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# EU ETS: Detecting, preventing, and fighting money laundering in emissions trading

## Final report

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# EU ETS: Detecting, preventing, and fighting money laundering in emissions trading

**Final report**

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**Abstract: EU ETS – Detecting, preventing, and fighting money laundering in emissions trading**

This is a representative EU-wide study on the detection of money laundering risks in the European Emissions Trading System (EU ETS). It is based on a survey of companies active in the Union Registry and their authorized representatives.

29 EU ETS Member States and Switzerland participated in the study. The main part of the study is a web-based survey of 1,889 holders of operator and aircraft operator accounts and 222 holders of trading accounts conducted from November 2020 to February 2021. The response rate was 32.3 per cent of all account holders contacted.

Based on the information respondents provided on suspect transaction patterns, the study arrives at a projected figure of around 3,300 transaction constellations within a two-year period that give rise to a suspicion of money laundering. In about one half of these transaction constellations, the true beneficial owner may have been concealed. Nonetheless, the risk potential is likely to be much higher. Moreover, emissions trading will become considerably more attractive for money laundering due to the rising price level. If deficits in account holder compliance management persist, the risks of money laundering in the EU ETS are likely to continue to increase significantly.

Six recommendations are derived from the study: (1) software-based analysis of the Union Registry, (2) communication on risk situations and suspicious activity reports, (3) reform of the Union Registry, in particular introduction of a transaction limit for cash payments (4) transparency in the Union Registry via AML-CMS (5) web-based training by national registry administrators, (6) Follow-up survey on the development of the risk situation and of compliance management.

**Kurzbeschreibung: EU-ETS – Erkennung, Prävention und Bekämpfung von Geldwäsche im Emissionshandel**

Es handelt sich um eine repräsentative EU-weite Studie zur Erkennung der Risiken von Geldwäsche im europäischen Emissionshandelssystem (EU-ETS) auf Basis von Umfragen unter im Unionsregister aktiven Unternehmen und deren kontobevollmächtigten Personen.

Es haben 29 Mitgliedstaaten des EU-ETS sowie die Schweiz an der Studie teilgenommen. Im Hauptteil der Studie erfolgte von November 2020 bis Februar 2021 eine webbasierte Befragung von 1.889 Inhabern von Anlagen- und Luftfahrzeugbetreiberkonten und 222 Handelskonten. Die Rücklaufquote betrug bezogen auf alle angeschriebenen Kontoinhaber 32,3 %.

Auf der Basis der Angaben der Befragten zu auffälligen Transaktionsmustern gelangt die Studie zu hochgerechnet rund 3.300 Transaktionskonstellationen innerhalb von zwei Jahren, die einen Verdacht auf Geldwäsche begründen. Bei rund der Hälfte der Transaktionskonstellationen kann es sich um das Verbergen des wahren wirtschaftlich Berechtigten handeln. Das Risikopotenzial dürfte jedoch sehr viel höher sein. Der Emissionshandel wird für Geldwäsche aufgrund des mittlerweile erreichten Preisniveaus erheblich an Attraktivität gewinnen. Bei anhaltenden Defiziten im Compliance-Management der Kontoinhaber dürften die Risiken der Geldwäsche im EU-ETS weiter deutlich zunehmen.

Aus dieser Studie werden sechs Empfehlungen abgeleitet: (1) Softwaregestützte Analysen des Unionsregisters, (2) Kommunikation über Risikolagen und Verdachtsmeldungen, (3) Reformierung des Unionsregisters, insbesondere Einführung einer Transaktionsgrenze für Bargeldzahlungen (4) Transparenz im Unionsregisters über AML-CMS (5) webbasierte Schulungsmaßnahmen durch die nationalen Registerführer. (6) Follow-up Survey zur Entwicklung der Risikolage und des Compliance-Managements.

## Table of contents

## List of figures

## List of tables

## List of abbreviations

| | |
|---|---|
| **AML CMS** | Anti-money-laundering compliance-management system |
| **EEX** | European Energy Exchange |
| **EU ETS-AD** | European Union – Emission Trading System – Auction Directive |
| **EU ETS** | European Union - Emissions Trading System |
| **FATF** | Financial Task Force on Money Laundering |
| **ICE** | Intercontinental Exchange |
| **KYC** | Know Your Costumer |
| **LEI** | Legal Entity Identifier [globally unique identifier for legal entities in the financial market] |
| **MAR** | Market Abuse Regulation |
| **MiFiD** | Markets in Financial Instruments Directive |
| **OTC** | Over-the-Counter [non-exchange trading] |
| **SAR** | Suspicious Activity Report |
| **UK** | United Kingdom |

## Summary

This EU-wide study is designed to identify the risks of money laundering in the European Emissions Trading System (EU ETS) by surveying companies and their authorized representatives that are active in the Union Registry.

**Method:** The first step was to conduct 11 qualitative interviews with selected account holders. The subsequent main part of the study was a web-based survey of 1,889 installation and aircraft operator account holders and 222 trading account holders conducted from November 2020 to February 2021. A total of 29 EU ETS Member States and Switzerland participated in the study. A (net) response rate of 32.3 per cent of all account holders contacted (including multiple holders) was achieved.[1] Data from a previous study conducted in Germany in 2017 were integrated into this EU-wide study.[2]

It is therefore a representative survey that reflects the experiences and compliance management of installation and aircraft operator account holders as well as trading account holders. The results of the survey were weighted on the basis of the country-specific distribution of account holders across the EU ETS to avoid bias due to different participation rates.

**Risk situation:** The study shows that the EU ETS market is by no means low in money laundering risks. Moreover, these risks are spread relatively evenly across all emissions trading regions with only minor variations. The highest risks are in the over-the-counter (OTC) market that is of considerable importance for many installation and aircraft operators and traders.

Around 10 per cent of the account holders surveyed reported a total of 1,010 suspect transaction constellations that give rise to a suspicion of money laundering. Some of these reported only one suspect case. Nonetheless, 29 per cent of installation and aircraft operators and 67 per cent of traders reported at least five suspect cases. Trade account holders reported suspect transaction constellations relatively more frequently than operator account holders. The large number of reported multiple suspicions resulted in over 3,300 suspected cases in the two-year period (relative dark figure). However, the absolute dark figure of unnoticed transaction constellations that give rise to a suspicion of money laundering is likely to be considerably higher.

**Most frequent typology:** The greatest risk lies in concealing the true beneficial owner. About one half of the constellations of suspect transactions may involve this risk—see the (projected) case numbers for these typologies ($n_{est}$ = 1,759):

- The prospective buyer acted only as an intermediary without having her or his own trading account ($n$ = 602)
- Contact with the prospective buyer was exclusively via either an office service that organizes only return calls or a mobile phone number ($n$ = 257)
- The business purpose of the prospective buyer was unclear ($n$ = 366)
- The prospective buyer was unable to explain why she or he was trading with you rather than through the stock exchange ($n$ = 234)
- The prospective buyer preferred to pay cash ($n$ = 152)
- The prospective buyer's payment method was unusual ($n$ = 148)

[1] Even under the more favourable conditions of a web-based survey *within* companies, response rates are generally only 25–55 per cent. See Bussmann et al. (2021): *The impact of corporate culture and CMS: A cross-cultural analysis on internal and external preventive effects on corruption*. *SpringerBriefs in Business*, p. 1.

[2] German Environment Agency (2018): *Detecting money laundering in emissions trading*. Final Report.

**Compliance management:** The effects of implementing and building up an AML CMS are always twofold: first, good compliance management leads to the detection of a higher rate of compliance violations due to increased awareness and more effective control measures in the companies—as other empirical studies have shown (so called control paradox).[3] It is only in the medium term that the widespread implementation of an AML CMS in the EU ETS market will lead to deterrence as potential offenders become aware of the increased probability of detection.

The results of the study confirm the first effect. An AML CMS demonstrably increases competence in recognizing indications of money laundering (risk awareness), and it leads to more frequent due diligence measures for new customers.

However, there were clear weaknesses in both *risk awareness* and *compliance management*. Less than one half of trading account holders (46 per cent) and about one third of installation and aircraft operators (36 per cent) reported that they were able to confidently identify indications of the use of incriminated funds (risk awareness).

With regard to *compliance management*, further significant deficits were revealed—especially among smaller installation and aircraft operators. Only 17 per cent of the smaller installation and aircraft operators with compliance needs of up to 15,000 tonnes, representing 37 per cent of the sample, have a compliance officer. AML trainings (9 per cent) and risk analyses (10 per cent) are even less common in this group. In contrast, compliance officers are more common in the group of the largest operators with compliance needs of over 400,000 tonnes (43 per cent). However, AML training (24 per cent) and risk analyses (17 per cent) are also too rare here.

**Risk groups:** Results show that companies that are thought to have a less well-developed AML CMS and low risk awareness are more attractive for money laundering. Therefore, smaller installation and aircraft operators as well as traders are at increased risk of money laundering because, as the figures show so accurately, they are suspected of having greater weaknesses in terms of risk awareness and compliance management.

**Market manipulation:** In the legal systems of the countries participating in the EU ETS, market manipulation is not only a valid prior offence to money laundering, but also an activity that can diminish or even shake confidence in a capital market.

The companies surveyed view the EU ETS as a relatively small market compared to other securities markets. As a result, many respondents consider that price changes can be influenced by a few players and with relatively low volumes. Only a minority of account holders therefore considered the risks of *information- or trade-based market manipulation to* be 'close to zero' (7–10 per cent). The greatest risk was seen in trade-based market manipulation. A total of 23 per cent of installation and aircraft operators and 14 per cent of traders assessed this risk as (rather) high, and 42 per cent in both groups as moderate. Confidence in this capital market therefore appears to be dampened to this extent among some participants in the EU ETS.

**Trend**: Unless countermeasures are taken, risks in the EU ETS are not expected to decrease in the near future, especially in view of the rapidly growing market prices. Trading in emissions certificates in the EU ETS provides conditions that are not only advantageous for legal trading, but also fundamentally increase the risk of money laundering:

1. It is an easily tradable international financial product; ownership of a registered account is a prerequisite for trading, but not for fiduciary transactions

[3] Bussmann, K.-D. (2007): The control paradox and the impact of business ethics: A comparison of US and German companies, in: Bussmann, K.-D. (ed.), Crossing the borders. Economic crime from an international perspective, *Monatsschrift für Kriminologie und Strafrechtsreform*, vol. 2+3, p. 260-276; Bussmann, K.-D./Niemeczek, A. (2019): Compliance through company culture and values: An international study based on the example of corruption prevention, in: *Journal of Business Ethics*, vol. 157 (3), p. 804.

2. The security of the investment is guaranteed by the state. Emissions certificates are intangible goods that are administered by a state institution
3. The Union Registry is responsible for what is in part a relatively low transparency for both the acting account holders and the registry administrator itself. It does not allow the account holders within the Union Registry to carry out know-your-customer checks, nor does it allow the registry administrator to trace the financial settlement of the legal transactions underlying a delivery of emissions certificates

In addition to these fundamental characteristics of emissions trading, further risks arise not only from market conditions (4–6), but also from deficits in compliance management on the part of account holders (7–10)—as the results of the study show.

4. Rising market prices
5. Importance of international trade in the EU ETS
6. High money laundering risks due to intensive trading over the international OTC market
7. Generally widespread deficiencies in compliance management across the EU ETS
8. Highest risks among smaller installation and aircraft operators and trading account holders due to major compliance management deficits
9. Lack of awareness of the most common typology group: concealment of the true beneficial owner
10. Risk of market manipulation
11. System of trust accounts safeguards only against hacking, but not against money laundering risks[4]

**Outlook:** It is necessary to emphasize the dynamic price development in the EU ETS.

**Objectives:** Based on the results of the study, the following objectives are recommended to reduce money laundering risks in the EU ETS by preventing and detecting suspect cases:

- To increase the subjective risk of detection
- To increase risk awareness

On the *account holder* side, both objectives can be achieved by implementing and expanding AML compliance measures. The afore mentioned essential AML compliance measures such as a compliance officer, risk analyses, and trainings should be increased significantly, and this should focus especially on smaller companies, because they are among the preferred targets for money laundering due to their compliance deficits.

On the part of national administrators, these objectives can be achieved through the following measures that simultaneously provide incentives for implementing and expanding AML compliance measures:

### 1. Software-based analyses in the Union Registry

National registry administrations should develop software-based analysis tools with which to identify the suspect transaction patterns disclosed in this study, to investigate these in more detail, and to refine the detection of risk-related constellations.

### 2. Communication on risk situations and suspicious activity reports

If software-based analyses of the Union Registry indicate possible money laundering, a suspicious activity report (SAR) should be submitted. To enhance their external impact, SARs

[4] Trust accounts were introduced to protect against hacking. By introducing a time delay of several days before an entry on the trusted account list takes effect, the aim was to make it not only more difficult to transfer funds when an account is taken over by a hacker but also to enable hacking to be detected.

and the type of suspect circumstances (typologies) should be communicated on the websites of national registers.

### 3. Reform of the Union Registry, in particular introduction of a transaction limit for cash payments

Given an increasing number of qualitatively usable SARs, the Union Registry will need to be reformed in order to deliver greater transparency in the EU ETS for emissions certificate transactions for both registry account holders and national registry administrators.

In particular, the initiative of the EU Commission should be taken up and cash payments should be subject to a transaction limit of 10,000 Euro.[5]

### 4. Transparency in the Union Registry via AML CMS

Implementing an AML CMS serves the purpose of prevention, and it specifically raises the awareness for money laundering risks among account holders. Therefore, information on the existing AML compliance measures should be documented in the Union Registry when an account is opened or checked. Extending transparency to also cover the compliance management of all account holders will serve to build trust in emissions trading. For administrators, this information is also suitable for assessing money laundering risks.

### 5. Web-based trainings by national registry administrators

Awareness of money laundering risks in the EU ETS is largely insufficient, especially among smaller installation and aircraft operators and traders.

National registry administrators should offer web-based trainings for account holders to help to increase their awareness and enable them to submit SARs. It will be necessary to examine whether participation should be mandatory for new applicants alone or also for all account holders and their authorized representatives.

### 6. Follow-up survey on the development of the risk situation and of compliance management

This study is cross-sectional and does not allow any reliable statements on further developments. In view of the dynamic price development in the EU ETS with its expected growing attractiveness for money laundering, changes in both risks and compliance management in the entire EU ETS should be monitored in order to take appropriate countermeasures.

Therefore, a follow-up survey on the changes in the risk situation and compliance management is recommended after 3–4 years.

[5] European Commission (2017): *Proposal for an EU initiative on restrictions on payments in cash. Inception Impact Assessment.*

## Zusammenfassung

Es handelt sich um eine EU-weite Studie zur Erkennung der Risiken von Geldwäsche im europäischen Emissionshandelssystem (EU-ETS) auf Basis von Umfragen unter im Unionsregister aktiven Unternehmen und deren kontobevollmächtigten Personen.

**Methode:** Hierzu wurden im ersten Schritt 11 qualitative Interviews mit ausgewählten Kontoinhabern durchgeführt. Im Hauptteil der Studie erfolgte von November 2020 bis Februar 2021 eine webbasierte Befragung von 1.889 Inhabern von Anlagen- und Luftfahrzeugbetreiberkonten und 222 Handelskonten. Es haben 29 Mitgliedstaaten des EU-ETS sowie die Schweiz an der Studie teilgenommen. Es wurde eine (Netto)Rücklaufquote erreicht, sie betrug bezogen auf alle angeschriebenen Kontoinhaber (inkl. Mehrfachinhaberschaften) 32,3 %.[6] Die Daten aus der zuvor 2017 in Deutschland durchgeführten Studie wurde in dieser EU-weiten Studie integriert.[7]

Es handelt sich daher um eine repräsentative Befragung, die die Erfahrungen und das Compliance-Management von Inhabern von Anlagen- und Luftfahrzeugbetreiberkonten und Handelskonten abbildet. Die Ergebnisse der Befragung wurden basierend auf der länderspezifischen Verteilung der Kontoinhaber im gesamten EU-ETS gewichtet, um Verzerrungen aufgrund unterschiedlicher Teilnahmequoten zu vermeiden.

**Risikolage:** Die Studie zeigt, dass der Markt des EU-ETS keinesfalls nur geringe Geldwäscherisiken aufweist. Die Risiken streuen zudem über alle Regionen des Emissionshandels mit nur geringen Abweichungen relativ gleichmäßig. Die höchsten Risiken bestehen auf dem OTC-Markt, der für viele Anlagen- und Luftfahrzeugbetreiber und Händler eine erhebliche Bedeutung besitzt.

Rund 10% der befragten Kontoinhaber berichteten über insgesamt 1.010 auffällige Transaktionskonstellationen, die einen Verdacht auf Geldwäsche begründen. Davon berichtete ein Teil nur über einen Verdachtsfall, aber 29 % der Anlagen- und Luftfahrzeugbetreiber und 67 % der Händler berichteten über mindestens fünf Verdachtsfälle. Inhaber von Handelskonten berichteten relativ häufiger von auffälligen Transaktionskonstellationen als Inhaber von Betreiberkonten. Aufgrund der Vielzahl berichteter Mehrfachwahrnehmungen ergeben sich im Zweijahreszeitraum hochgerechnet über 3.300 Verdachtsfälle (relatives Dunkelfeld). Das absolute Dunkelfeld nicht wahrgenommener Transaktionskonstellationen, die einen Verdacht auf Geldwäsche begründen, dürfte jedoch erheblich größer sein.

**Häufigste Typologie:** Die größten Risiken bestehen im Verbergen des wahren wirtschaftlich Berechtigten. Bei rund der Hälfte der auffälligen Transaktionskonstellationen kann es sich um das Verbergen des wahren wirtschaftlich Berechtigten handeln, siehe die (hochgerechneten) Fallzahlen für diese Typologien ($n_{ges}$=1.759):

- The prospective buyer acted only as an intermediary without having his or her own trading account. (n=602)
- Contact with the prospective buyer was exclusively via either an office service that organizes only return calls or a mobile phone number. (n=257)
- Business purpose of the prospective buyer was unclear (n=366)
- The prospective buyer was unable to explain why he or she was trading with you rather than through the stock exchange. (n=234)

[6] Auch unter den günstigeren Bedingungen einer webbasierten Befragung innerhalb von Unternehmen bewegen sich die Rücklaufquoten nur zwischen 25-55 %, Bussmann et al. (2021): *The Impact of Corporate Culture and CMS. A Cross-Cultural Analysis on Internal and External Preventive Effects on Corruption*. SpringerBriefs in Business, p. 1.

[7] German Environment Agency (2018): *Detecting money laundering in emissions trading.* Final Report.

- The prospective buyer preferred to pay cash. (n=152)
- The prospective buyer's payment method was unusual. (n=148)

**Compliance-Management:** Die Auswirkungen der Implementation und Entwicklung eines AML-CMS sind immer zweifach. Zuerst führt ein gutes Compliance Management aufgrund der höheren Awareness und effektiveren Kontrollmaßnahmen in den Unternehmen zu einer höheren Aufdeckung von Compliance Verstößen, wie andere empirische Studien zeigen (sog. Kontrollparadox).[8] Erst mittelfristig führt die verbreitete Implementation eines AML-CMS im EU-ETS Markt zu einer Abschreckung, da sich die Entdeckungswahrscheinlichkeit aus Sicht potenzieller Täter erhöht hat.

Die Ergebnisse der Studie belegen den ersten Effekt. Ein AML-CMS erhöht nachweislich die Kompetenz Hinweise auf Geldwäsche erkennen zu können (Risk Awareness) und führt zu häufigeren Sorgfaltsmaßnahmen bei Neukunden.

Allerdings zeigten sich deutliche Schwächen sowohl hinsichtlich der *Risk Awareness* als auch des *Compliance-Managements*. Weniger als die Hälfte der Inhaber von Handelskonten (46 %) und etwa ein Drittel der Anlagen- und Luftfahrzeugbetreiber (36 %) gaben an, Anhaltspunkte, die auf das Verwenden inkriminierter Gelder deuten können, sicher erkennen zu können (Risk Awareness).

Hinsichtlich des *Compliance-Managements* zeigten sich weitere erhebliche Defizite, insbesondere bei kleineren Anlagen- und Luftfahrzeugbetreibern. Nur 17 % der kleineren Anlagen- und Luftfahrzeugbetreiber mit einem Compliance Bedarf von bis zu 15.000 Tonnen, die 37 % der Stichprobe ausmachen, verfügen über einen Compliance Officer. Noch seltener sind in dieser Gruppe AML-Schulungen (9 %) und Risikoanalysen (10 %) . Demgegenüber sind in der Gruppe der größten Betreiber mit einem Compliance Bedarf von über 400.000 Tonnen Compliance Officer eher verbreitet (43 %). AML-Schulungen (24 %) und Risikoanalysen (17 %) sind allerdings auch hier zu selten vorhanden.

**Risikogruppen:** Unternehmen mit einem vermuteten schwächer entwickelten AML-CMS und geringer Risk Awareness sind den Ergebnissen zufolge für Geldwäsche attraktiver. Daher bestehen bei kleineren Anlagen- und Luftfahrzeugbetreibern und Händlern erhöhte Geldwäscherisiken, da bei ihnen, wie die Zahlen zutreffender Weise zeigen, größere Schwächen in der Risk Awareness und im Compliance-Management vermutet werden.

**Marktmanipulation:** Bei der Marktmanipulation handelt es sich bei den Rechtsordnungen der am EU-ETS teilnehmenden Länder nicht nur um eine taugliche Vortat der Geldwäsche, sondern auch um eine Handlung, die das Vertrauen in einen Kapitalmarkt schmälern oder sogar erschüttern kann.

Aus Sicht der befragten Unternehmen handele es sich beim EU-ETS im Vergleich zu anderen Wertpapiermärkten, um einen relativ kleinen Markt, dessen Preisentwicklung nach Meinung vieler Befragter durch wenige Akteure und mit relativ geringen Volumen beeinflusst werden kann. Nur eine Minderheit der Kontoinhaber beurteilte daher die Risiken einer *informations- oder handelsgestützten Marktmanipulation* als „nahezu gleich null" (7 % bis 10 %). Das größte Risiko wurde bei der handelsgestützten Marktmanipulation gesehen. 23 % der Anlagen- und Luftfahrzeugbetreiber und 14 % der Händler beurteilten das Risiko als (eher) hoch und 42 % in

[8] Bussmann, K.-D. (2007): *The Control-Paradox and the impact of business ethics: A Comparison of US and German Companies,* in: Bussmann, K.-D. (Hrsg), *Crossing the Borders. Economic Crime from an International Perspective*, Monatsschrift für Kriminologie und Strafrechtsreform, vol. 2+3, p. 260-276; Bussmann, Kai-D./Niemeczek, A. (2019): *Compliance Through Company Culture and Values: An International Study Based on the Example of Corruption Prevention*, in: Journal of Business Ethics, vol. 157 (3), p. 804.

beiden Gruppen als moderat. Das Vertrauen in diesen Kapitalmarkt scheint daher bei einem Teil der Teilnehmer im EU-ETS insoweit getrübt.

**Entwicklung**: Mit einem Abnehmen der Risiken im EU-ETS ist in nächster Zukunft nicht zu rechnen, insbesondere angesichts des schnell wachsenden Marktes, falls nicht Gegenmaßnahmen ergriffen werden. Der Handel mit Emissionszertifikaten im EU-ETS gewährt Eigenschaften, die nicht nur für den legalen Handel von Vorteil sind, sondern grundsätzlich auch das Risiko der Geldwäsche erhöhen:

1. Es handelt sich um leicht handelbares internationales Finanzprodukt, Inhaberschaft eines Registerkontos ist zwar Voraussetzung für den Handel, aber nicht für Treuhandgeschäfte.
2. Die Sicherheit der Geldanlage wird durch den Staat garantiert. Emissionszertifikate sind immaterielle Güter, die von einer staatlichen Institution verwaltet werden.
3. Das Unionsregister gewährleistet teilweise relativ geringe Transparenz sowohl für die handelnden Kontoinhaber als auch für die Administratoren des Registerführers selbst. Dadurch erlaubt es weder den Kontoinhabern innerhalb des Unionsregisters Know-Your-Customer Checks durchzuführen noch der Registerverwaltung, die finanzielle Abwicklung der Rechtsgeschäfte hinter einer Lieferung von Emissionszertifikaten nachzuvollziehen.

Zu diesen grundlegenden Eigenschaften des Handels mit Emissionszertifikaten kommen weitere Risiken hinzu, die sich aus Bedingungen des Marktes (4-6), aber auch aus Defiziten im Compliance-Management der Kontoinhaber (7-10) ergeben wie die Ergebnisse der Studie zeigen.

4. Steigende Marktpreise.
5. Bedeutung des internationalen Handels im EU-ETS.
6. Hohe Geldwäscherisiken durch intensiven Handel über den internationalen OTC Markt. .
7. Generell verbreitete Defizite im Compliance-Management im gesamten EU-ETS.
8. Höchste Risiken bei kleineren Anlagen- und Luftfahrzeugbetreiber und Inhaber von Handelskonten aufgrund erheblicher Defizite im Compliance-Management.
9. Fehlende Awareness gegenüber der häufigsten Typologiegruppe: Verbergen der wahren wirtschaftlichen Berechtigten.
10. Risiko der Marktmanipulation.
11. System der Vertrauenskonten sichert nur gegen Hacking, nicht aber gegen Geldwäscherisiken ab.[9]

**Ausblick:** Hervorzuheben ist die dynamische Preisentwicklung im EU-ETS..

**Ziele:** Zur Reduzierung der Geldwäscherisiken im EU-ETS werden auf Basis der Ergebnisse der Studie die Verfolgung folgender Ziele empfohlen, die der Prävention und Aufdeckung von Verdachtsfällen dienen:

- Erhöhung des subjektiven Entdeckungsrisikos
- Erhöhung der Risk Awareness

Auf Seiten der *Kontoinhaber* können beide Ziele durch Implementation und Ausbau von AML-Compliance-Maßnahmen erreicht werden. Die genannten essentiellen AML-Compliance-Maßnahmen wie Compliance Officer, Risikoanalysen und Schulungen sollten insbesondere bei kleineren Unternehmen deutlich erhöht werden, da sie aufgrund ihrer Compliance Defizite zu den bevorzugten Zielen für Geldwäsche gehören.

[9] Vertrauenskonten wurden als Schutz vor Hacking eingeführt. Durch eine zeitliche Verzögerung von mehreren Tagen vor dem Wirksamwerden eines Eintrags auf der Vertrauenskontenliste sollte das Wegtransferieren bei Übernahme des Kontos durch einen Hacker erschwert und die Entdeckung des Hacking ermöglicht werden.

Auf Seiten der *Registerverwaltungen* können diese Ziele durch folgende Maßnahmen erreicht werden, die zugleich Anreize zur Implementation und dem Ausbau von AML-Compliance-Maßnahmen geben:

**7. Softwaregestützte Routineanalysen im Unionsregister**

Den nationalen Registerverwaltungen wird die Entwicklung softwaregestützter Analysetools empfohlen, um die in dieser Studie benannten auffälligen Transaktionsmuster zu identifizieren, näher zu untersuchen und risikobehaftete Muster zu verfeinern.

