

ESMA and NCAs engagement framework for FIRDS data quality

1 Introduction

1.1 Purpose and audience of this document

The requirements of the Markets in Financial Instruments Regulation (MiFIR) and the Market Abuse Regulation (MAR) oblige Trading Venues (TVs) and Systematic Internalisers (SIs) to submit identifying reference data for the relevant financial instruments to competent authorities. These data are in particular required to support the scope of transaction reporting under MiFIR, as well as market abuse surveillance activities under MAR.¹ These data are also key to supplement and enrich other information reported under various MiFID II/MiFIR reporting requirements. In particular, they are used to complete the transparency reporting, which cannot be processed and used without complete and accurate data into FIRDS. These data, combined with transparency data, are used by ESMA to calculate the liquidity of financial instruments for the purpose of the transparency calculations.

According to RTS 23² TVs and SIs have to “submit complete and accurate reference data”. In accordance with Article 28(1) of Regulation (EU) No 1095/2010, the Board of Supervisors (BoS) decided on 17 December 2014 to delegate tasks to ESMA and launched the Financial Instruments Reference Data System (FIRDS) project in order to optimise the implementation of the data collection process and ensure its efficiency. The centralization of carrying out such activities at ESMA level is expected to simplify the required IT set-up and entail economies of scale as well as a reduction of the burden imposed on the relevant market participants. Based on the experience resulting from the delegation, the ESA review introduced an amendment to MiFIR Article 27. According to this amendment, all TVs/SIs should submit financial instrument reference data directly to ESMA as of January 2022³.

This document sets out the procedures agreed by National Competent Authorities (NCAs) and ESMA to verify and communicate data quality issues pertaining to the information reported in FIRDS to apply the relevant corrective measures. It outlines the process to share the relevant information and agree on best practices that would ensure FIRDS data quality.

This document is addressed to NCAs and ESMA staff. It is a working document to guide the activities of NCAs and ESMA for ensuring data quality and it is not expected to be made public.

¹ FIRDS – Reporting instructions FIRDS Reference Data System (ESMA/2016/1522) https://www.esma.europa.eu/sites/default/files/library/2016-1522_firds_reference_data_reporting_instructions.pdf

² COMMISSION DELEGATED REGULATION (EU) 2017/585 of 14 July 2016 supplementing Regulation (EU) No 600/2014 of the European Parliament and of the Council with regard to regulatory technical standards for the data standards and formats for financial instrument reference data and technical measures in relation to arrangements to be made by the European Securities and Markets Authority and competent authorities.

<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R0585&from=EN>.

³ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R2175&from=EN>

1.2 Context description

With the current legal framework, depending on the type of the Delegation Agreement, ESMA and NCAs collect the financial instrument reference data from TV/SIs. Upon receipt of a file, the ESMA system checks that the file can be extracted and uses the expected naming convention (Data transmission errors).

NCAs that did not delegate data collection perform technical validation of the files they received⁴, i.e. files on which a successful XML validation against a commonly agreed XML schema was performed. Additionally, ESMA system performs XML validation of the files received (Data format errors).

If the data transmission and data format tests are passed successfully, ESMA system performs automated data content validation as specified in Annex 7⁵.

For instruments traded on several TVs, when reference data is provided by an NCA other than the Relevant Competent Authority for a given instrument, the system checks that the reference data provided for this instrument's identifier is consistent with the reference data provided by the Relevant Competent Authority for that instrument (Inconsistent record management). In case of any difference on non-free-text fields, the system notifies the sender by generating a warning.

ESMA publishes on its website and distributes to NCAs the validated reference data.

During the abovementioned validation processes, ESMA and NCAs may identify a number of specific data quality issues:

- a) Technical issues found during technical validation performed by ESMA or NCAs:
 - 1. Data transmission errors (the full file is rejected);
 - 2. Data format errors (the full file is rejected);
 - 3. Data content errors (the record is rejected);
 - 4. Incorrect files or records not properly corrected after feedback transmission (the file or record is rejected and not corrected);
 - 5. Inconsistent records (accepted with feedback warning).
- b) Additionally, two types on monthly reports will be generated by the system for NCAs delegating data collection and could also serve as additional input to identify data quality issues:

⁴ ESMA65-8-882 Business Requirements Document, section 2.3.1.2 pag. 20, par. 38.

