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EURONEXT CASH AND DERIVATIVES MARKETS – SATURN WEB SERVICES

Document type or subject

Detailed Functional Specification

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PREFACE SATURN

ABOUT THIS DOCUMENT

This specification document is related to the Euronext Saturn Web Services, part of Euronext's Reporting Services. Saturn offers a REST API which is used to access the services of the gateway. The purpose of this document is to describe the technology and the supported messages.

TARGET AUDIENCE

This document is targeted to clients of one or several of the following Euronext Reporting Services:

- Transaction Reporting on Euronext Markets conducted directly by Euronext Members;
- Transaction Reporting on Euronext Markets conducted by Euronext Members not Subject to EU and UK MiFID II;
- ARM Transaction Reporting services;
- APA Post-Trade publication service and APA Pre-Trade publication for an SI (SI Quotes);
- Cleared OTC trade facility
- OBOE Off Book On Exchange Trade Reporting services

However some services are significant for a subset of the system; they are marked with small logos as described below:

Logo	Meaning
ARM	Approved Reporting Mechanism
APA Pre	Approved Publication Arrangement pre trade
APA Post	Approved Publication Arrangement post trade
EM	Euronext members
RC	Reporting and clearing for Euronext Members
OBOE	Off Book On Exchange Trade Reporting
ALL	Function applying to all users

Saturn Solution covers other features:

- Commodity Positions Reporting
- Short Code Long Code Management (SLC)

These services are described in separate documents.

ASSOCIATED DOCUMENTATION

The following lists the associated documents, which either should be read in conjunction with this document or which provide other relevant information to user:

- https://www.euronext.com/en/trading-services/euronexts-apa-arm-services-under-mifid-ii
- https://www.euronext.com/sites/www.euronext.com/files/euronext_global_reporting_solution_-_saturn_interface_user_guide_v2.2.pdf
- Intermediate certificate (refer to Section 10 Pre requisite before using API)
  https://www.euronext.com/sites/www.euronext.com/files/saturn_certifdigicertclient.pfx
- Example of csv files (submit trades):
  - APA/ARM:
    https://connect2.euronext.com/sites/default/files/it-documentation/saturn_example_of_oboe_upload_file.csv
  - OBOE:
    https://connect2.euronext.com/sites/default/files/it-documentation/saturn_example_of_apa-arm_upload_file.csv

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TERMS AND ACRONYMS

Term/Acronym	Description
ARM	Approved Reporting Mechanism
APA	Approved Publication Arrangement
Attribute & Element	Basic building blocks of XML Schemas. ■ An XML element is everything from (including) the element's start tag to (including) the element's end tag; ■ Attributes are designed to contain data related to a specific element.
Client	An application, i.e. a system that accesses the services in Saturn through the API gateway.
HTTPS	Hypertext Transfer Protocol Secure
Function	A specific action in the Saturn REST API gateway, for example, Logon, Logoff, SubmitTrades etc.

Term/Acronym	Description
REST	REST, or Representational State Transfer, relies on a stateless, client-server, cacheable communications protocol. REST is an architecture style for designing networked applications. Rather than using complex mechanisms such as CORBA, RPC or SOAP to connect between machines, simple HTTPS is used to make calls between machines. REST is a lightweight alternative
SSL	Secure Sockets Layer (cryptographic protocol)
STP	Straight-through processing
User	A person accessing the Saturn services the Web user interface
XML	Extensible Markup language
OBOE	Off Book On Exchange Trade Reporting Service
FIX protocol	**Financial Information Exchange** protocol (**FIX**) is an open specification designed to standardize and streamline electronic communications in the financial securities industry supporting multiple formats and types of communications between financial entities for trade allocation, order submissions, order changes, execution reporting and advertisements

HISTORY

The following lists only all recent modifications made to this version.

For the Document History table see the Document History in appendix.

REVISION NO.	DATE	CHANGE DESCRIPTION
5.18.0	17 Oct 2022	■ Sections 4.3.1 Function SubmitTx, 4.9.2 Header Field Mapping, 4.9.4 ARM fields mapping (Coming soon), 4.9.5 APA fields mapping (Coming soon), 4.11.2 Detailed fields for csv file, 9.1.1 Common mandatory fields: Replaced “SINT” market place for APA by “Systematic Internalisers MIC Code ISO 10383”, as per RTS1 & RTS2.

IMPORTANT NOTE:

This document is a new version of the Saturn Web Services specifications. It will be updated as required based on additional regulatory clarifications as well as additional features. Users must refer to the document history to get a precise description of updates.

CONTENTS

1. CONTEXT & SYSTEM OVERVIEW

As part of the implementation of EU MiFID II and UK onshored regulation, European investment firms must report their daily transactions to the National Competent Authority they have a reporting obligation to and make public the details of each trade executed outside of a trading venue.

Euronext has developed Transaction Reporting services through a new solution called *Saturn* to allow market participants in Europe to fulfil their obligations. This solution is available to Euronext Members as well as non-members.

Saturn will replace as of the official date of MiFID II implementation most of the current Euronext reporting and publication services supported by the Trade Confirmation System (TCS).

The Euronext Transaction Reporting and publication Services through Saturn covers the following services:

- Transaction Reporting on Euronext Markets:
  - All trading activity performed on the Euronext Trading Venues conducted directly by Euronext Members;
  - Transaction Reporting on Euronext Markets for Euronext members not subject to EU and UK MiFID II, which have to report to Euronext in order for Euronext to report on their behalf to Competent Authorities.
- Transaction Reporting: ARM
  - All trading activity performed in Europe including UK, except on the Euronext Trading Venues (for members and non-members).
- Trade Reporting: APA post-trade publication
  - OTC and Systematic Internaliser (SI) trades.
- Trade Reporting: APA pre-rade publication
  - SI Quotes, public or for clients on request.
- Trade Reporting: Off Book On Exchange
  - All trading activity performed on the Euronext Dublin and Oslo Trading Venues and reported by Euronext Members.

In term of access, subscribers (Euronext Members and non-members) will be allowed to connect to Saturn (1) by integrating the REST API into their own back-office or middle-office systems, (2) by logging on to the Saturn graphical user interface (UI) using a compatible web browser. These two access methods are complementary.

The APA/ARM sections of this document comply with the UK DRSP regulatory framework governance.

2. TECHNOLOGY

2.1 WEB SERVICE

ALL	Function applying to all users

The services in the Saturn API are exposed as Web Services:

- *Message format*: REST
- *Transport mechanism*: HTTPS

The Saturn REST API allows multiple formats: JSON, XML, FIX (for future use) as well as CSV.

2.2 SECURITY

ALL	Function applying to all users

Services in Saturn are protected by authentication and authorization mechanisms. To access the services, a client is required to log on to the system.

The web services allow the customers to send commands and get reports to/from Saturn.

The web services agents and the passwords are managed by the Saturn application. The passwords are stored encrypted in the Saturn MySql Database.

The agent first sends a logon request in HTTPS with its name and password encrypted.

Then Saturn checks the credentials, assign a token and reply the token to the agent.

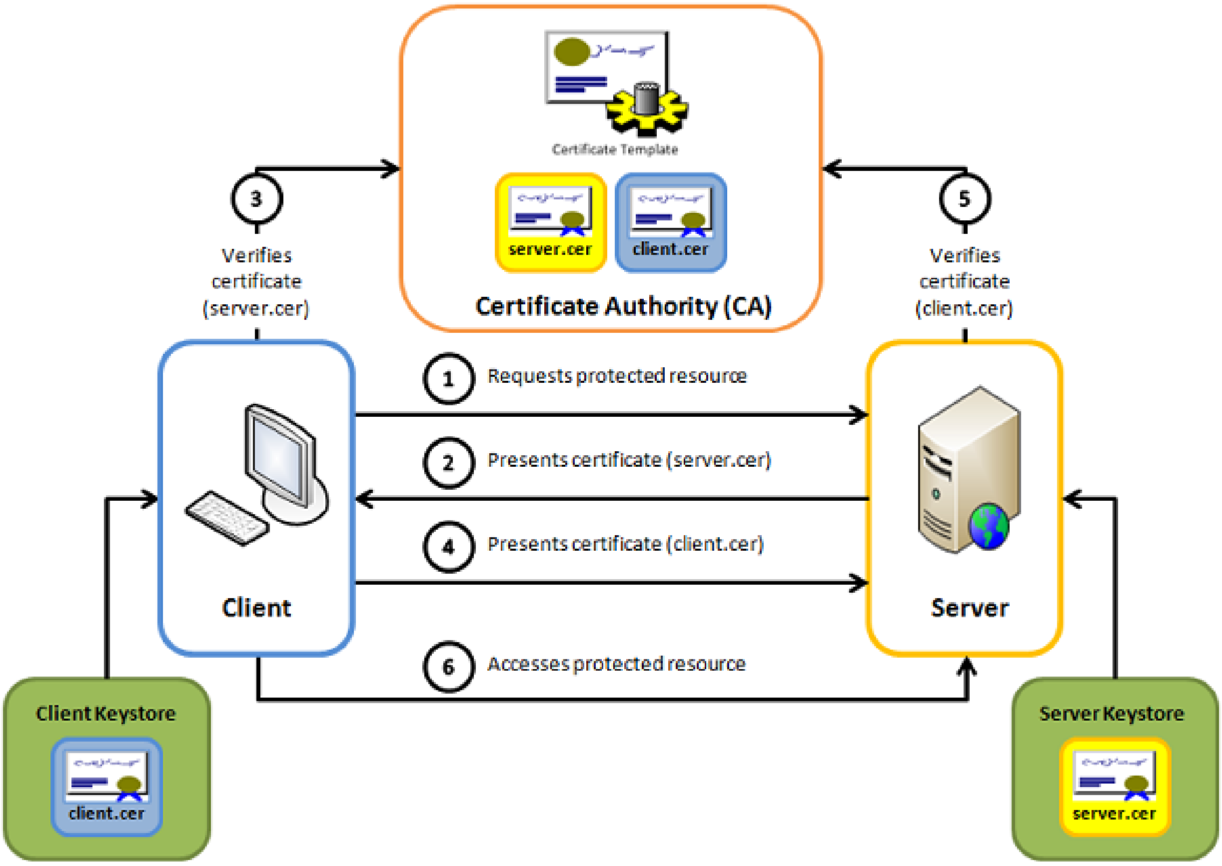
Then the agent is allowed to communicate with Saturn in Rest API by using this token in each message.

Tokens are valid for a defined period of time. If the agent sends a message with an expired token, Saturn replies with an error message “Token expired”.

Passwords and tokens are transmitted in the Authorization fields of the HTTP header.

In addition, Saturn will use certificate based mutual authentication that refers to two parties authenticating each other through verifying the provided digital certificate so that both parties are assured of the others’ identity. In other terms, it refers to a client (web browser or client application) authenticating themselves to a server (website or server application) and that server also authenticating itself to the client through verifying the public key certificate/digital certificate issued by the trusted Certificate Authorities (CAs). From a high-level point of view, the process of authenticating and establishing an encrypted channel using certificate-based mutual authentication involves the following steps: A client requests access to a protected resource:

1. The server presents its certificate to the client;
2. The client verifies the server’s certificate;
3. If successful, the client sends its certificate to the server;
4. The server verifies the client’s credentials;
5. If successful, the server grants access to the protected resource requested by the client.



2.3 PASSWORD POLICY

ALL	Function applying to all users

Passwords must be created and managed in accordance with this section.

Password Requirements – API & GUI

- Old password will be required when user **wants to change password**.
- New passwords cannot be **the same as the previous 10 passwords**.
- Passwords must be **at least 10 characters in length for GUI users, 20 characters for API users**.
- Accounts shall be locked **after three failed login attempts** and shall remain locked until the System Administrator unlocks the account

Password Requirements – GUI

- All GUI users passwords will expire **every 90 days and must be changed**.
- New passwords are different from corresponding usernames.
- New passwords cannot contain **more than 2 equal consecutive characters**.
- New passwords cannot **contain any variations of the previous one** (e.g., Saturn01! and Saturn01!!).
- Passwords must contain **both uppercase and lowercase characters** (e.g., a-z and A-Z).
- Passwords must contain **at least one number** (e.g., 0-9).
- Passwords must contain **at least one special character** (e.g., !#$()+-,;=@~{}?%*^_).

Password Requirements – API

- Passwords for API users **must be changed from the GUI**.
- Passwords must contain **at least three uppercase and three lowercase characters** (e.g., a-z and A-Z).
- Passwords must contain **at least three numbers** (e.g., 0-9).
- Passwords must contain **at least three special characters** (e.g., !#$()+-,;=@~{}?%*^_).

2.4 THE WEB SERVICES AGENTS AND THE SESSION HANDLING

ALL	Function applying to all users

To use the services provided by Saturn, the client must first logon to the system. After checking the credentials, Saturn creates a token and assigns it to the client. The client will then be allowed to communicate with the Saturn REST API by using this token in each message. In addition, Saturn will memorise the client IP from the login request and will check that each message is sent by the same client IP.

Saturn, in each request, extracts the token from the authorization header and looks up the token / IP on its storage.

Tokens are valid for a defined period of time. If the client sends a message with an expired token, Saturn will reply with an error message "Token expired".

Note: A client is only allowed to have one active session at a time. The first session will be invalidated if a client logs on to the Saturn system with an additional session using the same credentials.

2.5 AUTHENTICATION

ALL	Function applying to all users

Username and password are used to authenticate a client logging on to the system. These client credentials are stored in the Saturn database.

Note: The password is stored encrypted into the database

After a successful logon, a token is created by Saturn and is returned to the client.

2.6 LOGOFF

ALL	Function applying to all users

If a client is logged on to the system for more than a configurable number of minutes without performing any operation, the system will automatically log the client off and terminate the session.

If the client invokes an operation when logged off, a REST error will be returned to the client. In this case, the client needs to log on to the system again to be able to perform any further operations.

3. FUNCTIONS SUMMARY

ARM	Approved Reporting Mechanism
APA Pre	Approved Publication Arrangement Pre-Trade
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members
OBOE	Off Book On Exchange Trade Reporting

This section sums up functions included on the Saturn REST API.

For detailed information on each message, please refer to section 4: Function Details.

Operation Type	Description
RetrieveStatistics	Query returning Trade Reporting statistics to the client
SubmitTrades	Submit Trade(s) to the Saturn system for Transaction Reporting and/or APA purpose and OBOE Trade Reporting
RetrieveTradesDetails	Query returning trade(s) details including trade statuses (Euronext or regulatory feedbacks statuses) related to Transaction Reporting, APA, or both
SubmitAPAQuotes	Submit SI Quote(s) to the Saturn system for APA Pre-Trade transparency purpose

The function SubmitTrades manages the different status of a trade and/or a transaction. 'NEW, 'AMEND and 'CANCEL'. Next sections describe how these work.

IMPORTANT NOTE:

Decimal fields must have a point "." as a separator, if the separator used is a comma "," the entered value will be truncated.

Example: 56,23 becomes 56

4. FUNCTIONS DETAILS

ARM	Approved Reporting Mechanism
APA Pre	Approved Publication Arrangement Pre-Trade
APA Post	Approved Publication Arrangement Post -Trade
EM	Transaction Reporting for Euronext Members
OBOE	Off Book On Exchange Trade Reporting
ALL	Function applying to all users

This section describes the functions a client can perform through the Saturn REST API.

Standard data types, for instance string, are described in section 13.1 Data Format Standards.

Sequence Details, for instance SubmitTrades, are described in section 4.4 Submit / Amend / Cancel Trades.

4.1 AUTHENTICATEUSER

ALL	Function applying to all users

The client must perform this function before any other. If successful, the function creates a session on the server and returns a token that a client needs to pass along with all subsequent functions during the ongoing session.

The token is used for session handling. The server returns the token in the HTTPS response header.

The client sends that token in each request using the "Authorization" header. Tokens are valid for a defined period (parameter to be defined). If the client sends a message with an expired token, then Saturn replies with the error message "Token expired". Passwords and tokens are transmitted in the Authorization fields of the HTTP header.

Function:

Function name: AuthenticateUser
Request EndPoint: /SaturnWebServices/rest/Authentication/AuthenticateUser
Method: POST

Request Body:

This endpoint accepts a request body in one of the following formats:

1. application/json;
2. application/xml.

Request Parameters:

Name	Type	Data Type	Required	Description
Username:Password	Attribute	string	Yes	Concatenate Saturn username and password (MD5 encrypted) – Concatenation is encrypted in base 64 (result in hexadecimal – lowercase)

Response Parameters:

Name	Type	Data Type	Required	Description
Account	Attribute	account	Yes	It contains the client user name, role, and ID of the user
Token	Attribute	string	Yes	Token generated by Saturn and assigned to the above account. Each following function undertaken by the user shall contain this token.
StatusCode	Attribute	Int	Yes	The status code of the logon function. See below for description.
Message	Attribute	string	Yes	Message for the logon function.

Possible returned **status** codes:

200 – Success
504 – Session expired

If there is an **error** at login, two error messages may be displayed :
401 – **Access denied ! Check your login/password**
401 – **Access Denied! Check your login/password. If this problem persists, please contact your system administrator.** (**after three unsuccessful attempts**)

The **error** code will not be sent by the system . Please contact Market Access (cas@euronext.com) if you require further assistance upon login.

4.2 FOR SATURN ENVIRONMENT

ALL	Functions applying to all users

Please find URL below used to access SATURN API:

Production ➔ https://saturnapi-prod.euronext.com/

Test environment ➔ https://saturnapi-eua.euronext.com/

General Schema Section

ARM	Approved Reporting Mechanism

APA Pre	Approved Publication Arrangement Pre-Trade
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members
OBOE	Off Book On Exchange Trade Reporting

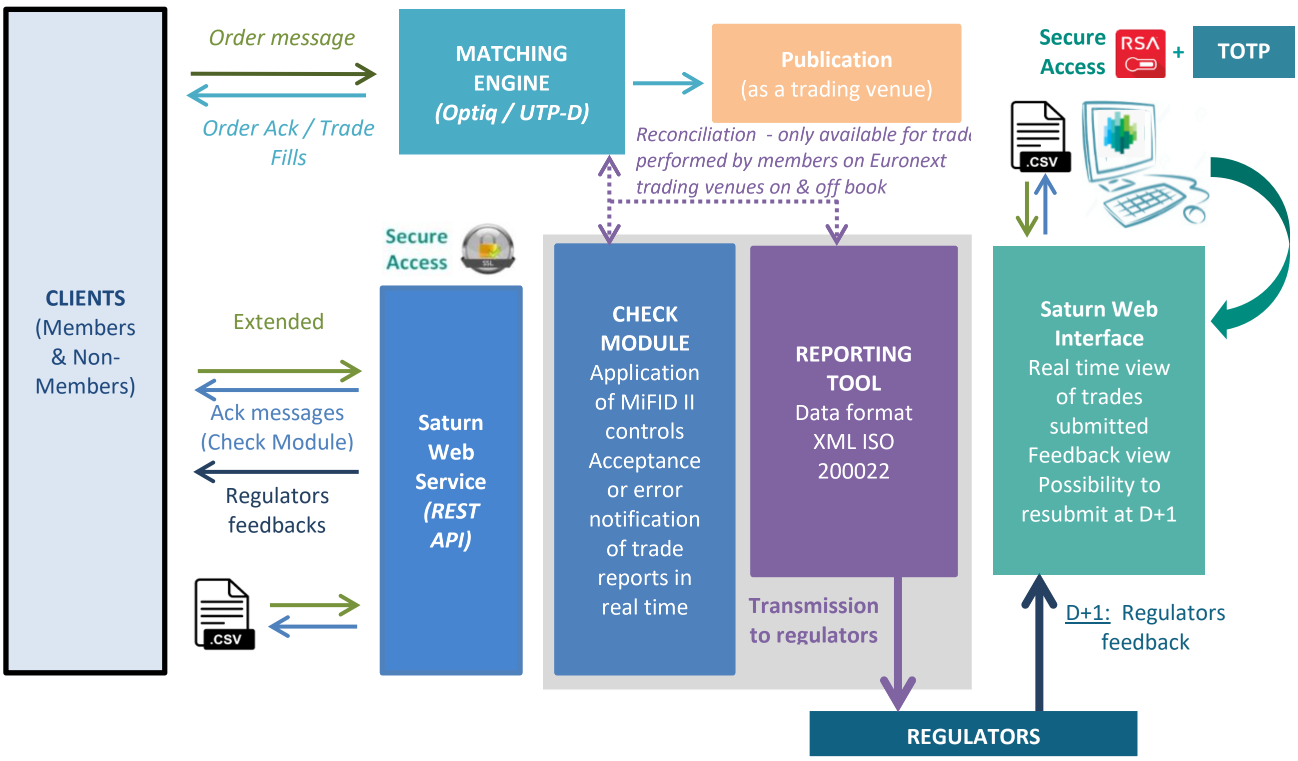
Saturn offers two ways to submit trades and/or transactions into Saturn:

- REST API which is used to access the services of the gateway;
- Web services.

Whatever the process integration used (via REST API or Web services) a check module controls the mandatory fields for ESMA and onshored UK RTS22 as well as consistency for APA and a mandatory block detailed in the next section 4.8 Submit trades.

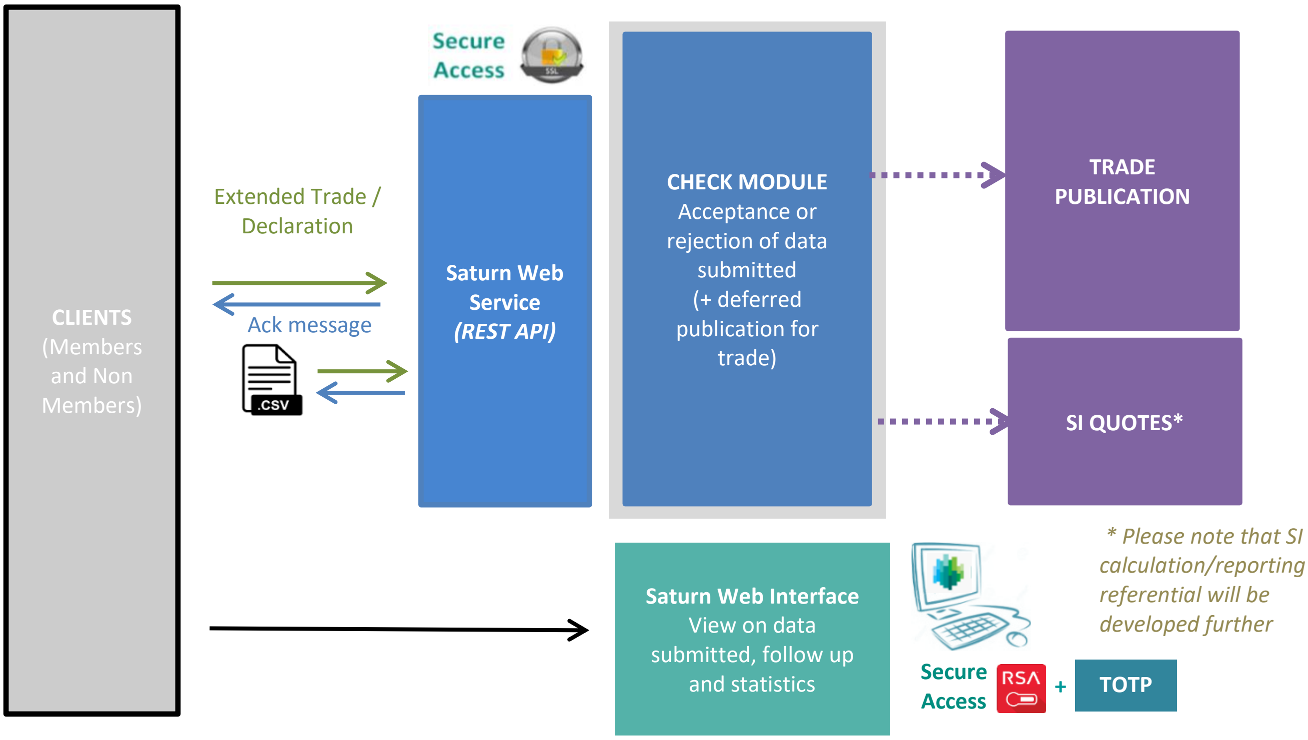
All functions (submission, publication, retrieval) are associated with an ACK message known as response data. Detailed examples are provided in the next sections.

4.2.1 Transaction Reporting schema



4.2.2 OBOE Trade Reporting schema

4.2.3 APA reporting schema



4.3 SUBMIT TRADES

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members
OBOE	Off Book On Exchange Trade Reporting

This function should be used by the client to submit one transaction into Saturn. The Submit function is designed for Web Services.

The different trade statuses for this function are NEW, AMEND and CANCEL. Those statuses are detailed below.

Function:

Function name: Submit
Request EndPoint: /SaturnWebServices/rest/transactionReports/submit
Method: POST

Request Body:

This endpoint accepts a request body in one of the following formats:

1. application/json;
2. application/xml.

Submit Parameters for New:

Name	Type	Data Type	Rq	TAG	Values
Tradereport	Attribute	Int	Yes	TradeReportType(856)	1 - NEW 2 - AMEND 3 – CANCEL 4 – RECOVERY (Only used via Upload file in the GUI)
tradeRef	Attribute	{ALPHANUM - 52}	Yes	TradeID(1003)	No restriction
tradeID	Attribute	{ALPHANUM - 52}	No	Client tradeID(TAG 1903) with TradeID type (TAG 1906) with value = 5	No restriction
Side	Attribute	Int	Yes		1 - Buy 2 - Sell 3 - Cross(Not applicable for OBOE)
Venue	Attribute	{ALPHANUM-4}	Yes		■ MIC (EEA) MIC Code ISO 10383 ■ MIC (Non EEA) MIC Code ISO 10383 ■ Only Dublin and Oslo (excepted Derivative) MICs accepted for OBOE Services ■ "XOFF" ■ "XXXX" ■ Systematic Internalisers MIC Code ISO 10383
executing firm	Attribute	LEI	Yes	PartyId (TAG 1117) with a LEI PartyID source (TAG 1118) with N (Legal Entity Identifier) and PartyID role (TAG 1119) = 1	Field 4 of ESMA and onshored UK RTS 22
arm apa indicator	Attribute	Int	Yes		1 - Transaction Reporting 2 - APA 3 - Both Transaction Reporting and APA 4 - OTC Trade only 5 - OBOE - Off Book on Exchange 6 - Both OBOE and Transaction Reporting

Name	Type	Data Type	Rq	TAG	Values
Trade	Element	Part of trade 1	Yes		See Transaction Reporting section See Transaction Reporting section for ARM See APA trade publication section for APA See OBOE trade publication section for OBOE
mifidExtension	Element	Part of trade 2	No		See Transaction Reporting section for both arm and APA See Transaction Reporting section for ARM See APA trade publication section for APA See OBOE trade publication section for OBOE

Those fields provided, the user must add additional fields to the transaction for Transaction Reporting and/or Publication and/or clearing purposes. The Saturn integration of a trade can be done through one single submission or several, but the key data has to be provided for any submission.

Any missing field(s) with the type 'Attribute' on the above list on a transaction **will lead to a submission rejection**. The transaction will not be integrated into Saturn. In addition any request whatever the status (new, amend, cancel) is subjected to rejection as well.

4.3.1 Function SubmitTx

Function:

Function name: Submit
Request EndPoint: /SaturnWebServices/rest/transactionReports/submitTx
Method: POST

Request Body:

This endpoint accepts a request body in one of the following formats:

1. application/json;
2. application/xml.

The difference between 'submit' and 'submitTx' is that 'submitTx' has a flat structure. It means that all files have the type Attribute. It's highly recommended to use submitTx over submit resource.

The first part is the table below

Name	Type	Data Type	Rq	TAG	Values
Tradereport	Attribute	Int	Yes	487 / (0- NEW, 1 - CANC, 2 - REPLACE)	1 - NEW 2 - AMEND 3 – CANCEL 4 – RECOVERY (Only used via Upload file in the GUI)

Name	Type	Data Type	Rq	TAG	Values
tradeRef	Attribute	{ALPHANUM - 52}	Yes	TradeID(1003)	No restriction
tradeID	Attribute	{ALPHANUM - 52}	No	Client tradeID(TAG 1903) with TradeID type (TAG 1906) with value = 5	No restriction
Side	Attribute	Int	Yes	54 / (1 - Buy, 2 - Sell)	1 - Buy 2 - Sell 3 - Cross (Not applicable for OBOE)
Venue	Attribute	{ALPHANUM-4}	Yes	30	■ MIC (EEA) MIC Code ISO 10383 ■ MIC (Non EEA) MIC Code ISO 10383 ■ Only Dublin and Oslo (excepted Derivatives) MICs accepted for OBOE Services ■ "XOFF" ■ "XXXX" ■ Systematic Internalisers MIC Code ISO 10383
executing firm	Attribute	LEI	Yes	PartyId (TAG 1117) with a LEI PartyID source (TAG 1118) with N (Legal Entity Identifier) and PartyID role (TAG 1119) = 1	Field 4 of ESMA and onshored UK RTS 22
arm apa indicator	Attribute	Int	Yes		1 - Transaction Reporting 2 - APA 3 - Both Transaction Reporting and APA 4 - OTC Trade only 5 - OBOE - Off Book on Exchange 6 - Both OBOE and Transaction Reporting
Trading Date Time	Attribute	{DATE_TIME_FORMAT}	Yes		YYYY-MM-DDthh:mm:ss.ddddddZ
Settlement Date	Attribute	{DATE_FORMAT}	No	64	YYYY-MM-DD
Repo Settlement Date	Attribute	{DATE_FORMAT}	No		YYYY-MM-DD

And the other fields are described in:

- Transaction Reporting sections
- Amend Transaction Reporting section

- APA trade publication section
- OBOE Trade Reporting section

Please note that The client's transaction should go to fail if the Executing Firm LEI is not the LEI set for the participant used.

4.3.2 Status New

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members
OBOE	Off Book On Exchange Trade Reporting

A trade has the status 'NEW' when the transaction number "TradeRef" (please refer to the table above '**Submit Parameters for New**') is submitted for the first time. The unicity control is performed on this field. In case of a duplicate the trade is rejected.

4.3.3 Status Amend

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members
OBOE	Off Book On Exchange Trade Reporting

A trade has the status 'AMEND' when the transaction number 'TradeRef' (please refer to the table above '**Submit Parameters for New**') is resubmitted with the 'TradeReport' value 2 - 'AMEND'.

For Euronext members working specifically on Euronext Trading venues please refer to 5.2 Amend Transaction Reporting Section.

For all the others, you need to complete all the fields described in the above table '**Submit Parameters for New**', and not only the fields you want to amend, but also the other fields described in the parts 4.3.5 & 4.3.6 (for ARM), 4.3.7 (for APA & ARM&APA) and 4.3.8 (for OBOE & ARM&OBOE), even if they are optional.

In case these fields are not communicated, they will be defaulted.

4.3.4 Status Cancel

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members
OBOE	Off Book On Exchange Trade Reporting

A trade has the status 'CANCEL' when the existing transaction number 'TradeRef' (please refer to the table above '**Submit Parameters for New**') is resubmitted with the 'TradeReport' values 3-'CANCEL'.

Please note that, you need to complete the following key fields described in the above table '**Submit Parameters for New**':

- Action = [CANC]
- TradeRef
- Side
- Venue
- ARM APA Indicator
- Executing Firm

The following sections focus on additional data that must be inserted in each transaction after the Key Data presented in the chapter 4.4 Submit trades.

4.3.5 Transaction Reporting Section

ARM	Approved Reporting Mechanism

Whatever transactions are sent to Saturn for any of the services below, the Transaction Reporting sequence must be included in the transactions because it contains the mandatory fields to build a transaction report/publication. The Transaction Reporting contains the fields for RTS 22 and other fields of Saturn.

- Transaction Reporting on Euronext Markets:
  - All trading activity on the Euronext Trading Venues conducted directly by Euronext Members;
  - Transaction Reporting on Euronext Trading Venues by Euronext members not subject to EU and UK MiFID II, which have to report to Euronext in order for Euronext to report on their behalf to Competent Authorities.
- Transaction Reporting: ARM
  - All trading activity performed in Europe including UK, except on the Euronext Trading Venues (for members and non-members).

Clients must note that in addition to the regulatory reporting fields, five (5) Free Text fields and a Business Unit field are available to the client.

Conditions mentioned on below sequence stands for Transaction Reporting purposes (Euronext or ESMA/FCA checks on data).

Repeating Section Usage:

Please note that the repeating section details below are highlighted with a blue border.

The message contains two repeating sections:

- **The first repeating section** is applicable if the executing firm is dealing on behalf of a client and if this client is related to natural persons who have a joint account (married couple).

  In case of cross trade, this section is related to the BUY side.

  - ***Client Identification Code*** field can have values of:
    - Populated with a **LEI**;
    - Populated with the concatenation of the national **country code** and the **NATIONAL_ID (details in the field description section)** <u>if the client is related to natural person(s);</u>
    - Populated with **'INTC' (details in the field description section)**.
  - If the field *Client Identification Code* is populated, this means the executing firm is dealing on behalf of a client and the following field becomes **mandatory**:
    - *Client Country Branch.*
    - If the field *Client Identification Code* is populated with the concatenation of the national **country code** and the **NATIONAL_ID**, this means the client is related to natural person(s) and the following fields become **mandatory**:
    - *Client First Name;*
    - *Client Surname;*
    - *Client Birthdate.*

    Fields Client National ID and Client Passport ID are optional.

  The whole section can be repeated with multiple occurrences (twice if a married couple who has joint account is the client). In this case both spouses shall be identified.

- **The second repeating section** concerning **Client Decision Maker** fields is **only applicable** if the executing entity is dealing for a client and the investment decision is made under a power of representation (discretionary mandate, power of attorney...).
  - ***Client Decision Maker Code*** can have values of:
    - Populated with a **LEI**;
    - Populated with the concatenation of the national **country code** and the **NATIONAL_ID (details in the field description section)** <u>if the client is related to natural person(s)</u>.
    - If the field *Client Decision Maker Code* is populated with the concatenation of the national **country code** and the **NATIONAL_ID**, this means the client is related to natural person(s) and the following fields become **mandatory**:
    - *Client Decision Maker First Name;*
    - *Client Decision Maker Surname;*
    - *Client Decision Maker Birthdate.*

    Fields Client Decision Maker National ID and Client Decision Maker Passport ID are optional.

  In case of cross trade, this section needs to be repeated: BUY side then SELL side.

IMPORTANT NOTE:

When a Euronext member acting on Euronext Trading Venues submits trades in Saturn in the full format of the Transaction Reporting section, please be advised that several fields are ignored and not controlled by SATURN.
These fields are all the fields contained in the trade performed on the Euronext trading Engine, or fields that can be deduced.

It is recommended to use the "Amend" function for this type of reporting. See section 5.2.

All fields in the table below are linked with the glossary at the end of this document.

Field	Rq	Format	Values	ESMA Field
TradingCapacity1	✓	Int	1 - Dealing on own account (DEAL) 2 - Matched principal (MTCH) – (Not avalaible for OBOE Dublin) 3 - Any other capacity (AOTC)	Field 29 of ESMA and onshored UK RTS 22
Quantity	✓	{DECIMAL-18/17}		Field 30 of ESMA and onshored UK RTS 22
QuantityCurrency	+	{CURRENCYCODE_3}	ISO 4217 Currency code	Field 31 of ESMA and onshored UKRTS 22
Quantitynotation	✓	int	1: UNIT 2: MONE (Monetary Value), 3: NMNL (Nominal Value)	
PriceNotation	+	Int	1: 'MONE' – Monetary value 2: 'PERC' – Percentage 3: 'YIEL' – Yield 4: 'BAPO' – Basis points 5: 'PNDG' - Pending 6: 'NOAP'- Not Applicable	
PriceCurrency	+	{CURRENCYCODE_3}	ISO 4217 Currency code	Field 34 of ESMA and onshored UK RTS 22
CountryBranchMembership	+	ISO 3166	ISO 3166-1 Country code	Field 37 of ESMA and onshored UK RTS 22
ByPassControlFlag	✓	{ALPHANUM-5}	**Populate one or more, separated by a dash (ex: 1-2):** 0 - No 1 - Price (Not applicable for OBOE) 2 - LEI 4 – Volume (Not applicable for ARM and OBOE) 5 – TradingDateTime (Not applicable for ARM and OBOE)	

Field	Rq	Format	Values	ESMA Field
BusinessUnit	o	{ALPHANUM-55}	No restriction	
FreeText1	o	{ALPHANUM-37}	No restriction	
FreeText2	o	{ALPHANUM-37}	No restriction	
FreeText3	o	{ALPHANUM-37}	No restriction	
FreeText4	o	{ALPHANUM-37}	No restriction	
FreeText5	o	{ALPHANUM-37}	No restriction	
NotionalCurrency1	+	{CURRENCYCODE_3}	ISO 4217 Currency code	Field 44 of ESMA and onshored UK RTS 22
NotionalCurrency2	o	{CURRENCYCODE_3}	ISO 4217 Currency code	Field 45 of ESMA and onshored UK RTS 22
OTCPostTradeIndicator	+	{ALPHANUM-25}	■ - 'Blank' 0 - BENC - Benchmark 1 - ACTX -Agency cross 2 - LRGS - Large in scale 3 - ILQD - Illiquid instrument 4 - SIZE - Above specified size 5 - CANC – Cancellation 6 - AMND - Amendment 7 - SDIV - Special Dividend 8 - RPRI - Price improvement *(Not applicable for OBOE)* 9 - DUPL - Duplicative *(Not applicable for OBOE)* 10 - TNCP -Not contributing to the price discovery process *(Not applicable for OBOE)* 11 - TPAC - Package 12 - XFPH - Exchange for Physical *(Not applicable for OBOE)*	Field 63 of ESMA and onshored UK RTS 22
InvestmentFirmDirectiveIndicator	✓	Int	0 - False 1 - True	Field 5 of ESMA and onshored UK RTS 22
TransmissionOfOrderIndicator	+	Int	0 - False 1 - True	Field 25 of ESMA and onshored UK RTS 22
TransmittingFirmIDBuyer	+	{LEI} ISO 17442	ISO 17442 LEI code	Field 26 of ESMA and onshored UK RTS 22
TransmittingFirmIDSeller	+	{LEI} ISO 17442	ISO 17442 LEI code	Field 27 of ESMA and onshored UK RTS 22

Field	Rq	Format	Values	ESMA Field
TradingDateTime	✓	{DATE_TIME_FORMAT}	Epoch Time in microseconds	Field 28 of ESMA and onshored UK RTS 22
DerivativeNotionalIncreaseDecrease	+	Int	1 - Increase 2 - Decrease	Field 32 of ESMA and onshored UK RTS 22
Price	✓	{DECIMAL-18/17} OR {DECIMAL-11/10} OR {DECIMAL-18/13}		Field 33 of ESMA and onshored UK RTS 22
NetAmount	+	{DECIMAL-18/5}		Field 35 of ESMA and onshored UK RTS 22
UpFrontPayment	+	Decimal		Field 38 of ESMA and onshored UK RTS 22
UpFrontPaymentCurrency	+	ISO 4217	ISO 4217 Currency code	Field 39 of ESMA and UK onshored RTS 22
ComplexTradeComponentID	+	{ALPHANUM-35}	Only applicable if current original Order is related to the same execution of a combination of financial instruments (Strategy)	Field 40 of ESMA and onshored UK RTS 22
SecurityID	+	{ISIN}	ISIN Code ISO 6166	Field 41 of ESMA and onshored UK RTS 22
InstrumentFullName	+	{ALPHANUM-350}	No restriction	Field 42 of ESMA and onshored UK RTS 22
InstrumentClassification	+	{CFI_CODE}	ISO 10962 CFI code	Field 43 of ESMA and onshored UK RTS 22
PriceMultiplier	+	{DECIMAL-18/17}	Number of units of the direct underlying instrument	Field 46 of ESMA and onshored UK RTS 22
underlyinginstrumenttype	+	{INTEGER-1}	This field corresponds to the type of Underlying used. 1 - ‘OTHR’ 2 - ‘SWAP IN’ 3 - ‘SWAP OUT’	

Field	Rq	Format	Values	ESMA Field
underlyinginstrumentcode	+	{ISIN}	ISIN Code ISO 6166. Identification of the direct underlying instrument	Field 47 of ESMA and onshored UK RTS 22
underlyinginstrumentname	+	{ALPHANUM-25}	■ INDEX Alphanumerical [4] ■ Alphanumerical [25] - (if the index name is not included in the {INDEX} list)	Field 48 of ESMA and onshored UK RTS 22
underlyinginstrumentindex	+	{INTEGER-3} + 4 DIGITS	1 - 'DAYS' - days 2 - 'WEEK' - weeks 3 - 'MNTH' - months 4 - 'YEAR' - years	Field 49 of ESMA and onshored UK RTS 22
OptionType	+	{ALPHANUM-4}	1 - 'PUTO' - Put 2 - 'CALL' - Call 3 - 'OTHR' - where it cannot be determined whether it is a call or a put	Field 50 of ESMA and onshored UK RTS 22
StrikePrice	+	{DECIMAL-18/13}		Field 51 of ESMA and onshored UK RTS 22
StrikePriceCurrency	+	{CURRENCYCODE_3}	ISO 4217 Currency code	Field 52 of ESMA and onshored UK RTS 22
StrikePriceNotation	+	Int	1 - 'MONE' – Monetary value 2 - 'PERC' – Percentage 3 - 'YIEL' – Yield 4 - 'BAPO' – Basis points. 5 - 'PNDG' – No price Pending 6 - 'NOAP'– Not Applicable	
OptionExerciseStyle	+	{ALPHANUM-4}	Only one of the following values can be populated ■ "AMER" - American ■ "ASIA" - Asian ■ "BERM" - Bermudan ■ "EURO" - European ■ "OTHR" - Other	Field 53 of ESMA and onshored UK RTS 22
MaturityDate	+	{DATEFORMAT}	Format YYYY-MM-DD	Field 54 of ESMA and onshored UK RTS 22
ExpiryDate	+	{DATEFORMAT}	Format YYYY-MM-DD	Field 55 of ESMA and onshored UK RTS 22
DeliveryType	+	{ALPHANUM-4}	1 - 'PHYS' - Physically settled 2 - 'CASH' - Cash settled 3 - 'OPTL' - Optional for counterparty or when determined by a third party	Field 56 of ESMA and onshored UK RTS 22

Field	Rq	Format	Values	ESMA Field
InvestmentDecisionWithinFirmType	o	Int	1 - National ID 2 - Code for the algorithm	
InvestmentDecisionWithinFirmNationalIDType	+	Int	1 - NIDN - Use of National ID 2 - CCPT - Use of passport Number 3 - CONCAT - Concatenation of nationality date of birth and name abbreviation	
InvestmentDecisionWithinFirm	+	{ALPHANUM-50}	{NATIONAL_ID} for Natural persons {ALPHANUM-50} for Algorithms	Field 57 of ESMA and onshored UK RTS 22
CountryOfInvestor	+	{COUNTRYCODE_2}	ISO 3166-1 country code	Field 58 of ESMA and onshored UK RTS 22
ExecutionWithinFirmType	o	Int	1 - National ID 2 - Code for the algorithm 3 - NORE	
ExecutionWithinFirm	✓	{ALPHANUM-50}	Please refer to field description	Field 59 of ESMA and onshored UK RTS 22
CountryOfExecutor	+	{COUNTRYCODE_2}	ISO 3166-1 country code	Field 60 of ESMA and onshored UK RTS 22
WaiverIndicator	✓	{ALPHANUM-25}	- 'Blank' 1 - 'RFPT' - Reference price (not available for OBOE) 2 - 'NLIQ' - Negotiated (liquid) 3 - 'OILQ' - Negotiated (illiquid) 4 - 'PRIC' - Negotiated (conditions) 5 - 'SIZE' - Above specified size (not available for OBOE) 6 - 'ILQD' - Illiquid instrument	Field 61 of ESMA and onshored UK RTS 22
ShortSellingIndicator	+	Int	If populated, only one of the following values can be populated: 0 - 'SESH', 1 - 'SSEX', 2 - 'SELL', 3 - 'UNDI'. Only applicable when the instrument is covered by EU and onshored UK Regulation 236/2012, and the seller is the investment firm or a client of the investment firm	Field 62 of ESMA and onshored UK RTS 22

Field	Rq	Format	Values	ESMA Field
CommodityDerivativeIndicator	+	Int	0 - No 1 - Yes	Field 64 of ESMA and onshored UK RTS 22
SecFinancingTransactionIndicator	✓	Int	0 - False 1 - True	Field 65 of ESMA and onshored UK RTS 22
Quantity notation	✓	Int	1 - UNIT 2 - MONE (Monetary Value) 3 - NMNL (Nominal Value)	
BuyerIdentificationType	✓	Int	1 - LEI 2 - MIC 3 - ISO 3166 + {NATIONAL_ID} for a natural person 4 - 'INTC'	
BuyerIdentificationCode	+	{LEI} {MIC} {NATIONAL_ID} «INTC»	* LEI * MIC * ISO 3166 + {NATIONAL_ID} for a natural person * 'INTC'	Field 7 of ESMA and onshored UK RTS 22
BuyerNationalIDType	✓	Int	1 - NIDN - Use of National ID 2 - CCPT - Use of passport Number 3 - CONCAT - Concatenation of nationality, date of birth and name abbreviation	
BuyerCountryBranch	+	{COUNTRYCODE_2}	ISO 3166 country code	Field 8 of ESMA and onshored UK RTS 22
BuyerFirstName	+	{ALPHANUM-140}	Only applicable if the client is a natural person. Not populated if "Client Identification Code" is populatedwith a LEI or 'INTC'. In case of more than one first name, all names shall be included in this field separated by a comma.	Field 9 of ESMA and onshored UK RTS 22
BuyerSurname	+	{ALPHANUM-140}		
BuyerBirthDate	+	{DATEFORMAT}		Field 11 of ESMA and onshored UK RTS 22
BuyerDecisionMakerType	+	Int	1 - LEI 2 - ISO 3166 + {NATIONAL_ID} for a natural person	

Field	Rq	Format	Values	ESMA Field
BuyerDecisionMakerCode	o	{ALPHANUM-35}		Field 12 of ESMA and onshored UK RTS 22
BuyerDecisionMakerNationalIDType	+	Int	1 - NIDN - Use of National ID 2 - CCPT - Use of passport Number 3 - CONCAT - Concatenation of nationality date of birth and name abbreviation	
BuyerDecisionMakerFirstName	o	{ALPHANUM-140}		Field 13 of ESMA and onshored UK RTS 22
BuyerDecisionMakerSurname	o	{ALPHANUM-140}		Field 14 of ESMA and onshored UK RTS 22
BuyerDecisionMakerBirthDate	o	{DATEFORMAT}		Field 15 of ESMA and onshored UK RTS 22
SellerIdentificationType	✓	Int	1 - LEI 2 - MIC 3 - ISO 3166 + {NATIONAL_ID} for a natural person 4 - 'INTC'	
SellerIdentificationCode	+	{LEI} {MIC} {NATIONAL_ID} «INTC»	* LEI * MIC * ISO 3166 + {NATIONAL_ID} for a natural person * 'INTC	Field 16 of ESMA and onshored UK RTS 22
SellerNationalIDType	✓	Int	1 - NIDN - Use of National ID 2 - CCPT - Use of passport Number 3 - CONCAT - Concatenation of nationality date of birth and name abbreviation	
SellerCountryBranch	+	{COUNTRYCODE_2}	ISO 3166 country code	Field 17 of ESMA and onshored UK RTS 22
SellerFirstName	+	{ALPHANUM-140}	Only applicable if the client is a natural person. Not populated if "Client Identification Code" is populatedwith a LEI or 'INTC'. In case of more than one first name, all names shall be included in this field separated by a comma. Only capital letters allowed	Field 18 of ESMA and onshored UK RTS 22

Field	Rq	Format	Values	ESMA Field
SellerSurname	+	{ALPHANUM-140}	Only capital letters allowed	
SellerBirthDate	+	{DATEFORMAT}		Field 20 of ESMA and onshored UK RTS 22
SellerDecisionMakerType	+	Int	1 - LEI 2 - ISO 3166 + {NATIONAL_ID} for a natural person	
SellerDecisionMakerCode	o	{ALPHANUM-35}		Field 21 of ESMA and onshored UK RTS 22
SellerDecisionMakerNationalIDType	+	Int	1 - NIDN - Use of National ID 2 - CCPT - Use of passport Number 3 - CONCAT - Concatenation of nationality date of birth and name abbreviation	
SellerDecisionMakerFirstName	o	{ALPHANUM-140}		Field 22 of ESMA and onshored UK RTS 22
SellerDecisionMakerSurname	o	{ALPHANUM-140}		Field 23 of ESMA and onshored UK RTS 22
SellerDecisionMakerBirthDate	o	{DATEFORMAT}		Field 24 of ESMA and onshored UK RTS 22

New transaction:

Action = **NEW**

1. All the rejection checks will be applied first,
2. Then, all the Failed checks required on the mandatory fields must be validated within the check library. The ARM validations rules will be performed as required from ESMA.
3. Once all controls are validated and the trades are in ''Checked and ready" status, Saturn will:
   - Report the corresponding file to NCAs.

Amend transaction:

Action = **AMEND**

1- All the rejection checks on the required fields for an Amendment will be applied first,

2- Then, all the checks that can lead to a "Failed" status will be applied as specified above

3- Once the amendment has successfully passed through the validations, Saturn check first the fields updated then report to regulators

For a Cancel transaction:

Action = **CANCEL**

If an ARM trade is cancelled, Saturn must send the cancellation of ARM report file to the regulator.

For Recovering transactions

Action = **RECOVERY**

If an ARM trade report is to be recovered, Saturn must process, as the above amendment processing.

IMPORTANT NOTE:

At the regulator's request, a new process "Transaction to be recovered" has been implemented in Saturn, to allow clients to modify their transactions already reported but with erroneous data, in order to them conform with ARM reporting requirements.
This process concerns only the following service (i.e. when APA ARM indicator takes value:)

1- ARM
2- ~~APA~~ (Not applicable)
3- APA&ARM
4- ~~OTC Trade~~ (Not applicable)
5- ~~OBOE~~ (Not applicable)
6- OBOE&ARM

The customers should use the recovery action only via "Upload file" in the GUI.
This is not possible to recover trades by editing directly in the GUI or by using API.

Note that,

- As all the files to be recovered are initialised in background, this process can be take over 48h.
- It is not authorized to update the following key data of the transactions: [Trade ref / Executing Firm / Instrument ID / Venue]. However the clients want to change one of them, he can Cancel and resubmit a new transaction.

For more details on how to upload files of trades to be recovered, please see directly the last version of Saturn User Guide document.

4.3.6 Amend Transaction Reporting Section (For Only Euronext Trading Venues)

ARM	Approved Reporting Mechanism
EM	Transaction Reporting for Euronext Members

Please note that this chapter is for Euronext members trading on Euronext Trading Venues only.

This sequence is related to Transaction Reporting on Euronext Markets, i.e.

- All trading activity performed on the Euronext Trading Venues conducted directly by Euronext Members.
- Transaction Reporting on Euronext trading venues by Euronext members not subject to EU and UK MiFID II which have to report to Euronext in order for Euronext to report on their behalf to Competent Authorities.

For Transaction Reporting purposes, the following sequence of fields has to be submitted with the action Amend.

Only the fields in the table below are relevant because not known at this stage of the process for Euronext trades.

Repeating Section Usage:

Please note that the repeating section details below are highlighted with a blue border.

The message contains two repeating sections:

- **The first repeating section** is applicable if executing firm is dealing on behalf of a client and if this client is related to natural persons who have a joint account (married couple).

  In case of cross trade, this section is related to the BUY side.
  - ***Client Identification Code*** field can have values of:
    - Populated with a **LEI**;
    - Populated with the concatenation of the national **country code** and the **NATIONAL_ID (details in the field description section)** if the client is related to natural person(s);
    - Filled with a **'INTC' (details in the field description section)**.
  - If the field *Client Identification Code* is populated, this means the executing firm is dealing on behalf of a client and the following field becomes **mandatory**:
    - *Client Country Branch.*
    - If the field *Client Identification Code* is populated with the concatenation of the national **country code** and the **NATIONAL_ID**, this means the client is related to natural person(s) and the following fields become **mandatory**:
    - *Client First Name;*
    - *Client Surname;*
    - *Client Birthdate.*

    Fields Client National ID and Client Passport ID are optional.

    The whole section can be repeated with multiple occurrences (twice if a married couple who has joint account is the client). In this case both spouses shall be identified.

- **The second repeating section** concerning **Client Decision Maker** fields is **only applicable** if the executing entity is dealing for a client and the investment decision is made under a power of representation (discretionary mandate, power of attorney...).
  - ***Client Decision Maker Code*** can have values of:
    - Populated with a **LEI**;
    - Populated with the concatenation of the national **country code** and the **NATIONAL_ID (details in the field description section)** if the client is related to natural person(s).
    - If the field *Client decision maker code* is populated with the concatenation of the national **country code** and the **NATIONAL_ID**, this means the client is related to natural person(s) and the following fields become **mandatory**:
    - *Client decision maker first name;*
    - *Client decision maker surname;*
    - *Client decision maker birthdate.*

    Fields Client Decision Maker National ID and Client Decision Maker Passport ID are optional.

  In case of cross trade, this section can be repeated: BUY side then SELL side.

