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**PUBLICATION AND CONSOLIDATION
OF MiFID MARKET TRANSPARENCY DATA**

**Level 3 CESR's guidelines and recommendations for the
consistent implementation of the Directive 2004/39/EC
and the European Commission's Regulation n° 1287/2006**

February 2007

1. EXECUTIVE SUMMARY

Introduction

- 1.1 The Directive 2004/39/EC on Markets in Financial Instruments (MiFID) was adopted by the European Parliament and Council on 21 April 2004 (OJ L145/1 of 30 April 2004). It will replace the Investment Services Directive 93/22/EEC.
- 1.2 The Level 2 implementing measures were adopted 10 August 2006. These comprise one implementing directive and one implementing regulation: Commission Directive 2006/73/EC of 10 August 2006, on organisational requirements and operating conditions for investment firms and Commission Regulation (EC) 1287/2006 of 10 August 2006, on record-keeping obligations for investment firms, transaction reporting, market transparency, admission of financial instruments to trading. The MiFID and the Level 2 Directive are due to be transposed into the national laws of Member States by January 2007 and apply by November 2007. The Level 2 Regulation will be directly applicable, at the same time.
- 1.3 In the vast majority of Member States today, trading in shares is concentrated on a Regulated Market ("RM") or, where it is permissible to transact away from an RM's systems, it is typically reportable to an RM. This has the effect of concentrating trade information for each share in one (or a few) places, which means that market participants benefit from a consolidated view of trading in a particular share.
- 1.4 MiFID breaks down these concentration rules and aims to facilitate competition between different types of trading venues: RMs, Multilateral Trading Facilities ("MTFs"), Systematic Internalisers and investment firms trading away from RMs and MTFs (i.e. over the counter (OTC)). To support price formation and investor protection in a potentially more fragmented trading environment, it also introduces universal transparency requirements across the European Economic Area (EEA) to help facilitate price formation. The intention being that an adequate level of pre- and post-trade information contributes to the effective operation of a market and to investor protection. Greater transparency would also help to minimise the potential consequences of fragmentation in trading, such as inefficient price formation.
- 1.5 In addition to opening up competition among trading venues, MiFID introduces competition in trade publication services by giving investment firms, when trading OTC, choice in where they publish their transparency information¹. This introduces a possibility that trade information will fragment. Fragmentation of transparency information, if not addressed properly, could undermine the overarching transparency objective in MiFID, and may even result in less transparent markets than is the case today. In order to achieve efficient price discovery and facilitate achievement and monitoring of best execution, trade information published through different sources needs to be reliable and brought together in a way that allows for comparison between the prices prevailing on different trading venues. It should be available in a format that is easy to consolidate and that is capable of being readily understood and be available at a reasonable cost.
- 1.6 Ideally, market forces would lead to efficient consolidation of reliable trade information, and indeed, there are already a number of private sector initiatives underway. However, this is an area where the private commercial interests of market participants are not necessarily aligned with the overall interest of the market. Accordingly, we believe there may be barriers to the market achieving broad based data consolidation on its own.

¹ In this paper, the term 'transparency information' refers to pre- and post-trade information required to be made public under MiFID.



Background

- 1.7 In December 2005, CESR held a roundtable with market participants to discuss these issues for the first time. In March 2006, CESR sought broader market participants views by issuing a call for evidence (CESR/06/134) accompanied by an open hearing. Based on the responses to the call for evidence² and feedback we received from the roundtable, open hearing and subsequent discussions with market participants, CESR decided in May 2006 that it would consider what action it could take to help remove the barriers to transparency data consolidation.
- 1.8 On October 2006, CESR published a consultation paper (CESR/06/551) on its proposed recommendations and guidelines to remove any obstacles which may prevent consolidation³. The paper also described the current landscape in Member states, based on information supplied by 22 Member States as part of a stocktaking exercise CESR conducted last year. The outcome of this consultation is summarized in the feedback statement (CESR/07-086).

