

EFET ELECTRONIC REGULATORY REPORTING

VERSION 2 RELEASE 0 (V2.0 DRAFT A)

Created by EFET

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1 About this Document

1.1 Revision History

Version	Date	Changes	Author of changes
1.0a	August 13	New document	EFET eRR WG
1.0b	September 13	Draft	EFET eRR WG
1.0c	October 13	Draft	EFET eRR WG
1.0d	November 13	Draft	EFET eRR WG
1.0e	December 13	Draft	EFET eRR WG
1.0f	January 14	Draft	EFET eRR WG
1.0g	January 14	Draft	EFET eRR WG
1.0h	February 14	Draft	EFET eRR WG
1.0i	April 14	Draft	EFET eRR WG
1.0j	June 14	Draft	EFET eRR WG
1.0k	July 14	EMIR specific clarifications	EFET eRR WG
1.0l	Aug 14	EMIR specific clarifications	EFET eRR WG
1.0n	Jan 15	EMIR specific clarifications	EFET eRR WG
1.0o	Feb 15	EMIR specific clarifications	EFET eRR WG
1.0o	Mar 15	EMIR specific clarifications	EFET eRR WG
1.0p	Apr 15	EMIR specific clarifications	EFET eRR WG
1.0q	May 15	EMIR specific clarifications	EFET eRR WG
1.0r	Jun 15	EMIR specific clarifications	EFET eRR WG
1.0s	Oct 15	EMIR Level 2 validation and specific clarifications	EFET eRR WG
1.0t	Nov 2015	EMIR Level 2.1 validation and specific clarifications	EFET eRR WG
1.0u	Feb 2016	CpML modifications and clarifications	EFET eRR WG
	Feb 2016	Clarification of ReportingRole	EFET eRR WG
1.0v	March 2016		EFET eRR WG
1.0w	May 2016		EFET eRR WG
1.0w	July 2016		EFET eRR WG
1.0x	August 2016		EFET eRR WG
2.0a	March 2017	EMIR RTS/ITS (Level 3)	EFET eRR WG

1.2 Purpose and Scope

This document describes the EFET Electronic Regulatory Reporting Process (eRR Process), an industry standard solution for the reporting of transactions that fall within the scope of the applicable reporting regimes, currently, EMIR and REMIT.

1.3 Target Audience

This document is for business analysts and IT professionals in commodity trading who want to provide standardized trade information in the CpML format for reporting under regimes including EMIR and/or REMIT.

For example, this can be:

- Software engineers and data architects who implement CpML interfaces
- Business analysts who develop process interfaces

The following knowledge is assumed:

- Familiarity with the terms and processes used in the commodity trading industry
- Know-how regarding the structure and functionality of XML schemas
- Some knowledge of the applicable regulatory reporting regimes

1.4 Additional Information

This section lists web sites or documents with additional information related to the eRR Process.

Ref ID	Description	Source
[1]	CpML Specification	Cpml.org
[2]	EFET Communication eCM v4.0 Profile, v1.0	
[3]	Official Journal of the European Union L52, Vol56	
[4]	ACER Recommendations on REMIT Records of Transactions A12-AMIT-04-07	
[5]	ISDA Unique Trade Identifier (UTI): Generation, Communication and Matching	
[6]	Futures & Options Association Update Trade Reporting Obligations Under EMIR, v0.1	
[7]	Acer Transaction Reporting User Manual	https://www.acer-remit.eu/portal/public-documentation
[8]	List of codes specific to EFET and CpML, for example, broker codes	http://www.efet.org/Standardisation/Static-data
[9]	EIC codes published by ENTSO-E	https://www.entsoe.eu/data/energy-identification-codes-eic/eic-documentation/Pages/default.aspx
[10]	Esma register of Regulated Markets	http://registers.esma.europa.eu/publication/searchRegister?core=esma_registers_mifid_rma

1.5 Conventions

1.5.1 Use of Modal Verbs

For compliance with the eRR Process, implementers need to be able to distinguish between mandatory requirements, recommendations and permissions, as well as possibilities and capabilities. This is supported by the following rules for using modal verbs.

The key words “must”, “must not”, “required”, “should”, “should not”, “recommended”, “may” and “optional” in this document are to be interpreted as follows:

Key word	Description
Must	Indicates an absolute requirement. Requirements must be followed strictly in order to conform to the standard. Deviations are not allowed. Alternative expression: required, is mandatory
Must not	Indicates an absolute prohibition. This phrase means that the provision must not be used in any implementation of the CpML standard. Alternative expression: must be omitted
Should	Indicates a recommendation. Among several possibilities, one is recommended as particularly suitable, without mentioning or excluding others. There may exist valid reasons in particular circumstances to ignore a particular item, but the full implications must be understood and carefully weighed before choosing a different course. Alternative expression: recommended
May	Indicates a permission. This word means that an item is truly optional within the limits of CpML. One data supplier may choose to include the item because a particular transaction requires it or because the data supplier feels that it enhances the document while another data supplier may omit the same item. Alternative expression: optional
Should not	This phrase means that there may exist valid reasons in particular circumstances when the particular behavior is acceptable or even useful, but the full implications should be understood and the case carefully weighed before implementing any behavior described with this label. Alternative expression: “not recommended”

1.5.2 Typographical Conventions

This documentation uses the following typographical conventions:

- ‘AgentID’: Single quotation marks are used to indicate field names in XML schemas.
- “trader”: Double quotation marks are used to indicate field values in XML schemas.
- Reporting/Europe: Slashes indicate paths or nested nodes within XML schemas.
- TotalVolumeUnit: Field names and values as well as attributes are consistently written with camel case spelling, as in the XML schemas. There are no spaces between words and each new word starts with an uppercase letter.

1.5.3 Abbreviations of Document Types

The following abbreviations are used for different document types:

- CPD = CpMLDocument
- VAL = Valuation Document
- COL = Colateralisation Document
- CON = Confirmation Event Document

2 Introduction to the eRR Process

Regulatory reporting defined under the European regimes of EMIR and REMIT establishes operational requirements on trading businesses operating in commodities and other asset classes. EMIR and REMIT are separate regulatory frameworks with their own scope and purpose but with overlapping data reporting requirements.

The eRR Process is an industry standard solution that allows process users to report transaction, continuation and lifecycle event data to multiple regimes in a single message. The process users can report both on their own behalf and on behalf of other parties to the transactions. eRR makes reporting independent of the various data formats, codification schemes, transmission protocols and technical interfaces of underlying databases and trade repositories. The eRR Process facilitates automation of electronic regulatory reporting processes and minimizes the risk and cost of implementing the operational processes related to EMIR and REMIT into the applicable traded markets.

2.1 Scope of eRR

The scope of the eRR Process includes:

- A standard set of filtering criteria that can be applied to a portfolio of trades to identify the trades that are eligible for reporting under EMIR and REMIT. The filters mitigate the risk of discrepancies between the reports of both counterparties to a trade.
- A universal CpML-compliant trade message extension that enables market participants to use a single CpML message (see ref ID [1]) to report eligible trades on standard contracts under EMIR and/or REMIT. Using a single message mitigates the risk for market participants who must report to both regimes or multiple underlying databases. ; For REMIT, the ACER XML format is used for order data, non-standard contracts and standard contracts as an alternative to CpML.
- Provide a standard process and message choreography for notifying regulatory databases of the following transaction types:
 - New trade
 - Modification or early termination of a reported trade
 - Reporting of valuations, collateral information, compression and confirmation events
 - Cancellation of erroneous submissions

The eRR Process process is independent of any specific mechanisms defined by underlying trade repositories or regulatory databases to which the message must be delivered. This ensures that market participants are insulated from the complexity of the underlying trade repository landscape.

- Document the approach to Unique Trade Identification (UTI) formatting, generation, dissemination and reconciliation in collaboration with the other industry associations, see ref IDs [5] and [6].
- Define a standard mechanism by which an agent can report on behalf of one or both counterparties to a transaction. In this way a counterparty does not need to report directly, but can delegate the reporting to an agent, for example, the counterparty or the execution platform.

Important: The eRR Process uses the CpML standard as an exchange format for the input message of transaction reports. Any rules and conditions described in the eRR Process are only valid in combination with the rules and conditions described in the CpML standard. For

REMIT, the eRR Process also supports the native ACER XML format, which does not require enrichment or mapping by the eRR Process.

The eRR Process has been developed directly from official documentation (see ref IDs [3] and [4]) and with reference to the work of other industry bodies and associations (see ref IDs [5] and [6]).

2.2 Scope of Regulatory Reporting of (Bilateral) Transactions

Figure 1 provides an overview of the scope and context of the eRR Process for (bilaterally settled) OTC transactions under EMIR and REMIT.

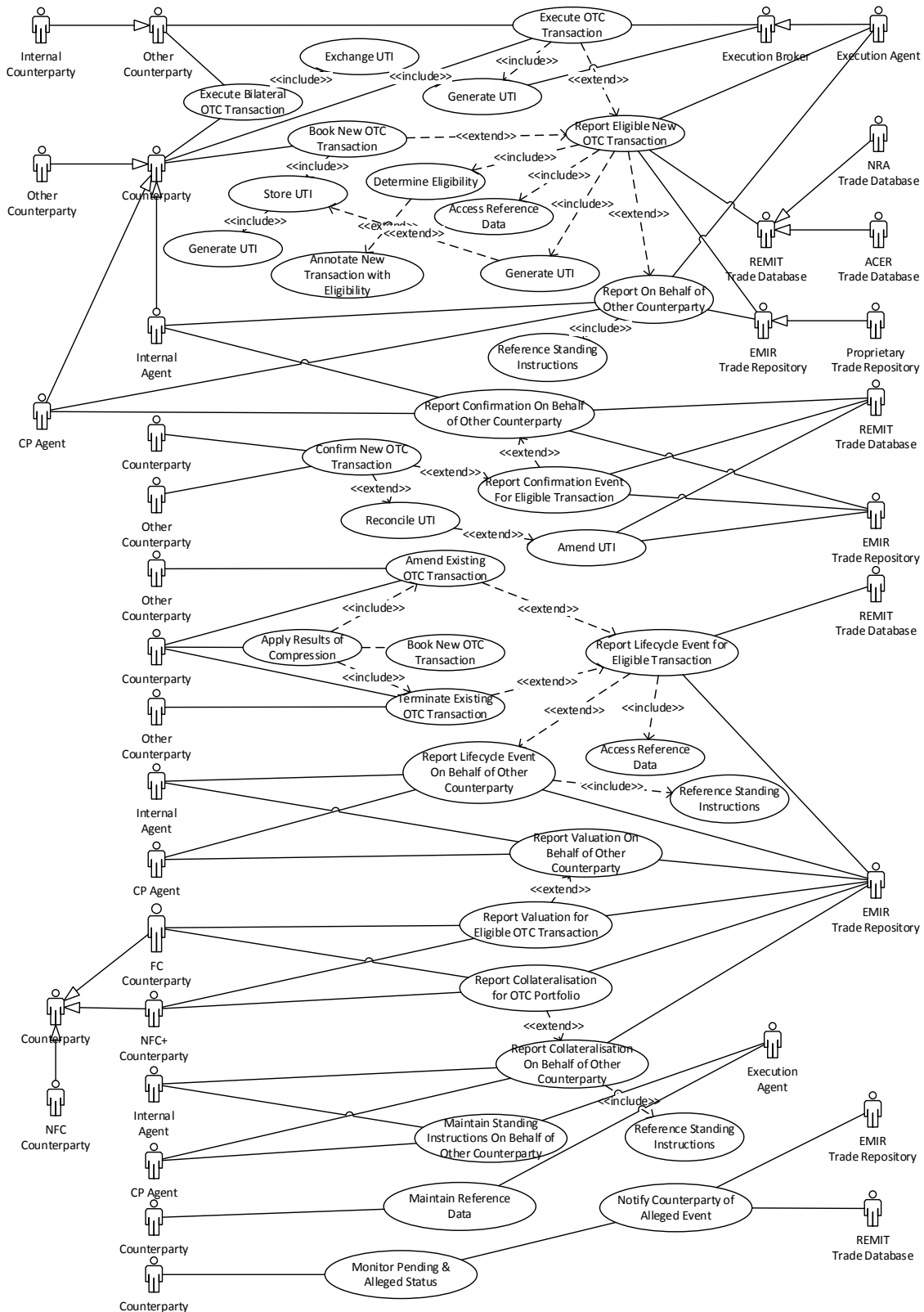


Figure 1 Use case diagram for centrally and bilaterally executed OTC transactions

An OTC transaction is executed either on an electronic (broker) platform or negotiated bilaterally. The Unique Trade ID (UTI) is generated by the platform or, in the case of the bilateral negotiation may, under some circumstances, be exchanged between the parties at execution. On booking of the new transaction into the system of record the UTI is stored with the new transaction and the internal trade ID; if the UTI is not available then it may be generated locally and stored with the trade.

The new transaction is submitted for reporting within timescales defined by the regulation (i.e. D+1). The eligibility of the transaction for reporting is established and the trade annotated with the conclusion: if it is eligible for reporting, or not and if so then under which regimes and upon what criteria. The determination will require the application of standard rules and make use of reference data sources. A report containing trade details and the UTI of the trade is made under each regulatory regime under which the transaction is eligible; prior to reporting the UTI is generated, if not already available, and the transaction details in the system of record are updated with the UTI. Both counterparties are obliged to report either directly or through a third party agent. One of the counterparties to the trade can fulfil the role of the agent and complete a report for themselves and another report on behalf of the other counterparty. Alternatively the operator of the electronic execution platform may offer to act as an agent for reporting new transactions executed on their platform, in this case either one or both counterparties may elect to have the platform operator act as the agent reporting on their behalf. An agent making a report on behalf of a party to the transaction requires access to certain details about the counterparty. If a counterparty wishes to make use of an agent to report on their behalf they must make the necessary details available to the agent as a set of Standing Instructions, which the agent can draw upon when completing the transaction report on behalf of the counterparty.

Upon successful confirmation of an eligible transaction the original regulatory report(s) must be amended with relevant information about the event, unless the information was included in the original report. If a discrepancy between the UTIs used by the two counterparties to identify the reported transaction is noticed at confirmation then the counterparties must reconcile the discrepancy and apply any correction to the original report(s) if they have already been submitted.

Any lifecycle events affecting an eligible transaction that has been reported must also be reported as amended versions of the original report(s). A counterparty to the trade can report lifecycle amendments on behalf of the other counterparty in the role of counterparty Agent, the operator of the platform upon which the original transaction was executed cannot act as an agent in the case of lifecycle event since they are only aware of the original execution event and not aware of any subsequent changes agreed bilaterally between the parties. An agent in the privileged position of having access to the transaction details of two counterparties to an eligible transaction, but not themselves being a party to the transaction, can also report lifecycle events (as well as the original execution) on behalf of the counterparties; typically the two counterparties would be part of the same organisational group as the internal agent reporting on their behalf. If a compression event is the cause of one or more lifecycle events including a new transaction, an amendment to an existing transaction or the termination of a transaction then for any eligible transaction affected the lifecycle event must be reported with the information that it was related to a compression event.

Eligible counterparties to eligible OTC transactions are obliged to report daily valuation on a per transaction level and collateralisation information on a portfolio level. A counterparty agent or internal agent may report this information on behalf of the other counterparty or

one or both counterparties to the original transaction if they have access to the relevant information.

Agents must maintain the Standing Instruction data they hold for the legal entities upon whose behalf they are reporting, information such as the trading capacity to be used by the agent when compiling a report on behalf of the legal entity.

Counterparties and agents need to maintain reference data used in compiling regulatory reports including data about their own organisation and other organisations, such as LEI information.

Counterparties wish to view the status of their own regulatory reports but are also interested in the submissions made by the other counterparty. EMIR trade repositories and REMIT trade databases should provide information to counterparties about reports submitted for which they are identified as the other counterparty. The UTIs of these 'alleged' transaction reports can be compared with the set of 'pending' UTIs from the counterparties own submissions to highlight any discrepancies.

2.3 Scope of Regulatory Reporting of Cleared Transactions

Figure 2 provides an overview of the scope and context of the eRR Process for cleared transactions under EMIR and REMIT.

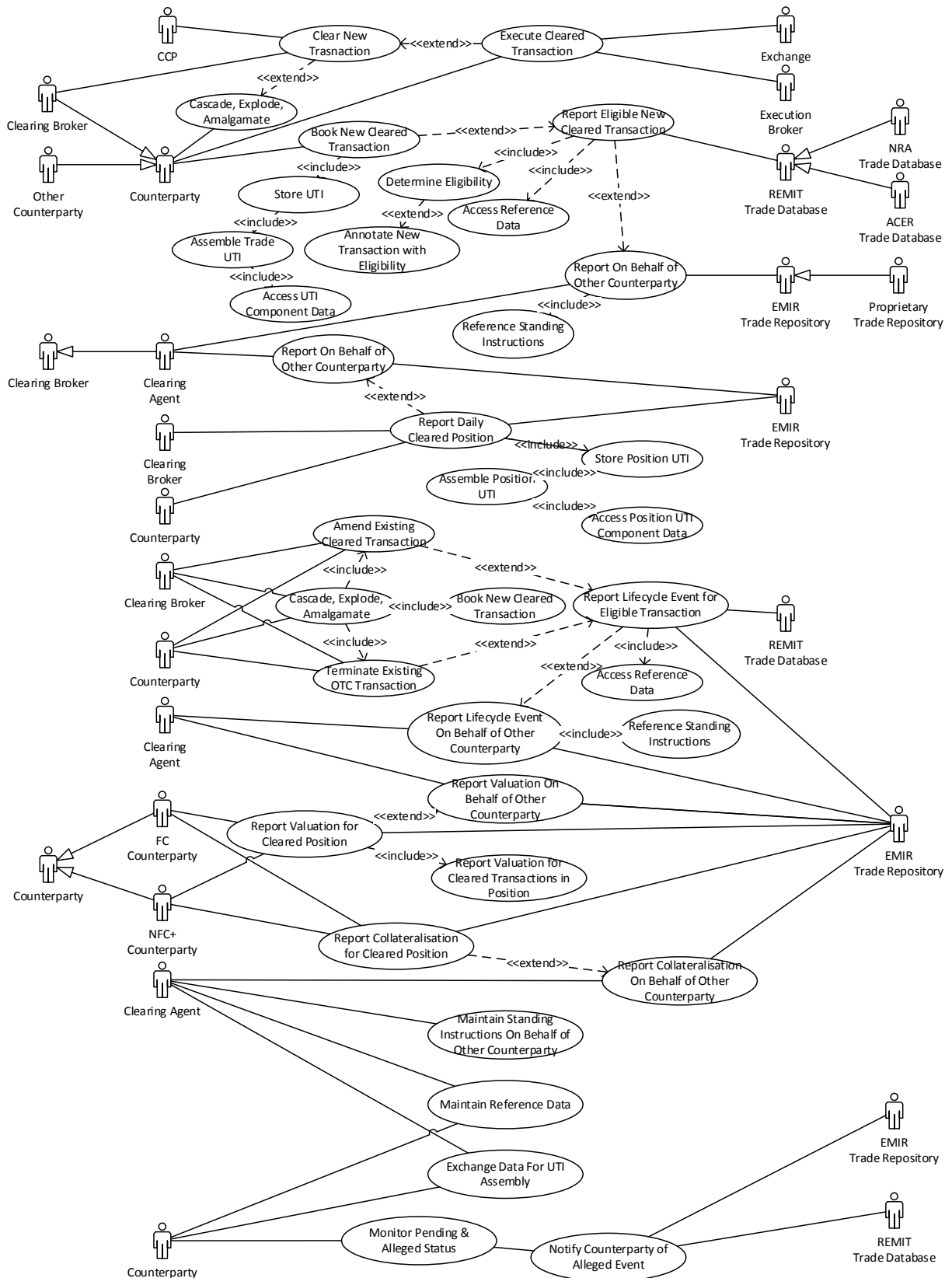


Figure 2 Use Case Diagrams for Regulatory Reporting of Cleared Transactions

The description draws on draft proposals (see ref ID [6]) developed by the CCPs and clearing brokers in response to EMIR specific regulations with the purpose of incorporating these proposals within the overall description of the eRR process for reporting of OTC and cleared transactions under EMIR and REMIT. The proposals in ref ID [6] do not consider REMIT.