Field	Rq	Format	Values	ESMA Field
TradingCapacity1	✓	Int	1 - Dealing on own account (DEAL) 2 - Matched principal (MTCH) – (Not avalaible for OBOE Dublin) 3 - Any other capacity (AOTC)	Field 29 of ESMA and onshored UK RTS 22
CountryBranchMembership	+	ISO 3166	ISO 3166-1 Country code	Field 37 of ESMA and onshored UK RTS 22
BusinessUnit	o	{ALPHANUM-55}	No restriction	
FreeText1	o	{ALPHANUM-37}	No restriction	
FreeText2	o	{ALPHANUM-37}	No restriction	
FreeText3	o	{ALPHANUM-37}	No restriction	
FreeText4	o	{ALPHANUM-37}	No restriction	
FreeText5	o	{ALPHANUM-37}	No restriction	
InvestmentFirmDirectiveIndicator	✓	Int	0 - False 1 - True	Field 5 of ESMA and onshored UK RTS 22
TransmissionOfOrderIndicator	+	Int	0 - False 1 - True	Field 25 of ESMA and onshored UK RTS 22
TransmittingFirmIDBuyer	+	{LEI} ISO 17442	ISO 17442 LEI code	Field 26 of ESMA and onshored UK RTS 22
TransmittingFirmIDSeller	+	{LEI} ISO 17442	ISO 17442 LEI code	Field 27 of ESMA and onshored UK RTS 22
NotionalIncreaseDecrease	+	Int	1 - Increase 2 - Decrease	Field 32 of ESMA and onshored UK RTS 22

Field	Rq	Format	Values	ESMA Field
UpFrontPayment	+	Decimal	From -2^63+1 to 2^63-1	Field 38 of ESMA and onshored UK RTS 22
UpFrontPaymentCurrency	+	ISO 4217	ISO 4217 Currency code	Field 39 of ESMA and onshored UK RTS 22
InvestmentDecisionWithinFirmType	o	Int	1 - National ID 2 - code for the algorithm	
InvestmentDecisionWithinFirm	+	{ALPHANUM-50}	{NATIONAL_ID} for Natural persons {ALPHANUM-50} for Algorithms	Field 57 of ESMA and onshored UK RTS 22
CountryOfInvestor	+	{COUNTRYCODE_2}	ISO 3166-1 country code	Field 58 of ESMA and onshored UK RTS 22
ExecutionWithinFirmtype	o	Int	1 - National ID 2 - Code for the algorithm 3 - NORE	
ExecutionWithinFirm	✓	{ALPHANUM-50}	Please refer to field description.	Field 59 of ESMA and onshored UK RTS 22
CountryOfExecutor	+	{COUNTRYCODE_2}	ISO 3166-1 country code	Field 60 of ESMA and onshored UK RTS 22
ShortSellingIndicator	+	Int	If populated, only one of the following values can be populated: 0 - 'SESH', 1 - 'SSEX', 2 - 'SELL', 3 - 'UNDI'. Only applicable when the instrument is covered by EU and onshored UK Regulation 236/2012, and the seller is the investment firm or a client of the investment firm.	Field 62 of ESMA and onshored UK RTS 22
SecFinancingTransactionIndicator	✓	Int	0 - False 1 - True	Field 65 of ESMA and onshored UK RTS 22
BuyerIdentificationType	✓	Int	1 - LEI 2 - MIC 3 - ISO 3166 + {NATIONAL_ID} for a natural person 4 - 'INTC'	
BuyerIdentificationCode	+	{LEI} {MIC} {NATIONAL_ID}	* LEI * MIC	Field 7 of ESMA

Field	Rq	Format	Values	ESMA Field
		«INTC»	* ISO 3166 + {NATIONAL_ID} for a natural person * 'INTC	and onshored UK RTS 22
BuyerCountryBranch	+	{COUNTRYCODE_2}	ISO 3166 country code	Field 8 of ESMA and onshored UK RTS 22
BuyerFirstName	+	{ALPHANUM-140}	Only applicable if the client is a natural person. Not populated if "Client Identification Code" is populated with a LEI or 'INTC'. In case of more than one first name, all names shall be included in this field separated by a comma.	Field 9 of ESMA and onshored UK RTS 22
BuyerSurname	+	{ALPHANUM-140}		Field 10 of ESMA and onshored UK RTS 22
BuyerBirthDate	+	{DATEFORMAT}		Field 11 of ESMA and onshored UK RTS 22
BuyerDecisionMakerType	+	Int	1 - LEI 2 - ISO 3166 + {NATIONAL_ID} for a natural person	
BuyerDecisionMakerCode	o	{ALPHANUM-35}		Field 12 of ESMA and onshored UK RTS 22
BuyerDecisionMakerFirstName	o	{ALPHANUM-140}		Field 13 of ESMA and onshored UK RTS 22
BuyerDecisionMakerSurname	o	{ALPHANUM-140}		Field 14 of ESMA and onshored UK RTS 22
BuyerDecisionMakerBirthDate	o	{DATEFORMAT}		Field 15 of ESMA and onshored UK RTS 22
SellerIdentificationType	✓	Int	1 - LEI 2 - MIC 3 - ISO 3166 + {NATIONAL_ID} for a natural person 4 - 'INTC	
SellerIdentificationCode	+	{LEI} {MIC} {NATIONAL_ID} «INTC»	* LEI * MIC * ISO 3166 + {NATIONAL_ID} for a natural person * 'INTC	Field 7 of ESMA and onshored UK RTS 22

Field	Rq	Format	Values	ESMA Field
SellerCountryBranch	+	{COUNTRYCODE_2}	ISO 3166 country code	Field 8 of ESMA and onshored UK RTS 22
SellerFirstName	+	{ALPHANUM-140}	Only applicable if the client is a natural person. Not populated if "Client Identification Code" is populated with a LEI or 'INTC'. In case of more than one first name, all names shall be included in this field separated by a comma.	Field 9 of ESMA and onshored UK RTS 22
SellerSurname	+	{ALPHANUM-140}		Field 10 of ESMA and onshored UK RTS 22
SellerBirthDate	+	{DATEFORMAT}		Field 11 of ESMA and onshored UK RTS 22
SellerDecisionMakerType	+	Int	1 - LEI 2 - ISO 3166 + {NATIONAL_ID} for a natural person	
SellerDecisionMakerCode	o	{ALPHANUM-35}		Field 12 of ESMA and onshored UK RTS 22
SellerDecisionMakerFirstName	o	{ALPHANUM-140}		Field 13 of ESMA and onshored UK RTS 22
SellerDecisionMakerSurname	o	{ALPHANUM-140}		Field 14 of ESMA and onshored UK RTS 22
SellerDecisionMakerBirthDate	o	{DATEFORMAT}		Field 15 of ESMA and onshored UK RTS 22

4.3.7 APA Trade Publication Section

4.3.7.1 APA Trade Publication Only (APA/ARM Indicator = 2)

APA Post	Approved Publication Arrangement Post-Trade

For clients of the APA post-trade publication service, the following sequence of fields needs to be added to the Transaction Reporting.

This sequence is only related to:

- APA: APA post-trade publication offer
  - OTC and Systematic Internaliser trades (SI)

Any missing/incorrect field(s) on the sequence below for a trade submission **will never lead to a submission rejection**. The transaction will be **integrated into Saturn with a FAILED status**.

Conditions mentioned on the sequence below stands for APA Post-Trade Publication purpose (Euronext or ESMA/FCA checks on data).

Note: Synapse APA transactions are included. The venue is set to 'ENSY'

Field	Rq	Format	Values
Transaction to be cleared	✓	Int	0 - 'False' - transaction not to be cleared 1 - 'True' - transaction to be cleared
TradingDateTime	✓	{DATE_TIME_FORMAT }	Eepoch time in nanosecondsmicroseconds
TradingCapacity1	✓	Int	1 - Dealing on own account (DEAL) 2 - Matched principal (MTCH) – (Not avalaible for OBOE) 3 - Any other capacity (AOTC)
TradingCapacity2 (For Cross Trade)	✓	Int	1 - Dealing on own account (DEAL) 2 - Matched principal (MTCH) – (Not avalaible for OBOE Dublin) 3 - Any other capacity (AOTC)
Quantity	✓	{DECIMAL-18/17}	
QuantityCurrency	+	{CURRENCYCODE_3}	ISO 4217 Currency code
Quantitynotation	✓	int	1 - UNIT, 2 - MONE (Monetary Value), 3 - NMNL (Nominal Value)
PriceNotation	+	Int	1 - 'MONE' – Monetary value 2 - 'PERC' – Percentage 3 - 'YIEL' – Yield 4 - 'BAPO' – Basis points. 5 - 'NOAP'– Not Applicable
PriceCurrency	+	{CURRENCYCODE_3}	ISO 4217 Currency code
ByPassControlflag	✓	{ALPHANUM-5}Int	**Populate one or more, separated by a dash (ex: 1-2):** 0 - No 1 - Price (Not applicable for OBOE) 2 – LEI 4 – Volume (Not applicable for ARM and OBOE) 5 – TradingDateTime (Not applicable for ARM and OBOE)
BusinessUnit	o	{ALPHANUM-5555}	No restriction
FreeText1	o	{ALPHANUM-3755}	No restriction

Field	Rq	Format	Values
FreeText2	o	{ALPHANUM-3755}	No restriction
FreeText3	o	{ALPHANUM-3755}	No restriction
FreeText4	o	{ALPHANUM-3755}	No restriction
FreeText5	o	{ALPHANUM-3755}	No restriction
OTCPostTradeIndicator	+	{ALPHANUM-25}	■ - 'Blank' 0 - BENC - Benchmark 1 - ACTX -Agency cross 2 - LRGS - Large in scale 3 - ILQD - Illiquid instrument 4 - SIZE - Above specified size 5 - CANC – Cancellation 6 - AMND - Amendment 7 - SDIV - Special Dividend 8 - RPRI - Price improvement *(Not applicable for OBOE)* 9 - DUPL - Duplicative *(Not applicable for OBOE)* 10 - TNCP -Not contributing to the price discovery process *(Not applicable for OBOE)* 11 - TPAC - Package *(OBOE Bonds Only)* 12 - XFPH - Exchange for Physical *(Not applicable for OBOE)*
Price	✓	{DECIMAL-18/17}	
SecurityID	+	{ISIN}	ISIN Code ISO 6166
SecurityID InstrumentID type	✓+	int	0 - 'ISIN' 1 - 'OTHR'
Instrumentfullname	+	{ALPHANUM-350}	No restriction
PriceMultiplier	+	{DECIMAL-18/17}	Number of units of the direct underlying instrument
underlyinginstrumenttypeunderlyingtype	+	{INTEGER-1}	This field corresponds to the type of Underlying used. 1 - 'OTHR' 2 - 'SWAP IN' 3 - 'SWAP OUT'
underlyinginstrumentcodeUnderlyingSecurityID	++	{ISIN}{ISIN}	ISIN Code ISO 6166. Identification of the direct underlying instrument. Types described in the field
underlyinginstrumentnameUnderlyingIndexName	++	{ALPHANUM-25} {ALPHANUM-25}	■ INDEX Alphanumerical [4] ■ Alphanumerical [25] – (if the index name is not included in the {INDEX} list)LEI or MIC
underlyinginstrumentindexUnderlyingIndexTerm	++	{INTEGER-3} + 4 DIGITS {INTEGER-3} + 4 DIGITS	1 - 'DAYS' - days 2 - 'WEEK' - weeks 3 - 'MNTH' - months 4 - 'YEAR' – years1 - 'DAYS' - days 2 - 'WEEK' - weeks 3 - 'MNTH' - months 4 - 'YEAR' – years

Field	Rq	Format	Values
OptionType	+	{ALPHANUM-4}	1 - 'PUTO' - Put 2 - 'CALL' - Call 3 - 'OTHR' - where it cannot be determined whether it is a call or a put
StrikePrice	+	{DECIMAL-18/13}	
StrikePriceCurrency	+	{CURRENCYCODE_3}	ISO 4217 Currency code
StrikePriceNotation	+	Int	1 - 'MONE' - Monetary value 2 - 'PERC' - Percentage 3 - 'YIEL' - Yield 4 - 'BAPO' - Basis points. 5 - 'PNDG' - No price Pending 6 - 'NOAP' - Not Applicable
OptionExerciseStyle	+	{ALPHANUM-4}	Only one of the following values can be populated ■ "AMER" - American ■ "ASIA" - Asian ■ "BERM" - Bermudan ■ "EURO" - European ■ "OTHR" - Other
MaturityDate	+	{DATEFORMAT}	Format YYYY-MM-DD
ExpiryDate	+	{DATEFORMAT}	Format YYYY-MM-DD
DeliveryType	+	{ALPHANUM-4}	1 - 'PHYS' - Physically settled 2 - 'CASH' - Cash settled 3 - 'OPTL' - Optional for counterparty or when determined by a third party
DeferralIndicator	✓	Int	0 - Immediate Publication 1 - Deferral (Equity) 2 - Full Deferral period (Non Equity_D+2) 3 - Full Deferral period (Non Equity_No Volume) 4 - Full Deferral period (Non Equity_Agg Data) 5- Deferral (Oslo)
QuantityNotationInMeasurementUnit	+	string	'TOCD' – tons of carbon dioxide equivalent or {ALPHANUM-25} otherwise
QuantityInMeasurementUnit	+	Decimal	From 0 to 2^64-2
NotionalAmount	o	Decimal	From 0 to 2^64-2
NotionalCurrency	+	ISO 4217	ISO 4217 Currency code
EmissionAllowanceType	+	Int	Only applicable for emission allowances 1 - EUAE - EUA 2 - CERE - CER 3 - ERUE - ERU 4 - EUAA - EUAA 5 - OTHR - Other (for derivatives only)
WaiverIndicator	✓	{ALPHANUM-25}	- 'Blank' 1 - 'RFPT' - Reference price (not available for OBOE) 2 - 'NLIQ' - Negotiated (liquid) 3 - 'OILQ' - Negotiated (illiquid)

Field	Rq	Format	Values
			4 - 'PRIC' - Negotiated (conditions) 5 - 'SIZE' - Above specified size (not available for OBOE) 6 - 'ILQD' - Illiquid instrument
InstrumentClassification	+	{CFI_CODE}	ISO 10962 CFI code

For New transaction:

Action = **NEW**

1. All the rejection checks will be applied first,
2. Then, all the Failed checks required on the mandatory fields must be validated within the check library as follows:
   - For the APA fields, the APA validations rules will be performed as required from ESMA and FCA
3. Once all controls are validated and the trades are in ''Checked and ready" status, Saturn will:
   - Publish the full trade message, according to deferral publication rules for APA,

For Amend transaction:

Action = **AMEND**

1- All the rejection checks on the required fields for an Amendment will be applied first,

2- Then, all the checks that can lead to a "Failed" status will be applied as specified above

3- Once the amendment has successfully passed through the validations, Saturn check first the fields updated that will be resent to Market data for APA.

For a Cancel transaction:

Action = **CANCEL**

If an APA trade is cancelled, Saturn must:

- Publish the cancellation of full trade message with a CANC flag to Market data

For Recovering transactions

Action = **RECOVERY (**it is not applicable for APA**)**

4.3.7.2 APA & ARM Trade Reporting (APA/ARM Indicator = 3)

ARM & APA Post	Approved Reporting Mechanism & Approved Publication Arrangement Post-Trade

A dedicated ARM & APA service is also available and allow to the clients to Publish and report their transaction at the same time.

To use this service the clients need to populate all the fields required to both ARM side and APA side.

Then, the transaction must pass through all the validation rules required, as decribed above.

Once the transaction is successed, the process to apply depends on if it is for a New/Amend/Cancel transaction:

New transaction:

Action = **NEW**

4. All the rejection checks will be applied first,
5. Then, all the Failed checks required on the mandatory fields must be validated within the check library as follows:
   - For the APA fields, the APA validations rules will be performed as required from ESMA and FCA
   - For the ARM fields, the ARM validations rules will be performed as required from ESMA and FCA
   - For common fields to both APA & ARM: First, controls required for ARM transaction reporting purpose will be applied before those linked to APA.
6. Once all controls are validated and the trades are in ''Checked and ready" status, Saturn will:
   - Publish the full trade message, according to deferral publication rules for APA,
   - And Report the corresponding file to NCAs for ARM side.

Amend transaction:

Action = **AMEND**

4- All the rejection checks on the required fields for an Amendment will be applied first,

5- Then, all the checks that can lead to a "Failed" status will be applied as specified above

6- Once the amendment has successfully passed through the validations, Saturn check first the fields updated, to know in which case the transaction will be resent either to:

- Market data for APA side
- or to regulators for ARM side
- or Both

For more details on the fields updated leading to Re-publication or a Re-sending an ARM file, please see the below excel file [**APA & ARM**]

APA&ARM

For a Cancel transaction:

Action = **CANCEL**

If an APA+ARM trade is cancelled, Saturn must:

- Send the cancellation of ARM report file to the regulator.
- Publish the full trade message with a CANC flag in Market data

Note that, it is not possible to cancel only APA side in market data without cancel ARM side since it is a single transaction.

For Recovering transactions

Action = **RECOVERY**

If an APA+ARM trade is to be recovered, Saturn must process, as the above amendment processing.

IMPORTANT NOTE:

At the regulator's request, a new process "Transaction to be recovered" has been implemented in Saturn, to allow clients to modify their transactions already reported but with erroneous data, in order to them conform with ARM reporting requirements.
This process concerns only the following service (i.e. when APA ARM indicator takes value:)

7- ARM
8- ~~APA~~ (Not applicable)
9- APA&ARM
10- ~~OTC Trade~~ (Not applicable)
11- ~~OBOE~~ (Not applicable)
12- OBOE&ARM

The customers should use the recovery action only via "Upload file" in the GUI.
This is not possible to recover trades by editing directly in the GUI or by using API.

Note that,
- As all the files to be recovered are initialised in background, this process can be take over 48h.
- It is not authorized to update the following key data of the transactions: [Trade ref / Executing Firm / Instrument ID / Venue]. However the clients want to change one of them, he can Cancel and resubmit a new transaction.

For more details on how to upload files of trades to be recovered, please see directly the last version of Saturn User Guide document.

4.3.8 Off Book on Exchange Section

4.3.8.1 OBOE Trade Only (APA/ARM Indicator = 5)

OBOE	Off Book On Exchange Trade Reporting

The following sequence of fields are mandatory and needs to be added to the publication.

This sequence is only related to:

- OBOE: Off Book On Exchange
  - Publication of Trades performed on Euronext Dublin and Oslo Trading venues
- Any missing/incorrect field(s) on the sequence below for a trade submission **will never lead to a submission rejection**. The transaction will be **integrated into Saturn with a FAILED status**.

Field	Rq	Format	Values
TradingDateTime	✓	{DATE_TIME_FORMAT}	Epoch time in microseconds
TradingCapacity1	✓	Int	1 - Dealing on own account (DEAL) 2 - Matched principal (MTCH) – (Not avalaible for OBOE Dublin) 3 - Any other capacity (AOTC)
Quantity	✓	Int	
ByPassControlflag	✓	{ALPHANUM-5}	**Populate one or more, separated by a dash (ex: 1-2):** 0 - No 1 - Price (Not applicable for OBOE) 2 – LEI 4 – Volume (Not applicable for ARM and OBOE) 5 – TradingDateTime (Not applicable for ARM and OBOE)
OTCPostTradeIndicator	+	{ALPHANUM-25}	■ - 'Blank' 0 - BENC - Benchmark 1 - ACTX -Agency cross 2 - LRGS - Large in scale *(Only applicable for OBOE Bonds Only)* 3 - ILQD - Illiquid instrument *(Only applicable for OBOE Bonds Only)* 4 - SIZE - Above specified size *(Only applicable for OBOE Bonds Only)* 5 - CANC – Cancellation 6 - AMND - Amendment 7 - SDIV - Special Dividend 8 - RPRI - Price improvement *(Not applicable for OBOE)* 9 - DUPL - Duplicative *(Not applicable for OBOE)* 10 - TNCP -Not contributing to the price discovery process *(Not applicable for OBOE)* 11 - TPAC - Package *((Only applicable for OBOE Bonds Only)* 12 - XFPH - Exchange for Physical *(Not applicable for OBOE)*
Price	✓	{DECIMAL 18/4} except Bonds {DECIMAL 18/17} for Bonds	
SecurityID	+	{Euronext Code}	CEuronextCode
DeferralIndicator	✓	Int	0 - Immediate Publication 1 - Deferral (Equity) 2 - Full Deferral period (Non Equity_D+2) 3 - Full Deferral period (Non Equity_No Volume)

Field	Rq	Format	Values
			4 - Full Deferral period (Non Equity_Agg Data) 5- Deferral (Oslo)
CounterpartyType	✓	Int	1 - LEI 2 - National ID 3 - Non-Euronext Member
EnteringCounterpart	+	ISO 17442 ISO 10383	- LEI / Shortcode for OBOE - Participant ID otherwise
WaiverIndicator	✓	{ALPHANUM-25}	- 'Blank' 1 - 'RFPT' - Reference price (not available for OBOE) 2 - 'NLIQ' - Negotiated (liquid) 3 - 'OILQ' - Negotiated (illiquid) 4 - 'PRIC' - Negotiated (conditions) 5 - 'SIZE' - Above specified size (not available for OBOE) 6 - 'ILQD' - Illiquid instrument (OBOE Bonds only) 7 - 'LIS' – Large in Scale
EuronextTradeFlags	o	{ALPHANUM-5}	Blank 1 - CP: 'Connected Party Trade' 2 - LT: 'Late Trade' 3 - SS: 'Special Settlement'4 NM, 5 VW, 6 DT, le reste ordre tableau 4 - NM: 'Not to Market' 5 - VW: 'VWAP Trade' 6 - DT: 'Derivative-related Trade' 7 - OT: 'Ordinary Trade' 8 - ON: 'Non-strandard Settlement' 9 - RE: 'Repo' 10 - OE: 'Exchange-granted Trade' 11 - OH: 'Other' 12 - OL: 'Odd Lot' 13 - OP: 'Package Transaction'
SettlementDate	O	{DATE_FORMAT}	YYYY-MM-DD
RepoSettlementDate	O	{DATE_FORMAT}	YYYY-MM-DD

For New transaction:

Action = **NEW**

1. All the rejection checks will be applied first,
2. Then, all the Failed checks required on the mandatory fields must be validated within the check library.
3. Once all controls are validated and the trades are in ''Checked and ready" or "Warning" status, Saturn will:
   - Publish the full trade message, according to deferral publication rules for OBOE,

For Amend transaction:

Action = **AMEND**

1- All the rejection checks on the required fields for an Amendment will be applied first,

2- Then, all the checks that can lead to a "Failed" status will be applied as specified above
3- Once the amendment has successfully passed through the validations, Saturn check first the fields updated that will be resent to Market data for OBOE.

For a Cancel transaction:

Action = **CANCEL**

If an APA trade is cancelled, Saturn must:

- Publish the cancellation of full trade message with a CANC flag to Market data

For Recovering transactions

Action = **RECOVERY (**it is not applicable for OBOE**)**

4.3.8.2 OBOE & ARM Reporting (APA/ARM Indicator = 6)

ARM & OBOE	Approved Reporting Mechanism & Off Book On Exchange Trade Reporting

A dedicated OBOE & ARM service is also available and allow to the clients to Publish and report their transaction at the same time.

To use this service the clients need to populate all the fields required to both OBOE side and ARM side.

Then, the transaction must pass through all the validation rules required, as decribed above.

Once the transaction is successed, the process to apply depends on if it is for a New/Amend/Cancel transaction:

New transaction:

Action = **NEW**

1- All the rejection checks will be applied first,
2- Then, all the Failed checks required on the mandatory fields must be validated within the check library as follows:
   - For the OBOE fields, the OBOE validations rules will be performed as required from Dublin
   - For the ARM fields, the ARM validations rules will be performed as required from ESMA and FCA
   - For common fields to both OBOE & ARM: First, apply controls required for OBOE transaction reporting purposes, before those linked to ARM.
3- Once all controls are validated and the trades are in ''Checked and ready" status, Saturn will:
   - Publish the full trade message, according to deferral publication rules for OBOE side
   - And Report the corresponding file to NCAs for ARM side

Amend transaction:

Action = **AMEND**

1. All the rejection checks on the required field for an Amendment will be applied first,
2. Then, all the checks that can lead to "Failed" status will be applied as specified above (in case of new)
3. Once the amendment has successfully passed through the validations, Saturn check first the fields updated, to know in which case the transaction will be resent either to:
   - Market data for APA side
   - or to the regulators for ARM side
   - or Both

For more details on the fields updated leading to Re-publication or a Re-sending an ARM file, please see the below excel file [**APA & ARM**]

OBOE&ARM

For a Cancel transaction:

Action = **CANC**

If an APA+ARM trade is cancelled, Saturn must:

- Send the cancellation of ARM report file to the regulator.
- Publish the full trade message with a CANC flag in Market data for OBOE

Note that, it is not possible to cancel only OBOE side in market data without cancel ARM side since it is a single transaction.

For Recovering transactions

Action = **RECOVERY**

If an APA+ARM trade is to be recovered, Saturn must process, as the above amendment processing.

IMPORTANT NOTE:

At the regulator's request, a new process "Transaction to be recovered" has been implemented in Saturn, to allow clients to modify their transactions already reported but with erroneous data, in order to them conform with ARM reporting requirements.
This process concerns only the following service (i.e. when APA ARM indicator takes value:)

13- ARM
14- ~~APA~~ (Not applicable)
15- APA&ARM
16- ~~OTC Trade~~ (Not applicable)
17- ~~OBOE~~ (Not applicable)
18- OBOE&ARM

The customers should use the recovery action only via "Upload file" in the GUI.
This is not possible to recover trades by editing directly in the GUI or by using API.

Note that,

- As all the files to be recovered are initialised in background, this process can be take over 48h.
- It is not authorized to update the following key data of the transactions: [Trade ref / Executing Firm / Instrument ID / Venue]. However the clients want to change one of them, he can Cancel and resubmit a new transaction.

For more details on how to upload files of trades to be recovered, please see directly the last version of Saturn User Guide document.

4.3.9 Statistics

4.3.9.1 Statistics: getCurrentTransactionsStatus

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext members

This function returns the total number of ARM transactions per status.

Function:

Function name: getCurrentTransactionsStatus
Request EndPoint: /SaturnWebServices/rest/transactionReports/getCurrentTransactionsStatus
Method: GET

Note: Please note that the total number of transactions returned may be wrong, as currently an approximation is used to prevent latency. A fix will be implemented as soon as a solution is found. Apologies for the inconvenience.

4.3.9.2 Statistics: getCurrentTransactionsStatus response data

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext members

Response Data Parameters:

Name	Type	Data Type	Required	Description
Code	Attribute	Int	Yes	Status of the function. 200 - OK
Data	Element	Sequence of data	Yes	Detailed description below
Msg	Attribute	String	Yes	Status - Success or failed
Recordcount	Attribute	Int	Yes	Number of retrieved results

Sequence of data

Name	Type	Data Type	Required	Description
Type	Attribute	String	Yes	Name of statistics: transactionStatistics
nbCancelled	Attribute	Int	Yes	Number of Cancelled transactions
nbFailed	Attribute	Int	Yes	Number of Failed transactions
nbIsinPending	Attribute	Int	Yes	Number of Isin Pending transactions
nbPending	Attribute	Int	Yes	Number of Pending transactions
nbRejected	Attribute	Int	Yes	Number of Rejected transactions
totalItems	Attribute	Int	Yes	Number of transactions

Example of the getCurrentTransactionsStatus Response function:


```
{
  "code": 200,
  "data": [  {
    "type": "transactionStatistics",
    "nbCancelled": 1,
    "nbFailed": 19100,
    "nbIsinPending": 7,
    "nbPending": 0,
    "nbRejected": 0,
    "totalItems": 13334
  }],
  "msg": "OK",
  "recordCount": 1
}
```


NB: the only wrong value is the **totalItems** as it's lower than the total number of transactions. Please see note above.

4.3.9.3 Statistics: getCurrentCommoditiesStat

ALL	Euronext Members and Non-Members

This function returns the total number of Commodities positions per status.

Function:

Function name: getCurrentCommoditiesStat
Request EndPoint: /SaturnWebServices/rest/commodityReports/getCurrentCommoditiesStat
Method: GET

Note: Please note that the total number of transactions returned may be wrong, as currently an approximation is used to prevent latency. A fix will be implemented as soon as a solution is found. Apologies for the inconvenience.

4.3.9.4 Statistics: getCurrentCommoditiesStat response data

ALL	Euronext Members and Non-Members

Response Data Parameters:

Name	Type	Data Type	Required	Description
Code	Attribute	Int	Yes	Status of the function. 200 - OK
Data	Element	Sequence of data	Yes	Detailed description below
Msg	Attribute	String	Yes	Status - Success or failed
Recordcount	Attribute	Int	Yes	Number of retrieved results

Sequence of data

Name	Type	Data Type	Required	Description
Type	Attribute	String	Yes	Name of statistics: positionsStatistics
nbHedging	Attribute	Int	Yes	Number of Hedged positions
nbNotHedging	Attribute	Int	Yes	Number of Not Hedged positions
nbPositionsCancelled	Attribute	Int	Yes	Number of Cancelled positions
nbPositionsFailed	Attribute	Int	Yes	Number of Failed positions
totalItems	Attribute	Int	Yes	Number of positions

Example of the getCurrentCommoditiesStat Response function:

{

```
  "code": 200,
  "data": [  {
    "type": "positionsStatistics",
    "nbHedging": 14,
    "nbNotHedging": 644,
    "nbPositionsCancelled": 0,
    "nbPositionsFailed": 659,
    "totalItems": 659
  }],
  "msg": "succeed",
  "recordCount": 1
}
```


NB: the only wrong value is the **totalItems** as it's lower than the total number of positions. Please see note above.

4.3.9.5 Statistics: getSlcCurrentStatistics

ALL	Euronext Members and Non-Members

This function returns the total number of Commodities positions per status.

Function:

Function name: getSlcCurrentStatistics
Request EndPoint: /SaturnWebServices/rest/shortcodeLongcodeResource/getSlcCurrentStatistics
Method: GET

Note: Please note that the total number of transactions returned may be wrong, as currently an approximation is used to prevent latency. A fix will be implemented as soon as a solution is found. Apologies for the inconvenience.

4.3.9.6 Statistics: getSlcCurrentStatistics response data

ALL	Euronext Members

Response Data Parameters:

Name	Type	Data Type	Required	Description
Code	Attribute	Int	Yes	Status of the function. 200 - OK
Data	Element	Sequence of data	Yes	Detailed description below
Msg	Attribute	String	Yes	Status - Success or failed
Recordcount	Attribute	Int	Yes	Number of retrieved results

Sequence of data

Name	Type	Data Type	Required	Description
Type	Attribute	String	Yes	Name of statistics: slcCurrentStatistics
nbAxBlock	Attribute	Int	Yes	Number of AX block Trading shortcodes
nbBdl	Attribute	Int	Yes	Number of Bourse de Luxembourg shortcodes
nbEnx	Attribute	Int	Yes	Number of Euronext shortcodes
nbFailed	Attribute	Int	Yes	Number of Failed shortcodes
nbSigmaX	Attribute	Int	Yes	Number of Sigma-X shortcodes
nbSynapse	Attribute	Int	Yes	Number of Synapse shortcodes
nbMorganStanley	Attribute	Int	Yes	Number of Morgan Stanley shortcodes
totalItems	Attribute	Int	Yes	Number of shortcodes

Example of the getSlcCurrentStatistics Response function:


```
{
  "code": 200,
  "data": [  {
    "type": "slcCurrentStatistics",
    "nbAxBlock": 2,
    "nbBdl": 14353,
    "nbEnx": 23780,
    "nbFailed": 2,
    "nbSigmaX": 138,
    "nbSynapse": 1,
    "nbMorganStanley": 1,
    "totalItems": 177856
```

}],

"msg": "succeed",

"recordCount": 1

}

NB: the only wrong value is the **totalItems**. Please see note above.

4.3.9.7 Statistics: getQuotesCount

APA Pre	Approved Publication Arrangement Pre-Trade

This function returns the total number of Commodities positions per status.

Function:

Function name: getQuotesCount
Request EndPoint: /SaturnWebServices/rest/quotes/getQuotesCount
Method: POST

4.3.9.8 Statistics: getQuotesCount response data

APA Pre	Approved Publication Arrangement Pre-Trade

Response Data Parameters:

Name	Type	Data Type	Required	Description
Code	Attribute	Int	Yes	Status of the function. 200 - OK
Data	Element	Sequence of data	Yes	Detailed description below
Msg	Attribute	String	Yes	Status - Success or failed
Recordcount	Attribute	Int	Yes	Number of retrieved results

Sequence of data

Name	Type	Data Type	Required	Description
Type	Attribute	String	Yes	Name of statistics: long
value	Attribute	Int	Yes	Number of quotes

Example of the getQuotesCount Response function:

{

```
  "code": 200,
  "data": [  {
    "type": "long",
    "value": 23
  }],
  "msg": "success",
  "recordCount": 23
}
```


4.3.10 Instrument Basket Fields

The user has the possibility to declare a basket of instruments. This can be done either by API or CSV file (see section 4.14 Submit Trades through CSV).
Please find below some API example of Instrument basket submission, through the submitTx resource:

1- Equity vs LIBOR 3M Swap


```
{
 "tradereport": 1,
 ……….
 "upfrontpayment": "21745",
 "upfrontpaymentcurrency": "LUF",
 "underlyingInstruments": [
  {
    "underlyingtype": 3,
    "underlyinginstrumentname": "LIBO",
    "underlyinginstrumentindex": "003MNTH"
  },
  {
    "underlyingtype": 2,
    "underlyinginstrumentcode": "HK0017000149"
  }
 ]
```

}

2- CAC 40 Index vs AEX 25 Swap


```
{
 "tradereport": 1,
 ……….
 "upfrontpayment": "21745",
 "upfrontpaymentcurrency": "LUF",
 "underlyingInstruments": [
  {
   "underlyingtype": 3,
   "underlyinginstrumentcode": "NL0000000107"
  },
  {
   "underlyingtype": 2,
   "underlyinginstrumentcode": "FR0003500008"
  }
 ] }
```


3- Equity Basket Swap


```
{
 "tradereport": 1,
 ……….
 "upfrontpayment": "21745",
 "upfrontpaymentcurrency": "LUF",
 "underlyingInstruments": [
  {
   "underlyingtype": 3,
   "underlyinginstrumentcode": "BE0000331406"
  },
  {
   "underlyingtype": 3,
   "underlyinginstrumentcode": "BE0000330390"
  },
  {
   "underlyingtype": 3,
   "underlyinginstrumentcode": "US37045V1008"
  },
  {
   "underlyingtype": 2,
```

```
    "underlyinginstrumentcode": "AT000B049226"
  },
  {
    "underlyingtype": 2,
    "underlyinginstrumentcode": "AT0000720008"
  },
 ]
}
```


4.4 SUBMIT RESPONSE DATA

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members
OBOE	Off Book On Exchange Trade Reporting

Submit ResponseData Parameters (example for New):

Name	Type	Data Type	Required	Description
Code	Attribute	Int	Yes	Status of the function. 200 - success
Data	Element	Sequence of data	Yes	Detailed description below

Sequence of data

Name	Type	Data Type	Required	Description
Type	Attribute	string	Yes	“String”
Value	Attribute	string	Yes	“Trade added {TREF0000000}

Possible returned **status** codes:

200 - Success
600 - Failed

4.5 RETRIEVE TRADES AND/OR TRANSACTIONS DETAILS: GET

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members
OBOE	Off Book On Exchange Trade Reporting

This function should be used by the client to retrieve trades and/or transactions[1] details and statuses (Euronext statuses from the Check Module or statuses based on regulatory feedbacks) from Saturn.

Function:

Function name: Get
Request EndPoint: /SaturnWebServices/rest/transactionReports/get
Method: POST

It is recommended to set a “Limit” and “offset” value to avoid retrieve all trades from the database. Please note that **limit** and **offset** are defined at request end Point level. The **limit** value is used to retrieve a maximum number of trades and the **offset** value is used to retrieve trades from a specific starting point.

Example: /SaturnWebServices/rest/transactionReports/get?limit=15&offset=0

limit=15&offset=0, begin from the first trade (offset) and take the 15 following trades (limit)

Request Body:

This endpoint accepts a request body in one of the following formats:

1- application/json
2- application/xml

Request Parameters

Name	Type	Data Type	Required	Description
FilterList	Element	Sequence of FilterList	Yes	Detail of request (treatment ID, sort..)
Offset	Attribute	Int	Yes	Initial number = 0
Limit		Int	Yes	Number of retrieved trades

Sequence of filterList

Name	Type	Data Type	Required	Description
Name	Attribute	String	Yes	Type of request: tid (treatment ID), status
Value	Attribute	String	Yes	status of trade
Operator	Attribute	String	Yes	EQ

[1] The term trade used for publication, the term transaction for reporting

Name	Type	Data Type	Required	Description
Type	Attribute	String	Yes	Type of report (transaction report)
Sort	Attribute	string	Yes	DESC or ASC (descending or ascending)

Example of Get function:

```
{
"filterList": [
        {
          "name": "tid",
     "sort": "DESC"
        },
   {
     "name": "status",
     "value": "4",
     "operator": "EQ"
   }
 ]
}
```

4.6 GET RESPONSE DATA

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members
OBOE	Off Book On Exchange Trade Reporting

Get ResponseData Parameters:

Name	Type	Data Type	Required	Description
Code	Attribute	Int	Yes	Status of the function. 200 - success
Data	Element	Sequence of data	Yes	Detailed description below
Msg	Attribute	Sequence of data	Yes	Status - Success or failed
Recordcount	Attribute	Sequence of data	Yes	Number of retrieved trades

Sequence of data

Name	Type	Data Type	Required	Description
Columns details	Attribute	List	Yes	block of transactions with all columns populated in the database

Example of response data for the get function:

{
{
{
« code »: 200,
« data »: [{
« type »: « transactionreport »,
« mifidExtension »: {
“businessunit”: {
“ideleted”: 0,
“name”: “BU1”,
“participanttid”: 385,
“tag”: “BU1”,
“tid”: 3
},
“cntryofexecutor”: “DE”,
“cntryofinvestor”: “KW”,
“complextradecomponentid”: “1234567810”,
“countrybranchmembership”: “QA”,
“derivativenotionalincreasedecrease”: 5,
“executionwithinfirm”: “1234570000000000000”,
“freetext1”: “Dupont”,
“freetext2”: “Pierre”,
“freetext3”: “Rouge”,
“freetext4”: “Mercedes”,
“freetext5”: “Londres”,
“investmentfirmdirectiveindicator”: 0,
“mifidextensiontid”: 6,
“origin”: “SATURN”,
“otcposttradeindicator”: “PKID00000012”,
“participant”: {
“ccountryregistration”: “”,
“commercialname”: “COMPANY X”,
“iapaposttrade”: 0,
“iapapretrade”: 0,
“iarmreporting”: 1,
“icommodityreporting”: 1,
“id”: “00000579”,
“imifidcompliant”: 0,
“inxtreporting”: 0,
“ivalidity”: 2,
“leicode”: “”,
“participanttypetid”: 1,
“reportingregulatortid”: 0,

“saturnuser”: “”,
“senderfirmid”: “”,
“tid”: 385
},
“saturnuser”: “user1”,
“secfinancingtransactionindicator”: 1,
“shortsellingindicator”: 0,
“side”: 2,
“traderef”: “TRADEREFERENCEAUUP6959802508”,
“tradereport”: 1,
“transmissionoforderindicator”: 1,
“transmittingfirmidbuyer”: “5493005GIOHA4VVQNV28”,
“transmittingfirmidseller”: “549300V7S0SECYXD2130”,
“tsreceive”: “2017-06-19T10:57:48”,
“upfrontpayment”: 4578,
“upfrontpaymentcurrency”: “FKP”,
“waiverindicator”: “UPC”
},
“status”: 4,
“tid”: 6,
“tradeLeg”: {
“businessunit”: {
“ideleted”: 0,
“name”: “BU1”,
“participanttid”: 385,
“tag”: “BU1”,
“tid”: 3
},
“commodityderivativeindicator”: 0,
“executingfirm”: “B”,
“execwfirmalgotradingindicator”: 1,
“invdecwfirmalgotradingindicator”: 1234567810,
“netamount”: 123456,
“participant”: {
“ccountryregistration”: “”,
“commercialname”: “COMPANY X”,
“iapaposttrade”: 0,
“iapapretrade”: 0,
“iarmreporting”: 1,
“icommodityreporting”: 1,
“id”: “00000579”,
“imifidcompliant”: 0,
“inxtreporting”: 0,
“ivalidity”: 2,
“leicode”: “”,
“participanttypetid”: 1,
“reportingregulatortid”: 0,
“saturnuser”: “”,
“senderfirmid”: “”,
“tid”: 385

},
"pricecurrency": "FKP",
"pricenotation": 2,
"quantitycurrency": "IEP",
"saturnuser": "user1",
"side": 2,
"trade": {
"businessunit": {
"ideleted": 0,
"name": "BU1",
"participanttid": 385,
"tag": "BU1",
"tid": 3
},
"classificationtype": "EES",
"currency": "IEP",
"deliverytype": "OPTN",
"expirydate": "2018-01-30",
"fullname": "PRODUCT TEST1",
"instrument": {
"amr": "AOAGA150904500P",
"cdevnm": "",
"cfi_code": "OPASPS",
"cisin": "XXXXXXXXXXXX",
"cmic": "XEUE",
"tick_size_denominator": 100,
"tick_size_numerator": 1,
"tid": 156
},
"maturitydate": "2018-01-02",
"notionalcurrency1": "EUR",
"notionalcurrency2": "USD",
"optionexercisestyle": "EURO",
"origin": "SATURN",
"participant": {
"ccountryregistration": "",
"commercialname": "COMPANY X",
"iapaposttrade": 0,
"iapapretrade": 0,
"iarmreporting": 1,
"icommodityreporting": 1,
"id": "00000579",
"imifidcompliant": 0,
"inxtreporting": 0,
"ivalidity": 2,
"leicode": "",
"participanttypetid": 1,
"reportingregulatortid": 0,
"saturnuser": "",
"senderfirmid": "",

"tid": 385
},
"pricemultiplier": 3,
"saturnuser": "user1",
"securityid": "FR45150903500P",
"strikeprice": 700.45,
"strikepricecurrency": "EUR",
"strikepricenotation": 1,
"tid": 7,
"tradeid": "TRADEIDOQKNH24852",
"tradeprice": 960262.70923,
"traderef": "TRADEREFERENCEAUUP6959802508",
"tradereport": 1,
"tradingdatetime": 1477052256954900,
"underlyinginstrumentcode": "FR451509035",
"underlyinginstrumentindex": "784DAYS",
"underlyinginstrumentname": "INSTRUMENT TEST1",
"volume": 1285620.2032
},
"tradelegtid": 6,
"traderef": "TRADEREFERENCEAUUP6959802508",
"tradereport": 1,
"tradingcapacity1": 2,
"transactionreportingapaindicator": 1,
« venue »: « XPAR »
},
« tsgeneration »: « 2017-06-19T10:57:48 »
}],
« msg »: « success »,
"recordCount": 1
}
}

4.7 RETRIEVE TRADES AND/OR TRANSACTIONS DETAILS: GETTX

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members
OBOE	Off Book On Exchange Trade Reporting

This function should be used by the client to retrieve trades and/or transactions[2] details and statuses (Euronext statuses from the Check Module or statuses based on regulatory feedbacks) from Saturn.

Function:

[2] The term trade used for publication, the term transaction for reporting

Function name: getTx
Request EndPoint: /SaturnWebServices/rest/transactionReports/getTx
Method: POST

It is recommended to set a "Limit" and "offset" value to avoid retrieve all trades from the database. Please note that **limit** and **offset** are defined at request end Point level. The **limit** value is used to retrieve a maximum number of trades and the **offset** value is used to retrieve trades from a specific starting point.

Example: /SaturnWebServices/rest/transactionReports/getTx?limit=15&offset=0

limit=15&offset=0, begin from the first trade (offset) and take the 15 following trades (limit)

Request Body:

This endpoint accepts a request body in one of the following formats:

1. application/json;
2. application/xml.

The request body is mandatary even if not filter are setted

Please note that FIX format will be available in a later version.

Request Parameters

Name	Type	Data Type	Required	Description
FilterList	Element	Sequence of FilterList	Yes	Detail of request (treatment ID, sort..)
Offset	Attribute	Int	Yes	Initial number = 0
Limit		Int	Yes	Number of retrieved trades (this parameter is **Optional**).

Sequence of filterList

Name	Type	Data Type	Required	Description
Name	Attribute	String	Yes	Type of request: tid (treatment ID), status
Value	Attribute	String	Yes	status of trade
Operator	Attribute	String	Yes	EQ
Type	Attribute	String	Yes	Type of report (transaction report)
Sort	Attribute	string	Yes	DESC or ASC (descending or ascending)

Example of Get function:

```
{
"filterList": [
    {
      "name": "tid",
  "sort": "DESC"
    },
```

```
  {
    “name”: “status”,
    “value”: “4”,
    “operator”: “EQ”
  }
 ]
}
```


Example of Get function without filter:


```
{
"filterList": [
        {

}
]
}
```


4.8 GETTX RESPONSE DATA

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members
OBOE	Off Book On Exchange Trade Reporting

Get ResponseData Parameters:

Name	Type	Data Type	Required	Description
Code	Attribute	Int	Yes	Status of the function. 200 - success
Data	Element	Sequence of data	Yes	Detailed description below
Msg	Attribute	Sequence of data	Yes	Status - Success or failed
Recordcount	Attribute	Sequence of data	Yes	Number of retrieved trades

Sequence of data

Name	Type	Data Type	Required	Description
Columns details	Attribute	List	Yes	block of transactions with all columns populated in the database

Example of response data for the getTx function:


```
{
  "code": 200,
  "data": [
    {
      "type": "transactions",
      "businessUnit": {
        "ideleted": 0,
        "name": "BU1",
        "participanttid": 2681,
        "tag": "BU1",
        "tid": 51
      },
      "bypasscontrolflag": 0,
      "checkByRegulator": 1,
      "cntryofexecutor": "GB",
      "cntryofinvestor": "GB",
      "commodityderivativeindicator": 1,
      "complextradecomponentid": "CMPLXTRDIDMVAN1253175140",
      "countrybranchmembership": "GB",
      "deferralindicator": 0,
      "errors": "",
      "executingfirm": "YMUU1WGHJKORF9E36I98",
      "executionwithinfirm": "GB00000000ZA#C#ZA#C#",
      "executionwithinfirmnationalidtype": 3,
      "execwfirmalgotradingindicator": 1,
      "freetext1": "White",
      "freetext2": "Pierre",
      "freetext3": "Vert",
      "freetext4": "Bugatti",
      "freetext5": "Amsterdam",
      "invdecwfirmalgotradingindicator": 1,
      "investmentdecisionwithinfirm": "GB00000000ZA#C#ZA#C#",
      "investmentdecisionwithinfirmnationalidtype": 3,
      "investmentfirmdirectiveindicator": 1,
      "isettlement": 0,
      "itransactiontobecleared": 0,
```

"netamount": 184474.10494,
"notionalamount": 33000000,
"origin": "SATURN",
"otcposttradeindicator": "11",
"participanttid": 2681,
"previousStatus": 6,
"pricecurrency": "EUR",
"pricenotation": 1,
"publicationdatetime": 0,
"quantitycurrency": "EUR",
"quantitynotation": 1,
"saturnuser": "italy1",
"secfinancingtransactionindicator": 1,
"securityid": "DE0005557508",
"shortsellingindicator": 1,
"side": 2,
"status": 6,
"submittingentityid": "969500HMVSZ0TCV65D58",
"tid": 3185737,
"tradeid": "TRADINGVENUECKUK4088417888",
"tradeprice": 663405.64906,
"traderef": "TRADEREF1512131167909",
"tradereport": 1,
"tradingcapacity1": 1,
"tradingcapacity2": 1,
"tradingdatetime": 1510239776000000,
"transactionreportingapaindicator": 1,
"transmissionoforderindicator": 0,
"tsgeneration": "2017-12-01T12:48:17",
"upfrontpayment": 548102,
"upfrontpaymentcurrency": "EUR",
"venue": "XLON",
"volume": 2992682.75375
},
…}]
}

Possible returned **status** codes:

200 - Success
600 - Failed

Technical use & examples: Click here

4.9 FIX 5.0 MESSAGES (FUTURE IMPLEMENTATION)

4.9.1 TradeCaptureReport (AE)

Available for: Saturn

Message Usage:

The **TradeCaptureReport (AE)** message is used for sending of APA, ARM & OBOE Trades.

Components Usage within the Message:

Saturn Trades Report use repeating groups for provision of information for reporting or publishing transactions and the following fields:

- ExecutionwithinFirm,
- InvestmentDecisionwithinFirm,
- ExecutionWithInFirm.
- As well as for identificatin of Buyer / Seller

The additional repeating group combination is required to identify the above fields, which should be provided with the following values:

- *PartyID (448)* = field in which the ID is provided
- *PartyIDSource (447)* = **D** (Proprietary / Custom Code)
- *PartyRole (452)* = **17** (Contra Firm)
- *PartyRoleQualifier (2376)* = **23** (Firm or legal entity)

4.9.2 Header Field Mapping

HEADER						
Tag	**Field**	**Short Description**	**Format**	**Len**	**Values**	**Presence**
	Message Type				**35 = OBOE**	
30007	ARM APA Indicator	This field allows the client to use ARM Transaction Reporting, APA publication or both APA/ARM services offered in SATURN and OTC trade for clearing and OBOE	Int	1	1 Transaction reporting 2 APA 3 Both Transaction reporting and APA 4 OTC Trade only 5 OBOE - Off Book on Exchange 6 OBOE + ARM - Off Book on Exchange + Approved Reporting Mechanism	Mandatory
30001	Action	Identifies Trade Report message transaction type	Int	1	0- New 1-Cancel 2- Replace	Mandatory
30003	TradeID	The unique ID assigned by the matching engine to the trade entity, once it is received or matched.	String	20	From 0 to 2^64-2	Conditional
30002	Trade Ref	Identifier of the trade			(No restriction)	Mandatory
30004	Side	Transaction side	Int	1	1- Buy 2- Sell	Mandatory
					8- Cross (Not applicable for OBOE)	Not Applicable
30005	Venue	Market of execution for last fill, or an indication of the market where an order was routed	ISO 10383	8	■ MIC (EEA) MIC Code ISO 10383 ■ MIC (Non EEA) MIC Code ISO 10383 ■ Only Dublin and Oslo (excepted Derivative) MICs accepted for OBOE Services ■ “XOFF” ■ “XXXX” ■ Systematic Internalisers MIC Code ISO 10383	Mandatory
30006	ExecutingFirm	Code used to identify the entity executing the transaction The client's transaction should go to fail if the executing LEI is not the LEI set for the participant used.	ISO 17442	20	LEI	Mandatory

4.9.3 OBOE Fields Mapping

OBOE						
Euronext Tag	**Field**	**Short Description**	**Format**	**Len**	**Values**	**Presence**
30013	LastPx (Traded Price)	The price in the instrument's trading currency	Price	10	From -2^63 to 2^63-1	Mandatory
30014	LastQty (Quantity)	The LastQty indicates the quantity of the last fill on an instrument (to be calculated with Quantity Decimals).	Qty	20	From 0 to 2^64-1	Mandatory
30015	TransacTime	Date and time of the trade	UTCTimestamp	27	YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, sssssssss = 000000000-999999999 (nanoseconds)	Mandatory
30012	SecurityID	Exchange identification code of the instrument, represented by Euronext code of the instrument.	String	10	From 0 to 2^32-2	Mandatory
30011	Text	Free Text is manually entered by the trader issuing the order. This field is part of the clearing aggregate	String	18	Alphanumeric	Mandatory
30016	DeferralIndicator	Trade publication type indicator. Indicates whether the publication is immediate or not (differed).	Char	1	0 = False (Differed) / 1 = True (Immediate)	Mandatory
30018	LastCapacity / Trading Capacity1	Indicates whether the order submission results from trading as matched principal, on own account or as any other capacity	Char	1	1 - Dealing on own account (DEAL) 2 - Matched principal (MTCH) – (Not avalaible for OBOE Dublin) 3 - Any other capacity (AOTC)	Mandatory
453	NoPartyIDs	Number of PartyID entries	NumIn Group	1	If provided, from 1 to 2	Mandatory
448	PartyID	Party identifier/code	String	11	{ALPHANUM-12}	Mandatory
447	PartyIDSource	Source of PartyID value	Char	1	N = Legal Entity Identifier (LEI) or P = Short code identifier	Mandatory
452	PartyRole	Identifies the type or role of the PartyID (448) specified	Int	3	17 = Contra Firm or 1 = Executing Firm	Mandatory
2376	PartyRoleQualifier	Used to further qualify the value of PartyRole(452)	Int	2	23 = Firm or legal entity	Mandatory
30010	ByPassControlFlag	Control indicator of the price and quantity. Indicates whether a trade should bypass the price and quantity controls or not. (0: Control; 1: No Control)	Char	1	0 = False / 1 = True	Optional
30017	TrdRegPublicationReason	Waiver Indicator. ESMA/FCA description of the field: Indication as to whether the transaction was executed under a pre-trade waiver in accordance with Articles	Int	2	Blank	Optional
					RFPT = 3	Mandatory
					NLIQ = 0	
					OILQ = 1	
					PRIC = 2	

		4 and 9 of EU and onshored UK Regulation 600/2014.			OM = 10 ILQD = 4 LIS = 9	
30020	OTCPostTradeIndicator		{ALPHANUM-25}	27	■ - 'Blank'	Optional
					0 - BENC - Benchmark 1 - ACTX -Agency cross 2 - LRGS - Large in scale *(Applicable for OBOE Bonds Only)* 3 - ILQD - Illiquid instrument *(Applicable for OBOE Bonds Only)* 4 - SIZE - Above specified size *(Applicable for OBOE Bonds Only)* 5 - CANC – Cancellation 6 - AMND - Amendment 7 - SDIV - Special Dividend 8 - RPRI - Price improvement *(Not applicable for OBOE)* 9 - DUPL - Duplicative *(Not applicable for OBOE)* 10 - TNCP -Not contributing to the price discovery process *(Not applicable for OBOE)* 11 - TPAC - Package *(Applicable for OBOE Bonds Only)* 12 - XFPH - Exchange for Physical *(Not applicable for OBOE)*	Mandatory
30019	Euronext TradeFlags	Indicates Euronext Trade flags. Any combination of up to thirteen (or none) of the following flags can be chosen	Int	5	Blank	Optional
					1 - CP: 'Connected Party Trade' 2 - LT: 'Late Trade' 3 - SS: 'Special Settlement'4 NM, 5 VW, 6 DT, le reste ordre tableau 4 - NM: 'Not to Market' 5 - VW: 'VWAP Trade' 6 - DT: 'Derivative-related Trade' 7 - OT: 'Ordinary Trade' 8 - ON: 'Non-strandard Settlement' 9 - RE: 'Repo' 10 - OE: 'Exchange-granted Trade' 11 - OH: 'Other' 12 - OL: 'Odd Lot' 13 - OP: 'Package Transaction'	Mandatory
64	Settlement Date	Indicates the settlement date of the trade, if provided	{DATE_FORMAT}		YYYY-MM-DD	Oprion
	Repo Settlement Date	Indicates the repo settlement date of the trade, if provided	{DATE_FORMAT}		YYYY-MM-DD	Oprion

4.9.4 ARM fields mapping (Coming soon)

The table below is a mapping between ARM field and JSON fields resulting to Get Response data (retrieve trades).

The field 'ORIGIN' in the JSON example above contains the application name from where it has be generated.

