Reply form: MiFIR Review

Technical Standards related to Consolidated Tape Providers and DRSPs, and assessment criteria for the CTP selection procedure

Responding to this paper

ESMA invites comments on all matters in the Consultation Paper and in particular on the specific questions in this reply form. Comments are most helpful if they:

- respond to the question stated;

- indicate the specific question to which the comment relates;

- contain a clear rationale; and

- describe any alternatives ESMA should consider.

ESMA will consider all comments received by **28 August 2024.**

Instructions

In order to facilitate analysis of responses to the Consultation Paper, respondents are requested to follow the below steps when preparing and submitting their response:

- Insert your responses to the questions in the Consultation Paper in this reply form.

- Please do not remove tags of the type <ESMA_QUESTION_CP2_1>. Your response to each question has to be framed by the two tags corresponding to the question.

- If you do not wish to respond to a given question, please do not delete it but simply leave the text "TYPE YOUR TEXT HERE" between the tags.

- When you have drafted your responses, save the reply form according to the following convention: ESMA_CP2_nameofrespondent.

  For example, for a respondent named ABCD, the reply form would be saved with the following name: ESMA_CP2_ABCD.

- Upload the Word reply form containing your responses to ESMA's website (**pdf documents will not be considered except for annexes**). All contributions should be submitted online at www.esma.europa.eu under the heading 'Your input - Consultations'.

Publication of responses

All contributions received will be published following the close of the consultation, unless you request otherwise. Please clearly and prominently indicate in your submission any part you do not wish to be publicly disclosed. A standard confidentiality statement in an email message will not be treated as a request for non-disclosure. A confidential response may be requested from us in accordance with ESMA's rules on access to documents. We may consult you if we receive such a request. Any decision we make not to disclose the response is reviewable by ESMA's Board of Appeal and the European Ombudsman.

Data protection

Information on data protection can be found at www.esma.europa.eu under the headings 'Legal notice' and heading 'Data protection'.

1. General information about respondent

Name of the company / organisation	Cboe Europe B.V.
Activity	Regulated markets/Exchanges/Trading Systems
Are you representing an association?	☐
Country/Region	Netherlands/Europe and United Kingdom

2. Questions

Section 3 – RTS on input and output data of CTPs:

Q1: Do you agree with grounding the assessment framework of the quality of transmission protocols on the identified categories of technical criteria?

<ESMA_QUESTION_CP2_1>
As one of the largest pan-European equities exchanges in Europe and operator of an APA, Cboe Europe appreciates the opportunity to respond to this consultation. Cboe Europe has been a longstanding supporter of a consolidated tape in Europe. We are steadfast in our belief that a comprehensive, widely adopted, commercially viable tape will benefit European markets. It is clear that these are the objectives of the MiFIR Review as well. Thus, it is imperative that the RTS carryout this legislative intent.

Cboe Europe's responses are designed to support ESMA's efforts to carryout the legislative intent and create an equities tape that improves European markets. In addition to the detailed responses to each question, we believe the below areas are of particular importance in order to help ensure the equities tape is beneficial and consistent with the objectives of the MiFIR Review.

- Assessing CTP applicants – It is essential that ESMA award the CT to an operator that is not only technically capable but also committed to building an effective and successful CT. ESMA has set forth a framework to select a CT operator that is based on "Selection" criteria and "Award" criteria. The Selection criteria are basic yes/no assessments or minimum basic requirements that must be satisfied. Award criteria are scaled ratings across a number of different topics (governance structure; expenditure and costs; fees and reasonable commercial basis; ability to process data; dissemination speed; data quality; business continuity and cyber risk; and energy consumption). It is unclear which of these various Award criteria will be higher ranked or how they should compare to one another. We strongly encourage ESMA to consider the totality of the offering to assess proposals

in a way that awards the CT to a provider that demonstrates the ability and commitment to create a useful, widely adopted, commercially viable CT. There must be a balance. Governance must be in place to ensure critical voices are heard while also ensuring that the CTP can pursue viability over low-fees-at-any-price. Operational costs must be managed as to maintain robust capabilities without unnecessary, lowest latency overengineering. Simplicity of fees must serve the ability of the CT to attract users while recognising the different categories necessary for a broad user base.

- <u>Real-Time Data</u>: The requirement in level 1 text for data contributors to transmit data to the CTP "as close to real time as technically possible" was adopted as a safeguard against data contributors delaying data submission to their advantage. It is critical to the success of the CT that intentional delays from data contributors are prohibited.
- <u>Protocols</u>: Level 1 was designed to incentivise small venues to contribute data. It's imperative that the RTS carryout this intent by limiting unnecessary implementation costs for these data contributors – whether that arises with the contemplated protocols or otherwise.

