



**ECB-UNRESTRICTED
DRAFT**

T2S Penalty Mechanism

T2S CSDR Task Force

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Executive summary:

This document aims at gathering the clarifications and/or working assumptions of the ad-hoc CSDR Task Force, that are deemed necessary for the drafting of the requirements for the definition, in the T2S platform, of a penalty mechanism compliant with the CSD Regulation (i.e. the T2S Penalty Mechanism).

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1. Introduction

The T2S CSDR Task Force was established by the T2S Steering level, in order to identify the necessary changes to the T2S platform, with the objective to facilitate T2S CSDs' timely compliance with the CSD Regulation (CSDR).

Based on the Article 19 of the Draft RTS on Settlement Discipline, according to which CSDs that use a common settlement infrastructure shall "jointly manage the calculation, application, collection and redistribution of cash penalties", it was decided at T2S Steering Level that T2S would offer a settlement penalty calculation mechanism.

This document aims at gathering the clarifications and/or working assumptions of the CSDR Task Force that are deemed necessary to draft the T2S User Requirements that will define the features of the T2S Penalty Mechanism as described in related T2S change request number 654 (CR-654).

All the clarifications and/or working assumptions described will have to be analysed in detail during the CR assessment in order to see whether they are technically feasible or they require a significant impact in the T2S platform that would justify a different approach.

Each clarification and/or working assumption is listed as "**C-X**" (for example C-1 is the clarification about the use of the T2S calendar in the T2S Penalty Mechanism). When these clarifications and/or working assumptions are linked to items or questions that needed clarification from regulators, the reference to those items is provided¹.

1.1 High level overview and structure of the document

The T2S Penalty Mechanism focuses on the daily calculation and reporting of penalties for settlement fails as well as the complementary features, which are necessary for T2S Actors in this context.

As part of its complementary reporting features, T2S will provide a monthly reporting of the aggregated amounts of penalties computed for a given month. This reporting will be used for the collection and redistribution process of cash penalties performed by the CSDs outside T2S.

In order to describe all the needed clarifications and/or working assumptions that will define the features of the T2S Penalty Mechanism, the document is structured as follows:

- **Section 2** provides the "General principles of the T2S Penalty Mechanism".
- **Section 3** describes the features for the "Computation of penalties". I.e. the types of penalties that, according to the regulation, T2S may compute; the general rules for the computation, as well as the functional requirements followed on the daily calculation of penalties for each business day that a transaction fails to be settled after its intended settlement date.

¹ Document: "List of CSDR Items for Clarification"

The reference will be provided as: *See also "List of CSDR Items for Clarification": Item XX "Name of the item"*

- **Section 4** outlines the reference data required for the computation of penalties. The section focuses mainly on the definition of the relevant data and the identification of the actors that shall be responsible for providing and maintaining these data.
- **Section 5** describes the daily provision (A2A reporting) to CSDs and T2S direct connected participants of the details of the penalties computed. I.e.: the Daily Penalty List.
- **Section 6** describes the features available for CSDs to query penalties in U2A mode (via screen).
- **Section 7** describes the corrections or updates that can be made on previously computed penalties as well as the reporting of such modifications, i.e. the List of Modified Penalties.
- **Section 8** describes T2S features for the monthly calculation and reporting of the aggregated amounts of penalties computed for a given month.
- **Section 9** provides the daily schedule of the different processes performed by the T2S Penalty Mechanism (i.e. an overall representation including the main milestones for each process as well as their occurrence along the T2S business day).
- **Section 10** outlines the volumetric assumptions.
- **Section 11** describes the migration or activation of the T2S Penalty Mechanism.
- Finally, the **Annex - Section 12** provides additional clarifications for the eligibility of transformations to penalties, external CSD settlement and statuses and reasons for SEFPs.

1.2 Out of scope

This document is not intended to cover all aspects of the settlement penalty regime nor to provide CSDs and market participants with an exhaustive view of their obligations vis-à-vis CSDR in this context; it focuses on the clarifications and/or working assumptions that are deemed necessary for the definition of the T2S Penalty Mechanism. In particular, the following processes are not covered in substance:

- Derivation of the list of financial instruments subject to penalties and feed of a "golden data source"
- Reconciliation at CSD side, including the reconciliation mechanisms and principles when 2 penalty systems calculate a different cash penalty for a transaction (e.g. in case of transaction with an External CSD subject to CSDR)
- Collection and redistribution of cash penalties (i.e. payments or settlement of cash penalties)
- Interaction with the buy-in process
- Reporting to competent authorities

1.3 Overall timeline for penalties

Although this document does not intend to cover all aspects of the settlement penalty regime, the CSDR TF considered appropriate to provide an overview of the overall timeline for penalties.

In this line, the diagram below describes the milestones for the calendar of a penalty, i.e. since it is computed by T2S², until it is paid outside T2S. For this purpose, the main quotes driving the timeline are:

Article 16 (Collection of cash penalties) of the Draft Technical Standards on Settlement Discipline:

- "A CSD shall charge and collect at least monthly the net amount of cash penalties to be paid by each participant. On a daily basis, the CSD shall provide to participants the details of the calculation of the penalties for every failed settlement instruction, indicating the account to which each failed settlement instruction refers."

Article 17 (Redistribution of cash penalties) of the Draft Technical Standards on Settlement Discipline:

- "The CSD shall redistribute to the receiving participants that suffered from a settlement fail the net amount of cash penalties that it has collected in accordance with Article 16, at least monthly. On a daily basis, a CSD shall provide the receiving participants with the details of the calculation of the cash penalties for each failed settlement instruction, indicating the account to which the failed settlement instruction refers to."

Following the legal requirements, the CSDR TF agreed to perform the collection and the distribution of penalties once a month. Furthermore, considering that CSDs should not alter their risk profile due to its operation of the penalty mechanism (whereas #20 of Draft Technical Standards on Settlement Discipline), the CSDR TF considered that both, the collection and the distribution, shall be performed on the same day.

Additionally, it was noted that for those CSDs that do not have a banking license, it will be extremely difficult to modify already paid penalties. Therefore, there was a consensus in the CSDR TF on the fact that once a penalty has been paid, it won't be possible to appeal the penalty. Accordingly, and in order to have a lean procedure, the deadline to make corrections or updates in penalties (i.e. end of appeal period) shall relate to the provision of the monthly aggregated amounts to be collected and distributed.

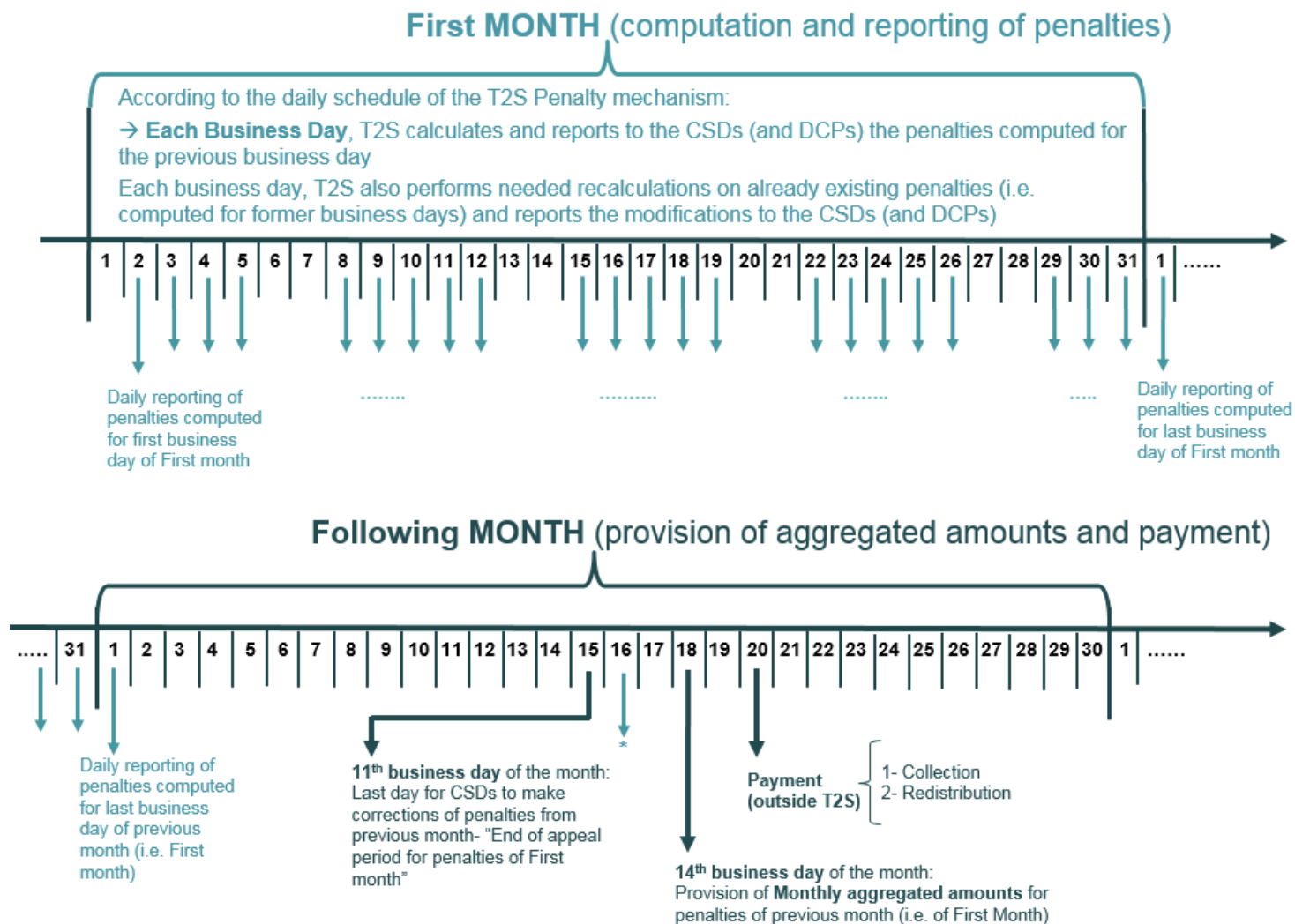
Consequently, the CSDR TF agreed to set the end of appeal period (last day to make modifications³) for penalties computed on a given month, on the 11th business day of the following month⁴. This ensures enough time for CSD participants and CSDs to reconcile the penalties. Finally, on the 14th business day of the new month⁴, T2S will provide the monthly aggregated amounts of penalties of the previous month.

² Further description of the daily processes is provided in section 2- "General principles of the T2S Penalty Mechanism" and more in detail in section 9- "Daily schedule of the T2S Penalty Mechanism".

³ For further details on the possible modifications over penalties and their reporting, please refer to section 7- "Modifications of existing penalties".

⁴ In this context business days are considered as T2S opening days (i.e. currency independent).

Diagram: Overall timeline



*On the 12th business day of the month, T2S performs the recalculations due to reference data changes made on the 11th business day. Therefore, the modifications reported by on the 12th are the last updates that CSDs (and DCPs) need to consider for their reconciliation with the Monthly report

2. General principles of the T2S Penalty Mechanism

2.1 Use of T2S calendar (C-1)

See also "List of CSDR Items for Clarification": Item 15 "Calendar to be applied to identify business days for penalty calculation".

