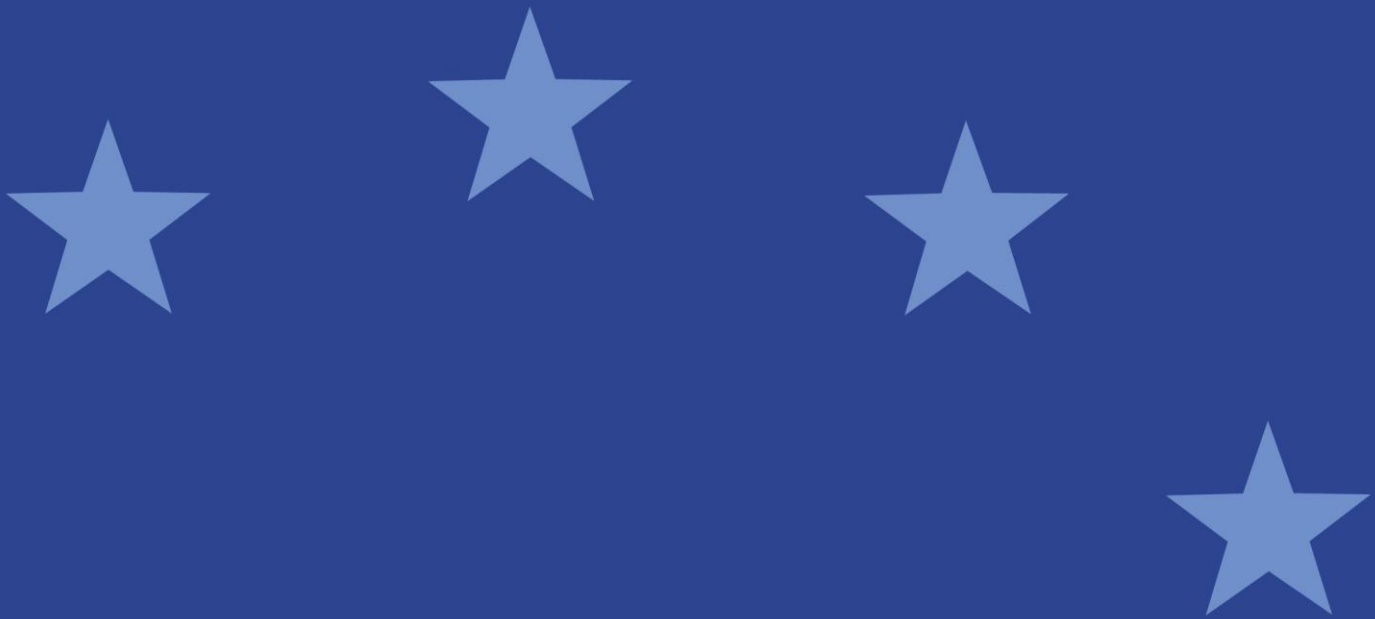




European Securities and  
Markets Authority

## **Reply form for the Consultation Paper on Guidelines on the MiFID II/ MiFIR obligations on market data**



## Responding to this paper

ESMA invites comments on all matters in this consultation paper and in particular on the specific questions summarised in Annex I. 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 **11 January 2021**.

All contributions should be submitted online at [www.esma.europa.eu](http://www.esma.europa.eu) under the heading 'Your input - Consultations'.

### 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:

1. Insert your responses to the questions in the Consultation Paper in the present response form.
2. Please do not remove tags of the type <ESMA\_QUESTION\_GOMD\_1>. Your response to each question has to be framed by the two tags corresponding to the question.
3. 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.
4. When you have drafted your response, name your response form according to the following convention: ESMA\_FOTF\_nameofrespondent\_RESPONSEFORM. For example, for a respondent named ABCD, the response form would be entitled ESMA\_GOMD\_ABCD\_RESPONSEFORM.
5. Upload the form containing your responses, in Word format, to ESMA's website ([www.esma.europa.eu](http://www.esma.europa.eu) under the heading "Your input – Open consultations" → "Consultation on the Guidelines on the MiFID II/MiFIR obligations on market data").

## **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 publically 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](http://www.esma.europa.eu) under the heading [Legal Notice](#).

## **Who should read this paper**

This consultation paper is interesting for you if you are a trading venue, an APA, an SI or a consumer of market data.