We agree broadly with the data quality dimensions used in the Accenture paper to assess protocols   and   formats.

Implementation cost should also be a consideration of the protocol.

<ESMA_QUESTION_CP2_1>

Q2: Do you believe that additional categories of technical criteria should be considered for the definition of minimum requirements of the quality of transmission protocols?

<ESMA_QUESTION_CP2_2>
As previously stated, implementation cost should also be a consideration of the protocol, including the extent to which existing protocols can be leveraged such as FIX tagging.
<ESMA_QUESTION_CP2_2>

Q3: Do you agree with the proposal of introducing a single set of requirements across the three asset classes (equity, bonds, derivatives), or do you believe that different requirements should be tailored for each asset class?

<ESMA_QUESTION_CP2_3>
Whilst in principle we are supportive of harmonisation across asset classes, any such harmonisation must not undermine the viability of a future CT for shares and exchange traded funds ("ETFs"), which may include attributed quotes from multiple contributing venues. The require-

ments for an expanded equities CT would not be comparable in terms of either volumes or frequency of updates in comparison to a purely post trade CT for fixed income products.
<ESMA_QUESTION_CP2_3>

Q4: Do you consider that the proposed minimum requirements for the technical criteria related to performance are technically feasible, coherent with the objective of high-quality data transmission to the CTP and in line with international standards? Please elaborate your response.

<ESMA_QUESTION_CP2_4>
The performance features require further clarification, particularly with regards to how we define and determine "latency". It is also not clear when referencing "Round Trip Time ("RTT")" what actual connection set up is being referred to here, so clarification will be welcomed in this regard. For latency additional clarification on which time stamps are used as the measure is important since there will be multiple timestamps in the process (i.e. order submission, order arriving at matching engine, order disseminated on public market data feed, order message sent to the CTP, order message received by the CTP, update message (if a new best bid or best offer is set) from the CTP. There are aspects of this process outside of the control of the data contributors, such as the network latency between the contributor and the CTP.

"Throughput" should be able to support all the core and regulatory data the CTP will receive and publish but does not need to be specified as 100 Mbps. Given the review period in 2026, throughput requirements could increase with possible inclusion of attributed quotes from each contributing venue. Cboe would be in favour of a requirement to support peak core data traffic rather than defining a specific throughput measure.

In terms of "scalability" we believe that more detail is needed in terms of minimum requirements. This should include the ability to scale for increases in cross EU volumes and the incorporation of new trading venues and consumers.
<ESMA_QUESTION_CP2_4>

Q5: Do you consider that the proposed minimum requirements for the technical criteria related to reliability are technically feasible, coherent with the objective of high-quality data transmission to the CTP and in line with international standards? Please elaborate your response.

<ESMA_QUESTION_CP2_5>
We believe encryption (as a means to support "data confidentiality") would introduce complexity and latency, placing a burden on recipients and redistributors of the data and undermining the objectives of ensuring fair access and broad availability of the CT data. The inclusion of an

encryption requirement would contradict normal practice in market data transmission both by contributing venues, by market data vendors, and by CTs in other regions.

TCP transmission protocol has in-built error detection. If we were to use multicast as a means of lower latency distribution, error detection can be achieved through recovery mechanisms such as providing both an A and B feed, as well as Gap recovery for dropped messages. This is common practice within the exchange and market data industry.

<ESMA_QUESTION_CP2_5>

Q6: Do you consider that the proposed minimum requirements for the technical criteria related to security are technically feasible, coherent with the objective of high-quality data transmission to the CTP, and in line with international standards and other EU regulatory frameworks on information security (e.g. DORA)? Please elaborate your response.

<ESMA_QUESTION_CP2_6>
No. We do not believe data-confidentiality is a necessary or relevant objective in respect of data that is specifically intended for public consumption. We don't believe there is any existing practice or precedent for the introduction of such a requirement in respect of public market data and therefore see no reason to encrypt the core or regulatory data for transmission between the data contributors and the CTP.

The risk of unauthorised access to data should be set at a network level,andlevel, and governed by unique logins.
<ESMA_QUESTION_CP2_6>

Q7: Do you consider that the proposed minimum requirements for the technical criteria related to compatibility are technically feasible, coherent with the objective of high-quality data transmission to the CTP and in line with international standards? Please elaborate your response.

<ESMA_QUESTION_CP2_7>
Broadly we agree that open sourced protocols be used, or if a proprietary protocol was used it should be made free from license by any CTP (current or future) to avoid high switching costs or vendor lock-ins at the end of the initial 5 year term. FIX is also an ISO standard so would align to international standards if it was used for tagging purposes.
<ESMA_QUESTION_CP2_7>

Q8: Do you agree with the proposed definition of "transmission of data as close to real time as technically possible"? If not, please explain.