Business days for the purpose of computation of cash penalties shall be understood as T2S Settlement Days, i.e. days for which an instruction can settle in T2S.

In case of against payment instructions, T2S Settlement Days are business days that are not closing days for the relevant currency of the cash contained in an instruction to be settled in T2S.

In case of Free of Payment instructions, T2S Settlement Days relate to those business days that are not common T2S closing days for all currencies (i.e. as described in the T2S UDFS: All Saturdays, Sundays and other specific days such as 25, 26 December and 1 January are common closing days for all currencies).

In case of a transaction involving settlement outside T2S, the common opening days of the respective calendars must be used, i.e. a penalty shall not be calculated for the days where a transaction cannot settle. As a consequence, manual corrections of the penalties computed by T2S (i.e. reduce the amount to zero of the penalty calculated by T2S) may need to be applied ex-post in case a transaction does not settle due to closing of the external settlement system (e.g. Issuer CSD or payment system). The manual correction will be performed in T2S through the function "Removal of an existing Penalty by a CSD" described in section 7.1.

2.2 Timing for computation and reporting of penalties (C-2)

The calculation and the reporting of the penalties have to be performed on daily basis.

The COMMISSION DELEGATED REGULATION (EU) C(2016) 7154 of 11.11.2016 supplementing Regulation (EU) No 909/2014, within its explanatory memorandum, states:

"Article 7(2) requires CSDs to impose cash penalties on users that cause settlement fails. Such penalties should be calculated on a daily basis for each business day following the settlement fail until the actual settlement date or other factor terminating the transaction"⁵.

As agreed by the CSDR TF the calculation and the reporting of the penalties should be placed considering the business needs but also at the most suitable timings for the T2S platform (i.e. avoiding periods of high traffic in T2S such as Start of Day of the following business day) and according to the volumetric assumptions described in section 10.

⁵ This statement is in line with Article 7 of the REGULATION (EU) No 909/2014 (CSDR) where it says: "Cash penalties shall be calculated on a daily basis for each business day that a transaction fails to be settled after its intended settlement date until the end of a buy-in process referred to in paragraph 3, but no longer than the actual settlement day." Nevertheless, we chose to refer to the quote above as it seems clearer.

In this line, the approach foreseen is to perform the calculation and the reporting during the T2S Real-Time settlement of the following business day.

This approach is not only beneficial in terms of reducing the stress for the T2S platform, but it is also beneficial for the entities responsible for providing each business day the reference prices used in the calculation of the penalties. The regulation defines the reference prices as the closing trading price, therefore it is considered that the prices cannot be provided to T2S before 18:00 and it is likely that will be sent to T2S after 20:00.

For further details and description on the timings for the different processes, please refer to Section 9- "Daily Schedule of the T2S Penalty Mechanism".

3. Computation of penalties

3.1 Types of Penalties (definitions)

In line with the CSDR, two types of penalties are considered by the T2S Penalty Mechanism:

- **Settlement Fail Penalties:** For settlement instructions that i) are matched before the relevant cut-off of a given business day and that ii) having reached their Intended Settlement Date (ISD), fail to settle on that business day.

These penalties are calculated each business day the settlement fails in T2S (i.e. for each and every business day an instruction keeps failing in T2S a new penalty will be computed).

- **Late Matching Fail Penalties:** For settlement instructions that are matched in T2S after the relevant cut-off of their Intended Settlement Date (ISD).

These penalties are calculated only once (i.e. on the business day when they are matched) but do consider all the previous days where the instruction failed to settle due to the late matching i.e. due to the late sending of the instruction.

Note that a settlement instruction may be subject to Settlement Fail Penalties, to Late Matching Fail Penalties, or to both. The latter case will occur when, for example, a settlement instruction is sent and matched in T2S after its ISD (e.g. at the Start of Day of "ISD+1") and then fails to settle on that day (i.e. on "ISD+1") because of lack of securities.

In line with above definitions, the main difference between a **Settlement Fail Penalty (SEFP)** and a **Late Matching Fail Penalty (LMFP)** is that:

- A **Settlement Fail Penalty (SEFP)** always relates to the day where the instruction failed to settle in T2S (therefore for an instruction, there will be one SEFP per business day where the instruction failed to settle in T2S),

Whereas

- A **Late Matching Fail Penalty (LMFP)** always considers each and every business day where the instruction was due to settle (therefore there can be only one LMFP per instruction). In other words, T2S will not compute one LMFP per business day where the instruction failed to settle, but one LMFP that considers all the relevant business days where the instruction failed to settle.

Among others, the following quote of Article 16 (Collection of cash penalties) of the Draft Technical Standards on Settlement Discipline explains the rationale for this differentiation:

"2. The cash penalty shall be calculated and applied at the end of each business day on which the settlement instruction fails to settle

3. Where a settlement instruction has been entered into the securities settlement system or has been matched after the intended settlement date, the cash penalty shall be calculated and applied as from the intended settlement date"

The following examples illustrate different scenarios and the cash penalties applying in each of them:

Example 1:

A settlement instruction enters and is matched in T2S on its ISD and before the relevant cut-off.

- No Late Matching Fail Penalty applies.
- In case the instruction fails to settle on ISD, then a Settlement Fail Penalty will apply.
- New Settlement Fail Penalties will apply for each further business day the instruction fails to settle in T2S. E.g. in case the instruction fails again on "ISD+1", then a new Settlement Fail Penalty will be computed for "ISD+1".

Example 2:

A settlement instruction enters and is matched in T2S on its ISD but after the relevant cut-off (i.e. it won't be possible to settle it on ISD).

- A Late Matching Fail Penalty applies because the instruction was matched after the ISD's cut-off and hence could not settle on its ISD due to the late matching.
- In case the instruction fails to settle on the following business day, "ISD+1", then a Settlement Fail Penalty will apply.
- New Settlement Fail Penalties will apply for each further business day the instruction fails to settle in T2S. E.g. in case the instruction fails again on "ISD+2", then a new Settlement Fail Penalty will be computed for "ISD+2".

Example 3:

A settlement instruction enters and is matched in T2S two business days after its ISD (i.e. on Day="ISD+2") but before the relevant cut-off for "ISD+2" (i.e. it would be still possible to settle it on "ISD+2").

- A Late Matching Fail Penalty applies because the instruction was matched after the ISD's cut-off and hence could not settle on its ISD due to the late matching. The Late Matching Fail Penalty has to consider that the instruction did not settle on ISD and on "ISD+1" (the Late Matching Fail Penalty does not have to consider "ISD+2" because it can still settle on "ISD+2").
- In case the instruction fails to settle on "ISD+2", then a Settlement Fail Penalty will apply in addition to the Late Matching Fail Penalty.
- New Settlement Fail Penalties will apply for each further business day the instruction fails to settle in T2S. E.g. in case the instruction fails again on "ISD+3", then a new Settlement Fail Penalty will be computed for "ISD+3".

Example 4:

A settlement instruction enters and is matched in T2S two business days after its ISD (i.e. on Day= "ISD+2") and after the relevant cut-off for "ISD+2" (i.e. it won't be possible to settle it on "ISD+2").

- A Late Matching Fail Penalty applies because the instruction was matched after the ISD's cut-off and hence could not settle on its ISD due to the late matching. The Late Matching Fail Penalty will have to consider that the instruction did not settle on ISD, on "ISD+1" and on "ISD+2".
- In case the instruction fails to settle on the following business day, "ISD+3", then a Settlement Fail Penalty will apply.
- New Settlement Fail Penalties will apply for each further business day the instruction fails to settle in T2S. E.g. in case the instruction fails again on "ISD+4", then a new Settlement Fail Penalty will be computed for "ISD+4".

3.2 General rules for computation of penalties

The T2S Penalty Mechanism shall compute cash penalties according to the following rules:

3.2.1 Reference prices of the relevant business day (C-3)

The reference price used for calculating the Settlement Fails Penalties as well as the Late Matching Fail Penalties is the one of each business day (see section 3.3 and 3.4) where the settlement instruction is considered subject to penalty (i.e. using historical prices when relevant), independently on when the calculation is performed. I.e. The reference price for the calculation of each penalty is the one of the relevant day. For further information about the definition, provision and maintenance of the reference prices please see section 4- "Reference Data", the clarification C-22 related to Daily Price.

In order to illustrate the above principle, the same examples provided in the previous section 3.1- "Types of Penalties" are provided hereafter showing the reference price used in the calculation of each penalty:

Example 1:

A settlement instruction enters and is matched in T2S on its ISD and before the relevant cut-off.

At the time of computation of penalties for the day equal to the ISD, the reference price of the ISIN for that day is already known and stored in T2S and it is 8 Euros. I.e. $P(\text{ISD}) = 8$

The computation will be as follows:

- No Late Matching Fail Penalty applies.
- In case the instruction would have failed to settle on ISD, then a Settlement Fail Penalty will apply. The Settlement Fail Penalty will be calculated using the price set for this day i.e. $P(\text{ISD}) = 8$

In the computation process for the following business days, a new Settlement Fail Penalty will apply for each further business day the instruction fails to settle in T2S. E.g.: in case the instruction fails again on "ISD+1", then a new Settlement Fail Penalty will be computed for "ISD+1" and it will be calculated using the new price that will be set for this day i.e. $P(\text{ISD}+1)$.

Example 2:

A settlement instruction enters and is matched in T2S on its ISD but after the relevant cut-off (i.e. it won't be possible to settle it on ISD).

At the time of computation of penalties for the day equal to the ISD, the reference price of the ISIN for that day is already known and stored in T2S and it is 8 Euros. I.e. $P(\text{ISD}) = 8$.

The computation will be as follows:

- A Late Matching Fail Penalty applies because the instruction was matched after the ISD's cut-off and hence could not settle on its ISD due to the late matching. For the calculation of the Late Matching Fail Penalty the price to be used is $P(\text{ISD}) = 8$

In the computation process of penalties for the following day, "ISD+1", a Settlement Fail Penalty will apply in case the instruction fails to settle on the following business day. The Settlement Fail Penalty will be calculated using the new price that will be set for this day i.e. $P(\text{ISD}+1)$.

New Settlement Fail Penalties will apply for each further business day the instruction fails to settle in T2S. E.g.: in case the instruction fails again on "ISD+2", then a new Settlement Fail Penalty will be computed for "ISD+2" and it will be calculated using the new price that will be set for this day i.e. $P(\text{ISD}+2)$.

Example 3:

A settlement instruction enters and is matched in T2S two days after its ISD (i.e. on Day= "ISD+2") but before the relevant cut-off for "ISD+2" (i.e. it would be still possible to settle it on "ISD+2").

At the time of computation of penalties for the day equal to "ISD+2", the reference price of the ISIN for that day is already known and stored in T2S and it is 12 Euros. I.e. $P(\text{ISD}+2) = 12$. The historical prices of previous days are: $P(\text{ISD}) = 8$; $P(\text{ISD}+1) = 9$.