## General information about respondent

Name of the company / organisation	Data Boiler Technologies, LLC
Activity	Other Financial service providers
Are you representing an association?	<input type="checkbox"/>
Country/Region	North-America

## Introduction

*Please make your introductory comments below, if any*

<ESMA\_COMMENT\_GOMD\_1>

January 11, 2021

To Whom It May Concern,

RE: Guidelines on the MiFID II/ MiFIR obligations on market data

Heading: Your input - Consultations

On behalf of Data Boiler Technologies, I am pleased to provide the European Securities and Markets Authority (ESMA) with our comments on the MiFID II/ MiFIR obligations on Market Data. We applaud ESMA for addressing this long outstanding issue about the lack of a real-time consolidated market data feed. Given the U.S. Securities and Exchange Commission (SEC) approved the new Market Data Infrastructure Rules in December 2020, it may be an opportunity for consideration of the U.S. National Market System (NMS) reform. At this time it may be beneficial to consider adopting any best practices, harmonize the international rules as suitable, as well as tailoring the European rules to fill any gaps there might be to advance the market development and uphold the fair, reasonable, and non-discriminatory (FRAND) principle.

Market data provisioned on the basis of costs is impractical. In the past, two US Exchanges (IEX and NASDAQ) had provided drastically different pictures on their respective market data costs. We are concerned that there is not a cost basis accounting method that would settle the industry's disputes and disagreements. Regulators should refrain from prescribing a commercial pricing scheme for private entities. Private entities should be permitted to freely set its own price and bundle their products as long as the practice does not inflict damage on

others and there is no violation of FRAND principle/ anti-trust rules. Yet, there is no FREE lunch. One may use its economy of scope to solicit revenues from other sources to cover the cost of any free product offer. Exploitation of economy of scope may trigger potential conflicts of interest situations. Market data reform involves the divergence between private and social costs. The measurement of social costs is an economic problem rather than a technical accounting matter.

We recommend an alternate framework to guide the appropriate delineation of data ownership rights and suggest essential limits on how data may be used. This is offered to avoid trading venues from inflicting potential damage on others (others may refer to it as the uncontracted marginal value of the adverse effect turning into a nuisance affecting the general public that does not have a direct stake in the public market equity trading - such as foreign/private markets, OTC, Options, futures, derivatives trades, and academia). We offer that the industry's value chain smile curve should be considered as market data reform will have far and deep impact affecting all constituents and the general public. Please see our comment letter to the SEC in November 2020 for more information (in particular, Figures 1, 2, and Appendix I):

[https://www.databoiler.com/index\\_htm\\_files/DataBoiler%20SEC%20Market%20Data%20CTPlan.pdf](https://www.databoiler.com/index_htm_files/DataBoiler%20SEC%20Market%20Data%20CTPlan.pdf)

As illustrated in this empirical study:

<http://www.people.fas.harvard.edu/~robinlee/papers/ExchangeComp.pdf>, the market will not fix itself. The obligation to provide market data on a non-discriminatory basis will not happen unless the regulator provides the appropriate nudging. There is a known time difference from the point of data dissemination to the point of that data being available at the receiving end. It is a shame that the online gaming industry uses latency equalization while electrified markets adopt a much lower standard. We are thankful that the U.S. SEC is finally incorporating the concept of latency neutralization. Updated U.S. SEC Rule 603(a) "prohibits an self-regulatory organization (SRO) from making its core data available to vendors on a more timely basis than it makes such data available to the exclusive SIPs. In particular, ... independently distributed data could not be made available on a more timely basis than core data is made available to a Network processor." To help achieve this requirement we advocate the use of time-lock encryption to ensure no premature decryption of data. Time-lock encryption addresses any geographic latency issues. It also ensures that the public feed as well as proprietary products (regardless of display or non-display) are available securely in synchronized time in accordance to an atomic clock.

Another benefit of making market data available securely in synchronized time is that it will help facilitate a pan-European best bid-and-offer price. This pan-European reference price may become the de-facto reference price for rest of the World given the European markets are uniquely positioned in between the U.S. and Asia time zones. We recognize that the U.S. SEC has stated that multiple national best-bid-and-offer prices (NBBOs) are inevitable because of the self-aggregating practice (where firms and exchanges subscribe to proprietary feeds to calculate their own NBBO. This was initiated due to the latency experienced on the consolidated feed carrying the NBBO). We, however, think the broader broker-dealers community around the World would much prefer a de-facto reference price to be used as the benchmark. By adopting a single securities information processor (SIP) approach in Europe and creating a de-facto reference price (rather than replicating the U.S. Decentralized Consolidation Model per U.S. SEC rule 614 of multiple NBBOs calculated by different



competing consolidators), it would positively differentiate and strengthen the European markets in our opinion.