<ESMA_QUESTION_CP2_8>
With the human eye taking ~300ms to blink and the predominant use case for CT data being Displayed Use, the latency requirement here is likely sufficient, but the RTS should prohibit any *intentional* introduction of a delay by a data contributor (beyond reasonable latency for converting feeds to the formats defined in the final RTS).

We recommend that in paragraph 45 "execution timestamp" should be amended to "venue and/or APA publication timestamp" since in respect of OTC activity a trade may have occurred earlier, or in cases of manual or telephone trades, 100ms from the execution timestamp would not likely be possible, and out of an APA's control.

Regarding the pre-trade requirement of "no later than 50ms", this may inadvertently allow venues to hold up a quote from publication to the CT for up to 50ms vs their own proprietary market data feeds. Language should be included prohibiting contributors from deliberately adding a delay (other than a reasonable time to convert their native feed to the prescribed CTP feed (i.e. JSON)) or introducing latency whilst adhering to the requirement to provide within 50ms.

On the "submission of the order" timestamp, this may not be relevant/applicable to opening/closing/intraday auction orders submitted prior to the auction call period. Additional guidelines on the CTP output would be useful in respect to the aggregated EBBO data (i.e. should the CTP publish the data as and when it receives it,or compare timestamps to build their own view of the book, sequenced by timestamps (rather than the time received).
<ESMA_QUESTION_CP2_8>

Q9: Should ESMA consider specific rules for real-time transmission of transactions subject to deferred publication?

<ESMA_QUESTION_CP2_9>
No. APAs already implement deferrals. Per our response to question 8, the "APA publication time" would solve this issue.
<ESMA_QUESTION_CP2_9>

Q10: Do you agree with the baseline proposal of adopting JSON as standards and format of data to be transmitted to the CTPs, or do you prefer alternative proposals? Please justify your answer and, if needed, provide additional advantages and disadvantages related to each proposal.

<ESMA_QUESTION_CP2_10>
Cboe has long held the position that a CTP should be free to select from existing feeds as to 1) prevent contributors creating an intentionally slower feed, 2) prevent delaying tactics by data contributors and 3) not disincentivise small exchanges from providing their data to the CTP (due to added cost of developing a new feed). Nevertheless, Cboe recognises the benefits to both data contributors and the CTP for having a standardised format for the input data.

The latency requirements in this proposal (50-100ms) means that a slower feed is expected, though would point to our response in Q8 about preventing any intentional delay being added to the input data. Delay tactics could be avoided through ESMA providing a reasonable time period for contributing venues to develop the new feeds, after which penalties are enforced – alleviating two of these concerns.

The benefits to data contributors would be:
1. Exchanges would not need to amend their current feeds to add the additional data that may "bloat" their low latency feeds. This may mean the majority will develop new feeds regardless.
2. Input data as defined in the RTS will remain consistent once into force

The benefits to the potential CTP would be:
1. Data received from contributors will be standardised and consistent, removing the need to manage exchange driven changes (EDCs) from multiple venues
2. CTP would not need to ignore unnecessary messages/fields provided by native feeds that arent defined in the core data fields (i.e. if an exchange added a retail flag or a new field that is not in the core data definition)
3. Simplifies the solution with the CTP only needing to focus on consolidation and not also normalisation of the data
4. Reduces the overall cost of the operating the tape ensuring the revenue share can be enacted quicker to provide revenue to data contributors and in particular small exchanges
5. Removes the need for a third-party feed handler provider which may present challenges and switching costs for consumers at the end of the 5 year period if there were to be a new CTP.

In addressing the 3rd concern for small exchanges, ESMA can either take the view that given the increased revenue small exchanges will get relative to their traded notional, the development of the standardised input feeds (and adherence to the performance and quality metrics) is a fair entry price. Alternatively for small exchanges with no mandatory contribution, the CTP could (if it choses) support consolidation through their native/existing datafeeds, provided it contains all the necessary input data. Mandated contributors would still be required to develop to the new feed format.

<ESMA_QUESTION_CP2_10>

Q11: Do you believe that the proposed standards and formats (baseline and any alternatives) are coherent with other CTP requirements (transmission protocols, real-time transmission and presentation of output data)? Please justify your answer.

<ESMA_QUESTION_CP2_11>
Yes.
<ESMA_QUESTION_CP2_11>

Q12: Do you find more suitable to prescribe one single format across the 3 CTPs (equity, derivatives, bonds) or to prescribe distinct formats according for different asset classes?

