Decision 2021/7

DECISION OF THE BOARD OF SUPERVISORS

To adopt supervisory measures and impose fines in respect of infringements committed by UnaVista Limited

The Board of Supervisors ('Board'),

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority)[1], as amended by Regulation (EU) 2019/2175 of 18 December 2019[2] ('ESMA Regulation'), and in particular Article 43(1) thereof,

Having regard to Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories[3] (the 'Regulation'), and in particular Articles 64 and 65 thereof,

Having regard to Commission Delegated Regulation (EU) No 667/2014 of 13 March 2014 supplementing Regulation (EU) No 648/2012 of the European Parliament and of the Council with regard to rules of procedure for penalties imposed on trade repositories by the European Securities and Markets Authority[4] including rules on the right of defence and temporal provisions,

Whereas:

i. The Supervision Department within ESMA concluded, following preliminary investigations, that, with respect to UnaVista Limited ('UnaVista' or the 'PSI'), there were serious indications of the possible existence of facts liable to constitute one or more of the infringements listed in Annex I to Regulation (EU) No 648/2012 of the

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[1] OJ L 331, 15.12.2010, p. 84.
[2] OJ L 334, 27.12.2019, p. 1.
[3] OJ L 201, 27.7.2012, p. 1.
[4] OJ L 179, 19.6.2014, p. 31.

European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories.

ii.   On 23 October 2019 ESMA's Executive Director appointed an independent investigating officer ('IIO') pursuant to Article 64(1) of Regulation (EU) No 648/2012. Due to internal organisation arrangements, a new IIO was appointed by the ESMA Executive Director on 4 March 2020.

iii.   On 30 November 2020, the IIO sent to UnaVista her initial Statement of Findings, which found that it had committed one or more of the infringements listed in Annex I to Regulation (EU) No 648/2012.

iv.   In response to the IIO's initial Statement of Findings, written submissions dated 8 January 2021 were made by UnaVista.

v.   Following the receipt of written submissions referred to in point iv above, the IIO amended her initial Statement of Findings and incorporated those amendments into the Statement of Findings dated 28 January 2021.

vi.   On 28 January 2021, the IIO submitted to the Board her file relating to UnaVista, which included the initial Statement of Findings dated 30 November 2020, the written submissions made by the entity on 8 January 2021 and the Statement of Findings dated 28 January 2021.

vii.   On 18 May 2021, the Panel established by the Board to assess the completeness of the file submitted by the IIO adopted a ruling of completeness in respect of that file[5].

viii.   The Board thoroughly discussed the case at its meeting on 20 May 2021. Having considered the complete file submitted by the IIO, the facts described therein, and the applicable legal provisions, the Board expressed agreement with most but not all the IIO's findings and on 28 June 2021 adopted via written procedure its initial Statement of Findings.

ix.   On 5 July 2021, on behalf of the Board, ESMA sent the Board's initial Statement of Findings to UnaVista.

x.   On 26 July 2021, UnaVista made written submissions in respect of the Board's initial Statement of Findings.

xi.   The Board discussed the case further at its meeting on 21 September 2021.

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[5] Ruling of the Enforcement Panel (ESMA41-356-177)

xii.   Pursuant to Article 65 of the Regulation (EU) No 648/2012, where ESMA finds that a trade repository has, intentionally or negligently, committed one of the infringements listed in Annex I, it shall adopt a decision imposing a fine.

xiii.   Pursuant to Article 73 of the Regulation (EU) No 648/2012, where ESMA finds that a trade repository has committed one of the infringements listed in Annex I, it shall take one or more of the supervisory measures available to it, taking into account the nature and seriousness of the infringement.

Having considered the IIO's Statement of Findings, the material in the complete file and the written submissions made on behalf of the PSI, the Board sets out below its findings.

STATEMENT OF FINDINGS OF THE BOARD OF SUPERVISORS

1   Background

1.   The PSI is a trade repository ('TR'), based in the United Kingdom[6]. It is 100% owned by London Stock Exchange Group Reg Holdings Limited, which in turn is owned by London Stock Exchange Group Plc.[7]

2.   Based on 2020 figures, the PSI was one of the most relevant TRs in terms of turnover, number of clients and number of reports received. As regards the financial year ended 31 December 2020, the PSI had an annual turnover of EUR 4 108 852[8]. In 2020, the PSI had the third largest client base, with 339 clients and with 27% of the total number of trade reports received by trade repositories from market participants it ranked as third among the EU-registered trade repositories.

3.   The application for the registration of the PSI under the Regulation was filed on 26 March 2013[9]. On 7 November 2013, the PSI was registered under the Regulation[10]. The PSI was registered to provide TR services for all derivative asset classes[11].

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[6] Supervisory Report, Exhibit 01, 2013-ESMA-1597 – UnaVista Registration Decision.
[7] Exhibit 56, PSI's Response to the IIO's Second RFI, Document 1 - UnaVista Limited Annual Report 2019, p. 26.
[8] UnaVista Limited, Report and Financial Statements for the year ended 31 December 2020; calculation from GBP to EUR based on the official exchange rate for GBP v EUR in 2020: 1.1248
https://www.ecb.europa.eu/stats/policy_and_exchange_rates/euro_reference_exchange_rates/html/eurofxref-graph-gbp.en.html
[9] Supervisory Report, Exhibit 01, 2013-ESMA-1597 – UnaVista Registration Decision.
[10] Supervisory Report, Exhibit 01, 2013-ESMA-1597 – UnaVista Registration Decision. The decision took effect on the fifth working day following its adoption.
[11] Supervisory Report, Exhibit 01, 2013-ESMA-1597 – UnaVista Registration Decision.

4. Following the end of transition period of the UK's withdrawal from the EU, which occurred on 31 December 2020, the PSI's recognition was withdrawn.

5. UnaVista is currently active in Europe through "UnaVista TRADEcho B.V.", headquartered in the Netherlands, that was registered by the London Stock Exchange Group on 25 March 2019.

2 Facts

2.1 TRACE

6. Since 1 November 2017, TRs have to provide data to entities listed in Article 81(3) of the Regulation ('Regulators') using an XML format and a template developed in accordance with ISO 20022 methodology. A single access point, commonly referred to as TRACE, was deployed to facilitate exchange of data between TRs and the Regulators. In addition to this, TRs may provide access to details of derivatives contracts to Regulators in another, mutually agreed format.

7. The PSI explained the roll-out of TRACE, which also included the implementation of "the functionality allowing UnaVista to provide periodic and ad hoc open trade state reports […] The TRACE roll-out occurred in three distinct phases:

   [From 28 July 2016][12] (a) TRACE Phase 1, which provided the functionality for UnaVista to provide periodic reports. Periodic reports are predefined and recurrent, in that they are provided to the relevant Regulators on a periodic basis. They include, inter alia, reports provided in the form of open trade state reports. […] Within this phase the recurrent queries are implemented by our TR in a predefined, standard ISO 20022 format. Our TR is now able to deliver the requested standard reports to NCAs on a regular basis (daily/weekly/monthly), as defined in the functional specifications. The reports will be encrypted and delivered to NCAs via the ESMA hub. The scope of data for this phase will be limited to the data reported as per the regulatory and implementing technical standards that currently are in force";

   [From 5 December 2017][13] (b) TRACE Phase 2, which provided the functionality for UnaVista to provide ad hoc reports. Ad hoc reports are sent out by way of response to specific queries from Regulators and as such, are customised to provide the information requested. The provision of ad hoc reports does include, inter alia, the provision of open trade state reports; and

   (c) TRACE Phase 3, which provided upgrades to the Phase 1 roll-out, including for example new message types around statistics and aggregation[14]".

8. Thus, regarding some of the new obligations coming into force, as per the PSI's own account, the PSI's systems "were already compliant prior to 1 November 2017 and, as

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[12] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 4 and Appendix I, Table C, pp. 23, 24.
[13] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 4. Please also see Exhibit 11, PSI's Response to the IIO's First RFI, p. 8, where PSI explains that "this functionality was implemented at a later date, being 5 December 2017" and further Exhibit 13, PSI's Response to the IIO's Second RFI, p. 2, where it clarifies that "The roll-out of TRACE Phase 2, which included the ad hoc report functionality, occurred on 4 December 2017 between 21:00 and 23:00. Due to the timing of the roll-out of TRACE Phase 2, there was only one hour on 4 December 2017during which ad hoc reports could have been requested and generated. Accordingly, whilst this roll-out technically occurred on 4 December 2017, for practical purposes, the relevant functionalities were fully available to TRACE subscribers on 5 December 2017."
[14] Exhibit 11, PSI's Response to the IIO's First RFI, p. 14. See also Exhibit 58, PSI's Response to the IIO's First RFI, Compliance and Management Meeting minutes 22 August 2016.

such, UnaVista made no changes in the run up to 1 November 2017. These obligations are as follows:

(a) the obligation to grant relevant Regulators direct and immediate access to data using an XML template according to ISO 20022 methodology;

(b) the obligation to ensure relevant Regulators could connect to UnaVista's systems using a secure machine-to-machine interface (i.e., SSH File Transfer Protocol) in order to submit data requests and receive data; and

(c) the obligation to provide relevant Regulator access to all reports on derivative contracts and the latest trade states of derivative contracts that had not matured or which had not been the subject of a report with action type "E", "C" or "Z".

With respect to other obligations brought in by RTS 2017/1800, however, UnaVista notes that ongoing work continued throughout the remainder of 2017 in order to achieve internal compliance with such obligations. These obligations are as follows:

(a) the obligation to provide relevant Regulator access to the latest trade states of derivative contracts which had not been the subject of a report with action type "P". UnaVista notes that action type "P" was a new feature brought in by RTS 2017/1800. To achieve compliance, UnaVista carried out technical system changes to ensure that action type "P" was considered closed for open trade stats and excluded therefore from open trade state reports; and

(b) the obligation on UnaVista to provide functionality allowing it to respond to ad hoc requests from Regulators in respect of certain reporting fields as listed in RTS 2017/1800. Whilst this functionality was implemented at a later date, being 5 December 2017, UnaVista notes this delay was managed in conjunction with ESMA[15]".

9. In addition to this, from 2 October 2018, the PSI rolled-out the functionality to provide historic open trade state reports on an ad hoc basis as far back as 1 November 2017[16].

10. Finally, to provide Regulators with data in XML format, as the PSI receives data from counterparties and CCPs in one format (CSV), it uses mapping rules to turn them into the required outbound format (XML, via TRACE) to provide data to Regulators. In this respect, the PSI had to map "data from the database to a TRACE message: (1) the data is first exported from the table via a folder export; and (2) the export then is processed by a plug-in, which runs the mapping rules and XML generation"[17].

11. In this respect the PSI explained that regarding "(1) […] folder exports are an in-built part of the UnaVista platform. The folder exports extract data held within UnaVista's

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[15] Exhibit 11, PSI's Response to the IIO's First RFI, p. 8.
[16] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 4 and Supervisory Report, Exhibit 25, Item 2 Annexure.
[17] Exhibit 11, PSI's Response to the IIO's First RFI, p. 13.

internal databases and generate an export file of this data. Folder exports can be configured by specifying which values should be extracted and which values should be filtered out when generating the data export file. In respect of (2), […] the data export file generated by the folder export is a CSV extract file which is fed into a Java plug-in. The Java plug-in generates an XML message based on pre-defined mapping rules and this XML message is sent on to the ESMA TRACE Hub[18]".

Updates to the reporting fields

12. From 1 November 2017 counterparties and CCPs had to report in line with new requirements and TRs had to update their systems.

13. In this respect the PSI stated that it "carried out a process of analysis of each reporting field contained in Table 1 (Counterparty Data) and Table 2 (Common Data) of the Annex to RTS 2017/104, which resulted in the "Access to TRs Functional Specifications – Annex 2 with UV Fields" document[19]. For each reporting field, this document contained information on the details to be reported and in what format, as well as the ISO 20022 XML tag and any relevant mapping rules for that field. […] The mapping rules provided a framework to allow UnaVista internally to map the data received in the inbound regulatory format (for example, CSV) to the required outbound format (TRACE, as mandated by ESMA) and enable this data to be sent to Regulators. In particular, the following reporting fields were covered by the mapping rules:

(a) "Submitting Entity ID" (Table 1, line item 9), "Beneficiary ID" (Table 1, line item 12) and "Clearing Member ID" (Table 1, line item 10) […]

(b) "CCP ID" (Table 2, line item 37), "Broker ID" (Table 1, line item 8), "Submitting Entity ID" (Table 1, line item 9) and "Clearing Member ID" (Table 1, line item 10) […]; and

(c) "Option Type" (Table 2, line item 78 – "Put/Call"), "Contract Type" (Table 2, line item 1), "Commodity Details" (Table 2, line item 66), "Interconnection Point" (Table 2, line item 68), "Days of the Week" (Table 2, line item 74), "Floating Payment Freq Period Leg 2" (Table 2, line item 49), "Floating Payment Freq Multiplier Leg 2" (Table 2, line item 50), "Floating Reset Freq Period Leg 2" (Table 2, line item 53), "Floating Reset Freq Multiplier Leg 2" (Table 2, line item 54), "Floating Ref Period Leg 2" (Table 2, line item 59), "Floating Ref Period Multiplier Leg 2" (Table 2, line item 60), […].

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[18] Exhibit 13, PSI's Response to the IIO's Second RFI, p. 5.
[19] Exhibit 63, PSI's Response to the IIO's First RFI, Access to TRs Functional Specifications – Annex 2 with UV Fields.

14. The "Value of the Collateral" reporting field, […] was not included in this document, as this reporting field was decommissioned and replaced by a more granular set of fields in RTS 2017/104[20]".

15. These new fields were "(a) 'Collateralisation' (Table 1, line number 21); (b) 'Collateral portfolio code' (Table 1, line number 23); (c) 'Initial margin posted' (Table 1, line number 24); (d) 'Currency of the initial margin posted' (Table 1, line number 25); (e) 'Variation margin posted' (Table 1, line number 26); (f) 'Currency of the variation margin posted' (Table 1, line number 27); (g) 'Initial margin received' (Table 1, line number 28); (h)'Currency of the initial margin received' (Table 1, line number 29); (i) 'Variation margin received' (Table 1, line number 30); (j) 'Currency of the variation margin received' (Table 1, line number 31); (k) 'Excess collateral posted' (Table 1, line number 32); (l) 'Currency of the excess collateral posted' (Table 1, line number 33); (m) 'Excess collateral received' (Table 1, line number 34); and (n) 'Currency of the excess collateral received' (Table 1, line number 35)[21]" (together referred to as the 'Value of the Collateral' fields).

16. To implement the changes the PSI "created and maintained the "EMIR Reporting Field Specifications" document, which tracked the new requirements arising from Article 1(5) of RTS 2017/104 and the resulting changes required to the existing system for each of the reporting fields contained in the Annex to RTS 2017/104. [… It] sets out in detail the new specifications arising from RTS 2017/104 for each individual reporting field, flagging inter alia the details to be reported, the relevant format required for those details, whether reporting was mandatory, conditional, optional or not relevant for a given action type at both a position and a trade level, whether the field required reconciliation and at what level and any conditions for validation. Technical specifications for each reporting field were also provided for internal purposes, namely to inform the UV build and ensure that the UV system, once upgraded, was able to handle each new reporting field correctly [… It also] compares the new specifications under RTS 2017/104 to the pre-existing specifications under RTS 148/2013, highlighting inter alia new fields, fields which had been removed and amendments to the validations.

17. This master document was supplemented internally with a Solution Functional Requirement, known as an SFR, for each individual reporting field. Each SFR provided in-depth information on the validation required under RTS 2017/104, any inter-dependencies or conditional validations and a record of the testing carried out for that reporting field, as well as any fixes implemented during the testing process. Each SFR also contained comments designed to assist developers with correctly implementing the changes brought about by RTS 2017/104[22]".

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[20] Exhibit 11, PSI's Response to the IIO's First RFI, pp. 10-11.
[21] Exhibit 13, PSI's Response to the IIO's Second RFI, p. 4.
[22] Exhibit 11, PSI's Response to the IIO's First RFI, pp. 9-10 and Exhibit 21, PSI's Response to the IIO's Second RFI, EMIR Reporting Field Specifications.

18. The PSI explained further that to ensure compliance from 1 November 2017 with the new rules, it "took the following steps (a) at 11pm GMT on Friday, 27 October 2017, UnaVista shut down its reporting system in order to implement the necessary reporting system enhancements; and (b) on Monday, 30 October 2017, UnaVista reactivated its reporting system which, from that time onwards, operated to align with the requirements of the amending RTS and ITS, (the L3 Migration)[23]".

2.2 Field ordering incident

19. During the first stage of transforming the received data from CSV format to TRACE format, i.e., during the PSI's data export, when "the data [was] first exported from the table via a folder export[24]" the PSI employed incorrect field ordering logic which resulted in the following consequences.

20. From 28 July 2016 (when the TRACE file mechanism and the corresponding ESMA hub went live) to 8 December 2018, the PSI applied an incorrect field ordering logic to the data reported (in CSV format) by submitting entities in the fields 'Beneficiary ID', 'Clearing Member ID' and 'Submitting Entity ID', in respect of reports sent via TRACE to Regulators.

21. From 5 December 2017 to 8 December 2018, the same incorrect field ordering logic was applied to ad hoc reports.[25]

22. The incorrect field ordering logic resulted in sending incorrect data in TRACE reports. In particular, this incorrect field ordering logic had the following effect[26]:

- The data reported in the CSV format by submitting entities in the 'Submitting Entity ID' field was mapped to the 'Beneficiary ID' field in the TRACE format.

- The data in the CSV format reported by submitting entities in the 'Clearing Member ID' field was mapped to the 'Submitting Entity ID' field in the TRACE format.

- The data in the CSV format reported by submitting entities in the 'Beneficiary ID' field was mapped to the 'Clearing Member ID' field in the TRACE format.

23. In addition, where the 'Submitting Entity ID' field was not populated submitting entities' reports were not sent to TRACE at all. The reason for this was that there are a certain number of mandatory fields. When a mandatory field is not populated in TRACE, the report is not made available to Regulators via TRACE. Out of the three fields impacted by the incorrect field ordering logic the 'Beneficiary ID' field was the only mandatory field in the TRACE format. Since the 'Submitting Entity ID' field in the CSV files reported by submitting entities was mapped to the 'Beneficiary ID' field in the TRACE format, all

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[23] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 1-2.
[24] Exhibit 11, PSI's Response to the IIO's First RFI, p. 13.
[25] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 4 and Appendix 1, pp. 22-24.
[26] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 4.

reports from submitting entities where the 'Submitting Entity ID' field was not populated were not sent to TRACE[27].

24. The PSI discovered the incident on 6 December 2018, while investigating a system warning according to which certain derivatives trades records were not sent to TRACE[28]. On 8 December 2018, the PSI implemented a permanent fix by correcting the field ordering logic that mapped the data received from submitting entities in CSV format to the TRACE format[29]. The PSI notified ESMA of the issue on 12 December 2018.[30]

25. The PSI informed all Regulators onboarded onto TRACE about the issue, the types of reports affected and the time period during which those reports were affected[31].

26. The issue did not affect the data that the PSI made available on its own SFTP server for those on-boarded Regulators who collected their data in CSV format[32].

Reports and regulators affected

27. The PSI explained that it receives from counterparties and CCPs "files, each of which contain "derivative reports", also known as "records". A file can contain one or multiple derivative reports and there is no consistency as between files in terms of the number of derivative reports that they contain[33]".

28. The PSI stated that "no derivative report was directly affected by any of the incidents relevant to this RFI when being received from a counterparty or CCP or when being stored within UnaVista's system. […] however, UnaVista has provided the number of derivative reports which were affected during the onward submission to relevant Regulators[34]".

29. While the PSI was unable to provide the exact number of affected derivative reports in relation to the incorrect field ordering logic, it was able to provide "a "worst case scenario" figure composed of all derivative reports received from counterparties and CCPs for dates on which the field ordering incident occurred and which could have

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[27] See Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 4-5.
[28] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 4.
[29] Supervisory Report, Exhibit 12, TRACE Field Ordering Issue. See also Supervisory Report, Exhibit 21, FW UnaVista Incident - TRACE Field Ordering Issue.
[30] Supervisory Report, Exhibit 12, TRACE Field Ordering Issue.
[31] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 5.
[32] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 3.
[33] Exhibit 11, PSI's Response to the IIO's First RFI, p. 3-4. Please also see, Exhibit 27, PSI's Response to the IIO's First RFI, RFI Incidents Totals ABCD.
[34] Exhibit 11, PSI's Response to the IIO's First RFI, p. 4. The PSI also explained that "By way of context to the below figures, on an average day, UnaVista will receive and process 15 million derivative reports from counterparties and CCPs. This results in UnaVista sending out 620 million records to Regulators (with 350 million in TRACE format and 270 million in CSV format). These records are contained within 167 different reports, which UnaVista supplies to 38 different Regulators. There is, therefore, on average a 1:41 relationship between inbound derivative reports received from counterparties and CCPs as against the outbound records which are sent out to Regulators."

therefore been affected by the incident [35]". "An estimated total of 4,159,946,638 derivative reports received from counterparties and CCPs were affected in their onward transmission to Regulators by the field ordering incident[36]".

30. In total 25 Regulators were affected by the TRACE field ordering incident[37]. It affected 'All Previous Day' reports, and ad-hoc reports.[38] In this respect, the PSI stressed that "not all regulators requested all report types[39]" and provided a detailed breakdown of the affected Regulators and reports[40].

31. Following the resolution of the incident described above, the PSI stated that "All affected reports which have been retroactively requested have been provided to the relevant Regulator[41]".

2.3 Mapping incidents

32. The PSI incorrectly updated its internal system, which meant that from 1 November 2017, it "did not correctly map a number of fields[42]", which in turn led to certain reported data to be incorrectly or not at all reported to Regulators using periodic reports via TRACE. From 5 December 2017, the same incorrect mapping was applied to ad hoc reports. [43]

33. These errors occurred during the second stage of transforming the received data from CSV format to TRACE format, i.e., when "the export [was] processed by a plug-in, which runs the mapping rules and XML generation[44]".

34. The issue did not affect the data that the PSI made available on its own SFTP server for those on-boarded Regulators who collected their data in CSV format[45].

35. The following paragraphs describe the mapping incidents in detail:

'Identifier Type' fields ('CCP ID', 'Broker ID', 'Submitting Entity ID' and 'Clearing Member ID' fields)

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[35] Exhibit 11, PSI's Response to the IIO's First RFI, p. 4. In this respect the PSI further clarified that "By way of caveat to the estimate provided, UnaVista notes that the FCA, ECB and ESRB were not affected by this incident and therefore any derivative reports received only by these three Regulators would not have been affected. This would have been a rare occurrence however, as all relevant attributes which go to determining Regulator access to a derivative contract would have needed to have been in the FCA's jurisdiction only."
[36] Exhibit 11, PSI's Response to the IIO's First RFI, p. 4.
[37] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, Appendix 1, pp. 22-24.
[38] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, Appendix 1, pp. 22-24.
[39] Exhibit 9, PSI's Comments on the Supervisory Report, p. 2.
[40] Please see the tables in Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, Appendices 1-4, pp. 22-43.
[41] Exhibit 11, PSI's Response to the IIO's First RFI, p. 25.
[42] Supervisory Report, Exhibit 18, RE TRACE Review, p. 4.
[43] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, Appendix 2-4, pp. 25-43.
[44] Exhibit 11, PSI's Response to the IIO's First RFI, p. 13.
[45] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 3.

36. From 1 November 2017 to 15 January 2019[46], the 'CCP ID', the 'Broker ID', the 'Submitting Entity ID' and the 'Clearing Member ID' fields were not populated in the TRACE reports with the data reported by submitting entities[47].

37. The reason for this was that from 1 November 2017, CCPs, brokers, submitting entities, and clearing members were required to be only identified with a Legal Entity Identifier ('LEI') and, therefore, the previously used 'Identifier Type' field was removed from the submitting entities' trade reports. However, the PSI's field mapping logic, which maps the data received from submitting entities in CSV format to the TRACE format, had not been updated and continued to operate on the basis that the 'Identifier Type' field needed to be populated even after 1 November 2017[48]. Thus, as the field mapping logic could not find any information on the type of identifiers used in the CSV files reported by submitting entities (since the 'Identifier Type' field was no longer present in those files), this resulted in the 'CCP ID', the 'Broker ID', the 'Submitting Entity ID' and the 'Clearing Member ID' fields being reported as blank in the TRACE reports[49].

38. From 1 November 2017 to 8 December 2018, there was a combined impact of this incident and the field ordering incident (as set out in Section 2.2) which resulted in the mandatory 'Beneficiary ID' field not being populated in the TRACE reports and therefore the affected reports were not sent to TRACE.

39. On 21 December 2018, while performing testing of its portability functionality with other trade repositories, the PSI discovered that any data reported by submitting entities in the 'CCP ID' field was reported as blank in TRACE reports. Upon further investigation, the PSI discovered on 7 January 2019 that the 'Broker ID', the 'Submitting Entity ID' and the 'Clearing Member ID' fields were also not populated in the TRACE reports with the data reported by submitting entities[50].

40. The PSI stated that the incident was "permanently resolved on 15 January 2019"[51]. To resolve the incident "Technical updates to the core solution of UnaVista's field mapping logic were made such that the data in the "Identifier Type" field was automatically populated as LEI in respect of all the ID Fields for reports generated after 15 January 2019 (to the extent that such reports related to derivative contracts entered into after the L3 Migration implementation date on 30 October 2017)[52]". The PSI notified ESMA of the incident on 8 January 2019.[53]

'Option Type' field

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[46] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, Appendix 2, pp. 25-29.
[47] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 8.
[48] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 8-9.
[49] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 8-9.
[50] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 8.
[51] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 8.
[52] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 10.
[53] Supervisory Report, Exhibit 14, UnaVista Incident - mapping issue.

41. From 1 November 2017[54] to 12 May 2019, when submitting entities populated the 'Option Type' field in their CSV reports to the PSI with the value 'Other', the PSI's system did not populate the corresponding field in the TRACE reports.

42. The reason for this was that from 1 November 2017, the designation of "Other" in addition to the two designations "Put" or "Call" became available for "Option Type" field. When the PSI "implemented the L3 Migration, the mapping logic was not updated to take into account the "Other" designation with the effect that the "Option Type" field in a TRACE file was not populated if "Other" was reported in the "Option Type" field in the corresponding CSV file[55]".

43. The PSI became aware of the incident while conducting "a review of the accuracy and completeness of the TRACE files UnaVista provides to authorities [('TRACE Review')]. The TRACE Review was carried out between 21 January 2019 and 1 May 2019." It notified ESMA of the incident on 8 May 2019.[56]

44. On 12 May 2019, the PSI released corrective coding, "to permanently resolve the mapping issues" and informed all Regulators "about the TRACE Review and provided [them] with a report detailing the summary of the findings of the TRACE Review[57]".

'Contract Type' field – Spreadbet and Swaption

45. From 1 November 2017[58] to 12 May 2019, when submitting entities populated the 'Contract Type' field in their CSV reports to the PSI with the values 'Swaption' or 'Spreadbet', the PSI's system did not populate the corresponding field in the TRACE reports.

46. The reason for this was that from 1 November 2017 "Swaption" and "Spreadbet" became available as designations for the "Contract Type" field. When the PSI "implemented the L3 Migration, the mapping logic was not updated to take into account the "Swaption" and "Spreadbet" designations with the effect that the "Contract Type" field in a TRACE file was not populated if either "Swaption" or "Spreadbet" was reported in the "Contract Type" field in the corresponding CSV file[59]."

47. The PSI became aware of the incident during the TRACE Review carried out between 21 January 2019 and 1 May 2019. It notified ESMA of the incident on 12 February 2019.[60]

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[54] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 12-15.
[55] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 12-15.
[56] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 16-17. See also Supervisory Report, Exhibit 18, RE TRACE Review.
[57] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 16-17.
[58] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 12-15.
[59] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 12-15.
[60] Supervisory Report, Exhibit 17, UnaVista - Mapping Issue and Exhibit.

48. On 12 May 2019, the PSI released corrective coding, "to permanently resolve the mapping issues" and informed all Regulators "about the TRACE Review and provided [them] with a report detailing the summary of the findings of the TRACE Review[61]".

<u>'Days of the Week' field</u>

49. From 1 November 2017[62] to 31 August 2019, when submitting entities reported multiple values in the 'Days of the Week' field in their CSV reports to the PSI, the PSI's system only reported the first value in the corresponding field in the TRACE reports.

50. The reason for this was that from 1 November 2017 it became possible to include multiple values (days) in the 'Days of the Week' field. When the PSI "implemented the L3 Migration, the mapping logic was not updated to permit the inclusion of multiple values in the "Days of the Week" field in a TRACE file. This meant that, if more than one value was submitted for the "Days of the Week" field in a CSV file, only the first value reported in the CSV file was mapped onto the "Days of the Week" field in the corresponding TRACE file[63]."

51. The PSI became aware of the incident during the TRACE Review carried out between 21 January 2019 and 1 May 2019." It notified ESMA of the incident on 11 April 2019[64].

52. On 31 August 2019, the PSI "permanently resolved" the incident further to "the release of a system upgrade by ESMA, namely version 1.4 of TRACE's "Derivative Trade Report" schema (the TRACE Schema), which formed part of ESMA's TRACE Phase 3 upgrade. [… The PSI] was unable to resolve the Days of the Week Issue until the TRACE Schema was released by ESMA. [… ESMA] released the TRACE Schema on 31 August 2019, and, accordingly, UnaVista resolved the Days of the Week Issue that same day[65]".

<u>Floating Payment Freq Period Leg 2', 'Floating Payment Freq Multiplier Leg 2' 'Floating Reset Freq Period Leg 2', 'Floating Reset Freq Multiplier Leg 2', 'Floating Ref Period Leg 2', and 'Floating Ref Period Multiplier Leg 2' fields</u>

53. When submitting entities populated the following fields in their CSV reports to the PSI, these fields were not included in TRACE reports:

- 'Floating Payment Freq Period Leg 2',

- 'Floating Payment Freq Multiplier Leg 2',

[61] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 16-17.
[62] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 12-15.
[63] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 12-15.
[64] Supervisory Report, Exhibit 16, UnaVista Incident - Additional Mapping Issues.
[65] Exhibit 11, PSI's Response to the IIO's First RFI, p. 22.

- 'Floating Reset Freq Period Leg 2',

- 'Floating Reset Freq Multiplier Leg 2',

- 'Floating Ref Period Leg 2', and

- 'Floating Ref Period Multiplier Leg 2'.

54. The reason for this was that from 1 November 2017 these fields were newly introduced for reporting. When the PSI "implemented the L3 Migration, the [… 'Floating Payment Freq Period Leg 2', 'Floating Payment Freq Multiplier Leg 2' 'Floating Reset Freq Period Leg 2', 'Floating Reset Freq Multiplier Leg 2', 'Floating Ref Period Leg 2', and 'Floating Ref Period Multiplier Leg 2' fields] were not established in the TRACE file structure. This meant that when any of the New Fields were populated in a CSV file, the relevant data was not able to map through to the corresponding fields in a TRACE file[66]."

55. The PSI became aware of the incident during the TRACE Review carried out between 21 January 2019 and 1 May 2019." It notified ESMA of the incident on 8 May 2019[67].

56. On 12 May 2019, the PSI released corrective coding, "to permanently resolve the mapping issues" and informed all Regulators "about the TRACE Review and provided [them] with a report detailing the summary of the findings of the TRACE Review[68]".

'Value of the Collateral' field

57. From 1 November 2017 to 17 January 2019[69] collateral and valuation data was not included in the reports made available to Regulators through TRACE[70].

58. The reason for this was that from 1 November 2017 the 'Value of the Collateral' field had been replaced with a more granular set of fields[71]. However, the PSI's mapping

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[66] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 12-15.
[67] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 12. Supervisory Report, Exhibit 18, RE TRACE Review.
[68] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 16-17.
[69] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, Appendix 4, pp. 35-43.
[70] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 18.
[71] Exhibit 13, PSI's Response to the IIO's Second RFI, p. 4 and footnote 5. According to the PSI "the following reporting fields (with corresponding table and line numbers from Delegated Regulation(EU) No 2017/104) were affected by the collateral and margin data incident: (a) 'Collateralisation' (Table 1, line number 21); (b) 'Collateral portfolio code' (Table 1, line number 23); (c) 'Initial margin posted' (Table 1, line number 24); (d) 'Currency of the initial margin posted' (Table 1, line number 25); (e) 'Variation margin posted' (Table 1, line number 26); (f) 'Currency of the variation margin posted' (Table 1, line number 27); (g) 'Initial margin received' (Table 1, line number 28); (h) 'Currency of the initial margin received' (Table 1, line number 29); (i) 'Variation margin received' (Table 1, line number 30); (j) 'Currency of the variation margin received' (Table 1, line number 31); (k) 'Excess collateral posted' (Table 1, line number 32); (l) 'Currency of the excess collateral posted' (Table 1, line number 33); (m) 'Excess collateral received' (Table 1, line number 34); and (n) 'Currency of the excess collateral received' (Table 1, line number 35) In this respect the PSI noted that "that the 'collateral portfolio' field (Table 1, line number 22) has not been included in the list of affected reporting fields above as it is not an explicit field in the outbound XML messages generated. The XML message fields are prescriptive and do not include a line for the 'collateral portfolio' field. This field is instead implicitly captured through the 'collateral portfolio code' field, which is a conditional field and dependent on the response provided for the 'collateral portfolio' field (for example, if the response to the 'collateral portfolio' field is 'Yes', the

logic had not been updated and continued to treat the 'Value of the Collateral' field as a "gatekeeper field". This meant that the collateral fields reported by counterparties and CCPs in a CSV file were skipped by the mapping logic because the 'Value of Collateral' field was no longer included in the CSV file[72].

59. The Central Bank of Ireland raised this issue with the PSI on 1 June 2018[73] and again on 16 November 2018. The PSI discovered the full extent of the incident on 27 November 2018[74]. It notified ESMA of the incident on 29 November 2018[75]. The Central Bank of Ireland also raised the issue directly with ESMA.[76]

60. The PSI confirmed that "the issues underlying the collateral and margin data incident have been completely and permanently resolved[77]". In this respect it released corrective coding in three stages between 21 December 2018 and 17 January 2019[78]:

On 21 December 2018, the PSI "updated its mapping logic to make the "Collateralisation" field in a CSV file the Gatekeeper Field instead of the "Value of the Collateral" field[79]." However, "where a CSV File did not have the "Collateralisation field" populated, the other populated collateral fields were not mapped through to the collateral fields in the corresponding TRACE Non VU [Valuation Update] File (because the "Collateralisation" Gatekeeper Field was not populated)[80]."

On 15 January 2019, the PSI "removed entirely the requirement for a Gatekeeper Field to be populated in order to map the underlying collateral fields in a CSV file onto the corresponding fields in a TRACE file (i.e. the collateral fields in a CSV file were mapped directly onto the corresponding TRACE file in all circumstances, for both Valuation Update Files and Non VU Files)[81]."

However, this was also not consistent with the TRACE validation schema, as the ""Collateralisation" field: (a) is a conditionally mandatory field for a Valuation Update File when reporting collateral data; and (b) is a non-mandatory field for a Non VU File (regardless of whether data is populated in collateral fields other than the "Collateralisation" field within a Non VU File)[82]." From 17 January 2019, the corrective coding instead "permitted: (a) all collateral fields in a CSV Valuation

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'collateral portfolio code' field will be populated and vice versa). Strictly speaking therefore, the 'collateral portfolio' field was not affected by any mapping errors, as it is not directly mapped into the XML message." Please also see Supervisory Report, Exhibit 23, RE: UnaVista incident.

[72] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 19.
[73] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 18.
[74] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 18.
[75] Supervisory Report, Exhibit 9, UnaVista incident.
[76] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 18. See also Supervisory Report, Exhibit 9, UnaVista incident, Supervisory Report, Exhibit 10, RE: Regulatory trade state report with missing collateral fields, and Supervisory Report, Exhibit 11, Update on several matters.
[77] Exhibit 13, PSI's Response to the IIO's Second RFI, p. 5.
[78] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 20.
[79] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 20.
[80] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 20.
[81] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 20-21.
[82] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 21.

Update File to be mapped to the collateral fields in a corresponding TRACE Valuation Update File; (b) irrespective of whether the "Collateralisation" field in the CSV Valuation Update File was populated[83]."

61. The PSI informed all Regulators onboarded onto TRACE about the issue, the types of reports affected and the time period during which those reports were affected[84].

Commodity Details' field and 'Interconnection Point' field

62. Finally, from 1 November 2017[85] to 12 May 2019, the PSI also had mapping rules in place which, if submitting entities had populated certain values in their CSV reports, the PSI's system would not have populated the corresponding field in the TRACE reports.

63. In particular, if submitting entities had populated the 'Commodity Details' field in their CSV reports to the PSI with the value 'Seafood', the PSI's system would not have populated the corresponding field in the TRACE reports. The reason for this was that from 1 November 2017 'Seafood' became available as a designation for the 'Commodity Details' field. When the PSI "implemented the L3 Migration, the mapping logic was not updated to take into account the "Seafood" designation with the effect that the "Commodity Details" field in a TRACE file was not populated if "Seafood" was reported in the "Commodity Details" field in the corresponding CSV file[86]."

64. Similarly, if submitting entities had reported multiple values in the 'Interconnection Point' field in their CSV reports to the PSI, the 'Interconnection Point' field in a TRACE file would have failed[87]. The reason for this was that from 1 November 2017 it became possible to include multiple values (locations) in the 'Interconnection Point' field. When the PSI "implemented the L3 Migration, the mapping logic was not updated to permit the inclusion of multiple values in the "Interconnection Point" field in a TRACE file. This meant that, if more than one value was submitted for the "Interconnection Point" field in a CSV file the corresponding "Interconnection Point" field in the TRACE file failed[88]."