⁵ ESMA65-8-882 Business Requirements Document, section 2.3.1.3 pag. 20, par. 40.

- The number of days TVs did not report on time over the previous month (from Report 1 of the monthly report generated for the NCAs delegating data collection)⁴.
- c) The number of inconsistent ISIN-MIC encountered the previous month (from Report 2 of the monthly report generated for the NCAs delegating data collection)⁵. Furthermore, according to the requirements of Article 5 RTS 23 NCAs shall conduct quality assessments regarding the content and accuracy of the reference data on at least a quarterly basis.
- d) Finally, data quality issues could be identified and communicated to NCAs and ESMA by TVs, issuers or other market participants consulting the information published on ESMA website, as well as through ad-hoc analysis performed on the data by CAs or ESMA.

Once data quality issues are identified as a result of any of the above, specific actions need to be carried out. First, the data quality issues need to be prioritized and the potential impact needs to be assessed. Second, the necessary remedial actions need to be identified. Third, it should be monitored the impact of the remedial actions on the overall improvement of the data quality. This document sets out the proposal for the data quality management process that encompasses all these steps in order to ensure a coordinated approach between NCAs and ESMA to ensure the high quality of FIRDS reference data.

1.3 Delegation of tasks

This section summarises the relevant task delegated by NCAs to ESMA in accordance with the Delegation Agreements signed by each of them.

The list of delegating NCAs and the tasks each NCA choose to delegate is provided in Annex 4.1.

Delegation of tasks entails⁶:

- e) Collecting/Receiving the financial instrument reference data:

In case of full delegation:

- i. from TVs and SIs; or
- ii. from other NCAs that collect such data from TVs and SIs in their jurisdiction.

In case of partial delegation:

⁴ ESMA65-11-1194 FIRDS Reference Data Functional Specifications. Pag.173.

⁵ ESMA65-11-1194 FIRDS Reference Data Functional Specifications. Pag.173.

⁶ Description of Tasks in the Annex 1.1.A or Annex 1.1.B of the Delegation Agreement signed by each CA

- i. from the NCA in case of TVs and SIs in the jurisdiction of the NCA; or
 - ii. from other NCAs and from TVs and SIs outside the jurisdiction of the NCA.
- f) Establishing and maintaining the necessary arrangements to ensure the quality of data received is appropriate for the purpose of transaction reporting under Article 26 MiFIR, including:
- i. Validation of the file upon receipt;
 - ii. Validation of the content of the file.
- g) Processing the financial instrument reference data files received from the NCA in the same way as the financial instrument reference data files received from other NCAs and from TVs and SIs and distributing the data to NCAs.
- h) Processing the financial instrument reference data received and implementing rules to determine the relevant competent authority for an instrument (as defined in accordance with Article 26(9) (b) MiFIR).

The delegated tasks do not include the data quality assessments regarding the content and accuracy of the reference data received on at least a quarterly basis in accordance with the provisions set out in Article 5 of the RTS 23 on the data standards and formats for financial instruments reference data and technical measures in relation to arrangements to be made by ESMA and NCAs under Article 27 of MiFIR.

2 Communication between parties

2.1 ESMA reports

2.1.1 Monthly reports

According to section 3.11.3 of FIRDS Functional Specification Document (ESMA65-11-1194), ESMA sends monthly reports for NCAs delegating data collection:

- i) Report 1 covers unreported ISINs by MIC, and the number of days where the reports are missing for each ISIN over the past month.

2.1.2 Report 2 provides a list of inconsistent instruments, and the fields that are inconsistent, by MIC. Files available via the hub⁷

ESMA makes available to NCAs the full file, delta file, invalid instruments file and the list of indices via the HUB every day.

- j) The full file contains the TV dependent data received from NCAs, RM, MTF, OTF and SIs before the applicable previous cut-off time and the consistent non-trading venue

⁷ ESMA65-8-882 Business Requirements Document, section 2.7 pag. 17, par. 33.

dependent data as received from the relevant MICs before the applicable previous cut-off time, for all instruments that are still valid and that have been admitted to trading on a RM, including where a request for admission to trading has been made, or that are traded on a MTF, OTF, or SI.