<ESMA_QUESTION_CP2_12>
Whilst in principle we are supportive of harmonisation across asset classes, any such harmonisation must not undermine the viability of a future CT for shares and exchange traded funds ("ETFs"), which may include attributed quotes from multiple contributing venues. The requirements for an expanded equities CT would not be comparable in terms of either volumes or frequency of updates in comparison to a purely post trade CT for fixed income products.
<ESMA_QUESTION_CP2_12>

Q13: Do you support the proposals on core and regulatory data? In particular, are there other relevant fields to be added to the regulatory data? Furthermore, would you propose the inclusion of supplementary fields for input core market data beyond those intended for dissemination by the CTP?

<ESMA_QUESTION_CP2_13>
The language in paragraph 67 referencing "one trading system" may not be broad enough depending on its definition. For example, a trading venue may operate multiple matching engine units, orderbooks or segment MICs. An outage could occur on one unit resulting in a a subset of securities to bebeing halted, but not the entire market.

Regarding paragraph 68, if an APA had an outage and was not publishing trade data to the CTP, the market would want to know this, so a simplified status message would be beneficial.

We agree trading phase could make sense, and also perhaps the number of contributors for given instruments in Table 1 (page 28, paragraph 71).
We note that "Instrument Status" is missing an Normal/Trading field for when there are no suspensions or halts.

In Table 2 we note that the "Trading System Type" does not use MMT flags. As these are commonly accepted and broadly integrated into the financial markets, we would recommend using those when describing systems.
<ESMA_QUESTION_CP2_13>

Q14: Do you support the proposal of machine-readable and human-readable formats outlined in this section?

<ESMA_QUESTION_CP2_14>
In principle yes, but would question the benefit of pre-trade quotes in a CSV format for less sophisticated users, particularly for the CT for shares and ETFs, where the message types will include consolidated quotes, trades, and potentially venue-level attributed quotes in the future.
The CTP should provide a real-time feed and a GUI. Historical data or end of day data (i.e. open, high, low, closing prices) could be delivered via CSV (queried and downloaded as CSV through the GUI) but a CSV format does not make sense for the real-time data.

Publication in a GUI could be as close to real time as technically possible for human readable users, though it would need to ensure that this does not cannibalise professional display user revenues which will be the single largest revenue-generating use case of the tape, essential to ensuring the long-term viability of the tape(s). Therefore the GUI should be 15 minute delayed (as opposed to real-time), limit price updates or be constrained on the number of price updates or instruments a user can access for free. It should also include a sign-up and/or attestation process to ensure only retail and academic users access the GUI for free.

<ESMA_QUESTION_CP2_14>

Q15: Do you agree with the proposal of data quality measures and enforcement standards for input data?

<ESMA_QUESTION_CP2_15>
Yes, though "confirmation of receipt" by the CTP to the data contributors could be a burdensome requirement if it was for every message received. Alternatively, we propose that "heartbeat" messages at set time intervals would be better.
<ESMA_QUESTION_CP2_15>

Q16: Do you agree with the proposal of data quality measures for output data?

<ESMA_QUESTION_CP2_16>
Yes.
<ESMA_QUESTION_CP2_16>

Section 4 – RTS on the revenue distribution scheme of CTPs:

Q17: On the basis of the issue presented in the above paragraph, what do you think is the right approach to identify a trading venue and group? How could a trading venue and a group be identified? How should the links with investment firms be determined?

<ESMA_QUESTION_CP2_17>
We agree with the suggested approach. Segment/Sub-MIC can be used for non-small trading venues ("STV") which can identify the trading mechanism (CLOB, FBA, RPW etc.) for the calculation and redistribution of revenue. For those venues categorised as STVs (which will be calculated on an annual basis using traded notional), the operator or group MIC level should be sufficient, as a simple mapping of sub to parent-MICs could be implemented
<ESMA_QUESTION_CP2_17>

Q18: Do you agree with the above assessment? If not, please explain.

<ESMA_QUESTION_CP2_18>
Yes. Cboe agrees with the above assessment.
<ESMA_QUESTION_CP2_18>

Q19: For the identification of the venue of first admission to trading, do you prefer option (A) use of FIRDS, option (B) the CTP collects the relevant information itself? Please explain and provide any alternative option you consider more appropriate.

<ESMA_QUESTION_CP2_19>
In the absence of prescribing common reference file formats for each data contributor to provide to the CTP directly, FIRDS would seem logical.