A cleared transaction is executed on an exchange or, anonymously, on an off-exchange electronic platform (e.g. a broker platform). OTC trades subsequently given up for clearing are not currently considered within the scope of the use case and anonymous transactions executed on an off-exchange electronic platform are treated as equivalent to exchange transactions from the perspective of the business process. Upon execution the transaction is entered into clearing at the CCP with the participation of the Clearing Broker who acts upon behalf of the original Counterparty. The original execution event results in four new trades: one between the CCP and the Clearing Broker acting on behalf of one of the counterparties and one between the CCP and the Clearing Broker acting on behalf of the other counterparty; as well as two 'back to back' trades each between the Clearing Broker and the original Counterparty upon whose behalf the Clearing Broker is acting (n.b. the organisation to which the Counterparty belongs may themselves be acting in the role of the Clearing Broker, a Clearing Broker may also be acting on behalf of both the Counterparty and the Other Counterparty). For the purpose of the eRR process scope only the relationship between the Counterparty (including the Other Counterparty) and the Clearing Broker will be considered, the relationship between the Clearing Broker and the CCP is considered to be outside the scope of the eRR process. The Clearing Broker takes on the role of a Counterparty to the transactions that are considered to be within the scope of the eRR Process.

Both the Counterparty and the Clearing Broker (acting as a Counterparty) book the new cleared transaction into their system of record. The UTI for the transactions is stored at the time of booking. Since the trade between the Clearing Broker and the Counterparty is the indirect result of the execution event they do not share a UTI generated by the execution platform. The UTI is therefore assembled from other information relating to the transaction which is already shared between the Clearing Broker and the Counterparty as a result of their normal business practices and sufficient to uniquely identify the two sides of the same transaction, as set out in ref ID [6].

The new transaction is submitted for reporting within timescales defined by the regulation (i.e. D+1). The eligibility of the transaction for reporting is established and the trade annotated with the conclusion: if it is eligible for reporting, or not and if so then under which regimes and upon what criteria. The determination will require the application of standard rules and make use of reference data sources. A report containing trade details and the UTI of the trade (which must be present) is made under each regulatory regime under which the transaction is eligible. The original Counterparty and their Clearing Broker are in the role of Counterparty and Other Counterparty; both counterparties are obliged to report either directly or through an agent. The Clearing Broker may offer to act as the agent (Clearing Agent) for the purposes of reporting both for themselves and for the Other Counterparty, the Clearing Broker is well placed to provide this service since they are party to all commercial information relating to the trade and to continuation data, where relevant, such as the daily valuation of the transaction, the collateralisation information at the portfolio level, as well as all lifecycle events affecting the transaction. The Clearing Broker acting as the Clearing Agent for the purpose of reporting requires access to certain details about the Other Counterparty. If a Counterparty wishes to make use of a Clearing Agent's services to report on their behalf they must make the necessary details available to the

Clearing Agent as a set of Standing Instructions, which the Clearing Agent can draw upon when completing the transaction report on behalf of the Counterparty.

Reference [6] foresees daily reporting of position data to ESMA in addition to the transaction level reporting specified in EMIR regulation. Each daily position will comprise an 'aggregate trade' with a Unique Position Identifier – UPOI - assembled from other information relating to the transaction which is already shared between the Clearing Broker and the counterparty as a result of their normal business practices and sufficient to uniquely identify the two sides of the same transaction, as set out in ref ID [6]. There may be more than one daily position reported with each position representing a group of underlying transactions. The grouping of transactions into positions must be agreed bilaterally between the counterparty and the Clearing Broker; typically transactions may be grouped by cleared product. If the Clearing Broker offers such services then the counterparty may elect to use the Clearing Agent to report position data on their behalf.

Any lifecycle events affecting an eligible transaction that has been reported must also be reported as amended versions of the original report(s). The Clearing Agent can report lifecycle amendments to individual transactions on behalf of the other counterparty.

If any cascading, explosion or amalgamation occurs to one or more eligible cleared transactions on registration into clearing or subsequently during the life of the reported transaction and the event is the cause of one or more lifecycle events which may include a new transaction, an amendment to an existing transaction or the termination of a transaction then the lifecycle event must be reported. Lifecycle event reporting at the position level will be addressed within the daily position report since any transaction level events affecting the position will be incorporated within the daily report. The impact of any cascading, explosion or amalgamation of individual transactions which may affect how they are grouped into positions (i.e. by product) must be managed bilaterally between the clearing broker and the counterparty to ensure consistency in reporting of daily positions and the incorporation of the impact of such changes into the daily position report.

Eligible counterparties to eligible cleared transactions are obliged to report daily valuation on a per transaction level and collateralisation information on a portfolio level. The other counterparty and clearing broker, if eligible, must report this information under EMIR. If the service is offered by the clearing broker the other counterparty may opt to have the clearing agent report this information on their behalf.

The clearing agent must maintain the Standing Instructions data they hold for the other counterparties upon whose behalf they are reporting, information such as the trading capacity to be used by the agent when compiling a report on behalf of the legal entity.

Counterparties and clearing brokers need to maintain reference data used in compiling regulatory reports including data about their own organisation and other organisations, such as LEI information.

Counterparties and clearing brokers must exchange data related to the clearing process from which UTIs for transactions and UPOIs for positions can be assembled.

Counterparties wish to view the status of their own regulatory reports (perhaps submitted on their behalf by the clearing agent) but are also interested in the submissions made by the clearing broker. EMIR trade repositories and REMIT trade databases should provide information to counterparties about reports (both at the transaction and position level) submitted for which they are identified as the other counterparty. The UTIs of these 'alleged' reports can be compared with the set of 'pending' UTIs from the counterparties own submissions to highlight any discrepancies.

2.4 Actors and Roles

This section defines the key actors and roles that are part of the eRR Process.

2.4.1 Roles

These roles are defined as follows in the eRR Process:

- Process user: common term for a legal entity that uses the eRR Process to report transactions under the applicable regimes, for example, the counterparties to the transaction or an agent.
- Counterparty: the party to a transaction from whose perspective the transaction is reported. The counterparty can be the buyer or the seller.
- Other counterparty: the other party to a transaction that is reported from the perspective of the counterparty. The other counterparty can be the buyer or the seller.

Both EMIR and REMIT regimes allow for the reporting required under the relevant regulations to be carried out by agents acting on behalf of the responsible parties. It should be noted that there is a conceptual difference between an agent that trades on behalf of another party and an agent that reports on behalf of another party.

The eRR Process addresses the issue of agent-based reporting by defining roles for market participants. The roles defined in the eRR Process are as follows:

- Trader: this is the default role played by a counterparty to a reportable transaction which reports on their own behalf only.
- Execution agent: the platform where a reportable transaction was executed, for example, a broker or an exchange. The execution agent knows the commercial terms of the transaction and the identity of both counterparties, therefore the agent can act for the buyer or the seller or the buyer and the seller. The execution agent can create a new report but cannot report lifecycle events.
- Counterparty agent: one of the counterparties to the reportable transaction who can report for themselves and on behalf of the other counterparty if they are configured as either an internal or external company within the same organisation group of the counterparty agent. The counterparty agent knows the commercial terms and the identity of the other counterparty. Therefore, the agent can act on behalf of the buyer (if they are the seller) and on behalf of the seller (if they are the buyer). The counterparty agent can create new reports as well as report lifecycle events including amendments, terminations, valuations, etc.
- Internal agent: a member of an organisation group who has the responsibility to report on behalf of other internal or external companies within the organisation group of the internal agent. The internal agent can report on both sides of a transaction if both counterparties (buyer and seller) to the transaction are part of the organisation group. Otherwise the internal agent can only report on behalf of the counterparty (buyer or seller) that is within the organisation group. The internal agent cannot be a counterparty to the reportable transaction. If the internal agent is the counterparty, then they must act in the role of counterparty agent. The internal agent must have access to all the information for the market participants upon whose behalf they are reporting and can create new reports as well as report lifecycle events including amendments, terminations, valuations, etc.
- Clearing agent: a special case of the counterparty agent, only applicable to cleared transactions. The clearing agent is one of the following:

- CCP, if the other counterparty is a direct member
 - Clearing broker, if the other counterparty is a non-clearing member
- The clearing agent is a party to the transaction and can create new reports as well as report lifecycle events including amendments, terminations, valuations, etc.

2.4.2 Document Types

The following document types are defined as input, intermediary, or output documents in the eRR Process:

- Input message: a transaction report in CpML format created by a process user as input to the eRR Process in CpML format.
- Enriched message: an intermediary format created by the eRR Process in CpML format, see “Enrichment of the Input Message”.
- Output message: the report created by the eRR Process in the format requested by the corresponding trade repository, for example, CpML or ACER XML, see “Mapping of CpML Field Values to EMIR and REMIT Data Requirements”.
- Valuation message (EMIR only): a CpML-related format to report daily valuations, see “eRR Valuation Message”.
- Collateral message (EMIR only): a CpML-related format to report collateral, see “eRR Collateral Message”.
- Box result: a CpML-related format to exchange system messages between the eRR service and the system of record of a process user, see “Box Result Document (BRS)”.

3 eRR Workflow

This section describes the workflow defined for the eRR Process. For this purpose, the actors and their systems are considered to be black boxes. The eRR Process only defines the interface requirements for the incoming and outgoing documents and processing criteria, where appropriate.

3.1 High-Level Business Flows

3.1.1 Regulatory Reporting of New Bilaterally Settled OTC Transactions

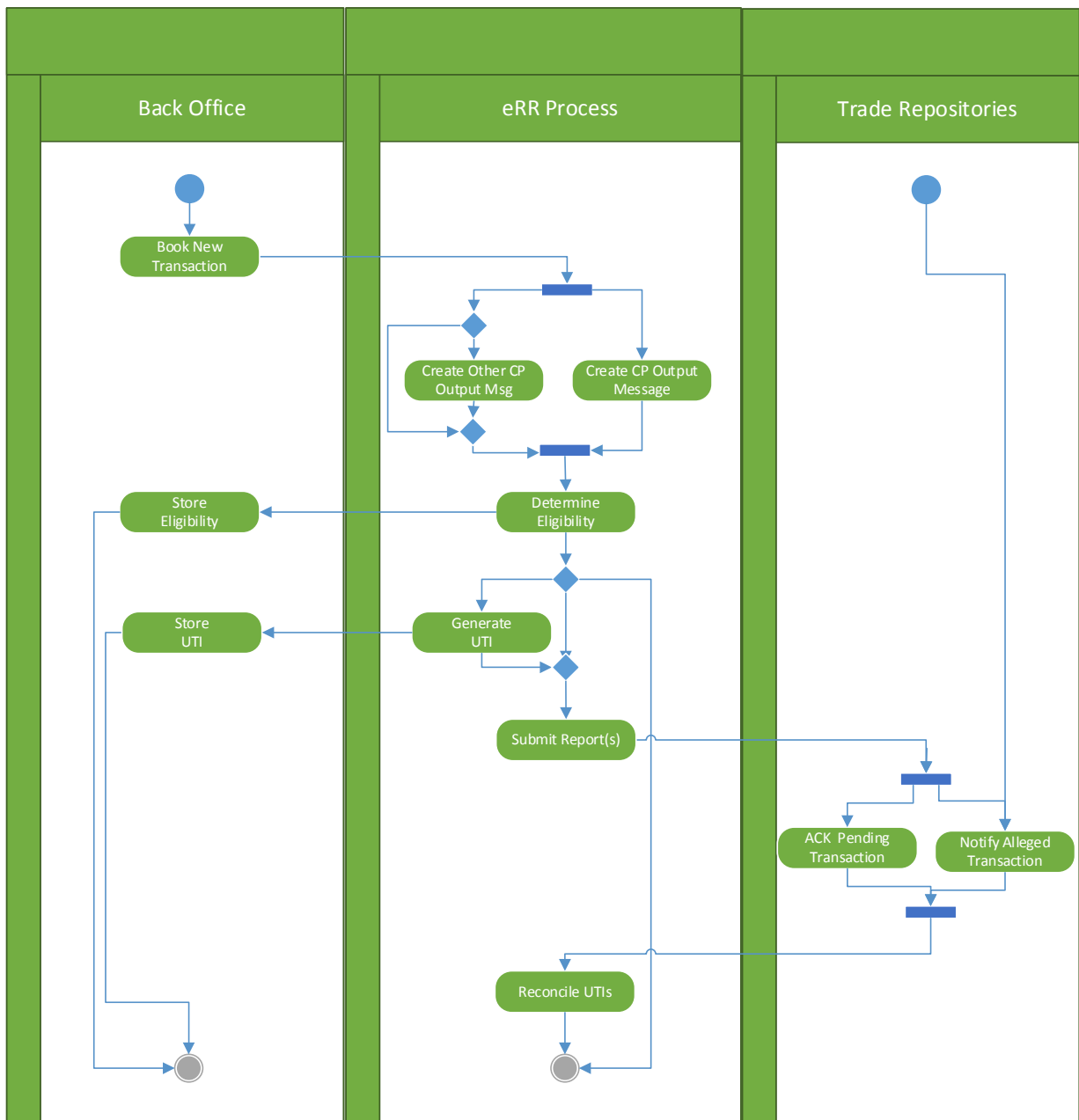


Figure 3: Activity diagram for centrally and bilaterally executed OTC transactions

High-Level Counterparty Output Message Processing

The input message to the eRR Process may be required to be enriched prior to submission. The input message must contain all mandatory reportable business data that is maintained within the system of record, such as the price and volume specific to the transaction etc. Other data required for compliant reporting under EMIR and/or REMIT may be maintained outside the system of record facilitating implementation of the eRR Process either as an extension to the system of record or as an external system or service. If the input message (from the system of record) does not include certain optional fields required for the final regulatory report then the eRR Process will 'complete' the message prior to submission of the regulatory report of the transaction. For more information, see "Enrichment of the Input Message".

High-Level Other Counterparty Output Message Processing

A counterparty can report on their own behalf and on behalf the 'Other Counterparty' to the transaction in the role of an agent. A third party agent can also report as the 'Counterparty' and, if required, on behalf of the 'Other Counterparty'.

In any of the cases involving reporting on behalf of the 'Other Counterparty' a separate regulatory report must be submitted on behalf of the 'Other Counterparty'. The report must be created with the 'Other Counterparty' as the 'Counterparty', i.e. the roles must be reversed to create the reporting perspective required by the EMIR and/or REMIT specifications.

It may be necessary to enrich the input message to create the report if the data is not present within the original input message. The ability to enrich the message, especially with Standing Instructions maintained by, or on behalf of the 'Other Counterparty', means that an agent need only submit the commercial terms of the transaction allowing the eRR Process to 'complete' the message with all other necessary data which in some cases they are unlikely to have access to; for example, an execution agent (e.g. a broker) might be able to offer to act as an 'Execution Agent' supplying the commercial terms of the transaction on behalf of one or both counterparties, with the regulatory reports being completed using the Standing Instructions maintained within the eRR Process by the Execution Agent on behalf of their clients.

The ability to enter and maintain Standing Instructions directly by a Counterparty or by and agent on behalf of a Counterparty is pre-requisite upon the Counterparty being identified by an LEI. If a 'Client Code' is used to identify an 'unknown' entity then all information otherwise available from Standing Instructions must be included in the input message to the eRR Process since Standing Instructions are not supported for Client Codes, only for LEI codes.

High Level Eligibility Processing

Both counterparties to eligible transactions are required to report under EMIR and REMIT regulations. By applying the same standard criteria for determining the eligibility of each transaction the risk of discrepancies between what is reported under the relevant regulation by each counterparty may be mitigated.

Each new transaction booked onto the system of record must have its eligibility for reporting determined in a timely fashion to facilitate compliance with reporting timescales defined within the applicable regulation. Since reporting timescales may differ between regulatory regimes and may also change due to revisions to the terms of a regulatory regime, it is highly recommended that eligibility for reporting is determined at the time of

booking of the transaction into the system of record, rather than at some later time, such as after close of business on the day of execution of the transaction.

A transaction may not be eligible for reporting, in which case this information is returned to be stored in the system of record and the eRR Process ends. Otherwise the criteria under which the transaction falls eligible are recorded within the process and the eligibility under EMIR and/or REMIT is returned to be stored in the system of record against the transaction.

High Level UTI Generation Processing

Transactions eligible for reporting under EMIR and REMIT must be identified by a UTI. If an input message describing a transaction has been received by the eRR Process and it has been determined that the transaction is eligible for reporting but has been submitted to the eRR Process without an externally supplied UTI then the eRR Process will generate a UTI and return the UTI value to be stored in the system of record against the transaction for subsequent use when reporting lifecycle events and/or continuation information and for inclusion within any confirmation process performed between the Counterparty and Other Counterparty.

If an input message contains an externally supplied UTI then an internal UTI will not be generated within the process.

It is recognised that an external UTI already shared between the counterparties, ideally generated at the point of execution, should if, possible be submitted to the eRR Process. However it is also recognised that in some circumstances, such as for bilaterally negotiated transactions, there may not be an established mechanism for UTI sharing between counterparties ahead of confirmation matching, or that the eRR Process is the preferred mechanism for generating the UTI, and that the use of internally generated UTIs in these cases is expedient.

In any case UTIs will need to be reconciled as part of the confirmation process for bilateral OTC transactions and so the rules set out in [5] for identification of the 'Generating Party' are mandated by the eRR Process for defining which party's UTI must be used by both counterparties, thus providing a standardised and automatable mechanism for resolving discrepancies that may arise at confirmation between the UTI to be used for a transaction.

High Level Submit Report(s) Process

Each eligible input message, including UTI and completed with all required fields will be passed to the Submit Report(s) process. The Submit Report(s) process will manage the necessary interactions with the underlying EMIR Trade Repositories and REMIT database(s).

For transactions reported under EMIR the target repository is specified in within the enhanced input message.

For transactions reported under REMIT the target databases will be determined depending on mechanisms agreed between ACER and the National Regulatory Authorities (NRAs).

An individual transaction may be reported under EMIR, REMIT or under both EMIR and REMIT. The ability for the eRR Process to accept one input message and to report to multiple regimes and multiple physical databases and repositories, as required, minimises the operational and technical impact of regulatory reporting and is a key feature of the process.

Successfully submitted reports must be confirmed by an acknowledgement from the the underlying trade repository and trade database(s).

High Level Reconcile UTI Process

Each transaction successfully reported by or on behalf of a Counterparty is logged within the eRR Process and assigned to the 'Pending' state within the reconciliation queue.

Each repository and traded database, for compliancy with the eRR Process, is required to incorporate the functionality to notify the 'Other Counterparty' of the submission of a regulatory report by the 'Counterparty' and to supply at least the UTI used by the Counterparty in their submitted report. The eRR Process therefore receives notifications of 'alleged' UTIs submitted by Counterparties. Each alleged notification is logged within the eRR Process and assigned to the 'Alleged' state within the reconciliation queue. The eRR Process will continually reconcile 'Pending' and 'Alleged' UTIs in each Counterparty reconciliation queue.

If the reconciliation queue contains aged, unreconciled UTIs then the Counterparty must take actions outside the eRR Process to investigate and reconcile, potentially through the confirmation process, any discrepancies and to apply any amendments to the UTI of the reported transaction to their system of record and propagate the amendment to the underlying repositories and traded databases through the eRR UTI amendment mechanism.

