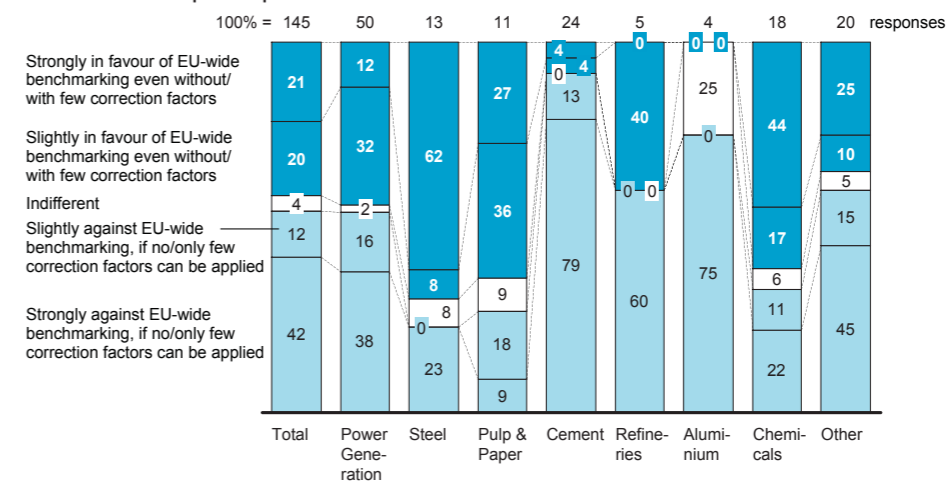
Source: Survey EU ETS Review

Figure 3-42: Minimum number of benchmarks needed (2)

EU-WIDE BENCHMARKING AND CORRECTION FACTORS (2)

Companies

Question: Assume EU-wide benchmarking would be workable only with few or no correction factors for your specific situation. That means, for example, that no correction would be made for age, size, or location, but only for climate-relevant differences such as combined heat and power (CHP). What would you value most: increased harmonisation/equality across Europe due to equal treatment of all competitors, or the consideration of companies' specific situation?



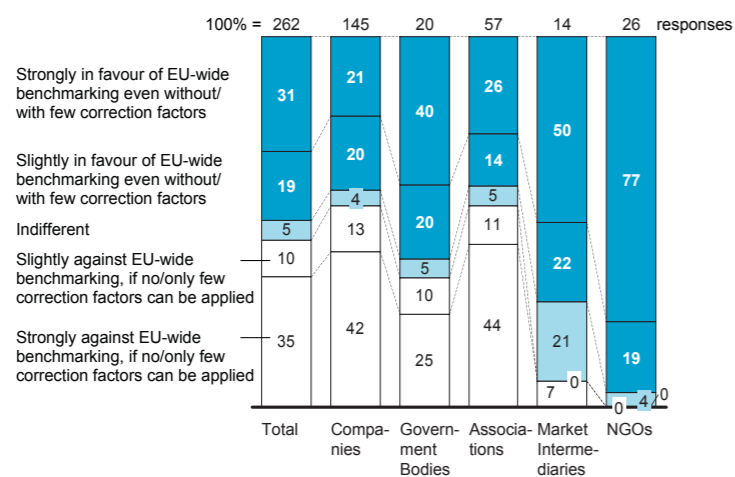
Source: Survey EU ETS Review

Figure 3-44: EU-wide benchmarking and correction factors (2)

EU-WIDE BENCHMARKING AND CORRECTION FACTORS (1)

All stakeholders

Question: Assume EU-wide benchmarking would be workable only with few or no correction factors for your specific situation. That means, for example, that no correction would be made for age, size, or location, but only for climate-relevant differences such as combined heat and power (CHP). What would you value most: increased harmonisation/equality across Europe due to equal treatment of all competitors, or the consideration of companies' specific situation?



Source: Survey EU ETS Review

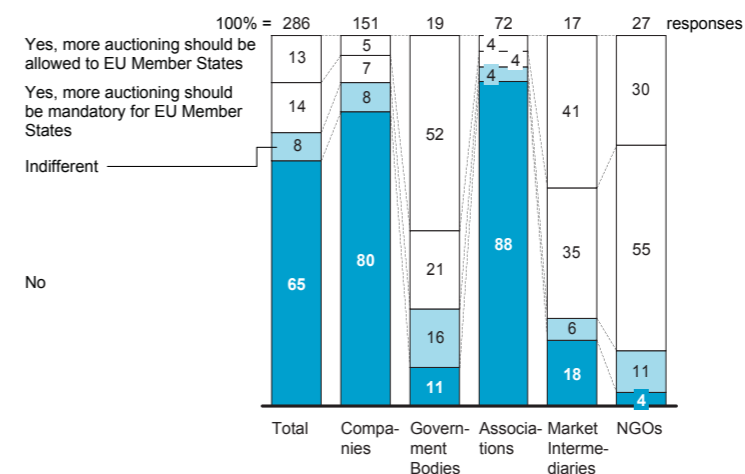
Figure 3-43: EU-wide benchmarking and correction factors (1)

3.5 Auctioning

MORE AUCTIONING BEYOND 2012? (1)

All stakeholders

Question: The EU Directive on emissions trading allows for auctioning of up to 5% of the allocation in the 2005-07 period and 10% in the 2008-12 period. We would like to ask you for your opinion on auctioning. Should the EU Directive allow for more auctioning beyond 2012?



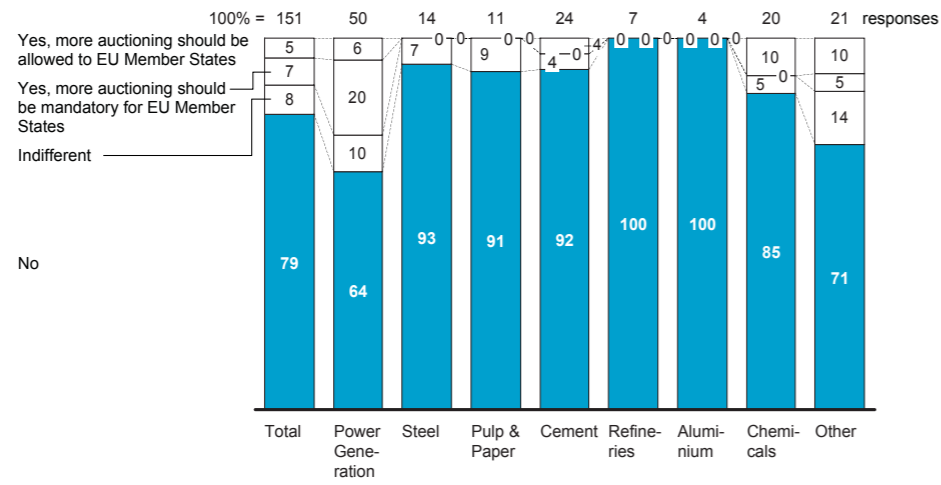
Source: Survey EU ETS Review

Figure 3-45: Opinion on more auctioning beyond 2012 (1)

MORE AUCTIONING BEYOND 2012? (2)

Companies

Question: The EU Directive on emissions trading allows for auctioning of up to 5% of the allocation in the 2005-07 period and 10% in the 2008-12 period. We would like to ask you for your opinion on auctioning. Should the EU Directive allow for more auctioning beyond 2012?



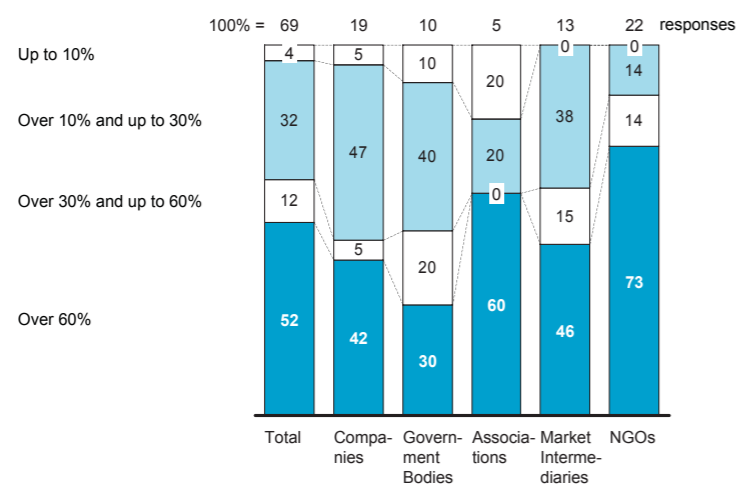
Source: Survey EU ETS Review

Figure 3-46: Opinion on more auctioning beyond 2012 (2)

IF YES, PREFERRED PERCENTAGE LEVEL OF AUCTIONING

All stakeholders

Question: If yes, what percentage level of auctioning would you prefer?



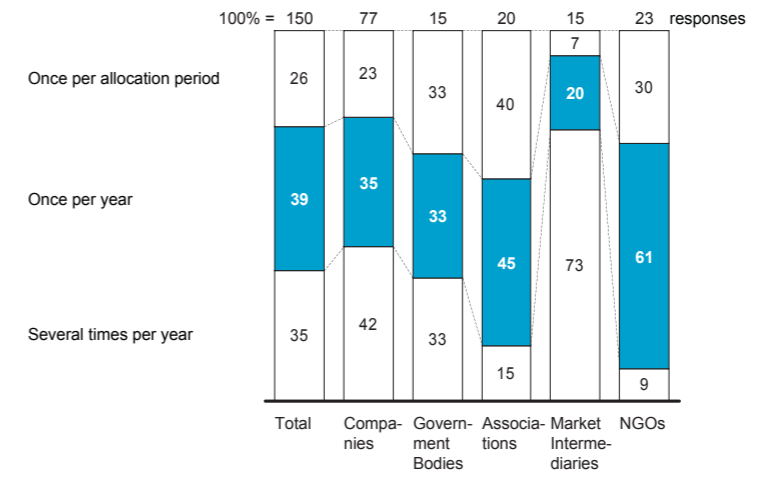
Source: Survey EU ETS Review

Figure 3-47: Preferred percentage level of auctioning

HOW OFTEN SHOULD THE AUCTION OCCUR? (1)

All stakeholders

Question: How often should the auction occur?



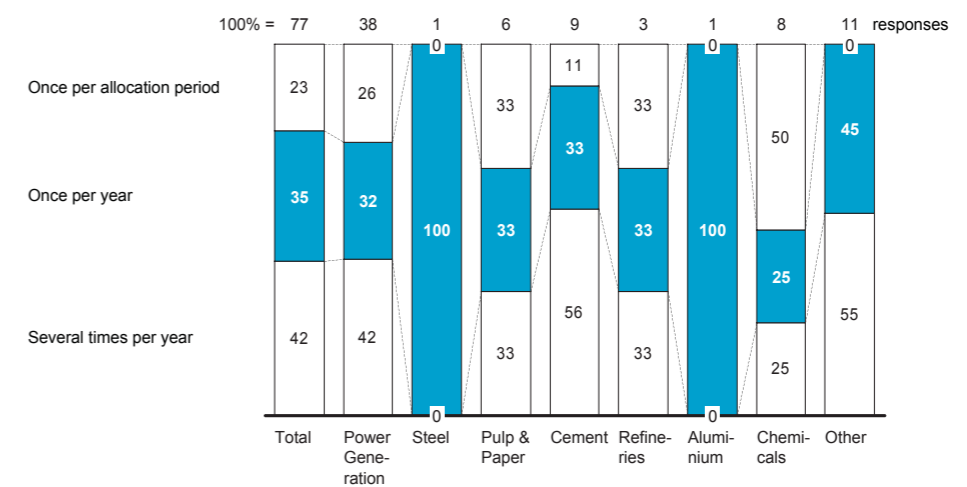
Source: Survey EU ETS Review

Figure 3-48: Preferred frequency of auctions (1)

HOW OFTEN SHOULD THE AUCTION OCCUR? (2)

Companies

Question: How often should the auction occur?



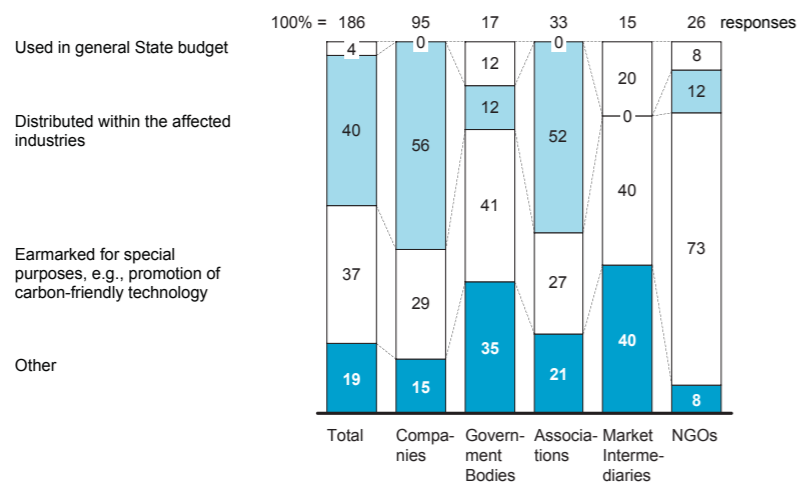
Source: Survey EU ETS Review

Figure 3-49: Preferred frequency of auctions (2)

USE OF MONEY RAISED THROUGH AUCTIONS (1)

All stakeholders

Question: What should be done with the money raised through the auctions?