I.e. Relevant reference prices: $P(\text{ISD}) = 8$; $P(\text{ISD}+1) = 9$; $P(\text{ISD}+2) = 12$

The computation will be as follows:

- A Late Matching Fail Penalty applies because the instruction was matched after the ISD's cut-off and hence could not settle on its ISD due to the late matching. The Late Matching Fail Penalty has to consider that the instruction did not settle on ISD and on "ISD+1". The Late Matching Fail Penalty does not have to consider "ISD+2" because it was matched before the cut-off for "ISD+2" and hence it can still settle on "ISD+2".

For the calculation of the Late Match Fail Penalty the prices to be used are:

- For the failure on ISD, the price used shall be $P(\text{ISD}) = 8$
- For the failure on "ISD+1", the price used shall be $P(\text{ISD}+1) = 9$
- In case the instruction would have failed to settle on "ISD+2", then a Settlement Fail Penalty will apply in addition to the Late Matching Fail Penalty (i.e. both are calculated in the computation of penalties for the day equal to "ISD+2"). The Settlement Fail Penalty will be calculated using the price set for this day i.e. $P(\text{ISD}+2) = 12$.

In the computation process for the following business days, a new Settlement Fail Penalty will apply for each further business day the instruction fails to settle in T2S. E.g.: in case the instruction fails again on "ISD+3", then a new Settlement Fail Penalty will be computed for "ISD+3" and it will be calculated using the new price that will be set for this day i.e. $P(\text{ISD}+3)$.

Example 4:

A settlement instruction enters and is matched in T2S two days after its ISD (i.e. on Day= "ISD+2") and after the relevant cut-off for "ISD+2" (i.e. it won't be possible to settle it on "ISD+2").

At the time of computation of penalties for the day equal to "ISD+2", the reference price of the ISIN for that day is already known and stored in T2S and it is 12 Euros. I.e. $P(\text{ISD}+2) = 12$. The historical prices of previous days are: $P(\text{ISD}) = 8$; $P(\text{ISD}+1) = 9$.

I.e. Relevant reference prices: $P(\text{ISD}) = 8$; $P(\text{ISD}+1) = 9$; $P(\text{ISD}+2) = 12$

The computation will be as follows:

- A Late Matching Fail Penalty applies because the instruction was matched after the ISD's cut-off and hence could not settle on its ISD due to the late matching. The Late Matching Fail Penalty has to consider that the instruction did not settle on ISD, on "ISD+1" and on "ISD+2". For the calculation of the Late Match Fail Penalty the prices to be used are:
 - For the failure on ISD, the price used shall be $P(\text{ISD}) = 8$
 - For the failure on "ISD+1", the price used shall be $P(\text{ISD}+1) = 9$
 - For the failure on "ISD+2", the price used shall be $P(\text{ISD}+2) = 12$

In the computation process of penalties for the following day, "ISD+3", a Settlement Fail Penalty will apply in case the instruction fails to settle on this business day. The Settlement Fail Penalty will be calculated using the new price that will be set for this day i.e. $P(\text{ISD}+3)$.

New Settlement Fail Penalties will apply for each further business day the instruction fails to settle in T2S. E.g.: in case the instruction fails again on "ISD+4", then a new Settlement Fail Penalty will be computed for "ISD+4" and it will be calculated using the new price that will be set for this day i.e. $P(\text{ISD}+4)$.

3.2.2 Instructions subject to computation of penalties (C-4)

See also "List of CSDR Items for Clarification": Item 11 "Scope of instructions subject to penalties".

Only instructions sent by T2S Actors will be subject to computation of penalties.

In line with the understanding of the regulation that penalties are only applied to settlement instructions which are "transfer orders" as defined in the Settlement Finality Directive. T2S internally generated instructions (e.g. realignment instructions and auto-collateralisation instructions) will not be subject to penalties. Based on the same principle, settlement restrictions are excluded from penalties.

From the instructions sent by the T2S Actors:

- Those instructions with specific 'transaction type' related to Corporate Actions on stocks, i.e. those with ISO Transaction Code equal to CORP (Corporate Action) and REDM (Redemptions) will be exempted from the computation.
- Additionally, due to the complexity in the reconciliation process for the correct allocation of penalties raised due to market claims sent late, the CSDR TF agreed that instructions with ISO Transaction Code equal to CLAI (Market Claim) will be also exempted from the computation of Late matching Fail Penalties (LMFPs). T2S shall, nevertheless, compute Settlement Fail Penalties (SEFP) for CLAI settlement instructions.

No further exemption will apply.

Note: For further description and analysis on why transformations (contrary to market claims for LMFPs) are in scope, please refer to the Annex section 12.1- "Clarification for the eligibility of transformations to penalties".

From all the instructions subject to computation of penalties, T2S will compute penalties when the ISIN of the relevant instruction is in scope. T2S will consider in scope those ISINs defined in the list of Securities Subject to Penalties that is part of the T2S reference data (see section 4- "Reference Data").

In this regard, it is worth clarifying that "External CSD settlement instructions" may also be subject to penalties. In the context of T2S, external CSD settlement is defined as settlement that involves a CSD not participating in T2S. In case penalties are imposed in the context of T2S external CSD settlement because the instruction and its ISIN are in scope, the process will involve a chain of transactions and therefore a clarification for the settlement penalty mechanism was deemed necessary. Please refer to the Annex section 12.2- "Clarification for external CSD settlement" for further description and analysis.

3.2.3 Missing reference data needed in the computation (C-90)

In case any of the reference data needed⁶ for the computation of a penalty is missing, T2S shall calculate the penalty and report it to the relevant actors with amount equal to zero.

This can occur, for example, in case T2S has to compute a penalty over an instruction being in scope as described in section 3.2.2 (where its ISIN is defined in the list of Securities Subject to Penalties for the relevant business day), but there is no price available in T2S Static data for that business day⁷. In such a case, T2S will compute the penalty but store and report it with amount equal to zero.

Note that, as described later on in C-22 in section 4- "Reference Data", in order to minimize the cases where a price is not available in T2S Static data, in case the price of a security subject to penalties is not provided for a given business day, T2S Static data will consider the price from the previous business day (i.e. the latest loaded in T2S).

3.2.4 Harmonise rules for computation of penalties (C-5)

In line with the requirements in the CSDR⁸, in case a T2S Actor, that foresees its instruction failing to settle in T2S due to the lack of the relevant resources, decides to send the instruction late:

A penalty should be computed due to the late matching (Late Matching Fail Penalty), same way as if the instruction would have been sent on time but failed to settle in T2S (Settlement Fail Penalty).

⁶ Price, Securities Penalty Rate, Cash Penalty rate, Euro Foreign Exchange Reference Rate

⁷ This situation does not refer to the specific case of LMFPs applying for a business day more than 3 months in the past whose reference price has been purged. As described in C-17, in this specific case T2S will use the closest price available (i.e. the earliest price not yet purged)

⁸ Article 16.3 of RTS on Settlement Discipline

I.e.: Settlement Fail Penalties and Late Matching Fail Penalties shall follow the same principles for their computation.

As a consequence, considering the same instruction, the penalty imposed should be for the same amount in the following two scenarios:

- The instruction fails to settle in T2S on its ISD, i.e. one day, because for example the instruction was put on hold or in lack of securities (Settlement Fail Penalty).
- The instruction was sent to T2S one day late (Late Matching Fail Penalty).

This principle is enforced by the previous principle of using the prices of the relevant business day (described in section 3.2.1). By using the reference price of the relevant day, it is ensured that the amount that would be imposed by the Settlement Fail Penalty and by the Late Matching Fail Penalty is the same in both scenarios.

3.3 Computation of Settlement Fail Penalties (SEFP)

Any settlement instruction sent by a T2S Actor, being in scope of the penalties calculation as described in section 3.2.2, that: i) is matched before the relevant cut-off of a given business day and ii) has reached its ISD, fails to settle on that business day, will be subject to computation of Settlement Fail Penalties (SEFP) for this business day.

In this regard, it is worth clarifying that:

C-6: A settlement instruction that “fails to settle on that business day” must be understood as:

Settlement instructions in T2S that are not cancelled and remaining to be settled, fully or partially, by the time of the end of processing of the relevant cut-off⁹.

The end of processing of the relevant cut-off of each settlement instruction is the key point in time to take a “snapshot” of the status and reasons of a settlement instruction and determine its eligibility for a penalty.

See also "List of CSDR Items for Clarification": Item 5 "Failing settlement instruction (PENF)"

This “snapshot” of the status and reasons of the settlement instruction will be stored by the T2S domain in charge of the Lifecycle Management and Matching of instructions (LCMM), which will also keep this record, thanks to the implementation of CR-609 that is a prerequisite for the T2S Penalty Mechanism.

It is worth clarifying that LCMM will not take into account:

- **Neither previous statuses nor reasons before the relevant cut-off:** the T2S Penalty Mechanism does not consider previous statuses or reasons before the status/reason at the end of processing of the relevant cut-off.

For example, an instruction is not settled during the Night-Time Settlement because it is on hold, and such instruction is released during the Real Time Settlement. The instruction then fails because the counterparty has lack of securities, which remains until the end of the processing of the cut-off (i.e. status and reason for the cut-off is unsettled because the counterparty has lack of securities). In this case, LCMM will consider for the computation of the SEFP the counterparty's Lack of securities, and will not take into account that the instruction was on hold before the cut-off.

- **Neither statuses nor reasons after the relevant cut-off:** the T2S Penalty Mechanism does not consider new status or reasons after the end of processing of the relevant cut-off. Consequently, it is not relevant for the computation of SEFPs the status and/or reasons at the End of Day, only the ones at the end of processing of cut-off will be considered.

As discussed in the CSDR TF, after the cut-off, an instruction may change its status and/or reason. Changes of status and/or reason after the cut-off should not affect the calculation of

⁹ I.e.: Cut-offs are planned at 16:00 for DVP instructions, 17:40 for BATM/CBO related instructions, and 18:00 for FOP instructions. In addition to CR-0635, there will be a need for new T2S events of the settlement day indicating the end of processing of each and every cut-off to indicate the latest time when an instruction could be settled.

the penalty. For example, the cancellation of an instruction by the T2S Actor during the End of Day should not have any impact on the calculation of the penalties. E.g. In case of some CCPs, which cancel failed instructions at End of Day and reinstruct, after netting the failed instructions with the new ones for the following day, the failed instructions will be considered.

Once a given settlement instruction has been identified as subject to computation of SEFP according to the above rules (i.e. not cancelled instruction that was matched before the relevant cut-off and having reached its ISD, fails to settle in T2S on a business day), LCMM has to determine if the penalty is imposed or not. For this purpose, LCMM has to analyse the status and reasons stored by the time of the relevant cut-off.

C-7: A penalty will be imposed if the settlement instruction, initially identified as subject to computation of SEFP for a given business day, fulfills at the time of the end of processing of the relevant cut-off, any of the below conditions:

- The instruction is on hold (any type of hold).
- The instruction is unsettled because it failed the eligibility/provision check with any reason associated to this instruction and not to the counterpart's instruction (for more information see Annex section 12.3- "Clarification on statuses and reasons for SEFP").

See also "List of CSDR Items for Clarification": Item 16 "Status of instructions in scope of penalties".