Last but not least, the straight line "drag-race" competing on microwave, laser, or quantum technologies is unhealthy. It causes intermediary costs to increase dramatically, countering the objective of lower transaction cost. Data Boiler has recommendations to ease this market phenomenon and flatten the up-side down industry's smile curve. There are lessons to be learnt from other industries. One example is the U.S. music modernization act governing digital streaming and related copyrights and royalties issues. The time is now to renew FRAND with a higher standard and to make equity market outstanding again with true innovations. It would attract new money into the ecosystem and revive the economy. We hope our comments above and the detail responses in later sections are helpful to the ESMA and benefit the broader industry as well. Please feel free to contact us for clarifications and/or with any questions. Thank you and we look forward to engage in any opportunities where our expertise might be required.

Sincerely,  
Kelvin To  
Founder and President  
Data Boiler Technologies, LLC

P.S. this letter is also available at:  
[https://www.databoiler.com/index\\_htm\\_files/DataBoiler%20ESMA%20Market%20Data.pdf](https://www.databoiler.com/index_htm_files/DataBoiler%20ESMA%20Market%20Data.pdf)

<ESMA\_COMMENT\_GOMD\_1>

## Questions

**Q1: What are your views on covering in the Guidelines also market data providers offering market data free of charge for the requirements not explicitly exempted in the Level 2 requirements?**

<ESMA\_QUESTION\_GOMD\_1>

The U.S. newly approved market data infrastructure rules, and with reference to footnote 1102, it explicitly stated that "Under the amendment, self-aggregators will not be permitted to disseminate or otherwise share or make available consolidated market data to any persons, including their customers or clients." This requirement also covers the scenario of making consolidated market data available to customers or clients of self-aggregators. Per footnote 1085, a self-aggregator would have to register successfully as a competing consolidator before it is allowed to "sales of a variated version of consolidated market data that redistributed or re-disseminated consolidated market data". The U.S. SEC also explicitly stated that "the Commission is not requiring competing consolidators to offer reduced cost or free services, but competing consolidators could develop such products if they so desired". In view of the above, we think market data providers offering market data free of charge should not be automatically be exempted, but subjected to regulatory regime that is designed to ensure the data receive is reliable, resilient, and accurate and that investors and other non-registered entities are able to assess such reliability, resiliency, and accuracy on an on-going basis. So, market data providers that deliver consolidated market data to third parties, whether it is free of charge or not, should be subject to certain standards. Therefore, we disagree exempting market data providers whom offering market data free of charge from the Level 2 requirements. There is no FREE lunch. One may use its economy of scope to solicit revenues from other sources to cover the cost of any free product offer. Exploitation of economy of scope may trigger potential conflicts of interest situation. The market data reform issue is about the divergence between private and social costs.

<ESMA\_QUESTION\_GOMD\_1>

**Q2: Do you agree with Guideline 1? If not, please justify.**

<ESMA\_QUESTION\_GOMD\_2>

We agree with enhanced transparency in general. However, we disagree with Guideline 1 because there is not a cost basis accounting method that would settle the industry's disputes and disagreements. Market data reform involves the divergence between private and social costs. The measurement of social costs is an economic problem rather than a technical accounting matter. Please see our introductory comments.

<ESMA\_QUESTION\_GOMD\_2>

**Q3: Do you think ESMA should clarify other aspects of the accounting methodologies for setting up the fees of market data? If yes, please explain.**

<ESMA\_QUESTION\_GOMD\_3>

Again, market data reform involves the divergence between private and social costs. The measurement of social costs is an economic problem rather than a technical accounting matter. Relying on accounting treatment only benefits the big accounting, law, and consulting firms. We counter suggest focusing on the divergence between private and social costs, as well as mandating the use of time-lock encryption to make market data available securely in synchronized time. Please see our introductory comments for an elaborated discussion of our counter suggestions.