Source: Survey EU ETS Review

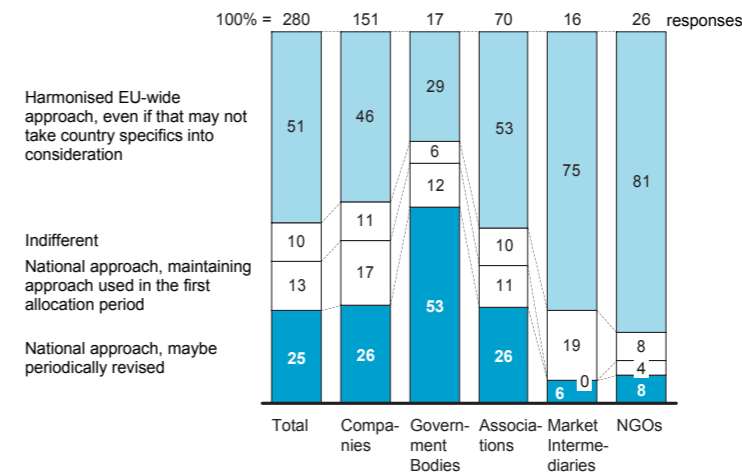
Figure 3-50: Use of money raised through auctions (1)

3.6 Further harmonisation of allocation methods

BASE YEAR FOR ALLOCATION: HIGH LEVEL OF HARMONISATION OR CONSIDERATION OF LOCAL CIRCUMSTANCES? (1)

All stakeholders

Question: Do you prefer a high level of harmonisation among EU Member States or do you prefer consideration of your local circumstances, which may mean a lower level of harmonisation: base years for allocation of emission allowances (e.g. 2000-2002 period)?



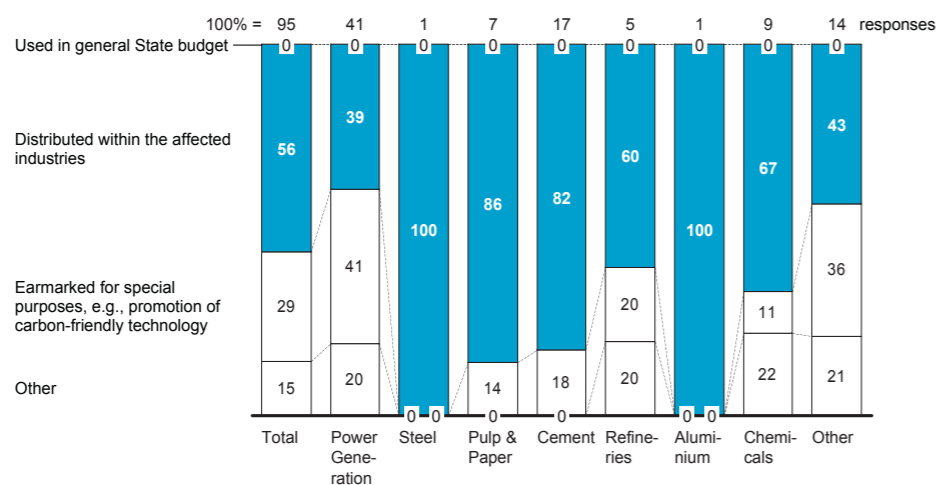
Source: Survey EU ETS Review

Figure 3-52: Base year for allocation: EU-wide or national approach? (1)

USE OF MONEY RAISED THROUGH AUCTIONS (2)

Companies

Question: What should be done with the money raised through the auctions?



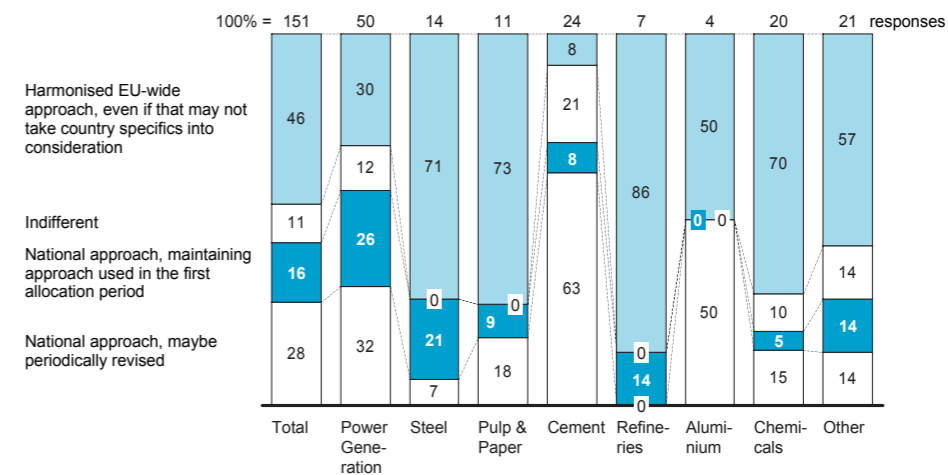
Source: Survey EU ETS Review

Figure 3-51: Use of money raised through auctions (2)

BASE YEAR FOR ALLOCATION: HIGH LEVEL OF HARMONISATION OR CONSIDERATION OF LOCAL CIRCUMSTANCES? (2)

Companies

Question: Do you prefer a high level of harmonisation among EU Member States or do you prefer consideration of your local circumstances, which may mean a lower level of harmonisation: base years for allocation of emission allowances (e.g. 2000-2002 period)?



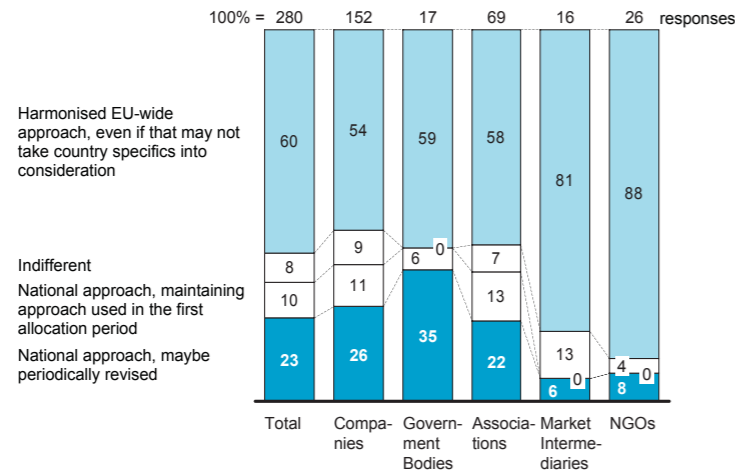
Source: Survey EU ETS Review

Figure 3-53: Base year for allocation: EU-wide or national approach? (2)

SHARE OF FREE ALLOWANCES: HIGH LEVEL OF HARMONISATION OR CONSIDERATION OF LOCAL CIRCUMSTANCES? (1)

All stakeholders

Do you prefer a high level of harmonisation among EU Member States or do you prefer consideration of your local circumstances, which may mean a lower level of harmonisation: share of free allowances



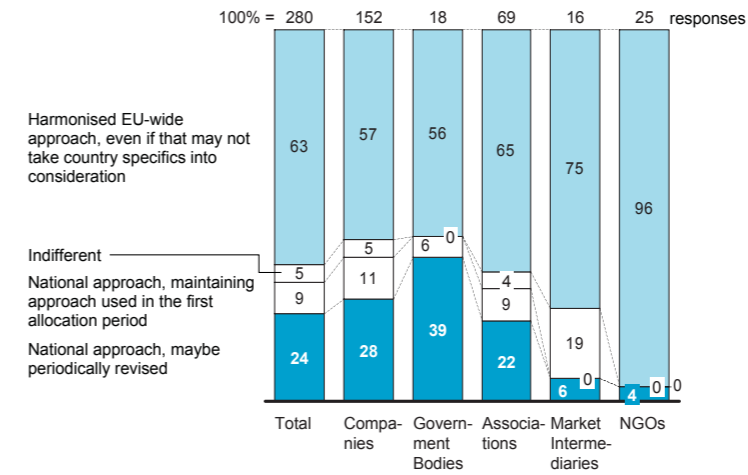
Source: Survey EU ETS Review

Figure 3-54: Share of free allowances: EU-wide or national approach? (1)

ALLOCATION METHOD: HIGH LEVEL OF HARMONISATION OR CONSIDERATION OF LOCAL CIRCUMSTANCES? (1)

All stakeholders

Question: Do you prefer a high level of harmonisation among EU Member States or do you prefer consideration of your local circumstances, which may mean a lower level of harmonisation: Allocation method (e.g., allocation based upon historic emissions, benchmarking)



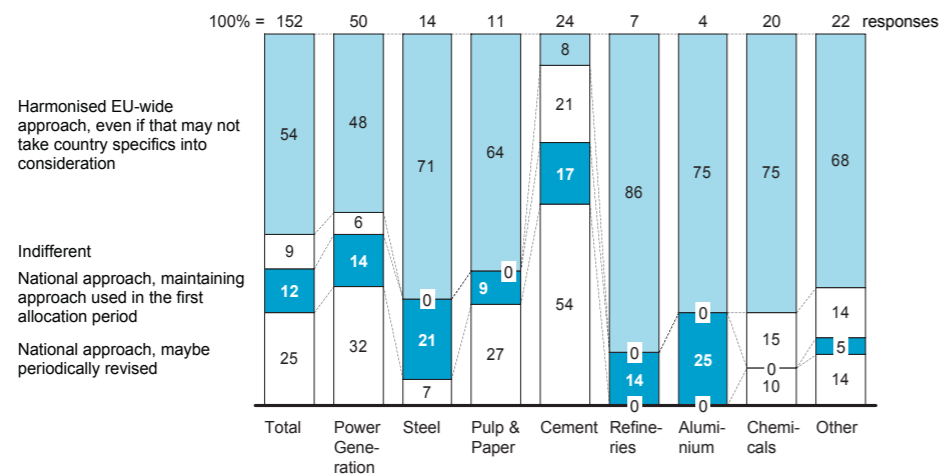
Source: Survey EU ETS Review

Figure 3-56: Allocation method: EU-wide or national approach? (1)

SHARE OF FREE ALLOWANCES: HIGH LEVEL OF HARMONISATION OR CONSIDERATION OF LOCAL CIRCUMSTANCES? (2)

Companies

Do you prefer a high level of harmonisation among EU Member States or do you prefer consideration of your local circumstances, which may mean a lower level of harmonisation: share of free allowances



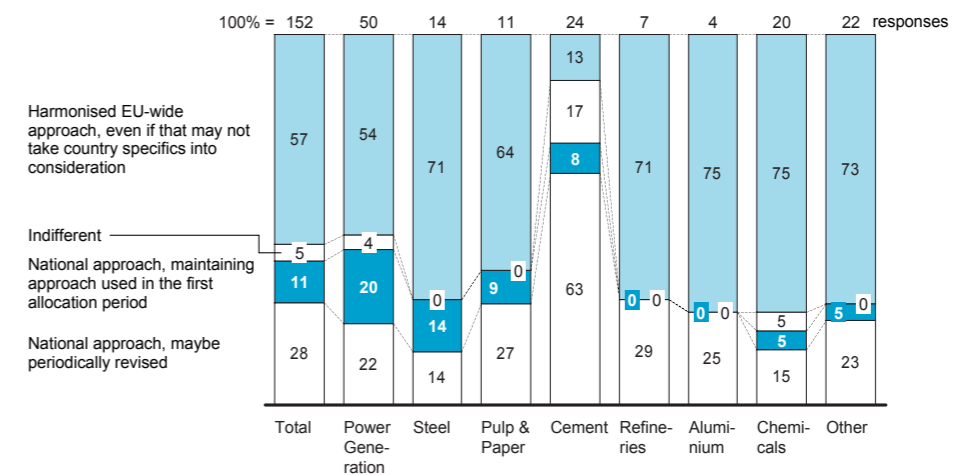
Source: Survey EU ETS Review

Figure 3-55: Share of free allowances: EU-wide or national approach? (2)

ALLOCATION METHOD: HIGH LEVEL OF HARMONISATION OR CONSIDERATION OF LOCAL CIRCUMSTANCES? (2)

Companies

Question: Do you prefer a high level of harmonisation among EU Member States or do you prefer consideration of your local circumstances, which may mean a lower level of harmonisation: Allocation method (e.g., allocation based upon historic emissions, benchmarking)



Source: Survey EU ETS Review

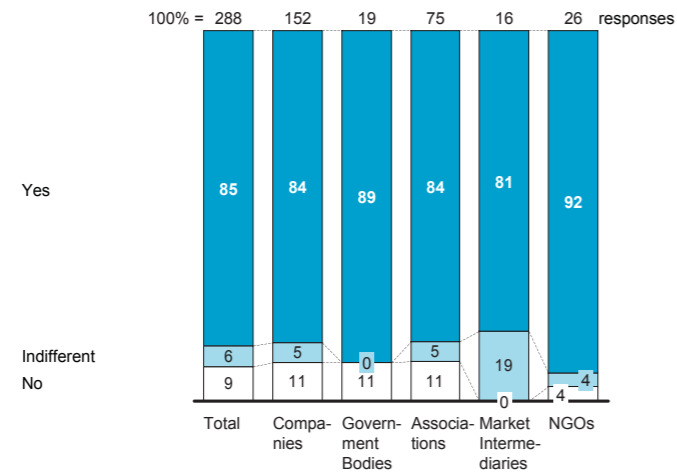
Figure 3-57: Allocation method: EU-wide or national approach? (2)

3.7 Treatment of new entrants and installation closures

APPROACH FOR NEW ENTRANTS AND CLOSURES HARMONISED ACROSS EUROPE? (1)

All stakeholders

Question: Should the approach for new entrants and closures be harmonised across Europe?