Additional consideration should be given with regards to initial public offerings ("IPO"), and as to whether sufficient information would be available in FIRDS on the first day of trading in order to ensure that the CTP is able to disseminate trading information.
<ESMA_QUESTION_CP2_19>

Q20: Do you agree that a flag indicating that the transaction was subject to an LIS waiver should be information to be sent to (but not published by) the CTP? If not, please explain.

<ESMA_QUESTION_CP2_20>
Yes. The CTP should receive a flag indicating that a transaction was facilitated under the large in scale ("LIS") waiver, as it will be relevant for the revenue share eligibility.
<ESMA_QUESTION_CP2_20>

Q21: Could the determination of the pre-trade volume be done differently by the CTP (e.g. proxy this volume with the pre-trade data received) but at the same time sufficiently accurately? If yes, please explain.

<ESMA_QUESTION_CP2_21>
No, post-trade (i.e. actual traded notional) is the only viable mechanism. Inferring volume from pre-trade quotes/orders which may go unexecuted is too difficult to estimate.
<ESMA_QUESTION_CP2_21>

Q22: Do you agree that the methodology to distribute the revenues should require the conversion of the values into percentages? If not, please explain.

<ESMA_QUESTION_CP2_22>
Yes, converting notional to a weighted percentage and applying that percentage to the revenue share pool makes sense.
<ESMA_QUESTION_CP2_22>

Q23: Do you agree with the transactions to include and exclude for the determination of the volume for criteria #1 and #2? If not, please explain.

<ESMA_QUESTION_CP2_23>
Yes.
<ESMA_QUESTION_CP2_23>

Q24: What would be your view on the frequency of redistribution? Which issues do you foresee in the redistribution process? How could those issues be solved? Please explain.

<ESMA_QUESTION_CP2_24>
We believe quarterly, rather than annual, would be better.

We calculate intraday and monthly traded notional volumes/market share based on post-trade market data. Within 15 days of the end of a quarter, the CTP could calculate the applicable revenues and distribute to the data contributors based on the revenue distribution criteria. This will have the added benefit of providing small exchanges their revenue share on a more frequent basis.

<ESMA_QUESTION_CP2_24>

Q25: Do you agree with the proposed timeline for the update of the list of data contributors and the identified issues? How could the issues be solved? Please explain.

<ESMA_QUESTION_CP2_25>
Five years for the updated list of those obliged to contribute from the beginning of operations seems unnecessarily long. This could be published annually alongside new entrants, SMEs, small exchanges that have opted-in/out and assessed when any new MIC codes are issued.
<ESMA_QUESTION_CP2_25>

Q26: What would be your view on the issues for the first year of operations of the CTP? How could those issues be solved? Please explain.

<ESMA_QUESTION_CP2_26>
Cboe agrees that any trading venue with <1 year of trading data available at the time of operation of the CTP, should not be required to immediately publish its data. However, after its first year of operation, notwithstanding if they meet the small exchange exemption criteria, they should be obligated to provide their data, allowing for a reasonable period for them to develop to the required data format. This should not prevent a new trading venue providing its data to the CTP if it so chooses to do so (for reasons of visibility and/or revenue share). In this instances the CTP will be obligated to consume and distribute the data.
<ESMA_QUESTION_CP2_26>

Q27: Do you agree with ESMA preferred proposal to set the weights of the revenue redistribution scheme to 4.5, 4.0 and 1.5 for the small trading venue criterion, the young instruments criterion and the transparent instruments criterion, respectively? If not, please explain.

<ESMA_QUESTION_CP2_27>
Provided the weighting for "young instruments" is applied to only the traded notional of those recently admitted "young instruments", this seems reasonable (i.e. a trading venue with 1,000 securities, 100 of which having had an IPO within the last 5 years, should receive a multiple of

x1.5 for 900 of the securities (assuming trading took place on a pre-trade transparent venue) and x4 for the 100 young instruments). This should be applied on a monthly basis (i.e. if the 60th month since the IPO was in January, and ESMA proposes a revenue distribution on an annual basis, the x4 weighting would only be applied to the traded notional for that instrument in the January of that year, not the remaining 11 months when it ceased being a young instrument.)
<ESMA_QUESTION_CP2_27>

Q28: Would you consider appropriate that the weight (percentages) sum to 10 (100%)? If not, please explain and provide your alternative proposal for the weights (percentages).

<ESMA_QUESTION_CP2_28>
Yes.
<ESMA_QUESTION_CP2_28>

Q29: Do you agree with the proposed (i) frequency of the determination of the weights (ii) timing of determination of the weights (iii) timing of application of the weights? If not, please explain.