<ESMA\_QUESTION\_GOMD\_3>

**Q4: With regard to Guideline 2, do you think placing the burden of proof, with respect to non-compliance with the terms of the market data agreement, on data providers can address the issue? Please provide any other comments you may have on Guideline 2.**

<ESMA\_QUESTION\_GOMD\_4>

No. Like the original U.S. Dodd-Frank Volcker Rule was approved in July 2014, it places the burden of proof on banks (i.e. quality until proven otherwise), and the rule ends up being largely unenforceable or it is watered down as it was in 2019 and 2020. We envision a sound and collaborative market data reform by focusing on the economic dynamics and the injection of essential technology innovations to spur new opportunities. These steps lead to healthy growth of the overall pie, and enhance market integrity. Table below describes the "should" and "should not" about this market data reform:

It is about	It is NOT about
divergence between private and social costs	forcefully taking something away from the Exchanges
ownership rights, usage rights, exclusivity (IP), term limits, transferrable/ alienable rights, conflicts of interest, etc.	adding bureaucratic processes
discourage inflicting damage on others (ecosystem degradation), and rewarding provision of public goods	whether HFTs are good or bad, pros/ cons of passive versus active management, favouring new/ old venues
evaluating one state of resource allocation with another, ensure core data evolves alongside broader ecosystem	continuous arguments, litigation fights, or other wastes of economic resources



grow the overall pie, avoid further “frowning” of the smile curve, + innovation to spur new economic opportunities	destructive behaviours against rivalries, who occupies more voting seats or dictate the agendas/ info access
striking covenants with constituents across tiers	private party among elites
enforcing covenants without constant policing by the SEC, Balance/ Pareto Condition, equality “Have” vs “Have Not”	distrust among constituents, calling the SEC to baby sit every dispute

<ESMA\_QUESTION\_GOMD\_4>

**Q5: Do you consider that auditing practices may contribute to higher costs of market data? Please explain and provide practical examples of auditing practices that you consider problematic in this context. Such examples can be provided on a confidential basis via a separate submission to ESMA.**

<ESMA\_QUESTION\_GOMD\_5>

We believe auditing practices do contribute to higher costs of market data. This in turn benefits accounting, law, and consulting firms. We counter suggest focusing on the divergence between private and social costs, as well as mandating the use of time-lock encryption to make market data available securely in synchronized time. Please see our introductory comments for an elaborated discussion of our counter suggestions.

<ESMA\_QUESTION\_GOMD\_5>

**Q6: Do you agree with Guideline 3? If not, please justify, by indicating which parts of the Guideline you do not agree with and the relevant reasons.**

<ESMA\_QUESTION\_GOMD\_6>

Disclosure of market data policy may merely be a standard price and term sheet that does not promote the FRAND principle. One will have to assess whether one party may be inflicting damage on others. According to this empirical research, "Exchanges may optimally restrict access to price information for rent seeking behaviours"

<https://pdfs.semanticscholar.org/b61b/597e0c4268eaec75fb744b4e1802c3beb8aa.pdf>

We are aware that some Exchanges are offering 10G connection, while others may offer up to 100G bandwidth. This 10 time connectivity disparity may soon become 40, 80, or even 160 times with known technology advancements. As long as market data remains a drag race, the wealthy will have faster access to market data that will not be reasonably affordable to the average investors. We advocate the use of time-lock encryption to make market data available securely in synchronized time. Also, connectivity disparity must not exceed 2.5 times between the fastest and slowest connection. If Europe is going to develop a public feed, we

recommend that it should be available at the fastest speeds to uphold the FRAND principle. Please see this summary of our May 2020 comments to the U.S. SEC: <https://www.linkedin.com/pulse/competing-decentralized-consolidation-model-impractical-kelvin-to/>

<ESMA\_QUESTION\_GOMD\_6>

**Q7: Do you agree with the approach taken in Guideline 4? If not, please justify, also by providing arguments for the adoption of a different approach.**

<ESMA\_QUESTION\_GOMD\_7>

Private property rights and 'Free Enterprise' are principles that the western civilization are proud of and distinguish capitalism from centrally planned economies. Ownership rights do not mean usage of private property without restrictions. E.g. One can say this is my private property and I can burn it down if I want; however, if the burning interferes/affects the neighbours it would be prohibited. Same goes with market data. Should the right be perpetual or limited term life? Is it transferable/ alienable? There is the question about rent dissipation over common property. If Exchanges have rights to income, then they should have no exculpation clause to escape related liabilities and must carry the burden of not using such property rights outside of permissible limits. In our opinion, the regulator does have the right to impose appropriate limits. With the above distinction of different rights in mind, we think the preamble to Guideline 4 only described one phenomena where market data may be charged multiple times and there are other concerns, such as the controversy of market data provider categorizes a non-trader working for a broker as a "professional" while labelling a full-time but independent day-trader as a "non-professional". To prevent an ingenious pricing scheme that may deviate from the fair, reasonable, and non-discriminatory (FRNAD) principle, one must identify the Pareto condition/ optimal balance in the divergence between private and social costs.