In general the JSON field is the ARM field in lowercase without spaces but the name may differ (in blue below)

ARM Field	JSON field	Values	ESMA/FCA Field
TradingCapacity1	tradingcapacity1	1 - Dealing on own account (DEAL) 2 - Matched principal (MTCH) – (Not avalaible for OBOE Dublin) 3 - Any other capacity (AOTC)	Field 29 of ESMA and onshored UK RTS 22
Quantity	Volume		Field 30 of ESMA and onshored UK RTS 22
QuantityCurrency	quantitycurrency	ISO 4217 Currency code	Field 31 of ESMA and onshored UK RTS 22
PriceNotation	Pricenotation	1 - 'MONE' – Monetary value 2 - 'PERC' – Percentage 3 - 'YIEL' – Yield 4 - 'BAPO' – Basis points. 5 - 'PNDG' Pending 6 - 'NOAP'– Not Applicable	
PriceCurrency	Pricecurrency	ISO 4217 Currency code	Field 34 of ESMA and onshored UK RTS 22
CountryBranchMembership	countrybranchmembership	ISO 3166-1 Country code	Field 37 of ESMA and onshored UK RTS 22
ByPassControlFlag	bypasscontrolflag	**Populate one or more, separated by a dash (ex: 1-2):** 0 - No 1 – Price (Not applicable for OBOE) 2 – LEI	

ARM Field	JSON field	Values	ESMA/FCA Field
		4 – Volume (Not applicable for ARM and OBOE) 5 – TradingDateTime (Not applicable for ARM and OBOE)	
BusinessUnit	Businessunit	No restriction	
FreeText1	freetext1	No restriction	
FreeText2	freetext2	No restriction	
FreeText3	freetext3	No restriction	
FreeText4	freetext4	No restriction	
FreeText5	freetext5	No restriction	
NotionalCurrency1	notionalcurrency1	ISO 4217 Currency code	Field 44 of ESMA and onshored UK RTS 22
NotionalCurrency2	notionalcurrency2	ISO 4217 Currency code	Field 45 of ESMA and onshored UK RTS 22
OTCPostTradeIndicator	otcposttradeindicator	■ - 'Blank' 0 - BENC - Benchmark 1 - ACTX -Agency cross 2 - LRGS - Large in scale 3 - ILQD - Illiquid instrument 4 - SIZE - Above specified size 5 - CANC – Cancellation 6 - AMND - Amendment 7 - SDIV - Special Dividend 8 - RPRI - Price improvement *(Not applicable for OBOE)* 9 - DUPL - Duplicative *(Not applicable for OBOE)* 10 - TNCP -Not contributing to the price discovery process *(Not applicable for OBOE)* 11 - TPAC - Package 12 - XFPH - Exchange for Physical *(Not applicable for OBOE)*	Field 63 of ESMA and onshored UK RTS 22
InvestmentFirmDirectiveIndicator	investmentfirmdirectiveindicator	0 - False 1 - True	Field 5 of ESMA and onshored UK RTS 22

ARM Field	**JSON field**	**Values**	**ESMA/FCA Field**
TransmissionOfOrderIndicator	transmissionoforderindicator	0 - False 1 - True	Field 25 of ESMA and onshored UK RTS 22
TransmittingFirmIDBuyer	transmittingfirmidbuyer	ISO 17442 LEI code	Field 26 of ESMA and onshored UK RTS 22
TransmittingFirmIDSeller	transmittingfirmidseller	ISO 17442 LEI code	Field 27 of ESMA and onshored UK RTS 22
TradingDateTime	tradingdatetime	Epoch Time in microseconds	Field 28 of ESMA and onshored UK RTS 22
DerivativeNotionalIncreaseDecrease	derivativenotionalincreasedecrease	1 - Increase 2 - Decrease	Field 32 of ESMA and onshored UK RTS 22
Price	tradeprice		Field 33 of ESMA and onshored UK RTS 22
NetAmount	Netamount		Field 35 of ESMA and onshored UK RTS 22
Venue	Venue	■ MIC (EEA) MIC Code ISO 10383 ■ MIC (Non EEA) MIC Code ISO 10383 ■ Only Dublin and Oslo (excepted Derivative) MICs accepted for OBOE Services ■ “XOFF” ■ “XXXX”	Field 36 of ESMA and onshored UK RTS 22

ARM Field	JSON field	Values	ESMA/FCA Field
		■ Systematic Internalisers MIC Code ISO 10383	
UpFrontPayment	upfrontpayment		Field 38 of ESMA and onshored UK RTS 22
UpFrontPaymentCurrency	upfrontpaymentcurrency	ISO 4217 Currency code	Field 39 of ESMA and onshored UK RTS 22
ComplexTradeComponentID	complextradecomponentid	Only applicable if current original Order is related to the same execution of a combination of financial instruments (Strategy)	Field 40 of ESMA and onshored UK RTS 22
SecurityID	securityid	ISIN Code ISO 6166	Field 41 of ESMA and onshored UK RTS 22
InstrumentFullName	Fullname	No restriction	Field 42 of ESMA and onshored UK RTS 22
InstrumentClassification	Classificationtype	ISO 10962 CFI code	Field 43 of ESMA and onshored UK RTS 22
PriceMultiplier	Pricemultiplier	Number of units of the direct underlying instrument	Field 46 of ESMA and onshored UK RTS 22
Underlyinginstrumenttype	underlyingtype	Types described in the field. 1 - 'OTHR' 2 - 'SWAP IN' 3 - 'SWAP OUT'	

ARM Field	JSON field	Values	ESMA/FCA Field
UnderlyingSecurityID	underlyinginstrumentcode	Types described in the field	Field 47 of ESMA and onshored UK RTS 22
UnderlyingIndexName	underlyinginstrumentname	■ INDEX Alphanumerical [4] ■ Alphanumerical [25] - (if the index name is not included in the {INDEX} list)	Field 48 of ESMA and onshored UK RTS 22
UnderlyingIndexTerm	underlyinginstrumentindex	1 - 'DAYS' - days 2 - 'WEEK' - weeks 3 - 'MNTH' - months 4 - 'YEAR' - years	Field 49 of ESMA and onshored UK RTS 22
OptionType	optionprice	1 - 'PUTO' - Put 2 - 'CALL' - Call 3 - 'OTHR' - where it cannot be determined whether it is a call or a put	Field 50 of ESMA and onshored UK RTS 22
StrikePrice	strikeprice		Field 51 of ESMA and onshored UK RTS 22
StrikePriceCurrency	strikepricecurrency	ISO 4217 Currency code	Field 52 of ESMA and onshored UK RTS 22
StrikePriceNotation	strikepricenotation	1 - 'MONE' - Monetary value 2 - 'PERC' - Percentage 3 - 'YIEL' - Yield 4 - 'BAPO' - Basis points. 5 - 'PNDG' - No price Pending 6 - 'NOAP'- Not Applicable	
OptionExerciseStyle	optionexercicestyle	Only one of the following values can be populated ■ "AMER" - American ■ "ASIA" - Asian ■ "BERM" - Bermudan ■ "EURO" - European ■ "OTHR" - Other	Field 53 of ESMA and onshored UK RTS 22
MaturityDate	Maturitydate	Format YYYY-MM-DD	Field 54 of ESMA and onshored

ARM Field	JSON field	Values	ESMA/FCA Field
			UK RTS 22
ExpiryDate	Expirydate	Format YYYY-MM-DD	Field 55 of ESMA and onshored UK RTS 22
DeliveryType	Deliverytype	1 - 'PHYS' - Physicallysettled 2 - 'CASH' - Cash settled 3 - 'OPTL' - Optional for counterparty or when determined by a third party	Field 56 of ESMA and onshored UK RTS 22
InvestmentDecisionWithinFirm	investmentdecisionwithinfirm	{NATIONAL_ID} for Natural persons {ALPHANUM-50} for Algorithms	Field 57 of ESMA and onshored UK RTS 22
InvestmentDecisionWithinFirmType	invdecwfirmalgotradingindicator	1 - National ID 2 - Code for the algorithm	
InvestmentDecisionWithinFirmNationalIDType	investmentdecisionwithinfirmnationalidtype	1 - NIDN - Use of National ID 2 - CCPT - Use of passport Number 3 - CONCAT - Concatenation of nationality date of birth and name abbreviation	
CountryOfInvestor	Cntryofinvestor	ISO 3166-1 country code	Field 58 of ESMA and onshored UK RTS 22
ExecutionWithinFirm	executionwithinfirm	{National ID} or {Code for the algorithm} or {NORE}	Field 59 of ESMA and onshored UK RTS 22
ExecutionWithinFirmType	execwfirmalgotradingindicator	1 - National ID 2 - Code for the algorithm 3 - NORE	
ExecutionWithinFirmNationalIDType	executionwithinfirmnationalidtype	1 - NIDN - Use of National ID 2 - CCPT - Use of passport Number 3 - CONCAT - Concatenation of nationality date of birth and name abbreviation	

ARM Field	JSON field	Values	ESMA/FCA Field
CountryOfExecutor	Cntryofexecutor	ISO 3166-1 country code	Field 60 of ESMA and onshored UK RTS 22
WaiverIndicator	waiverindicator	- 'Blank' 1 - 'RFPT' - Reference price (not available for OBOE) 2 - 'NLIQ' - Negotiated (liquid) 3 - 'OILQ' - Negotiated (illiquid) 4 - 'PRIC' - Negotiated (conditions) 5 - 'SIZE' - Above specified size (not available for OBOE) 6 - 'ILQD' - Illiquid instrument 7 - 'LIS' – Large in Scale	Field 61 of ESMA and onshored UK RTS 22
ShortSellingIndicator	shortsellingindicator	If populated, only one of the following values can be populated: 0 - 'SESH', 1 - 'SSEX', 2 - 'SELL', 3 - 'UNDI'. Only applicable when the instrument is covered by EU and onshored UK Regulation 236/2012, and the seller is the investment firm or a client of the investment firm	Field 62 of ESMA and onshored UK RTS 22
CommodityDerivativeIndicator	commodityderivativeindicator	0 - No 1 - Yes	Field 64 of ESMA and onshored UK RTS 22
SecFinancingTransactionIndicator	secfinancingtransactionindicator	0 - False 1 - True	Field 65 of ESMA and onshored UK RTS 22
Quantity notation	Quantitynotation	1 - UNIT, 2 - MONE (Monetary Value), 3 - NMNL (Nominal Value)	
Clearing Counterpart ID (only for **getTx**, **getTxClearingOptionCounterpartAwaiting** and **getTxClearingOption**)	ID	1 (LCH) 6 (EuroCCP)	

ARM Field	JSON field	Values	ESMA/FCA Field
Clearing Counterpart Name (only for **getTx**, **getTxClearingOptionCounterpartAwaiting** and **getTxClearingOption**)	ccpid_typecol	LCH EuroCCP	
BuyerIdentificationType	buyeridentificationtype	1 - LEI 2 - MIC 3 - ISO 3166 + {NATIONAL_ID} for a natural person 4 - 'INTC	
BuyerIdentificationCode	buyeridentificationcode	* LEI * MIC * ISO 3166 + {NATIONAL_ID} for a natural person * 'INTC	Field 7 of ESMA and onshored UK RTS 22
BuyerNationalIDType	buyernationalidtype	1 - NIDN - Use of National ID 2 - CCPT - Use of passport Number 3 - CONCAT - Concatenation of nationality date of birth and name abbreviation	
BuyerCountryBranch	buyercountrybranch	ISO 3166 country code	Field 8 of ESMA and onshored UK RTS 22
BuyerFirstName	Buyerfirstname	Only applicable if the client is a natural person. Not populated if "Client Identification Code" is populated with a LEI or 'INTC'. In case of more than one first name, all names shall be included in this field separated by a comma.	Field 9 of ESMA and onshored UK RTS 22
BuyerSurname	Buyersurname		
BuyerBirthDate	Buyerbirthdate	Format YYYY-MM-DD	Field 11 of ESMA and onshored UK RTS 22
BuyerDecisionMakerType	buyerdecisionmakertype	1 - LEI 2 - ISO 3166 + {NATIONAL_ID} for a natural person	

ARM Field	JSON field	Values	ESMA/FCA Field
BuyerDecisionMakerCode	buyerdecisionmakercode		Field 12 of ESMA and onshored UK RTS 22
BuyerDecisionMakerNationalIDType	buyerdecisionmakernationalidtype	1 - NIDN - Use of National ID 2 - CCPT - Use of passport Number 3 - CONCAT - Concatenation of nationality date of birth and name abbreviation	
BuyerDecisionMakerFirstName	buyerdecisionmakerfirstname		Field 13 of ESMA and onshored UK RTS 22
BuyerDecisionMakerSurname	buyerdecisionmakersurname		Field 14 of ESMA and onshored UK RTS 22
BuyerDecisionMakerBirthDate	buyerdecisionmakerbirthdate	Format YYYY-MM-DD	Field 15 of ESMA and onshored UK RTS 22
SellerIdentificationType	selleridentificationtype	1 - LEI 2 - MIC 3 - ISO 3166 + {NATIONAL_ID} for a natural person 4 - 'INTC	
SellerIdentificationCode	selleridentificationcode	* LEI * MIC * ISO 3166 + {NATIONAL_ID} for a natural person * 'INTC	Field 16 of ESMA and onshored UK RTS 22
SellerNationalIDType	sellernationalidtype	1 - NIDN - Use of National ID 2 - CCPT - Use of passport Number 3 - CONCAT - Concatenation of nationality date of birth and name abbreviation	
SellerCountryBranch	sellercountrybranch	ISO 3166 country code	Field 17 of ESMA and onshored UK RTS 22
SellerFirstName	sellerfirstname	Only applicable if the client is a natural person. Not populated if "Client Identification Code" is populated with a LEI or 'INTC'.	Field 18 of ESMA and onshored

ARM Field	JSON field	Values	ESMA/FCA Field
		In case of more than one first name, all names shall be included in this field separated by a comma. Only capital letters allowed	UK RTS 22
SellerSurname	sellersurname	Only capital letters allowed	
SellerBirthDate	sellerbirthdate		Field 20 of ESMA and onshored UK RTS 22
SellerDecisionMakerType	sellerdecisionmakertype	1 - LEI 2 - ISO 3166 + {NATIONAL_ID} for a natural person	
SellerDecisionMakerCode	sellerdecisionmakercode		Field 21 of ESMA and onshored UK RTS 22
SellerDecisionMakerNationalIDType	sellerdecisionmakernationalidtype	1 - NIDN - Use of National ID 2 - CCPT - Use of passport Number 3 - CONCAT - Concatenation of nationality date of birth and name abbreviation	
SellerDecisionMakerFirstName	sellerdecisionmakerfirstname		Field 22 of ESMA and onshored UK RTS 22
SellerDecisionMakerSurname	sellerdecisionmakersurname		Field 23 of ESMA and onshored UK RTS 22
SellerDecisionMakerBirthDate	sellerdecisionmakerbirthdate		Field 24 of ESMA and onshored UK RTS 22

4.9.5 APA fields mapping (Coming soon)

The table below is a mapping between APA fields and JSON fields resulting to Get Response data (retrieve trades).

The field 'ORIGIN' in the JSON example above contains application name from it has be generated.

In general the JSON field is the APA field in lowercase without spaces. but the name may differ (in blue below)

Field	JSON field	Values
Transaction to be cleared	transactiontobecleared	0 - 'False' - transaction not to be cleared 1 - 'True' - transaction to be cleared
Venue	venue	■ MIC (EEA) MIC Code ISO 10383 ■ MIC (Non EEA) MIC Code ISO 10383 ■ Only Dublin and Oslo (excepted Derivative) MICs accepted for OBOE Services ■ "XOFF" ■ "XXXX" ■ Systematic Internalisers MIC Code ISO 10383
TradingDateTime	tradingdatetime	Epoch time in microseconds
TradingCapacity1	tradingcapacity1	1 - Dealing on own account (DEAL) 2 - Matched principal (MTCH) – (Not avalaible for OBOE Dublin) 3 - Any other capacity (AOTC)
TradingCapacity2 (For Cross Trade)	tradingcapacity2	1 - Dealing on own account (DEAL) 2 - Matched principal (MTCH) – (Not avalaible for OBOE Dublin) 3 - Any other capacity (AOTC)
Quantity	volume	
QuantityCurrency	quantitycurrency	ISO 4217 Currency code
PriceNotation	pricenotation	1 - 'MONE' - Monetary value 2 - 'PERC' - Percentage 3 - 'YIEL' - Yield 4 - 'BAPO' - Basis points. 5 - 'NOAP' - Not Applicable
Quantity notation	quantitynotation	1 - UNIT, 2 - MONE (Monetary Value), 3 - NMNL (Nominal Value)
PriceCurrency	pricecurrency	ISO 4217 Currency code
ByPassControlflag	bypasscontrolflag	**Populate one or more, separated by a dash (ex: 1-2):** 0 - No 1 - Price (Not applicable for OBOE) 2 – LEI 4 – Volume (Not applicable for ARM and OBOE) 5 – TradingDateTime (Not applicable for ARM and OBOE)
BusinessUnit	businessunit	No restriction
FreeText1	freetext1	No restriction
FreeText2	freetext2	No restriction
FreeText3	freetext3	No restriction
FreeText4	freetext4	No restriction
FreeText5	freetext5	No restriction

Field	JSON field	Values
OTCPostTradeIndicator	otcposttradeindicator	■ - 'Blank' 0 - BENC - Benchmark 1 - ACTX -Agency cross 2 - LRGS - Large in scale 3 - ILQD - Illiquid instrument 4 - SIZE - Above specified size 5 - CANC – Cancellation 6 - AMND - Amendment 7 - SDIV - Special Dividend 8 - RPRI - Price improvement *(Not applicable for OBOE)* 9 - DUPL - Duplicative *(Not applicable for OBOE)* 10 - TNCP -Not contributing to the price discovery process *(Not applicable for OBOE)* 11 - TPAC - Package 12 - XFPH - Exchange for Physical *(Not applicable for OBOE)E*
Price	tradeprice	
SecurityID	securityid	ISIN Code ISO 6166
InstrumentID type	instrumentidtype	0 - 'ISIN' 1 - 'OTHR'
Instrumentfullname	fullname	No restriction
PriceMultiplier	pricemultiplier	Number of units of the direct underlying instrument
Underlyinginstrumenttype	underlyingtype	Types described in the field. 1 - 'OTHR' 2 - 'SWAP IN' 3 - 'SWAP OUT'
UnderlyingSecurityID	underlyinginstrumentcode	Types described in the field
UnderlyingIndexName	underlyinginstrumentname	■ INDEX Alphanumerical [4] ■ Alphanumerical [25] - (if the index name is not included in the {INDEX} list)
UnderlyingIndexTerm	underlyinginstrumentindex	1 - 'DAYS' - days 2 - 'WEEK' - weeks 3 - 'MNTH' - months 4 - 'YEAR' - years
OptionType	optiontype	1 - 'PUTO' - Put 2 - 'CALL' - Call 3 - 'OTHR' - where it cannot be determined whether it is a call or a put
StrikePrice	strikeprice	
StrikePriceCurrency	strikepricecurrency	ISO 4217 Currency code
StrikePriceNotation	strikepricenotation	1 - 'MONE' - Monetary value 2 - 'PERC' - Percentage 3 - 'YIEL' - Yield 4 - 'BAPO' - Basis points. 5 - 'PNDG' - No price Pending 6 - 'NOAP' - Not Applicable
OptionExerciseStyle	optionexercisestyle	Only one of the following values can be populated ■ "AMER" - American ■ "ASIA" - Asian ■ "BERM" - Bermudan ■ "EURO" - European ■ "OTHR" - Other

Field	JSON field	Values
MaturityDate	maturitydate	Format YYYY-MM-DD
ExpiryDate	expirydate	Format YYYY-MM-DD
DeliveryType	deliverytype	1 - 'PHYS' - Physically settled 2 - 'CASH' - Cash settled 3 - 'OPTL' - Optional for counterparty or when determined by a third party
DeferralIndicator	deferralindicator	0 - Immediate Publication 1 - Deferral (Equity) 2 - Full Deferral period (Non Equity_D+2) 3 - Full Deferral period (Non Equity_No Volume) 4 - Full Deferral period (Non Equity_Agg Data) 5- Deferral (Oslo)
QuantityNotationInMeasurementUnit	quantitynotationinmeasurementunit	'TOCD' - tons of carbon dioxide equivalent Or {ALPHANUM-25} otherwise
QuantityInMeasurementUnit	quantityinmeasurementunit	From 0 to 2^64-2
NotionalAmount	notionalamount	From 0 to 2^64-2
NotionalCurrency	notionalcurrency	ISO 4217 Currency code
EmissionAllowanceType	emissionallowancetypetid	Only applicable for emission allowances 1 - EUAE - EUA 2 - CERE - CER 3 - ERUE - ERU 4 - EUAA - EUAA 5 - OTHR - Other (for derivatives only)
Clearing Counterpart ID (only for **getTx**, **getTxClearingOptionCounterpartAwaiting** and **getTxClearingOption**)	ID	1 (LCH) 6 (EuroCCP)
Clearing Counterpart Name (only for **getTx**, **getTxClearingOptionCounterpartAwaiting** and **getTxClearingOption**)	ccpid_typecol	LCH EuroCCP

4.10 PRICE CONTROL CHECKS

4.10.1 Scope

- Price Control Check rules only apply to APA services.
- ARM is excluded from these checks.
- Scope of instruments is limited to Equities and ETFs instruments for the start of the APA service. Other type of instruments will be added gradually.
- Scope of currencies is based on the list of authorised currencies.

4.10.2 APA Price control check

- Only applicable on instruments flagged as eligible for price control checks, hence limited to Equities and ETFs instruments for the start of APA services.
- Only applicable on authorised currencies flagged as eligible for price control checks
- A price tolerance range of 25% (+/-) will be applied on instrument flagged as eligible for price control checks
- Price control check is applied on customer APA transaction report submission considering the instrument/currency/price.
  - Price control check is:
    - “not applicable” on trade report submission in case:
      - There is no eligible instrument price
      - The currency reported by the customer is not flagged as an eligible currency and for which we cannot use any currency rate
    - “Failed” on trade report submission when the price reported by the customer exceeds the price tolerance range defined above applied on the eligible instrument price
    - “Successful” on trade report submission when the price reported by the customer remains within the price tolerance range applied on the eligible instrument price.

4.10.3 OBOE Price validation and volume control

- Only applicable on Equities and ETFs instruments.
- Price and Volume controls for Oslo may exist that limits are specified per instrument.
- Only applicable on authorized currencies flagged as eligible for price and volume control
- Depending on the type of operation / waiver a price tolerance or not could be applied per instrument.
- Depending on the maximum volume authorized by ESMA, a volume threshold could be defined per instrument.
- Both Price and volume control check is applied immediately at the report submission.
- A report is never rejected based on price or volume control but in some cases members will be informed of the potential breach through a failed message or a warning message depending on the order book quantity:
    - Price Validation is:
        - "not applicable" on trade report submission in case:
            - There is no eligible instrument price
            - The currency reported by the customer is not flagged as an eligible currency and for which we cannot use any currency rate.
        - "Successful" on trade report submission when the price reported by the customer remains within the price tolerance range applied on the eligible instrument price.
        - "Failed" on trade report submission when the price reported by the customer is out if <u>out threshold</u>, when spread is calculated taking account the order quantity.
        - "Warning" on trade report submission when the price reported by the customer, as spread <u>cannot be calculated</u> taking account the order quantity.
    - Volume control is:
        - "Successful" on trade report submission when the volume reported by the customer is equal or less than the volume threshold applied on the eligible instrument price.
        - "Warning" on trade report submission when the quantity reported by the customer, is not within reasonable range.

4.11 SUBMIT TRADES THROUGH CSV

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members
OBOE	Off Book On Exchange Trade Reporting

The functions below should be used by the client to submit/amend or cancel one or more trades/transactions into Saturn system through an automatic upload of a csv file.

Please note that it is also possible to manually upload a csv file manually through the Saturn GUI.

Technical use & examples: Click here

4.11.1 Upload

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members
OBOE	Off Book On Exchange Trade Reporting

This Upload function should be used by clients to upload a.csv file.
The Upload file has to be encoded in UTF-8 and the Carriage return has to be in UNIX format.
The filename should contain only one dot and the length limit of the filename is 150 characters.
The files having only extensions as a name are rejected.
The file type (since **8.02 version released in January 2022**) must be precised and be part of the following list, according to the uploaded file type. It must be added to **file's Content-Type** when calling upload service Please refer to section 16.8.1 Upload service for the authorized file type list.

Function:

Function name: Upload
Request EndPoint: /SaturnWebServices/rest/files/upload
Method: POST

Request Body:

This endpoint accepts a request body in one of the following formats:

Name	Type	Description	Notes	Validations
type	"FormData"			
FieldValues	List of FieldValues	A key/value pair identifies the form data (field name / value) Content-Disposition: form-data; name="undefined"; filename="example_of_upload_file.csv" The pair name/filename takes the value "undefined"/"filename to be imported"		

4.11.2 Detailed fields for csv file

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members

OBOE	Off Book On Exchange Trade Reporting

Please note that the order of columns is not relevant

In addition the fulfilment of csv fields depends on the subscription. If not subscribed to the service it is possible to leave the field blank or not add the column name.

The column names are on the first line of the csv file and separated by a semicolon (;)

Each line must be separated by UNIX Linefeed (LF).

A csv file example is attached to this document

Header

Subscribing Entity / Participant	✉	ISO 17442 Length [20]	Determined upon Saturn connection

Body

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
For ARM, APA, OBOE	ARM APA Indicator		✓	Int	1 - Transaction Reporting 2 - APA 3 - Both Transaction Reporting and APA 4 - OTC Trade only 5 - OBOE - Off Book on Exchange 6 - Both OBOE and Transaction Reporting	
For ARM, APA, OBOE	Side	Transaction side	✓	Int	1 - Buy 2 - Sell 3 - Cross (only for APA ---- > ARM APA Indicator = 2 or 3)	
For ARM, APA, OBOE	Action	Trade status	✓	Int	1 - NEW 2 - AMEND 3 – CANCEL 4 – RECOVERY (Only Applicable by upload file in the GUI)	Field 1 of ESMA and onshored UK RTS 22
For ARM, APA, OBOE	Transaction Reference Number	Identification number that is unique to the executing firm for each transaction report.	✓	{ALPHANUM-52}	No restriction	Field 2 of ESMA and onshored UK RTS 22

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
For ARM, APA, OBOE	Trading Venue Transaction ID	Code assigned for a matched trade.	+	{ALPHANUM-52}	No restriction, (not required) for a new transaction	Field 3 of ESMA and onshored UK RTS 22
For ARM, APA, OBOE	Executing Entity ID	Code used to identify the entity executing the transaction.	✓	{LEI} ISO 17442	LEI	Field 4 of ESMA and onshored UK RTS 22
For ARM only	Investment Firm Director Indicator	Indicates whether the entity identified in field 4 is an investment firm covered by Article 4(1) of Directive 2014/65/EU .	✓	Int	0 - False 1 - True	Field 5 of ESMA and onshored UK RTS 22
			.			
For ARM only	Transmission Of Order Indicator	True - shall be populated by the transmitting firm within the transmitting firm's report where the conditions for transmission specified in Article 4 were not satisfied. False – in all other circumstances	✓	Int	0 - False 1 - True	Field 25 of ESMA and onshored UK RTS 22
For ARM only	Transmitting Firm ID For The Buyer	Code used to identify the firm transmitting the order. This shall be populated by the receiving firm within the receiving firm's report with the identification code	o	{LEI} ISO 17442	LEI or Not populated if "TradingCapacity" is 1 or 2	Field 26 of ESMA and onshored UK RTS 22

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
		provided by the transmitting firm.				
For ARM only	Transmitting Firm ID For The Seller	Code used to identify the firm transmitting the order. This shall be populated by the receiving firm within the receiving firm's report with the identification code provided by the transmitting firm.	o	{LEI} ISO 17442	LEI or Not populated if "TradingCapacity" is 1 or 2	Field 27 of ESMA and onshored UK RTS 22
For ARM, APA, OBOE	Trading Date Time	Timestamp in microseconds of when the order/transaction request was initiated/released by the trader or trading system, or time of execution/order creation. (in UTC)	✓	{DATE_TIME_FORMAT}	YYYY-MM-DDThh:mm:ss.ddddddZ	Field 28 of ESMA and onshored UK RTS 22
For ARM, APA, OBOE	Trading Capacity 1	Field that indicates whether the transaction submitted results from trading as matched principal, on own account or as any other capacity.	✓	Int	1 - Dealing on own account (DEAL) 2 - Matched principal (MTCH) – (Not avalaible for OBOE Dublin) 3 - Any other capacity (AOTC)	Field 29 of ESMA and onshored UK RTS 22
For APA only	Trading Capacity 2	Used in case of cross trade. Information about buy or sell trade.	✓	Int	1 - Dealing on own account (DEAL) 2 - Matched principal (MTCH) – (Not avalaible for OBOE Dublin)	Field 29 of ESMA and onshored UK RTS 22

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
					3 - Any other capacity (AOTC)	
For ARM, APA, OBOE	Quantity	Total transaction quantity	✓	{DECIMAL-18/17} {Integer} for OBOE		Field 30 of ESMA and onshored UK RTS 22
For ARM & APA	Quantity Notation	Indication as to whether the quantity is expressed in monetary unit, or nominal value	✓	int	1 - UNIT, 2 - MONE (Monetary Value), 3 - NMNL (Nominal Value)	
For ARM & APA	Quantity Currency	Currency in which the quantity is expressed.	+	{CURRENCYCODE_3} ISO 4217	ISO 4217 Currency code Currency in which the quantity is expressed. Only applicable if quantity is expressed as nominal or monetary value.	Field 31 of ESMA and onshored UK RTS 22
For ARM only	Derivative Notional Increase Decrease	Indication as to whether the transaction is an increase or decrease of notional of a derivative contract.	o	Int	Only for Derivatives 1 - Increase (INCR) 2 - Decrease (DECR)	Field 32 of ESMA and onshored UK RTS 22
For ARM, APA, OBOE	Price	Transaction Price	✓	{DECIMAL-18/17} OR {DECIMAL-11/10} OR {DECIMAL-18/13} OR {DECIMAL-18/4} For OBOE except Bonds {DECIMAL 18/17} for OBOE Bonds		Field 33 of ESMA and onshored UK RTS 22
For ARM & APA	Price Notation	Price type	+	Int	1 - 'MONE' – Monetary value 2 - 'PERC' – Percentage 3 - 'YIEL' – Yield 4 - 'BAPO' – Basis points. 5 - 'PNDG' – No price Pending 6 - 'NOAP'– Not Applicable	
For ARM & APA	Price Currency	Currency in which the price is expressed.	+	{CURRENCYCODE_3} ISO 4217	ISO 4217 Currency code Currency in which the price is expressed. Applicable if the price is expressed	Field 34 of ESMA and onshored UK RTS 22

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
					as monetary value.	
For ARM only	Net Amount	The net amount of the transaction means the cash amount which is paid by the buyer of the debt instrument upon the settlement of the transaction.	+	{DECIMAL-18/5}		Field 35 of ESMA and onshored UK RTS 22
For ARM, APA, OBOE	Venue	Identification of the venue where the transaction was executed.	✓	{ALPHANUM-4}	■ MIC (EEA) MIC Code ISO 10383 ■ MIC (Non EEA) MIC Code ISO 10383 ■ Only Dublin and Oslo (excepted Derivative) MICs accepted for OBOE Services ■ "XOFF" ■ "XXXX" ■ Systematic Internalisers MIC Code ISO 10383	Field 36 of ESMA and onshored UK RTS 22
For ARM only	Country Branch Membership	Code used to identify the country of a branch of the investment firm whose market membership was used to execute the transaction.	+	{COUNTRYCODE_2} ISO 3166	ISO country code 2	Field 37 of ESMA and onshored UK RTS 22
For ARM only	Up-Front Payment	Monetary value of any up-front payment received or paid by the seller.	+	{DECIMAL-18/5}	Only applicable when field "Derivative Notional Increase Decrease" is populated with any value or CFI = SC**** (CDS)	Field 38 of ESMA and onshored UK RTS 22
For ARM only	Up-Front Payment Currency	Currency of the up-front payment.	+	{CURRENCYCODE_3} ISO 4217	Only applicable when field "Up-Front Payment" is populated.	Field 39 of ESMA and onshored UK RTS 22

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
For ARM only	ComplexTradeComponentID	Identifier, internal to the reporting firm to identify all the reports related to the same execution of a combination of financial instruments in accordance with Article 12.	o	{ALPHANUM-35}	Only applicable if current original Order is related to the same execution of a combination of financial instruments (Strategy).	Field 40 of ESMA and onshored UK RTS 22
For ARM, APA, OBOE	ByPassControlFlag	Control indicator of the price, and LEI, volume and trading date time. Indicates whether a trade should bypass the price and/or ,LEI, or volume or trading date time controls controls or not.	✓	{ALPHANUM-5}	**Populate one or more, separated by a dash (ex: 1-2):** 0 - No 1 - Price (Not applicable for OBOE) 2 – LEI 4 – Volume (Not applicable for ARM and OBOE) 5 – TradingDateTime (Not applicable for ARM and OBOE)	
For APA & OBOE	DeferralIndicator	Indicates the subscriber's deferred publication wish.	✓	Int	0 - Immediate Publication 1 - Deferral 2 - Full Deferral period (Non Equity_D+2) 3 - Full Deferral period (Non Equity_No Volume) 4 - Full Deferral period (Non Equity_Agg Data) 5- Deferral (Oslo)	
For APA only	Quantity Notation In Measurement Unit	Indication of the type of measurement (e.g. number of units, nominal, monetary value, etc.) in which the transaction quantity is expressed.	✓	{ALPHANUM-25}	'TOCD' - tons of carbon dioxide equivalent or {ALPHANUM-25} otherwise	Field of RTS 2
For APA only	Quantity In Measurement Unit	Indication of	✓	{DECIMAL-18}		Field of RTS 2

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
		measurement units in which the quantity in measurement unit is expressed.				
For APA only	Notional Amount	Nominal amount or notional amount.	o	{DECIMAL-18}		Field of RTS 2
For APA only	Emission Allowance Type	This field is only applicable for emission allowances and emission allowance derivatives. Type of allowance of underlying.	✓	Int	Only applicable for emission allowances 0 - EUAE - EUA 1 - CERE - CER 2 - ERUE - ERU 3 - EUAA - EUAA 4 - OTHR - Other (for derivatives only)	Field of RTS 2
For APA only	Transaction to be cleared	Indicator of clearing process.	✓	Int	0 - 'False' - transaction not to be cleared 1 - 'True' - transaction to be cleared	Field of RTS 2
For APA only	Instrument ID Type	ISIN when 'ISIN' code known otherwise 'OTHR'.	✓	Int	0 - 'ISIN' 1 - 'OTHR'	
For ARM, APA, OBOE	Entering Counterpart	Code used to identify the counterpart of the transaction.	o	{ALPHANUM-20}	- LEI / Shortcode for OBOE - Participant ID otherwise	This field depends on Settlement flag
For APA and OBOE	Counter Party Type	Type of the entering counterpaty	o	Int	1 - LEI 2 - National ID 3 - Non-Euronext Member	
For OBOE only	EuronextTradeFlags	Dedicated OBOE Flags	o	{ALPHANUM-5}	Blank 1 - CP: 'Connected Party Trade' 2 - LT: 'Late Trade' 3 - SS: 'Special Settlement'4 NM, 5 VW, 6 DT, le reste ordre tableau 4 - NM: 'Not to Market' 5 - VW: 'VWAP Trade' 6 - DT: 'Derivative-related Trade' 7 - OT: 'Ordinary Trade'	

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
					8 - ON: 'Non-strandard Settlement' 9 - RE: 'Repo' 10 - OE: 'Exchange-granted Trade' 11 - OH: 'Other' 12 - OL: 'Odd Lot' 13 - OP: 'Package Transaction'	
For ARM, APA, OBOE	Business Unit	Free form text manually entered by the client – Custom Field.	o	{ALPHANUM-55}	No restriction	
For ARM, APA, OBOE	FreeText1	Free form text manually entered by the client – Custom Field.	o	{ALPHANUM-37}	No restriction	
For ARM & APA	FreeText2	Free form text manually entered by the client – Custom Field.	o	{ALPHANUM-37}	No restriction	
For ARM & APA	FreeText3	Free form text manually entered by the client – Custom Field.	o	{ALPHANUM-37}	No restriction	
For ARM & APA	FreeText4	Free form text manually entered by the client – Custom Field.	o	{ALPHANUM-37}	No restriction	
For ARM & APA	FreeText5	Free form text manually entered by the client – Custom Field.	o	{ALPHANUM-37}	No restriction	
For ARM, APA, OBOE	Security ID	Instrument identifier based on the value of the SecurityIDSource. please use the Euronext code for Dublin Instruments	+	{ISIN} Or {EURONEXT CODE} for OBOE	ISIN Code ISO 6166	Field 41 of ESMA and onshored UK RTS 22

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
For ARM & APA	Full Name	Full name of the financial instrument.	+	{ALPHANUM-350}	Full name of the financial instrument.	Field 42 of ESMA and onshored UK RTS 22
For ARM & APA	Classification Type	Taxonomy used to classify the financial instrument. A complete and accurate CFI code shall be provided.	+	{CFI_CODE}	CFI Code	Field 43 of ESMA and onshored UK RTS 22
For ARM & APA	Notional Currency 1	Currency in which the notional is denominated.	o	{CURRENCYCODE_3} ISO 4217	Currency code, currency in which the notional is denominated.	Field 44 of ESMA and onshored UK RTS 22
For ARM & APA	Notional Currency 2	Currency in which the notional is denominated.	o	{CURRENCYCODE_3}	Currency code, In the case of multi-currency or cross-currency swaps the currency in which leg 2 of the contract is denominated.	Field 45 of ESMA and onshored UK RTS 22
For ARM & APA	Price Multiplier	Number of units of the underlying instrument represented by a single derivatives contract.	+	{DECIMAL-18/17}	Number of units of the direct underlying instrument.	Field 46 of ESMA and onshored UK RTS 22
For ARM & APA	Underlying Instrument Type	This field corresponds to the type of Underlying used.	o	{INTEGER-1}	1 - 'OTHR' 2 - 'SWAP IN' 3 - 'SWAP OUT'	
For ARM & APA	Underlying Security ID	ISIN code of the underlying instrument.	o	{ISIN}	ISIN Code ISO 6166. Identification of the direct underlying instrument	Field 47 of ESMA and onshored UK RTS 22
For ARM & APA	Underlying Index Name	When the underlying is an index, the name of the Index.	+	{ALPHANUM-25}	■ INDEX Alphanumerical [4] ■ Alphanumerical [25] - (if the index name is not included in the {INDEX} list)	Field 48 of ESMA and onshored UK RTS 22

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
For ARM & APA	Underlying Instrument Term	In case the underlying is an index, the term of the index.	+	{INTEGER-3} + 4 DIGITS	■ Value - an integer number of up to 3 numerical digits ■ + Unit - a code where one of the following values should be populated: 'DAYS', 'WEEK', 'MNTH', 'YEAR'	Field 49 of ESMA and onshored UK RTS 22
For ARM only	Underlying Instrument Type2	This field corresponds to the type of Underlying used.	o	{INTEGER-1}	1 - 'OTHR' 2 - 'SWAP IN' 3 - 'SWAP OUT'	
For ARM only	Underlying Security ID2	ISIN code of the underlying instrument.	o	{ISIN}	ISIN Code ISO 6166. Identification of the direct underlying instrument	Field 47 of ESMA and onshored UK RTS 22
For ARM only	Underlying Index Name2	When the underlying is an index, the name of the Index.	+	{ALPHANUM-25}	■ INDEX Alphanumerical [4] ■ Alphanumerical [25] - (if the index name is not included in the {INDEX} list)	Field 48 of ESMA and onshored UK RTS 22
For ARM only	Underlying Instrument Term2	In case the underlying is an index, the term of the index.	+	{INTEGER-3} + 4 DIGITS	■ Value - an integer number of up to 3 numerical digits ■ + Unit - a code where one of the following values should be populated: 'DAYS', 'WEEK', 'MNTH', 'YEAR'	Field 49 of ESMA and onshored UK RTS 22
		⋮				
For ARM only	Underlying Instrument Type9	This field corresponds to the type of Underlying used.	o	{INTEGER-1}	1 - 'OTHR' 2 - 'SWAP IN' 3 - 'SWAP OUT'	
For ARM only	Underlying Security ID9	ISIN code of the underlying instrument.	o	{ISIN}	ISIN Code ISO 6166. Identification of the direct underlying instrument	Field 47 of ESMA and onshored UK RTS 22

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
For ARM only	Underlying Index Name9	When the underlying is an index, the name of the Index.	+	{ALPHANUM-25}	■ INDEX Alphanumerical [4] ■ Alphanumerical [25] - (if the index name is not included in the {INDEX} list)	Field 48 of ESMA and onshored UK RTS 22
For ARM only	Underlying Instrument Term9	In case the underlying is an index, the term of the index.	+	{INTEGER-3} + 4 DIGITS	■ Value - an integer number of up to 3 numerical digits ■ + Unit - a code where one of the following values should be populated: 'DAYS', 'WEEK', 'MNTH', 'YEAR'	Field 49 of ESMA and onshored UK RTS 22
For ARM & APA	Option Type	Indication as to whether the derivative contract is a call or a put.	o	{ALPHANUM-4}	If populated, only one of the following values can be populated: ■ "PUTO" ■ "CALL" ■ "OTHR"	Field 50 of ESMA and onshored UK RTS 22
For ARM & APA	Strike Price	price at which the holder will have to buy or sell the underlying instrument.	+	{DECIMAL-18/13}	Price at which the holder will have to buy or sell the underlying instrument.	Field 51 of ESMA and onshored UK RTS 22
For ARM & APA	Strike Price Notation	The manner in which the strike price is expressed.	+	Int	1 - 'MONE' - Monetary value 2 - 'PERC' - Percentage 3 - 'YIEL' - Yield 4 -'BAPO' - Basis points. 5 - 'PNDG' - No price Pending 6 - 'NOAP' - Not Applicable	
For ARM & APA	Strike Price Currency	Currency of the strike price.	o	{CURRENCYCODE_3} ISO 4217	Currency of the strike price.	Field 52 of ESMA and onshored UK RTS 22

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
For ARM & APA	Option Exercise Style	Indication as to whether the option may be exercised.	+	{ALPHANUM-4}	Only one of the following values can be populated ■ "AMER" - American ■ "ASIA" - Asian ■ "BERM" - Bermudan ■ "EURO" - European ■ "OTHR" - Other	Field 53 of ESMA and onshored UK RTS 22
For ARM & APA	Maturity Date	maturity date of the financial instrument.	+	{DATEFORMAT}	YYYY-MM-DD	Field 54 of ESMA and onshored UK RTS 22
For ARM & APA	Expiry Date	Expiry date of the financial instrument.	+	{DATEFORMAT}	YYYY-MM-DD	Field 55 of ESMA and onshored UK RTS 22
For ARM & APA	Delivery Type	Indication as to whether the transaction is settled physically or in cash.	+	{ALPHANUM-4}	If populated, only one of the following values can be populated: ■ "OPTN" Optional ■ "CASH" Cash ■ "PHYS" Physical	Field 56 of ESMA and onshored UK RTS 22
For ARM only	Investment Decision Within Firm Type		o	Int	1 - National ID 2 - Code for the algorithm	
For ARM only	Investment Decision Within Firm	Code used to identify the person or algorithm within the investment firm who is responsible for the investment decision.	+	{ALPHANUM-50}	{NATIONAL_ID} for Natural persons {ALPHANUM-50} for Algorithms	Field 57 of ESMA and onshored UK RTS 22
For ARM only	Investment Decision Within Firm National ID Type	Scheme Name Identifier	+	Int	1 - NIDN 2 - CCPT 3 - CONCAT	
For ARM only	Country Of Investor	Code used to identify the country of the branch of the investment firm for the person responsible for the	+	{COUNTRYCODE_2} ISO 3166	ISO 3166 country code * Only applicable when "Investment Decision within Firm" is not null * Applicable where a	Field 58 of ESMA and onshored UK RTS 22

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
		investment decision.			person is responsible for the investment decision and a national ID of a person was populated in “Investment Decision within Firm” field * Not applicable in case an algo ID was populated in “Investment Decision within Firm” field	
For ARM only	Execution Within Firm Type		o	Int	1 - National ID 2 - Code for the algorithm 3 - NORE	
For ARM only	Execution Within Firm	Code used to identify the person or algorithm within the investment firm who is responsible for the execution.	✓	{ALPHANUM-50}	{NATIONAL_ID} for Natural persons {ALPHANUM-50} for Algorithms NORE	Field 59 of ESMA and onshored UK RTS 22
For ARM only	Execution Within Firm National ID Type	Scheme Name Identifier	+	Int	1 - NIDN 2 - CCPT 3 - CONCAT	
For ARM only	Country Of Executor	Code used to identify the country of the branch of the investment firm for the person responsible for the execution of the transaction.	+	{COUNTRYCODE_2} ISO 3166	ISO 3166 country code * Mandatory where a person is responsible for the investment decision and a national ID of a person was populated in “Execution within Firm” field * Not applicable in case an algo ID was populated in “Execution within Firm” field	Field 60 of ESMA and onshored UK RTS 22

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
For ARM, APA, OBOE	Waiverindicator	Indication as to whether the transaction was executed under a pre-trade waiver in accordance with Articles 4 and 9 of EU and onshored UK Regulation 600/2014.	+	{ALPHANUM-25}	- 'Blank' 1 - 'RFPT' - Reference price (not available for OBOE) 2 - 'NLIQ' - Negotiated (liquid) 3 - 'OILQ' - Negotiated (illiquid) 4 - 'PRIC' - Negotiated (conditions) 5 - 'SIZE' - Above specified size (not available for OBOE) 6 - 'ILQD' - Illiquid instrument 7 - 'LIS' – Large in Scale	Field 61 of ESMA and onshored UK RTS 22
For ARM only	ShortSellingIndicator	A short sale concluded by an investment firm on its own behalf or on behalf of a client, as described in Article 11.	o	Int	If populated, only one of the following values can be populated: 0 - 'SESH', 1 - 'SSEX', 2 - 'SELL', 3 - 'UNDI'. Only applicable when the instrument is covered by EU and onshored UK Regulation 236/2012, and the seller is the investment firm or a client of the investment firm.	Field 62 of ESMA and onshored UK RTS 22

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
For ARM, APA, OBOE	OTCPostTradeIndicator	Indicator as to the type of transaction in accordance with Articles 20(3)(a) and 21(5)(a) of EU and onshored UK Regulation No 600/2014.	o	{ALPHANUM-25}	■ - ‘Blank’ 0 - BENC - Benchmark 1 - ACTX - Agency cross 2 - LRGS - Large in scale 3 - ILQD - Illiquid instrument 4 - SIZE - Above specified size 5 - CANC – Cancellation 6 - AMND - Amendment 7 - SDIV - Special Dividend 8 - RPRI - Price improvement *(Not applicable for OBOE)* 9 - DUPL - Duplicative *(Not applicable for OBOE)* 10 - TNCP - Not contributing to the price discovery process *(Not applicable for OBOE)* 11 - TPAC - Package 12 - XFPH - Exchange for Physical *(Not applicable for OBOE)*	Field 63 of ESMA and onshored UK RTS 22

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
For ARM only	CommodityDerivativeIndicator	Indication as to whether the transaction reduces risk in an objectively measurable way in accordance with Article 57 of Directive 2014/65/EU .	+	Int	Only applicable for commodity derivative transactions. If populated, only true or false values allowed 0 - False 1 - True	Field 64 of ESMA and onshored UK RTS 22
For ARM only	SecuritiesFinancingTransactionIndicator	**True** shall be populated where the transaction falls within the scope of activity but is exempted from reporting under [Securities Financing Transactions Regulation]. **False** shall be populated where the transaction does not fall within the scope of activity under [Securities Financing Transactions Regulation].	✓	Int	0 - False 1 - True	Field 65 of ESMA and onshored UK RTS 22
For ARM, APA & OTC Trade	Settlement Flag	If true the transaction will be cleared via Euronext OTC with clearing product. False if not subscribed to this product”	✓	Boolean	0 - False 1 - True	
For ARM, APA & OTC Trade	Client ID	Client ID.	+	{ALPHANUM-8}	No restriction	This field depends on Settlement flag

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
For ARM, APA & OTC Trade	Clearing Firm ID	Clearing firm Identification.	+	{ALPHANUM-8}	No restriction	This field depends on Settlement flag
For ARM, APA & OTC Trade	Guarantee Flag	This field indicates if the trade is guaranteed or not (for clearing purposes).	+	Int	1 - Cleared but not Guaranteed by a Clearing House 2 - Cleared and Guaranteed by a Clearing House	This field depends on Settlement flag
For ARM, APA & OTC Trade	Settlement Period	This field indicates the settlement delay in trading days, from 0 to 30 days.	+	Num	No restriction	This field depends on Settlement flag
For ARM, APA & OTC Trade	Account Number	This field indicates the account type for which the transaction is entered.	+	{ALPHANUM- 14}	No restriction	This field depends on Settlement flag
For ARM, APA & OTC Trade	Account Type	This field indicates the account type for which the transaction is entered.	+	Int	1 - Client 2 - House 3 - Retail Liquidity Provider 4 - RO 6 - Liquidity Provider 7 - Related Party 8 - Structured Product Market Maker	This field depends on Settlement flag
For ARM only	Buyer Identification Type	Format used for the acquirer/disposer of the financial instrument.	✓	Int	1 - LEI 2 - MIC 3 - ISO 3166 + {NATIONAL_ID} for a natural person 4 - 'INTC'	
For ARM only	Buyer Identification Code	Code used to identify the acquirer/disposer of the financial instrument.	✓	{LEI} {MIC} {NATIONAL_ID} «INTC»	* LEI * MIC * ISO 3166 + {NATIONAL_ID} for a natural person * 'INTC'	Field 7 of ESMA and onshored UK RTS 22
For ARM only	Buyer National ID Type	Scheme Name Identifier	✓	Int	1 - NIDN 2 - CCPT 3 - CONCAT	

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
For ARM only	Buyer Country Branch	country of the branch that received the order from the client or made an investment decision for a client.	+	{COUNTRYCODE_2} ISO 3166	ISO 3166 country code	Field 8 of ESMA and onshored UK RTS 22
For ARM only	Buyer First Name	Full first name(s) of the buyer/seller.	+	{ALPHANUM-140}	Only applicable if the client is a natural person. Not populated if "Client Identification Code" is populated with a LEI or 'INTC'. In case of more than one first name, all names shall be included in this field separated by a comma.	Field 9 of ESMA and onshored UK RTS 22
For ARM only	Buyer Surname	Full surname(s) of the Buyer/Seller.	+	{ALPHANUM-140}	Only applicable if the client is a natural person. Not populated if "Client Identification Code" is populated with a LEI or 'INTC'. In case of more than one surname, all surnames shall be included in this field separated by a comma.	Field 10 of ESMA and onshored UK RTS 22
For ARM only	Buyer BirthDate	Birth Date of the client natural person.	+	{DATEFORMAT}	Only applicable if the client is a natural person. Not populated if "Client Identification Code" is populated with a LEI or 'INTC'	Field 11 of ESMA and onshored UK RTS 22

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
					else YYYY-MM-DD	
For ARM only	Buyer Identification Type2	Scheme Name Identifier	+	Int	1 - LEI 2 - MIC 3 - ISO 3166 + {NATIONAL_ID} for a natural person 4 - 'INTC'	
For ARM only	Buyer Identification Code2	Code used to identify the acquirer/disposer of the financial instrument.		{LEI} {MIC} {NATIONAL_ID} «INTC»	* LEI * MIC * ISO 3166 + {NATIONAL_ID} for a natural person * 'INTC'	Field 16 of ESMA and onshored UK RTS 22
For ARM only	Buyer National ID Type2	Scheme Name Identifier.	✓	Int	1 - NIDN 2 - CCPT 3 - CONCAT	
For ARM only	Buyer Country Branch2	country of the branch that received the order from the client or made an investment decision for a client.	+	{COUNTRYCODE_2} ISO 3166	ISO 3166 country code	Field 17 of ESMA and onshored UK RTS 22
For ARM only	Buyer First Name2	Full first name(s) of the buyer/seller.	+	{ALPHANUM-140}	Only applicable if the client is a natural person. Not populated if "Client Identification Code" is populated with a LEI or 'INTC'. In case of more than one first name, all names shall be included in this field separated by a comma.	Field 18 of ESMA and onshored UK RTS 22
For ARM only	Buyer Surname2	Full surname(s) of the Buyer/Seller.	+	{ALPHANUM-140}	Only applicable if the client is a natural person. Not populated if "Client	Field 19 of ESMA and onshored UK RTS 22

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
					Identification Code" is populated with a LEI or 'INTC'. In case of more than one surname, all surnames shall be included in this field separated by a comma.	
For ARM only	Buyer BirthDate2	Birth Date of the client natural person.	+	{DATEFORMAT}	Only applicable if the client is a natural person. Not populated if "Client Identification Code" is populated with a LEI or 'INTC' else YYYY-MM-DD	Field 20 of ESMA and onshored UK RTS 22
For ARM only	Seller Identification Type	Format used for the acquirer/disposer of the financial instrument.	+	Int	1 - LEI 2 - MIC 3 - ISO 3166 + {NATIONAL_ID} for a natural person 4 - 'INTC'	
For ARM only	Seller Identification Code	Code used to identify the acquirer/disposer of the financial instrument.	+	{LEI} {MIC} {NATIONAL_ID} «INTC»	* LEI * MIC * ISO 3166 + {NATIONAL_ID} for a natural person * 'INTC'	Field 7 of ESMA and onshored UK RTS 22
For ARM only	Seller National ID Type	Scheme Name Identifier.	✓	Int	1 - NIDN 2 - CCPT 3 - CONCAT	
For ARM only	Seller Country Branch	country of the branch that received the order from the client or made an investment decision for a client.	+	{COUNTRYCODE_2} ISO 3166	ISO 3166 country code	Field 8 of ESMA and onshored UK RTS 22

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
For ARM only	Seller First Name	Full first name(s) of the buyer/seller.	+	{ALPHANUM-140}	Only applicable if the client is a natural person. Not populated if "Client Identification Code" is populated with a LEI or 'INTC'. In case of more than one first name, all names shall be included in this field separated by a comma.	Field 9 of ESMA and onshored UK RTS 22
For ARM only	Seller Surname	Full surname(s) of the Buyer/Seller.	+	{ALPHANUM-140}	Only applicable if the client is a natural person. Not populated if "Client Identification Code" is populated with a LEI or 'INTC'. In case of more than one surname, all surnames shall be included in this field separated by a comma.	Field 10 of ESMA and onshored UK RTS 22
For ARM only	Seller BirthDate	Birth Date of the client natural person.	+	{DATEFORMAT}	Only applicable if the client is a natural person. Not populated if "Client Identification Code" is populated with a LEI or 'INTC' else YYYY-MM-DD	Field 11 of ESMA and onshored UK RTS 22
For ARM only	Seller Identification Type2	Scheme Name Identifier	+	Int	1 - LEI 2 - MIC 3 - ISO 3166 + {NATIONAL_ID} for a natural	