<ESMA_QUESTION_CP2_29>
We believe monthly or quarterly would be better, as we calculate intraday and monthly traded notional volumes/market share based on post-trade market data, and do not see monthly calculation as "burdensome" as this would be an automated process feeding into the revenue share distribution logic.
<ESMA_QUESTION_CP2_29>

Q30: Do you agree with the proposed text? Have you identified any missing points or issues?

<ESMA_QUESTION_CP2_30>
Yes.
<ESMA_QUESTION_CP2_30>

Q31: Do you agree with ESMA's proposal on the criteria for a potential suspension of redistribution in case of serious and repeated breach by the CTP? If not, which alternative or/and additional criteria would you consider relevant?

<ESMA_QUESTION_CP2_31>
Yes.
<ESMA_QUESTION_CP2_31>

Q32: Do you agree with ESMA's proposal on the procedure for the suspension and the resumption of redistribution? If not, which alternative approach would you consider suitable?

<ESMA_QUESTION_CP2_32>
Yes, however we observe that it would be preferable for the CTP to be able to wait the 1 additional week after having received submissions from the data contributor in question before applying a suspension, thereby avoiding additional administration and complexity in undoing the suspension and any balancing payments where the CTP changes its assessment.

Another point to consider is that not all data contributing to the CTP will be eligible for a revenue share, including Systematic Internalisers, off-exchange trades from APAs and trades from venues operating under the reference price waiver. For these venues suspension of revenue share would do little in the way of incentivising higher data quality. As APAs will make up ~50% of the traded notional on the CT on any given day, a different solution is perhaps needed. The revenue suspension could be enhanced for fines for non-revenue contributors or potentially withholding scrapped in favour of a fine based system for all contributors.

<ESMA_QUESTION_CP2_32>

Q33: Do you agree with ESMA's proposal on the timing of the procedure for the suspension and the resumption of redistribution? If not, which alternative approach would you consider suitable?

<ESMA_QUESTION_CP2_33>
Yes, see response to question 32.
<ESMA_QUESTION_CP2_33>

Q34: Do you agree with ESMA's proposal regarding a one-week timeframe for data contributors to furnish evidence of non-breaches? If you disagree, could you suggest an alternative approach that you find appropriate?

<ESMA_QUESTION_CP2_34>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_CP2_34>

Q35: Do you agree with ESMA's expectation on the notification to be made by the CTP to the competent authority of the data contributor once a suspension has been triggered?

<ESMA_QUESTION_CP2_35>
Yes.
<ESMA_QUESTION_CP2_35>

Q36: Do you agree with ESMA's proposal on the approach to the retained revenue? In your view, which rate should apply to compound the interest on retained revenue?

<ESMA_QUESTION_CP2_36>
No, if revenue distribution is to be annual, a "misunderstanding from the CTP" not properly evidenced within the timeframe could result in up to 12 months delay (the next redistribution window) for that contributor.

The CTP should distribute the revenues as soon as reasonably possible following the resolving of any perceived issue (i.e. within 30 calendar days of resolution).
<ESMA_QUESTION_CP2_36>

Section 5 – RTS on the synchronisation of business clocks

Q37: Do you agree with the proposed approach on synchronisation to reference time? If not, please explain.

<ESMA_QUESTION_CP2_37>
Yes, maintaining and extending the 2018 MiFID requirements makes sense.
<ESMA_QUESTION_CP2_37>

Q38: Do you support a timestamp granularity of 0.1 microseconds for operators of trading venues whose gateway-to-gateway latency is smaller than 1 millisecond? If not, please explain. Would you argue for an even smaller granularity? If yes, please explain.

<ESMA_QUESTION_CP2_38>
Yes, we support the proposal of 0.1 microsecond timestamp granularity.
<ESMA_QUESTION_CP2_38>

Q39: Do you support the proposed approach on the level of accuracy for trading venue members, participants or users? If not, please explain.

<ESMA_QUESTION_CP2_39>
Yes, we support the proposed approach.
<ESMA_QUESTION_CP2_39>

Q40: Do you agree with the proposed approach on traceability to UTC? If not, please explain.

<ESMA_QUESTION_CP2_40>
Yes, we agree with the proposed approach on traceability to UTC.
<ESMA_QUESTION_CP2_40>

Q41: Do you agree with the proposed accuracy levels for APAs, SIs, DPEs and CTPs? If not, please explain.

<ESMA_QUESTION_CP2_41>
Yes, we agree with ESMA's proposal.
<ESMA_QUESTION_CP2_41>

Q42: Do you think that more stringent requirements should be set for SIs compared to DPEs considering they have pre-trade transparency obligations? If not, please explain.

<ESMA_QUESTION_CP2_42>
We see no reason why more stringent requirements should be levied against SIs in this regard.
<ESMA_QUESTION_CP2_42>

Section 6 – RTS/ITS on the authorisation and organisational requirements for DRSPs

Q43: Do you agree with the approach proposed by ESMA?