**8. Kommunikation über Risikolagen und Verdachtsmeldungen**

Soweit softwaregestützte Analysen des Unionsregisters Anhaltspunkte auf eine mögliche Geldwäsche geben, sollte eine Verdachtsmeldung erfolgen. Zur Unterstützung der Außenwirkung sollten auf den Internetseiten der nationalen Register die Verdachtsmeldungen und die Art der Verdachtsmerkmale (Typologien) kommuniziert werden.

**9. Reform des Unionsregisters, insbesondere Einführung einer Transaktionsgrenze für Barzahlungen**

Für eine wachsende Anzahl qualitativ verwertbarer Verdachtsmeldungen bedarf es einer Reformierung des Unionsregisters, um die Transparenz im EU-ETS bei Transaktionen von Emissionszertifikaten sowohl für Inhaber von Registerkonten als auch für die nationalen Registerverwaltungen zu erhöhen.

Insbesondere wird die Initiative der EU-Kommission aufgegriffen und eine Transaktionsgrenze für Bargeldzahlungen in Höhe von 10.000 Euro vorgeschlagen[10].

**10. Transparenz im Unionsregisters über AML-CMS**

Die Implementation eines AML-CMS dient der Prävention und speziell der Sensibilisierung der Kontoinhaber gegenüber den Geldwäscherisiken. Aus diesem Grund empfiehlt es sich, dass die Informationen über vorhandene AML-Compliance-Maßnahmen bei der Kontoeröffnung oder Kontoprüfung in das Unionsregister eingetragen werden. Transparenz auch hinsichtlich des Compliance-Managements aller Kontoinhaber dient dem Vertrauen in den Emissionshandel. Für die Administratoren eignen sich diese Informationen zudem zur Beurteilung von Geldwäscherisiken.

**11. Webbasierte Schulungsmaßnahmen durch die nationalen Registerführer**

Die Risk Awareness hinsichtlich der Geldwäscherisiken im EU-ETS ist großenteils unzureichend, insbesondere bei kleineren Anlagen- und Luftfahrzeugbetreibern und Händlern.

Ein Angebot der nationalen Registerführer zu webbasierten Schulungen der Kontoinhaber kann zur Erhöhung der Awareness beitragen und zur Abgabe von Verdachtsmeldungen befähigen. Zu prüfen wird sein, ob eine Teilnahme nur für Neuantragsteller oder auch für alle Kontoinhaber und ihre kontobevollmächtigten Personen verpflichtend sein soll.

**12. Follow-up Survey zur Entwicklung der Risikolage und des Compliance-Managements**

Bei dieser Studie handelt es sich um eine Querschnittstudie, die keine belastbaren Aussagen über die weitere Entwicklung erlaubt. Angesichts der dynamischen Preisentwicklung im EU-ETS mit zu erwartender wachsender Attraktivität für Geldwäsche sollte daher die sowohl die Entwicklung der Risiken als auch des Compliance-Managements im gesamten EU-ETS verfolgt werden, um geeignete Gegenmaßnahmen zu treffen.

[10] European Commission (2017): Proposal for an EU initiative on restrictions on payments in cash. Inception Impact Assessment.

Es wird daher nach 3-4 Jahren eine Follow-up Survey zur Entwicklung der Risikolage und des Compliance-Managements empfohlen.

# 1 Methods

The study applies a mixture of methods. The qualitative interviews with a small sample of account holders serve primarily to gain a greater understanding of transnational emissions trading. The large-scale standardized survey of account holders permits representative statements on their experiences and their compliance management in the EU ETS.

## 1.1 Semi-structured interviews with account holders

**Participation of Member States**

During the milestone planning, principal and contractor agreed that the registry administration of each country would propose 2–4 respondents who, in their estimation, would be suitable for interviews on the possible risks of money laundering in emissions trading. These should be either installation or aircraft operator account holders who also have trading accounts but also independent traders and financial institutions active in emissions trading.

Specifications were to include all members of the EU ETS and Switzerland—hence, a total of 28 Member States, 3 associated countries (Liechtenstein, Iceland, Norway), and Switzerland. All EU ETS Member States and Switzerland participated in the study, with two exceptions:

- The national registry administrator in the UK declined to participate in the study when asked, even though the UK was still a member state of the EU ETS at the time of the study.
- Liechtenstein did not participate due to the low number of EU ETS accounts.

The outcome was that 15 national registry administrations suggested 33 account holders as interview partners. In some cases, registry administrations recommended several persons within a single company. A reminder was sent to all suggested contacts by email about 4 weeks later after the initial request.

**Response rate**

The research plan was to conduct 16–20 semi-structured interviews with installation operators from different sectors as well as traders participating in the EU ETS that are managed by a registry administration in the EU ETS (excluding Germany). If all participating 30 countries had proposed an average of three companies ($n$ = 90), this would have resulted in about 18 interviews given a response rate of 20 per cent. A total of 11 interviews were realized.

In some cases, account holders who had already been informed in advance about the interviews by their registry administrator and had agreed to participate in principle did not respond to the request.

An additional research plan to win over, in particular, independent traders and financial institutions as interview partners was only a limited success (Appendix 2, Table 25). The research was guided by the Annual Market Rankings and the ranking of companies in the Voluntary Carbon Markets Rankings of Environmental Finance.[11]

[11] Voluntary Carbon Markets Rankings of Environmental Finance (2020). available at: https://www.environmental-finance.com/content/awards/

**Special problem: banks**

Five international banks were contacted. None of the banking institutions and consultancies contacted responded to enquiries, although, to the best of the researchers' knowledge, a very large share of OTC trading takes place via these financial institutions. The prior German study of 2018 was also unable to recruit any financial institutions for an interview.

**Response rate**

The response rate in relation to a total of 43 requested account holders was around 25 per cent and can be considered satisfactory in comparison to other business surveys.

**Procedure**

An English-language guide was used. This structured the questions for the interview while simultaneously allowing a maximum of freedom in answering them. Nine interviews were conducted digitally via the ZOOM platform as a video conference by the project leader together with his assistant Ms Schimanski, a lawyer familiar with the topic of money laundering.

The guidelines sent out in advance were answered twice in writing. One interviewee, who initially agreed to participate, did not reply after receiving the guidelines in preparation for the interview, despite repeated reminders.

The following industries were represented: energy supply (5), (mineral) oil refinery (2), packaging industry, air traffic, and steel production. In addition, one independent trader was interviewed.

Hence, a sector-specific spread of system operators was achieved. All account holders surveyed (also) had a trading account.

## 1.2 Web-based survey in the EU ETS

The second step, as in the prior study in Germany, was to design a classic dark figure study to collect representative data on the risks and the risk awareness of account holders by means of a web-based survey.

After consultation with the German Environment Agency (UBA), two tried and tested questionnaires were used following the previous German study from 2017. As before, there was a questionnaire version for trading account holders (traders) and one for operator and aircraft operator accounts (without a trading account) that were grouped together as non-traders (see questionnaires, Appendix 1).

For reasons of comparability, the questionnaires were kept largely the same as the two questionnaires from the previous study. However, they were shortened and revised in isolated cases. This particularly involved deleting open unstructured questions in view of the expected high number of participants.

The questionnaires were offered in two and sometimes three languages: both in English as the standard language and in national languages. A few countries limited themselves to English. With few exceptions, translations into the national languages were done by the national registry administrators.

**Participation of the Member States**

Coordination with the registry administrators of the participating countries was carried out by the German Environment Agency (UBA). National registry administrators sent a link to the online questionnaire to all account holders with an e-mail that was individualized for each country. This was accompanied by a detailed cover letter on the content and aim of the study.

The online survey started in Portugal on 29.10.2020. By the end of 2020, almost all EU ETS Member States had been reached. Bulgaria and Romania could only participate in the survey in January 2021. The online survey was closed on 15.02.2021.

### Response rate

The EU ETS study also integrates data from the German study in 2017. A total of 20,728 e-mails were sent with the link to the online survey. Table 1 shows all characteristics of the sample for this study.

> Account holders could also have multiple mail addresses, but were advised in the cover letter that only one authorized person per account should complete the online questionnaire at any one time to avoid multiple responses. Among the contact addresses, 1,183 contact attempts (5.7 per cent) were unsuccessful and returned as undeliverable.

The total sample of persons contacted in the EU ETS study in 2020–21 includes 6,530 account holders, of which 4,998 are installation operator holding account, 433 are aircraft operator holding accounts, 549 are person holding accounts, and 550 are trading accounts. Some holders of trading accounts are registered for several account types.[12] In Switzerland, there was no subdivision into different account types as in the EU ETS. The data from the 2017 study in Germany were subsequently integrated into the entire sample, resulting in a total of 7,981 account holders from the entire EU ETS area.

**Table 1: Participants 2020–21 (EU ETS) and 2017 (Germany)**

| | EU ETS Study 2020–21 | Germany 2017 | Total |
|---|---|---|---|
| Addresses contacted via e-mail | 16,876 | 3,852 | 20,728 |
| Undeliverable | 983 (5.8%) | 200 (5.2%) | 1,183 (5.7%) |
| Account holders (incl. multiple holders) | 6,530 | 1,451 | 7,981 |
| **Holder of:** | | | |
| Installation operator holding accounts | 4,998 | 917 | 5,915 |
| Aircraft operator holding accounts | 433 | 167 | 600 |

[12] If there was a trading account alongside another account type, participants were always asked to complete the questionnaire for traders in order to gain as many participants as possible in this group.

| | EU ETS Study 2020–21 | Germany 2017 | Total |
|---|---|---|---|
| Person holding accounts | 549 | 251 | 800 |
| Trading accounts | 550 | 116 | 666 |

**Net sample**

A total of 3,354 account holders participated in both studies. Nonetheless, some participants stopped answering after the first 2–3 questions. As a result, only 2,349 usable questionnaires (70.0 per cent) could be included in the data analysis. All percentages in the following analyses therefore refer to valid responses ($n_{\min}$).

A high (net) response rate was achieved in the 2020–21 EU ETS study, amounting to 32.3 per cent (median 27.5 per cent) of all account holders contacted (including multiple holders).[13] Including the prior study in Germany from 2017 lowers the response rate slightly to 29.4 per cent overall.

For non-traders, the response rate in the EU ETS study was 32.3 per cent; and among account holders who also had a trader account, it was as high as 40.4 per cent (for details, see Table 2).

**Table 2: Response rate**

| | EU ETS Study 2020–21 | Germany 2017 | Total |
|---|---|---|---|
| **Net response of usable questionnaires** | | | |
| Total | 2,111 (32.3%) | 238 (16.4%) | 2,349 (29.4%) |
| - Non-trader accounts | 1,889 (31.6%) | 202 (15.1%) | 2,091 (28.6%) |
| - Trading accounts | 222 (40.4%) | 36 (31.0%) | 258 (38.7%) |

## 1.3 Participating countries

Twenty-nine member states of the EU ETS and Switzerland participated in the study. Evaluations were grouped according to four sub-regions in Europe, because, in many cases, samples are too small to make country-specific statements.

The following table shows the number of participants in each country and region.

[13] Even under the more favourable conditions of a web-based survey *within* companies, response rates are only 25–55 per cent, Bussmann, K.-D. et al. (2021): *The impact of corporate culture and CMS: A cross-cultural analysis on internal and external preventive effects on corruption. SpringerBriefs in Business*, p. 1.

**Table 3: Distribution of the net sample in the EU ETS by region and country***

| | Countries | Western Europe | Southern Europe | Northern Europe | Central and Eastern Europe |
|---|---|---|---|---|---|
| 1. | Austria | 35 | | | |
| 2. | Belgium | 60 | | | |
| 3. | Bulgaria | | | | 49 |
| 4. | Croatia | | | | 7 |
| 5. | Cyprus | | 6 | | |
| 6. | Czech Republic | | | | 68 |
| 7. | Denmark | | | 79 | |
| 8. | Estonia | | | | 20 |
| 9. | Finland | | | 6 | |
| 10. | France | 502 | | | |
| 11. | Germany (2017) | 238 | | | |
| 12. | Greece | | 45 | | |
| 13. | Hungary | | | | 36 |
| 14. | Iceland | | | 14 | |
| 15. | Ireland | 6 | | | |
| 16. | Italy | | 373 | | |
| 17. | Latvia | | | | 21 |
| 18. | Lithuania | | | | 36 |
| 19. | Luxembourg | 9 | | | |
| 20. | Malta | | 11 | | |
| 21. | Netherlands | 59 | | | |
| 22. | Norway | | | 40 | |
| 23. | Poland | | | | 211 |
| 24. | Portugal | | 32 | | |
| 25. | Romania | | | | 92 |

| | Countries | Western Europe | Southern Europe | Northern Europe | Central and Eastern Europe |
|---|---|---|---|---|---|
| 26. | Slovakia | | | | 31 |
| 27. | Slovenia | | | | 41 |
| 28. | Spain | | 149 | | |
| 29. | Sweden | | | 54 | |
| 30. | Switzerland | 19 | | | |
| **Regional total** | | **928** | **616** | **193** | **612** |
| **Total *n* = 2,349** | | | | | |

* Liechtenstein and UK did not participate.

## 1.4 Participating trading accounts

The evaluation distinguishes holders of installation and aircraft operator accounts from holders of trading accounts. The group of installation and aircraft operators formed here does not have a trading account. This is by far the largest group ($n$ = 2,091).

The group of trading account holders is much smaller ($n$ = 258). It also includes companies that have opened a trading account in addition to their installation and aircraft operator account. In detail, the two groups are distributed across the four regions as follows:

**Table 4: Net sample in the survey by regions in the EU ETS (unweighted)**

| | Western Europe | Southern Europe | Northern Europe | Central and Eastern Europe | Total |
|---|---|---|---|---|---|
| Total | 928 (40%) | 616 (26%) | 193 (8%) | 612 (26%) | 2,349 (100%) |
| | | | | | |
| - Non-trader accounts | 818 (39%) | 558 (27%) | 168 (8%) | 547 (26%) | 2,091 (100%) |
| - Trading accounts | 110 (43%) | 58 (22%) | 25 (10%) | 65 (25%) | 258 (100%) |

The holders of trading accounts ($n_{total}$ = 258) can be either installation or aircraft operators who also have a trading account ($n$ = 137) or so-called free traders and banks and financial institutions ($n$ = 121) who, in addition to the trading account, may have a person holding account in the EU registry ($n$ = 55) or in the Kyoto registry ($n$ = 23). We refer to this group of traders without an operator and aircraft operator holding account as 'pure traders'.

**Table 5: Focus: Trading accounts by regions (unweighted)**

| | Western Europe | Southern Europe | Northern Europe | Central and Eastern Europe | Total |
|---|---|---|---|---|---|
| Trading account | 110 (43%) | 58 (22%) | 25 (10%) | 65 (25%) | 258 (100%) |
| | | | | | |
| - Trader account and installation/aircraft account | 61 (44%) | 21 (15%) | 9 (7%) | 46 (34%) | 137 (100%) |
| - Pure traders | 49 (40%) | 37 (31%) | 16 (13%) | 19 (16%) | 121 (100%) |

## 1.5 Representativeness and weighting

This is a representative study for the following reasons:

1. Twenty-seven Member States of the EU ETS and the associated countries Norway and Iceland as well as Switzerland participated in the study, making it almost a full survey (Section 1.3).
2. *No* account holders were excluded systematically in the participating countries. All account holders were contacted and asked to participate (Section 1.2).
3. Participation was very high in terms of both countries and account holders (Section 1.2). The participation of countries corresponds to a full survey and the net response rate of account holders in the EU ETS study was 32.3 per cent (median 27.5 per cent).
4. Responses were evaluated proportionate to the actual share of trading account holders and installation and aircraft operator holding accounts in the respective country (see weighting below).

### Weighting

The results of the survey were weighted according to the country-specific distribution of account holders across the EU ETS in order to avoid distortions arising from different participation rates. The weighting factor was based on information provided by each national registry administrator. Within the two comparison groups—trading accounts and non-trading accounts—different weightings were applied.

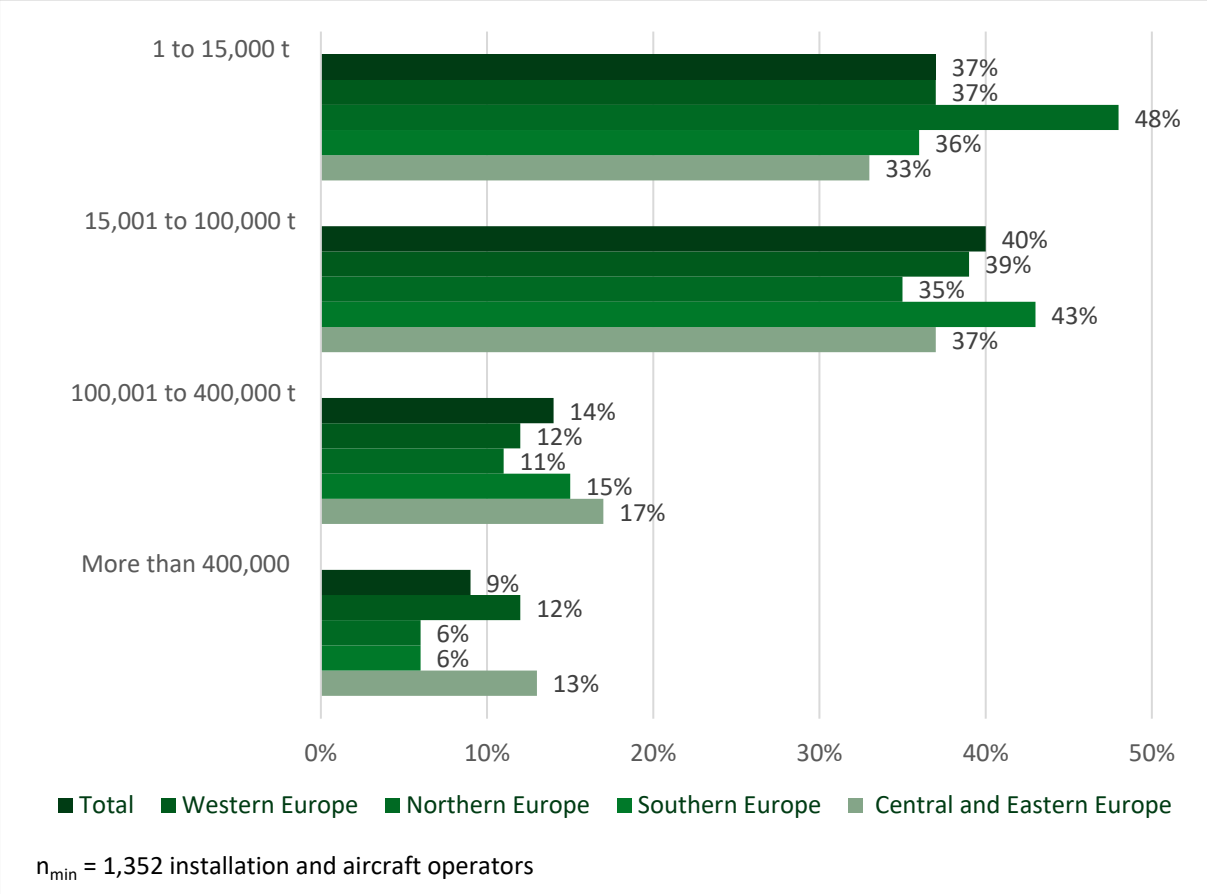
Hence, results from individual countries are included in the overall result proportionate to their actual share of trading and non-trading accounts in the EU ETS.

# 2 Sample characteristics

More than one third (37 per cent) of the surveyed installation and aircraft operators reported being companies with a low verified annual compliance need of less than 15,000 tonnes. Most of these are likely to be small or medium-sized companies.

For 40 per cent, the compliance need reaches 15,000 to 100,000 tonnes. The compliance need exceeds 400,000 tonnes for only one in ten (9 per cent) installation or aircraft operators.[14]

**Figure 1: Compliance needs of companies in their country in 2019**




Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

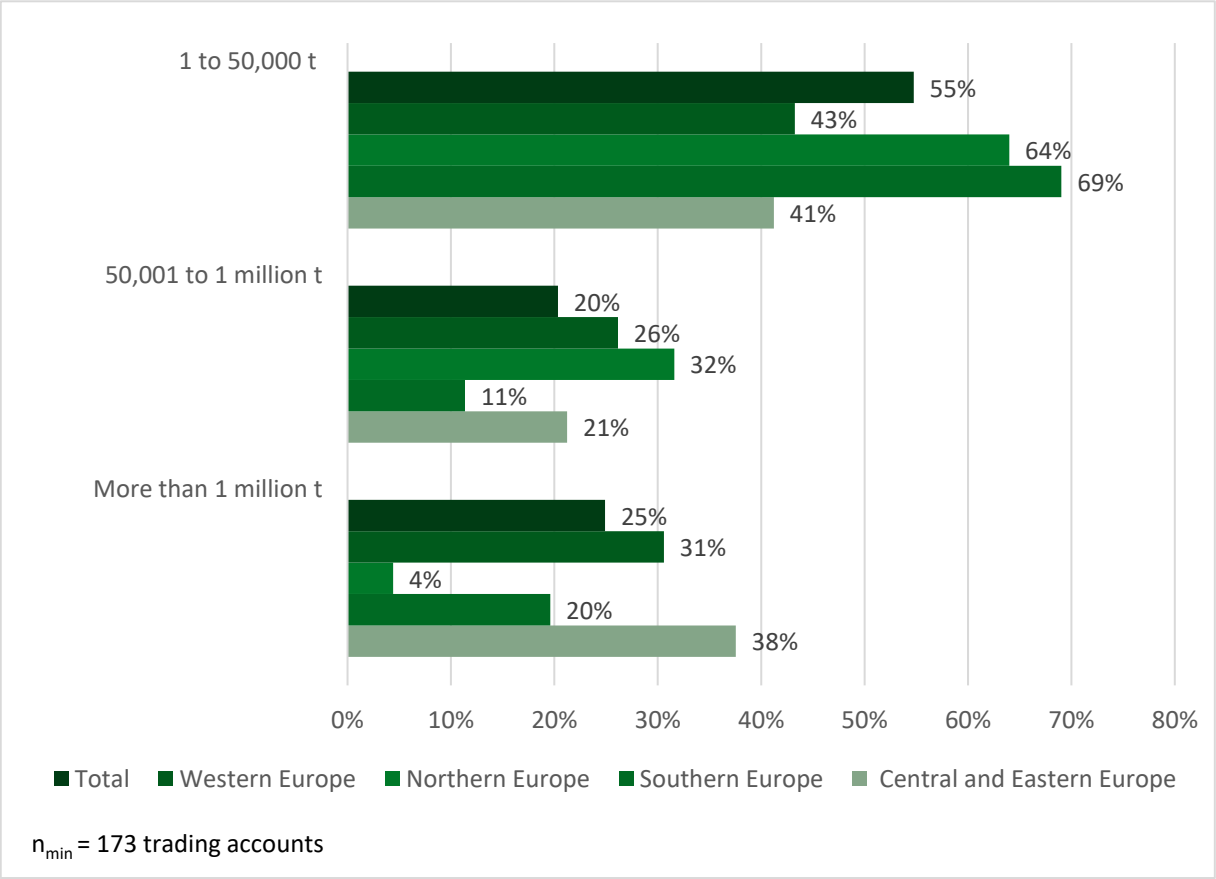
With some exceptions, there are no major differences in compliance needs between the four regions in the EU ETS. However, account holders in Northern Europe, for example, reported significantly lower compliance needs, with almost one half (48 per cent) of Northern European companies having verified compliance needs of less than 15,000 tonnes. A high need for more than 400,000 tonnes is reported mainly by companies in Western Europe and in Central and Eastern Europe (12 per cent and 13 per cent respectively).

One in two (55 per cent) trading accounts in the EU ETS are used only on a small scale with up to 50,000 tonnes being traded; but for one quarter of traders (25 per cent), the trading volume exceeds one million tonnes in a year. This group of larger traders is found in all regions, but least

[14] Compliance needs were not surveyed in the study in Germany (2017).

frequently in Northern Europe (4 per cent) and most frequently in Central and Eastern Europe (38 per cent).

**Figure 2: Volume of certificates traded by traders in 2019**




Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

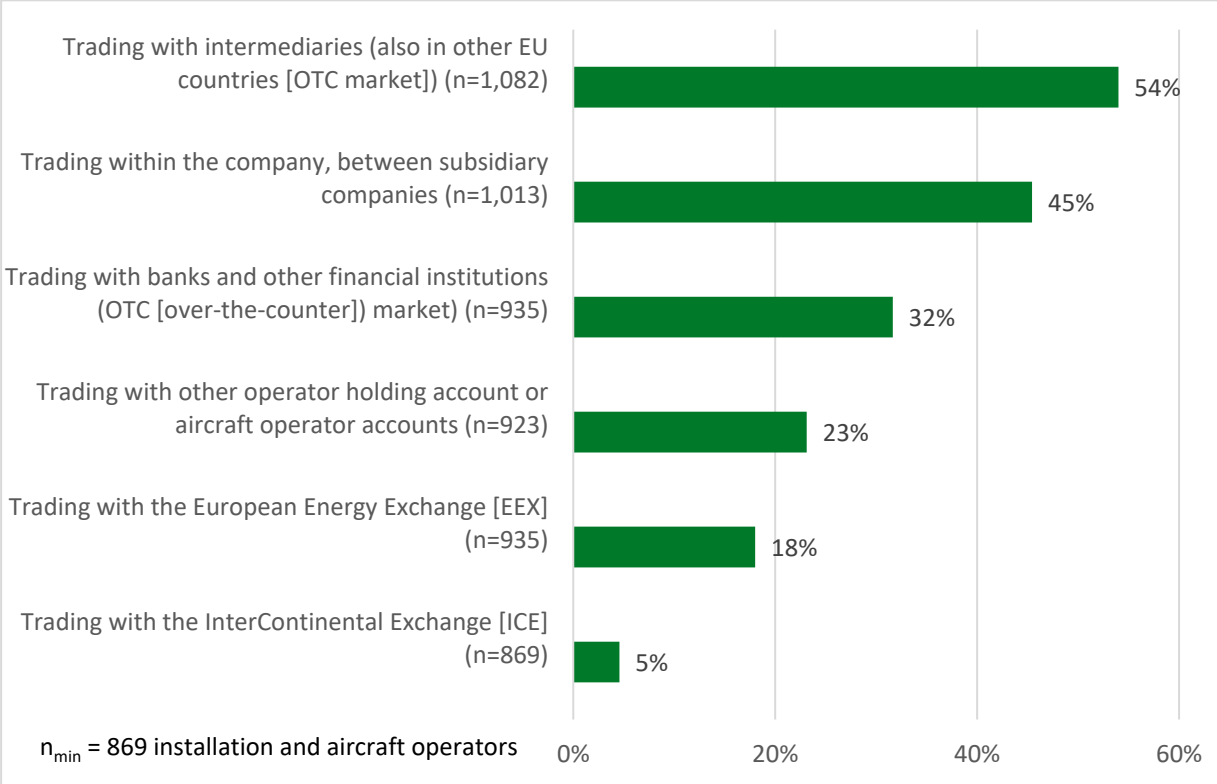
## 2.1 Trading by installation and aircraft operators

Although the largest volume of trading in emission certificates takes place via the InterContinental Exchange (ICE) and the European Energy Exchange (EEX), only a relatively small group of account holders for installation and aircraft operators trade via these two exchanges: 5 per cent via ICE and 18 per cent via EEX.