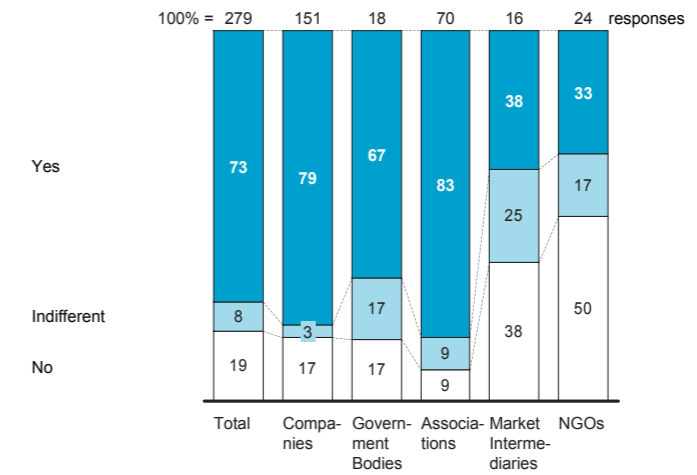
Source: Survey EU ETS Review

Figure 3-58: New entrants and closures: harmonised approach? (1)

NEW ENTRANT RESERVE PROVIDED FOR FREE? (1)

All stakeholders

Question: Should a reserve for newly constructed assets (new entrant reserve) be provided for free? Please bear in mind that the overall allocation will not change, so the new entrant reserve will reduce the allocation to existing assets.



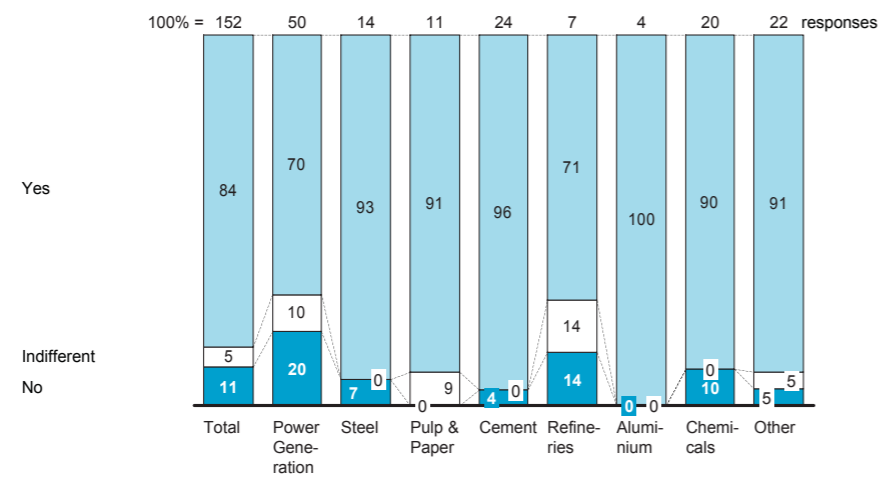
Source: Survey EU ETS Review

Figure 3-60: New entrant reserve provided for free? (1)

APPROACH FOR NEW ENTRANTS AND CLOSURES HARMONISED ACROSS EUROPE? (2)

Companies

Question: Should the approach for new entrants and closures be harmonised across Europe?



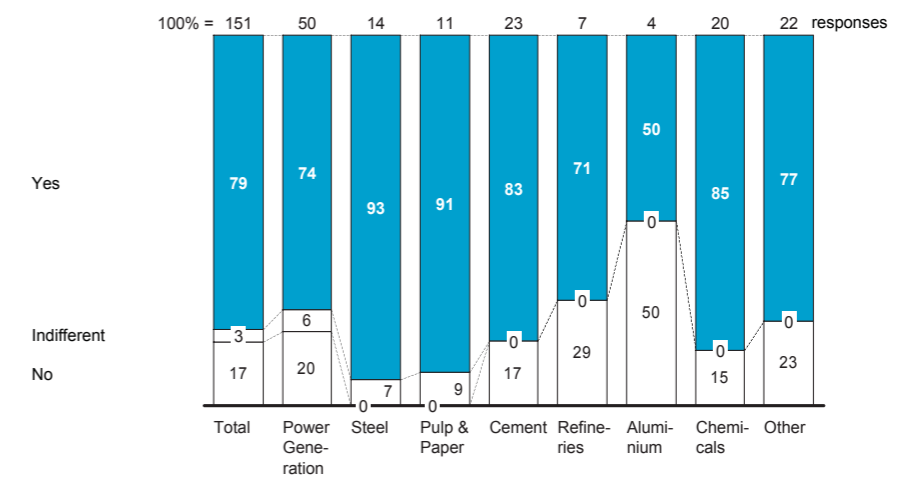
Source: Survey EU ETS Review

Figure 3-59: New entrants and closures: harmonised approach? (2)

NEW ENTRANT RESERVE PROVIDED FOR FREE? (2)

Companies

Question: Should a reserve for newly constructed assets (new entrant reserve) be provided for free? Please bear in mind that the overall allocation will not change, so the new entrant reserve will reduce the allocation to existing assets.



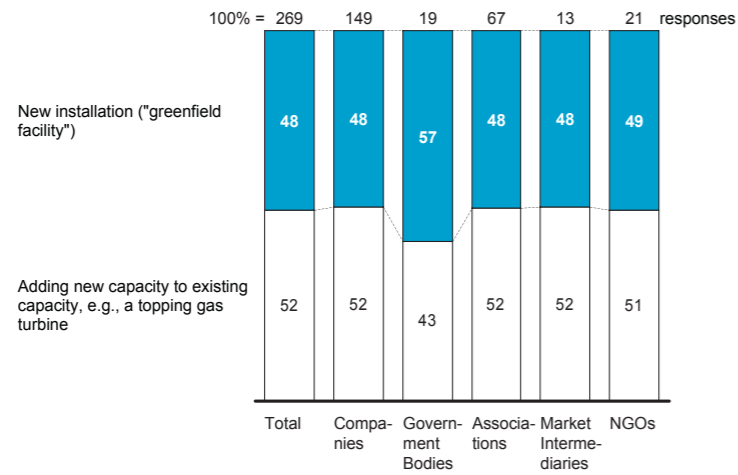
Source: Survey EU ETS Review

Figure 3-61: New entrant reserve provided for free? (2)

MOST IMPORTANT FIELD FOR NEW ENTRANT RESERVE (1)

All stakeholders

Question: Based upon your opinion, what should be the most important field for the new entrant reserve? Please distribute 10 points among the 2 options. More points means more important. Article 3 of the EU Trading Directive defines a new entrant as any installation carrying one or more of the activities indicated in Annex I, which has obtained a greenhouse gas emissions permit because of a change in the nature or functioning, or an extension of the installation, subsequent to the notification to the Commission of the National Allocation Plan.



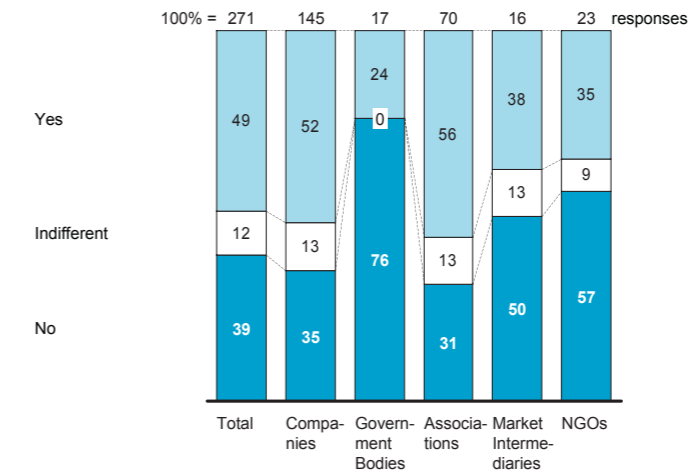
Source: Survey EU ETS Review

Figure 3-62: Most important field for new entrant reserve (1)

KEEP ALLOWANCES AT CLOSURE OF FACILITY FOR REMAINDER ALLOCATION PERIOD? (1)

All stakeholders

Question: Should closing facilities be allowed to keep their allowances at closure for the remainder of the allocation period?



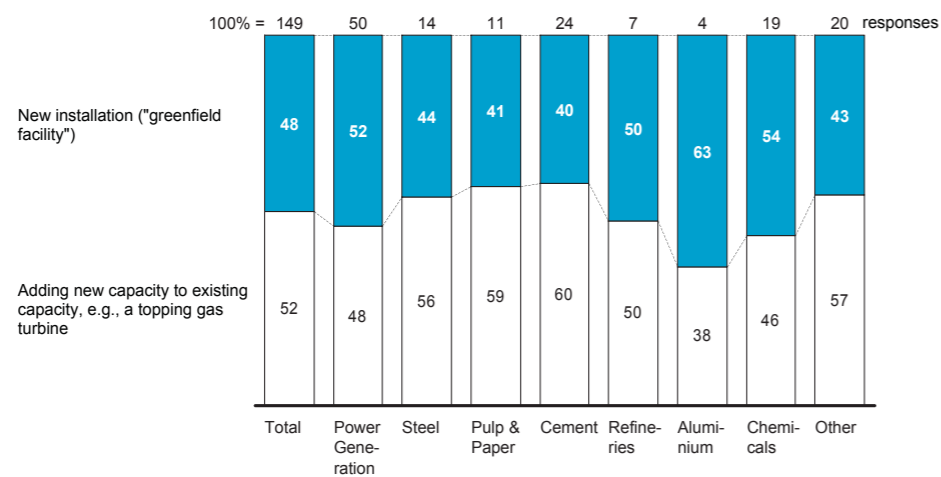
Source: Survey EU ETS Review

Figure 3-64: Allowance retention at closure (1)

MOST IMPORTANT FIELD FOR NEW ENTRANT RESERVE (2)

Companies

Question: Based upon your opinion, what should be the most important field for the new entrant reserve? Please distribute 10 points among the 2 options. More points means more important. Article 3 of the EU Trading Directive defines a new entrant as any installation carrying one or more of the activities indicated in Annex I, which has obtained a greenhouse gas emissions permit because of a change in the nature or functioning, or an extension of the installation, subsequent to the notification to the Commission of the National Allocation Plan.



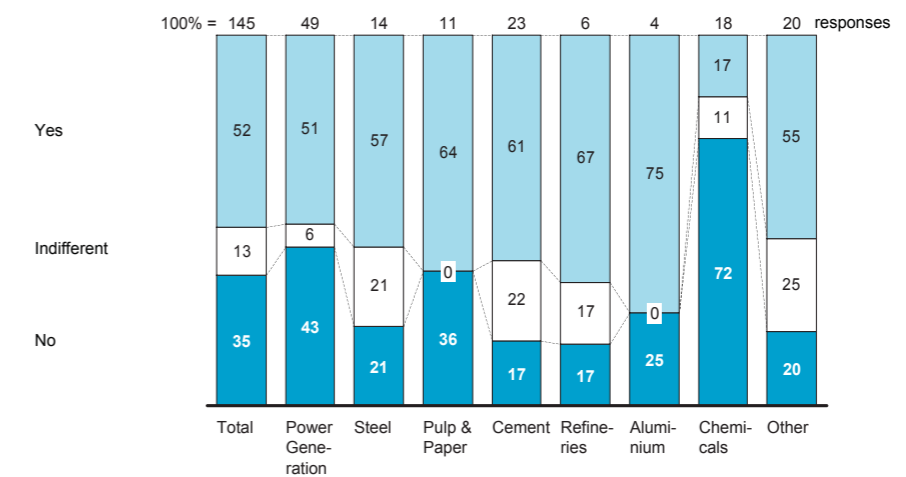
Source: Survey EU ETS Review

Figure 3-63: Most important field for new entrant reserve (2)

KEEP ALLOWANCES AT CLOSURE OF FACILITY FOR REMAINDER ALLOCATION PERIOD? (2)

Companies

Question: Should closing facilities be allowed to keep their allowances at closure for the remainder of the allocation period?



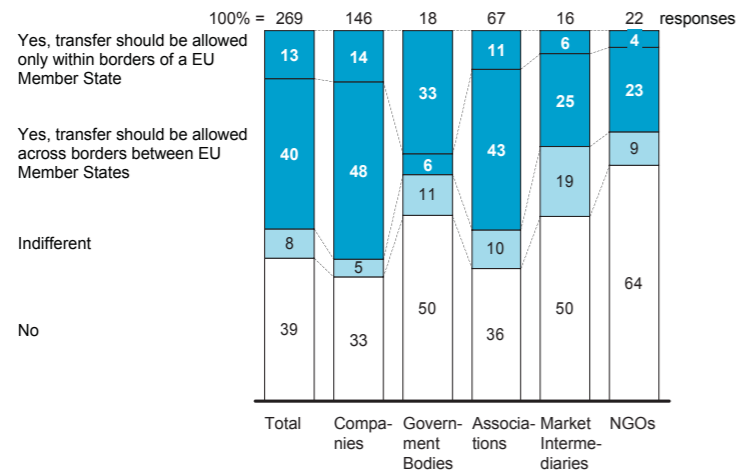
Source: Survey EU ETS Review

Figure 3-65: Allowance retention at closure (2)

KEEP ALLOWANCES AT CLOSURE OF FACILITY BEYOND ALLOCATION PERIOD? (1)

All stakeholders

Question: Should closing facilities be allowed to keep their allowances beyond the actual allocation period, e.g. via transfer to a new asset or other arrangements?



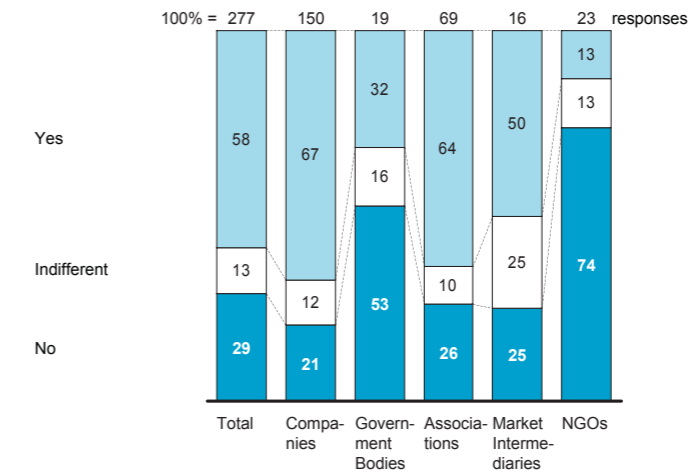
Source: Survey EU ETS Review

Figure 3-66: Allowance retention at closure beyond allocation period (1)

SHOULD GOVERNMENTS ENGAGE IN THE CO₂ MARKET IN ORDER TO BALANCE THE NEW ENTRANT RESERVE? (1)

All stakeholders

Question: Should governments engage in the CO₂ market in order to balance the new entrant reserve (buy allowances in the market, in case of a shortage in the new entrant reserve, and sell allowances in case of a surplus)?