Objective of the guidelines and recommendations

- 1.9 In order to facilitate the understanding of certain requirements of the Level 1 Directive and the Implementing Regulation on publication and consolidation of market information, CESR provides guidelines and recommendations that are intended to facilitate a consistent implementation of the concerned provisions, without imposing further obligations on investment firms, MTFs or regulated markets.
- 1.10 The purpose of these guidelines and recommendations would be in helping investment firms, MTFs and regulated markets to assess the way in which these provisions are interpreted by competent authorities. They should also be understood as a safe harbour to ensure that investment firms, MTFs and regulated markets fulfil their respective obligations when following the proposed guidelines and recommendations.
- 1.11 The guidelines and recommendations are, therefore, designed to ensure that the implementation and application of the Level 1 Directive and the Implementing Regulation is consistent across the EU but also, as a result of the prior public consultation process that has been followed, that views from market participants are taken into consideration.

Status of the guidelines and recommendations

- 1.12 The outcome of CESR's work is reflected in the common guidelines and recommendations set out in this paper, which do not constitute European Union legislation and will not require national legislative action.
- 1.13 CESR Members will apply the guidelines in their day-to-day regulatory practices on a voluntary basis. There is a general commitment by all CESR members to consider that investment firms, RMs and MTFs would fulfil their requirements when following the guidelines set out in this paper.
- 1.14 The part of the paper headed "recommendations" is directed at market participants directly and describes what CESR considers as a reasonable approach in the area of primary and secondary publication channels, formats, protocols and dealing with amendments and trade flags. CESR is asking market participants to take these recommendations into consideration when designing new systems or upgrading existing ones; however, for clarification purposes, CESR emphasises that these recommendations are not binding on any party to the process. In addition, there is one

² Responses to the call for evidence are available on the CESR website at www.cesr-eu.org/index.php?page=responses&id=72

³ Recital 34 of MiFID.



recommendation regarding the flagging of primary publication channels which is embedded in the guidelines part of the paper as it is closely related to Guideline n°2.

- 1.15 The way in which the guidelines and recommendations will be applied will be reviewed regularly by CESR. CESR guidelines and recommendations for the consistent implementation of the 2004/39/EC Directive and Commission's Regulation n°1287/2006 will not prejudice, in any case, the role of the Commission as guardian of the Treaties.

Areas of guidelines and recommendations

- 1.16 This paper details CESR guidelines and recommendations to reduce barriers to consolidation of transparency information.

- 1.17 Guidelines include CESR members' common understanding and interpretation of certain aspects of the MiFID transparency publication provisions. The 10 guidelines and 3 recommendations cover the following areas:

- Data quality:
 - Guideline n°1: Inaccurate pre- and post-trade publication;
 - Guideline n°2: Duplication of post-trade transparency information; and
 - Recommendation n°1: Primary and secondary publication channels.
- Publication arrangements:
 - Guideline n°3: Ultimate responsibility for compliance with the MiFID transparency publication requirements;
 - Guideline n°4: Contingency arrangements for pre- and post-trade publication;
 - Guideline n°5: The use of websites as a pre- and post-trade publication arrangement; and
- availability of transparency information:
 - Guideline n°6: Timing of post-trade publication – 'as close to real time as possible';
 - Guideline n°7: Availability of transparency information in the Community;
 - Guideline n°8: The point at which a trade should be considered concluded for post-trade publication purposes;
 - Guideline n°9: Bundling of pre- and post-trade information;
 - Guideline n°10: Structure of pre- and post-trade transparency information.
- Publication standards:
 - Recommendation n°2: Data formats, content and protocols;
 - Recommendation n°3: Amendments to post-trade published information and trade flags.

Structure of the guidelines and recommendations

- 1.18 Each section of the following paper is divided into an introductory text, explaining the issue at stake and CESR's thinking and reasoning behind establishing a certain guideline or recommendation, followed by the actual Level 3 guideline or recommendation itself.

2. DATA QUALITY

Inaccurate pre- and post-trade publication

- 2.1 Any arrangement used by an RM, MTF or investment firm trading away from an RM or MTF to make information public must include all reasonable steps necessary to ensure that the information to be published is reliable, monitored continuously for errors, and corrected as soon as errors are detected⁴.
- 2.2 It is CESR's view that reasonable steps should include a verification process, which does not need to be external from the organisation of the RM, MTF or investment firm (hereafter referred as a 'publishing entity') and should be capable of identifying at least price and volume anomalies in the publication process. The chosen process should be reasonable and proportionate in relation to the business.

