

EU ETS – Participation in the auctions and outlook secondary market

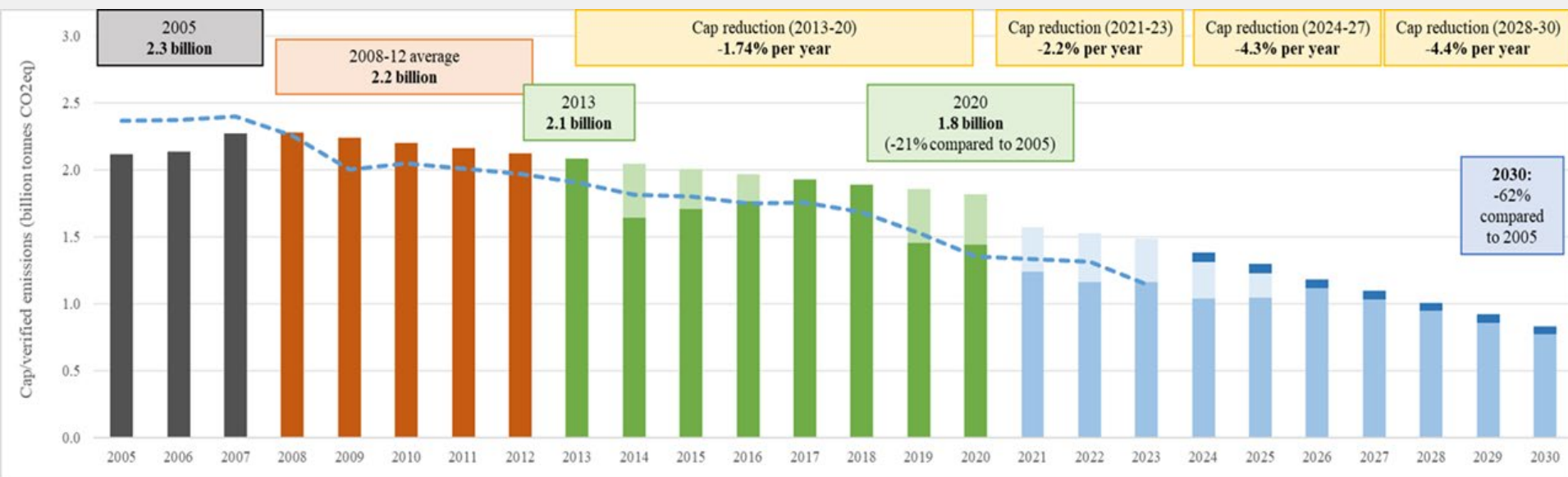
09/05/24

Agenda

1. EU ETS
2. EEX as common auction platform
3. Auction participation
4. Auction process
5. Secondary Market
6. Intermediaries
7. Q&A

1) EU ETS

- The EU Emissions Trading System (EU ETS) sets an overall limit (the “**cap**”) on the greenhouse gas emissions for the sectors included (currently power generation, industry, aviation and maritime). The cap **decreases every year**, ensuring that total emissions fall.
- One emission allowance gives the holder the right to emit **1 ton of CO₂** (or CO₂equivalent).
- Within the cap, companies receive or buy emission allowances, which they can **trade** as needed.



1) Auctioning – Background

- **A transparent method** for allocating emission allowances that allows participants to acquire the allowances concerned at **market price**
- **The default method** of allocating allowances since 2013 (so-called phase 3 of the EU ETS). Up to **57%** of the allowances allocated through auctioning.
- The exact **auctioning volume**:
 - Determined annually based on the provisions of the ETS Directive.
 - May also be impacted by the functioning of the Market Stability Reserve.
- The proportion of allowances businesses have to buy through auctions is **increasing**:
 - Aviation - 100% auctioning from 2026
 - Maritime - added in 2024
 - ETS2 for building, road transport and additional sector - starting in 2027 (also 100% auctioning)

1) Auctioning – Relevant Legislation

- | | |
|--|---------------|
| <ul style="list-style-type: none"> ▪ ETS Directive ▪ Auctioning Regulation | Environmental |
|--|---------------|
















- | | |
|---|-------------|
| <ul style="list-style-type: none"> ▪ Joint Procurement Agreement ▪ Common auction platform (CAP3) contract with Annexes <ul style="list-style-type: none"> ○ Escrow and custody agreements ○ Clearing conditions, as part of contractor's tender | Operational |
|---|-------------|

- | | |
|--|-----------|
| <ul style="list-style-type: none"> ▪ Since 2018, emission allowances are classified as financial instruments under the Markets in Financial Instruments Directive (MiFID). ▪ Financial rules are applicable to emission allowances, in particular: <ul style="list-style-type: none"> ○ Market Abuse Regulation (MAR) ○ Anti-Money Laundering Directive (AMLD) ○ Settlement Finality Directive ○ Regulation on OTC Derivatives, Central Counterparties and Trade Repositories (EMIR) | Financial |
|--|-----------|