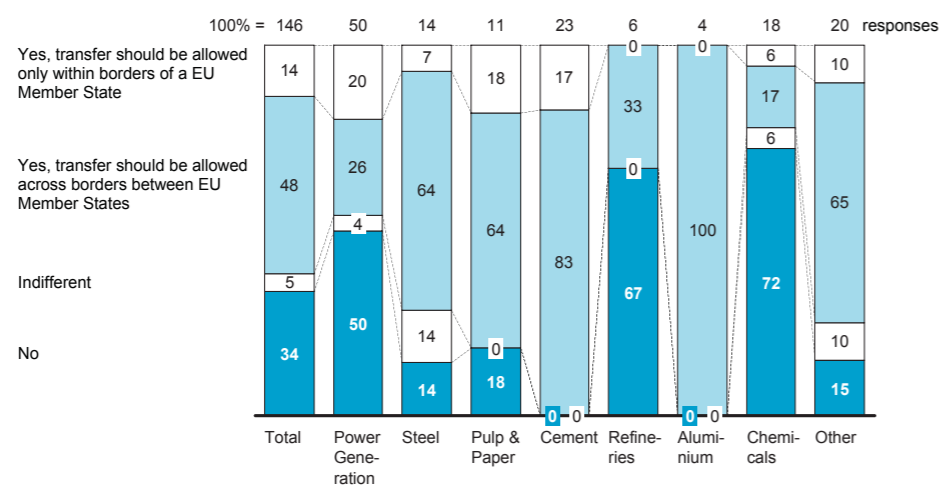
Source: Survey EU ETS Review

Figure 3-68: Government engagement to balance new entrant reserve? (1)

KEEP ALLOWANCES AT CLOSURE OF FACILITY BEYOND ALLOCATION PERIOD? (2)

Companies

Question: Should closing facilities be allowed to keep their allowances beyond the actual allocation period, e.g. via transfer to a new asset or other arrangements?



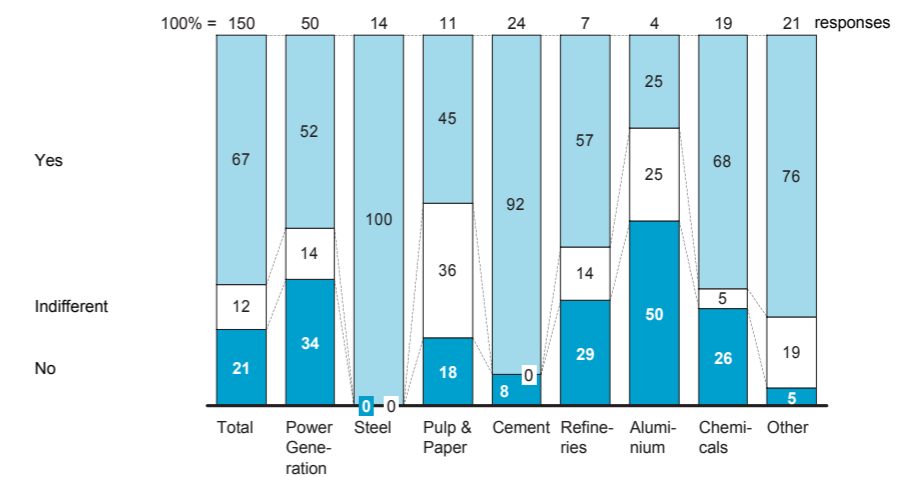
Source: Survey EU ETS Review

Figure 3-67: Allowance retention at closure beyond allocation period (2)

SHOULD GOVERNMENTS ENGAGE IN THE CO₂ MARKET IN ORDER TO BALANCE THE NEW ENTRANTS RESERVE? (2)

Companies

Question: Should governments engage in the CO₂ market in order to balance the new entrant reserve (buy allowances in the market, in case of a shortage in the new entrant reserve, and sell allowances in case of a surplus)?



Source: Survey EU ETS Review

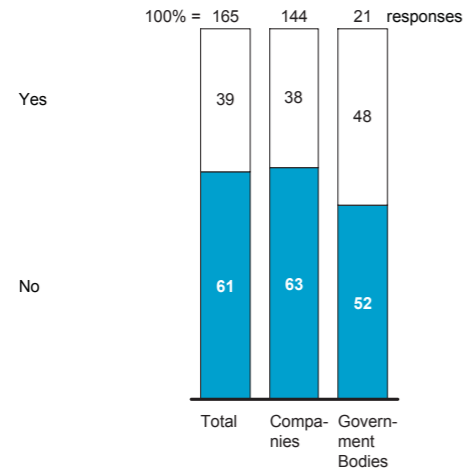
Figure 3-69: Government engagement to balance new entrant reserve? (2)

3.8 Use of credits from project mechanisms

ACTIVE INVOLVEMENT IN JI/CDM PROJECTS (1)

All stakeholders

Question: Are you actively involved in Joint Implementation (JI)/Clean Development Mechanism (CDM) projects? Involved means actually managing/participating in a specific JI or CDM project. Such a project could involve the following activities: identification of project(s), licensing, financing, construction, operations, and obtaining project-specific emission reduction certificates (not solely buying emission reduction certificates on the certificates market)



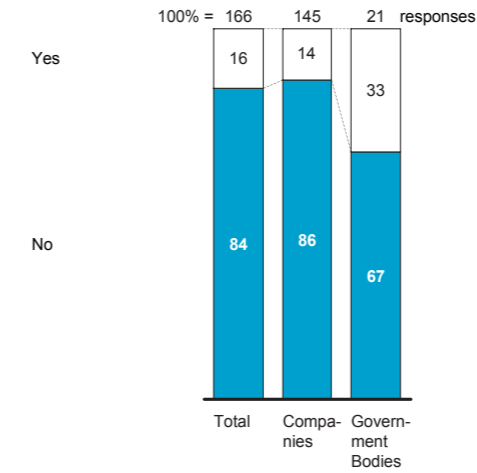
Source: Survey EU ETS Review

Figure 3-70: Active involvement in JI/CDM projects (1)

BUYING JI/CDM CREDITS IN FORWARD MARKETS (1)

All stakeholders

Question: Have you already bought credits from JI/CDM projects in the forward market prior to June 2005 (recognising that delivery might not take place)?



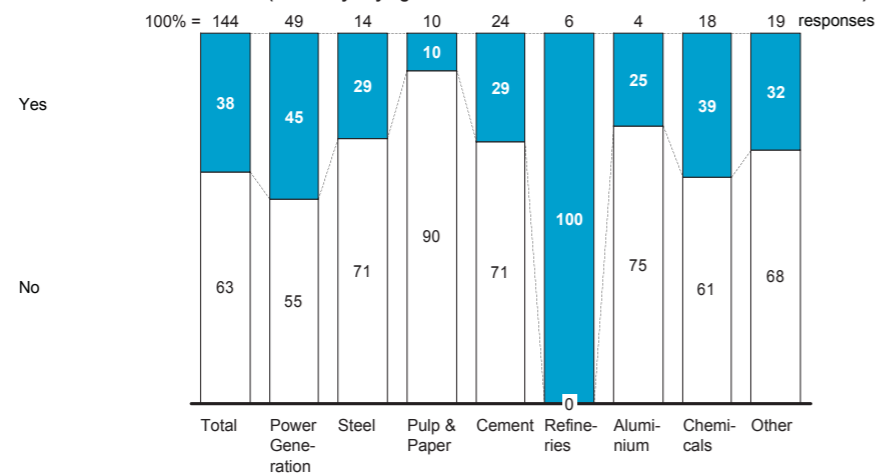
Source: Survey EU ETS Review

Figure 3-72: Acquisition of JI/CDM credits in forward markets (1)

ACTIVE INVOLVEMENT IN JI/CDM PROJECTS (2)

Companies

Question: Are you actively involved in Joint Implementation (JI)/Clean Development Mechanism (CDM) projects? Involved means actually managing/participating in a specific JI or CDM project. Such a project could involve the following activities: identification of project(s), licensing, financing, construction, operations, and obtaining project-specific emission reduction certificates (not solely buying emission reduction certificates on the certificates market)



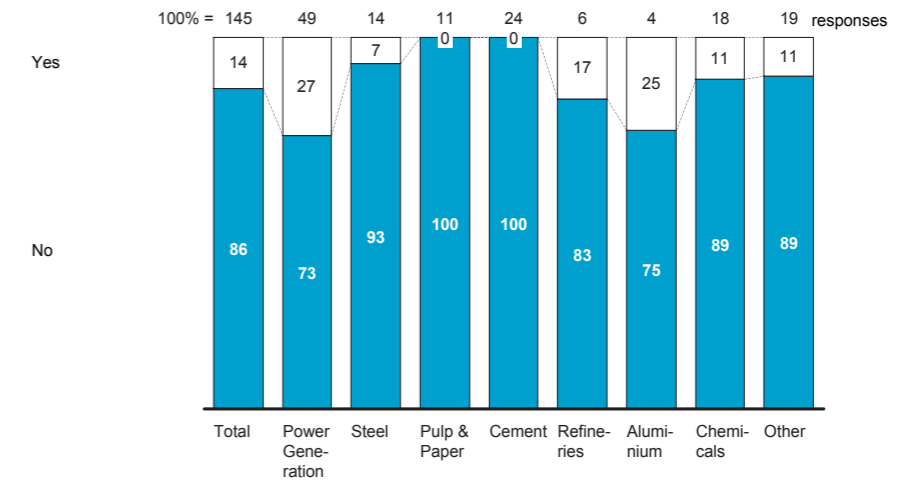
Source: Survey EU ETS Review

Figure 3-71: Active involvement in JI/CDM projects (2)

BUYING JI/CDM CREDITS IN FORWARD MARKETS (2)

Companies

Question: Have you already bought credits from JI/CDM projects in the forward market prior to June 2005 (recognising that delivery might not take place)?



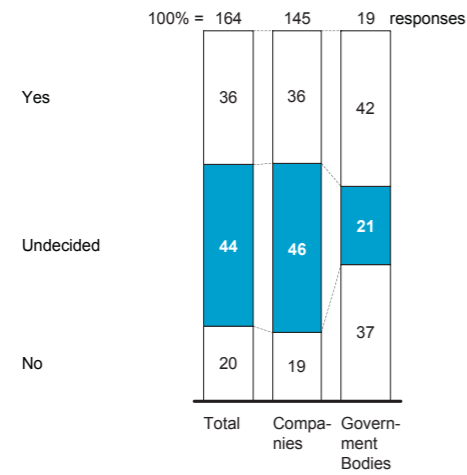
Source: Survey EU ETS Review

Figure 3-73: Acquisition of JI/CDM credits in forward markets (2)

INTENTION TO BUY CREDITS FROM JI/CDM PROJECTS (1)

All stakeholders

Question: Does your organisation intend to buy credits from JI/CDM projects?



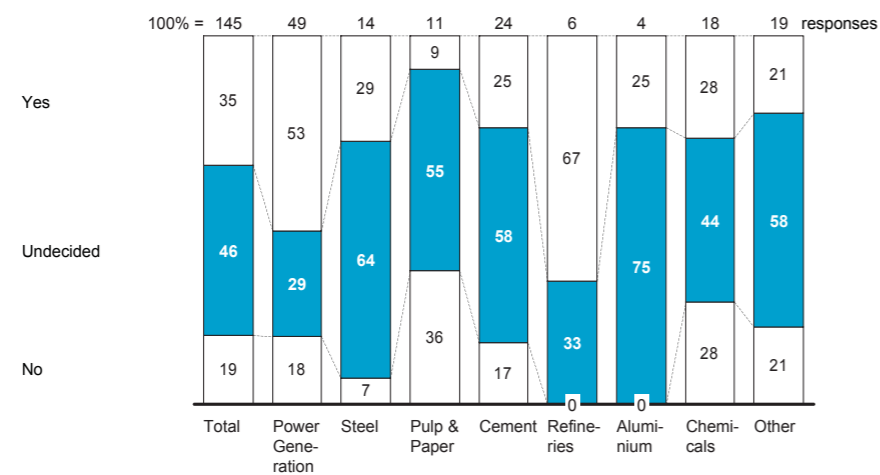
Source: Survey EU ETS Review

Figure 3-74: Intention to buy credits from JI/CDM projects (1)

INTENTION TO BUY CREDITS FROM JI/CDM PROJECTS (2)

Companies

Question: Does your organisation intend to buy credits from JI/CDM projects?



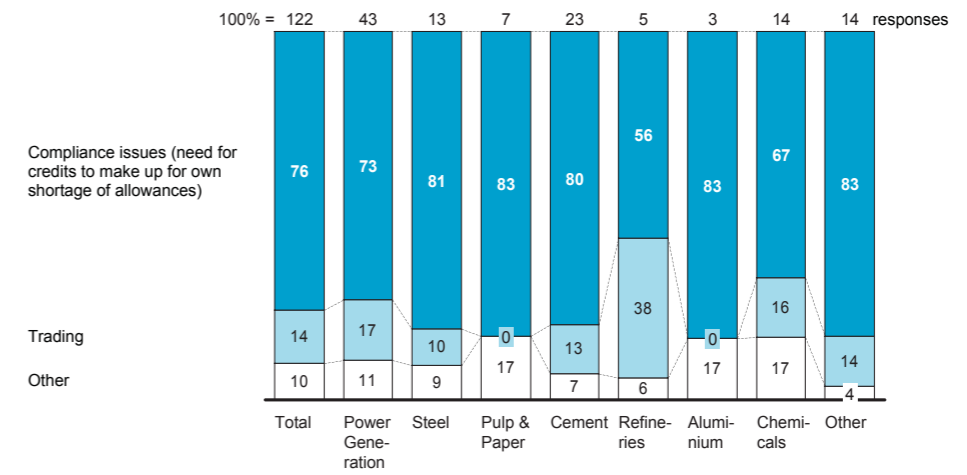
Source: Survey EU ETS Review

Figure 3-75: Intention to buy credits from JI/CDM projects (2)

REASONS FOR BUYING JI/CDM CREDITS

Companies

Question: Why would you buy credits from JI/CDM projects?