65. The PSI became aware of these system failures during the TRACE Review carried out between 21 January 2019 and 1 May 2019. It notified ESMA of the incident related to the 'Interconnection Point' field on 11 April 2019[89] and of the incident related to the 'Commodity Details' field on 8 May 2019[90].

[83] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 21.
[84] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 20.
[85] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 12-15.
[86] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 12-15.
[87] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 13.
[88] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 12-15.
[89] Supervisory Report, Exhibit 16, UnaVista Incident - Additional Mapping Issues.
[90] Supervisory Report, Exhibit 18, Re: TRACE Review.

66. On 12 May 2019, the PSI released corrective coding, "to permanently resolve the mapping issues" and informed all Regulators "about the TRACE Review and provided [them] with a report detailing the summary of the findings of the TRACE Review[91]".

Reports and regulators affected

67. As set out above, the PSI "provided the number of derivative reports which were affected during the onward submission to relevant Regulators[92]."

68. Regarding the mapping incidents, the PSI was able to provide exact figures[93].The exact total of derivative reports received from submitting entities affected in their onwards transmission to Regulators was:

- 1 571 331 171 regarding the 'Identifier Type' field incident;

- 15 139 regarding the 'Option Type' field;

- 78 445 375 regarding the 'Contract Type' (Spreadbet) field;

- 45 565 regarding the 'Contract Type' (Swaption) field;

- 1 234 780 regarding the 'Days of the Week' field;

- 25 461 988 regarding the 'Floating Payment Freq Period Leg 2' field;

- 25 461 980 regarding the 'Floating Payment Freq Multiplier Leg 2' field;

- 28 372 045 regarding the 'Floating Reset Freq Period Leg 2' field;

- 28 372 045 regarding the 'Floating Reset Freq Multiplier Leg 2' field;

- 28 372 025 regarding the 'Floating Ref Period Leg 2' field; and

- 28 372 010 regarding the 'Floating Ref Period Multiplier Leg 2' field; and

- 3 554 581 287 regarding the 'Value of the Collateral' field incident.

69. Regarding the 'Commodity Details' field and the 'Interconnection Point' field, the PSI stated that "no records were received from counterparties and/or CCPs where the 'Commodity Details' field was 'SF' (seafood); and no records were received from counterparties and/or CCPs where there were repeating values reported in the 'Interconnection Point' field. This means that no counterparties and/or CCPs submitted

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[91] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 16-17.
[92] Exhibit 11, PSI's Response to the IIO's First RFI, p. 4.
[93] Exhibit 11, PSI's Response to the IIO's First RFI, pp. 4-5. Please also see, Exhibit 27, PSI's Response to the IIO's First RFI, RFI Incidents Totals ABCD.

data affected by the issues pertaining to these fields, as no data was submitted with values which would have resulted in incorrect outbound mapping to Regulators[94]".

70. Moreover, the incidents affected the Regulators in the following way:

- 29 Regulators were affected by the 'Identifier Type' field incident;[95]

- 31 Regulators were affected by the incidents related to 'Option Type', 'Contract Type' (Spreadbet), 'Contract Type' (Swaption), Days of the Week', 'Floating Payment Freq Period Leg 2', 'Floating Payment Freq Multiplier Leg 2' 'Floating Reset Freq Period Leg 2', 'Floating Reset Freq Multiplier Leg 2', 'Floating Ref Period Leg 2', and 'Floating Ref Period Multiplier Leg 2' fields;[96] and

- 29 Regulators were affected by the incident related to the 'Value of the Collateral' field.[97]

71. The incidents described above affected the 'All Previous Day' reports, 'Errored Matured Terminated' reports, 'Historical Open Trade State' reports, 'Late' reports, 'Outstanding Trades' reports, 'Previous Day Executions' reports and ad-hoc reports.[98]

72. As stated above, in this respect, the PSI stressed that "not all regulators requested all report types[99]" and provided a detailed breakdown of the affected Regulators and reports.[100]

73. Following the resolution of the incidents described above, the PSI stated that "All affected reports which have been retroactively requested have been provided to the relevant Regulator[101]".

2.4 Crossed Date Boundaries

74. Between 1 November 2017 and 30 October 2018, the PSI's system allowed updates to open trade state data to occur before exports for the previous day had been completed. Thus, on 30 unique dates (the first being 3 April 2018), 139 trade state reports potentially[102] contained erroneous data (i.e., the issued reports potentially included open trade data inclusive of the previous two days' of trades, rather than only

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[94] Exhibit 13, PSI's Response to the IIO's Second RFI, p. 2.
[95] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, Appendix 2, pp. 25-29.
[96] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, Appendix 3, pp. 30-34.
[97] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, Appendix 4, pp. 35-43.
[98] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, Appendix 4, pp. 35-43.
[99] Exhibit 9, PSI's Comments on the Supervisory Report, p. 2.
[100] Please see the tables in Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, Appendices 1-4, pp. 12-15.
[101] Exhibit 11, PSI's Response to the IIO's First RFI, p. 25.
[102] The PSI could only provide estimates of the exact number of reports affected as it was unable to confirm the exact number of reports impacted by inaccuracies produced as a result of a 'crossed date in report generation', please see Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 8.

data for the previous day) because the export of an open trade state report completed after midnight on the day following their planned generation[103].

75. The PSI explained that it had "identified instances where potentially erroneous data was provided to Authorities by isolating instances where export of an open trade state report completed after midnight on the day following their planned generation. The TR System starts generating TRACE reports at approximately midnight in relation to the previous day's trade data. For example, a TRACE Report generated from 00:01 on 2 October 2018 should reflect the open trade data as of the end of day on 1 October 2018. [The PSI] discovered that if reports complete after midnight on the day following their planned generation (e.g. if they complete later than 00:01 on 3 October in the example cited above), the data within these reports may be inconsistent, because at 00:01, the data from which the report is being generated "ticks over" and any running reports could include the next day's data. Consequently, they may contain open trade data inclusive of the previous two days' of trades, rather than only data for the previous day. The same issue with date boundaries being crossed was also experienced in relation to the production of CSV reports. UnaVista is unable to confirm whether there were any actual inaccuracies in reports produced as a result of these crossed date boundaries in report generation, but is identifying them as 'incidents' to ESMA out of an abundance of caution[104]".

76. In this respect, the PSI indeed informed a Regulator that a trade state report was not reliable as "the report was generated after midnight therefore trades maturing on that day would have not been included in the report [and internally explained that] Trades that matured before midnight will not be included[105]".

77. The PSI noted that by the end of December 2018, the PSI implemented code changes to fix the issue. The enhancements were set to "(a) ensure that the TRACE and CSV database jobs used to update the open trade state data for reports only do so if all exports for the previous day have been completed. This is achieved by UnaVista's systems automatically checking the queue tables for TRACE and CSV reports and the job is only executed if all reports for the previous business day are flagged as complete, otherwise the job waits and tries again 15 minutes later; and (b) ensure that exports wait for the open trade state data to be updated before executing. In the event that the production of a report is delayed, the next day's exports must wait accordingly for the first day's export to complete and the jobs referred to in have completed. This is achieved via status flags in a database table in the TR System which indicate when the job has successfully completed, which the exports check is present before starting[106]".

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[103] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 15.
[104] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 8.
[105] Supervisory Report, Exhibit 30, LBR.0013091, p. 1.
[106] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, pp. 15-16.

78. The PSI became aware of the incident as a result of ESMA's request for Information sent on 30 October 2018 and its "comprehensive efforts to respond to this[107]". The PSI notified ESMA of the incident on 14 December 2018[108].

79. The PSI explained "that not every type of […] inaccurate report impacted each regulator[109]".

80. Regarding open trade state reports provided via TRACE on a regular basis[110], the PSI estimated that the 135 reports, which could have contained open trade data inclusive of the previous two days' of trades, rather than only data for the previous day could have potentially impacted 20 Regulators[111]. Regarding open trade state reports provided via CSV files, the PSI estimated that the four reports, which could have contained open trade data inclusive of the previous two days' of trades, rather than only data for the previous day could have potentially impacted three Regulators[112].

81. Further to the resolution of the issue, the PSI confirmed that it "continued to provide reports retroactively where specifically requested by Regulators [… and] that all outstanding reports have now been queued for regeneration[113]". The PSI further noted in its Response to the IIO's initial Statement of Findings that "As of 7 July 2020, […] all such historic reports have been regenerated and provided to the corresponding Regulators[114]".

2.5 Trade state reports

82. The PSI provides reports to Regulators that contain the changes and the latest trade states of outstanding, i.e., neither matured nor terminated, derivative contracts as of the date of issuance of the report ('trade state reports'). Such trade state reports would encompass the most updated data for a derivative trade.

83. During the time under review, Regulators could request three "types" of trade state reports: They could request reports to be provided on a regular basis at a consistent periodic time interval defined by each Regulator[115]; and they could request trade state reports on an ad hoc basis from "two categories as follows: (a) contemporaneous: a request from an Authority for an open trade state report on a given date (T) for the date

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[107] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, pp. 8-9.
[108] Exhibit 13, PSI's Response to the IIO's Second RFI, p. 10.
[109] Exhibit 9, PSI's Comments on the Supervisory Report, p. 5. For a detailed breakdown of the reports affected per Regulator, please see the tables in Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 22-43.
[110] See Supervisory Report, Exhibit 26, Item 4 Annexure and Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 18.
[111] ESMA, Autorité des marchés financiers, Financial Supervisory Authority, BaFin, Central Bank of Ireland, Comision Nacional Del Mercado De Valores, Commissione Nazionale Per Le Societa e la Borsa, Commission de Surveillance du Secteur Financier, European Central Bank, Financial Conduct Authority, Financial and Capital Market Commission, Croatian Financial Services Supervisory Agency, Polish Financial Supervision Authority, European Systemic Risk Board, Finanstilsynet, Financial Supervision Commission, Hellenic Capital Market Commission, Magyar Nemzeti Bank, Cyprus Securities Exchange Commission and Czech National Bank.
[112] ESMA, Bank of England and Autoriteit Financiele Markten.
[113] Exhibit 11, PSI's Response to the IIO's First RFI, p. 25.
[114] Exhibit 74, PSI's Response to the IIO's initial Statement of Findings, p. 2.
[115] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, pp. 3-4.

prior to the date of the request (T-1); and (b) historic: a request for an open trade state report for any day prior to T-1, which from its nature UnaVista has treated as an ad hoc request."[116].

84. In particular, from 28 July 2016, the PSI provided periodic open trade state reports and from 5 December 2017, ad hoc trade state reports in XML Format via TRACE[117]. As set out below, from 2 October 2018, the PSI also provided ad hoc open trade state reports for historical trades as far back as 1 November 2017[118]; currently the PSI is able to provide open trade state reports for historic trades as far back as 2014. The PSI also provided these open trade state reports as CSV files via its own SFTP server[119].

85. In this regard, the PSI provided periodic open trade state reports via TRACE to one Regulator[120] monthly, 14 Regulators[121] weekly, and 13 Regulators[122] daily[123].

86. Moreover, the PSI provided trade state reports with CSV files to one Regulator[124] weekly and to nine Regulators[125] daily[126].

87. The PSI provided contemporaneous trade state reports on an ad hoc basis to thirteen Regulators[127] via TRACE and to three Regulators[128] in CSV format[129].

88. As described below in sections 2.6 – 2.7, a number of incidents occurred that affected the provision of open trade state reports to Regulators.

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[116] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 9.
[117] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, pp. 2-4 and Supervisory Report, Exhibit 25, Item 2 Annexure.
[118] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, pp. 4-5 and Supervisory Report, Exhibit 25, Item 2 Annexure.
[119] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, pp. 2, 4-5 and Supervisory Report, Exhibit 25, Item 2 Annexure.
[120] Autoriteit Financiele Markten (AFM - The Netherlands).
[121] Agencija za trg vrednostnih papirje; CMVM (Portugal); Cyprus Securities and Exchange Commission (CySEC); Czech National Bank; ESMA; Financial Conduct Authority; Financial Supervision Commission (FSC Bulgaria); Finansinspektionen; Finanstilsynet; Hellenic Capital Market Commission; Magyar Nemzeti Bank; Malta Financial Services Authority; National Bank of Slovakia; The Financial Services and Markets Authority, FSMA (Belgium).
[122] Autorite Des Marches Financiers (AMF); BaFin; Central Bank of Ireland; Comision Nacional Del Mercado De Valores; Commission de Surveillance du Secteur Financier; Commissione Nazionale Per Le Societa e la Borsa; Croatian Financial Services Supervisory Agency (HANFA); European Central Bank; European Systemic Risk Board; Financial and Capital Market Commission (Lativa); Financial Supervisory Authority; National Bank of Belgium; The Polish Financial Supervision Authority (the KNF);
[123] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 6.
[124] ESMA Stats.
[125] Austrian FMA; Autoriteit Financiele Markten (AFM - The Netherlands); Bank of England; Central Bank of Ireland; Commissione Nazionale Per Le Societa e la Borsa; Deutsche Bundesbank; ESMA; European Central Bank; European Systemic Risk Board.
[126] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 7.
[127] The Polish Financial Supervision Authority (the KNF); Comision Nacional Del Mercado De Valores; ESMA; Agencija za trg vrednostnih papirje; Commissione Nazionale Per Le Societa e la Borsa; Financial Supervision Commission (FSC Bulgaria); The Financial Services and Markets Authority, FSMA (Belgium); Commission de Surveillance du Secteur Financier; National Bank of Slovakia; European Central Bank; Croatian Financial Services Supervisory Agency (HANFA); Financial and Capital Market Commission (Lativa); Finanstilsynet.
[128] Autoriteit Financiele Markten (AFM - The Netherlands); Austrian FMA; National Bank of Belgium.
[129] Supervisory Report, Exhibit 37, Item 5 Annexure.

2.6 Missed exports of trade state reports

89. Between 1 November 2017 and 30 October 2018, there were 87 missed exports regarding TRACE trade state reports on 20 unique dates and 415 missed exports regarding CSV trade state reports on 209 unique dates to Regulators[130]. The PSI identified several main root causes (among such GPGSM encryption, disk space, database stability and performance) leading to the missed exports of trade state reports and also raised other root causes[131].

GPGSM Encryption

90. Between 1 November 2017 and 30 October 2018, 47 trade state reports were not sent because of missed exports due to problems with GPGSM encryption.[132]

91. The PSI explained that "The GPGSM library used to encrypt data before sending TRACE reports to Authorities periodically hung due to a defect in the software, such that the TRACE reports being encrypted were not sent, or were sent late so that a date boundary was crossed […]. After being idle for a period of time, the GPG-agent stopped responding. In the event that this occurred, all GPGSM processes hung until the GPG-agent was terminated manually by UnaVista staff. This meant that the reports were not sent and had to be queued for regeneration. The failure to export reports due to this issue was identified by UnaVista on 26 February 2018 through its on-going monitoring […] and was notified to ESMA the same day[133]".

92. According to the PSI, it resolved the issue permanently by installing an upgrade of the software on 14 April 2018[134] and on 17 April 2018, the PSI informed ESMA of the fix[135].

Disk space

93. Between 1 November 2017 and 30 October 2018, three trade state reports, were not sent because of missed exports due to issues with disk space.[136]

94. The PSI explained that it had "stored TRACE and CSV reports as temporary files on the F drive, as this was needed before the reports could be encrypted and sent out to the relevant Authority. The F drive was also used for part of the TR System itself, processed transaction files and historical TRACE and CSV reports. The space

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[130] Supervisory Report, Exhibit 26, Item 4 Annexure and Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 18.
[131] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, pp. 12-14.
[132] Supervisory Report, Exhibit 26, Item 4 Annexure and Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 18. See also Supervisory Report, Exhibit 28, LBR.0012728, Supervisory Report, Exhibit 29, LBR.0017673, Supervisory Report, Exhibit 43, Document 9.3 and Supervisory Report, Exhibit 45, Document 10.1, pp. 2-6 and Supervisory Report, Exhibit 50, LBR.0019406.
[133] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 12. See also Supervisory Report, Exhibit 43, Document 9.3.
[134] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 16.
[135] Supervisory Report, Exhibit 45, Document 10.1, p. 2.
[136] Supervisory Report, Exhibit 26, Item 4 Annexure and Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 18. See also Supervisory Report, Exhibit 44, Document 9.4, and Supervisory Report, Exhibit 51, LBR.0054743.0037.

available on the relevant drive was monitored by UnaVista's monitoring system [redacted] on a daily basis by taking snapshots of the total, used and available space on each disk drive. This result of the monitoring was reviewed by the UnaVista support team and used for capacity planning. Data was manually archived when the drive was close to full capacity. Over time, the volume and frequency of TRACE and CSV reports generated by UnaVista increased due to the on-boarding of additional Authorities and an increase in the number of transactions in the reports. As a result, when there was an unexpected spike in the size and volume of TRACE reports due to an abnormally high volume of trades on a particular day, for example, there was not enough space on the F drive for the reports to be generated and stored. This occurred on four occasions […], with the first being on 13 November 2017 [when] the space available on the drive used to store temporally TRACE reports and CSV files was not sufficient[137]."

95. According to the PSI, a fix was implemented on 16 June 2018 and further enhancements were implemented in January 2019 to resolve this issue permanently. In particular, on 16 June 2018 a dedicated set of disk space was allocated on the relevant drive for all the PSI's temporary data, including TRACE reports[138]. The PSI stated that it did not experience any other incidents relating to the production of TRACE reports[139]. The PSI notified ESMA of the incident on 14 December 2018[140].

<u>Database stability and performance</u>

96. Between 1 November 2017 and 30 October 2018, 115 trade state reports were not sent because of missed exports due to issues with database stability and performance.[141]

97. The PSI explained that "to generate TRACE and CSV reports, UnaVista's systems are required to execute queries against the TR System with appropriate criteria to obtain the relevant data. These queries occur in the same database as other operational elements of the TR System such as the matching and reconciliation process of transaction reports between pairs of counterparties. The complexity of this matching process increased over time as the volume of the transactions in the underlying database tables increased. A point was reached where the database was no longer executing queries in a scalable manner, as it was cross-referring to the entirety of the data available on certain database tables rather than only to the portion relevant to a

[137] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, pp. 12 and 14.
[138] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 14. See also Exhibit 22, PSI's Response to the IIO's First RFI, UnaVista Operations Update Slides, 18 June 2019, pp. 5-6.
[139] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 14. For a list of actions taken by the PSI, see also Exhibit 23, PSI's Response to the IIO's First RFI, UnaVista Updated Resilience Strategy 2018-2019 Projects & Initiatives.
[140] Exhibit 13, PSI's Response to the IIO's Second RFI, p. 10.
[141] Supervisory Report, Exhibit 26, Item 4 Annexure and Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 18. See also Supervisory Report, Exhibit 27, LBR.0002892, Supervisory Report, Exhibit 28, LBR.0012728, Supervisory Report, Exhibit 29, LBR.0017673, Supervisory Report, Exhibit 30, LBR.0013091, Supervisory Report, Exhibit 31, LBR.0022657, Supervisory Report, Exhibit 32, LBR.0054815, Supervisory Report, Exhibit 33, LBR.0018787, Supervisory Report, Exhibit 47, LBR.000156.0001, and Supervisory Report, Exhibit 49, LBR.0018737.

particular date's report. This caused errors in the database which resulted in reports not being produced, or being produced incorrectly[142]".

98. Moreover, "due to an increased volume in TRACE and CSV reports generated, the database began performing sub-optimally, in particular (a) the database ran reports more slowly than it should have done due to the volume of reports being generated at the same time. The implementation of non-TRACE reporting via XML direct to Authorities on 11 January 2018 (which was done in addition to CSV reporting) negatively impacted the database's performance between 11 January 2018 and 9 February 2018. This caused a backlog of CSV open trade state reports, which remained until April 2018; and (b) an overrunning of the maintenance performed on the indices (called "Reindexing") in the TR System database on 15 October 2018. This meant that the generation of new TRACE reports was blocked until the maintenance was complete, resulting in delays in the sending of TRACE reports to the relevant Authorities[143]".

99. According to the PSI, a fix was implemented to resolve these issues permanently on 3 October 2018[144]. In particular, the PSI explained "that the code being used was optimised and the paired trades field differencing (i.e., the process of identifying and reporting differences in the data provided for each pair of trades) was run in batches. This was implemented via a UnaVista platform change request which amended two procedures involved in the matching and differencing of data. Changes to the code of the underlying platform were made to enforce optimised query execution in the TR System's database via the use of query hints. In addition, batching was introduced to ensure that large queries run on the database (which would have had an impact on the overall performance of the database but which were not directly related to the production of TRACE and CSV reports) were split into multiple sets of smaller queries. This has improved the database's performance as a smaller volume of reports and, therefore, a smaller volume of trades need[s] to be matched and processed at any one time[145]".

100. The PSI further undertook additional work to improve the stability and performance of the database, which include the adoption of a plan addressing concerns raised by ESMA ('Resilience Plan')[146], a protocol with respect to the resolution of all issues including 'deadlocks'[147] and "the engagement of an independent Microsoft consultant, infrastructure migration and ongoing upgrades, dedicated database

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[142] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 13. See also Supervisory Report, Exhibit 11, Update on several matters.
[143] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, pp. 13-14. See also Exhibit 22, PSI's Response to the IIO's First RFI, UnaVista Operations Update Slides (18 June 2019), p. 10.
[144] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 16. The issue was fixed by amending the code which determines the TR System's database's functionality. Such code has been optimised and the paired trade field differencing was run in batches. The implementation occurred through an UnaVista platform change request which amended two procedures involved in the matching and differencing of data.
[145] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 16.
[146] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019).
[147] Exhibit 22, PSI's Response to the IIO's First RFI, UnaVista Operations Update Slides, 18 June 2019, p. 10.

administrators and trade repository performance and stability initiatives[148]". In this regard, "The first stage was executed on the weekend of 08 / 09 June 2019. Stage 2 will take place in Q4 2019 / early 2020[149]."

101.　　The PSI notified ESMA of the incident on 14 December 2018[150].

Further root causes and incidents

102.　　The PSI also set out other root causes regarding five occasions on which reports were delayed or not sent, namely "the trade repository processor was stopped, […]; a network issue which caused a renaming file error as the connection to the server was reset […]; an unscheduled server reset occurred due to the installation of software upgrades [… and]; a user account was deleted from the portal[151]". According to the PSI, these issues were either one-off occurrences or have been fixed[152].

103.　　Moreover, since the implementation of the resolution of these root causes, there have been "incidents in relation to the provision of TRACE open trade state reports [though the PSI notes that] this has not led to unsent or potentially inaccurate reports. UnaVista also notes that its system is now built such that it processes and then submits any backlog of reports automatically. However, UnaVista does acknowledge that the affected reports have been late (although still accurate)." In particular, "(a) An incident regarding all TRACE reports being delayed due to a process failure, which first occurred on 18 March 2020 and was resolved on 24 March 2020. UnaVista submitted an Incident Report to ESMA on 23 March 2020 and all national competent authorities were notified. The resulting backlog of reports was transmitted between 20 March 2020 and 21 March 2020 [and] (b) Incidents relating to general latency in respect of certain reports including open trade state reports occurring due to risk-related issues. UnaVista submitted an Initial Notification to ESMA on 22 April 2020, and submitted follow-up notifications on 28 April 2020, 29 April 2020 and 1 May 2020. All affected reports were submitted by 5 May 2020[153]".

104.　　Finally, the PSI confirmed that as of 18 May 2020, there have "been no further incidents due to the same root causes other than those listed […] above[154]".

Reports and regulators affected

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[148] Exhibit 11, PSI's Response to the IIO's First RFI, p. 20.
[149] Exhibit 22, PSI's Response to the IIO's First RFI, UnaVista Operations Update Slides, 18 June 2019, p. 7.
[150] Exhibit 13, PSI's Response to the IIO's Second RFI, p. 10.
[151] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 14.
[152] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, pp.14, 16-17.
[153] Exhibit 11, PSI's Response to the IIO's First RFI, pp. 23-24.
[154] Exhibit 11, PSI's Response to the IIO's First RFI, pp. 23-24 and Exhibit 13, PSI's Response to the IIO's Second RFI, p. 10.

105.   The PSI explained "that not every type of missed […] report impacted each regulator[155]".

106.   Regarding open trade state reports provided via TRACE on a regular basis[156], the PSI estimated that the 87 reports, which were not sent because of missed export could have impacted 13 Regulators[157]. Regarding open trade state reports provided via CSV files, the PSI estimated that the 415 reports which were not sent because of missed export could have impacted seven Regulators[158].

107.   In total, 502 trade state reports were not sent to Regulators[159]. The PSI also noted that "the total number of open trade state reports provided to Authorities […from 1 November 2017 to 30 July 2019] was 3,740 through TRACE and 2,430 through CSV[160]".

108.   So far, regarding open trade state reports retroactively provided to Regulators, "the total number of reports which have not yet been retroactively provided by UnaVista in respect of the incidents relating to the provision of open trade state reports is 486. [… They] will be processed in due course and in reverse date order[161]".

2.7 Historical trade state reports

109.   Before 2 October 2018, the PSI did not have a functionality in place to provide ad hoc open trade state reports for historical trades[162]. In this regard the PSI explained that "the roll-out of the provision of historic open trade state reports occurred separately to the TRACE Phases […] and was initiated on 18 April 2018 […] due to certain issues with the release […], this functionality became effective in practice on 2 October 2018. The roll-out was flagged internally as a high priority change[163]".

110.   As of 2 October 2018, the PSI has been able to provide ad hoc open trade state reports for historic trades as far back as 1 November 2017 [164].

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[155] Exhibit 9, PSI's Comments on the Supervisory Report, p. 5. For a detailed breakdown of the reports affected per Regulator, please see the tables in Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, Appendices 1-4, pp. 22-43.
[156] Please see Supervisory Report, Exhibit 26, Item 4 Annexure and Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 18.
[157] ESMA, Commission de Surveillance du Secteur Financier, Financial and Capital Market Commission, European Systemic Risk Board, European Central Bank, Comision Nacional Del Mercado De Valores, Polish Financial Supervision Authority, Financial Supervisory Authority, Croatian Financial Services Supervisory Agency, Autorité Des Marchés Financiers , BaFin, Central Bank of Ireland and Commissione Nazionale Per Le Societa e la Borsa
[158] ESMA, Bank of England, Autoriteit Financiele Markten, Central Bank of Ireland, European Systemic Risk Board, European Central Bank and Commissione Nazionale Per Le Societa e la Borsa.
[159] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 18.
[160] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 18.
[161] Exhibit 11, PSI's Response to the IIO's First RFI, p. 25. Please also see Exhibit 24, PSI's Response to the IIO's First RFI, Question 17 v3, Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 17, Exhibit 25, PSI's Response to the IIO's First RFI, Email correspondence between JN and KC regarding Trade Repository Review (13 May 2020), and Exhibit 22, PSI's Response to the IIO's First RFI, UnaVista Operations Update Slides (18 June 2019).
[162] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, pp. 4-5 and Supervisory Report, Exhibit 25, Item 2 Annexure.
[163] Exhibit 11, PSI's Response to the IIO's First RFI, p. 15.
[164] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, pp. 4-5 and Supervisory Report, Exhibit 25, Item 2 Annexure.

111.   Between 13 April 2018 to 17 August 2018[165], five Regulators[166] sent seven ad hoc requests for historical trade state reports[167], to which the PSI responded only at a later stage. In particular[168], as of 14 December 2018:

- Autoriteit Financiele Markten: for a request dated 13 April 2018, the open trade state reports were provided between 31 October 2018 and 2 December 2018;

- Central Bank of Ireland: for a request dated 24 May 2018, the open trade state reports were partially provided on 3 December 2018;

- Malta Financial Services Authority: for requests dated 24 May and 20 June 2018, the open trade state reports remained to be provided as of 14 December 2018;

- Central Bank of Ireland: for a request dated 16 August 2018, the open trade state reports were provided between 5 and 22 November 2018;

- European Central Bank: for a request dated 17 August 2018, the open trade state reports were provided between 4 October and 11 December 2018;

- European Systemic Risk Board: for a request dated 17 August 2018, the open trade state reports were provided between 6 October and 10 December 2018.

112.   In addition, due to, among other reasons, open trade state reports not being sent or incorrect reports being sent as set out in sections 2.2 and 2.3 above, Regulators further requested historic open trade state reports after 17 August 2018[169].

113.   In its response to the IIO, the PSI confirmed "that all outstanding reports have now been queued for regeneration. The regeneration queue prioritises the most recent data requests over older data requests, on the basis that the former are considered to be more urgent. Since 19 August 2019, UnaVista has regenerated an additional 451 historical open trade state reports (although as these reports were not affected by the incidents [as set out in sections 2.4 and 2.6 above], they are not reflected in the [486 reports]). The remainder of the historic open trade state reports […] will be processed

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[165] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, pp. 4-5 and 10. See also Exhibit 9, PSI's Comments on the Supervisory Report, p. 5.
[166] Supervisory Report, Exhibit 37, Item 5 Annexure, AFM (The Netherlands), Central Bank of Ireland, MFSA (Malta), European Central Bank, European Systemic Risk Board.
[167] Supervisory Report, Exhibit 37, Item 5 Annexure. The PSI noted that there had been no incidents regarding the provision of ad hoc open trade state reports for contemporaneous data made under TRACE. For ad hoc open trade state reports for contemporaneous data in CSV format, the PSI assumed that there has not been any incident where "(i) there was no set time interval between the provision of the report; and (ii) no known errors that could have disturbed the frequency of the report provision", see Exhibit 9, PSI's Comments on the Supervisory Report, p. 5 and Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 10.
[168] Supervisory Report, Exhibit 37, Item 5 Annexure and Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 18.
[169] See for example Supervisory Report, Exhibit 39, LBR.0011416, Supervisory Report, Exhibit 40, LBR.0015058 and Supervisory Report, Exhibit 48, LBR.0002858.

in due course and in reverse date order[170]". The PSI further noted in its Response to the IIO's initial Statement of Findings that "As of 7 July 2020, […] all such historic reports have been regenerated and provided to the corresponding Regulators[171]".

[170] Exhibit 11, PSI's Response to the IIO's First RFI, p. 25. Please also see Exhibit 24, PSI's Response to the IIO's First RFI, Question 17 v3, Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 17, Exhibit 25, PSI's Response to the IIO's First RFI, Email correspondence between JN and KC regarding Trade Repository Review (13 May 2020), and Exhibit 22, PSI's Response to the IIO's First RFI, UnaVista Operations Update Slides (18 June 2019).
[171] Exhibit 74, PSI's Response to the IIO's initial Statement of Findings, p. 2.

3 Applicable legal provisions

114.   References to the Regulation in this decision refer to the text of the Regulation (EU) No 648/2012 (as amended where relevant) in force at all material times in relation to the matters which are the subject of this investigation[172].

115.   Besides the provisions of the (initial) Regulation, which entered into force on 16 August 2012, account must also be taken of the amendments to the Regulation introduced by Regulation (EU) 2015/2365, which entered into force on 12 January 2016.

116.   Moreover, besides the provisions of the Regulation currently in force, account must be taken of the provisions of the Regulation concerning the basic amounts of the fines corresponding to the amounts fixed at the time the infringements were committed, i.e., prior to the entry into force of the amendments to the Regulation introduced through Regulation (EU) 2019/834[173].

117.   In this respect, the Board takes into account the following Union law provisions.

118.   Article 9(1) of the Regulation provides that: "Counterparties and CCPs shall ensure that the details of any derivative contract they have concluded and of any modification or termination of the contract are reported to a trade repository registered in accordance with Article 55 or recognised in accordance with Article 77. The details shall be reported no later than the working day following the conclusion, modification or termination of the contract."

119.   With respect to specific obligations regarding data integrity, Article 80(1) of the Regulation stipulates that: "A trade repository shall ensure the confidentiality, integrity and protection of the information received under Article 9".

120.   In this regard, Point (c) of Section II of Annex I of the Regulation stipulates:

"II. Infringements relating to operation requirements:
[…] (c) a trade repository infringes Article 80(1) by not ensuring the confidentiality, integrity or protection of the information received under Article 9."

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[172] Following the amendments introduced by the Regulation (EU) 2015/2365, which entered into force on 12 January 2016, the numbering of some of the provisions in the Regulation changed. This decision refers to the current numbering. However, some of the documents used as evidence refer to the original numbering of those provisions.
[173] Regulation (EU) 2019/834 of the European Parliament and of the Council of 20 May 2019 amending Regulation (EU) No 648/2012 as regards the clearing obligation, the suspension of the clearing obligation, the reporting requirements, the risk-mitigation techniques for OTC derivative contracts not cleared by a central counterparty, the registration and supervision of trade repositories and the requirements for trade repositories, OJ L 141, 28.5.2019, p. 42.

121.   With respect to specific obligations regarding data provision to the regulators, Article 81(2) and Article 81(3) of the Regulation read as follows:

"2. A trade repository shall collect and maintain data and shall ensure that the entities referred to in paragraph 3 have direct and immediate access to the details of derivatives contracts they need to fulfil their respective responsibilities and mandates.

3. A trade repository shall make the necessary information available to the following entities to enable them to fulfil their respective responsibilities and mandates:

(a) ESMA;
(b) EBA;
(c) EIOPA;
(d) the ESRB;
(e) the competent authority supervising CCPs accessing the trade repositories;
(f) the competent authority supervising the trading venues of the reported contracts;
(g) the relevant members of the ESCB, including the ECB in carrying out its tasks within a single supervisory mechanism under Council Regulation (EU) No 1024/2013;
(h) the relevant authorities of a third country that has entered into an international agreement with the Union as referred to in Article 75;
(i) supervisory authorities designated under Article 4 of Directive 2004/25/EC of the European Parliament and of the Council;
(j) the relevant Union securities and market authorities whose respective supervisory responsibilities and mandates cover contracts, markets, participants and underlyings which fall within the scope of this Regulation;
(k) the relevant authorities of a third country that have entered into a cooperation arrangement with ESMA, as referred to in Article 76;
(l) the Agency for the Cooperation of Energy Regulators established by Regulation (EC) No 713/2009 of the European Parliament and of the Council;
(m) the resolution authorities designated under Article 3 of Directive 2014/59/EU of the European Parliament and the Council;
(n) the Single Resolution Board established by Regulation (EU) No 806/2014;
(o) competent authorities or national competent authorities within the meaning of Regulations (EU) No 1024/2013 and (EU) No 909/2014 and of Directives 2003/41/EC, 2009/65/EC, 2011/61/EU, 2013/36/EU and, 2014/65/EU, and supervisory authorities within the meaning of Directive 2009/138/EC;
(p) the competent authorities designated in accordance with Article 10(5) of this Regulation.

A trade repository shall transmit data to competent authorities in accordance with the requirements under Article 26 of Regulation (EU) No 600/2014."

122.   In this regard, Point (b) of Section III of Annex I of the Regulation stipulates:

"III. Infringements relating to transparency and the availability of information: […]
[…]

(b) a trade repository infringes Article 81(2) by not allowing the entities referred to in Article 81(3) direct and immediate access to the details of derivatives contracts they need to fulfil their respective responsibilities and mandates."

123.   Finally, the following EMIR delegated and implementing acts should also be considered:

- The Delegated Regulation (EU) No 148/2013[174], which entered into force on 15 March 2013. It supplements the Regulation and sets out regulatory technical standards (RTS) on the minimum details of the data to be reported to TRs. It has been amended by the Delegated Regulation (EU) 2017/104[175], which entered into force on 10 February 2017.

- The Delegated Regulation (EU) No 151/2013[176], which entered into force on 15 March 2013. It supplements the Regulation and sets out RTS specifying the data to be published and made available by TRs. It was amended by the Delegated Regulation (EU) 2017/1800, which entered into force on 27 October 2017.[177]

- The Implementing Regulation (EU) No 1247/2012[178], which entered into force on 10 January 2013. It lays down ITS with regards to the format and frequency of trade reports to TRs. It was amended by the Implementing Regulation (EU) 2017/105[179], which entered into force on 10 February 2017.

124.   Detailed relevant provisions of the delegated and implementing acts are set out in the Annex to this Decision.

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[174] Commission Delegated Regulation (EU) No 148/2013 of 19 December 2012 supplementing Regulation (EU) No 648/2012 of the European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories with regard to regulatory technical standards on the minimum details of the data to be reported to trade repositories, OJ L 52, 23.2.2013, p. 1.

[175] Commission Delegated Regulation (EU) 2017/104 of 19 October 2016 amending Delegated Regulation (EU) No 148/2013 supplementing Regulation (EU) No 648/2012 of the European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories with regard to regulatory technical standards on the minimum details of the data to be reported to trade repositories C/2016/6624 OJ L 17, 21.1.2017, p. 1–16.

[176] Commission Delegated Regulation (EU) No 153/2013 of 19 December 2012 supplementing Regulation (EU) No 648/2012 of the European Parliament and of the Council with regard to regulatory technical standards on requirements for central counterparties, OJ L 52, 23.2.2013, p. 41.

[177] Delegated Regulation (EU) 151/2013 has been further amended by Delegated Regulation (EU) 2019/361, which entered into force on 11 April 2019.

[178] Commission Implementing Regulation (EU) No 1247/2012 of 19 December 2012 laying down implementing technical standards with regard to the format and frequency of trade reports to trade repositories according to Regulation (EU) No 648/2012 of the European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories, OJ L 352, 21.12.2012, p. 20.

[179] Commission Implementing Regulation (EU) 2017/105 of 19 October 2016 amending Implementing Regulation (EU) No 1247/2012 laying down implementing technical standards with regard to the format and frequency of trade reports to trade repositories according to Regulation (EU) No 648/2012 of the European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories, C/2016/6801, OJ L 17, 21.1.2017, p. 17–41.

4 Findings of the Board with regard to the facts related to the incorrect field ordering logic incident that altered the substance of the data reported to the PSI

125. As set out above in section 2.2, from 28 July 2016 to 8 December 2018 the PSI applied an incorrect field ordering logic to the information received from submitting entities regarding the 'Beneficiary ID', 'Clearing Member ID' and 'Submitting Entity ID' fields. As a consequence, the respective fields were mixed up or omitted which resulted in a number of incorrect reports or reports not being sent to Regulators via TRACE.