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
					person 4 - 'INTC’	
For ARM only	Seller Identification Code2	Code used to identify the acquirer/disposer of the financial instrument.	+	{LEI} {MIC} {NATIONAL_ID} «INTC»	* LEI * MIC * ISO 3166 + {NATIONAL_ID} for a natural person * 'INTC’	Field 16 of ESMA and onshored UK RTS 22
For ARM only	Seller National ID Type2	Scheme Name Identifier	✓	Int	1 - NIDN 2 - CCPT 3 - CONCAT	
For ARM only	Seller Country Branch2	country of the branch that received the order from the client or made an investment decision for a client.	+	{COUNTRYCODE_2} ISO 3166	ISO 3166 country code	Field 17 of ESMA and onshored UK RTS 22
For ARM only	Seller First Name2	Full first name(s) of the buyer/seller.	+	{ALPHANUM-140}	Only applicable if the client is a natural person. Not populated if "Client Identification Code" is populated with a LEI or 'INTC'. In case of more than one first name, all names shall be included in this field separated by a comma. Only in capital letters	Field 18 of ESMA and onshored UK RTS 22
For ARM only	Seller Surname2	Full surname(s) of the Buyer/Seller.	+	{ALPHANUM-140}	Only applicable if the client is a natural person. Not populated if "Client Identification Code" is populated with a LEI or 'INTC'. In case of more than one	Field 19 of ESMA and onshored UK RTS 22

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
					surname, all surnames shall be included in this field separated by a comma. Only in capital letters	
For ARM only	Seller BirthDate2	Birth Date of the client natural person.	+	{DATEFORMAT}	Only applicable if the client is a natural person. Not populated if "Client Identification Code" is populated with a LEI or 'INTC' else YYYY-MM-DD	Field 20 of ESMA and onshored UK RTS 22
For ARM only	Buyer Decision Maker Type	Format used for the acquirer/disposer of the financial instrument.	+	Int	1 - LEI 2 - ISO 3166 + {NATIONAL_ID} for a natural person	
For ARM only	Buyer Decision Maker Code	Code used to identify the person who makes the decision to acquire/sell the financial instrument.	+	{ALPHANUM-35}	Only applicable if the decision maker acts under a power of representation of a client:discretionary mandate, power of attorney. * LEI or * ISO 3166 + {NATIONAL_ID} for a natural person	Field 12 of ESMA and onshored UK RTS 22
For ARM only	Buyer Decision Maker National ID Type	Scheme Name Identifier	✓	Int	1 - NIDN 2 - CCPT 3 - CONCAT	
For ARM only	Buyer Decision Maker First Name	Full first name(s) of the buyer/seller.	+	{ALPHANUM-140}	Only applicable if the decision maker acts under a power of representation: discretionary mandate, power of	Field 13 of ESMA and onshored UK RTS 22

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
					attorney. And if the decision maker is related to a natural person. In case of more than one first name, all names shall be included in this field separated by a comma.	
For ARM only	Buyer Decision Maker Surname	Full Surname(s) of the buyer/seller .	+	{ALPHANUM-140}	Only applicable if the decision maker acts under a power of representation: discretionary mandate, power of attorney. And if the decision maker is related to a natural person. In case of more than one surname, all surnames shall be included in this field separated by a comma.	Field 14 of ESMA and onshored UK RTS 22
For ARM only	Buyer Decision Maker BirthDate	Birth Date of the decision maker.	+	{DATEFORMAT}	Only applicable if the decision maker acts under a power of representation: discretionary mandate, power of attorney. And if the decision maker is related to a natural person YYYY-MM-DD	Field 15 of ESMA and onshored UK RTS 22
For ARM only	Buyer Decision Maker Type2	Format used for the acquirer/disposer of the	+	Int	1 - LEI 2 - ISO 3166 + {NATIONAL_ID} for a	

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
		financial instrument.			natural person	
For ARM only	Buyer Decision Maker Code2	Code used to identify the person who makes the decision to acquire/sell the financial instrument.	+	{ALPHANUM-35}	Only applicable if the decision maker acts under a power of representation of a client:discretionary mandate, power of attorney. * LEI * ISO 3166 + {NATIONAL_ID} for a natural person	Field 21 of ESMA and onshored UK RTS 22
For ARM only	Buyer Decision Maker National ID Type2	Scheme Name Identifier	✓	Int	1 - NIDN 2 - CCPT 3 - CONCAT	
For ARM only	Buyer Decision Maker First Name2	Full first name(s) of the buyer/seller.	+	{ALPHANUM-140}	Only applicable if the decision maker acts under a power of representation: discretionary mandate, power of attorney. And if the decision maker is related to a natural person. In case of more than one first name, all names shall be included in this field separated by a comma. Only in capital letters	Field 22 of ESMA and onshored UK RTS 22
For ARM only	Buyer Decision Maker Surname2	Full Surname(s) of the buyer/seller.	+	{ALPHANUM-140}	Only applicable if the decision maker acts under a power of representation: discretionary mandate, power of attorney.	Field 23 of ESMA and onshored UK RTS 22

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
					And if the decision maker is related to a natural person. In case of more than one surname, all surnames shall be included in this field separated by a comma. Only in capital letters	
For ARM only	Buyer Decision Maker BirthDate2	Birth Date of the decision maker.	+	{DATEFORMAT}	Only applicable if the decision maker acts under a power of representation: discretionary mandate, power of attorney. And if the decision maker is related to a natural person YYYY-MM-DD	Field 24 of ESMA and onshored UK RTS 22
For ARM only	Seller Decision Maker Type	Format used for the acquirer/disposer of the financial instrument.	✓	Int	1 - LEI 2 - ISO 3166 + {NATIONAL_ID} for a natural person	
For ARM only	Seller Decision Maker Code	Code used to identify the person who makes the decision to acquire/sell the financial instrument.	✓	{ALPHANUM-35}	Only applicable if the decision maker acts under a power of representation of a client:discretionary mandate, power of attorney. * LEI * ISO 3166 + {NATIONAL_ID} for a natural person	Field 12 of ESMA and onshored UK RTS 22

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
For ARM only	Seller Decision Maker National ID Type	Scheme Name Identifier	✓	Int	1 - NIDN 2 - CCPT 3 - CONCAT	
For ARM only	Seller Decision Maker First Name	Full first name(s) of the buyer/seller.	+	{ALPHANUM-140}	Only applicable if the decision maker acts under a power of representation: discretionary mandate, power of attorney. And if the decision maker is related to a natural person. In case of more than one first name, all names shall be included in this field separated by a comma.	Field 13 of ESMA and onshored UK RTS 22
For ARM only	Seller Decision Maker Surname	Full Surname(s) of the buyer/seller.	+	{ALPHANUM-140}	Only applicable if the decision maker acts under a power of representation: discretionary mandate, power of attorney. And if the decision maker is related to a natural person. In case of more than one surname, all surnames shall be included in this field separated by a comma.	Field 14 of ESMA and onshored UK RTS 22
For ARM only	Seller Decision Maker BirthDate	Birth Date of the decision maker.	+	{DATEFORMAT}	Only applicable if the decision maker acts under a power of representation: discretionary mandate,	Field 15 of ESMA and onshored UK RTS 22

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
					power of attorney. And if the decision maker is related to a natural person YYYY-MM-DD	
For ARM only	Seller Decision Maker Type2	Format used for the acquirer/disposer of the financial instrument.	+	Int	1 - LEI 2 - ISO 3166 + {NATIONAL_ID} for a natural person	
For ARM only	Seller Decision Maker Code2	Code used to identify the person who makes the decision to acquire/sell the financial instrument.	+	{ALPHANUM-35}	Only applicable if the decision maker acts under a power of representation of a client:discretionary mandate, power of attorney. * LEI * ISO 3166 + {NATIONAL_ID} for a natural person	Field 21 of ESMA and onshored UK RTS 22
For ARM only	Seller Decision Maker National ID Type2	Scheme Name Identifier	✓	Int	1 - NIDN 2 - CCPT 3 - CONCAT	
For ARM only	Seller Decision Maker First Name2	Full first name(s) of the buyer/seller.	+	{ALPHANUM-140}	Only applicable if the decision maker acts under a power of representation: discretionary mandate, power of attorney. And if the decision maker is related to a natural person. In case of more than one first name, all names shall be included in this field separated by a comma.	Field 22 of ESMA and onshored UK RTS 22

Subscription	Column names	Short Description	Rq	Format	Values	ESMA/ FCA Field
For ARM only	Seller Decision Maker Surname2	Full Surname(s) of the buyer/seller.	+	{ALPHANUM-140}	Only applicable if the decision maker acts under a power of representation: discretionary mandate, power of attorney. And if the decision maker is related to a natural person. In case of more than one surname, all surnames shall be included in this field separated by a comma.	Field 23 of ESMA and onshored UK RTS 22
For ARM only	Seller Decision Maker BirthDate2	Birth Date of the decision maker.	+	{DATEFORMAT}	Only applicable if the decision maker acts under a power of representation: discretionary mandate, power of attorney. And if the decision maker is related to a natural person YYYY-MM-DD	Field 24 of ESMA and onshored UK RTS 22
For OBOE only	Settlement Date	Indicates the settlement date of the trade.	O	{DATEFORMAT}	YYYY-MM-DD	
For OBOE only	Repo Settlement Date	Indicates the repo settlement date of the trade.	O	{DATEFORMAT}	YYYY-MM-DD	

4.11.3 Upload response data

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members
OBOE	Off Book On Exchange Trade Reporting

This function returns the status of the file reception.

Response Data Parameters:

Name	Type	Data Type	Required	Description
Code	Attribute	Int	Yes	Status of the function. 200 - OK, 600 - FAILED
Data	Element	Sequence of data	Yes	Detailed description below

Sequence of data

Name	Type	Data Type	Required	Description
Type	Attribute	String	Yes	Name of statistics: UploadedFileStatus
Filename	Attribute	String	Yes	Csv file name
Size	Attribute	Int	Yes	Csv file size
Status	Attribute	String	Yes	Flag W
Tid	Attribute	String	Yes	Treatment ID
UploadedDate	Attribute	Date	Yes	YYYY-MM-DDTHH:MM:SS

Example of response data for the Upload function:

In case of a successful upload:


```
{
    “code”: 200,
    “data”: [   {
    “type”: “uploadedFileStatus”,
    “fileName”: “test.csv”,
    “size”: 8642,
    “status”: “W”,
    “tid”: 261,
    “uploadedDate”: “2017-06-28T09:14:35”
  }],
    “msg”: “OK”,
    “recordCount”: 1
}
```

In case of a Failed upload:

{
“code”: 600,
“data”: [{
“type”: “uploadedFileStatus”,
“serverMsg”: “File [oversized_csv.csv] Invalid file size, maximum upload size is 10 MB.”,
“size”: 0,
“status”: “”,
“tid”: 0
}],
“msg”: “FAILED”,
“recordCount”: 1
}

200 - Success
600 - Failed

Technical use & examples: Click here

4.11.4 GetUploaded

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members
OBOE	Off Book On Exchange Trade Reporting

This function returns the list of error messages at a transaction level after following the upload of a csv file.

Function:

Function name:	Getupload
Request EndPoint:	/SaturnWebServices/rest/files/getuploaded
Method:	GET

4.11.5 GetUpload response data

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members
OBOE	Off Book On Exchange Trade Reporting

Response Data Parameters:

Name	Type	Data Type	Required	Description
Code	Attribute	Int	Yes	Status of the function. 200 - OK
Data	Element	Sequence of data	Yes	Detailed description below

Sequence of data

Name	Type	Data Type	Required	Description
Type	Attribute	String	Yes	Name of statistics: UploadedFileStatus
Filename	Attribute	string	Yes	Csv file name
Msg	Attribute	Int	Yes	Detailed message by trade and column
Size	Attribute	String	Yes	Filename size
status	Attribute	String	Yes	E
Tid	Attribute	Int		Treatment ID sequential number
UploadedDate	Attribute	date	Yes	YYYY-MM-DDTHH:MM:SS

Example of the GetUploaded Response function:

“code”: 200,
“data”: [
{
“type”: “UploadedFileStatus”,
“fileName”: “test_3123.csv”,
“msg”: [
“line[3] Invalid Argument for: SIDE”,
“line[4] field [ACTION] Unknown action type”,
“line[5] Invalid Argument for: TRADEREF”,
“line[6]ERROR: Data too long for column ‘TRADEID’ at row 1”,
“line[9]Invalid argument for [INVESTMENTFIRMDIRECTIVEINDICATOR] with value [M] of type [5]reason: stoi”,
“line[12]Invalid argument for [TRANSMISSIONOFORDERINDICATOR] with value [M] of type [5]reason: stoi”,
“line[13] Invalid Argument for: TRADEREF”,
“line[14] Invalid Argument for: SIDE”,
“line[15]Invalid argument for [TRADINGDATETIME] with value [hhhh] of type [9]reason: Wrong timestamp format, should be YYYY-MM-DDThh:mm:ss.ddddddZ”,
“line[16]Invalid argument for [TRADINGCAPACITY1] with value [MM] of type [5]reason: stoi”,
“line[17]Invalid argument for [VOLUME] with value [mmm] of type [4]reason: stod”,
“line[18]ERROR: Data too long for column ‘QUANTITYCURRENCY’ at row 1”,
“line[20]Invalid argument for [TRADEPRICE] with value [mmm] of type [4]reason: stod”,
“line[22] Invalid Argument for: SIDE”,
“line[35] field [Instrument ID] is required.”,
“line[107] Invalid Argument for: SIDE”

],
"size": 50386,
"status": "E",
"tid": 295,
"uploadedDate": "2017-06-28T15:34:27"
},

Possible returned **status** codes:

200 - OK
600 - FAILED

4.11.6 GetUploadedfiles

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members
OBOE	Off Book On Exchange Trade Reporting

This function returns the list of error messages at a transaction level after following the upload of a csv file. It also gives the possibility to filter results.

Function:

Function name: Getuploadedfiles
Request EndPoint: /SaturnWebServices/rest/files/getuploadedfiles
Method: POST

It is recommended to set a "Limit" and "offset" value to avoid retrieve all files from the database. Please note that **limit** and **offset** are defined at request end Point level. The **limit** value is used to retrieve a maximum number of files and the **offset** value is used to retrieve files from a specific starting point.

Example: /SaturnWebServices/rest/files/getuploadedfiles?limit=15&offset=0

limit=15&offset=0, begin from the first files (offset) and take the 15 following files (limit)

Request Body:

This endpoint accepts a request body in one of the following formats:

1. application/json;
2. application/xml.

Please note that FIX format will be available in a later version.

Request Parameters

Name	Type	Data Type	Required	Description
FilterList	Element	Sequence of FilterList	Yes	Detail of request (treatment ID, sort..)
Offset	Attribute	Int	Yes	Initial number = 0
Limit		Int	Yes	Number of retrieved files

Sequence of filterList

Name	Type	Data Type	Required	Description
Name	Attribute	String	Yes	Type of request: tid (treatment ID), status
Value	Attribute	String	Yes	status of trade
Operator	Attribute	String	Yes	EQ
Type	Attribute	String	Yes	Type of report (transaction report)
Sort	Attribute	string	Yes	DESC or ASC (descending or ascending)

Example of Getuploadedfiles function:


```
{
 "filterList": [
  {
   "name": "status",
   "value": "W",
   "operator": "EQ"
  }
 ]
}
```


4.11.7 GetUploadfiles response data

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members
OBOE	Off Book On Exchange Trade Reporting

GetUploadfiles ResponseData Parameters:

Name	Type	Data Type	Required	Description
code	Attribute	Int	Yes	Status of the function. 200 - success
data	Element	Sequence of data	Yes	Detailed description below

Name	Type	Data Type	Required	Description
Msg	Attribute	Sequence of data	Yes	Status - Success or failed
Recordcount	Attribute	Sequence of data	Yes	Number of retrieved files

Sequence of data

Name	Type	Data Type	Required	Description
Columns details	Attribute	List	Yes	block of files with all columns populated in the database

Example of Getuploadedfiles Response function:


```
{
  "code": 200,
  "data": [  {
    "type": "uploadedFileStatus",
    "fileName": "ShortLongCodes_20171208_12345678_1_06.dat",
    "msg": "Line [2] [sShortCode][1040] Value already exists\n",
    "size": 89,
    "status": "K",
    "tid": 1800,
    "uploadedDate": "2018-01-03T13:28:34"
  }],
  "msg": "OK",
  "recordCount": 3
}
```


4.11.8 Rest API Return Upload Code

ALL	Function applying to all users

Trade Status Value	Status	Upload Status	Comment
W	Saturn status	Working	Uploaded file sent and currently under processing.
O	Saturn status	OK	Uploaded file processed successfully.
E	Saturn status	Error	Uploaded file processed, but with errors raised.
K	Saturn status	KO	(ONLY FOR SLC) Uploaded file processed, but with error raised.

5. SATURN REFERENTIAL

5.1 INSTRUMENT REFERENTIAL

5.1.1 Retrieve Instruments Referential

This function should be used by the client to retrieve instruments referential from Saturn.

Function:

Function name: get
Request EndPoint: /SaturnWebServices/rest/referentials/instruments/get
Method: POST

It is recommended to set a “limit” and “offset” value to avoid retrieve all referential from the database. Please note that **limit** and **offset** are defined at request end Point level. The **limit** value is used to retrieve a maximum number of instruments and the **offset** value is used to retrieve instruments from a specific starting point.

Example: /SaturnWebServices/rest/referentials/instruments/get?limit=15&offset=0

limit=15&offset=0, begin from the first instrument (offset) and take the 15 following instruments (limit)

Request Body:

This endpoint accepts a request body in one of the following formats:

1. application/json;
2. application/xml.

Please note that FIX format will be available in a later version.

Request Parameters

Name	Type	Data Type	Required	Description
FilterList	Element	Sequence of FilterList	Yes	Detail of request (treatment ID, sort..)
Offset	Attribute	Int	Yes	Initial number = 0
Limit		Int	Yes	Number of retrieved trades

Sequence of filterList

Name	Type	Data Type	Required	Description
Name	Attribute	String	Yes	Attribute name
Value	Attribute	String	Yes	Attribute value
Operator	Attribute	String	Yes	EQ, NEQ, GT, GE…
Type	Attribute	String	Yes	Type of report

Name	Type	Data Type	Required	Description
Sort	Attribute	string	Yes	DESC or ASC (descending or ascending)

Example of Get Instruments function:


```
{
 "filterList":
 [
  {
    "name": "isin",
    "value": "A%",
    "operator": "LK"
  }
 ]
}
```


5.1.2 Retrieve Instruments Referential Response

Retrieve Instruments Referential ResponseData Parameters:

Name	Type	Data Type	Required	Description
code	Attribute	Int	Yes	Status of the function. 200 - success
data	Element	Sequence of data	Yes	Detailed description below
Msg	Attribute	Sequence of data	Yes	Status – Success or failed
Recordcount	Attribute	Sequence of data	Yes	Number of retrieved instruments

Sequence of data

Name	Type	Data Type	Required	Description
Columns details	Attribute	List	Yes	block of information with all columns populated in the database

Example of Retrieve Instruments Referential Response function:


```
{
  "code": 200,
  "data": [  {
    "type": "instrument",
    "amr": "XXXXXXXXXXXXXXX",
    "cfi": "CIOXXS",
    "currency": "EUR",
    "euronextcode": "ANN8783Q1032",
    "ideleted": 0,
    "isin": "ANN8783Q1032",
    "mic": "XAMS",
    "symbol_Index": "1127924"
  }],
  "msg": "success",
  "recordCount": 373
```

}

5.2 LEI REFERENTIAL

5.2.1 Retrieve LEI Referential

This function should be used by the client to retrieve LEI referential from Saturn.

Function:

Function name: get
Request EndPoint: /SaturnWebServices/rest/LeiResource/getFiltredLeis
Method: POST

It is recommended to set a "limit" and "offset" value to avoid retrieve all referential from the database. Please note that **limit** and **offset** are defined at request end Point level. The **limit** value is used to retrieve a maximum number of LEIs and the **offset** value is used to retrieve LEIs from a specific starting point.

Example: /SaturnWebServices/rest/LeiResource/getFiltredLeis?limit=15&offset=0

limit=15&offset=0, begin from the first LEI (offset) and take the 15 following LEIs (limit)

Request Body:

This endpoint accepts a request body in one of the following formats:

1. application/json;
2. application/xml.

Please note that FIX format will be available in a later version.

Request Parameters

Name	Type	Data Type	Required	Description
FilterList	Element	Sequence of FilterList	Yes	Detail of request (treatment ID, sort..)
Offset	Attribute	Int	Yes	Initial number = 0
Limit		Int	Yes	Number of retrieved LEIs

Sequence of filterList

Name	Type	Data Type	Required	Description
Name	Attribute	String	Yes	Attribute name
Value	Attribute	String	Yes	Attribute value
Operator	Attribute	String	Yes	EQ, NEQ, GT, GE…
Type	Attribute	String	Yes	Type of report
Sort	Attribute	string	Yes	DESC or ASC (descending or ascending)

Example of Get LEI function:


```
{
 "filterList": [
  {
   "name": "leicode",
   "value": "5493004LSLQHS36N0254",
   "operator": "LK"
  }
 ]
}
```


5.2.2 Retrieve LEI Referential Response

Retrieve Instruments Referential ResponseData Parameters:

Name	Type	Data Type	Required	Description
code	Attribute	Int	Yes	Status of the function. 200 - success
data	Element	Sequence of data	Yes	Detailed description below
Msg	Attribute	Sequence of data	Yes	Status – Success or failed
Recordcount	Attribute	Sequence of data	Yes	Number of retrieved LEis

Sequence of data

Name	Type	Data Type	Required	Description
Columns details	Attribute	List	Yes	block of information with all columns populated in the database

Example of Retrieve LEI Referential Response function:


```
{
  "code": 200,
  "msg": "success",
  "recordCount": 1387981,
  "data": [
    {
      "tid": 1,
      "leicode": "5493004LSLQHS36N0254",
      "leiname": "Center Pointe Associates, L.P.",
      "entitystatus": 1,
      "registrationstatus": 3,
      "initialregistrationdate": "2018-01-18T11:56:55Z",
      "lastupdatedate": "2018-01-18T13:56:58Z"
    }
  ]
}
```

5.3 MIC REFERENTIAL

5.3.1 Retrieve MIC Referential

This function should be used by the client to retrieve MIC (Market Identifier Code) referential from Saturn.

Function:

Function name: get
Request EndPoint: /SaturnWebServices/rest/Mic/get
Method: POST

It is recommended to set a "limit" and "offset" value to avoid retrieve all referential from the database. Please note that **limit** and **offset** are defined at request end Point level. The **limit** value is used to retrieve a maximum number of MICs and the **offset** value is used to retrieve MICs from a specific starting point.

Example: /SaturnWebServices/rest/Mic/get?limit=15&offset=0

limit=15&offset=0, begin from the first MIC (offset) and take the 15 following MICs (limit)

Request Body:

This endpoint accepts a request body in one of the following formats:

1. application/json;
2. application/xml.

Please note that FIX format will be available in a later version.

Request Parameters

Name	Type	Data Type	Required	Description
FilterList	Element	Sequence of FilterList	Yes	Detail of request (treatment ID, sort..)
Offset	Attribute	Int	Yes	Initial number = 0
Limit		Int	Yes	Number of retrieved MICs

Sequence of filterList

Name	Type	Data Type	Required	Description
Name	Attribute	String	Yes	Attribute name
Value	Attribute	String	Yes	Attribute value
Operator	Attribute	String	Yes	EQ, NEQ, GT, GE…
Sort	Attribute	string	Yes	DESC or ASC (descending or ascending)

Example of Get MIC function:

{

```
 "filterList": [
  {
   "name": "cmic",
   "value": "XPAR",
   "operator": "EQ"
  }
 ]
}
```


5.3.2 Retrieve MIC Referential Response

Retrieve Instruments Referential ResponseData Parameters:

Name	Type	Data Type	Required	Description
code	Attribute	Int	Yes	Status of the function. 200 - success
data	Element	Sequence of data	Yes	Detailed description below
Msg	Attribute	Sequence of data	Yes	Status – Success or failed
Recordcount	Attribute	Sequence of data	Yes	Number of retrieved MICs

Sequence of data

Name	Type	Data Type	Required	Description
Columns details	Attribute	List	Yes	block of information with all columns populated in the database

Example of Retrieve MIC Referential Response function:


```
{
  "code": 200,
  "msg": "success",
  "recordCount": 1,
  "data": [
    {
      "tid": 77,
      "cplcot": "025",
      "cmic": "XPAR",
      "ilocal": 1,
      "country": "FRA",
      "ieea": 1,
      "lmic": "Euronext Paris",
      "isi": 0
    }
  ]
```

6. RETRIEVE CLEARING DECLARATIONS

6.1 GETTXCLEARINGOPTIONCOUNTERPARTAWAITING

Function:

Function name: getTxClearingOptionCounterpartAwaiting
Request EndPoint: /SaturnWebServices/rest/transactionReports/getTxClearingOptionCounterpartAwaiting
Method: POST

This service will enable a Participant to get the list of all its the declarations (ARM / APA) where counterparts are waiting for the Participant to do the matching declarations from their side. That means that this service will return a list of transactions (ARM) / publications (APA) where:

- the LEI of the Participant is used in the enteringcounterpart of the transaction
- the status of the transaction is 8 (Awaiting Matching)
- Type
- Account Number
- Account Type
- Status
- Clearing Firm ID
- ClientID
- Errors
- Executing Firm
- Trade Reference
- Side
- Transaction Reporting APA Indicator (1: ARM Only, 2: APA Only, 3: ARM & APA, 4: Clearing Only)
- Security ID
- Venue
- Volume
- Trade Price
- flag isettlement
- flag iguarantee
- Settlement Period
- Entering Counterpart
- Internal
- Price Currency
- Trading Date Time

Use of this service can be done without any filtering or by filtering one or more of these fields: traderef, side, securityid, volume, tradeprice, iguarantee, settlementperiod.

Request Body:

This endpoint accepts a request body in one of the following formats:

1. application/json;
2. application/xml.

Please note that FIX format will be available in a later version.

Request Parameters

Name	Type	Data Type	Required	Description
FilterList	Element	Sequence of FilterList	Yes	Detail of request (treatment ID, sort..)
Offset	Attribute	Int	Yes	Initial number = 0
Limit		Int	Yes	Number of retrieved trades

Sequence of filterList

Name	Type	Data Type	Required	Description
Name	Attribute	String	Yes	Type of request: tid (treatment ID), status
Value	Attribute	String	Yes	status of trade
Operator	Attribute	String	Yes	EQ
Type	Attribute	String	Yes	Type of report (transaction report)
Sort	Attribute	string	Yes	DESC or ASC (descending or ascending)

Example of getTxClearingOptionCounterpartAwaiting function:


```
{
"filterList":
 [
  {"name": "securityid",
   "value": "AOAGA150902900P",
   "operator": "EQ"
  }
 ]
}
```


6.2 GETTXCLEARINGOPTIONCOUNTERPARTAWAITING RESPONSE

getTxClearingOptionCounterpartAwaiting ResponseData Parameters:

Name	Type	Data Type	Required	Description
code	Attribute	Int	Yes	Status of the function. 200 - success
data	Element	Sequence of data	Yes	Detailed description below
Msg	Attribute	Sequence of data	Yes	Status - Success or failed
Recordcount	Attribute	Sequence of data	Yes	Number of retrieved trades

Sequence of data

Name	Type	Data Type	Required	Description
Columns details	Attribute	List	Yes	block of transactions with all columns populated in the database

Example of getTxClearingOptionCounterpartAwaiting Response function:


```
{
  "code": 200,
  "data": [
    {
      "type": "transactionsFromCounterpart",
      "enteringcounterpart": "MADTESTLEI4444444444",
      "iguarantee": 1,
      "isettlement": 1,
      "securityid": "AOAGA150902900P",
      "settlementperiod": 2,
      "side": 3,
      "status": 8,
      "tradeprice": 847809.42059,
      "traderef": "TRADEREFERENCEODL311440230",
      "transactionreportingapaindicator": 3,
      "volume": 9140396.39622
    }
  ],
  "msg": "success",
  "recordCount": 1
}
```


6.3 GETTXCLEARINGOPTION

Function:

Function name: getTxClearingOption
Request EndPoint: /SaturnWebServices/rest/transactionReports/getTxClearingOption
Method: POST

This service will enable a Participant to get the list of all declarations (ARM / APA) he did.

This service only considers the declarations that have the clearing option set (meaning settlement flag set to 1).

Thanks to the filters, the user will be able to retrieve:

- The ARM transactions / APA publications / OTC declarations for which he expects the matching counterpart transaction by setting status filter on 8 (Awaiting Matching)
- the ARM transactions / APA publications / OTC declarations for which the counterparts have done the matching declarations by setting status filter on:

0 (Pending)
3 (Checked & Ready)
5 (Sent)
6 (Accepted)
7 (Rejected)
15 (ISIN Warning)

Request Body:

This endpoint accepts a request body in one of the following formats:

1. application/json;
2. application/xml.

Please note that FIX format will be available in a later version.

Request Parameters

Name	Type	Data Type	Required	Description
FilterList	Element	Sequence of FilterList	Yes	Detail of request (treatment ID, sort..)
Offset	Attribute	Int	Yes	Initial number = 0
Limit		Int	Yes	Number of retrieved trades

Sequence of filterList

Name	Type	Data Type	Required	Description
Name	Attribute	String	Yes	Type of request: tid (treatment ID), status
Value	Attribute	String	Yes	status of trade
Operator	Attribute	String	Yes	EQ
Type	Attribute	String	Yes	Type of report (transaction report)
Sort	Attribute	string	Yes	DESC or ASC (descending or ascending)

Example of GetTxClearingOption function:


```
{
 "filterList":
 [
  {
  "name": "status",
   "value": "8",
   "operator": "EQ"
   }
 ]
}
```

6.4 GETTXCLEARINGOPTION RESPONSE

getTxClearingOption ResponseData Parameters:

Name	Type	Data Type	Required	Description
code	Attribute	Int	Yes	Status of the function. 200 - success
data	Element	Sequence of data	Yes	Detailed description below
Msg	Attribute	Sequence of data	Yes	Status - Success or failed
Recordcount	Attribute	Sequence of data	Yes	Number of retrieved trades

Sequence of data

Name	Type	Data Type	Required	Description
Columns details	Attribute	List	Yes	block of transactions with all columns populated in the database

Example of getTxClearingOption Response function:


```
{
  "code": 200,
  "data": [  {
    "type": "transactions",
    "accountnumber": "00000921",
    "accounttype": 1,
    "businessUnit":     {
      "ideleted": 0,
      "name": "BU0001",
      "participanttid": 1327,
      "tag": "BU0001",
      "tid": 39
    },
    "clearingfirmid": "456",
    "clientid": "02",
    "enteringcounterpart": "969500AUXWPSHFPKUM60",
    "errors": "",
    "executingfirm": "969500QEDGWL65TYW393",
    "iguarantee": 1,
    "isettlement": 1,
    "origin": "SATURN",
    "participanttid": 1327,
    "pricecurrency": "EUR",
    "quantitynotation": 1,
    "saturnuser": "global1",
    "securityid": "FR0000120644",
    "settlementperiod": 2,
    "side": 1,
    "status": 8,
    "tid": 162581,
    "tradeid": "63106",
```

```
    "tradeprice": 4.456,
    "traderef": "63106",
    "tradereport": 1,
    "tradingdatetime": 1512994272260000,
    "transactionreportingapaindicator": 4,
    "tsgeneration": "2018-01-16T13:50:13",
    "venue": "XOFF",
    "volume": 4000
  }],
  "msg": "success",
  "recordCount": 1
}
```

7. APA QUOTES

APA Pre	Approved Publication Arrangement Pre-Trade

7.1 CONTEXT

APA Pre	Approved Publication Arrangement Pre-Trade

A Systematic Internaliser (SI) has pre-trade publication obligations for its quotes in liquid and illiquid instruments on regular and continuous basis during normal trading hours.

- SI quotes for liquid instruments must be public as soon as available and with the agreement of SI client.
- For SI quotes for illiquid instruments, the quotes must be available and provided on request.

7.2 APA PRE TRADE PUBLICATION STEPS

APA Pre	Approved Publication Arrangement Pre-Trade

a) When sending SI Quotes:

When a SI wants to submit quotes, it receives a referential message that contains detailed information about the respective instrument.

Please note that this referential message will be sent once before the first quote. No action is required from the SI.

b) Control on the message fields:

Format and content controls are made on the incoming message. ESMA referential, MIC, LEI, Currency but also on prices where applicable.

c) Si Quote management Status:

An SI quote will be available until it is cancelled:

- An SI quote is either a Bid or an Offer;
- And as a consequence always the Best Bid or Best Offer.

The following action are possible:

- Creation of a Bid or an Offer;
- Cancel a Bid or an Offer.

7.3 SI CONTRIBUTION INFORMATION

APA Pre	Approved Publication Arrangement Pre-Trade

The quotes for liquid and illiquid instruments are sent on regular and continuous basis during normal trading hours. The authorized values for quote updates are detailed in the table below.

Value	Label
1	Best Bid (Cash and Derivatives)
2	Best Offer (Cash and Derivatives)
5	Cancel Bid (Cash and Derivatives)
6	Cancel Offer (Cash and Derivatives)

7.4 APA PRE TRADE PUBLICATION KINEMATIC

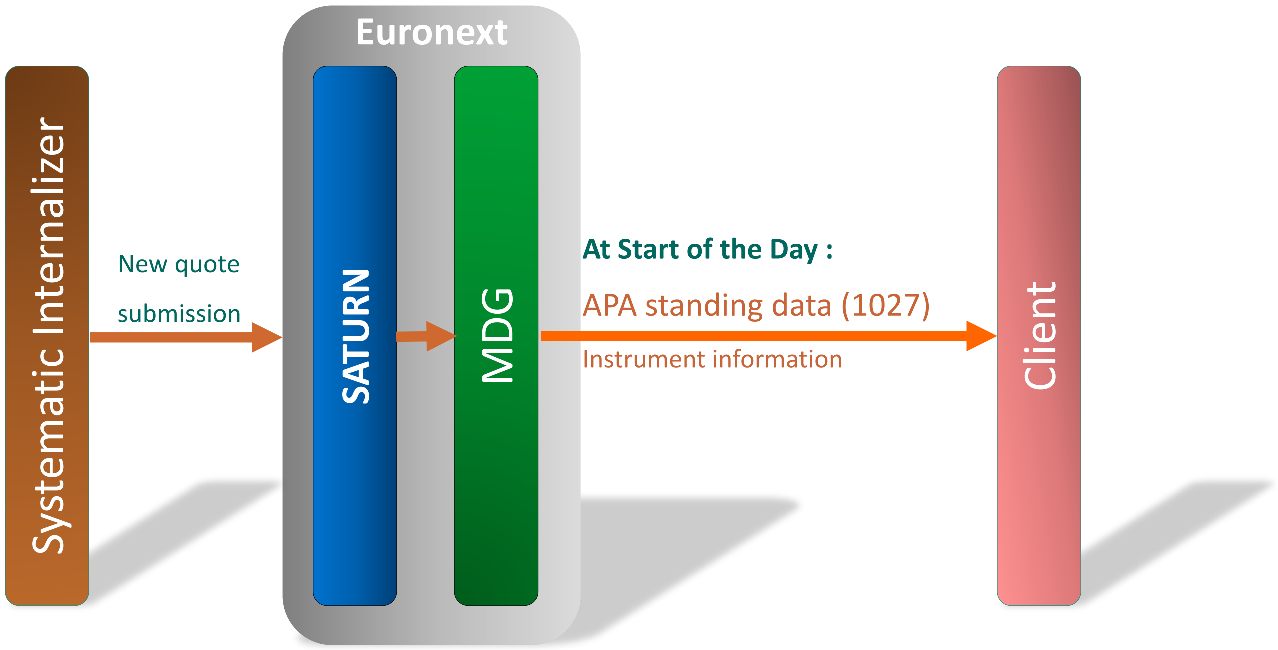
APA Pre	Approved Publication Arrangement Pre-Trade

The kinematic of pre-trade publication (quotes) is valid for a trading day and is about Best Bid and Best Offer received in SATURN to MDG for publication purpose.

7.4.1 Start of day: referential message sending

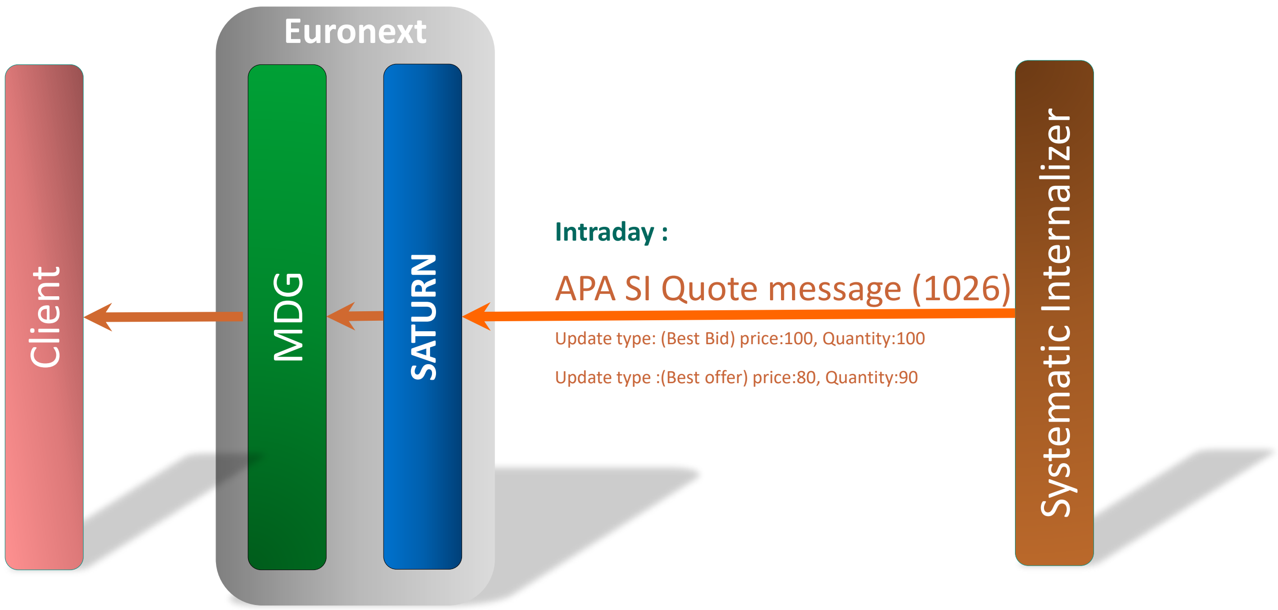
When an SI wants to submit a new quote i.e. a quote in an instrument that is submitted for the first time, a referential message with detailed information will be sent from Saturn to MDG.

This message is sent only once a day per instrument to clients.



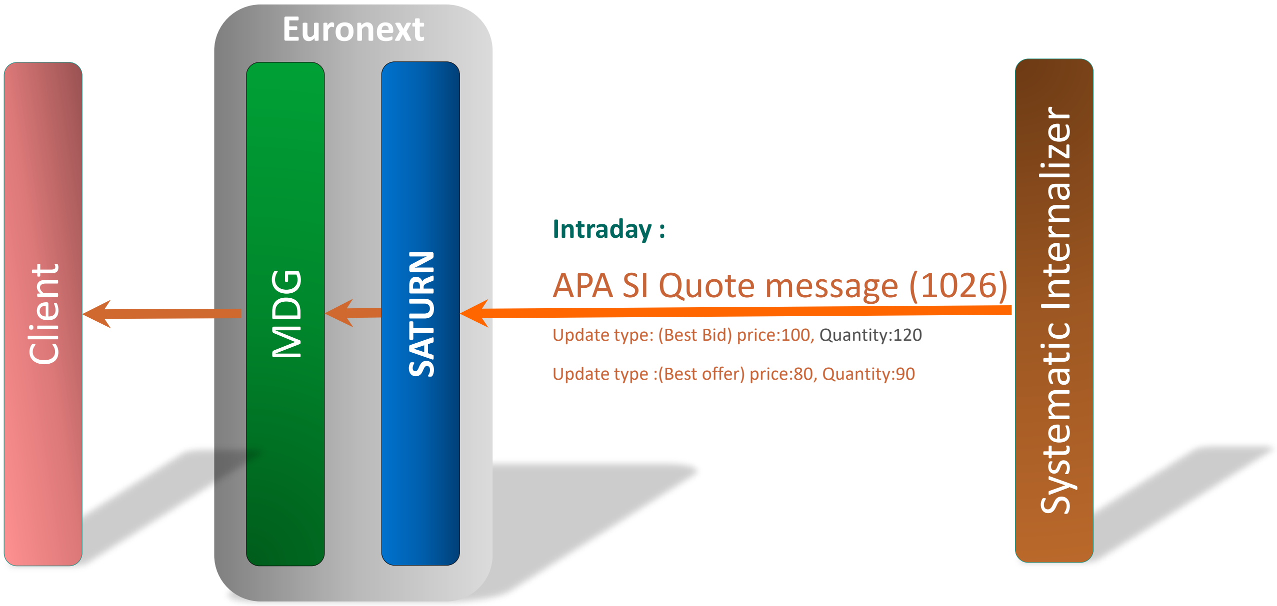
7.4.2 Enter an SI quote

When a quote is submitted along a trading day, the SI submits Best Bid and/or Best Offer quotes by Instrument. Best Bid and/or Best Offer are sent at levels changes



7.4.3 Modification of a quote

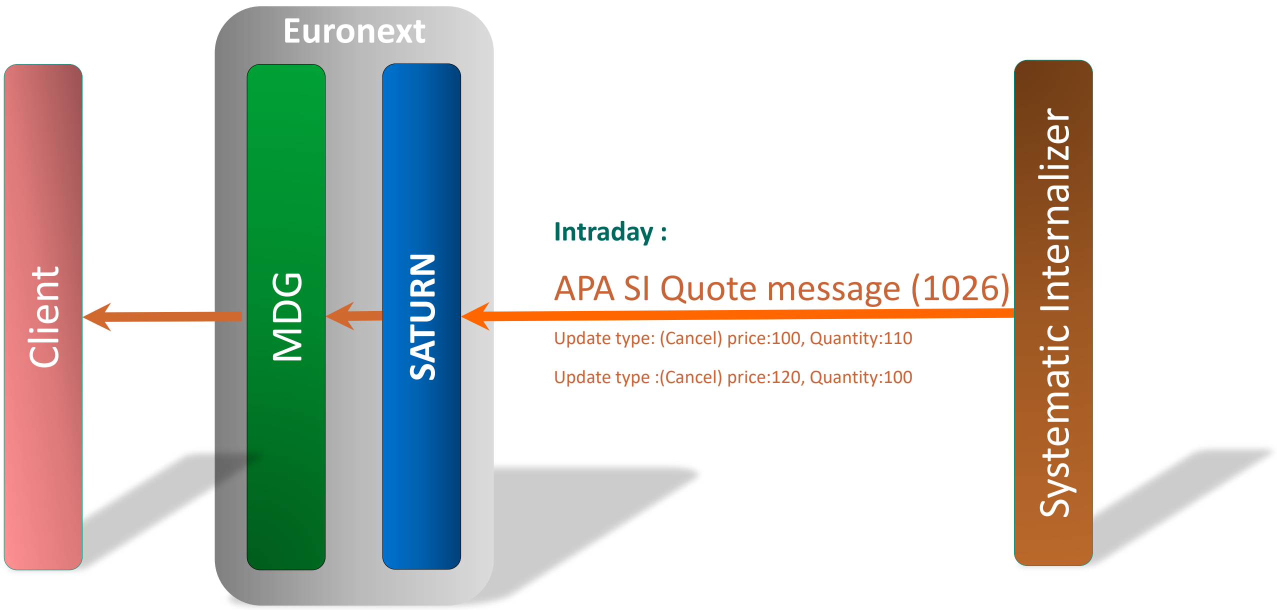
Modification of a SI quote means the price and/or quantity is wrong and need to be re sent with the correct value. In this case the levels remain considered as Best Bid and/or Best Offer



7.4.4 Cancellation of a quote

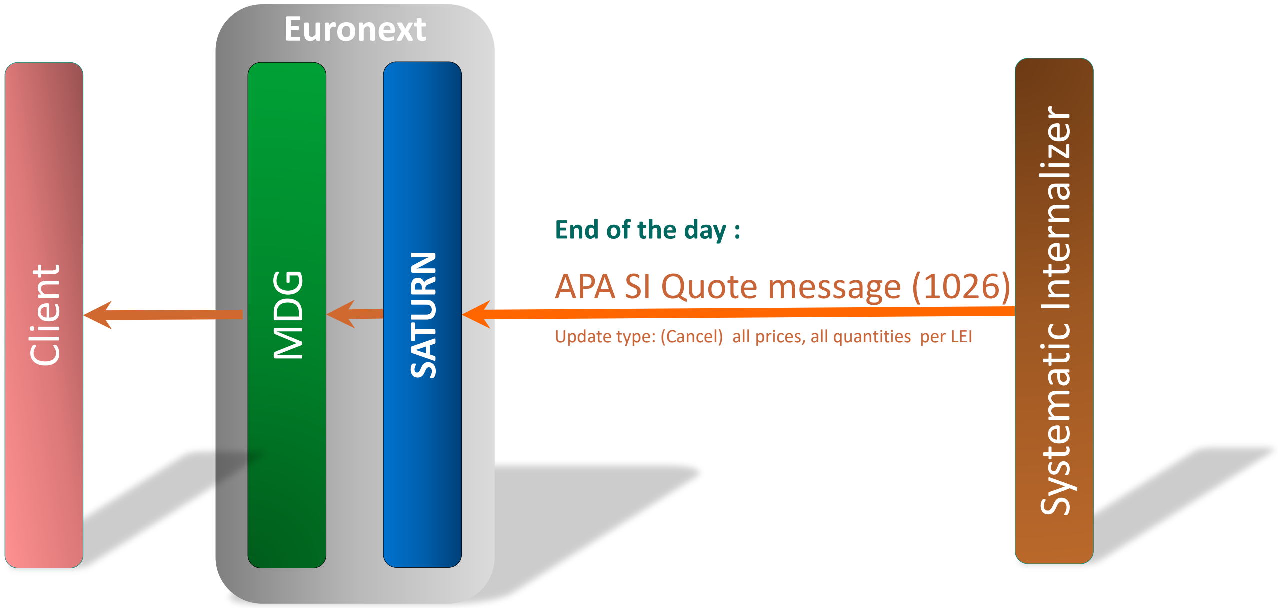
Cancellation quote is sent by the Systematic Internaliser when it stops quoting. This cancellation quote only occurs during the trading hours.

> **Note: If the SI sends Best Bid and/or Best Offer after a cancellation and within the trading hours SATURN has to integrate those quotes.**
>
> **As a reminder these quotes are received in SATURN and sent to MDG <u>only for publication purpose.</u>**



7.4.5 End of day: Mass Cancellation

The SI sends a Mass cancellation at end of the day for all instruments that it has submitted quotes for.



7.4.6 Submit Quotes

APA Pre	Approved Publication Arrangement Pre-Trade

Function:

Function name: Submit
Request EndPoint: /SaturnWebServices/rest/quotes/submit
Method: POST

Request Body:

This endpoint accepts a request body in one of the following formats:

1. application/json
2. application/xml

Please note that FIX format will be available in a later version.

Values provided in the Technical column of this section must be used in the API requests.

✓ Required | + Conditionally required | o Optional

Functional Field	Technical Field	Format	Rq	Values
MiFID Instrument ID	securityid	Character [12]	✓	Code used to identify the financial instrument. This code has to be processed with the MiFID Instrument ID Type.
MIC	cmic	Character [4]	✓	Identifies the market to which an instrument belongs by its MIC (Market Identification Code), segment MIC according to ISO 10383.
Currency	currency	Character [3]	✓	Code of the currency (ISO 4217-3A).

✓ Required | + Conditionally required | o Optional

Functional Field	Technical Field	Format	Rq	Values
Quote Liquidity	liquidity	Int	✓	1: Liquid, 2: Illiquid
Side	side	Int	✓	1: Bid, 2: Offer
Quote Report	quotereport	Int	✓	1: New, 2: Update, 3: Cancel
MiFID Price	price	Character [20]	✓	Traded price of the transaction excluding, where applicable, commission and accrued interest.
MiFID Quantity	quantity	Character [20]	✓	Number of units of the financial instrument. The nominal or monetary value of the financial instrument.
InstrumentFullName	fullname	{ALPHANUM-350}	+	*Mandatory if no securityid provided* No restriction
InstrumentClassification	cfi_code	{CFI_CODE}	+	*Mandatory if no securityid provided* ISO 10962 CFI code
PriceMultiplier	price_multiplier	{DECIMAL-18/17}	+	*Mandatory if no securityid provided* Number of units of the direct underlying instrument
UnderlyingSecurityID	underlyingsecurityid	{ISIN}	+	*Mandatory if no securityid provided* Types described in the field LEI or MIC
UnderlyingIndexTerm	underlyingindexterm	{INTEGER-3} + 4 DIGITS	+	*Mandatory if no securityid provided* 1 - 'DAYS' – days 2 - 'WEEK' – weeks 3 - 'MNTH' – months 4 - 'YEAR' - years
OptionType	optiontype	{ALPHANUM-4}	+	*Mandatory if no securityid provided* 1 - 'PUTO' – Put 2 - 'CALL' – Call 3 - 'OTHR' - where it cannot be determined whether it is a call or a put
StrikePrice	strikeprice	{DECIMAL-18/13}	+	*Mandatory if no securityid provide*
StrikePriceCurrency	strikepricecurrency	{CURRENCYCODE_3}	+	*Mandatory if no securityid provided* ISO 4217 Currency code
StrikePriceNotation	strikepricenotation	Int	+	*Mandatory if no securityid provided* 1 - 'MONE' – Monetary value 2 - 'PERC' – Percentage 3 - 'YIEL' – Yield 4 - 'BAPO' – Basis points. 5 - 'PNDG' – Pending 6 - 'NOAP'– Not Applicable
OptionExerciseStyle	optionexercisestyle	{ALPHANUM-4}	+	*Mandatory if no securityid provided* Only one of the following values can be populated ■ "AMER" - American ■ "ASIA" - Asian ■ "BERM" - Bermudan ■ "EURO" - European ■ "OTHR" - Other
MaturityDate	maturitydate	{DATEFORMAT}	+	*Mandatory if no securityid provided* Format YYYY-MM-DD

✓ Required | + Conditionally required | o Optional

Functional Field	Technical Field	Format	Rq	Values
DeliveryType	delivertype	{ALPHANUM-4}	+	*Mandatory if no securityid provided* 1 - 'PHYS' - Physically settled 2 - 'CASH' - Cash settled 3 - 'OPTL' - Optional for counterparty or when determined by a third party

Example of Submit Quotes function:


```
{
        "quotereport": "1",
        "cmic": "XEUE",
        "side": 1,
        "price":  25,
        "currency": "EUR",
        "liquidity": "2",
        "quantity": 54,
        "securityid": "EUNL00014965"
}
```


7.4.7 Submit Quotes response data

APA Pre	Approved Publication Arrangement Pre-Trade

The quote acknowledgement message contains error notifications for each field in wrong format or an informative message which confirms the quotes successful submission.

Each quote from the **Multiple Quotes** message is referenced by a number, enclosed between brackets **[]**.

Submit Quotes ResponseData Parameters:

Name	Type	Data Type	Required	Description
Code	Attribute	Int	Yes	Status of the function. 200 - success
Msg	Attribute	Sequence of data	Yes	Status - Success or failed
Recordcount	Attribute	Sequence of data	Yes	Number of retrieved trades

Possible returned **status** codes:

200 - Success
600 - Failed

Example of Submit Quotes Response:


```
{
  "code": 200,
```

"msg": "submit successfull",
"recordCount": 0
}

7.4.8 Submit Quote Rejection

APA Pre	Approved Publication Arrangement Pre-Trade

Rejections occur where fields within the message are not in the expected format.

Example of Submit Quotes:

{
"quotereport": "1",
"cmiec": "XEUE",
"side": 1,
"price": 25,
"currency": "EUR",
"liquidity": "2",
"quantity": 54,
"securityid": "EUNL00014965"
}

Example of Submit Quotes Rejection Response:

{
"code": 600,
"msg": "Unrecognized field \"cmiec\" (class com.apiRest.ApaPreTradeQuotes.bean.Quote), not marked as ignorable (16 known properties: \"cmic\", \"ipublished\", \"instrnotregisteredtid\", \"instrumenttid\", \"price\", \"quantity\", \"instrumentNotRegistered\", \"tid\", \"quotereport\", \"currency\", \"liquidity\", \"saturnuser\", \"side\", \"securityid\", \"participanttid\", \"tsreceive\"])\n at [Source: {\n \"quotereport\": \"1\",\n \"cmiec\": \"XEUE\",\n \"side\": 1,\n \"price\": 25,\n \"currency\": \"EUR\",\n \"liquidity\": \"2\",\n \"quantity\": 54, \n \"securityid\": \"EUNL00014965\"\n}; line: 3, column: 12] (through reference chain: com.apiRest.ApaPreTradeQuotes.bean.Quote[\"cmiec\"])"
}

7.4.9 Submit Multiple Quotes

APA Pre	Approved Publication Arrangement Pre-Trade

Function:

Function name: submitMultipleQuotes

Request EndPoint: /SaturnWebServices/rest/quotes/submitMultipleQuotes
Method: POST

Request Body:

This endpoint accepts a request body in one of the following formats:

3. application/json
4. application/xml

Parameter:

Parameter name: stopiferror
Values:

0- Default (do not block Quotes submission)
1- Block Quotes when error appears

This parameter allows the Multiple Quotes submission to stop when an error is raised by the application. Previously submitted Quotes are processed by the application.
Ex: /SaturnWebServices/rest/quotes/**submitMultipleQuotes**?**stopiferror**=1

Constraint:

Maximum number of quotes : 200 quotes/call

By default, up to **200 quotes** may be added to a **single submitMultipleQuotes POST call**.

Values provided in the Technical column of this section must be used in the API requests.