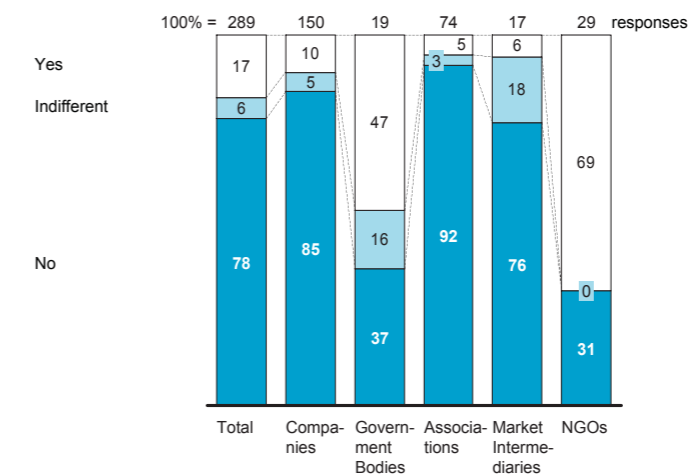
Source: Survey EU ETS Review

Figure 3-76: Reasons for buying JI/CDM credits

LIMITS FOR CERS AND ERUS? (1)

All stakeholders

Question: Do you think limits should be imposed on Certified Emission Reductions (CERs) from CDM projects and Emission Reduction Units (ERUs) from JI projects within the EU ETS?



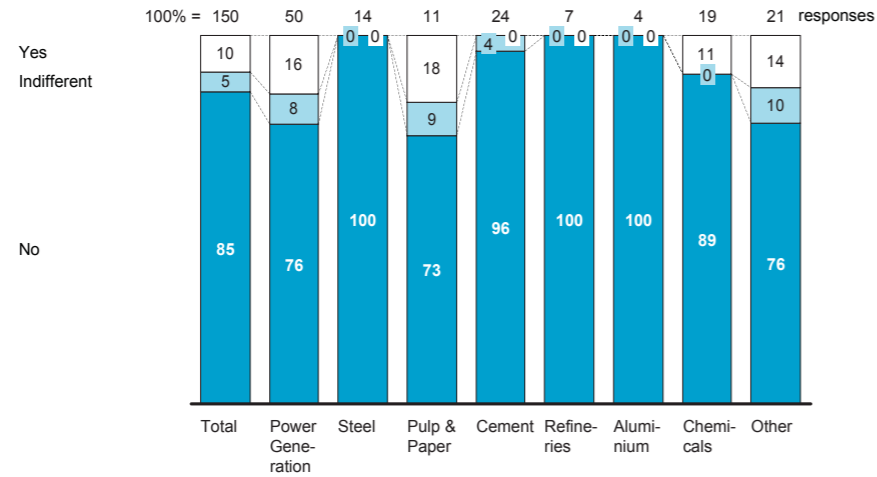
Source: Survey EU ETS Review

Figure 3-77: Limits for CERS and ERUS? (1)

LIMITS FOR CERS AND ERUS? (2)

Companies

Question: Do you think limits should be imposed on Certified Emission Reductions (CERs) from CDM projects and Emission Reduction Units (ERUs) from JI projects within the EU ETS?



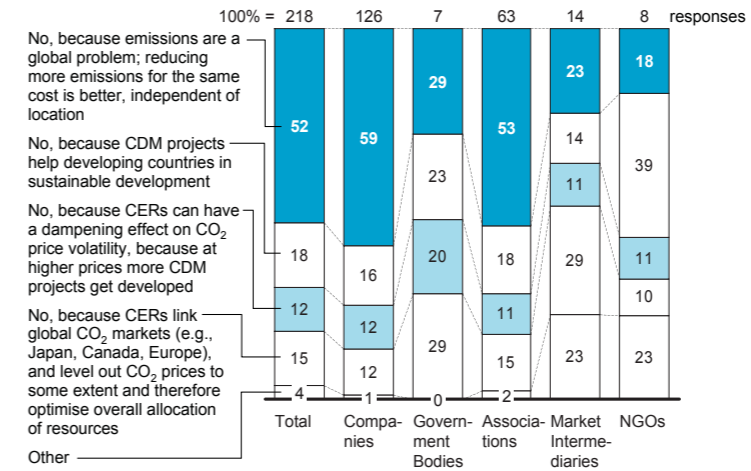
Source: Survey EU ETS Review

Figure 3-78: Limits for CERS and ERUS? (2)

REASONS FOR BEING AGAINST LIMITS FOR CERS AND ERUS (1)

All stakeholders

Question: If "no", please specify by distributing 10 points; more points means more important.



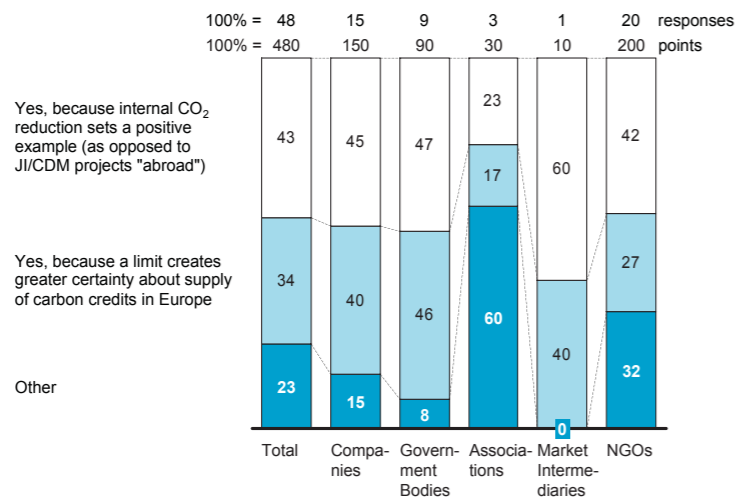
Source: Survey EU ETS Review

Figure 3-80: Reasons for being against limits for CERS and ERUS (1)

REASONS FOR BEING IN FAVOUR OF LIMITS FOR CERS AND ERUS

All stakeholders

Question: If "yes", please specify by distributing 10 points; more points means more important.



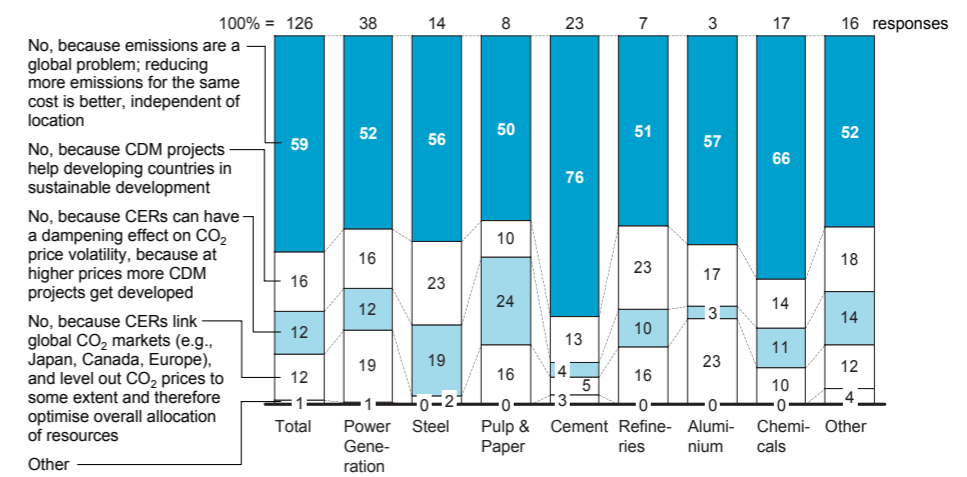
Source: Survey EU ETS Review

Figure 3-79: Reasons for being in favour of limits for CERS and ERUS

REASONS FOR BEING AGAINST LIMITS FOR CERS AND ERUS (2)

Companies

Question: If "no", please specify by distributing 10 points; more points means more important.



Source: Survey EU ETS Review

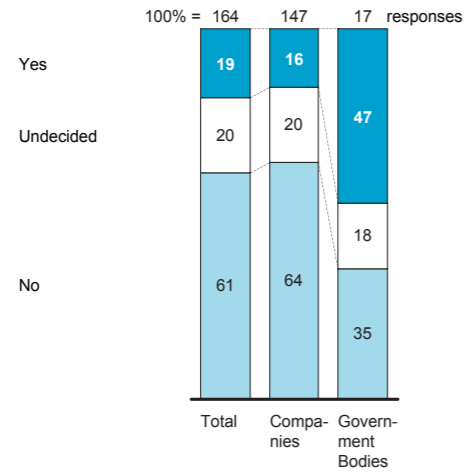
Figure 3-81: Reasons for being against limits for CERS and ERUS (2)

3.9 Pooling

DO YOU PLAN TO MAKE USE OF POOLING? (1)

All stakeholders

Question: According to Article 28 of the EU ETS Directive, Member States can allow operators of installations to pool their allowances. Do you plan to make use of pooling?



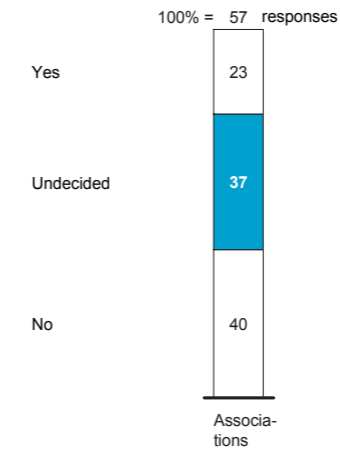
Source: Survey EU ETS Review

Figure 3-82: Intention to make use of pooling (1)

DO YOU PLAN TO MAKE USE OF POOLING? (3)

Associations

Question: Do the companies that your organisation represents plan to use pooling?



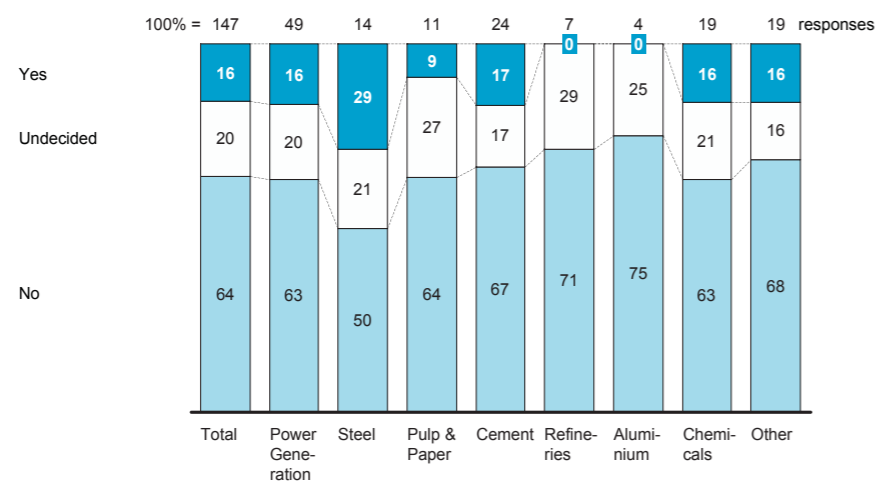
Source: Survey EU ETS Review

Figure 3-84: Intention to make use of pooling (3)

DO YOU PLAN TO MAKE USE OF POOLING? (2)

Companies

Question: According to Article 28 of the EU ETS Directive, Member States can allow operators of installations to pool their allowances. Do you plan to make use of pooling?



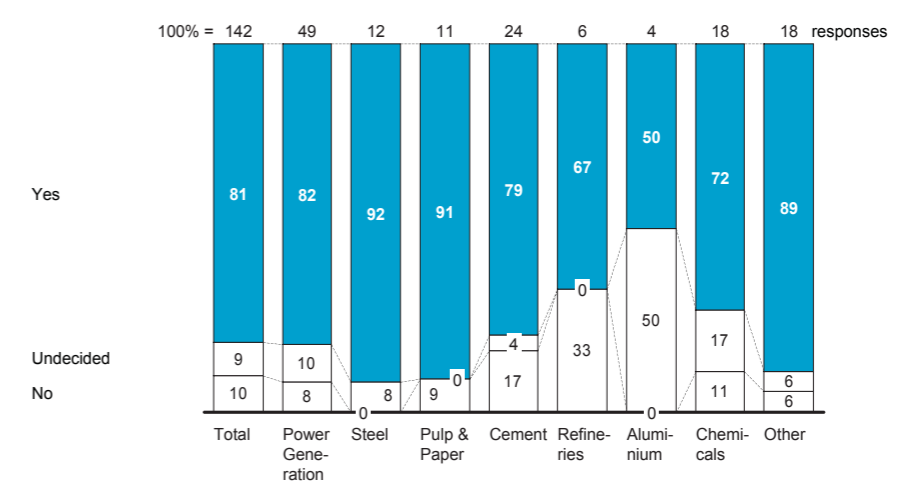
Source: Survey EU ETS Review

Figure 3-83: Intention to make use of pooling (2)

CENTRALISATION OF ALLOWANCE MANAGEMENT?

Companies

Question: Do you plan to centralise the management of allowances internally in your company?