126. The Board deems that in the case under consideration the incorrect field ordering logic incident led to two different outcomes: (i) the alteration of the substance of the data and (ii) the provision of incorrect reports to the Regulators.

127. With regards to the outcome of the alteration of the substance of the data, this section of the decision analyses whether the PSI breached the following requirement regarding the safeguarding and recording of the data received from counterparties and CCPs:

"a trade repository shall ensure the […] integrity […] of the information received under Article 9" (Article 80(1) of the Regulation).

128. If this requirement is not met, the infringement set out at Point (c) of Section II of Annex I of the Regulation is established.

4.1 Analysis of the relevant provisions of the Regulation and the facts

129. The issue under consideration in the present case is whether the PSI has breached its obligation under Article 80(1) of the Regulation to ensure the integrity of the information that it received under Article 9 of the Regulation.

130. The Board takes into account the wording and the context of Article 80(1) of the Regulation.

131. First, the wording of Article 80(1) is clear. TRs have an obligation to ensure the integrity of the data received under Article 9 of the Regulation.

132. Therefore, according to Article 80(1) of the Regulation, read in conjunction with Article 9(1), the PSI has an obligation ensure the integrity of all the details of derivative contracts reported to it.

133. Before 1 November 2017, according to Article 1(1) of Delegated Regulation (EU) No 148/2013, the reports to a TR under Article 9(1) of the Regulation must include the details set out in Table 1 and 2 of the Annex to that Delegated Regulation, which

explicitly set out the 'Beneficiary ID', 'Clearing Member ID', and 'Reporting Entity ID'[180] fields.

134.   From 1 November 2017, according to Article 1(1) of Delegated Regulation (EU) No 148/2013 (as amended by Delegated Regulation (EU) 2017/104), the reports to a TR under Article 9(1) of the Regulation must include the details set out in Table 1 and 2 of the Annex to that Delegated Regulation, which explicitly set out the 'Beneficiary ID', 'Clearing Member ID', and 'Submitting Entity' fields.

135.   In addition, in order to avoid inconsistencies, Implementing Regulation (EU) 1247/2012 (as amended by Implementing Regulation (EU) 2017/105) mandates that all data sent to TRs follows the same rules, standards and formats for all TRs, all counterparties and all types of derivatives and that a unique data set be used for describing a derivatives trade. The format of the details to be reported to TRs under Article 9 of the Regulation is specified in the Annex to the Implementing Regulation (EU) 1247/2012[181].

136.   Second, the Board notes that for Regulators to be able to fulfil their respective mandates it is of utmost importance to ensure that the data concerning the details of derivative contracts reported by submitting entities are not changed while passing through the PSI's internal system.

137.   For instance, as stated in Recital 41 of the Regulation "It is important that market participants report all details regarding derivative contracts they have entered into to trade repositories. As a result, information on the risks inherent in derivatives markets will be centrally stored and easily accessible, inter alia, to ESMA, the relevant competent authorities, the European Systemic Risk Board (ESRB) and the relevant central banks of the ESCB."

138.   Further to this, Recital 3 of Implementing Regulation (EU) 2017/105, clarifies that "in order to determine the real exposure of counterparties, competent authorities require complete and accurate information on the collateral exchanged between those counterparties".

139.   In the Board's view, where the integrity of the information provided to the Regulators is compromised due to the field ordering incident mixing up the 'Beneficiary ID', 'Clearing Member ID', and 'Submitting Entity ID' fields, Regulators' capacity to determine the real exposure of counterparties would also be affected.

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[180] Before 1 November 2017, the PSI in line with Delegated Regulation 148/2013 referred to the 'Submitting Entity ID' as the 'Reporting Entity ID'. Please see Exhibit 21, PSI's Response to the IIO's First RFI, UnaVista EMIR Reporting Field Specification v3.7, sheet L2-L3 EMIR Delta and Exhibit 13, PSI's Response to the IIO's Second RFI, p. 7.
[181] Please see section 3

140.   Finally, the Board notes that, the concept of 'data integrity' refers to the maintenance of the accuracy and consistency of the data during all of the processing activities performed on the data by the TRs and that, to comply with the obligation of data integrity set by Article 80(1) of the Regulation, the data should not be altered during the storage, nor during the processing by the TR.

141.   Thus, the Board concludes that to comply with the obligation under Article 80(1) of the Regulation to ensure the integrity of the data reported under Article 9 of the Regulation, the PSI must not alter the substance of the data that it receives from submitting entities, i.e. the data included in the 'All Previous Day' reports, and ad-hoc reports has to be consistent with the data reported by submitting entities.

142.   As set out above in Section 2.2 and as recognised by the PSI, from 28 July 2016 to 8 December 2018, during the first stage of the PSI's data export, when "the data [was] first exported from the table via a folder export[182]", "the field ordering logic that maps the data received from clients as a CSV file onto the TRACE file sent to the Authorities was incorrect for certain All Previous Day Reports and that this also had an impact on ad hoc reports[183]". This affected the 'Beneficiary ID', 'Clearing Member ID' and 'Submitting Entity ID' fields.

143.   Thus, the Board considers that the PSI has altered the substance of data received by the Reporting Entities, by having applied an incorrect field ordering logic during the first stage of the PSI's data export, i.e., one of the processing activities performed by the PSI on the data received.

144.   The Board considers as irrelevant, for the purpose of the establishment of the infringement, the fact that the PSI could eventually provide correct information based on the (alleged) correct storage of data in CSV format, because Article 3 of the Delegated Regulation (EU) No 151/2013 (as amended by Delegated Regulation (EU) 2017/1800) clearly requires TRs to use XML format (TRACE) for communicating the reports to the Regulators, regardless of the other mutually agreed formats (such as CSV).

145.   In light of the above, the Board considers that by generating reports sent via TRACE (including 'All Previous Day' reports, and ad-hoc reports) that contained data that was not consistent with the data reported by the submitting entities, the PSI failed to ensure the integrity of the details of derivative contracts reported to it under Article 9, in contravention of Article 80(1) of the Regulation.

146.   This constitutes the infringement set out at Point (c) of Section II of Annex I of the Regulation.

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[182] Exhibit 11, PSI's Response to the IIO's First RFI, p. 13.
[183] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 4.

4.2 Intent or negligence

147.   Article 65(1) of the Regulation provides as follows: "Where, in accordance with Article 64(5), ESMA finds that a trade repository has, intentionally or negligently, committed one of the infringements listed in Annex I, it shall adopt a decision imposing a fine in accordance with paragraph 2 of this Article. An infringement by a trade repository shall be considered to have been committed intentionally if ESMA finds objective factors which demonstrate that the trade repository or its senior management acted deliberately to commit the infringement."

148.   In accordance with Article 65(1) of the Regulation, a finding that an infringement has been committed by a TR with intention or negligence will lead to the imposition of a fine by the Board. Moreover, a finding that an infringement has been committed intentionally requires a finding of "objective factors which demonstrate that the trade repository or its senior management acted deliberately to commit the infringement".

149.   Taking into account the above, the Board in agreement with the IIO, considers that, overall, the factual background as set out in this decision does not establish that there are objective factors which demonstrate that the PSI, its employees or senior managers acted deliberately to commit the infringement.

150.   It should therefore be assessed whether the PSI acted with negligence.

Preliminary remarks regarding negligence

151.   The Regulation provides no explicit guidance as regards the concept of "negligence". However, it follows from the provisions of Articles 73 and 65 of the Regulation that the term "negligence" as referred to in the Regulation requires more than a determination that there has been the commission of an infringement.

152.   In addition, it is clear from the second subparagraph of Article 65(1) of the Regulation that a negligent infringement is not one which was committed deliberately or intentionally. This position is further supported by the case-law of the CJEU which ruled that negligence may be understood as entailing an unintentional act or omission.[184]

153.   It should be added that "negligence" in the context of the Regulation is an EU law concept – albeit one which is familiar to and an inherent part of the 27 Member States' and the UK's legal systems – which must be given an autonomous, uniform interpretation.

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[184] See for instance Case C-308/06, International Association of Independent Tanker Owners (Intertanko) and Others v Secretary of State for Transport [2008] ECR I- 4057, where the CJEU noted at para. 75 of its judgment that all of the Member States' legal systems "have recourse to the concept of negligence which refers to an unintentional act or omission by which the person responsible breaches his duty of care."

154.   Having regard to the CJEU jurisprudence [185], the concept of a negligent infringement of the Regulation is to be understood to denote a lack of care on the part of a TR when it fails to comply with this Regulation.

155.   Based on this the Board will consider negligence to be established in circumstances where the TR, as a professional firm in the financial services sector subject to stringent regulatory requirements, is required to take special care in assessing the risks that its acts or omissions entail, and has failed to take that care; and as result of that failure, the TR has not foreseen the consequences of its acts or omissions, including particularly its infringement of the Regulation, in circumstances where a person in such a position who is normally informed and sufficiently attentive could not have failed to foresee those consequences.

156.   Regarding the standard of care to be expected of a TR, the following considerations should be taken into consideration.

157.   First, one should take into consideration the position taken by the General Court in the Telefonica case, where the General Court spoke of persons "carrying on a professional activity, who are used to having to proceed with a high degree of caution when pursuing their occupation. They can on that account be expected to take special care in assessing the risks that such an activity entails" [186]. Similarly, it is considered that, operating within the framework of a regulated industry, a TR which holds itself out as a professional entity and carries out regulated activities should be expected to exercise special care in assessing the risks that its acts and omissions may entail.

158.   Second, regard should be given to the nature and significance of the objects and provisions of the Regulation. Of particular note, Recitals 4, 5[187] and 75 of the Regulation emphasise the important role and impact of TRs in global securities and banking markets, the consequentially essential need for the data processing of TRs to be conducted in accordance with principles of integrity, transparency, responsibility and good governance, and the resulting intention of the legislator to provide stringent requirements in relation to the conduct of TRs. Further, the weight given to these considerations by the legislator is reflected by the nature and extent of the requirements imposed on TRs under Title VII of the Regulation and by the corresponding infringement provisions under Annex I of the Regulation. Moreover, of more particular note, the Regulation envisages that an important function of a TR is to ensure that it

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[185] See for instance Case C-48/98, Firma Söhl & Söhlke v Hauptzollamt Bremen [1999] ECR I-7877, para. 58; Case C-64/89, Deutscher Fernsprecher [1990] ECR 1-2535, para. 19.
[186] Case T-336/07, Telefónica, SA and Telefónica de España, SA v Commission [2012] ECLI:EU:T:2012:172, para. 323.
[187] See Recitals 4 and 5 of the Regulation: "(4) Over-the-counter derivatives ('OTC derivative contracts') lack transparency as they are privately negotiated contracts and any information concerning them is usually only available to the contracting parties. They create a complex web of interdependence which can make it difficult to identify the nature and level of risks involved. The financial crisis has demonstrated that such characteristics increase uncertainty in times of market stress and, accordingly, pose risks to financial stability. This Regulation lays down conditions for mitigating those risks and improving the transparency of derivative contracts.
(5) At the 26 September 2009 summit in Pittsburgh, G20 leaders agreed […] that OTC derivative contracts should be reported to trade repositories. In June 2010, G20 leaders in Toronto reaffirmed their commitment and also committed to accelerate the implementation of strong measures to improve transparency and regulatory oversight of OTC derivative contracts in an internationally consistent and non-discriminatory way."

identifies instances in which its present practices carry the risk of non-compliance with the Regulation. The importance of this function is reflected, for instance, by the requirement for a TR to have sound procedures and internal control mechanisms.

159.   Therefore, on this basis, the standard of care to be expected of a TR is high.

160.   This high standard of care has been confirmed by the Joint Board of Appeal ("BoA") of the European Supervisory Authorities, which has stated that "ESMA rightly emphasises that financial services providers […] play an important role in the economy of the EU, as well as in the financial stability and integrity of the financial markets" and that "[a] high standard of care is to be expected of such persons".[188] In addition, this was recently confirmed again by the BoA in its Decision of 28 December 2020, where it re-emphasised the high standard of care applicable to financial service providers and referred to the requirement to exercise special care in assessing the risks that its acts or omissions entailed.[189]

4.3 Assessment of whether there is negligence in the present case

161.   Regarding the facts at hand in the present case, the Board considers that the following should be taken into consideration to assess whether the PSI has been negligent.

162.   First, the Board notes that, as explained above[190], the provision of Article 80(1) of the Regulation is clear. A TR normally informed and sufficiently attentive in the PSI's position could not have failed to foresee that Article 80(1) requires the protection of the confidentiality of the data received.

163.   Second, later-on in particular regarding the new obligations coming into force on 1 November 2017, during the drafting process for Delegated Regulation (EU) No 2017/104 (among others), ESMA consulted with the industry, and the PSI even participated in these consultations[191]. A TR normally informed and sufficiently attentive in the PSI's position could not have failed to foresee the requirements of Article 80(1) of the Regulation.

164.   In this respect, before the 1 November 2017 implementation date, as set out above, the PSI "carried out a process of analysis of each reporting field [… including]

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[188] See paragraph 285 of the decisions of the Board of Appeal in the Appeals of Svenka Handelsbanken AB, Skandinaviska Enskilda Banken AB, Swedbank AB and Nordea Bank Abp against ESMA's decision in the Nordic Banks case (ref. BoA D 2019 01, BoA D 2019 02, BoA D 2019 03 and BoA D 2019 01), available at https://www.eiopa.europa.eu/content/board-appeal-publishes-its-decision-nordic-banks%E2%80%99-appeals-decisions-esma-%E2%80%9Cshadow-ratings%E2%80%9D_en

[189] See for example paragraphs 156 and 158 of the decision of the Board of Appeal in the Appeal of Scope Ratings GmbH against ESMA's decision (ref. BoA 2020-D-03), available at https://www.eba.europa.eu/sites/default/files/document_library/961882/BoA%20D%202020%2003%20%28Decision%20on%20Scope%20Ratings%20v%20ESMA%29.pdf .

[190] See paragraph 131 of this Decision.

[191] Exhibit 69, Letter from UnaVista Limited regarding the review of the technical standard on reporting under Article 9 of EMIR.

"Submitting Entity ID" (Table 1, line item 9), "Beneficiary ID" (Table 1, line item 12) and "Clearing Member ID" (Table 1, line item 10) as relevant to the field ordering incident; and created a framework to implement updated mapping rules[192]".

165.   Third, the Board concurs with the IIO's view that, before going live but also afterwards, a diligent TR (complying with its high standard of care) would have checked that the field ordering logic that it had put in place worked properly, i.e., that the information in the reporting field to be provided in TRACE reports was always consistent with the information that the submitting entities had reported to the PSI under the relevant input data fields (in CSV format). A normally informed TR would have foreseen the consequences of not doing so.

166.   In particular the PSI explained that "The most important aspect of designing the field ordering logic was to ensure that the field ordering logic within the folder exports aligned with the field ordering logic which the Java plug-in expected to receive when processing the data export file generated by the folder exports, as this subsequently allowed records to be generated correctly […] The design and implementation of the field ordering logic would have been verified by unit testing carried out by the developer who originally implemented the field ordering logic. Such verification was standard procedure and was intended in this case to ensure that there were no drafting errors in the field ordering logic at the time it was implemented. This unit testing was an informal process, however, which did not require or produce any documentation. As such, UnaVista is unable to provide supporting evidence for this testing. Unit tests are generally followed by more formal quality assurance testing, which is carried out by a Quality Assurance Specialist. As of the date of this response, UnaVista has been unable to identify any documentation to evidence any quality assurance testing which may have taken place at the time[193]".

167.   Further, following the 1 November 2017 go-live date, the PSI "carried out post-implementation testing to ensure that the changes relating to TRACE had been correctly implemented […] This testing took the form of running various reports internally to ensure that these generated correctly and did not trigger system errors. Where system errors were triggered, these were escalated and resolved. This process as described constitutes standard testing for UnaVista and is carried out after every release[194]".

168.   However, this testing was not adequate. In this respect, the Board takes note of the PSI's 'Solution Functional Requirement' (SFR) created for each individual reporting field. As explained by the PSI "Each SFR provided in-depth information on the validation required under RTS 2017/104, any inter-dependencies or conditional validations and a record of the testing carried out for that reporting field, as well as any

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[192] Exhibit 11, PSI's Response to the IIO's First RFI, p. 11.
[193] Exhibit 13, PSI's Response to the IIO's Second RFI, p. 7.
[194] Exhibit 11, PSI's Response to the IIO's First RFI, p. 11. See also Exhibit 28, PSI's Response to the IIO's First RFI, UnaVista EMIR Level 3 Production Run Book, step 132 in the "Prod Go-Live Runbook" tab of the Level 3 runbook.

fixes implemented during the testing process. Each SFR also contained comments designed to assist developers with correctly implementing the changes brought about by RTS 2017/104 [195]". For example, as documented in the SFR, regarding the 'Beneficiary ID' field[196], errors were identified, and retesting was necessary. These errors should have triggered complete testing. Conversely, these tests did not cover all stages of the mapping process and their interplay. Indeed, when the PSI later-on undertook the TRACE Review, which "consisted of 380 scenario-based test cases [and] encompassed both stages of the data mapping process [to] flag any discrepancy between input and output in the mapping and field ordering rules[197]", it "led to the further mapping incidents being identified[198]".

169.   In this regard, further to a review in response to the concerns raised by ESMA, the PSI itself considered that it "needs to focus on data transit and how UnaVista maintains the integrity of data. UnaVista need to establish a testing model that validate data integrity[199]".

170.   The Board agrees with the IIO and considers that a diligent TR, would have at least undertaken complete testing when it updated its system with a new field ordering logic and when the new obligations came into force on 1 November 2017. Especially as the PSI amended "the design of the field ordering logic […] to reflect the revised reporting fields specified under Delegated Regulation (EU) 2017/104 when this came into effect on 1 November 2017, with new reporting fields being added to the field ordering logic in alphabetical order[200]". Indeed, the PSI has run such testing "in respect of all subsequent updates relevant to TRACE, which to date have occurred in June, July and September 2019[201]".

171.   Overall, on the basis of the elements described above, the Board agrees with the IIO and finds that the PSI failed to take the special care expected of a TR. As a professional firm in the financial services sector subject to stringent regulatory requirements, the PSI is required to take special care in assessing the risks that its acts or omissions entail, and has failed to take that care; and as the result of that failure, it has not foreseen the consequences of its acts or omissions, including particularly its infringement of the Regulation, in circumstances where a TR in such a position that is normally informed and sufficiently attentive could not have failed to foresee those consequences.

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[195] Exhibit 11, PSI's Response to the IIO's First RFI, p. 10.
[196] Exhibit 29, PSI's Response to the IIO's First RFI, SFR 958 – Beneficiary ID.
[197] Exhibit 11, PSI's Response to the IIO's First RFI, pp. 12-13. The PSI explained that "In order to ensure complete coverage (i.e. every mapping scenario being tested), the following trade population was tested: (a) trades chosen where all optional fields occur at least once; (b) trades chosen where each conditional or mutually exclusive field occurs at least once; (c) trades chosen where all possible type variations for all fields occur at least once; (d) trades chosen where all possible enumeration for all fields occur at least once; and (e) trades chosen where every schema caused xml branch opening occurs at least once." See also Supervisory Report, Exhibit 22, UnaVista TRACE Review Report, p. 1.
[198] Exhibit 11, PSI's Response to the IIO's First RFI, p. 13.
[199] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), p. 4, point 12.
[200] Exhibit 13, PSI's Response to the IIO's Second RFI, p. 6.
[201] Exhibit 11, PSI's Response to the IIO's First RFI, p. 13.

172.   Therefore, it is considered that the PSI has been negligent when committing the infringement of Point (c) of Section II of Annex I of the Regulation.

4.4 Fines

173.   The Board preliminary notes that the basic amount of the applicable fine is calculated taking as a reference the latest available official financial statements regarding the PSI's annual turnover in the business year preceding the year of the decision, as recommended by the Joint Board of Appeal of the three ESAs in its Decision of 28 December 2020. Thus, account is taken of the financial statements for the year ended 31 December 2020.

174.   The description of the basic amount of the fine as well as the assessment regarding the application of the aggravating and mitigating factors is set out below.

Determination of the basic amount

175.   Article 65 of the Regulation provides in paragraph 2[202] as follows:

"The basic amounts of the fines referred to in paragraph 1 shall be included within the following limits:

(a) for the infringements referred to in point (c) of Section I of Annex I and in points (c) to (g) of Section II of Annex I, and in points (a) and (b) of Section III of Annex I the amounts of the fines shall be at least EUR 10 000 and shall not exceed EUR 20 000 […].

In order to decide whether the basic amount of the fines should be at the lower, the middle or the higher end of the limits set out in the first subparagraph, ESMA shall have regard to the annual turnover of the preceding business year of the trade repository concerned. The basic amount shall be at the lower end of the limit for trade repositories whose annual turnover is below EUR 1 million, the middle of the limit for the trade repository whose turnover is between EUR 1 and 5 million and the higher end of the limit for the trade repository whose annual turnover is higher than EUR 5 million."

176.   It has been established that the PSI negligently committed the infringement set out at Point (c) of Section II of Annex I of the Regulation, by not ensuring the integrity of the information received under Article 9.

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[202] In this regard, the Board notes that with the entry into force of Regulation (EU) 2019/834, the amount of the fines to be imposed in case of an infringement of the Regulation has significantly increased. According to Article 1(16)(a) of Regulation (EU) 2019/834 "in Article 65, paragraph 2 is amended as follows: […] in point (a), 'EUR 20 000' is replaced by 'EUR 200 000';" However, this is not applicable to the present infringement because the facts occurred before the adoption and entry into force of Regulation (EU) 2019/834.

177.   To determine the basic amount of the fine, the Board has regard to the latest official financial statements regarding the annual turnover of the PSI.

178.   In 2020, the PSI had a turnover of GBP 3 652 963[203] (EUR 4 108 852[204]).

179.   Thus, the basic amount of the fine for the infringement listed in Point (c) of Section II of Annex I of the Regulation is set at the middle of the limit of the fine set out in Article 65(2)(a) of the Regulation at EUR 15 000.

Applicable aggravating factors

180.   Annex II of the Regulation lists the aggravating factors to be taken into consideration for the adjustment of the fine. The applicable aggravating factors in the present case are set out below.

Annex II, Point I(b) if the infringement has been committed for more than six months, a coefficient of 1,5 shall apply.

181.   The infringement lasted more than six months, i.e., at least from 28 July 2016 to 8 December 2018, when the PSI implemented a permanent fix. Therefore, the aggravating factor applies.

182.   In addition, the Board notes that "All affected reports which have been retroactively requested have been provided to the relevant Regulator[205]".

Annex II, Point I(c) if the infringement has revealed systemic weaknesses in the organisation of the trade repository, in particular in its procedures, management systems or internal controls, a coefficient of 2,2 shall apply.

183.   The Board notes that the Regulation does not provide guidance on what constitutes "systemic weaknesses in the organisation of the trade repository". However, based on the wording of the terms used, not all weaknesses in the procedures, management systems or the internal controls will necessarily constitute "systemic weaknesses in the organisation of a TR".

184.   Moreover, the Board notes that this aggravating factor is intended to distinguish situations where a given infringement, such as the one set out in Point (c) of Section II of Annex I of the Regulation, has occurred in a context that evidences systemic

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[203] UnaVista Limited, Report and Financial Statements for the year ended 31 December 2020
[204] Based on the official exchange rate for GBP v EUR in 2020: 1.1248
https://www.ecb.europa.eu/stats/policy_and_exchange_rates/euro_reference_exchange_rates/html/eurofxref-graph-gbp.en.html
[205] Exhibit 11, PSI's Response to the IIO's First RFI, p. 25.

weaknesses in the organisation of a TR, from situations where this same infringement can be considered the result of an individual instance of malfunction.

185.   The Board agrees with the IIO's considerations of the type and the level of seriousness of the PSI's failure that led to the infringement to determine whether the aggravating factor applies. In particular, the following is noted.

186.   The PSI argued that the infringement is "not indicative of systemic weaknesses in its organisation. There are two elements to this, being: (i) the operations and processes in place at the time of the incidents; and (ii) the implementation of improvements identified by its review into these existing processes. [In particular] (a) with respect to the implementation of the reporting functionality, the technical project management function was subject to a thorough and comprehensive process detailing the framework for the implementation of the technical objectives, the roles of each of the participants, and the means by which the implementation of that solution interacted with other UnaVista functions; (b) the functioning of the system was continuously reviewed according to need and was subject to a steady stream of improvements; and (c) the resources allocated to the technical team were similarly subject to continued expansion prior to the occurrence of each of the incidents identified above. Each of the above demonstrates a concerted focus from management on improving the operation of the system and in ensuring resources were properly assigned. Point (a) shows the consideration given to the structure for establishing the system and its procedures. Point (b) shows the ongoing internal review process to strengthen the existing procedures. Point (c) shows the continued allocation of resources to ensure that the system was properly reinforced in accordance with the requirements of its expansion. Despite the subsequent incidents, the clear progression and the ongoing implementation of these measures indicate that the organisation was not subject to an underlying systemic weakness. […] following the changes implemented on 1 November 2017, the Board of UnaVista asked management to undertake a full review of the platform, the focus of which was expanded following the receipt of RFI 1 to include points highlighted thereby. The subsequent audit report identified certain areas in which improvement could be made. Following this, clear and effective plans and processes were implemented to resolve the overarching issues identified in the audit report. […] These documents set out in detail the actions taken to implement various updates, and illustrate the operation of the procedures and management systems in place. They show the implementation of the updates in an effective manner, with engagement throughout with ESMA over the incidents in question to optimise the system requirements. As such, UnaVista is of the view that the implementation of the identified further improvements supports no systemic weakness[206]".

187.   In this regard, while the Board positively notes the dedication of the PSI to continued improvements further to the detection of the incidents and interaction with ESMA, its assessment regarding systemic weaknesses regarding PSI's organisation

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[206] Exhibit 11, PSI's Response to the IIO's First RFI, pp. 18-19.

(procedures, management systems and internal controls) focusses on the system in place at the time of the commission of the infringement.

188.   Incidentally, the Board notes that the (continuous) improvements implemented by the PSI are considered in the analysis regarding the PSI's remedial actions.

189.   To assess the PSI's arguments and whether the infringement revealed systemic weaknesses, the Board considers the design and testing of the PSI's system regarding the field ordering logic, and its ability to detect incorrect settings and to remedy the infringement.

190.   First, the Board notes that the infringement was the result of a defective design of the field ordering logic itself. The infringement stemmed from the set-up of the field ordering logic that was applied to the data reported by submitting entities in the fields 'Beneficiary ID', 'Clearing Member ID' and 'Submitting Entity ID' in CSV format (to map this data to the corresponding fields in TRACE format) and not from an individual error or malfunction.

191.   The infringement was not due for example to a temporary outage or human error; it was fundamentally due to the way the PSI had set up its IT infrastructure regarding the field ordering logic.

192.   The PSI, when establishing the field ordering logic, had designed a rule, which was inherently incapable of correctly mapping the data received. Thus, the infringement was not due to a "glitch" in the IT system or a similar error; it was due to the erroneous set-up of the processing of the data received. The Board considers this to reveal systemic weaknesses in the PSI's organisation.

193.   Second, the infringement reveals systemic weaknesses in the organisation of the PSI in relation to its procedures and management system regarding the verification of the field ordering logic. While, the PSI stated that "with respect to the implementation of the reporting functionality, the technical project management function was subject to a thorough and comprehensive process detailing the framework for the implementation of the technical objectives, the roles of each of the participants, and the means by which the implementation of that solution interacted with other UnaVista functions[207]", there was a gap in the reporting and implementation in relation to the testing of functionalities.

194.   In this respect, it is important to note, that with regards to data integrity, the Resilience Plan acknowledged that "processes and controls to ensure accuracy and completeness of data submission needs to improve. […] UnaVista needs to establish a testing model that validate data integrity[208]".

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[207] Exhibit 11, PSI's Response to the IIO's First RFI, p. 18.
[208] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), pp. 3-4.

195.   Moreover, on testing more generally, an internal audit from February 2019 regarding the "Implementation of EMIR Regulatory Change activities" found room for significant improvement, [redacted][209]". It also flagged significant issues regarding the testing of changes, [redacted][210]".

196.   In relation to the field ordering logic, the testing, contrary to the TRACE Review, did not encompass both stages of the data mapping process[211]. The Board would expect adequate verification and testing to have flagged up the PSI's faulty design of the field ordering logic with regards to the 'Beneficiary ID', 'Clearing Member ID' and 'Submitting Entity ID' fields.

197.   Third, the infringement had wider-reaching consequences and affected reports to Regulators in a broader manner, as submitting entities' reports where the 'Submitting Entity ID' field was not populated were not sent to TRACE at all due to mandatory fields being incorrectly left empty[212].

198.   Fourth, while the PSI identified the infringement during its ongoing monitoring and was able to swiftly resolve the issue, it only became aware of the issue on 6 December 2018[213], i.e., more than two years after the infringement began, showing an inadequacy of the monitoring to detect issues in a timely manner. In this regard, the Resilience Plan acknowledged that the PSI needed "to improve controls around data integrity[214]".

199.   Based on this, the Board identifies significant weaknesses regarding the PSI's design of the field ordering logic that it used to map the data received in CSV format from the submitting entities and generate the reports submitted via TRACE to Regulators. Given the importance of ensuring the integrity of the data reported to TRs at all stages, and of submitting that data unaltered to the Regulators, these defects constitute "systemic weaknesses in the organisation" of the PSI.

200.   Thus, the Board considers that the aggravating factor is applicable.

Annex II, Point I(d) if the infringement has a negative impact on the quality of the data it maintains, a coefficient of 1,5 shall apply.

201.   In assessing this aggravating factor, the Board notes the submission of the PSI that the PSI's infringement did "not affect the quality of the data which it maintains. In respect of each of the reports received by UnaVista, the data submitted by the relevant entity is stored in the form in which it was submitted within UnaVista's systems. Whilst the incidents above indicate that the data was, at the time of the relevant incident,

[209] Exhibit 32, PSI's Response to the IIO's First RFI, 2018.85 Regulatory Changes UnaVista Final, p. 2.
[210] Exhibit 32, PSI's Response to the IIO's First RFI, 2018.85 Regulatory Changes UnaVista Final, p. 5.
[211] Exhibit 11, PSI's Response to the IIO's First RFI, pp. 12-13. See also Supervisory Report, Exhibit 18, UnaVista TRACE Review Report.
[212] See Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 4-5.
[213] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 4.
[214] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), p. 3.

mapped and forwarded to recipients imperfectly, the underlying data for each incident is still accurate and complete. Equally, following the resolution of the underlying issues, any affected reports can be regenerated as required by each Regulator. Those regenerated reports provide Regulators with correct data, and in each affected case, such report has either been already provided or is available upon request. As such, it is UnaVista's position that the quality of the data that UnaVista maintains is unaffected by each of the above incidents[215]".

202.   Conversely, the Board concurs with the IIO and considers that "quality of data" operates within the context of the principal objective of introducing the reporting requirement under the Regulation, which is to ensure that Regulators have timely and complete access to the correct data in order to be able to perform their mandates and ensure financial stability. Providing Regulators with access to the incorrect data reduces its value for Regulators, and as such the quality of the data, and prevents them from fulfilling their mandates. In this regard, being able to request the corrected data at a later stage does not solve the issue of timely access to correct data, as the timing of access to data is also one of the characteristics of the quality of the data.

203.   Moreover, some of the reports were not sent to Regulators at all due to the field ordering logic being incorrect. The non-provision of certain TRACE reports is a *de facto* delay of this information of in some cases more than two years. Delays such as the one experienced by Regulators in relation to the PSI's data significantly reduce the quality of the data which is accessed and the use that can be made of this data. The data as a whole is deficient and incomplete.

204.   Based on this, the Board considers that the aggravating factor is applicable.

Applicable mitigating factors

205.   Annex II, Point II of the Regulation lists the mitigating factors to be taken into consideration for the adjustment of the fine. The applicable mitigating factors in the present case are set out below.

Annex II, Point II(c) if the trade repository has brought quickly, effectively and completely the infringement to ESMA's attention, a coefficient of 0,4 shall apply.

206.   In this respect, the Board notes the following.

207.   The PSI informed ESMA on its own initiative about the incident. It discovered the incident on 6 December 2018[216] and notified ESMA of the issue on 12 December

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[215] Exhibit 11, PSI's Response to the IIO's First RFI, p. 19.
[216] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 4.

2018[217]. Two days later, on 14 December 2018, the PSI sent an excel template with relevant information to ESMA.[218]

208.	The Board agrees with the IIO's view that the core elements of the infringement were brought quickly, efficiently and completely to ESMA's attention in the PSI's e-mails and excel template.

209.	Therefore, the Board considers that the mitigating factor applies.

Annex II, Point II(d) if the trade repository has voluntarily taken measures to ensure that a similar infringement cannot be committed in the future, a coefficient of 0,6 shall apply.

210.	As set out above, on 8 December 2018 the PSI corrected the field ordering logic that mapped the data received from submitting entities in CSV format to the TRACE format[219]. The PSI also indicated that the issue had thus "been resolved[220]".

211.	The PSI also retroactively provided 50 reports for the field ordering incident and confirmed that "All affected reports which have been retroactively requested have been provided to the relevant Regulator[221]".

212.	Moreover, the PSI indicated that the TRACE Review "In addition to the immediate fixes the review has given UnaVista strong insights into other areas of strategic improvement[222]".

213.	The PSI has run complete testing "in respect of all subsequent updates relevant to TRACE, which to date have occurred in June, July and September 2019[223]".

214.	Finally, in November 2019, the PSI adopted the Resilience Plan, considering the concerns raised by ESMA.[224] Data integrity and completeness, and a detailed overview of the TRACE Reports were within the scope of the PSI's assessment.[225]

215.	With regards to data integrity, the Resilience Plan noted that "A data strategy focused on continuing to improve controls around data integrity but additionally focused on quality of the incoming data should be formed."[226] In particular, the PSI indicated that "A programme of work should be scoped and planned that focuses of Data Integrity and Quality through the data lifecycle. This needs to focus on data transit and how UnaVista maintains the integrity of data. UnaVista needs to establish a testing model that validate data integrity."[227] In this respect, the PSI in March 2019, completed a

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[217] Supervisory Report, Exhibit 12, TRACE Field Ordering Issue.
[218] Supervisory Report, Exhibit 13, RE: TRACE Field Ordering Issue.
[219] Supervisory Report, Exhibit 12, TRACE Field Ordering Issue.
[220] Exhibit 11, PSI's Response to the IIO's First RFI, p. 20.
[221] Exhibit 11, PSI's Response to the IIO's First RFI, p. 25.
[222] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), p. 3.
[223] Exhibit 11, PSI's Response to the IIO's First RFI, p. 13.
[224] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019).
[225] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), pp. 3-4.
[226] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), p. 3.
[227] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), p. 4.

project on "Enhanced Quality Assurance (QA) Automation[228]" and for June 2020 was on track to "Deliver a Data Integrity strategy document and establish improvement plan[229]".

216. In light of the above, the Board considers that a number of remedial actions have been taken by the PSI regarding this infringement. The Board, in agreement with the IIO, considers that these remedial actions should ensure that a similar infringement cannot be committed in the future.

217. The Board should thus assess whether these measures were taken voluntarily, which would imply that the mitigating factor provided by Annex II, Point II(d) of the Regulation would be applicable.

218. The Board notes that there is no definition of what "voluntarily" ("de son plein gré" in the French version of the Regulation) precisely means within the context of this mitigating factor. Nevertheless, there are clear-cut examples. It is clear that a TR has voluntarily taken measures when it has taken them spontaneously without any solicitation from its supervisor. It is also obvious that when there is a specific obligation to take these measures, it can no longer be considered that the measures are taken voluntarily. The situation is to a certain extent less clear-cut when the TR takes measures only after a number of requests and interactions with its supervisor aiming at ensuring that the said measures are implemented by the TR, for example, through an action plan defined and monitored by the supervisor.

219. In this respect, the Board notes that "(a) the infrastructure migration and the upgrade to SQL 2017 were commenced prior to interactions with ESMA's Supervision Department; and (b) the remainder of the actions listed in the document entitled "UnaVista Operations Update Slides (18 June 2019)" were taken following the discussions with ESMA in the context of RFI 1 […] the audit into improvements to the system was commenced unilaterally by UnaVista following the changes implemented in November 2017. Following discussions with ESMA in the context of RFI 1, the scope of this audit was then expanded by the Board to include items highlighted by that process. The audit and the subsequent resulting actions illustrated by the above documents therefore formed part of the UnaVista-driven process to ensure the root causes were addressed and future incidents prevented. […] more generally, the expansion of the EMIR resource and the technical team […] were also commenced prior to interactions with ESMA's Supervision Department. These items formed part of the ongoing development and improvement of the system[230]".

220. Moreover, at the time, the PSI was not under a specific obligation (other than its obligation to comply with the Regulation) to take the measures such as the TRACE

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[228] Exhibit 23, PSI's Response to the IIO's First RFI, UnaVista Updated Resilience Strategy 2018-2019 Projects & Initiatives.
[229] Exhibit 35, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan.
[230] Exhibit 11, PSI's Response to the IIO's First RFI, p. 21.

Review or the Resilience Plan. There was also no decision from ESMA ordering the PSI to correct its field ordering logic.

221.   Therefore, the Board considers that the PSI has voluntarily taken measures to ensure that a similar infringement cannot be committed in the future. The mitigating factor is thus applicable.

Determination of the adjusted fine

222.   In accordance with Article 65(3) of the Regulation, taking into account the applicable aggravating and mitigating factors, the basic amount of EUR 15 000 must be adjusted as follows.