Trading between installation operators and aircraft operators is also less frequent (23 per cent). In contrast, trading between installation operators and aircraft operators within their own company or between subsidiaries is very important (45 per cent).

However, most account holders trade via the over-the-counter (OTC) market. During the survey period, one in two (54 per cent) installation and aircraft operators also traded on the OTC market with intermediaries and one in three (32 per cent) with banks or other financial institutions.

**Figure 3: Trading platforms used by installation and airplane operators in 2018–19**




Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

However, the frequency of trading varies greatly. Insofar as there is a compliance obligation—that is, a duty to cover the emissions of the previous year with emissions certificates—this is carried out predominantly outside the core transaction period of March and April and throughout the year via so-called forward contracts with financial institutions. In a few tranches, forward contracts are made that do not mature until the end of the year. As a rule, 15 December is chosen as the standard date, so that these still fall into the fiscal year as operating expenses.

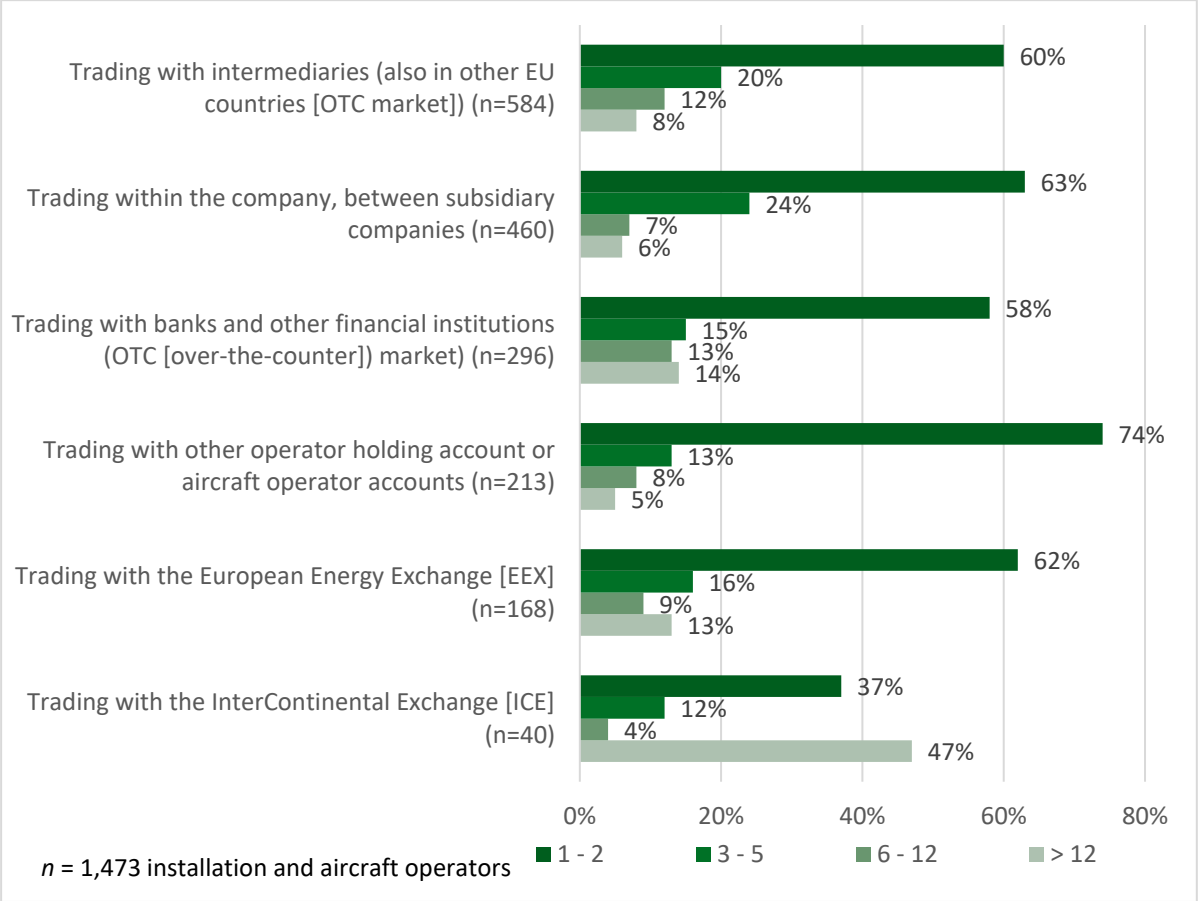
For this reason, many installation and aircraft operators trade infrequently (1–2 times), mostly with other installation and aircraft operators (74 per cent), but also often within their own company or between subsidiaries (63 per cent).

Only a relatively small group of installation and aircraft operators trade via the ICE (5 per cent, see Figure 3 above) very intensively. Almost one half (47 per cent) reported trading on the ICE more than 12 times a year. Due to the very short maturity dates, many of these are actually no longer long-term forward contracts, but rather disguised spot transactions—that is, they are motivated speculatively as in free trading.

A closer look at the intensity of trading with intermediaries and banks and other financial institutions in the OTC market reveals its great importance for this group. More than one half of the installation and aircraft operators trade with intermediaries and one third with financial institutions (see Figure 3 above), with some of them trading more frequently. A total of 32 per cent of installation and aircraft operators carry out 3–12 transactions per year with intermediaries and 28 per cent with financial institutions (Figure 4). A small group even trades significantly more frequently (8–14 per cent over 12 transactions per year).

Some of the installation and aircraft operators apparently do not just cover their compliance needs during the year with a few transactions, but are also much more active on the OTC market.

**Figure 4: Intensity of use of trading platforms by installation and airplane operators in 2018–19 (without 'no trade')**



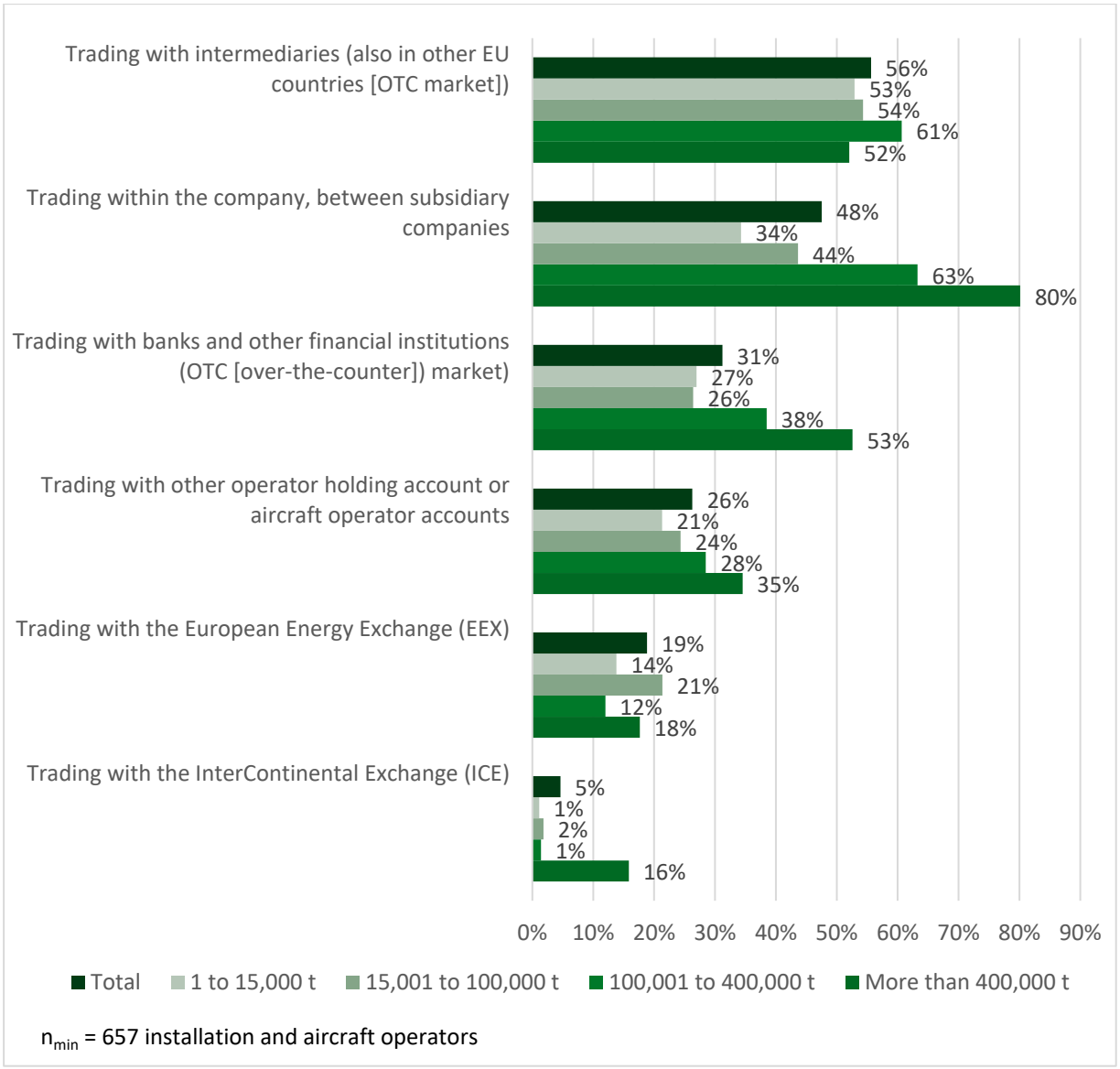

Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

When trading is analysed in relation to the volume of compliance need, and thus mostly indirectly in relation to the size of the companies (Figure 5), it is not surprising that operators with a very high compliance need (more than 400,000 tonnes) trade relatively frequently via ICE (16 per cent) and within their own company or between subsidiaries (80 per cent). However, these mostly larger companies are also more likely than average to trade with financial institutions (53 per cent) and other installation and aircraft operators (35 per cent). This may be due to the fact that larger companies may well pursue speculative business interests in the EU ETS and can hedge sufficiently against price losses through risk management.

However, one cannot say that installation and aircraft operators with a low compliance need (under 100,000 tonnes) are hardly active on the OTC market. Indeed, more than one half of these mostly small and medium-sized companies trade with intermediaries (53 per cent [1–15,000 tonnes]/54 per cent [15,001–100,000]) and more than one quarter with financial institutions (27 per cent/26 per cent).

Hence, the transaction frequencies surveyed here reveal that the OTC markets are significantly more important than all other trading venues with the exception of trading within the own company and with subsidiaries. This even applies compared to exchange trading with the ICE or EEX, through which the largest volume is traded, but with a significantly lower trading frequency compared to the OTC market.

**Figure 5: Trading platforms used by installation and airplane operators in relation to compliance needs[15]**




Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

## 2.2 Trade through trading accounts

One half (50 per cent) of the trading account holders carry out their spot transactions via the OTC market. In contrast, trading is less frequent via the ICE or EEX exchanges (38 per cent) and with accounts of installation and aircraft operators (28 per cent, Figure 6).

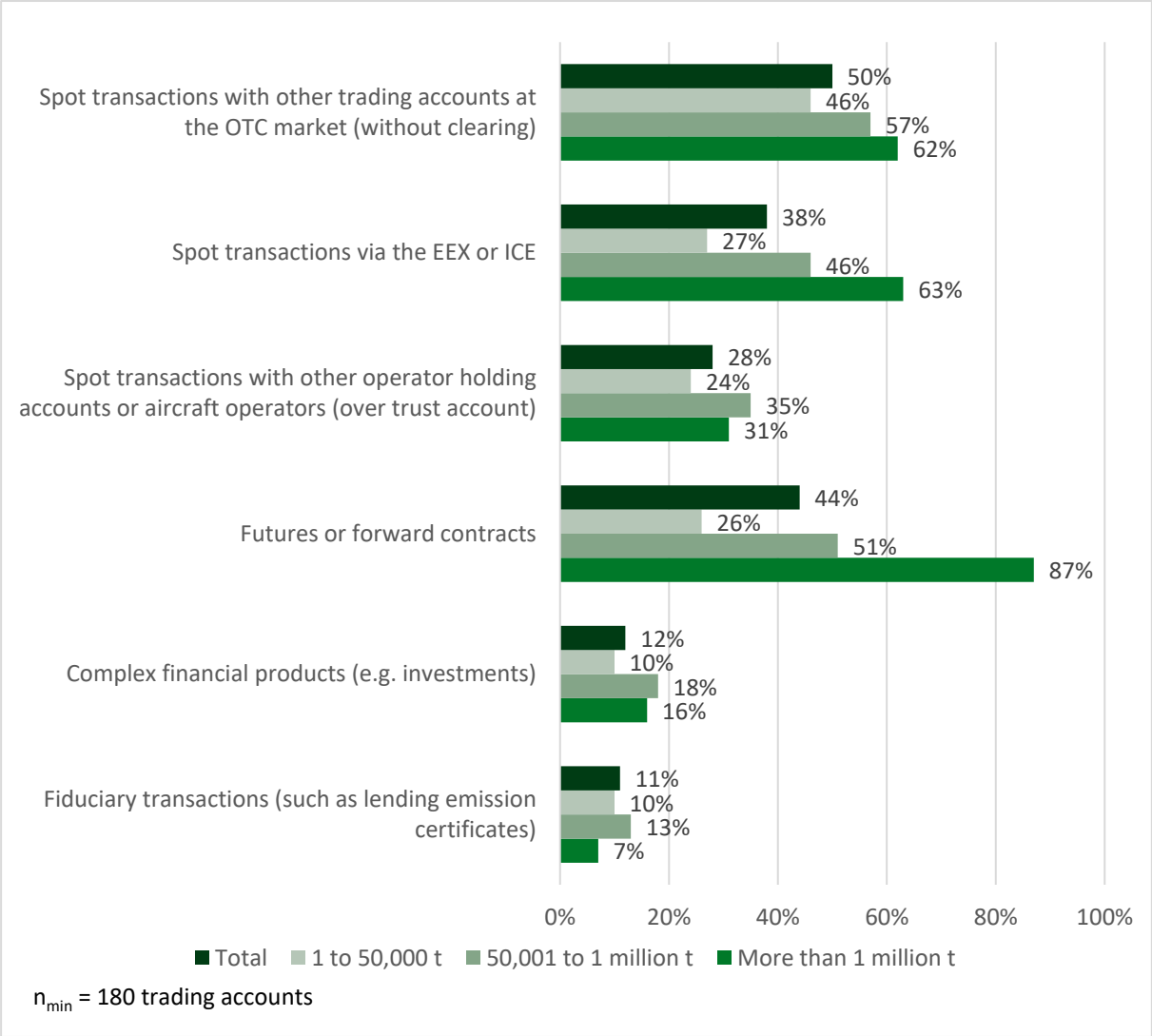
In emissions trading, as in other securities markets, complex financial products are traded. These are especially futures or forward contracts (44 per cent), but also other complex financial products (12 per cent) and fiduciary transactions (11 per cent).

The OTC market, but also exchange trading, is clearly gaining in importance among larger traders. Almost two thirds of trading account holders with a trading volume of over one million tonnes trade via the OTC market (62 per cent) and via the ICE or EEX exchanges (63 per cent). This group of larger traders with over one million tonnes of trading volume also traded

[15] Compliance need was not assessed in the study in Germany (2017).

significantly more frequently in complex financial products. Trading in futures or forward contracts is almost typical here (87 per cent).

**Figure 6: Trading platforms and products used by traders in relation to volume of certificates**




Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

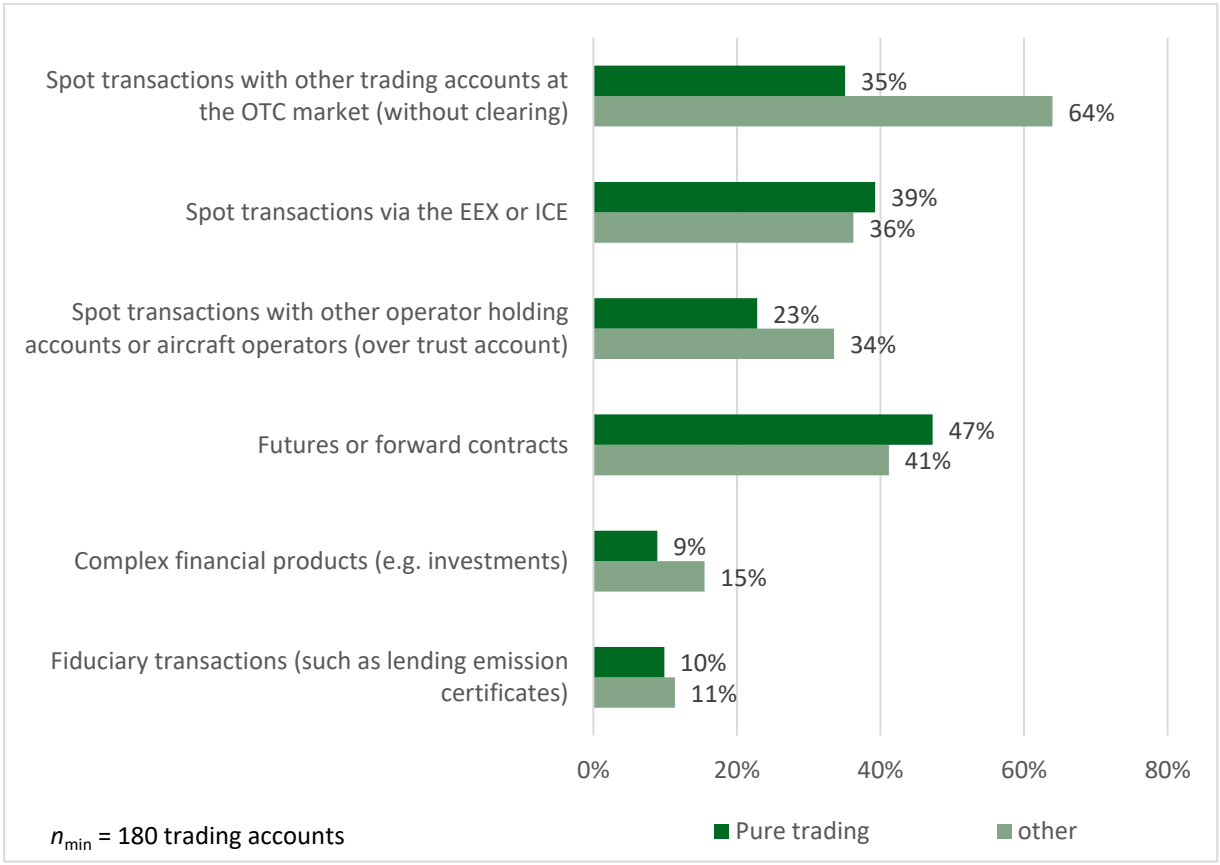
Trading account holders can be pure traders ($n$ = 121) but also installation and aircraft operators who additionally have a trading account ($n$ = 137, Section 1.4). The two groups of traders do not differ significantly in terms of the volume of their trading (Table 6). About one half of the trading account holders trade emissions certificates in a relatively small volume of less than 50,000 tonnes per year. However, for one quarter of both trader groups, the annual trading volume is above one million tonnes.

**Table 6: Volume of certificates traded by pure traders and installation and airplane operators with trading accounts in 2019**

| | Trader account and installation/aircraft account | Pure traders | Total |
|---|---|---|---|
| 1–50,000 t | 55% | 54% | 55% |
| 50,001–1 million t | 21% | 19% | 20% |
| More than 1 million t | 24% | 27% | 25% |

The two groups also do not differ significantly in their trading practices. Nonetheless, installation and aircraft operators that also have a trading account trade significantly more with other trading accounts (64 per cent) on the OTC market than pure traders (35 per cent).

**Figure 7: Trading platforms and products used by pure traders and installation/airplane operators with trading accounts**



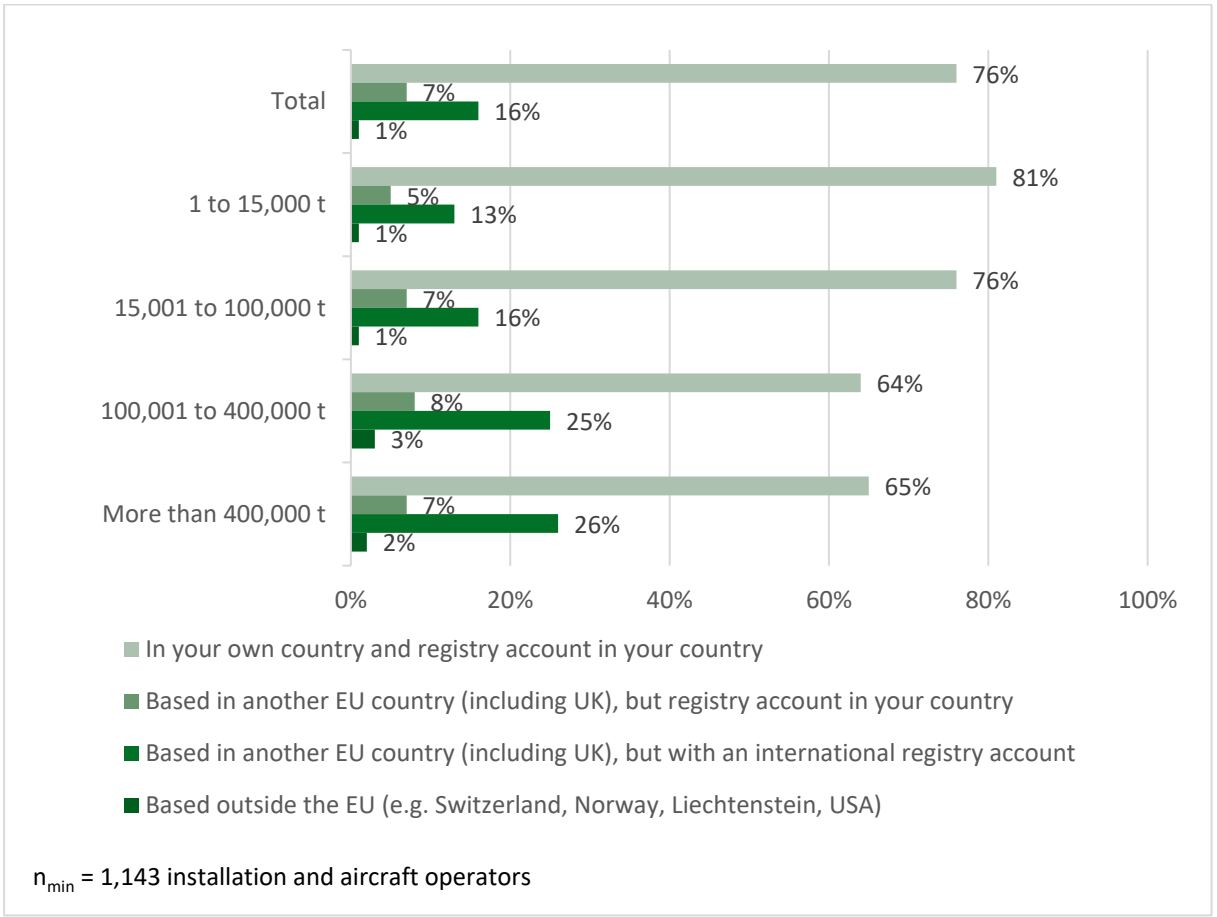

Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

## 2.3 International trade between EU ETS members

On average, three quarters of the trading volume in emissions certificates over the accounts of installation and aircraft operators takes place via domestic accounts with domestic business partners (Figure 8). However, this also means that one quarter of the trading volume is cross-border. The largest share is accounted for by trading via an account in another EU Member State (16 per cent) and by trading with foreign business partners who have a registered account in the respondent's country (7 per cent). In contrast, trading with business partners outside the EU is of minor importance (1 per cent).

Results show that it is especially installation and aircraft operators with a higher compliance need (over 100,000 tonnes) that operate internationally. Here, only two thirds of their trading volume pass through domestic accounts with domestic business partners (64 per cent [100–400,000 tonnes]/65 per cent [>400,000] of the volume). One quarter of their trade volume alone is with business partners from another EU Member State that have an account in another national registry (25 per cent/26 per cent). However, smaller installation and aircraft operators with a compliance requirement of up to 100,000 tonnes also engage in cross-border trade via international registry accounts of foreign companies (13 per cent [1–15,000 tonnes]/16 per cent [15,001–100,000] of the volume).

**Figure 8: National and international transactions by installation/airplane operators**




$n_{min}$ = 1,143 installation and aircraft operators

Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

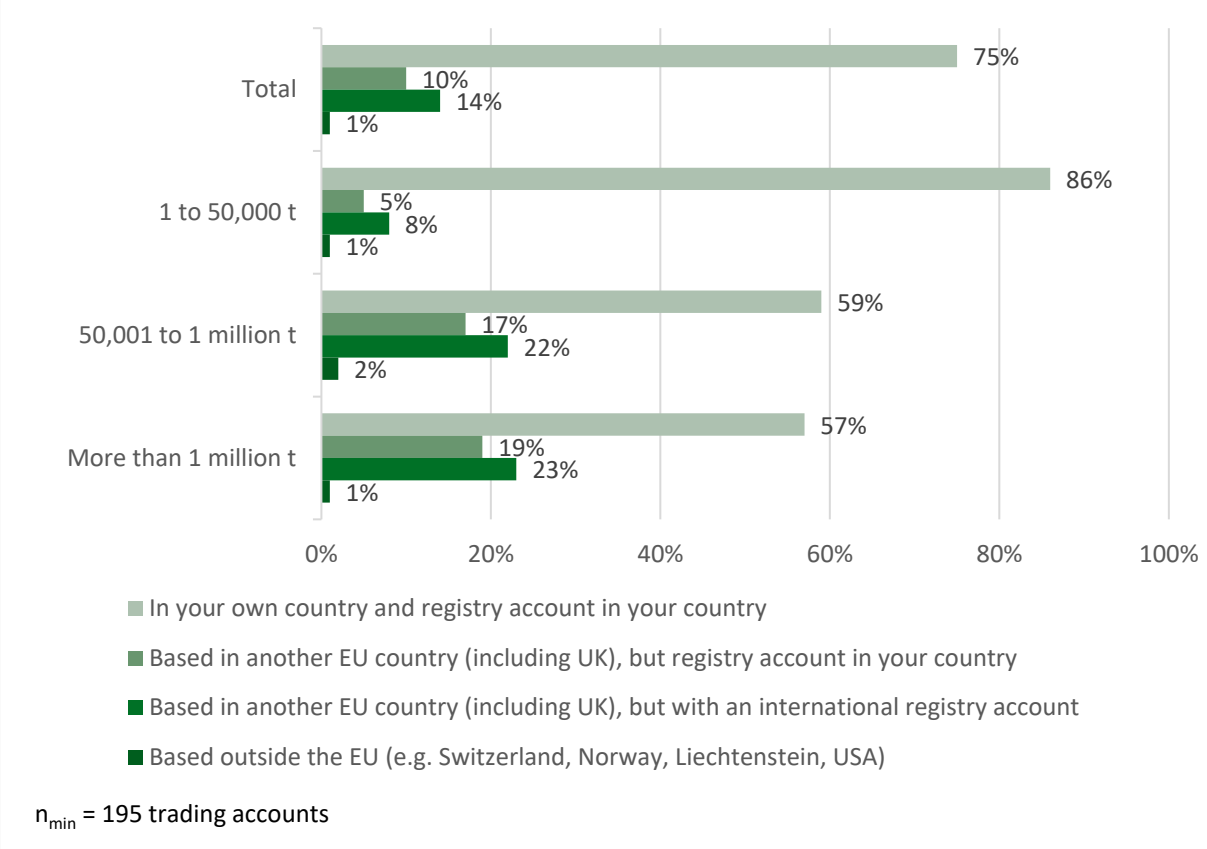
Trading via trading accounts is similar to trading via installation and aircraft operator accounts, with purely domestic trading being dominant. Three quarters of the trading volume of trading

accounts (75 per cent) takes place via domestic accounts with domestic business partners (Figure 9).