1) Auctioning – The Auction Platform

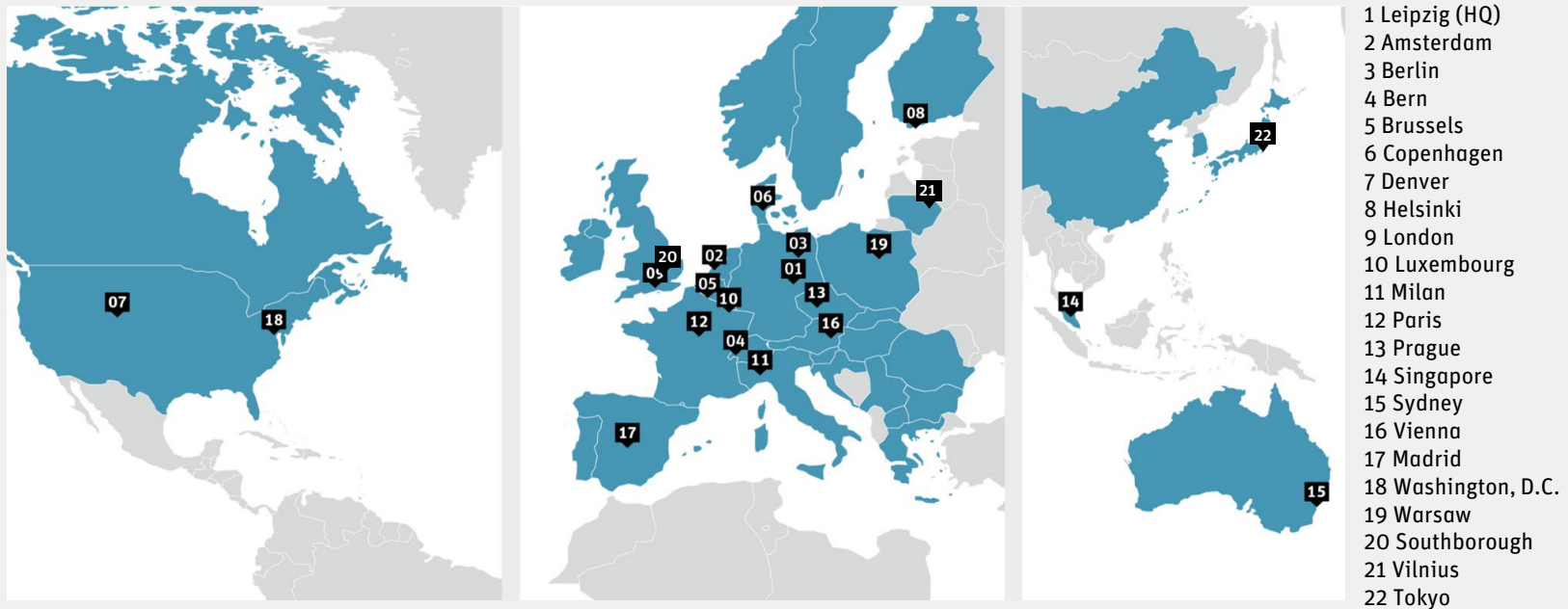
- 28 countries (25 EU Member States and 3 EEA/EFTA countries) auction their allowances on the common auction platform. To this end, they have signed a **Joint Procurement Agreement**
- Currently, the **European Energy Exchange (EEX) in Leipzig is the common auction platform.**
- **Germany and Poland** have opted-out of the common auction platform. Germany has nominated EEX as its opt-out platform, while Poland is using the common auction platform (EEX) to auction its allowances until further notice.
- For **ETS2**, allowances will be auctioned by the common auction platform only (no opt-out platforms).

2) EEX as common auction platform - Who is EEX?

Exchange	<p>European Energy Exchange (EEX): <u>Leading Energy Exchange in Europe</u></p> <p>Develops, operates and connects secure, liquid and transparent markets for energy and commodity products</p>
Markets	<p>  Power  Freight  Agricultural products </p> <p>  Natural Gas  Environmental  Registry Services </p>
Settlement	<p>Clearing and settlement of trades is performed by the clearing house ECC (Europe, Asia) and by Nodal Clear (USA)</p>
Owner	<p>EEX belongs to Group Deutsche Boerse (75,05%)</p> <p>Saxony's shareholders include the State of Saxony and the City of Leipzig. (7,94%)</p> <p>Other shareholders of industrial, energy and financial companies, including Uniper, EnBW, EdF (17,03%)</p>
Group	<p>     </p> <p>      </p>

2) EEX Group - A global commodity exchange

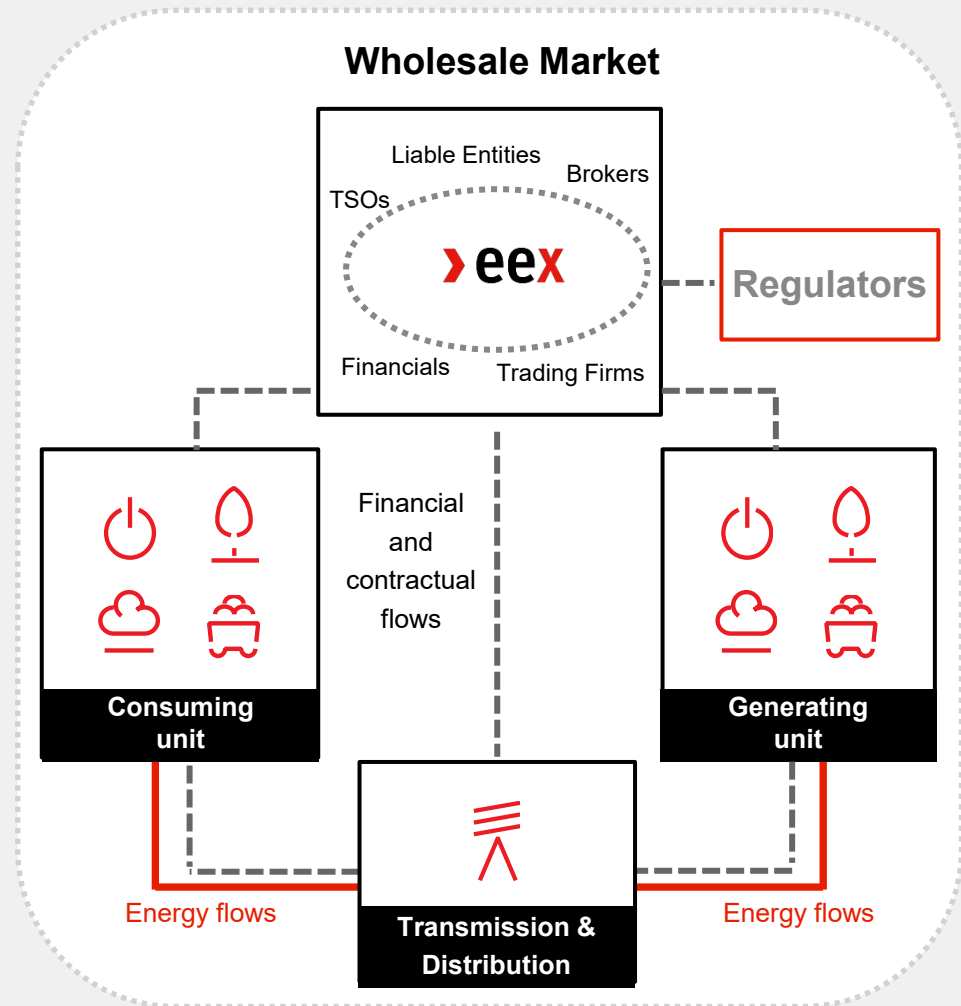
- EEX Group currently operates **22 offices** in 8 time zones across 4 continents providing **support and expertise for our clients** and partners with local staff and regional focus