223.   The difference between the basic amount and the amount resulting from the application of each individual coefficient linked to the aggravating factors set out in Annex II, Point I(b), Point I(c) and Point I(d) and the mitigating factors set out in Annex II, Point II(c) and Point II(d) is added to the basic amount in the case of the aggravating factor and subtracted from the basic amount in the case of the mitigating factor:

Aggravating factor set out in Annex II, Point I(b):

EUR 15 000 x 1,5 = EUR 22 500

EUR 22 500 – EUR 15 000 = EUR 7 500

Aggravating factor set out in Annex II, Point I(c):

EUR 15 000 x 2,2 = EUR 33 000

EUR 33 000 – EUR 15 000 = EUR 18 000

Aggravating factor set out in Annex II, Point I(d):

EUR 15 000 x 1,5 = EUR 22 500

EUR 22 500 – EUR 15 000 = EUR 7 500

Mitigating factor set out in Annex II, Point II(c):

EUR 15 000 x 0,4 = EUR 6 000

EUR 15 000 – EUR 6 000 = EUR 9 000

Mitigating factor set out in Annex II, Point II(d):

EUR 15 000 x 0,6 = EUR 9 000

EUR 15 000 – EUR 9 000 = EUR 6 000

Adjusted fine taking into account applicable aggravating and mitigating factors:

EUR 15 000 + EUR 7 500 + EUR 18 000 + EUR 7 500 – EUR 9 000 – EUR 6 000 = EUR 33 000

224. Consequently, following adjustment by taking into account the applicable aggravating and mitigating factors, the amount of the fine to be imposed on the PSI would amount to EUR 33 000.

4.5 Public notice

225. Regard must be had to Article 73, paragraphs 1 and 2, of the Regulation.

226. Given the factual findings in the present case and in particular the fact that the PSI permanently solved the issue in 2018, in addition to the imposition of the fine, the only other supervisory measure considered appropriate with regard to the nature and the seriousness of the infringements is the adoption of a public notice as set out in Article 73(1)(c) of the Regulation.

227. It must thus be held that a public notice is to be issued.

5 Findings of the Board with regard to the facts related to the incorrect field ordering logic incident that led to generating incorrect reports for Regulators

228. As stated above[231], the Board deems that in the case under consideration the incorrect field ordering logic led to two different outcomes: (i) the alteration of the substance of the data and (ii) the provision of incorrect reports to the Regulators.

229. With regards to the outcome of the provision of incorrect reports to the Regulators, this section of the decision analyses whether the PSI breached the following requirement:

"A trade repository shall collect and maintain data and shall ensure that the entities referred to in paragraph 3 have direct and immediate access to the details of derivatives contracts they need to fulfil their respective responsibilities and mandates" (Article 81(2) of the Regulation).

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[231] See paragraph 126 of this Decision.

230.	If this requirement is not met, the infringement set out at Point (b) of Section III of Annex I of the Regulation is established.

5.1 Analysis of the relevant provisions of the Regulation and the facts

231.	The issue at stake in this case is whether the PSI has breached its obligation under Articles 81(2) to give Regulators direct and immediate access to the details of derivatives contracts they need to fulfil their respective responsibilities and mandates.

232.	As set out above, from 28 July 2016 to 8 December 2018 the PSI applied an incorrect field ordering logic to the information received from submitting entities regarding the 'Beneficiary ID', 'Clearing Member ID' and 'Submitting Entity ID' fields. This resulted in a number of incorrect reports or reports not being sent to Regulators via TRACE.

233.	The Board takes into account the wording and the context of Article 81(2) of the Regulation.

234.	First, the wording of Article 81(2) is clear. The PSI has an obligation to provide Regulators with "direct and immediate access to the details of derivatives contracts they need to fulfil their respective responsibilities and mandates". The only limiting factor, as set out in Article 81(2), to a Regulator's access is the Regulator's "responsibilities and mandates".

235.	This means TRs should provide Regulators with the same details as counterparties and CCPs submit to them.

236.	Before 1 November 2017, according to Article 1(1) of Delegated Regulation (EU) No 148/2013, the reports to a TR under Article 9(1) of the Regulation must include the details set out in Table 1 and 2 of the Annex to that Delegated Regulation, which explicitly set out the 'Beneficiary ID', 'Clearing Member ID', and 'Reporting Entity ID'[232] fields.

237.	From 1 November 2017, according to Article 1(1) of Delegated Regulation (EU) No 148/2013 (as amended by Delegated Regulation (EU) 2017/104), the reports to a TR under Article 9(1) of the Regulation must include the details set out in Table 1 and 2 of the Annex to that Delegated Regulation, which explicitly set out the 'Beneficiary ID', 'Clearing Member ID', and 'Submitting Entity' fields.

238.	Second, the drafting of Article 81(2) makes it clear that the details to be transmitted to the Regulators are those that help them fulfil their responsibilities and mandates. The Board notes that the provision operates in the context of the principal

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[232] Before 1 November 2017, the PSI in line with Delegated Regulation 148/2013 referred to the 'Submitting Entity ID' as the 'Reporting Entity ID'. Please see Exhibit 21, PSI's Response to the IIO's First RFI, UnaVista EMIR Reporting Field Specification v3.7, sheet L2-L3 EMIR Delta and Exhibit 13, PSI's Response to the IIO's Second RFI, p. 7.

objective of introducing the reporting requirement under the Regulation, which is to ensure that Regulators have timely and complete access to the correct data in order to be able to perform their mandates and ensure financial stability. Indeed, providing Regulators with access to incorrect data prevents them from fulfilling their mandates. In this context, it cannot have been the intention of the co-legislators to have created a reporting obligation that could be at best useless, if not misleading.

239.   For instance, as stated in the Recital 3 of the Implementing Regulation (EU) 2017/105, "in order to determine the real exposure of counterparties, competent authorities require complete and accurate information on the collateral exchanged between those counterparties […]".

240.   In the Board's view, where the integrity of the information provided to the Regulators is compromised due to the field ordering incident mixing up the 'Beneficiary ID', 'Clearing Member ID', and 'Submitting Entity ID' fields, Regulators' capacity to determine the real exposure of counterparties would also be affected.

241.   Thus, the Board concludes that to comply with the obligation under Article 81(2) the details of derivatives contracts, to which the Regulators must be provided access, must also be correct and reliable, for the Regulators to fulfil their responsibilities and mandates.

242.   As set out above in section 2.2 and as recognised by the PSI, from 28 July 2016 to 8 December 2018, during the first stage of the PSI's data export, when "the data [was] first exported from the table via a folder export[233]", "the field ordering logic that maps the data received from clients as a CSV file onto the TRACE file sent to the Authorities was incorrect for certain All Previous Day Reports and that this also had an impact on ad hoc reports[234]". This affected the 'Beneficiary ID', 'Clearing Member ID' and 'Submitting Entity ID' fields. As a result, the affected fields were mixed up or not reported at all to the Regulators.

243.   In light of the above, the Board considers that by generating reports for Regulators that contained data that was not consistent with the data reported by the reporting parties, the PSI failed to provide Regulators with direct and immediate access to the details of derivative contracts reported to it under Article 9, in contravention of Article 81(2) of the Regulation.

244.   This constitutes the infringement set out at Point (b) of Section III of Annex I of the Regulation.

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[233] Exhibit 11, PSI's Response to the IIO's First RFI, p. 13.
[234] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 4.

5.2 Intent or negligence

245.　　The factual background of the present case does not establish that there are objective factors which demonstrate that the PSI, its employees or senior managers acted deliberately to commit the infringement.

246.　　It should therefore be assessed whether the PSI acted with negligence.

5.3 Assessment of whether there is negligence in the present case

247.　　Regarding the concept of negligence for the purposes of the Regulation, the Board refers to the developments provided above in section 4.

248.　　Regarding the application to the infringement set out at Point (b) of Section III of Annex I of the Regulation, the Board notes the following.

249.　　First, the Board notes that, as explained above[235], the provision of Article 81(2) of the Regulation is clear. A TR normally informed and sufficiently attentive in the PSI's position could not have failed to foresee that Article 81(2) requires correct and reliable reports to be provided to the Regulators.

250.　　Second, a diligent TR (complying with the expected high standard of care) would have checked, in the post-implementation phase, the proper functioning of the field ordering logic put in place, in order to ensure the correctness of the reports to be provided to the Regulators.

251.　　In this regard, the Board acknowledges that following the 1 November 2017 go-live date the PSI carried out post-implementation testing precisely in order to ensure the correctness of the reports generated. However, the Board takes note of the PSI's 'Solution Functional Requirement' (SFR) created for each individual reporting field. As explained by the PSI "Each SFR provided in-depth information on the validation required under RTS 2017/104, any inter-dependencies or conditional validations and a record of the testing carried out for that reporting field, as well as any fixes implemented during the testing process. Each SFR also contained comments designed to assist developers with correctly implementing the changes brought about by RTS 2017/104". For example, as documented in the SFR, regarding the 'Beneficiary ID' field, errors were identified, and retesting was necessary. These errors should have triggered complete testing. Conversely, these tests did not cover all stages of the mapping process and their interplay. Indeed, when the PSI later-on undertook the TRACE Review, which "consisted of 380 scenario-based test cases [and] encompassed both stages of the data mapping process [to] flag any discrepancy between input and output in the mapping and field ordering rules", it "led to the further mapping incidents being identified ".

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[235] See paragraph 234 of this Decision.

252. Therefore, the Board considers that the testing undertaken by the PSI was not adequate, nor complete, specifically because it did not cover all stages of the mapping process and their interplay.

253. Having performed tests in the post-implementation phase which proved to be not sufficient nor adequate, the Board considers that the PSI did not comply with the high standard of care to be expected of a diligent TR.

254. Third, the Board further considers that the lack of care of the PSI in the design and implementation of the field ordering logic, that led to the negligent alteration of the substance of the data received, is relevant to establish the negligence in the provision of incorrect reports to the Regulators. The Board indeed finds that the negligence in the moment of the provision of the reports constitutes the necessary consequence, due to a cascading effect, of the lack of care of the PSI in the process of design and implementation of the updated rules.

255. Overall, on the basis of the elements described above, the Board considers that the PSI failed to take the special care expected of a TR. As a professional firm in the financial services sector subject to stringent regulatory requirements, the PSI is required to take special care in assessing the risks that its acts or omissions entail, and has failed to take that care; and as the result of that failure, it has not foreseen the consequences of its acts or omissions, including particularly its infringement of the Regulation, in circumstances where a TR in such a position that is normally informed and sufficiently attentive could not have failed to foresee those consequences.

256. Therefore, the Board considers that the PSI has been negligent when committing the infringement of Point (b) of Section III of Annex I of the Regulation.

5.4 Fines

257. The Board preliminary notes that the basic amount of the applicable fine is calculated taking as a reference the latest available official financial statements regarding the PSI's annual turnover in the business year preceding the year of the decision, as recommended by the Joint Board of Appeal of the three ESAs in its Decision of 28 December 2020. Thus, account is taken of the financial statements for the year ended 31 December 2020.

258. The description of the basic amount of the fine as well as the assessment regarding the application of the aggravating and mitigating factors is set out below.

Determination of the basic amount

259.   Article 65 of the Regulation provides in paragraph 2[236] as follows:

"The basic amounts of the fines referred to in paragraph 1 shall be included within the following limits:

(a) for the infringements referred to in point (c) of Section I of Annex I and in points (c) to (g) of Section II of Annex I, and in points (a) and (b) of Section III of Annex I the amounts of the fines shall be at least EUR 10 000 and shall not exceed EUR 20 000 […]

    In order to decide whether the basic amount of the fines should be at the lower, the middle or the higher end of the limits set out in the first subparagraph, ESMA shall have regard to the annual turnover of the preceding business year of the trade repository concerned. The basic amount shall be at the lower end of the limit for trade repositories whose annual turnover is below EUR 1 million, the middle of the limit for the trade repository whose turnover is between EUR 1 and 5 million and the higher end of the limit for the trade repository whose annual turnover is higher than EUR 5 million."

260.   It has been established that the PSI negligently committed the infringement set out at Point (b) of Section III of Annex I of the Regulation, by not providing the regulators with direct and immediate access to the details reported to the PSI under Article 9 of the Regulation.

261.   To determine the basic amount of the fine, the Board has regard to the latest official financial statements regarding the annual turnover of the PSI.

262.   In 2020, the PSI had a turnover of GBP 3 652 963[237] (EUR 4 108 852[238]).

263.   Thus, the basic amount of the fine for the infringement listed in Point (b) of Section III of Annex I of the Regulation is set at the middle of the limit of the fine set out in Article 65(2)(a) of the Regulation at EUR 15 000.

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[236] In this regard, the Board notes that with the entry into force of Regulation (EU) 2019/834, the amount of the fines to be imposed in case of an infringement of the Regulation has significantly increased. According to Article 1(16)(a) of Regulation (EU) 2019/834 "in Article 65, paragraph 2 is amended as follows: […] in point (a), 'EUR 20 000' is replaced by 'EUR 200 000';" However, this is not applicable to the present infringement because the facts occurred before the adoption and entry into force of Regulation (EU) 2019/834.

[237] UnaVista Limited, Report and Financial Statements for the year ended 31 December 2020.

[238] Based on the official exchange rate for GBP v EUR in 2020: 1.1248
https://www.ecb.europa.eu/stats/policy_and_exchange_rates/euro_reference_exchange_rates/html/eurofxref-graph-gbp.en.html

Applicable aggravating factors

264.   Annex II of the Regulation lists the aggravating factors to be taken into consideration for the adjustment of the fine. The Board considers applicable to the present case the aggravating factors set out below.

Annex II, Point I(b) if the infringement has been committed for more than six months, a coefficient of 1,5 shall apply.

265.   The infringement lasted more than six months, i.e., at least from 28 July 2016 to 8 December 2018, when the PSI implemented a permanent fix. Therefore, the aggravating factor applies.

266.   In addition, the Board notes that "All affected reports which have been retroactively requested have been provided to the relevant Regulator[239]".

Annex II, Point I(c) if the infringement has revealed systemic weaknesses in the organisation of the trade repository, in particular in its procedures, management systems or internal controls, a coefficient of 2,2 shall apply.

267.   In addition to the analysis set out above in paragraphs 183 to 188, and the arguments raised by the PSI, the Board considered the design and testing of the PSI's system regarding field ordering, and its ability to detect incorrect settings and to remedy the infringement.

268.   First, the Board notes that the infringement was the result of a defective design of the field ordering logic itself. The infringement stemmed from the set-up of the field ordering logic that was applied to the data reported by submitting entities in the fields 'Beneficiary ID', 'Clearing Member ID' and 'Submitting Entity ID' in CSV format (to map this data to the corresponding fields in TRACE format) and not from an individual error or malfunction.

269.   The infringement was not due for example to a temporary outage or human error; it was fundamentally due to the way the PSI had set up its IT infrastructure regarding the field ordering logic.

270.   The PSI, when establishing the field ordering logic, had designed a rule, which was inherently incapable of correctly mapping the data received. Thus, the infringement was not due to a "glitch" in the IT system or a similar error; it was due to the erroneous set-up of the processing of the data received. The Board considers this to reveal systemic weaknesses in the PSI's organisation.

271.   Second, the infringement reveals systemic weaknesses in the organisation of the PSI in relation to its procedures and management system regarding the verification

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[239] Exhibit 11, PSI's Response to the IIO's First RFI, p. 25.

of the field ordering logic. While, the PSI stated that "with respect to the implementation of the reporting functionality, the technical project management function was subject to a thorough and comprehensive process detailing the framework for the implementation of the technical objectives, the roles of each of the participants, and the means by which the implementation of that solution interacted with other UnaVista functions[240]", there was a gap in the reporting and implementation in relation to the testing of functionalities.

272.   In this respect, it is important to note, that with regards to data integrity, the Resilience Plan acknowledged that "processes and controls to ensure accuracy and completeness of data submission needs to improve. […] UnaVista needs to establish a testing model that validate data integrity[241]".

273.   Moreover, on testing more generally, an internal audit from February 2019 regarding the "Implementation of EMIR Regulatory Change activities" found room for significant improvement, [redacted][242]". It also flagged significant issues regarding the testing of changes, [redacted][243]".

274.   In relation to the field ordering logic, the testing, contrary to the TRACE Review, did not encompass both stages of the data mapping process[244]. The Board would expect adequate verification and testing to have flagged up the PSI's faulty design of the field ordering logic with regards to the 'Beneficiary ID', 'Clearing Member ID' and 'Submitting Entity ID' fields.

275.   Third, the infringement had wider-reaching consequences and affected reports to Regulators in a broader manner, as submitting entities' reports where the 'Submitting Entity ID' field was not populated were not sent to TRACE at all due to mandatory fields being incorrectly left empty[245].

276.   Fourth, while the PSI identified the infringement during its ongoing monitoring and was able to swiftly resolve the issue, it only became aware of the issue on 6 December 2018[246], i.e., more than two years after the infringement began, showing an inadequacy of the monitoring to detect issues in a timely manner. In this regard, the Resilience Plan acknowledged that the PSI needed "to improve controls around data integrity[247]".

277.   Based on this, the Board identifies significant weaknesses regarding the PSI's design of the field ordering logic that it used to map the data received in CSV format from the submitting entities and generate the reports submitted via TRACE to

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[240] Exhibit 11, PSI's Response to the IIO's First RFI, p. 18.
[241] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), pp. 3-4.
[242] Exhibit 32, PSI's Response to the IIO's First RFI, 2018.85 Regulatory Changes UnaVista Final, p. 2.
[243] Exhibit 32, PSI's Response to the IIO's First RFI, 2018.85 Regulatory Changes UnaVista Final, p. 5.
[244] Exhibit 11, PSI's Response to the IIO's First RFI, pp. 12-13. See also Supervisory Report, Exhibit 18, UnaVista TRACE Review Report.
[245] See Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 4-5.
[246] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 4.
[247] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), p. 3.

Regulators. Given the importance of ensuring the integrity of the data reported to TRs at all stages, and of submitting that data unaltered to the Regulators, these defects constitute "systemic weaknesses in the organisation" of the PSI.

278.   Thus, the Board considers that the aggravating factor is applicable.

Annex II, Point I(d) if the infringement has a negative impact on the quality of the data it maintains, a coefficient of 1,5 shall apply.

279.   In assessing this aggravating factor, the Board notes the submission of the PSI that the PSI's infringement did "not affect the quality of the data which it maintains. In respect of each of the reports received by UnaVista, the data submitted by the relevant entity is stored in the form in which it was submitted within UnaVista's systems. Whilst the incidents above indicate that the data was, at the time of the relevant incident, mapped and forwarded to recipients imperfectly, the underlying data for each incident is still accurate and complete. Equally, following the resolution of the underlying issues, any affected reports can be regenerated as required by each Regulator. Those regenerated reports provide Regulators with correct data, and in each affected case, such report has either been already provided or is available upon request. As such, it is UnaVista's position that the quality of the data that UnaVista maintains is unaffected by each of the above incidents[248]".

280.   Conversely, the Board considers that "quality of data" operates within the context of the principal objective of introducing the reporting requirement under the Regulation, which is to ensure that Regulators have timely and complete access to the correct data in order to be able to perform their mandates and ensure financial stability. Providing Regulators with access to the incorrect data reduces its value for Regulators, and as such the quality of the data, and prevents them from fulfilling their mandates. In this regard, being able to request the corrected data at a later stage does not solve the issue of timely access to correct data, as the timing of access to data is also one of the characteristics of the quality of the data.

281.   Moreover, some of the reports were not sent to Regulators at all due to the field ordering logic being incorrect. The non-provision of certain TRACE reports is a *de facto* delay of this information of in some cases more than two years. Delays such as the one experienced by Regulators in relation to the PSI's data significantly reduce the quality of the data which is accessed and the use that can be made of this data. The data as a whole is deficient and incomplete.

282.   Based on this, the Board considers that the aggravating factor is applicable.

Applicable mitigating factors

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[248] Exhibit 11, PSI's Response to the IIO's First RFI, p. 19.

283.   Annex II, Point II of the Regulation lists the mitigating factors to be taken into consideration for the adjustment of the fine. The applicable mitigating factors in the present case are set out below.

Annex II, Point II(c) if the trade repository has brought quickly, effectively and completely the infringement to ESMA's attention, a coefficient of 0,4 shall apply.

284.   In this respect, the Board notes the following.

285.   The PSI informed ESMA on its own initiative about the incident. It discovered the incident on 6 December 2018[249] and notified ESMA of the issue on 12 December 2018[250]. Two days later, on 14 December 2018, the PSI sent an excel template with relevant information to ESMA.[251]

286.   The Board considers that the core elements of the infringement were brought quickly, efficiently and completely to ESMA's attention in the PSI's e-mails and excel template.

287.   Therefore, the Board considers that the mitigating factor applies.

Annex II, Point II(d) if the trade repository has voluntarily taken measures to ensure that a similar infringement cannot be committed in the future, a coefficient of 0,6 shall apply.

288.   As explained above[252], the Board considers that a number of remedial actions have been taken by the PSI regarding this infringement. The Board considers that these remedial actions should ensure that a similar infringement cannot be committed in the future.

289.   The Board should thus assess whether these measures were taken voluntarily, which would imply that the mitigating factor provided by Annex II, Point II(d) of the Regulation would be applicable.

290.   The Board notes that there is no definition of what "voluntarily" ("de son plein gré" in the French version of the Regulation) precisely means within the context of this mitigating factor. Nevertheless, there are clear-cut examples. It is clear that a TR has voluntarily taken measures when it has taken them spontaneously without any solicitation from its supervisor. It is also obvious that when there is a specific obligation to take these measures, it can no longer be considered that the measures are taken voluntarily. The situation is to a certain extent less clear-cut when the TR takes measures only after a number of requests and interactions with its supervisor aiming

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[249] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 4.
[250] Supervisory Report, Exhibit 12, TRACE Field Ordering Issue.
[251] Supervisory Report, Exhibit 13, RE: TRACE Field Ordering Issue.
[252] Please refer to paragraphs 210 – 215 of this Decision.

at ensuring that the said measures are implemented by the TR, for example, through an action plan defined and monitored by the supervisor.

291.　　In this respect, the Board notes that "(a) the infrastructure migration and the upgrade to SQL 2017 were commenced prior to interactions with ESMA's Supervision Department; and (b) the remainder of the actions listed in the document entitled "UnaVista Operations Update Slides (18 June 2019)" were taken following the discussions with ESMA in the context of RFI 1 […] the audit into improvements to the system was commenced unilaterally by UnaVista following the changes implemented in November 2017. Following discussions with ESMA in the context of RFI 1, the scope of this audit was then expanded by the Board to include items highlighted by that process. The audit and the subsequent resulting actions illustrated by the above documents therefore formed part of the UnaVista-driven process to ensure the root causes were addressed and future incidents prevented. […] more generally, the expansion of the EMIR resource and the technical team […] were also commenced prior to interactions with ESMA's Supervision Department. These items formed part of the ongoing development and improvement of the system[253]".

292.　　Moreover, at the time, the PSI was not under a specific obligation (other than its obligation to comply with the Regulation) to take the measures such as the TRACE Review or the Resilience Plan. There was also no decision from ESMA ordering the PSI to correct its field ordering logic.

293.　　Therefore, the Board considers that the PSI has voluntarily taken measures to ensure that a similar infringement cannot be committed in the future. The mitigating factor is thus applicable.

Determination of the adjusted fine

294.　　In accordance with Article 65(3) of the Regulation, taking into account the applicable aggravating and mitigating factors, the basic amount of EUR 15 000 must be adjusted as follows.

295.　　The difference between the basic amount and the amount resulting from the application of each individual coefficient linked to the aggravating factors set out in Annex II, Point I(b), Point I(c) and Point I(d) and the mitigating factors set out in Annex II, Point II(c) and Point II(d) is added to the basic amount in the case of the aggravating factor and subtracted from the basic amount in the case of the mitigating factor:

Aggravating factor set out in Annex II, Point I(b):

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[253] Exhibit 11, PSI's Response to the IIO's First RFI, p. 21.

EUR 15 000 x 1,5 = EUR 22 500

EUR 22 500 – EUR 15 000 = EUR 7 500

Aggravating factor set out in Annex II, Point I(c):

EUR 15 000 x 2,2 = EUR 33 000

EUR 33 000 – EUR 15 000 = EUR 18 000

Aggravating factor set out in Annex II, Point I(d):

EUR 15 000 x 1,5 = EUR 22 500

EUR 22 500 – EUR 15 000 = EUR 7 500

Mitigating factor set out in Annex II, Point II(c):

EUR 15 000 x 0,4 = EUR 6 000

EUR 15 000 – EUR 6 000 = EUR 9 000

Mitigating factor set out in Annex II, Point II(d):

EUR 15 000 x 0,6 = EUR 9 000

EUR 15 000 – EUR 9 000 = EUR 6 000

Adjusted fine taking into account applicable aggravating and mitigating factors:

EUR 15 000 + EUR 7 500 + EUR 18 000 + EUR 7 500 – EUR 9 000 – EUR 6 000 = EUR 33 000

296.   Consequently, following adjustment by taking into account the applicable aggravating and mitigating factors, the amount of the fine to be imposed on the PSI would amount to EUR 33 000.

5.5 Application of the fine

297.   The Board notes that Article 65(4) of the Regulation, second paragraph, provides that "Where an act or omission of a trade repository constitutes more than one infringement listed in Annex I, only the higher fine calculated in accordance with paragraphs 2 and 3 and relating to one of those infringements shall apply".

298.   The Board considers that the infringement related to the PSI's incorrect field ordering logic that altered the substance of the data reported (established by the Board above in section 4) and the present infringement due to the PSI submitting reports to Regulators containing data that was inconsistent with the information received under

Article 9 of the Regulation, despite being autonomous, are stemming from the same (incorrect) field ordering logic employed by the PSI.

299.   Article 65(4) of the Regulation, second paragraph, is applicable regarding the fines calculated for the infringements by the PSI related to the PSI's incorrect field ordering logic that altered the substance of the data reported and the PSI submitting reports to Regulators containing data that was inconsistent with the information received. Only the highest fine should be imposed, and since in this case the two fines are of the same amount, only one fine of EUR 33 000 should be imposed.

5.6 Public notice

300.   Regard must be had to Article 73, paragraphs 1 and 2, of the Regulation.

301.   Given the factual findings in the present case and in particular the fact that the PSI permanently solved the issue in 2018, in addition to the imposition of the fine, the only other supervisory measure considered appropriate with regard to the nature and the seriousness of the infringement is the adoption of a public notice as set out in Article 73(1)(c) of the Regulation.

302.   It must thus be held that a public notice is to be issued.

6   Findings of the Board with regard to the facts related to the incorrect mapping rules incident that altered the substance of the data reported to the PSI

303.   As set out above in section 2.3, from 1 November 2017 until 15 January 2019, the PSI applied incorrect mapping rules to the information received from submitting entities regarding the 'Identifier Type' fields ('CCP ID', 'Broker ID', 'Submitting Entity ID' and 'Clearing Member ID' fields), from 1 November 2017 until 12 May 2019 regarding the 'Option Type', 'Contract Type' (Spreadbet), 'Contract Type' (Swaption), 'Days of the Week'[254], 'Floating Payment Freq Period Leg 2', 'Floating Payment Freq Multiplier Leg 2' 'Floating Reset Freq Period Leg 2', 'Floating Reset Freq Multiplier Leg 2', 'Floating Ref Period Leg 2', and 'Floating Ref Period Multiplier Leg 2' fields, and from 1 November 2017 until 17 January 2019 regarding the 'Value of the Collateral' fields.

304.   These incidents occurred during the second stage of transforming the received data from CSV format to TRACE format, i.e., when "the export [was] processed by a

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[254] The Board notes that the Days of the Week Issue was resolved on 31 August 2019, further to "the release of a system upgrade by ESMA", see Exhibit 11, PSI's Response to the IIO's First RFI, p. 22.

plug-in, which runs the mapping rules and XML generation[255]" and resulted in a number of incorrect or unsent reports to Regulators.

305.   The Board deems that in the case under consideration the incorrect mapping rules incident led to two different outcomes: (i) the alteration of the substance of the data and (ii) the provision of incorrect reports to the Regulators.

306.   With regards to the outcome of the alteration of the substance of the data, this section of the Decision analyses whether the PSI breached the following requirement regarding the safeguarding and recording of the data received from counterparties and CCPs:

> "a trade repository shall ensure the […] integrity […] of the information received under Article 9" (Article 80(1) of the Regulation).

307.   If this requirement is not met, the infringement set out at Point (c) of Section II of Annex I of the Regulation is established.

6.1 Analysis of the relevant provisions of the Regulation and the facts

308.   The issue under consideration in the present case is whether the PSI has breached its obligation under Article 80(1) of the Regulation to ensure the integrity of the information that it received under Article 9 of the Regulation.

309.   If this requirement is not met, this would constitute the infringement set out at Point (c) of Section II of Annex I of the Regulation.

310.   The Board has examined in detail the wording and the context of Article 80(1) of the Regulation in section 4 above.

311.   In addition, according to Article 1(1) of Delegated Regulation (EU) No 148/2013 (as amended by Delegated Regulation (EU) 2017/104), the reports to a TR under Article 9(1) of the Regulation explicitly include the information set out in the 'Identifier Type' fields ('CCP ID', 'Broker ID', 'Submitting Entity ID', 'Clearing Member ID'), 'Option Type', 'Contract Type' (Spreadbet), 'Contract Type' (Swaption), 'Days of the Week', 'Floating Payment Freq Period Leg 2', 'Floating Payment Freq Multiplier Leg 2' 'Floating Reset Freq Period Leg 2', 'Floating Reset Freq Multiplier Leg 2', 'Floating Ref Period Leg 2', and 'Floating Ref Period Multiplier Leg 2', and 'Value of the Collateral' fields[256].

312.   In the Board's view, where due to the PSI's incorrect mapping rules the integrity of the information provided to the Regulators regarding the information set out in these

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[255] Exhibit 11, PSI's Response to the IIO's First RFI, p. 13.
[256] The 'Commodity Details' fields and the 'Interconnection Point' field are also included in Article 1(1) of Delegated Regulation (EU) No 148/2013.

fields is compromised, their capacity to adequately determine the real exposure of counterparties would also be affected.

313.   Finally, the Board notes that, the concept of 'data integrity' refers to the maintenance of the accuracy and consistency of the data during all of the processing activities performed on the data by the TRs and that, to comply with the obligation of data integrity set by Article 80(1) of the Regulation, the data should not be altered neither during the storage, nor during the processing by the TR.

314.   Thus, the Board, in agreement with the IIO, concludes that to comply with the obligation under Article 80(1) of the Regulation to ensure the integrity of the data reported under Article 9 of the Regulation, the PSI must not alter the substance of the data that it receives from submitting entities, i.e., the data included in the 'All Previous Day' reports, 'Errored Matured Terminated' reports, 'Historical Open Trade State' reports, 'Late' reports, 'Outstanding Trades' reports, 'Previous Day Executions' reports and ad-hoc reports has to be consistent with the data reported by submitting entities.

315.   As set out above in Section 2.3, the PSI acknowledged that, from 1 November 2017 to 15 January 2019, "any data reported in the 'CCP ID', 'Broker ID', 'Submitting Entity ID' and 'Clearing Member ID' fields [i.e. the 'Identifier Type' fields …] in a CSV file was reported as blank in the corresponding ID Field in a TRACE file[257]".

316.   The PSI also acknowledged that, from 1 November 2017 to 17 January 2019, "the data in the underlying collateral fields in a CSV file was not mapped onto the corresponding collateral fields in a TRACE file[258]".

317.   Further, the PSI acknowledged that, from 1 November 2017 to 12 May 2019[259], "issues that impacted the accuracy of the reports[260]" had occurred that led to "discrepancy between input and output[261]", namely affecting the information received from submitting entities regarding the 'Option Type', 'Contract Type' (Spreadbet), 'Contract Type' (Swaption), 'Days of the Week', 'Floating Payment Freq Period Leg 2', 'Floating Payment Freq Multiplier Leg 2' 'Floating Reset Freq Period Leg 2', 'Floating Reset Freq Multiplier Leg 2', 'Floating Ref Period Leg 2', and 'Floating Ref Period Multiplier Leg 2' fields.

318.   In light of the above, the Board concurs with the IIO and considers that by generating reports sent via TRACE (including 'All Previous Day' reports, 'Errored Matured Terminated' reports, 'Historical Open Trade State' reports, 'Late' reports, 'Outstanding Trades' reports, 'Previous Day Executions' reports and ad-hoc reports) that contained data that was not consistent with the data reported by the submitting

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[257] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 8.
[258] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 19.
[259] The Board notes that the Days of the Week Issue was resolved on 31 August 2019, further to "the release of a system upgrade by ESMA", see Exhibit 11, PSI's Response to the IIO's First RFI, p. 22.
[260] Exhibit 22, PSI's Response to the IIO's First RFI, UnaVista Operations Update Slides (18 June 2019), p. 17. See also Supervisory Report, Exhibit 22, UnaVista TRACE Review Report.
[261] Exhibit 11, PSI's Response to the IIO's First RFI, p. 13.

entities and contained in the CSV files, the PSI failed to ensure the integrity of the details of derivative contracts reported to it under Article 9, in contravention of Article 80(1) of the Regulation.

319. This constitutes the infringement set out at Point (c) of Section II of Annex I of the Regulation.

320. The Board agrees with the IIO and deems that the infringement has been committed each time that the PSI implemented a mapping rule that generated reports which included information that was not consistent with the information reported by the submitting entities.

321. The Board thus finds that the infringement set out at Point (c) of Section II of Annex I of the Regulation was committed 12 times, i.e., when the PSI implemented the mapping rules, concerning the

- the 'Identifier Type' field incident;

- the 'Option Type' field;

- the 'Contract Type' (Spreadbet) field;

- the 'Contract Type' (Swaption) field;

- the 'Days of the Week' field;

- the 'Floating Payment Freq Period Leg 2' field;

- the 'Floating Payment Freq Multiplier Leg 2' field;

- the 'Floating Reset Freq Period Leg 2' field;

- the 'Floating Reset Freq Multiplier Leg 2' field;

- the 'Floating Ref Period Leg 2' field; and

- the 'Floating Ref Period Multiplier Leg 2' field; and

- the 'Value of the Collateral' fields.

6.2 Intent or negligence

322. The factual background of the present case does not establish that there are objective factors which demonstrate that the PSI, its employees or senior managers acted deliberately to commit the infringement.

323. It should therefore be assessed whether the PSI acted with negligence.

6.3 Assessment of whether there is negligence in the present case

324.   Regarding the concept of negligence for the purposes of the Regulation, the Board refers to the developments provided above in section 4.

325.   Regarding the facts at hand in the present case, the Board considers that the following should be taken into consideration to assess whether the PSI has been negligent.

326.   First, the Board notes that the Regulation as set out above is clear on a simple reading. To comply with Article 80(1) an attentive reading of the provisions of the Regulation would have been sufficient.

327.   Second, during the drafting process for Delegated Regulation (EU) No 2017/104 (among others), ESMA consulted with the industry, and the PSI participated in these consultations[262]. A TR normally informed and sufficiently attentive in the PSI's position could not have failed to foresee the requirements of Article 80(1) of the Regulation.

328.   Indeed, before the 1 November 2017 implementation date, as set out above in section 2.1, the PSI "carried out a process of analysis of each reporting field[263]" and created a framework to implement updated mapping rules[264].

329.   Third, in the Board's view, before going life but also afterwards, a diligent TR would have checked that the mapping rules that it had put in place worked properly, i.e., that the information in the reporting field to be provided in TRACE reports was always consistent with the information that the submitting entities had reported to the PSI under the relevant input data fields (in CSV format). A normally informed TR would have foreseen the consequences of not doing so.

330.   In fact, the PSI did check a sample of potential queries at the time of implementation. The PSI explained that "to minimise any drafting errors arising from the implementation of the mapping rules, the Technical Leader for the EMIR System produced samples of potential queries and corresponding example exports and any inconsistencies flagged by this process were subsequently corrected prior to the 1 November 2017 go-live date[265]".

331.   Moreover, following the 1 November 2017 go-live date, the PSI "carried out post-implementation testing to ensure that the changes relating to TRACE had been correctly implemented […] This testing took the form of running various reports internally to ensure that these generated correctly and did not trigger system errors. Where system errors were triggered, these were escalated and resolved. This process

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[262] Exhibit 69, Letter from UnaVista regarding the review of the technical standard on reporting under Article 9 of EMIR.
[263] Exhibit 11, PSI's Response to the IIO's First RFI, p. 10.
[264] Exhibit 11, PSI's Response to the IIO's First RFI, p. 11.
[265] Exhibit 11, PSI's Response to the IIO's First RFI, p. 11.

as described constitutes standard testing for UnaVista and is carried out after every release[266]".

332.   However, this testing was not adequate. In this respect, the Board takes note of the PSI's "SFR [which] provided in-depth information on the validation required under RTS 2017/104, any inter-dependencies or conditional validations and a record of the testing carried out for that reporting field, as well as any fixes implemented during the testing process. Each SFR also contained comments designed to assist developers with correctly implementing the changes brought about by RTS 2017/104[267]".

333.   For example, the SFR for the 'Option Type' stated "there was a defect found with this [… and further] please test this SFR in combination with 1142[268]". Other examples, such as the SFR for the 'Clearing Member ID', 'Collateral Type', 'Initial Margin Posted', 'Initial Margin Posted CCY', 'Variation Margin Posted', 'Variation Margin Posted CCY', 'Initial Margin Received', 'Initial Margin Received CCY', 'Variation Margin Received', 'Variation Margin Received CCY', 'Excess Collateral Posted' 'Excess Collateral Posted CCY', 'Excess Collateral Received', 'Excess Collateral Received CCY' fields also noted errors and the fields underwent re-tests. [269]

334.   The Board, in agreement with the IIO, considers that such errors should have triggered complete testing. However, these tests did not cover all mapping scenarios. Indeed, when the PSI later-on undertook the TRACE Review, which "consisted of 380 scenario-based test cases [and] encompassed both stages of the data mapping process [to] flag any discrepancy between input and output in the mapping and field ordering rules[270]", it "led to the further mapping incidents being identified [271]".