However, the tendency to trade across borders is more pronounced in larger traders than in installation and aircraft operator accounts. For example, trading accounts with high and very high trading volumes of 50,001 to 1 million and over 1 million tonnes show that pure domestic trading accounts for only 59 per cent and 57 per cent of their trading volume respectively. The larger traders achieve the remaining approximately 40 per cent of their trade volume with foreign business partners who have a registry account in the respondent's country (17 per cent [high]/19 per cent [very high]) or, even more often, an account in another EU Member State (22 per cent/23 per cent).

This result shows that although trading in emissions certificates is predominantly national, it becomes more international as the size of companies grows among holders of not only operator and aircraft operator accounts but also trading accounts. Around one quarter of the trading volume of installation and aircraft operators and traders takes place via foreign business partners who do not have a registry account in the country of the account holder, but have an account in another EU Member State.

**Figure 9: National and international transactions by traders**




Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

The surveyed installation and aircraft operators reported the locations of the head offices of the three international business partners with whom they had the highest volume of trading (Table 7). This shows that there is intensive cross-border trade with a small group of EU Member States for both installation and aircraft operators and for trading account holders. The highest-volume international business partners are most frequently from:

the Netherlands, the United Kingdom, Hungary, Germany, France, and Spain.

**Table 7: Location of head offices of foreign trading partners with largest volume of trade**

| | Trading partners of installation and airplane operators (no trading account) (*n* = 424) | | Trading partners of traders (*n* = 89) | |
|---|---|---|---|---|
| **Rank** | **Country** | **% (cases)** | **Country** | **% (cases)** |
| 1. | Netherlands | 22% (93) | United Kingdom | 44% (39) |
| 2. | Hungary | 20% (85) | Germany | 31% (28) |
| 3. | United Kingdom | 18% (77) | The Netherlands | 19% (17) |
| 4. | Germany | 17% (74) | France | 18% (16) |
| 5. | Spain | 10% (44) | Hungary | 9% (8) |
| 6. | Belgium | 7% (28) | Norway | 6% (5) |
| 7. | France | 6% (26) | Slovenia | 6% (5) |
| 8. | Italy | 5% (21) | Austria | 4% (4) |
| 9. | Czech Republic | 3% (13) | Greece | 4% (4) |
| 10. | Bulgaria | 3% (12) | Italy | 4% (4) |
| 11. | Sweden | 3% (11) | Poland | 4% (4) |
| 12. | Switzerland | 3% (11) | Spain | 4% (4) |
| 13. | Poland | 2% (9) | Sweden | 4% (4) |
| 14. | Norway | 2% (7) | Belgium | 3% (3) |
| 15. | | | Denmark | 3% (3) |
| 16. | | | Finland | 3% (3) |
| 17. | | | Switzerland | 2% (2) |
| 18. | | | Australia | 2% (2) |

# 3 Suspect signs of money laundering

## 3.1 Dark figure of suspect transaction offers or interests

In its internationally recognized 'Recommendations', the Financial Action Task Force (FATF) sets important standards on how to handle unusual transactions. In Point 20 of its recommendations, the FATF states that every unusual transaction should be reported. In addition, the FATF points out not only the need to create incentives for filing a report, but also that the respective legislators should make filing a suspicious activity report (SAR) obligatory.[16] Regarding transactions to be reported, the FATF recommends the use of an 'all-crimes approach'. Furthermore, every transaction should be reported regardless of its size.

The EU has already set a milestone through Directive 2005/60/EC by declaring the reporting of suspect transactions to be essential to the fight against money laundering in all areas of economic activity. The extensions in the Fourth and Fifth Money Laundering Directives show that European legislators are successively identifying new money-laundering-relevant areas and accepting their obligation to participate actively in the fight against money laundering. The establishment and introduction of a European Public Prosecutor's Office, which has now been completed, could improve international cooperation in this field.

However, there is still a lack of EU-wide statistics on SARs, so that the risks of money laundering can hardly be estimated in the EU ETS either. In any case, the frequency of a form of crime—such as money laundering in this study—cannot be estimated in the EU ETS reliably on the basis of official statistics—what could be called the registered *bright figure. There* always remains a *dark figure* of unregistered offences that criminological studies illuminate primarily through surveys such as this one.

Therefore, 11 semi-structured interviews were conducted with installation and aircraft operator and trading account holders as well as a representative web-based survey of this group (Sections 1.1 and 1.2):

### 3.1.1 Results from the semi-structured interviews with account holders in the EU ETS

Differentiating between the individual sectors, the 11 semi-structured interviews with account holders reveal the following picture:

**Stock exchange**

The majority of the *interviewees* saw little to no risk in trading via the stock exchange. Direct trading on ICE or EEX requires special authorization, so it is more likely to be used by large installation and aircraft operators and traders for cost reasons. The authorization procedures are subject to strict AML compliance criteria, so that trading on ICE or EEX can be assumed to be only a low risk.

**Banks and other financial institutions**

Because of their more flexible payment modalities, banks would often be preferred to exchange trading in the EU ETS.

There is a high level of trust in banks and their internal risk assessment processes, because they possess information on trustworthy accounts on both sides. Hence, transactions with them represent the lowest risk.

[16] FATF, *Recommendations*, 2012–2020, p. 19.

In some cases, however, the role of banks was assessed more critically. Banks do not have 'the luxury of choosing their customers' and find themselves more in the role of 'market makers' who are continuously available to other market participants as competitors. Banks prefer larger companies because of the higher transaction volumes.

**Free traders**

Respondents saw a certain risk for transactions with free traders on the OTC market. For example, anyone can participate in the EU ETS market through a broker by means of a fiduciary administration without having an account themselves. This raises the problem of the *true beneficial owner,* which is known as a weak point in general in the fight against money laundering (Section 3.2 and 4.3).

Brokers are particularly interesting for smaller installation and aircraft operators due to favourable pricing conditions compared to banks. Their advantage, unlike that of banks, also lies in customized transactions as well as forward contracts without down payments and with low transaction volumes.

**Installation and aircraft operators**

In the EU-wide *semi-structured interviews,* the impression emerged that the risk of money laundering in emissions trading is not very relevant for the majority of interviewees. In many cases, there was an awareness of the risk of being harmed by fraud, but hardly any awareness of the risk of being exposed to money laundering. The interviewees often only remembered suspect transaction constellations that give rise to a suspicion of money laundering when prompted by semi-structured questions on suspect facts (Section 3.2, Figure 10).

Despite this limited awareness, the interviewed account holders reported suspect transaction patterns; but, in many cases, did not associate these with suspected money laundering.

Some interviewees suggested that it is particularly smaller installation and aircraft operators that are likely to be prime targets for money laundering, because they are suspected of having a low risk awareness and significant deficits in compliance management. This was also confirmed by the results of the web-based survey (Section 6).

### 3.1.2 Results of the web-based survey in the EU ETS

Based on the results of the prior study in Germany in 2017 and the EU-wide semi-structured interviews with account holders in 2020, a list of suspect transaction offers or interests was compiled presenting features that give rise to a suspicion of money laundering. Respondents were also asked to indicate on a scale how often they had noticed these suspect features in 2018 and 2019.

The frequency of the features was surveyed using the following scale:

**No case - 1 case – 1–2 cases – 2–3 cases – 4–5 cases – More than 5 cases (indicate number of cases)**

Mean scores were used to calculate the absolute numbers of cases.

For the two-year period from 2018 to 2019, a total of 9 per cent of the account holders reported 1,010 suspect transaction constellations that could justify a SAR, but were presumably not reported—or reported only in rare cases—to the competent authorities such as the Financial Intelligence Unit (FIU). Awareness of suspect facts is thus limited to a group of 9 per cent of account holders, some of whom reported several cases (details in Section 4.2, Table 12).

It was notable that a roughly equal proportion of suspect cases was reported in all the groups in Table 8, although a tendency towards trading account holders is discernible, with 12 per cent of traders reporting having noticed at least one suspect transaction constellation. Among the traders, holders of a trading account for installation and aircraft operators reported the highest proportion (13 per cent).

**Table 8: Number of suspect cases reported in the survey for a period of two years**

| **Total number of reported cases** (relative proportion) | **Non-traders: reported cases (*n* = 2,091)** | **All traders: reported cases (*n* = 258)** | |
|---|---|---|---|
| 1,010 (9%) | 764 (9%) | 246 (12%) | |
| | | **Trading and installation/ aircraft account** | **Pure traders** |
| | | 153 (13%) | 93 (11%) |

The group of traders thus reported suspect transaction constellations slightly more frequently. However, this may be due to the fact that companies with a trading account have the highest risk awareness as well as more compliance measures, and they apply due diligence measures more frequently. As a result, traders may well be more likely to notice suspect transaction constellations (Section 5).

## 3.2 Distribution of suspect transaction offers or interests

The information provided by account holders in the web-based survey shows that all ten listed suspect features actually occur in the market. Those in the semi-structured interviews also confirmed, almost without exception, that all of the listed suspect features are likely to have occurred in their country.

In the web-based survey, installation and aircraft operators along with traders were the most likely to report prospective buyers who were *not known to them in the $CO_2$ sector* (*n* = 206 [installation and aircraft]/50 [traders]). This is remarkable when it is considered that the EU ETS is a relatively small market.

Those investing incriminated assets are known to have a high interest in concealing their origin and therefore also their own identity. Typically, the *true beneficial owner* should therefore remain concealed during the placement. The following business constellations therefore give rise to the risk that the *true beneficial owner* should be concealed (*n* = number of cases reported by operator account/trading account):

- The prospective buyer acted only as an intermediary without an own register account (*n* = 136/49)
- The prospective buyer could be reached only via an office service that was organized only via call back or a mobile phone number (*n* = 65/11)
- The business purpose was unclear (n = 91/18)

- The prospective buyer could not explain why trading should not take place via stock exchanges (*n* = 37/41)

The *interviewees* confirmed that there can always be cases in which the *business purpose* of the prospective buyer seems unclear, but also ones in which an *unusually high quantity* is to be traded compared to actual compliance needs. The purchase of unusually high quantities, measured against the needs of recent years, represents a high risk of money laundering.

In the *semi-structured interviews*, interviewees occasionally pointed out that transactions relatively often raise questions about their *purpose,* because the need to purchase emissions certificates is not always clear at first glance.

At most, the possible business purpose here would be compensation (offsetting greenhouse gas emissions by deleting credits from climate protection projects or emissions certificates). However, voluntary cancellations of emissions certificates such as EEAs are demonstrably very rare. In general, mainly CER/ERU (Kyoto credits from CDM and JI projects) are used for such offsetting in the Union Registry. Moreover, the large price difference between CER/ERUs and EEAs makes it urgent to query the business purpose of purchasing EEAs, because such purchasing behaviour would be uneconomic and could also not serve to offset greenhouse gas emissions.

Certain transaction modalities may also serve to conceal the *true beneficial owner by* blurring or avoiding a so-called 'paper trail':

- Cash payments (*n* = 36/10)
- Unusual payment modalities (*n* = 31/16)

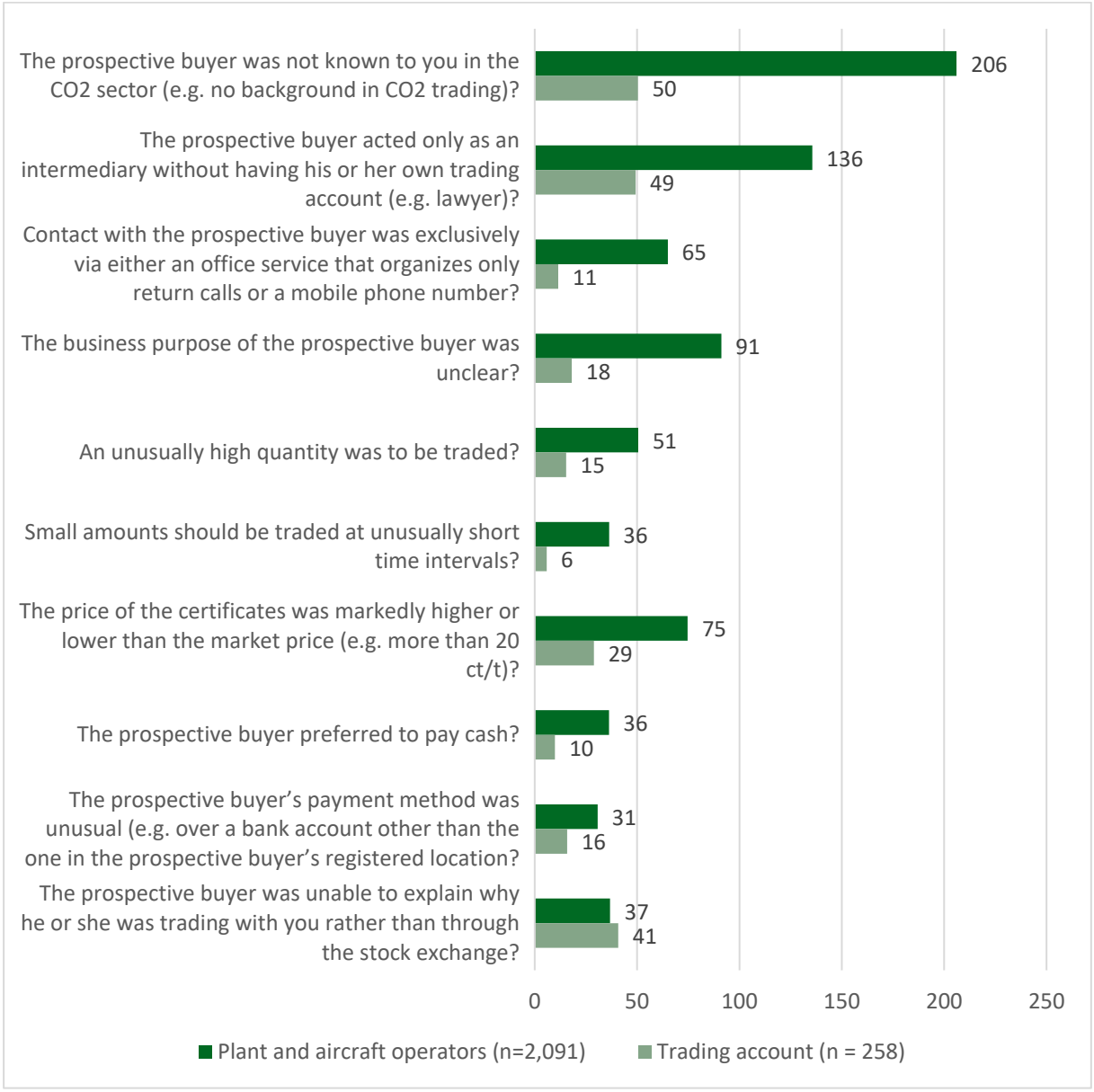
A wish to make *cash payments* is very atypical in the business-to-business sector. Moreover, emission certificates are financial instruments that are actually intended only for companies subject to emissions trading that also, however, do not engage in cash transactions for accounting and fiscal reasons. Nevertheless, the interviewees also confirmed that cash payments do occur. In particular, some interviewees saw cash payments in free trade as both possible and conceivable.

However, *unusual payment modalities* may conceal not only money laundering but also other strategies, some of which are punishable by law. According to some *interviewees,* it could also be a matter of 'tax optimization' if, for example, the transaction is to be made via a different bank account than the one at the prospective buyer's registered location. It was also emphasized that a so-called '*overpayment*' with a request for repayment to another account occurs from time to time. For example, a payment is made without one being the debtor, because the invoice was supposedly read incorrectly. Repayment is therefore requested. This constellation was considered possible especially in joint ventures in which another party is responsible for the financing and the payer is switched.

Moreover, in view of the transparent prices for certificates in the EU ETS, it is astonishing to see cases reported in which the prospective buyer's idea regarding the price deviated *significantly from the current exchange price* (more than 20 ct) (*n* = 75/29). Indeed, one of the typologies for a suspicion of money laundering is a conspicuously low interest in economically meaningful trade on the part of the prospective buyers. *Interviewees* also considered that the price was influenced

decisively by the stock exchange. Thus, a strong deviation from the market price was not just suspect, but could certainly occur.

**Figure 10: Number of suspect cases reported for a period of two years**




Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

## 3.3 Typical suspect constellations among traders

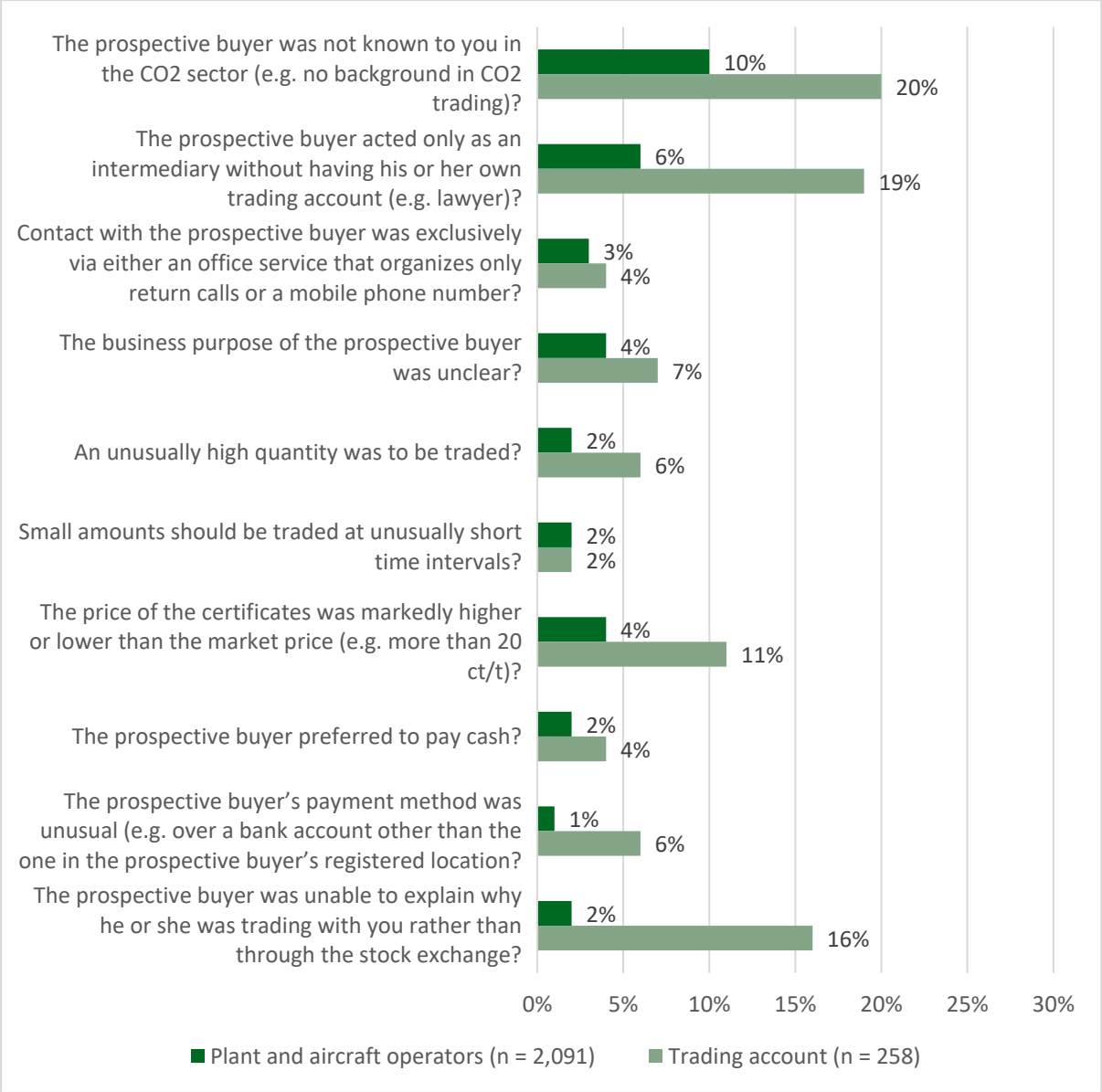
Despite their smaller number, the holders of trading accounts reported suspect case constellations not only overall (see Table 8 above), but also more frequently for almost all suspect characteristics (Figure 11). According to their reports, constellations in which there is a high risk of concealing the *true beneficial owner were* particularly frequent:

- The prospective buyer was unknown to them in the $CO_2$ industry
- The prospective buyer acted only as an intermediary without an own registry account

Particularly in the case of traders among whom the prospective buyer can assume a higher level of expertise and thus awareness, more frequent case constellations are surprising, such as:

- The price of the certificates deviated significantly from the current exchange price
- The prospective buyer could not explain why trading should not take place via stock exchanges

**Figure 11: Suspect cases in relation to sample size of traders and non-traders**




Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

There are sometimes quite marked differences in the frequencies of constellations of cases in which there is a basic risk of money laundering between pure traders who do not have a installation or aircraft operator account and companies that also have a trading account.

For example, the group of *pure traders* reported more frequently on cases suggesting the suspected concealment of the *true beneficial owner* (Figure 12, *n* = pure trader/trading and installation or aircraft account):

- The prospective buyer was unknown to them in the $CO_2$ sector ($n$ = 38/13)
- The prospective buyer could be reached only via an office service that was organized only via call back or a mobile phone number ($n$ = 11/1)
- The business purpose was unclear ($n$ = 15/4)

The frequency of suspect cases among pure traders in which the prospective buyer was unknown in the $CO_2$ industry is remarkable. After all, this is a professional group specialized in emissions trading.

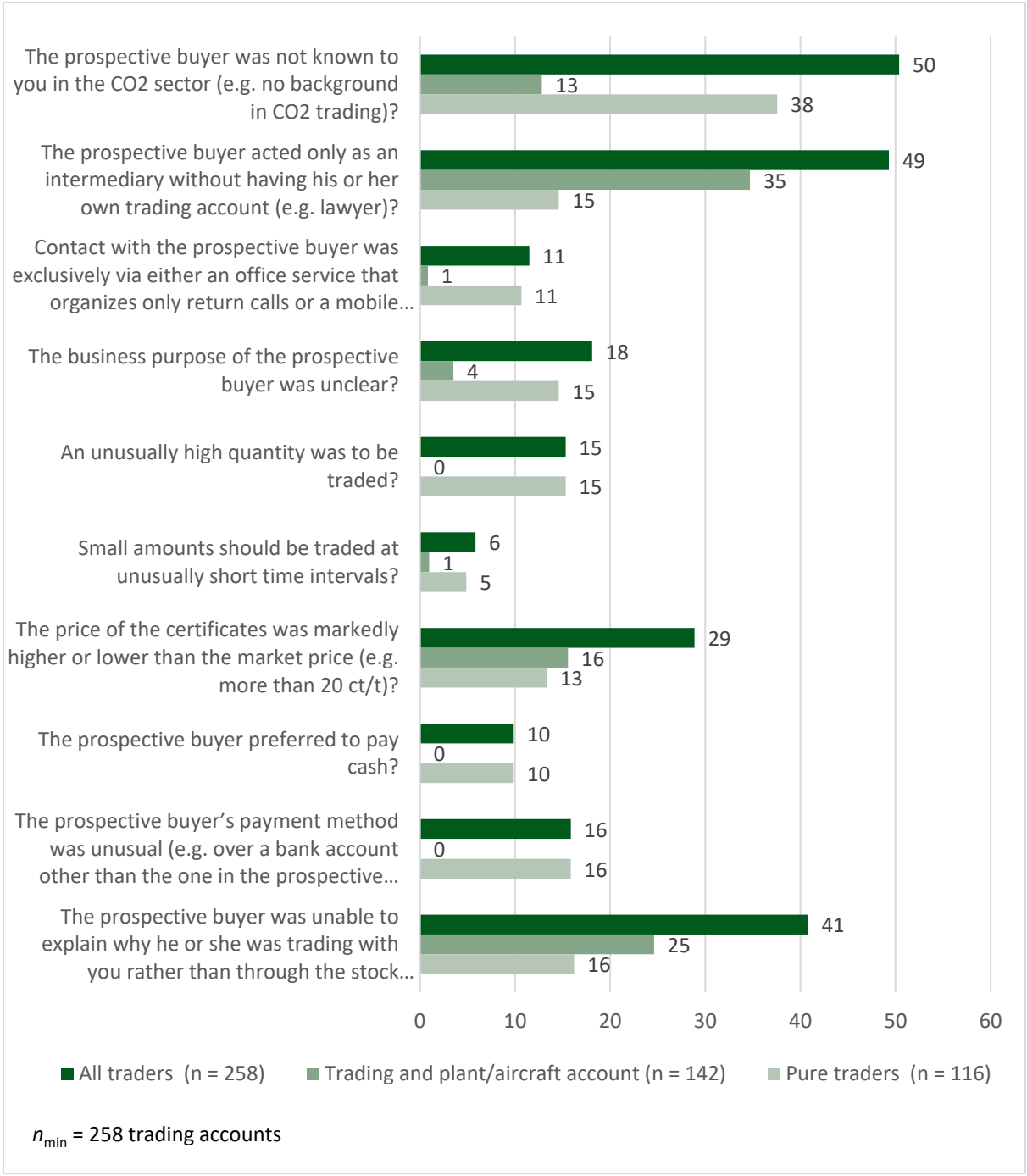
*There* were also more frequent reports of *unusual transaction requests* in the trader-only group such as:

- Cash payments ($n$ = 10/0)
- Unusual payment modalities ($n$ = 16/0)
- Trading with unusually high quantities ($n$ = 15/0)

However, this frequency is probably also due to the fact that awareness is also heightened in the group of pure traders due to their comparatively well-developed AML compliance measures. They significantly more often report having not only an AML compliance officer (42 per cent/26 per cent) but also training measures (30 per cent/17 per cent) and risk analyses on money laundering (31 per cent/20 per cent) (Section 5.3, Figure 17).

In contrast, installation and aviation operators who also have a trading account reported an above-average number of prospective buyers who acted only as intermediaries without their own registry account ($n$ = 15/35).

**Figure 12: Number of suspect cases reported for a period of two years: pure traders versus all traders versus installation and aircraft accounts**




Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

## 3.4 Regional distribution of case reports

With only a few exceptions, the reported suspect case constellations are spread relatively evenly across all four regions (Table 9). In Northern Europe, both non-traders and traders reported below-average numbers of suspect cases (5 per cent each). It was only in some southern European countries that the group of traders report an above-average number of suspect cases (see Table 9 below: 17 per cent). This could indicate increased money laundering risks in the EU ETS in these countries.