- More than 850 Trading participants from 41 countries
- Number 1 in power trading worldwide
- More than 2,800 Emissions Auctions in the EU ETS

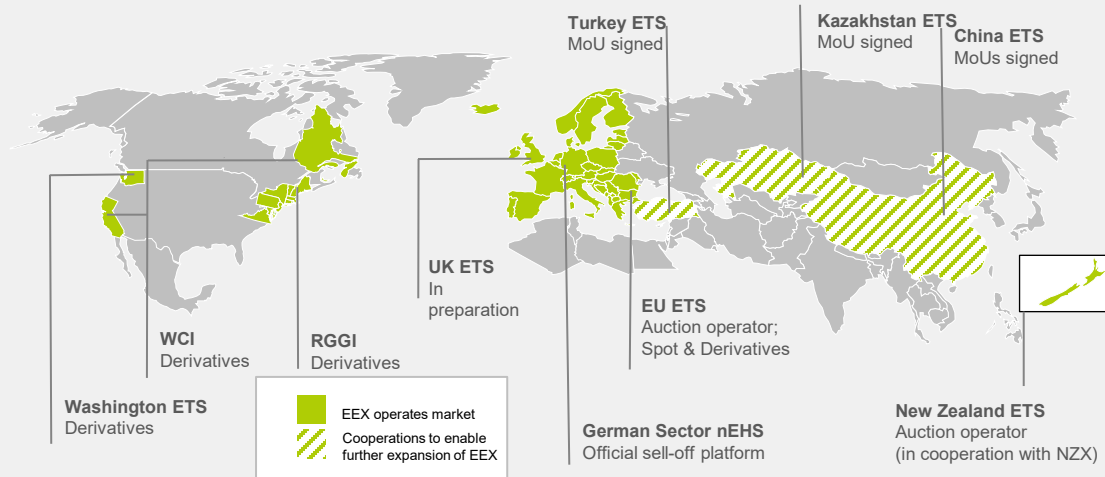
2) Importance of Exchange Trading

- Creating **transparency** through recognised reference prices and the publication of market data (prices and volumes)
- Pooling of **liquidity** due to a large number of trading participants on one trading platform
- **Stability** and **security** due to a high degree of automation on standardised trading and settlement processes
- **Elimination of the counterparty risk** through clearing and settlement via the clearing house ECC
- Ensuring **equal treatment** and non-discrimination through regulation and anonymity



2) EEX's involvement in Global Carbon Markets

We develop and operate market infrastructure (**auctions, secondary market, clearing, registry**), with proven track-record of successful cooperation with governments and clients alike.



Our global team is committed to developing carbon markets worldwide

Europe – Core market EU ETS with EU ETS 2 as enlargement of covered sectors is on the horizon

	EU ETS	<ul style="list-style-type: none"> - Auction operator for all EU governments, operating auctions on almost daily basis - Secondary Market (Spot, Futures, Options)
	German nEHS	<ul style="list-style-type: none"> - Official sell-off platform for German Fuel ETS (transport, heat sectors)
	UK ETS	<ul style="list-style-type: none"> - Secondary Market in preparation

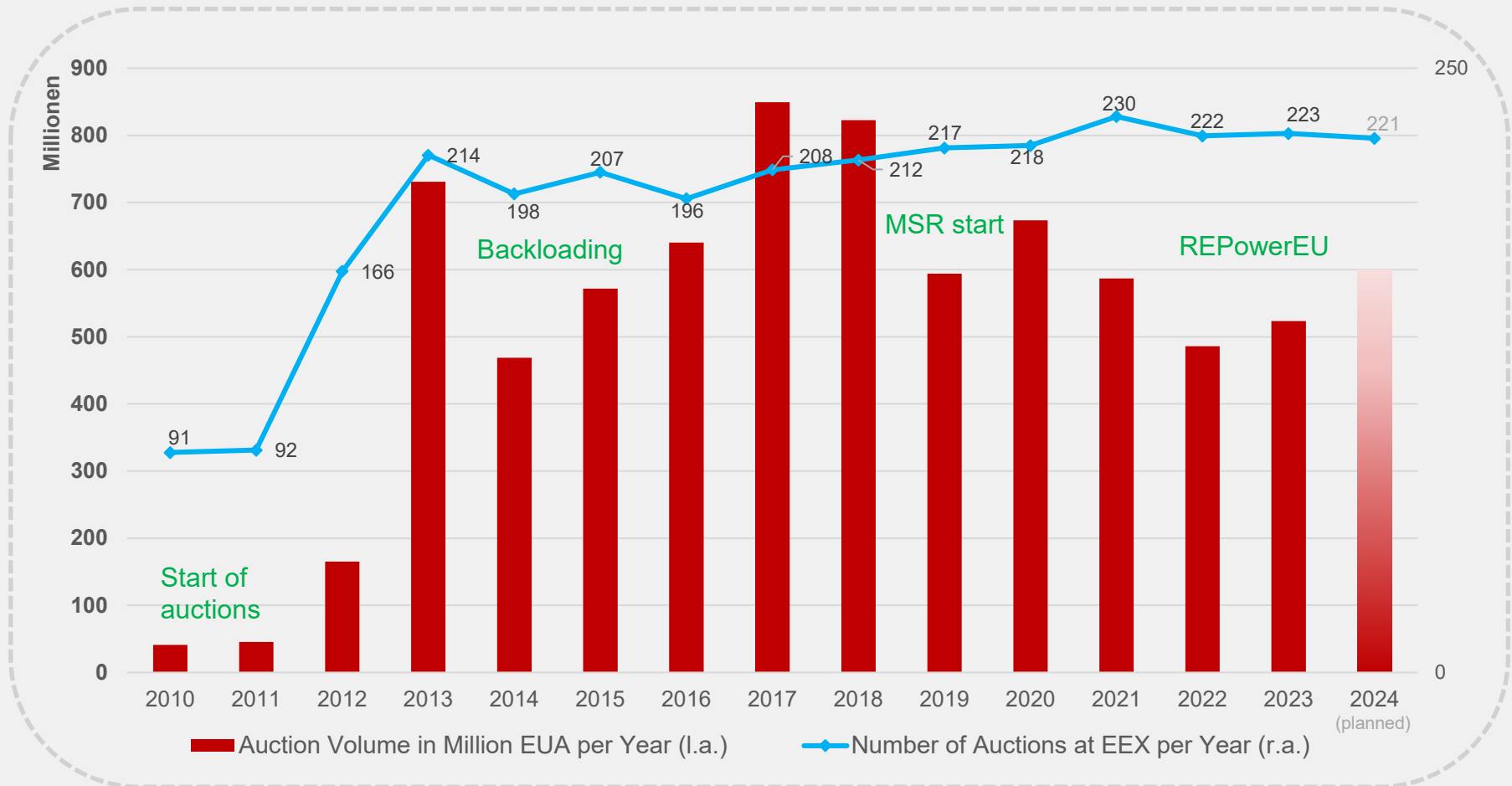
US – Growing US markets with new schemes being developed on state level and first offering of VCM products