Per this empirical economic study – The Myth of Social Cost ( <https://iea.org.uk/wp-content/uploads/2016/07/THE%20MYTH%20OF%20SOCIAL%20COST.pdf> ), "Every individual action generates a spectrum of effects, each of which may impose effects upon others... method of evaluating that action... is to balance the cost of the action incurred by the performer against the sum of the values of its generated effects, including those contracted and those not. Whether the effects command a positive value or a negative value, the Pareto condition is satisfied whenever the cost and the return balance at the margin." The impending market data problems are 'who owns the data' and how one may delineate the ownership rights versus usage rights and imposing appropriate limits to curb potential inflicting damage on others. We are concerned that Guideline 4 may be insufficient/ ineffective or may possibly be circumvented. It would not achieve its desired result of bringing down market data cost for participants and promote FRAND. At Data Boiler, we provided a framework, including an industry's value chain smile curve, in an attempt to help revive the industry's desire to

constructively collaborate with each other, rather than fighting between trading venues and other constituents. Please refer to our introductory comments for an elaborated discussion.

<ESMA\_QUESTION\_GOMD\_7>

**Q8: Do you agree with Guideline 5? If not, please justify.**

<ESMA\_QUESTION\_GOMD\_8>

Guideline 5 is in essence similar to the U.S. SEC's "same manner same method" approach. We have stated that 'Collocation' does not equate to 'Latency Equalization' (LEQ), and LEQ does not equate to 'market data available SECURELY in Synchronized Time'. 'Same format' may hurt the average investors and may give High Frequency Trading firms (HFTs) a permanent advantage. We are pleased that the approved U.S. SEC final rules do not extend to how a 'Competing Consolidator' may disseminate market data to their subscribers. Another concept that the U.S. SEC has incorporated in the updated Rule 603(a) is, it "prohibits an Self-Regulatory Organization (SRO) from making National Market System (NMS) information to any person on a more timely basis." The U.S. SEC has made it clear that 'make available' encompass the requirement impose on stock exchanges of latency neutralization. To achieve this requirement, we advocate the use of time-lock to ensure there is no premature decryption of data. We urge the European policy makers to consider fine tuning Guideline 5 accordingly, so that these added clarities and requirements can work in synchrony internationally.

Please note that we do plan on seeking further clarifications with the U.S. SEC with questions with regard to the new/ updated rules. We think the more clarity there is in regulatory policy, the better it helps participants to comply with the related rules and guidelines.

<ESMA\_QUESTION\_GOMD\_8>

**Q9: Do you think that ESMA should clarify other elements of the obligation to provide market data on a non-discriminatory basis? If yes, please explain.**

<ESMA\_QUESTION\_GOMD\_9>

As stated earlier, it is about the divergence between private and social costs. The rule's and guideline's objective should be focused on preventing ecosystem degradation and discourage inflicting damage on others. Please see our respond to Q7 and our introductory comments for elaborated discussion.

<ESMA\_QUESTION\_GOMD\_9>

**Q10: Do you agree on the interpretation of the per user model provided by Guideline 6? If not, please justify and include in your answer any different interpretation you may have of the per user model and supporting grounds.**

<ESMA\_QUESTION\_GOMD\_10>

We have no objection to a per user model. However, we are concerned that Guideline 6 is insufficient and may possibly be circumvented. It may not achieve the desired result of bringing down market data cost for participants and promote FRAND. We suggest using a 'per trading desk' approach. According to the definition in U.S. SEC's Rules, 'trading desk' refers to "the smallest discrete unit of organization that an entity uses to conduct trade activities. Each discrete trading unit that handles an identified group or groups of instruments, and for which the entity tracks profit and losses, is a trading desk. It is important to note that trading desks are not defined by reference to legal entities. Thus, various transactions may be booked in different legal entities by a single trading desk, provided the transactions are all directed and managed by that one group. By the same token, a trading desk can have employees located in more than one geographic location if they are all managed and supervised as a discrete group." This 'per trading desk' approach is consistent and reflects existing organizational structures of typical banks, which made it easier for the firm's compliance department to apply (and likewise for regulators to review) than other approach that looks at trading in a top-down fashion. See this: <https://www.sec.gov/news/speech/2014-spch020414jr>

<ESMA\_QUESTION\_GOMD\_10>

**Q11: Do you agree with Guideline 7? If not, please justify. In your opinion, are there any other additional conditions that need to be met by the customer in order to permit the application of the per user model or do you consider the conditions listed in Guideline 7 sufficient to this aim? Please include in your answer the main obstacles you see in the adoption of the per user model, if any, and comments or suggestions you may have to encourage its application.**

<ESMA\_QUESTION\_GOMD\_11>

We suggest using a 'per trading desk' approach. Please see our response to Q10.