**Table 9: Number of suspect cases reported in the survey for a period of two years**

| | Non-traders | Traders | Total |
|---|---|---|---|
| Western Europe | 371 (9%) | 128 (13%) | 499 (10%) |
| Northern Europe | 49 (5%) | 7 (5%) | 56 (5%) |
| Southern Europe | 154 (8%) | 83 (17%) | 237 (9%) |
| Central and Eastern Europe | 190 (11%) | 28 (6%) | 218 (10%) |
| Total | 764 (9%) | 246 (12%) | 1,010 (9%) |

## 3.5 Head offices of prospective buyers with suspect cases and transaction volumes

The head offices of the suspect prospective buyer mentioned by the respondents are scattered across the countries in the EU ETS. Nonetheless, both non-traders and traders named suspect transaction constellations with company headquarters in the UK more frequently than average. However, the UK is also one of the countries with business partners that account for the largest trade volumes (Section 2.3, Table 7).

The surveyed installation and aircraft operator account holders most frequently reported cases in which the prospective buyers were domiciled in the following countries in which the highest-volume foreign trading partners are also located (Section 2.3, Table 7):

the Netherlands, Spain, the United Kingdom, Germany, Italy, Hungary, and France.

In contrast, trading account holders most frequently reported suspect transaction offers and interests with company headquarters in the following countries:

Poland, Bulgaria, and the United Kingdom.

**Table 10: Location of head offices of foreign most conspicuous cases**

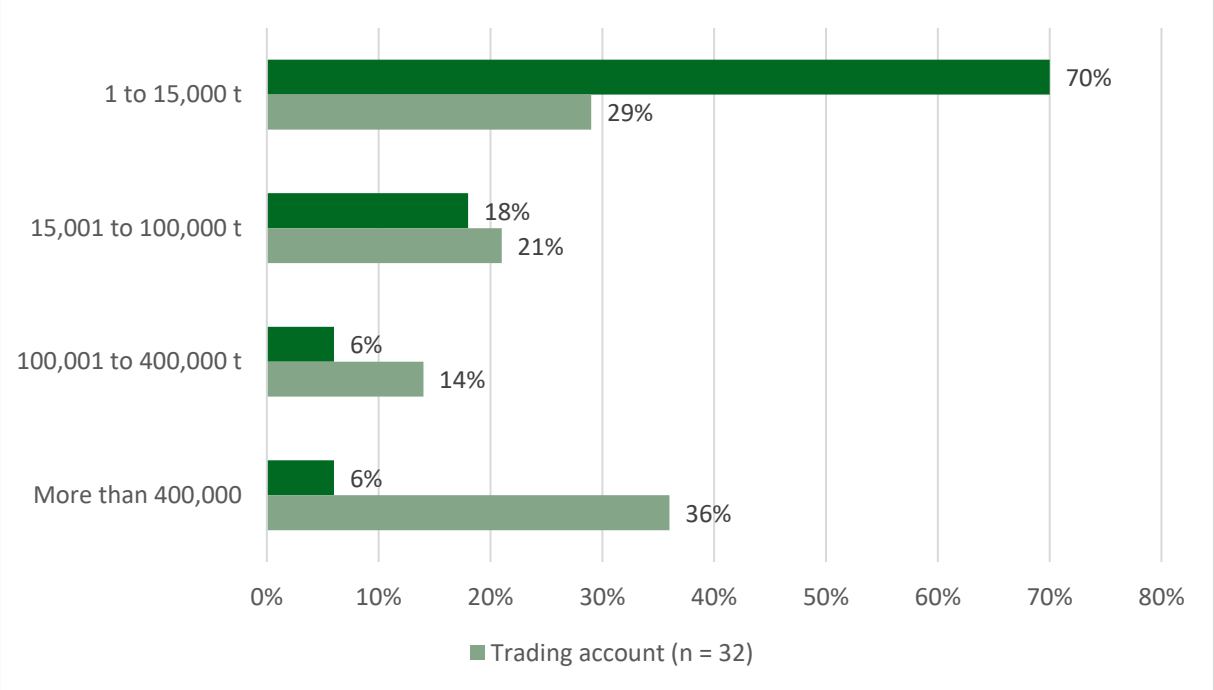
| | Reporting by installation and airplane operators (no trading account, *n* = 186) | | | Reporting by traders (*n* = 31) | | |
|---|---|---|---|---|---|---|
| Rank | Country | Cases | *n* = 172 | Country | Cases | *n* = 34 |
| 1. | Netherlands | 24 | 14% | Poland | 6 | 19% |
| 2. | Spain | 20 | 12% | United Kingdom | 6 | 19% |
| 3. | United Kingdom | 18 | 11% | Bulgaria | 6 | 18% |
| 4. | Germany | 16 | 9% | Spain | 2 | 7% |
| 5. | Italy | 15 | 9% | Germany | 2 | 7% |

| | Reporting by installation and airplane operators (no trading account, *n* = 186) | | | Reporting by traders (*n* = 31) | | |
|---|---|---|---|---|---|---|
| 6. | Hungary | 14 | 8% | Netherlands | 2 | 6% |
| 7. | France | 13 | 8% | France | 2 | 5% |
| 8. | Poland | 11 | 6% | Belgium | 1 | 4% |
| 9. | Bulgaria | 7 | 4% | Italy | 1 | 3% |
| 10. | Austria | 5 | 3% | Slovakia | 1 | 3% |
| Note: Countries with less than 3% not shown. | | | | | | |

More than two thirds (70 per cent) of the suspect cases reported by installation and aircraft operators involved smaller (notified) transaction volumes of up to 15,000 tonnes. Nonetheless, it is common money laundering practice to build up trust and a trading relationship gradually with smaller amounts.

In contrast, the cases mentioned by trading account holders were largely of a different order of magnitude. In over one third of the suspect cases (36 per cent), the notified volume was over 400,000 tonnes; and in only about one quarter (29 per cent) should volumes of up to 15,000 tonnes be traded.

**Figure 13: Transaction volume of most conspicuous cases**




Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

# 4 Projected suspect cases

## 4.1 Relative dark figure

In crime, as in many other social phenomena, there is a *dark figure* of offences that have not been registered in any statistics. A distinction has to be made between the *absolute* and *relative dark figure.* In the *absolute dark figure*, an offence has not even been noticed, whereas in the *relative dark figure*, it has at least been noticed and reported in surveys such as our study.

The surveyed installation and aircraft operator and trading account holders' reports on their perception of suspect transaction constellations can be used to estimate the extent of the *relative dark figure* of money laundering in the EU ETS. This can be done by projecting the reported suspect cases on to the total number of account holders.

In the first step, as with the other questions, all results were weighted according to the country-specific distribution of account holders in the entire EU ETS (Section 1.5). In the second step, projections were carried out separately for trading accounts and installation and aircraft operator accounts. Data from 258 traders and 2,091 non-traders could be considered. These case reports were then projected on to 666 trader accounts and 7,315 non-trader accounts. The case reports calculated in each case are then added together.

The structural weighting of the reported suspect cases was based on two characteristics: type of registry account (trader/non-trader) and the country in which the survey was conducted. The available research funding and time restrictions did not allow any consideration of other characteristics of the participating account holders such as their total compliance needs and the trading volumes of the traders in the registers of the individual countries.

Hence, the structured projection thus refers to a population of 7,981 account holders, some of whom have several accounts (Section 1.2, Table 3).

In the EU ETS, cases in which the prospective buyer was unknown in the $CO_2$ sector occur particularly frequently ($n$ = 851 cases). This is unusual, because this is a relatively small market in which only companies subject to $CO_2$ levies and a relatively small group of trading account holders trade with each other with varying frequency, but, nonetheless, rather regularly.

The second most frequent group of cases ($n$ = 602 cases) is transaction offers by intermediaries without their own trading account in which there is an increased risk of concealing the true beneficial owner and thus of money laundering. Furthermore, it appears that a number of case constellations could also serve to conceal the true beneficial owner (detailed in Section 4.3).

For details, see Table 11.

**Table 11: Dark figure of suspect facts in the EU ETS for a period of two years**

| Various types of suspect facts | Projected number of suspect facts | | |
|---|---|---|---|
| | Total | Non-trader | Trader |
| The prospective buyer was not known in the $CO_2$ sector | 851 | 721 | 130 |
| The prospective buyer acted only as an intermediary without having her or his own trading account | 602 | 475 | 127 |
| Contact with the prospective buyer was exclusively via either an office service that organizes only return calls or a mobile phone number | 257 | 227 | 30 |
| Business purpose of the prospective buyer was unclear | 366 | 319 | 47 |
| An unusually high quantity was to be traded | 216 | 176 | 40 |
| Small amounts should be traded at unusually short time intervals | 142 | 127 | 15 |
| The price of the certificates was markedly higher or lower than the market price | 336 | 261 | 75 |
| The prospective buyer preferred to pay cash | 152 | 127 | 25 |
| The prospective buyer's payment method was unusual | 148 | 107 | 41 |
| The prospective buyer was unable to explain why he or she was trading with you rather than through the stock exchange | 234 | 129 | 105 |
| **Total number of reported suspect facts** | 3,304 | 2,669 | 635 |

## 4.2 Absolute dark figure

Overall, the calculation results in a *relative dark figure of* 3,304 suspect business constellations in the two-year period.

However, the *absolute dark figure of* unnoticed suspected facts is likely to be significantly larger, because the projection is based solely on reported facts. There are four conceivable justifications for this:

1. **Regional distribution of risks**: Reports on suspect facts are scattered across all regions in the EU ETS with only some accents. There is no clearly recognizable regional focus (Section 3.4, Table 9), so that only a slightly higher percentage of unnoticed facts in the entire EU ETS area leads to a significant increase in the total number of unnoticed transaction constellations that give rise to a suspicion of money laundering.
2. **Skewness of the distribution of suspect facts**: Among the 9 per cent of all account holders who reported at least one suspect fact, 36 per cent of installation and aircraft operators and 18 per cent of dealers reported only one suspect fact. In contrast, 29 per cent of the operators and 67 per cent of the traders reported at least five suspect facts (see Table 12 below). Hence, 9 per cent of the account holders did not report predominantly isolated exceptions, but several suspect facts, whereas more than 90 per cent did not notice a single suspect transaction constellation or did not wish to report it.

   This skewed distribution suggests a greater dispersion across all account holders in the dark figure, because a concentration of many suspect facts among only a few account holders is unlikely. It is more likely that the majority of suspect facts were either not noticed or not reported in the survey due to a lack of sufficient compliance management (see Points 3 and 4 below).

**Table 12: Distribution of reported suspect facts in the EU ETS for a period of two years**

| | Non-trader | Trader |
|---|---|---|
| 1 case | 36% | 18% |
| 2–4 cases | 35% | 15% |
| 5 cases | 12% | 27% |
| More than 5 cases | 17% | 40% |
| Total | 100% | 100% |

3. **Attractiveness due to lack of compliance management:** Due to insufficient awareness, a lack of compliance measures, and a lack of due diligence, suspect facts may be overlooked and therefore not reported (see 4 below). At the same time, however, this may also make companies preferred targets for money laundering. For example, smaller installation and aircraft operators and traders reported suspect transaction constellations more frequently (Section 6.1, Table 17).

   In fact, our study found that smaller installation and aircraft operators and traders have a weaker AML CMS and lower risk awareness measured against their compliance needs or trading volume. This is why many suspect transaction constellations may have gone unnoticed, especially in smaller companies.

4. **Higher level of detection through compliance management:** The importance of efficient compliance management can be seen in the group of traders (Section 6.3, Table 20). Holders of trading accounts have a better AML CMS and are therefore more likely to detect suspect business constellations; and they report a high proportion of multiple detections (see Table 12 above). If all companies participating in the EU ETS were to be better equipped with AML compliance measures, significantly more suspect facts would be detected.

## 4.3 Concealment of the true beneficial owner

In the EU ETS, there are particularly frequent cases in which the account holder does not know her or his counterpart in the $CO_2$ sector ($n$ = 851). This is unusual, because this is a comparatively small market in which only companies subject to $CO_2$ levies and a relatively small group of trading account holders trade with each other with varying frequency, but, nonetheless, rather regularly.

However, the greatest risks lie in concealing the true beneficial owner. Various case constellations are summarized here that can serve this purpose. The true beneficial owner may be concealed in about one half of the reported suspect cases. Of about 3,300 projected constellations of suspect transactions, this typical money laundering pattern was recognizable in about 1,700 cases, and this at least justifies a suspicion of money laundering.

**Table 13: Projected number of suspect facts for the concealment of the real beneficial owner**

| Various types of suspect facts | Projected number of suspect facts |
|---|---|
| The prospective buyer acted only as an intermediary without having her or his own trading account | 602 |
| Contact with the prospective buyer was exclusively via either an office service that organizes only return calls or a mobile phone number | 257 |
| Business purpose of the prospective buyer was unclear | 366 |
| The prospective buyer was unable to explain why he or she was trading with you rather than through the stock exchange | 234 |
| The prospective buyer preferred to pay cash | 152 |
| The prospective buyer's payment method was unusual | 148 |
| **Total number of reported suspect facts** | **1,759** |

# 5 AML compliance management in the EU ETS

## 5.1 Legal situation in the EU

Although, there are no explicit regulations on the implementation of AML compliance on a European legal level, the FATF encourages the establishment of appropriate compliance measures in all areas relevant to money laundering. This also follows from the fact that regulations on the prevention of money laundering are laid down in each national legal system. The regulations regarding concrete compliance measures therefore have to be taken from the national legal systems.

Incentives for implementing AML compliance also arise from the fact that many Member States already have comprehensive corporate criminal or corporate sanctions legislation. To sanction a company here, a sufficient point of reference is that a company-related offence has been committed and that the respective company has not introduced any suitable measures to prevent offences.

## 5.2 Risk awareness

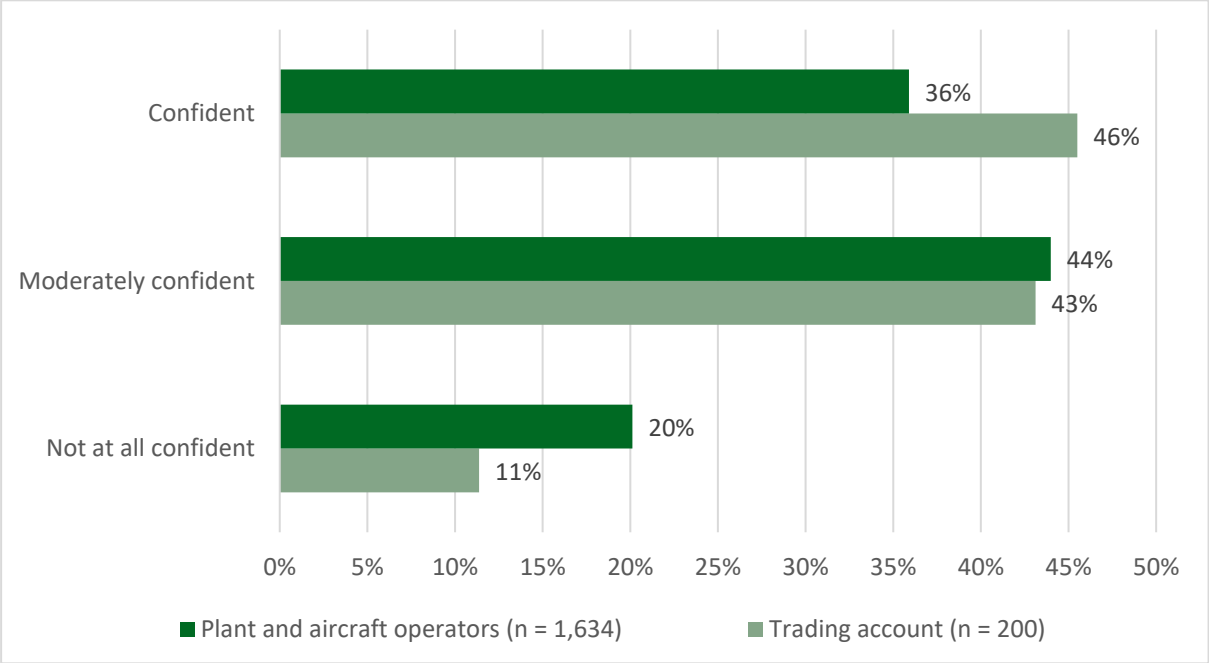
Awareness of suspect trading offers or interests that could give rise to a suspicion of money laundering requires knowledge of concrete criteria for assessing a risk. Account holders were therefore asked to self-assess their ability to actually recognize possible indications of money laundering when trading in emission certificates (risk awareness).

In the *semi-structured interviews* with account holders, the impression emerged that interviewees were aware of the risk of fraud, but hardly aware of the risk of being a party to money laundering (Section 3.1.1). They often had little knowledge of possible money laundering typologies in emissions trading and recognized the risk of money laundering only after being asked about suspect facts in the questionnaire guideline (Section 3.2, Figure 10). Some *interviewees* also expressed their impression that, contrary to many self-assessments, risk awareness of money laundering in emissions trading is rather low throughout the market.

The results of the web-based survey are consistent with the impression gained from the interviews. Less than one half of trading account holders (46 per cent) and about one third of installation and aircraft operators (36 per cent) said they could identify with certainty indications of the use of incriminated funds. In contrast, 20 per cent of installation and aircraft operators and 11 per cent of trading account holders admitted uncertainty in this regard.

Within trading account holders, the pure traders group rated their risk awareness most positively. More than one half (52 per cent) of pure traders said they were confident about recognizing suspect cases compared to 44 per cent of installation and aircraft operators with a trading account (without figure).

**Figure 14: Risk awareness by installation/aircraft accounts and trading accounts**




Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

However, certain limitations must be considered regarding their self-assessments. Findings in behavioural economics and psychology indicate a general tendency towards more positive self-assessments ('overconfidence bias'). The actual competence in assessing money laundering risks accurately among the account holders surveyed is therefore likely to be lower in many cases.

However, self-assessed risk awareness does correlate with the implemented compliance measures (see Table 14 below). The correlation between risk awareness and AML CMS can be classified as moderate. The postulated direction of the effect—the more AML CMS measures, the higher the awareness—is statistically confirmed in this study.

**Table 14: Correlation between risk awareness and AML CMS Index**

| | Installation and aircraft operators | Trading account |
|---|---|---|
| Pearson's *r* | 0.256*** | 0.244*** |
| Significance (2-tailed) | < 0.000 | < 0.000 |

**p < 0.01; ***p < 0.001

CMS Index: Summative score across a range of 0–4 measures.

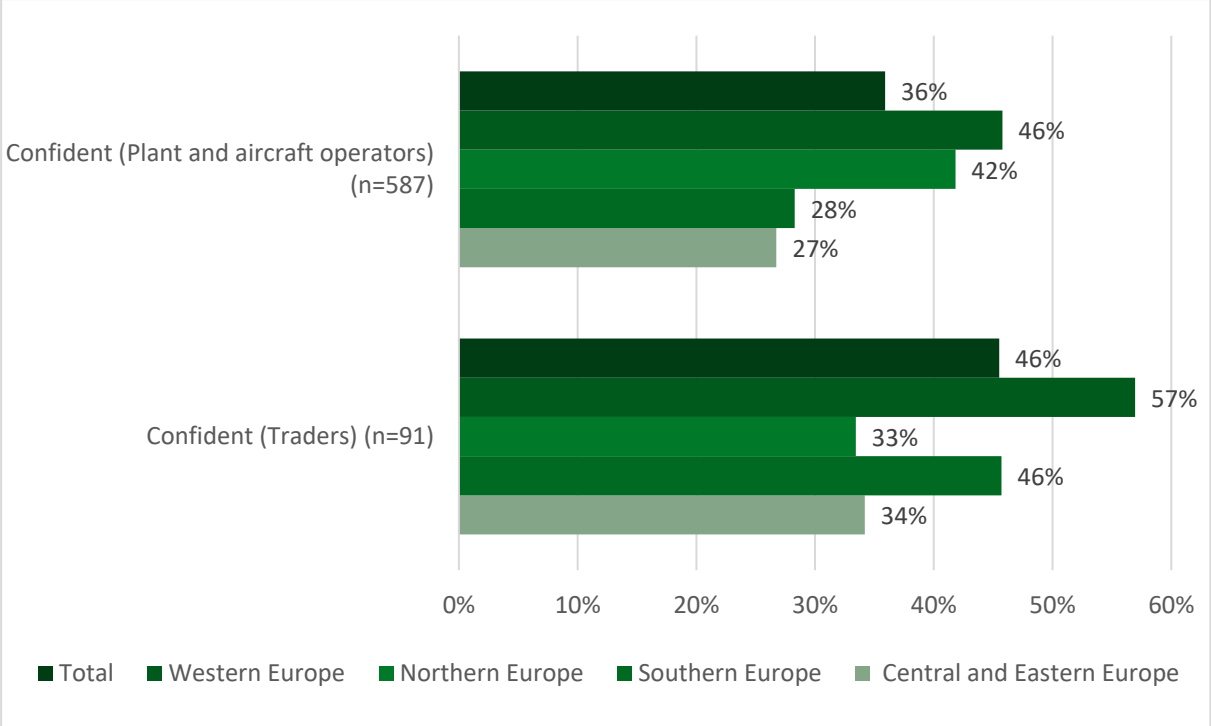
The more positive self-assessment of dealers is therefore likely to be correct. Their companies are more likely to have AML compliance measures in place (Section 5.3, Figure 17), making them more aware of money laundering risks than installation and aircraft operators.

Risk awareness and competence in recognizing suspect facts varies from region to region. Almost one half of the installation and aircraft operators in Western Europe expressed a high

level of confidence in recognizing suspect facts (46 per cent). The risk awareness of operators is also relatively high in Northern Europe (42 per cent).

According to their reports, installation and aircraft operators in Southern and Central and Eastern Europe have the lowest awareness. Barely more than a quarter of the operators (28 per cent [Southern Europe]/27 per cent [Central and Eastern Europe]) felt confident about recognizing constellations of suspect facts. Of all groups, traders in Western Europe rated their risk awareness highest (57 per cent). This assessment was also relatively positive among traders in Southern Europe (46 per cent).

**Figure 15: Risk awareness by region**




Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

In the opinion of some interviewees, it is particularly smaller and medium-sized companies that have only a lower level of risk awareness, because the costs and organizational effort associated with an effective compliance management mean that it is implemented less frequently. The largest installation and aircraft operators (47 per cent) as well as the largest traders (56 per cent) markedly more often reported a higher risk awareness. Smaller installation and aircraft operators with a compliance requirement of less than 15,000 tonnes and smaller traders with a trading volume of up to 50,000 tonnes reported significantly lower confidence in recognizing suspect facts (38 per cent [installation and aircraft]/43 per cent [traders], Table 15).

Smaller companies are much less likely to have compliance measures in place, and thus less likely to provide trainings and risk analyses (Section 5.3, Tables 20 and 21). Nevertheless, they reported more frequently on suspect transaction constellations (Section 6.1), presumably because their weaknesses in compliance management are also exploited specifically for money laundering (Section 6.2). They perceive some of these money laundering attempts despite their lower awareness.

**Table 15: High risk awareness in relation to compliance needs/volume of trading ('confident' responses)**

| Installation and aircraft operators (*n* = 1,634) | | Trading account (*n* = 200) | |
|---|---|---|---|
| 1 to 15,000 t | 38% | Up to 50,000 t | 43% |
| 15,001 to 100,000 t | 32% | 50,001 to 1 million t | 38% |
| 100,001 to 400,000 t | 40% | More than 1 million t | 56% |
| More than 400,000 t | 47% | | |
| Total | 36% | Total | 46% |

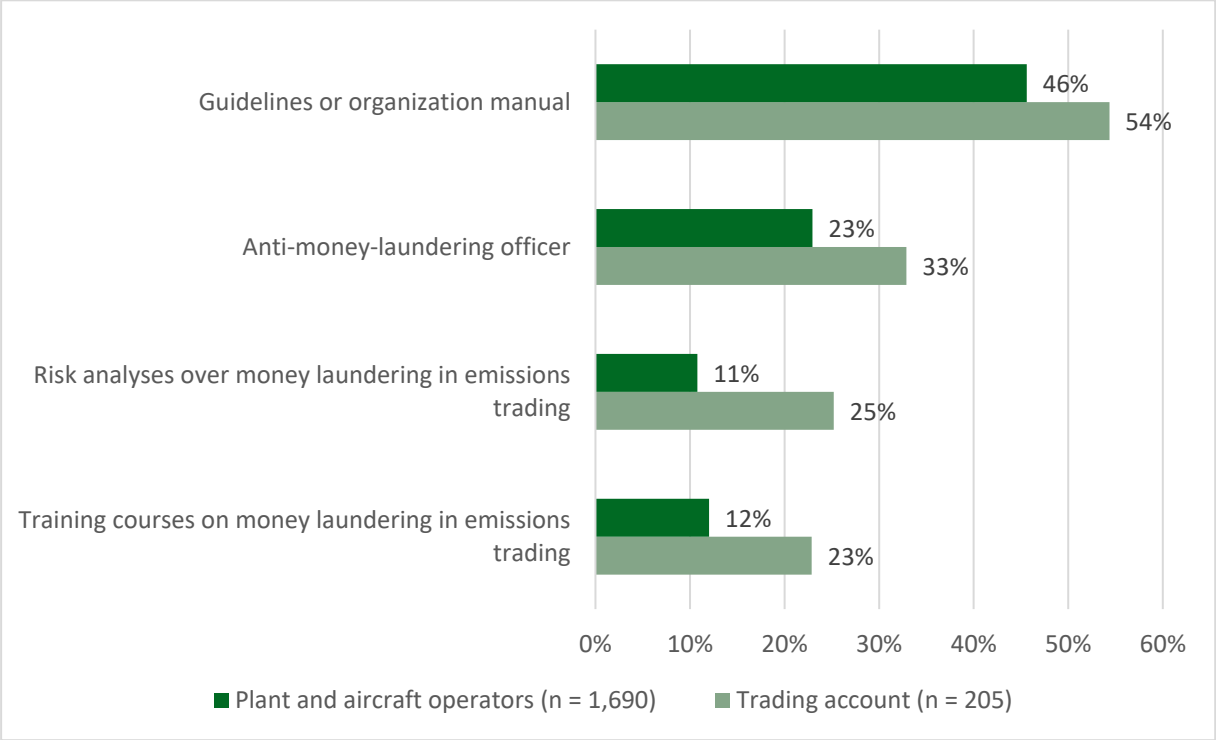
## 5.3 AML compliance measures

The survey cannot assess the quality of AML compliance measures in companies that are active in the EU ETS. The following results are based solely on the information provided by the account holders surveyed. With this caveat, respondents' reports do allow an assessment of the state of CMS in the EU ETS, although it is likely to be somewhat more positive due to self-assessment.

Nonetheless, the survey results show that the implementation of AML compliance measures is by no means a matter of course for either installation and aircraft operators or traders. This is especially true for the group of installation and aircraft operators compared to trading account holders. Whereas almost one half of the former reported having money laundering prevention policies or an appropriate organizational manual in place (46 per cent), only one in four of them has an AML compliance officer (23 per cent) and only one in ten conducts relevant trainings (12 per cent) and risk analyses (11 per cent).