✓ Required | + Conditionally required | o Optional

Functional Field	Technical Field	Format	Rq	Values
MiFID Instrument ID	securityid	Character [12]	✓	Code used to identify the financial instrument. This code has to be processed with the MiFID Instrument ID Type.
MIC	cmic	Character [4]	✓	Identifies the market to which an instrument belongs by its MIC (Market Identification Code), segment MIC according to ISO 10383.
Currency	currency	Character [3]	✓	Code of the currency (ISO 4217-3A).
Quote Liquidity	liquidity	Int	✓	1: Liquid, 2: Illiquid
Side	side	Int	✓	1: Bid, 2: Offer
Quote Report	quotereport	Int	✓	1: New, 2: Update, 3: Cancel
MiFID Price	price	Character [20]	✓	Traded price of the transaction excluding, where applicable, commission and accrued interest.
MiFID Quantity	quantity	Character [20]	✓	Number of units of the financial instrument. The nominal or monetary value of the financial instrument.
InstrumentFullName	fullname	{ALPHANUM-350}	+	*Mandatory if no securityid provided* No restriction
InstrumentClassification	cfi_code	{CFI_CODE}	+	*Mandatory if no securityid provided*

✓ Required | + Conditionally required | o Optional

Functional Field	Technical Field	Format	Rq	Values
				ISO 10962 CFI code
PriceMultiplier	price_multiplier	{DECIMAL-18/17}	+	*Mandatory if no securityid provided* Number of units of the direct underlying instrument
UnderlyingSecurityID	underlyingsecurityid	{ISIN}	+	*Mandatory if no securityid provided* Types described in the field LEI or MIC
UnderlyingIndexTerm	underlyingindexterm	{INTEGER-3} + 4 DIGITS	+	*Mandatory if no securityid provided* 1 - 'DAYS' – days 2 - 'WEEK' – weeks 3 - 'MNTH' – months 4 - 'YEAR' - years
OptionType	optiontype	{ALPHANUM-4}	+	*Mandatory if no securityid provided* 1 - 'PUTO' – Put 2 - 'CALL' – Call 3 - 'OTHR' - where it cannot be determined whether it is a call or a put
StrikePrice	strikeprice	{DECIMAL-18/13}	+	*Mandatory if no securityid provide*
StrikePriceCurrency	strikepricecurrency	{CURRENCYCODE_3}	+	*Mandatory if no securityid provided* ISO 4217 Currency code
StrikePriceNotation	strikepricenotation	Int	+	*Mandatory if no securityid provided* 1 - 'MONE' – Monetary value 2 - 'PERC' – Percentage 3 - 'YIEL' – Yield 4 - 'BAPO' – Basis points. 5 - 'PNDG' – Pending 6 - 'NOAP'– Not Applicable
OptionExerciseStyle	optionexercisestyle	{ALPHANUM-4}	+	*Mandatory if no securityid provided* Only one of the following values can be populated ■ "AMER" - American ■ "ASIA" - Asian ■ "BERM" - Bermudan ■ "EURO" - European ■ "OTHR" - Other
MaturityDate	maturitydate	{DATEFORMAT}	+	*Mandatory if no securityid provided* Format YYYY-MM-DD
DeliveryType	delivertype	{ALPHANUM-4}	+	*Mandatory if no securityid provided* 1 - 'PHYS' - Physically settled 2 - 'CASH' - Cash settled 3 - 'OPTL' - Optional for counterparty or when determined by a third party

Example of Submit Multiple Quotes function:

```
{
        "quotes":
        [
                {
                "quotereport": "1",
                "cmic": "XEUR",
                "side": 1,
                "price": 13.55,
                "currency": "EUR",
                "liquidity": "2",
                "quantity": 48947,
                "securityid": "CH0652098531"
                },
                {
                "quotereport": "1",
                "cmic": "XEUR",
```

"side": 2,
"price": 24.2,
"currency": "EUR",
"liquidity": "2",
"quantity": 1855,
"securityid": "CH0652098549"
},
{
"quotereport": "1",
"cmic": "XEUR",
"side": 1,
"price": 965,
"currency": "EUR",
"liquidity": "2",
"quantity": 152.54,
"securityid": "CH0652098556"
}
]
}

7.4.10 Submit Multiple Quotes response data

APA Pre	Approved Publication Arrangement Pre-Trade

The quote acknowledgement message contains error notifications for each field in wrong format or an informative message which confirms the quotes successful submission.

Submit Multiple Quotes ResponseData Parameters:

Name	Type	Data Type	Required	Description
Code	Attribute	Int	Yes	Status of the function. 200 - success
Msg	Attribute	Sequence of data	Yes	Status - Success or failed
Recordcount	Attribute	Sequence of data	Yes	Number always set to 0.
Data	Attribute	Data	Yes	Field always set to null.

Possible returned **status** codes:

200 - Success
600 - Failed

Example of Submit Multiple Quotes Response:

{
"code": 200,
"msg": "submit successfull",
"recordCount": 0,
"data": null
}

7.4.11 Submit Multiple Quote Rejection

APA Pre	Approved Publication Arrangement Pre-Trade

Rejections occur where fields within the message are not in the expected format.

Example of Submit Multiple Quotes:


```
{
  "quotes":
  [
    {
    "quotereport": "1",
    "cmic": "XEUR",
    "side": 6,
    "price": 13.55,
    "currency": "EUR",
    "liquidity": "2",
    "quantity": 48947,
    "securityid": "CH0652098531"
    },
    {
    "quotereport": "1",
    "cmic": "XEUCR",
    "side": 2,
    "price": 24.2,
    "currency": "EUR",
    "liquidity": "2",
    "quantity": 1855,
    "securityid": "CH0652098549"
    },
    {
    "quotereport": "7",
    "cmic": "XEUR",
    "side": 1,
    "price": 965,
    "currency": "EUR",
    "liquidity": "2",
    "quantity": 152.54,
    "securityid": "CH0652098556"
    }
  ]
}
```


Example of Submit Multiple Quotes Rejection Response:


```
{
  "code": 600,
  "msg": " Quote[1] [side] '6' must be less than or equal to 2;, Quote[2] [mic] 'XEUCR' Field should be a text string in th
e size range of 4 characters consisting of 4 capital Latin letters;, Quote[3] [quotereport] '7' must be less than or equal t
o 3;, Quote[3] Unknown Quote report : 7",
  "recordCount": 0,
  "data": null
}
```


7.5 RETRIEVE APA QUOTES

APA Pre	Approved Publication Arrangement Pre-Trade

This function should be used by the client to retrieve quotes details and statuses from Saturn.

Function:

Function name: Get
Request EndPoint: /SaturnWebServices/rest/quotes/get
Method: POST

/SaturnWebServices/rest/quotes/get?limit=15&offset=0

It is recommended to set a "Limit" and "offset" value to avoid retrieve all quotes from the database. Please note that **limit** and **offset** are defined at request end Point level. The **limit** value is used to retrieve a maximum number of quotes and the **offset** value is used to retrieve quotes from a specific starting point.

Example: limit=15&offset=0, begin from the first quote (offset) and take the 15 following quotes (limit)

Request Body:

This endpoint accepts a request body in one of the following formats:

1. application/json;
2. application/xml.

FIX format is available as well.

Request Parameters

Name	Type	Data Type	Required	Description
FilterList	Element	Sequence of filterList	Yes	Detail of request (treatment ID, sort..)
Offset	Attribute	Int	Yes	initial number = 0
Limit		Int	Yes	Number of retrieved quotes

Sequence of filterList

Name	Type	Data Type	Required	Description
Name	Attribute	String	Yes	Type of request: tid (treatment ID), status
Value	Attribute	String	Yes	status of quote
Operator	Attribute	String	Yes	EQ
Type	Attribute	String	Yes	Type of report (quote report)
Sort	Attribute	string	Yes	DESC or ASC (descending or ascending)

Example of Get Quotes function:

```
{ "filterList":
        [
            {
            "name": "liquidity_bid",
            "value": 2,
            "operator": "EQ"
            }
        ]
}
```

7.6 RETRIEVE APA QUOTES RESPONSE

APA Pre	Approved Publication Arrangement Pre-Trade

The retrieve quote message contains filtered results.

Get Quotes ResponseData Parameters:

Name	Type	Data Type	Required	Description
code	Attribute	Int	Yes	Status of the function. 200 - success
data	Element	Sequence of data	Yes	Detailed description below
Msg	Attribute	Sequence of data	Yes	Status – Success or failed
Recordcount	Attribute	Sequence of data	Yes	Number of retrieved trades

Sequence of data

Name	Type	Data Type	Required	Description
Columns details	Attribute	List	Yes	block of transactions with all columns populated in the database

Example of Get Quotes Response function:


```
{
  "code": 200,
  "data": [  {
    "type": "quoteView",
    "cmic_bid": "XEUE",
    "currency_bid": "EUR",
    "liquidity_bid": 2,
    "participanttid": 385,
    "price_bid": 25,
    "quantity_bid": 54,
    "quotereport_bid": 1,
    "saturnuser_bid": "apiUser2",
    "securityid": "EUNL00014965",
    "side_bid": 1,
    "tsreceive_bid": "2018-01-16T08:19:30"
  }],
  "msg": "success",
  "recordCount": 1
}
```


8. APA POST TRADE (INC. DEFERRED PUBLICATION)

APA Post	Approved Publication Arrangement Post-Trade

This section have been added to describe the new feature related to deferral publication under APA Post trade from Saturn.

8.1 CONTEXT

EU and UK MiFID II enable the publication of trades to be deferred for a defined period of time subject to specified criteria as set out in RTS 1 and RTS 2.

Saturn fully supports the calculation of the time (and days) by when the public dissemination of a trade report can be deferred **according to the EU MiFID II and UK onshored regulatory requirements**.

The deferral of a trade report is calculated for every new and amended trade report submitted which doesn't have the **Deferral indicator flag set to '0' (immediate).**

This section also complies to FCA Supervisory Statement following the end of the EU withdrawal transition period, which can be found here : https://www.fca.org.uk/publication/documents/supervisory-statement-mifid-end-transition-period.pdf

8.2 DEFERRED PUBLICATION FOR EQUITY (RTS 1)

8.2.1 Rules

Depending on the liquidity of the instrument, ESMA and FCA will provide minimum trade sizes for deferred publication and the required publication delay. These thresholds will be stored directly in Saturn.

According to Art 15 of RTS 1, for Equity and ETFs instruments, deferred publication is authorized:

- *the transaction is between an investment firm dealing on own account other than through matched principal trading and another counterparty;*

the size of the transaction is equal to or exceeds the relevant minimum qualifying size specified in Tables 4, 5 or 6 of Annex II, as appropriate.

8.2.2 Deferral Calculation

For the determination of whether the publication of a trade report will be deferred and by what time, various parameters are taken into account.

For every new and amended trade report submitted for the deferral calculation, Saturn compares the turnover (quantity x price) of the trade with the thresholds provided by ESMA and FCA, which is stored in database.

For equities, the deferral calculation also depends on the average daily turnover (ADT) of the instrument. The ADT for each instrument is extracted from the MiFID II data published by ESMA and FCA.

The result of the deferral calculation will be one of the following deferral types:

- No deferral, trade report will be published immediately
- Deferral of Trading date time +60 min
- Deferral of Trading date time +120 min
- Deferral until end of the current trading day i.e. 5:30 pm (UTC time)
- Deferral before noon next trading day (publication at 11:50 am (UTC time))

The calculation of the deferred publication time is based on the date and time of the trade as entered by the member (content of field 'TradingDateTime'). If for example a trade was submitted at 10:00am with the trading date and time of 9:59am, and the deferral calculation determined a deferral of +60 min, then the trade report will be published at 10:59am.

8.3 DEFERRED PUBLICATION FOR NON EQUITY (RTS 2)

8.3.1 Rules

For non-Equity instruments, deferred publication is authorized, not only for transactions whose size exceeds certain thresholds (LIS and SSTI), but also for illiquid instruments and package transactions.

Where deferral is accepted, the National Competent Authority must decide between seven possible regimes, including:

- A standard regime requiring publication at D+2 before 19:00 local time;
- Various regimes involving:
  - ✓ (a) request the publication of limited details of a transaction or details of several transactions in an aggregated form, during the time period of deferral;
  - ✓ (b) allow the omission of the publication of the volume of an individual transaction during an extended time period of deferral;
  - ✓ (c) regarding non-equity instruments that are not sovereign debt, allow the publication of several transactions in an aggregated form during an extended time period of deferral;
  - ✓ (d) regarding sovereign debt instruments, allow the publication of several transactions in an aggregated form for an indefinite period of time.

Rules (a), (b) and (c) are implemented. Rule (d) has not been implemented yet in Saturn.

If one of the below criteria is respected, then deferral of trades will be accepted:

- Criteria 1: if the instrument is flagged Illiquid (ILQD)
- Criteria 2:if the trade is considered as Large in Scale Trades
- Criteria 3: if the instrument is flagged SSTI
- Criteria 4: For the Package transaction if one or more of its components is LIS/ILQD/SSTI

The thresholds for non-Equity are calculated and provided by ESMA and FCA in the ''FITRS'' file for transparency post-trade report obligation. Then, they are stored in Saturn in order to calculate whether the publication of a trade will be deferred and by what time.

8.3.2 Deferral Calculation

Concerning non-Equity Instruments, for every new and amended trade report submitted for the deferral calculation, Saturn will check:

- Firstly if the instrument is not liquid (i.e. Liquidity Indicator set to 'False' within FITRS file), then the trade can be deferred without any other conditions.
- If not, Saturn checks if :
  - Transaction's size is greater or equal than the **LIS** (Large In Scale) **threshold**
  - Transaction's size is greater or equal than the **SSTI** (Size Specific To the Instrument) **threshold**.

Regarding Bonds, Saturn system will use static **Pre Trade LIS** & **SSTI Threshold** published by ESMA and FCA in the case where:

- Bond is **liquid**
- Bond type is **Corporate Bond** or **Convertible Bond** or **Other Public and Sovereign Bond** or **Covered Bond** or **Other Bond**.

Regarding Derivatives, Saturn system use static **Post Trade LIS** & **SSTI Threshold** published by ESMA and FCA in the case where:

- Derivative is **liquid**
- Derivative type is **Exchange Traded Notes** or **Exchange Traded Commodities** or **Securitised Derivatives** or **Structured Financial Products**

The publication delay **cannot be later than 19:00 local time on the second business day,** after the date of the transaction

In Addition for non-Equity instrument Saturn authorises to report the publication according to:

- No Volume:
  - *1st time the trade will be published in Limited details mode immediately with all the details except (Quantity/Amount/ Currency)*
  - *2nd time in Full details mode at D+2, 19:00 local time.*

- Daily Aggregated form
  - *1st time an aggregated trade of a minimum number of 5 transactions executed on the same day, will be published at D+1 9:00 local time.*
  - *2nd time the details of the aggregated transactions will be published in Full details mode at D+2 19:00 local time*

8.4 AMENDING AND CANCELLING TRADES

All trade amendments and cancellations can be processed in Saturn as soon as they have been identified by the member.

8.4.1 Amendments

To amend a trade, members should use the 'Amend' function. All of the fields should be completed with the same information as the original trade except for the field(s) that need to be amended.

The Transaction Reference Number provided for the original trade must be submitted with the amendment. If not submitted or incorrect, the amendment request will be rejected.

Amendments also pass through the validation checks and the deferral calculation of newly entered trades.

Once the amendment has successfully passed through the validations, the trade is amended and Saturn creates a 'new trade' and populates the value 'AMND' to the 'Modification Indicator' flag.

- The initial message details are published in market data with the value 'CANC' in the field 'MMTModificationIndicator'

And

- The New trade details are published in market data with the value '**AMND**' in the field 'MMTModificationIndicator'

The amended trade will be published immediately (unless meeting the criteria for deferral) with the flag 'AMND'.

8.4.2 Cancellations

To cancel a trade, members should use the 'Cancel' function.

The Transaction Reference Number provided for the original trade must be submitted with the cancellation. If not submitted or incorrect, the cancellation request will be rejected.

The cancellation of the trade will be published immediately (unless the original trade had not yet been published due to deferred publication) with the flag 'CANC'.

- Published in market data with the value '**CANC**' in the field 'MMTModificationIndicator'.

9. CLEARING SECTION

EM	Reporting and clearing for Euronext Members

Please be aware that only Instruments listed by EURONEXT are eligible to CLEARING.

9.1 OTC CLEARING ONLY

For clearing purposes with only dedicated fields an Euronext member should set the APA ARM Indicator to "4 - OTC Trade - Clearing Only".

9.1.1 Common mandatory fields

The member sends either a declaration that will be confirmed by the counterpart to be cleared, or a cross trade where no confirmation is required (schema below)

The clearing transaction is composed by mandatory fields (table below) and dedicated clearing fields (next section)

Name	Type	Data Type	Required	Values
ARM APA Indicator	Attribute	Int	Yes	1 - Transaction Reporting 2 - APA 3 - Both Transaction Reporting and APA 4 - OTC Trade only 5 - OBOE - Off Book on Exchange 6 - OBOE + ARM - Off Book on Exchange + Approved Reporting Mechanism
Tradereport	Attribute	Int	Yes	1 - NEW 2 - AMEND (not applicable for OTC clearing) 3 - CANCEL 4 - Recovery (Not applicable for OTC)
TradeRef	Attribute	{ALPHANUM – 52}	Yes	No restriction
TradeID	Attribute	{ALPHANUM – 52}	Under conditions	No restriction (only applicable for trade performed on a trading venue, i.e. not for OTC clearing)

Name	Type	Data Type	Required	Values
Side	Attribute	Int	Yes	1 - Buy 2 - Sell 3 - Cross
Venue	Attribute	{ALPHANUM-4}	Yes	■ MIC (EEA) MIC Code ISO 10383 ■ MIC (Non EEA) MIC Code ISO 10383 ■ Only Dublin and Oslo (excepted Derivative) MICs accepted for OBOE Services ■ "XOFF" ■ "XXXX" ■ Systematic Internalisers MIC Code ISO 10383
Executing firm	Attribute	LEI	Yes	LEI of the executing firm The client's transaction should go to fail if the executing LEI is not the LEI set for the participant used.

Any missing field(s) from the list above for a transaction **will lead to a submission rejection** whatever the "Tradereport"" indicator is (i.e: New, Cancel or Amend).

The transaction will not be integrated into Saturn.

9.1.2 Dedicated clearing fields

The member needs to select in the 'ARM APA Indicator' the value "4 - OTC Trade - Clearing Only" corresponding to the service for clearing without ARM or APA.

When the field 'APA ARM indicator' is set to 4, the field 'settlement flag' is set to 1 by default.

o Optional
+ Conditional
✓ Mandatory

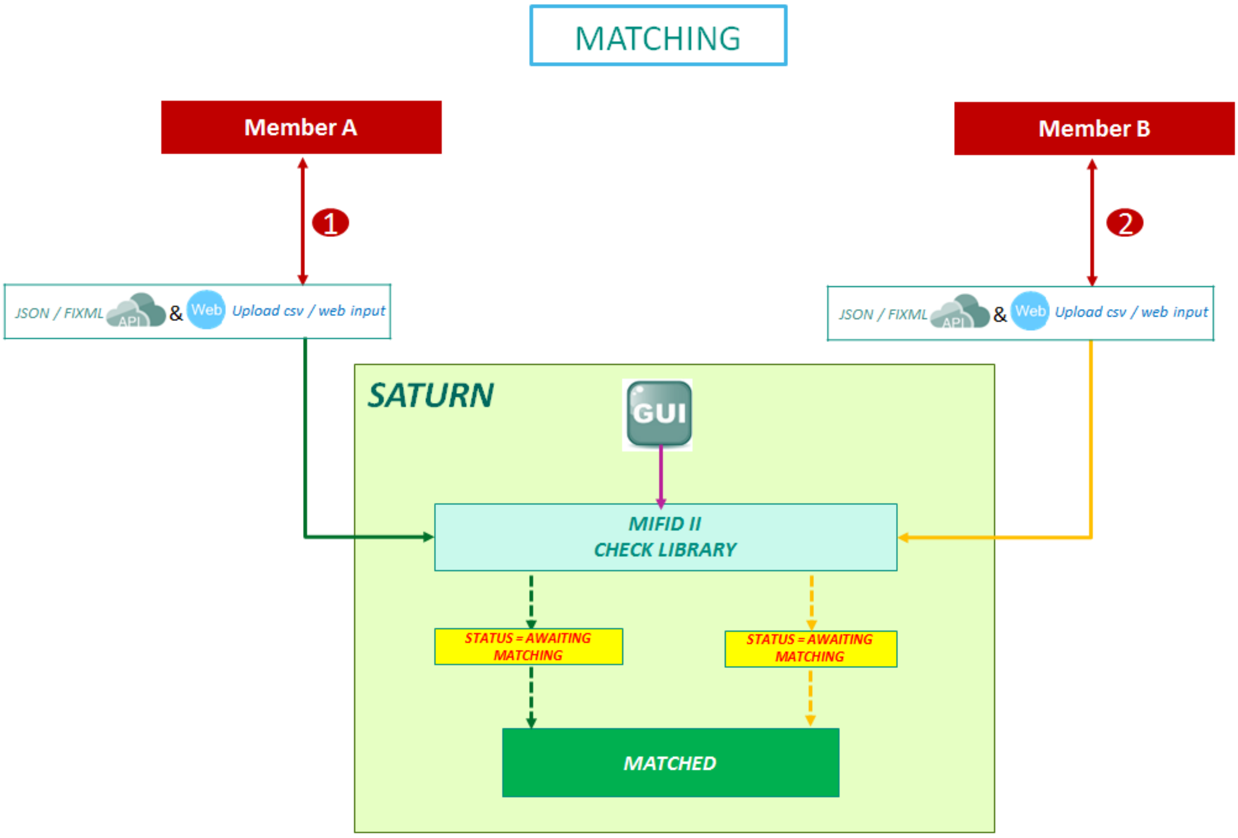
	Field	Rq	Format	Values
For clearing	Settlement flag	✓	boolean	0 - false 1 - True Set to 1 by default
	Entering counterpart	+	int	Participant ID
	Price	✓	{DECIMAL-18/17}	
	Quantity	✓	{DECIMAL-18/17} {Integer} for OBOE	
	SecurityID	✓	{ISIN}	ISIN Code ISO 6166 Security admitted to trading or listed on Euronext trading venues

o Optional
\+ Conditional
✓ Mandatory

Field	Rq	Format	Values
Settlement Period	+	Num	No restriction
Guarantee Flag	+	Int	1 - Cleared but not Guaranteed by a Clearing House 2 - Cleared and Guaranteed by a Clearing House
Buyer Details			
Client ID	o	{ALPHANUM-8}	No restriction (optional)
Clearing Firm ID	o	{ALPHANUM-8}	No restriction (optional)
Clearing Mode	+	Int	1- Manual 2- Automatic Posting 3- Automatic Give-Up
Account Number	o	{ALPHANUM- 14}	No restriction (optional)
Account type	+	Int	1 - Client 2 - House 3 - Retail Liquidity Provider 4 - RO 6 - Liquidity Provider 7 - Related Party
Seller Details: Available for Only SIDE = CROSS			
Client ID2	o	{ALPHANUM-8}	No restriction (optional)
Clearing Firm ID2	o	{ALPHANUM-8}	No restriction (optional)
Clearing Mode2	+	Int	1- Manual 2- Automatic Posting 3- Automatic Give-Up
Account Number2	o	{ALPHANUM- 14}	No restriction (optional)
Account type2	+	Int	1 - Client 2 - House 3 - Retail Liquidity Provider 4 - RO 6 - Liquidity Provider 7 - Related Party

9.1.3 Schema: OTC Trades WorkFlow

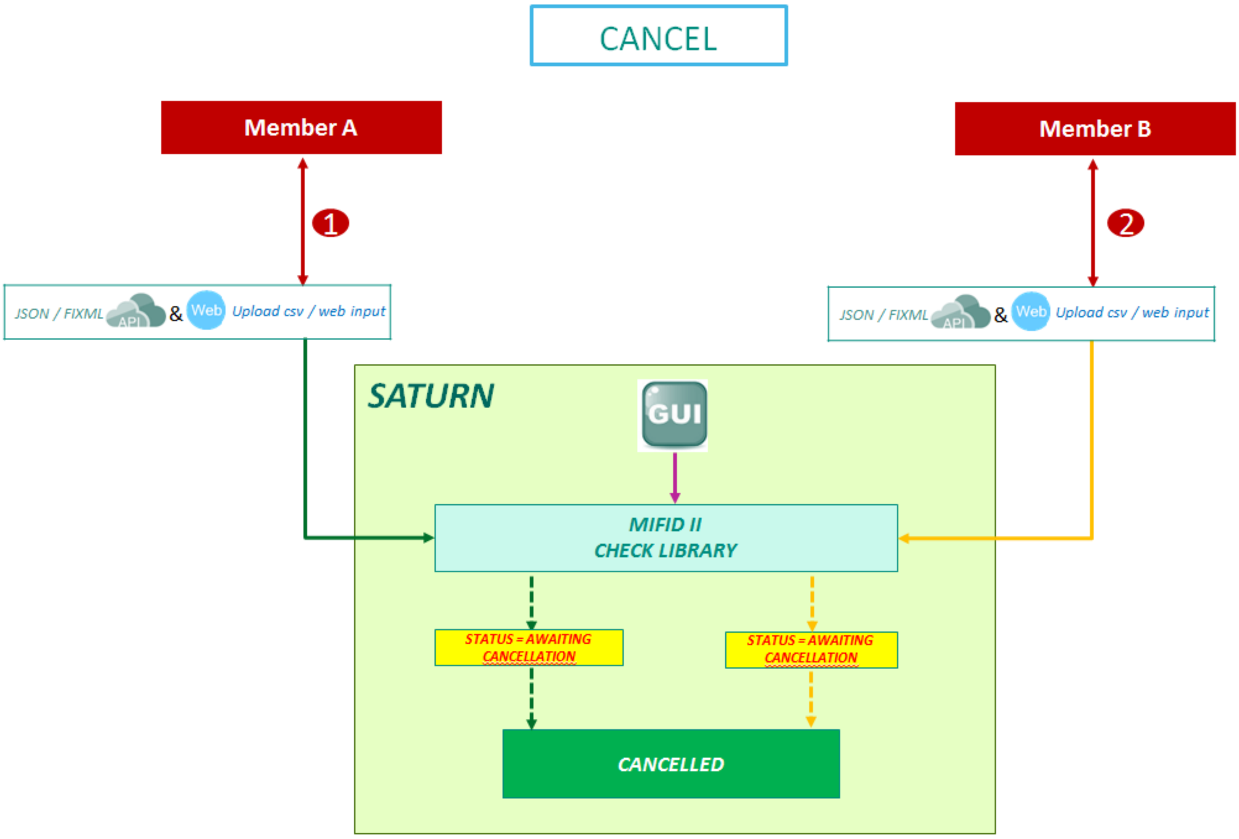
9.1.3.1 New



A and B send declarations	Member A & B send their declarations separately to SATURN
Status	Status is “Awaiting Matching”
Saturn checks and validate trade	Both declarations are checked and a trade is matched, generated and validated
Message clearing sending	When OTC clearing only is selected, Saturn sends a dedicated clearing message to the clearing house

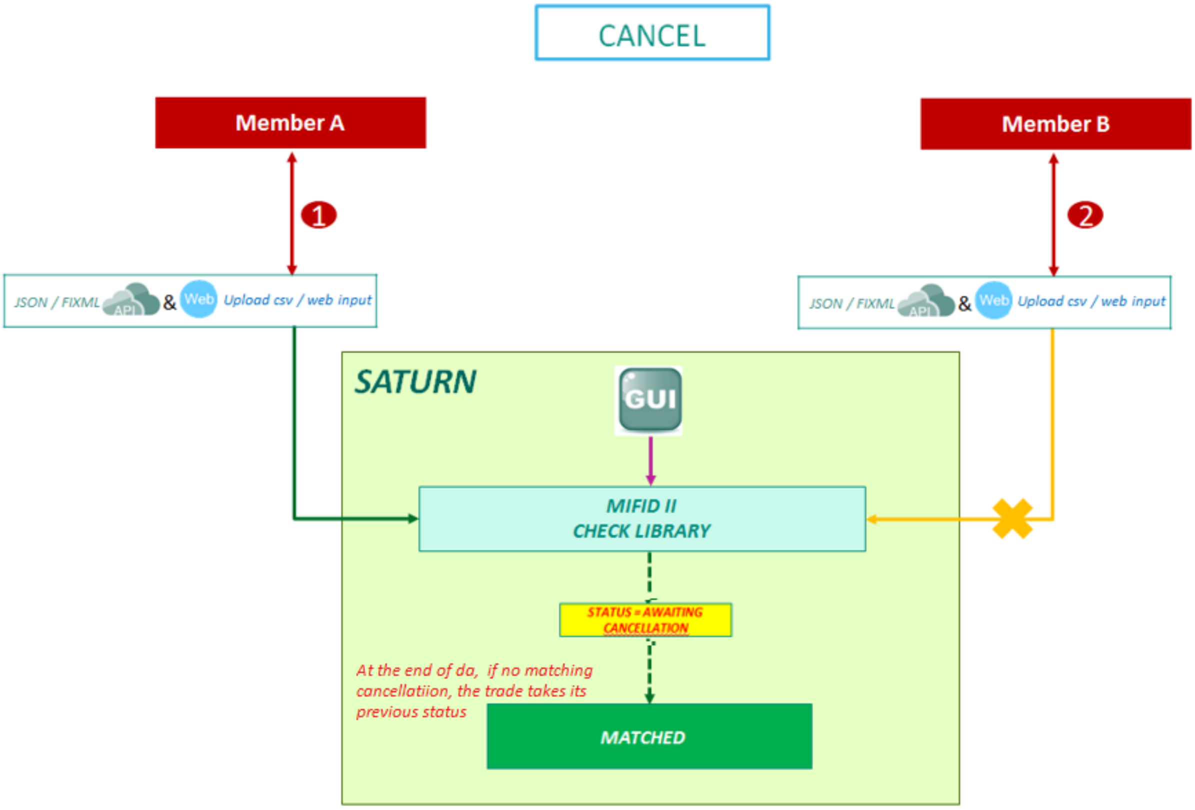
9.1.3.2 Cancel

<u>Case 1:</u> Both members send their cancel requests



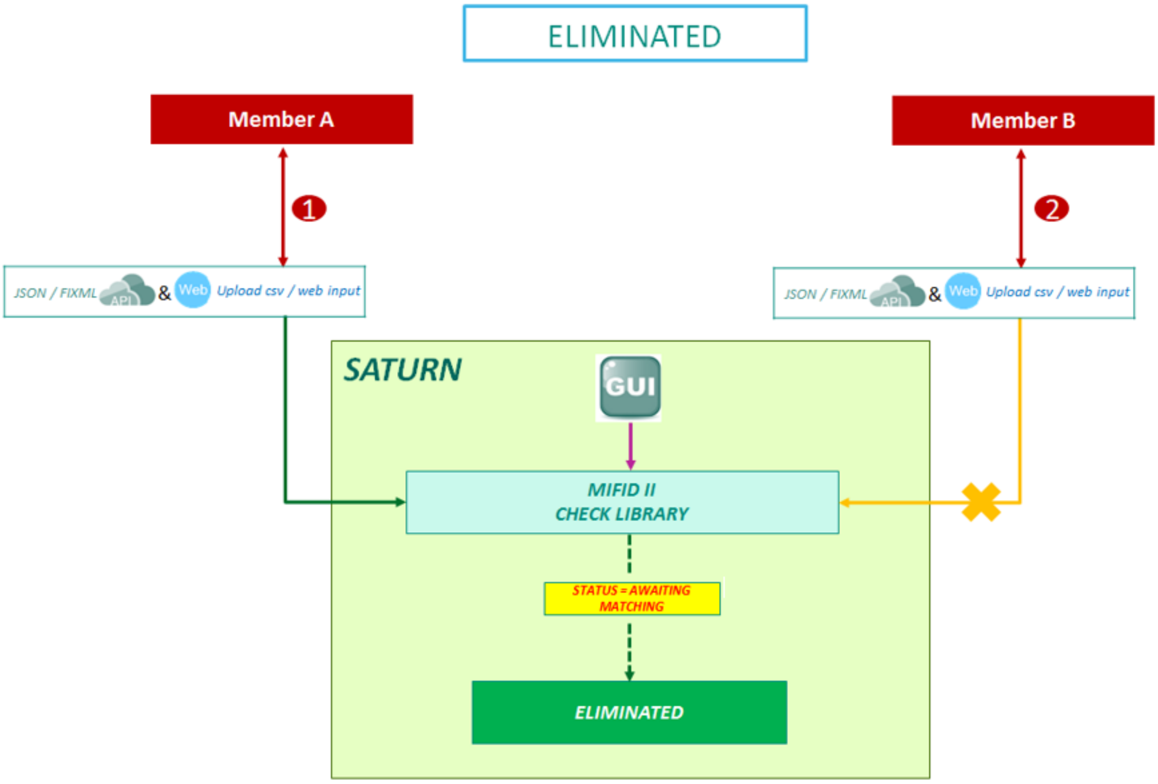
A and B send declarations	Member A & B send their declarations separately to SATURN
Status	Status is "Awaiting Cancellation"
Saturn checks and cancellation	Both declarations are checked and a trade is cancelled

Case 2: if only one counterparty sends the cancel request



A sends declarations	Member A sends its cancel request
B does'nt confirm the cancellation	Member B doen't send a confirmation of cancel request
Status	The trade will pass to status "Awaiting Cancellation " until end of the day
After end of day	Saturn checks and kepts the previous status beforethe cancellation request i.e "Matched"

9.1.3.3 Eliminated



A and B send declarations	Member A & B send their declarations separately to SATURN
Status	All Declarations with status "Awaiting Matching" are stored for the day
Saturn checks and eliminated	All these declaration are eliminated by Saturn at the end of the day and status is modified to "Eliminated"

9.1.3.4 Amend

Amend is allowed for 'Failed' status only, else the AMEND declaration is rejected.

9.2 OTC CLEARING WITH APA OR/AND ARM

9.2.1 Additional clearing fields

For Clearing purposes, the following sequence of fields has to be submitted <u>in addition to the Transaction Reporting and/or publication services</u>.

This sequence is only related to:

- <u>Clearing</u> on Euronext Markets

- All trading activity performed on the Euronext Trading Venues conducted directly by Euronext Members
- On cash instruments admitted to Euronext trading venues
- Respecting Trading Venues instrument characteristics including currencies

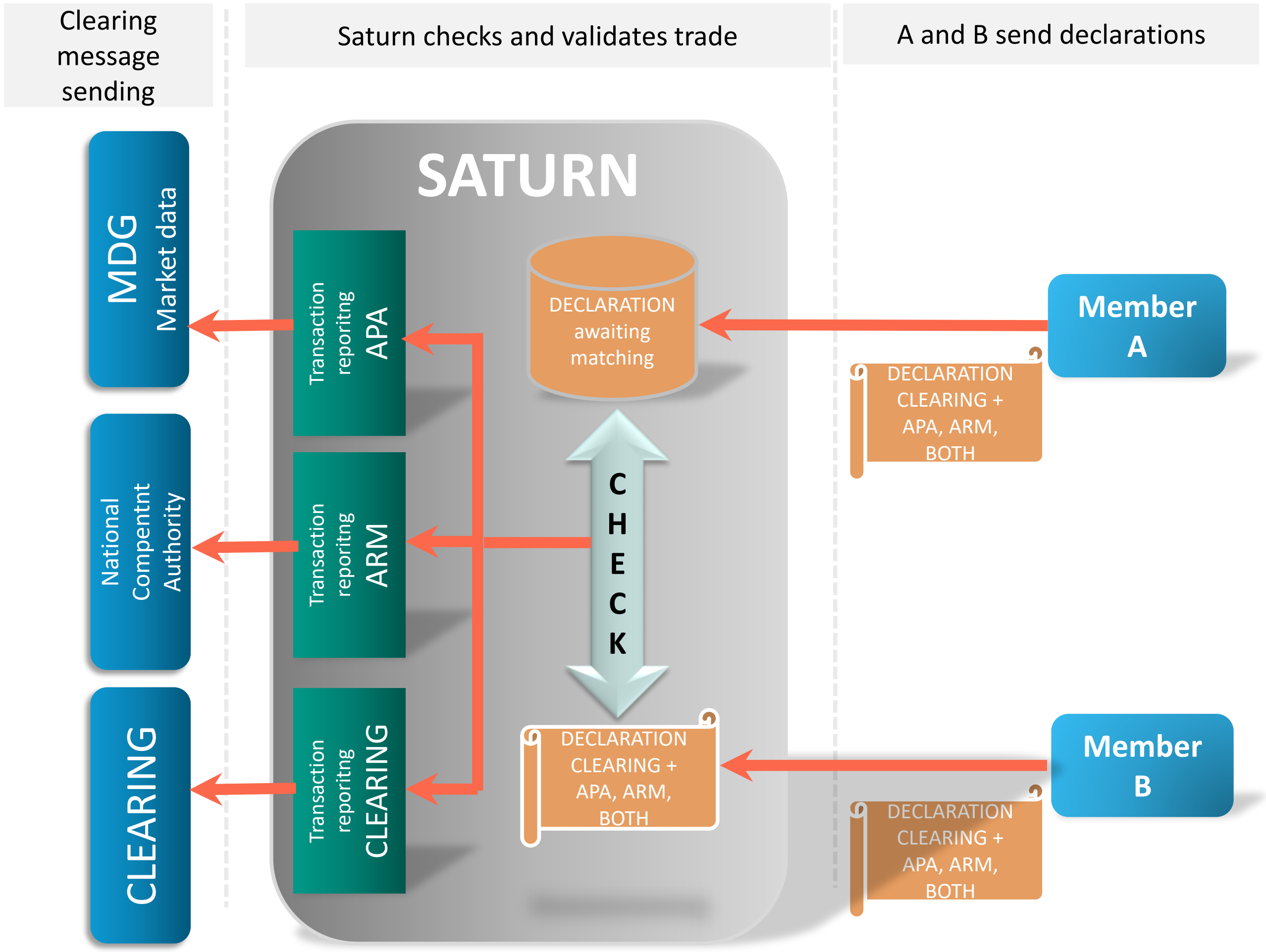
If the field 'settlement flag' is set to 1, other clearing fields become mandatory

- Client ID, Clearing firm ID, Account number are optional
- Guarantee Flag, Settlement Period and Account type are mandatory

o Optional
+ Conditional
✓ Mandatory

	Field	Rq	Format	Values
For clearing	Settlement Flag	✓	Boolean	0 - False 1 - True
	Client ID	+	{ALPHANUM-8}	No restriction (optional)
	Clearing Firm ID	+	{ALPHANUM-8}	No restriction (optional)
	Guarantee Flag	+	Int	1 - Cleared but not Guaranteed by a Clearing House 2 - Cleared and Guaranteed by a Clearing House
	Settlement Period	+	Num	No restriction
	Account Number	+	{ALPHANUM- 14}	No restriction (optional)
	Account type	+	Int	1 - Client 2 - House 3 - Retail Liquidity Provider 4 - RO 6 - Liquidity Provider 7 - Related Party 8 - Structured Product Market Maker

9.2.2 Schema



A and B send declarations	Member A & B send their declarations separately to SATURN OR a cross trade is sent (in this case the trade is directly generated, check process not needed)
Saturn checks and validate trade	Both declarations are checked and a trade is generated and validated
Message clearing sending	When OTC & APA services is used, Saturn sends a dedicated clearing message to the clearing house. Trade is published due to deferral rules applicable When OTC & ARM services is used, Saturn sends a dedicated clearing message to the clearing house. Trade is sent to relevant National Competent Authority with respect of relevant cut off time the same day When OTC, ARM & APA services is used, Saturn sends a dedicated clearing message to the clearing house. APA Trade is published due to deferral rules applicable, ARM Trade is sent to relevant National Competent Authority with respect of relevant cut off time the same day

10. INSTRUMENT WITHOUT ISIN CODE

When an ISIN code is not known or not populated, RTS 22 fields (42 to 56) are to be populated

10.1 TRANSACTION REPORTING SECTION

10.1.1 Field ‘Venue’ is an European market identifier code (MIC EEA)

- The ISIN code (field ‘securityid’) is in ESMA referential & the transaction is accepted
- The ISIN code (field ‘securityid’) is not in ESMA referential or not populated the transaction is rejected (not populated) or pending (not in ESMA referential)

10.1.2 Field ‘Venue’ is a Non-European market identifier code (MIC non EEA or XOFF)

- The ISIN code (field ‘securityid’) is in ESMA/FCA referential & the transaction is accepted
- The ISIN code (field ‘securityid’) is not in ESMA/FCA referential or not populated & the transaction is rejected (not populated) or pending (not in ESMA referential)
  - The underlying ISIN code (field ‘underlyingsecurityid’) is in ESMA/FCA referential & the transaction is accepted
  - The underlying ISIN code (field ‘underlyingsecurityid’) is not in ESMA/FCA referential & the transaction is pending

✓ Required | + Conditionally required | o Optional

Field	Rq	Format	Values	Condition	ESMA Field
InstrumentFullName	✓	{ALPHANUM-350}	No restriction		Field 42 of ESMA and onshored UK RTS 22
InstrumentClassification	✓	{CFI_CODE}	ISO 10962 CFI code		Field 43 of ESMA and onshored UK RTS 22
NotionalCurrency1	o	{CURRENCYCODE_3}	ISO 4217 Currency code	Mandatory only when CFI Code = O*****, S*****, C*****, R*****, F*****, E*****, D*****, H*****, J*****	Field 44 of ESMA and onshored UK RTS 22
NotionalCurrency2	o	{CURRENCYCODE_3}	ISO 4217 Currency code	Mandatory only when CFI Code = SF****, FFC***	Field 45 of ESMA and onshored UK RTS 22
PriceMultiplier	✓	{DECIMAL-18/17}	Number of units of the direct underlying instrument		Field 46 of ESMA and onshored UK RTS 22

✓ Required | + Conditionally required | o Optional

Field	Rq	Format	Values	Condition	ESMA Field
UnderlyingSecurityID	o	{ISIN}	Types described in the field	Mandatory when CFI Code is different from O**I**, O**N**, FFI***, FFN*** (indices)	Field 47 of ESMA and onshored UK RTS 22
UnderlyingIndexName	o	{ALPHANUM-25}	LEI or MIC	Mandatory when CFI Code = O**I**, O**N**, FFI***, FFN***	Field 48 of ESMA and onshored UK RTS 22
UnderlyingIndexTerm	o	{INTEGER-3} + 4 DIGITS	1 - 'DAYS' - days 2 - 'WEEK' - weeks 3 - 'MNTH' - months 4 - 'YEAR' – years	Mandatory when Index name is populated or CFI code = O**N**, FFN***	Field 49 of ESMA and onshored UK RTS 22
OptionType	o	{ALPHANUM-4}	1 - 'PUTO' - Put 2 - 'CALL' - Call 3 - 'OTHR' - where it cannot be determined whether it is a call or a put	Mandatory only when CFI code = O*****, H*****, RW****	Field 50 of ESMA and onshored UK RTS 22
StrikePrice	o	{DECIMAL-18/13}		Mandatory only when CFI code = O*****, H*****, RW****	Field 51 of ESMA and onshored UK RTS 22
StrikePriceCurrency	+	{CURRENCYCODE_3}	ISO 4217 Currency code	If strikepricenotation = MONE	Field 52 of ESMA and onshored UK RTS 22
StrikePriceNotation	+	Int	1 - 'MONE' – Monetary value 2 - 'PERC' – Percentage 3 - 'YIEL' – Yield 4- 'BAPO' – Basis points 5 - 'PNDG' – No price Pending 6 - 'NOAP'– Not Applicable	Depend on strikeprice	
OptionExerciseStyle	o	{ALPHANUM-4}	Only one of the following values can be populated ■ "AMER" - American ■ "ASIA" - Asian ■ "BERM" - Bermudan ■ "EURO" - European ■ "OTHR" - Other	Mandatory only when CFI code = O*****, H*****, RW****	Field 53 of ESMA and onshored UK RTS 22
MaturityDate	o	{DATEFORMAT}	Format YYYY-MM-DD	mandatory only when CFI Code = D***** (debt instrument)	Field 54 of ESMA and onshored UK RTS 22

✓ Required | + Conditionally required | o Optional

Field	Rq	Format	Values	Condition	ESMA Field
ExpiryDate	o	{DATEFORMAT}	Format YYYY-MM-DD	mandatory only when CFI code = O*****; F*****; JC**F*. (derivative instrument)	Field 55 of ESMA and onshored UK RTS 22
DeliveryType	o	{ALPHANUM-4}	1 - 'PHYS' - Physically settled 2 - 'CASH' - Cash settled 3 - 'OPTL' - Optional for counterparty or when determined by a third party	Mandatory for derivative, when CFI Code = O*****, F*****, S*****, W*****	Field 56 of ESMA and onshored UK RTS 22

10.1.3 Field 'Venue' is a not a valid MIC (MIC = XXXX)

Fields 42 -56 must be populated even if SEcurityID populated or not

✓ Required | + Conditionally required | o Optional

Field	Rq	Format	Values	Condition	ESMA Field
InstrumentFullName	✓	{ALPHANUM-350}	No restriction		Field 42 of ESMA and onshored UK RTS 22
InstrumentClassification	✓	{CFI_CODE}	ISO 10962 CFI code		Field 43 of ESMA and onshored UK RTS 22
NotionalCurrency1	o	{CURRENCYCODE_3}	ISO 4217 Currency code	Mandatory only when CFI Code = O*****, S*****, C*****, R*****, F*****, E*****, D*****, H*****, J*****	Field 44 of ESMA and onshored UK RTS 22
NotionalCurrency2	o	{CURRENCYCODE_3}	ISO 4217 Currency code	Mandatory only when CFI Code = SF****, FFC***	Field 45 of ESMA and onshored UK RTS 22
PriceMultiplier	✓	{DECIMAL-18/17}	Number of units of the direct underlying instrument		Field 46 of ESMA and onshored UK RTS 22
UnderlyingSecurityID	+	{ISIN}	Types described in the field		Field 47 of ESMA and onshored UK RTS 22
UnderlyingIndexName	o	{ALPHANUM-25}	LEI or MIC	Mandatory when CFI Code = O**I**, O**N**, FFI***, FFN***	Field 48 of ESMA and onshored UK RTS 22

✓ Required | + Conditionally required | o Optional

Field	Rq	Format	Values	Condition	ESMA Field
UnderlyingIndexTerm	o	{INTEGER-3} + 4 DIGITS	1 - 'DAYS' - days 2 - 'WEEK' - weeks 3 - 'MNTH' - months 4 - 'YEAR' – years	Mandatory when Index name is populated or CFI code = O**N**, FFN***	Field 49 of ESMA and onshored UK RTS 22
OptionType	o	{ALPHANUM-4}	1 - 'PUTO' - Put 2 - 'CALL' - Call 3 - 'OTHR' - where it cannot be determined whether it is a call or a put	Mandatory only when CFI code = O*****, H*****, RW****	Field 50 of ESMA and onshored UK RTS 22
StrikePrice	o	{DECIMAL-18/13}		Mandatory only when CFI code = O*****, H*****, RW****	Field 51 of ESMA and onshored UK RTS 22
StrikePriceCurrency	o	{CURRENCYCODE_3}	ISO 4217 Currency code	If strikepricenotation = MONE	Field 52 of ESMA and onshored UK RTS 22
StrikePriceNotation	+	Int	1 - 'MONE' – Monetary value 2 - 'PERC' – Percentage 3 - 'YIEL' – Yield 4 - 'BAPO' – Basis points 5 - 'PNDG' – No price Pending 6 - 'NOAP'– Not Applicable	Depend on strikeprice	
OptionExerciseStyle	o	{ALPHANUM-4}	Only one of the following values can be populated ■ "AMER" - American ■ "ASIA" - Asian ■ "BERM" - Bermudan ■ "EURO" - European ■ "OTHR" - Other	Mandatory only when CFI code = O*****, H*****, RW****	Field 53 of ESMA and onshored UK RTS 22
MaturityDate	o	{DATEFORMAT}	Format YYYY-MM-DD	mandatory only when CFI Code = D***** (debt instrument)	Field 54 of ESMA and onshored UK RTS 22
ExpiryDate	o	{DATEFORMAT}	Format YYYY-MM-DD	mandatory only when CFI code = O*****; F*****; JC**F*. (derivative instrument)	Field 55 of ESMA and onshored UK RTS 22
DeliveryType	o	{ALPHANUM-4}	1 - 'PHYS' - Physically settled 2 - 'CASH' - Cash settled 3 - 'OPTL' - Optional for counterparty or when determined by a third party	Mandatory for derivative, when CFI Code = O*****, F*****, S*****, W*****	Field 56 of ESMA and onshored UK RTS 22

10.2 APA TRADE PUBLICATION SECTION

10.2.1 Field 'Instrumentidtype' = ISIN

- The ISIN code (field 'securityid') <u>is in ESMA/FCA referential</u> & the transaction is accepted
- The ISIN code (field 'securityid') is <u>not</u> in ESMA/FCA referential or not populated & the transaction is failed

10.2.2 Field 'Instrumentidtype' = OTHR

Fields 42 -56 must be populated.