<ESMA\_QUESTION\_GOMD\_11>

**Q12: Do you agree with Guideline 8? If not, please justify also by indicating what are the elements making the adoption of the per user model disproportionate and the reasons hampering their disclosure.**

<ESMA\_QUESTION\_GOMD\_12>

We suggest using a 'per trading desk' approach. Please see our response to Q10.

<ESMA\_QUESTION\_GOMD\_12>

**Q13: Do you think ESMA should clarify other elements of the obligation to provide market data on a per user fees basis? If yes, please explain.**

<ESMA\_QUESTION\_GOMD\_13>

If ESMA's definitions of 'per user model' is indeed in synch with our suggested 'per trading desk' approach, then it is worth specifying the details as we have described in our response to Q10 in the final guideline. If the two definitions of 'per user' versus 'per trading desk' are different, we would appreciate ESMA to highlight all differences in the final guideline for the sake of improving clarity.

<ESMA\_QUESTION\_GOMD\_13>

**Q14: Do you agree with Guideline 9? If not, please justify.**

<ESMA\_QUESTION\_GOMD\_14>

Policy makers may consider introducing a new rule to curb potential conflicts of interest or ecosystem degradation caused by a supplier using its market power to exploit their economy of scope with rent seeking behaviour. Yet, free enterprise should be allowed to do product bundling as long as the bundled offer would not inflict damage on others or violate any anti-trust rules. So, please clarify and provide a bright-line in detailing all essential businesses and/or product offers that need, or need not, be separated under Guideline 9, if the EU considers adopting market structure similar to the U.S.'s "Decentralized Consolidation Model", then "Competing Consolidators" may only be viable with expanded scope of product offerings/ differentiation. Alternatively, a single SIP approach can be more restrictive in banning incentives and/or ancillary products if it is established as a non-profit public utility, because there will be sufficient economy of scale to cover related infrastructure and maintenance costs. Additionally the single SIP becomes the gold source for consolidated information, i.e. becomes the de-facto reference price for Europe.

<ESMA\_QUESTION\_GOMD\_14>

**Q15: Do you think ESMA should clarify other elements in relation to the obligation to keep data unbundled? If yes, please explain.**

<ESMA\_QUESTION\_GOMD\_15>

There are pros and cons of bundled pricing, see this: <https://hbr.org/2010/02/the-pros-and-cons-of-bundled-p> . Without prejudice against data bundle, we emphasize that there is an optimal balance/ Pareto condition that policy makers should assess the divergence between private and social costs. If a market data provider does not inflict damage on others and there is no violation of FRAND principle/ anti-trust rules, then such vendor, as a private entity, should be free to set price and bundle their products. Whereas a single SIP approach established as a non-profit public utility, it is justified to be more restrictive in banning incentives and/or ancillary products. Please see our response to Q14.

<ESMA\_QUESTION\_GOMD\_15>

**Q16: Do you agree with Guideline 10 that market data providers should use a standardised publication format to publish the RCB information? If not, please justify.**

<ESMA\_QUESTION\_GOMD\_16>

We agree to Guideline 10. We advocate for benchmarking and publishing of market data providers' performance, so that it would reduce frictions if and when a subscriber may want switch data vendors.

<ESMA\_QUESTION\_GOMD\_16>

**Q17: Do you agree with the standardised publication template set out in Annex I of the Guidelines and the accompanying instructions? Do you have any comments and suggestions to improve the standardised publication format and the accompanying instructions?**

<ESMA\_QUESTION\_GOMD\_17>

We have no objection. We would recommend a better way to effectively help lower market data cost and reduce frictions if and when switching data vendors is through benchmarking and publishing of vendors' performance. To facilitate appropriate benchmarking exercise, it would be good to add latency information and connectivity disparity ratio of different subscription feeds provided by the market data provider as well as related comparisons with peers data suppliers. However, market data providers should NOT be required to unveil their

'secret sauce'/ intellectual property of 'how' or what 'means' or tuning method(s) they use to make market data available to subscribers.