Given that LCMM performs the analysis per settlement instruction individually, it is worth clarifying that it is possible that the two counterparts of a transaction are imposed with a SEFP. This scenario will occur, for example, when the two matched instructions are on hold (i.e. both of them). In such scenario both parties will be imposed with a SEFP (examples are provided in section 3.3.1- "Examples of the computation of SEFP").

Once LCMM has determined that the penalty has to be imposed, LCMM has to calculate the exact amount.

C-8: The amount imposed by the penalty shall be calculated depending on the type of transaction formed by the two matched settlement instructions, i.e. on the basis of the financial instrument(s) exchanged by the transaction and its/their direction.

See also "List of CSDR Items for Clarification": Item 17 "Formula used for calculation of cash penalties".

The following table summarizes the basis for calculating the amount imposed by the penalty for each type of transaction. Each case is further detailed afterwards in **C-9**:

Type of transaction	SEFP
i. Transactions with exchange of securities versus cash <ul style="list-style-type: none"> - Delivering versus Payment (DVP) - Receiving versus Payment (RVP) 	Penalty based on the quantity of securities failed to be delivered and penalty rate of the ISIN, unless the reason for failing is "Lack of cash", in which case the penalty rate will be the discount rate of the relevant currency

ii. Transactions with exchange of securities only <ul style="list-style-type: none"> - Delivering Free of Payment (DFP) - Receiving Free of Payment (RFP) 	Penalty based on the quantity of securities failed to be delivered and penalty rate of the ISIN
iii. Transactions with exchange of cash only ¹⁰ <ul style="list-style-type: none"> - Debiting Payment Free of Delivery (DPFOD) - Crediting Payment Free of Delivery (CPFOD) 	Penalty based on the amount of cash failed to be delivered and the penalty rate will be the discount rate of the relevant currency
iv. Transactions with exchange of securities and cash (i.e. same direction) ¹¹ <ul style="list-style-type: none"> - Delivery with Payment (DWP) - Receiving with Payment (RWP) 	Penalty will be the sum of: <ul style="list-style-type: none"> - The penalty based on the quantity of securities failed to be delivered and penalty rate of the ISIN (case ii); and - The penalty based on the amount of cash failed to be delivered and the discount rate of the currency (case iii)

From this table, it is worth clarifying the following regarding case i and case iv:

For case i. Transactions with exchange of securities versus cash, which are formed by a DVP settlement instruction matched with a RVP settlement instruction:

- The CSDR TF agreed that the amount for the penalty shall be calculated based on the quantity of securities failed to be delivered (instead of the cash amount failed to be delivered) even when fail is due to a lack of securities or cash.

This decision was taken according to the COMMISSION DELEGATED REGULATION (EU) C(2016) 7154 of 11.11.2016 supplementing Regulation (EU) No 909/2014, Article 3.2 Reference price of the transaction: "The reference price referred to in paragraph 1 shall be used to calculate the level of cash penalties for all settlement fails, irrespective of whether the settlement fail is due to a lack of securities or cash".

For case iv. Transactions with exchange of securities and cash (i.e. same direction), which are formed by a DWP settlement instruction matched with RWP settlement instruction. Two alternatives were analysed:

- First alternative: Preferred by the CSDR TF and hence the one described in the document. The penalty will be the sum of: The penalty based on the quantity of securities failed to be delivered and penalty rate of the ISIN (case ii); plus the penalty based on the amount of cash failed to be delivered and the discount rate of the currency (case iii).
- Second alternative: Not favoured by the CSDR TF. The penalty would have been two times the penalty of case i. This means two times the penalty based on the quantity of securities failed to be delivered and penalty rate of the ISIN, unless the reason for failing is "Lack of cash", in which case the penalty rate would be the discount rate of the relevant currency. I.e.: $2 * \text{Rate} * \text{Reference Price} * \text{Quantity}$

¹⁰ Those transactions are mostly used in the context of CA on stock for payment of cash proceeds, but can also result from CA on flows (market claims) and CCP netted transactions

¹¹ Those transactions are mostly the result from CCP netted transactions

C-9: The formulas to calculate the amount imposed by a Settlement Fail Penalty (SEFP) are the following:

See also "List of CSDR Items for Clarification": Item 17 "Formula used for calculation of cash penalties".

i. For DVP and RVP Settlement Instructions:

$$\text{SEFP} = \text{Rate} * \text{Reference Price} * \text{Quantity}$$

Where:

- **Rate** is:
 - o Either the flat penalty rate stored in Static Data for the asset type of the ISIN of the failed instruction (according to ESMA's classifications) and the business day for which the penalty is calculated;
 - o Or, in the specific case where the reason for unsettled of the failed instruction is "Lack of cash" (i.e. only possible in RVPs), the rate is the discount rate of the relevant currency stored in Static Data (according to ESMA definitions) and the business day for which the penalty is calculated.
- **Reference Price** is the price stored in Static Data for the ISIN of the instruction and the business day for which the penalty is calculated.
- **Quantity** is the quantity of securities failed to be delivered, which is the quantity of the instruction remaining to be settled at the time of end of processing of the relevant cut-off.

ii. For DFP and RFP Settlement Instructions:

$$\text{SEFP} = \text{Rate} * \text{Reference Price} * \text{Quantity}$$

Where:

- **Rate** is the flat penalty rate stored in Static Data for the asset type of the ISIN of the failed instruction (according to ESMA's classifications) and the business day for which the penalty is calculated.
- **Reference Price** is the price stored in Static Data for the ISIN of the instruction and the business day for which the penalty is calculated.
- **Quantity** is the quantity of securities failed to be delivered, which is the quantity of the instruction remaining to be settled at the time of end of processing of the relevant cut-off.

iii. For DPFOD and CPFOD Settlement Instructions:

$$\text{SEFP} = \text{Rate} * \text{Amount}$$

Where:

- **Rate** is the discount rate of the relevant currency stored in Static Data (according to ESMA definitions) and the business day for which the penalty is calculated.
- **Amount** is the cash amount failed to be delivered, which is the amount of the instruction remaining to be settled at the time of end of processing of the relevant cut-off.

Rationale: Although the CSDR prescribes to use the security quantity and reference price for the calculation of all settlement fail penalties, for DPFOD and CPFOD settlement instructions where the ISIN quantity is 0, the CSDR TF's working assumption is to use the cash amount to compute the penalty.

iv. For DWP and RWP Settlement Instructions:

$$SEFP = SEFP \text{ for the securities side} + SEFP \text{ for the cash side}$$

Where:

- **SEFP for the securities side** is the one calculated following the formula of case ii.
- **SEFP for the cash side** is the one calculated following the formula of case iii.

Further clarification on the calculation of SEFPs:

In order to simplify the above definitions, all the formulas consider that the price of the security of the settlement instruction is denominated in the same currency than the currency of the amount imposed by the penalty.

C-10: The CSDR TF agreed to define the currency of the amount imposed by a penalty as follows:

- For settlement instructions against payment (cash settlement in a T2S settlement currency¹²), the amount imposed by the penalty shall be denominated in the currency of the cash leg of the settlement instruction.
- For settlement instructions free of payment (no cash is settled in T2S), the amount imposed by the penalty shall be denominated in the same currency than the ISIN of the settlement instruction as long it is a T2S settlement currency. In case the ISIN is denominated in a non-T2S settlement currency, then the penalty shall be denominated in Euro.

In those cases where the price of the security is in a different currency than the penalty, LCMM will use the exchange rate (as defined in C-25 **Euro Foreign Exchange Reference Rate**) in order to calculate the amount of the penalty in the relevant currency (i.e. Euro).

¹² T2S is a multi-currency settlement platform. T2S provides cash settlement in central bank money in any T2S settlement currency

3.3.1 Examples of the computation of SEFP

In order to illustrate the computation of SEFP, several examples are provided hereafter.

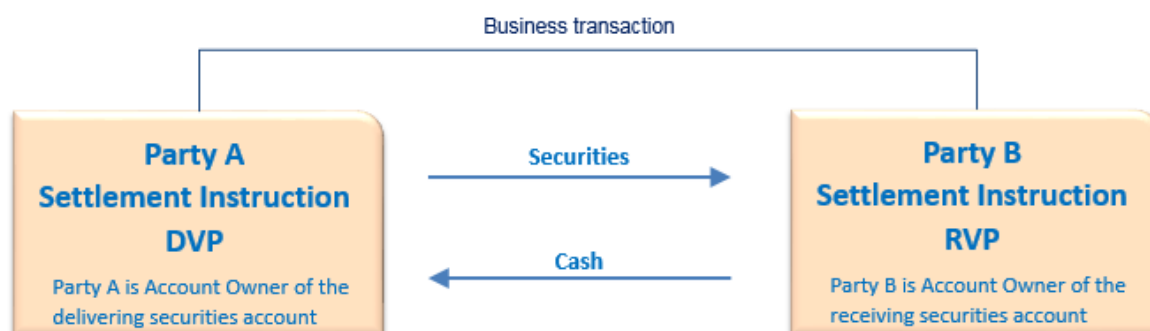
All of the examples have, as starting point, a pair of matched settlement instructions that were: i) not cancelled, ii) matched before the relevant cut-off and, that having reached its ISD, fail to settle in T2S.

The examples are provided within 4 cases, one for each type of transaction that failed to settle. I.e.:

- **Case i:** Delivery versus Payment transaction (i.e. composed by a DVP and an RVP matched settlement instructions)
- **Case ii:** Free of Payment transaction (i.e. composed by a DFP and an RFP matched settlement instructions)
- **Case iii:** Payment Free of Delivery transaction (i.e. composed by a DPFOD and an CPFOD matched settlement instructions)
- **Case iv:** Delivery with Payment transaction (i.e. composed by a DWP and an RWP matched settlement instructions)

For each case, the examples provided differ on the status and reasons associated, at the end of processing of the relevant cut-off, to the matched settlement instructions that form the transaction.