	RGGI, California Washington ETS	<ul style="list-style-type: none"> - Futures & Options - Other Environmental Markets (RECs, RINs, SO₂/NO_x)
	Western Climate Initiative (WCI)	
	Voluntary Carbon Market	<ul style="list-style-type: none"> - VCM product suite (CORSIA-eligible, Nature-based, Removal, GER basket contract) listed at Nodal

Worldwide – Business relations with carbon market operators worldwide

	NZ ETS	<ul style="list-style-type: none"> - Auction operator in partnership with New Zealand Exchange (NZX)
	TR ETS	<ul style="list-style-type: none"> - MoU for ETS development with EPIAS
	China ETS	<ul style="list-style-type: none"> - Partnerships and MoUs (CBEEEX Beijing, CNEEEX Shanghai, CEEX, GFEX Guangzhou)
	KAZ ETS	<ul style="list-style-type: none"> - MoU for ETS development with CCX

2) EEX auctions for the EU ETS




→ More than 2,800 successful auctions to date (+12 cancelled auctions)

2) EU ETS Auctions timing and volume 2024

To be auctioned by EEX in 2024: ~593 million EUA and ~7 million EUAA

EU ETS States are the sellers of the allowances. They appoint an auctioneer to sell on their behalf and appoint an auction platform which is responsible for conducting the auctions.

 EU common auction platform

EU auctions

- Auctions for 25 EU Member States plus 3 EEA/EFTA countries (Norway, Iceland, Liechtenstein) plus Innovation Fund, Modernisation Fund and Recovery and Resilience Facility
- **~449 million allowances in 2024**
- EUA Auctions held on Mon, Tue, and Thu, 9-11 am CET
- EUAA Auctions on 24 January, 20 March, 15 May, 10 July, 18 September, 13 November 2024

UK auctions

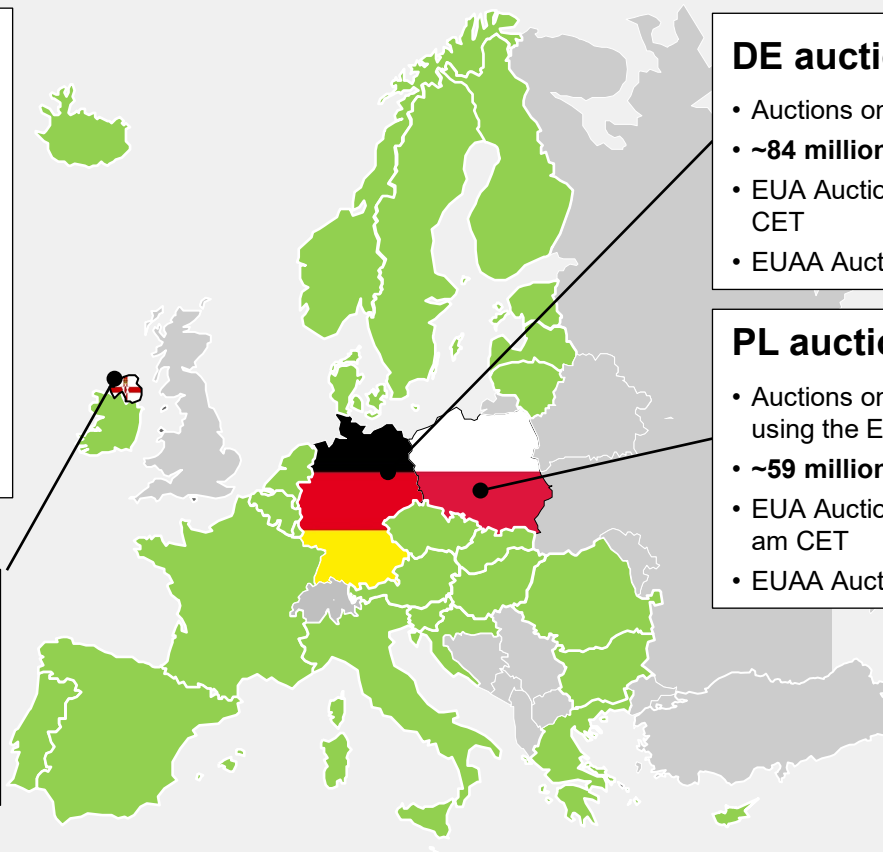
- in respect of generation of electricity in Northern Ireland
- **~1 million allowances in 2024**
- EUA Auction on 2 October 2024

DE auctions

- Auctions on behalf of Germany
- **~84 million allowances in 2024**
- EUA Auctions held weekly on Fri, 9-11 am CET
- EUAA Auction on 16 October 2024

PL auctions

- Auctions on behalf of Poland (currently using the EU common auction platform)
- **~59 million allowances in 2024**
- EUA Auctions held bi-weekly on Wed, 9-11 am CET
- EUAA Auction on 11 December 2024





3) Auction participation - Why participate in Emissions Auctions?