<ESMA\_QUESTION\_GOMD\_17>

**Q18: Do you agree with the proposed definitions in Guideline 11? In particular, do they capture all relevant market uses and market participants? If not, please explain.**

<ESMA\_QUESTION\_GOMD\_18>

We think Guideline 11 would not be effective to curb potentially ingenious pricing schemes. Reference to our earlier response in Q7, we discuss the controversy of market data provider categorizing a non-trader working for a broker as a "professional" while labelling a full-time but independent day-trader as a "non-professional". Regarding the issue of 'display' versus 'non-display', we do plan on including items like this in our follow up with the U.S. SEC. To promote the FRNAD principle, we think that one must identify the Pareto condition/ optimal balance in the divergence between private and social costs. From a market data pricing scheme perspective, we suggest a 'per trading desk' instead of 'a per user' approach. Please see our response to Q10 for an elaborated discussion. Also, please see our later response to Q23 for our objection to the 'FREE after 15 minutes delayed data' requirement.

<ESMA\_QUESTION\_GOMD\_18>

**Q19: Is there any other terminology used in market data policies that would need to be standardised? If yes, please give examples and suggestions of definitions.**

<ESMA\_QUESTION\_GOMD\_19>

Standardized terminology alone would not solve this market data/ market structure problem. The electronic markets need an appropriate overhaul and realignment in order to achieve the Pareto condition/ optimal balance in the divergence between private and social costs. At Data Boiler, we provided a framework, including the industry's value chain smile curve, in an attempt to help revive the industry's desire to constructively collaborate with each other, rather than fighting between trading venues and other constituents. Please refer to our introductory comments for an elaborated discussion.

<ESMA\_QUESTION\_GOMD\_19>

**Q20: Do you agree with Guideline 12? If not, please justify.**

&lt;ESMA\_QUESTION\_GOMD\_20&gt;

We disagree with Guideline 12 as we do not believe accounting methodologies would help. Relying on accounting treatment only benefits the accounting, law, and consulting firms. Please see our introductory comments for our counter suggestions.

&lt;ESMA\_QUESTION\_GOMD\_20&gt;

**Q21: Do you think there is any other information that market data providers should disclose to improve the transparency on market data costs and how prices for market data are set? If yes, please provide suggestions.**

&lt;ESMA\_QUESTION\_GOMD\_21&gt;

The impending market data/market structure problems should not be undermined as a market data cost and price disclosure/transparency matter. Competitiveness of European markets may be eroded if mistreating or inadequately treating the root of the problem. We urge policy makers to dig deeper and go higher with appropriate market data reform to assess the divergence between private and social costs, address any potential conflicts of interest issues related to the overachieving of a trading venue's economy of scope, and curbing rent seeking behaviours that may inflict damage on others. Please see our introductory comments for suggestions. We believe a healthy European market data reform can be achieved by concerted positive efforts in the U.S. and the rest of the World that complement each other's strengths and build-in appropriate interdependency to revive and grow the Global economy.

&lt;ESMA\_QUESTION\_GOMD\_21&gt;

**Q22: Do you agree with Guideline 13? If not, please justify.**

&lt;ESMA\_QUESTION\_GOMD\_22&gt;

We at Data Boiler are supporters of transparency, so we have no objection with Guideline 13. Generally, a market data provider should be able to explicitly detail all relevant clauses in their standard terms of agreement with their subscribers. Our bigger concern is, why would this requires constant policing by regulators? Would that imply that the dominant market data providers may have excessive power to cause potential social harm, or insufficient choice of suppliers in the market, or possible violation of anti-trust rules? In any of these cases, the regulators may want to curb such power rather than be involved in specific commercial terms that are mutually agreed upon between suppliers and customers in open markets.



&lt;ESMA\_QUESTION\_GOMD\_22&gt;

**Q23: Which elements for post- and pre-trade data publication should be required? In particular, are flags a useful element of the publication? Should there be any differences between the different types of trading systems? Is the first best bid and offer sufficient for the purpose of delayed pre-trade data publication?**

&lt;ESMA\_QUESTION\_GOMD\_23&gt;

We recognize that ESMA delay interval of 15 minutes is similar to the U.S. UTP delay interval. Where vendors are permitted to delay UTP Level 1 Information and there is no charge. Yet, in view of expanded core data and under the U.S. newly approved market data infrastructure rules, we foresee certain data elements outside of the U.S. SEC's definition of core data may get price and/or product bundling change by the respective SROs. Particularly those with inelastic demand would likely see price increases for non-core data, such as option and OTC products. We recommend ESMA to adopt a wait and see approach for products/data elements outside of the U.S. SEC's definition of "core data". Hopefully, there will be alignment in data elements and related publication requirements to synchronize between Europe and U.S. Rules.