Case i: Delivery versus Payment transaction



Example 1: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DVP instruction: *Party hold*
- RVP instruction: *Counterpart's instruction is on hold*

In this example, the result of the computation will be the computation of one penalty:

- Party A is imposed with a Penalty to be paid to Party B. Amount of the penalty:
$$SEFP = Rate\ for\ the\ ISIN * Reference\ Price * Quantity$$

Example 2: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DVP instruction: *Counterparty's instruction is on hold*
- RVP instruction: *Party hold*

In this example, the result of the computation will be the computation of one penalty:

- Party B is imposed with a Penalty to be paid to Party A. Amount of the penalty:
 $SEFP = \text{Rate for the ISIN} * \text{Reference Price} * \text{Quantity}$

Example 3: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DVP instruction: *Party hold (and counterparty's instruction is on hold)*
- RVP instruction: *Party hold (and counterparty's instruction is on hold)*

In this example, the result of the computation will be the computation of two penalties:

- Party A is imposed with a Penalty to be paid to Party B. Amount of the penalty:
 $SEFP = \text{Rate for the ISIN} * \text{Reference Price} * \text{Quantity}$
- Party B is imposed with a Penalty to be paid to Party A. Amount of the penalty:
 $SEFP = \text{Rate for the ISIN} * \text{Reference Price} * \text{Quantity}$

Example 4: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DVP instruction: *Lack of securities*
- RVP instruction: *Counterparty has lack of securities*

In this example, the result of the computation will be the computation of one penalty:

- Party A is imposed with a Penalty to be paid to Party B. Amount of the penalty:
 $SEFP = \text{Rate for the ISIN} * \text{Reference Price} * \text{Quantity}$

Example 5: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DVP instruction: *Lack of securities*
- RVP instruction: *Lack of cash*

This scenario is not possible given that (according to CR-621) in the T2S provision checks, T2S stops when lack of securities is found (i.e. T2S does not check the availability of cash in this situation). Hence, this example is the same as previous Example 4 (i.e. lack of securities in a DVP). I.e.:

- DVP instruction: *Lack of securities*
- RVP instruction: *Counterparty has lack of securities*

Example 6: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DVP instruction: *Counterparty has lack of cash*
- RVP instruction: *Lack of cash*

In this example, the result of the computation will be the computation of one penalty:

- Party B is imposed with a Penalty to be paid to Party A. Amount of the penalty:
 $SEFP = \text{Discount Rate} * \text{Reference Price} * \text{Quantity}$

Example 7: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DVP instruction: *Settlement Instruction is unsettled because one of its linked settlement instructions is missing*
- RVP instruction: *Settlement Instruction is unsettled because one of the counterpart's linked settlement instructions is missing*

In this example, the result of the computation will be the computation of one penalty:

- Party A is imposed with a Penalty to be paid to Party B. Amount of the penalty:
 $SEFP = \text{Rate for the ISIN} * \text{Reference Price} * \text{Quantity}$

Example 8: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DVP instruction: *Settlement Instruction is unsettled because one of the counterpart's linked settlement instructions is missing*
- RVP instruction: *Settlement Instruction is unsettled because one of its linked settlement instructions is missing*

In this example, the result of the computation will be the computation of one penalty:

- Party B is imposed with a Penalty to be paid to Party A. Amount of the penalty:
 $SEFP = \text{Rate for the ISIN} * \text{Reference Price} * \text{Quantity}$

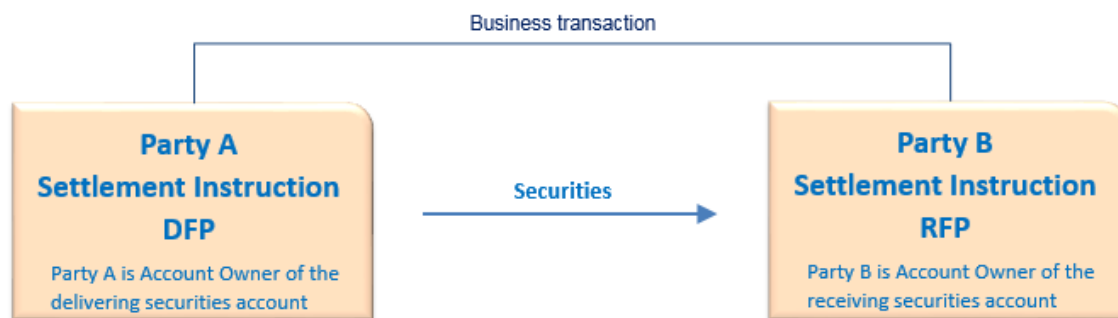
Example 9: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DVP instruction: *Settlement Instruction is unsettled because one of its linked settlement instructions is missing*
- RVP instruction: *Settlement Instruction is unsettled because one of its linked settlement instructions is missing*

In this example, the result of the computation will be the computation of two penalties:

- Party A is imposed with a Penalty to be paid to Party B. Amount of the penalty:
 $SEFP = \text{Rate for the ISIN} * \text{Reference Price} * \text{Quantity}$
- Party B is imposed with a Penalty to be paid to Party A. Amount of the penalty:
 $SEFP = \text{Rate for the ISIN} * \text{Reference Price} * \text{Quantity}$

Case ii: Free of Payment transaction



Example 1: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DFP instruction: *Party hold*
- RFP instruction: *Counterpart's instruction is on hold*

In this example, the result of the computation will be the computation of one penalty:

- Party A is imposed with a Penalty to be paid to Party B. Amount of the penalty:
 $SEFP = \text{Rate for the ISIN} * \text{Reference Price} * \text{Quantity}$

Example 2: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DFP instruction: *Counterpart's instruction is on hold*
- RFP instruction: *Party hold*

In this example, the result of the computation will be the computation of one penalty:

- Party B is imposed with a Penalty to be paid to Party A. Amount of the penalty:
 $SEFP = \text{Rate for the ISIN} * \text{Reference Price} * \text{Quantity}$

Example 3: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DFP instruction: *Party hold (and counterpart's instruction is on hold)*
- RFP instruction: *Party hold (and counterpart's instruction is on hold)*

In this example, the result of the computation will be the computation of two penalties:

- Party A is imposed with a Penalty to be paid to Party B. Amount of the penalty:
 $SEFP = \text{Rate for the ISIN} * \text{Reference Price} * \text{Quantity}$
- Party B is imposed with a Penalty to be paid to Party A. Amount of the penalty:
 $SEFP = \text{Rate for the ISIN} * \text{Reference Price} * \text{Quantity}$

Example 4: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DFP instruction: *Lack of securities*
- RFP instruction: *Counterparty has lack of securities*

In this example, the result of the computation will be the computation of one penalty:

- Party A is imposed with a Penalty to be paid to Party B. Amount of the penalty:
 $SEFP = \text{Rate for the ISIN} * \text{Reference Price} * \text{Quantity}$

Example 5: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DFP instruction: *Settlement Instruction is unsettled because one of its linked settlement instructions is missing*
- RFP instruction: *Settlement Instruction is unsettled because one of the counterparty's linked settlement instructions is missing*

In this example, the result of the computation will be the computation of one penalty:

- Party A is imposed with a Penalty to be paid to Party B. Amount of the penalty:
 $SEFP = \text{Rate for the ISIN} * \text{Reference Price} * \text{Quantity}$

Example 6: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DFP instruction: *Settlement Instruction is unsettled because one of the counterparty's linked settlement instructions is missing*
- RFP instruction: *Settlement Instruction is unsettled because one of its linked settlement instructions is missing*

In this example, the result of the computation will be the computation of one penalty:

- Party B is imposed with a Penalty to be paid to Party A. Amount of the penalty:
 $SEFP = \text{Rate for the ISIN} * \text{Reference Price} * \text{Quantity}$

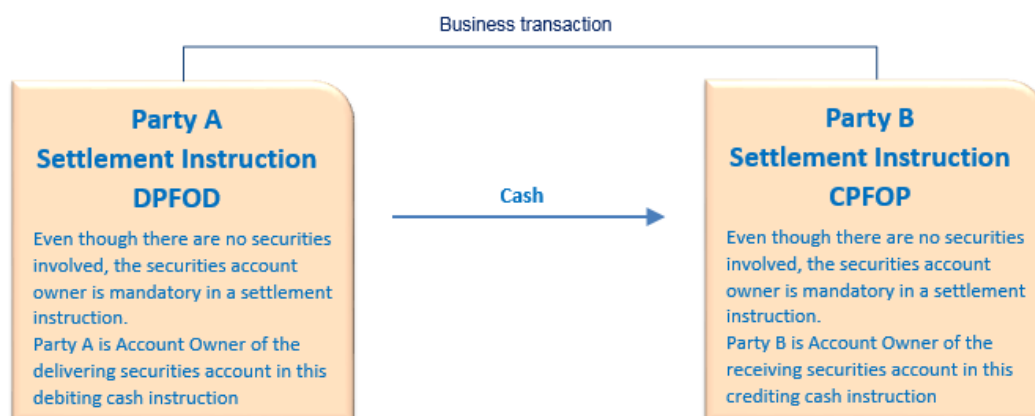
Example 7: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DFP instruction: *Settlement Instruction is unsettled because one of its linked settlement instructions is missing*
- RFP instruction: *Settlement Instruction is unsettled because one of its linked settlement instructions is missing*

In this example, the result of the computation will be the computation of two penalties:

- Party A is imposed with a Penalty to be paid to Party B. Amount of the penalty:
 $SEFP = \text{Rate for the ISIN} * \text{Reference Price} * \text{Quantity}$
- Party B is imposed with a Penalty to be paid to Party A. Amount of the penalty:
 $SEFP = \text{Rate for the ISIN} * \text{Reference Price} * \text{Quantity}$

Case iii: Payment Free of Delivery transaction



Example 1: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DPFOD instruction: *Party hold*
- CPFOP instruction: *Counterpart's instruction is on hold*

In this example, the result of the computation will be the computation of one penalty:

- Party A is imposed with a Penalty to be paid to Party B. Amount of the penalty:
 $SEFP = Discount\ Rate * Amount$

Example 2: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DPFOD instruction: *Counterpart's instruction is on hold*
- CPFOD instruction: *Party hold*

In this example, the result of the computation will be the computation of one penalty:

- Party B is imposed with a Penalty to be paid to Party A. Amount of the penalty:
 $SEFP = Discount\ Rate * Amount$

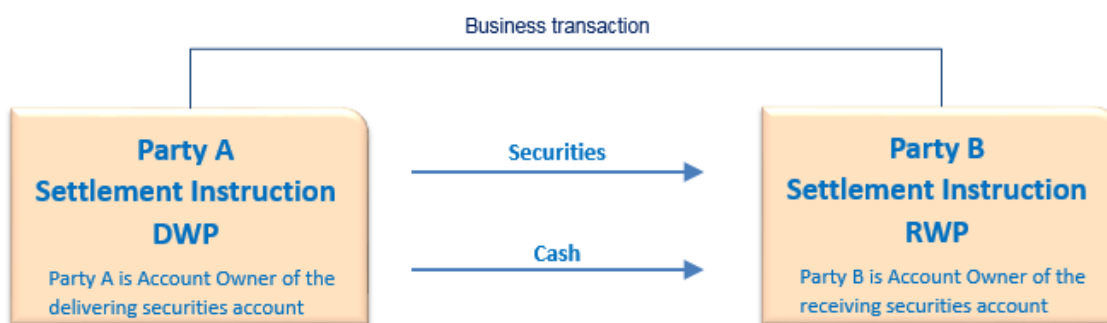
Example 3: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DPFOD instruction: *Lack of cash*
- CPFOD instruction: *Counterparty has lack of cash*

In this example, the result of the computation will be the computation of one penalty:

- Party A is imposed with a Penalty to be paid to Party B. Amount of the penalty:
 $SEFP = Discount\ Rate * Amount$

Case iv: Delivery with Payment transaction



Example 1: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DWP instruction: *Party hold*
- RWP instruction: *Counterpart's instruction is on hold*

In this example, the result of the computation will be the computation of one penalty:

- Party A is imposed with a Penalty to be paid to Party B. Amount of the penalty:
$$SEFP = SEFP \text{ for securities} + SEFP \text{ for cash}$$
$$= \text{Rate for the ISIN} * \text{Reference Price} * \text{Quantity} + \text{Discount Rate} * \text{Amount}$$

Example 2: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DWP instruction: *Counterpart's instruction is on hold*
- RWP instruction: *Party hold*

In this example, the result of the computation will be the computation of one penalty:

- Party B is imposed with a Penalty to be paid to Party A. Amount of the penalty:
$$SEFP = SEFP \text{ for securities} + SEFP \text{ for cash}$$
$$= \text{Rate for the ISIN} * \text{Reference Price} * \text{Quantity} + \text{Discount Rate} * \text{Amount}$$

Example 3: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DWP instruction: *Party hold (and counterpart's instruction is on hold)*
- RWP instruction: *Party hold (and counterpart's instruction is on hold)*

In this example, the result of the computation will be the computation of two penalties:

- Party A is imposed with a Penalty to be paid to Party B. Amount of the penalty:
$$SEFP = SEFP \text{ for securities} + SEFP \text{ for cash}$$
$$= \text{Rate for the ISIN} * \text{Reference Price} * \text{Quantity} + \text{Discount Rate} * \text{Amount}$$
- Party B is imposed with a Penalty to be paid to Party A. Amount of the penalty:
$$SEFP = SEFP \text{ for securities} + SEFP \text{ for cash}$$
$$= \text{Rate for the ISIN} * \text{Reference Price} * \text{Quantity} + \text{Discount Rate} * \text{Amount}$$

Example 4: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DWP instruction: *Lack of securities*
- RWP instruction: *Counterparty has lack of securities*

In this example, the result of the computation will be the computation of one penalty:

- Party A is imposed with a Penalty to be paid to Party B. Amount of the penalty:

$$\begin{aligned} \text{SEFP} &= \text{SEFP for securities} + \text{SEFP for cash} \\ &= \text{Rate for the ISIN} * \text{Reference Price} * \text{Quantity} + \text{Discount Rate} * \text{Amount} \end{aligned}$$

Example 5: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DWP instruction: *Lack of securities and lack of cash*
- RWP instruction: *Counterparty has lack of securities and lack of cash*

This scenario is not possible given that (according to CR-621) in the T2S provision checks, T2S stops when lack of securities is found (i.e. T2S does not check the availability of cash in this situation). Hence, this example is the same as previous Example 4 (i.e. lack of securities in a DWP). I.e.:

- DWP instruction: *Lack of securities*
- RWP instruction: *Counterparty has lack of securities*

Example 6: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DWP instruction: *Lack of cash*
- RWP instruction: *Counterparty has lack of cash*

In this example, the result of the computation will be the computation of one penalty:

- Party A is imposed with a Penalty to be paid to Party B. Amount of the penalty:

$$\begin{aligned} \text{SEFP} &= \text{SEFP for securities} + \text{SEFP for cash} \\ &= \text{Rate for the ISIN} * \text{Reference Price} * \text{Quantity} + \text{Discount Rate} * \text{Amount} \end{aligned}$$

Example 7: The status and reasons at the time of the end of processing of the relevant cut-off are:

- DWP instruction: *Settlement Instruction is unsettled because one of the counterparty's linked settlement instructions is missing*
- RWP instruction: *Settlement Instruction is unsettled because one of its linked settlement instructions is missing*

In this example, the result of the computation will be the computation of one penalty:

- Party B is imposed with a Penalty to be paid to Party A. Amount of the penalty:

$$\begin{aligned} \text{SEFP} &= \text{SEFP for securities} + \text{SEFP for cash} \\ &= \text{Rate for the ISIN} * \text{Reference Price} * \text{Quantity} + \text{Discount Rate} * \text{Amount} \end{aligned}$$

3.4 Computation of Late Matching Fail Penalties (LMFP)

Any settlement instruction sent by a T2S Actor, being in scope of the penalties calculation as described in section 3.2.2, that is matched in T2S after the relevant cut-off of its ISD¹³, will be subject to computation of Late Matching Fail Penalties (LMFP) for the business day when it is matched.

The T2S Lifecycle Management and Matching of instructions domain, LCMM, will identify instructions subject to LMFP for a given business day by checking all instructions that were matched on that business day. Once a given settlement instruction has been identified as subject to LMFP according to rules defined above, its T2S accepted timestamp and the T2S accepted timestamp of the counterpart instruction have to be analysed to determine if a penalty is imposed or not.

C-11: A penalty will be imposed if the “matched late” settlement instruction, initially identified as subject to computation of LMFP, has a T2S accepted timestamp later than the T2S accepted timestamp of its corresponding counterpart instruction.

According to Point 4 of Article 16 (Collection of cash penalties) of the Draft Technical Standards on Settlement Discipline: “the penalty is charged to the last participant to enter or modify¹⁴ the relevant settlement instruction for the periods between the ISD and the matching of the instruction”.

As a consequence, only one of the two counterparts of a transaction can be imposed with a LMFP. The party with the instruction with earliest T2S accepted timestamp will not be considered as a failing party and hence, no penalty will be imposed to this party due to the late matching (even if such party also sent the instruction late to T2S).

C-12: T2S offers the possibility to send settlement instructions as already matched. These settlement instructions will be subject to computation of Late Matching Fail Penalties (LMFPs) in case they are sent late to T2S. However, it is not possible for LCMM to determine the failing party by comparing the T2S acceptance timestamps (as both legs have the same). The information needed to charge one counterpart or another is therefore not available in T2S and shall be determined by the party who instructed T2S.

Consequently, the CSDR TF agreed that LMFPs of settlement instructions sent as already matched to T2S will be computed and reported by LCMM considering the Instructing Party of the settlement instruction as both, the failing and the non-failing party. The Instructing Party will have to allocate the penalty outside T2S to the correct client (i.e. the delivering or the receiving).

Once the failing party has been identified¹⁵, LCMM has to calculate the exact amount of the penalty.

¹³ I.e.: Cut-offs are planned at 16:00 for DVP instructions, 17:40 for BATM/CBO related instructions, and 18:00 for FOP instructions. In addition to CR-0635, there will be a need for new T2S events of the settlement day indicating the end of processing of each and every cut-off to indicate the latest time when an instruction could be settled.

¹⁴ Note that the modifiable fields of settlement instructions in T2S are not matching fields, therefore the modification of an instruction is not considered by the T2S Penalty Mechanism and only the accepted timestamp must be checked.

¹⁵ Either by comparing the two T2S accepted timestamps for instructions matched in T2S, or by using the rule for instructions sent as already matched to T2S.

C-8 (bis): Applying the same principles described in **C-8 for SEFP**, the following table summarizes the basis for calculating the amount imposed by the LMFP for each type of transaction. Each case is further detailed afterwards in **C-15** and **C-16**:

Type of transaction	LMFP
i. Transactions with exchange of securities versus cash <ul style="list-style-type: none"> - Delivering versus Payment (DVP) - Receiving versus Payment (RVP) 	Penalty based on the quantity of securities failed to be delivered and penalty rate of the ISIN. Given that we are in a late matching scenario, it is not possible to have the reason for failing "Lack of cash"; hence, the penalty rate of the ISIN is always used.
ii. Transactions with exchange of securities only <ul style="list-style-type: none"> - Delivering Free of Payment (DFP) - Receiving Free of Payment (RFP) 	Penalty based on the quantity of securities failed to be delivered and penalty rate of the ISIN
iii. Transactions with exchange of cash only <ul style="list-style-type: none"> - Debiting Payment Free of Delivery (DPFOD) - Crediting Payment Free of Delivery (CPFOD) 	Penalty based on the amount of cash failed to be delivered and the penalty rate will be the discount rate of the relevant currency
iv. Transactions with exchange of securities and cash (i.e. same direction) <ul style="list-style-type: none"> - Delivery with Payment (DWP) - Receiving with Payment (RWP) 	Penalty will be the sum of: <ul style="list-style-type: none"> - The penalty based on the quantity of securities failed to be delivered and penalty rate of the ISIN (case ii); and - The penalty based on the amount of cash failed to be delivered and the discount rate of the currency (case iii)

C-14: The formulas to calculate the amount imposed by a Late Matching Fail Penalty (LMFP) are the following:

The formulas will differ depending on whether the instruction subject to LMFP can either still settle, or no longer settle, on the business day when the instruction is matched (i.e. depending on whether it is matched before or after the relevant cut-off for the Matching Business Day).

- **When the instruction can still settle on the business day when it is matched:** This scenario relates to those instructions matched after their ISD (late matching), but matched at a point in time when it is still possible to settle them on the business day when they are matched (i.e. matched before the relevant cut-off for Matching Business day).

As a consequence, in this scenario, the LMFP shall be calculated for each business day as from the ISD until, and excluding, the business day when the instruction is matched.

Example 3 of section 3.1- "Types of penalties" is an example of this scenario.

It is worth mentioning that in this scenario, in case the instruction does not settle on the business day when it is matched (even if it was possible because it arrived before the cut-off) then, a separate calculation will have to be performed for an additional SEFP (for further details please see section 3.3). I.e. LCMM will compute two penalties for that instruction for the same business day, a LMFP and a SEFP.

- **When the instruction can no longer settle on the business day when it is matched:**

This scenario relates to those instructions matched, on or after the ISD, at a point in time when it is not possible to settle them on the business day when they are matched, because it is after the relevant cut-off.

As a consequence, in this scenario, the LMFP shall be calculated for each business day as from the ISD until, and including, the business day when the instruction is matched.

Example 2 and Example 4 of section 3.1-“Types of penalties” are examples of this scenario.

C-15: Formula for Late Matching Fail Penalty (LMFP) of instructions that can still settle on the business day when they are matched:

See also “List of CSDR Items for Clarification”: Item 17 “Formula used for calculation of cash penalties”.

i. For DVP and RVP Settlement Instructions; and

ii. For DFP and RFP Settlement Instructions

Given that in LMFP, there is no possibility to have a “Lack of cash” (i.e. the fail is always due to a late sending of the instruction causing the late matching), the formula used is the same in both cases (i. and ii.) because the rate is always the rate for the ISIN.

$$LMFP = \sum_{n=1}^N (Rate_{day\ x} * Reference\ Price_{day\ x} * Quantity)$$

Where:

- ***N*** is equal to the number of business days resulting from the difference between the “ISD and the Matching Business Day (MBD)”.
- ***Rate*** is the flat penalty rate stored in Static Data for the asset type of the ISIN of the failed instruction (according to ESMA definitions) and for the relevant business day (x).

Mathematically is “x= MBD – n” (see examples below).

- ***Reference Price*** is the price stored in Static Data for the ISIN of the instruction and for the relevant business day (x).

Mathematically is “x= MBD – n” (see examples below).

- ***Quantity*** is the quantity of securities failed to be delivered, which is the matched quantity of the Settlement Instruction. Given that LMFP relate to the matching time, it is not the remaining quantity at cut-off time like in SEFP but the matched quantity.

Two detailed examples are provided hereafter to clarify the formula:

First example: A DVP settlement instruction (delivering 5.000 shares of ISIN1 versus 39.000 Euros) is matched at 14:00 one business day after its ISD (i.e. MBD= "ISD+1"). Given that matching occurs at 14:00, it is matched before the relevant cut-off of "ISD+1" (i.e. DVP cut-off is at 16:00) so it can still settle on "ISD+1".