335.   In this regard, further to a review in response to the concerns raised by ESMA, the PSI itself considered that it "needs to focus on data transit and how UnaVista

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[266] Exhibit 11, PSI's Response to the IIO's First RFI, p. 11. See also Exhibit 28, PSI's Response to the IIO's First RFI, UnaVista EMIR Level 3 Production Run Book, step 132 in the "Prod Go-Live Runbook" tab of the Level 3 runbook.
[267] Exhibit 11, PSI's Response to the IIO's First RFI, p. 10.
[268] Exhibit 36, PSI's Response to the IIO's Second RFI, Document 3 – SFRCLREP-1020 Option Type.
[269] Exhibit 37, PSI's Response to the IIO's First RFI, SFR 957 – Clearing Member ID, Exhibit 36, PSI's Response to the IIO's Second RFI, Document 3 – SFRCLREP-1020 Option Type, Exhibit 38, PSI's Response to the IIO's Second RFI, Document 14 – SFRCLREP-968 Collateral Type, Exhibit 39, PSI's Response to the IIO's Second RFI, Document 16 – SFRCLREP-1034 Initial Margin Posted, Exhibit 40, PSI's Response to the IIO's Second RFI, Document 17 – SFRCLREP-1035 Initial Margin Posted CCY, Exhibit 41, PSI's Response to the IIO's Second RFI, Document 18 – SFRCLREP-1036 Variation Margin Posted, Exhibit 42, PSI's Response to the IIO's Second RFI, Document 19 – SFRCLREP-1037 Variation Margin Posted CCY, Exhibit 43, PSI's Response to the IIO's Second RFI, Document 20 – SFRCLREP-1038 Initial Margin Received, Exhibit 44, PSI's Response to the IIO's Second RFI, Document 21 – SFRCLREP-1039 Initial Margin Received CCY, Exhibit 45, PSI's Response to the IIO's Second RFI, Document 22 - SFRCLREP-1040 Variation Margin Received, Exhibit 46, PSI's Response to the IIO's Second RFI, Document 23 - SFRCLREP-1041 Variation Margin Received CCY, Exhibit 47, PSI's Response to the IIO's Second RFI, Document 24 - SFRCLREP-1042 Excess Collateral Posted, Exhibit 48, PSI's Response to the IIO's Second RFI, Document 25 - SFRCLREP-1042 Excess Collateral Posted CCY, Exhibit 49, PSI's Response to the IIO's Second RFI, Document 26 - SFRCLREP-1044 Excess Collateral Received, and Exhibit 50, PSI's Response to the IIO's Second RFI, Document 27 - SFRCLREP-1045 Excess Collateral Received CCY.
[270] Exhibit 11, PSI's Response to the IIO's First RFI, pp. 12-13. See also Supervisory Report, Exhibit 22, UnaVista TRACE Review Report, p. 1.
[271] Exhibit 11, PSI's Response to the IIO's First RFI, pp. 12-13.

maintains the integrity of data. UnaVista need to establish a testing model that validate data integrity[272]".

336. The Board considers that a diligent TR, would have undertaken complete testing when the new obligations came into force and, indeed, the PSI has run such testing "in respect of all subsequent updates relevant to TRACE, which to date have occurred in June, July and September 2019[273]".

337. Fourth, the Board notes that, even though the PSI implemented all the mapping rules using the same process, it took several incidents related to its mapping rules before it undertook the thorough TRACE Review.

338. In particular, already in 2017, further to a data quality query received from ESMA, the PSI undertook the "TRACE/CSV Comparison Review, which ran from 6 December 2017 to 15 April 2018 [… However, the PSI only reviewed] the outbound mapping rules, […] rather than carrying out a holistic review, UnaVista focused on the records which had failed message generation to establish why this had occurred[274]".

339. Moreover, despite being made aware by the Central Bank of Ireland on 1 June 2018[275] of an issue with the 'Value of the Collateral' field, it did not assess whether similar issues arose with regards to the other mapping rules that it was using until the TRACE Review. As a result, the issues regarding the other fields remained unresolved until 12 May 2019[276], when the PSI deployed corrective code to fix them.

340. Overall, on the basis of the elements described above, the Board concurs with the IIO and considers that the PSI failed to take the special care expected of a TR. As a professional firm in the financial services sector subject to stringent regulatory requirements, the PSI is required to take special care in assessing the risks that its acts or omissions entail, and has failed to take that care; and as the result of that failure, it has not foreseen the consequences of its acts or omissions, including particularly its infringement of the Regulation, in circumstances where a TR in such a position that is normally informed and sufficiently attentive could not have failed to foresee those consequences.

341. Therefore, it is considered that the PSI has been negligent when committing the infringement of Point (c) of Section II of Annex I of the Regulation.

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[272] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), p. 4, point 12.
[273] Exhibit 11, PSI's Response to the IIO's First RFI, p. 13.
[274] Exhibit 11, PSI's Response to the IIO's First RFI, pp. 11-12.
[275] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 18.
[276] It is noted that the Days of the Week Issue was resolved on 31 August 2019, further to "the release of a system upgrade by ESMA", see Exhibit 11, PSI's Response to the IIO's First RFI, p. 22.

6.4 Fines

342.   The Board preliminary notes that the basic amount of the applicable fine is calculated taking as a reference the latest available official financial statements regarding the PSI's annual turnover in the business year preceding the year of the decision, as recommended by the Joint Board of Appeal of the three ESAs in its Decision of 28 December 2020. Thus, account is taken of the financial statements for the year ended 31 December 2020.

343.   The description of the basic amount of the fine as well as the assessment regarding the application of the aggravating and mitigating factors is set out below.

Determination of the basic amount

344.   Article 65 of the Regulation provides in paragraph 2[277] as follows:

"The basic amounts of the fines referred to in paragraph 1 shall be included within the following limits:

(a) for the infringements referred to in point (c) of Section I of Annex I and in points (c) to (g) of Section II of Annex I, and in points (a) and (b) of Section III of Annex I the amounts of the fines shall be at least EUR 10 000 and shall not exceed EUR 20 000 […]

In order to decide whether the basic amount of the fines should be at the lower, the middle or the higher end of the limits set out in the first subparagraph, ESMA shall have regard to the annual turnover of the preceding business year of the trade repository concerned. The basic amount shall be at the lower end of the limit for trade repositories whose annual turnover is below EUR 1 million, the middle of the limit for the trade repository whose turnover is between EUR 1 and 5 million and the higher end of the limit for the trade repository whose annual turnover is higher than EUR 5 million."

345.   It has been established that the PSI negligently committed the infringement set out at Point (c) of Section II of Annex I of the Regulation, by not ensuring the integrity of the information received under Article 9.

346.   To determine the basic amount of the fine, the Board has regard to the latest official financial statements regarding the annual turnover of the PSI.

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[277] In this regard, the Board notes that with the entry into force of Regulation (EU) 2019/834, the amount of the fines to be imposed in case of an infringement of the Regulation has significantly increased. According to Article 1(16)(a) of Regulation (EU) 2019/834 "in Article 65, paragraph 2 is amended as follows: […] in point (a), 'EUR 20 000' is replaced by 'EUR 200 000';" However, this is not applicable to the present infringement because the facts occurred before the adoption and entry into force of Regulation (EU) 2019/834.

347.   In 2020, the PSI had a turnover of GBP 3 652 963[278] (EUR 4 108 852[279]).

348.   Thus, the basic amount of the fine for the infringement listed in Point (c) of Section II of Annex I of the Regulation is set at the middle of the limit of the fine set out in Article 65(2)(a) of the Regulation at EUR 15 000.

Applicable aggravating factors

349.   Annex II of the Regulation lists the aggravating factors to be taken into consideration for the adjustment of the fine. The applicable aggravating factors in the present case are set out below.

Annex II, Point I(a) if the infringement has been committed repeatedly, for every time it has been repeated, an additional coefficient of 1,1 shall apply

350.   In this case, the Board considers that the infringement set out at Point (c) of Section II of Annex I of the Regulation has been committed each time that the PSI implemented a mapping rule which generated reports to Regulators that included information not consistent with the data reported by the submitting entities.

351.   In this regard, the PSI submitted the following in its Response to the IIO's initial Statement of Findings: "the IIO should not assess the implementation of the mapping rules as a series of independent projects occurring in respect of each individual mapping rule but rather as one single project. The mapping rules were designed and implemented as a single project within UnaVista, for which there was one comprehensive implementation plan, communal milestones and a single testing framework. In accordance with this approach, the reporting fields were not considered in isolation but instead as components of one project.

This approach to implementation was informed by the amending RTS and ITS. These technical standards did not permit UnaVista to choose which mapping rules to implement and which to ignore, but instead required UnaVista to implement the entirety of the changes contained within such amending legislation by a single deadline, being 1 November 2017.

As acknowledged by the IIO, the issues giving rise to the Alleged Mapping Infringement occurred as a result of the design and implementation of the mapping rules. Given the mapping rules were designed and implemented in one integrated process as envisaged by the underlying legislation, it would be unreasonable to view the Alleged Mapping

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[278] UnaVista Limited, Report and Financial Statements for the year ended 31 December 2020.
[279] Based on the official exchange rate for GBP v EUR in 2020: 1.1248
https://www.ecb.europa.eu/stats/policy_and_exchange_rates/euro_reference_exchange_rates/html/eurofxref-graph-gbp.en.html

Infringement as having been committed 12 times simply on the basis that multiple reporting fields were impacted as a result of issues arising from such a process.

Accordingly, UnaVista submits that the IIO should not apply the aggravating factor available at Annex II, Point I(a) of the Regulation to the Alleged Mapping Infringement[280]".

352.   The Board, as the IIO, finds the PSI's representations unconvincing and notes that, while the implementation of the requirements was done under the heading of one project (the L3 migration), the PSI "carried out a process of analysis of each reporting field contained in Table 1 (Counterparty Data) and Table 2 (Common Data) of the Annex to RTS 2017/104[281]" and applied the different mapping rules as necessary.

353.   The different mapping rules applied to the fields were incorrect independently from each other. For example, the fact that the mapping logic regarding the 'Option Type' field did not take into account the designation "Other" in addition to the two designations "Put" or "Call" took place independently of the mapping logic regarding the 'Contract Type' field not taking into account the "Swaption" and "Spreadbet" designations[282].

354.   Thus, the Board agrees with the IIO and finds that the infringement was committed when the PSI implemented the mapping rules concerning:

- the 'Identifier Type' fields;

- the 'Option Type' field;

- the 'Contract Type' (Spreadbet) field;

- the 'Contract Type' (Swaption) field;

- the 'Days of the Week' field;

- the 'Floating Payment Freq Period Leg 2' field;

- the 'Floating Payment Freq Multiplier Leg 2' field;

- the 'Floating Reset Freq Period Leg 2' field;

- the 'Floating Reset Freq Multiplier Leg 2' field;

- the 'Floating Ref Period Leg 2' field; and

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[280] Exhibit 74, PSI's Response to the IIO's initial Statement of Findings, pp. 2-3.
[281] Exhibit 63, PSI's Response to the IIO's First RFI, Access to TRs Functional Specifications – Annex 2 with UV Fields.
[282] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 12-15.

- the 'Floating Ref Period Multiplier Leg 2' field; and

- the 'Value of the Collateral' fields.

355.	Therefore, the infringement is considered to have been committed 12 times.

356.	Putting aside the first time the PSI has committed the infringement, it has thus been repeated 11 times.

357.	The Board considers that this aggravating factor is applicable.

<u>Annex II, Point I(b) if the infringement has been committed for more than six months, a coefficient of 1,5 shall apply.</u>

358.	The infringement lasted more than six months for each of the reporting fields, i.e., at least from 1 November 2017 until the period between 21 December 2018 and 31 August 2019 when the PSI resolved the root causes leading to the incorrect mapping. Therefore, the aggravating factor applies.

359.	In addition, the Board notes that "All affected reports which have been retroactively requested have been provided to the relevant Regulator[283]".

<u>Annex II, Point I(c) if the infringement has revealed systemic weaknesses in the organisation of the trade repository, in particular in its procedures, management systems or internal controls, a coefficient of 2,2 shall apply.</u>

360.	In addition to the analysis set out above in paragraphs 183 to 188, and the arguments raised by the PSI, the Board considered the design and testing of the PSI's system regarding mapping rules, and its ability to detect incorrect settings and to remedy the infringement.

361.	First, the Board notes that the infringement was the result of a defective design of the mapping rules themselves. The infringement stemmed from the set-up of the mapping rules as they were applied to the data reported by submitting entities in the 'Identifier Type' fields ('CCP ID', 'Broker ID', 'Submitting Entity ID', 'Clearing Member ID'), 'Option Type', 'Contract Type', 'Days of the Week', 'Floating Payment Freq Period Leg 2', 'Floating Payment Freq Multiplier Leg 2' 'Floating Reset Freq Period Leg 2', 'Floating Reset Freq Multiplier Leg 2', 'Floating Ref Period Leg 2', 'Floating Ref Period Multiplier Leg 2', and 'Value of the Collateral' fields in CSV format in respect of reports submitted via TRACE to Regulators and not from an individual error or malfunction.

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[283] Exhibit 11, PSI's Response to the IIO's First RFI, p. 25.

362.   The infringement was not due, for example, to a temporary outage or human error; it was fundamentally due to the way the PSI had set up its IT infrastructure regarding the mapping rules.

363.   The PSI, when establishing the mapping rules, had designed rules, which were inherently incapable of correctly mapping the data received. Thus, the infringement was not due to a "glitch" in the IT system or a similar error; it was due to the erroneous set-up of the processing of the data received. The Board considers this to reveal systemic weaknesses in the PSI's organisation.

364.   Second, the infringement reveals systemic weaknesses in the organisation of the PSI in relation to its procedures and management system regarding the verification of the mapping rules. While the PSI stated that "with respect to the implementation of the reporting functionality, the technical project management function was subject to a thorough and comprehensive process detailing the framework for the implementation of the technical objectives, the roles of each of the participants, and the means by which the implementation of that solution interacted with other UnaVista functions[284]", there was a gap in the reporting and implementation in relation to the testing of functionalities.

365.   In this respect, it is important to note, that with regards to data integrity, the Resilience Plan acknowledged that "processes and controls to ensure accuracy and completeness of data submission needs to improve. [...] UnaVista needs to establish a testing model that validate data integrity[285]".

366.   In particular, the testing of the mapping rules before 1 November 2017, contrary to the TRACE Review did not encompass both stages of the data mapping process[286]. Indeed, many of the errors with the mapping rules were only identified during the TRACE Review[287]. The Board would expect adequate verification and testing to have flagged up the PSI's faulty design of the mapping rules.

367.   Third, the PSI only identified issues with its mapping rules regarding the 'Value of Collateral' field when the Central Bank of Ireland raised this issue with the PSI on 1 June 2018[288], regarding the 'Identifier Type' fields, while testing another functionality, and regarding the other fields when undertaking a review of its mapping rules more than a year after the infringement started, which while it "was self-initiated by UnaVista [...was also] a result of queries received from Regulators as to the accuracy of the TRACE values[289]". In this regard, the Resilience Plan acknowledged that the PSI

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[284] Exhibit 11, PSI's Response to the IIO's First RFI, pp. 18-19.
[285] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), pp. 3-4.
[286] Exhibit 11, PSI's Response to the IIO's First RFI, pp. 12-13. See also Supervisory Report, Exhibit 22, UnaVista TRACE Review Report, p. 1.
[287] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p.12.
[288] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 18.
[289] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p.12.

needed a "data strategy focused on continuing to improve controls around data integrity[290]".

368.   Fourth, the issues related to implementing incorrect mapping rules were farther reaching and more mapping rules than those leading to infringements were affected by the PSI's incorrect design. While the mapping rules applicable to the 'Commodity Details' and 'Interconnection Point' fields did not lead to any data being altered[291], the underlying system to treat the data put in place by the PSI was also defective[292].

369.   Based on this, the Board in line with the IIO identifies significant weaknesses regarding the PSI's design of its mapping rules applied to the data received in CSV format from the submitting entities. Given the importance of ensuring the integrity of the data reported to TRs at all stages, and of submitting that data unaltered to the Regulators, these defects constitute "systemic weaknesses in the organisation" of the PSI.

370.   Thus, the Board considers that the aggravating factor is applicable.

Annex II, Point I(d) if the infringement has a negative impact on the quality of the data it maintains, a coefficient of 1,5 shall apply.

371.   In addition to the analysis set out above in paragraphs 201 and 202, the Board concurs with the IIO and considers that due to the PSI's incorrect mapping rules, Regulators experienced a de facto delay of the correct information of more than one year. Such delays significantly reduce the quality of the data which is accessed and the use that can be made of this data. The data as a whole is deficient and incomplete.

372.   Based on this, the Board considers that the aggravating factor is applicable.

Applicable mitigating factors

373.   Annex II, Point II of the Regulation lists the mitigating factors to be taken into consideration for the adjustment of the fine. The applicable mitigation factors in the present case are set out below.

Annex II, Point II(d) if the trade repository has voluntarily taken measures to ensure that a similar infringement cannot be committed in the future, a coefficient of 0,6 shall apply.

374.   The PSI has taken a number of actions between 21 December 2018 and 31 August 2019, primarily resolving the issues in relation to the infringement. In this respect, the Board notes the following:

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[290] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), pp. 3-4.
[291] Exhibit 13, PSI's Response to the IIO's Second RFI, p. 2.
[292] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 12-15.

375. Regarding the 'Identifier Type' fields ('CCP ID', 'Broker ID' and 'Clearing Member ID' fields) and the ad hoc reports to the Regulators, the incident was permanently fixed on 15 January 2019.[293]

376. Regarding the 'Option Type', 'Contract Type', 'Floating Payment Freq Period Leg 2', 'Floating Payment Freq Multiplier Leg 2' 'Floating Reset Freq Period Leg 2', 'Floating Reset Freq Multiplier Leg 2', 'Floating Ref Period Leg 2', and 'Floating Ref Period Multiplier Leg 2' fields, the PSI issued corrective coding to permanently resolve the issues on 12 May 2019.[294]

377. In relation to the field 'Days of the Week' field, the PSI permanently resolved the issue on 31 August 2019 further to a system upgrade by ESMA. ESMA released the TRACE Schema on 31 August 2019 and the PSI resolved the issue on the same day.[295]

378. Regarding the 'Value of Collateral' field, the PSI issued corrective coding between 21 December 2018 and 17 January 2019[296] and stated that the issue has been permanently resolved.

379. The PSI also confirmed that "All affected reports which have been retroactively requested have been provided to the relevant Regulator[297]".

380. Moreover, considering the concerns raised by ESMA, in November 2019, the PSI adopted the Resilience Plan, which covered data integrity and completeness, and a detailed overview of the TRACE Reports[298]. With regards to data integrity, the Resilience Plan noted that "A data strategy focused on continuing to improve controls around data integrity but additionally focused on quality of the incoming data should be formed"[299]. In particular, the PSI indicated that "A programme of work should be scoped and planned that focuses of Data Integrity and Quality through the data lifecycle. This needs to focus on data transit and how UnaVista maintains the integrity of data. UnaVista needs to establish a testing model that validate data integrity[300]". In this respect, the PSI in March 2019, completed a project on "Enhanced Quality Assurance (QA) Automation[301]" and for June 2020 was on track to "Deliver a Data Integrity strategy document and establish improvement plan[302]".

381. The Board thus concurs with the IIO and considers that a number of remedial actions have been taken by the PSI regarding this infringement. The Board considers

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[293] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 8.
[294] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 16-17. The corrective coding was also applied to the 'Commodity Details' and 'Interconnection Point' fields.
[295] Exhibit 11, PSI's Response to the IIO's First RFI, p. 22. Please also see Exhibit 31, PSI's Response to the IIO's First RFI, UnaVista Change Management [831] - Change Completed.
[296] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 20-21.
[297] Exhibit 11, PSI's Response to the IIO's First RFI, p. 25.
[298] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), pp. 2-4.
[299] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019). p. 3.
[300] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), p. 4.
[301] Exhibit 23, PSI's Response to the IIO's First RFI, UnaVista Updated Resilience Strategy 2018-2019 Projects & Initiatives.
[302] Exhibit 35, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan.

that these remedial actions should ensure that a similar infringement cannot be committed in the future.

382.	In addition to the analysis set out in paragraphs 289 and 290 and the PSI's description of actions taken set out above, the Board notes that the PSI was not under a specific obligation (other than its obligation to comply with the Regulation) to take the measures set out above; for example, there was no decision from ESMA ordering the PSI to correct its mapping rules.

383.	Therefore, the Board agrees with the IIO and considers that the PSI has voluntarily taken measures to ensure that a similar infringement cannot be committed in the future. The mitigating factor is thus applicable.

Determination of the adjusted fine

384.	In accordance with Article 65(3) of the Regulation, taking into account the applicable aggravating and mitigating factors, the basic amount of EUR 15 000 must be adjusted as follows.

385.	The difference between the basic amount and the amount resulting from the application of each individual coefficient linked to the aggravating factors set out in Annex II, Point I(a), Point I(b), Point I(c) and Point I(d) and the mitigating factor set out in Annex II, Point II(d) is added to the basic amount in the case of the aggravating factor and subtracted from the basic amount in the case of the mitigating factor:

Aggravating factor set out in Annex II, Point I(a):

EUR 15 000 x 1,1 = EUR 16 500

EUR 16 500 – EUR 15 000 = EUR 1 500

11 repetitions: 11 x 1 500 = 16 500

Aggravating factor set out in Annex II, Point I(b):

EUR 15 000 x 1,5 = EUR 22 500

EUR 22 500 – EUR 15 000 = EUR 7 500

Aggravating factor set out in Annex II, Point I(c):

EUR 15 000 x 2,2 = EUR 33 000

EUR 33 000 – EUR 15 000 = EUR 18 000

Aggravating factor set out in Annex II, Point I(d):

EUR 15 000 x 1,5 = EUR 22 500

EUR 22 500 – EUR 15 000 = EUR 7 500

Mitigating factor set out in Annex II, Point II(d):

EUR 15 000 x 0,6 = EUR 9 000

EUR 15 000 – EUR 9 000 = EUR 6 000

Adjusted fine taking into account applicable aggravating and mitigating factors:

EUR 15 000 + EUR 16 500 + EUR 7 500 + EUR 18 000 + EUR 7 500 – EUR 6 000 = EUR 58 500

386.   Consequently, following adjustment by taking into account the applicable aggravating and mitigating factors, the amount of the fine to be imposed on the PSI would amount to EUR 58 500.

6.5 Public notice

387.   Regard must be had to Article 73, paragraphs 1 and 2, of the Regulation.

388.   Given the factual findings in the present case and in particular the fact that the PSI permanently solved the issue in 2019, in addition to the imposition of the fine the only other supervisory measure considered appropriate with regard to the nature and the seriousness of the infringement is the adoption of a public notice as set out in Article 73(1)(c) of the Regulation.

389.   It must thus be held that a public notice is to be issued.

7 Findings of the Board with regard to the facts related to the incorrect mapping rules incident that that led to generating incorrect reports for Regulators

390.   As stated above[303], the Board deems that in the case under consideration the incorrect mapping rules led to two different outcomes: (i) the alteration of the substance of the data and (ii) the provision of incorrect reports to the Regulators.

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[303] See paragraph 305 of this Decision.

391.   With regards to the outcome of the provision of incorrect reports to the Regulators, this section of the decision analyses whether the PSI breached the following requirement:

> "A trade repository shall collect and maintain data and shall ensure that the entities referred to in paragraph 3 have direct and immediate access to the details of derivatives contracts they need to fulfil their respective responsibilities and mandates" (Article 81(2) of the Regulation).

392.   If this requirement is not met, the infringement set out at Point (b) of Section III of Annex I of the Regulation is established.

7.1 Analysis of the relevant provisions of the Regulation and the facts

393.   The issue under consideration in the present case is whether the PSI has breached its obligation under Articles 81(2) to give Regulators direct and immediate access to the details of derivatives contracts they need to fulfil their respective responsibilities and mandates.

394.   As set out above, from 1 November 2017 until 15 January 2019, the PSI applied incorrect mapping rules to the information received from submitting entities regarding the 'Identifier Type' fields ('CCP ID', 'Broker ID', 'Submitting Entity ID' and 'Clearing Member ID' fields), from 1 November 2017 until 12 May 2019 regarding the 'Option Type', 'Contract Type' (Spreadbet), 'Contract Type' (Swaption), 'Days of the Week'[304], 'Floating Payment Freq Period Leg 2', 'Floating Payment Freq Multiplier Leg 2' 'Floating Reset Freq Period Leg 2', 'Floating Reset Freq Multiplier Leg 2', 'Floating Ref Period Leg 2', and 'Floating Ref Period Multiplier Leg 2' fields, and from 1 November 2017 until 17 January 2019 regarding the 'Value of the Collateral' fields. This resulted in a number of incorrect or unsent reports to the Regulators.

395.   The Board takes into account the wording and the context of Article 81(2) of the Regulation.

396.   First, the wording of Article 81(2) is clear. The PSI has an obligation to provide Regulators with "direct and immediate access to the details of derivatives contracts they need to fulfil their respective responsibilities and mandates". The only limiting factor, as set out in Article 81(2), to a Regulator's access is the Regulator's "responsibilities and mandates".

397.   This means TRs should provide Regulators with the same details as counterparties and CCPs submit to them.

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[304] The Board notes that the Days of the Week Issue was resolved on 31 August 2019, further to "the release of a system upgrade by ESMA", see Exhibit 11, PSI's Response to the IIO's First RFI, p. 22.

398. According to Article 1(1) of Delegated Regulation (EU) No 148/2013 (as amended by Delegated Regulation (EU) 2017/104), the reports to a TR under Article 9(1) of the Regulation explicitly include the information set out in the 'Identifier Type' fields ('CCP ID', 'Broker ID', 'Submitting Entity ID', 'Clearing Member ID'), 'Option Type', 'Contract Type' (Spreadbet), 'Contract Type' (Swaption), 'Days of the Week', 'Floating Payment Freq Period Leg 2', 'Floating Payment Freq Multiplier Leg 2' 'Floating Reset Freq Period Leg 2', 'Floating Reset Freq Multiplier Leg 2', 'Floating Ref Period Leg 2', and 'Floating Ref Period Multiplier Leg 2', and 'Value of the Collateral' fields[305].

399. Second, the drafting of Article 81(2) makes it clear that the details to be transmitted to the Regulators are those that help them fulfil their responsibilities and mandates. The Board notes that the provision operates in the context of the principal objective of introducing the reporting requirement under the Regulation, which is to ensure that Regulators have timely and complete access to the correct data in order to be able to perform their mandates and ensure financial stability. Indeed, providing Regulators with access to incorrect data prevents them from fulfilling their mandates. In this context, it cannot have been the intention of the co-legislators to have created a reporting obligation that could be at best useless, if not misleading.

400. For instance, as stated in the Recital 3 of the Implementing Regulation (EU) 2017/105, "in order to determine the real exposure of counterparties, competent authorities require complete and <u>accurate</u> information on the collateral exchanged between those counterparties […]".

401. In the Board's view, where the integrity of the information provided to the Regulators is compromised due to the mapping rules incident leading to incorrect or omitted information in the affected fields, Regulators' capacity to determine the real exposure of counterparties would also be affected.

402. Thus, the Board concludes that to comply with the obligation under Article 81(2) the details of derivatives contracts, to which the Regulators must be provided access, must also be correct and reliable, for the Regulators to fulfil their responsibilities and mandates.

403. As set out above in section 2.3 and as recognised by the PSI from 1 November 2017 until 15 January 2019, the PSI applied incorrect mapping rules to the information received from submitting entities regarding the fields listed above. This in turn fed into incorrect or omitted information in the reports to the Regulators.

404. In light of the above, the Board considers that by generating reports for Regulators that contained data that was not consistent with the data reported by the reporting parties, the PSI failed to provide Regulators with direct and immediate access

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[305] The 'Commodity Details' fields and the 'Interconnection Point' field are also included in Article 1(1) of Delegated Regulation (EU) No 148/2013.

to the details of derivative contracts reported to it under Article 9, in contravention of Article 81(2) of the Regulation.

405.   This constitutes the infringement set out at Point (b) of Section III of Annex I of the Regulation.

7.2 Intent or negligence

406.   The factual background of the present case does not establish that there are objective factors which demonstrate that the PSI, its employees or senior managers acted deliberately to commit the infringement.

407.   It should therefore be assessed whether the PSI acted with negligence.

7.3 Assessment of whether there is negligence in the present case

408.   Regarding the concept of negligence for the purposes of the Regulation, the Board refers to the developments provided above in section 4.

409.   Regarding the application to the infringement set out at Point (b) of Section III of Annex I of the Regulation, the Board notes the following.

410.   First, the Board notes that, as explained above, the provision of Article 81(2) of the Regulation is clear. A TR normally informed and sufficiently attentive in the PSI's position could not have failed to foresee that Article 81(2) requires correct and reliable reports to be provided to the Regulators.

411.   Second, a diligent TR (complying with the expected high standard of care) would have checked, in the post-implementation phase, the proper functioning of the mapping rules put in place, in order to ensure the correctness of the reports to be provided to the Regulators.

412.   In this regard, the Board acknowledges that following the 1 November 2017 go-live date the PSI carried out post-implementation testing (standard testing for the PSI) precisely in order to ensure the correctness of the reports generated. Where system errors were generated these were escalated and resolved.

413.   However, the Board, considers that this testing was not adequate. The Board notes the PSI's "SFR [which] provided in-depth information on the validation required under RTS 2017/104, any inter-dependencies or conditional validations and a record of the testing carried out for that reporting field, as well as any fixes implemented during the testing process. Each SFR also contained comments designed to assist developers with correctly implementing the changes brought about by RTS 2017/104[306]". For example, the SFR for the 'Option Type' stated "there was a defect found with this [...

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[306] Exhibit 11, PSI's Response to the IIO's First RFI, p. 10.

and further] please test this SFR in combination with 1142[307]". Other examples, such as the SFR for the 'Clearing Member ID', 'Collateral Type', 'Initial Margin Posted', 'Initial Margin Posted CCY', 'Variation Margin Posted', 'Variation Margin Posted CCY', 'Initial Margin Received', 'Initial Margin Received CCY', 'Variation Margin Received', 'Variation Margin Received CCY', 'Excess Collateral Posted' 'Excess Collateral Posted CCY', 'Excess Collateral Received', 'Excess Collateral Received CCY' fields also noted errors and the fields underwent re-tests.

414.   In the Board's view, such errors should have triggered complete testing, which was not performed since it did not cover all the mapping scenarios.

415.   In this context, the Board considers relevant, for the establishment of negligence, that despite being made aware by the Central Bank of Ireland on 1 June 2018 of an issue with the 'Value of the Collateral' field, the PSI did not assess whether similar issues arose with regards to the other mapping rules that it was using until the TRACE Review, carried out between 21 January 2019 and 1 May 2019. In fact, it took several incidents related to its mapping rules before undertaking the complete TRACE review.

416.   Having performed tests in the post-implementation phase which proved to be not adequate nor complete, the Board considers that the PSI did not comply with the high standard of care to be expected of a diligent TR.

417.   Third, the Board further considers that the lack of care of the PSI in the design and implementation of the mapping rules, that led to the negligent alteration of the substance of the data received, is relevant to establish the negligence in the provision of incorrect reports to the Regulators. The Board indeed finds that the negligence in the moment of the provision of the reports constitutes the necessary consequence, due to a cascading effect, of the lack of care of the PSI in the process of design and implementation of the updated mapping rules.

418.   Overall, on the basis of the elements described above, the Board considers that the PSI failed to take the special care expected of a TR. As a professional firm in the financial services sector subject to stringent regulatory requirements, the PSI is required to take special care in assessing the risks that its acts or omissions entail, and has failed to take that care; and as the result of that failure, it has not foreseen the consequences of its acts or omissions, including particularly its infringement of the Regulation, in circumstances where a TR in such a position that is normally informed and sufficiently attentive could not have failed to foresee those consequences.

419.   Therefore, the Board considers that the PSI has been negligent when committing the infringement of Point (b) of Section III of Annex I of the Regulation.

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[307] Exhibit 36, PSI's Response to the IIO's Second RFI, Document 3 – SFRCLREP-1020 Option Type.

7.4 Fines

420.   The Board preliminary notes that the basic amount of the applicable fine is calculated taking as a reference the latest available official financial statements regarding the PSI's annual turnover in the business year preceding the year of the decision, as recommended by the Joint Board of Appeal of the three ESAs in its Decision of 28 December 2020. Thus, account is taken of the financial statements for the year ended 31 December 2020.

421.   The description of the basic amount of the fine as well as the assessment regarding the application of the aggravating and mitigating factors is set out below.

Determination of the basic amount

422.   Article 65 of the Regulation provides in paragraph 2[308] as follows:

"The basic amounts of the fines referred to in paragraph 1 shall be included within the following limits:

(a) for the infringements referred to in point (c) of Section I of Annex I and in points (c) to (g) of Section II of Annex I, and in points (a) and (b) of Section III of Annex I the amounts of the fines shall be at least EUR 10 000 and shall not exceed EUR 20 000 […]

In order to decide whether the basic amount of the fines should be at the lower, the middle or the higher end of the limits set out in the first subparagraph, ESMA shall have regard to the annual turnover of the preceding business year of the trade repository concerned. The basic amount shall be at the lower end of the limit for trade repositories whose annual turnover is below EUR 1 million, the middle of the limit for the trade repository whose turnover is between EUR 1 and 5 million and the higher end of the limit for the trade repository whose annual turnover is higher than EUR 5 million."

423.   It has been established that the PSI negligently committed the infringement set out at Point (b) of Section III of Annex I of the Regulation, by not providing the regulators with direct and immediate access to the details reported to the PSI under Article 9 of the Regulation.

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[308] In this regard, the Board notes that with the entry into force of Regulation (EU) 2019/834, the amount of the fines to be imposed in case of an infringement of the Regulation has significantly increased. According to Article 1(16)(a) of Regulation (EU) 2019/834 "in Article 65, paragraph 2 is amended as follows: […] in point (a), 'EUR 20 000' is replaced by 'EUR 200 000';" However, this is not applicable to the present infringement because the facts occurred before the adoption and entry into force of Regulation (EU) 2019/834.

424.   To determine the basic amount of the fine, the Board has regard to the latest official financial statements regarding the annual turnover of the PSI.

425.   In 2020, the PSI had a turnover of GBP 3 652 963[309] (EUR 4 108 852[310]).

426.   Thus, the basic amount of the fine for the infringement listed in Point (c) of Section II of Annex I of the Regulation is set at the middle of the limit of the fine set out in Article 65(2)(a) of the Regulation at EUR 15 000.

Applicable aggravating factors

427.   Annex II of the Regulation lists the aggravating factors to be taken into consideration for the adjustment of the fine. The applicable aggravating factors in the present case are set out below.

    Annex II, Point I(a) if the infringement has been committed repeatedly, for every time it has been repeated, an additional coefficient of 1,1 shall apply

428.   In this investigation, the Board considers that the infringement set out at Point (b) of Section III of Annex I of the Regulation has been committed each time that the PSI implemented a mapping rule which generated reports to Regulators that included information not consistent with the data reported by the submitting entities.

429.   In this regard, the Board takes note of the representation of the PSI made in respect of the infringement analysed in section 6.

430.   The Board finds the PSI's representations unconvincing and thus not applicable in determination of the applicable aggravating factors for the infringement analysed in this section 7, noting that, while the implementation of the requirements was done under the heading of one project (the L3 migration), the PSI "carried out a process of analysis of each reporting field contained in Table 1 (Counterparty Data) and Table 2 (Common Data) of the Annex to RTS 2017/104[311]" (emphasis added) and applied the different mapping rules as necessary.

431.   The different mapping rules applied to the fields were incorrect independently from each other. For example, the fact that the mapping logic regarding the 'Option Type' field did not take into account the designation "Other" in addition to the two designations "Put" or "Call" took place independently of the mapping logic regarding

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[309] UnaVista Limited, Report and Financial Statements for the year ended 31 December 2020.
[310] Based on the official exchange rate for GBP v EUR in 2020: 1.1248
https://www.ecb.europa.eu/stats/policy_and_exchange_rates/euro_reference_exchange_rates/html/eurofxref-graph-gbp.en.html
[311] Exhibit 63, PSI's Response to the IIO's First RFI, Access to TRs Functional Specifications – Annex 2 with UV Fields.

the 'Contract Type' field not taking into account the "Swaption" and "Spreadbet" designations[312].

432.   Thus, the Board finds that the infringement was committed when the PSI implemented the following mapping rules that consequently affected the correctness of the reports:

- the 'Identifier Type' fields;

- the 'Option Type' field;

- the 'Contract Type' (Spreadbet) field;

- the 'Contract Type' (Swaption) field;

- the 'Days of the Week' field;

- the 'Floating Payment Freq Period Leg 2' field;

- the 'Floating Payment Freq Multiplier Leg 2' field;

- the 'Floating Reset Freq Period Leg 2' field;

- the 'Floating Reset Freq Multiplier Leg 2' field;

- the 'Floating Ref Period Leg 2' field; and

- the 'Floating Ref Period Multiplier Leg 2' field; and

- the 'Value of the Collateral' fields.

433.   Therefore, the infringement is considered to have been committed 12 times.

434.   Putting aside the first time the PSI has committed the infringement, it has thus been repeated 11 times.

435.   The Board considers that this aggravating factor is applicable.

Annex II, Point I(b) if the infringement has been committed for more than six months, a coefficient of 1,5 shall apply.

436.   The infringement lasted more than six months for each of the reporting fields, i.e., at least from 1 November 2017 until the period between 21 December 2018 and

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[312] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 12-15.

31 August 2019 when the PSI resolved the root causes leading to the incorrect mapping. Therefore, the aggravating factor applies.

437.   In addition, the Board notes that "All affected reports which have been retroactively requested have been provided to the relevant Regulator[313]".

<u>Annex II, Point I(c) if the infringement has revealed systemic weaknesses in the organisation of the trade repository, in particular in its procedures, management systems or internal controls, a coefficient of 2,2 shall apply.</u>

438.   In addition to the analysis set out above in paragraphs 183 to 198, and the arguments raised by the PSI, the Board considered the design and testing of the PSI's system regarding mapping rules, and its ability to detect incorrect settings and to remedy the infringement.