- Auctioning is the **default method of allocating allowances** within the EU Emissions Trading System (EU ETS) → this means that companies liable under the EU ETS have to buy a proportion of allowances (European Union Allowances (EUAs) and EU Aviation Allowances (EUAAAs)) through auctions or on the secondary market
- Auctioning is an **open, transparent, harmonised and non-discriminatory** process (see [Auctioning Regulation](#))
- Advantages to participate in EUA/ EUAA Auctions at EEX:
 - Unique **access to emissions auctions on mostly 5 days/week**, covering 100% of European auction volume **plus continuous trading on one single exchange**
 - Variety of direct and indirect **access options** offered
 - **Strong customer focus** and personal assistance through our single admission team and offices in 22 locations
 - **Fair and transparent price formation**
 - Potentially lower fees than on the OTC and secondary market
 - Small discount to the secondary market price is possible





3) Auction participation - Who is eligible to bid in Emissions Auctions?

- **Eligible participants** according to the EU Auctioning Regulation (Art. 18) are:
 - **Compliance buyers** (operators of stationary installations, aircraft operators, shipping companies)
 - **Investment firms** and **credit institutions**
 - Business groupings of compliance buyers
 - Other intermediaries specifically authorised by the home Member State
- These participants have to **fulfil admission requirements** according to EU and EEX rules, i.e.:
 - **Establishment in the EU** (except for **compliance buyers**)
 - Hold a nominated **registry account in the Union registry** (see details)
 - Hold a nominated **bank account**



3) Auction participation – several ways to participate

Direct Access – bid directly at EEX

- A Full Membership/ Power Plus / Gas Plus**
- 
- B Environmental & Emerging Markets Membership**
-  *Emissions: Auctions and Secondary Market*
- C Auction-Only Membership - System**
-  *Emissions: Auctions via Auction System*
- D Auction-Only Membership - Helpdesk**
-  *Emissions: Auctions via Market Operations*

Contact:

Admission Team

Member Readiness

Phone: +49 341 2156 261

E-mail: memberreadiness@ecc.de

Sales Emissions

Phone: + 44 207 862 7555

E-mail: sales@eex.com

or your Key Account Manager

Market Operations (Helpdesk)


Phone: +49 341 2156 222

E-mail: sales@eex.com or auctions@eex.com

Eikon-ID: eex-trading@eex.com

Indirect Access – bid via an intermediary

Intermediaries are eligible to bid on own behalf and on behalf of clients in accordance with Article 18 of the Auctioning Regulation. Currently the following companies offer to bid on behalf of clients in EEX auctions:

- E Intermediary**
-  *Emissions: Auctions via Intermediaries*

www.abnamro.com

www.actcommodities.com

www.berenberg.de

www.gkpge.pl/dom-maklerski

www.greenstar-capital.com

www.abnamroclearing.com

www.afsgroup.nl

www.mkb.bg

www.viennainvestment.ro

www.zf-bq.com

3) Auction participation - comparison

	A	B	C	D	E
Markets and Products	Full/Power Plus/Gas Plus	Environmental & Emerging Markets	Auction only	Auction only	Emissions: Auctions
Access to the Auction System	Direct	Direct	Direct	Via EEX Helpdesk	Via Intermediaries
One-off admission costs [kEUR]	0	0	0	0	To be negotiated with the Intermediary
Fixed costs in the first year [kEUR]	0	0	0	0	
Fixed costs from the second year on [kEUR/a]	37/ 22/ 20 ^{1,2}	5/ 2.5 ^{1,2}	0 ²	0 ²	
Variable Costs for Primary Auctions [EUR/1,000 allowances]	3.76 - 4.00	3.76 - 4.00	3.76 - 4.00	3.76 - 4.00	
Criteria to fulfil					
Eligibility criteria (according to Article 18 Auctioning Regulation)	✓	✓	✓	✓	✓
Personal reliability and qualification of Members of the Management Board, Contract with Clearing Member , ECC Approval (Clearing House of EEX), Technical arrangements for settlement	✓	✓	✓	✓	Bilateral agreements with the Intermediary
Personal reliability and qualification of Trader/ Trader Assistants, EEX Admission of at least one trader, incl. EEX Trader examination, Technical arrangements for trading	✓	✓	✓	✗	
Liable equity of at least EUR 50,000	✓	✓	✗	✗	

¹ Memberships: EEX Full: 37 kEUR/a, EEX Power Plus: 22 kEUR/a, EEX Natural Gas Plus: 20 kEUR/a, Environmental and Emerging Markets: 5 kEUR, emissions spot market: 2.5 kEUR/a

² In addition to the fixed costs for the trading membership displayed above, from the second year on, an annual fee for the use of the clearing and settlement systems is charged. The fee is 1,000 EUR/a whereby all revenues with regards to variable clearing fees collected from the respective participant in the respective calendar year, will be credited against the annual fee. Details about all fees are available in the [EEX price list](#) and the [ECC price list](#).

3) Auction participation - steps for direct access

I. Contact and Decision (order of the two bullet points can vary):

- Contact EEX (contact details see slide 15)
- Decide for one of the access options (see slides 15 and 16)

II. Documents and Training:

	A	B	C	D
Fill in the applicable documents (non-sequential)				
Eligibility Form	✓	✓	✓	✓
Application for Admission as Exchange Participant (A01)	✓	✗	✗	✗
Application for Setup / Modification of Exchange Traders/ Trader Assistants (A03)	✓	✓	✓	✗
Application for „Auction only“- Exchange participant (A05a)	✗	✓	✓	✗
Application for „Auction only“- Exchange participant (A05b)	✗	✗	✗	✓
Declaration of Personal Reliability (Board Members) (E01)	✓	✓	✓	✓
Application for Setup / Modification of EEX User IDs (E03)	optional	✗	✗	✗
Declaration of Personal Reliability (Trader/ Trader Assistants) (E04)	✓	✓	✓	✗
Order for Technical Access (T01)	✓	✓	✓	✗
Straight Through Processing (T08)	optional	✗	✗	✗
Application for Admission as Non-Clearing Member (NCM01)	✓	✓	✓	✓
NCM Agreement with the Clearing Member (NCM02)	✓	✓	✓	✓
Know Your Customer Questionnaire (Group_KYC)	✓	✓	✓	✓
Application for approval as a Trading Participant (TP)	✓	✓	✓	✓
VAT Details (TP07)	✓	✓	✓	✓
Take the training incl. examination	✓	✓	✓	✗