3.1.2 Regulatory Reporting of New Cleared Transactions

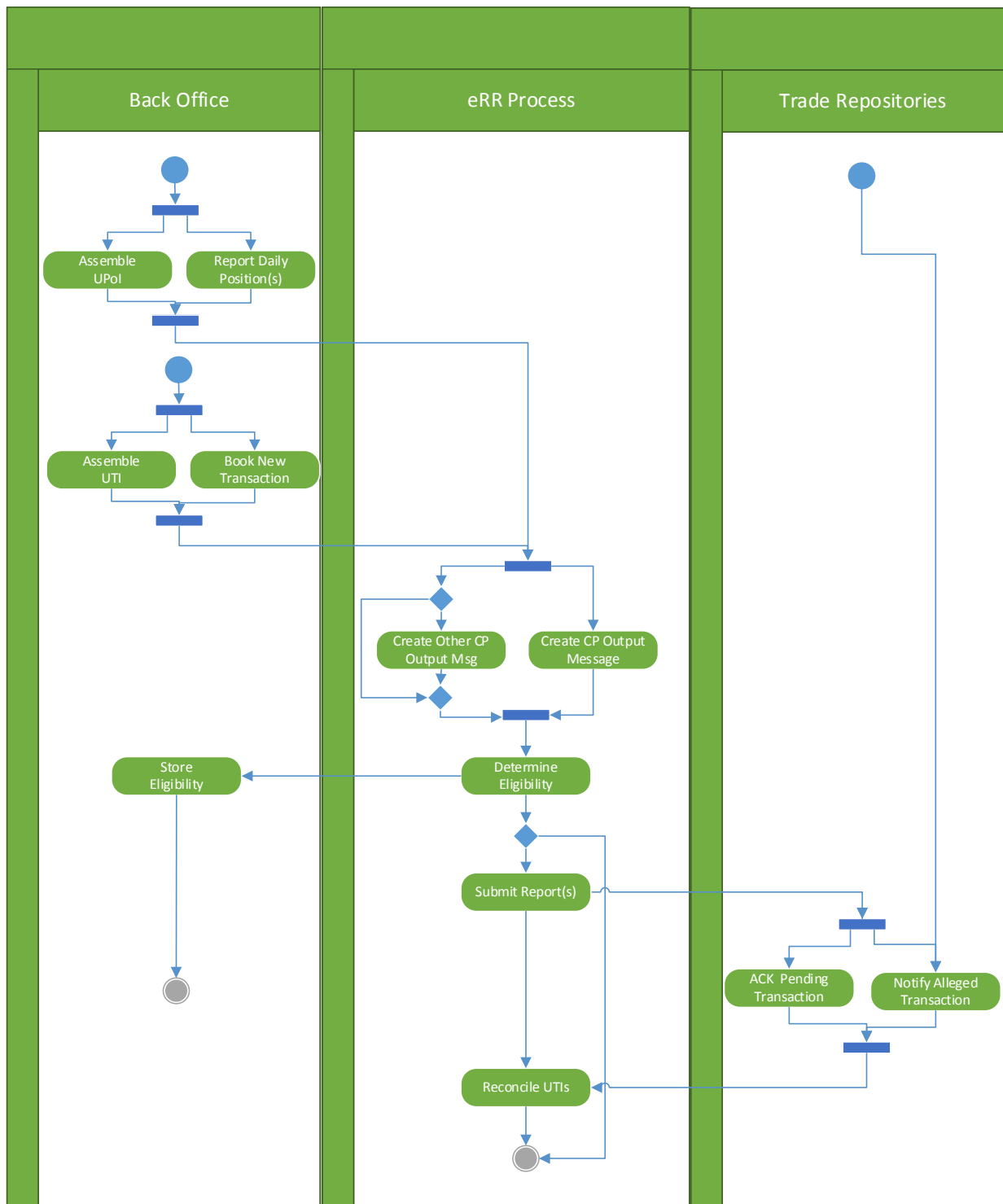


Figure 4: Activity diagram for cleared transactions

The flow for reporting of newly executed OTC cleared or exchange traded cleared transactions comprises a subset of the process steps described in High Level Flows for Regulatory Reporting of New Bilaterally Settled OTC Transactions. The major variations are: 'self-assembly' of the UTI for individual cleared transactions which must occur in the Back Office of the Counterparty or agent; and the submission of daily positions in addition to reporting of individual transactions.

The process of UTI ‘self assembly’ is set out in [6] and draws on data already shared between client and clearing broker outside of the scope of the eRR Process as part of existing business practices.

The mechanism for specifying the content of the daily position, as well as the ‘self assembly’ of associated UP(o)Is is also specified in [6].

The processes of determining eligibility of a cleared transaction, the creation of the output message(s) for the Counterparty and Other Counterparty in the case of a agency role, as well as the submission and reconciliation of pending and alleged UTIs and UP(o)Is are consistent with the approach for OTC bilaterally settled transactions. At this stage however the ‘counterparty data’ associated with the submission of the reported position remains uncertain and needs clarification in subsequent versions of [6]. Any such clarifications may need to be addressed with the Standing Instructions defined for eRR.

3.1.3 Regulatory Reporting of Amendments to Transactions

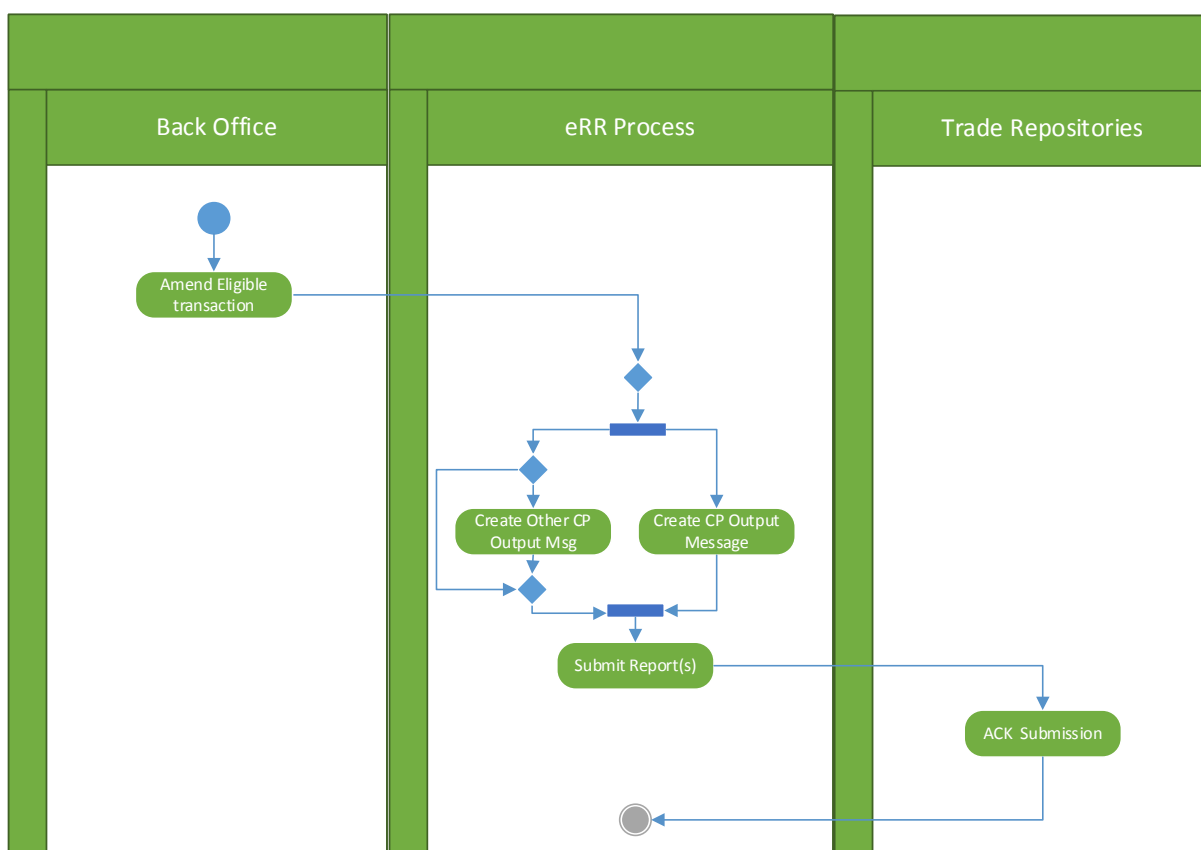


Figure 5 Activity Diagram for reporting amendments to transactions

The flow for reporting modifications (e.g. corrections) to a previously submitted report (ActionType = “M”) or eligible lifecycle events (ActionType = “M” or “O”) to and early terminations (ActionType = “C”) of reported transactions as well as the removal of reports submitted in error (ActionType = “E”) comprises a subset of the process steps described in High Level Flows for Regulatory Reporting of New Bilaterally Settled OTC Transactions. Each ‘ActionType’ is submitted as an amendment to a previously submitted input message. These process steps are applicable for both bilaterally settled and cleared transactions and independent of the underlying causes: compressions, novations, cascades, amalgamations and explosions etc. Except in the case where a modification (ActionType = “M”) or a lifecycle event (ActionType = “M” or “O”) is reported, no change to the content of the input

message is permitted, other than the setting of the ActionType either to “C”, to report an early termination, or “E”, to ‘error-out’ the UTI and all related reported data; in these two latter cases the same input message must be used as for the previous submission for the UTI, with the sole exceptions of changing the ActionType to either “C” or “E” as appropriate and adjusting the DocumentVersion of the inner payload.

N.B. In all cases of amendment processing the DocumentVersion of the inner payload (e.g. of the TradeConfirmation or the ETDTradeDetails) must be increased from the value of the previous submission for that DocumentID.

N.B. ActionType = “N” for a new trade event is not considered since it is not possible to amend data unless it has already been successfully reported. Input messages may require several submissions to successfully submit a report for any ActionType (including ActionType = “N”).

3.1.4 Regulatory Reporting of Valuations, Collateralisation Information and Confirmation Events

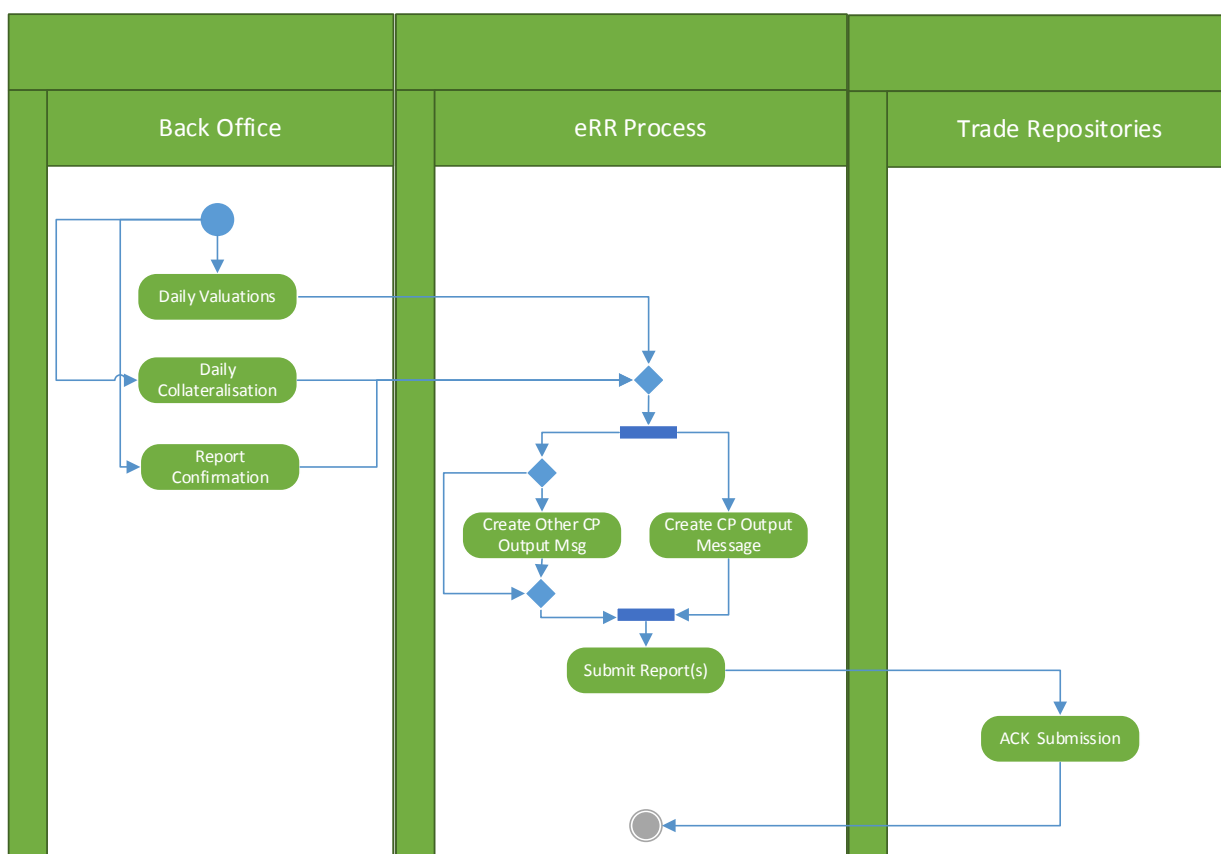


Figure 6 Activity Diagram for Reporting Valuations, Collateralisation and Confirmation Events

FC and NFC+ Counterparties must report daily valuations for all reported trades eligible under EMIR regulations to the Trade Repository to which the original transaction was reported until the transaction terminates.

FC and NFC+ Counterparties must report daily collateralisation information under EMIR at the portfolio level for all notified portfolios to the Trade Repository to which the associated transactions were originally reported until all transactions in the portfolio have terminated. EMIR permits transaction level reporting of collateralisation but the eRR Process recommends portfolio level collateralisation reporting.

All Counterparties must report the confirmation event, if not reported as part of the original report, under both EMIR and REMIT.

A Counterparty, such as the Clearing Broker may report valuation and collateralisation information on their own behalf and in the role of the Clearing Agent on behalf of the Other Counterparty. In such cases the report for the Other Counterparty will be created from their perspective using the same valuation or collateralisation information from the input message. In the case of the collateralisation information the Other Counterparty's portfolio code, if not present in the input message, is looked up for the corresponding portfolio to that being reported by the Clearing Broker from Standing Instructions for the Other Party.

Counterparty may report the confirmation event on their own behalf and on behalf of the Other Counterparty. In such cases the report for the Other Counterparty will be created from their perspective using the same confirmation information from the input message.

All reports are submitted to the Trade Repository and trade databases to which the original transaction was reported unless otherwise expressed in the input message.

3.2 Business Document Processing

The eRR Process minimizes the reporting overhead caused by reporting to two regimes with separate regulatory frameworks by specifying a single input message that can be used to fulfil a counterparty's reporting obligations under both regimes. On submission of the input message, the eRR Process uses the data provided in the input message to determine the eligibility of the underlying transaction for reporting under both regimes.

3.2.1 Enrichment of the Input Message

Many fields in the CpMLDocument are optional or conditional in the input message to the eRR Process. They can be omitted because it is possible to automatically add the values and create an enriched message in CpML format.

Process users can decide how rich their input messages are:

- A richer message reduces the amount of processing that is needed to complete the report before it is submitted to the underlying repositories and databases.
- A less rich message means that more fields are automatically generated by the process. The processing for each field can be performed inhouse in the process user's system or be outsourced to the eRR service.

The essential commercial terms of eligible transactions must be complemented with the following:

- Information captured in addition to the commercial terms during booking of the transaction.
- Information derived from commercial terms.
- Information created as part of the reporting process or added to the submitted report from some external source.

The values that are added during enrichment are derived using one of the following mechanisms:

- Standing Instructions: a set of default values for specific fields that is maintained by the counterparty or an agent acting on behalf of the counterparty. For more information, see "Standing Instructions".
- Generated field values: data that can be derived from other field values in the input message or generated dynamically. For more information, see "Generated Field Values".

- Reference lookup: data that can be looked up from external data sources. For more information, see “Reference Lookup”.

Standing Instructions

Standing Instructions provide default values for information about the counterparty to a transaction. The default values are used to enrich the input messages for transactions of the counterparty. If the default value for a counterparty applies to a transaction report, then the reporting party may choose to omit the value from the input message. In that case, the enriched CpMLDocument is populated with the value from the Standing Instructions. If the reporting party wants to report a value that differs from the default value in the Standing Instructions, then they must include the corresponding field in the input message.

Example: The Standing Instructions contain the value “A” for ‘TradingCapacity’ because the counterparty reporting the transaction is usually acting in the role of an agent. If the counterparty reports on their own behalf, they add the value “P” to the input message.

Standing Instructions can be maintained by the counterparty or by an agent acting on behalf of the counterparty.

This procedure has two benefits:

- It reduces the reporting overhead of the counterparty, because they do no longer need to maintain this data or add it to the commercial terms within the input message.
- It allows an agent who has access to the commercial terms of the individual transactions to report on behalf of the counterparty because the agent usually does not have access to the complementary data that is required for reporting purposes.

Important: Standing Instructions can only be maintained if the corresponding counterparty is identified using an LEI code. If a client code is used, then all information otherwise available from Standing Instructions must be included in the input message.

The data tables in the section “CpMLDocument” indicate which fields can be enriched from Standing Instructions.

Generated Field Values

Some field values in the output CpMLDocument can be generated as follows:

- Values are created automatically within the eRR Process, for example, time stamps and the UTI.
- Values in the ‘Europe/Reporting’ section can be derived from the commercial terms within the transaction details section of the input CpMLDocument. Some of these values are simple mappings from one field to another that depend on certain conditions. Other values are calculated according to a formula.

The data tables in the section “CpMLDocument” indicate which fields can be generated and how the values are calculated.

Reference Lookup

Some field values can be derived from looking up reference data from external sources, for example, an ETD database.

The data tables in the section “CpMLDocument” indicate which field values can be looked up from reference data.

3.2.2 Formation and Amendment of the UTI

UTI formation for Uncleared Transactions

The UTI for uncleared transactions as defined by the eRR Process, in conjunction with ref ID [5], must comprise the following:

- Namespace which must be 7-16 from the LEI
- 32 randomly generated characters

UTI formation for Cleared Transactions

The UTI for cleared transactions and positions is defined by the eRR Process as specified in ref ID [6].

Amendment of the UTI

The UTI is an amendable data item within the eRR Process. To change the UTI on a previously submitted transaction report, it is necessary to submit an amendment (same document ID, higher document version) with the 'ActionType' set to "M" and including any changes including the new UTI.

Any constraint on amendment of UTI placed by the underlying repositories and databases will be managed through the Submit Report(s) sub-process and may include combining the cancellation of the original submission and the opening of a new entry in the repository.

3.2.3 Eligibility Processing

The eligibility for reporting under one of the supported regimes is determined by applying a set of standardized filter criteria on a single standardized input message. This mitigates the risk of inconsistent reporting and discrepancies between counterparties who have multiple reporting obligation, for example, EMIR and REMIT.

The following principles are applied:

- Use an input message to the process defined by the CpML standard.
- Define one filter that acts upon the input message. This filter has different sets of filter values per regulation, for example, EMIR and REMIT.
- The filter criteria are based on the essential regulatory clauses.
- Retain an audit trail specifying upon which criteria the eligibility of each input message was determined.

Regulatory Derivation of Filter Criteria for EMIR

The base criteria for EMIR reporting is that the legal entity acting in the capacity of counterparty or other counterparty is legally resident within the European Union. If an LEI code is not registered in the EU, then the LEI code is not subject to EMIR.

If an agent reports on behalf of at least one counterparty with an LEI registered within the EU, then the whole report will be considered eligible for reporting.

The following commentary is based on based on *MiFID I definitions, Section C*.