✓ Required | + Conditionally required | o Optional

Field	Rq	Format	Values	Condition	ESMA Field
InstrumentFullName	✓	{ALPHANUM-350}	No restriction		Field 42 of ESMA and onshored UK RTS 22
InstrumentClassification	✓	{CFI_CODE}	ISO 10962 CFI code		Field 43 of ESMA and onshored UK RTS 22
NotionalCurrency1	o	{CURRENCYCODE_3}	ISO 4217 Currency code	Mandatory only when CFI Code = O*****, S*****, C*****, R*****, F*****, E*****, D*****, H*****, J*****	Field 44 of ESMA and onshored UK RTS 22
NotionalCurrency2	o	{CURRENCYCODE_3}	ISO 4217 Currency code	Mandatory only when CFI Code = SF****, FFC***	Field 45 of ESMA and onshored UK RTS 22
PriceMultiplier	✓	{DECIMAL-18/17}	Number of units of the direct underlying instrument		Field 46 of ESMA and onshored UK RTS 22
UnderlyingSecurityID	+	{ISIN}	Types described in the field		Field 47 of ESMA and onshored UK RTS 22
UnderlyingIndexName	o	{ALPHANUM-25}	LEI or MIC	Mandatory when CFI Code = O**I**, O**N**, FFI***, FFN***	Field 48 of ESMA and onshored UK RTS 22

✓ Required | + Conditionally required | o Optional

Field	Rq	Format	Values	Condition	ESMA Field
UnderlyingIndexTerm	o	{INTEGER-3} + 4 DIGITS	1 - 'DAYS' - days 2 - 'WEEK' - weeks 3 - 'MNTH' - months 4 - 'YEAR' – years	Mandatory when Index name is populated or CFI code = O**N**, FFN***	Field 49 of ESMA and onshored UK RTS 22
OptionType	o	{ALPHANUM-4}	1 - 'PUTO' - Put 2 - 'CALL' - Call 3 - 'OTHR' - where it cannot be determined whether it is a call or a put	Mandatory only when CFI code = O*****, H*****, RW****	Field 50 of ESMA and onshored UK RTS 22
StrikePrice	o	{DECIMAL-18/13}		Mandatory only when CFI code = O*****, H*****, RW****	Field 51 of ESMA and onshored UK RTS 22
StrikePriceCurrency	o	{CURRENCYCODE_3}	ISO 4217 Currency code	If strikepricenotation = MONE	Field 52 of ESMA and onshored UK RTS 22
StrikePriceNotation	+	Int	1 - 'MONE' – Monetary value 2 - 'PERC' – Percentage 3 - 'YIEL' – Yield 4 - 'BAPO' – Basis points 5 - 'PNDG' – No price Pending 6 - 'NOAP'– Not Applicable	Depend on strikeprice	
OptionExerciseStyle	o	{ALPHANUM-4}	Only one of the following values can be populated ■ "AMER" - American ■ "ASIA" - Asian ■ "BERM" - Bermudan ■ "EURO" - European ■ "OTHR" - Other	Mandatory only when CFI code = O*****, H*****, RW****	Field 53 of ESMA and onshored UK RTS 22
MaturityDate	o	{DATEFORMAT}	Format YYYY-MM-DD	mandatory only when CFI Code = D***** (debt instrument)	Field 54 of ESMA and onshored UK RTS 22
ExpiryDate	o	{DATEFORMAT}	Format YYYY-MM-DD	mandatory only when CFI code = O*****; F*****; JC**F*. (derivative instrument)	Field 55 of ESMA and onshored UK RTS 22
DeliveryType	o	{ALPHANUM-4}	1 - 'PHYS' - Physically settled 2 - 'CASH' - Cash settled 3 - 'OPTL' - Optional for counterparty or when determined by a third party	Mandatory for derivative, when CFI Code = O*****, F*****, S*****, W*****	Field 56 of ESMA and onshored UK RTS 22

An ISIN code is provided

11. INSTRUMENT WITHOUT ISIN CODE WITH CSV FILE

When an ISIN code is not known or not populated RTS 22 fields (42 to 56) are to be populated

11.1 TRANSACTION REPORTING SECTION

11.1.1 Field 'Venue' is an European market identifier code (MIC EEA)

- The ISIN code (field 'securityid') is in ESMA referential & the transaction is accepted
- The ISIN code (field 'securityid') is not in ESMA referential or not populated & the transaction is rejected (not populated) or pending (not in ESMA referential)

11.1.2 Field 'Venue' is a Non-European market identifier code (MIC non EEA or XOFF)

- The ISIN code (field 'Security ID') is in ESMA/FCA referential & the transaction is accepted
- The ISIN code (field 'Security ID') is not in ESMA/FCA referential or not populated & the transaction is rejected (not populated) or pending (not in ESMA/FCA referential)
  - o The underlying ISIN code (field 'Underlying Security ID') is in ESMA/FCA referential & the transaction is accepted
  - o The underlying ISIN code (field 'Underlying Security ID') is not in ESMA/FCA referential & the transaction is pending

✓ Required | + Conditionally required | o Optional

Field	Rq	Format	Values	Condition	ESMA Field
Full Name	✓	{ALPHANUM-350}	No restriction		Field 42 of ESMA and onshored UK RTS 22
Classification Type	✓	{CFI_CODE}	ISO 10962 CFI code		Field 43 of ESMA and onshored UK RTS 22
Notional Currency 1	o	{CURRENCYCODE_3}	ISO 4217 Currency code	Mandatory only when CFI Code = O*****, S*****, C*****, R*****, F*****, E*****, D*****, H*****, J*****	Field 44 of ESMA and onshored UK RTS 22
Notional Currency 2	o	{CURRENCYCODE_3}	ISO 4217 Currency code	Mandatory only when CFI Code = SF****, FFC***	Field 45 of ESMA and onshored UK RTS 22
Price Multiplier	✓	{DECIMAL-18/17}	Number of units of the direct underlying instrument		Field 46 of ESMA and onshored UK RTS 22

✓ Required | + Conditionally required | o Optional

Field	Rq	Format	Values	Condition	ESMA Field
Underlying Security ID	+	{ISIN}	Types described in the field		Field 47 of ESMA and onshored UK RTS 22
Underlying Index Name	o	{ALPHANUM-25}	LEI or MIC	Mandatory when CFI Code = O**I**, O**N**, FFI***, FFN***	Field 48 of ESMA and onshored UK RTS 22
Underlying Instrument Term	o	{INTEGER-3} + 4 DIGITS	1 - 'DAYS' - days 2 - 'WEEK' - weeks 3 - 'MNTH' - months 4 - 'YEAR' – years	Mandatory when Index name is populated or CFI code = O**N**, FFN***	Field 49 of ESMA and onshored UK RTS 22
Option Type	o	{ALPHANUM-4}	1 - 'PUTO' - Put 2 - 'CALL' - Call 3 - 'OTHR' - where it cannot be determined whether it is a call or a put	Mandatory only when CFI code = O*****, H*****, RW****	Field 50 of ESMA and onshored UK RTS 22
Strike Price	o	{DECIMAL-18/13}		Mandatory only when CFI code = O*****, H*****, RW****	Field 51 of ESMA and onshored UK RTS 22
Strike Price Currency	o	{CURRENCYCODE_3}	ISO 4217 Currency code	If Strike Price Notation = MONE	Field 52 of ESMA and onshored UK RTS 22
Strike Price Notation	+	Int	1 - 'MONE' – Monetary value 2 - 'PERC' – Percentage 3 - 'YIEL' – Yield 4 - 'BAPO' – Basis points 5 - 'PNDG' – No price Pending 6 - 'NOAP'– Not Applicable	Depend on Strike Price	
Option Exercise Style	o	{ALPHANUM-4}	Only one of the following values can be populated ■ "AMER" - American ■ "ASIA" - Asian ■ "BERM" - Bermudan ■ "EURO" - European ■ "OTHR" -Other	Mandatory only when CFI code = O*****, H*****, RW****	Field 53 of ESMA and onshored UK RTS 22
Maturity Date	o	{DATEFORMAT}	Format YYYY-MM-DD	mandatory only when CFI Code = D***** (debt instrument)	Field 54 of ESMA and onshored UK RTS 22

✓ Required | + Conditionally required | o Optional

Field	Rq	Format	Values	Condition	ESMA Field
Expiry Date	o	{DATEFORMAT}	Format YYYY-MM-DD	mandatory only when CFI code = O*****; F*****; JC**F*. (derivative instrument)	Field 55 of ESMA and onshored UK RTS 22
Delivery Type	o	{ALPHANUM-4}	1 - ‘PHYS’ - Physically settled 2 - ‘CASH’ - Cash settled 3 - ‘OPTL’ - Optional for counterparty or when determined by a third party	Mandatory for derivative, when CFI Code = O*****, F*****, S*****, W*****	Field 56 of ESMA and onshored UK RTS 22

11.1.3 Field ‘Venue’ is a not a valid MIC (MIC = XXXX)

- The ISIN code (field ‘securityid’) is in ESMA referential & the transaction is accepted
- The ISIN code (field ‘securityid’) is not in ESMA referential or not populated & the transaction is rejected (not populated) or pending (not in ESMA referential)
  - The underlying ISIN code (field ‘underlyingsecurityid’) is in ESMA referential & the transaction is accepted
  - The underlying ISIN code (field ‘underlyingsecurityid’) is not in ESMA referential & the transaction is pending

✓ Required | + Conditionally required | o Optional

Field	Rq	Format	Values	Condition	ESMA Field
Full Name	✓	{ALPHANUM-350}	No restriction		Field 42 of ESMA and onshored UK RTS 22
Classification Type	✓	{CFI_CODE}	ISO 10962 CFI code		Field 43 of ESMA and onshored UK RTS 22
Notional Currency 1	o	{CURRENCYCODE_3}	ISO 4217 Currency code	Mandatory only when CFI Code = O*****, S*****, C*****, R*****, F*****, E*****, D*****, H*****, J*****	Field 44 of ESMA and onshored UK RTS 22
Notional Currency 2	o	{CURRENCYCODE_3}	ISO 4217 Currency code	Mandatory only when CFI Code = SF****, FFC***	Field 45 of ESMA and onshored UK RTS 22
Price Multiplier	✓	{DECIMAL-18/17}	Number of units of the direct underlying instrument		Field 46 of ESMA and onshored UK RTS 22

✓ Required | + Conditionally required | o Optional

Field	Rq	Format	Values	Condition	ESMA Field
Underlying Security ID	+	{ISIN}	Types described in the field		Field 47 of ESMA and onshored UK RTS 22
Underlying Index Name	o	{ALPHANUM-25}	LEI or MIC	Mandatory when CFI Code = O**I**, O**N**, FFI***, FFN***	Field 48 of ESMA and onshored UK RTS 22
Underlying Instrument Term	o	{INTEGER-3} + 4 DIGITS	1 - 'DAYS' - days 2 - 'WEEK' - weeks 3 - 'MNTH' - months 4 - 'YEAR' – years	Mandatory when Index name is populated or CFI code = O**N**, FFN***	Field 49 of ESMA and onshored UK RTS 22
Option Type	o	{ALPHANUM-4}	1 - 'PUTO' - Put 2 - 'CALL' - Call 3 - 'OTHR' - where it cannot be determined whether it is a call or a put	Mandatory only when CFI code = O*****, H*****, RW****	Field 50 of ESMA and onshored UK RTS 22
Strike Price	o	{DECIMAL-18/13}		Mandatory only when CFI code = O*****, H*****, RW****	Field 51 of ESMA and onshored UK RTS 22
Strike Price Currency	o	{CURRENCYCODE_3}	ISO 4217 Currency code	If Strike Price Notation = MONE	Field 52 of ESMA and onshored UK RTS 22
Strike Price Notation	+	Int	1 - 'MONE' – Monetary value 2 - 'PERC' – Percentage 3 - 'YIEL' – Yield 4 - 'BAPO' – Basis points 5 - 'PNDG' – No price Pending 6 - 'NOAP'– Not Applicable	Depend on Strike Price	
Option Exercise Style	o	{ALPHANUM-4}	Only one of the following values can be populated ■ "AMER" - American ■ "ASIA" - Asian ■ "BERM" - Bermudan ■ "EURO" - European ■ "OTHR" - Other	Mandatory only when CFI code = O*****, H*****, RW****	Field 53 of ESMA and onshored UK RTS 22
Maturity Date	o	{DATEFORMAT}	Format YYYY-MM-DD	mandatory only when CFI Code = D***** (debt instrument)	Field 54 of ESMA and onshored UK RTS 22

✓ Required | + Conditionally required | o Optional

Field	Rq	Format	Values	Condition	ESMA Field
Expiry Date	o	{DATEFORMAT}	Format YYYY-MM-DD	mandatory only when CFI code = O*****; F*****; JC**F*. (derivative instrument)	Field 55 of ESMA and onshored UK RTS 22
Delivery Type	o	{ALPHANUM-4}	1 - 'PHYS' - Physically settled 2 - 'CASH' - Cash settled 3 - 'OPTL' - Optional for counterparty or when determined by a third party	Mandatory for derivative, when CFI Code = O*****, F*****, S*****, W*****	Field 56 of ESMA and onshored UK RTS 22

11.2 APA TRADE PUBLICATION SECTION

11.2.1 Field 'Instrumentidtype' = ISIN

- The ISIN code (field 'securityid') is in ESMA/FCA referential & the transaction is accepted
- The ISIN code (field 'securityid') is not in ESMA/FCA referential or not populated & the transaction is failed

11.2.2 Field 'Instrumentidtype' = OTHR

In all cases where the ISIN code is not populated

✓ Required | + Conditionally required | o Optional

Field	Rq	Format	Values	Condition	ESMA Field
Full Name	✓	{ALPHANUM-350}	No restriction		Field 42 of ESMA and onshored UK RTS 22
Classification Type	✓	{CFI_CODE}	ISO 10962 CFI code		Field 43 of ESMA and onshored UK RTS 22
Notional Currency 1	o	{CURRENCYCODE_3}	ISO 4217 Currency code	Mandatory only when CFI Code = O*****, S*****, C*****, R*****, F*****, E*****, D*****, H*****, J*****	Field 44 of ESMA and onshored UK RTS 22
Notional Currency 2	o	{CURRENCYCODE_3}	ISO 4217 Currency code	Mandatory only when CFI Code = SF****, FFC***	Field 45 of ESMA and onshored UK RTS 22

✓ Required | + Conditionally required | o Optional

Field	Rq	Format	Values	Condition	ESMA Field
Price Multiplier	✓	{DECIMAL-18/17}	Number of units of the direct underlying instrument		Field 46 of ESMA and onshored UK RTS 22
Underlying Security ID	+	{ISIN}	Types described in the field		Field 47 of ESMA and onshored UK RTS 22
Underlying Index Name	o	{ALPHANUM-25}	LEI or MIC	Mandatory when CFI Code = O**I**, O**N**, FFI***, FFN***	Field 48 of ESMA and onshored UK RTS 22
Underlying Instrument Term	o	{INTEGER-3} + 4 DIGITS	1 - 'DAYS' - days 2 - 'WEEK' - weeks 3 - 'MNTH' - months 4 - 'YEAR' – years	Mandatory when Index name is populated or CFI code = O**N**, FFN***	Field 49 of ESMA and onshored UK RTS 22
Option Type	o	{ALPHANUM-4}	1 - 'PUTO' - Put 2 - 'CALL' - Call 3 - 'OTHR' - where it cannot be determined whether it is a call or a put	Mandatory only when CFI code = O*****, H*****, RW****	Field 50 of ESMA and onshored UK RTS 22
Strike Price	o	{DECIMAL-18/13}		Mandatory only when CFI code = O*****, H*****, RW****	Field 51 of ESMA and onshored UK RTS 22
Strike Price Currency	o	{CURRENCYCODE_3}	ISO 4217 Currency code	If Strike Price Notation = MONE	Field 52 of ESMA and onshored UK RTS 22
Strike Price Notation	+	Int	1 - 'MONE' - Monetary value 2 - 'PERC' - Percentage 3 - 'YIEL' - Yield 4 - 'BAPO' - Basis points. 5 - 'PNDG' - No price Pending 6 - 'NOAP' - Not Applicable	Depend on Strike Price	
Option Exercise Style	o	{ALPHANUM-4}	Only one of the following values can be populated ■ "AMER" - American ■ "ASIA" - Asian ■ "BERM" - Bermudan ■ "EURO" - European ■ "OTHR" - Other	Mandatory only when CFI code = O*****, H*****, RW****	Field 53 of ESMA and onshored UK RTS 22
Maturity Date	o	{DATEFORMAT}	Format YYYY-MM-DD	mandatory only when CFI Code = D***** (debt instrument)	Field 54 of ESMA and onshored UK RTS 22

✓ Required | + Conditionally required | o Optional

Field	Rq	Format	Values	Condition	ESMA Field
Expiry Date	o	{DATEFORMAT}	Format YYYY-MM-DD	mandatory only when CFI code = O*****; F*****; JC**F*. (derivative instrument)	Field 55 of ESMA and onshored UK RTS 22
Delivery Type	o	{ALPHANUM-4}	1 - 'PHYS' - Physically settled 2 - 'CASH' - Cash settled 3 - 'OPTL' - Optional for counterparty or when determined by a third party	Mandatory for derivative, when CFI Code = O*****, F*****, S*****, W*****	Field 56 of ESMA and onshored UK RTS 22

12. TRADE STATUS & ASSET CLASS

12.1 SATURN TRADE STATUS

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members

Following trade status can be retrieved from Saturn:

Please note that the number in the column 'Trade Status Value' can be find in the Get response data with name 'status'

Trade Status Value	Status	Trade Status	Comment
0	Saturn status	PENDING	Transaction sent. Awaiting Regulator's feedback.
1	Saturn status	CANCELLED	Transaction cancelled by a user of the subscribing entity.
2	Saturn status	Wait for check	Transaction is waiting to be checked.
3	Saturn status	CHECKED & READY	Saturn data reconciliation and Transaction Reporting file creation has been successfully performed (Saturn checks are ok). Transaction(s) is/are ready to be sent.
4	Saturn status	FAILED	Saturn data reconciliation and Transaction Reporting file creation cannot be performed due to missing or incorrect data received. User action is required.
5	Saturn status	SENT	Transaction sent. Awaiting Regulator's feedback.
6	NCA status	ACCEPTED	Transaction has been approved by the Regulator.
7	NCA status	REJECTED	Transaction has been rejected by the Regulator.
8	Saturn status	Awaiting matching	For Clearing purpose. Declaration received and awaiting matching with counterpart declaration.
9	Saturn status	Awaiting matching Cancellation	For Clearing purpose. Declaration cancelled and awaiting matching cancellation with counterpart declaration.
11	Saturn status	Cancelled Accepted	Transaction cancelled by a user. If transaction not sent to regulator, this transaction will not be sent. If previously sent, cancelation will be sent to Regulator.
12	Saturn status	Cancelled received	Transaction cancelled by a user. Received by regulator

Trade Status Value	Status	Trade Status	Comment
13	Saturn status	RECEIVED	Saturn data reconciliation and Transaction Reporting file creation can be performed. A client user validation is needed for the Transaction being ready to be sent ("user validation option" set up).
14	Saturn status	To be cleared	For clearing purpose. Awaiting clearing process
15	Saturn status	ISIN warning	Saturn checks have been successfully performed. However ISIN code is not found in SATURN Referential. Transaction is ready to be sent to Regulator.
16	Saturn status	ENX to be completed	Transactions coming from matching engine and need to be reconciled.
17	Saturn status	Eliminated	For Clearing purpose. Declaration eliminated when both sides cancelled their declaration.
18	Saturn status	Matched	For Clearing purpose. Declaration matched.
19	Saturn status	Suspended	Transaction are on hold because Participant is suspended.
20	Saturn status	Warning	For OBOE Trade in case of prices, volumes and Duplicate control

12.2 ASSET CLASS – CFI CODES

ALL	Function applying to all users

This table shows all Saturn available Asset Class.

Asset Id - CFI	Asset Name
E	Equities
C	Collective investment vehicles
D	Debt instruments
R	Entitlements (rights)
O	Listed options
F	Futures
S	Swaps
H	Non-listed and complex listed options
I	Spot
J	Forwards
K	Strategies
L	Financing

Asset Id - CFI	Asset Name
T	Referential instruments
M	Others (miscellaneous)

13. REST API STANDARDS

13.1 DATA FORMAT STANDARDS

ALL	Function applying to all users

Certain data in the messages needs to be formatted according to standards for the respective data types.

Data Type	Standard	Example
Date	date	2018-06-29
DateTime	UTCTimestamp	YYYY-MM-DDThh:mm:ss.ddddddZ
Decimal	Decimal	3.1415927
Boolean	boolean	true
String	string	FUTURE
Long	long	234 (up to.. characters)
Integer	Int	2 (up to 233 characters)
Account	account	Username: string Role: string ID: long Jean; Admin; 347
LEI	ISO 17442	969500HMVSZ0TCV65D58
MIC	ISO 10383	XPAR
Currency	ISO 4217	EUR
Country	ISO 3166	FR
CFI	ISO 10962	ESETFA

13.2 OPERATORS

ALL	Function applying to all users

Operators	Description
EQ	Equal to
NEQ	Not Equal to
LK	Like
GT	Greater than
GE	Greater than or Equal to

Operators	Description
LT	Less than
LE	Less than or Equal to

13.3 SPECIAL CHARACTERS <, & AND > IN XML

ALL	Function applying to all users

The ampersand character (&) and the angle brackets (<) and (>) *MUST NOT* appear in their literal form, except when used as markup delimiters, or within a comment, a processing instruction, or a CDATA section. If they are needed elsewhere, they *MUST* be escaped using either numeric character references or the strings “&” for (&) and “<” for (<). The right angle bracket (>) *MAY* be represented using the string “>”, and *MUST*, for compatibility, be escaped using either “>” or a character reference when it appears in the string “]]>” in content, when that string is not marking the end of a CDATA section.

13.4 REST FAULT CODES

ALL	Function applying to all users

Status codes are used to inform clients about errors caused either by malformed input, by server-side errors or by business logic errors. To inform clients about authentication or unexpected processing errors, a SOAP fault element is sent to the client. The status code is mapped to the fault code and for some errors, additional information is returned in the fault string.

To inform clients about syntactic or semantic errors in the request messages or business level errors during message processing, a MessageRejected message is sent to the client.

Code	Description
Server.Action	The fault is related to processing on the server
Client.Authentication	The fault is related to client authentication

14. PRE REQUISITE BEFORE USING API

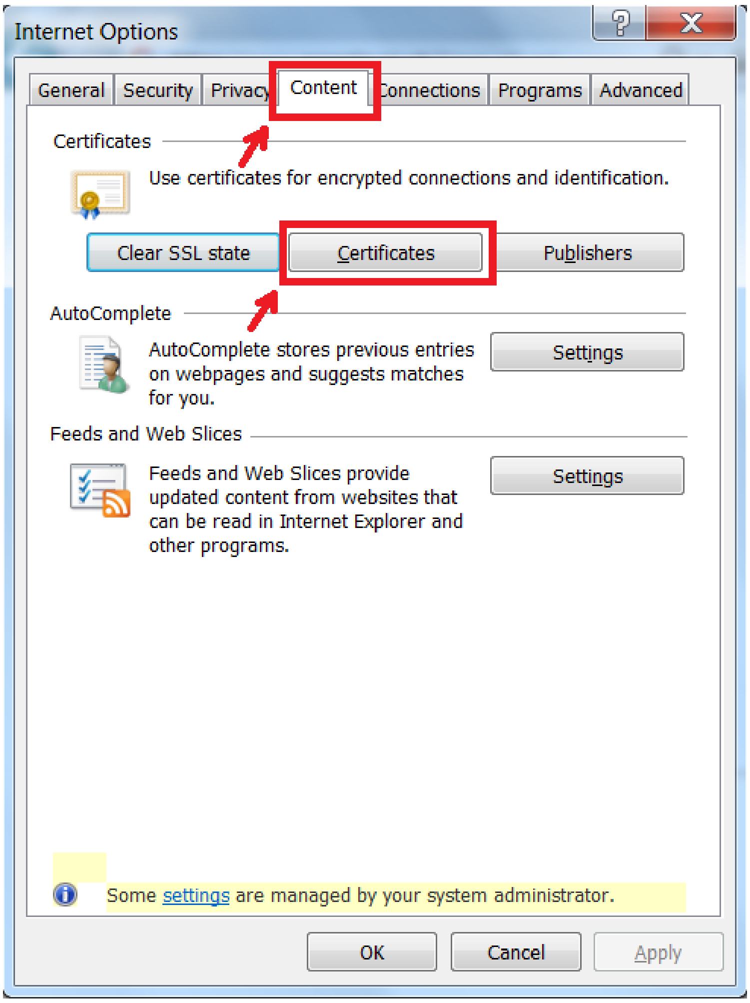
ALL	Function applying to all users

14.1 ENGLISH SCREENSHOTS

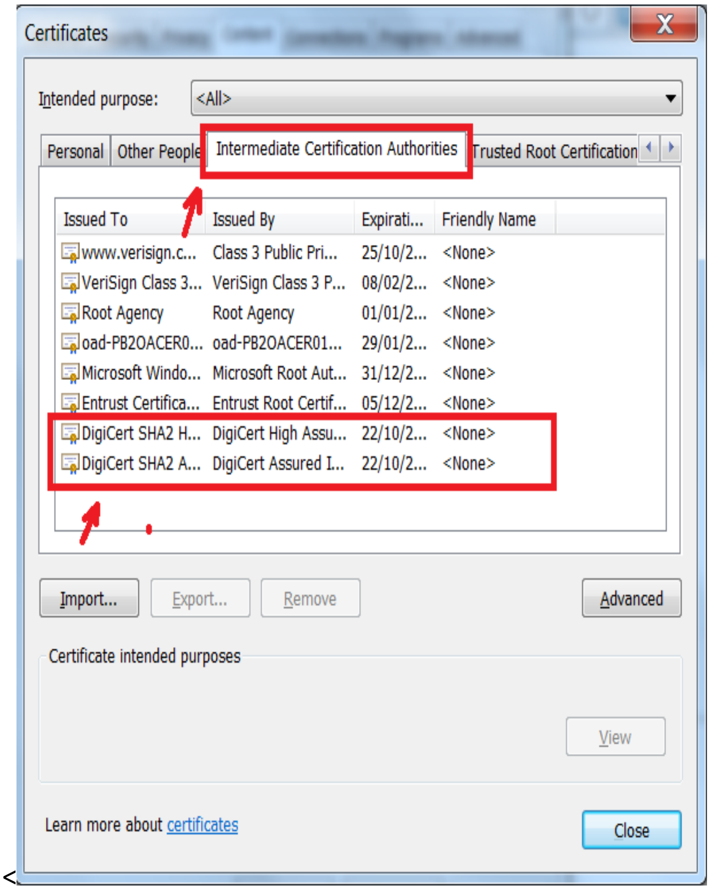
Before using SATURN API REST it is required to check that the connection is made with a valid intermediate certificate.

Please follow the different steps below so that the connection is fully established.

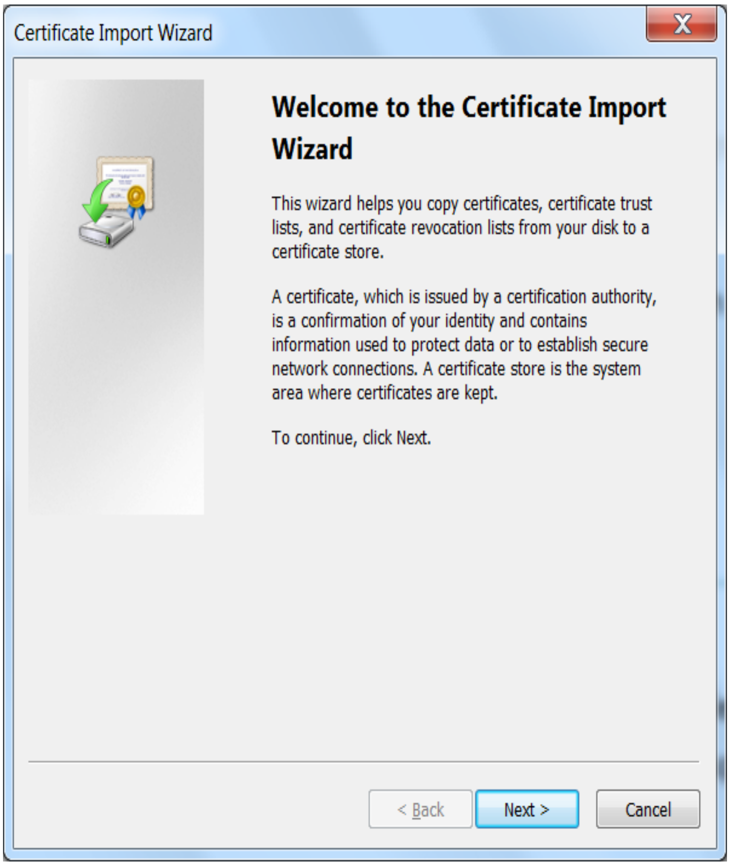
- Open the Internet Explorer navigator
- Go to Internet Options
- Click on 'Content' Tab
- Click on 'Certificates' button



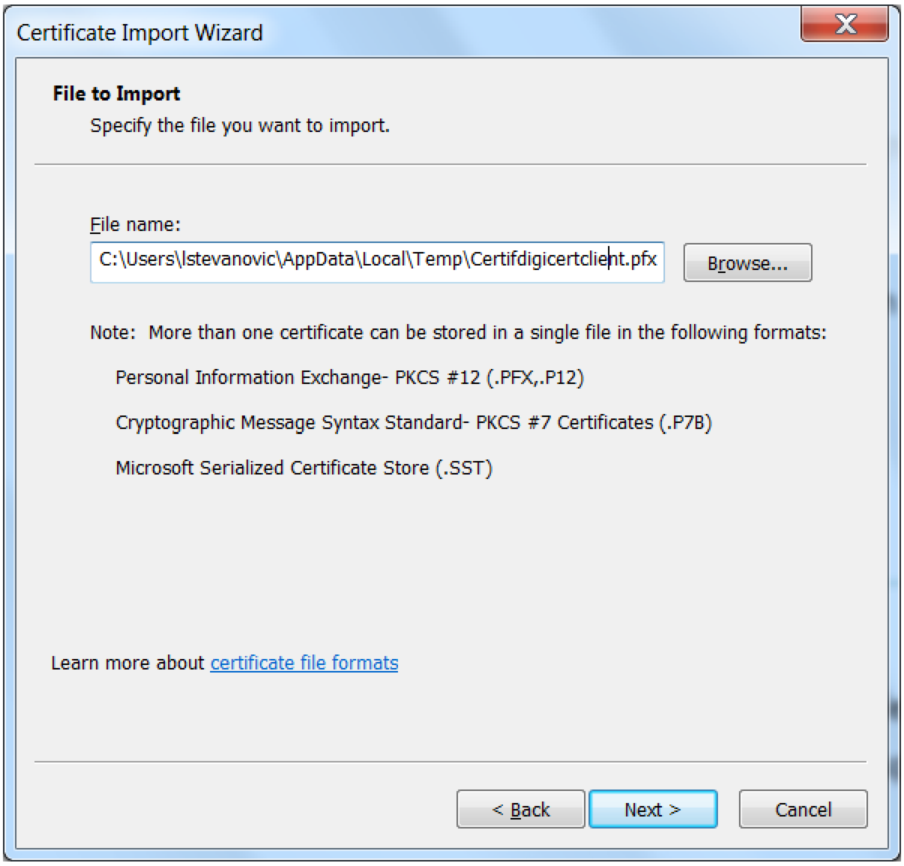
In the pop-up 'certificate' go to 'Intermediate Certification Authorities' and please check that the intermediate certificates Digicert are present.



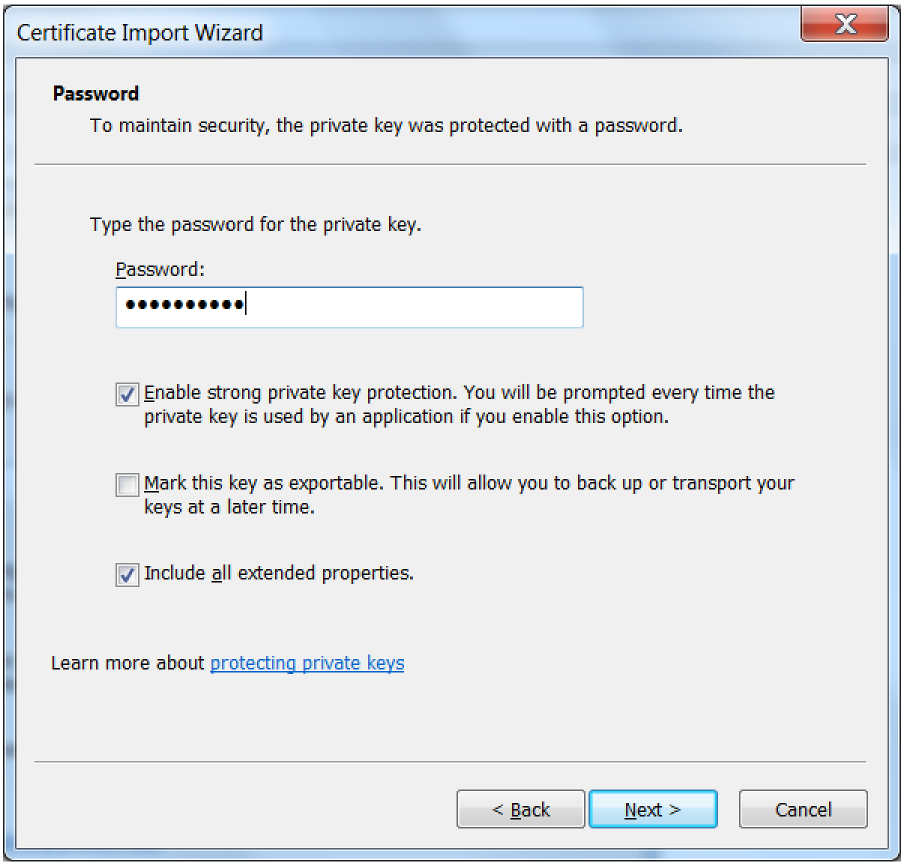
If it is necessary to install them by executing the file named “Certifdigicertclient.pfx” attached to this document. irst click on ‘Next’



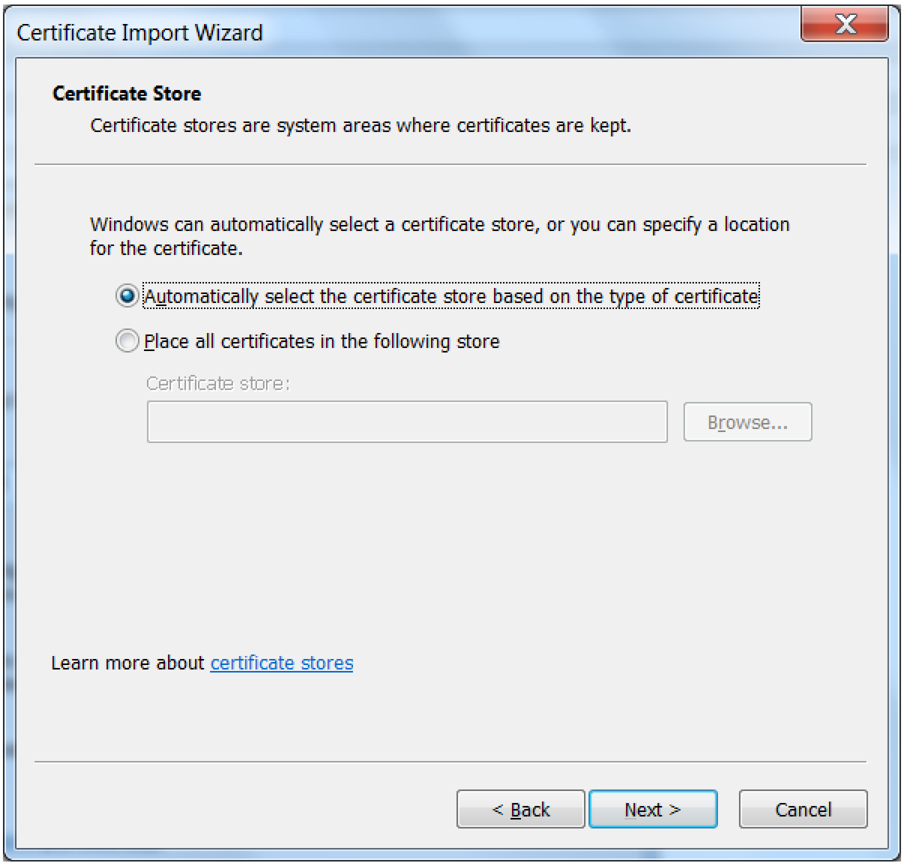
Browse to the location of the file and click on 'Next'



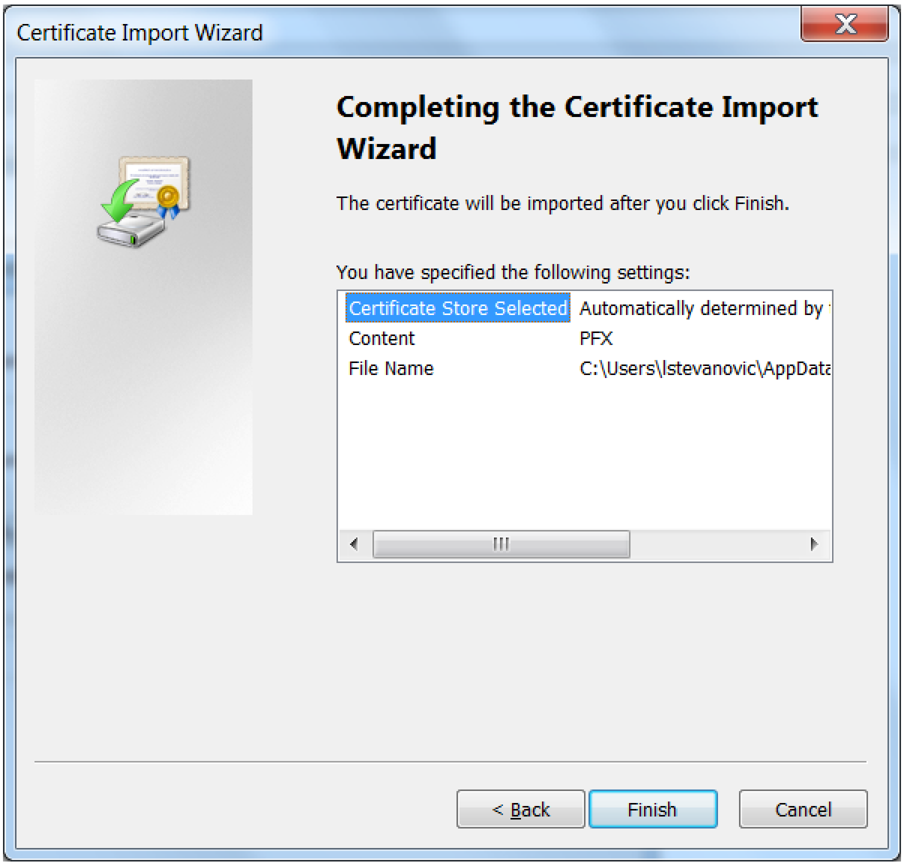
The password is Cer$!IF123 click on 'Next'



Tick 'Automatically select the certificate store based on the types of certificate' and click on 'Next'



When the installation is finished the window below will appear, click on 'Finish'



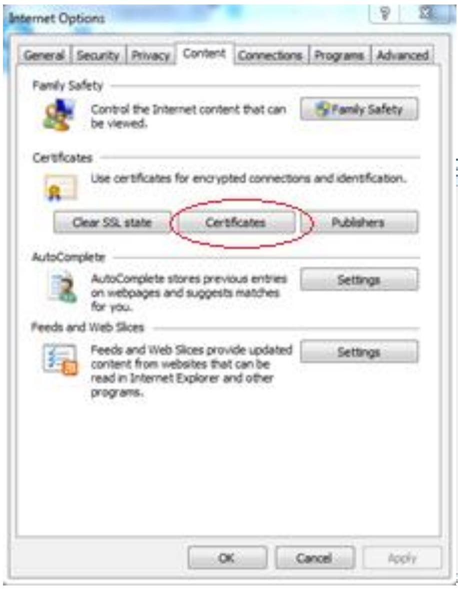
14.2 GENERATE CERTIFICATE WITH PEM FORMAT

In case Curl is used to authenticate, it is required to convert the client certificate in PEM format.
To do so please follow the steps below:

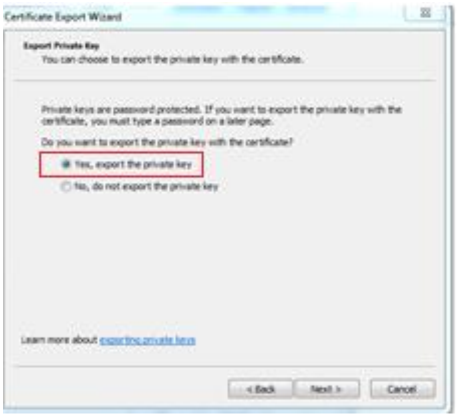
14.2.1 With Windows tool

First step:
Export the Certificate installed on the computer by:

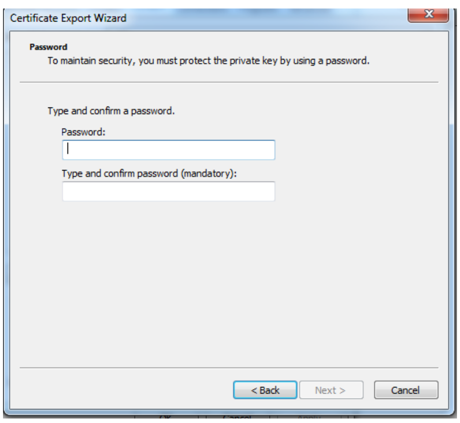
- Open the Internet Explorer navigator
- Go to Internet Options
- Click on 'Content' Tab
- Click on 'Certificates' button
- Click on 'Export' button

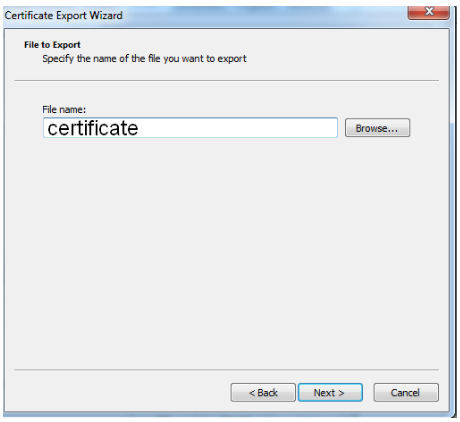


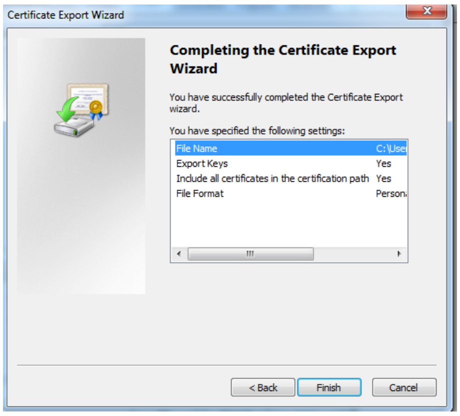
Pay attention to choose *Yes, export the private key*



Enter a password to secure the certificate and enter a file name







A new certificate file is generated

<u>Second step:</u> Create PEM certificate file (usable with curl) from certificate.pfx

On Linux or Windows use *openssl* command.

In the example below:

- *certificate.pfx* is the certificate exported previously
- *certificateprivate.pem* is the certificate PEM to use with *curl*

```
> openssl pkcs12 -in certificate.pfx  -nodes -out certificateprivate.pem
Enter Import Password:
MAC verified OK


> ll
total 24K
6.4K Nov 15 12:23 certificate.pfx
9.4K Nov 15 12:24 certificateprivate.pem
```

The intermediate Certificate in PEM Format

digicert_intermediate.pem

14.2.2 With digicert tool

In case policies do not authorize an export

First step is to request a new certificate

Please use the link below to get and export of the certificate in pem format

https://www.euronext.com/sites/www.euronext.com/files/digicertutil.zip

And follow the procedure below and use the digicert tool attached https://www.digicert.com/util/copy-ssl-from-windows-iis-to-apache-using-digicert-certificate-utility.htm

14.3 HOW TO USE CURL

Witht proxy

```
curl -X POST https://saturn-api-
h.euronext.com/SaturnWebServices/rest/Authentication/AuthenticateUser -H
"Content-Type: application/json" -H "Authorization: Basic [Authentification
key base64]" --cert certificateprivate.pem --cacert digicert_intermediate.pem
-k -i --proxy https_proxy=http://[username]: [password]@[proxy]:8080


HTTP/1.1 200 Connection established

HTTP/1.1 200 OK
Content-Type: application/json
Connection: keep-alive
X-Cache-Status: NOTCACHED
X-Zen-Fury: a105e5ed9281f75e288eb57773cf33ef53f98740
Date: Wed, 15 Nov 2017 12:35:39 GMT
Cache-Control: no-cache
Content-Length: 145
Server: ZENEDGE
X-Cdn: Served-By-Zenedge

{"token":"eyJAzdREFQSDFRT.RzfRgrge0grXRobWFuQVBJIiwiaXNzIjoiQXV0aDAiLCJleHAiOj
E1MAZDAKOzdaz59.dazdaXSK6AFbQDidnJWdazd52aada"}
```

Without proxy

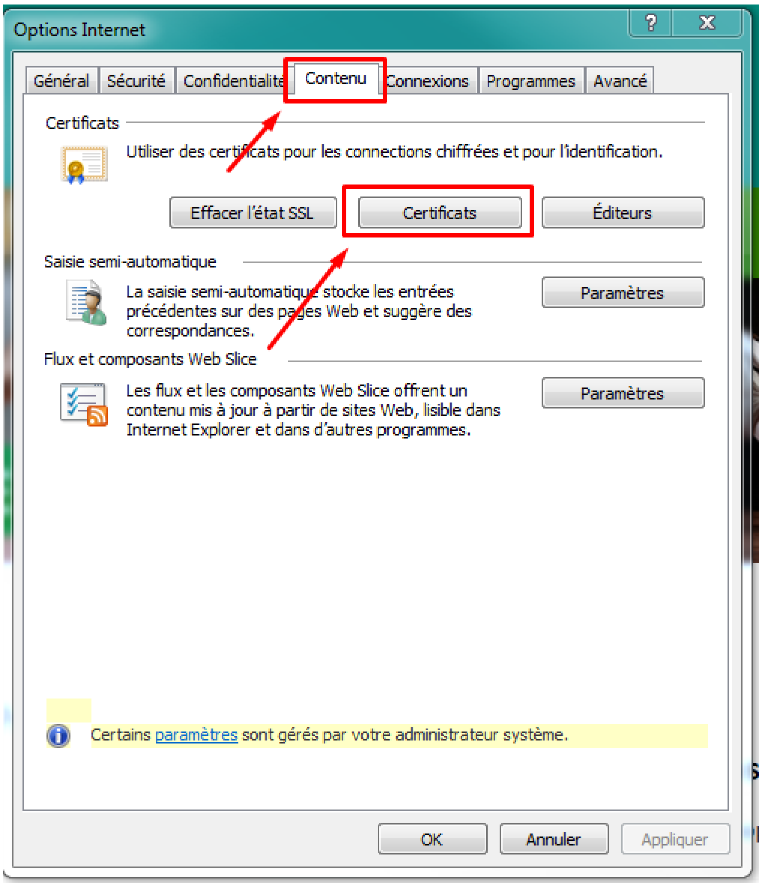
```
curl -X POST https://saturn-api-
h.euronext.com/SaturnWebServices/rest/Authentication/AuthenticateUser -H
"Content-Type: application/json" -H "Authorization: Basic [Authentification
key base64]" --cert certificateprivate.pem --cacert digicert_intermediate.pem
-k -i
```

14.4 FRENCH SCREENSHOTS

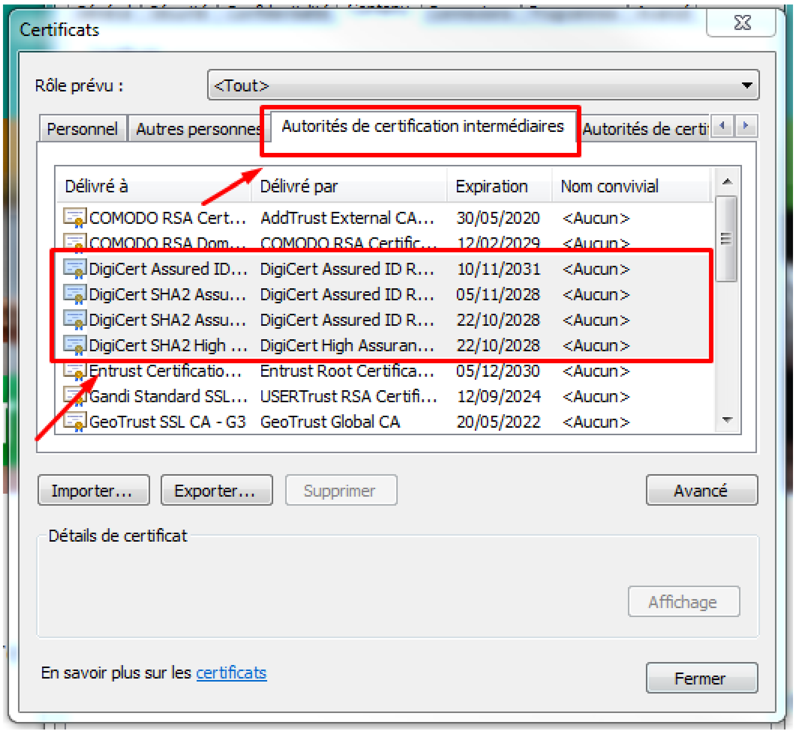
Before using SATURN API REST it is necessary to check that the connection is made with a valid intermediate certificate.

Please follow the different steps below to ensure that the connection is fully established.

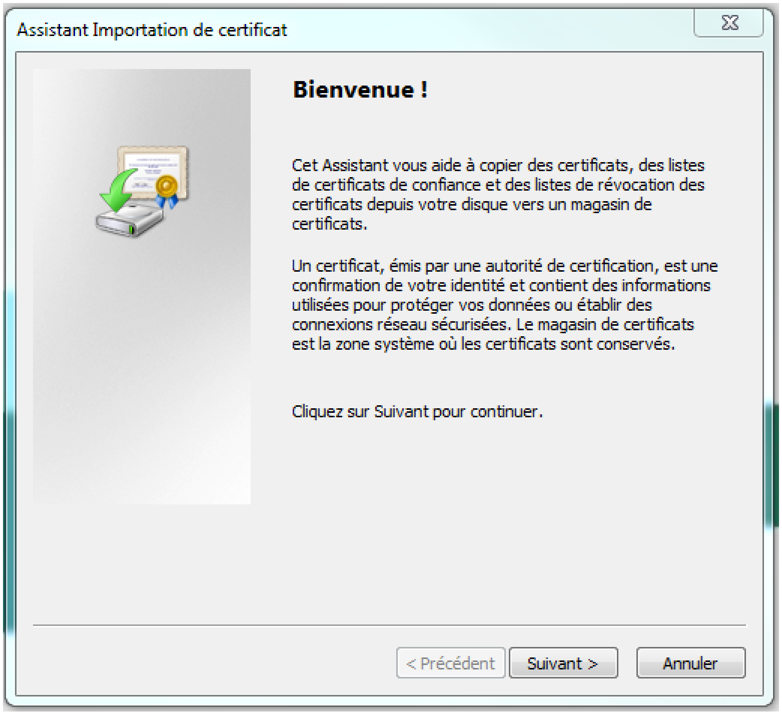
- Open the Internet Explorer navigator
- Go to Options Internet
- Click on ‘Contenu’ Tab
- Click on ‘Certificats’ button



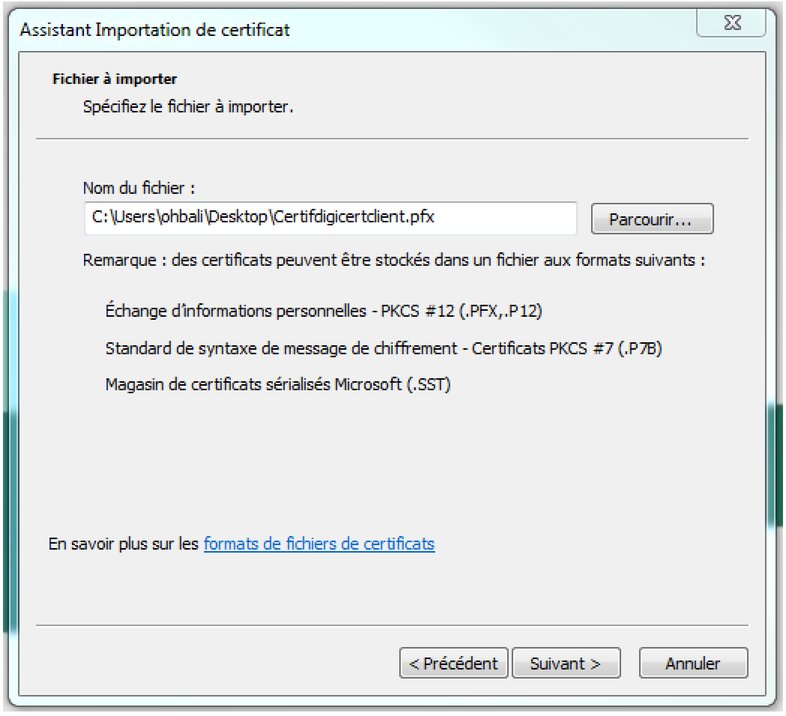
In the pop-up 'certificate' go to 'Autorités de certification intermédiaires' and please check that the intermediate certificates Digicert are present.



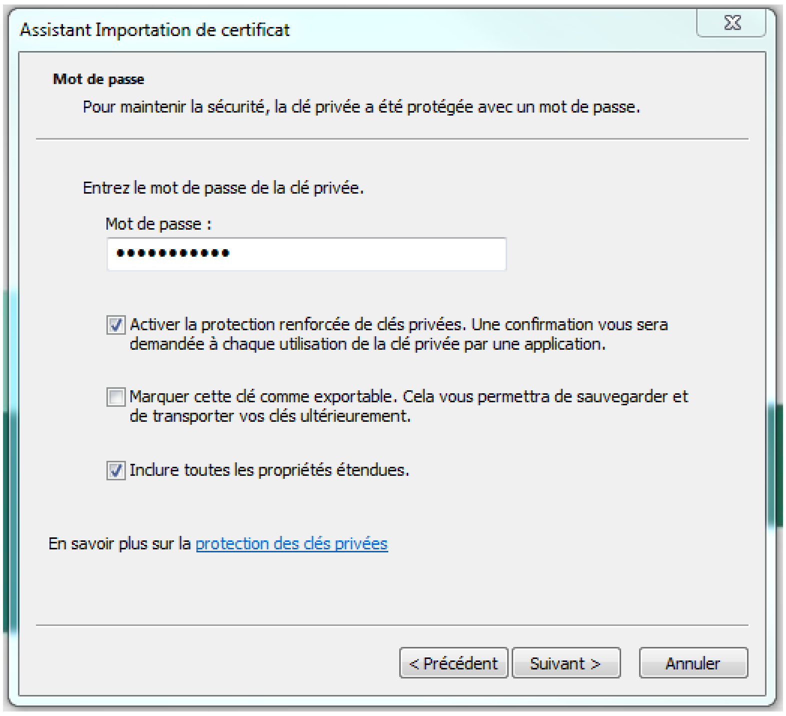
If it is necessary to install them by executing the file attached “Certifdigicertclient”, first click on ‘Suivant’



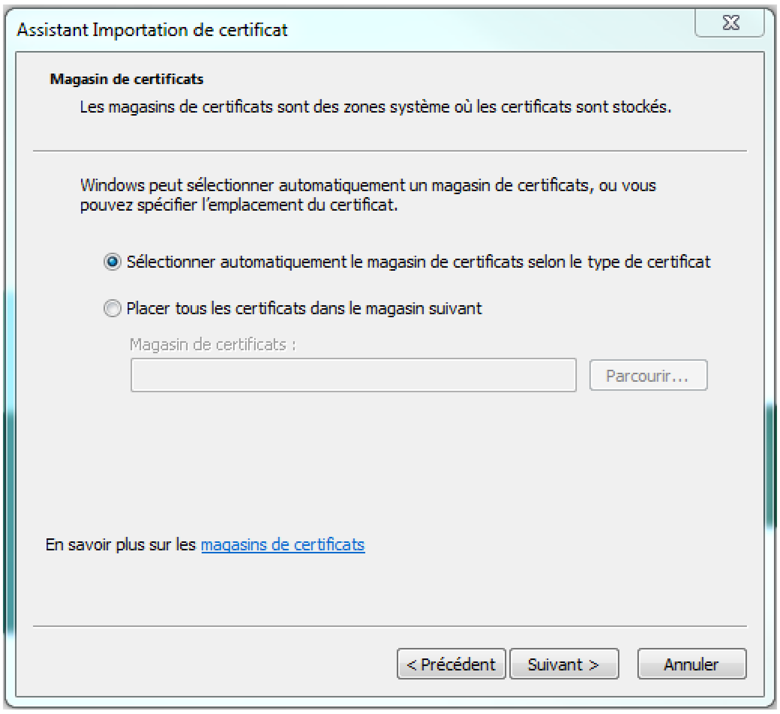
Browse to the location of the file and click on ‘Suivant’



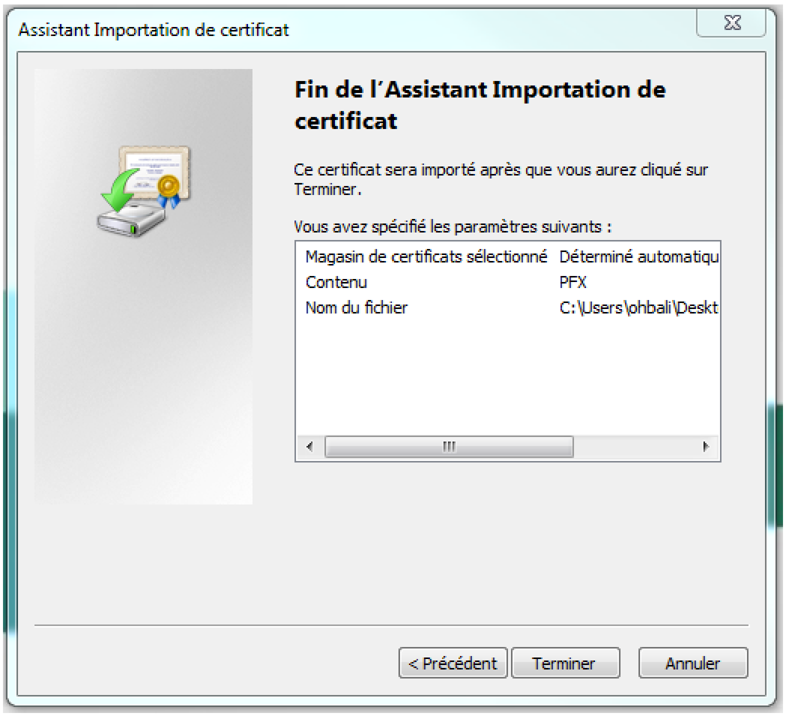
The password is Cer$!IF123 click on 'Suivant'



Tick 'Sélectionner automatiquement le magasin de certificats selon le type de certificat' and click on 'Suivant'



When the installation is finished the window below will appear, click on 'Terminer'



15. HOW TO SET UP TESTING

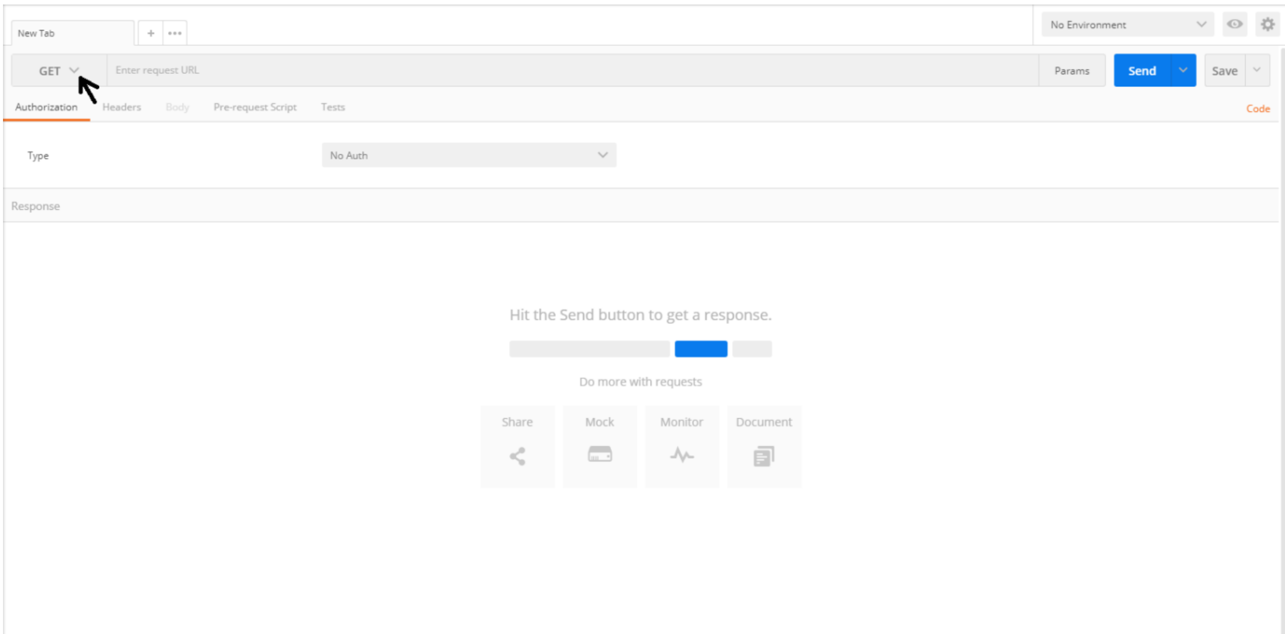
ALL	Function applying to all users

This section describes step by step how to test a function in Web service.