GUIDELINE n°1:

CESR considers that for the purposes of ensuring that published information is reliable, monitored continuously for errors, and corrected as soon as errors are detected (see Article 32(a)), a verification process should be established which does not need to be external from the organisation of the publishing entity, but which should be an independent cross-check of the accuracy of the information generated by the trading process.

This process should have the capability to at least identify price and volume anomalies, be systematic and conducted in real-time.

The chosen process should be reasonable and proportionate in relation to the business.

Duplication of post-trade transparency information

- 2.3 Where the trade is executed outside the rules of a regulated market or an MTF, Article 27 para.4 of the Implementing Regulation provides that both parties to a trade should agree on who should publish the trade. In the absence of such an agreement, it specifies a default list to determine where responsibility for publication should lie. In line with Article 27 para. 4 of the Implementing Regulation, both parties should take all reasonable steps to ensure that the transaction is made public as a single transaction. There is, however, a risk that post-trade information may be duplicated if a single published trade is counted more than once during the consolidation process.
- 2.4 This would result in artificially inflating trading volumes, which would have implications for trend analysis and for the overall price formation process. It is also possible that inflated trading volumes may bias the assessment by market participants of the respective balance of market share and liquidity pools between regulated markets, MTF and OTC trades, and as a result, this may lead investment firms to develop their execution policies based on inaccurate information.
- 2.5 CESR's guideline n°2 is based on Option 1 of the Consultation Paper, the use of only one publication arrangement for a single trade. CESR would like to emphasise that this approach is not in any way meant to impede the choice of publication arrangement for investment firms or the competition objectives of MiFID. Moreover, investment firms are free to use several publication channels, just each trade conducted should be published through only one of the channels used rather than all of them as a means to facilitate the consolidation process.
- 2.6 CESR recognises that the allocation of a unique trade identifier (Option 2 of the Consultation Paper) also received significant support by consultees and could be a tool for avoiding double-counting of trades in the consolidation process. However, at least for the time being, CESR refrains from recommending the use of a unique trade identifier as it was rightly pointed out by consultees that

⁴ Article 32(a) MiFID Implementing Regulation.

implementing this option would require significant investment by investment firms and would be difficult to implement in time before MiFID becomes applicable on 1 November 2007. It remains to be seen if the addition of a unique trade identifier proves necessary once the MiFID requirements operate in practice. Therefore, CESR may reconsider this issue at some point in the future based on practical experience acquired with the MiFID regime.

GUIDELINE n°2:

CESR considers that for the purposes of facilitating the consolidation of transparency data with similar data from other sources⁵, investment firms trading away from an RM or MTF, RMs and MTFs that publish each trade via only one primary publication channel are in compliance with MiFID provisions.

RECOMMENDATION n°1

Additionally, in order to enhance the effectiveness of Option 1, CESR considers it useful for parties acting on behalf of publishing entities to flag a trade, where they are the original publication channel, as a 'primary publication' as opposed to information obtained from other publication sources. This should enable data consolidators to delineate between primary and secondary publications and so limit the possibility for duplication. Where the information is published through the entity proprietary system, it would not be necessary to flag the information as a 'primary publication'.

CESR considers a primary publication channel to be a regulated market, MTF, or a third party chosen by the investment firm to publish its post-trade transparency information. Proprietary systems of the investment firm, the regulated market or the MTF used for trades conducted by the respective investment firm or on the respective trading platform, are considered to be 'primary publication' channels by default.

CESR considers a secondary publication channel to be a data provider, including regulated markets and MTFs when acting as such, which re-publishes or distributes already published information, including in a consolidated form (i.e. aggregating information from several investment firms, MTFs or regulated markets).

⁵ Article 32(b) MiFID Implementing Regulation.