- C5: all financial instruments with cash settlement
 - CpML analysis:
 - All OTC and cleared Swaps, options on these instruments and Financial Options defined within the CpML data standard are cash settled instruments and therefore eligible under this clause

- All OTC Physical Forwards (including spot contract) both fixed and floating price and options on these instruments defined within the CpML data standard are physically settled instruments and therefore ineligible under this clause
- All cleared Physical Forwards (including spot contract) both fixed and floating price and options on these instruments defined within the CpML data standard are physically settled instruments and therefore ineligible under this clause unless otherwise defined as financially settled by the 'CRAProductCode' referenced within the CpML ETDTradeDetails schema and maintained by the Regulated Market or MTF where the product is traded in which case they are eligible under this clause
- Futures and exchange traded options are cash settled and therefore eligible under this clause unless otherwise defined as physically settled by the 'CRAProductCode' referenced within the CpML ETDTradeDetails schema and maintained by the Regulated Market or MTF where the product is traded in which case they are ineligible under this clause.
- CpML filter criteria:
 - All CpML payload documents, including ETDTradeDetails which describe cleared transactions, in the input message with the following 'TransactionType' values WILL be captured by this clause:
 - "FXD_SWP": Fixed/float swap
 - "FXD_FXD_SWP": Fixed/fixed swap
 - "FLT_SWP": Float/float swap
 - "OPT_FXD_SWP": Fixed/float swaption
 - "OPT_FXD_FXD_SWP": Fixed/fixed swaption
 - "OPT_FLT_SWP": Float/float swaption
 - "OPT_FIN_INX": Option on an index
 - All CpML transaction details sections, excluding 'ETDTradeDetails', that describe cleared transactions, with the following 'TransactionType' values WILL NOT be captured by this clause:
 - "FOR": Physical Forward that settles against a fixed price
 - "OPT": Option on a physical forward
 - "PHYS_INX": Physical forward that settles against an index
 - "OPT_PHYS_INX": Option on a physical forward that settles against an index
 - CpMLDocuments with an 'ETDTradeDetails' section in the input message with the following 'TransactionType' values WILL be captured by this clause unless a look up of the 'CRAProductCode' indicates that the referenced product is physically settled, in which case it WILL NOT be captured by this clause:
 - "FUT": Future
 - "OPT_FUT": Exchange traded option
 - "FOR": Physical Forward that settles against a fixed price
 - "OPT": Option on a physical forward
 - "PHYS_INX": Physical forward that settles against an index
 - "OPT_PHYS_INX": Option on a physical forward that settles against an index
- C6: all physically settled instruments traded on a Regulated Market or MTF with physical delivery
 - CpML analysis:

- All OTC and cleared Swaps, options on these instruments and Financial Options defined within the CpML data standard are cash settled instruments and therefore ineligible under this clause
- All OTC Physical Forwards (including spot contract) both fixed and floating price and options on these instruments, defined within the CpML data standard are physically settled instruments and therefore eligible (with the exception of spot contract which are not 'derivatives') under this clause if the 'Venue of Execution' is identified with a MIC which indicates, for the purposes of the eRR Process, that the platform is an MTF or Regulated Market and that these physically settled instruments, in this context, are eligible under this clause
- All cleared transactions are cash settled and therefore ineligible under this clause unless otherwise defined as physically settled by the 'CRAProductCode' referenced within the CpML ETDTTradeDetails schema and maintained by the Regulated Market or MTF where the product is traded in which case they are eligible (with the exception of spot contract which are not 'derivatives') under this clause if the 'Venue of Execution' is identified with a MIC which, for the purposes of the eRRprocess, indicates that the platform is an MTF or Regulated Market OR 'Venue of Execution' is identified as "XOFF" which means that the cleared (or 'listed') product was executed on a venue that is not a RG or MTF and that these cleared but physically settled instruments, in this context, are eligible under this clause
- CpML filter criteria:
 - All CpML payload documents, including ETDTTradeDetails which describe cleared transactions, in the input message with the following 'TransactionType' values WILL NOT be captured by this clause:
 - "FXD_SWP": Fixed/float swap
 - "FXD_FXD_SWP": Fixed/fixed swap
 - "FLT_SWP": Float/float swap
 - "OPT_FXD_SWP": Fixed/float swaption
 - "OPT_FXD_FXD_SWP": Fixed/fixed swaption
 - "OPT_FLT_SWP": Float/float swaption
 - "OPT_FIN_INX": Option on an index
 - All CpML payload documents, excluding ETDTTradeDetails which describe cleared transactions, in the input message with the following 'TransactionType' values WILL NOT be captured by this clause unless the value for the 'Venue of Execution' is a MIC AND 'Effective Date' > 'DATE(Execution Timestamp)+2, in which case it WILL be captured by this clause:
 - "FOR": Physical Forward that settles against a fixed price
 - "OPT": Option on a physical forward
 - "PHYS_INX": Physical forward that settles against an index
 - "OPT_PHYS_INX": Option on a physical forward that settles against an index
 - CpML ETDTTradeDetail payload documents in the input message with the following 'TransactionType' values WILL NOT be captured by this clause unless a look up of the 'CRAProductCode' indicates that the referenced product is physically settled AND the value for the 'Venue of Execution' is a MIC OR "XOFF" AND 'Effective Date' > 'DATE(Execution Timestamp)+2, in which case it WILL be captured by this clause:
 - "FOR": Physical Forward that settles against a fixed price
 - "OPT": Option on a physical forward

- “PHYS_INX”: Physical forward that settles against an index
- “OPT_PHYS_INX”: Option on a physical forward that settles against an index
- “FUT”: Future
- “OPT_FUT”: Exchange traded option
- C7: all physically settled instruments executed on a third country RM/MTF (or equivalent) that are cleared
 - CpML analysis:
 - All OTC and cleared Swaps, options on these instruments and Financial Options defined within the CpML data standard are cash settled instruments and therefore ineligible under this clause
 - All OTC Physical Forwards (including spot contract) both fixed and floating price and options on these instruments, defined within the CpML data standard are uncleared, physically settled instruments and therefore ineligible under this clause
 - All cleared transactions are cash settled and therefore ineligible under this clause unless otherwise defined as physically settled by the ‘CRAProductCode’ referenced within the CpML ETDTradeDetails schema and maintained by the Regulated Market or MTF where the product is traded in which case they are eligible (with the exception of spot contract which are not ‘derivatives’) under this clause if the ‘Venue of Execution’ is identified with a MIC for a third country venue which, for the purposes of the eRR Process, indicates that the third-country platform is equivalent to an EU MTF or Regulated Market OR ‘Venue of Execution’ is identified as “XOFF” which means that the cleared (or ‘listed’) product was executed on a venue that is not a RG or MTF and that these cleared but physically settled instruments, in this context, are eligible under this clause
 - CpML filter criteria:
 - All CpML payload documents in the input message with the following ‘TransactionType’ values WILL NOT be captured by this clause:
 - “FXD_SWP”: Fixed/float swap
 - “FXD_FXD_SWP”: Fixed/fixed swap
 - “FLT_SWP”: Float/float swap
 - “OPT_FXD_SWP”: Fixed/float swaption
 - “OPT_FXD_FXD_SWP”: Fixed/fixed swaption
 - “OPT_FLT_SWP”: Float/float swaption
 - “OPT_FIN_INX”: Option on an index
 - All CpML payload documents, excluding ETDTradeDetails which describe cleared transactions, in the input message with the following ‘TransactionType’ values WILL NOT be captured by this clause:
 - “FOR”: Physical Forward that settles against a fixed price
 - “OPT”: Option on a physical forward
 - “PHYS_INX”: Physical forward that settles against an index
 - “OPT_PHYS_INX”: Option on a physical forward that settles against an index
 - CpML ETDTradeDetail payload documents in the input message with the following ‘TransactionType’ values WILL NOT be captured by this clause unless a look up of the ‘CRAProductCode’ indicates that the referenced product is physically settled AND the value for the ‘Venue of Execution’ is a MIC or “XOFF” (n.b. it has been agreed that there is no requirement to validate the nature or status of a venue identified by a MIC as being EU or third country or if third country equivalent to an

EU MTF or RG) AND 'Effective Date' > 'DATE(Execution Timestamp)+2, in which case it WILL be captured by this clause:

- "FOR": Physical Forward that settles against a fixed price
 - "OPT": Option on a physical forward
 - "PHYS_INX": Physical forward that settles against an index
 - "OPT_PHYS_INX": Option on a physical forward that settles against an index
 - "FUT": Future
 - "OPT_FUT": Exchange traded option
- C10: Cash settled Options, futures, swaps, forward rate agreements relating to climatic variables, freight rates, emission allowances
 - CpML analysis
 - Any cleared transaction for the identified commodities which must be described according to CpML using the ETDTradeDetails schema will be eligible under this clause.
 - CpML filter criteria:
 - All CpML 'ETDTradeDetails' payload documents in the input message for which 'CommodityBase' = "EV" or "FR"

Regulatory derivation of filter criteria for REMIT

The following commentary is based on ref ID [4].

- Natural gas and electricity for delivery in the 'EU'
 - CpML analysis:
 - All Physical Forwards (including spot contract) both fixed and floating price and options on these instruments defined within the CpML data standard with a delivery point or area within the EU WILL be eligible
 - All Swaps and Financial Options defined within the CpML data standard for which the underlying Commodity Reference is priced off a contract referencing a delivery point or area with the EU WILL be eligible
 - Futures and exchange traded options and, more generally, any cleared product for which the "CRAProductCode" refers to a delivery point or area with the EU WILL be eligible
 - CpML filter criteria:
 - All CpML payload documents in the input message with the following 'TransactionType' values WILL be captured by this clause if 'Commodity Base' = "CO" AND 'Commodity Details' = "NG" or "EL" AND 'Delivery Point Area' is an EIC code that identifies a point or area that is within the EU:
 - "FOR": Physical Forward that settles against a fixed price
 - "OPT": Option on a physical forward
 - "PHYS_INX": Physical forward that settles against an index
 - "OPT_PHYS_INX": Option on a physical forward that settles against an index
 - All CpML payload documents in the input message with the following 'TransactionType' values WILL be captured by this clause if 'Commodity Base' = "CO" AND 'Commodity Details' = "NG" or "EL" AND 'Commodity Reference' is defined as referring to some underlying contract that references delivery at a point or area that is within the EU:
 - "FXD_SWP": Fixed/float swap

- "FXD_FXD_SWP": Fixed/fixed swap
 - "FLT_SWP": Float/float swap
 - "OPT_FXD_SWP": Fixed/float swaption
 - "OPT_FXD_FXD_SWP": Fixed/fixed swaption
 - "OPT_FLT_SWP": Float/float swaption
 - "OPT_FIN_INX": Option on an index
- All input messages that contain an ETDTradeDetails schema for any of the following 'TransactionType' values WIL be captured by this clause if 'Commodity Base' = "CO" AND 'Commodity Details' = "NG" or "EL" AND 'CRAProductCode' is defined as referring to some underlying contract that references delivery at a point or area that is within the EU:
- "FOR": Physical Forward that settles against a fixed price
 - "OPT": Option on a physical forward
 - "PHYS_INX": Physical forward that settles against an index
 - "OPT_PHYS_INX": Option on a physical forward that settles against an index
 - "FXD_SWP": Fixed/float swap
 - "FXD_FXD_SWP": Fixed/fixed swap
 - "FLT_SWP": Float/float swap
 - "OPT_FXD_SWP": Fixed/float swaption
 - "OPT_FXD_FXD_SWP": Fixed/fixed swaption
 - "OPT_FLT_SWP": Float/float swaption
 - "OPT_FIN_INX": Option on an index
 - "FUT": Future
 - "OPT_FUT": Exchange traded option

3.2.4 Box Results

The eRR Process accepts input messages and responds with box results.

More than one box result may be generated per submission. For example, if a process user submits a new report, the eRR Process generates a box result for the acceptance by the eRR Process and a second box result for the acceptance by the trade repository.

There is a millisecond timestamp on the message and you should always sort the box results by that.

Box results are classified into sequential stages. On successful completion of a stage, the eRR Process generates a box result with positive feedback. For example, for the successful submission of a report, the box result "Submit"/"OK" is returned. After completion of the eRR Process, a submission has the following box results:

- Submit: "Submit"/"OK"
- Processing: "Processing"/"Report"
- Reporting: "Reporting"/"OK"

In case of an error, the process user receives a box result for the corresponding stage that indicates the reason of the error: "Submit"/"Error/Reason".

3.2.5 Mapping of CpML Field Values to EMIR and REMIT Data Requirements

The mapping from the enriched CpML message to the EMIR fields and ACER XML is described in the corresponding cross-reference tables, which are attached to this process specification as Excel files.

EMIR

For the EMIR mapping, see the file "[EFET eRR v 2 0a cross-reference EMIR.xlsx](#)".

The EMIR cross-reference table indicates the changes that were made for EMIR L3. These are indicated as follows:

- Column "EMIR Field Name": the previous field names for comparison.
- Column "EMIR 3 Field Name": the current field names under EMIR L3. The column cells are color-coded:
 - No background color: no change
 - Orange: changed field
 - Green: new field
 - Red: deleted field (deprecated in EMIR L3)
- Column "Enrichment possible": indicates whether the field can be enriched prior to mapping the input message to EMIR fields. The corresponding rules are described in the section "CpMLDocument" in this document.

4 eRR Document Reference

The CpML standard is used to exchange transaction data in the eRR Process. For a full description of the CpML schema, see the CpML specification (ref ID [1]). This section contains the business rules specific to the eRR Process that apply to the corresponding sections in the CpMLDocument. In addition, it contains descriptions of additional messages that are generated and exchanged, for example, valuation messages.

4.1 Document IDs

To provide a common syntax for CpMLDocuments that is comprehensible and maintains uniqueness, the CpML standard defines rules for creating document IDs. These rules are also applicable in the scope of the eRR Process. For more information, see the section “Document IDs” in the CpML specification.

4.1.1 Constraints on Document ID Usage in the eRR Process

A document ID is unique per sender, trade and document type. The document ID that is used to first report a transaction, must never change and be used for all future documents relating to this trade.

The eRR Process must reject a document in the following cases:

- The document ID is already in use by another customer.
- A document with document ID “123” contains a UTI that is known to the eRR service with document ID “567” (from the same sender).

4.2 CpMLDocument

The following tables provide details about the enrichment that is applied to fields in the input CpMLDocument. The tables describe the relevant parts of the CpML XML schema in a flattened form. The fields are listed in the same order as they occur in the schema. The tables list only those sections and fields that have additional processing rules in the eRR Process, for example, Standing Instructions or other enrichment rules.

For each field, you find the location in the CpML schema, the enrichment type and the corresponding processing rules.

For a general description and business rules in the CpML schema, see the CpML specification (ref ID [1]).

The Enrichment column provides information on the corresponding enrichment type:

- SI = Standing Instructions, see “Standing Instructions”.
- Gen = Generated, see “Generated Field Values”.
- Default = A default value is applied.
- Lookup = Lookup in external data source, see “Reference Lookup”.

If a field with a matching Enrichment rule is present in the input CpMLDocument, then that value is also used in the output CpMLDocument. If a field with a matching Enrichment rule is missing from the input CpMLDocument, then the field can be automatically generated and added to the output CpMLDocument.

Sometimes enrichment is only applied to a field in certain contexts. For example, different rules can be applied depending on the value of another field or a specific combination of

asset type and transaction type. These rules are listed as conditions in the table. If no conditions are stated, then the field is mandatory in the output CpML in all contexts.

Example:

The input CpMLDocument has no 'EURegulatoryDetails/BeneficiaryID' field:

- 'TradingCapacity' is set to "A". The Standing Instructions must have a value, which is added to the output CpMLDocument during enrichment.
- 'TradingCapacity' is set to "P". The field is populated in the output CpMLDocument using the value of 'CounterpartyID'.

Sometimes, only complete sections can be enriched. In these cases, either the input CpMLDocument must contain all fields that are mandatory for the output CpMLDocument, or the whole section must be missing from the input CpMLDocument and is generated automatically. Such sections are clearly marked in the following tables.

4.2.1 Reporting/Europe

The 'Reporting/Europe' section of the CpMLDocument contains fields specific to the REMIT and EMIR reporting processes. This section provides details about the enrichment that is applied and lists additional business rules that are process-specific.

Note: To improve readability and findability, the section is split into several tables.

EURegulatoryDetails

Some of the fields in 'EURegulatoryDetails' are duplicated in 'EURegulatory-Details/ReportingOnBehalf/OtherCounterpartyDetails'. Depending on the details of the reported transactions, the fields are enriched in 'EURegulatoryDetails' or 'EURegulatoryDetails/ReportingOnBehalf/OtherCounterpartyDetails' or both. The corresponding data is taken from the Standing Instructions for the counterparty or the other counterparty to the trade.

Field name	Subsection	Enrichment	Conditions & Rules
UTI		Gen	
Reporting-Timestamp		Gen	If this field is enriched, then it is the time when the enrichment was performed.
CPFinancial-Nature	EURegulatoryDetails or EURegulatoryDetails/-ReportingOnBehalfOf/Other-CounterpartyDetails	SI	
CPSector	EURegulatoryDetails/ CPSectors or EURegulatoryDetails/-ReportingOnBehalfOf/Other-CounterpartyDetails/ CPSectors	SI	At least one 'CPSector' value must be present in the output CpMLDocument if 'CPFinancialNature' is set to "F" or "N". The Standing Instructions may contain multiple values for 'CPSector'. If a report requires multiple 'CPSector' values, then the fields in the CpMLDocument are enriched in a defined order. The first 'CPSector' field is enriched using the first 'CPSector' value in the Standing Instructions, the second field with the second value, and so on.

Field name	Subsection	Enrichment	Conditions & Rules
BeneficiaryID	EURegulatoryDetails or EURegulatoryDetails/-ReportingOn-BehalfOf/Other-CounterpartyDetails	SI	This field can be enriched if 'TradingCapacity' is set to "A".
TradingCapacity	EURegulatoryDetails or EURegulatoryDetails/-ReportingOn-BehalfOf/Other-CounterpartyDetails	SI	
OtherCPCountry	EURegulatoryDetails or EURegulatoryDetails/-ReportingOn-BehalfOf/Other-CounterpartyDetails	Gen	The country code is derived from the LEI code of the other counterparty, which is looked up from a valid LEI database. Depending on the reporting perspective, this is the ID of the seller or the buyer. For the lookup, the ID of the reporting counterparty or the ID of the other counterparty is used. The rules for deriving these IDs from fields in the input message are described in the corresponding mapping table, see "Mapping of CpML Field Values to EMIR and REMIT Data Requirements."
Commercial-OrTreasury	EURegulatoryDetails or EURegulatoryDetails/-ReportingOn-BehalfOf/Other-CounterpartyDetails	SI	This field is mandatory in the output CpMLDocument if 'CPFinancialNature' is set to "N" and the transaction details section is not 'ETDTradeDetails' or 'Position' is set to "False".
Clearing-Threshold	EURegulatoryDetails or EURegulatoryDetails/-ReportingOn-BehalfOf/Other-CounterpartyDetails	SI	This field is mandatory in the output CpMLDocument if 'CPFinancialNature' is set to "N".
Collateralisation	EURegulatoryDetails or EURegulatoryDetails/-ReportingOn-BehalfOf/Other-CounterpartyDetails	SI	This field is mandatory in the output CpMLDocument if 'ClearingThreshold' is set to "True" or 'CPFinancialNature' is set to "F" or "C".
Collateralisation-Portfolio	EURegulatoryDetails or EURegulatoryDetails/-ReportingOn-BehalfOf/Other-CounterpartyDetails	SI	This field is mandatory in the output CpMLDocument if 'ClearingThreshold' is set to "True" or 'Collateralisation' differs from "U".
Collateralisation-PortfolioCode	EURegulatoryDetails or EURegulatoryDetails/-ReportingOn-BehalfOf/Other-CounterpartyDetails	SI	This field is mandatory in the output CpMLDocument if 'CollateralisationPortfolio' is set to "True".

EURegulatoryDetails/ProductIdentifier

This section is mandatory in the output CpMLDocument.

Important: Only the whole section can be enriched, not individual fields. Fields that are not optional in the output CpMLDocument and are not enriched.

Field name	Subsection	Enrichment	Conditions & Rules
EURegulatoryDetails/ProductIdentifier section		Gen	
Product-Identification-Type		Gen	<p>This field is generated according to the following rules:</p> <ul style="list-style-type: none"> • If 'VenueOfExecution' is set to "XOFF" or contains a MIC code classified as ISIN, then this field is set to "I". • If 'VenueOfExecution' contains a MIC code classified as Aii, then this field is set to "A". • Else, the field is omitted from the output CpMLDocument. <p>Important: If the trade is an ETD and the ETD database contains an ISIN or Aii for the product, both 'ProductIdentificationType' and 'ProductIdentification' are filled accordingly.</p>
Product-Identification		Gen	<p>This field is generated according to the following rules:</p> <ul style="list-style-type: none"> • If 'ProductIdentificationType' is set to "I", then this field is set to the ISIN for the traded product. • If 'ProductIdentificationType' is set to "A", then this field is set to the Aii for the traded product. • Else, the field is omitted from the output CpMLDocument. <p>Important: If the trade is an ETD and the ETD database contains an ISIN or Aii for the product, both 'ProductIdentificationType' and 'ProductIdentification' are filled accordingly.</p>
Product-ClassificationType		Gen	<p>This field is set to "C".</p> <p>Note: Once a UPI becomes available for the traded product, the value "U" must be used for products not identified using an ISIN or Aii.</p>
Product-Classification		Gen	<p>This field is set to an ISO-compliant CFI, for example, "OPXCXX", "OCXTXX", "FCXXXX", "FFCXXX" or "MRTXXX".</p> <p>The rules for generating CFIs are described in "Appendix B: Rules for CFI Generation".</p>
EProductID1	EProduct	Gen	<p>This field is generated according to the following rules:</p> <ul style="list-style-type: none"> • If the transaction details section is 'TradeConfirmation', then this field is set to "CO". • If the transaction details section is 'IRTradeDetails', then this field is set to "IR". • If the transaction details section is 'ETDTradeDetails', then this field is mapped to the value of 'ETDTradeDetails/PrimaryAssetClass'. • If the transaction details section is 'FXTradeDetails', then this field is set to "CU".