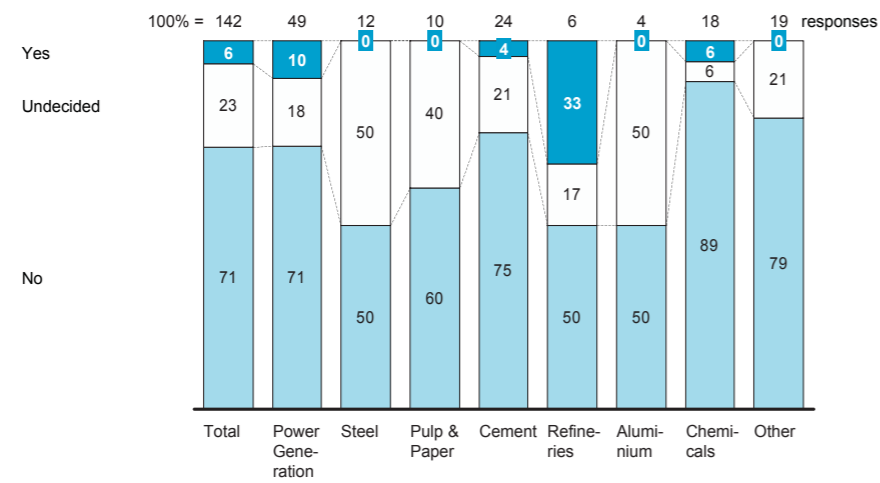


Source: Survey EU ETS Review

Figure 3-85: Intention to centralise allowance management

EXTERNAL POOLING? Companies

Question: Do you plan to use pooling externally with other companies?

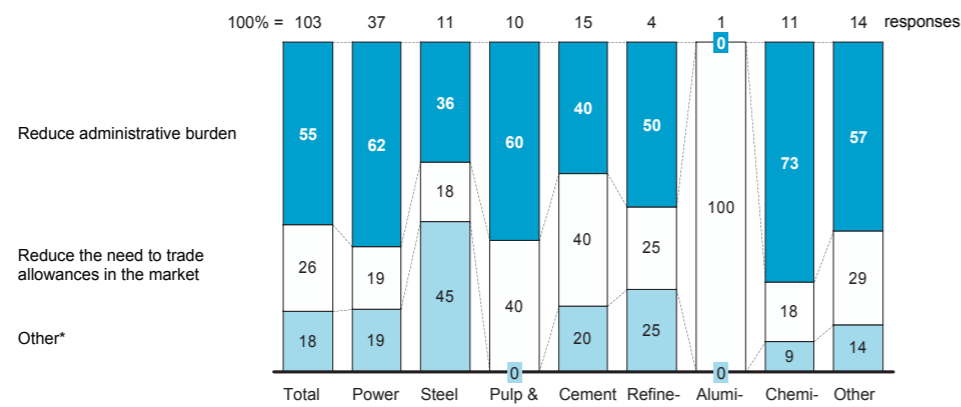


Source: Survey EU ETS Review

Figure 3-86: Intention to use external pooling

REASONS FOR POOLING Companies

Question: If your answer in one of the two questions above was "yes", why would you like to pool?



* Steel: Natural pooling should be encouraged; Taxing and accounting rules make it difficult to pool even within one company; Optimise overall production with existing allowances
 Power: Internal pooling for portfolio/risk management; Natural pooling within company; Internal management pooling is not considered as official pooling; Pooling in the Spanish electricity sector is forbidden
 Cement: Natural Pooling should be encouraged
 Refineries: Internal pooling possible without official Directive article ; Internal pooling obvious
 Chemicals: Pooling should be made possible across borders, especially for multinational companies; Internal pooling reduces demand for man-power / staff

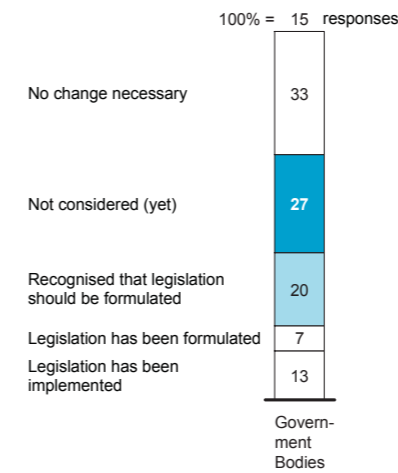
Source: Survey EU ETS Review

Figure 3-87: Reasons for pooling

3.10 Accounting and taxation

NATIONAL LEGISLATION ON TAXATION OF CO₂ ALLOWANCES Government bodies

Question: Where is your Government in the policy pipeline concerning national legislation on taxation of CO₂ allowances?

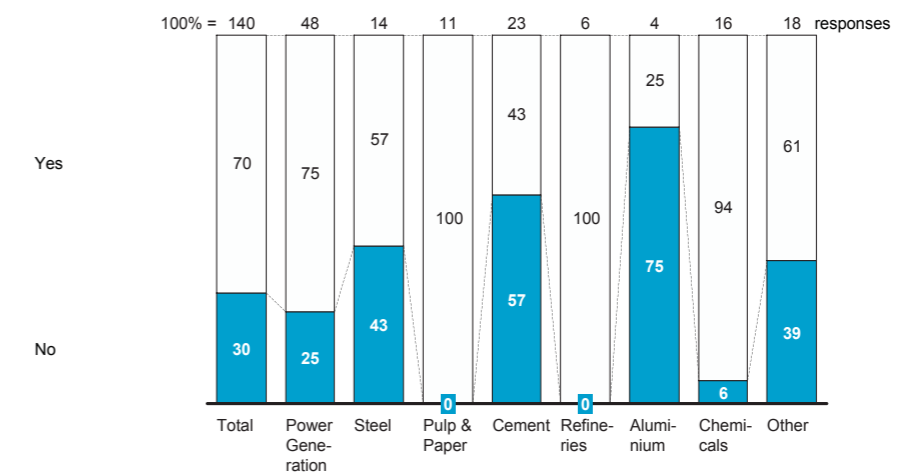


Source: Survey EU ETS Review

Figure 3-88: National legislation on taxation of CO₂ allowances

HOW TO ACCOUNT FOR EMISSION ALLOWANCES Companies

Question: Does your company's accounting department know how to account for emission allowances in your company's balance sheet and profit & loss account?

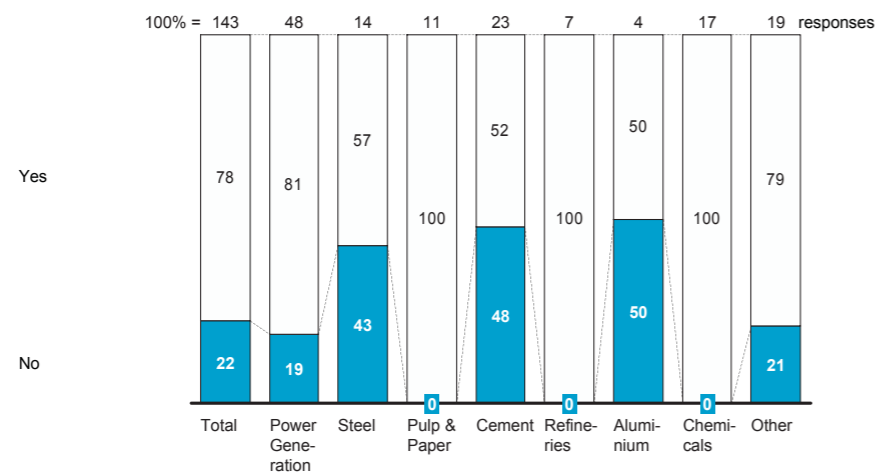


Source: Survey EU ETS Review

Figure 3-89: How to account for emission allowances

HOW TO APPLY VAT RULES Companies

Question: Does your company know which VAT rules to apply to EU emission allowances?

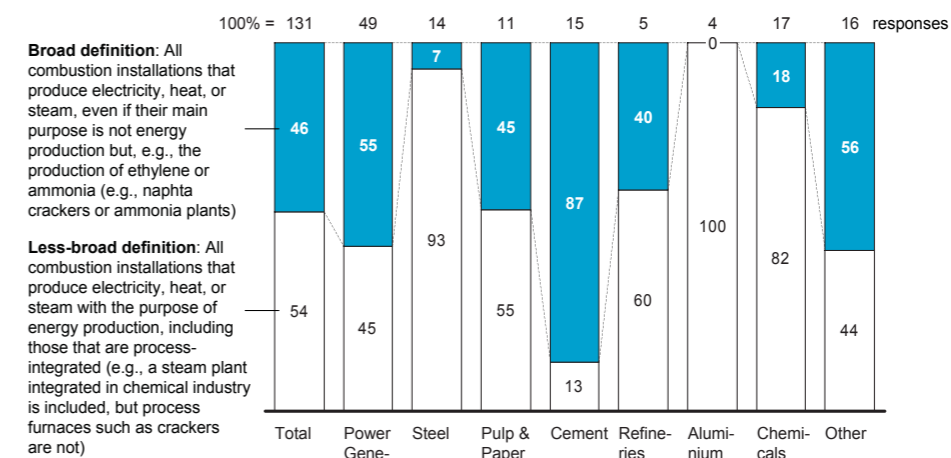


Source: Survey EU ETS Review

Figure 3-90: How to apply VAT rules

BROAD OR LESS-BROAD DEFINITION? (2) Companies

Question: Do you prefer a broad or less-broad definition of combustion installations larger than 20MW thermal?



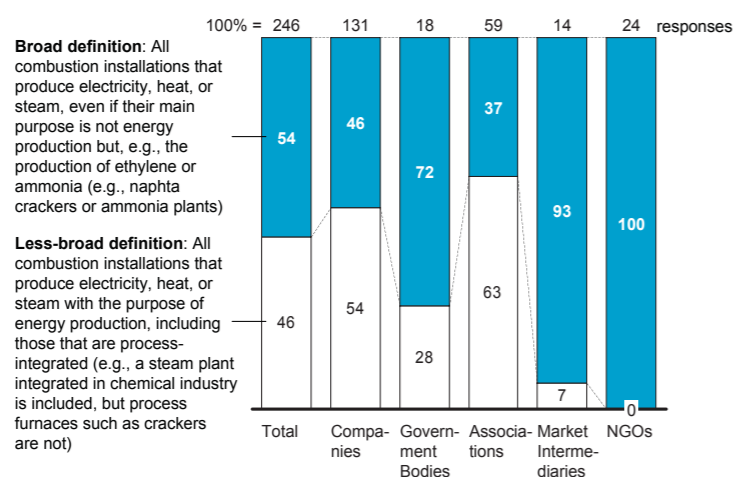
Source: Survey EU ETS Review

Figure 3-92: Preference for broad or less-broad definition (2)

3.11 Definition of combustion installations

BROAD OR LESS-BROAD DEFINITION? (1) All stakeholders

Question: Do you prefer a broad or less-broad definition of combustion installations larger than 20MW thermal?

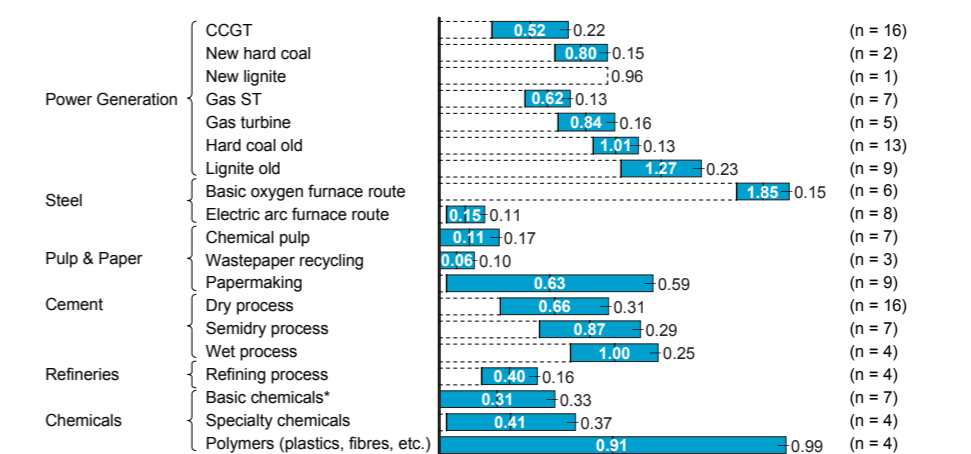


Source: Survey EU ETS Review

Figure 3-91: Preference for broad or less-broad definition (1)

3.12 Impact of EU ETS on competitiveness

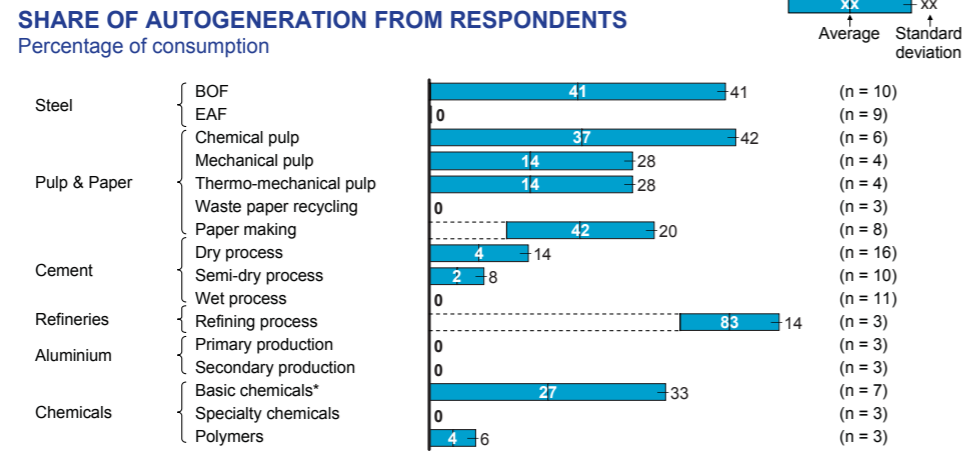
SPECIFIC CO₂ EMISSIONS IN PRODUCTION PROCESSES Tons of CO₂ per MWh/tons/10bbl of production