439.   First, the Board notes that the infringement was the result of a defective design of the mapping rules themselves. The infringement stemmed from the set-up of the mapping rules as they were applied to the data reported by submitting entities in the 'Identifier Type' fields ('CCP ID', 'Broker ID', 'Submitting Entity ID', 'Clearing Member ID'), 'Option Type', 'Contract Type', 'Days of the Week', 'Floating Payment Freq Period Leg 2', 'Floating Payment Freq Multiplier Leg 2' 'Floating Reset Freq Period Leg 2', 'Floating Reset Freq Multiplier Leg 2', 'Floating Ref Period Leg 2', 'Floating Ref Period Multiplier Leg 2', and 'Value of the Collateral' fields in CSV format in respect of reports submitted via TRACE to Regulators and not from an individual error or malfunction.

440.   The infringement was not due, for example, to a temporary outage or human error; it was fundamentally due to the way the PSI had set up its IT infrastructure regarding the mapping rules.

441.   The PSI, when establishing the mapping rules, had designed rules, which were inherently incapable of correctly mapping the data received. Thus, the infringement was not due to a "glitch" in the IT system or a similar error; it was due to the erroneous set-up of the processing of the data received. The Board considers this to reveal systemic weaknesses in the PSI's organisation.

442.   Second, the infringement reveals systemic weaknesses in the organisation of the PSI in relation to its procedures and management system regarding the verification of the mapping rules. While the PSI stated that "with respect to the implementation of the reporting functionality, the technical project management function was subject to a thorough and comprehensive process detailing the framework for the implementation of the technical objectives, the roles of each of the participants, and the means by which

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[313] Exhibit 11, PSI's Response to the IIO's First RFI, p. 25.

the implementation of that solution interacted with other UnaVista functions[314]", there was a gap in the reporting and implementation in relation to the testing of functionalities.

443.   In this respect, it is important to note, that with regards to data integrity, the Resilience Plan acknowledged that "processes and controls to ensure accuracy and completeness of data submission needs to improve. [...] UnaVista needs to establish a testing model that validate data integrity[315]".

444.   In particular, the testing of the mapping rules before 1 November 2017, contrary to the TRACE Review did not encompass both stages of the data mapping process[316]. Indeed, many of the errors with the mapping rules were only identified during the TRACE Review[317]. The Board would expect adequate verification and testing to have flagged up the PSI's faulty design of the mapping rules.

445.   Third, the PSI only identified issues with its mapping rules regarding the 'Value of Collateral' field when the Central Bank of Ireland raised this issue with the PSI on 1 June 2018[318], regarding the 'Identifier Type' fields, while testing another functionality, and regarding the other fields when undertaking a review of its mapping rules more than a year after the infringement started, which while it "was self-initiated by UnaVista [...was also] a result of queries received from Regulators as to the accuracy of the TRACE values[319]". In this regard, the Resilience Plan acknowledged that the PSI needed a "data strategy focused on continuing to improve controls around data integrity[320]".

446.   Fourth, the issues related to implementing incorrect mapping rules were farther reaching and more mapping rules than those leading to infringements were affected by the PSI's incorrect design. While the mapping rules applicable to the 'Commodity Details' and 'Interconnection Point' fields did not lead to any data being altered[321], the underlying system to treat the data put in place by the PSI was also defective[322].

447.   Based on this, the Board identifies significant weaknesses regarding the PSI's design of its mapping rules applied to the data received in CSV format from the submitting entities. Given the importance of ensuring the integrity of the data reported to TRs at all stages, and of submitting that data unaltered to the Regulators, these defects constitute "systemic weaknesses in the organisation" of the PSI.

448.   Thus, the Board considers that the aggravating factor is applicable.

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[314] Exhibit 11, PSI's Response to the IIO's First RFI, pp. 18-19.
[315] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), pp. 3-4.
[316] Exhibit 11, PSI's Response to the IIO's First RFI, pp. 12-13. See also Supervisory Report, Exhibit 22, UnaVista TRACE Review Report, p. 1.
[317] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p.12.
[318] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p. 18.
[319] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, p.12.
[320] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), pp. 3-4.
[321] Exhibit 13, PSI's Response to the IIO's Second RFI, p. 2.
[322] Supervisory Report, Exhibit 20, PSI's Letter of 27 August 2019, pp. 12-15.

Annex II, Point I(d) if the infringement has a negative impact on the quality of the data it maintains, a coefficient of 1,5 shall apply.

449. In addition to the analysis set out above in paragraphs 201 and 202, the Board considers that due to the PSI's incorrect mapping rules, Regulators experienced a de facto delay of the correct information of more than one year. Such delays significantly reduce the quality of the data which is accessed and the use that can be made of this data. The data as a whole is deficient and incomplete.

450. Based on this, the Board considers that the aggravating factor is applicable.

Applicable mitigating factors

451. Annex II, Point II of the Regulation lists the mitigating factors to be taken into consideration for the adjustment of the fine. The applicable mitigation factors in the present case are set out below.

Annex II, Point II(d) if the trade repository has voluntarily taken measures to ensure that a similar infringement cannot be committed in the future, a coefficient of 0,6 shall apply.

452. As explained above[323], the Board considers that a number of remedial actions have been taken by the PSI regarding this infringement. The Board considers that these remedial actions should ensure that a similar infringement cannot be committed in the future.

453. In addition to the analysis in paragraphs 218 to 220 and the PSI's description of actions taken set out above, the Board notes that the PSI was not under a specific obligation (other than its obligation to comply with the Regulation) to take the measures set out above; for example, there was no decision from ESMA ordering the PSI to correct its mapping rules.

454. Therefore, the Board considers that the PSI has voluntarily taken measures to ensure that a similar infringement cannot be committed in the future. The mitigating factor is thus applicable.

Determination of the adjusted fine

455. In accordance with Article 65(3) of the Regulation, taking into account the applicable aggravating and mitigating factors, the basic amount of EUR 15 000 must be adjusted as follows.

456. The difference between the basic amount and the amount resulting from the application of each individual coefficient linked to the aggravating factors set out in Annex II, Point I(a), Point I(b), Point I(c) and Point I(d) and the mitigating factor set out

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[323] Please refer to paragraphs 374 - 380 of this Decision.

in Annex II, Point II(d) is added to the basic amount in the case of the aggravating factor and subtracted from the basic amount in the case of the mitigating factor:

Aggravating factor set out in Annex II, Point I(a):

EUR 15 000 x 1,1 = EUR 16 500

EUR 16 500 – EUR 15 000 = EUR 1 500

11 repetitions: 11 x 1 500 = 16 500

Aggravating factor set out in Annex II, Point I(b):

EUR 15 000 x 1,5 = EUR 22 500

EUR 22 500 – EUR 15 000 = EUR 7 500

Aggravating factor set out in Annex II, Point I(c):

EUR 15 000 x 2,2 = EUR 33 000

EUR 33 000 – EUR 15 000 = EUR 18 000

Aggravating factor set out in Annex II, Point I(d):

EUR 15 000 x 1,5 = EUR 22 500

EUR 22 500 – EUR 15 000 = EUR 7 500

Mitigating factor set out in Annex II, Point II(d):

EUR 15 000 x 0,6 = EUR 9 000

EUR 15 000 – EUR 9 000 = EUR 6 000

Adjusted fine taking into account applicable aggravating and mitigating factors:

EUR 15 000 + EUR 16 500 + EUR 7 500 + EUR 18 000 + EUR 7 500 – EUR 6 000 = EUR 58 500

457.   Consequently, following adjustment by taking into account the applicable aggravating and mitigating factors, the amount of the fine to be imposed on the PSI would amount to EUR 58 500.

7.5 Application of the fine

458.   The Board notes that Article 65(4) of the Regulation, second paragraph, provides that "Where an act or omission of a trade repository constitutes more than one

infringement listed in Annex I, only the higher fine calculated in accordance with paragraphs 2 and 3 and relating to one of those infringements shall apply".

459.   The Board considers that the infringement related to the PSI's incorrect mapping rules that altered the substance of the data reported (established by the Board above in section 6) and the present infringement due to the PSI submitting reports to Regulators containing data that was inconsistent with the information received under Article 9 of the Regulation, despite being autonomous, are stemming from the same (incorrect) mapping rules employed by the PSI.

460.   Article 65(4) of the Regulation, second paragraph, is applicable regarding the fines calculated for the infringements by the PSI related to the PSI's incorrect mapping rules that altered the substance of the data reported and the PSI submitting reports to Regulators containing data that was inconsistent with the information received. Only the highest fine should be imposed, and since in this case the two fines are of the same amount, only one fine of EUR 58 500 should be imposed.

7.6 Public notice

461.   Regard must be had to Article 73, paragraphs 1 and 2, of the Regulation.

462.   Given the factual findings in the present case and in particular the fact that the PSI permanently solved the issue in 2018, in addition to the imposition of the fine the only other supervisory measure considered appropriate with regard to the nature and the seriousness of the infringement is the adoption of a public notice as set out in Article 73(1)(c) of the Regulation.

463.   It must thus be held that a public notice is to be issued.

8 Findings of the Board with regard to the facts related to the crossed date boundaries incident that altered the substance of the data reported to the PSI

464.   As set out above in section 2.4, the PSI's system allowed updates to open trade state data to occur before exports for the previous day had been completed. Thus, data received and provided to Regulators in a number of reports sent via TRACE and in CSV format could have contained[324] inaccuracies. The PSI estimated that 135 open trade state reports could have contained open trade data inclusive of the previous two days' of trades, rather than only data for the previous day.

465.   The crossed date boundaries incident occurred during the phase of the generation of the reports to the Regulators.

466.   The Board deems that in the case under consideration the crossed date boundaries incident led to two different outcomes: (i) the alteration of the substance of the data and (ii) the provision of incorrect reports to the Regulators.

467.   With regards to the outcome of the alteration of the substance of the data, this section of the decision analyses whether the PSI breached the following requirement regarding the safeguarding and recording of the data received from counterparties and CCPs:

> "a trade repository shall ensure the […] integrity […] of the information received under Article 9" (Article 80(1) of the Regulation).

468.   If this requirement is not met, the infringement set out at Point (c) of Section II of Annex I of the Regulation is established.

8.1 Analysis of the relevant provisions of the Regulations and the facts

469.   The issue under consideration in the present case is whether the PSI has breached its obligation under Article 80(1) of the Regulation to ensure the integrity of the information that it received under Article 9 of the Regulation.

470.   The Board has examined in detail the wording and the context of Article 80(1) of the Regulation in sections 4 and 6 above.

471.   This incident is not linked to specific fields in an open trade state report. Instead, the set-up of the PSI's system meant that, where crossed date boundaries occurred,

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[324] The PSI could only provide estimates of the exact number of reports affected as it was unable to confirm the exact number of reports impacted by inaccuracies produced as a result of a 'crossed date in report generation', see Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 8.

all of the data submitted to the PSI on the relevant dates were potentially affected. For a Regulator receiving such a report, there would be no way of knowing whether the data in the trade state report was correct, i.e., whether the data reported only concerned one day or whether the report included data from the two previous days.

472.   The Board notes that the concept of 'data integrity' refers to the maintenance of the accuracy and consistency of the data during all of the processing activities performed on the data by the TRs and that, to comply with the obligation of data integrity set by Article 80(1) of the Regulation, the data should not be altered neither during the storage, nor during the processing by the TR.

473.   Therefore, the Board, in line with the IIO, considers that where the integrity of the information provided to the Regulators regarding the information set out in these open trade state reports is compromised, their capacity to determine the real exposure of counterparties is also affected. This also applies in cases where a Regulator cannot be certain that the data remained unchanged.

474.   Thus, the Board concludes that to comply with the obligation under Article 80(1) of the Regulation to ensure the integrity of the data reported under Article 9 of the Regulation, the PSI must implement an internal system which safeguards the integrity of the data received from submitting entities and leaves no doubt that the data has not been altered during the processing in any manner, i.e. the PSI has to ensure that the data included in the 'All Previous Day' reports, 'Errored Matured Terminated' reports, 'Historical Open Trade State' reports, 'Late' reports, 'Outstanding Trades' reports, 'Previous Day Executions' reports and ad-hoc reports is consistent with the data reported by submitting entities.

475.   As set out above in section 2.4, while the PSI is not able to confirm whether there were any actual instances of data being changed, the Board notes that the PSI's system did not safeguard the integrity of the data. Indeed, the PSI's system allowed a situation where "the data within these reports may be inconsistent, because at 00:01, the data from which the report is being generated "ticks over" and any running reports could include the next day's data. Consequently, they may contain open trade data inclusive of the previous two days' of trades, rather than only data for the previous day[325]".

476.   Moreover, the PSI recognised the that the trade state reports were impacted. For instance, when after informing a Regulator "that due to a technical issue TRACE failed on the 19 September 2018. Unfortunately this has affected the Open Trade State Reports for CBoI and as a consequence you will not receive the Trade State Files for 19 September 2018", the Regulator who had still received a report inquired for further information, the PSI explained to the Regulator that "the report was generated after

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[325] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 8.

midnight therefore trades maturing on that day would have not been included in the report[326]".

477.   Thus, based on the information available, it is established that in 135 instances the date boundary was crossed and that due to the set-up of the PSI's system this could lead to data ticking over. This means that the PSI did not ensure the data's integrity, due to the PSI's internal set up leading to trade state report generation being affected by crossed date boundaries.

478.   In light of the above, the Board, in agreement with the IIO, considers that, by running a system which did not guarantee the integrity of the data received and by generating trade state reports potentially containing open trade data inclusive of the previous two days' of trades and amounting to data that was not consistent with the data reported by the submitting entities, the PSI failed to ensure the integrity of the details of derivative contracts reported to it under Article 9, in contravention of Article 80(1) of the Regulation.

479.   This constitutes the infringement set out at Point (c) of Section II of Annex I of the Regulation.

8.2 Intent or negligence

480.   The factual background of the present case does not establish that there are objective factors which demonstrate that the PSI, its employees or senior managers acted deliberately to commit the infringement.

481.   It should therefore be assessed whether the PSI acted with negligence.

8.3 Assessment of whether there is negligence in the present case

482.   Regarding the concept of negligence for the purposes of the Regulation, the Board refers to the developments provided above in section 4.

483.   Regarding the facts at hand in the present case, the Board considers that the following should be taken into consideration to assess whether the PSI has been negligent.

484.   First, the Board notes that the Regulation as set out above is clear on a simple reading. To comply with Article 80(1) an attentive reading of the provisions of the Regulation would have been sufficient.

485.   Second, the PSI did not prevent the "data from which the report is being generated "tick[ing] over""[327] and thus did not prevent potentially erroneous data from

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[326] Supervisory Report, Exhibit 30, LBR.0013091, pp. 1-2.
[327] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 8.

being provided to Regulators where the export of an open trade state report completed after midnight on the day following their planned generation. A normally informed TR would have foreseen the consequences of not doing so.

486.	In this respect, with regards to data integrity, the Resilience Plan acknowledged the need for "A data strategy focused on continuing to improve controls around data integrity[328]". In particular, the PSI indicated that "A programme of work should be scoped and planned that focuses of Data Integrity and Quality through the data lifecycle. This needs to focus on data transit and how UnaVista maintains the integrity of data[329]".

487.	Third, while the PSI stated that the issue with crossed date boundaries was discovered in preparing the response to the first RFI sent to the PSI by ESMA Supervisors on 30 October 2018[330], the PSI also explained it "has seen internal email correspondence dated as early as 19 March 2018 demonstrating that there was an awareness prior to 30 October 2018 of […] crossed date boundaries[331]".

488.	In addition to this, on 15 May 2018, a member of the PSI's IT department raised a TRACE incident with the compliance team, stating that "The number of Outstanding Trades Reports took a long time to generate yesterday and the ECB report started just before midnight. This bought it into conflict with the generation of the Trade State report (which happens just after midnight). This caused an error[332]". Based on this the PSI should have foreseen that by running a system which did not stop one report from generating despite a previous report not having finished there was a risk of generating reports potentially containing inaccuracies including open trade data inclusive of the previous two days' of trades, rather than only data for the previous day.

489.	Fourth, the PSI in September 2018, even recognised that the open trade state reports were impacted by data ticking over. It informed a Regulator that a report needed to be regenerated as "the report was generated after midnight therefore trades maturing on that day would have not been included in the report [and it internally clarified that] Trades that matured before midnight will not be included[333]".

490.	Overall, on the basis of the elements described above, the Board, in agreement with the IIO, considers that the PSI failed to take the special care expected of a TR. As a professional firm in the financial services sector subject to stringent regulatory requirements, the PSI is required to take special care in assessing the risks that its acts or omissions entail, and has failed to take that care; and as the result of that failure, it has not foreseen the consequences of its acts or omissions, including particularly its infringement of the Regulation, in circumstances where a TR in such a position that is

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[328] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), p. 3.
[329] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), p. 4.
[330] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 8.
[331] Exhibit 13, PSI's Response to the IIO's Second RFI, p. 10.
[332] Supervisory Report, Exhibit 27, LBR.0002892.
[333] Supervisory Report, Exhibit 30, LBR.0013091, pp. 1-2.

normally informed and sufficiently attentive could not have failed to foresee those consequences.

491.   Therefore, it is considered that the PSI has been negligent when committing the infringement of Point (c) of Section II of Annex I of the Regulation.

8.4 Fines

492.   The Board preliminary notes that the basic amount of the applicable fine is calculated taking as a reference the latest available official financial statements regarding the PSI's annual turnover in the business year preceding the year of the decision, as recommended by the Joint Board of Appeal of the three ESAs in its Decision of 28 December 2020. Thus, account is taken of the financial statements for the year ended 31 December 2020.

493.   The description of the basic amount of the fine as well as the assessment regarding the application of the aggravating and mitigating factors is set out below.

Determination of the basic amount

494.   Article 65 of the Regulation provides in paragraph 2[334] as follows:

"The basic amounts of the fines referred to in paragraph 1 shall be included within the following limits:

(a) for the infringements referred to in point (c) of Section I of Annex I and in points (c) to (g) of Section II of Annex I, and in points (a) and (b) of Section III of Annex I the amounts of the fines shall be at least EUR 10 000 and shall not exceed EUR 20 000 […]

In order to decide whether the basic amount of the fines should be at the lower, the middle or the higher end of the limits set out in the first subparagraph, ESMA shall have regard to the annual turnover of the preceding business year of the trade repository concerned. The basic amount shall be at the lower end of the limit for trade repositories whose annual turnover is below EUR 1 million, the middle of the limit for the trade repository whose turnover is between EUR 1 and 5 million and the higher end of the limit for the trade repository whose annual turnover is higher than EUR 5 million."

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[334] In this regard, the Board notes that with the entry into force of Regulation (EU) 2019/834, the amount of the fines to be imposed in case of an infringement of the Regulation has significantly increased. According to Article 1(16)(a) of Regulation (EU) 2019/834 "in Article 65, paragraph 2 is amended as follows: […] in point (a), 'EUR 20 000' is replaced by 'EUR 200 000';" However, this is not applicable to the present infringement because the facts occurred before the adoption and entry into force of Regulation (EU) 2019/834.

495.   It has been established that the PSI negligently committed the infringement set out at Point (c) of Section II of Annex I of the Regulation, by not ensuring the integrity of the information received under Article 9.

496.   To determine the basic amount of the fine, the Board has regard to the latest official financial statements regarding the annual turnover of the PSI.

497.   In 2020, the PSI had a turnover of GBP 3 652 963[335] (EUR 4 108 852[336]).

498.   Thus, the basic amount of the fine for the infringement listed in Point (c) of Section II of Annex I of the Regulation is set at the middle of the limit of the fine set out in Article 65(2)(a) of the Regulation at EUR 15 000.

Applicable aggravating factors

499.   Annex II of the Regulation lists the aggravating factors to be taken into consideration for the adjustment of the fine. The applicable aggravating factors in the present case are set out below.

Annex II, Point I(b) if the infringement has been committed for more than six months, a coefficient of 1,5 shall apply.

500.   The infringement lasted more than six months, i.e., at least since the first occurrence on 3 April 2018[337] of a crossed date boundary affecting open trade state reports until the PSI's system was fixed in December 2018. Therefore, the aggravating factor applies.

501.   In addition, the Board notes that the PSI "confirms that all outstanding reports have now been queued for regeneration[338]". The PSI further noted in its Response to the IIO's initial Statement of Findings that "As of 7 July 2020, […] all such historic reports have been regenerated and provided to the corresponding Regulators[339]".

Annex II, Point I(c) if the infringement has revealed systemic weaknesses in the organisation of the trade repository, in particular in its procedures, management systems or internal controls, a coefficient of 2,2 shall apply.

502.   In addition to the analysis set out above in paragraphs 183 to 188, and the arguments raised by the PSI, the Board considered the design and testing of the PSI's

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[335] UnaVista Limited, Report and Financial Statements for the year ended 31 December 2020.
[336] Based on the official exchange rate for GBP v EUR in 2020: 1.1248
https://www.ecb.europa.eu/stats/policy_and_exchange_rates/euro_reference_exchange_rates/html/eurofxref-graph-gbp.en.html
[337] Supervisory Report, Exhibit 26, Item 4 Annexure.
[338] Exhibit 11, PSI's Response to the IIO's First RFI, p. 25.
[339] Exhibit 74, PSI's Response to the IIO's initial Statement of Findings, p. 2.

system regarding the generation of trade state reports, and its ability to detect and to remedy the infringement regarding crossed date boundaries.

503.   First, the Board notes that the infringement was the result of the setup of the PSI's IT infrastructure, which did not account for the possibility of reports running late so as to run into the next day. The PSI's IT system generated the open trade state data for reports even if not all exports for the previous day had been completed.

504.   Second, the infringement reveals systemic weaknesses in the organisation of the PSI in relation to its procedures and management system. As recognised by the PSI, in relation to EMIR changes, "The Governance Process is not clearly documented in the Function process document[340]", including "Incomplete Post Project Review [… and] Inconsistent evidence of 4 eyes checks of developed solutions[341]".

505.   In particular, regarding the verification of changes, "The testing does not address the differences between the Testing and the Production environments. This is causing a number of issues when solutions are released into Production. This has affected the Open Trade Report ("OTR"): The deployment of a change into the production system resulted in delays and errors in reporting which then took around 3 months to address. This change (a fix) relating to the OTR was a compulsory regulatory requirement that was the subject of discussions with ESMA. Monthly System patches are not being tested thoroughly due to the lack of time and resources that were being used in the existing workloads[342]".

506.   Third, further to a review in response to the concerns raised by ESMA, the PSI itself "identified monitoring as a weakness and that problems were too often identified manually by users. The review also identified the need to create more consistency and reliability of database query performance. Longer term Technology strategies continue to be established and will be communicated to ESMA once finalised[343]".

507.   Fourth, the inability to implement such an important regulatory requirement points to a lack of resourcing, as recognised by the PSI: "we have identified a need to increase resources to the trade repository 'business as usual' maintenance team[344]". Following this, the PSI did increase its number of staff by making "multiple hires […] and, by December 2018, UnaVista had hired 24 new employees. UnaVista has continued to increase the size of the ["business as usual" maintenance team] in the New Office and, as of May 2020, such team comprises 42 employees[345]". It thus noted in November 2019, further to a review of its systems in response to the concerns raised by ESMA: "More dedicated resources for the EMIR TR change programme are in place

[340] Exhibit 32, PSI's Response to the IIO's First RFI, 2018.85 Regulatory Changes UnaVista Final, p. 6.
[341] Exhibit 32, PSI's Response to the IIO's First RFI, 2018.85 Regulatory Changes UnaVista Final, p. 6.
[342] Exhibit 32, PSI's Response to the IIO's First RFI, 2018.85 Regulatory Changes UnaVista Final, p. 5.
[343] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), p. 3, point 11.
[344] Supervisory Report, Exhibit 51, LBR.0054743.0037.
[345] Exhibit 11, PSI's Response to the IIO's First RFI, p. 23.

[…] An increased ring-fenced team is now in place to focus solely on change delivery for the EMIR TR[346]".

508.   Based on this, the Board concurs with the IIO and identifies significant weaknesses regarding the PSI's organisation related to open trade state reports affected by crossed date boundaries. Given the importance of providing trade state reports to Regulators, these defects constitute "systemic weaknesses in the organisation" of the PSI.

509.   Thus, the Board considers that the aggravating factor is applicable.

<u>Annex II, Point I(d) if the infringement has a negative impact on the quality of the data it maintains, a coefficient of 1,5 shall apply.</u>

510.   In addition to the analysis set out above in paragraphs 201 and 202, the Board agrees with the IIO and considers that due to the set-up of the PSI's system leading to issues with crossed date boundaries, Regulators experienced a de facto delay in receiving the reliable and correct information of more than one year. Such delays significantly reduce the quality of the data which is accessed and the use that can be made of this data. The data as a whole is deficient and incomplete.

511.   Based on this, the Board considers that the aggravating factor is applicable.

Applicable mitigating factors

512.   Annex II, Point II of the Regulation lists the mitigating factors to be taken into consideration for the adjustment of the fine. Their applicable mitigating factors in the present case are set out below.

<u>Annex II, Point II(d) if the trade repository has voluntarily taken measures to ensure that a similar infringement cannot be committed in the future, a coefficient of 0,6 shall apply.</u>

513.   The PSI has taken a number of actions, primarily resolving the issues in relation to the infringement. In this respect, the Board notes that, by the end of December 2018, the PSI implemented code changes to fix the issue of crossed date boundaries to "(a) ensure that the TRACE and CSV database jobs used to update the open trade state data for reports only do so if all exports for the previous day have been completed. […] and (b) ensure that exports wait for the open trade state data to be updated before executing[347]".

514.   Further actions to improve the PSI's system "include the engagement of an independent Microsoft consultant, infrastructure migration and ongoing upgrades,

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[346] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), p. 3, point 7.
[347] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, pp. 15-16.

dedicated database administrators and trade repository performance and stability initiatives[348]".

515.   In addition, "in relation to the crossed boundary issue, it was noted that UnaVista was in the process of implementing an enhancement to the TRACE and CSV processes within its TR system; […] Each of these items was addressed as a result of the review process conducted […] consisting of the code changes […], the new infrastructure migration and a set of monitoring, alerts and key performance indicators[349]". The PSI also "built additional alerts and KPIs providing specific EMIR TR monitoring capabilities. This additional functionality was […] fully effective from the end of 2019 onwards[350]".

516.   In addition, in November 2019, the PSI adopted the Resilience Plan, considering the concerns raised by ESMA.[351] Data integrity and completeness were within the scope of the PSI's assessment.[352] With regards to data integrity, the Resilience Plan noted that "A data strategy focused on continuing to improve controls around data integrity but additionally focused on quality of the incoming data should be formed."[353] In particular, the PSI indicated that "A programme of work should be scoped and planned that focuses of Data Integrity and Quality through the data lifecycle. This needs to focus on data transit and how UnaVista maintains the integrity of data[354]". In this respect, the PSI in March 2019, completed a project on "Enhanced Quality Assurance (QA) Automation[355]" and for June 2020 was on track to "Deliver a Data Integrity strategy document and establish improvement plan[356]".

517.   The Board concurs with the IIO and considers that a number of remedial actions have been taken by the PSI regarding this infringement. The Board considers that these remedial actions should ensure that a similar infringement cannot be committed in the future.

518.   In addition to the analysis set out in paragraphs 218 to 220 and the PSI's description of actions taken, the Board notes that the PSI was not under a specific obligation (other than its obligation to comply with the Regulation) to take the measures set out above; for example, there was no decision from ESMA ordering the PSI to update its system to prevent crossed date boundaries.

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[348] Exhibit 11, PSI's Response to the IIO's First RFI, p. 20.
[349] Exhibit 11, PSI's Response to the IIO's First RFI, p. 20.
[350] Exhibit 11, PSI's Response to the IIO's First RFI, p.17. Exhibit 26, PSI's Response to the IIO's First RFI, EMIR TR Monitoring.
[351] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019).
[352] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), pp. 2-4.
[353] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019). p. 3.
[354] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), p. 4.
[355] Exhibit 23, PSI's Response to the IIO's First RFI, UnaVista Updated Resilience Strategy 2018-2019 Projects & Initiatives.
[356] Exhibit 35, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan.

519.   Therefore, the Board considers that the PSI has voluntarily taken measures to ensure that a similar infringement cannot be committed in the future. The mitigating factor is thus applicable.

Determination of the adjusted fine

520.   In accordance with Article 65(3) of the Regulation, taking into account the applicable aggravating and mitigating factors, the basic amount of EUR 15 000 must be adjusted as follows.

521.   The difference between the basic amount and the amount resulting from the application of each individual coefficient linked to the aggravating factors set out in Annex II, Point I(b), Point I(c) and Point I(d) and the mitigating factor set out in Annex II, Point II(d) is added to the basic amount in the case of the aggravating factor and subtracted from the basic amount in the case of the mitigating factor:

Aggravating factor set out in Annex II, Point I(b):

EUR 15 000 x 1,5 = EUR 22 500

EUR 22 500 – EUR 15 000 = EUR 7 500

Aggravating factor set out in Annex II, Point I(c):

EUR 15 000 x 2,2 = EUR 33 000

EUR 33 000 – EUR 15 000 = EUR 18 000

Aggravating factor set out in Annex II, Point I(d):

EUR 15 000 x 1,5 = EUR 22 500

EUR 22 500 – EUR 15 000 = EUR 7 500

Mitigating factor set out in Annex II, Point II(d):

EUR 15 000 x 0,6 = EUR 9 000

EUR 15 000 – EUR 9 000 = EUR 6 000

Adjusted fine taking into account applicable aggravating and mitigating factors:

EUR 15 000 + EUR 7 500 + EUR 18 000 + EUR 7 500 – EUR 6 000 = <u>EUR 42 000</u>

522.   Consequently, following adjustment by taking into account the applicable aggravating and mitigating factors, the amount of the fine to be imposed on the PSI would amount to EUR 42 000.

8.5 Public notice

523.   Regard must be had to Article 73, paragraphs 1 and 2, of the Regulation.

524.   Given the factual findings in the present case and in particular the fact that the PSI permanently solved the issue in December 2018, in addition to the imposition of the fine the only other supervisory measure considered appropriate with regard to the nature and the seriousness of the infringement is the adoption of a public notice as set out in Article 73(1)(c) of the Regulation.

525.   It must thus be held that a public notice is to be issued.

9 Findings of the Board with regard to the facts related to the crossed date boundaries incident that led to generating incorrect reports for Regulators

526.   As stated above[357], the Board deems that in the case under consideration the crossed date boundaries led to two different outcomes: (i) the alteration of the substance of the data and (ii) the provision of incorrect reports to the Regulators.

527.   With regards to the outcome of the provision of incorrect reports to the Regulators, this section of the decision analyses whether the PSI breached the following requirement:

"A trade repository shall collect and maintain data and shall ensure that the entities referred to in paragraph 3 have direct and immediate access to the details of derivatives contracts they need to fulfil their respective responsibilities and mandates" (Article 81(2) of the Regulation).

528.   If this requirement is not met, the infringement set out at Point (b) of Section III of Annex I of the Regulation is established.

9.1 Analysis of the relevant provisions of the Regulation and the facts

529.   The issue under consideration in the present case is whether the PSI has breached its obligation under Articles 81(2) to give Regulators direct and immediate access to the details of derivatives contracts they need to fulfil their respective responsibilities and mandates.

530.   As set out above, the PSI's system allowed updates to open trade state data to occur before exports for the previous day had been completed. Thus, while the data sent to the PSI by submitting entities was correct, the trade state reports however included data whose correctness could not be ascertained. In particular, data provided to Regulators in a number of reports sent via TRACE and in CSV format could have contained[358] inaccuracies. The PSI estimated that 135 open trade state reports could have contained open trade data inclusive of the previous two days' of trades, rather than only data for the previous day.

531.   The Board takes into account the wording and the context of Article 81(2) of the Regulation.

532.   First, the wording of Article 81(2) is clear. The PSI has an obligation to provide Regulators with "direct and immediate access to the details of derivatives contracts they need to fulfil their respective responsibilities and mandates". The only limiting

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[357] See paragraph 466 of this Decision.
[358] The PSI could only provide estimates of the exact number of reports affected as it was unable to confirm the exact number of reports impacted by inaccuracies produced as a result of a 'crossed date in report generation', see Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 8.

factor, as set out in Article 81(2), to a Regulator's access is the Regulator's "responsibilities and mandates".

533.   Second, the drafting of Article 81(2) makes it clear that the details to be transmitted to the Regulators are those that help them fulfil their responsibilities and mandates. The Board notes that the provision operates in the context of the principal objective of introducing the reporting requirement under the Regulation, which is to ensure that Regulators have timely and complete access to the correct data in order to be able to perform their mandates and ensure financial stability. Indeed, providing Regulators with access to (potentially) incorrect data prevents them from fulfilling their mandates. In this context, it cannot have been the intention of the co-legislators to have created a reporting obligation that could be at best useless, if not misleading.

534.   For instance, as stated in the Recital 3 of the Implementing Regulation (EU) 2017/105, "in order to determine the real exposure of counterparties, competent authorities require complete and <u>accurate</u> information on the collateral exchanged between those counterparties […]".

535.   In the Board's view, where the integrity of the information provided to the Regulators is compromised due to the crossed date boundaries leading to unreliable information in the reports, Regulators' capacity to determine the real exposure of counterparties would also be affected.

536.   This means TRs should provide Regulators with the same details as counterparties and CCPs submit to them.

537.   It is therefore clear to the Board that, based on this provision and its contextual analysis, the details of derivatives contracts, which the Regulators must be provided access to, must also be correct and reliable, in order to allow the Regulators to fulfil their responsibilities and mandates.

538.   Based on the information available it is established that in 135 instances the date boundary was crossed and that due to the set-up of the PSI's system this could lead to data ticking over. This in turn could lead to the data included in a trade state report to be inaccurate. A Regulator receiving such a report could not determine whether the trade state report indeed included data from two days and the Board notes that the PSI has not been able to confirm whether any reports contained inaccuracies either. Thus, the data is unreliable after having passed through the PSI's internal system and a Regulator cannot use it for any risk assessment. The data sent to the PSI by submitting entities was correct, the trade state reports however included data whose correctness could not be ascertained, due to the PSI's internal set up leading to trade state report generation being affected by crossed date boundaries.

539.   In light of the above, the Board considers that by generating reports for Regulators that contained data that was not consistent with the data reported by the reporting parties or whose correctness could not be ascertained, the PSI failed to

provide Regulators with direct and immediate access to the details of derivative contracts reported to it under Article 9, in contravention of Article 81(2) of the Regulation.

540.   This constitutes the infringement set out at Point (b) of Section III of Annex I of the Regulation.

9.2 Intent or negligence

541.   The factual background of the present case does not establish that there are objective factors which demonstrate that the PSI, its employees or senior managers acted deliberately to commit the infringement.

542.   It should therefore be assessed whether the PSI acted with negligence.

9.3 Assessment of whether there is negligence in the present case

543.   Regarding the concept of negligence for the purposes of the Regulation, the Board refers to the developments provided above in section 4.

544.   Regarding the application to the infringement set out at Point (b) of Section III of Annex I of the Regulation, the Board notes the following.

545.   First, the Board notes that, as explained above, the provision of Article 81(2) of the Regulation is clear. A TR normally informed and sufficiently attentive in the PSI's position could not have failed to foresee that Article 81(2) requires correct and reliable reports to be provided to the Regulators.

546.   Second, a diligent TR (complying with the expected high standard of care) would have continuously performed controls over the proper functioning of the data extraction in the phase of the data extraction/generation of the reports, in order to ensure their correctness in view of their provision to the Regulators.

547.   In this regard, the Board acknowledges that notwithstanding the awareness of crossed date boundaries (March 2018), the incident raised by a member of the IT team (May 2018) and recognition of the impact of the data ticking over on the open trade state reports (September 2018) still in November 2019 the PSI's Resilience Plan acknowledged the need of a strategy focused on improved controls.

548.   Third, the Board further considers that the lack of care of the PSI in the design and implementation of a system that allowed the incorrect processing of the data in the phase of generation of the reports is relevant to establish the negligence in the provision of incorrect reports to the Regulators. The Board indeed finds that the negligence in the moment of the provision of the reports constitutes the necessary consequence, due to a cascading effect, of the lack of care of the PSI in the process of design and implementation of the system.

549.   Overall, on the basis of the elements described above, the Board considers that the PSI failed to take the special care expected of a TR. As a professional firm in the financial services sector subject to stringent regulatory requirements, the PSI is required to take special care in assessing the risks that its acts or omissions entail, and has failed to take that care; and as the result of that failure, it has not foreseen the consequences of its acts or omissions, including particularly its infringement of the Regulation, in circumstances where a TR in such a position that is normally informed and sufficiently attentive could not have failed to foresee those consequences.

550.   Therefore, the Board considers that the PSI has been negligent when committing the infringement of Point (b) of Section III of Annex I of the Regulation.

9.4 Fines

551.   The Board preliminary notes that the basic amount of the applicable fine is calculated taking as a reference the latest available official financial statements regarding the PSI's annual turnover in the business year preceding the year of the decision, as recommended by the Joint Board of Appeal of the three ESAs in its Decision of 28 December 2020. Thus, account is taken of the financial statements for the year ended 31 December 2020.

552.   The description of the basic amount of the fine as well as the assessment regarding the application of the aggravating and mitigating factors is set out below.