3. PUBLICATION ARRANGEMENTS

Ultimate responsibility for compliance with the MiFID transparency publication requirements:

- 3.1 RMs, MTFs and investment firms trading OTC must use publication arrangements that enable them to meet their publication obligations under the Level 2 Implementing Regulation. That is, the chosen publication arrangements would need to publish the transparency information and ensure that it is available in a way that is easily accessible and that facilitates its consolidation with similar data from other sources. While in practice it may be the chosen publication arrangement that discharges these obligations, ultimate responsibility does not shift, although competent authorities may wish to deem that specific publication arrangements satisfy a firm's obligations under Article 32 of the Implementing Regulation.

GUIDELINE n°3:

CESR considers that ultimate responsibility for complying with the MiFID publication requirements resides with the relevant RM, MTF or investment firm subject to the publication obligations in the absence of specific publication arrangements recognised by CESR members.

Contingency arrangements for pre- and post-trade publication

- 3.2 CESR considers that all entities with a transparency publication obligation should have adequate contingency arrangements in place, which should cover publication and data quality monitoring. The precise content of these arrangements may vary depending on the firm in question and/or the publication arrangement of the firm.

GUIDELINE n°4:

CESR considers that entities have adequate contingency arrangements where such arrangements include a policy and procedure outlining how they will continue to meet their transparency obligations if their arrangement becomes unavailable or it may be a connection to a back-up publication arrangement.

If the publication arrangement of the firm has its own back-up facility or recovery plans, CESR considers this as being sufficient.

The use of websites as a pre- and post-trade publication arrangement

- 3.3 CESR members also recognise that websites may offer a low cost publication option, and therefore should not be prohibited altogether. However, publication on 'static' non-machine readable websites (i.e. websites which preclude accessing of information through an automated process) would pose a significant barrier to consolidation. Therefore, publication arrangements should not involve non-automated processes, such as requiring human intervention.

GUIDELINE n°5:

In respect of arrangements facilitating the consolidation of data as required in Article 32(b) of the Implementing Regulation, CESR considers information as being made public in accordance with that article, if it:

- i) is accessible by automated electronic means in a machine readable way;



ii) utilises technology that facilitates consolidation of the data and permits commercially viable usage; and

iii) is accompanied by instructions outlining how users can access the information.

CESR considers that an arrangement fulfils the ‘machine-readable’ criteria where the data:

i) is in a physical form that is designed to be read by a computer;

ii) is in a location on a computer storage device where that location is known in advance by the party wishing to access the data; and

iii) is in a format that is known in advance by the party wishing to access the data.

CESR considers that publication on a non-machine readable website would not meet the MiFID requirements.

4. AVAILABILITY OF TRANSPARENCY INFORMATION

Timing of post-trade publication – 'as close to real time as possible':

- 4.1 MiFID together with the implementation Regulation requires that RMs, MTFs and investment firms publish post-trade information "as close to real time as possible" and no later than 3 minutes. The Implementing Regulation in (Recital 18) states that the information should be published as close to instantaneously as technically possible and that the authorised limit of three minutes should only be used in exceptional cases.

GUIDELINE n°6:

When assessing whether RMs, MTFs or investment firms fulfil the obligation to publish the post-trade information "as close to real time as possible" and no later than 3 minutes, CESR considers that RMs, MTFs and investment firms taking up to 3 minutes for publication on a frequent basis should be able to explain the reason why it takes up to three minutes to publish their post-trade information on a frequent basis.

CESR considers that an RM, MTF or investment firm fails to meet its requirements under MiFID if it chooses a publication mechanism which does not allow for real-time publication of completed trades.

CESR considers that the use of inadequate technology is not an acceptable reason for publication close to three minutes on a frequent basis where the available technology can provide for publication in a shorter period of time and where such technology is available at reasonable costs.

In relation to portfolio trades, due to the need to allocate prices to particular shares, CESR recognises that the process to allocate prices to each share of the portfolio may not be instantaneous.