<ESMA_QUESTION_CP2_43>
Yes, we agree with the approach proposed by ESMA.
<ESMA_QUESTION_CP2_43>

Q44: Do you agree to include new authorisation provisions on ownership structure and internal controls for APAs and ARMs?

<ESMA_QUESTION_CP2_44>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_CP2_44>

Q45: Do you have any further comments or suggestions on the draft RTS? Please elaborate your answer.

<ESMA_QUESTION_CP2_45>
No.
<ESMA_QUESTION_CP2_45>

Section 7 – Criteria to assess CTP applicants

Q46: How would you define retail investors, academics and civil society organisations for the purpose of the CTP?

<ESMA_QUESTION_CP2_46>
We would define "retail" as any individual who views or uses the CTP data in a personal capacity for their private investment activities. Cboe would welcome the following definition: "*an indiivu-dalindividual who views or uses the data in a personal capacity for their own personal investment activities, and not as a principal, officer, partner, employee, contractor or agent of any business, or on behalf of any other individual or business.*"

"Academics" should be defined as individuals that work for or are students of an academic institution such as a school or university, and is not using CTP data for investment activities or in support of a for-profit activity.

"Civil society organisations" be defined as community based organisations or non-governmental organisations ("NGO").
<ESMA_QUESTION_CP2_46>

Q47: What are in your view the most important elements that should be taken into account when defining the governance structure of the CTP?

<ESMA_QUESTION_CP2_47>
A balanced stakeholder governance structure to make advisory recommendations, and available to be consulted with regarding future enhancements, pricing and licensing.
<ESMA_QUESTION_CP2_47>

Q48: Should the CTP include representation of other stakeholders within their governance structure?

<ESMA_QUESTION_CP2_48>

Yes. A balanced stakeholder group including data contributors (RIEs, MTFs and APAs) and users (buy side, sell side and retail brokers) should be represented.
<ESMA_QUESTION_CP2_48>

Q49: Do you agree with the proposed approach on the assessment of necessity of joint application?

<ESMA_QUESTION_CP2_49>
Yes, although further clarification would be helpful as to whether ESMA regards entities that have a financial interest in the CTP bidder, but would not play any part in the operation of the CT as joint applicants.
<ESMA_QUESTION_CP2_49>

Q50: Which minimum requirements on identifying and addressing potential conflicts of interest would you consider relevant?

<ESMA_QUESTION_CP2_50>
It is possible that where the same legal entity both operates the CTP and is a data contributor to the CTP that a conflict of interest might arise if the CTP operator needed to suspend revenue distribution against itself.
<ESMA_QUESTION_CP2_50>

Q51: To score the applicants on their development expenditure and operating costs, ESMA intends to look at the costs the applicant will need to cover on an annual basis. Do you agree with this approach? If not, which alternative approach would you deem more appropriate?

<ESMA_QUESTION_CP2_51>
Yes, ESMA should require a robust cost-budget analysis (including start-up costs) at the point of application.

Also, whilst the process should not preclude fintechs and smaller firms from applying (who may have higher start up costs if they do not have components of "off the shelf" solution vs peers), start up costs need to be a factor as those costs are recoverable by the CTP and could unnecessarily delay revenue distribution to small and mandatory contribution exchanges, and result in disincentivising opt ins.

<ESMA_QUESTION_CP2_51>

Q52: The simplicity of the fee structure and licensing models can be scored by taking into account the number of tiers, fee types and licensing models. Does this accurately reflect simplicity? If not, would you propose a different approach to assess simplicity? Please elaborate.

<ESMA_QUESTION_CP2_52>
Yes, provided the use cases of the user base are covered. Having an overly simplistic licensing model may also result in unnecessary fees for firms who have a narrower/small use case since the CTP may need to adopt a median price to accommodate broad uses.

The desired outcome should be to have a model that is significantly more simplistic to license than the current multi-venue model.
<ESMA_QUESTION_CP2_52>

Q53: The approach proposed for the assessment of the ability of CTP applicants to process data is grounded on the assessment of the technological infrastructure in ensuring scalability, low-latency, accuracy and security throughout the data lifecycle. Do you agree with this approach, or would you consider additional elements to be assessed?

<ESMA_QUESTION_CP2_53>
Given the "demonstrated capability" wording, it should be clarified whether a prototype of the CTP is required to be presented by the bidders. This can represent sunk costs to potential bidders and disadvantage smaller companies as it will require more upfront capital. If some bidders elect to develop a prototype, bidders need forewarning as to what advantage that might give so they can make an informed decision around their own approach to the need for a prototype.
<ESMA_QUESTION_CP2_53>

Q54: Which is the minimum speed of dissemination you would consider appropriate for the CTP? Please distinguish between asset classes (and for the case of the equity CTP, between pre- and post-trade date).