III. Confirmation of EEX/ ECC and Bidding/ Trading

4) Auction process - overview

9:00-11:00 am CET	~11:01 am CET	~11:05 am CET	Auction Day + 1 ECC Business day	Upon Request
<u>Bidding window:</u> <ul style="list-style-type: none"> • Products: <ol style="list-style-type: none"> T3PA (Spot EU Allowances for Phase 4 of the EU ETS, lot size: 500 EUA) EAA3 (Spot EU Aviation Allowances for Phase 4 of the EU ETS, lot size: 500 EUAA) • Bids could be submitted, modified and withdrawn during the bidding window • Bids could be submitted directly in the Auction System (see Video Tutorial) or indirectly via EEX Helpdesk or via Intermediary • Bids are submitted without seeing other participant's bids 	<u>Determination of the auction clearing price:</u> <ul style="list-style-type: none"> • Bids are sorted in descending order of the price bid • Tied bids are sorted through random selection according to an algorithm • Bid volumes are added, starting with the highest bid • The price at which the summed up bid volumes match or exceed the volume of allowances auctioned sets the auction clearing price for all successful bidders <u>Publication:</u> <ul style="list-style-type: none"> • Main Auction Results in the Auction System and on the Website 	<u>Publication:</u> <ul style="list-style-type: none"> • Detailed Auction Results on the Website (link to the dedicated auction website) 	<u>Payment:</u> <ul style="list-style-type: none"> • From the Clearing Member of a Trading Member to ECC • From ECC to the Auctioneer <u>Delivery (internal):</u> <ul style="list-style-type: none"> • Transfer of allowances within the ECC Union Registry Account from the Auctioneer (Seller) to the Trading Member (potentially an Intermediary*) having been successful in the Emissions Auction (Buyer) 	<u>Delivery (external):</u> <ul style="list-style-type: none"> • Transfer of allowances from the ECC Union Registry Account to the Union Registry Account of the Trading Member

* Delivery between the Intermediary and its client, if applicable, is to be agreed bilaterally.

4) Auction process – clearing price

Example: Auction for 1 million EUAs

Order book

after close of bidding window phase

Bidder	Price	Volume
A	62.00 €	500,000
B	66.00 €	600,000
C	64.00 €	300,000
D	65.00 €	800,000
E	65.00 €	500,000
F	75.00 €	10,000
Total		2,710,000



Order book

sorted by price

Bidder	Price	Volume
F	75.00 €	10,000
B	66.00 €	600,000
D	65.00 €	800,000
E	65.00 €	500,000
C	64.00 €	300,000
A	22.00 €	500,000
Total		2,710,000

Allocation
10,000
600,000
*390,000
0
0
0
1,000,000









- Bids are **sorted in descending order of the price bid**
- Tied bids** are sorted through **random selection** according to an algorithm
- Bid volumes are added, starting with the highest bid
- The price at which the summed up bid volumes **match or exceed the volume of allowances** auctioned sets the **auction clearing price** for all successful bidders
- In the example the volume is allocated at an **auction clearing price of 65.00 € per allowance**
- Bidder “D” sets the price for all bidders**, being the last successful buyer
- More than one bidder on clearing price: *random distribution of rest volume to one bidder

4) Auction process – cancellation

- An auction will be cancelled under certain **conditions**:
 - a) Total **volume of bids falls short of the volume of auctioned allowances** (Art. 7(5) Auctioning Regulation)
 - b) If the **auction clearing price is significantly under the secondary market price** (Art. 7(6) Auctioning Regulation)
 - c) If **technical problems** occur or are likely to occur (Art. 9 Auctioning Regulation)
- If an auction is **cancelled**, the following **procedures** will apply:
 1. Immediate information of market participants by EEX
 2. Re-adjustment of the auction calendar
 3. Auction volume will be evenly distributed over the next four scheduled auctions (next two in case of EUAAs)

4) Auction process - During the auction

Screenshot auction system

	3024	Auction 4. Period DE	T3PA	1 796 000	09:00 (16.08.2024)	11:00 (16.08.2024)	 PUBLISHED
	3023	Auction 4. Period CAP3 EU	T3PA	3 099 500	09:00 (15.08.2024)	11:00 (15.08.2024)	 FINISHED
<div>Auction Details ▾</div> <div> Name Auction 4. Period CAP3 EU Product EUA Primary Auction IV. Period (T3PA) Quantity 3 099 500 Phase FINISHED Opening 15.08.2024 09:00 Closing 15.08.2024 11:00 </div> <div>Description</div> <div>Auction Configuration ▾</div> <div> Algorithm Price / Random Minimum Price 0.01 EUR Settlement Start T+1 Smallest Quantity Unit 500 Maximum Bid Size No Limit </div> <div>Auctioneer Data Matrix ▸</div> <div>Auction Result ▾</div> <div> Final Price 69.85 EUR Total Bids Quantities 5 164 000 Total Value of Accepted Bids 216 500 075.00 EUR </div> <div>Download Reports</div>							
	3022	Auction 4. Period CAP3 PL	T3PA	2 310 000	09:00 (14.08.2024)	11:00 (14.08.2024)	 FINISHED
	3021	Auction 4. Period CAP3 EU	T3PA	3 099 500	09:00 (13.08.2024)	11:00 (13.08.2024)	 FINISHED

[Link to Auction System Tutorial](#)

[Link to Auction Website](#)