* Petrochemicals/basic organic chemicals, basic inorganic chemicals, fertilizers

Source: Survey EU ETS Review

Figure 3-93: Specific CO₂ emissions in production processes



* Petrochemicals/Basic organic chemicals, basic inorganic chemicals, fertilizers
Source: Survey EU ETS Review

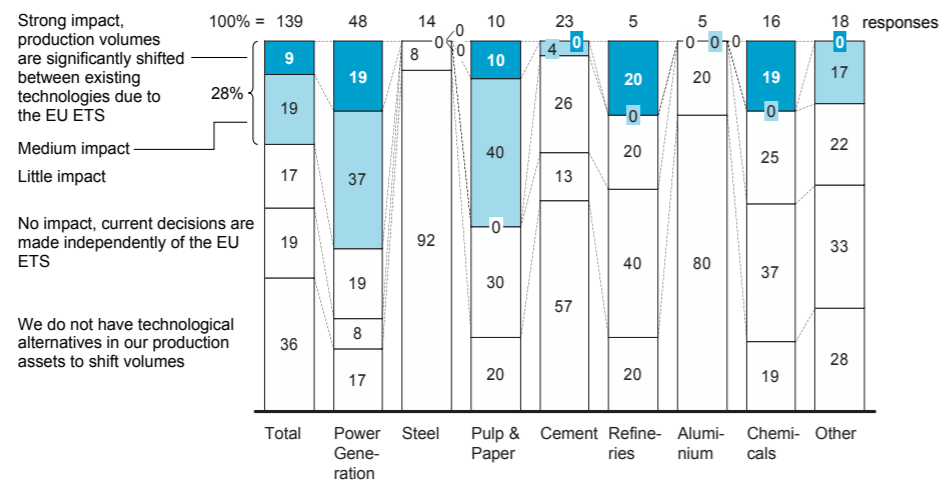
Figure 3-94: Share of autogeneration from respondents

3.13 Business impact of EU ETS on decision making

EU ETS IMPACT ON UTILIZATION OF EXISTING ASSETS

Companies

Question: Utilization of existing assets: How strong is the impact of EU ETS on shifting production volumes between different technologies of your company's existing assets?



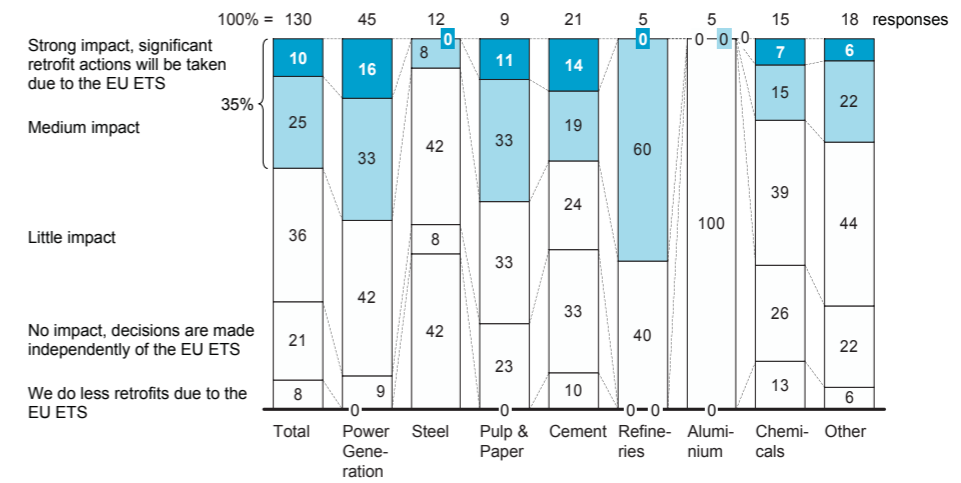
Source: Survey EU ETS Review

Figure 3-95: EU ETS impact on utilization of existing assets

EU ETS IMPACT ON RETROFIT OF EXISTING ASSETS

Companies

Question: How strong is the impact of EU ETS on retrofit actions in your company?



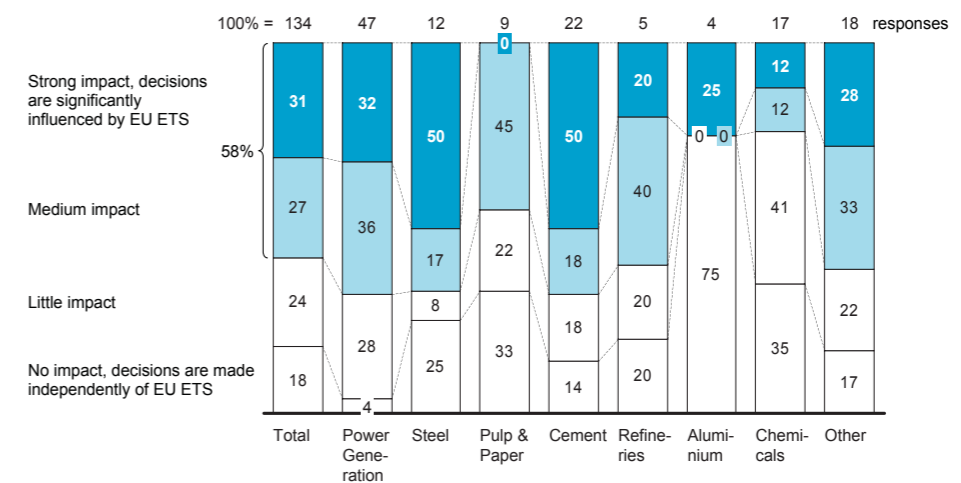
Source: Survey EU ETS Review

Figure 3-96: EU ETS impact on retrofit of existing assets

EU ETS IMPACT ON PORTFOLIO DECISIONS

Companies

Question: Portfolio change: How strong is the impact of EU ETS on technology decisions regarding expansions or replacements in your production portfolio?



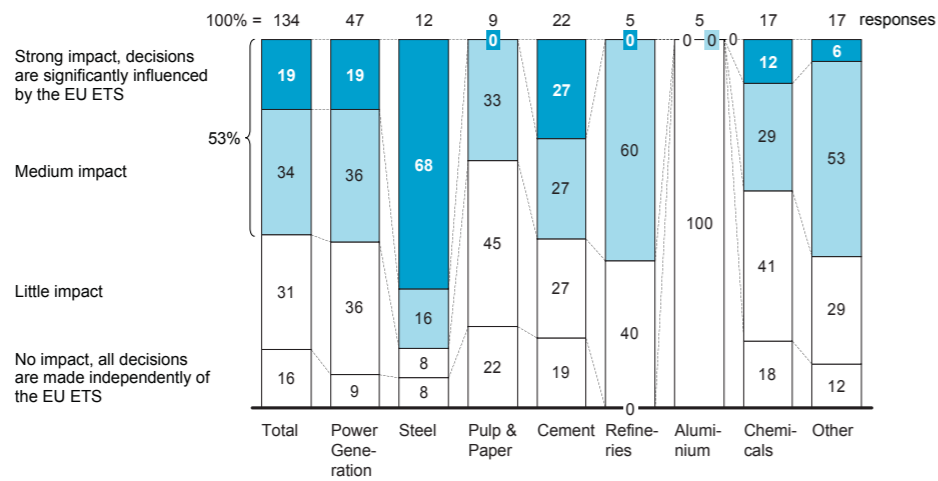
Source: Survey EU ETS Review

Figure 3-97: EU ETS impact on portfolio decisions

EU ETS IMPACT ON INNOVATION

Companies

Question: How strong is the impact of the EU ETS on decisions to develop innovative technologies in your company?



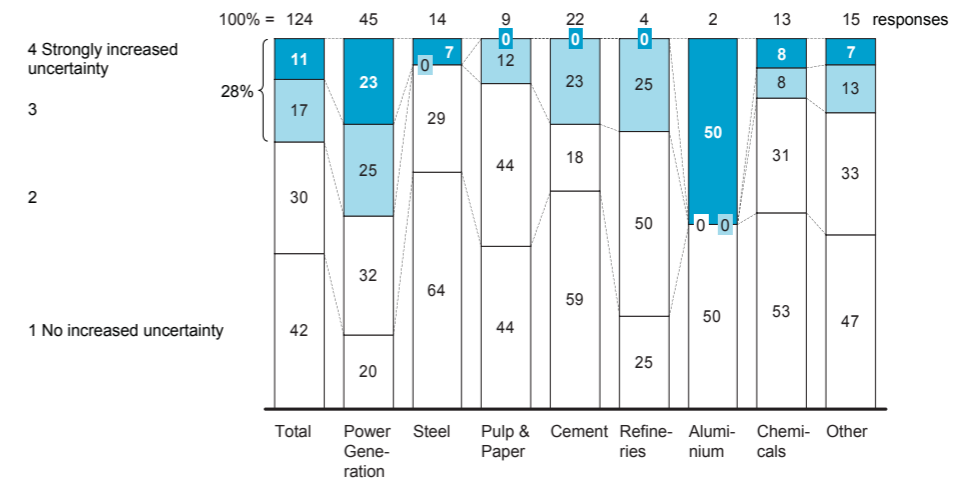
Source: Survey EU ETS Review

Figure 3-98: EU ETS impact on innovation

UNCERTAINTY IN PRODUCTION MIX DECISIONS

Companies

Question: To which degree are technological decisions in your company affected by increased mid- and long-term uncertainty due to the EU ETS? (Production mix in existing assets)



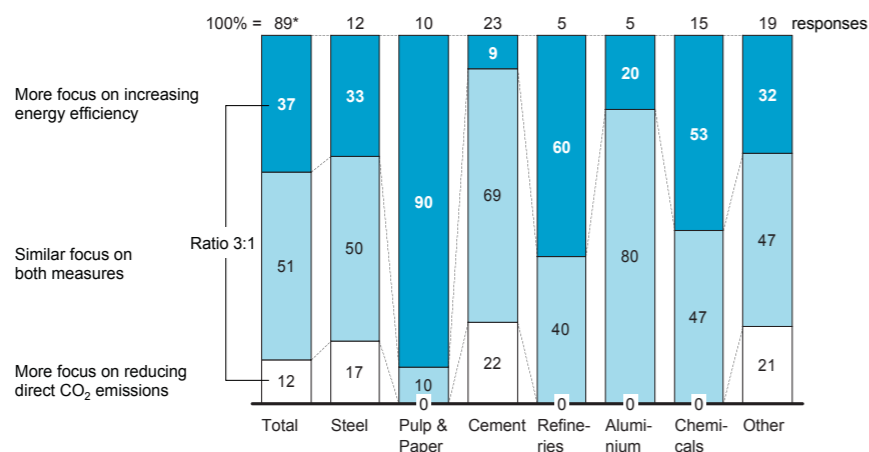
Source: Survey EU ETS Review

Figure 3-100: Uncertainty in production mix decisions

ENERGY EFFICIENCY VS. DIRECT EMISSIONS

Companies

Question: Energy efficiency: In the above-mentioned technological reactions, are you focusing more on reducing direct CO₂ emissions or on increasing energy efficiency as a consequence of (expected) energy price increase?



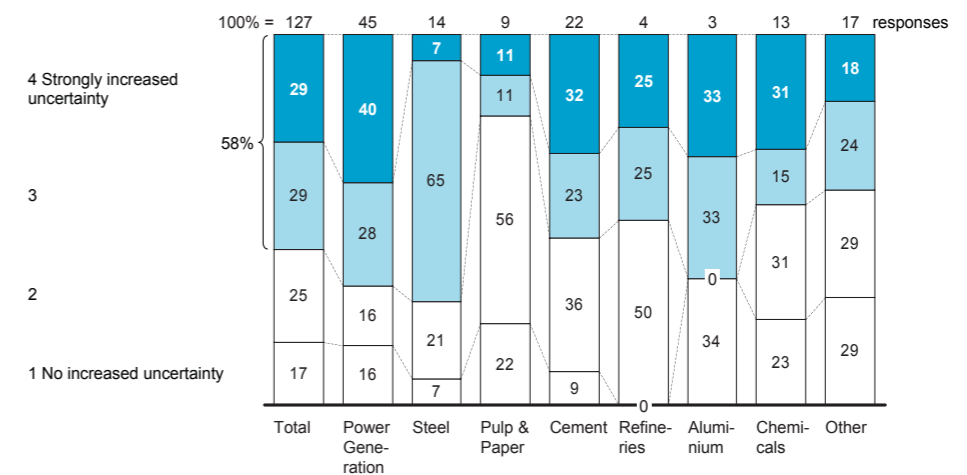
Source: Survey EU ETS Review

Figure 3-99: Energy efficiency vs. direct emissions

UNCERTAINTY IN TECHNOLOGY DECISIONS FOR PORTFOLIO EXPANSIONS AND REPLACEMENTS

Companies

Question: To which degree are technological decisions in your company affected by increased mid- and long-term uncertainty due to the EU ETS? (Technology for portfolio expansions and replacements)



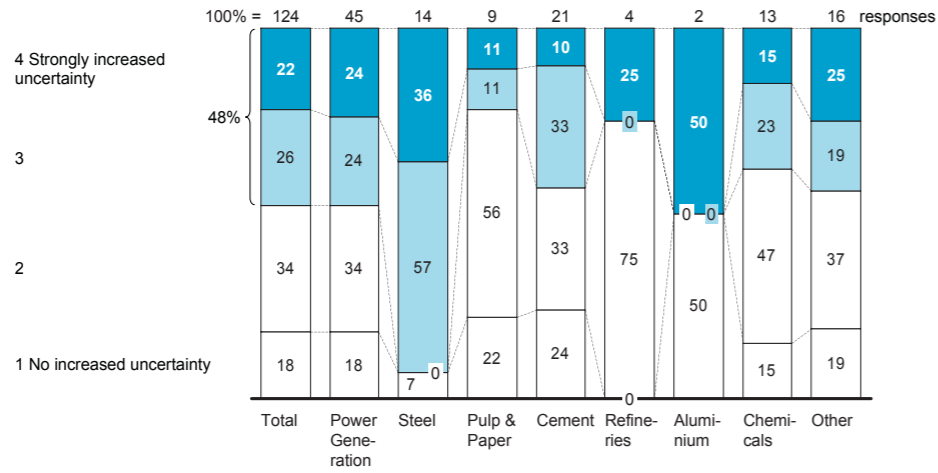
Source: Survey EU ETS Review

Figure 3-101: Uncertainty in technology decisions for portfolio expansions and replacements