<ESMA_QUESTION_CP2_54>
As the paper lays out minimum latency requirements, awarding the CT to a provider based on lower latency above those requirement may unnecessarily result in firms over-architecting a solution with resultant higher build and operating cost. Latency should not be a determining factor other than adhering to the minimum requirements set out in section 3 of the consultation.
<ESMA_QUESTION_CP2_54>

Q55: The proposed approach to data quality would reward additional commitments and measures that CTP applicants intend to put in place. Do you agree with this approach ? What additional commitments and measures would you consider appropriate?

<ESMA_QUESTION_CP2_55>
Whilst we agree with this approach, as per our previous comments we do not believe that data security (encryption/confidentiality etc.) to be relevant in this regard.
<ESMA_QUESTION_CP2_55>

Q56: The proposed approach to modern interface and connectivity is grounded on the assessment of the interface technology in terms of reliability, scalability, low latency and security. Do you agree with this approach, or would you consider additional elements to be assessed?

<ESMA_QUESTION_CP2_56>
This approach seems at odds with defining a set protocol and format which would already address these factors, as well as set output interfaces (GUI, CSV and machine readable feeds)
<ESMA_QUESTION_CP2_56>

Q57: Do you agree with the proposed approach to record keeping, based on the provision of document supporting intended compliance?

<ESMA_QUESTION_CP2_57>
Yes.
<ESMA_QUESTION_CP2_57>

Q58: The proposed approach to resilience, business continuity and cyber risks is grounded in assessing mandatory DORA requirements applicable to CTPs as a first step (selection criterion), to then reward additional commitments and measures CTPs applicants intended to put in place to mitigate and address outages and cyber-risk . Do you agree with this approach? What additional commitments and measures would you consider appropriate?

<ESMA_QUESTION_CP2_58>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_CP2_58>

Q59: Do you agree with the use of the Power Utilisation Effectiveness (PUE) as the metric to assess the energy consumption of the CTP? If not, which alternative approach would you favour?

<ESMA_QUESTION_CP2_59>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_CP2_59>

Annex II – Cost Benefit Analysis:

Q60: What costs do you expect in order to comply with the proposed minimum requirements for the quality of transmission protocols? What benefits do you expect? Please indicate to what role (data contributor, CTP, or CT user) your response refers.

<ESMA_QUESTION_CP2_60>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_CP2_60>

Q61: What costs do you expect in order to comply with the proposed data format for input and output data? What benefits do you expect? Please indicate to what role (data contributor, CTP, CT user) your response refers.

<ESMA_QUESTION_CP2_61>
As a data contributor, Cboe estimates it would take approx. 6 months to develop a feed to the prescribed format, ensure sufficient testing and connect/send the data to the CTP. The 6 month period would be dependent on a final specification being published by ESMA and the CTP.
<ESMA_QUESTION_CP2_61>

Q62: Do you expect the benefits from the proposed real time data transmission requirement for input data to outweigh the operational costs borne by data contributors?

<ESMA_QUESTION_CP2_62>
APAs are excluded from the revenue share distribution calculation but will need to spend a similar level of effort as trading venues to develop the new feeds. In this instance the benefit will not outweigh the costs, though there is undoubtedly value to the CT users.
<ESMA_QUESTION_CP2_62>

Q63: Do you think that the input and output data fields strike a balance between reporting burden for data contributors/CTPs and benefits for CT users?

<ESMA_QUESTION_CP2_63>
Yes.
<ESMA_QUESTION_CP2_63>

Q64: Do you think that the proposed data quality requirements are sufficient to achieve the CT's objectives without generating excessive compliance burdens? Please explain.

<ESMA_QUESTION_CP2_64>
Yes.
<ESMA_QUESTION_CP2_64>

Q65: Which costs do you expect to implement the revenue distribution scheme? Please differentiate between one-off and on-going costs, between fixed and variable costs as well as between direct and indirect costs.

<ESMA_QUESTION_CP2_65>
Internal development costs to implement a process to calculate traded notional from the post-trade feeds and MIC/Sub-MICs.
<ESMA_QUESTION_CP2_65>

Q66: Which costs do you expect to implement the suspension and the resumption of the revenue distribution scheme? Please differentiate between one-off and on-going costs, between fixed and variable costs as well as between direct and indirect costs.

<ESMA_QUESTION_CP2_66>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_CP2_66>