Availability of pre- and post-trade transparency information in the Community

- 4.2 In this section, CESR sets out its thinking on how pre- and post-trade transparency information can be made available to investors located in the Community, as required by Article 30 of the Level 2 Implementing Regulation.
- 4.3 It is not meant to imply a need for publication of the information in every Member State, but rather a preference for adopting easily accessible publication arrangements. As a consequence, CESR considers that published information should be accessible to all interested parties on a reasonable commercial basis and be accessible with reasonable effort. We believe this requirement could be easily met given the current information technology available to market participants.

GUIDELINE n°7:

CESR considers that any investor in the Community should be able to access the information on a non-discriminatory basis, whether or not they are located in the same Member State as the publishing entity.

CESR considers that the information should be made available to all interested parties wishing to see it provided they are prepared to meet the commercial terms (i.e. this may mean pay for it).

The point at which a trade is considered concluded/ executed for post-trade transparency purposes

- 4.4 MiFID and the Implementing Regulation require trades to be published as close to real time as possible. However, there is no provision governing the issue of when a trade should be considered as concluded/ executed for trade publication purposes.

- 4.5 In the absence of further clarification and harmonisation in this area, there is a risk that understanding among Competent Authorities and market participants may differ, and therefore delay trade publication. This issue is of particular concern for trades conducted outside RMs and MTFs and for trades executed under the rules of RMs or MTFs but outside a central order book or other automated trading systems (e.g. negotiated trades, "telephoned" market-making trades).
- 4.6 In this section, CESR sets out its thinking in relation to the when of a trade being concluded giving rise to the publication obligation. CESR recognises that, in some Member States, other parameters may be taken into consideration when determining when a trade is concluded/ executed (for purposes other than post-trade transparency). For example, differences in legal and accounting requirements may impact the point at which a contract has been entered into (e.g. it may be at the point where the trade is matched, cleared or finally settled). However, CESR considers that such an approach would be inappropriate for the purpose of post-trade transparency. It is essential that trade information be available as soon as possible to gain the full benefits of broad based market transparency and allow for an efficient price formation process and delivery of best execution. The possibility to delay publication until a trade is "matched", "confirmed", cleared or settled would unduly defer publication or could even be abused.

GUIDELINE n°8:

For order book and other automated trades, CESR considers that a trade is concluded and executed as soon as a buy and a sell order are automatically matched and confirmed.

For trades conducted outside RMs and MTFs or trades executed under the rules of RMs or MTFs but outside a central order book or automated trading systems (e.g. negotiated trades, "telephoned" market-making trades), CESR considers that the trade is concluded/ executed as soon as the terms of the trade with regard to the price and volume are agreed between the buyer and the seller.

Where a trade includes multiple legs and where an agreement on the terms of each of the legs is a pre-condition to the completion of the trade, CESR recognises that the trade is completed when all the legs have been put in place and agreed.

Bundling of pre- and post-trade information

- 4.7 Pre- and post-trade information by RMs, MTFs, and investment firms should not be conditional on the purchase of other bundled services and/or data. The principle of reasonable commercial basis is embedded in the Level 1 Directive and Implementing Regulation and is essential to ensure that market participants and end users can readily access transparency information and get a complete picture on trading activity.
- 4.8 CESR's general thinking on this subject is that publishing entities may not make the access to data conditional upon the purchase of other services. It would not be an acceptable practice, for instance, for an RM, when acting as a publication arrangement for investment firms, to subject the re-sale of transparency information to the purchase of other services.
- 4.9 CESR recognises, however, that this approach precludes neither multiple firms from grouping and selling their information nor RMs, MTFs and investment firms from making different levels or depths of pre and/or post-trade information available to the market on different commercial terms.

GUIDELINE n°9:

CESR considers that RMs, MTFs, and investment firms should not make the supply of pre- and post-trade information conditional on the purchase of other bundled services.

Structure of pre- and post-trade transparency information

- 4.10 Continual changes to the order and format of published information would be a barrier to consolidation. It would indeed be difficult to collect pre- and post-trade information if the sources continually change the order and format of the information they publish. Hence, CESR considers a consistent structure of publication information as useful. As pointed out by consultees, this does not necessarily imply publishing in a certain order.