5) Beyond auctions: Secondary market overview

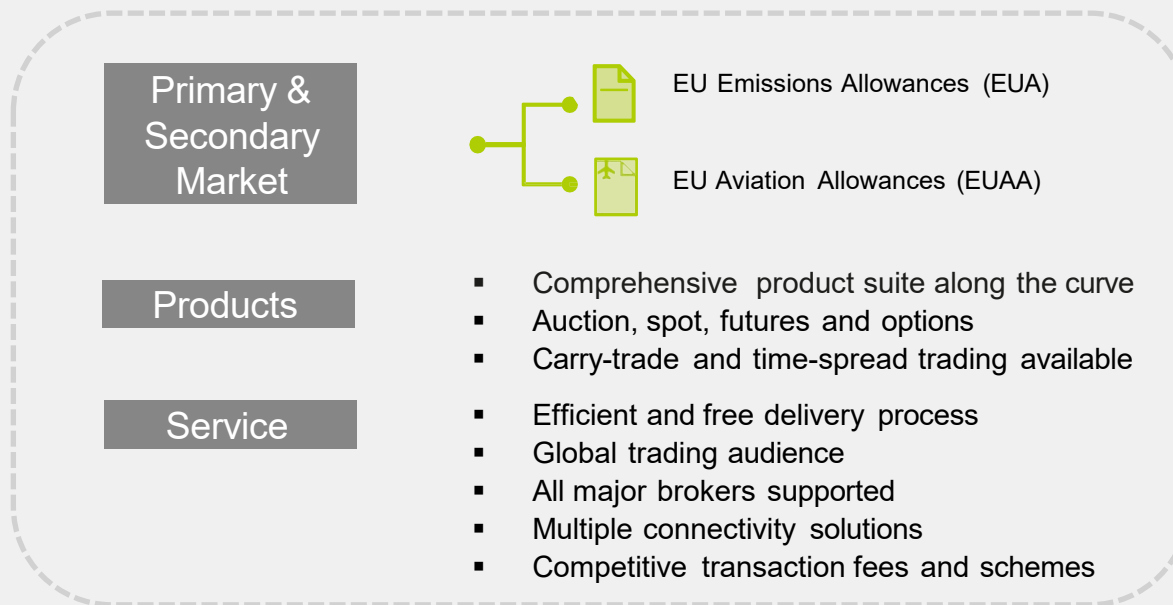
Primary market and secondary market - Differences

	Primary market	Secondary market
Authorised	Operators of stationary installations, aircraft operators and the maritime industry, as well as Investment firms, Credit Institutions and Business groupings under <u>special conditions</u>	Every entity meeting the EEX membership preconditions can participate in continuous EUA trading
Registry account	Union registry account e.g. Operator Holding Account (OHA)	Union registry account, but only required in case of physical delivery
Procurement	EUA auctions (max. 1/day), bidding procedure – Buy side only	Continuous exchange trading (Buy and Sell)
Frontend	M7 auction platform, own frontend via API	T7 GUI, EEX TT, Trayport, all major ISVs, own frontend via API*
Minimum lot size	500 EUAs	1,000 EUAs
Trading window	Almost every Exchange trading day 9:00 – 11:00 CET (<u>Auction Calendar</u>)	Every Exchange trading day 8:00 – 18:00 CET
Markets	Spot	Spot, Futures, Options
Capital cost	Payment after the auction	Derivatives: Payment after expiry close to compliance deadline possible
Kind of membership	Included in all EEX memberships.	Included in all EEX memberships – except of "Auction only" Membership

* [Connectivity \(eex.com\)](https://www.eex.com/Connectivity)

5) Beyond auctions: Secondary market overview

Transact on the leading exchange for European power in carbon emission allowances under the EU Emissions Trading Scheme (ETS), the largest environmental market in the world.



Physical delivery via ECC

- **Streamlined** physical delivery process with efficient direct interface to participant firms
- **Same-day** physical transfer via registered transfer available
- **Seamless** delivery handling across primary and secondary products
- **Free** of charge

5) Beyond auctions: Secondary market products

EEX offers all major trading instruments in the EU Emissions Trading Scheme (ETS)

Since 2005 EEX is operating trading in Emissions secondary markets. By that, it provides all necessary tools for market players to maintain their trading and hedging needs.

Secure your Carbon price risk **up to 9 years ahead** on EEX Futures Market.

Secondary Market

Spot trading with T+1 delivery	EU Allowances (EUA) EU Aviation Allowances (EUAA)
Futures trading with T+2 delivery after expiry incl. related spreads	EU Allowances (EUA) EU Aviation Allowances (EUAA)
Options trading on Futures	EU Allowance (EUA) Dec-Futures



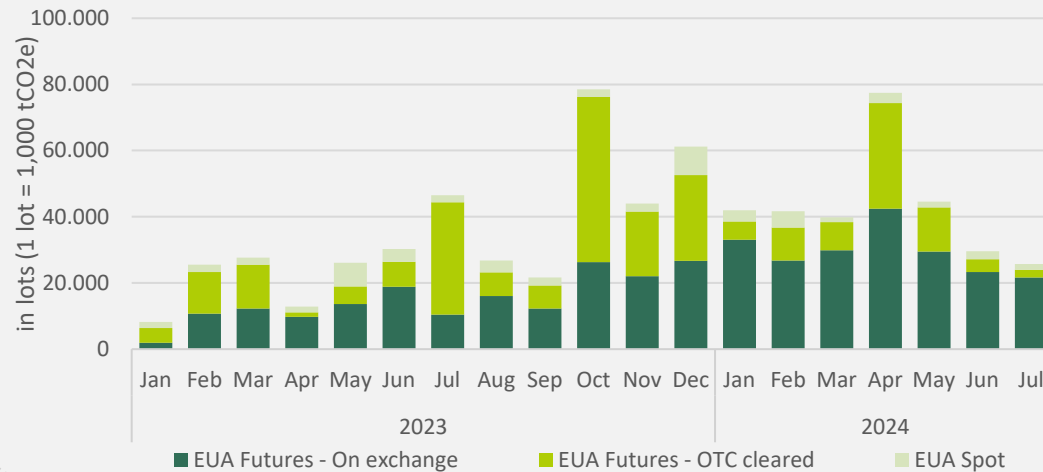
Frontende Trading Technologies (TT)

- State-of-the-art trading infrastructure
- Covers all EEX Futures plus Emissions spot
- Fully browser-based, platform independent
- Automatic and Algo trading, individual spreads

(all other major ISVs supported)

5) Beyond auctions: Secondary market outlook

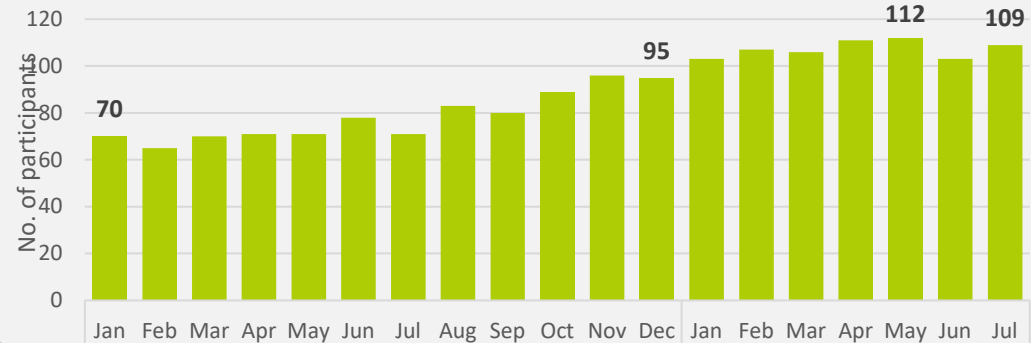
EUA Secondary Market – Volume and Participants