However, AML compliance measures are by no means widespread among traders either. Only one third (33 per cent) of the traders have an AML compliance officer. Even less well established are corresponding risk analyses (25 per cent) and trainings on money laundering prevention (23 per cent). Guidelines or organizational manuals (54 per cent) are unlikely to compensate for this deficit, because their contribution to money laundering prevention without corresponding trainings and risk analyses has to be classified as very low.

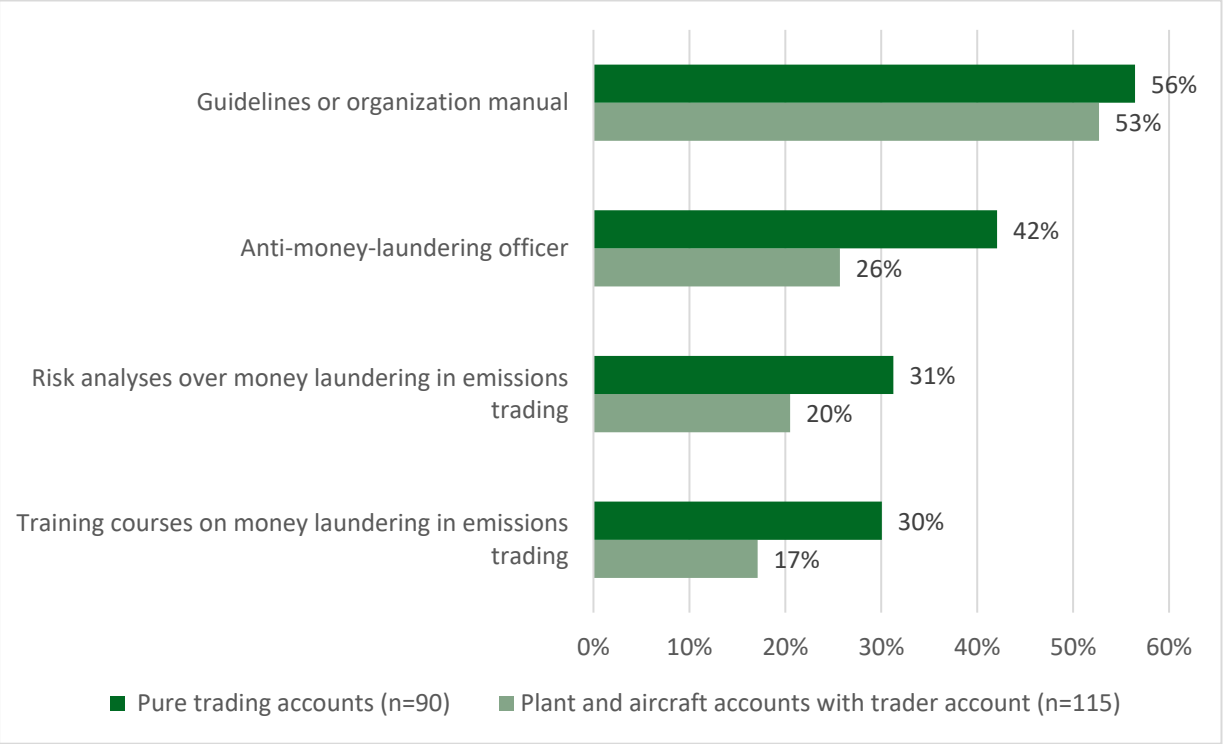
**Figure 16: Compliance measures to prevent money laundering**




Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

Among trading account holders, the group of pure traders has significantly more well-developed AML compliance programmes compared to installation and aircraft operators with a trading account. This holds for all essential compliance elements such as AML compliance officers (42 per cent [pure traders]/26 per cent [installation and aircraft]), trainings (30 per cent/17 per cent), and risk analyses (31 per cent/20 per cent).

**Figure 17: Compliance measures: Pure traders versus trading and installation/aircraft account holders**

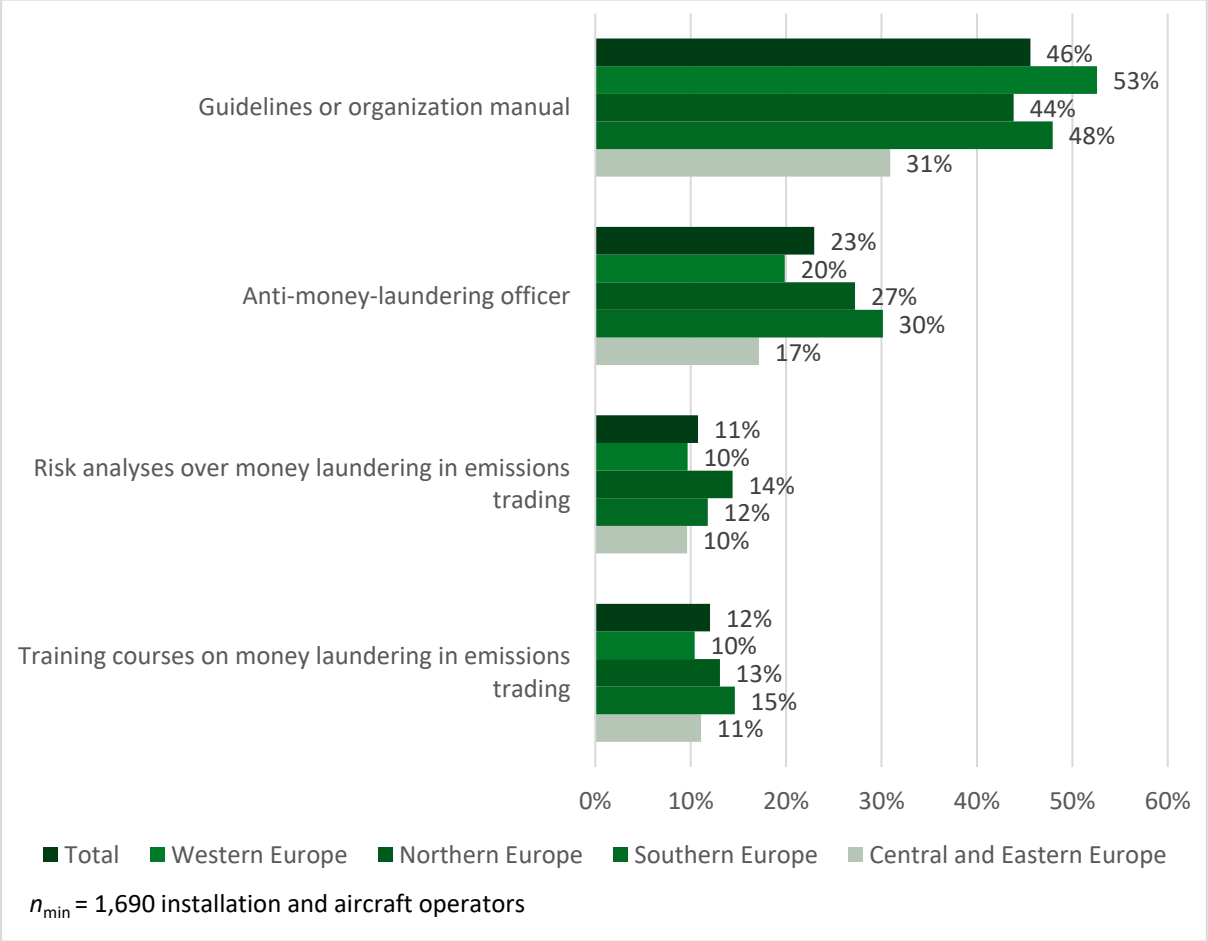



Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

The results of the survey show that the implementation of AML compliance measures is still too weakly developed in all regions, and at its weakest in Central and Eastern Europe. Trainings are carried out by only 10–15 per cent of installation and aircraft operators in all regions. The same applies to the low use of risk analyses (10–14 per cent).

There is greater variation in the implementation of an AML compliance officer (17–30 per cent). This is least common in companies in Central and Eastern Europe (17 per cent) and most common in Southern Europe (30 per cent). In Southern Europe, this could be due to the particular experience with organized crime.

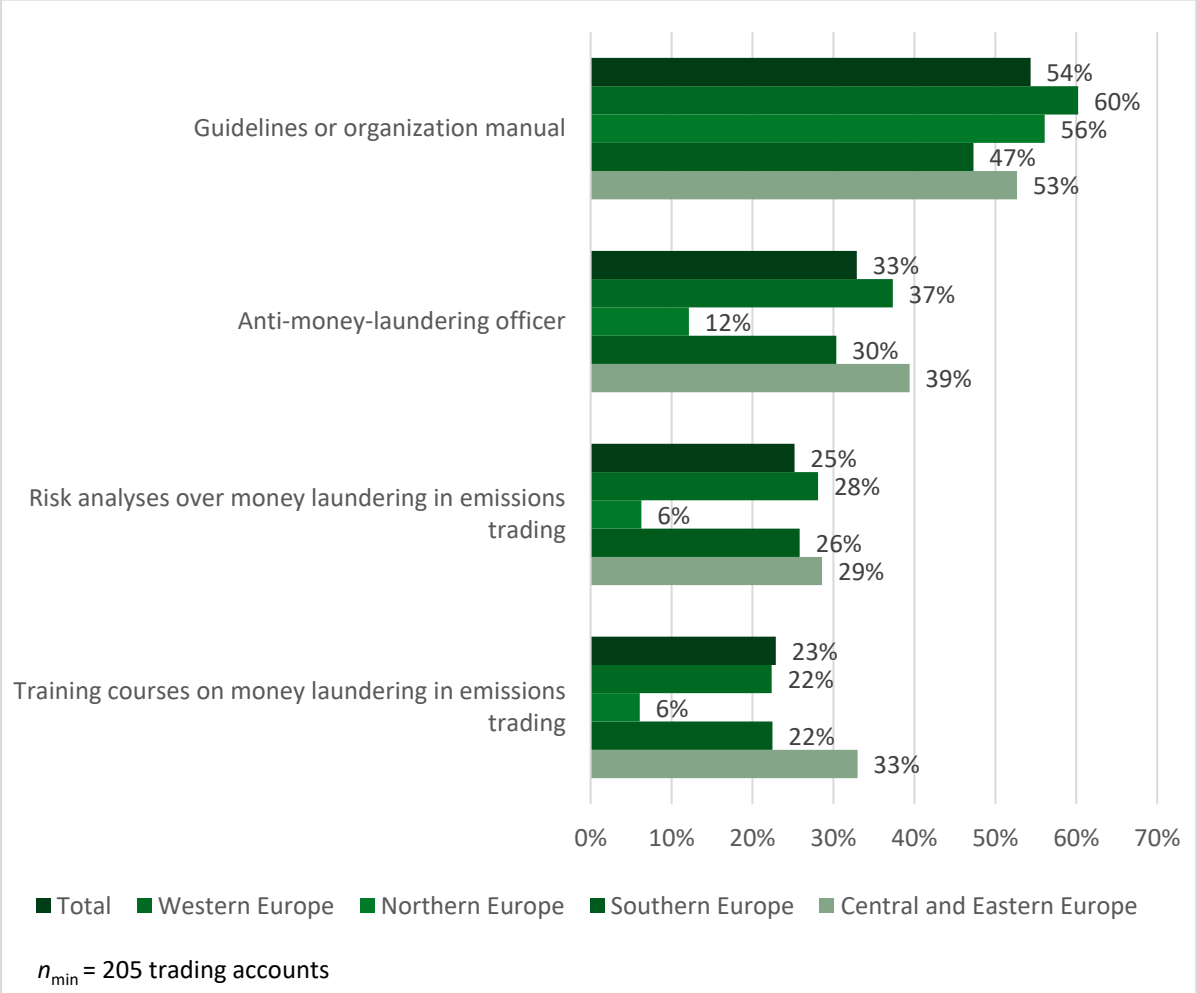
**Figure 18: Regional distribution of compliance measures: installation and aircraft operators**




Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

There are also no major regional differences in the implementation of AML compliance measures among the group of traders. Only traders in Northern Europe are least likely to have an AML compliance officer (12 per cent), risk analyses (6 per cent), and AML training (6 per cent), although they have a higher risk awareness. AML trainings are most common among traders in Central and Eastern Europe (33 per cent).

**Figure 19: Regional distribution of compliance measures: trading accounts**



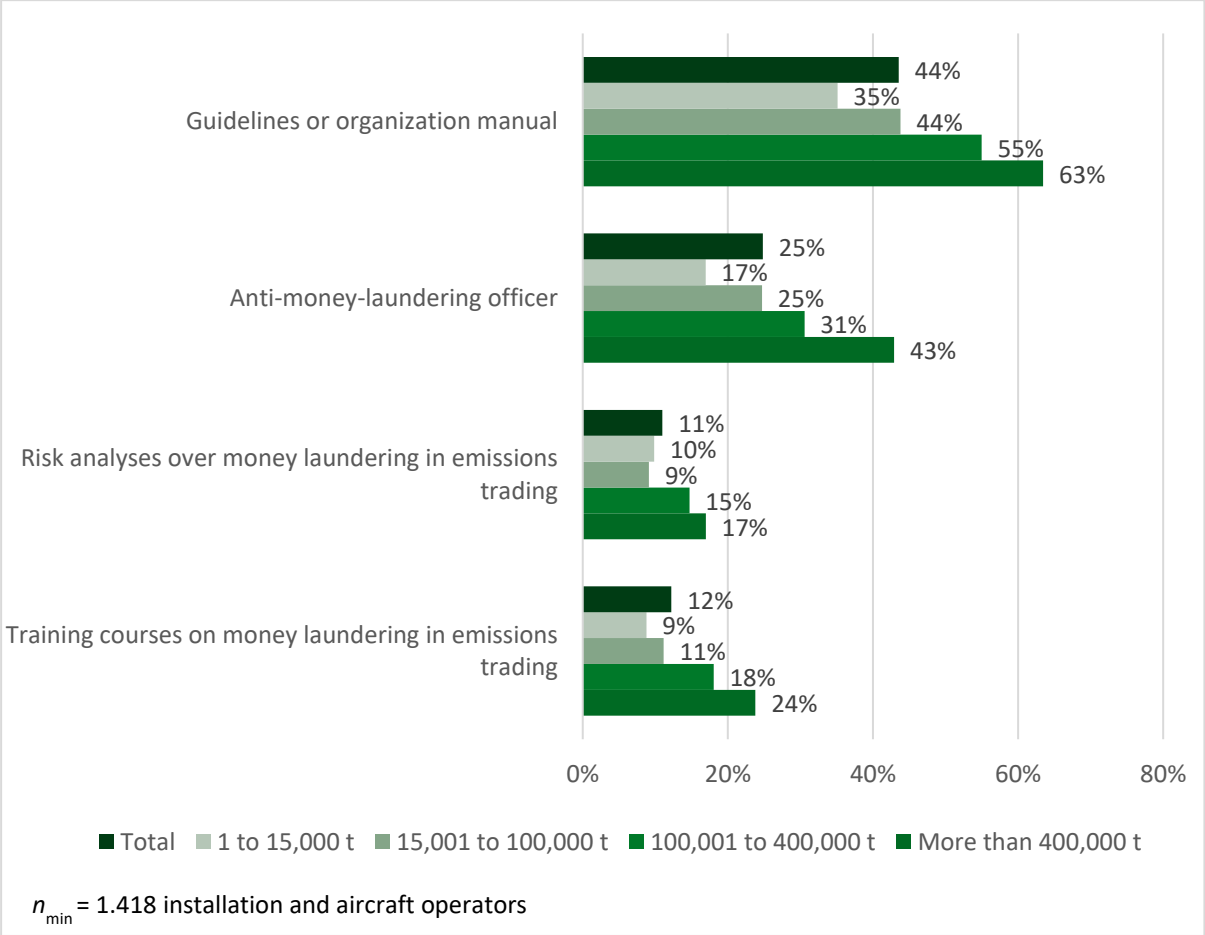

Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

One important finding of the study is that the implementation of AML compliance measures depends less on the region than on the size of the company. The majority of account holders interviewed already assumed that many AML compliance measures are not in place or hardly applied in their country, especially among small or medium-sized companies.

The results of the web-based survey confirm the interviewees' assessment. It tends to be larger installation and aircraft operators as well as larger traders that have implemented AML compliance measures more frequently (Figures 20 and 21). Only 17 per cent of smaller installation and aircraft operators with compliance needs of up to 15,000 tonnes have a compliance officer. Even fewer of them have trainings (9 per cent) and risk analyses (10 per cent).

Installation and aircraft operators with a compliance requirement of more than 400,000 tonnes have an above-average number of guidelines and organizational manuals (63 per cent) and a compliance officer (43 per cent). However, corresponding trainings (24 per cent) and risk analyses (17 per cent) are also too rarely available here (Figure 20). This is consistent with the assessments of the account holders interviewed.

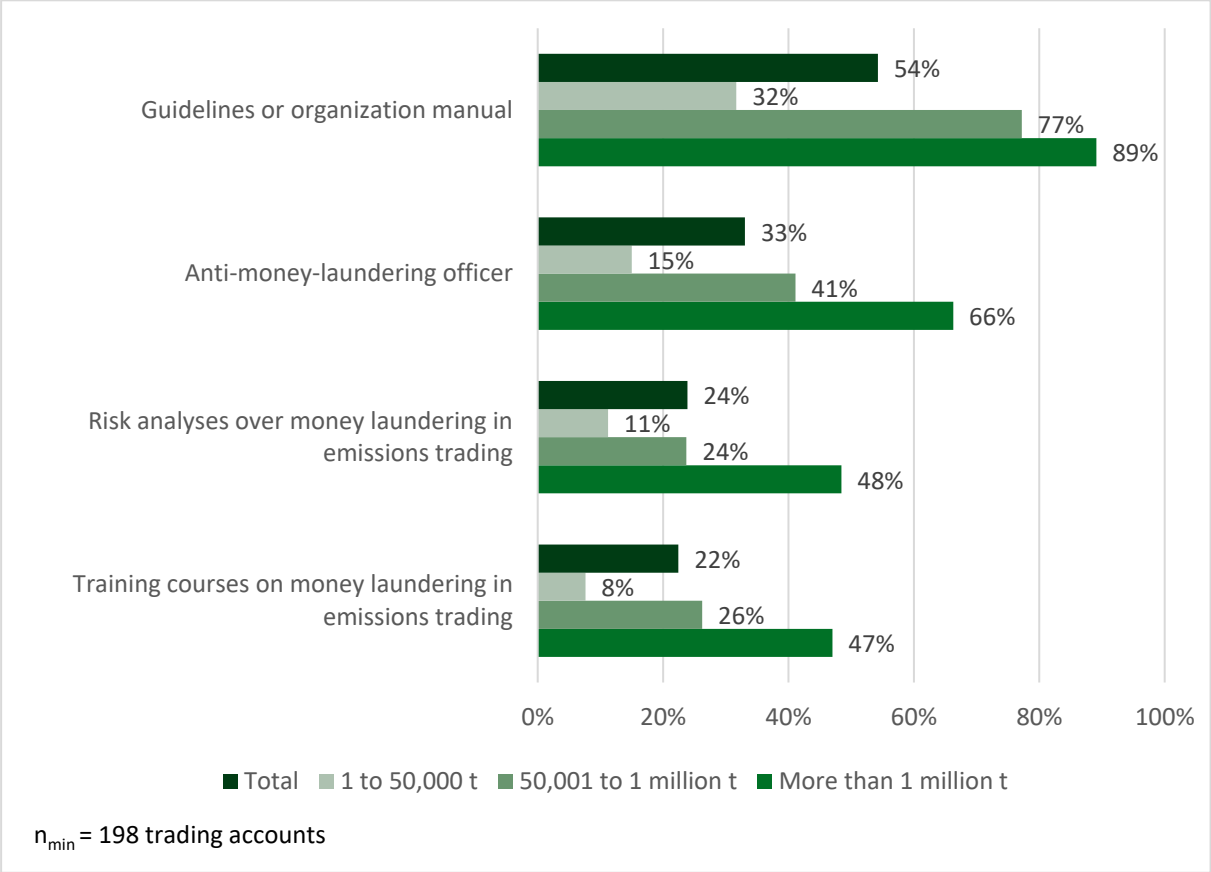
**Figure 20: Compliance measures in relation to compliance needs: installation/aircraft operators**




Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

The importance of the size of the company is also evident among trading account holders where the differences between companies with small and larger trading volumes are even greater (Table 21). For example, among the large traders with a trading volume of over 1 million tonnes, guidelines or organizational manuals are almost the rule (89 per cent) and two thirds have a compliance officer (66 per cent). Also, in this group of the largest traders, every second company carries out risk analyses (48 per cent) and trainings (47 per cent).

**Figure 21: Compliance measures in relation to volume of trading: trading accounts**




Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

## 5.4 Due diligence measures with new customers

Respondents were also asked about the due diligence measures that companies active in the EU ETS apply to new business customers. These statements are also self-reports that cannot be verified and, as with the assessment of risk awareness, a certain tendency towards a more positive self-assessment must be taken into account. Despite this reservation, the following information gives an impression of how due diligence measures are practiced with new customers.

Increased diligence is required in cases in which the prospective buyer is not only a new customer but is even unknown to the account holder in the $CO_2$ industry. This case constellation was reported most frequently in the web-based survey (see above Section 4.1, Table 11).

However, the majority of *account officers interviewed* relied on their own in-house know-your-customer (KYC) procedures along with their debt and credit risk checks, and they assumed that their own AML compliance was usually carried out comprehensively. They particularly emphasized the good technical analysis possibilities for transactions and the thoroughness of due diligence measures. According to the interviewees, this is to be expected regularly in larger companies, but much less frequently in small and medium-sized enterprises, as also confirmed by the results of the web-based survey.

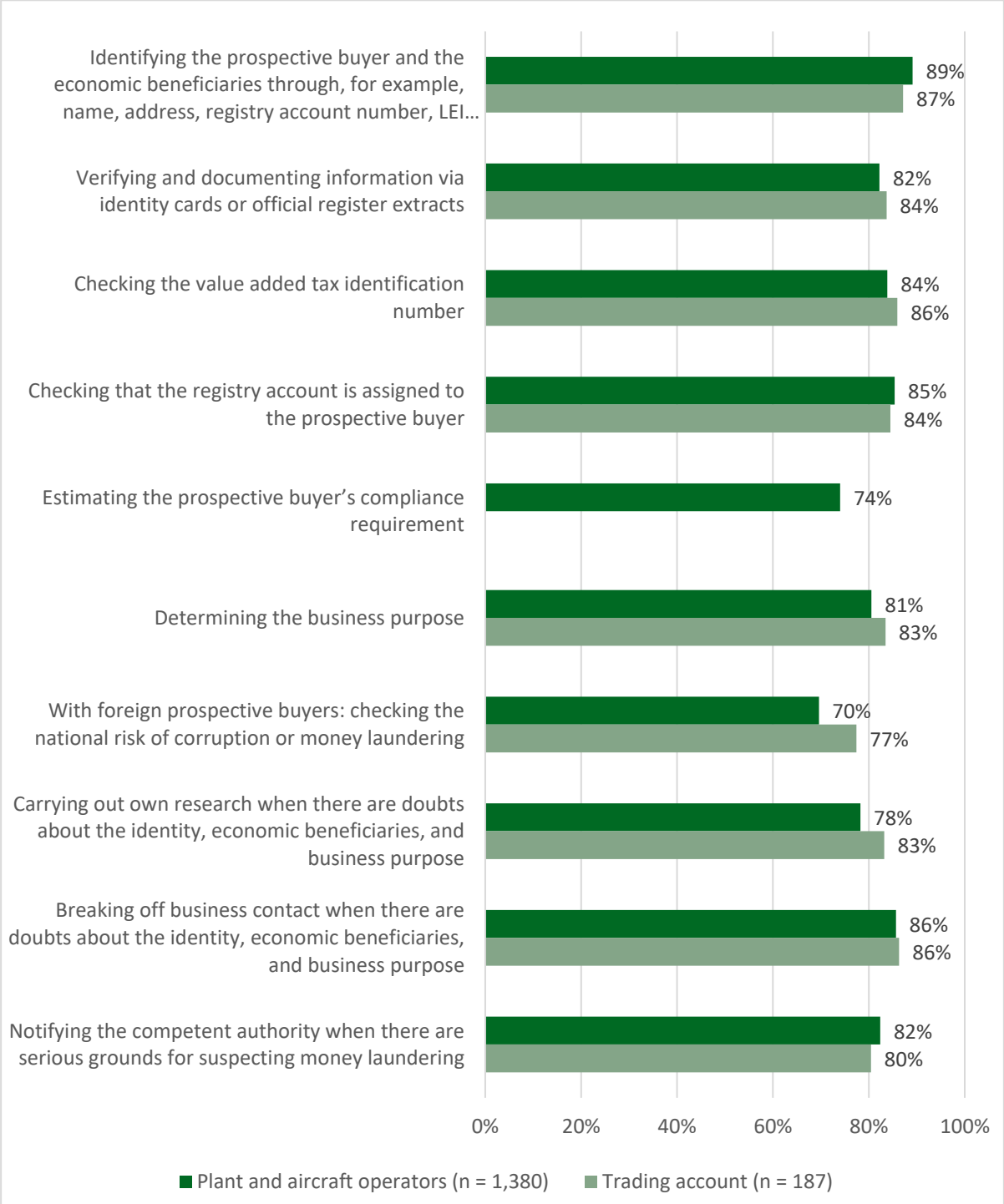
According to the installation and aircraft operators as well as traders, many due diligence measures are part of their business standards. There are no systematic differences between the two groups (Figure 22).

Their standards include *identification* of the prospective buyer and the *beneficial owner* by means of name, address, register account number, and Legal Entity Identifier (89 per cent [installation and aircraft operators]/87 per cent [traders]); the *verification* and *documentation* of information by means of, for example, identity card or register extract (82 per cent/84 per cent); and the verification of the transaction partner's *VAT identification number* (84 per cent/86 per cent).

However, for many of them, their business standards apparently do not include carrying out a *check on the country risk* for corruption or money laundering when dealing with foreign prospective buyers (70 per cent/77 per cent). Also, in case of *doubts about the identity* or the *true beneficial owner,* own investigations are not carried out consistently (78 per cent/83 per cent). This result was also confirmed by the *interviewees*. When there were doubts regarding the identity and the business purpose, the majority considered that own investigations are not carried out regularly, but rather infrequently.

A degree of scepticism is warranted with regard to the respondents' statements that, in case of doubts, they generally actually *break off business relations* (86 per cent/86 per cent), and in the case of a well-founded suspicion of money laundering, they even submit a *report* to the appropriate supervisory authorities (82 per cent/80 per cent). In view of the considerable number of 1,010 constellations of suspect facts reported in this study alone and the projected number of suspect facts of around 3,300 in the EU ETS, hundreds of SARs should actually be expected in emissions trading.