- k) The delta file contains the instruments reference data for all instruments for which a change has been made from the previous full file.
- l) The invalid records file is the placeholder for all records that are not part of the full file anymore. This includes instruments that are terminated and consequently not valid anymore, as well as out-of-date versions of records that have been modified over time. Given the expected high volume of data, the invalid records file may be split in several files for technical reasons.⁸
- m) The list of indices contains the indices and associated Competent Authorities which have registered their interest.

2.1.3 Files available only for NCA delegating data collection⁹

NCAs delegating data collection may request the reference data files received from the TV/SI in their jurisdiction.

2.1.4 Files available only for NCAs non-delegating¹⁰

NCAs non-delegating data collection receive the feedback files on the files they submit. The feedback may contain file rejection, record rejection, feedbacks on warning and reminder.

2.2 Quarterly data management cycle

In order to allow NCAs and ESMA to communicate on data quality issues in an efficient and effective manner, it is necessary to define a standard communication and issues escalation process.

The scope of this procedure is to follow up on data quality issues identified by NCAs and ESMA, to communicate progress made in resolving them, update on the current status of the ongoing data quality improvement initiatives and to exchange FIRDS data quality experiences gained through the use of FIRDS data by different authorities and for different mandates.

As set out in Article 5 of RTS 23, competent authorities shall conduct quality assessments regarding the content and accuracy of the reference data received pursuant to Article 27(1) of Regulation (EU) No 600/2014 on at least a quarterly basis. This procedure is developed to take into account the envisaged quarterly periodicity of these assessments.

⁸ Functional Specifications Instruments Reference Data (ESMA-2015-ITMG-77) p71

⁹ ESMA65-8-882 Business Requirements Document, section 2.7.3 pag. 34, par. 132.

¹⁰ ESMA65-8-882 Business Requirements Document, section 2.3.1.2 pag. 20, par. 39

2.2.1 Technical tests

ESMA creates a standardised template called “TECHNICAL_TESTS” based on the fields of the technical tests of Annex 1 to the FIRDS Data Quality Methodology¹¹. ESMA populates these fields accordingly, providing absolute results as required by each technical test based on the analysis of the Data content validations. It should be noted that some technical tests (e.g. the ones resulting from inconsistent records warnings) may overlap with the monthly reports described in section 2.1.1 and therefore can be replaced with the monthly reports.

The technical test might also show data quality issues that require further analysis on what caused it. If so, these analyses will be specified in the same template by NCAs following their subsequent interaction with the respective TVs.

ESMA can provide, on request from the concerned NCA, the detailed results of the technical tests in its jurisdiction.

2.2.2 Analytical tests

ESMA creates a standardised template called “ANALYTICAL_TESTS” based on the fields of the Analytical tests of Annex 2 to the FIRDS Data Quality Methodology¹². NCAs shall populate those fields accordingly providing absolute results as required by each analytical test based on the quarterly quality assessments regarding the content and accuracy of the reference data. The analytical test might also show a data quality issue that requires further analysis on what caused it. If so, these analyses will be specified in the same template by NCAs following their subsequent interaction with the respective TVs.

Based on the experience gained during the first year since the MIFID II go-live, additional tests to improve the quality of the data that could have an impact on the transparency calculations in FITRS have been included in the revised FIRDS data quality methodology. In particular these tests relate to the following:

- a. FIRDS completeness: records in FITRS and not in FIRDS;
- b. Reports on the use of the correction procedure for inconsistencies⁶;
- c. Inconsistent CFIs;
- d. Inconsistent LEIs;
- e. Inconsistent maturity dates;

¹¹ Esma70-145-377_annex_1_firds_technical_tests first version approved on December 2017, ESMA70-145-1232 reviewed version approved by BoS on January 2019, and ESMA74-361-488 FIRDS technical tests last reviewed version approved by the BoS on 3 december 2019.