GUIDELINE n°10:

CESR considers that information that is made public in accordance with Article 32 of the Implementing Regulation should conform to a consistent and structured format based on industry standards. RMs, MTFs and investment firms trading away from an RM and MTF can choose the structure that they use.

5. PUBLICATION STANDARDS

- 5.1 MiFID requires that information be made available in a manner which is easily accessible to other market participants. The Implementing Regulation adds that any arrangement to make information public must facilitate the consolidation of the data with similar data from other sources. CESR views this as including the format and technology used to publish and disseminate the information.

Data formats, content and protocols

- 5.2 At the present time, the level of data standardisation within the EEA securities industry is somewhat mixed. Industry participants publish quotes and trades to a variety of interested parties (exchanges, regulators, data distributors) using a range of protocols and formats. While the market is clearly already dealing with many different standards and sources of data, the cost of mapping one standard to another can be significant and contributes to higher overall information costs for the industry.
- 5.3 The limited use of common field formats, reference data, protocols and messaging standards across the EEA financial sector may pose barriers to transparency data consolidation. CESR sees considerable value in the industry converging to a single or a limited number of interoperable data formats and protocols. Common data formats would promote full interoperability between systems for the exchange of information.
- 5.4 While CESR does not propose to mandate the use of specific formats and protocols, we do think the industry should avoid the introduction of new standards, and in particular, avoid new entrants developing their own proprietary standards. In this context, we are proposing that new entrants should use, as far as possible, an existing open protocol. We are also recommending that they use, as far as possible, the International Standards Organisation (ISO) 12 standard formats for publishing their pre- and post-trade information (as outlined in Table 3 below). Where ISO standards also cover content (e.g. currency codes), we recommend that they also be used. The reason we are recommending ISO standards over others is because ISO is the international standard body, its standards are widely recognised within the EEA, it is a low cost open standard, and competent authorities have agreed to use these standards to share transaction reporting information with one another (under Article 25 of MiFID).
- 5.5 Importantly, we are not proposing that existing sources of transparency information (e.g. RMs and MTFs) must change their systems and data standards. This is because it is likely to be a timely and costly process for the entities concerned. However, when developing new systems or making systems changes, we do encourage them to consider the benefits of converging to open industry formats and protocols.

RECOMMENDATION °2:

CESR encourages market participants who are making system changes to consider using, as far as possible, an existing open protocol.

CESR encourages the use, as far as possible, of the International Standards Organisation (ISO) standard formats (and content where relevant), particularly for new entrants.

Transparency publication fields	Formats
Day	<i>ISO 8601</i> – 8 character numeric code YYYYMMDD
Time	<i>ISO 8601</i> - 6 character numeric code HHMMSS.
Instrument identification	<i>ISO 6166</i> - ISIN - 12-character alpha-numerical code Where ISIN is available, it should always be used.
Unit price	An integer in cent (or other as appropriate) units to the appropriate

	number of decimal places.
Price notation	ISO 4217 - 3 character alpha currency code. This standard also covers content, so ISO content should be used e.g. EUR for Euros.
Quantity	An integer expressing the number of whole units
Venue identification	ISO 10383 - MIC for RMs and MTFs. ISO 9362 (BIC) for an SI or the acronym 'SI' if the SI publishes quarterly statistics. The acronym 'OTC' for investment firms other than SI.

Amendments to post-trade published information and trade flags

- 5.6 RMs, MTFs, and investment firms are required to publish amendments and an indicator where the exchange of shares is determined by factors other than the current market valuation of the share and negotiated trades.
- 5.7 Here, CESR deviates from its approach put forward in the Consultation Paper as several consultees indicated that an established procedure for dealing with amendments would be a re-publication of the original trade with a “C” for cancellation in addition to the corrected trade with an “A” for amendment. This approach makes it necessary to flag trades determined by other factors than the current market valuation with a “D” for determined by other factors rather than the “C” already used for cancellation.

RECOMMENDATION °3:

Determined by other factors than the current market valuation	Flagged as 'D' for determined by other factors
Negotiated trade	Flagged as 'N' for negotiated
Amendments	Flagged as 'A' for amendment
Cancellation	Flagged as 'C' for cancellation