**Figure 22: Regular due diligence measures with new customers**



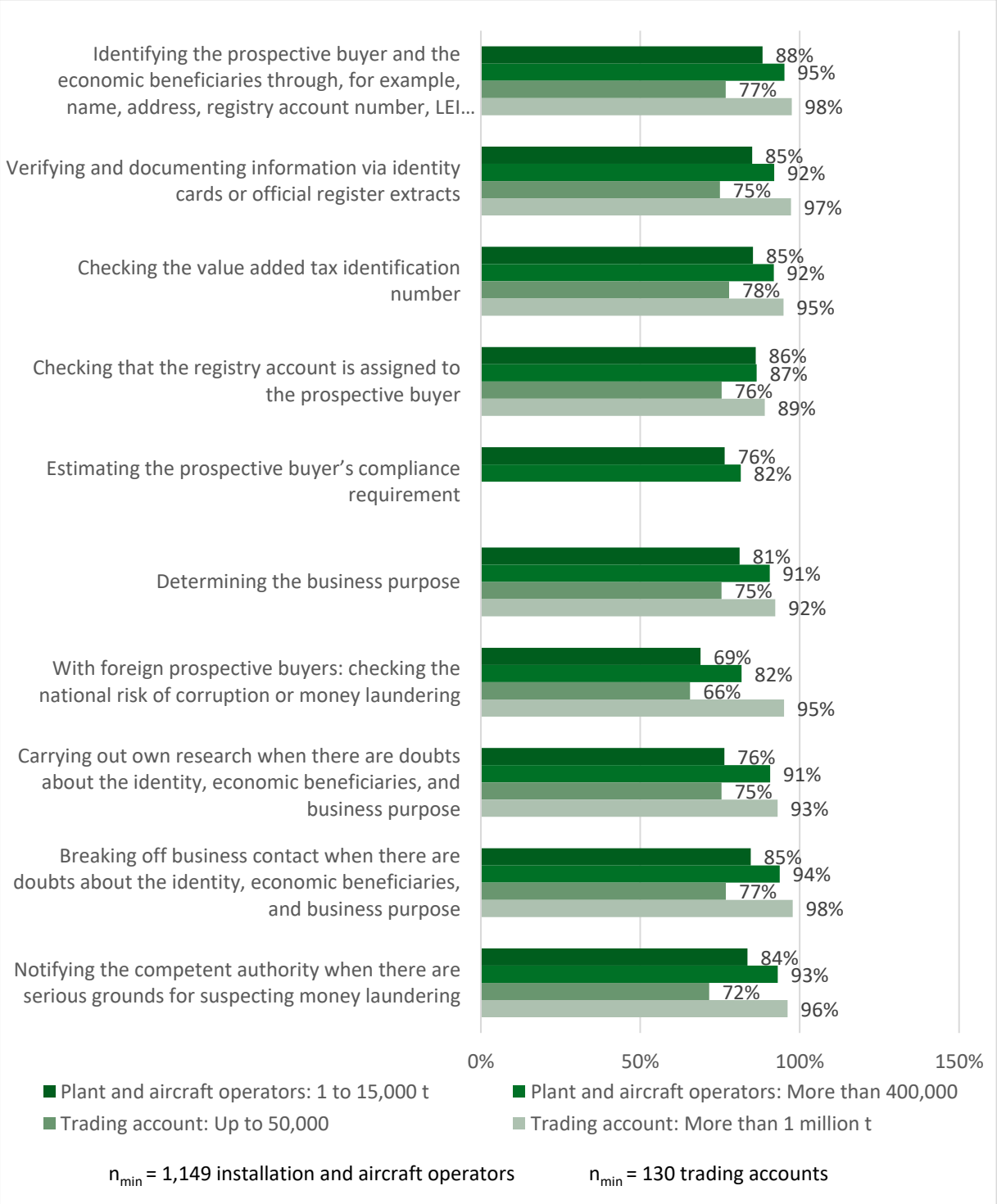

Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

As with the distribution of AML compliance measures, there are no major regional differences in the application of due diligence measures to new business customers (without figure), but there are differences between small and larger companies (figure 23). This is in line with the assessment of a large proportion of the interviewees.

The appropriate due diligence measures are applied significantly less frequently by smaller installation and aircraft operators and traders, as can be seen in the comparison between the smallest and largest groups of companies (Figure 23). This is probably one reason why smaller

companies are more likely to report suspect facts and are actually more likely to be targeted for money laundering (Sections 6.1 and 6.5).

**Figure 23: Regular due diligence measures in relation to compliance needs/trading volume**




Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

Moreover, the results of the study reveal a correlation not only between risk awareness and AML CMS (see above Section 5.2, Table 14) but also between due diligence measures and AML CMS (see Table 16 below).

The correlation between due diligence measures and AML CMS determined in this study can also be classified as moderate. It is even slightly higher for trading account holders. The probable causal direction is that with the implementation and expansion of a compliance programme, risk awareness increases and due diligence measures are applied more frequently.

**Table 16: Correlation between due diligence measures and AML CMS**

| | Installation and aircraft operators | Trading account |
|---|---|---|
| Pearson's *r* | 0.310*** | 0.432*** |
| Significance (2-tailed) | < 0.000 | < 0.000 |

***p* < 0.01; ****p* < 0.001

CMS Index: Summative score across a range of 0–4 measures.

## 5.5 Summary

The effects of implementing and developing an AML CMS are always twofold. First, good compliance management leads to a higher rate of detecting compliance violations due to the increased awareness and more effective control measures in the companies—as other empirical studies have shown (the so-called control paradox).[17] It is only in the medium term that the widespread implementation of an AML CMS in the EU ETS market will lead to deterrence as the probability of detection increases from the perspective of potential offenders.

The results of the study confirm the first effect. An AML CMS demonstrably increases competence in recognizing indications of money laundering (risk awareness) and leads to more frequent due diligence measures being applied to new customers.

However, there were clear weaknesses in both *risk awareness* and compliance management. The *semi-structured interviews* with account holders showed that interviewees were aware of the risk of fraud, but hardly aware of the risk of being exposed to money laundering. They often had little knowledge about possible money laundering typologies.

Also, according to their self-assessments, less than one half of trading account holders (46 per cent) and about one third of installation and aircraft operators (36 per cent) felt confident about being able to recognize clues that would indicate the use of incriminated assets. Smaller companies also have an even lower level of risk awareness. This applies to both installation and aircraft operators as well as traders.

Major deficits were also found with regard to *compliance management*, especially among smaller installation and aircraft operators. Only 17 per cent of the smaller installation and aircraft

[17] Bussmann, K.-D. (2007): The control paradox and the impact of business ethics: A comparison of US and German companies, in: Bussmann, K.-D. (ed.), Crossing the borders: Economic crime from an international perspective, *Monatsschrift für Kriminologie und Strafrechtsreform*, vol. 2+3, p. 260–276; Bussmann, Kai-D./Niemeczek, A. (2019): Compliance through company culture and values: An international study based on the example of corruption prevention, in: *Journal of Business Ethics*, vol. 157 (3), p. 804.

operators with a compliance requirement of up to 15,000 tonnes have a compliance officer. Trainings (9 per cent) and risk analyses (10 per cent) are even less common. In contrast, compliance officers are more common among larger operators with compliance needs of over 400,000 tonnes (43 per cent). However, corresponding trainings (24 per cent) and risk analyses (17 per cent) are also too rare here.

According to the installation and aircraft operators as well as to the traders, many due diligence measures for new customers are part of their business standards. There are no systematic differences between the two groups. However, the survey also revealed that smaller installation and aircraft operators as well as traders apply due diligence measures significantly less frequently.

Implementing and building up a compliance programme proves to be central to money laundering prevention, because this leads to an increase in risk awareness and more frequent due diligence measures for new customers.

# 6 Factors influencing the awareness of suspect facts

In all groups of installation and aircraft operator as well as trading account holders, there have been reports of suspect trading offers or interests that give rise to a suspicion of money laundering. All groups are therefore at risk. However, not all groups appear to be equally exposed to this risk: certain factors increase or decrease it.

## 6.1 Company size

The size of a company in terms of its compliance needs or trading volume does not represent a higher risk of becoming a target of money laundering per se, especially if it has a sound AML compliance programme. However, companies can become prime targets for money laundering if greater chances of success are suspected. After all, our study also found that smaller installation and aircraft operators and dealers have a lower risk awareness (Section 5.2) and a less strongly developed AML CMS (Section 5.3) when measured against their compliance needs or trading volume. The assumption of potential buyers with criminogenic intentions would therefore be quite valid.

Results support this assumption: smaller installation and aircraft operators show a significantly higher risk. Those with a compliance requirement of up to 15,000 tonnes disproportionately frequently reported at least one suspected case. One in ten installation and aircraft operators reported such a case (10 per cent); the large companies with a compliance requirement of over 400,000 tonnes, significantly less frequently (5 per cent).

**Table 17: Number of suspect cases reported in the survey in relation to compliance needs: installation and aircraft operators**

| Installation and aircraft operators | 1 to 15,000 t (*n* = 494) | 15,001 to 100,000 t (*n* = 543) | 100,001 to 400,000 t (*n* = 189) | More than 400,000 t (*n* = 125) |
|---|---|---|---|---|
| At least one suspect case in relation to sample size | 10% | 7% | 8% | 5% |

A similar trend can also be seen in the group of traders, although it is less pronounced. In terms of sample size, 12 per cent of smaller traders with up to 50,000 tonnes trading volume reported a suspect case compared to 10 per cent of traders with a trading volume of over one million tonnes.

**Table 18: Number of suspect cases reported in the survey in relation to volume of certificates traded:**

| Trading accounts | 1 to 50,000 t (*n* = 95) | 50,001 to 1 million t (*n* = 35) | More than 1 million t (*n* = 43) |
|---|---|---|---|
| At least one suspect case in relation to sample size | 12% | 9% | 10% |

Presumably, business partners are more likely to try to place incriminated assets with companies that are suspected to have weaker AML CMS in order to increase their own chances of success. Weaknesses in compliance management and risk awareness are generally assumed to be more prevalent among smaller companies, as our semi-structured interviews with account holders revealed (Section 3.1.1). These general assessments are accurate, as our results show (Section 5). As a result, prospective buyers with money laundering intentions are likely to seek to exploit these weaknesses and are more likely to seek transactions with smaller companies with which they believe they have a greater chance of success.

## 6.2 Risk awareness

In principle, it can be assumed that there is a positive correlation between higher risk awareness and the detection of suspect transaction constellations. However, empirical proof of this effect of the so-called control paradox presupposes that the connection between risk awareness and the detection of suspect cases is independent of the risk either of being affected by money laundering or of being attractive for it.

The results of the study show no or at most a slightly negative effect of risk awareness for the group of installation and aircraft operators. The lower the respondents' knowledge of concrete criteria for assessing a risk, the more likely they were to report suspect transaction constellations. This negative correlation is also evident in the group of trading account holders (Table 19).

Presumably, this slightly negative correlation is due to their higher attractiveness for money laundering. Thus, companies are more likely to be targeted for money laundering when the chances of success are believed to be higher, and this is especially the case in smaller companies with a suspected lower risk awareness and weaker AML compliance management. These tend to include smaller operators and traders who not only have lower risk awareness but also less well-developed AML compliance management (Section 5.3, Figures 20 and 21). Despite their low risk awareness, they are more likely to perceive suspect cases (Table 19).

**Table 19: Number of suspect cases reported in the survey in relation to risk awareness**

| | **Installation and aircraft operators** | | |
|---|---|---|---|
| | **Not at all confident (*n* = 329)** | **Moderately confident (*n* = 719)** | **Confident (*n* = 587)** |
| At least one suspect case in relation to sample size | 10% | 10% | 6% |
| | **Trading accounts** | | |
| | **Not at all confident (*n* = 23)** | **Moderately confident (*n* = 86)** | **Confident (*n* = 91)** |
| | 27% | 8% | 16% |

## 6.3 Compliance measures

In principle, implementing AML compliance measures serves to reduce the risk of money laundering. This implies implicitly that suspect transaction constellations will be noticed more easily, especially through trainings and risk analyses. On the one hand, a well-developed AML CMS should lead to more suspect cases being reported. On the other hand, good AML compliance management is less attractive for money laundering. This may have a deterrent effect, so that companies that are better equipped against money laundering are less likely to become a target for it.

Trading account holders reveal a correlation between compliance management and the awareness of suspect cases. Although this correlation is not evident among traders in terms of the very widespread presence of guidelines, it can be found with regard to the other compliance measures: the more frequently traders have a compliance officer, risk analyses, and training courses, the more frequently they reported a suspect case.

Among trading account holders, the postulated positive effect of a well-developed CMS on the perception of suspect cases is thus confirmed, although the more companies have AML compliance management, the less attractive they are for money laundering.

**Table 20: Number of suspect cases reported in the survey in relation to compliance measures**

| | Installation and aircraft operators ($n_{min}$ = 1,690) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Guidelines or organization manual | | AML-compliance officer | | AML training courses | | AML risk analyses | |
| | Yes | No | Yes | No | Yes | No | Yes | No |
| At least one suspect case in relation to sample size | 8% | 9% | 7% | 9% | 8% | 9% | 7% | 9% |
| | Trading accounts ($n_{min}$ = 205) | | | | | | | |
| | 11% | 16% | 16% | 12% | 22% | 11% | 22% | 11% |

However, the presumed correlation between compliance management and the perception of suspect cases is *not* confirmed in the group of installation and aircraft operators. This is due to installation and aircraft operators generally having a weaker AML compliance management than holders of trading accounts, so that the sensitizing effect of an AML CMS does not seem to have a discernible impact, unlike in the trader group.

The *absolute dark figure is* therefore likely to be greatest among smaller installation and aircraft operators with weaker AML CMS and low risk awareness, even though they reported more suspect transaction interests in relative terms (Section 6.1, Table 17).

## 6.4 Due diligence measures

In general, it can be assumed that exercising due diligence measures with new business customers increases the probability that suspect business proposals will be noticed more easily.

On the other hand, a (presumed) more frequent application of due diligence measures may also make a company less attractive for money laundering.

In the group of *traders*, the more frequent application of due diligence measures to new business customers increases the probability that suspect business initiations will be noticed (Table 21). Despite the presumed deterrent effect, consistent AML compliance management still increases the perception of suspect transaction constellations.

In the group of *installation and aircraft operators*, in contrast, there is no uniform picture: only a few due diligence measures minimally increase the probability of noticing suspect transaction constellations (without table). As with the impact of compliance measures, a more regular application of due diligence measures does not lead to a more frequent detection of suspect cases among installation and aircraft operators.

This may be due to the fact that AML compliance management is still too weakly developed in this group of operators (Section 5.3, Table 16) to raise awareness of suspect transaction constellations. Even when exercising due diligence measures, suspect cases are not perceived significantly more often.

**Table 21: Number of suspect cases reported in the survey in relation to due diligence measures with new customers: trading accounts**

| | Due diligence measures | At least one suspect case reported |
|---|---|---|
| Identifying the prospective buyer and the economic beneficiaries through, for example, name, address, registry account number, LEI (Legal Entity Identifier) | As a rule | 16% |
| | Never | 5% |
| Verifying and documenting information via identity cards or official register extracts | As a rule | 16% |
| | Never | 6% |
| Checking the value added tax identification number | As a rule | 16% |
| | Never | 3% |
| Checking that the registry account is assigned to the prospective buyer | As a rule | 15% |
| | Never | 7% |
| Determining the business purpose | As a rule | 17% |
| | Never | 3% |
| With foreign prospective buyers: checking the national risk of corruption or money laundering | As a rule | 17% |
| | Never | 5% |

| | Due diligence measures | At least one suspect case reported |
|---|---|---|
| Carrying out own research when there are doubts about the identity, economic beneficiaries, and business purpose | As a rule | 16% |
| | Never | 6% |
| Breaking off business contact when there are doubts about the identity, economic beneficiaries, and business purpose | As a rule | 16% |
| | Never | 3% |
| Notifying the competent authority when there are serious grounds for suspecting money laundering | As a rule | 12% |
| | Never | 22% |

## 6.5 Summary

The results of the study show that the implementation of AML compliance measures and the regular exercise of due diligence on new customers increases awareness of suspect business initiations in the group of trading account holders.

However, this effect is not evident in installation and aircraft operators, because AML compliance management here is predominantly insufficient to have a sensitizing effect.

An opposite effect is also evident with regard to risk awareness. Both installation and aircraft operators as well as traders who report lower ratings for their knowledge of concrete criteria for assessing a risk were more likely to report suspect transaction constellations.

This is because money laundering risks became visible even when risk awareness is low simply because the survey asked questions about concrete constellations of suspect cases. The respondents recalled suspect case constellations that they had not previously classified as such. This applies above all to small installation and aircraft operators and traders who are the preferred targets of money laundering, because they are assumed to offer such practices a greater chance of success due to their low risk awareness and considerable deficits in compliance management.

Therefore, smaller installation and aircraft operators, in particular, face an increased risk of exposure to money laundering, because they are likely to have greater weaknesses in risk awareness and compliance management.

**Table 22: Correlations in the survey**

| | Suspect cases reported by | |
|---|---|---|
| | **Installation and aircraft operators** | **Trading accounts** |
| Small companies | + | + |
| Low risk awareness | + | + |
| Compliance measures implemented | (/) | + |
| High precautionary measures | (/) | (+) |

# 7 Risk of market manipulation

## 7.1 Legal situation in the EU ETS

The legal connection between market manipulation and money laundering lies in the fact that market manipulation as well as subsequent offences are suitable prior offences to money laundering. For this to be the case, national standards must either include the offence explicitly in their catalogue of prior offences; or, in the absence of a catalogue of prior offences, view market manipulation simply as a suitable prior offence.

The previously disparate sanctions regime in the European market has now been harmonized by the codified targets of the Market Abuse Regulation (MAR)[18] for all Member States. Due to the national sanctioning and criminalisation monopoly of the individual member states, the codification of penal provisions is incumbent upon them. According to Art. 3 para. 1 no. 1 MAR, Art. 4 para. 1 NR. 15 in connection with Annex I section C Directive 2014/65/EU - MiFiD II, emissions certificates are financial instruments and therefore subject to the protection of capital market regulations.

After the introduction of the EU ETS and the enactment of the EU ETS Auction Regulation, criminal provisions were also implemented to protect against market manipulation and insider trading.[19] Market manipulations related to the EU ETS are prohibited by Art. 14, 15 MAR and Art. 38, 39 EU ETS.

A market manipulation is criminal when false or misleading signals are sent to exchange or OTC trading. This can be done either through both false or misleading information or through actual trading activities. Therefore, a distinction is made between:

- Information-based market manipulation (cf. Art. 12 para. 1 lit. c, d MAR) and
- Trade-based market manipulation (cf. Art. 12 para. 1 lit. a, b MAR).

In the case of trade-based market manipulation, a few trading account holders handle very high volumes and thus possess a power that enables them to influence the market and exchange price through targeted and concerted buy or sell orders:

**Matched Orders**

Transactions in which at least two traders coordinate their market behaviour (e.g., simultaneous sale/purchase of emissions certificates) in order to simulate lively trading activity and influence the market price in one direction.

**Pumping and dumping**

The price of emissions certificates is to be driven up artificially by collusion in order to then sell them on a massive scale. In order to drive up the price, information-based market manipulation is often used by, for example, spreading rumours.

[18] Regulation (EU) 596/2014 of 16.04.2014 on market abuse, OJ L 173/1.
[19] Regulation (EU) 1031/2010 of 12.11.2010 on the timing, administration, and other aspects of auctioning of greenhouse gas emission allowances, OJ, L 302/1.

| Circular Trading |
| --- |
| Sequence of transactions that take place again and again in a circular fashion in order to steer the market price of emissions certificates in a certain direction. |

## 7.2 Risk of market manipulation

In the view of many respondents, trading in emissions certificates is a relatively small market compared to other securities markets—especially the stock exchange—and that it can be influenced by a few players trading in relatively low volumes. Only a few account holders therefore assessed the risks of *information- or trade-based market manipulation* as 'almost zero' (7–10 per cent).

In contrast, more than one half of the installation and aircraft operators and trading account holders rated the risks of *information-based market manipulation* as (rather) high (20 per cent [installation and aircraft]/18 per cent [trader]) or at least moderate (39 per cent/33 per cent).

With regard to information-based market manipulation, *interviewees* stated that a pronounced asymmetry of information, which could have permitted an influence when the market first formed, no longer exists today. However, from their perspective, a risk of *information-based market manipulation* remains due to the information policy of brokers. Their interest is independent of trading, because every transaction already triggers a brokerage fee.

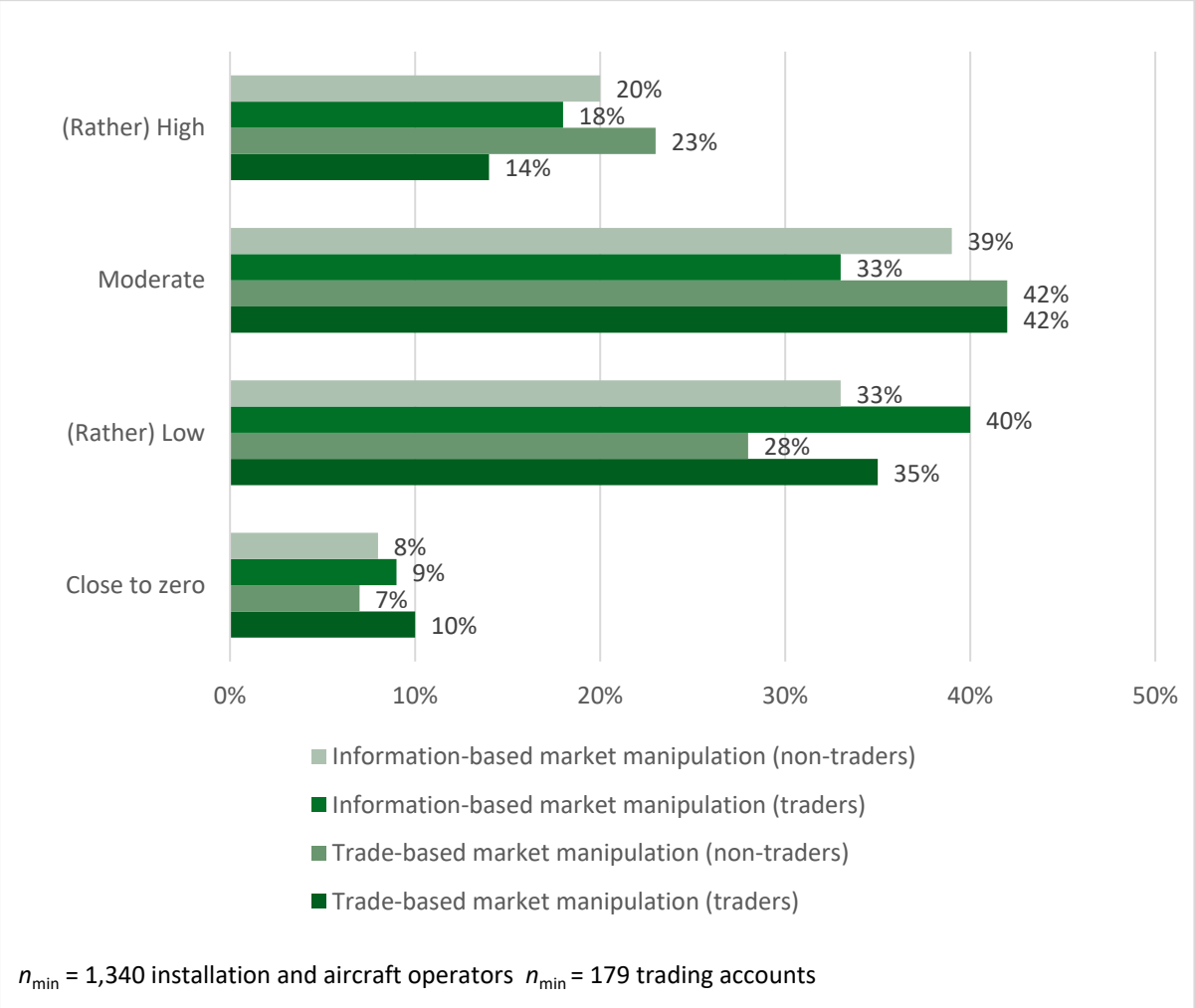
The risks of *trade-based market manipulation* are even more frequently rated higher: 23 per cent of installation and aircraft operators and 14 per cent of traders assessed this risk as (rather) high and 42 per cent in both groups as moderate.

The *interviews* with account holders also revealed a higher risk in *trade-based market manipulation.* In principle, this risk was higher from the interviewees' perspective, because in exchange-based trading, it was possible for banks and free, unregulated traders with high trading volumes (cf. also hedge funds) to shift the market price in one direction.

In the view of some interviewees, other prices could also be driven via the market price. In particular, the high correlation between electricity and $CO_2$ prices is a possible control medium. From a company's point of view, it makes sense to manipulate the $CO_2$ price and drive it up so that the electricity price also rises. In the current market phase, the respondents believe that the $CO_2$ price is the main driver of the electricity price (and currently represents an almost 1 to 1 movement). The corresponding motivation for manipulation is therefore given in any case.

The respondents' statements on the possibility of market manipulation in emissions trading or the connection between electricity and $CO_2$ prices indicate a certain lack of confidence. However, the market participants cannot base their assumptions on empirical studies, but draw on individual observations of market events. Further studies will be needed to examine whether the suspicions of the respondents can also be confirmed empirically.

**Figure 24: Judgement of the risk of market manipulation in the EU ETS among non-traders and traders**




$n_{min}$ = 1,340 installation and aircraft operators $n_{min}$ = 179 trading accounts

Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

## 7.3 Summary

In the legal systems of the countries participating in the EU ETS, market manipulation is not only a valid prior offence to money laundering but also an activity that can diminish or even shake confidence in a capital market. Confidence in this capital market therefore appears to be diminished to this extent among some of the participants in the EU ETS.

Only a minority of account holders assessed the risks of *information- or trade-based market manipulation* as 'close to zero' (7–10 per cent). The greatest risk was seen in trade-based market manipulation: 23 per cent of installation and aircraft operators and 14 per cent of traders rated this risk as (rather) high and 42 per cent in both groups as moderate.

The relatively high risk of manipulation of price trends suspected by a larger group of respondents is based on the special features of this capital market. Compared to other securities markets, trading in emission certificates is a relatively small market in which prices can be influenced by a few players buying or selling relatively low volumes.

# 8 Money laundering risks in the EU ETS

## 8.1 Risk situation and problem areas

The study shows that the EU ETS market has by no means only low money laundering risks, and that these risks are also spread relatively evenly across all regions of emissions trading with only minor deviations. Indeed, there is no clear regional focus (Section 3.4, Table 9). The highest risks, however, are to be found on the OTC market that is of such considerable importance for many installation and aircraft operators as well as traders.

Around 10 per cent of the account holders reported suspect transaction constellations that give rise to a suspicion of money laundering. Based on the large number of reported suspicions alone, one can project over 3,300 suspected cases in the two-year period (Section 4.1, Table 11). However, the absolute number of unnoticed suspect cases is markedly higher (Section 4.2).