¹² Esma70-145-369_annex_2_firds_analytical_tests first version approved on December 2017, ESMA70-145-1230 reviewed version approved by BoS on January 2019, and ESMA74-361-487 FIRDS analytical tests last reviewed version approved by the BoS on 3 december 2019.

⁶ ESMA50-164-1328 reference data correction procedure agreed by MDSC and SMSC.

f. Inconsistent expiry dates.

Given their relevance for FITRS data quality, the above tests will be performed by ESMA, while NCAs will perform the follow-up vis a vis the reporting entities based on the results on of these tests.

2.2.3 Standard data quality assessment cycle

The standard cycle of 12 weeks will include the following:

n) During week 1 and 2

NCAs perform the analytical statistics. In particular, each NCAs will gather the issues they had identified during the last 4 weeks, concerning both the analytical statistics they performed, and the technical statistics they received during the previous quarter from ESMA staff.

ESMA perform and share the technical test of the previous 3 months.

o) During week 3 to 9

NCAs advance the work on resolving their own issues resulting from the analytical and technical statistics. ESMA shares the analytical tests it performed during week 5.

p) During week 9 to 12

NCAs send their completed template to ESMA. When it is not possible to follow up on the request or to provide a comprehensive answer, NCAs inform ESMA of not being able to reply and will provide updates once available.

After this quarterly cycle is completed, a new cycle starts, where NCAs perform the following tasks:

- undertake the analytical statistics;
- follow up on the results from analytical and technical tests;
- gather the results and follow-up actions.

Furthermore, during the same period ESMA will provide reports with the results of the technical analysis on monthly basis.

All issues that are not urgent should be reported to NCAs/ESMA and by NCAs/ESMA only through this form. Requests or issues that are deemed as urgent might deviate from the respective engagement cycle and should be treated differently.

NCAs will send the completed form to data.statistics@esma.europa.eu and mdp@esma.europa.eu. All emails regarding FIRDS data quality and data access should

include the following as the subject for the email: FIRDS_DATAQUALITY_QX YYYY. The template shall be sent according to the data quality work calendar in the 4.2 Annex to this document.

3 Escalation process

The reference data in combination with the transaction reporting data is used to detect market abuse and conduct market monitoring. The effective fulfilment of these supervisory duties is only possible when the reference data for each and every instrument in FIRDS is complete and accurate.

Accordingly, the NCAs are expected to have their own escalation process in place to ensure that the appropriate remedial actions are taken vis a vis the TVs/SIs that are systematically failing to submit complete and accurate data and/or inadequately cooperating to correct their data in due time.

Without prejudice to the different actions established or carried out by the NCAs at the national level, ESMA will monitor certain specific actions, which may be in need of some coordination at EU level in order to improve the quality of the data and increase its usability for the purposes of MiFIR and MAR.

The DSC will be kept informed on the status of the data quality on a quarterly basis. The BoS will be kept informed on the status of the data quality on a semi-annual basis.

4 Annex

4.1 Delegation agreements entered into by each NCA

Country	Delegating Data Collection in their jurisdiction	Delegating automated daily data validations to ESMA
AUSTRIA	N	Y
BELGIUM	N	Y
BULGARIA	Y	Y
CYPRUS	Y	Y
CZECH REPUBLIC	Y	Y
GERMANY	N	Y
DENMARK	Y	Y
ESTONIA	Y	Y
SPAIN	N	Y
FINLAND	Y	Y
FRANCE	Y	Y
UNITED KINGDOM	N/A starting 2021	N/A starting 2021
GREECE	Y	Y
CROATIA	N	Y
HUNGARY	Y	Y
IRELAND	Y	Y
ICELAND	Y	Y
ITALY	Y	Y
LIECHTENSTEIN	Y	Y
LITHUANIA	Y	Y
LUXEMBOURG	Y	Y
LATVIA	Y	Y
MALTA	Y	Y
NETHERLANDS	Y	Y
NORWAY	Y	Y

POLAND	N	N
PORTUGAL	Y	Y
ROMANIA	Y	Y
SWEDEN	Y	Y
SLOVENIA	Y	Y
SLOVAKIA	Y	Y