Determination of the basic amount

553.   Article 65 of the Regulation provides in paragraph 2[359] as follows:

"The basic amounts of the fines referred to in paragraph 1 shall be included within the following limits:

(a) for the infringements referred to in point (c) of Section I of Annex I and in points (c) to (g) of Section II of Annex I, and in points (a) and (b) of Section III of Annex I the amounts of the fines shall be at least EUR 10 000 and shall not exceed EUR 20 000 […]

In order to decide whether the basic amount of the fines should be at the lower, the middle or the higher end of the limits set out in the first subparagraph, ESMA shall have regard to the annual turnover of the preceding business year of the trade repository concerned. The basic amount shall be at the lower end of the limit for trade repositories whose annual turnover is below EUR 1 million, the middle of the

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[359] In this regard, the Board notes that with the entry into force of Regulation (EU) 2019/834, the amount of the fines to be imposed in case of an infringement of the Regulation has significantly increased. According to Article 1(16)(a) of Regulation (EU) 2019/834 "in Article 65, paragraph 2 is amended as follows: […] in point (a), 'EUR 20 000' is replaced by 'EUR 200 000';" However, this is not applicable to the present infringement because the facts occurred before the adoption and entry into force of Regulation (EU) 2019/834.

limit for the trade repository whose turnover is between EUR 1 and 5 million and the higher end of the limit for the trade repository whose annual turnover is higher than EUR 5 million."

554.   It has been established that the PSI negligently committed the infringement set out at Point (b) of Section III of Annex I of the Regulation, by not providing the regulators with direct and immediate access to the details reported to the PSI under Article 9 of the Regulation.

555.   To determine the basic amount of the fine, the Board has regard to the latest official financial statements regarding the annual turnover of the PSI.

556.   In 2020, the PSI had a turnover of GBP 3 652 963[360] (EUR 4 108 852[361]).

557.   Thus, the basic amount of the fine for the infringement listed in Point (b) of Section III of Annex I of the Regulation is set at the middle of the limit of the fine set out in Article 65(2)(a) of the Regulation at EUR 15 000.

Applicable aggravating factors

558.   Annex II of the Regulation lists the aggravating factors to be taken into consideration for the adjustment of the fine. The applicable aggravating factors in the present case are set out below.

<u>Annex II, Point I(b) if the infringement has been committed for more than six months, a coefficient of 1,5 shall apply.</u>

559.   The infringement lasted more than six months, i.e., at least since the first occurrence on 3 April 2018[362] of a crossed date boundary affecting open trade state reports until the PSI's system was fixed in December 2018. Therefore, the aggravating factor applies.

560.   In addition, the Board notes that the PSI "confirms that all outstanding reports have now been queued for regeneration[363]". The PSI further noted in its Response to the IIO's initial Statement of Findings that "As of 7 July 2020, […] all such historic reports have been regenerated and provided to the corresponding Regulators[364]".

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[360] UnaVista Limited, Report and Financial Statements for the year ended 31 December 2020.
[361] Based on the official exchange rate for GBP v EUR in 2020: 1.1248
https://www.ecb.europa.eu/stats/policy_and_exchange_rates/euro_reference_exchange_rates/html/eurofxref-graph-gbp.en.html
[362] Supervisory Report, Exhibit 26, Item 4 Annexure.
[363] Exhibit 11, PSI's Response to the IIO's First RFI, p. 25.
[364] Exhibit 74, PSI's Response to the IIO's initial Statement of Findings, p. 2.

<u>Annex II, Point I(c) if the infringement has revealed systemic weaknesses in the organisation of the trade repository, in particular in its procedures, management systems or internal controls, a coefficient of 2,2 shall apply.</u>

561.　　In addition to the analysis set out above in paragraphs 183 to 188, and the arguments raised by the PSI, the Board considered the design and testing of the PSI's system regarding the generation of trade state reports, and its ability to detect and to remedy the infringement regarding crossed date boundaries.

562.　　First, the Board notes that the infringement was the result of the setup of the PSI's IT infrastructure, which did not account for the possibility of reports running late so as to run into the next day. The PSI's IT system generated the open trade state data for reports even if not all exports for the previous day had been completed.

563.　　Second, the infringement reveals systemic weaknesses in the organisation of the PSI in relation to its procedures and management system. As recognised by the PSI, in relation to EMIR changes, "The Governance Process is not clearly documented in the Function process document[365]", including "Incomplete Post Project Review […and] Inconsistent evidence of 4 eyes checks of developed solutions[366]".

564.　　In particular, regarding the verification of changes, "The testing does not address the differences between the Testing and the Production environments. This is causing a number of issues when solutions are released into Production. This has affected the Open Trade Report ("OTR"): The deployment of a change into the production system resulted in delays and errors in reporting which then took around 3 months to address. This change (a fix) relating to the OTR was a compulsory regulatory requirement that was the subject of discussions with ESMA. Monthly System patches are not being tested thoroughly due to the lack of time and resources that were being used in the existing workloads[367]".

565.　　Third, further to a review in response to the concerns raised by ESMA, the PSI itself "identified monitoring as a weakness and that problems were too often identified manually by users. The review also identified the need to create more consistency and reliability of database query performance. Longer term Technology strategies continue to be established and will be communicated to ESMA once finalised[368]".

566.　　Fourth, the inability to implement such an important regulatory requirement points to a lack of resourcing, as recognised by the PSI: "we have identified a need to increase resources to the trade repository 'business as usual' maintenance team[369]". Following this, the PSI did increase its number of staff by making "multiple hires […] and, by December 2018, UnaVista had hired 24 new employees. UnaVista has

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[365] Exhibit 32, PSI's Response to the IIO's First RFI, 2018.85 Regulatory Changes UnaVista Final, p. 6.
[366] Exhibit 32, PSI's Response to the IIO's First RFI, 2018.85 Regulatory Changes UnaVista Final, p. 6.
[367] Exhibit 32, PSI's Response to the IIO's First RFI, 2018.85 Regulatory Changes UnaVista Final, p. 5.
[368] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), p. 3, point 11.
[369] Supervisory Report, Exhibit 51, LBR.0054743.0037.

continued to increase the size of the ["business as usual" maintenance team] in the New Office and, as of May 2020, such team comprises 42 employees[370]". It thus noted in November 2019, further to a review of its systems in response to the concerns raised by ESMA: "More dedicated resources for the EMIR TR change programme are in place […] An increased ring-fenced team is now in place to focus solely on change delivery for the EMIR TR[371]".

567.   Based on this, the Board identifies significant weaknesses regarding the PSI's organisation related to open trade state reports affected by crossed date boundaries. Given the importance of providing trade state reports to Regulators, these defects constitute "systemic weaknesses in the organisation" of the PSI.

568.   Thus, the Board considers that the aggravating factor is applicable.

Annex II, Point I(d) if the infringement has a negative impact on the quality of the data it maintains, a coefficient of 1,5 shall apply.

569.   In addition to the analysis set out above in paragraphs 201 and 202, the Board considers that due to the set-up of the PSI's system leading to issues with crossed date boundaries, Regulators experienced a de facto delay in receiving the reliable and correct information of more than one year. Such delays significantly reduce the quality of the data which is accessed and the use that can be made of this data. The data as a whole is deficient and incomplete.

570.   Based on this, the Board considers that the aggravating factor is applicable.

Applicable mitigating factors

571.   Annex II, Point II of the Regulation lists the mitigating factors to be taken into consideration for the adjustment of the fine. Their applicable mitigating factors in the present case are set out below.

Annex II, Point II(d) if the trade repository has voluntarily taken measures to ensure that a similar infringement cannot be committed in the future, a coefficient of 0,6 shall apply.

572.   As explained above[372], the Board considers that a number of remedial actions have been taken by the PSI regarding this infringement. The Board considers that these remedial actions should ensure that a similar infringement cannot be committed in the future.

573.   In addition to the analysis in paragraphs 218 to 220 above and the PSI's description of actions taken, the Board notes that the PSI was not under a specific obligation (other than its obligation to comply with the Regulation) to take the measures

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[370] Exhibit 11, PSI's Response to the IIO's First RFI, p. 23.
[371] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), p. 3, point 7.
[372] Please refer to paragraphs 513 – 516215 of this Decision

set out above; for example, there was no decision from ESMA ordering the PSI to update its system to prevent crossed date boundaries.

574.   Therefore, the Board considers that the PSI has voluntarily taken measures to ensure that a similar infringement cannot be committed in the future. The mitigating factor is thus applicable.

Determination of the adjusted fine

575.   In accordance with Article 65(3) of the Regulation, taking into account the applicable aggravating and mitigating factors, the basic amount of EUR 15 000 must be adjusted as follows.

576.   The difference between the basic amount and the amount resulting from the application of each individual coefficient linked to the aggravating factors set out in Annex II, Point I(b), Point I(c) and Point I(d) and the mitigating factor set out in Annex II, Point II(d) is added to the basic amount in the case of the aggravating factor and subtracted from the basic amount in the case of the mitigating factor:

Aggravating factor set out in Annex II, Point I(b):

EUR 15 000 x 1,5 = EUR 22 500

EUR 22 500 – EUR 15 000 = EUR 7 500

Aggravating factor set out in Annex II, Point I(c):

EUR 15 000 x 2,2 = EUR 33 000

EUR 33 000 – EUR 15 000 = EUR 18 000

Aggravating factor set out in Annex II, Point I(d):

EUR 15 000 x 1,5 = EUR 22 500

EUR 22 500 – EUR 15 000 = EUR 7 500

Mitigating factor set out in Annex II, Point II(d):

EUR 15 000 x 0,6 = EUR 9 000

EUR 15 000 – EUR 9 000 = EUR 6 000

Adjusted fine taking into account applicable aggravating and mitigating factors:

EUR 15 000 + EUR 7 500 + EUR 18 000 + EUR 7 500 – EUR 6 000 = EUR 42 000

577.   Consequently, following adjustment by taking into account the applicable aggravating and mitigating factors, the amount of the fine to be imposed on the PSI would amount to EUR 42 000.

9.5 Application of the fine

578.   The Board notes that Article 65(4) of the Regulation, second paragraph, provides that "Where an act or omission of a trade repository constitutes more than one infringement listed in Annex I, only the higher fine calculated in accordance with paragraphs 2 and 3 and relating to one of those infringements shall apply".

579.   The Board considers that the infringement related to the PSI's crossed date boundaries incident that altered the substance of the data reported (established by the Board above in section 8) and the present infringement due to the PSI submitting reports to Regulators containing data that was inconsistent with the information received under Article 9 of the Regulation, despite being autonomous, are stemming from the same crossed date boundaries incident.

580.   Article 65(4) of the Regulation, second paragraph, is applicable regarding the fines calculated for the infringements by the PSI related to the PSI's crossed date boundaries incident that altered the substance of the data reported and the PSI submitting reports to Regulators containing data that was inconsistent with the information received. Only the highest fine should be imposed, and since in this case the two fines are of the same amount, only one fine of EUR 42 000 should be imposed.

9.6 Public notice

581.   Regard must be had to Article 73, paragraphs 1 and 2, of the Regulation.

582.   Given the factual findings in the present case and in particular the fact that the PSI permanently solved the issue in December 2018, in addition to the imposition of the fine, the only other supervisory measure considered appropriate with regard to the nature and the seriousness of the infringement is the adoption of a public notice as set out in Article 73(1)(c) of the Regulation.

583.   It must thus be held that a public notice is to be issued.

10 Findings of the Board with regard to the facts related to missed trade state reports

584.   In this section the Board analyses whether the PSI breached the following requirement:

"A trade repository shall collect and maintain data and shall ensure that the entities referred to in paragraph 3 have direct and immediate access to the details of derivatives contracts they need to fulfil their respective responsibilities and mandates" (Article 81(2) of the Regulation).

585.   If this requirement is not met, this would constitute the infringement set out at Point (b) of Section III of Annex I of the Regulation.

10.1 Analysis of the relevant provisions of the Regulation and the facts

586.   The Board takes into account the wording and the context of Article 81(2) of the Regulation.

587.   As set out above in section 2.5, Regulators could request reports to be provided on a regular basis at consistent periodic time intervals defined by each Regulator[373]. In this regard, due to multiple issues, 87 reports via TRACE and 415 reports in CSV format were not sent because of missed exports.[374]

588.   First, the wording of Article 81(2) is clear. The PSI has an obligation to provide Regulators with "direct and immediate access to the details of derivatives contracts they need to fulfil their respective responsibilities and mandates".

589.   Second, from 1 November 2017, Delegated Regulation (EU) No 151/2013 (as amended by Delegated Regulation (EU) 2017/1800) explicitly includes in Article 5 direct and immediate access to trade state reports and provides further specifications regarding the operational standard for access to trade state reports to be provided to Regulators.

590.   In this regard, Recital 7 of Delegated Regulation (EU) 2017/1800 clarifies the importance of trade state reports, stating that "Data concerning the latest trade state of derivatives contracts with open interest is essential for monitoring financial stability and systemic risk. Therefore, the relevant entities should have access to that data."

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[373] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, pp. 3-4.
[374] Supervisory Report, Exhibit 26, Item 4 Annexure and Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 18.

591.   In particular, according to Article 5(4) of Delegated Regulation (EU) No 151/2013, TRs must "provide the entities listed in Article 81(3) of Regulation (EU) No 648/2012 with access to […] the latest trade states of derivatives contracts that have not matured or which have not been the subject of a report with Action type 'E', 'C', 'P' or 'Z' as referred to in field 93 in Table 2 of the Annex to Commission Implementing Regulation (EU) No 1247/2012".

592.   More specifically, regarding open trade state reports provided on a regular basis, Article 5(5) of Delegated Regulation (EU) No 151/2013 (as amended by Delegated Regulation (EU) 2017/1800) provides that TRs must "establish and maintain the necessary technical arrangements to enable the entities listed in Article 81(3) of Regulation (EU) No 648/2012 to establish predefined periodic requests to access details of derivatives contracts, as determined in paragraph 4, necessary for those entities to fulfil their responsibilities and mandates."

593.   Further, according to Article 5(6) of Delegated Regulation (EU) No 151/2013 (as amended by Delegated Regulation (EU) 2017/1800), TRs must "Upon request […] provide the entities listed in Article 81(3) of Regulation (EU) No 648/2012 with access to details of derivatives contracts according to any combination of the following fields[375] as referred to in the Annex to Implementing Regulation (EU) No 1247/2012".

594.   Third, Delegated Regulation (EU) No 151/2013 (as amended by Delegated Regulation (EU) 2017/1800) also provides clear timelines for the access to be established. According to its Article 5(7), TRs must "establish and maintain the technical capability to provide direct and immediate access to details of derivatives contracts necessary for the entities listed in Article 81(3) of Regulation (EU) No 648/2012 to fulfil their mandates and responsibilities. That access shall be provided as follows: (a) where an entity listed in Article 81(3) of Regulation (EU) No 648/2012 requests access to details of outstanding derivatives contracts […], a trade repository shall fulfil that request no later than 12:00 Universal Coordinated Time on the first calendar day following the day on which the request to access is submitted. […]"

595.   Therefore, in the Board's view, in agreement with the IIO, in order to comply with Article 81(2) of the Regulation and Article 5 of Delegated Regulation (EU) No 151/2013 (as amended by Delegated Regulation (EU) 2017/1800), the PSI had to provide Regulators with open trade state reports (requested by Regulators periodically or on an ad hoc basis) no later than 12:00 Universal Coordinated Time (UCT) on the first calendar day following the day on which the request to access is submitted.

596.   As set out above in section 2.6, because of missed exports, the PSI did not send 87 open trade state reports to Regulators via TRACE and 415 open trade state reports

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[375] These are (a) reporting timestamp; (b) reporting Counterparty ID; (c) ID of the other Counterparty; (d) corporate sector of the reporting counterparty; (e) nature of the reporting counterparty; (f) broker ID; (g) report submitting entity ID; (h) beneficiary ID; (i) asset class; (j) product classification; (k) product identification; (l) underlying identification; (m) venue of execution; (n) execution timestamp; (o) maturity date; (p) termination date; (q) CCP; and (r) action type.

in CSV.[376] In this regard, based on the PSI's estimates, 47 trade state reports were not sent due to issues with GPGSM encryption, three trade state reports were not sent due to issues with disk space, 115 trade state reports were not sent due to issues with database stability and performance[377]. The remainder of the missed reports was due to other issues recognised by the PSI: "the trade repository processor was stopped, […]; a network issue which caused a renaming file error as the connection to the server was reset […]; an unscheduled server reset occurred due to the installation of software upgrades [… and]; a user account was deleted from the portal"[378]. Regulators did not have access to the correct open trade state reports by 12:00 UCT on the first calendar day following the day on which the request to access is submitted.

597.   The Board thus finds that the PSI committed the infringement set out at Point (b) of Section III of Annex I of the Regulation.

598.   The infringement has been committed each time that, due to a distinct root cause, the PSI did not provide to Regulators the correct open trade state reports by 12:00 UCT of the first calendar day following the day on which the request to access was submitted.

599.   The Board thus finds that the infringement set out at Point (b) of Section III of Annex I of the Regulation was committed seven times, i.e. when the PSI did not provide to Regulators the correct open trade state reports by 12:00 UCT on the first calendar day following the day on which the request to access was submitted due to the errors caused by the (i) GPGSM encryption, (ii) disk space issues, (iii) database stability and performance issues, (iv) processor issues, (v) network issues, (vi) server reset, (vii) user account deletion.

10.2 Intent or negligence

600.   The factual background of the present case does not establish that there are objective factors which demonstrate that the PSI, its employees or senior managers acted deliberately to commit the infringement.

601.   It should therefore be assessed whether the PSI acted with negligence.

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[376] Supervisory Report, Exhibit 26, Item 4 Annexure and Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 18.
[377] Supervisory Report, Exhibit 26, Item 4 Annexure and Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 18. The PSI identified other secondary root causes and in a number of instances did not identity a specific root cause, please see Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, pp. 14-15.
[378] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, pp. 14

10.3 Assessment of whether there is negligence in the present case

602.   Regarding the concept of negligence for the purposes of the Regulation, the Board refers to the developments provided above in section 4.

603.   Regarding the application to the infringement set out at Point (b) of Section III of Annex I of the Regulation, the Board notes the following.

604.   First, the Board notes that the Regulation, as well as the requirements of Delegated Regulation (EU) No 151/2013, are clear on a simple reading. To comply with Article 81(2) of the Regulation and Article 5 of Delegated Regulation (EU) No 151/2013 (as amended by the Delegated Regulation (EU) 2017/1800) an attentive reading of the provisions of the legislation would have been sufficient.

605.   Furthermore, during the drafting process for Delegated Regulation (EU) 2017/1800 (among others), ESMA consulted with the industry, and the PSI participated in these consultations[379]. A TR normally informed and sufficiently attentive in the PSI's position could not have failed to foresee the requirements of Article 81(2) of the Regulation.

606.   Indeed, before the 1 November 2017 implementation date, as set out above in Section 2.6, the PSI "considered the new obligations which came into force on 1 November 2017 as part of Compliance and Management meetings throughout 2016 and 2017[380]".

607.   Second, the PSI undertook many of its tasks manually, which carried an inherent risk for errors, especially as the number of reports submitted, and thus to be handled, increased. The PSI should have been aware of these risks. As set out in ESMA Final Report of 5 April 2016, "Authorities will need to have direct and immediate access to the data reported to the TRs even outside the TR's opening hours. For this reason, automation of the systems and avoidance of manual interventions is essential[381]".

608.   For example, while the PSI's monitoring system [redacted] monitored, categorised and prioritised exceptions, these "exceptions are then investigated by a member of the UnaVista support team in order of priority[382]". In particular, regarding the GPGSM encryption, "which periodically hung due to a defect in the GPGSM

[379] Exhibit 52, ESMA Supervisors' First Response to the IIO, Response to the ESMA Consultation Paper on Draft Technical Standards on access to data and aggregation and comparison of data across TR under Article 81 of EMIR (data_access_2015-1866_pdf_2016.01.29).
[380] Exhibit 11, PSI's Response to the IIO's First RFI, p. 8. See also, Exhibit 58, PSI's Response to the IIO's First RFI, UnaVista Compliance and Management Meeting Minutes 22 August 2016, Exhibit 59, PSI's Response to the IIO's First RFI, UnaVista Compliance and Management Meeting Minutes 24 January 2017, Exhibit 60, PSI's Response to the IIO's First RFI, UnaVista Compliance and Management Meeting Minutes 27 February 2017, and Exhibit 61, PSI's Response to the IIO's First RFI, UnaVista Compliance and Management Meeting Minutes 27 March 2017.
[381] Exhibit 67, ESMA/2016/422, ESMA Final Report on Draft technical standards on access to data and aggregation and comparison of data across TR under Article 81 of EMIR, 5 April 2016, p. 15.
[382] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 12.

software […] all GPGSM processes hung until the GPG-agent was terminated manually by UnaVista staff[383]".

609. Moreover, while the UnaVista monitoring system [redacted] monitored the space on the drive, "Data was manually archived when the drive was close to full capacity[384]". This meant that "when there was an unexpected spike in the size and volume of TRACE reports […] there was not enough space on the F drive for the reports to be generated and stored[385]". The PSI was already aware of this issue in October 2017, when an employee of the PSI informed ESMA Supervisors that "Monitoring of disk space is a simple task, but following a change in staff in our Support team, this procedure wasn't followed correctly. Whilst we can never fully mitigate against this type of issue, we have identified a need to increase resources to the trade repository "business as usual" maintenance team[386]".

610. In another instance, regarding specifically the provision of a missing open trade state report, the resending of the reports failed because "the labelling of the report was done manually and incorrectly[387]".

611. More generally, the PSI recognised, further to a review in response to the concerns raised by ESMA, "monitoring as a weakness and that problems were too often identified manually by users. The review also identified the need to create more consistency and reliability of database query performance[388]".

612. Third, as set out above, when implementing the provision of open trade state reports via TRACE, the PSI undertook the work in several phases. As such the PSI explained that "The roll-out of each of the TRACE Phases was underpinned by technical improvements to the TR system. […] To ensure that the TRACE Phases were rolled-out correctly, various testing was carried out at the different stages of the process. In respect of TRACE Phase 1, the Quality Assurance team carried out load and performance tests, as well as certain tests verifying filenames and versions. In respect of TRACE Phase 2, ESMA provided sample ad-hoc query files to UnaVista, which were routed through the new functionality by the Solutions team, in order to test the end to end workflow and verify that the resulting test files were correct[389]".

613. However, these tests did not reveal the issues caused by failures regarding the GPGSM encryption, disk space, database stability and performance. Indeed, an internal audit from February 2019 regarding the "Implementation of EMIR Regulatory Change activities" found that the "testing of the solution designs does not sufficiently account for the significant difference between the testing platform and the production platform. This is causing inefficiencies and errors after GO LIVE. […] This lack of testing

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[383] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 12.
[384] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, pp. 12-13.
[385] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 13.
[386] Supervisory Report, Exhibit 51, LBR.0054743.0037.
[387] Supervisory Report, Exhibit 11, Update on several matters.
[388] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), p. 3, point 11.
[389] Exhibit 11, PSI's Response to the IIO's First RFI, pp. 14-15.

can cause efficiency issues or even cause errors preventing the reports from being generated[390]".

614.   Fourth, the PSI should have realised that there was a problem, once an issue led to reports not being sent. For example, issues with disk space led to missed exports already for the first time on 13 November 2017, while issues with database performance occurred for the first time on 6 January 2018, issues with the GPGSM encryption on 27 February 2018, and issues with the database stability on 7 March 2018[391]. A TR normally informed and sufficiently attentive in the PSI's position could not have failed to foresee that such issues could lead to delays and missed exports.

615.   Finally, the PSI further stated that it "is unable to confirm the exact date on which these incidents were "discovered". However, UnaVista has seen internal email correspondence dated as early as 19 March 2018 demonstrating that there was an awareness prior to 30 October 2018 of the underlying root causes of the incidents (i.e. locked data, disk space, database stability, performance […]) and an understanding of the impact these underlying root causes had on open trade state reports (at least in respect of disk space, performance and crossed date boundaries). In particular, UnaVista notes that the underlying root causes of disk space, performance and crossed date boundaries, and their impact on open trade state reports, were escalated to UnaVista's Compliance team[392]".

616.   Overall, on the basis of the elements described above, the Board, in line with the IIO, considers that the PSI failed to take the special care expected of a TR. As a professional firm in the financial services sector subject to stringent regulatory requirements, the PSI is required to take special care in assessing the risks that its acts or omissions entail, and has failed to take that care; and as the result of that failure, it has not foreseen the consequences of its acts or omissions, including particularly its infringement of the Regulation, in circumstances where a TR in such a position that is normally informed and sufficiently attentive could not have failed to foresee those consequences.

617.   Therefore, it is considered that the PSI has been negligent when committing the infringement at Point (b) of Section III of Annex I of the Regulation.

10.4 Fines

618.   The Board preliminary notes that the basic amount of the applicable fine is calculated taking as a reference the latest available official financial statements regarding the PSI's annual turnover in the business year preceding the year of the

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[390] Exhibit 32, PSI's Response to the IIO's First RFI, 2018.85 Regulatory Changes UnaVista Final, p. 2.
[391] Please see Supervisory Report, Exhibit 26, Item 4 Annexure.
[392] Exhibit 13, PSI's Response to the IIO's Second RFI, p. 10.

decision, as recommended by the Joint Board of Appeal of the three ESAs in its Decision of 28 December 2020. Thus, account is taken of the financial statements for the year ended 31 December 2020.

619.   The description of the basic amount of the fine as well as the assessment regarding the application of the aggravating and mitigating factors is set out below.

Determination of the basic amount

620.   Article 65 of the Regulation provides in paragraph 2[393] as follows:

"The basic amounts of the fines referred to in paragraph 1 shall be included within the following limits:

(a) for the infringements referred to in point (c) of Section I of Annex I and in points (c) to (g) of Section II of Annex I, and in points (a) and (b) of Section III of Annex I the amounts of the fines shall be at least EUR 10 000 and shall not exceed EUR 20 000 […]

In order to decide whether the basic amount of the fines should be at the lower, the middle or the higher end of the limits set out in the first subparagraph, ESMA shall have regard to the annual turnover of the preceding business year of the trade repository concerned. The basic amount shall be at the lower end of the limit for trade repositories whose annual turnover is below EUR 1 million, the middle of the limit for the trade repository whose turnover is between EUR 1 and 5 million and the higher end of the limit for the trade repository whose annual turnover is higher than EUR 5 million."

621.   It has been established that the PSI negligently committed the infringement set out at Point (b) of Section III of Annex I of the Regulation, by not providing regulators with direct and immediate access to the details reported to the PSI under Article 9 of the Regulation.

622.   To determine the basic amount of the fine, the Board has regard to the latest official financial statements regarding the annual turnover of the PSI.

623.   In 2020, the PSI had a turnover of GBP 3 652 963 [394] (EUR 4 108 852[395]).

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[393] In this regard, the Board notes that with the entry into force of Regulation (EU) 2019/834, the amount of the fines to be imposed in case of an infringement of the Regulation has significantly increased. According to Article 1(16)(a) of Regulation (EU) 2019/834 "in Article 65, paragraph 2 is amended as follows: […] in point (a), 'EUR 20 000' is replaced by 'EUR 200 000';" However, this is not applicable to the present infringement because the facts occurred before the adoption and entry into force of Regulation (EU) 2019/834.

[394] UnaVista Limited, Report and Financial Statements for the year ended 31 December 2020.

[395] Based on the official exchange rate for GBP v EUR in 2020: 1.1248 https://www.ecb.europa.eu/stats/policy_and_exchange_rates/euro_reference_exchange_rates/html/eurofxref-graph-gbp.en.html

624.   Thus, the basic amount of the fine for the infringement listed in Point (b) of Section III of Annex I of the Regulation is set at the middle of the limit of the fine set out in Article 65(2)(a) of the Regulation at EUR 15 000.

Applicable aggravating factors

625.   Annex II of the Regulation lists the aggravating factors to be taken into consideration for the adjustment of the fine. The applicable aggravating factors in the present case are set out below.

<u>Annex II, Point I(a) if the infringement has been committed repeatedly, for every time it has been repeated, an additional coefficient of 1,1 shall apply</u>

626.   The Board considers that the infringement set out in Point (b) of Section III of Annex I of the Regulation has been committed each time that due to a distinct root cause the PSI did not provide to Regulators the correct open trade state reports by 12:00 UCT on the first calendar day following the day on which the request to access was submitted.

627.   The Board thus finds that the infringement was committed when the PSI did not provide to Regulators the correct open trade state reports by 12:00 UCT on the first calendar day following the day on which the request to access was submitted due to issues with the GPGSM encryption, disk space, database stability and performance, processor issues, network issues, server reset, and user account deletion.

628.   Therefore, the infringement is considered to have been committed seven times.

629.   Putting aside the first time the PSI has committed the infringement, it has thus been repeated six times.

630.   The Board considers that this aggravating factor is applicable.

<u>Annex II, Point I(b) if the infringement has been committed for more than six months, a coefficient of 1,5 shall apply.</u>

631.   The infringement lasted at least from the first known occurrence of the root cause. The Board in particular considers the following:[396]

- issues with disk space first occurred on 13 November 2017 and were permanently resolved in January 2019;

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[396] Please see Supervisory Report, Exhibit 26, Item 4 Annexure.

- issues with database stability and performance first occurred on 6 January 2018 and were permanently resolved on 3 October 2018[397]; and

- issues with the GPGSM encryption first occurred on 27 February 2018 and were permanently resolved on 14 April 2018[398],

- issue relating to the deletion of user account affected reports from 1 November 2017 to 23 May 2018[399]

632.   While the Board, in line with the IIO, notes that regarding the infringement due to the GPGSM encryption the time between the first occurrence and the permanent fix lasted less than six months, consideration must also be given to the submission of trade state reports to the Regulators. In this regard, for all of the root causes, the affected trade state reports were only submitted to the Regulators from 1 October 2018[400]. Therefore, the aggravating factor applies.

633.   In addition, the Board notes that the PSI "confirms that all outstanding reports have now been queued for regeneration[401]". The PSI further noted in its Response to the IIO's initial Statement of Findings that "As of 7 July 2020, […] all such historic reports have been regenerated and provided to the corresponding Regulators[402]".

Annex II, Point I(c) if the infringement has revealed systemic weaknesses in the organisation of the trade repository, in particular in its procedures, management systems or internal controls, a coefficient of 2,2 shall apply.

634.   In addition to the analysis set out above in paragraphs 183 to 188, and the arguments raised by the PSI, the Board considered the design and testing of the PSI's system regarding the provision of trade state reports, and its ability to detect and to remedy the infringement.

635.   First, the Board notes that the infringement was the result of a number of system failures regarding the GPGSM encryption, disk space, database stability and performance, processor issues, network issues, server reset, user account deletion, all together leading to missed exports of the PSI's open trade state reports.

636.   While it is not clear whether these errors were due to the defective design of the IT system, the infringement indicates underlying problems with the PSI's IT infrastructure, in particular the review of changes and the monitoring of its functioning.

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[397] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 16. The issue was fixed by amending the code which determines the TR System's database's functionality. Such code has been optimised and the paired trade field differencing was run in batches. The implementation occurred through an UnaVista platform change request which amended two procedures involved in the matching and differencing of data.
[398] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, p. 16.
[399] Please see Supervisory Report, Exhibit 26, Item 4 Annexure.
[400] Please see Supervisory Report, Exhibit 38, Item 11 Annexure.
[401] Exhibit 11, PSI's Response to the IIO's First RFI, p. 25.
[402] Exhibit 74, PSI's Response to the IIO's initial Statement of Findings, p. 2.

637. Regarding the review of changes to the provision of open trade state reports, the PSI found in an internal audit that "The testing does not address the differences between the Testing and the Production environments. This is causing a number of issues when solutions are released into Production. This has affected the Open Trade Report ("OTR"): The deployment of a change into the production system resulted in delays and errors in reporting which then took around 3 months to address. This change (a fix) relating to the OTR was a compulsory regulatory requirement that was the subject of discussions with ESMA. Monthly System patches are not being tested thoroughly due to the lack of time and resources that were being used in the existing workloads.[403]".

638. Moreover, regarding the monitoring of the IT system, further to a review in response to the concerns raised by ESMA, the PSI itself "identified monitoring as a weakness and that problems were too often identified manually by users. The review also identified the need to create more consistency and reliability of database query performance[404]". The Board agrees with the IIO and considers this to reveal systemic weaknesses in the PSI's organisation.

639. Second, the infringement reveals systemic weaknesses in the organisation of the PSI in relation to its procedures and management system. As recognised by the PSI, in relation to EMIR changes, "The Governance Process is not clearly documented in the Function process document[405]" and thus there is a "risk that processes or manual work-arounds are inadequate to support the volume or complexity of business operations or fail to meet legal or regulatory obligations[406]". In particular, the findings included "Incomplete Post Project Review […and] Inconsistent evidence of 4 eyes checks of developed solutions[407]".

640. Third, the inability to ensure the smooth implementation of such an important regulatory requirement as the production of trade state reports points to a lack of resourcing, as recognised by the PSI: "we have identified a need to increase resources to the trade repository 'business as usual' maintenance team[408]". Further to this, the PSI did increase its number of staff by making "multiple hires […] and, by December 2018, UnaVista had hired 24 new employees. UnaVista has continued to increase the size of the ["business as usual" maintenance team] in the New Office and, as of May 2020, such team comprises 42 employees[409]". It thus noted in November 2019, further to a review of its systems in response to the concerns raised by ESMA: "More dedicated resources for the EMIR TR change programme are in place […] An increased ring-fenced team is now in place to focus solely on change delivery for the EMIR TR[410]".

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[403] Exhibit 32, PSI's Response to the IIO's First RFI, 2018.85 Regulatory Changes UnaVista Final, p. 5.
[404] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), p. 3, point 11.
[405] Exhibit 32, PSI's Response to the IIO's First RFI, 2018.85 Regulatory Changes UnaVista Final, p. 6.
[406] Exhibit 32, PSI's Response to the IIO's First RFI, 2018.85 Regulatory Changes UnaVista Final, p. 6.
[407] Exhibit 32, PSI's Response to the IIO's First RFI, 2018.85 Regulatory Changes UnaVista Final, p. 6.
[408] Supervisory Report, Exhibit 51, LBR.0054743.0037.
[409] Exhibit 11, PSI's Response to the IIO's First RFI, p. 23.
[410] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), p. 3, point 7.

641.   Fourth, the PSI has encountered issues even after the end of the period under investigation and since the implementation of the resolutions of the root causes. The PSI acknowledged that "the affected reports have been late[411]".

642.   Based on this, the Board identifies significant weaknesses regarding the PSI's dispatch of open trade state reports. Given the importance of providing trade state reports to Regulators, these defects constitute "systemic weaknesses in the organisation" of the PSI.

643.   Thus, the Board considers that the aggravating factor is applicable.

<u>Annex II, Point I(d) if the infringement has a negative impact on the quality of the data it maintains, a coefficient of 1,5 shall apply.</u>

644.   In addition to the analysis set out above in paragraphs 201 and 201, the Board agrees with the IIO and considers that due to missed exports of trade state reports, Regulators experienced a de facto delay in receiving the information, in some cases of up to more than two years. Such delays significantly reduce the quality of the data which is accessed and the use that can be made of this data. The data as a whole is deficient and incomplete.

645.   Based on this, the Board considers that the aggravating factor is applicable.

Applicable mitigating factors

646.   Annex II of the Regulation lists the mitigating factors to be taken into consideration for the adjustment of the fine. The Board agrees with the IIO's findings and considers that no mitigating factors are applicable.

Determination of the adjusted fine

647.   In accordance with Article 65(3) of the Regulation, taking into account the applicable aggravating and mitigating factors, the basic amount of EUR 15 000 must be adjusted as follows.

648.   The difference between the basic amount and the amount resulting from the application of each individual coefficient linked to the aggravating factors set out in Point I(a), Point I(b),v Point I(c) and Point I(d) of Annex II is added to the basic amount:

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[411] Exhibit 11, PSI's Response to the IIO's First RFI, pp. 23-24.

Aggravating factor set out in Annex II, Point I(a):

EUR 15 000 x 1,1 = EUR 16 500

EUR 16 500 – EUR 15 000 = EUR 1 500

6 repetitions: 6 x EUR 1 500 = EUR 9 000

Aggravating factor set out in Annex II, Point I(b):

EUR 15 000 x 1,5 = EUR 22 500

EUR 22 500 – EUR 15 000 = EUR 7 500

Aggravating factor set out in Annex II, Point I(c):

EUR 15 000 x 2,2 = EUR 33 000

EUR 33 000 – EUR 15 000 = EUR 18 000

Aggravating factor set out in Annex II, Point I(d):

EUR 15 000 x 1,5 = EUR 22 500

EUR 22 500 – EUR 15 000 = EUR 7 500

Adjusted fine taking into account applicable aggravating factors:

EUR 15 000 + EUR 9 000 + EUR 7 500 + EUR 18 000 + EUR 7 500 = EUR 57 000

649.   Consequently, following adjustment by taking into account the applicable aggravating factors, the amount of the fine to be imposed on the PSI would amount to EUR 57 000.

10.5 Public notice

650.   Regard must be had to Article 73, paragraphs 1 and 2, of the Regulation.

651.   Given the factual findings in the present case and in particular the fact that the PSI permanently solved the issue by January 2019, in addition to the imposition of the fine, the only other supervisory measure considered appropriate with regard to the nature and the seriousness of the infringement is the adoption of a public notice as set out in Article 73(1)(c) of the Regulation.

652.   It must thus be held that a public notice is to be issued.

11 Findings of the Board with regard to the facts related to missed historic trade state reports

653.   In this section the Board analyses whether the PSI breached the following requirement:

"A trade repository shall collect and maintain data and shall ensure that the entities referred to in paragraph 3 have direct and immediate access to the details of derivatives contracts they need to fulfil their respective responsibilities and mandates" (Article 81(2) of the Regulation).

654.   If this requirement is not met, this would constitute the infringement set out at Point (b) of Section III of Annex I of the Regulation.

11.1 Analysis of the relevant provisions of the Regulation and the facts

655.   As set out above in section 2.7, the PSI could not provide ad hoc open trade state reports for historical data before 2 October 2018[412]. From 2 October 2018, the PSI provided ad hoc open trade state reports for historical trades as far back as 1 November 2017[413], and currently as far back as 2014.

656.   The Board refers to the analysis of the Regulation set out in section 10 above, as such TR's obligations regarding open trade state reports are clear.