LMFP will be calculated as follows (i.e. considering each business day as from the ISD until, and excluding, the business day when the instruction is matched):

- $N = 1$
- $X = (MBD - n)$, starting with $n=1$ until $N=1$, which implies:

$$LMFP = R(ISD) * P(ISD) * \text{Quantity}$$

Assuming that the Rate and reference Price for the ISIN1 on the ISD are $R(ISD) = 1bp$ and $P(ISD) = 8$ Euros, the penalty imposed will be:

$$LMFP = 0,0001 * 8 * 5.000 = 4 \text{ Euros}$$

Second example: A DFP settlement instruction (delivering 5000 units of ISIN1) is matched at 17:00 two business days after its ISD (i.e. MBD= "ISD+2"). Given that matching occurs at 17:00, it is matched before the relevant cut-off of "ISD+2" (i.e. FOP cut-off is at 18:00) so it can still settle on "ISD+2".

LMFP will be calculated as follows (i.e. considering each business day as from the ISD until, and excluding, the business day when the instruction is matched):

- $N = 2$
- $X = (MBD - n)$, starting with $n=1$ until $N=2$, which implies:

$$LMFP = R(ISD+1) * P(ISD+1) * \text{Quantity} + R(ISD) * P(ISD) * \text{Quantity}$$

Assuming that the Rate and reference Price for the ISIN1 on "ISD+1" and on ISD are $R(ISD+1) = 1bp$; $R(ISD) = 1bp$; $P(ISD+1) = 9$ Euros and $P(ISD) = 8$ Euros, the penalty imposed will be:

$$LMFP = 0,0001 * 9 * 5000 + 0,0001 * 8 * 5000 = 8,5 \text{ Euros}$$

iii. For DPFOD and CPFOD Settlement Instructions (ISIN quantity is 0):

$$LMFP = \sum_{n=1}^N (Rate_{day\ x} * Amount)$$

Where:

- **N** is equal to the number of business days resulting from the difference between the "ISD and the Matching Business Day (MBD)".
- **Rate** is the discount rate of the relevant currency stored in Static Data (according to ESMA definitions) and for the relevant business day (x).

Mathematically is " $x = \text{MBD} - n$ "

- **Amount** is the cash amount failed to be delivered, which is the matched cash amount of the Settlement Instruction. Given that LMFP relate to the matching time, it is not the remaining amount at cut-off time like in SEFP but the matched amount.

iv. For DWP and RWP Settlement Instructions:

$$\text{LMFP} = \text{LMFP for the securities side} + \text{LMFP for the cash side}$$

Where:

- **LMFP for the securities side** is the one calculated following the formula of case i and ii.
- **LMFP for the cash side** is the one calculated following the formula of case iii.

C-16: Formula for Late Matching Fail Penalty (LMFP) of instructions that can no longer settle on the business day when they are matched:

See also "List of CSDR Items for Clarification": Item 17 "Formula used for calculation of cash penalties".

Everything will be exactly the same than in the previous point C-15 but we have now to include for the calculation, additionally, the business day where the instructions are matched.

I.e. The relevant formulas will be the same but with " n " starting with zero (starting with **$n=0$** instead of with $n=1$), in order to include in the calculation the business day where the instructions are matched.

i. For DVP and RVP Settlement Instructions; and

ii. For DFP and RFP Settlement Instructions

Given that in LMFP, there is no possibility to have a "Lack of cash" (i.e. the fail is always due to a late sending of the instruction causing the late matching), the formula is the same in both cases because the rate is always the rate for the ISIN.

$$\text{LMFP} = \sum_{n=0}^N (\text{Rate}_{\text{day } x} * \text{Reference Price}_{\text{day } x} * \text{Quantity})$$

Where:

- **N** is equal to the number of business days resulting from the difference between the "ISD and the Matching Business Day (MBD)".
- **Rate** is the flat penalty rate stored in Static Data for the asset type of the ISIN of the failed instruction (according to ESMA definitions) and for the relevant business day (x).

Mathematically is " $x = \text{MBD} - n$ " (see examples below).

- **Reference Price** is the price stored in Static Data for the ISIN of the instruction and for the relevant business day (x).

Mathematically is " $x = \text{MBD} - n$ " (see examples below).

- **Quantity** is the quantity of securities failed to be delivered, which is the matched quantity of the Settlement Instruction. Given that LMFP relate to the matching time, it is not the remaining quantity at cut-off time like in SEFP but the matched quantity.

Two detailed examples are provided hereafter to clarify the formula:

First example: A DVP settlement instruction (delivering 5000 shares of ISIN1 versus 39.000 Euros) is matched at 16:30 on its ISD (i.e. $\text{MBD} = \text{ISD}$). Given that matching occurs at 16:30, it is matched after the relevant cut-off of the ISD (i.e. DVP cut-off is at 16:00) so it cannot be settled on ISD.

LMFP will be calculated as follows (i.e. considering each business day as from the ISD until, and including, the business day when the instruction is matched):

- $N = 0$
- $X = (\text{MBD} - n)$, starting with $n=0$ until $N=0$, which implies:

$$\text{LMFP} = R(\text{ISD}) * P(\text{ISD}) * \text{Quantity}$$

Assuming that the Rate and reference Price for the ISIN1 on the ISD are $R(\text{ISD}) = 1\text{bp}$ and $P(\text{ISD}) = 8$ Euros, the penalty imposed will be:

$$\text{LMFP} = 0,0001 * 8 * 5000 = 4 \text{ Euros}$$

Second example: A DFP settlement instruction (delivering 5000 units of ISIN1) is matched at 18:30 two business days after its ISD (i.e. $\text{MBD} = \text{"ISD}+2\text{"}$). Given that matching occurs at 18:30, it is matched after the relevant cut-off of "ISD+2" (i.e. FOP cut-off is at 18:00) so it cannot be settled on "ISD+2".

LMFP will be calculated as follows (i.e. considering each business day as from the ISD until, and including, the business day when the instruction is matched):

- $N = 2$
- $X = (\text{MBD} - n)$, starting with $n=0$ until $N=2$, which implies:

$$\begin{aligned} \text{LMFP} = & R(\text{ISD}+2) * P(\text{ISD}+2) * \text{Quantity} + R(\text{ISD}+1) * P(\text{ISD}+1) * \text{Quantity} + \\ & R(\text{ISD}) * P(\text{ISD}) * \text{Quantity} \end{aligned}$$

Assuming that the Rate and reference Price for the ISIN1 on "ISD+2", "ISD+1" and on ISD are: $R(\text{ISD}+2) = 1\text{bp}$; $R(\text{ISD}+1) = 1\text{bp}$; $R(\text{ISD}) = 1\text{bp}$; $P(\text{ISD}+2) = 12$ Euros; $P(\text{ISD}+1) = 9$ Euros and $P(\text{ISD}) = 8$ Euros, the penalty imposed will be:

$$\text{LMFP} = 0,0001 * 12 * 5000 + 0,0001 * 9 * 5000 + 0,0001 * 8 * 5000 = 14,5 \text{ Euros}$$

iii. For DPFOD and CPFOD settlement instructions (where ISIN quantity is 0):

$$LMFP = \sum_{n=0}^N (Rate_{day\ x} * Amount)$$

Where:

- **N** is equal to the number of business days resulting from the difference between the "ISD and the Matching Business Day (MBD)".
- **Rate** is the discount rate of the relevant currency stored in Static Data (according to ESMA definitions) and for the relevant business day (x).

Mathematically is "x= MBD – n"

- **Amount** is the cash amount failed to be delivered, which is the matched cash amount of the Settlement Instruction. Given that LMFP relate to the matching time, it is not remaining amount at cut-off time like in SEFP but the matched amount.

iv. For DWP and RWP Settlement Instructions:

$$LMFP = LMFP \text{ for the securities side} + LMFP \text{ for the cash side}$$

Where:

- **LMFP for the securities side** is the one calculated following the formula of case i and ii.
- **LMFP for the cash side** is the one calculated following the formula of case iii.

Further clarification on the calculation of LMFPs:

In order to simplify the above descriptions, all the formulas consider that the price of the security is denominated in the same currency than the currency of the amount imposed by the penalty.

C-10 (bis): The rule for defining the currency of the amount imposed by a penalty, as described in C-10 for SEFPs, applies also for LMFPs.

I.e.:

- For settlement instructions against payment (cash settlement in a T2S settlement currency¹⁶), the amount imposed by the penalty shall be denominated in the currency of the cash leg of the settlement instruction.

¹⁶ T2S is a multi-currency settlement platform. T2S provides cash settlement in central bank money in any T2S settlement currency

- For settlement instructions free of payment (no cash is settled in T2S), the amount imposed by the penalty shall be denominated in the same currency than the ISIN of the settlement instruction as long it is a T2S settlement currency. In case the ISIN is denominated in a non-T2S settlement currency, then the penalty shall be denominated in Euro.

In those cases where the price of the security is in a different currency than the penalty, LCMM will use the exchange rate (as defined in C-25 **Euro Foreign Exchange Reference Rate**) in order to calculate the amount of the penalty in the relevant currency (i.e. Euro).

C-17: For the computation of Late Matching Fail Penalties (LMFP) the maximum period, that T2S will be able to consider the relevant price for previous days where the instruction failed to settle due to the late matching, is the period the reference data (reference prices) remains in the system without being purged (i.e. 3 calendar months).

I.e. in case an instruction is matched more than 3 calendar months after its ISD, only the prices for the business days within the last 3 calendar months (counting backwards from the business day the instruction was matched) are available for the computation of the LMFP.

As a consequence, in case an instruction has an ISD more than 3 calendar months in the past, LCMM will compute the LMFP:

- Using the prices available for the business days within the last 3 calendar months, and
- For the prices for the business days before the last 3 calendar months (that are not available because these prices have already been purged), T2S will use in the computation of the penalty the closest price available (i.e. the price for the earliest business day, which is the price for the business day of 3 months ago).

4. Reference data

This section outlines the reference data required for the computation of penalties, as described in previous sections. The section focuses on (i) the definition of the relevant data (in terms of classes of information and their attributes), (ii) the identification of the actors that shall be responsible for providing and maintaining these data and (iii) the identification of the T2S actors that shall be responsible for feeding T2S with these data and keeping them up-to-date. Conversely, at this stage it does not predicate any specific implementation option (neither in terms of functions nor from a data structure viewpoint). Implementation options will be analysed and decided in a later step within the detailed functional and technical assessment of the final set of user requirements, in conjunction with an adequate volumetric assumptions concerning the different reference data feeds needed to perform such analysis and decision (see section 10 – “Volumetric assumptions”).

C-18: The **Financial Instrument Type** is a classification of securities according to which CSDs shall report, as laid out in the CSDR Level 2. This classification is also relevant, together with the **Liquidity** and **SME Growth Market** classifications (see below for their definition), for the identification of the applicable penalty rate for any given instruction. For each security, the Financial Instrument Type classification can be automatically derived from the CFI Code of the same security, according to the following mapping table (under review by ESMA):

TABLE 1 – CFI CODE – FINANCIAL INSTRUMENT TYPE MAPPING TABLE

CFI Code Structure	Financial Instrument Type
Position 1 of the code is “E”	SHRS
Position 1 of the code is “D” and position 4 is “T” or “C”	SOVR
Position 1 of the code is “D”, position 2 is not “Y” and position 4 is neither “T” nor “C”	DEBT
Position 1 of the code is “R”	SECU
Position 1 of the code is “C” and position 2 is “E”	ETFS
Position 1 of the code is “C” and position 2 is not “E”	UCIT
Position 1 of the code is “D”, position 2 is “Y” and position 4 is neither “T” nor “C”	MMKT
Position 1 of the code is “T”, position 2 is “T” and position 3 is “N”	EMAL
All other CFI Code structures	OTHR

See also “List of CSDR Items for Clarification”: Item 2 “Types of Financial Instruments for review and evaluation of CSDs / reporting of settlement fails and ISO CFI10962:2015 standard compliance”.