Providing archived historical market data to academia at subsidized price or even FREE would be beneficial as they are likely to help discover unknown unknowns. Their research may help the market discover opportunities and avoid market issues such as flash crashes. Additionally their research may identify corresponding preventive measures. However, per our introductory comment, there is no FREE lunch. One may use its economy of scope to solicit revenues from other sources to cover the cost of any free product offer. Exploitation of economy of scope may trigger potential conflict of interest situations. Again, this market data reform issue is about the divergence between private and social costs. We emphasize on striking appropriate balance in considering which data elements should or should not be included. No fish can swim when the water is too clear. Hackers aiming to harm markets may try to access the same data for illicit purposes. Giving out too much data may result in unintended adverse consequences.

In our opinion, the U.S. SEC latest approved definition of "core data" is likely the very optimal for what market data elements should be included, anything over that would probably be excessive. See this: <https://www.sec.gov/rules/final/2020/34-90610.pdf> On a separate note, we think 'regulatory data' and 'administrative data' within the Europe equivalent of the U.S. SEC Rules should be included as useful data elements for publication.

&lt;ESMA\_QUESTION\_GOMD\_23&gt;

**Q24: Which use cases of post- and pre-trade delayed data are relevant to you as a data user? What format of data provision is necessary for these use cases, and especially for pre-trade delayed data?**

<ESMA\_QUESTION\_GOMD\_24>

Please see our response to Q23.

<ESMA\_QUESTION\_GOMD\_24>

**Q25: Do you agree with the definitions of data-distribution and value-added services provided in Guideline 16? Please explain.**

<ESMA\_QUESTION\_GOMD\_25>

Indisputably, Exchanges are intermediaries that have to provide value-added functions. Their value-add arises from aggregating and transforming data; via whatever intellectual property (IP) they own. The industry cannot take away the ownership rights of Exchange over market data (not even partially) without paying compensation, unless policy makers determine Exchanges should spin-off their data business to curb potential abuse. Assuming the same logic can be applied to different contexts or situations, anyone using market data can perform certain value-added functions AND TRANSFORM market data feeds into the streaming of "SIGNALS". Then this person should be entitled to ownership of these newly derived SIGNALS. Therefore, without prejudice to the legal provisions prohibiting market data providers to charge the use of delayed-data, we think that Guideline 16 may lack the necessary TRANSFORM aspect for its justification. On a separate note, the U.S. SEC in its Market Data Infrastructure final rule - footnote 1085 explicitly stated that Self-Aggregator "sales of a varied version of consolidated market data that redistributed or re-disseminated consolidated market data, or any subset would be required to register as a Competing Consolidator". We urge the policy makers in Europe and around the World to observe and harmonize with this U.S. Rule.

<ESMA\_QUESTION\_GOMD\_25>

**Q26: Do you have any further comment or suggestion on the draft Guidelines? Please explain.**

<ESMA\_QUESTION\_GOMD\_26>

Amid uncertainty of how the U.S. 'Decentralized Consolidated Model' may result in multiple NBBOs and/or question on the effectiveness of protected-best-bid-and- offer (PBBO) operations, the Europe markets may 'take advantage' of this transition time to come up with its

own pan-European BBO. It may become the de-facto reference price in the World and attract additional order flow as Europe is uniquely situated between the U.S. and Asia time zones.

<ESMA\_QUESTION\_GOMD\_26>

**Q27: What level of resources (financial and other) would be required to implement and comply with the Guidelines and for which related cost (please distinguish between one off and ongoing costs)? When responding to this question, please provide information on the size, internal set-up and the nature, scale and complexity of the activities of your organisation, where relevant.**

<ESMA\_QUESTION\_GOMD\_27>

Building a SIP public utility for the consolidated market data in Europe would likely cost substantially more than a dark pool that handles only a subset of the total market volume. Yet, the cost would not be as high a cost as the U.S. Consolidated Audit Trail (CAT) project. That being said, one can use the CAT's targeted process volume of 30-20 billion trade events daily or 29 petabytes of raw uncompressed data in 6 years as a reference. In our opinion, the infrastructure build out cost would definitely be north of US\$4 million (given the disperse locations of European Stock Exchanges) to possibly much higher in the US\$15-30 million range (if Europe SIP is meant to compete with the Exchanges' proprietary feeds) depending on the scope and requirements. If proprietary feeds are required to use time-lock encryption to be in synchronize with public SIP feed and mandating a maximum connectivity ratio < 2.5 times and giving SIP the same fastest connection, then the cost may likely be achievable towards the low end of US\$4-8 million.

<ESMA\_QUESTION\_GOMD\_27>