Field name	Subsection	Enrichment	Conditions & Rules
EProductID2	EProduct	Gen	<p>This field is generated according to the following rules:</p> <p>Transaction details section is 'TradeConfirmation':</p> <ul style="list-style-type: none"> • If 'TransactionType' is set to "FOR" or "PHYS_INX", then this field is set to "FW". • If 'TransactionType' is set to "OPT", "OPT_PHYS_INX" or "OPT_FIN", then this field is set to "OP". • If 'TransactionType' is set to "OPT_FXD_SWP" or "OPT_FLT_SWP", then this field is set to "ST". • If 'TransactionType' is set to "FXD_SWP" or "FLT_SWP", then this field is set to "SW". <p>Transaction details section is 'IRSTradeDetails':</p> <ul style="list-style-type: none"> • If 'TransactionType' is set to "OPT_FXD_SWP", "OPT_FLT_SWP" or "OPT_FXD_FXD_SWP", then this field is set to "ST". • If 'TransactionType' is set to "FXD_SWP", "FLT_SWP" or "FXD_FXD_SWP", then this field is set to "SW". <p>Transaction details section is 'FXTradeDetails':</p> <ul style="list-style-type: none"> • If 'TransactionType' is set to "OPT", then this field is set to "OP". • If 'TransactionType' is set to "OPT_FXD_FXD_SWP", then this field is set to "ST". • If 'TransactionType' is set to "FXD_FXD_SWP", then this field is set to "SW". • If 'TransactionType' is set to "FOR" or "SPT", then this field is set to "FW". <p>Transaction details section is 'ETDTradeDetails':</p> <ul style="list-style-type: none"> • If 'TransactionType' is set to "FOR" or "SPT", then this field is set to "FW". • If 'TransactionType' is set to "OPT", "OPT_PHYS_INX", "OPT_FIN" or "OPT_FUT", then this field is set to "OP". • If 'TransactionType' is set to "OPT_FXD_SWP", "OPT_FLT_SWP" or "OPT_FXD_FXD_SWP", then this field is set to "ST". • If 'TransactionType' is set to "FXD_SWP", "FLT_SWP" or "FXD_FXD_SWP", then this field is set to "SW". • If 'TransactionType' is set to "FUT", then this field is set to "FU".

EURegulatoryDetails (cont.)

Field name	Subsection	Enrichment	Conditions & Rules
ContractType		Gen	<p>This field is enriched according to the following rules:</p> <p>OTC commodities:</p> <ul style="list-style-type: none"> • If 'TransactionType' is set to "FOR" or "PHYS_INX", then set to "FW". • If 'TransactionType' is set to "OPT" or "OPT_PHYS_INX", then set to "OP_FW". • If 'TransactionType' is set to "OPT_FXD_SWP" or "OPT_FLT_SWP", then set to "OP_SW". • If 'TransactionType' is set to "FXD_SWP" or "FLT_SWP", then set to "SW". • If 'TransactionType' is set to "OPT_FIN_INX", then set to "OP". <p>OTC commodity formula swaps:</p> <ul style="list-style-type: none"> • If 'TransactionType' is set to "PHYS_INX", then set to "FW". • If 'TransactionType' is set to "OPT_PHYS_INX", then set to "OP_FW". • If 'TransactionType' is set to "OPT_FXD_SWP" or "OPT_FLT_SWP", then set to "OP_SW". • If 'TransactionType' is set to "FXD_SWP" or "FLT_SWP", then set to "SW". • If 'TransactionType' is set to "OPT_FIN_INX", then set to "OP". <p>ETDS:</p> <ul style="list-style-type: none"> • If 'TransactionType' is set to "SPT", "FOR" or "PHYS_INX", then set to "FW". • If 'TransactionType' is set to "OPT", or "OPT_PHYS_INX", then set to "OP_FW". • If 'TransactionType' is set to "OPT_FXD_SWP" or "OPT_FLT_SWP", then set to "OP_SW". • If 'TransactionType' is set to "FXD_SWP" or "FLT_SWP", then set to "SW". • If 'TransactionType' is set to "OPT_FIN_INX", then set to "OP". • If 'TransactionType' is set to "FUT", then set to "FU". • If 'TransactionType' is set to "OPT_FUT", then set to "OP_FU". <p>OTC FX:</p> <ul style="list-style-type: none"> • If 'TransactionType' is set to "SPT" or "FOR", then set to "FW". • If 'TransactionType' is set to "OPT", then set to "OP_FW". • If 'TransactionType' is set to "OPT_FXD_FXD_SWP", then set to "OP_SW". • If 'TransactionType' is set to "FXD_FXD_SWP", then set to "SW". <p>OTC IRS:</p> <ul style="list-style-type: none"> • If 'TransactionType' is set to "OPT_FXD_FXD_SWP", "OPT_FXD_SWP" or "OPT_FLT_SWP", then set to "OP_SW". • If 'TransactionType' is set to "FXD_FXD_SWP", "FXD_SWP" or "FLT_SWP", then set to "SW".
Compression		Default	This field is set to "False".

Field name	Subsection	Enrichment	Conditions & Rules
Execution- Timestamp		Gen	<p>This field is set to the date and time defined in the transaction details section, using</p> <p>OTC commodities, OTC commodity formula swaps, OTC IRS, OTC FX:</p> <ul style="list-style-type: none"> Set to 'TradeExecutionTimestamp' or 'TradeDate' and 'TradeTime', respectively. <p>ETDs:</p> <ul style="list-style-type: none"> Set to: <ul style="list-style-type: none"> 'ETDTradeDetails/BuyerDetails/Execution-TimeStamp' or 'ETDTradeDetails/SellerDetails/-ExecutionTimeStamp' or 'ETDTradeDetails/MTF-Details/ExecutionTimeStamp'
MasterAgree- mentVersion		SI	
LoadType		Gen	<p>For Financial Transactions, this field is generated as follows:</p> <ul style="list-style-type: none"> If 'EURegulatoryDetails/FormulaProduct-Information/CommodityDetail' is set to "EL", then this field is set to "OT". If 'EURegulatoryDetails/FormulaProduct-Information/CommodityDetail' is set to "NG", then this field is set to "GD". If 'TradeConfirmation/FloatPriceInformation[1-2]/CommodityReference[1-n]/IndexCommodity' is set to "Electricity", then this field is set to "OT". If 'TradeConfirmation/FloatPriceInformation[1-2]/CommodityReference[1-n]/IndexCommodity' is set to "Nat_Gas", then this field is set to "GD". <p>Important: The enrichment is performed if any of the fields contains a value that corresponds to electricity or natural gas transactions. If there are conflicting values, then electricity takes precedence: If any field contains an electricity value, then 'LoadType' is set to "OT".</p>
NotionalAmount		Gen	<p>'NotionalAmount' may have a negative value for commodity transactions of electricity or natural gas.</p> <p>In CpML the value 'TradeConfirmation/Currency' can be in the fractional unit of the currency, for example, GBX instead of GBP.</p> <ul style="list-style-type: none"> If 'NotionalAmount' is mapped from 'TradeConfirmation/Currency' and the @UseFractionalUnit attribute for 'TradeConfirmation/Currency' is set to "true", then the result is divided by 100. <p>The value is generated as follows:</p> <p>OTC commodities:</p> <ul style="list-style-type: none"> 'TransactionType' is "FXD_SWP": <ul style="list-style-type: none"> 'TradeConfirmation/DeliveryPeriods/Delivery-Period/DeliveryPeriodNotionalQuantity' * 'TradeConfirmation/DeliveryPeriods/Delivery-Period/FixedPrice' 'TransactionType' is "OPT_FXD_SWP", "OPT_FLT_SWP" or "OPT_FIN_INX": <ul style="list-style-type: none"> 'TradeConfirmation/DeliveryPeriods/Delivery-Period/DeliveryPeriodNotionalQuantity' *

Field name	Subsection	Enrichment	Conditions & Rules
			<p>'TradeConfirmation/OptionDetails/StrikePrice')</p> <ul style="list-style-type: none"> • 'TransactionType' is "FLT_SWP": <ul style="list-style-type: none"> ○ The following rules apply to the 'TradeConfirmation/FloatPriceInformation' section where 'FloatPricePayer' is equal to 'TradeConfirmation/BuyerParty': <ul style="list-style-type: none"> - If there is exactly one 'CommodityReference' section in 'TradeConfirmation/FloatPriceInformation/CommodityReferences', then 'NotionalAmount' is calculated as follows: 'TradeConfirmation/TotalVolume' * 'TradeConfirmation/FloatPriceInformation/CommodityReferences/CommodityReference[1]/SpreadInformation/SpreadAmount'. - If there is no 'TradeConfirmation/FloatPriceInformation/CommodityReferences' section, then 'NotionalAmount' is calculated as follows: 'TradeConfirmation/TotalVolume' * 'TradeConfirmation/FloatPriceInformation/FormulaSpreadInformation/SpreadAmount' or set to 0 if there is no 'FormulaSpreadInformation' section. ○ If there is no 'FloatPriceInformation' section where 'FloatPricePayer' is equal to 'TradeConfirmation/BuyerParty', then 'NotionalAmount' is set to 0. • 'TransactionType' is "FOR" or "OPT": <ul style="list-style-type: none"> ○ 'NotionalAmount' is set to the value of 'TradeConfirmation/TotalContractValue'. <p>OTC IRS:</p> <ul style="list-style-type: none"> • 'NotionalAmount' is set to the value of: 'IRSTradeDetails/SwapStreams/SwapStream[1]/CalculationPeriodAmount/Calculation/NotionalSchedule/NotionalStepSchedule/InitialValue <p>ETDs:</p> <ul style="list-style-type: none"> • If 'TransactionType' is set to a value containing "OPT", then 'NotionalAmount' is calculated as follows: 'ETDTradeDetails/ClearingParameters/Lots' * 'ETDTradeDetails/ClearingParameters/StrikePrice' * 'Reporting/Europe/EURegulatoryDetails/ETDProductInformation/PriceMultiplier' • Else, this value is calculated as follows: 'ETDTradeDetails/ClearingParameters/Lots' * 'ETDTradeDetails/ClearingParameters/UnitPrice' * 'Reporting/Europe/EURegulatoryDetails/ETDProductInformation/PriceMultiplierForeignExchange' <p>OTC FX:</p> <ul style="list-style-type: none"> • If 'TransactionType' is set to "OPT", then the following rules apply: <ul style="list-style-type: none"> ○ If 'FXTradeDetails/FXOption/Strike/QuoteBasis' is set to "PutCurrencyPerCallCurrency", then 'NotionalAmount' is calculated as follows: 'FXTradeDetails/FXOption/PutCurrencyAmount/Amount' / 'FXTradeDetails/FXOption/Strike/FXRate'. ○ Else, 'NotionalAmount' is calculated as follows: 'FXTradeDetails/FXOption/PutCurrencyAmount/Amount' * 'FXTradeDetails/FXOption/Strike/FXRate'. • Else, 'NotionalAmount' is set to the value of 'FXTradeDetails/FXSingleLeg[1]/PaymentAmount'.

Field name	Subsection	Enrichment	Conditions & Rules
			<p>OTC commodity formula swaps:</p> <p>FXD_SWP:</p> <ul style="list-style-type: none"> 'NotionalAmount' is calculated as follows: 'TradeConfirmation/DeliveryPeriods/Delivery-Period/DeliveryPeriodNotionalQuantity' * 'TradeConfirmation/DeliveryPeriods/Delivery-Period/FixedPrice' <p>OPT_FXD_SWP, OPT_FLT_SWP, OPT_FIN_INX:</p> <ul style="list-style-type: none"> 'NotionalAmount' is calculated as follows: 'TradeConfirmation/DeliveryPeriods/Delivery-Period/DeliveryPeriodNotionalQuantity' * 'TradeConfirmation/OptionDetails/StrikePrice' <p>FLT_SWP:</p> <ul style="list-style-type: none"> 'NotionalAmount' is calculated using the first available value of 'SpreadAmount': <ul style="list-style-type: none"> TradeConfirmation/TotalVolume' * TradeConfirmation/FloatPriceInformation[1]/FormulaSpreadInformation/SpreadAmount Or 'TradeConfirmation/TotalVolume' * 'TradeConfirmation/FloatPriceInformation[2]/FormulaSpreadInformation/SpreadAmount' If no 'SpreadAmount' field is available, then 'NotationalAmount' is set to "0". <p>FOR, OPT:</p> <ul style="list-style-type: none"> 'NotionalAmount' is set to the value of 'TradeConfirmation/TotalContractValue'.
Early-TerminationDate		Gen	<p>If ActionType is set to "C" or "Z", then this value is generated as follows:</p> <ul style="list-style-type: none"> DATE(Reporting/Europe/EURegulatoryDetails/-ReportingTimestamp)
DateOf-Settlement			<p>OTC commodity:</p> <ul style="list-style-type: none"> If 'TransactionType' is set to "OPT", then set to 'TradeConfirmation/OptionDetails/Premium-PaymentDate'. If 'TransactionType' is set to "OPT_PHYS_INX", "OPT_FXD_SWP", "OPT_FLT_SWP" or "OPT_FIN", then set to 'TradeConfirmation/OptionDetails/-PremiumPayment/PremiumPayment[1-n]/-PremiumPaymentDate'. If 'TransactionType' is set to "FXD_SWP" or "FLT_SW", then set to 'TradeConfirmation/-DeliveryPeriods/DeliveryPeriod[1-n]/Payment-Date'. <p>OTC commodity formula swap:</p> <ul style="list-style-type: none"> If 'TransactionType' is set to "OPT_PHYS_INX", "OPT_FXD_SWP", "OPT_FLT_SWP" or "OPT_FIN", then set to 'TradeConfirmation/OptionDetails/-PremiumPayments/PremiumPayment[1-n]/-PremiumPaymentDate'. If 'TransactionType' is set to "FXD_SWP" or "FLT_SWP", then set to 'TradeConfirmation/-DeliveryPeriods/DeliveryPeriod[1-n]/Payment-Date'. <p>OTC IRS:</p> <ul style="list-style-type: none"> If 'TransactionType' is set to "OPT_FXD_SWP", "OPT_FXD_FXD_SWP" or "OPT_FLT_SWP", then set to 'IRSTradeDetails/OptionDetails/Premium-Payments/PremiumPayment[1-n]/Premium-PaymentDate'.

Field name	Subsection	Enrichment	Conditions & Rules
			<p>OTC FX:</p> <ul style="list-style-type: none"> • If 'FXTradeDetails/TransactionType' is set to "OPT", the field is enriched as follows: <ul style="list-style-type: none"> ○ Set to 'FXTradeDetails/FXOption/Cash-Settlement/SettlementDate', if present. ○ Else, set to 'FXTradeDetails/FXOption/-PremiumPayments/PremiumPayment[1-N]/-PremiumPaymentDate'. • Else, the field is enriched as follows: <ul style="list-style-type: none"> ○ Set to 'FXTradeDetails/FXSingleLeg[1]/Non-DeliverableSettlement/SettlementDate', if present. ○ Else, set to 'FXTradeDetails/FXSingleLeg[1]/-ValueDate'.

EURegulatoryDetails/ETDProductInformation

The 'ETDProductInformation' section is mandatory in the output CpMLDocument. The values are looked up in the ETD database based on the value of the 'CRAProductCode' field in the 'ETDTradeDetails/ClearingParameters/Product' section. If nothing else is stated, the listed fields are mandatory in the output CpML. Optional or conditional fields are clearly described with the corresponding rules.

Important: Only the whole section can be enriched, not individual fields.

Field name	Subsection	Enrichment	Conditions & Rules
UnderlyingCode-Type		Lookup	<ul style="list-style-type: none"> • If the lookup of 'CRAProductCode' returns an ISIN, then this field is set to "I". • If the lookup of 'CRAProductCode' returns an Aii, then this field is set to "A".
Underlying		Lookup	<ul style="list-style-type: none"> • If the lookup of 'CRAProductCode' returns an ISIN, then this field is set to the ISIN. • If the lookup of 'CRAProductCode' returns an Aii, then this field is set to the Aii. • Else, this field is set to "NA".
Notional-Currency1		Lookup	
Notional-Currency2		Lookup	<ul style="list-style-type: none"> • If the transaction is an interest-rate derivative contract, then this value is looked up based on 'CRAProductCode'.
Deliverable-Currency		Lookup	
PriceNotation		Lookup	
PriceMultiplier		Lookup	
TotalVolume-QuantityUnit		Lookup	
DeliveryType		Lookup	
EffectiveDate		Lookup	<ul style="list-style-type: none"> • If the lookup of 'CRAProductCode' does not produce a value, then this field is set to the date contained in 'Reporting/Europe/EURegulatory-Details/ExecutionTimestamp'
MaturityDate		Lookup	<ul style="list-style-type: none"> • If the lookup of 'CRAProductCode' does not produce a value, then this field is set to the value of 'ETDTradeDetails/Product/DeliveryPeriod/-DeliveryEndDate'.

Field name	Subsection	Enrichment	Conditions & Rules
CommodityBase		Lookup	<ul style="list-style-type: none"> If 'ETDTradeDetails/PrimaryAssetClass' is set to "Commodity", then this value is looked up based on 'CRAProductCode'.
CommodityDetail		Lookup	<ul style="list-style-type: none"> If 'ETDTradeDetails/PrimaryAssetClass' is set to "Commodity", then this value is looked up based on 'CRAProductCode'.
DeliveryPoint-OrZone		Lookup	<ul style="list-style-type: none"> If 'CommodityDetail' is set to "NG" or "EL", then this information is looked up based on 'CRAProductCode'.
Interconnection-Point		Lookup	<ul style="list-style-type: none"> If 'CommodityDetail' is set to "NG" or "EL", then this information is looked up based on 'CRAProductCode'.
LoadType		Lookup	<ul style="list-style-type: none"> If 'CommodityDetail' is set to "NG" or "EL", then this information is looked up based on 'CRAProductCode'.
Duration		Lookup	<ul style="list-style-type: none"> If 'CommodityDetail' is set to "NG" or "EL", then this information is looked up based on 'CRAProductCode'.
LoadDelivery-Interval	LoadDeliverySchedule (repeatable section)	Lookup	Repeatable field. For each 'LoadDelivery' section, the ETD database must contain one field for each block or shape. <ul style="list-style-type: none"> If 'CommodityDetail' is set to "NG" or "EL", then this information is looked up based on 'CRAProductCode'.
DaysOfTheWeek	LoadDeliverySchedule (repeatable section)	Lookup	For each 'LoadDelivery' section, the ETD database must contain one 'DaysOfTheWeek' field. <ul style="list-style-type: none"> If 'CommodityDetail' is set to "NG" or "EL", then this information is looked up based on 'CRAProductCode'.
ContractCapacity		Lookup	<ul style="list-style-type: none"> If 'CommodityDetail' is set to "NG" or "EL", then this information is looked up based on 'CRAProductCode'.
EnergyQuantity-Unit		Lookup	<ul style="list-style-type: none"> If 'CommodityDetail' is set to "NG" or "EL", then this information is looked up based on 'CRAProductCode'.
DeliveryStartDate		Lookup	<ul style="list-style-type: none"> If 'CommodityDetail' is set to "NG" or "EL", then this information is looked up based on 'CRAProductCode'.
DeliveryEndDate		Lookup	<ul style="list-style-type: none"> If 'CommodityDetail' is set to "NG" or "EL", then this information is looked up based on 'CRAProductCode'.
Currency2		Lookup	<ul style="list-style-type: none"> If 'ETDTradeDetails/PrimaryAssetClass' is set to "ForeignExchange" and the cross currency differs from 'DeliverableCurrency', then this information is looked up based on 'CRAProductCode'.
ExchangeRate1		Lookup	<ul style="list-style-type: none"> If 'ETDTradeDetails/PrimaryAssetClass' is set to "ForeignExchange", then this field is optional. If a value is present, it is looked up based on 'CRAProductCode'.
ExchangeRate-Basis		Lookup	<ul style="list-style-type: none"> If 'ETDTradeDetails/PrimaryAssetClass' is set to "ForeignExchange", then this field is optional. If a value is present, it is looked up based on 'CRAProductCode'.
FixedRateOfLeg2		Lookup	<ul style="list-style-type: none"> If 'ETDTradeDetails/PrimaryAssetClass' is set to "InterestRate", then this field is optional. If a value is present, it is looked up based on 'CRAProductCode'.