UNCERTAINTY IN TECHNOLOGICAL INNOVATION DECISIONS

Companies

Question: To which degree are technological decisions in your company affected by increased mid- and long-term uncertainty due to the EU ETS? (Technological innovation)



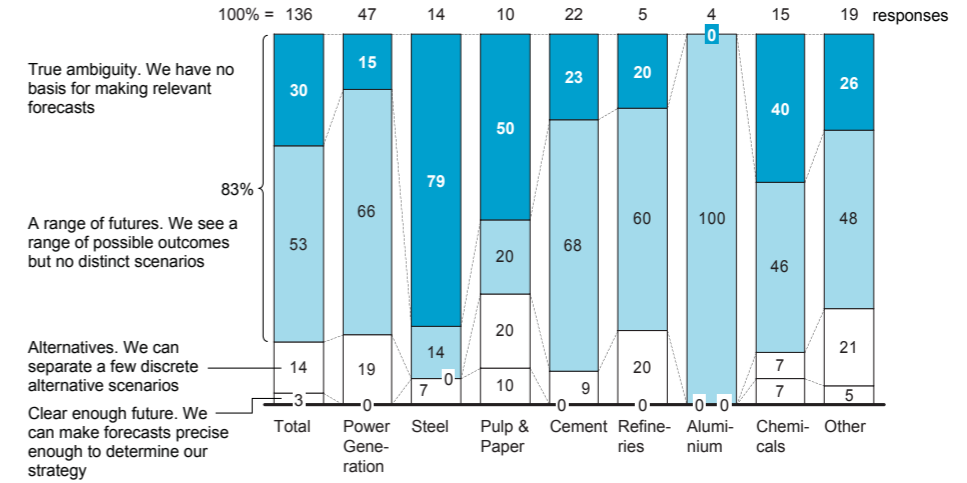
Source: Survey EU ETS Review

Figure 3-102: Uncertainty in technological innovation decisions

OVERALL UNCERTAINTY REGARDING TECHNOLOGICAL DECISIONS

Companies

Question: Overall, how would you categorise the type of uncertainty the EU ETS is creating in technological decisions?



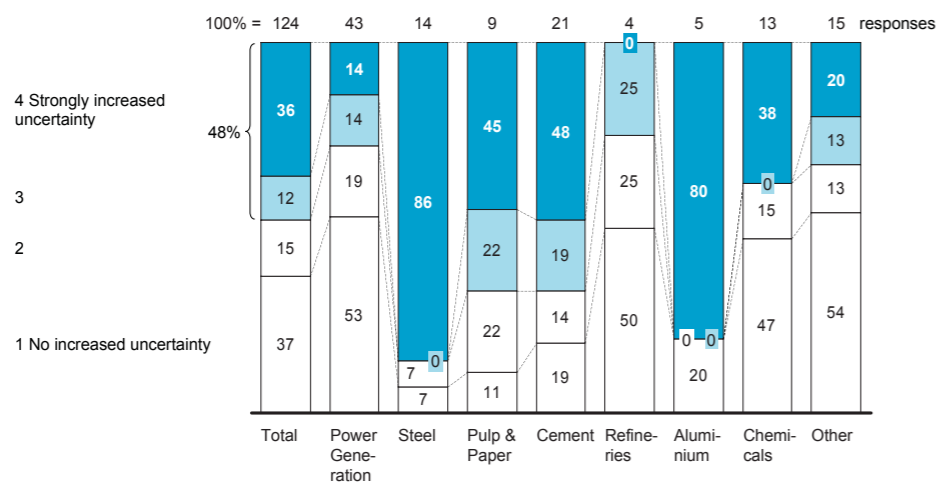
Source: Survey EU ETS Review

Figure 3-104: Overall uncertainty regarding technological decisions

UNCERTAINTY IN DECISIONS OF GEOGRAPHIC PRODUCTION LOCATION

Companies

Question: To which degree are technological decisions in your company affected by increased mid- and long-term uncertainty due to the EU ETS? (Geographic production location)



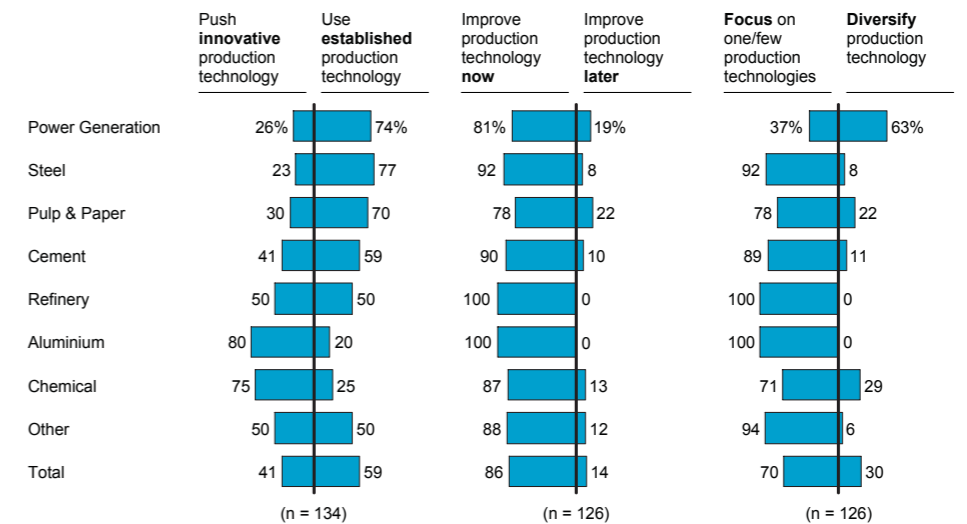
Source: Survey EU ETS Review

Figure 3-103: Uncertainty in decisions of geographic production location

GENERAL PRODUCTION TECHNOLOGY STRATEGY

Companies

Question: What best describes your general production technology strategy?



Source: Survey EU ETS Review

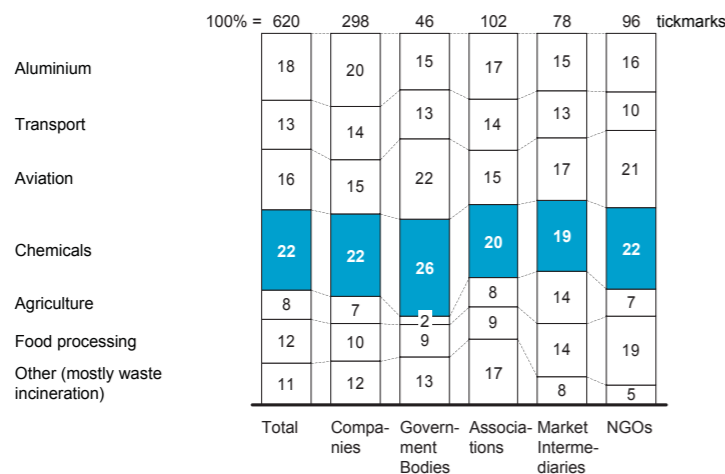
Figure 3-105: General production technology strategy

3.14 Inclusion of other sectors

OTHER SECTORS TO BE INCLUDED IN THE EU ETS (1)

All stakeholders

Question: Which other sectors should be included in the EU ETS beyond the combustion installations?
Please tickmark



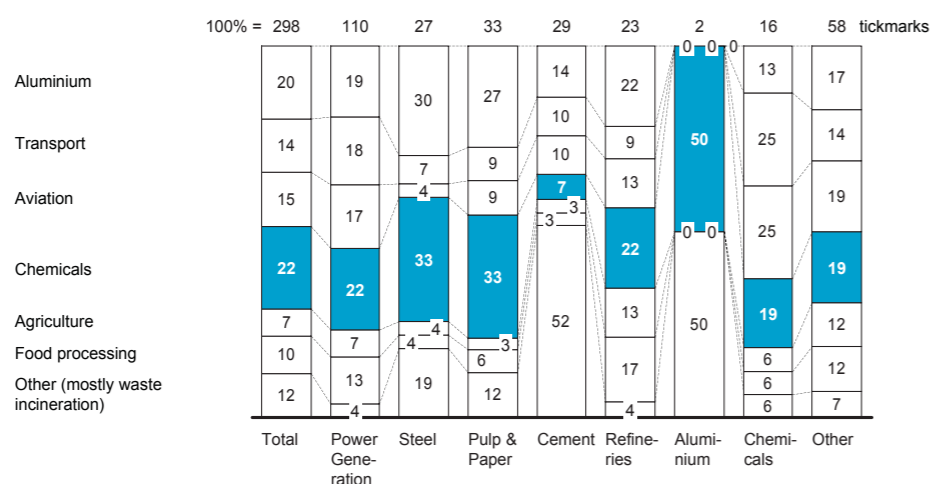
Source: Survey EU ETS Review

Figure 3-106: Other sectors to be included in the EU ETS (1)

OTHER SECTORS TO BE INCLUDED IN THE EU ETS (2)

Companies

Question: Which other sectors should be included in the EU ETS beyond the combustion installations?
Please tickmark



Source: Survey EU ETS Review

Figure 3-107: Other sectors to be included in the EU ETS (2)

APPENDIX

Many of the 307 survey respondents have permitted us to mention their organisation's name. DG Environment, McKinsey, and Ecofys would like to thank them and all other survey respondents for their contribution.

- Air Products
- Alcoa Europe
- AMI Agrolinz Melamine International
- ARCELOR
- ARJOWIGGINS
- Association française des entreprises privées
- Association of Electricity Producers
- Association of the Man-Made Fibres Industries in Germany and Austria
- Austrian Federal Economic Chamber ("Wirtschaftskammer Österreich" - "WKÖ")
- AUSTROPAPIER, Vereinigung der Österreichischen Papierindustrie
- Baker & McKenzie
- Barclays Capital
- BASF Antwerpen N.V.
- BC-Eromu Kft.
- BDI
- Böhler Edelstahl GmbH
- Borealis
- British Cement Association
- British Glass Manufacturers' Confederation
- Budapest Power Plant Ltd
- Caisse des dépôts et consignations
- CEMBUREAU
- CEMEX
- Centre for European Policy Studies (CEPS)
- Cérame-Unie
- CEZ, a.s.
- Chemical Industries Association
- Climate Action Network Europe
- Climate Focus
- Climate, Community & Biodiversity Alliance (CCBA)
- Confederation of Finnish Industries, EK
- Confederation of Danish Industries
- Confederation of Paper Industries
- Connex
- ConocoPhillips
- Department of Environment, Food & Rural Affairs
- Deutsche Bahn AG
- Dresdner Bank AG
- DSM

- DUFERCO GROUP
- E.ON UK
- E-Control GmbH
- EDF Energy
- Electricity Supply Board
- Elsam
- ELYO
- Endesa Group
- Enel Spa
- EnergieNed
- Eni S.p.A.
- ESA
- EURIMA
- EUROFER
- Eurometaux
- European Climate Exchange
- European Lime Association EULA
- Fédération de l'Industrie du Verre (FIV) - Belgian Glass Industry Federation
- Federation of Netherlands Industry VNO-NCW
- Feralpi Siderurgica Spa
- Focus Association for Sustainable Development
- Ford Motor Company
- Fortum Corporation
- French Federation of Clay Blocks and Rooftiles Producers (FFTB)
- German Brick and Tile Association
- Gmundner Zement Produktions- und Handels GmbH
- Gouvernement Français (FRANCE)
- Green Budget Germany e.V.
- GRIAN
- GRUPPO RIVA FIRE
- Hessen Ministry of Environment In Germany
- Holcim Ltd
- Hungarian Cement Association
- IBERDROLA S.A.
- Igino Emmer
- IMERYSTC
- Ineos Chlor Limited
- International Association of Oil and Gas Producers
- JC Consulting
- JEFFERSON SMURFIT GROUP
- Joanneum Research
- JSC Latvenergo
- Kiel Institute for World Economics
- KPMG
- Lafarge
- Maastricht University, metro
- Malta Environment & Planning Authority
- Mátrai Erömű Rt.

- Ministry of Environment of Mecklenburg-Vorpommern
- Norsk Hydro ASA
- N.V. EPZ
- Outokumpu Oyj
- Portucel/Soporcel Group
- Powernext SA
- Public Power Corporation S.A.
- Quinn Glass Ltd
- Rautaruukki Oyj
- RheinEnergie AG
- Rohm and Haas
- Royal Dutch Shell plc
- Saarstahl AG
- Sappi Europe SA
- Sasol Wax GmbH
- Scottish Environment Protection Agency
- SMMT
- Södar Cell AB
- Swedish District Heating Association
- T&E, the European Federation for Transport and Environment
- TERREAL
- The Environment Exchange (www.t2e.co.uk)
- The Scotch Whisky Association
- ThyssenKrupp Steel AG
- Tui uk
- Vattenfall
- VAW-IMCO Guss und Recycling GmbH
- Verband der Automobilindustrie
- Verband Deutscher Schleifmittelwerke - VDS
- VIK Verband der Industriellen Energie- und Kraftwirtschaft
- Voestalpine
- Wienerberger AG
- Wietersdorfer & Peggauer Zementwerke GmbH
- Wirtschaftsvereinigung Metalle
- Wopfinger Baustoffindustrie GmbH
- WWF European Policy Office
- Yara International
- 3C climate change consulting GmbH