Unless countermeasures are taken, risks in the EU ETS are not expected to diminish in the near future, especially given the rapidly growing market. Trading emissions certificates in the EU ETS possess features that are not only advantageous for legal trading, but also fundamentally increase the risk of money laundering for the following reasons:

1. They are an easily tradable international financial product because, although holding a registered account is a prerequisite for trading, this is not the case for fiduciary transactions
2. The security of the investment is guaranteed by the state: emissions certificates are intangible goods administered by a state institution or an institution commissioned by states
3. In part, the Union Registry can ensure only a relatively low level of transparency for both the acting account holders and the administrators of the registry itself, thereby allowing neither account holders to carry out know-your-customer checks within the Union Registry nor the registry administration to trace the financial processing of the legal transactions underlying a delivery of emissions certificates (on the need for reform, see section 8.3)

In addition to these fundamental characteristics of emissions trading, further risks arise not only from market conditions (4–6), but also from deficits in compliance management on the part of account holders (7–10), as the results of the study show.

4. Rising market prices
5. Importance of international trade in the EU ETS
6. High money laundering risks due to intensive trading via the international OTC market.
7. Generally widespread deficiencies in compliance management across the EU ETS
8. Highest risks among smaller installation and aircraft operators and trading account holders due to major deficits in compliance management
9. Lack of awareness of the most common typology group: concealment of the true beneficial owners
10. Risk of market manipulation
11. System of trust accounts safeguards only against hacking, but not against money laundering risks

**Re 4) Rising market prices**

The rising prices for emissions certificates are increasing the attractiveness of these financial products for money laundering. Stable markets are particularly suitable for money laundering, especially if they also show a value appreciation. The carbon market increasingly fulfils both criteria.

In 2017, the price was still below 8 Euro per tonne of $C0_2$.[20] This has been followed by a continuous increase to currently over 50 Euro [09.07.2021: 53.80 EUR/t].[21]

Price developments in the carbon market have thus been extraordinarily dynamic. The market for emissions certificates will therefore continue to gain in attractiveness for money launderers due to the price level now attained.

For the real estate sector, there is a reasonable assumption by the EU[22] and the research on the effects of money laundering[23] that price increases can be explained by the capital inflow of incriminated assets for money laundering. However, there are doubts whether this effect can be applied to an exchange market such as CO2 emissions trading. In particular, the current price development can be explained by ambitious climate protection measures.

### Re 5) Importance of international trade in the EU ETS

In cross-border trade, the risks of being exposed to money laundering increase, because it is more difficult to gather the information associated with due diligence measures (Section 5.4) when new customers are domiciled in other EU countries and have a different national register account.

Although emissions trading in the EU ETS is predominantly national in scope, it is becoming increasingly international for not only installation and aircraft operator account holders but also trading accounts as companies grow in size.

For smaller installation and aircraft operators, international trade accounts for 13 per cent (1–15,000 t) and 16 per cent (15,001–100,000 t) of their trade volume respectively. For larger installation and aircraft operators with compliance needs over 100,000 tonnes, trade with business parties in another EU Member State and an account in another national registry alone makes up one quarter of their trade volume (25 per cent [100–400,000 tonnes]/26 per cent [<400,000]) (see Section 2.3 above).

For traders with a high and very high trade volume of 50,001 to 1 million and over one million tonnes, pure domestic trade accounts for only 59 per cent and 57 per cent of their trade volume respectively. The larger traders carry out the remaining around 40 per cent of their trade with foreign business partners who have a register account in the respondent's country (17 per cent [50,001 to 1 million]/19 per cent [over one million]) or, even more often, an account in another EU member state (22 per cent/23 per cent).

### Re 6) High money laundering risks due to intensive trading via the international OTC market

Money laundering risks in exchange trading with ICE and EEX can be classified as very low due to the high compliance requirements. There are also no risks when installation and aircraft operators trade within their company or between their subsidiaries.

[20] EEX - Emission Spot Primary Market Auction Report 2017, available via https://www.eex.com/en/market-data/environmental-markets/eua-primary-auction-spot-download. Because price differences between auctions at ICE in London or EEX in Leipzig are only small, reference is made here to EEX.

[21] https://www.eex.com/en/market-data/environmental-markets/spot-market.

[22] European Parliamentary Research Service (February 2019), *Understanding money laundering through real estate transactions*, p7; https://www.europarl.europa.eu/cmsdata/161094/7%20-%2001%20EPRS_Understanding%20money%20laundering%20through%20real%20estate%20transactions.pdf.

[23] Barnes, B. (2021) Economic and social effects of money laundering: the UK case, *Journal of Humanities and Social Sciences*, Vol. 4 (1), p. 149-162, https://opastonline.com/open-access/economic-and-social-effects-of-money-laundering-the-uk-case.pdf; Maloney, M. / Somerville, T. / Unger, B. (2019) *Combatting Money Laundering in BC Real Estate*, Chapter 4, p. 14, 61; https://cullencommission.ca/files/Combatting_Money_Laundering_Report.pdf.

The greatest risks, however, are in the OTC market. The OTC market is very important because every second installation and aircraft operator also uses it to trade with intermediaries (54 per cent) and every third with banks or other financial institutions (32 per cent, see Section 2.1 above). However, it is not primarily larger companies (measured in terms of compliance requirements) that trade on the risky OTC market, but relatively often also smaller companies that have the greatest deficits in compliance management and are therefore among the preferred targets for money laundering (Sections 6.1 and 6.5).

**Re 7) Generally widespread deficiencies in compliance management across the EU ETS**

Implementing and building up an AML CMS is essential for the development of risk awareness and for the application of due diligence measures to new clients. However, there are significant weaknesses in both risk awareness and compliance management. For both installation and aircraft operators as well as traders, experience with VAT fraud has shown that there is a risk awareness for fraud, but hardly any awareness of the risk of being exposed to money laundering.

According to respondents' self-assessments, about one third (36 per cent) of installation and aircraft operators and less than one half (46 per cent) of trading account holders felt confident about recognizing clues that may indicate the use of incriminated funds (Section 5.2).

Major deficits were found in the implementation of compliance measures, especially among installation and aircraft operators. Only one in four operators has an AML compliance officer (23 per cent) and only one in ten carries out corresponding trainings and risk analyses (Section 5.3). But also in the group of traders, only one third (33 per cent) of the companies have an AML compliance officer, and only about one quarter have corresponding risk analyses (25 per cent) and trainings on money laundering prevention (23 per cent, Section 5.3).

**Re 8) Highest risks among smaller installation and aircraft operators and trading account holders**

The group of smaller installation and aircraft operators with compliance needs of up to 100,000 tonnes and smaller traders with a trading volume of up to 50,000 tonnes show the greatest deficits in AML compliance management. Only 17 per cent of smaller installation and aircraft operators with compliance needs of up to 15,000 tonnes have an AML-compliance officer. Trainings (9 per cent) and risk analyses (10 per cent) are even rarer.

It was particularly smaller installation and aircraft operators and traders that reported more frequently on suspect transaction constellations (Section 6.1), because they are preferred targets for money laundering due to their weaknesses in compliance management.

**Re 9) Lack of awareness about the most common typology group: concealment of true beneficial owners**

Emissions certificates are securities that are also suitable as an investment and speculative object for both natural and legal persons. Without having a registry account themselves, outsiders can participate in the market via the construct of fiduciary management over traders who hold these securities in their registry accounts. This is the problem of the true beneficial owner that is known to be one of the weaknesses in the fight against money laundering.

Typically, the true origin of the incriminated asset should be concealed through multiple transactions. The three stages of placement, layering, and integration are well known. Already at

the stages of placement and layering, an additional attempt is made to conceal the true beneficial owner.

Trading on the OTC market is particularly suitable for this. The account holders surveyed reported numerous transaction constellations that could serve to conceal the true beneficial owner. In total, it has to be assumed that there were more than 1,700 such constellations in the EU ETS over a period of two years (Section 4.3). Particularly frequently, it was holders of trading accounts who reported suspect cases with an increased risk of concealment of the true beneficial owner.

**Re 10) Risk of market manipulation**

In the legal systems of the countries participating in the EU ETS, market manipulation is not only a valid prior offence to money laundering but also an activity that can diminish or even shake confidence in a capital market.

Only a few account holders rated the risks of *information- or trade-based market manipulation* as 'almost zero' (7–10 per cent). The majority of installation and aircraft operators or trading account holders rated the risks of information-based market manipulation as (rather) high (20 per cent [installation and aircraft]/18 per cent [trader]) or at least moderate (39 per cent/33 per cent).

The risks of trade-based market manipulation were rated higher even more frequently: 23 per cent of the installation and aircraft operators and 14 per cent of the traders assessed the risk as (rather) high and 42 per cent of both groups as moderate.

The reason for this is the relatively small EU ETS market compared to other securities markets such as the stock exchange. From the respondents' point of view, there is a concern that a few players can influence market prices with relatively small volumes. This diminishes the confidence of some of the participants in the EU ETS in this capital market.

**Re 11) System of trusted accounts safeguards only against hacking, but not against money laundering risks**

Trading between holders of operator holding accounts and aircraft operator holding accounts is subject to specific restrictions, because transaction rules require the establishment of a *trusted account list*. In order to trade with accounts outside the trusted account list, operators must first submit an application. Nonetheless, this regulatory restriction was made in response to past fraud and theft cases. However, the suitability of trusted accounts for preventing money laundering is only limited. All installation and aircraft operators can set up trusted accounts for all possible account holders, including those from other EU countries. The only security benefit of a trust account is that transactions to a new trust account can be initiated only after four working days so that hacking can be detected and combated.

Trusted accounts can also be set up for traders. However, they can trade to other accounts from the outset. The risk situation is even higher here due to the lower trading restrictions on the side of the trading accounts. This applies particularly to traders coming from EU countries that are particularly burdened with money laundering and corruption. In principle, installation operators with a trading account, but also trading companies, can be purchased with 'black money', and 'straw men' can be used as account representatives. As a result, the *true beneficial owners* remain in the dark (see Point 9.).

## Outlook

The dynamic rise in prices in the EU ETS should be highlighted. Emissions trading will become considerably more attractive for money laundering due to the price level that has now been reached. If compliance management deficits among account holders persist, the risks of money laundering in the EU ETS are also likely to develop dynamically. However, they will remain largely unnoticed if compliance management continues to remain deficient.

# 9 Objectives and recommendations

On the basis of the study findings, the following objectives are recommended to reduce money laundering risks in the EU ETS by preventing and detecting suspect cases:

- To increase the subjective risk of detection
- To increase risk awareness

On the *account holder* side, both objectives can be achieved by implementing and expanding AML compliance measures. The afore mentioned essential AML compliance measures such as a compliance officer, risk analyses, and training should be increased significantly—especially for smaller companies because they are among the preferred targets for money laundering due to their compliance deficits.

On the part of national administrators, these objectives can be achieved through the following measures that simultaneously provide incentives for implementing and expanding AML compliance measures:

**1. Software-based analyses in the Union Registry**

The registry administration should develop software-based analysis tools to further identify the suspect transaction patterns named in this study and to refine the detection of risk-related constellations.

From the data available in the Union registry to date, the majority of the more than 3,300 projected suspect cases in the two-year period are unlikely to be detectable by national registry administrations. Routine checks already reduce the current attractiveness to money laundering of trading in the EU ETS, but for a sufficiently effective transaction analysis, registry administrations would need to be granted access to the entire transaction chains and relevant account data.

However, this requires a reform of the Union Registry and support from account holders (Section 8.3).

**2. Communication on risk situations and suspicious activity reports**

If software-based analyses of the Union Registry provide indications of possible money laundering, a suspicious activity report (SAR) should be made. The level of proof that would be required in criminal proceedings is not necessary here, because the threshold for reporting a suspicion is very low.

There is a need for annual communication of SARs on the websites of the national registries in order to promote awareness and the willingness to submit SARs in the market. For this purpose, the number and type of suspect facts (typologies) should be reported. In particular, a deterrent effect can be achieved in this way, because it is above all the subjective probability of detection that matters from the account holder's point of view.

**3. Reform of the Union Registry, in particular introduction of a transaction limit for cash payments**

A growing number of qualitatively pursuable SARs will require a reform of the European Registry Regulation and the Union Registry to increase transparency in the EU ETS regarding emissions certificates for both account holders and the national registry administration (Section 8.3).

In particular, the initiative of the EU Commission should be taken up and cash payments should be subject to a transaction limit of 10,000 Euro.[24]

### 4. Transparency in the Union Registry via AML CMS

The implementation of an AML CMS serves to prevent and raise awareness of money laundering risks among account holders. However, there are significant deficits in AML compliance management, especially among installation and aircraft operators. Trainings (12 per cent) and risk analyses (11 per cent) are carried out by only about one in ten operators.

For this reason, it is recommended that information on an account holder's existing AML compliance measures should be entered in the Union Registry. Moreover, making the compliance management of all account holders transparent would also serve to build up trust in emissions trading. For administrators, this information is also suitable for assessing money laundering risks.

Visibility of compliance measures in the Union Registry would allow registry administrators and account holders to assess the vulnerability of accounts to money laundering. A reformed Union Registry should include charts that allow both registry account holders and registry administrators to see whether key AML compliance measures are being implemented. These should be in particular:

- Guidelines and organizational manual on how to deal with money laundering risks in the EU ETS
- AML compliance officer
- Trainings on the risks of money laundering in the EU ETS
- Analyses of the risks in one's own dealings with the EU ETS

In addition, a chart should be provided for independent *auditing (evaluation)* of the AML CMS. As an incentive, the website of the German Environment Agency (UBA) should communicate that the registry administration takes the implementation of an audited AML CMS into account when assessing the money laundering risks faced by an account holder. It is also possible that such publicly available register information on the AML CMS will develop into a competitive factor between account holders.

### 5. Web-based trainings by national registry administrators

Awareness of money laundering risks in the EU ETS is largely insufficient, especially among smaller installation and aircraft operators and traders.

National registry administrators should offer web-based trainings for account holders in order to increase awareness and enable them to submit SARs. It will be necessary to consider whether participation should be mandatory for new applicants alone or also for all account holders and their authorized representatives.

### 6. Follow-up survey on the development of the risk situation and compliance management

Because it is cross-sectional, this study does not allow any reliable statements on further developments. In view of the dynamic price development in the carbon market and what is expected to be its growing attractiveness for money laundering, the development of both risks

[24] European Commission (2017): *Proposal for an EU initiative on restrictions on payments in cash. Inception Impact Assessment.*

and compliance management in the entire EU ETS should be monitored in order to take appropriate countermeasures.

A follow-up survey on the development of the risk situation and compliance management is therefore recommended after 3–4 years.

# 10 Appendix 1 – Questionnaires

## 10.1 Plant (Installation) and aircraft operators

**Information**

An initial study in Germany has already shown that the certificates traded in the EU ETS—just like any other financial product—are in principle, also subject to the risk of money laundering. The aim of this study is to gain a better understanding of the risks of money laundering in emissions trading across the EU.

Therefore, we are asking all holders and authorized representatives of holders of registry accounts for emission certificates to tell us about their experiences and assess how they see the situation—regardless of whether or not they themselves have any personal experience of money laundering.

Even if you consider the risk of money laundering to be low or if you have no experience with the topic, you will be helping us to make the findings representative.

The outcome of the survey is open and it is impartial. It may well reveal that there are individual sectors in which risks are either non-existent or only marginal.

Answering these few questions will take less than 15 minutes of your time.

This web-based survey is not collecting any data that would allow conclusions to be drawn about the companies or persons participating in it. All information and findings will be evaluated in strict confidentiality.

In the following, we understand emission certificates as both emission rights of the EU Emissions Trading Scheme and project credits from the Kyoto system such as certified emission reductions (CER) and emission reduction units (ERU).

Please note: In case you have received this questionnaire from another national administrator and already completed it, we would like to ask you to refrain from completing it a second time

Please note: Internationally operating companies with agencies or subsidiaries abroad: they are requested to answer independently for every country in which they are operating.

**1. In case you are registered in more than one national registry, please indicate the country of the registry in which you are most active.**

1. Austria
2. Belgium
3. Bulgaria
4. Croatia
5. Cyprus
6. Czechia
7. Denmark
8. Estonia
9. Finland
10. France
11. Germany
12. Greece
13. Hungary
14. Iceland
15. Ireland
16. Italy
17. Latvia
18. Liechtenstein
19. Lithuania
20. Luxembourg
21. Malta
22. The Netherlands
23. Norway
24. Poland
25. Portugal
26. Romania
27. Slovakia
28. Slovenia
29. Spain
30. Sweden
31. United Kingdom

**Please answer the following questions for the country in which you are registered or if necessary, for the country of the registry in which you are most active.**

**2. What types of registry account for emission certificates does your company in your country hold?**

(Multiple answers possible)

| | | |
|---|---|---|
| Operator holding account | ○ | 1 |
| Aircraft operator account | ○ | 2 |
| Trading account | ○ | 3 |
| Person holding account in the EU register | ○ | 4 |
| Person holding account in the Kyoto register | ○ | 5 |

**Computer command (Filter): If (also) trader account, then <u>only</u> "EU-trader questionnaire".**

**3. Were emission certificates traded (sold, purchased, or exchanged) for your company in 2018/ 2019?**

| Yes | No |
|---|---|
| = 1 | = 0 |
| ○ | ○ |

**Computer command (Filter): If no (no trading) → continue with Question 7. (not to be translated)**

**4. How frequently did your company engage in the following types of transaction with trading partners in 2019?**

| | More than 12 = 4 | 6–12 = 3 | 3–5 = 2 | 1–2 = 1 | Never = 0 | |
|---|---|---|---|---|---|---|
| Trading with the European Energy Exchange (EEX) | ○ | ○ | ○ | ○ | ○ | 1 |
| Trading with the InterContinental Exchange (ICE) | ○ | ○ | ○ | ○ | ○ | 2 |
| Trading with banks and other financial institutions (OTC [over-the-counter]) market) | ○ | ○ | ○ | ○ | ○ | 3 |
| Trading with intermediaries (also in other EU countries [OTC market]) | ○ | ○ | ○ | ○ | ○ | 4 |
| Trading with other operator holding accounts or aircraft operator accounts | ○ | ○ | ○ | ○ | ○ | 5 |
| Trading within the company, between subsidiary companies | ○ | ○ | ○ | ○ | ○ | 6 |

**5. Looking at your trading volume in different registry accounts, what approximate percentage is with partners in your country and/or in the EU for 2018/ 2019?**

With business partners …

| | |
|---|---|
| – in your own country and registry account in your country | __ % |
| – based in another EU country (including UK), but registry account in your country | __ % |
| – based in another EU country (including UK), but with an international registry account | __ % |
| – based outside the EU (e.g. Switzerland, Norway, Liechtenstein, USA) | __ % |
| | 100 % |

**Computer command (Filter): If only domestic, continue with Question 7.**

**6. In which countries are your foreign trading partners registered? Please name the three countries with which you have the largest volume of trade.**

**Country 1**

1. Austria
2. Belgium
3. Bulgaria
4. Croatia
5. Cyprus
6. Czechia
7. Denmark
8. Estonia
9. Finland
10. France
11. Germany
12. Greece
13. Hungary
14. Iceland
15. Ireland
16. Italy
17. Latvia
18. Liechtenstein
19. Lithuania
20. Luxembourg
21. Malta
22. The Netherlands
23. Norway
24. Poland
25. Portugal
26. Romania
27. Slovakia
28. Slovenia
29. Spain
30. Sweden
31. United Kingdom

Other country ___

**Country 2 and country 3, see above**

**7. In 2018/ 2019, how often has it come to your attention that emission certificates are being offered for sale or that an interest is being expressed in which …**

| Total number of cases in 2018/ 2019 … | Never = 0 | 1 case = 1 | 2–3 cases = 2 | 4–5 cases = 3 | If more than 5 cases, please specify | |
|---|---|---|---|---|---|---|
| The prospective buyer was not known to you in the $CO_2$ sector (e.g. no background in $CO_2$ trading)? | ○ | ○ | ○ | ○ | _ | 1. |
| The prospective buyer acted only as an intermediary without having his or her own trading account (e.g. lawyer)? | ○ | ○ | ○ | ○ | _ | 2. |
| Contact with the prospective buyer was exclusively via either an office service that organizes only return calls or a mobile phone number? | ○ | ○ | ○ | ○ | _ | 3. |
| The business purpose of the prospective buyer was unclear? | ○ | ○ | ○ | ○ | _ | 4. |
| The prospective buyer was unable to explain why he or she was trading with you rather than through the stock exchange? | ○ | ○ | ○ | ○ | _ | 5. |
| An unusually high quantity was to be traded? | ○ | ○ | ○ | ○ | _ | 6. |
| Small amounts should be traded at unusually short time intervals? | ○ | ○ | ○ | ○ | _ | 7. |
| The price of the certificates was markedly higher or lower than the market price (e.g. more than 20 ct/t)? | ○ | ○ | ○ | ○ | _ | 8. |
| The prospective buyer preferred to pay cash? | ○ | ○ | ○ | ○ | _ | 9. |
| The prospective buyer's payment method was unusual (e.g. over a bank account other than the one in the prospective buyer's registered location? | ○ | ○ | ○ | ○ | _ | 10. |

**Computer command (Filter): If no case is mentioned, continue with Question 9.**

**8. Please report on the two most conspicuous cases. In which country was the prospective buyer's company registered and what were the volumes?**

**Case 1**

**Country**

1. Austria
2. Belgium
3. Bulgaria
4. Croatia
5. Cyprus
6. Czechia
7. Denmark
8. Estonia
9. Finland
10. France
11. Germany
12. Greece
13. Hungary
14. Iceland
15. Ireland
16. Italy
17. Latvia
18. Liechtenstein
19. Lithuania
20. Luxembourg
21. Malta
22. The Netherlands
23. Norway
24. Poland
25. Portugal
26. Romania
27. Slovakia
28. Slovenia
29. Spain
30. Sweden
31. United Kingdom

Other country ____

**Volumes**

1. 1 to 15,000 t
2. 15,001 to 30,000 t
3. 30,001 to 60,000 t
4. 60,001 to 100,000 t
5. 100,001 to 150,000 t
6. 150,001 to 200,000 t
7. 200,001 to 400,000 t
8. 400,001 to 800,000 t
9. 800,001 to 2,000,000 t
10. More than 2,000,000 million t

**Case 2, see above**

## 9. Is your company equipped with the following (voluntary) measures to avoid money laundering in the EU ETS?

| | Yes = 2 | No, but being planned = 1 | No, not being planned = 0 | |
|---|---|---|---|---|
| Anti-money-laundering officer | ○ | ○ | ○ | 1. |
| Guidelines or organization manual | ○ | ○ | ○ | 2. |
| Training courses on money laundering in emissions trading | ○ | ○ | ○ | 3. |
| Risk analyses over money laundering in emissions trading | ○ | ○ | ○ | 4. |

## 10. If your company intends to trade in emission certificates with new traders or plant and installation operators, what procedures does it apply before concluding a transaction?

| | As a rule = 3 | Sometimes = 2 | Only in exceptional cases = 1 | Never = 0 | |
|---|---|---|---|---|---|
| Identifying the prospective buyer and the economic beneficiaries through, for example, name, address, registry account number, LEI (Legal Entity Identifier) | ○ | ○ | ○ | ○ | 1 |
| Verifying and documenting information via identity cards or official register extracts | ○ | ○ | ○ | ○ | 2 |
| Checking the value added tax identification number | ○ | ○ | ○ | ○ | 3 |
| Checking that the registry account is assigned to the prospective buyer | ○ | ○ | ○ | ○ | 4 |
| Estimating the prospective buyer's compliance requirement | ○ | ○ | ○ | ○ | 5 |
| Determining the business purpose | ○ | ○ | ○ | ○ | 6 |
| With foreign prospective buyers: checking the national risk of corruption or money laundering | ○ | ○ | ○ | ○ | 7 |

| | | | | | |
|---|---|---|---|---|---|
| Carrying out own research when there are doubts about the identity, economic beneficiaries, and business purpose | ○ | ○ | ○ | ○ | 8 |
| Breaking off business contact when there are doubts about the identity, economic beneficiaries, and business purpose | ○ | ○ | ○ | ○ | 9 |
| Notifying the competent authority when there are serious grounds for suspecting money laundering | ○ | ○ | ○ | ○ | 10 |

**11. How confident are you that you would notice any suspicious transaction constellations that might indicate money laundering in trading with emission rights?**

| Confident = 3 | Moderately confident = 2 | Not at all confident = 1 |
|---|---|---|
| ○ | ○ | ○ |

**12. There are also two possible ways of manipulating prices in the market for emission certificates:**

- **By deliberately spreading false or misleading information, e.g. in the media (information-based market manipulation) or**
- **Concerted trading in very high volumes of certificates by companies with a strong market position (trade-based market manipulation).**

**In your view, how high is the risk of market manipulation of prices in emissions trading for the two approaches just mentioned?**

| | (Rather) High = 3 | Moderate = 2 | (Rather) Low = 1 | Close to zero = 0 |
|---|---|---|---|---|
| Information-based market manipulation | ○ | ○ | ○ | ○ |
| Trade-based market manipulation | ○ | ○ | ○ | ○ |

**13. How high are the verified emissions in tonnes (compliance need of your company in your country) and how much have you traded in 2019?**

| | Verified emissions | Actual trading in 2019 | |
|---|---|---|---|
| 1 to 15,000 t | ○ | ○ | 1 |
| 15,001 to 30,000 t | ○ | ○ | 2 |
| 30,001 to 60,000 t | ○ | ○ | 3 |
| 60,001 to 100,000 t | ○ | ○ | 4 |
| 100,001 to 150,000 t | ○ | ○ | 5 |
| 150,001 to 200,000 t | ○ | ○ | 6 |
| 200,001 to 400,000 t | ○ | ○ | 7 |
| 400,001 to 800,000 t | ○ | ○ | 8 |
| 800,001 to 2,000,000 t | ○ | ○ | 9 |
| More than 2,000,000 million t | ○ | ○ | 10 |

## 10.2 Authorized representatives of trading accounts

**Please note: Only the following questions no. 3 and 12 have to be translated in your language for the questionnaire for traders**

### 3 How large were the volumes in your emissions trading in 2018/ 2019 in the following?

| | High = 3 | Moderate = 2 | Low = 1 | No trade = 0 | |
|---|---|---|---|---|---|
| Futures or forward contracts | ○ | ○ | ○ | ○ | 1 |
| Spot transactions with stock exchange (EEX, ICE) | ○ | ○ | ○ | ○ | 2 |
| Spot transactions with other trading accounts at the OTC market (without clearing) | ○ | ○ | ○ | ○ | 3 |
| Spot transactions with other operator holding accounts or aircraft operators (over trust account) | ○ | ○ | ○ | ○ | 4 |
| Complex financial products (e.g. investments) | ○ | ○ | ○ | ○ | 5 |
| Fiduciary transactions (such as lending emission certificates) | ○ | ○ | ○ | ○ | 6 |

### 12 What was the volume of emission certificates traded by your company in 2019?

| Total number of purchases and sales in 2019 | | |
|---|---|---|
| Up to 50,000 certificates | ○ | 1. |
| Over 50,000 to 150,000 | ○ | 2. |
| Over 150,000 to 300,000 | ○ | 3. |
| Over 300,000 to 500,000 | ○ | 4. |
| Over 500,000 to 1 million | ○ | 5. |
| Over 1 million to 2 million | ○ | 6. |
| Over 2 million to 5 million | ○ | 7. |
| Over 5 million to 10 million | ○ | 8. |
| Over 10 million to 50 million | ○ | 9. |
| Over 50 million | ○ | 10. |