Field name	Subsection	Enrichment	Conditions & Rules
FixedRateDay-CountLeg1		Lookup	<ul style="list-style-type: none"> If 'ETDTradeDetails/PrimaryAssetClass' is set to "InterestRate", then this field is optional. If a value is present, it is looked up based on 'CRAProductCode'.
FixedRateDay-CountLeg2		Lookup	<ul style="list-style-type: none"> If 'ETDTradeDetails/PrimaryAssetClass' is set to "InterestRate", then this field is optional. If a value is present, it is looked up based on 'CRAProductCode'.
FixedLegPaymentFrequency-Leg1		Lookup	<ul style="list-style-type: none"> If 'ETDTradeDetails/PrimaryAssetClass' is set to "InterestRate", then this field is optional. If a value is present, it is looked up based on 'CRAProductCode'.
FixedLegPaymentFrequency-Leg2		Lookup	<ul style="list-style-type: none"> If 'ETDTradeDetails/PrimaryAssetClass' is set to "InterestRate", then this field is optional. If a value is present, it is looked up based on 'CRAProductCode'.
FloatingRatePaymentFrequency-Leg1		Lookup	<ul style="list-style-type: none"> If 'ETDTradeDetails/PrimaryAssetClass' is set to "InterestRate", then this field is optional. If a value is present, it is looked up based on 'CRAProductCode'.
FloatingRatePaymentFrequency-Leg2		Lookup	<ul style="list-style-type: none"> If 'ETDTradeDetails/PrimaryAssetClass' is set to "InterestRate", then this field is optional. If a value is present, it is looked up based on 'CRAProductCode'.
FloatingRate-ResetFrequency-Leg1		Lookup	<ul style="list-style-type: none"> If 'ETDTradeDetails/PrimaryAssetClass' is set to "InterestRate", then this field is optional. If a value is present, it is looked up based on 'CRAProductCode'.
FloatingRate-ResetFrequency-Leg2		Lookup	<ul style="list-style-type: none"> If 'ETDTradeDetails/PrimaryAssetClass' is set to "InterestRate", then this field is optional. If a value is present, it is looked up based on 'CRAProductCode'.
FloatingRateOf-Leg1		Lookup	<ul style="list-style-type: none"> If 'ETDTradeDetails/PrimaryAssetClass' is set to "InterestRate", then this field is optional. If a value is present, it is looked up based on 'CRAProductCode'.
FloatingRate-ReferencePeriod-Leg1		Lookup	<ul style="list-style-type: none"> If 'ETDTradeDetails/PrimaryAssetClass' is set to "InterestRate", then this field is optional. If a value is present, it is looked up based on 'CRAProductCode'.
FloatingRateOf-Leg2		Lookup	<ul style="list-style-type: none"> If 'ETDTradeDetails/PrimaryAssetClass' is set to "InterestRate", then this field is optional. If a value is present, it is looked up based on 'CRAProductCode'.
FloatingRate-ReferencePeriod-Leg2		Lookup	<ul style="list-style-type: none"> If 'ETDTradeDetails/PrimaryAssetClass' is set to "InterestRate", then this field is optional. If a value is present, it is looked up based on 'CRAProductCode'.

EURegulatoryDetails/FinancialDeliveryInformation

This section is mandatory for Financial Transactions of electricity or gas.

Field name	Subsection	Enrichment	Conditions & Rules
DeliveryPointOr-Zone		Gen	<ul style="list-style-type: none"> For each occurrence of 'CommodityReferencePrice' for which a delivery point or zone can be determined, one 'DeliveryPointOrZone' field is created in the output CpML message. If no delivery point or zone can be determined, then one 'DeliveryPointOrZone' field is created and filled with X's. <p>REMIT only: For REMIT, reporting a value of X's results in a rejection. Therefore, to report a formula swap under REMIT, the 'FinancialDeliveryInformation' section must be included in the input message.</p>
Interconnection-Point		Gen	This field is set to the first 'DeliveryPointOrZone' value that can be found.
QuantityVolume		Gen	<p>This value is calculated based on the values of 'EURegulatoryDetails/LoadType' and 'TradeConfirmation/TotalVolumeUnit'.</p> <ul style="list-style-type: none"> If 'TradeConfirmation/TotalVolumeUnit' is "KWh", "MWh" or "GWh", then the average hourly delivery is calculated. Else, the average daily delivery is calculated. <p>Daily delivery</p> <ul style="list-style-type: none"> If 'EURegulatoryDetails/LoadType' is set to "BL", "GD", "BH", "SH", "OP" or "OT", then 'TradeConfirmation/TotalContractVolume' is divided by the number of calendar days between delivery start and delivery end date ('TradeConfirmation/DeliveryPeriods/Delivery-Period/DeliveryPeriodStartDate' and 'TradeConfirmation/DeliveryPeriods/Delivery-Period/DeliveryPeriodEndDate'). If 'EURegulatoryDetails/LoadType' is set to "PL", then 'TradeConfirmation/TotalContractVolume' is divided by the number of working days between delivery start date and delivery end date. <p>Hourly delivery</p> <ul style="list-style-type: none"> If 'EURegulatoryDetails/LoadType' is set to "BL", "GD", "BH", "SH" or "OT", then 'TradeConfirmation/TotalContractVolume' is divided by the number of hours between delivery start date and delivery end date, taking daylight saving time switches into account. If 'EURegulatoryDetails/LoadType' is set to "PL", then 'TradeConfirmation/TotalContractVolume' is divided by the number of working days between delivery start date and delivery end date times 12. If 'EURegulatoryDetails/LoadType' is set to "OP", then 'TradeConfirmation/TotalContractVolume' is divided by the number of working days between delivery start date and delivery end date times 12, plus the number of weekend days between delivery start and delivery end date times the number of hours of that days (23, 24 or 25 hours).

Field name	Subsection	Enrichment	Conditions & Rules
QuantityVolume-Unit		Gen	<p>This value is derived from 'TradeConfirmation/-TotalVolumeUnit':</p> <p>Daily delivery:</p> <ul style="list-style-type: none"> • "Therms" = "ThermPerDay" • "KTherm" = "KThermPerDay" • "MTherm" = "MThermPerDay" • "GTherm" = "GThermPerDay" • "M3" = "cmPerDay" • "mcm" = "mcmPerDay" • "BTU" = "BTUPerDay" • "GJ" = "GJPerDay" • "MJ" = "MJPerDay" • "100MJ" = "100MJPerDay" • "MMBTU" = "MMBTUPerDay" • "MMJ" = "MMJPerDay" <p>Hourly delivery:</p> <ul style="list-style-type: none"> • "KWh" = "KW" • "MWh" = "MW" • "GWh" = "GW"
DeliveryStartDate		Gen	The value is derived from the first 'DeliveryPeriodStartDate' field in the 'TradeConfirmation/DeliveryPeriods' section.
DeliveryEndDate		Gen	The value is derived from the last 'DeliveryPeriodEndDate' field in the 'TradeConfirmation/DeliveryPeriods' section.
Duration		Gen	The duration from the 'DeliveryStartDate' to the 'DeliveryEndDate', allowing for non-delivery periods.
LoadDelivery-Interval	LoadDeliverySchedule	Gen	<p>The value is derived from 'EURegulatoryDetails/LoadType':</p> <ul style="list-style-type: none"> • If the value is "BL", then 'LoadDeliveryInterval' has the following values (electricity only): <ul style="list-style-type: none"> ○ "00" • If the value is "PL", then 'LoadDeliveryInterval' has the following values (electricity only): <ul style="list-style-type: none"> ○ "08" and "20" • If the value is "OP", then there are two 'LoadDeliverySchedule' sections with the following 'LoadDeliveryInterval' values (electricity only): <ul style="list-style-type: none"> ○ [1] "00", "08", "20" and "24" (weekdays) ○ [2] "00" (weekends) • If the value is "GD", then 'LoadDeliveryInterval' is set to the start time of the Gas Day in the time zone of the delivery point. <ul style="list-style-type: none"> ○ Example: "05" for the UK Gas Day • If the value is "BH", "SH" or "OT", then the same 'LoadDeliveryInterval' as for "BL" is applied. <p>Note: For these load types, the 'FinancialDeliveryInformation' section should be included in the input message because it is not possible to derive correct intervals.</p> <p>See also "Appendix A: Definition of CpML Mappings to Shaped Deliveries (EMIR)".</p>

Field name	Subsection	Enrichment	Conditions & Rules
DaysOfTheWeek	LoadDeliverySchedule	Gen	<p>The value is derived from 'EURegulatoryDetails/LoadType':</p> <ul style="list-style-type: none"> • If the value is "BL", "BH", "SH" or "OT", then 'DaysOfTheWeek' is set to "WD WN". • If the value is "PL" or "GD", then 'DaysOfTheWeek' is set to "WD". • If the value is "OP", then there are two 'LoadDeliverySchedule' sections with the following 'DaysOfTheWeek' values: <ul style="list-style-type: none"> ○ [1] "WD" (weekdays) ○ [2] "WN" (weekends)

4.2.2 ETDTradeDetails

The 'ETDTradeDetails' transaction details section in the CpMLDocument cannot be enriched, but some additional rules apply during eRR processing.

Field name	Subsection	Enrichment	Conditions & Rules
DealID	ClearingParameters	--	<ul style="list-style-type: none"> • If 'Reporting/Europe/ProcessInformation/Position' is set to "True", then this field must contain the position ID associated with the UTI of the reported position. <p>Note: This value could be available from the clearing broker. Organisations should discuss with their clearing broker what code is to be used and how they can receive it.</p>
Lots	ClearingParameters	--	<ul style="list-style-type: none"> • If 'Reporting/Europe/ProcessInformation/Position' is set to "False", then this field must not be 0. • Else, this must be the sum of the lots netted across all transactions in the position being reported.
UnitPrice	ClearingParameters	--	<ul style="list-style-type: none"> • If 'Reporting/Europe/ProcessInformation/Position' is set to "True", then this must be the closing price of the exchange on the day of the report.
DeliveryStartDate	ClearingParameters/- Product/DeliveryPeriod	--	<ul style="list-style-type: none"> • If 'Reporting/Europe/ProcessInformation/Position' is set to "True", then the position must represent one cleared product and the 'DeliveryStartDate' for the reported position must be identical to the 'DeliveryStartDate' for a reported transaction for the same product (and maturity). <p>Example: For the cleared product F1BY 1/1/15-31/12/15, the 'DeliveryStartDate' is set to "01/01/15".</p>
DeliveryEndDate	ClearingParameters/- Product/DeliveryPeriod	--	<ul style="list-style-type: none"> • If 'Reporting/Europe/ProcessInformation/Position' is set to "True", then the position must represent one cleared product and the 'DeliveryEndDate' for the reported position must be identical to the 'DeliveryEndDate' for a reported transaction for the same product (and maturity). <p>Example: For the cleared product F1BY 1/1/15-31/12/15, the 'DeliveryEndDate' is set to "2015-12-31".</p>

Field name	Subsection	Enrichment	Conditions & Rules
Type	ClearingParameters/- Product/OptionDetails	--	<ul style="list-style-type: none"> If 'Reporting/Europe/ProcessInformation/Position' is set to "True" and if the position can be split into a "Call" position and a "Put" position and if each position is reported separately, then this field should be set to the relevant value. <p>However, the correct reporting approach may vary. To avoid incompatible reporting, the approach must be agreed with the other counterparty, that is, the clearing broker or CCP.</p>
StrikePrice	ClearingParameters/- Product/OptionDetails	--	<ul style="list-style-type: none"> If 'Reporting/Europe/ProcessInformation/Position' is set to "True" and if the option's product position can be split into separate strikes and if each position is reported separately, then this field should be set to the relevant value. <p>However, the correct reporting approach may vary. To avoid incompatible reporting, the approach must be agreed with the other counterparty, that is, the clearing broker or CCP.</p>
Execution-Timestamp	BuyerDetails or SellerDetails	--	<ul style="list-style-type: none"> If 'Reporting/Europe/ProcessInformation/Position' is set to "True", then this must be the execution time stamp of the first (position opening) transaction.

4.3 eRR Valuation Message

Valuation messages are used to transmit valuation information to the regulators.

Note: Valuation messages use fields from the CpML standard. If nothing else is stated, the fields in the valuation message have the same meaning and rules as in CpML.

Name	Usage	Type	Business Rule
RegulatoryValuation			
DocumentID	M	Identification-Type	<ul style="list-style-type: none"> If a party receives a document with an ID unknown to the receiver, then the receiver must treat this document as the initial version of a new document. Else, the receiver must treat this document as an amendment of an already sent document.
Document Usage	M	UsageType	
SenderID	M	PartyType	
Repository	C	RepositoryType	<ul style="list-style-type: none"> If this field is omitted in the input message, then the field must be present in the master data of the eRR service for the counterparty reporting this transaction or on whose behalf this transaction is being reported by an agent. The master data will be used to populate the output valuation message or the field will be set to the default value in the output valuation message.
Reporting-Timestamp	C	UTCTime-stampType	<ul style="list-style-type: none"> If 'ReportingTimestamp' is omitted from the input message, then the field will be generated and added to the output valuation message. Else, this 'ReportingTimestamp' value from the input message is used.
CounterpartyID	M	PartyType	<p>The counterparty to the original transaction on whose behalf this valuation is submitted.</p> <p>This is the identity of the party from whose perspective the information is reported. If the counterparty reports on their own</p>

Name	Usage	Type	Business Rule
			behalf, then this value is identical to the value of 'SenderID'.
RegulatoryValuation/Valuation: mandatory, repeatable section (1-n)			
Start of XSD choice : mandatory section Either a UTI or USI must be provided.			
UTI	CH	UTIType	The unique trade identifier (UTI) of a previously submitted transaction for which the valuation is reported. <ul style="list-style-type: none"> • If 'USI' is present, then this field must be omitted. • Else, this field must be present.
USI	CH	USIType	The unique swap identifier (USI) of a previously submitted transaction for which the valuation is reported. This field is only relevant for the DoddFrank regime. <ul style="list-style-type: none"> • If 'UTI' is present, then this field must be omitted. • Else, the field must be present.
End of XSD choice			
ValuationTime-stamp	M	UTCTime-stampType	Date and time of the last mark-to-market valuation for this UTI or USI, respectively.
MtMValue	M	PriceType	Mark-to-market valuation of the contract or mark-to-model valuation where applicable under Article 11(2) of Regulation (EC) No 648/2012.
MtMCurrency	M	CurrencyCode-Type	The currency used for the mark-to-market valuation of the contract or mark-to-model valuation where applicable under Article 11(2) of Regulation (EC) No 48/2012. In the output valuation message: mapped to the ISO 4217 3 alpha code identifying the currency.
ValuationType	C	ValuationType-Type	<ul style="list-style-type: none"> • If not present in the input message, then this field will be set to the default value in the output valuation message. • Else, this value is used to populate the output valuation message. The following values are allowed: <ul style="list-style-type: none"> ▪ M (default value) ▪ O ▪ C
End of Valuation			
End of RegulatoryValuation			

4.4 eRR Collateral Message

Collateral messages contain information on the collateralisation of a transaction within the eRR context.

Note: Collateral message use fields from the CpML standard. If nothing else is stated, the fields in the valuation message have the same meaning and rules as in CpML.

Name	Usage	Type	Business Rule
RegulatoryCollateral			
DocumentID	M	Identification-Type	<ul style="list-style-type: none"> • If a party receives a document with an ID unknown to the receiver, then the receiver must treat this document as the initial version of a new document. • Else, the receiver must treat this document as an amendment of an already sent document.

Name	Usage	Type	Business Rule
Document Usage	M	UsageType	
SenderID	M	PartyType	
Repository	C	RepositoryType	<ul style="list-style-type: none"> If this field is omitted in the input message, then the field must be present in the Standing Instructions for the counterparty reporting this transaction or on whose behalf this transaction is being reported by an agent. The Standing Instructions will be used to populate the output collateralisation message or the field will be set to the default value in the output collateralisation message.
Reporting-Timestamp	C	UTCTime-stampType	<ul style="list-style-type: none"> If 'ReportingTimestamp' is omitted from the input message, then the field will be generated and added to the output collateralisation message. Else, this 'ReportingTimestamp' value from the input message is used.
CounterpartyID	M	PartyType	<p>The counterparty to the original transaction on whose behalf this valuation is submitted.</p> <p>This is the identity of the party from whose perspective the information is reported. If the counterparty reports on their own behalf, then this value is identical to the value of 'SenderID'.</p>
<p>RegulatoryCollateral/Collateralisation: mandatory, repeatable section (1-n)</p> <ul style="list-style-type: none"> Each 'Collateralisation' section must have at least one pair of fields describing a margin, for example, 'CollateralInitialMarginPosted' and 'CollateralCurrencyInitialMarginPosted'. 			
UTI	O	UTIType	The unique trade identifier (UTI) of a previously submitted transaction for which the collateral is reported.
CollateralisationPortfolio-Code	C	PortfolioCode-Type	<p>Code of the portfolio for which the collateralisation is reported.</p> <ul style="list-style-type: none"> If the field 'UTI' is omitted, then this field must be present. Else, if 'CollateralisationPortfolio' is set to "Y" for the transaction report specified in the field 'UTI', then this field must be present and contain the same value as the field 'CollateralisationPortfolio-Code' in the transaction report with the same UTI value. Else, this field must be omitted.
Collateral-InitialMargin-Posted	O	PriceType	
Collateral-Currency-InitialMargin-Posted	C	CurrencyCode-Type	<ul style="list-style-type: none"> If 'CollateralInitialMarginPosted' is present, then this field is mandatory. Else, this field must be omitted.
Collateral-Variation-MarginPosted	O	PriceType	
Collateral-Currency-Variation-MarginPosted	C	CurrencyCode-Type	<ul style="list-style-type: none"> If 'CollateralVariationMarginPosted' is present, then this field is mandatory. Else, this field must be omitted.
Collateral-InitialMargin-Received	O	PriceType	
Collateral-Currency-InitialMargin-Received	C	CurrencyCode-Type	<ul style="list-style-type: none"> If 'CollateralInitialMarginReceived' is present, then this field is mandatory. Else, this field must be omitted.

Name	Usage	Type	Business Rule
Collateral-Variation-Margin-Received	O	PriceType	
Collateral-Currency-Variation-Margin-Received	C	CurrencyCode-Type	<ul style="list-style-type: none"> If 'CollateralVariationMarginReceived' is present, then this field is mandatory. Else, this field must be omitted.
Collateral-ExcessPosted	O	PriceType	
Collateral-Currency-ExcessPosted	C	CurrencyCode-Type	<ul style="list-style-type: none"> If 'CollateralExcessPosted' is present, then this field is mandatory. Else, this field must be omitted.
Collateral-Excess-Received	O	PriceType	
Collateral-Currency-Excess-Received	C	CurrencyCode-Type	<ul style="list-style-type: none"> If 'CollateralExcessReceived' is present, then this field is mandatory. Else, this field must be omitted.
CollateralDate	M	DateType	The as-of date of the calculation.

4.5 Box Result Document (BRS)

The box result document is sent from the process implementation of eRR to the connected system. It is mainly used to transfer information between the IT systems involved in the eRR Process and thus not part of the eRR Process definition.

Note: The box result schema contains sections that are outside the scope of the eRR Process, for example, DoddFrankResult. They are included here for completeness, but have no relevance to the eRR Process.