657.   Notably, as set out above, Recital 7 of Delegated Regulation (EU) 2017/1800 clarifies the importance of trade state reports, stating that "Data concerning the latest trade state of derivatives contracts with open interest is essential for monitoring financial stability and systemic risk. Therefore, the relevant entities should have access to that data."

658.   Upon the amendments to Delegated Regulation (EU) No 151/2013 (via amendment by Delegated Regulation (EU) 2017/1800), explicit timing requirements were introduced concerning the provision of reports to Regulators, distinguishing requests for current, historic and mixed (i.e., containing both, current and historic) data.

659.   Specifically, the distinction between such different requests has been introduced in Article 5(7) of Delegated Regulation (EU) No 151/2013, by providing separate deadlines for provision of such data. The historic data is covered under point (b) of Article 5(7), which provides that "where an entity listed in Article 81(3) of Regulation (EU) No 648/2012 requests access to details of derivatives contracts which have either matured or for which reports with action types 'E', 'C', 'Z' or 'P' as referred

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[412] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, pp. 4 and 10, Supervisory Report, Exhibit 34, LBR.0015694, Supervisory Report, Exhibit 35, LBR.0000156 and Supervisory Report, Exhibit 36, LBR.000156.0001, please also see Exhibit 11, PSI's Response to the IIO's First RFI, p. 15.
[413] Supervisory Report, Exhibit 07, Letter to ESMA dated 14 December 2018, pp. 4-5 and Supervisory Report, Exhibit 25, Item 2 Annexure.

to in field 93 in Table 2 of the Annex to Implementing Regulation (EU) No 1247/2012 were made more than one year before the date on which the request was submitted, a trade repository shall fulfil that request no later than three working days after the request to access is submitted."

660.   It is therefore clear from Article 5(7), point (b) of Delegated Regulation (EU) No 151/2013 that the Regulators must be provided with access to also historic data, meaning "details of derivatives contracts which have either matured or for which reports with action types 'E', 'C', 'Z' or 'P' as referred to in field 93 in Table 2 of the Annex to Implementing Regulation (EU) No 1247/2012 were made more than one year before the date on which the request was submitted".

661.   As set out above, the PSI did not have a functionality to provide such historic data and therefore the Regulators did not have access to the historic trade state reports within the deadline prescribed by Delegated Regulation (EU) 151/2013 (i.e., no later than three working days after the request for access is submitted).

662.   The Board therefore finds that the PSI committed the infringement set out at Point (b) of Section III of Annex I of the Regulation.

11.2 Intent or negligence

663.   The factual background as set out in this Statement of Findings does not establish that there are objective factors which demonstrate that the PSI, its employees or senior managers acted deliberately to commit the infringement.

664.   It should therefore be assessed whether the PSI acted with negligence.

11.3 Assessment of whether there is negligence in the present case

665.   Regarding the concept of negligence for the purposes of the Regulation, the Board refers to the developments provided above in section 4.

666.   Regarding the application to the infringement set out at Point (b) of Section III of Annex I of the Regulation, the Board notes the following.

667.   First, the Board notes that the Regulation, as well as the requirements of Delegated Regulation (EU) No 151/2013, are clear on a simple reading. To comply with Article 81(2) of the Regulation and Article 5 of Delegated Regulation (EU) No 151/2013 (as amended by Delegated Regulation (EU) 2017/1800) an attentive reading of the provisions of the Regulation would have been sufficient.

668.   Second, during the drafting process for Delegated Regulation (EU) 2017/1800 (among others), ESMA consulted with the industry, and the PSI participated in these consultations. A TR normally informed and sufficiently attentive in the PSI's position could not have failed to foresee the requirements of Article 81(2) of the Regulation.

669.   The consultation clearly set out the split approach regarding maturity (and time elapsed)[414], and while the PSI did not agree with the approach, it was aware of the obligations coming into force. In particular, it stated that "We do not agree with separation of SLAs according to trade maturity and we would suggest that a single unified approach would be more processing effective. We would also recommend that more details on records should be included in the 07:00 UTC deadline on the day following the one on which the specific request to access is submitted, as most firms report till midnight on T+1[415]".

670.   Ultimately however, as set out in ESMA's Final Report of 5 April 2016, "In particular, ESMA proposed to have two deadlines depending on whether the data requested is expected to contain historical data or not. […] In the case of transaction data regarding derivative contracts which have matured or for which submissions with action types "E", "C", "Z" or "P" were made more than one year before the date on which the request was submitted, the authorities should be provided with access no later than three working days after the specific request to access is submitted to the TR. Given that TRs might use different recordkeeping procedures for this type of data and the authorities might not directly need this type of data for the assessment of current market events or exposures of entities, the timeline for the provision is significantly greater although sufficient to allow the authorities to have direct and immediate access[416]".

671.   Both, the Final Report[417] as well as Delegated Regulation (EU) 2017/1800 recognised the need for the industry to adapt to the new requirements. In particular, Recital 11 of Delegated Regulation (EU) 2017/1800 read "[t]he application of the provisions laid down in this Delegated Regulation should be deferred in order to facilitate the adaptations of systems by trade repositories to the specifications laid down in this Delegated Regulation."

672.   Clearly, based on this, a TR normally informed and sufficiently attentive in the PSI's position could not have failed to foresee the requirements of Article 81(2) of the Regulation, including the functionality of ad hoc request to historic data.

673.   Third, in addition to the PSI being well aware of the limitations of its system[418], ESMA supervisors stressed the importance of access to historical data in an email dated 12 April 2018, "Furthermore, we understand that as a result of this incident there are trades state records that will never be made available to authorities due to the fact that UnaVista cannot produce trade state reports as of a past date. We would like to

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[414] Please see Exhibit 66, ESMA/2015/1866, ESMA Consultation Paper on Draft technical standards on access to data and aggregation and comparison of data across TR under Article 81 of EMIR, pp. 12-13.
[415] Exhibit 52, ESMA Supervisors' First Response to the IIO, Response to the ESMA Consultation Paper on Draft Technical Standards on access to data and aggregation and comparison of data across TR under Article 81 of EMIR (data_access_2015-1866_pdf_2016.01.29)
[416] Exhibit 67, ESMA/2016/422, ESMA Final Report on Draft technical standards on access to data and aggregation and comparison of data across TR under Article 81 of EMIR, 5 April 2016, pp. 15-16.
[417] Ibid., p.19
[418] Please see for example Supervisory Report, Exhibit 50, LBR.0019406, where an employee of the PSI stated that "However, unfortunately, with Trade State Reports we are not able to recover historical reports." already in February 2018.

draw your attention to the amended Commission Delegated Regulation No 151/2013, where it is clearly mentioned that trade repositories shall provide authorities with access to the latest trade of derivatives contracts that have not matured or which have not been subject of a report with Action Type "E", "C", "P" or "Z". In addition, we would like to emphasise that there have been many cases where authorities were not able to perform their duties according to their mandates due to the specific UnaVista system/process limitation. In this context, we urge you to proceed with the immediate resolution of the issue and provide authorities with the missing derivatives data the soonest possible. Please communicate to ESMA supervision the planned date of resolution no later than the end of next week[419]".

674.   ESMA Supervisors reiterated this on 20 April 2018, "As requested in the email sent by my colleague […] on 12 April, in addition to your response including the details of the incident, we also expected by today COB Unavista to provide us with an estimated resolution date, including the schedule according to which you will be able to provide the authorities with the missing reports. We would like to stress that ESMA received several complaints from NCAs and from the ECB, as this issue is preventing them from performing high-priority duties. We would therefore ask Unavista to treat this issue with high priority[420]". Following this, the PSI established solution to the issue on 2 October 2018.

675.   Overall, on the basis of the elements described above, the Board considers that the PSI failed to take the special care expected of a TR. As a professional firm in the financial services sector subject to stringent regulatory requirements, the PSI is required to take special care in assessing the risks that its acts or omissions entail, and has failed to take that care; and as the result of that failure, it has not foreseen the consequences of its acts or omissions, including particularly its infringement of the Regulation, in circumstances where a TR in such a position that is normally informed and sufficiently attentive could not have failed to foresee those consequences.

676.   Therefore, it is considered that the PSI has been negligent when committing the infringement at Point (b) of Section III of Annex I of the Regulation.

11.4 Fines

677.   The Board preliminary notes that the basic amount of the applicable fine is calculated taking as a reference the latest available official financial statements regarding the PSI's annual turnover in the business year preceding the year of the decision, as recommended by the Joint Board of Appeal of the three ESAs in its Decision of 28 December 2020. Thus, account is taken of the financial statements for the year ended 31 December 2020.

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[419] Supervisory Report, Exhibit 45, Document 10.1, p. 4.
[420] Supervisory Report, Exhibit 45, Document 10.1, p. 2.

678. The description of the basic amount of the fine as well as the assessment regarding the application of the aggravating and mitigating factors is set out below.

Determination of the basic amount

679. Article 65 of the Regulation provides in paragraph 2[421] as follows:

"The basic amounts of the fines referred to in paragraph 1 shall be included within the following limits:

(a) for the infringements referred to in point (c) of Section I of Annex I and in points (c) to (g) of Section II of Annex I, and in points (a) and (b) of Section III of Annex I the amounts of the fines shall be at least EUR 10 000 and shall not exceed EUR 20 000 […]

In order to decide whether the basic amount of the fines should be at the lower, the middle or the higher end of the limits set out in the first subparagraph, ESMA shall have regard to the annual turnover of the preceding business year of the trade repository concerned. The basic amount shall be at the lower end of the limit for trade repositories whose annual turnover is below EUR 1 million, the middle of the limit for the trade repository whose turnover is between EUR 1 and 5 million and the higher end of the limit for the trade repository whose annual turnover is higher than EUR 5 million."

680. It has been established that the PSI negligently committed the infringement set out at Point (b) of Section III of Annex I of the Regulation, by not providing the Regulators with direct and immediate access to historic trade state data.

681. To determine the basic amount of the fine, the Board has regard to the latest official financial statements regarding the annual turnover of the PSI.

682. In 2020, the PSI had a turnover of GBP 3 652 963[422] (EUR 4 108 852[423]).

683. Thus, the basic amount of the fine for the infringement listed in Point (b) of Section III of Annex I of the Regulation is set at the middle of the limit of the fine set out in Article 65(2)(a) of the Regulation at EUR 15 000.

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[421] In this regard, the Board notes that with the entry into force of Regulation (EU) 2019/834, the amount of the fines to be imposed in case of an infringement of the Regulation has significantly increased. According to Article 1(16)(a) of Regulation (EU) 2019/834 "in Article 65, paragraph 2 is amended as follows: […] in point (a), 'EUR 20 000' is replaced by 'EUR 200 000';" However, this is not applicable to the present infringement because the facts occurred before the adoption and entry into force of Regulation (EU) 2019/834.
[422] UnaVista Limited, Report and Financial Statements for the year ended 31 December 2020.
[423] Based on the official exchange rate for GBP v EUR in 2020: 1.1248
https://www.ecb.europa.eu/stats/policy_and_exchange_rates/euro_reference_exchange_rates/html/eurofxref-graph-gbp.en.html

Applicable aggravating factors

684.   Annex II of the Regulation lists the aggravating factors to be taken into consideration for the adjustment of the fine. The applicable aggravating factors in the present case are set out below.

Annex II, Point I(b) if the infringement has been committed for more than six months, a coefficient of 1,5 shall apply.

685.   The infringement lasted more than six months. Therefore, the aggravating factor applies.

Annex II, Point I(c) if the infringement has revealed systemic weaknesses in the organisation of the trade repository, in particular in its procedures, management systems or internal controls, a coefficient of 2,2 shall apply.

686.   In addition to the analysis set out above in paragraphs 183 to 188, and the arguments raised by the PSI, Board considered the design and testing of the PSI's system regarding functionality to provide historic trade state reports, and its ability to detect and to remedy the infringement.

687.   First, the Board notes that, in this instance, the functionality simply did not exist. The infringement was thus clearly not due to for example a temporary outage or human error; it was fundamentally due to the unavailability of the function in the PSI's IT infrastructure.

688.   In this respect when Regulators requested historic trade state reports, they were not faced with a one-off delay in receiving the report or with a one-off unsent report, rather the request could not at all be fulfilled until the functionality was created on 2 October 2018. The Board considers this to reveal systemic weaknesses in the PSI's organisation.

689.   Second, while as set out above in paragraphs 673 to 674, the requirement to provide historic reports was raised several times by ESMA, as well as internally[424], the PSI was unable to even implement the intermediary update until 2 October 2018, i.e. until almost a year after the go-live of the obligation.

690.   Moreover, there were several delays in the implementation of the functionality, which went live in October 2018, after originally having been foreseen for earlier. The PSI informed ESMA "regarding the timeline, we would highlight that the below mentioned functionality will be implemented by mid-July[425]". Finally, "Due to issues when enabling the system, which were related to disk space and processing ability, UnaVista undertook a redeployment of this functionality through additional coding fixes,

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[424] Please see Exhibit 57, PSI's Response to the IIO's First RFI, UnaVista TRACE Review Report, p. 3 [redacted].
[425] Supervisory Report, Exhibit 34, LBR.0015694, p. 2. See also Supervisory Report, Exhibit 53, LBR.0001606 and Supervisory Report, Exhibit 54, LBR.0003055.

initially on 1 September and 29 September 2018, with a final, successful implementation on 2 October 2018[426]".

691. The inability to implement such an important regulatory requirement points to a lack of resourcing, as recognised by the PSI: "we have identified a need to increase resources to the trade repository 'business as usual' maintenance team[427]". Further to this, the PSI did increase its number of staff by making "multiple hires […] and, by December 2018, UnaVista had hired 24 new employees[428]".

692. Based on this, the Board agrees with the IIO and identifies significant weaknesses regarding the PSI's ability to generate historic open trade state reports. Given the importance of providing Regulators with such historic trade state reports, these defects constitute "systemic weaknesses in the organisation" of the PSI.

693. Thus, the Board considers that the aggravating factor is applicable.

<u>Annex II, Point I(d) if the infringement has a negative impact on the quality of the data it maintains, a coefficient of 1,5 shall apply.</u>

694. In addition to the analysis set out above in paragraphs 201 and 201, the Board considers that due to the absence of the functionality to provide historic state trade reports, Regulators experienced a de facto delay in receiving the information. This significantly reduces the quality of the data which is accessed and the use that can be made of this data. The data as a whole is deficient and incomplete.

695. In fact, "ESMA received several complaints from NCAs and from the ECB, as this issue is preventing them from performing high-priority duties[429]".

696. Based on this, the Board considers that the aggravating factor is applicable.

Applicable mitigating factors

697. Annex II of the Regulation lists the mitigating factors to be taken into consideration for the adjustment of the fine. The Board agrees with the IIO's findings and considers that no mitigating factors are applicable.

Determination of the adjusted fine

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[426] Please see Exhibit 11, PSI's Response to the IIO's First RFI, p. 15.
[427] Supervisory Report, Exhibit 51, LBR.0054743.0037
[428] Exhibit 30, PSI's Response to the IIO's First RFI, UnaVista Resilience Plan Slides (November 2019), p. 3, point 7.
[429] Supervisory Report, Exhibit 45, Document 10.1, p. 2. See also Supervisory Report, Exhibit 46, LBR.0000156.

698.	In accordance with Article 65(3) of the Regulation, taking into account the applicable aggravating and mitigating factors, the basic amount of EUR 15 000 must be adjusted as follows.

699.	The difference between the basic amount and the amount resulting from the application of each individual coefficient linked to the aggravating factors set out in Point I(b), Point I(c) and Point I(d) of Annex II is added to the basic amount:

Aggravating factor set out in Annex II, Point I(b):

EUR 15 000 x 1,5 = EUR 22 500

EUR 22 500 – EUR 15 000 = EUR 7 500

Aggravating factor set out in Annex II, Point I(c):

EUR 15 000 x 2,2 = EUR 33 000

EUR 33 000 – EUR 15 000 = EUR 18 000

Aggravating factor set out in Annex II, Point I(d):

EUR 15 000 x 1,5 = EUR 22 500

EUR 22 500 – EUR 15 000 = EUR 7 500

Adjusted fine taking into account applicable aggravating factors:

EUR 15 000 + EUR 7 500 + EUR 18 000 + EUR 7 500 = EUR 48 000

700.	Consequently, following adjustment by taking into account the applicable aggravating factors, the amount of the fine to be imposed on the PSI would amount to EUR 48 000.

11.5 Public notice

701.	Regard must be had to Article 73, paragraphs 1 and 2, of the Regulation.

702.	Given the factual findings in the present case and in particular the fact that the PSI solved the issue on 2 October 2018, in addition to the imposition of the fine, the only other supervisory measure considered appropriate with regard to the nature and the seriousness of the infringement is the adoption of a public notice as set out in Article 73(1)(c) of the Regulation.

703.	It must thus be held that a public notice is to be issued.

On the basis of the above Statement of Findings, the Board hereby

DECIDES

that

UnaVista Limited committed with negligence the following infringements:

- infringement set out at Point (c) of Section II of Annex I of Regulation (EU) 648/2012 (by employing incorrect fields ordering logic which altered the substance of the information reported to it).

- infringement set out at Point (b) of Section III of Annex I of the Regulation (EU) 648/2012 (by employing incorrect fields ordering logic that led to generating incorrect or incomplete reports for Regulators, containing data that was not consistent with the data reported to it).

- infringement set out at Point (c) of Section II of Annex I of Regulation (EU) 648/2012 (by employing incorrect mapping rules which altered the substance of the information reported to it).

- infringement set out at Point (b) of Section III of Annex I of the Regulation (EU) 648/2012 (by employing incorrect mapping rules that led to generating incorrect or incomplete reports for Regulators, containing data that was not consistent with the data reported to it).

- infringement set out at Point (c) of Section II of Annex I of Regulation (EU) 648/2012 (by not preventing data ticking over which altered the substance of the information reported to it).

- infringement set out at Point (b) of Section III of Annex I of the Regulation (EU) 648/2012 (by not preventing data ticking over that led to generating unreliable reports for Regulators, containing data that was not consistent with the data reported to it).

- infringement set out at Point (b) of Section III of Annex I of the Regulation (EU) 648/2012 (by not providing Regulators with direct and immediate access to trade state reports).

- infringement set out at Point (b) of Section III of Annex I of the Regulation (EU) 648/2012 (by not providing Regulators with direct and immediate access to historic trade state reports).

therefore

IMPOSES

the following **fines**:

- EUR 33 000 for the infringement set out at Point (c) of Section II of Annex I of Regulation (EU) 648/2012 (field ordering)

- EUR 33 000 for the infringement set out at Point (b) of Section III of Annex I of Regulation (EU) 648/2012 (field ordering)

- EUR 58 500 for the infringement set out at Point (c) of Section II of Annex I of Regulation (EU) 648/2012 (mapping rules)

- EUR 58 500 for the infringement set out at Point (b) of Section III of Annex I of Regulation (EU) 648/2012 (mapping rules)

- EUR 42 000 for the infringement set out at Point (c) of Section II of Annex I of Regulation (EU) 648/2012 (crossed date boundaries)

- EUR 42 000 for the infringement set out at Point (b) of Section III of Annex I of Regulation (EU) 648/2012 (crossed date boundaries)

- EUR 57 000 for the infringement set out at Point (b) of Section III of Annex I of Regulation (EU) 648/2012 (missed trade state reports)

- EUR 48 000 for the infringement set out at Point (b) of Section III of Annex I of Regulation (EU) 648/2012 (missed historic trade state reports)

upon having applied Article 65(4) of the Regulation, second paragraph:

- in respect of the fines imposed for the infringements set out at Point (c) of Section II and Point (b) of Section III of Annex I of Regulation (EU) 648/2012 (field ordering), whereby the fine of EUR 33 000 is applied for both infringements;

- in respect of the fines imposed for the infringements set out at Point (c) of Section II and Point (b) of Section III of Annex I of Regulation (EU) 648/2012 (mapping rules), whereby the fine of EUR 58 500 is applied for both infringements, and

- in respect of the fines imposed for the infringements set out at Point (c) of Section II and Point (b) of Section III of Annex I of Regulation (EU) 648/2012 (crossed date boundaries), whereby the fine of EUR 42 000 is applied for both infringements,

for the overall amount of **EUR 238 500**

and

ADOPTS

a **public notice** to be issued in respect of the infringements.

UnaVista Limited may avail itself of the remedies of Chapter V of Regulation (EU) No 1095/2010 against this decision.

This decision is addressed to **UnaVista Limited** – 10 Paternoster Square - London EC4M 7LS – United Kingdom and shall enter into force on the date of its adoption.

Done at Paris, on 21 September 2021

For the Board of Supervisors
The Interim Chair

[signed electronically]
Anneli Tuominen

Annex – Relevant Provisions of Delegated and Implementing Acts

Relevant legal provisions regarding the details of the data to be reported to TRs

1. Article 1(1) of the Delegated Regulation (EU) No 148/2013 (as amended by Delegated Regulation (EU) 2017/104), reads as follows:

"1. Reports to a trade repository shall include:

(a) the details set out in Table 1 of the Annex which contains information relating to the counterparties to a contract;

(b) the information set out in Table 2 of the Annex which contains details pertaining to the derivative contract concluded between the two counterparties."

2. Relevant excerpts of Table 1 and Table 2 included in the Annex of the Delegated Regulation (EU) No 148/2013, are listed below:

Table 1

Counterparty Data

	Field	Details to be reported
Parties to the contract		
9	Reporting entity ID	In case the reporting counterparty has delegated the submission of the report to a third party or to the other counterparty, this entity has to be identified in this field by a unique code.
		Otherwise this field shall be left blank.
		In case of an individual, a client code shall be used, as assigned by the legal entity used by the individual counterparty to execute the trade.
10	Clearing member ID	In case the reporting counterparty is not a clearing member, its clearing member shall be identified in this field by a unique code. In case of an individual, a client code, as assigned by the CCP, shall be used.
11	Beneficiary ID	The party subject to the rights and obligations arising from the contract. Where the transaction is executed via a structure, such as a trust or fund, representing a number of beneficiaries, the beneficiary should be identified as that structure. If the beneficiary of the contract is not a counterparty to this contract, the reporting counterparty has to identify this beneficiary by a unique code or, in case of

		individuals, by a client code as assigned by the legal entity used by the individual.

3. From 1 November 2017, further to the amendments by Delegated Regulation (EU) 2017/104, relevant excerpts of Table 1 and Table 2 included in the Annex of the Delegated Regulation (EU) No 148/2013 (as amended), are listed below:

Table 1

Counterparty Data

	Field	**Details to be reported**
8	Broker ID	In the case a broker acts as intermediary for the reporting counterparty without becoming a counterparty himself, the reporting counterparty shall identify this broker by a unique code.
9	Report submitting entity ID	In the case where the reporting counterparty has delegated the submission of the report to a third party or to the other counterparty, this entity has to be identified in this field by a unique code. Otherwise this field shall be left blank.
10	Clearing member ID	In the case where the derivative contract is cleared and the reporting counterparty is not a clearing member itself, the clearing member through which the derivative contract is cleared shall be identified in this field by a unique code.
12	Beneficiary ID	The party subject to the rights and obligations arising from the contract. Where the transaction is executed via a structure, such as a trust or fund, representing a number of beneficiaries, the beneficiary should be identified as that structure. Where the beneficiary of the contract is not a counterparty to this contract, the reporting counterparty has to identify this beneficiary by a unique code or, in case of a private individual, by a client code used in a consistent manner as assigned by the legal entity used by the private individual.
21	Collateralisation	Indicate whether a collateral agreement between the counterparties exists.
23	Collateral portfolio code	If collateral is reported on a portfolio basis, the portfolio should be identified by a unique code determined by the reporting counterparty.

24	Initial margin posted	Value of the initial margin posted by the reporting counterparty to the other counterparty. Where initial margin is posted on a portfolio basis, this field should include the overall value of initial margin posted for the portfolio.
25	Currency of the initial margin posted	Specify the currency of the initial margin posted.
26	Variation margin posted	Value of the variation margin posted, including cash settled, by the reporting counterparty to the other counterparty. Where variation margin is posted on a portfolio basis, this field should include the overall value of variation margin posted for the portfolio.
27	Currency of the variation margins posted	Specify the currency of variation margin posted.
28	Initial margin received	Value of the initial margin received by the reporting counterparty from the other counterparty. Where initial margin is received on a portfolio basis, this field should include the overall value of initial margin received for the portfolio.
29	Currency of the initial margin received	Specify the currency of the initial margin received.
30	Variation margin received	Value of the variation margin received, including cash settled, by the reporting counterparty from the other counterparty. Where variation margin is received on a portfolio basis, this field should include the overall value of variation margin received for the portfolio.
31	Currency of the variation margins received	Specify the currency of the variation margin received.
32	Excess collateral posted	Value of collateral posted in excess of the required collateral.
33	Currency of the excess collateral posted	Specify the currency of the excess collateral posted.

	Field	Details to be reported
34	Excess collateral received	Value of collateral received in excess of the required. Collateral
35	Currency of the excess collateral received	Specify the currency of the excess collateral received.

Table 2

Common Data

	Field	Details to be reported	Applicable types of derivative contracts
	Section 2a — Contract type		All contracts
1	Contract type	Each reported contract shall be classified according to its type.	
	Section 2e — Clearing		All contracts
37	CCP	In the case of a contract that has been cleared, the unique code for the CCP that has cleared the contract.	
	Section 2f — Interest Rates		Interest rate derivatives
49	Floating rate payment frequency leg 2 — time period	Time period describing frequency of payments for the floating rate leg 2, if applicable.	
50	Floating rate payment frequency leg 2 — multiplier	Multiplier of the time period describing frequency of payments for the floating rate leg 2, if applicable.	
53	Floating rate reset frequency leg 2 — time period	Time period of frequency of floating rate leg 2 resets, if applicable.	
54	Floating rate reset frequency leg 2 — multiplier	Multiplier of the time period describing frequency of floating rate leg 2 resets, if applicable.	

59	Floating rate reference period leg 2 — time period	Time period describing the reference period for the floating rate of leg 2.	
60	Floating rate reference period leg 2 — multiplier	Multiplier of the time period describing the reference period for the floating rate of leg 2.	
	Section 2h — Commodities and emission allowances		Commodity and emission allowance derivatives
66	Commodity details	Details of the particular commodity beyond field 65.	
68	Interconnection Point	Identification of the border(s) or border Point(s) of a transportation contract.	
74	Days of the week	The days of the week of the delivery.	
	Section 2i — Options		Contracts that contain an option
78	Option type	Indication as to whether the derivative contract is a call (right to purchase a specific underlying asset) or a put (right to sell a specific underlying asset) or whether it cannot be determined whether it is a call or a put at the time of execution of the derivative contract. — In case of swaptions it shall be: — 'Put', in case of receiver swaption, in which the buyer has the right to enter into a swap as a fixed-rate receiver, — 'Call', in case of payer swaption, in which the buyer has the right to enter into a swap as a fixed-rate payer. — In case of Caps and Floors it shall be: — 'Put', in case of a Floor, — 'Call', in case of a Cap.	

4. Article 1 of the Implementing Regulation (EU) 1247/2012 (as amended by Implementing Regulation (EU) 2017/105) stipulates that: "The information contained in a report under Article 9 of Regulation (EU) No 648/2012 shall be provided in the format specified in the Annex to this Regulation."

5. Recital 3 of Implementing Regulation (EU) 2017/105 provides that "in order to determine the real exposure of counterparties, competent authorities require complete and <u>accurate</u> information on the collateral exchanged between those counterparties".

6. From 1 November 2017, further to the amendments by Implementing Regulation (EU) 2017/105 relevant excerpts of Table 1 and Table 2 in the Annex of the Implementing Regulation (EU) 1247/2012 (as amended) are listed below:

Table 1

Counterparty Data

	Field	**Format**
Parties to the contract		
8	Broker ID	ISO 17442 Legal Entity Identifier (LEI) 20 alphanumerical character code.
9	Report submitting entity ID	ISO 17442 Legal Entity Identifier (LEI) 20 alphanumerical character code
10	Clearing member ID	ISO 17442 Legal Entity Identifier (LEI) 20 alphanumerical character code
12	Beneficiary ID	ISO 17442 Legal Entity Identifier (LEI) 20 alphanumerical character code or up to 50 alphanumerical character client code in the case where the client is not eligible for a Legal Entity Identifier
21	Collateralisation	U = uncollateralised PC = partially collateralised OC = one way collateralised FC = fully collateralised Populated in accordance with Article 3b
23	Collateral portfolio code	Up to 52 alphanumerical characters including four special characters: '. - _.' Special characters are not allowed at the beginning and at the end of the code. No space allowed.
24	Initial margin posted	Up to 20 numerical characters including decimals.

		The decimal mark is not counted as a numerical character. If populated, it shall be represented by a dot.
25	Currency of the initial margin posted	ISO 4217 Currency Code, 3 alphabetical characters
26	Variation margin posted	Up to 20 numerical characters including decimals. The decimal mark is not counted as a numerical character. If populated, it shall be represented by a dot.
27	Currency of the variation margins posted	ISO 4217 Currency Code, 3 alphabetical characters
28	Initial margin received	Up to 20 numerical characters including decimals. The decimal mark is not counted as a numerical character. If populated, it shall be represented by a dot.
29	Currency of the initial margin received	ISO 4217 Currency Code, 3 alphabetical characters
30	Variation margin received	Up to 20 numerical characters including decimals. The decimal mark is not counted as a numerical character. If populated, it shall be represented by a dot.
31	Currency of the variation margins received	ISO 4217 Currency Code, 3 alphabetical characters
32	Excess collateral posted	Up to 20 numerical characters including decimals. The decimal mark is not counted as a numerical character. If populated, it shall be represented by a dot.
33	Currency of the excess collateral posted	ISO 4217 Currency Code, 3 alphabetical characters
34	Excess collateral received	Up to 20 numerical characters including decimals. The decimal mark is not counted as a numerical character. If populated, it shall be represented by a dot.
35	Currency of the excess collateral received	ISO 4217 Currency Code, 3 alphabetical characters

Table 2

Common Data

	Field	Format	Applicable types of derivative contracts
	Section 2a — Contract type		All contracts
1	Contract type	CD = Financial contracts for difference FR = Forward rate agreements FU = Futures FW = Forwards OP = Option SB = Spreadbet SW = Swap ST = Swaption OT = Other	
	Section 2e — Clearing		All contracts
37	CCP	ISO 17442 Legal Entity Identifier (LEI) 20 alphanumerical character code	
	Section 2f — Interest Rates		Interest rate derivatives
49	Floating rate payment frequency leg 2 — time period	Time period describing how often the counterparties exchange payments, whereby the following abbreviations apply: Y = Year M = Month W = Week D = Day	
50	Floating rate payment frequency leg 2 — multiplier	Integer multiplier of the time period describing how often the counterparties exchange payments. Up to 3 numerical characters.	
53	Floating rate reset frequency leg 2 — time period	Time period describing how often the counterparties reset the floating rate,	

		whereby the following abbreviations apply: Y = Year M = Month W = Week D = Day	
54	Floating rate reset frequency leg 2 — multiplier	Integer multiplier of the time period describing how often the counterparties reset the floating rate. Up to 3 numerical characters.	
59	Floating rate reference period leg 2 — time period	Time period describing reference period, whereby the following abbreviations apply: Y = Year M = Month W = Week D = Day	
60	Floating rate reference period leg 2 — multiplier	Integer multiplier of the time period describing the reference period. Up to 3 numerical characters.	
	Section 2h — Commodities and emission allowances		Commodity and emission allowance derivatives
66	Commodity details	Agricultural GO = Grains oilseeds DA = Dairy LI = Livestock FO = Forestry SO = Softs SF = Seafood OT = Other Energy OI = Oil NG = Natural gas CO = Coal EL = Electricity IE = Inter-energy OT = Other Freights	

		DR = Dry WT = Wet OT = Other Metals PR = Precious NP = Non-precious Environmental WE = Weather EM = Emissions OT = Other	
68	Interconnection Point	EIC code, 16 character alphanumeric code	
74	Days of the week	WD = Weekdays WN = Weekend MO = Monday TU = Tuesday WE = Wednesday TH = Thursday FR = Friday SA = Saturday SU = Sunday Multiple values separated by '/' are permitted	
	Section 2i — Options		Contracts that contain an option
78	Option type	P = Put C = Call O = where it cannot be determined whether it is a call or a put	

7. Article 5(3) of the Delegated Regulation (EU) No 151/2013 (as amended by Delegated Regulation (EU) 2017/1800) reads as follows:

"3. A trade repository shall establish and maintain the necessary technical arrangements to enable the entities listed in Article 81(3) of Regulation (EU) No 648/2012 to connect using a secure machine-to-machine interface in order to submit data requests and to receive data.

For the purposes of the first subparagraph, a trade repository shall use the SSH File Transfer Protocol. The trade repository shall use standardised XML messages developed in accordance with the ISO 20022 methodology to communicate through

that interface. A trade repository may in addition, after agreement with the entity concerned, set up a connection using another mutually agreed protocol."

Relevant legal provisions regarding the type of information that TRs shall make available to the Regulators

1. Article 4(1) of the Delegated Regulation (EU) No 151/2013 (as amended by Delegated Regulation (EU) 2017/1800) reads as follows:

"1. A trade repository shall provide the entities listed in Article 81(3) of Regulation (EU) No 648/2012 with direct and immediate access, including where delegation under Article 28 of Regulation (EU) No 1095/2010 exists, to details of derivatives contracts in accordance with Articles 2 and 3 of this Regulation.

For the purposes of the first subparagraph, a trade repository shall use an XML format and a template developed in accordance with ISO 20022 methodology. A trade repository may in addition, after agreement with the entity concerned, provide access to details of derivatives contracts in another mutually agreed format."

2. Article 5(4), Article 5(5), Article 5(6) and Article 5(7) of the Delegated Regulation (EU) No 151/2013 reads as follows:

"4. In accordance with Articles 2 and 3 of this Regulation, a trade repository shall provide the entities listed in Article 81(3) of Regulation (EU) No 648/2012 with access to the following information:

(a) all reports on derivatives contracts;

(b) the latest trade states of derivatives contracts that have not matured or which have not been the subject of a report with Action type 'E', 'C', 'P' or 'Z' as referred to in field 93 in Table 2 of the Annex to Commission Implementing Regulation (EU) No 1247/2012.

5. A trade repository shall establish and maintain the necessary technical arrangements to enable the entities listed in Article 81(3) of Regulation (EU) No 648/2012 to establish predefined periodic requests to access details of derivatives contracts, as determined in paragraph 4, necessary for those entities to fulfil their responsibilities and mandates.

6. Upon request, a trade repository shall provide the entities listed in Article 81(3) of Regulation (EU) No 648/2012 with access to details of derivatives contracts according to any combination of the following fields as referred to in the Annex to Implementing Regulation (EU) No 1247/2012:

(a) reporting timestamp;

(b) reporting Counterparty ID;

(c) ID of the other Counterparty;

(d) corporate sector of the reporting counterparty;

(e) nature of the reporting counterparty;

(f) broker ID;

(g) report submitting entity ID;

(h) beneficiary ID;

(i) asset class;

(j) product classification;

(k) product identification;

(l) underlying identification;

(m) venue of execution;

(n) execution timestamp;

(o) maturity date;

(p) termination date;

(q) CCP; and

(r) action type.

7. A trade repository shall establish and maintain the technical capability to provide direct and immediate access to details of derivatives contracts necessary for the entities listed in Article 81(3) of Regulation (EU) No 648/2012 to fulfil their mandates and responsibilities. That access shall be provided as follows:

(a) where an entity listed in Article 81(3) of Regulation (EU) No 648/2012 requests access to details of outstanding derivatives contracts or of derivatives contracts which have either matured or for which reports with action types 'E', 'C', 'Z' or 'P' as referred to in field 93 in Table 2 of the Annex to Implementing Regulation (EU) No 1247/2012 were made not more than one year before the date on which the request was submitted, a trade repository shall fulfil that request no later than 12:00 Universal Coordinated Time on the first calendar day following the day on which the request to access is submitted.

(b) where an entity listed in Article 81(3) of Regulation (EU) No 648/2012 requests access to details of derivatives contracts which have either matured or for which reports with action types 'E', 'C', 'Z' or 'P' as referred to in field 93 in Table 2 of the Annex to

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Implementing Regulation (EU) No 1247/2012 were made more than one year before the date on which the request was submitted, a trade repository shall fulfil that request no later than three working days after the request to access is submitted.

(c) where a request to access data by an entity listed in Article 81(3) of Regulation (EU) No 648/2012 relates to derivative contracts falling under both points (a) and (b), the trade repository shall provide details of those derivatives contracts no later than three working days after that request to access is submitted."

3. Recital 7 of Delegated Regulation (EU) 2017/1800 states that: "Data concerning the latest trade state of derivatives contracts with open interest is essential for monitoring financial stability and systemic risk. Therefore, the relevant entities should have access to that data."

4. Recital 8 of Delegated Regulation (EU) 2017/1800 provides that: "It is essential to facilitate the direct and immediate access to specific datasets and thus to establish a set of combinable ad-hoc requests referring to the parties to the trade, the economic terms, the derivatives contract classification and identification, the time horizon of execution, reporting and maturity, as well as the business and life-cycle events."

5. Recital 11 of Delegated Regulation 2017/2800 states that: "The application of the provisions laid down in this Delegated Regulation should be deferred in order to facilitate the adaptations of systems by trade repositories to the specifications laid down in this Delegated Regulation."

6. Recital 41 of the Regulation reads as follows: "It is important that market participants report all details regarding derivative contracts they have entered into to trade repositories. As a result, information on the risks inherent in derivatives markets will be centrally stored and easily accessible, inter alia, to ESMA, the relevant competent authorities, the European Systemic Risk Board (ESRB) and the relevant central banks of the ESCB."

7. Recital 75 of the Regulation states: "Given that regulators, CCPs and other market participants rely on the data maintained by trade repositories, it is necessary to ensure that those trade repositories are subject to strict operational, record-keeping and data-management requirements."