15.1 ACCESS TO API VIA POSTMAN

The function take in example hereafter is AuthenticateUser. It allows a user to connect to the API.
The screenshots are Software Postman examples

Select in the combo box shown below the function POST (showed by the arrow in the screenshot)



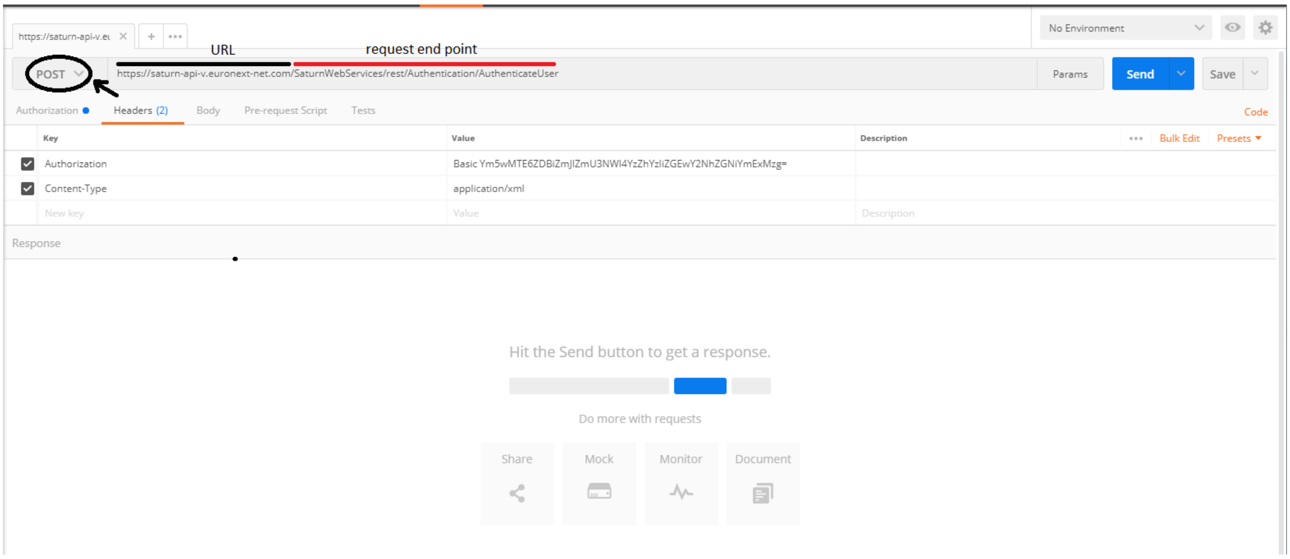
15.2 REQUEST ENDPOINT AND FUNCTION PARAMETER

All functions in this document have to be built as detailed below

Function:

Function name: AuthenticateUser
Request EndPoint: /SaturnWebServices/rest/Authentication/ AuthenticateUser
Method: POST

In Postman, select the method (POST) set up the URL followed by request end point.

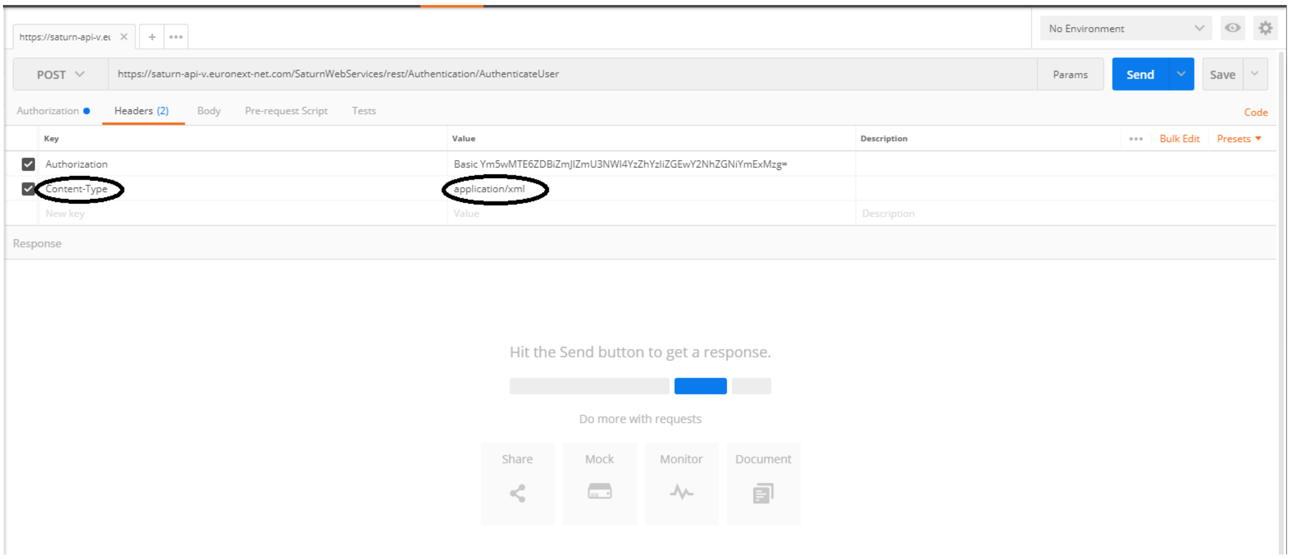


Request Body:

This endpoint accepts a request body in one of the following formats:

1. application/json;
2. application/xml.

In the screenshot below, xml is chosen as content type



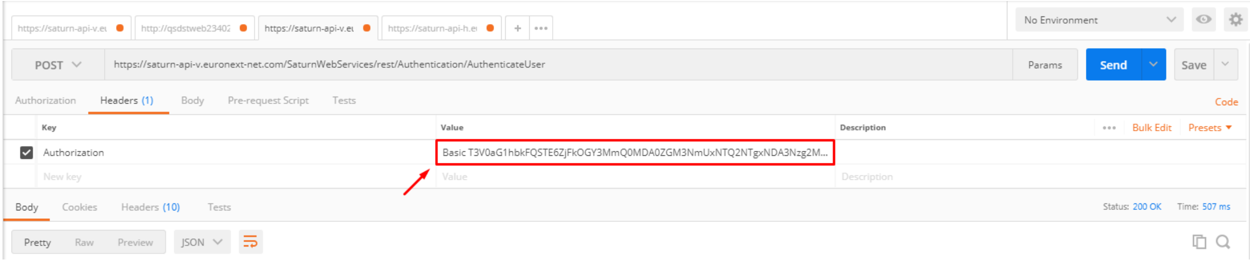
15.3 USERNAME AND PASSWORD ENCRYPTION

The last step is username and password encryption.

An encryption tool from the Internet of choice can be used to convert the character string Username:Password or use the following command to encrypt in base64:

```
$ echo -n '<username>:<passwordEncrypted in md5>' | base64
```

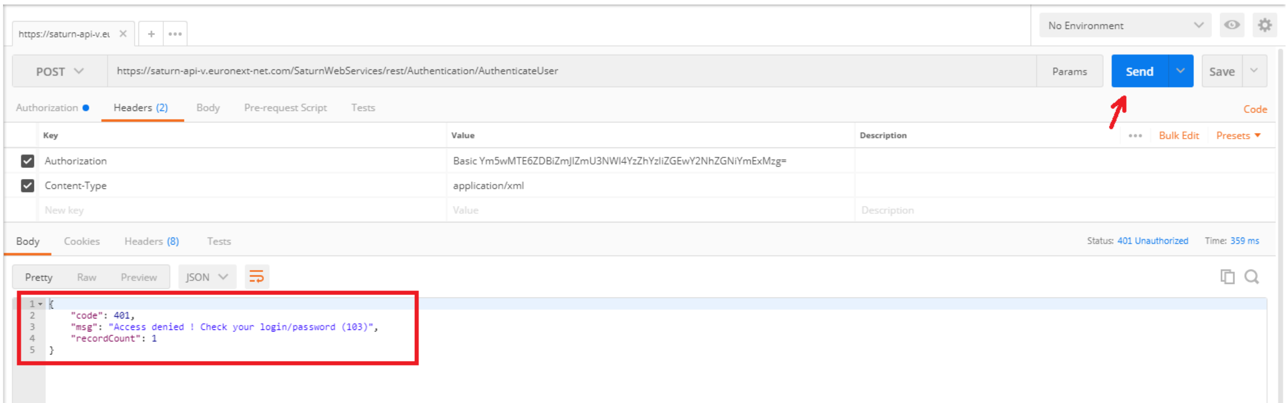
The result can be pasted in the field 'value' of the parameter Authorization as follows: **Basic <Base64 parameter converted>** (result in hexadecimal – lowercase)



15.4 RESULT

After clicking on SEND, a response message is provided:

- If there is a problem with the certificate, the Euronext web page will be shown.
- If there is a problem with the credentials, an error message will be provided:



- If the credentials are verified and are good, a token will be provided in return:

Response Parameters:

Name	Type	Data Type	Required	Description
Token	Attribute	string	Yes	Token generated by Saturn and assigned to the above account. Each following function undertaken by the user shall contain this token
StatusCode	Attribute	Int	Yes	The status code of the logon function. See below for description

Possible returned **status** codes:

200 - Success

401 - Access denied ! Check your login/password

504 - Session expired

16. TECHNICAL DETAILS & EXAMPLES

16.1 OVERVIEW

ALL	Function applying to all users

The goal of this chapter is to describe the technical REST API.

16.2 REQUIREMENTS

ALL	Function applying to all users

For testing the REST API, users can use postman (https://www.getpostman.com/), curl command or Saturn GUI.

16.3 ACCESS

ALL	Function applying to all users

The web server API Rest can be accessed via a URL using the HTTPS protocol and is served from the SaturnWebServices/rest domain. Which will be defined later with Euronext' InfoSec team.

16.4 SERVICES

ALL	Function applying to all users

The Saturn REST API delivers a set of services such as Trade Reporting, trade publication, statistics, …

All services need the authentication (Login /pwd), The service has a set of roles (i.e. rights), the user only has access to the services defined for its role(s) or rights.

The Service provides the data in the JSON (by default) or XML protocol.

The Euronext Saturn API is based on the CRUD (Create, Read, Update, Delete) RESTful web service. Please find the annotation below:

Method	Description
Get	It is used to read resource
Post	It is used to create new resource. It is used also to get data by filtering, actually we use the post in order to pass the filter in the header

16.5 REST API RETURN STATUS CODE

ALL	Function applying to all users

Status Code	Description	Cause	Comments
200	OK	Success	
400	Bad Request	Unsupported or invalid parameters, or missing required parameters	
401	Unauthorized	User is not authorized	
403	Forbidden	User does not have access to this resource	
404	Not Found	No matching pattern for incoming URI	
405	Method Not Allowed	The service does not support the HTTP method used by the client	
408	Request Timeout		
412	Precondition Failed	A non-syntactic part of the request was rejected. For example, an empty POST or PUT body	
415	Unsupported Media Type	A PUT or POST payload cannot be accepted	
423	Locked	The resource that is being accessed is locked	Account, rights, etc. locked
500	Internal Server Error	A generic error message, given when an unexpected condition was encountered and no more specific message is suitable	

Status Code	Description	Cause	Comments
503	Service Unavailable	The server is currently unavailable (because it is overloaded or down for maintenance). Generally, this is a temporary state	If some services are blocked or the thread pools that handle each service are full
600	KO	failed	
601	Bad filter	Bad filter	
602	Check transaction with error		

16.6 FILTER STRUCTURE

ALL	Function applying to all users

The filter allows a user to refine a search (for example get trades for a specific instrument).

All Saturn REST API services provide the possibility to use the available filters.

The filter is the json/xml Object (structure) passed in the header of the POST request. Its definition is described below:

```
{
“filterList”:
 [
  {
    “name”: “field1”,
    “sort”: “DESC”,
    “subFilterOR”:
    [
     {
    “value”: “%durand%”,
    “operator”: “LK”
     },
     {
    “value”: “%durand%”,
    “operator”: “LK”
     }
    ]
  },
  {
     “subFilterOR”:
    [
```

```
      {
    “name”: “field11”,
    “value”: “%durand%”,
    “operator”: “LK”

      },
      {
    “name”: “field12”,
    value”: “%durand%”,
    “operator”: “LK”

      }
    ]
   },....
}   ]
 }
```

The filter contains one (1) main section called filterList:

1. to concatenate one or several filters, for example get transaction where side=1, here is the filter json structure: **“filterList”: [{”name”: “side”,”value”: “1”, “operator”: “EQ”}]**
2. to filter by the value domain, for example get transactions where status in(0,1), here is the filter json structure: “filterList”: [{”name”: “status”,”subFilterOR”: [{”value””0”,”operator”: “EQ”}, {”value”: “1”,”operator”: “EQ”}] }]}
3. to search records that contain something: for example get transactions where freetext1 like “%durand%” or freetext1 like”%alain%”, here is the filter json structure: “**filterList”: [{”subFilterOR”: [{”name”: “freetext1”, “value”: “%durand%”, “operator”: “LK”}, {”name”: “freetext2”, “value”:”%alain%”, “operator”: “LK”}] }]}**
4. to sort the get result by using the sort name, for example get transaction order by tradelegtid ascendant, here is the filter json structure **“filterList”: [{”name”: “tradelegtid “,”value”: “123645”, “operator”: “EQ”, “sort”: “ASC”}]**

Operator allowed are:

Operator	Description
EQ	Equal To
NEQ	Not Equal To
LK	Like to
GT	Greater Than
GE	Greater Than Or Equal To
LT	Less Than
LE	Less Than Or Equal To

16.7 REPORTING TRADES SERVICES

16.7.1 get service

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members

Users should use this service to retrieve data of the Reporting trade and their associated properties.

16.7.1.1 Request

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members

	Description/Value	Mandatory
Method	POST	Yes
Service name (path)	TransactionReports/get	Yes
Authorization	Login/pwd	Yes
Header: **Content-Type**	**The Content-Type indicates to which format the filter is set:** application/json or Accept: application/xml The filter is passed in json or xml format which respects the format filter, described Here	Yes
Header: **Accept**	The **Accept** indicates which format the result will be returned:application/json or Accept: application/xml. If the **Accept** is not set, the result is returned in json format	No
Parameter	Uses @QueryParam defined as: offset=**a**&limit=**b** which a, b are the values offset → is the position of the result query (page number) limit → is the number of the recorded max per page	No

16.7.1.2 Response

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members

The response of that command has the following format, by default the response is detailed in the table below:

Code	Status Code OK, KO, etc. refer to the Status code table above
Data	Contains the result of the service
Msg	Success or fail
RecordCount	The max record available in the data base

16.7.1.3 Example retrieve reporting trades

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members

a) Request (POST):

Using curl command without filter

*curl -i -X **POST** -H “Authorization: Bearer eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJBUElqbGFzc2FsbGUiLCJpc3MiOiJBdXRoMCIsImV4cCI6MTUwNzEyMTQ5Mn0.qew3BcSfemxe-QixuL1L0vDXurMme75hyCG1zI0tZzI” –d ‘{"filterList": [{ }]}}’ http://localhost:8080/SaturnWebServices/rest/transactionReports/**get**?offset=0&limit=1*

Using curl command with filter (in green)

*curl -i -X **POST** -H “Authorization: Bearer eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJBUElqbGFzc2FsbGUiLCJpc3MiOiJBdXRoMCIsImV4cCI6MTUwNzEyMTQ5Mn0.qew3BcSfemxe-QixuL1L0vDXurMme75hyCG1zI0tZzI” -H “Content-Type: application/json” -d ‘{”filterList”: [{”name”: “traderef”,”value”: “ TRADEREFERENCEAUUP6959802508”, “operator”: “EQ”}]}’ http:// localhost:8080/SaturnWebServices/rest/transactionReports/**get**?offset=0&limit=1*

b) Response JSON:

```
{
  « code »: 200,
  « data »: [  {
    « type »: « transactionreport »,
    « mifidextension »:     {
      "businessunit":       {
        "ideleted": 0,
        "name": "BU1",
        "participanttid": 385,
        "tag": "BU1",
        "tid": 3
      },
      "cntryofexecutor": "DE",
      "cntryofinvestor": "KW",
      "complextradecomponentid": "1234567810",
      "countrybranchmembership": "QA",
      "derivativenotionalincreasedecrease": 5,
      "executionwithinfirm": "1234570000000000000",
      "freetext1": "Dupont",
      "freetext2": "Pierre",
      "freetext3": "Rouge",
      "freetext4": "Mercedes",
      "freetext5": "Londres",
      "investmentfirmdirectiveindicator": 0,
      "mifidextensiontid": 6,
      "origin": "SATURN",
      "otcposttradeindicator": "PKID00000012",
      "participant":       {
        "ccountryregistration": "",
        "commercialname": "COMPANY X",
        "iapaposttrade": 0,
        "iapapretrade": 0,
        "iarmreporting": 1,
        "icommodityreporting": 1,
        "id": "00000579",
        "imifidcompliant": 0,
        "inxtreporting": 0,
        "ivalidity": 2,
        "leicode": "",
        "participanttypetid": 1,
        "reportingregulatortid": 0,
        "saturnuser": "",
        "senderfirmid": "",
        "tid": 385
      },
      "saturnuser": "user1",
      "secfinancingtransactionindicator": 1,
      "shortsellingindicator": 0,
      "side": 2,
      "traderef": "TRADEREFERENCEAUUP6959802508",
      "tradereport": 1,
      "transmissionoforderindicator": 1,
```

```
    "transmittingfirmidbuyer": "5493005GIOHA4VVQNV28",
    "transmittingfirmidseller": "549300V7S0SECYXD2130",
    "tsreceive": "2017-06-19T10:57:48",
    "upfrontpayment": 4578,
    "upfrontpaymentcurrency": "FKP",
    "waiverindicator": "UPC"
  },
  "status": 4,
  "tid": 6,
  "tradeLeg":     {
    "businessunit":       {
      "ideleted": 0,
      "name": "BU1",
      "participanttid": 385,
      "tag": "BU1",
      "tid": 3
    },
    "commodityderivativeindicator": 0,
    "executingfirm": "B",
    "execwfirmalgotradingindicator": 1,
    "invdecwfirmalgotradingindicator": 1234567810,
    "netamount": 123456,
    "participant":       {
      "ccountryregistration": "",
      "commercialname": "COMPANY X",
      "iapaposttrade": 0,
      "iapapretrade": 0,
      "iarmreporting": 1,
      "icommodityreporting": 1,
      "id": "00000579",
      "imifidcompliant": 0,
      "inxtreporting": 0,
      "ivalidity": 2,
      "leicode": "",
      "participanttypetid": 1,
      "reportingregulatortid": 0,
      "saturnuser": "",
      "senderfirmid": "",
      "tid": 385
    },
    "pricecurrency": "FKP",
    "pricenotation": 2,
    "quantitycurrency": "IEP",
    "saturnuser": "user1",
    "side": 2,
    "trade":       {
      "businessunit":         {
        "ideleted": 0,
        "name": "BU1",
        "participanttid": 385,
        "tag": "BU1",
        "tid": 3
```

```
        },
        "classificationtype": "EES",
        "currency": "IEP",
        "deliverytype": "OPTN",
        "expirydate": "2018-01-30",
        "fullname": "PRODUCT TEST1",
        "instrument":        {
          "amr": "AOAGA150904500P",
          "cdevnm": "",
          "cfi_code": "OPASPS",
          "cisin": "XXXXXXXXXXXX",
          "cmic": "XEUE",
          "tick_size_denominator": 100,
          "tick_size_numerator": 1,
          "tid": 156
        },
        "maturitydate": "2018-01-02",
        "notionalcurrency1": "EUR",
        "notionalcurrency2": "USD",
        "optionexercisestyle": "EURO",
        "origin": "SATURN",
        "participant":        {
          "ccountryregistration": "",
          "commercialname": "COMPANY X",
          "iapaposttrade": 0,
          "iapapretrade": 0,
          "iarmreporting": 1,
          "icommodityreporting": 1,
          "id": "00000579",
          "imifidcompliant": 0,
          "inxtreporting": 0,
          "ivalidity": 2,
          "leicode": "",
          "participanttypetid": 1,
          "reportingregulatortid": 0,
          "saturnuser": "",
          "senderfirmid": "",
          "tid": 385
        },
        "pricemultiplier": 3,
        "saturnuser": "user1",
        "securityid": "FR45150903500P",
        "strikeprice": 700.45,
        "strikepricecurrency": "EUR",
        "strikepricenotation": 1,
        "tid": 7,
        "tradeid": "TRADEIDOQKNH24852",
        "tradeprice": 960262.70923,
        "traderef": "TRADEREFERENCEAUUP6959802508",
        "tradereport": 1,
        "tradingdatetime": 1477052256954900,
        "underlyinginstrumentcode": "FR451509035",
```

```
        "underlyinginstrumentindex": "784DAYS",
        "underlyinginstrumentname": "INSTRUMENT TEST1",
        "volume": 1285620.2032
      },
      "tradelegtid": 6,
      "traderef": "TRADEREFERENCEAUUP6959802508",
      "tradereport": 1,
      "tradingcapacity1": 2,
      "transactionreportingapaindicator": 1,
      « venue »: « NTNL »
    },
    « tsgeneration »: « 2017-06-19T10:57:48 »
  }],
  « msg »: « success »,
  « recordCount »: 1
}
```


16.7.2 getTx service

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members

Users should use this service to retrieve data of the Reporting trade and their associated properties.

16.7.2.1 Request

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members

	Description/Value	Mandatory
Method	POST	Yes
Service name (path)	TransactionReports/getTx	Yes
Authorization	Login/pwd	Yes

	Description/Value	Mandatory
Header: **Content-Type**	**The Content-Type indicates to which format the filter is set:** application/json or Accept: application/xml The filter is passed in json or xml format which respects the format filter, describe Here	Yes
Header: **Accept**	The **Accept** indicates which format the result will be returned:application/json or Accept: application/xml If the **Accept** is not set, the result is returned in json format	No
Parameter	Uses @QueryParam defined as: offset=**a**&limit=**b** which a, b are the values offset → is the position of the result query (page number) limit → is the number of the recorded max per page	No

16.7.2.2 Response

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members

The response of that command has the following format, by default the response is detailed in the table below:

Code	Status Code OK, KO, etc. refer to the Status code table above
Data	Contains the result of the service
Msg	Success or fail
RecordCount	The max record available in the data base

16.7.2.3 Example retrieve reporting trades

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members

a) Request (POST):

Using curl command without filter

*curl -i -X **POST** -H "Authorization: Bearer eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJBUElqbGFzc2FsbGUiLCJpc3MiOiJBdXRoMCIsImV4cCI6MTUwNzEyMTQ5Mn0.qew3BcSfemxe-QixuL1L0vDXurMme75hyCG1zI0tZzI" –d '{"filterList": [{ }]}' http://localhost:8080/SaturnWebServices/rest/transactionReports/**getTx**?offset=0&limit=1*

Using curl command with filter (in green)

*curl -i -X **POST** -H "Authorization: Bearer eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJBUElqbGFzc2FsbGUiLCJpc3MiOiJBdXRoMCIsImV4cCI6MTUwNzEyMTQ5Mn0.qew3BcSfemxe-QixuL1L0vDXurMme75hyCG1zI0tZzI" -H "Content-Type: application/json" -d '{"filterList": [{"name": "traderef","value": "TRADEREFERENCEQHFP24270848648", "operator": "EQ"}]}' http:// localhost:8080/SaturnWebServices/rest/transactionReports/**getTx**?offset=0&limit=1*

b) Response JSON:


```
{
  "code": 200,
  "data": [  {
    "type": "transactions",
    "businessUnit":      {
      "ideleted": 0,
      "name": "BU004",
      "participanttid": 385,
      "tag": "BU004",
      "tid": 21
    },
    "bypasscontrolflag": 0,
    "commodityderivativeindicator": 0,
    "complextradecomponentid": "CMPLXTRDIDBEGM5127688646",
    "countrybranchmembership": "BE",
    "derivativenotionalincreasedecrease": 1,
    "errors": "",
    "executingfirm": "5493009Z76P5B851RY34",
    "executionwithinfirm": "EXECUTORNCTX72805",
    "execwfirmalgotradingindicator": 2,
    "freetext1": "Fontaine",
    "freetext2": "Marvin",
    "freetext3": "Jaune",
    "freetext4": "BMW",
    "freetext5": "Paris",
    "fullname": "INSTRUFULLNAME4884%+/#?,&Ã©",
    "instrumentidtype": 0,
    "investmentfirmdirectiveindicator": 1,
    "isettlement": 0,
    "netamount": 659857.26889,
    "origin": "SATURN",
    "otcposttradeindicator": "2-11",
    "participanttid": 385,
    "pricecurrency": "XAF",
    "pricenotation": 6,
    "quantitycurrency": "LBP",
```

```
    "quantitynotation": 3,
    "saturnuser": "bnp4",
    "secfinancingtransactionindicator": 0,
    "securityid": "US64046D1037",
    "shortsellingindicator": 3,
    "side": 3,
    "status": 3,
    "submittingentityid": "549300RTMFHSNT6PX029",
    "tid": 161112,
    "tradeid": "TRADINGVENUEJCSS7790796756",
    "tradeprice": 970628.36382,
    "traderef": "TRADEREFERENCEQHFP24270848648",
    "tradereport": 2,
    "tradingcapacity1": 3,
    "tradingdatetime": 1447592029923000,
    "transactionreportingapaindicator": 2,
    "transmissionoforderindicator": 1,
    "transmittingfirmidbuyer": "549300HUWQH7YHZVHL75",
    "transmittingfirmidseller": "549300K6VS7ZR87WM549",
    "tsgeneration": "2018-01-17T10:24:39",
    "upfrontpayment": 552302,
    "upfrontpaymentcurrency": "FJD",
    "venue": "EXPA",
    "volume": 7570939.49902,
    "waiverindicator": "1-2-3"
  }],
  "msg": "success",
  "recordCount": 1
}
```


16.7.3 Submit service

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members
OBOE	Off Book On Exchange Trade Reporting

Use this service to add /update/cancel a transaction report, i.e.:

- To add a new transaction report: set *tradereport=1*
- To update a transaction report: set *tradereport=2*
- To cancel the transaction report: set *tradereport=3*

16.7.3.1 Request

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members
OBOE	Off Book On Exchange Trade Reporting

	Description/Value	Mandatory
Method	POST	Yes
Service name (path)	TransactionReports/submit	Yes
Authorization	Login/pwd	Yes
Header: **Content-Type**	**The Content-Type indicates to which format the filter is set**: application/json or Accept: application/xml - The create and update are the same input data which should respect the template, described below. The sections and the fields are not all mandatory, except TradeTeport, TradeRef and side - The update of something in the BuyerSellerExtension section require to put all BuyerSellerExtension, because it is a delete and create operation - The input data can be the trade or MifidExetension sections or both	Yes
Header: **Accept**	The **Accept** indicates which format the result will be returned:application/json or Accept: application/xml If the **Accept** is not set up, the result is returned in json format	No

16.7.3.2 Response

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members

The response of that command has the following format, by default the response is in json.

Code	Status Code OK, KO, etc. refer to the Status code table above
Data	Contains the result of the service
Msg	Success if no functional error Otherwise it contains the fields with error message

16.7.3.3 Example add/update transaction report

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members

a) Request (POST)

To add the transaction report it is required to set *tradereport=1*
To update the transaction report it is required to set *tradereport=2*
The input data is indicated in green color

Using curl command

curl -i -X ***POST*** *-H "Authorization: Bearer eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJBUElqbGFzc2FsbGUiLCJpc3MiOiJBdXRoMCIsImV4cCI6MTUwNzEyMTQ5Mn0.qew3BcSfemxe-QixuL1L0vDXurMme75hyCG1zI0tZzI ==" -H "Content-Type: application/json" -d '*
*{"**tradereport**": 1,"traderef": "TRADEREFERENCEAUUP6959802","side": "1","businessunit": "", "trade": {"classificationtype": "EES","currency": "IEP","deliverytype": "OPTN","expirydate": "2018-01-02","fullname": "FullName1","maturitydate": "2017-12-12","notionalcurrency1": "EUR","notionalcurrency2": "EUR","optionexercisestyle": "EURO","origin": "SATURN","pricemultiplier": 3,"saturnuser": "user1","securityid": "FR45150903500P","strikeprice": 700.45,"strikepricecurrency": "EUR","strikepricenotation": 1,"tradeid": "TRADEIDOQKNH24852","tradeprice": 960262.70923,"traderef": "TRADEREFERENCEAUUP6959802","**tradereport**": 1,"tradingdatetime": 1477052256954900,"underlyinginstrumentcode": "FR451509035","underlyinginstrumentindex": "784DAYS","underlyinginstrumentname": "INSTRUMENT TEST1","volume": 1285620.2032,"tradeLeg": { "bypasscontrolflag": 1,"commodityderivativeindicator": 1,"deferralindicator": 1,"executingfirm": "549300IVCJ7FAYQ3IT60","execwfirmalgotradingindicator": 1,"invdecwfirmalgotradingindicator": 1,"netamount": 123.00000,"pricecurrency": "EUR","pricenotation": 6,"quantitycurrency": "EUR","quantitynotation": 2,"tradingcapacity1": 1,"tradingcapacity2": 2,"venue": "XPAR" }},"mifidExtension": {"cntryofexecutor": "CH","cntryofinvestor": "DE","complextradecomponentid": "1234567810","countrybranchmembership": "HU","derivativenotionalincreasedecrease": 2,"executionwithinfirm": "12345700000000000","freetext1": "Moore999999","freetext2": "Bruce","freetext3": "Bleu","freetext4": "Audi","freetext5": "Lisbonne","investmentdecisionwithinfirm": "INVERST001","investmentfirmdirectiveindicator": 1,"origin": "SATUR","otcposttradeindicator": "2-11", "secfinancingtransactionindicator": 1,"shortsellingindicator": 1,"submittingentityid": "9876543210","transmissionofordeindicator": 1,"transmittingfirmidbuyer": "549300B0VO2CPH1DLK72","transmittingfirmidseller": "549300ZX3GFJGRFNQ344","upfrontpayment": 4578.0000000,"upfrontpaymentcurrency": "HKD","waiverindicator": "0-1" }}'*
*http://localhost:8080/SaturnWebServices/rest/transactionReports/**submit***

b) Response JSON


```
{
  "code": 200,
  "data":   [
        {
     "type": "string",
     "value": "Trade added {TRADEREFERENCEAUUP6959802} "
    },
   {
     "type": "string",
     "value": "Trade Leg added: Traderef/Side {TRADEREFERENCEAUUP6959802/1}"
    },
        {
     "type": "string",
     "value": "MifidExtension added: Traderef/side{TRADEREFERENCEAUUP6959802/1}"
    },
        {
     "type": "string",
     "value": "Transaction report tid  {66194} added"
    }
  ],
  "msg": "OK",
  "recordCount": 0
}
```


16.7.3.4 Example cancel transaction report

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members

a) Request (POST)

To cancel the transaction report it is required to set: *tradereport=3*
The input data is indicated in green color

Using curl command

curl -i -X **POST** -H "Authorization: Bearer *eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJBUElqbGFzc2FsbGUiLCJpc3MiOiJBdXRoMCIsImV4cCI6MTUwNzEyMTQ5Mn0.qew3BcSfemxe-QixuL1L0vDXurMme75hyCG1zI0tZzI ==" -H "Content-Type: application/json" -d '{"**tradereport": 3**,"traderef": "TREF00000000005","side": "1" }}' http://localhost:8080/SaturnWebServices/rest/transactionReports/**submit***

b) Response json

```
{
  “code”: 200,
  “data”: [
    {
      “type”: “string”,
      “value”: “Transaction report tid {697376} cancelled”
    }
  ],
  “msg”: “”,
  “recordCount”: 0
}
```


16.7.4 SubmitTx service

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members

Use this service to add /update/cancel a transaction report, i.e.:

- To add a new transaction report, it is required to set: *tradereport=1*
- To update a transaction report it, is required to set: *tradereport=2*
- To cancel the transaction report, it is required to set: *tradereport=3*

16.7.4.1 Request

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members

	Description/Value	Mandatory
Method	POST	Yes
Service name (path)	TransactionReports/submitTx	Yes
Authorization	Login/pwd	Yes

	Description/Value	Mandatory
Header: **Content-Type**	**The Content-Type indicates to which format the filter is set**: application/json or Accept: application/xml - The create and update are the same input data which should respect the template, described below. The sections and the fields are not all mandatory, except TradeTeport, TradeRef and side - The update of something in the BuyerSellerExtension section require to put all BuyerSellerExtension, because it is a delete and create operation - The input data can be the trade or MifidExtension sections or both	Yes
Header: **Accept**	The **Accept** indicates which format the result will be returned:application/json or Accept: application/xml If the **Accept** is not set up, the result is returned in json format	No

16.7.4.2 Response

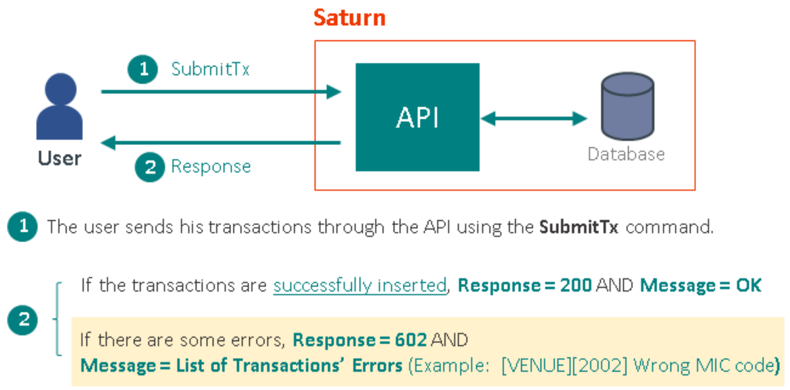
ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members

The response of that command has the following format, by default the response is under the JSON

Code	Status Code “200” → OK, …etc. Please refer to the Status code table above for more information.
Data	Contains the result of the service
Msg	In case of a successful execution of the SubmitTx service: • If there is no functional error, the message “OK” will be displayed. • Otherwise, the same message “OK” will be displayed (as an acknowledgement message). In other words, the user should systematically use a “**Get service**” after a **SubmitTx** command (as described below) in order to access to the error message if any.

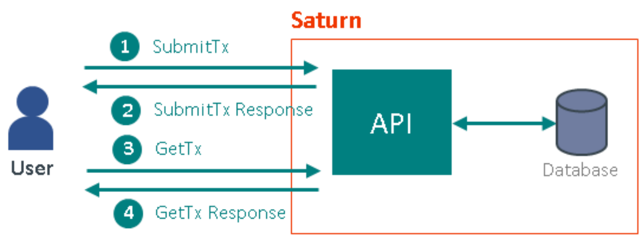
How to use the SubmitTx response to know the status of the submitted transactions ?

Before, the **SubmitTx** service was **synchronous**, meaning that the potential error messages were directly returned in the **SubmitTx** response after all the submitted transactions were processed by Saturn (see description below).



Following a major Saturn's evolution, this command is now **asynchronous** (especially for performance reasons).

Henceforth, the **SubmitTx** service should be used in conjunction with a "**Get service**" as described below:



1- The user sends his transactions through the API, using the **SubmitTx** command.

2- The transactions' submission can lead to a **Rejection** (i.e. in case of technical errors) or to a **correct execution** (transactions are successfully inserted within the database and they are correctly processed by Saturn).

- **In case of Rejection:**
  The transactions are not inserted within the database. Consequently, the user does not need to follow the steps **3** and **4** described below. The **SubmitTx** response will return the **Status Code** and **Message** related to the encountered type of error (see examples below):
  - **Code = 400** (Bad Request: Unsupported/invalid parameters or missing required parameters)
  - **Code = 401** (Unauthorized: User is not authorized)
  - Etc …
- **In case of Correct Execution:**
  - If the transactions are successfully inserted and checked, **Code = 200** AND **Message = "OK"**.
  - Otherwise (if there are some functional errors), **Code = 200** AND **Message = "OK"** (No error message displayed ! Same response as successful transactions' submission).

3- Therefore, the user should use a "Get service" to retrieve the potential error messages:

- If the transactions are **OTC**, then the user should use the **GetTxClearingOptionCounterpartAwaiting** command to be able to see potential error messages. For a sake of simplification, we will call this command **GetOTC** in what will follow.
- Otherwise, the user should use the **GetTx** command for the same purpose.

4- The errors, if any, will be available in the field "errors" of the **GetTx** (Or **GetOTC** if **OTC** transactions) Response.

IMPORTANT NOTE:

It should be noted that a latency time must be observed by the user, between the sending of the **SubmitTx** command and the execution of the **GetTx** (or **GetOTC**) command, so as to allow the system to process all the submitted transactions. The user should therefore, not worry about not receiving immediately the response from the **GetTx** (or **GetOTC**) service containing error messages (if any). The user can use the "Status" field of the **GetTx** (or **GetOTC**) response to determine whether the system has completed (or not) the transactions' processing. If the response's **Status = 2** (Wait For Check), it means that the transactions' processing is still in progress. Otherwise, the processing is completed and the user can rely on the "errors" field to finally know if there are some errors or not in his transactions.

Example for a non OTC transaction in error

1) Do a SubmitTx (TransactionReports/submitTx service)


```
{
 "tradereport": 1,
 "traderef": "TRADEREFTESTNPIHMNJ23",
 "tradeid": null,
 "side": 1,
 "venue": "XPAR",
 "volume": 150,
 "tradeprice": 151,
 "securityid": "NO0003921017",
   .........
}
```


2) Response of the SubmitTx (no error displayed)


```
{
  "code": 200,
  "msg": "OK",
  "recordCount": 1,
  "data": ["Trade added { TRADEREFTESTNPIHMNJ23} "]
}
```


3) Do a GetTx (TransactionReports/getTx service)


```
{
 "filterList": [ {
                "name": "traderef",
                "value": "TRADEREFTESTNPIHMNJ23",
                "operator": "EQ"
                 } ]
}
```


4) Response of the GetTx


```
{
  "code": 200,
  "msg": "OK",
  "recordCount": 1,
  "data": [ {
"traderef": "TRADEREFTESTNPIHMNJ23",
  .........
 "errors": "[SECURITYID][2005] Wrong ISIN code. Please check dependent field(s) [CMIC]",
} ]
}
```

16.7.4.3 Example add/update transaction report

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members

a) Request (POST)

To add the transaction report it is required to set: *tradereport=1*
To update the transaction report it is required to set: *tradereport=2*
The input data is indicated in green color

Using curl command

```
curl -i -X POST -H “Authorization: Bearer
eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJBUElqbGFzc2FsbGUiLCJpc3MiOiJBdXRoMCIsImV4cCI6MTUwNzEyMTQ5Mn0.
qew3BcSfemxe-QixuL1L0vDXurMme75hyCG1zI0tZzI ==” -H “Content-Type: application/json” -d
‘{"tradereport":1,"traderef":"TRADEREFERENCEZQSN2436AA274290","side":1,"venue":"XMAL","executingfirm":"54930
0SZKMCJPPF1VH37","transactionreportingapaindicator":1,"volume":6751600.42481,"tradeprice":760051.80171,"trade
id":"TRADINGVENUEFQBI496166AA6465","tradingdatetime":"1448311765504800","securityid":"EUNL00163820","isett
lement":0,"publicationdatetime":null,"execwfirmalgotradingindicator":2,"commodityderivativeindicator":0,"netamoun
t":42754.72657,"pricecurrency":"LRD","quantitycurrency":"FJD","tradingcapacity1":3,"bypasscontrolflag":1,"quantityn
otation":3,"pricenotation":3,"complextradecomponentid":"CMPLXTRDIDVXRH3321369887","countrybranchmembershi
p":"CH","executionwithinfirm":"EXECUTORXWJU16705","freetext1":"Lambert","freetext2":"Patrice","freetext3":"Rouge
","freetext4":"BMW","freetext5":"Doha","otcposttradeindicator":"2-
11","investmentfirmdirectiveindicator":1,"derivativenotionalincreasedecrease":2,"secfinancingtransactionindicator":1,"
shortsellingindicator":1,"transmissionoforderindicator":1,"transmittingfirmidbuyer":"549300IVCJ7FAYQ3IT60","transmi
ttingfirmidseller":"5493005GIOHA4VVQNV28","upfrontpayment":863500,"upfrontpaymentcurrency":"XAF","waiverindi
cator":"1-2-3","buyerSellerExtension":[{"buyerbirthdate":"1982-02-
19","buyerfirstname":"EVANGELIE","buyeridentificationcode":"HR19600828THIERCHEVA","buyeridentificationtype":3,"
buyersurname":"DUVAL","buyernationalidtype":1},{"sellerbirthdate":"1960-02-
18","sellerfirstname":"OCEANE","selleridentificationcode":"NL19740212VICTOMOORE","selleridentificationtype":3,"sell
ersurname":"GIRAUD","sellernationalidtype":1},{"buyerdecisionmakerbirthdate":"1952-02-
14","buyerdecisionmakerfirstname":"OCEANE","buyerdecisionmakeridentificationcode":"HR19730829OCEANWILLI","b
uyerdecisionmakeridentificationtype":2,"buyerdecisionmakersurname":"CHEVALIER","buyerdecisionmakernationalidtyp
e":1},{"sellerbirthdate":"1954-01-
14","sellercountrybranch":"CH","sellerfirstname":"VINCENT","selleridentificationcode":"US19790929ANTOIMARTI","sell
eridentificationtype":3,"sellersurname":"DUVAL","sellernationalidtype":1}]}’
http://localhost:8080/SaturnWebServices/rest/transactionReports/submitTx
```

b) Response JSON

{
"code": 200,
"data": [
{
"type": "string",
"value": "Trade added {TRADEREFERENCEZQSN2436AA27QD4290} "

```
},
{
"type": "string",
"value": "BuyerSellerExtensionadded:
Traderef/txtid/BuyerEellerExtensiontid{TRADEREFERENCEZQSN2436AA27QD4290/162636/5555555555556792}"
},
{
"type": "string",
"value": "BuyerSellerExtension added:
Traderef/txtid/BuyerEellerExtensiontid{TRADEREFERENCEZQSN2436AA27QD4290/162636/5555555555556793}"
},
{
"type": "string",
"value": "BuyerSellerExtension added:
Traderef/txtid/BuyerEellerExtensiontid{TRADEREFERENCEZQSN2436AA27QD4290/162636/5555555555556794}"
},
{
"type": "string",
"value":"BuyerSellerExtension added:
Traderef/txtid/BuyerEellerExtensiontid{TRADEREFERENCEZQSN2436AA27QD4290/162636/5555555555556795}"
}
],
"msg": "OK",
"recordCount": 5
}
```


16.7.4.4 Example cancel transaction report

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members

a) Request (POST)

To cancel the transaction report it is required to set: *tradereport=3*
The input data is indicated in green color

Using curl command

```
curl -i -X POST -H “Authorization: Bearer
eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJBUElqbGFzc2FsbGUiLCJpc3MiOiJBdXRoMCIsImV4cCI6MTUwNzEyMTQ5Mn0.qew3
BcSfemxe-QixuL1L0vDXurMme75hyCG1zl0tZzI ==” -H “Content-Type: application/json” -d
‘{"tradereport":3,"traderef":"TRADEREFERENCEZQSN2436AA27QD4290","side":1,"venue":"XMAL","executingfirm":"
549300SZKMCJPPF1VH37","transactionreportingapaindicator":1,"securityid":"EUNL00163820"}’
http://localhost:8080/SaturnWebServices/rest/transactionReports/submitTx
```

b) Response json

```
{
  "code": 200,
  "data": [  {
    "type": "string",
    "value": "Transaction report tid  {162636} cancelled"
  }],
  "msg": "OK",
  "recordCount": 1
}
```


16.8 UPLOAD SERVICES

16.8.1 Upload service

16.8.1.1 Request

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members

	Description/Value	Mandatory
Method	POST	Yes
Service name (path)	files/upload	Yes
Authorization	Login/pwd	Yes
Header: **Content-Type**	**The Content-Type indicates to which format the filter is set**: Content-Type: multipart/form The filter is passed in the JSON or XML format which respects the format filter, described Here	Yes
Header: **Accept**	The **Accept** indicates which format the result will be returned:application/json or Accept: application/xml. If the **Accept** is not set up, the result is returned in json format	No
Parameter	Uses @QueryParam defined as: offset=**a**&limit=**b** which a, b are the values offset → is the position of the result query (page number) limit → is the number of the recorded max per page	No

	Description/Value	Mandatory
Body : **File information**	File to be uploaded and file type. File type must be part of below list: **application/csv** **application/x-csv** **text/csv** **text/comma-separated-values** **text/x-comma-separated-values** **text/tab-separated-values** **text/plain** **application/vnd.ms-excel** **text/x-csv** **application/octet-stream** **application/dat**	Yes

16.8.1.2 Response

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members

The response of that command has the following format, by default the response is in json format.

Code	Status Code OK, KO, etc. refer to the Status code table above
Data	Contains the result of the service
Msg	Success or fail
RecordCount	The max record available in the data base

16.8.1.3 Example

ARM	Approved Reporting Mechanism
APA Post	Approved Publication Arrangement Post-Trade
EM	Transaction Reporting for Euronext Members

a) Request (POST)

Using curl command, input file name to upload is in green below

```
curl -X POST -H "Content-Type: multipart/form-data" -H "Authorization: Bearer [token]" -F
"data=@./uploadedTransactions.csv;type=application/csv" https://saturn-api-h.euronext.com/SaturnWebServices/rest/files/upload
```

b) Response JSON


```
{
  "code":200,
  "data":[
    {
    "fileName":"uploadTransactions.csv",
    "size":8770,
    "status":"W",
    "username" : "user123",
    "tid":940,
    "uploadedDate":"2017-07-05T13:44:07"
    }
  ],
  "msg":"OK",
  "recordCount":1
}
```

17. FIELDS DESCRIPTION

A

ARM APA Indicator

Field Name	ARM APA Indicator
Description	This field allows the client to use ARM Transaction Reporting, APA publication or both APA/ARM services offered in SATURN and OTC trade for clearing and OBOE
Format	Int
Length	1
Possible Values	1 - Transaction Reporting 2 - APA 3 - Both Transaction Reporting and APA 4 - OTC Trade only 5 - OBOE - Off Book on Exchange 6 - Both OBOE and Transaction Reporting
Conditions	Mandatory
Used In	KEY DATA

Action

Field Name	TradeReport
Description	Indication as to whether the transaction report is new, amendment or a cancellation. The value "**4 Recovery**", allows to modify the transactions that have been purged, at the regulator's request, in order to conform them with ARM reporting requirements
Format	Int
Length	-
Possible Values	1 - NEW 2 - AMEND 3 – CANCEL 4 – RECOVERY (Only available via Upload file in the GUI. Not used via Web service)
Conditions	Mandatory
Used In	KEY DATA

AccountType

Field Name	Account Type
Description	This field is for internal use only and managed by IACAFinish. It indicates the account type for which the order is entered. For example, an order can be entered for a client account, a house account or a liquidity provider account.
Format	Int
Length	1
Possible Values	1 = Client 2 = House 3 = Retail Liquidity Provider 4 = RO [C] 6 = Liquidity Provider 7 = Related Party [C]
Used In	OTC Trade

AccountType2

Field Name	Account Type 2 (For SIDE=CROSS)
Description	This field is for internal use only and managed by IACAFinish. It indicates the account type for which the order is entered. For example, an order can be entered for a client account, a house account or a liquidity provider account.
Format	Int
Length	1
Possible Values	1 = Client 2 = House 3 = Retail Liquidity Provider 4 = RO [C] 6 = Liquidity Provider 7 = Related Party [C]
Used In	OTC Trade

Account Number

Field Name	Account Number
Description	Client account number identifying the investor's account. This field is part of the clearing aggregate.
Format	Alphanumerical ID
Length	12
Possible Values	Free Number
Used In	OTC Trade

B

Business unit

Field Name	Business Unit
Description	Free form text manually entered by the client - Custom Field
Format	string
Length	55
Possible Values	No restriction
Conditions	Optional
Used In	TRANSACTION REPORTING SECTION

ByPassControlFlag

Field Name	ByPassControlFlag
Description	Control indicator of the price,LEI, volume and trading date time. Indicates whether a trade should bypass the price,LEI, or volume or trading date time controls controls or not. (0: No Bypass; 1: No Control for Price used only for APA; 2: No Control for LEI used for OBOE or ARM; 4: No Control for Volume used only for APA; 5: No Control for TradingDateTime used only for APA;) Multple values can be populated: in case of multiple values, they should be separated by a dash.