Name	Usage	Type	Business Rule
ERRBoxResult			
DocumentID	M	Identification-Type	
Document-Version	O	VersionType	
TimeStamp	M	UTCTime-StampType	
Start of XSD choice			
ERRBoxResult/CMSResult: mandatory section within choice			
This section is used for any box results that are sent to the process user before the process has determined which regime to apply to the input message.			
Action	M	s35	
Result	M	s35	

Name	Usage	Type	Business Rule
TradeID	O	TradeIDType	
UTI	O	UTIType	
CMSResult/Reason: optional, repeatable section (0-n)			
ReasonCode	M	s255	
ErrorSource	O	s255	
Originator	O	s255	
ReasonText	O	s512	
End of Reason			
End of CMSResult			
ERRBoxResult/DoddFrankResult: mandatory section within choice			
ErrAction	M	s35	
ErrResult	M	s35	
TradeID	O	TradeIDType	
Reporting-Party	O	PartyType	
UniqueSwap-Identifier	O	USIType	
DoddFrankResult/ReportingDetails: optional section			
Report-Submitter	M	PartyType	
Reporting-Timestamp	M	UTCTime-stampType	
SdrAction	M	ActionType	
MessageType	M	MessageType	
End of ReportingDetails			
Start of XSD choice Either sections of type 'Reason' or sections of type 'ValuationFeedback' may be present.			
DoddFrankResult/Reason: optional, repeatable section within choice (0-n)			
ReasonCode	M	s255	
ErrorSource	O	s255	
Originator	O	s255	
ReasonText	O	s512	
End of Reason			
DoddFrankResult/ValuationFeedback: optional, repeatable section within choice (0-n)			
ValuationID	M	Identification-Type	

Name	Usage	Type	Business Rule
UniqueSwap-Identifier	O	USIType	
State	M	s35	
ValuationFeedback/Reason: optional, repeatable section (0-n)			
ReasonCode	M	s255	
ErrorSource	O	s255	
Originator	O	s255	
ReasonText	O	s512	
End of Reason			
End of ValuationFeedback			
End of XSD choice			
End of DoddFrankResult			
ERRBoxResult/ODRFResult: mandatory section within choice			
Action	M	s35	
Result	M	s35	
ErrAction	M	s35	
ErrResult	M	s35	
TradeID	M	TradeIDType	
Reporting-Party	O	PartyType	
UniqueSwap-Identifier	O	USIType	
ODRFResult/ReportingDetails: optional section			
Report-Submitter	M	PartyType	
Reporting-Timestamp	M	UTCTime-stampType	
SdrAction	M	ActionType	
MessageType	M	MessageType	
End of ReportingDetails			
Start of XSD choice			
Either sections of type 'Reason' or sections of type 'ValuationFeedback' may be present.			
DoddFrankResult/Reason: optional, repeatable section within choice (0-n)			
ReasonCode	M	s255	
ErrorSource	O	s255	
Originator	O	s255	

Name	Usage	Type	Business Rule
ReasonText	O	s512	
End of Reason			
DoddFrankResult/ValuationFeedback: optional, repeatable section within choice (0-n)			
ValuationID	M	Identification-Type	
UniqueSwap-Identifier	O	USIType	
State	M	s35	
ValuationFeedback/Reason: optional, repeatable section (0-n)			
ReasonCode	M	s255	
ErrorSource	O	s255	
Originator	O	s255	
ReasonText	O	s512	
End of Reason			
End of ValuationFeedback			
End of XSD choice			
End of ODRFResult			
EuropeResult: mandatory, repeatable section within choice (1-2)			
Action	M	s35	
Result	M	s35	
Counterparty-ID	C	PartyType	<ul style="list-style-type: none"> • If this field is present, then this section applies only to this counterparty ID. • Else, this section applies to both counterparties to the reported transaction.
Regime	O	Europe-RegimeType	Allowed values: <ul style="list-style-type: none"> ▪ Remit ▪ Emir
Repository	O	Repository-Type	
EuropeResult/ReportingResult: optional section			
TradeID	M	TradeIDType	
UTI	O	UTIType	
ReportingResult/Reason: optional, repeatable section (0-n)			
ReasonCode	M	s255	
ErrorSource	O	s255	
Originator	O	s255	
ReasonText	O	s512	
End of Reason			

Name	Usage	Type	Business Rule
End of ReportingResult			
EuropeResult/ValuationResult: optional section			
ValuationResult/Valuation: mandatory, repeatable section (1-n)			
UTI	M	UTIType	
Result	M	s255	
Valuation/Reason: optional, repeatable section (0-n)			
ReasonCode	M	s255	
ErrorSource	O	s255	
Originator	O	s255	
ReasonText	O	s512	
End of Reason			
End of Valuation			
End of ValuationResult			
EuropeResult/CollateralResult: optional section			
CollateralResult/Collateral: mandatory, repeatable section (1-n)			
UTI	O	UTIType	
PortfolioCode	O	PortfolioCode- Type	
Result	M	s255	
Collateral/Reason: optional, repeatable section (0-n)			
ReasonCode	M	s255	
ErrorSource	O	s255	
Originator	O	s255	
ReasonText	O	s512	
End of Reason			
End of Collateral			
End of CollateralResult			
End of EuropeResult			
End of XSD choice			

5 Transition Period for REMIT Users

Version 2 of the eRR Process has been updated to accommodate changes required by EMIR level 3. For this, it was necessary to introduce some changes to the XML schemas that are not backwards compatible with the XML schemas of the previous version.

All process users who report under EMIR, are required to update their backends to use the new schemas. However, for process users who only report under REMIT, there is no urgent need to update the schemas. Therefore, to avoid unnecessary backend changes, process users who only report under REMIT can still use the schemas of the previous version.

Until stated otherwise, the eRR Process will be able to process the schemas of the previous version as well. Some fields will be ignored and others are automatically mapped to new fields in the enriched CpML message, which will conform to the new schemas.

5.1 Deprecated fields

The following fields from the 'EURegulatoryDetails' section are deprecated in the schema and will be ignored, but can still be filled by REMIT-only users:

- ActionDetail
- CPIDCodeType
- ReportingCounterpartyDetails
- ReportingOnBehalfOf/OtherCounterpartyDetails/ReportingCounterpartyDetails
- OtherCPEEA
- ReportingOnBehalfOf/OtherCounterpartyDetails/OtherCPEEA
- ProductIdentifier/Taxonomy
- ProductIdentifier/TaxonomyCodeType
- ProductIdentifier/EProduct/Product1CodeType
- ProductIdentifier/IProduct/Product1CodeType
- UnderlyingCodeType

The following fields are deprecated in the schema, but will be used to derive the values of the new fields described in the following table:

Parent section	Deprecated field	New field	Comment
EURegulatoryDetails/- ProductIdentifier	IProduct/IProductID1	ProductIdentificationType AND ProductIdentification	Both fields are filled based on the presence and value of the deprecated field.
EURegulatoryDetails/- ProductIdentifier	IProduct/IProductID2	ProductClassificationType AND ProductClassification	Both fields are filled based on the presence and value of the deprecated field.
EURegulatoryDetails/ETD- ProductInformation	DeliveryStartDate- AndTime	DeliveryStartDate AND Duration	The time portion from the deprecated field is ignored. The duration is calculated from the DeliveryStartDate to the DeliveryEndDate.
EURegulatoryDetails/ETD- ProductInformation	DeliveryEndDate- AndTime	DeliveryEndDate AND Duration	

EURegulatoryDetails/ETD-ProductInformation	FixedRateDayCount	FixedRateDayCountLeg1	
EURegulatoryDetails/ETD-ProductInformation	FixedLegPayment-Frequency	FixedLegPayment-FrequencyLeg1	
EURegulatoryDetails/ETD-ProductInformation	FloatingRatePayment-Frequency	FloatingRatePayment-FrequencyLeg1	
EURegulatoryDetails/ETD-ProductInformation	FloatingRateReset-Frequency	FloatingRateReset-FrequencyLeg1	
EURegulatoryDetails/-FinancialDeliveryInformation	DeliveryStartDate-AndTime	DeliveryStartDate AND Duration	Only the time portion from the 'DeliveryEndDateAndTime' field is evaluated: if set to midnight, the 'DeliveryEndDate' is the previous day. The duration is calculated from the DeliveryStartDate to the DeliveryEndDate.
EURegulatoryDetails/-FinancialDeliveryInformation	DeliveryEndDate-AndTime	DeliveryEndDate AND Duration	
ETDTradeDetails/Clearing-Parameters/Product/-DeliveryPeriod	DeliveryStartDate-AndTime	DeliveryStartDate	The time portion from the deprecated field is ignored.
ETDTradeDetails/Clearing-Parameters/Product/-DeliveryPeriod	DeliveryEndDate-AndTime	DeliveryEndDate	The time portion from the deprecated field is ignored.

5.2 New fields

New fields that are not derived from deprecated fields are enriched as described in the enrichment rules. The following fields in the 'EURegulatoryDetails' section are derived from existing fields. Therefore, additional enrichment rules apply if the old schemas are used:

'ETDProductInformation/UnderlyingCodeType'

- Set to "I" if 'ETDProductInformation/Underlying' is present and the value has a length of 12 characters.
- Set to "X" if 'ETDProductInformation/Underlying' is present and the value has a length different from 12.

'ETDProductInformation/LoadDeliverySchedule'

The section is enriched based on 'ETDProductInformation/LoadType', similar to the enrichment of 'FinancialDeliveryInformation/LoadDeliverySchedule'.

'FinancialDeliveryInformation/LoadDeliverySchedule'

The section is enriched based on the 'LoadType' field as described in the enrichment of the 'FinancialDeliveryInformation' section with the following exception: For the load types "OP", "PL" and "GD", the delivery start and end times are used in the field 'FinancialDeliveryInformation/LoadDeliverySchedule/LoadDeliveryInterval' (for the weekdays in case of load types "OP" and "PL").

5.3 Fields with Changed Conditionality

'CPSector'

For EMIR reporting, the field is required for financial and non-financial users. For REMIT, the field is not required. The following additional business rules apply:

- If 'EMIRReportMode' is set to "NoReport", then the field will not be validated and can be left blank.
- Else, the Standing Instructions must be updated according to the current rules, if used, or the field must be filled according to rules defined by the current schema.

Note: 'CPSector' is now also repeatable and wrapped in a 'CPSectors' section. This wrapper is added automatically during enrichment.

'EURegulatoryDetails/FormulaProductInformation/Underlying'

The 'Underlying' field is required for REMIT reporting and was changed to mandatory. With the new XML schema, the validation will fail if REMIT users do not provide a value. The following business rules therefore apply to process users who still use the old schema:

- If 'REMITReportMode' is set to 'Report' or 'CMSReport', then the input message must contain a value.
- If 'REMITReportMode' is set to 'NoReport' and the input message does not contain a value, then the default value "NA" is applied.

6 Communication Protocol and Interfaces

For information on the specific communication protocol elements used by EFET processes, please refer to references [1] and [2] for further information on the EFET Communications Standard.

Appendix A: Definition of CpML Mappings to Shaped Deliveries (EMIR)

For natural gas and electricity trades ESMA requires the delivery profile to be reported. The EMIR fields 70 to 77 describe the delivery profile:

- Load delivery intervals
- Delivery start date and time
- Delivery end date and time
- Duration
- Days of the week
- Delivery capacity
- Quantity unit
- Price/time interval quantities

Note: The following description assumes that the field "Load delivery intervals" is repeatable inside the section to describe the start and end times of a delivery for a day.

Physical natural gas and electricity trades are separated into two categories:

- Shaped trades: trades where all deliveries have the same capacity and are based on the same price.
- Non-shaped trades: trades where either the capacity or the price or both may vary between deliveries. For shaped trades it is difficult to determine a pattern and derive an algorithm.

Shaped and non-shaped trades are mapped differently to the EMIR delivery fields. CpML contains fields to describe the delivery profile of ETDs and financial OTC trades that can be mapped to the EMIR fields in a direct way (see the section 'LoadDeliverySchedule' in 'ETDProductInformation' and in 'FinancialDeliveryInformation' in the CpML specification). For physical OTC transactions, the section 'TradeConfirmation/TimeIntervalQuantities' has to be mapped to the ESMA fields. This is described in the following.

A.1. Mapping of Shaped Trades

For shaped physical OTC trades, each 'TimeIntervalQuantity' section within 'TradeConfirmation/TimeIntervalQuantities' is mapped to a set of EMIR fields 70 to 77 according to the following table:

ESMA field	CpML	Conversion
Load delivery intervals	If the start date and end date are the same or the end date and time is the start of the next day, then: The time described in 'TimeIntervalQuantity/DeliveryStartDateAndTime' and 'TimeIntervalQuantity/DeliveryEndDateAndTime' or 'TimeIntervalQuantity/DeliveryStartTimestamp' and 'TimeIntervalQuantity/DeliveryEndTimestamp', respectively. Else, 00:00Z and 24:00Z.	To UTC. Note: The end time 00:00Z is replaced by 24:00Z.
Delivery start date and time	'TimeIntervalQuantity/DeliveryStartDateAndTime' or 'TimeIntervalQuantity/DeliveryStartTimestamp'	To UTC
Delivery end date and time	'TimeIntervalQuantity/DeliveryEndDateAndTime' or 'TimeIntervalQuantity/DeliveryEndTimestamp'	To UTC.

ESMA field	CpML	Conversion
Duration	The value for the longest duration fitting between the delivery start date and time and the delivery end date and time.	
Days of the week	All days between delivery start and end date. If the delivery end time is 00:00Z, then the end date is not included.	“SA/SU” is replaced by “WN” and “MO/TU/WE/TH/FR” is replaced by “WD”.
Delivery capacity	‘TimeIntervalQuantity/ContractCapacity’	
Quantity unit	‘TradeConfirmation/CapacityUnit’	
Price/time interval quantities	‘TimeIntervalQuantity/Price’	

Example 1: Varying Quantity, Local Time

Shaped trade with varying quantity that uses local dates and times. The timezone is Europe/London.

CpML	ESMA
<pre><TimeIntervalQuantity> <DeliveryStartDateAndTime>2014-10-01T00:00:00 </DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2014-10-01T00:30:00 </DeliveryEndDateAndTime> <ContractCapacity>.66</ContractCapacity> <Price>50</Price> </TimeIntervalQuantity></pre>	Load delivery intervals: 23:00Z/23:30Z Delivery start date and time: 2014-09-30T23:00:00Z Delivery end date and time: 2014-09-30T23:30:00Z Duration: N Days of the week: TU Delivery capacity: 0.66 Quantity unit: MW Price/time interval quantities: 50
<pre><TimeIntervalQuantity> <DeliveryStartDateAndTime>2014-10-01T00:30:00 </DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2014-10-01T01:00:00 </DeliveryEndDateAndTime> <ContractCapacity>.48</ContractCapacity> <Price>50</Price> </TimeIntervalQuantity></pre>	Load delivery intervals: 23:30Z/24:00Z Delivery start date and time: 2014-09-30T23:30:00Z Delivery end date and time: 2014-10-01T00:00:00Z Duration: N Days of the week: TU Delivery capacity: 0.48 Quantity unit: MW Price/time interval quantities: 50
<pre><TimeIntervalQuantity> <DeliveryStartDateAndTime>2014-10-01T01:00:00 </DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2014-10-01T01:30:00 </DeliveryEndDateAndTime> <ContractCapacity>.46</ContractCapacity> <Price>50</Price> </TimeIntervalQuantity></pre>	Load delivery intervals: 00:00Z/00:30Z Delivery start date and time: 2014-10-01T00:00:00Z Delivery end date and time: 2014-10-01T00:30:00Z Duration: N Days of the week: WE Delivery capacity: 0.46 Quantity unit: MW Price/time interval quantities: 50
...
<pre><TimeIntervalQuantity> <DeliveryStartDateAndTime>2014-10-01T23:30:00 </DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2014-10-02T00:00:00 </DeliveryEndDateAndTime> <ContractCapacity>.59</ContractCapacity> <Price>50</Price> </TimeIntervalQuantity></pre>	Load delivery intervals: 22:30Z/23:00Z Delivery start date and time: 2014-10-01T22:30:00Z Delivery end date and time: 2014-10-01T23:00:00Z Duration: N Days of the week: TU Delivery capacity: 0.59 Quantity unit: MW Price/time interval quantities: 50

Example 2: Varying Quantity, Timezone Offset

Shaped trade with varying quantity that uses UTC plus timezone offset.

CpML	ESMA
<pre><TimeIntervalQuantity> <DeliveryStartTimestamp>2016-10-30T00:00:00+02:00 </DeliveryStartTimestamp> <DeliveryEndTimestamp>2016-10-30T00:30:00+02:00 </DeliveryEndTimestamp> <ContractCapacity>.66</ContractCapacity> <Price>50</Price> </TimeIntervalQuantity></pre>	<pre>Load delivery intervals: 22:00Z/22:30Z Delivery start date and time: 2016-10-29T22:00:00Z Delivery end date and time: 2016-10-29T22:30:00Z Duration: N Days of the week: SA Delivery capacity: 0.66 Quantity unit: MW Price/time interval quantities: 50</pre>
<pre><TimeIntervalQuantity> <DeliveryStartTimestamp>2016-10-30T01:30:00+03:00 </DeliveryStartTimestamp> <DeliveryEndTimestamp>2016-10-30T03:00:00+04:00 </DeliveryEndTimestamp> <ContractCapacity>.48</ContractCapacity> <Price>50</Price> </TimeIntervalQuantity></pre>	<pre>Load delivery intervals: 22:30Z/23:00Z Delivery start date and time: 2016-10-29T22:30:00Z Delivery end date and time: 2016-10-29T23:00:00Z Duration: N Days of the week: SA Delivery capacity: 0.48 Quantity unit: MW Price/time interval quantities: 50</pre>
<pre><TimeIntervalQuantity> <DeliveryStartTimestamp>2016-10-30T01:00:00+02:00 </DeliveryStartTimestamp> <DeliveryEndTimestamp>2016-10-30T01:30:00+02:00 </DeliveryEndTimestamp> <ContractCapacity>.46</ContractCapacity> <Price>50</Price> </TimeIntervalQuantity></pre>	<pre>Load delivery intervals: 23:00Z/23:30Z Delivery start date and time: 2016-10-29T23:00:00Z Delivery end date and time: 2016-10-29T23:30:00Z Duration: N Days of the week: SA Delivery capacity: 0.46 Quantity unit: MW Price/time interval quantities: 50</pre>
<pre><TimeIntervalQuantity> <DeliveryStartTimestamp>2016-10-30T01:30:00+02:00 </DeliveryStartTimestamp> <DeliveryEndTimestamp>2016-10-30T02:00:00+02:00 </DeliveryEndTimestamp> <ContractCapacity>.09</ContractCapacity> <Price>50</Price> </TimeIntervalQuantity></pre>	<pre>Load delivery intervals: 23:30Z/24:00Z Delivery start date and time: 2016-10-29T23:30:00Z Delivery end date and time: 2016-10-30T00:00:00Z Duration: N Days of the week: SA Delivery capacity: 0.09 Quantity unit: MW Price/time interval quantities: 50</pre>
<pre><TimeIntervalQuantity> <DeliveryStartTimestamp>2016-10-30T02:00:00+02:00 </DeliveryStartTimestamp> <DeliveryEndTimestamp>2016-10-30T02:30:00+02:00 </DeliveryEndTimestamp> <ContractCapacity>.23</ContractCapacity> <Price>50</Price> </TimeIntervalQuantity></pre>	<pre>Load delivery intervals: 00:00Z/00:30Z Delivery start date and time: 2016-10-30T00:00:00Z Delivery end date and time: 2016-10-30T00:30:00Z Duration: N Days of the week: SU Delivery capacity: 0.23 Quantity unit: MW Price/time interval quantities: 50</pre>
<p>...</p>	<p>...</p>
<pre><TimeIntervalQuantity> <DeliveryStartTimestamp>2016-10-30T23:30:00+01:00 </DeliveryStartTimestamp> <DeliveryEndTimestamp>2016-10-31T00:00:00+01:00 </DeliveryEndTimestamp> <ContractCapacity>.59</ContractCapacity> <Price>50</Price> </TimeIntervalQuantity></pre>	<pre>Load delivery intervals: 22:30Z/23:00Z Delivery start date and time: 2016-10-30T22:30:00Z Delivery end date and time: 2016-10-30T23:00:00Z Duration: N Days of the week: SU Delivery capacity: 0.59 Quantity unit: MW Price/time interval quantities: 50</pre>

A.1. Mapping of Non-shaped Trades

For non-shaped physical OTC trades, it is often possible to find patterns of daily delivery based on the delivery start and end date and times. These patterns can then be described concisely with the EMIR fields 70 to 77. The following algorithm tries to find a compact description of the delivery profile. The delivery start and end dates and times are converted to UTC plus timezone offset.

Definitions

The algorithm is based on the concepts of time interval sets and week profiles.