Performance indicators (Jan-Jul)

	Total 2024	YOY
Volume	300,773	↑ 70%
<i>Futures</i>	281,900	↑ 81%
<i>On exchange</i>	206,653	↑ 166%
<i>OTC</i>	75,247	↓ -4%
<i>Spot</i>	18,873	↓ -10%

- **Competitive Bid-ask spreads** since start of the Market maker program in Oct 2023
- Trading volumes **up 70% YoY**
- Significant positive trend in participation since beginning 2023. This marks a return on a long-term growth path.
- **All-time record for participation in a year (164 status until July 2024)!**



5) Beyond auctions: Secondary market outlook

Ways to access EEX – admission requirements

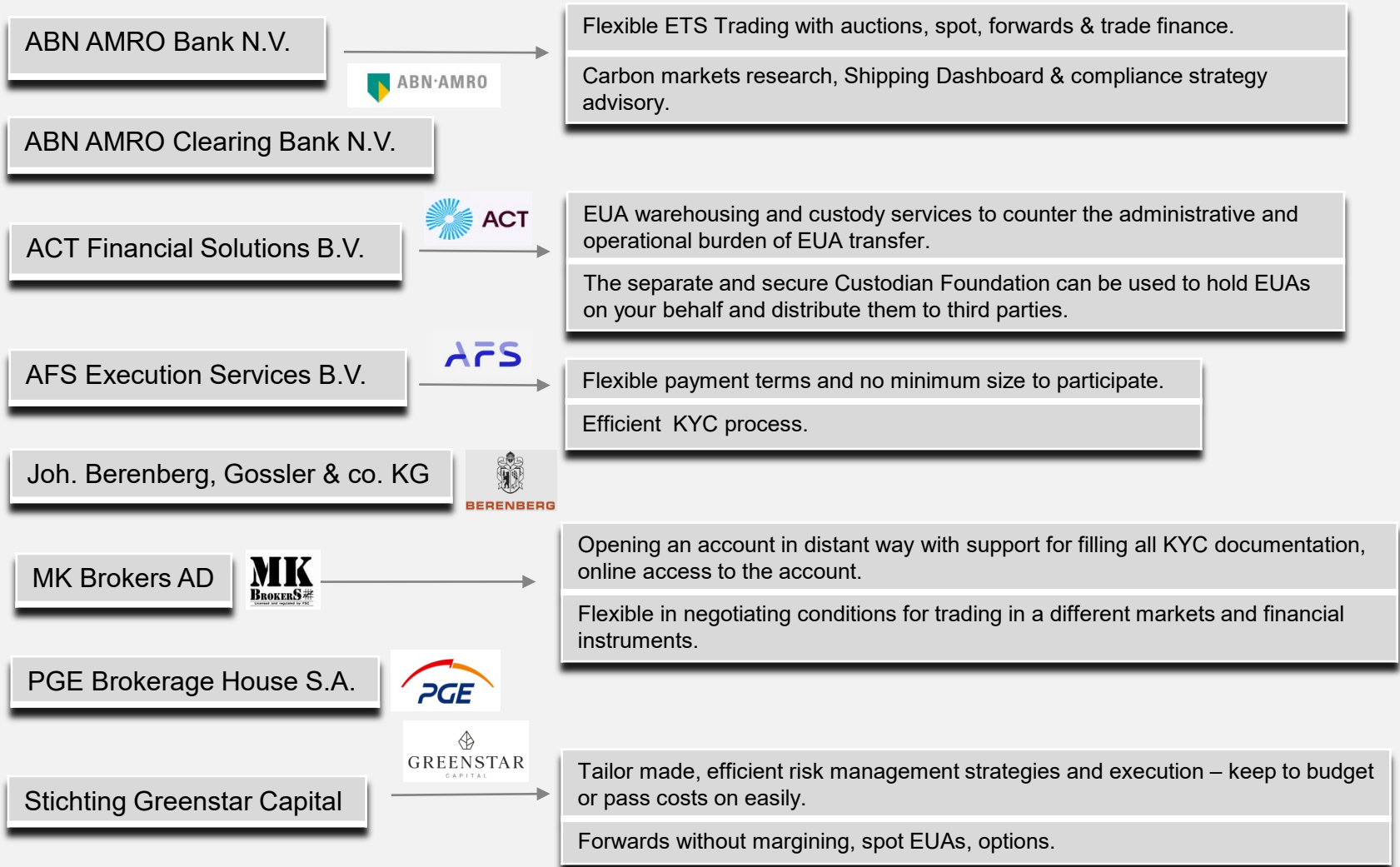
New Trading participants:

Contact the EEX sales KAM or sales@eex.com for the **admission process**.



Further information, including the relevant application forms, are available at [EEX](#) and [ECC](#)

6) Intermediaries



Please find more intermediaries and contact details here: [EU ETS Auctions \(eex.com\)](https://eex.com/eu-ets-auctions)

Q & A

Contacts

EEX Sales

T +49 (0) 341 2156-555

Email: sales@eex.com



Maria Ziesche

Head of Sales Environmentals

Tel: +49 341 2156 314

Email: Maria.Ziesche@eex.com

EEX Market Operations

T +49 (0) 341 2156-5331

Email: auctions@eex.com

EEX Business Development



Steffen Löbner

Head of Business Development
Environmental Markets

Tel: +49 341 2156 310

Email: Steffen.Loebner@eex.com



André Tzschoppe

Expert Environmental Markets

Tel: +49 341 2156 527

Email: Andre.Tzschoppe@eex.com

› eex group

Thank you

› eex › epexspot › nodal › nodalclear › ecc › grexel › getbaltic › pxe › eexasia