Field Name	ByPassControlFlag
Format	ALPHANUM
Length	5
Possible Values	0 - No 1 – Price (Not applicable for OBOE) 2 – LEI 4 – Volume (Not applicable for ARM and OBOE) 5 – TradingDateTime (Not applicable for ARM and OBOE)
Conditions	Mandatory for New / Amend and optional for cancellation
Used In	TRANSACTION REPORTING SECTION OFF BOOK ON EXCHANGE SECTION

BUYER OR SELLER BIRTHDATE

Field Name	Buyer or Seller BirthDate
Description	Birth Date of the client natural person
Format	Date
Length	4
Possible Values	Format YYYYMMDD
Conditions	Provided in case of Transaction Reporting subscription. Applicable if TradingCapacity is 2 or 3 and if the client is a natural person (ClientIdentificationCode is populated with a {NATIONAL_ID})
Used In	TRANSACTION REPORTING SECTION

BUYER OR SELLER COUNTRYBRANCH

Field Name	Buyer or Seller CountryBranch
Description	• Where the acquirer/disposer is a client, this field should identify the country of the branch that received the order from the client or made an investment decision for a client in accordance with a discretionary mandate given to it by the client as required by Article 14.3. • Where this activity was not conducted by a branch this should be populated with the country code of the home Member State of the investment firm or the country code of the country where the investment firm has established its head office or registered office (in the case of third country firms). • Where the transaction is for a transmitted order that has met the conditions for transmission set out in Article 4, this field shall be populated using the information received from the transmitting firm.
Format	ISO 3166
Length	2
Possible Values	ISO 3166-1 country code
Conditions	Provided in case of Transaction Reporting subscription. Applicable if TradingCapacity is 2 or 3 and if the client is a natural person (ClientIdentificationCode is populated with a {NATIONAL_ID})
Used In	TRANSACTION REPORTING SECTION

BUYER OR SELLER DECISIONMAKERBIRTHDATE

Field Name	Buyer or Seller DecisionMakerBirthDate
Description	Birth Date of the decision maker for the client
Format	Date
Length	8
Possible Values	Format YYYYMMDD

Field Name	Buyer or Seller DecisionMakerBirthDate
Conditions	Optional. Provided in case of Transaction Reporting subscription. Applicable if TradingCapacity is 2 or 3, if the client is a natural person (ClientIdentificationCode is populated with a {NATIONAL_ID}), and if the decision maker acts under a power of representation: discretionary mandate, power of attorney…
Used In	TRANSACTION REPORTING SECTION

BUYER OR SELLER MAKERCODE

Field Name	Buyer or Seller DecisionMakerCode
Description	Code used to identify the person who makes the decision to acquire/sell the financial instrument. • Where the decision is made by an investment firm, this field shall be populated with the identity of the investment firm rather than the individual making the investment decision. • Where the decision maker is a legal entity, the LEI code of the decision maker shall be used. Where the decision maker is a non-legal entity, the identifier specified in Article 6 shall be used.
Format	string
Length	20
Possible Values	• LEI • ISO 3166 country code + {NATIONAL_ID} for a natural person
Conditions	Optional. Provided in case of Transaction Reporting subscription. Applicable if TradingCapacity is 2 or 3, if the client is a natural person (ClientIdentificationCode is populated with a {NATIONAL_ID}), and if the decision maker acts under a power of representation: discretionary mandate, power of attorney…
Used In	TRANSACTION REPORTING SECTION

BUYER OR SELLER DECISIONMAKERFIRSTNAME

Field Name	Buyer or Seller MakerFirstName
Description	Full first name(s) of the decision maker for client. In case of more than one first name, all names shall be included in this field separated by a comma
Format	string
Length	140
Possible Values	No restriction
Conditions	Optional. Provided in case of Transaction Reporting subscription. Applicable if TradingCapacity is 2 or 3, if the client is a natural person (ClientIdentificationCode is populated with a {NATIONAL_ID}), and if the decision maker acts under a power of representation: discretionary mandate, power of attorney…
Used In	TRANSACTION REPORTING SECTION

BUYER OR SELLER DECISIONMAKERNATIONALID

Field Name	Buyer or Seller DecisionMakerNationalID
Description	National Identification Number of the client decision maker
Format	string
Length	50
Possible Values	No restriction
Conditions	Optional. Provided in case of Transaction Reporting subscription. Applicable if TradingCapacity is 2 or 3, if the client is a natural person (ClientIdentificationCode is populated with a {NATIONAL_ID}), and if the decision maker acts under a power of representation: discretionary mandate, power of attorney…
Used In	TRANSACTION REPORTING SECTION

BUYER OR SELLER DECISIONMAKERNATIONALIDTYPE

Field Name	Buyer or Seller NationalIDType
Description	National Identification type of the client
Format	Int
Length	1
Possible Values	No restriction
Conditions	1: LEI 2: MIC 3: ISO 3166 + {NATIONAL_ID} for a natural person 4: 'INTC
Used In	TRANSACTION REPORTING SECTION

BUYER OR SELLER DECISIONMAKERTYPE

Field Name	Buyer or seller Decision Maker Type
Description	Identification type used to identify the acquirer/disposer of the financial instrument.
Format	Int
Length	1
Possible Values	1: LEI 2: MIC 3: ISO 3166 + {NATIONAL_ID} for a natural person 4: 'INTC'
Used In	TRANSACTION REPORTING SECTION

BUYER OR SELLER DECISIONMAKERSURNAME

Field Name	Buyer or Seller DecisionMakerSurname
Description	Full surname(s) of the decision maker for client. In case of more than one surname, all surnames shall be included in this field separated by a comma.
Format	string
Length	140
Possible Values	No restriction
Conditions	Optional. Provided in case of Transaction Reporting subscription. Applicable if TradingCapacity is 2 or 3, if the client is a natural person (ClientIdentificationCode is populated with a {NATIONAL_ID}), and if the decision maker acts under a power of representation: discretionary mandate, power of attorney…
Used In	TRANSACTION REPORTING SECTION

BUYER OR SELLER FIRSTNAME

Field Name	Buyer or Seller FirstName
Description	Full first name(s) of the buyer/seller. In case of more than one first name, all names shall be included in this field separated by a comma.
Format	string
Length	140
Possible Values	No restriction
Conditions	Provided in case of Transaction Reporting subscription. Applicable if TradingCapacity is 2 or 3 and if the client is a natural person (ClientIdentificationCode is populated with a {NATIONAL_ID})

Field Name	Buyer or Seller FirstName
Used In	TRANSACTION REPORTING SECTION

BUYER OR SELLER IDENTIFICATIONCODE

Field Name	Buyer or Seller IdentificationCode
Description	Code used to identify the acquirer/disposer of the financial instrument. • Where the acquirer/disposer is a legal entity, the LEI code of the acquirer shall be used. • Where the acquirer/disposer is a non-legal entity, the identifier specified in Article 6 shall be used. • Where the transaction was executed on a Trading Venue or on an organised trading platform outside of the Union that utilises a central counterparty (CCP) and where the identity of the acquirer is not disclosed, the LEI code of the CCP shall be used. • Where the transaction was executed on a Trading Venue or on an organised trading platform outside of the Union that does not utilise a CCP and where the identity of the acquirer is not disclosed, the MIC code of the Trading Venue or of the organised trading platform outside of the Union shall be used. • Where the acquirer is an investment firm acting as a SI, the LEI code of the SI shall be used. • 'INTC' shall be used to designate an aggregate client account within the investment firm in order to report a transfer into or out of that account with an associated allocation to the individual client(s) out of or into that account respectively
Format	string
Length	20
Possible Values	• LEI • ISO 3166 country code + {NATIONAL_ID} for a natural person • 'INTC'
Used In	TRANSACTION REPORTING SECTION

BUYER OR SELLER IDENTIFICATIONTYPE

Field Name	Buyer or Seller Identification Type
Description	Identification type used to identify the acquirer/disposer of the financial instrument.
Format	Int
Length	1
Possible Values	1: LEI 2: MIC 3: ISO 3166 + {NATIONAL_ID} for a natural person 4: 'INTC'
Used In	TRANSACTION REPORTING SECTION

BUYER OR SELLER NATIONALID

Field Name	Buyer or Seller NationalID
Description	National Identification Number of the client
Format	string
Length	50
Possible Values	No restriction
Conditions	Optional. Provided in case of Transaction Reporting subscription. Applicable if TradingCapacity is 2 or 3 and if the client is a natural person (ClientIdentificationCode is populated with a {NATIONAL_ID})
Used In	TRANSACTION REPORTING SECTION

BUYER OR SELLER NATIONALIDTYPE

Field Name	Buyer or Seller NationalIDType
Description	National Identification type of the client
Format	Int
Length	1
Possible Values	No restriction
Conditions	1: LEI 2: MIC 3: ISO 3166 + {NATIONAL_ID} for a natural person 4: 'INTC
Used In	TRANSACTION REPORTING SECTION

BUYER OR SELLER SURNAME

Field Name	Buyer or Seller Surname
Description	Full surname(s) of the Buyer/Seller. In case of more than one surname, all surnames shall be included in this field separated by a comma
Format	string
Length	140
Possible Values	No restriction
Conditions	Provided in case of Transaction Reporting subscription. Applicable if TradingCapacity is 2 or 3 and if the client is a natural person (ClientIdentificationCode is populated with a {NATIONAL_ID})
Used In	TRANSACTION REPORTING SECTION

C

CLEARING FIRM ID

Field Name	Clearing Firm ID
Description	Clearing firm ID. Identifier of the give-up firm when a give-up is executed (a give-up is a trade executed by a firm for the client of another firm, the latter being referred to as the give-up firm).
Format	Alphanumerical ID
Length	8
Possible Values	(See field description)
Used In	OTC Trade

CLIENT ID

Field Name	Client ID
Description	Field used to identify the client (investor).
Format	Alphanumerical ID
Length	8
Possible Values	(See field description)
Used In	OTC Trade

COMMODITYDERIVATIVEINDICATOR

Field Name	CommodityDerivativeIndicator
Description	Indication as to whether the transaction reduces risk in an objectively measurable way in accordance with Article 57 of Directive 2014/65/EU. Where the transaction is for a transmitted order that has met the conditions for transmission set out in Article 4, this field shall be populated by the receiving firm in the receiving firm's reports using the information received from the transmitting firm. This field is only applicable for commodity derivative transactions
Format	Int
Length	1
Possible Values	0 - No 1 - Yes
Conditions	Provided in case of Transaction Reporting subscription and mandatory if the instrument is a commodity derivative. Optional otherwise
Used In	TRANSACTION REPORTING SECTION

COMPLEXTRADECOMPONENTID

Field Name	ComplexTradeComponentID
Description	Identifier, internal to the reporting firm to identify all the reports related to the same execution of a combination of financial instruments in accordance with Article 12. The code must be unique at the level of the firm for the group of reports related to the execution. Field only applies when the conditions specified in Article 12 apply
Format	string
Length	35
Possible Values	No restriction
Conditions	Provided in case of Transaction Reporting subscription and only applicable if current original Order is related to the same execution of a combination of financial instruments (Strategy)
Used In	TRANSACTION REPORTING SECTION

COUNTRYBRANCHMEMBERSHIP

Field Name	CountryBranchMembership
Description	Code used to identify the country of a branch of the investment firm whose market membership was used to execute the transaction. Where a branch's market membership was not used, this field shall be populated with the country code of the home Member State of the investment firm or the country code of the country where the firm has established its head office or registered office (in the case of third country firms). This field shall only be populated for the market side of a transaction executed on a Trading Venue or on an organised trading platform outside of the Union
Format	ISO 3166

Field Name	CountryBranchMembership
Length	2
Possible Values	ISO 3166-1 Country code
Conditions	Provided in case of Transaction Reporting subscription - Conditions mentioned on the description
Used In	TRANSACTION REPORTING SECTION

COUNTRYOFINVESTOR

Field Name	CountryOfInvestor
Description	Code used to identify the country of the branch of the investment firm for the person responsible for the investment decision, as set out in Article 14.3(b). • Where the person responsible for the investment decision was not supervised by a branch, this field shall be populated with the country code of the home Member State of the investment firm or the country code of the country where the firm has established its head office or registered office (in the case of third country firms) • Where the transaction is for a transmitted order that has met the conditions for transmission set out in Article 4, this field shall be populated by the receiving firm within the receiving firm's report using the information received from the transmitting firm. This field is not applicable when the investment decision was made by an algorithm
Format	ISO 3166
Length	2
Possible Values	ISO 3166-1 country code
Conditions	Provided in case of Transaction Reporting subscription and only applicable when TradingCapacity is 1 (DEAL) and InvestmentDecisionWithinFirm is populated
Used In	TRANSACTION REPORTING SECTION

COUNTRYOFEXECUTOR

Field Name	CountryOfExecutor
Description	Code used to identify the country of the branch of the investment firm for the person responsible for the execution of the transaction, as set out in Article 14.3©. • Where the person responsible was not supervised by a branch, this field shall be populated with the country code of the home Member State of the investment firm, or the country code of the country where the firm has established its head office or registered office (in the case of third country firms) • This field is not applicable when the execution was made by an algorithm
Format	ISO 3166
Length	2
Possible Values	ISO 3166-1 country code
Conditions	Provided in case of Transaction Reporting subscription and mandatory if ExecutionWithinFirm is populated
Used In	TRANSACTION REPORTING SECTION

COUNTERPARTYTYPE

Field Name	Counterparty Type
Description	type of Entering counterpart
Format	Char
Length	1

Field Name	Counterparty Type
Possible Values	1 - LEI 2 - Short Code 3 - Non Euronext Member
Conditions	Mandatory
Used In	OFF BOOK ON EXCHANGE SECTION

D

DEFERRALINDICATOR

Field Name	DeferralIndicator
Description	Indicates the subscriber's deferred publication wish
Format	Int
Length	-
Possible Values	0 - Immediate Publication 1 - Deferral (Equity) 2 - Full Deferral period (Non Equity_D+2) 3 - Full Deferral period (Non Equity_No Volume) 4 - Full Deferral period (Non Equity_Agg Data) 5- Deferral (Oslo)
Conditions	Optional
Used In	APA TRADE PUBLICATION SECTION OFF BOOK ON EXCHANGE SECTION

DELIVERYTYPE

Field Name	DeliveryType
Description	Indication as to whether the transaction is settled physically or in cash. Where delivery type cannot be determined at time of execution, the value shall be 'OPTL' The field is only applicable for derivatives
Format	Int
Length	-
Possible Values	1 - 'PHYS' - Physically settled 2 - 'CASH' - Cash settled 3 - 'OPTL' - Optional for counterparty or when determined by a third party
Conditions	Optional
Used In	TRANSACTION REPORTING SECTION

DERIVATIVENOTIONALINCREASEDECREASE

Field Name	DerivativeNotionalIncreaseDecrease
Description	Indication as to whether the transaction is an increase or decrease of notional of a derivative contract. Field only applies when there is change in notional for a derivative contract.
Format	Int
Length	-
Possible Values	1 - Increase 2 - Decrease
Conditions	Provided in case of Transaction Reporting subscription and only for Derivatives
Used in	TRANSACTION REPORTING SECTION

E

EmissionAllowanceType

Field Name	EmissionAllowanceType
Description	This field is only applicable for emission allowances and emission allowance derivatives
Format	Int
Length	-
Possible Values	Only applicable for emission allowances 1 - EUAE - EUA 2 - CERE - CER 3 - ERUE - ERU 4 - EUAA - EUAA 5 - OTHR - Other (for derivatives only)
Conditions	Provided in case of APA subscription for emission allowances and emission allowance derivatives only
Used In	APA TRADE PUBLICATION SECTION

EnteringCounterpart

Field Name	EnteringCounterpart
Description	Code used to identify the entity executing the transaction
Format	ISO 17442 ISO 10383
Length	20
Possible Values	- LEI / Shortcode for OBOE - Participant ID otherwise
Conditions	Optional
Used In	APA TRADE PUBLICATION SECTION OFF BOOK ON EXCHANGE SECTION

EuronextTradeFlags

Field Name	EuronextTradeFlags
Description	Indicates Euronext Trade flags. Any combination of up to thirteen (or none) of the following flags can be chosen:
Format	Alphanum
Length	5

Field Name	EuronextTradeFlags
Possible Values	Populate one or more, separated by a dash (ex: 1-2-3): Blank 1 - CP: ‘Connected Party Trade’ 2 - LT: ‘Late Trade’ 3 - SS: ‘Special Settlement’4 NM, 5 VW, 6 DT, le reste ordre tableau 4 - NM: ‘Not to Market’ 5 - VW: ‘VWAP Trade’ 6 - DT: ‘Derivative-related Trade’ 7 - OT: ‘Ordinary Trade’ 8 - ON: ‘Non-strandard Settlement’ 9 - RE: ‘Repo’ 10 - OE: ‘Exchange-granted Trade’ 11 - OH: ‘Other’ 12 - OL: ‘Odd Lot’ 13 - OP: ‘Package Transaction’
Conditions	Optional
Used In	OFF BOOK ON EXCHANGE SECTION

ExecutionWithinFirm

Field Name	ExecutionWithinFirmShortCode
Description	Code used to identify the person or algorithm within the investment firm who is responsible for the execution. • ShortCode (Web Portal) • For natural persons, the identifier specified in Article 7 shall be used • If the execution was made by an algorithm, the field shall be populated as set out in Article 9
Format	string
Length	50
Possible Values	NATIONAL ID, code of algorithm, NORE
Conditions	Mandatory in case of Transaction Reporting subscription.
Used In	TRANSACTION REPORTING SECTION

ExecutionWithinFirmType

Field Name	ExecutionWithinFirmType
Description	• Type related to ExecutionWithinFirmType
Format	Int
Length	1
Possible Values	1: National ID, 2: Code for the algorithm, NORE
Used In	TRANSACTION REPORTING SECTION

Execution Within Firm NationalIDType

Field Name	ExecutionWithinFirmNationalIDType
Description	Execution Within Firm National Identification type of the client
Format	Int
Length	1
Possible Values	No restriction

Field Name	ExecutionWithinFirmNationalIDType
Conditions	1: LEI 2: MIC 3: ISO 3166 + {NATIONAL_ID} for a natural person 4: 'INTC
Used In	TRANSACTION REPORTING SECTION

EXECUTINGCOUNTERPART

Field Name	ExecutingCounterpart
Description	Code used to identify the entity executing the transaction
Format	ISO 17442 ISO 10383
Length	20
Possible Values	LEI or MIC
Conditions	Mandatory
Used In	APA TRADE PUBLICATION SECTION

EXECUTINGFIRM

Field Name	ExecutingFirm
Description	Code used to identify the entity executing the transaction. The client's transaction should go to fail if the executing LEI is not the LEI set for the participant used.
Format	ISO 17442
Length	20
Possible Values	LEI
Conditions	Mandatory
Used In	KEY DATA

EXECWFIRMALGOTRADINGINDICATOR

Field Name	ExecWFirmAlgoTradingIndicator
Description	Indicates whether the order execution was submitted by an trading algorithm or not
Format	int
Length	-
Possible Values	0 - No 1 - Yes
Conditions	Mandatory if the ExecutionWithinFirm is provided. Optional otherwise.
Used In	TRANSACTION REPORTING SECTION

EXPIRYDATE

Field Name	ExpiryDate
Description	Expiry date of the financial instrument
Format	date
Length	8
Possible Values	Format YYYY-MM-DD
Conditions	Field only applies to derivatives with a defined expiry date.
Used In	INSTRUMENTS REFERENTIAL DATA

F

FreeText1

Field Name	FreeText1
Description	Free form text manually entered by the client – Custom Field
Format	string
Length	37
Possible Values	No restriction
Conditions	Optional
Used In	TRANSACTION REPORTING SECTION OFF BOOK ON EXCHANGE SECTION

FreeText2

Field Name	FreeText2
Description	Free form text manually entered by the client – Custom Field
Format	string
Length	37
Possible Values	No restriction
Conditions	Optional
Used In	TRANSACTION REPORTING SECTION

FreeText3

Field Name	FreeText3
Description	Free form text manually entered by the client – Custom Field
Format	string
Length	37
Possible Values	No restriction
Conditions	Optional
Used In	TRANSACTION REPORTING SECTION

FreeText4

Field Name	FreeText4
Description	Free form text manually entered by the client – Custom Field
Format	string
Length	37
Possible Values	No restriction
Conditions	Optional
Used In	TRANSACTION REPORTING SECTION

FreeText5

Field Name	FreeText5
Description	Free form text manually entered by the client – Custom Field

Field Name	FreeText5
Format	string
Length	37
Possible Values	No restriction
Conditions	Optional
Used In	TRANSACTION REPORTING SECTION

G

GUARANTEE FLAG

Field Name	Guarantee Flag
Description	Indicates if the trade is guaranteed or not (for clearing purposes).
Format	Enumerated
Length	1
Possible Values	1 = Cleared but not Guaranteed by a Clearing House 2 = Cleared and Guaranteed by a Clearing House
Used In	OTC Trade

I

INSTRUMENTCLASSIFICATION

Field Name	InstrumentClassification
Description	Taxonomy used to classify the financial instrument A complete and accurate CFI code shall be provided
Format	ISO 10962
Length	6
Possible Values	ISO 10962 CFI code
Conditions	Mandatory
Used In	INSTRUMENTS REFERENTIAL DATA

INSTRUMENTFULLNAME

Field Name	InstrumentFullName
Description	Full name of the financial instrument.
Format	string
Length	350
Possible Values	No restriction

Field Name	InstrumentFullName
Conditions	Mandatory
Used In	INSTRUMENTS REFERENTIAL DATA

InvDecWFirmAlgoTradingIndicator

Field Name	InvDecWFirmAlgoTradingIndicator
Description	Indicates whether the investment decision was submitted by an trading algorithm or not
Format	Int
Length	-
Possible Values	0 - No 1 - Yes
Conditions	Provided in case of Transaction Reporting subscription and mandatory if the InvestmentDecisionWithinFirm is populated. Optional otherwise
Used In	TRANSACTION REPORTING SECTION

InvestmentDecisionWithinFirm

Field Name	InvestmentDecisionWithinFirm
Description	Code used to identify the person or algorithm within the investment firm who is responsible for the investment decision. • For natural persons, the identifier specified in Article 6 shall be used • If the investment decision was made by an algorithm, the field shall be populated as set out in Article 8. Field only applies for investment decision within the firm. • Where the transaction is for a transmitted order that has met the conditions for transmission set out in Article 4, this field shall be populated by the receiving firm within the receiving firm's report using the information received from the transmitting firm
Format	string
Length	50
Possible Values	Numerical between -2^31 and 2^31-1, left-aligned
Conditions	Provided in case of Transaction Reporting subscription and mandatory if the value of the AccountCode field is 'H' or 'M'. Optional otherwise
Used In	TRANSACTION REPORTING SECTION

InvestmentDecisionWithinFirmType

Field Name	InvestmentDecisionWithinFirmType
Description	• Type related to InvestmentDecisionWithinFirmType
Format	Int
Length	1
Possible Values	1: National ID 2: Code for the algorithm
Used In	TRANSACTION REPORTING SECTION

Investment Decision Within Firm NationalIDType

Field Name	InvestmentWithinFirmNationalIDType
Description	Investment Within Firm National Identification type of the client
Format	Int
Length	1

Field Name	InvestmentWithinFirmNationalIDType
Possible Values	No restriction
Conditions	1: LEI 2: MIC 3: ISO 3166 + {NATIONAL_ID} for a natural person 4: 'INTC'
Used In	TRANSACTION REPORTING SECTION

InvestmentFirmDirectiveIndicator

Field Name	InvestmentFirmDirectiveIndicator
Description	Indicates whether the entity identified in field "Executing Entity" is an investment firm covered by Article 4(1) of Directive 2014/65/EU.
Format	Int
Length	1
Possible Values	0 - False 1 - True
Conditions	Mandatory
Used In	TRANSACTION REPORTING SECTION

M

MaturityDate

Field Name	MaturityDate
Description	Date of maturity of the financial instrument
Format	date
Length	8
Possible Values	Format YYYY-MM-DD
Conditions	Only for transactions on a debt instrument with defined maturity
Used In	INSTRUMENTS REFERENTIAL DATA

N

NetAmount

Field Name	NetAmount
Description	The net amount of the transaction means the cash amount which is paid by the buyer of the debt instrument upon the settlement of the transaction. This cash amount equals to: (clean price * nominal value)+any accrued coupons. As a result, the net amount of the transaction excludes any commission or other fees charged to the buyer of the debt instrument
Format	Decimal
Length	20
Possible Values	From -2^63+1 to 2^63-1
Conditions	Only for transactions on a debt instrument
Used In	TRANSACTION REPORTING SECTION

NotionalAmount

Field Name	NotionalAmount
Description	Nominal amount or notional amount. For spread bets, the notional amount shall be the monetary value wagered per point movement in the underlying financial instrument. For credit default swaps, it shall be the notional amount for which the protection is acquired or disposed of. The information reported in this field shall be consistent with the value provided in field Price
Format	Decimal
Length	18
Possible Values	From 0 to 2^64-2
Conditions	Provided in case of APA subscription for all financial instruments except in the cases described under Article 11(1) letters (a) and (b) of this EU and onshored UK Regulation.
Used In	APA TRADE PUBLICATION SECTION

NotionalCurrency

Field Name	NotionalCurrency
Description	Currency in which the notional amount is denominated
Format	ISO 4217
Length	3
Possible Values	ISO 4217 Currency code
Conditions	Provided in case of APA subscription for all financial instruments except in the cases described under Article 11(1) letters (a) and (b) of this EU and onshored UK Regulation.
Used In	APA TRADE PUBLICATION SECTION

NotionalCurrency1

Field Name	NotionalCurrency1
Description	Currency in which the notional is denominated. In the case of an interest rate or currency derivative contract, this will be the notional currency of leg 1 or the currency 1 of the pair. In the case of swaptions where the underlying swap is single-currency, this will be the notional currency of the underlying swap. For swaptions where the underlying is multi-currency, this will be the notional currency of leg 1 of the swap
Format	ISO 4217
Length	3
Possible Values	ISO 4217 Currency code
Conditions	Please refer to field description
Used In	INSTRUMENTS REFERENTIAL DATA

NotionalCurrency2

Field Name	NotionalCurrency2
Description	In the case of multi-currency or cross-currency swaps the currency in which leg 2 of the contract is denominated. For swaptions where the underlying swap is multi-currency, the currency in which leg 2 of the swap is denominated
Format	ISO 4217
Length	3

Field Name	NotionalCurrency2
Possible Values	ISO 4217 Currency code
Conditions	Please refer to field description
Used In	INSTRUMENTS REFERENTIAL DATA

O

OptionExerciseStyle

Field Name	OptionExerciseStyle
Description	Indication as to whether the option may be exercised only at a fixed date (European, and Asian style), a series of pre-specified dates (Bermudan) or at any time during the life of the contract (American style). This field is only applicable for options, warrants and entitlement certificates
Format	Int
Length	-
Possible Values	1 - 'EURO' - European 2 - 'AMER' - American 3 - 'ASIA' - Asian 4 - 'BERM' - Bermudan 5 - 'OTHR' - Any other type
Conditions	Please refer to field description
Used In	INSTRUMENTS REFERENTIAL DATA

OptionType

Field Name	OptionType
Description	Indication as to whether the derivative contract is a call (right to purchase a specific underlying asset) or a put (right to sell a specific underlying asset) or whether it cannot be determined whether it is a call or a put at the time of execution. In case of swaptions it shall be: - 'PUTO', in case of receiver swaption, in which the buyer has the right to enter into a swap as a fixed-rate receiver. -'Call', in case of payer swaption, in which the buyer has the right to enter into a swap as a fixed-rate payer. In case of Caps and Floors it shall be: -'PUTO', in case of a Floor. -'Call', in case of a Cap. Field only applies to derivatives that are options or warrants
Format	Int
Length	-
Possible Values	1 - 'PUTO' - Put 2 - 'CALL' - Call 3 - 'OTHR' - where it cannot be determined whether it is a call or a put
Conditions	Please refer to field description
Used In	INSTRUMENTS REFERENTIAL DATA

OTCPostTradeIndicator

Field Name	OTCPostTradeIndicator
Description	Indicator as to the type of transaction in accordance with Articles 20(3)(a) /21(5)(a) and 11 of EU and onshored UK Regulation 600/2014
Format	string
Length	27

Field Name	OTCPostTradeIndicator
Possible Values	Populate one or more, separated by a dash (ex: 2-4-7): 'Blank' ■ - 'Blank' 0 - BENC - Benchmark 1 - ACTX -Agency cross 2 - LRGS - Large in scale 3 - ILQD - Illiquid instrument 4 - SIZE - Above specified size 5 - CANC – Cancellation 6 - AMND - Amendment 7 - SDIV - Special Dividend 8 - RPRI - Price improvement *(Not applicable for OBOE)* 9 - DUPL - Duplicative *(Not applicable for OBOE)* 10 - TNCP -Not contributing to the price discovery process *(Not applicable for OBOE)* 11 - TPAC - Package 12 - XFPH - Exchange for Physical *(Not applicable for OBOE)*
Conditions	Provided in case of Transaction Reporting subscription and applicable for OTC trades
Used In	TRANSACTION REPORTING SECTION OFF BOOK ON EXCHANGE SECTION

P

PRICE

Field Name	Price
Description	Transaction Price
Format	{DECIMAL 18/17} in case the price is expressed as basis points {DECIMAL-11/10} in case the price is expressed as percentage or yield {DECIMAL-18/13} in case the price is expressed as monetary value {DECIMAL 18/4} only for OBOE except Bonds {DECIMAL 18/17} for OBOE Bonds
Length	18
Possible Values	From 0 to 2^64-2
Conditions	Mandatory
Used In	TRANSACTION REPORTING SECTION OFF BOOK ON EXCHANGE SECTION

PRICECURRENCY

Field Name	PriceCurrency
Description	Currency in which the price is expressed
Format	ISO 4217
Length	3
Possible Values	ISO 4217 Currency code
Conditions	Applicable if the price is expressed as monetary value (PriceNotation = 1)
Used In	TRANSACTION REPORTING SECTION

PriceMultiplier

Field Name	PriceMultiplier
Description	Number of units of the underlying instrument represented by a single derivative contract. Monetary value covered by a single swap contract where the quantity field indicates the number of swap contracts in the transaction. For a future or option on an index, the amount per index point. For spreadbets the movement in the price of the underlying instrument on which the spreadbet is based. The information reported in this field shall be consistent with the values provided in fields 30 and 33
Format	Decimal
Length	18
Possible Values	From 0 to 2^64-2
Conditions	Please refer to field description
Used In	INSTRUMENTS REFERENTIAL DATA

PriceNotation

Field Name	PriceNotation
Description	Indication as to whether the price and the strike price is expressed in monetary value, in percentage or in yield
Format	Int
Length	2
Possible Values	1 - price expressed as monetary value 2 - price is expressed as percentage or yield 3 - price is expressed as basis points
Conditions	Mandatory
Used In	TRANSACTION REPORTING SECTION

Q

Quantity

Field Name	Quantity
Description	Total transaction quantity
Format	{DECIMAL 18/17} INTEGER for only OBOE
Length	18
Possible Values	From 0 to 2^64-2
Conditions	Mandatory
Used In	TRANSACTION REPORTING SECTION OFF BOOK ON EXCHANGE SECTION

QuantityCurrency

Field Name	QuantityCurrency
Description	Currency in which the quantity is expressed
Format	ISO 4217
Length	3
Possible Values	ISO 4217 Currency code

Field Name	QuantityCurrency
Conditions	Only applicable if quantity is expressed as nominal or monetary value (PriceNotation = 2)
Used In	TRANSACTION REPORTING SECTION

QUANTITYINMEASUREMENTUNIT

Field Name	QuantityInMeasurementUnit
Description	Indication of measurement units in which the quantity in measurement unit is expressed
Format	Decimal
Length	18
Possible Values	From 0 to 2^64-2
Conditions	Provided in case of APA subscription for commodity derivatives, emission allowance derivatives and emission allowances except in the cases described under Article 11(1) letters (a) and (b) of this EU and onshored UK Regulation.
Used In	APA TRADE PUBLICATION SECTION

QUANTITYNOTATION

Field Name	QuantityNotation
Description	Indication as to whether the quantity is expressed in monetary unit, or nominal value
Format	Int
Length	2
Possible Values	1 - UNIT 2 - MONE (Monetary value) 3 - NMNL (Nominal value)
Conditions	Mandatory
Used In	TRANSACTION REPORTING SECTION

QUANTITYNOTATIONINMEASUREMENTUNIT

Field Name	QuantityNotationInMeasurementUnit
Description	Notation of measurement units in which the quantity in measurement unit is expressed
Format	string
Length	25
Possible Values	'TOCD' – tons of carbon dioxide equivalent Or {ALPHANUM-25} otherwise
Conditions	Provided in case of APA subscription for commodity derivatives, emission allowance derivatives and emission allowances except in the cases described under Article 11(1) letters (a) and (b) of this EU and onshored UK Regulation.
Used In	APA TRADE PUBLICATION SECTION

R

REPOSETTLEMENTDATE

Field Name	RepoSettlementDate
Description	This field indicates the repo settlement date of a trade.

Field Name	RepoSettlementDate
Format	date
Length	10
Possible Values	Format YYYY-MM-DD
Conditions	Optional. If specified, must not be past.
Used In	OFF BOOK ON EXCHANGE SECTION

S

SecFinancingTransactionIndicator

Field Name	SecFinancingTransactionIndicator
Description	**True** shall be populated where the transaction falls within the scope of activity but is exempted from reporting under [Securities Financing Transactions Regulation] **False** shall be populated where the transaction does not fall within the scope of activity under [Securities Financing Transactions Regulation]
Format	string
Length	1
Possible Values	0 - False 1 - True
Conditions	Mandatory in case of Transaction Reporting subscription
Used In	TRANSACTION REPORTING SECTION

SecurityID

Field Name	SecurityID
Description	Instrument identifier based on the value of the securityIDSource Please use the Euronext code for Dublin instrument when entering an OBOE trades.
Format	string
Length	20
Possible Values	ISIN, Symbol Index or Other instrument code
Conditions	Mandatory
Used In	KEY DATA INSTRUMENTS REFERENTIAL DATA OFF BOOK ON EXCHANGE SECTION

SettlementDate

Field Name	SettlementDate
Description	This field indicates the settlement date of a trade.
Format	date
Length	10
Possible Values	Format YYYY-MM-DD
Conditions	Optional. If specified, must not be past.
Used In	OFF BOOK ON EXCHANGE SECTION

SettlementPeriod

Field Name	SettlementPeriod
Description	This field indicates the settlement delay in trading days, from 0 to 30 days.
Format	Int
Length	-
Possible Values	0 to 30
Conditions	Mandatory if Settlement flag = 1 (true) or APA ARM Indicator= 4.
Used In	OTC Trade

SettlementFlag

Field Name	SettlementFlag
Description	This field Indicates whether the declaration must be settled or not. (0: [indicated as False] means "Not Settled"; 1: [indicated as True] means "Settled")
Format	Int
Length	-
Possible Values	0 to 30
Conditions	
Used In	OTC Trade

ShortSellingIndicator

Field Name	ShortSellingIndicator
Description	(See field description) A short sale concluded by an investment firm on its own behalf or on behalf of a client, as described in Article 11. • When an investment firm executes a transaction on behalf of a client who is selling and the investment firm, acting on a best effort basis, cannot determine whether it is a short sale transaction, this field shall be populated with 'UNDI' • Where the transaction is for a transmitted order that has met the conditions for transmission set out in Article 4 of this EU and onshored UK Regulation, this field shall be populated by the receiving firm in the receiving firm's reports using the information received from the transmitting firm • This field is only applicable when, the instrument is covered by EU and onshored UK Regulation 236/2012, and the seller is the investment firm or a client of the investment firm
Format	string
Length	4
Possible Values	If populated, only one of the following values can be populated: 'SESH', 'SSEX', 'SELL', 'UNDI'
Conditions	Only applicable when the instrument is covered by EU and onshored UK Regulation 236/2012, and the seller is the investment firm or a client of the investment firm
Used In	TRANSACTION REPORTING SECTION

SIDE

Field Name	Side
Description	Transaction side.
Format	Int
Length	1
Possible Values	1 - Buy 2 - Sell 3 - Cross
Conditions	Mandatory
Used In	KEY DATA

STRIKEPRICE

Field Name	StrikePrice
Description	Pre-determined price at which the holder will have to buy or sell the underlying instrument, or an indication that the price cannot be determined at the time of execution. Field only applies to an option or warrant where strike price can be determined at the time of execution. Where price is currently not available but pending, the value shall be 'PNDG'. Where strike price is not applicable the field shall not be populated
Format	Decimal
Length	18
Possible Values	From 0 to 2^64-2
Conditions	Please refer to field description - depending on the priceNotation
Used In	TRANSACTION REPORTING SECTION

STRIKEPRICECURRENCY

Field Name	StrikePriceCurrency
Description	Currency of the strike price
Format	ISO 4217
Length	3
Possible Values	ISO 4217 Currency code
Conditions	Only applicable if the field strikePrice is provided
Used In	TRANSACTION REPORTING SECTION

STRIKEPRICENOTATION

Field Name	PriceNotation
Description	Indication as to whether the price and the strike price is expressed in monetary value, in percentage or in yield (at time execution of strike price when applicable)
Format	Int
Length	2
Possible Values	1 - price expressed as monetary value 2 - price is expressed as percentage or yield 3 - price is expressed as basis points

Field Name	PriceNotation
Conditions	Mandatory
Used In	TRANSACTION REPORTING SECTION

T

TRADEID

Field Name	TradeID
Description	Code assigned for a matched trade by the Euronext Trading Engine and which was disseminated to both Buyer and Seller or Code assigned for a matched trade by the another Trading Venue (not Euronext) and which was disseminated to both Buyer and Seller
Format	string
Length	52
Possible Values	No restriction for a code generated by another Trading Venue Or Code assigned by the Euronext Trading Engine for a matched trade
Conditions	Provided when the subscribing entity wants to match an existing COB trade within Saturn. This field is only required for the market side of a transaction executed on a trading venue
Used In	KEY DATA

TRADEREF

Field Name	TradeRef
Description	Identification number that is unique to the executing firm for each transaction report
Format	string
Length	52
Possible Values	No restriction
Conditions	Mandatory
Used In	KEY DATA

TRADINGCAPACITY 1

Field Name	TradingCapacity
Description	MiFID II field that indicates whether the transaction submitted results from trading as matched principal, on own account or as any other capacity
Format	Int
Length	1
Possible Values	1 - Dealing on own account (DEAL) 2 - Matched principal (MTCH) – (Not avalaible for OBOE Dublin) 3 - Any other capacity (AOTC)
Conditions	Mandatory
Used In	TRANSACTION REPORTING SECTION OFF BOOK ON EXCHANGE SECTION

TRADINGCAPACITY 2

Field Name	TradingCapacity2
Description	MiFID II field that indicates whether the transaction submitted results from trading as matched principal, on own account or as any other capacity (for cross trade)
Format	Int
Length	1
Possible Values	1 - Dealing on own account (DEAL) 2 - Matched principal (MTCH) – (Not avalaible for OBOE Dublin) 3 - Any other capacity (AOTC)
Conditions	Mandatory
Used In	APA TRADE PUBLICATION SECTION

TRADINGDATETIME

Field Name	TradingDateTime
Description	Timestamp in microseconds of when the order/transaction request was initiated/released by the trader or trading system, or time of execution/order creation
Format	UTCTimestamp
Length	27
Possible Values	Epoch time in microseconds for Submit (Json format) YYY-MM-DDThh:mm:ss.ddddddZ for csv file
Conditions	Mandatory
Used In	TRANSACTION REPORTING SECTION OFF BOOK ON EXCHANGE SECTION

TRANSMISSIONOFORDERINDICATOR

Field Name	TransmissionOfOrderIndicator
Description	True - shall be populated by the transmitting firm within the transmitting firm's report where the conditions for transmission specified in Article 4 were not satisfied False – in all other circumstances
Format	Int
Length	1
Possible Values	0 - False 1 - True
Conditions	Mandatory in case of Transaction Reporting subscription
Used In	TRANSACTION REPORTING SECTION

TRANSMITTINGFIRMIDBUYER

Field Name	TransmittingFirmIDBuyer
Description	Code used to identify the firm transmitting the order. This shall be populated by the receiving firm within the receiving firm's report with the identification code provided by the transmitting firm
Format	ISO 17442
Length	20
Possible Values	ISO 17442 LEI code
Conditions	Mandatory in case of Transaction Reporting subscription and if tradingCapacity is 3
Used In	TRANSACTION REPORTING SECTION

TransmittingFirmIDSeller

Field Name	TransmittingFirmIDSeller
Description	Code used to identify the firm transmitting the order. This shall be populated by the receiving firm within the receiving firm's report with the identification code provided by the transmitting firm
Format	ISO 17442
Length	20
Possible Values	ISO 17442 LEI code
Conditions	Mandatory in case of Transaction Reporting subscription and if TradingCapacity is 3
Used In	TRANSACTION REPORTING SECTION

U

UnderlyingIndexName

Field Name	UnderlyingIndexName
Description	When the underlying is an index, the name of the index
Format	string
Length	25
Possible Values	{INDEX} Or {ALPHANUM-25} - if the index name is not included in the {INDEX} list
Conditions	Applicable if the UnderlyingSecurityID refers to an index
Used In	TRANSACTION REPORTING SECTION

UnderlyingIndexTerm

Field Name	UnderlyingIndexTerm
Description	In case the underlying is an index, the term of the index
Format	Int
Length	-
Possible Values	1 - 'DAYS' - days 2 - 'WEEK' - weeks 3 - 'MNTH' - months 4 - 'YEAR' - years
Conditions	Applicable if the underlyingSecurityID refers to an index
Used In	TRANSACTION REPORTING SECTION

UnderlyingSecurityID

Field Name	UnderlyingSecurityID
Description	ISIN code of the underlying instrument. For ADRs, GDRs and similar instruments, the ISIN code of the financial instrument on which those instruments are based. For convertible bonds, the ISIN code of the instrument in which the bond can be converted. For derivatives or other instruments which have an underlying, the underlying instrument ISIN code, when the underlying is admitted to trading, or traded on a trading venue. Where the underlying is a stock dividend, then ISIN code of the related share entitling the underlying dividend. For Credit Default Swaps, the ISIN of the reference obligation shall be provided. In case the underlying is an Index and has an ISIN, the ISIN code for that index.
Format	string
Length	20
Possible Values	Types described in the field
Conditions	Please refer to field description UnderlyingSecurityIDSource

Field Name	UnderlyingSecurityID
Used In	TRANSACTION REPORTING SECTION

UNDERLYINGTYPE

Field Name	Underlying Instrument Type
Description	This field corresponds to the type of Underlying used. More than one value can be reported by adding this field group as many times as required In case of a basket of instruments, the number of legs which can be added is: ▪ 9 legs via CSV upload / GUI ▪ Indefinite through API (web services)
Format	Int
Length	1
Possible Values	1 - 'OTHR' 2 - 'SWAP IN' 3 - 'SWAP OUT'
Conditions	
Used In	TRANSACTION REPORTING SECTION

UPFRONTPAYMENT

Field Name	UpFrontPayment
Description	Monetary value of any up-front payment received or paid by the seller. Where the seller receives the up-front payment, the value populated is positive. Where the seller pays the up-front payment, the value populated is negative
Format	Decimal
Length	18
Possible Values	From -2^63+1 to 2^63-1
Conditions	Provided in case of Transaction Reporting subscription and applicable only when the NotionalIncreaseDecrease is populated with any value, or CFI = SC**** (CDS)
Used In	TRANSACTION REPORTING SECTION

UPFRONTPAYMENTCURRENCY

Field Name	UpFrontPaymentCurrency
Description	Currency of the up-front payment
Format	ISO 4217
Length	3
Possible Values	ISO 4217 Currency code
Conditions	Provided in case of Transaction Reporting subscription and applicable if UpFrontPayment field is populated
Used In	TRANSACTION REPORTING SECTION

V

VENUE

Field Name	Venue
Description	Identification of the venue where the transaction was executed

Field Name	Venue
Format	ISO 10383
Length	8
Possible Values	■ MIC (EEA) MIC Code ISO 10383 ■ MIC (Non EEA) MIC Code ISO 10383 ■ Only Dublin and Oslo (excepted Derivative) MICs accepted for OBOE Services ■ "XOFF" ■ "XXXX" ■ Systematic Internalisers MIC Code ISO 10383
Conditions	Always provided except for OTC trades
Used In	KEY DATA

W

WaiverIndicator

Field Name	WaiverIndicator
Description	Indication as to whether the transaction was executed under a pre-trade waiver in accordance with Articles 4 and 9 of EU and onshored UK Regulation 600/2014. For all instruments: 'RFPT' = Reference price transaction 'NLIQ' = Negotiated transactions in liquid financial instruments 'OILQ' = Negotiated transactions in illiquid financial instruments 'PRIC' = Negotiated transactions subject to conditions other than the current market price of that equity financial instrument. For non-equity instruments: 'SIZE' = Above specific size transaction 'ILQD' = Illiquid instrument transaction This field shall only be populated for the market side of a transaction executed under a waiver on a trading venue.
Format	string
Length	13
Possible Values	Populate one or more of the following MMT flags, separated by a dash (ex: 2-4-6): ■ - 'Blank' ■ 1 - 'RFPT' - Reference price (not available for OBOE) ■ 2 - 'NLIQ' - Negotiated (liquid) ■ 3 - 'OILQ' - Negotiated (illiquid) ■ 4 - 'PRIC' - Negotiated (conditions) ■ 5 - 'SIZE' - Above specified size ((not available for OBOE) ■ 6 - 'ILQD' - Illiquid instrument ■ 7 - 'LIS' – Large in Scale
Conditions	Optional for both APA, ARM and OBOE If Venue from Dublin or OSLO then "Waiver Indicator" should be populated with a **maximum of one** from the above list
Used In	OFF BOOK ON EXCHANGE SECTION

REVIEW LOG, DOCUMENT HISTORY, SIGN-OFF

REVIEW LOG

DOCUMENT NAME	Euronext Cash and Derivatives Markets – Saturn Web Services
PROJECT NAME	Reporting To Regulators - Saturn
LOCATION	
VERSION	5.18.0

REVISION NO.	DATE	CHANGE DESCRIPTION
1.0	22 Feb 2017	Initial version called: Euronext APA/ARM services - Saturn Web services
2.0	4 Aug 2017	■ § 7.2 Submit APA Quotes - APA Pre Trade Publication ■ $ 9 Clearing Section ■ § 10 technical details and examples (upload trades in GUI, Web services, data retrieval, statistics)
2.0	4 Sep 2017	■ § 5.1 new fields added - Buyer and Seller National ID Type
2.1	18 Sep 2017	■ § 5.1 new fields added - Buyer and Seller Decision Maker + Investment Decision Within Firm National ID Type + Execution Within Firm National ID Type
2.1	19 Sep 2017	■ § 4.14.2 Detailed fields for csv file ■ § 4.10 to 4.11 distinction between APA ARM moved in this section
2.2	27 Sep 2017	■ Logos for all paragraphs have been changed ■ Additional definitions have been inserted in the Glossary
2.3	28 Sep 2017	■ Screenshots in English added in section 9 Prerequisite before using API ■ Information added in section 10.4 Result
2.3	03 Oct 2017	■ Fields 5, 58 & 60 corrected to reflect RTS 22
2.3	06 Oct 2017	■ Add csv file example for trade submission
2.4	18 Oct 2017	■ Executing firm inserted in section 4.4 submit trades
2.5	8 Nov 2017	■ Modification on APA Quotes URLs and specification
2.6	16 Nov 2017	■ § 14.2 Generate certificate with PEM format
2.6	20 Nov 2017	■ § 7.4 APA Pre trade Publication Kinematic
2.7	05 Dec 2017	■ § 9.1 OTC Clearing only ■ § 9.2 OTC Clearing with APA and/or ARM
2.7	05 Dec 2017	■ Fields transaction price type, duplicative trade indicator, special dividend trade removed ■ Quantity Notation added related to quantity units

REVISION NO.	DATE	CHANGE DESCRIPTION
2.7	07 Dec 2017	■ § 10 Instrument without ISIN code ■ § 11 Instrument without ISIN code with csv file ■ § 4.10 ARM fields mapping ■ § 4.11 APA fields mapping
2.8	13 Dec 2017	■ § 9.2 feedback status ■ § 4.9 GetTx response data parameters ■ § 4.14.6 Getuploadfiles reponse data ■ § 4.4.1 Function SubmitTx ■ § 6 Clearing section (mention added about instruments) ■ § 4.13 Price control checks ■ § 6 Retrieve Clearing Declarations ■ § 4.4.7 APA trade Publication Section (mention for Synapse) ■ Waiver indicator applicable to both APA and ARM
2.8.1	29 Dec 2017	■ Changed Publication Date Time format for API submit trades ■ Changed Trading Date Time description ■ Changed description of API submit trades ■ Added requirement for “4.14 Submit Trades through csv”
2.8.2	16 Jan 2018	■ Changed FreeText length (Submit & csv) ■ Added recommendation for submitTx & getTx ■ Changes in 4.10 ARM fields mapping ■ Changes in 4.11 APA fields mapping ■ Added example $7.4.8 Rejection ■ Added example $7.5 Retrieve APA Quotes ■ Added example $6 Retrieve Clearing declarations ■ Removed APA field: Publication Date Time (Submit & csv) ■ Removed ARM field: Submitting Entity ID (Submit & csv) ■ Removed getOverview, getMarketPlaceDetail and getTimeLine resources ■ Removed Statistics resources examples ■ §4.8 getTx resource ■ $4.9 getTx resource Response ■ $4.14.7 getuploadedfiles resource ■ $4.14.8 getuploadedfiles resource Response ■ $5.1.1 Retrieve Instruments Referential ■ $5.1.2 Retrieve Instruments Referential Response ■ $7.6 Retrieve APA Quotes resource Response ■ $4.4.10 InstrumentID Type mandatory
2.8.3	26 Mar 2018	■ Added Quantity Notation in $4.11 APA fields mapping ■ Modified $4.14.7 “GetUploadedfiles” section ■ Modified $4.14.8 “GetUploadedfiles response data” section ■ Added new status in $12.1 Saturn Trade Status: ENX to be completed ■ Added $4.14.9 Rest API Return Upload Code ■ Updates of Bypass indicator (Extended to LEI code and Format Change)

REVISION NO.	DATE	CHANGE DESCRIPTION
		■ Reorganization of $5 SATURN referential ■ Added Warning Message about removal of $4.4 submit and $4.6 get resource
2.8.4	16 Apr 2018	■ Added Instrument Basket fields in $4.4.10 Transaction Reporting section ■ Added Instrument Basket fields in $4.4.7 APA Trade publication section ■ Added Instrument Basket fields in $4.10 ARM fields mapping section ■ Added Instrument Basket fields in $4.11 APA fields mapping section ■ Added Instrument Basket repeating section in $4.14.2 Detailed fields for csv file ■ Added $4.4.10 Instrument Basket Fields
2.8.5	22 Jun 2018	■ Added new status in $12.1 Saturn Trade Status section ■ Added new API status return codes in $16.5 Rest API Return Status code section ■ Added new values in the Deferral indicator field ■ Added new section $8 APA Post trade (Inc. Deferred Publication)
2.8.6	14 Sep 2018	■ Added new schema $4.3.2 Off Book On Exchange Trade Reporting schema ■ Added new section $4.4.8 Off Book On Exchange section ■ Added new field $4.12 OBOE Fields Mapping ■ Added new section $4.13.3 OBOE Price validation and volume control ■ Added new section $4.4.8.1 getCurrentTransactionsStatus ■ Added new section $4.4.8.2 getCurrentTransactionsStatus response data ■ Added new section $4.4.8.3 getCurrentCommoditiesStat ■ Added new section $4.4.8.4 getCurrentCommoditiesStat response data ■ Added new section $4.4.8.5 getSlcCurrentStatistics ■ Added new section $4.4.8.6 getSlcCurrentStatistics response data ■ Added new section $4.4.8.7 getQuotesCount ■ Added new section $4.4.8.8 getQuotesCount response data ■ Added two new fields in section $4.9 ARM fields Mapping (Clearing Counterpart ID & Clearing Counterpart Name) ■ Added two new fields in section $4.10 APA fields Mapping (Clearing Counterpart ID & Clearing Counterpart Name) ■ Added new Saturn Trade Status “Warning” in section 12.1
2.8.7	23 Oct 2018	■ Added new section 4.9 FIX 5.0 Messages ■ Added new section 4.3.7.1 APA Trade Publication Only (APA/ARM Indicator =2) ■ Added new section 4.3.7.2 APA & ARM Trade Reporting (APA/ARM Indicator =3) ■ Added new section 4.3.8.1 OBOE Trade Only (APA/ARM Indicator =5) ■ Added new section 4.3.8.2 OBOE & ARM Trade Reporting (APA/ARM Indicator =6) ■ Updated section 9.1.3 Schema: OTC Trades WorkFlow ■ Updated section 9.1.2 Dedicated Clearing Fields ■ Updated section 17. Fields Description
2.8.8	19 Dec 2018	■ Updated section 4.3.3: Adding mandatory Fields for Amendment ■ Updated section 4.3.4: Adding mandatory Fields forCancellation ■ Changed “Bypass Control flag” in Optional ■ Changed “Price” and “Quantity” Decimal Format for OBOE ■ Changed “Trading Capacity 1: Value 2(MTCH) is not available for OBOE Dublin

REVISION NO.	DATE	CHANGE DESCRIPTION
		■ Updated section 17. Fields Description (Price / Quantity / BypassControl / Trading capacity1) ■ Adding a new check to verify if the Executing firm LEI matches the participant ID ■ Updated section 17. Fields Description (Security ID) ■ Adding a notice in the Security ID field to inform the client to use the Euronext Code when entering an OBOE trade executed on a Dublin instrument.
2.8.9	11 Mar 2019	■ Updated Section 4.3: Submit trade, Adding value 4 in the "Trade Report" field, for recovering transactions ■ Updated section 4.3.5: Transaction reporting (ARM) by adding an important note regarding the new process for recovering transactions ■ Updated section 4.3.7.2: APA & ARM Adding Transaction reporting, by adding an important note regarding the new process for recovering transactions ■ Updated section 4.3.8.2: OBOE & ARM Adding Transaction reporting, by adding an important note regarding the new process for recovering transactions ■ Updated section 17. Fields Description [Action] by adding value 4 RECOVERY
2.9.0	04 Apr 2019	■ Update section 9.1.3 Schema: OTC trades workflow
2.9.1	02 May 2019	■ Update section 4.3.1 for Mandatory fields to INSERT ■ Update section 4.3.3 for Mandatory fields to AMEND ■ Update section 4.3.4 for Mandatory fields to CANCEL
2.9.3	14 May 2020	Oslo Bors Integration: ■ Extended 'Counterparty Type' possible value with: – 3 – Non Euronext Member ■ Extended 'Venue' possible values with Dublin/Oslo MICs: – "XOFF" – "XXXX" – "SINT" ■ Extended 'Deferral Indicator' possible values: – 5 - Deferral (Oslo). ■ Extended Euronext Trade Flags possible values: – NM: 'Not to Market' – VW: 'VWAP Trade' – DT: 'Derivative-related Trade' – OT: 'Ordinary Trade' – ON: 'Non-strandard Settlement' – RE: 'Repo' – OE: 'Exchange-granted Trade' – OH: 'Other' – OL: 'Odd Lot' – OP: 'Package Transaction'

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		■ Modified 'Trading Capacity' value: – 2 'MTCH' available for Oslo, not Dublin. ■ Modified OTC Post Trade Indicator value: – 'TPAC' allowed for OBOE Bonds only. ■ Added optional fields for OBOE trade facilities: – 'Settlement Date' – 'Repo Settlement Date' – 'Counterparty Type'. ■ Modified 'Waiver Indicator': the following values are available for OBOE Bonds only: – SIZE – ILQD ■ Enriched 'ByPassControlFlag' field description to support multiple values. ■ Price and Volume control: added note that price and volume control for Oslo may exist provided that limits are specified per instrument. ■ Updated Support information and links to csv file examples in Preface.
2.9.4	29 Jun 2020	■ Modified 'OTC Post Trade Indicator ' : the following values are available for OBOE Bonds only: – 'ILQD' – 'SIZE' – 'LRGS' ■ Modified 'Waiver Indicator': removing value 'SIZE' for OBOE.
2.9.5	20 Nov 2020	■ A new two-factor authentication (2FA) mode is available to connect to Saturn (TOTP - Time-based One-time Password). Update of sections 4.2.1, 4.2.2 and 4.2.3 Diagrams: In addition to RSA authentication mode, adding the new 2FA (TOTP) Icon.
2.9.6	12 Jan 2021	■ Section 16.7.4.2 updated: Description of the new method to retrieve the SubmitTx Response.
2.9.7	08 Mar 2021	■ Section 4.7 updated: One more detail has been added to the "Limit" parameter (the "Limit" is Optional when using the GetTx API command).
2.9.8	09 Mar 2021	■ Sections 4.3.5 & 4.11.2 updated : different format possible for Price (field 33 of RTS22)
2.9.9	15 Jun 2021	■ Expiry Date & Maturity Date format change from YYYYMMDD to YYYY-MM-DD. (specification alignment with the code) ■ Section 4.11.2 updated : Changed Column name for "Counter Party Type" information. ■ ByPassControlFlag : added new values and new description for this field. ■ Section 5.2 LEI Referential added : description of LEI retrieval with example and response ■ Section 5.3 MIC Referential added : description of MIC retrieval with example and response
2.9.10	04 Oct 2021	■ Section 8.3.2 : New Deferral Calculation rules for APA transactions Deferred Publication (Non Equity). ■ Section 1 : Added a reference on UK DRSP regulatory framework governing.

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2.9.11	26 Nov 2021	■ Section 16.5 : Added new API return status codes ■ Section 1, Section 4.3.6, Section 4.9.3, Section 4.11.2, Section 8.1, Section 17 : Added a reference on UK onshored regulation. ■ Added new Section 2.3 Password Policy
2.9.12	17 Dec 2021	■ Preface, Section 1, Section 4.2, Section 4.3.5, Section 4.9.4, Section 4.11.2, Section 8.1, Section 10.1.2, Section 10.1.3, Section 10.2.1, Section 10.2.2, Section 11.1.2, Section 11.1.3, Section 11.2.1, Section 11.2.2 : Added a reference on UK onshored regulation.
2.9.13	19 Jan 2022	■ Section 4.11.1 Upload : New requirements regarding uploaded csv files. ■ Section 7.4.6 Submit Quotes : Added an example
2.9.14	14 Feb 2022	■ Section 4.11.1 Upload : File type must be present when uploading a csv file. ■ Section 16.8.1 Upload service : Changed the example for the csv file upload.
2.9.15	25 Feb 2022	■ Section 4.3.8 Off Book on Exchange Section, 4.11.2 Detailed fields for csv file & Price Definition Field : added a clarification on Price format for OBOE. ■ Section 4.1 AuthenticateUSER: Clarification on the error code removal and addition of a new error message. ■ Section 2.3 Password Policy: Updated password historization policy. ■ Section 16.5 Rest API Return Status Code : Removal of login status codes.
5.16.0	1 Jun 2022	■ Section 2.3 Password Policy: added more special characters authorized for password. ■ Section 4.2 For Saturn Environment: updated URL for Prod and EUA environment. ■ Section 7.4.9 Submit multiple Quotes added : possibility to send multiple SI quotes in a bulk format with a new service. ■ Section 7.4.10 Submit multiple Quotes response data : examples of response. ■ Section 7.4.11 Submit multiple Quotes Rejection : examples of rejection response.
5.18.0	17 Oct 2022	■ Sections 4.3.1 Function SubmitTx, 4.9.2 Header Field Mapping, 4.9.4 ARM fields mapping (Coming soon), 4.9.5 APA fields mapping (Coming soon), 4.11.2 Detailed fields for csv file, 9.1.1 Common mandatory fields: Replaced “SINT” market place for APA by “Systematic Internalisers MIC Code ISO 10383”, as per RTS1 & RTS2.