- **Time interval set:** A time interval set (TIS) contains a set of non-overlapping time intervals (only times, no dates). A time interval is defined by the start time (included) and the end time (excluded). The start of the day (00:00) is the earliest start time and the start of the next day (24:00) is the latest end time. A TIS does not contain any two time intervals where the end time of one time interval is the start time of another.
- **Week profile:** A week profile consists of:
 - A TIS
 - A start date
 - An end date
 - The list of week days for which the TIS is the delivery profile (white list)
 - The list of week days for which the TIS is not the delivery profile (black list)

The algorithm maintains a list of active week profiles ordered by the start dates of the week profiles.

Calculating the Delivery Profile from the 'TimeIntervalQuantities' Section

The algorithm starts with an empty list of active week profiles. For each day between the first delivery start date and the last delivery end date of the 'TimeIntervalQuantities' section, it calculates a TIS. For days without delivery, the TIS is empty.

The algorithm processes the TIS in order of the date. For each TIS, it performs the following steps:

1. Compare the TIS to the active week profiles in the order of the start dates.
2. For each TIS, check if it matches the week profile: A match means that the week profile contains the same time intervals as the TIS and the week day of the TIS is not in the black list of the week profile.
3. If the TIS matches the week profile, the week day of the TIS is added to the white list of the week profile and the end date of the week profile is set to the date of the TIS. In all remaining week profiles, the week day of the TIS is added to the black list.
4. If the TIS does not match the week profile, then there are two cases:
 - a. If the white list of the week profile contains the week day of the TIS, complete the week profile, convert it to a set of EMIR fields and remove it from the list of active week profiles.
 - b. Otherwise, add the week day of the TIS to the black list of the week profile.

5. If the TIS is non-empty and does not match any active week profiles, add a new week profile to the list of active week profiles. It contains the following:
 - a. The TIS
 - b. The date for which the TIS is calculated as start and end date
 - c. A white list only containing the week day of the TIS
 - d. An empty black list
6. If there is no remaining TIS, convert the active week profiles to a set of EMIR fields.

Calculating the Days of the Week

The field 'Days of the week' is calculated from a completed week profile using one of the following methods. The methods are sorted by the order in which the algorithm tries to apply them. The algorithm uses the first method that fits the week profile:

1. If the number of days in the white list is 7, then the field is set to "WD/WN".
2. If the white list contains all the working days, then the field is set to "WD". If the white list contains "SA" or "SU", these values are added with "/" as separator.
3. If the white list contains all weekend days, the field is set to "WN". The values for the remaining days are added with "/" as separator.
4. The field is set to the content of the white list with "/" as separator.

Example 1: Non-shaped with Base Load and Gap

Non-shaped trade that has a base load with one-day gap and uses local dates and times. The timezone is Europe/London.

CpML	ESMA
<pre><TimeIntervalQuantities> <TimeIntervalQuantity> <DeliveryStartDateAndTime>2017-01-01T00:00:00 </DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2017-05-01T00:00:00 </DeliveryEndDateAndTime> <ContractCapacity>100</ContractCapacity> <Price>100</Price> </TimeIntervalQuantity> <TimeIntervalQuantity> <DeliveryStartDateAndTime>2017-05-02T00:00:00 </DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2018-01-01T00:00:00 </DeliveryEndDateAndTime> <ContractCapacity>100</ContractCapacity> <Price>100</Price> </TimeIntervalQuantity> </TimeIntervalQuantities></pre>	<pre>Load delivery intervals: 00:00Z/24:00Z Delivery start date and time: 2017-01-01T00:00:00Z Delivery end date and time: 2017-04-30T00:00:00Z Duration: Q Days of the week: WD/WN Delivery capacity: 100 Quantity unit: MW Price/time interval quantities: 100 Load delivery intervals: 00:00Z/23:00Z Delivery start date and time: 2017-04-30T00:00:00Z Delivery end date and time: 2017-04-30T23:00:00Z Duration: H Days of the week: SU Delivery capacity: 100 Quantity unit: MW Price/time interval quantities: 100 Load delivery intervals: 23:00Z/24:00Z Delivery start date and time: 2017-05-01T23:00:00Z Delivery end date and time: 2017-05-02T00:00:00Z Duration: H Days of the week: MO Delivery capacity: 100 Quantity unit: MW Price/time interval quantities: 100 Load delivery intervals: 00:00Z/24:00Z</pre>

	Delivery start date and time: 2017-05-02T00:00:00Z Delivery end date and time: 2018-01-01T00:00:00Z Duration: S Days of the week: WD/WN Delivery capacity: 100 Quantity unit: MW Price/time interval quantities: 100
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Example 2: Non-shaped Gas Day

Non-shaped trade that delivers on the Gas Day and uses local dates and times. The timezone is Europe/Berlin.

CpML	ESMA
<TimeIntervalQuantities> <TimeIntervalQuantity> <DeliveryStartDateAndTime>2016-02-01T06:00:00 </DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2016-03-01T06:00:00 </DeliveryEndDateAndTime> <ContractCapacity>100</ContractCapacity> <Price>100</Price> </TimeIntervalQuantity> </TimeIntervalQuantities>	Load delivery intervals: 05:00Z/24:00Z Delivery start date and time: 2016-02-01T05:00:00Z Delivery end date and time: 2016-02-02T00:00:00Z Duration: H Days of the week: MO Delivery capacity: 100 Quantity unit: MW Price/time interval quantities: 100 Load delivery intervals: 00:00Z/24:00Z Delivery start date and time: 2016-02-02T00:00:00Z Delivery end date and time: 2016-02-29T00:00:00Z Duration: W Days of the week: WD/WN Delivery capacity: 100 Quantity unit: MW Price/time interval quantities: 100 Load delivery intervals: 00:00Z/05:00Z Delivery start date and time: 2016-03-01T00:00:00Z Delivery end date and time: 2016-03-01T05:00:00Z Duration: H Days of the week: MO Delivery capacity: 100 Quantity unit: MW Price/time interval quantities: 100

Example 3: Non-shaped with Peak Load

Non-shaped trade that has a peak load and uses local dates and times. The timezone is Europe/Berlin.

CpML	ESMA
<TimeIntervalQuantities> <TimeIntervalQuantity> <DeliveryStartDateAndTime>2016-02-01T08:00:00 </DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2016-02-01T20:00:00 </DeliveryEndDateAndTime> <ContractCapacity>100</ContractCapacity> <Price>100</Price>	Load delivery intervals: 00:00Z/07:00Z/19:00Z/24:00Z Delivery start date and time: 2016-02-01T00:00:00Z Delivery end date and time: 2016-03-01T00:00:00Z Duration: M Days of the week: WD Delivery capacity: 100 Quantity unit: MW Price/time interval quantities: 100

<p></TimeIntervalQuantity></p> <p><TimeIntervalQuantity></p> <p><DeliveryStartDateAndTime>2016-02-02T08:00:00</p> <p></DeliveryStartDateAndTime></p> <p><DeliveryEndDateAndTime>2016-02-02T20:00:00</p> <p></DeliveryEndDateAndTime></p> <p><ContractCapacity>100</ContractCapacity></p> <p><Price>100</Price></p> <p></TimeIntervalQuantity></p> <p><TimeIntervalQuantity></p> <p><DeliveryStartDateAndTime>2016-02-03T08:00:00</p> <p></DeliveryStartDateAndTime></p> <p><DeliveryEndDateAndTime>2016-02-03T20:00:00</p> <p></DeliveryEndDateAndTime></p> <p><ContractCapacity>100</ContractCapacity></p> <p><Price>100</Price></p> <p></TimeIntervalQuantity></p> <p><TimeIntervalQuantity></p> <p><DeliveryStartDateAndTime>2016-02-04T08:00:00</p> <p></DeliveryStartDateAndTime></p> <p><DeliveryEndDateAndTime>2016-02-04T20:00:00</p> <p></DeliveryEndDateAndTime></p> <p><ContractCapacity>100</ContractCapacity></p> <p><Price>100</Price></p> <p></TimeIntervalQuantity></p> <p><TimeIntervalQuantity></p> <p><DeliveryStartDateAndTime>2016-02-05T08:00:00</p> <p></DeliveryStartDateAndTime></p> <p><DeliveryEndDateAndTime>2016-02-05T20:00:00</p> <p></DeliveryEndDateAndTime></p> <p><ContractCapacity>100</ContractCapacity></p> <p><Price>100</Price></p> <p></TimeIntervalQuantity></p> <p><TimeIntervalQuantity></p> <p><DeliveryStartDateAndTime>2016-02-08T08:00:00</p> <p></DeliveryStartDateAndTime></p> <p><DeliveryEndDateAndTime>2016-02-08T20:00:00</p> <p></DeliveryEndDateAndTime></p> <p><ContractCapacity>100</ContractCapacity></p> <p><Price>100</Price></p> <p></TimeIntervalQuantity></p> <p><TimeIntervalQuantity></p> <p><DeliveryStartDateAndTime>2016-02-09T08:00:00</p> <p></DeliveryStartDateAndTime></p> <p><DeliveryEndDateAndTime>2016-02-09T20:00:00</p> <p></DeliveryEndDateAndTime></p> <p><ContractCapacity>100</ContractCapacity></p>	<p>Load delivery intervals: 00:00Z/00:00Z</p> <p>Delivery start date and time: 2016-02-06T00:00:00Z</p> <p>Delivery end date and time: 2016-02-29T00:00:00Z</p> <p>Duration: W</p> <p>Days of the week: WN</p> <p>Delivery capacity: 100</p> <p>Quantity unit: MW</p> <p>Price/time interval quantities: 100</p>
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<pre><Price>100</Price> </TimeIntervalQuantity> ... <TimeIntervalQuantity> <DeliveryStartDateAndTime>2016-02-26T08:00:00 </DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2016-02-26T20:00:00 </DeliveryEndDateAndTime> <ContractCapacity>100</ContractCapacity> <Price>100</Price> </TimeIntervalQuantity> <TimeIntervalQuantity> <DeliveryStartDateAndTime>2016-02-29T08:00:00 </DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2016-02-29T20:00:00 </DeliveryEndDateAndTime> <ContractCapacity>100</ContractCapacity> <Price>100</Price> </TimeIntervalQuantity> </TimeIntervalQuantities></pre>	
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Appendix B: Rules for CFI Generation

The CFI is generated according to the following rules:

- Transaction details section is 'ETDTradeDetails' and "TransactionType" is set to "OPT", "OPT_PHYS_INX", "OPT_FXD_SWP", "OPT_FXD_FXD_SWP", "OPT_FLT_SWP", "OPT_FIN_INX" or "OPT_FUT":
 - 1st character: Use "O".
 - 2nd character:
 - If 'OptionDetails/OptionType' is set to "Put", then use "P".
 - Else, use "C".
 - 3rd character: Use "X".
 - 4th character:
 - If 'PrimaryAssetClass' is set to "Commodity", then use "T".
 - If 'PrimaryAssetClass' is set to "ForeignExchange", then use "C".
 - If 'PrimaryAssetClass' is set to "InterestRate", then use "I".
- Transaction details section is 'ETDTradeDetails' and "TransactionType" has any other value then above:
 - 1st character: Use "F".
 - 2nd character:
 - If 'PrimaryAssetClass' is set to "Commodity", the use "C".
 - If 'PrimaryAssetClass' is set to "ForeignExchange", then use "F".
 - If 'PrimaryAssetClass' is set to "InterestRate", then use "F".
 - 3rd character:
 - If 'PrimaryAssetClass' is set to "Commodity", use "X".
 - If 'PrimaryAssetClass' is set to "ForeignExchange", use "C".
 - If 'PrimaryAssetClass' is set to "InterestRate", use "I".
 - Characters 4-6: Use "X".
- Transaction details section is 'TradeConfirmation' and 'TransactionType' is set to "OPT", "OPT_PHYS_INX", "OPT_FXD_SWP", "OPT_FLT_SWP" or "OPT_FIN_INX":
 - 1st character: Use "O".
 - 2nd character:
 - If 'OptionDetails/OptionType' is set to "Put", then use "P" .
 - Else, use "C"
 - 3rd character: Use "X".
 - 4th character: Use "T".
- Transaction details section is 'TradeConfirmation' and 'TransactionType' is set to any other value then above:
 - 1st character: Use "M".
 - 2nd character : Use "R".
 - 3rd character: Use "T".
 - Characters 4-6: Use "X".
- Transaction details section is 'IRSTradeDetails' and 'TransactionType' is set to "OPT_FXD_SWP", "OPT_FLT_SWP" or "OPT_FXD_FXD_SWP" :

- 1st character: Use "O".
- 2nd character:
 - If 'OptionDetails/OptionType' is set to "Put", then use "P".
 - Else, use "C".
- 3rd character: Use "X".
- 4th character: Use "I".
- Transaction details section is 'IRSTradeDetails' and 'TransactionType' is set to any other value then above:
 - 1st character: Use "M".
 - 2nd character: Use "R".
 - 3rd character: Use "I".
 - Characters 4-6: Use "X".
- Transaction details section is 'FXTradeDetails' and 'TransactionType' is set to "OPT" or "OPT_FXD_FXD_SWP" :
 - 1st character: Use "O".
 - 2nd character:
 - If 'FXOption/OptionType' is set to "Put", then use "P".
 - Else, use "C".
 - 3rd character: Use "X".
 - 4th character: Use "C".
- Transaction details section is 'FXTradeDetails' and 'TransactionType' is set to any other value then above:
 - 1st character: Use "M".
 - 2nd character: Use "R".
 - 3rd character: Use "C".
 - Characters 4-6 : Use "X".

Appendix C: Mapping Rules for Commodity Base and Commodity Details (EMIR only)

For OTC commodities, the values of the EMIR classifications 'Commodity base' and 'Commodity details' can be mapped from the value of 'IndexCommodity' in the output CpMLDocument.

C.1. Commodity base

The following 'Commodity base' values are applied based on the 'IndexCommodity' values listed below each value.

- AG = Agriculture
 - Canola
 - Cocoa
 - Coffee
 - Corn
 - Cotton
 - Livestock
 - Milk
 - Oats
 - Orange_Juice
 - Rubber
 - Soyabeans
 - Sugar
 - Sunflower_Seeds
 - Wheat
 - Wool
- EN = Energy
 - Benzene
 - Coal
 - Diesel_Fuel
 - Electricity
 - Fuel_Oil
 - Gas_Oil
 - Gasoline
 - Heating_Oil
 - Jet_Fuel
 - Methanol
 - Naphtha
 - Nat_Gas
 - NGL
 - Oil
 - Ultra_Low_Sulphur_Diesel
 - Wood_Pellet
- EV = Environmental
 - EUA
 - CER

- Weather
- CCA
- FR = Freight
 - Time_Charter
 - Wet_Freight
 - Dry_Freight
- ME = Metals
 - Aluminum
 - Cobalt
 - Copper
 - Gold
 - Lead
 - Molybdenum
 - Nickel
 - Palladium
 - Platinum
 - Rhodium
 - Silver
 - Steel
 - Tin
 - Uranium
 - Zinc

C.2. Commodity details

The following 'Commodity details' values are applied based on the 'IndexCommodity' values listed below each value.

- GO = Grains Oilseeds
 - Canola
 - Corn
 - Oats
 - Soyabeans
 - Sunflower_Seeds
 - Wheat
- DA = Dairy
 - Milk
- LI = Livestock
 - Livestock
- SO = Softs
 - Cocoa
 - Coffee
 - Cotton
 - Orange_Juice
 - Rubber
 - Sugar
 - Wool

- SF = Seafood
 - Seafood
- OL = Oil
 - Benzene
 - Diesel_Fuel
 - Fuel_Oil
 - Gas_Oil
 - Gasoline
 - Heating_Oil
 - Jet_Fuel
 - Methanol
 - Naphtha
 - NGL
 - Oil
 - Ultra_Low_Sulphur_Diesel
- NG = Natural Gas
 - Nat_Gas
- CO = Coal
 - Coal
 - Wood_Pellet
- EL = Electricity
 - Electricity
- EM = Emissions
 - EUA
 - CER
 - CCA
- WE = Weather
 - Weather
- NP = Non-precious
 - Aluminum
 - Cobalt
 - Copper
 - Lead
 - Molybdenum
 - Nickel
 - Steel
 - Tin
 - Uranium
 - Zinc
- PR = Precious
 - Gold
 - Palladium
 - Platinum
 - Rhodium
 - Silver

- WT = Wet Freight
 - Wet_Freight
- DR = Dry Freight
 - Dry_FreightTime_Charter

Appendix D: Glossary of Terms

Term	Description
Aii	Alternative Instrument Identifier
CCP	Central counterparty, a clearing house
CFI	ISO 10962: Classification of Financial Instruments
CRA	Clearing Registration Agent
eCM	Electronic Confirmation and/or Matching
EFET	European Federation of Energy Traders
EFET codes	Acceptable values (formats) for specific attributes of an object (e.g. counterparty, currency code, product code or delivery date). EFET codes are published by EFET as part of its EFET standard, see ref ID [8].
EIC	The Energy Identification Coding scheme is standardized and maintained by ENTSO-E. It provides a unique identification of the market participants and other entities active within the Energy Internal European Market. It is widely used in the Electronic Document Interchange, as well as EU regulations for transparency and integrity of the energy market. See also "EIC code".
EIC code	<p>Energy Identification Code published by ENTSO-E, see ref ID [9].</p> <p>EIC allocates a unique code to the following object types:</p> <ul style="list-style-type: none"> ▪ Market Participants = X codes ▪ Areas = Y codes. Areas for inter-system operator data interchange ▪ Measuring points = Z codes. Energy Metering points ▪ Resource objects = W codes. Examples: production plants, consumption units. ▪ Tie-lines = T codes. International tie lines between areas ▪ Location = V codes. Physical or logical place where a market participant or IT system is located. ▪ Substations = A codes
Emissions Commodity	<p>Collective term for the following values of 'Commodity':</p> <ul style="list-style-type: none"> ▪ Gas ▪ Power ▪ Oil ▪ Coal ▪ Bullion ▪ Metal ▪ Agriculturals ▪ Paper ▪ ERU ▪ AAU
EMIR	European Market Infrastructure Regulation, a European Union regulation designed to increase the stability of the over-the-counter (OTC) derivative markets throughout the EU states.
ENTSO-E	European Network of Transmission System Operators for Electricity
eRR	Electronic Regulatory Reporting
FC	Financial counterparty
Financial Transaction	<p>Collective term for the following values of 'TransactionType':</p> <ul style="list-style-type: none"> ▪ FXD_SWP: Fixed/float swap ▪ FLT_SWP: Float/float swap ▪ OPT_FXD_SWP: Fixed/float swaption ▪ OPT_FLT_SWP: Float/float swaption ▪ OPT_FIN_INX: Option on an index

Term	Description
ISDA	International Swaps and Derivatives Association
ISIN	International Securities Identification Number, as defined by ISO 6166.
ISO code	Codes published by the International Organization for Standardization
LEI	Legal Entity Identifier. A LEI code is a unique ID associated with a single corporate entity. Although no common entity ID convention exists in the market today, a range of regulatory initiatives are driving the creation of universal LEI standard for financial markets.
MP	Market participant
MIC	Market Identifier Code, as defined by ISO 10383
MiFID	Markets in Financial Instruments Directive (Directive 2004/39/EC). The MiFID directive replaced the Investment Services Directive (ISD) adopted in 1993. MiFID was adopted in April 2004 and came into force in November 2007. Its aim is to improve the competitiveness of EU financial markets by creating a single market for investment services and activities, and ensuring a high degree of harmonised protection for investors in financial instruments, such as shares, bonds, derivatives and various structured products.
MTF	Multilateral Trading Facility
NFC	Non-financial counterparty
NFC+	Non-financial counterparty above the clearing threshold
OMP	Organised Market Place (REMIT terminology)
Party code	Code used to identify the legal entity that is a party to the transaction being described, that is, the buyer, the seller and/or other agent.
REMIT	Regulation on Wholesale Energy Market Integrity and Transparency, EU Regulation No. 1227/2011. REMIT is designed to increase the transparency and stability of the European energy markets while combating insider trading and market manipulation.
Trade Confirmation	A legal document describing all the material terms of a trade. It often refers to a Master Agreement or other Agreement in place between both parties or contains some legal terms.
UTC	Coordinated Universal Time. Previously referred to as GMT or Z (Zulu time).
UTI	Unique Trade Identifier. A UTI is an identifier used to uniquely identify the report of an transaction (trade or order) eligible for reporting under one or more applicable regulatory regimes.
XML	eXtensible Markup Language