ESMA, or another relevant market-wide body, shall be responsible for providing and maintaining this mapping table.

T2S should in any case implement the mapping table, because it will need it for the identification of the applicable penalty rate. This does not exclude that the same mapping table may also be implemented on the CSD side, e.g. for reporting purposes.

The implementation of the mapping table in T2S shall not necessarily imply storing the new information as a new attribute of the Security object (as originally requested with CR-608¹⁷), in order to avoid unnecessary impact on the application and on the securities reference data messages. In such case, reporting from T2S to CSDs would be based on the CFI code only.

This classification of securities is an attribute of the Securities Subject to Penalties (see C-21 below), therefore the T2S actor responsible for providing and maintaining this attribute and the T2S actor responsible for feeding T2S with this attribute and keeping it up-to-date are the same mentioned below for C-21.

C-19: The **Liquidity** is a binary classification of securities that applies for shares, i.e. when the Financial Instrument Type of the security is "SHRS" and that specifies whether the security is "Liquid" or "Illiquid".

This classification of securities is an attribute of the Securities Subject to Penalties (see C-21 below), therefore the T2S actor responsible for providing and maintaining this attribute and the T2S actor responsible for feeding T2S with this attribute and keeping it up-to-date are the same mentioned below for C-21.

C-20: The **SME Growth Market** is a binary classification of securities that applies for any type of securities and that specifies whether the security is listed/traded in a SME Growth Market or not.

This classification of securities is an attribute of the Securities Subject to Penalties (see C-21 below), therefore the T2S actor responsible for providing and maintaining this attribute and the T2S actor responsible for feeding T2S with this attribute and keeping it up-to-date are the same mentioned below for C-21.

See also "List of CSDR Items for Clarification": Item 3 "Discrepancy between types of Financial Instruments for review and evaluation of CSDs / reporting of settlement fails and asset classes for calculating cash penalties".

C-21: The **Securities Subject to Penalties** is a list of securities that defines the scope of financial instruments subject to cash penalties. Each item of this list is a class of information that includes the following attributes:

- ISIN
- Financial Instrument Type (as defined in C-18)
- Liquidity (as defined in C-19)
- SME Growth Market (as defined in C-20)
- Valid From (date from which the item of the list is valid)
- Valid To (data until which the item of the list is valid)

¹⁷ CR608 is currently on hold and pending decision

As to point (ii) of the introductory part of this section, ESMA, or a data provider based on raw data provided by ESMA, shall be responsible for providing and maintaining the list of securities subject to cash penalties (this is still under discussion with ESMA).

As to point (iii) of the introductory part of this section, the current default assumption is that each CSD (acting as a SME) shall be responsible for feeding T2S with these data (for the list of securities subject to penalties for which they act as Securities Maintaining Entity) and for keeping them up-to-date¹⁸.

See also "List of CSDR Items for Clarification": Item 9 "Scope of financial instruments subject to penalties".

C-22: The **Daily Price** is a list of prices that shall be used for the daily calculation of penalties, as described in the previous sections. Each item of this list is a class of information that includes the following attributes:

- ISIN
- Price Date (date of validity of the price)
- Currency Code
- Price (value of the price, i.e. the closing price of the day)

As to point (ii) of the introductory part of this section, an external provider shall be responsible for providing and maintaining the list of daily prices.

As to point (iii) of the introductory part of this section, the current default assumption is that each CSD (acting as a SME) shall be responsible for feeding T2S with these data (for the prices related to securities for which they act as Securities Maintaining Entity) and for keeping them up-to-date¹⁹. In case the price of a security subject to penalties is not provided, T2S shall consider the latest price received from the previous business day (i.e. the latest loaded in T2S).

C-23: The **Securities Penalty Rate** is a list of applicable rates for each security's asset type. Each item of this list is a class of information that includes the following attributes:

- Asset Type
- Daily Flat Penalty Rate (rate value)
- Valid From (date from which the rate value applies)

See also "List of CSDR Items for Clarification": Item 3 "Discrepancy between types of Financial Instruments for review and evaluation of CSDs / reporting of settlement fails and asset classes for calculating cash penalties".

¹⁸ An alternative option may be investigated at a later stage whereby an external provider would feed T2S with the full list of Securities Subject to Penalties and keep them up-to-date on behalf of all the CSDs.

¹⁹ An alternative option may be investigated at a later stage whereby an external provider would feed T2S with the full list of Daily Prices and keep them up-to-date on behalf of all the CSDs.

As to point (ii) of the introductory part of this section, the European Commission will adopt a Delegated Act related to the penalty rates to be applied to failed transactions (to be reviewed on an ad hoc basis). As to point (iii) of the introductory part of this section, the current working assumption is that the T2S Operator will upload and update this information in T2S manually (it is expected that changes to the securities penalty rate would only be done on an exceptional basis, e.g. when market conditions are changing). CSDs shall be able to view this information, as for other general T2S parameters (see section 1.5.1 of the UDFS for a list of the general configuration parameters).

C-24: The **Cash Penalty -Currency Discount- Rate** is a list of applicable rates for each T2S settlement currency. Each item of this list is a class of information that includes the following attributes:

- Currency Code
- Daily Flat Penalty Rate (rate value, i.e. discount rate of the currency, enforced to zero in case of negative discount rates)
- Valid From (date from which the rate value applies)

As to point (ii) of the introductory part of this section, ECB shall be responsible for providing and maintaining the cash penalty rate for euro, whereas the relevant CB shall be responsible for providing and maintaining the cash penalty rate for other settlement currencies (e.g. the Danish CB for DKK). As to point (iii) of the introductory part of this section, the current working assumption is that the T2S Operator will upload and update this information in T2S manually (it is expected that changes to the cash penalty rate would only occur a few times per year).

The following table lists the current applicable securities and cash penalties rates for each asset type:

Asset Type	Daily Flat Penalty Rate
Liquid Shares	1.0bp
Illiquid Shares	0.5bp
SME Growth Market (non-Bonds)	0.25bp
Corporate Bonds	0.20bp
SME Growth Market Bonds	0.15bp
Government and Municipal Bonds	0.10bp
Cash	Discount rate per currency with a floor of 0

T2S shall identify the relevant Asset Type (and the related Daily Flat Penalty Rate) for any given security starting from its Financial Instrument Type, Liquid/Illiquid and SME Growth Market attributes (see annex 12.4 for more information).

C-25: The **Euro Foreign Exchange Reference Rate** is a list of daily applicable exchange rates for each currency against the Euro. Each item of this list is a class of information that includes the following attributes:

- Currency Code
- Daily Exchange Rate (rate value, i.e. the value in Euros corresponding to the currency unit)
- Exchange Rate Date (date of validity of the exchange rate)

As to points (ii) and (iii) of the introductory part of this section, ECB shall be responsible for feeding T2S with the daily exchange rates for all relevant currencies against Euro and for keeping them up-to-date.

C-26: The responsible actor shall create and maintain new penalties related reference data (e.g. a new security subject to penalties, a new daily price, etc.) in T2S before they are used for the calculation of penalties for a given date.

C-27: After reference data have been used for the calculation of penalties for a given date, some updates of reference data are still possible and they may trigger the re-calculation of penalties for previous dates. The following table provides the exhaustive list of all the possible reference data updates that may be performed by the relevant responsible actor, in order to trigger the recalculation and update of previously calculated penalties (see section 7.3- "Automatic update of existing penalties by T2S" for more information):

TABLE 2 – POSSIBLE REFERENCE DATA UPDATES

Responsible T2S Actor	Class of Information	Attribute	Updatable
CSD (acting as SME)	Securities Subject to Penalties	ISIN	No
		Financial Instrument Type	Yes
		Liquidity	Yes
		SME Growth Market	Yes
		Valid From	No
		Valid To	No
CSD (acting as SME)	Daily Price	ISIN	No
		Price Date	No
		Currency Code	Yes
		Price	Yes
T2S Operator	Securities Penalty Rate	Asset Type	No
		Daily Flat Penalty Rate	Yes
		Valid From	No
T2S Operator	Cash Penalty Rate	Currency Code	No
		Daily Flat Penalty Rate	Yes
		Valid From	No
ECB	Euro Exchange Reference Data	Currency Code	No
		Daily Exchange Rate	Yes
		Exchange Rate Date	No

5. Daily reporting of newly computed Penalties

The penalties are calculated and reported for each business day on a gross basis.

According to Point 5 of Article 16 (Collection of cash penalties) of the Draft Technical Standards on Settlement Discipline: "On a daily basis, the CSD shall provide to participants the details of the calculation of the penalties for every failed settlement instruction, indicating the account to which each failed settlement instruction refers".

In this line:

C-28: All the penalties computed for a business day "D" will be reported by T2S at the end of the NTS on the following business day "D+1", via a new ad-hoc functionality for reporting of penalties of the Lifecycle Management and Matching domain (LCMM).

C-29: T2S will report the penalties computed within the **Daily Penalty List**, A2A communication that will be designed based on the ISO 20022 methodology.

C-30: The reporting of the penalties will be based on a new "penalties repository" in LCMM domain. It will store the information needed to populate and report the relevant information for each penalty, i.e. instructions-like, the new repository will be used to keep the records and information for each and every penalty and its relationship with the relevant settlement instruction. Like other dynamic data, penalties will be purged after 3 calendar months from the business day when they are computed. Penalties will be also stored in Long Term Statistics (LTSI), archived in Legal Archiving (LEA) and provided on request according to the LEA rules.

C-31: Penalties are computed for, and reported to, the relevant **failing and non-failing party**. In this line, T2S will report twice each penalty computed:

1. To the failing party (i.e. party imposed with the penalty²⁰).
2. To the non-failing party (i.e. party entitled to receive the penalty²¹).

According to clause 15 of the CSDR: "One of the most efficient ways to address settlement fails is to require failing participants to be subject to a compulsory enforcement of the original agreement."

Accordingly, the **failing party** (party imposed with the penalty) and the **non-failing party** (party entitled to receive the penalty) are the two counterparts responsible for the settlement of the underlying transaction, and consequently the respective **owner of the securities account**.

Reporting the penalties to the CSD participant is in line, not only with the CSDR and RTS on Settlement Discipline, but also with the ISO 20022 definitions where "Fail and Claim Management" is considered as part of "settlement / semt" messages or business area²². "Semt" message reporting is based on the

²⁰ In terms of the Penalty List message this has to be understood as: Penalty to be debited

²¹ In terms of the Penalty List message this has to be understood as: Penalty to be credited

²² https://www.iso20022.org/securities_dashboard.page

securities side, for example, semt.018 (report of pending instructions) provides always the unsettled instructions, sorted per securities account, and never per DCA of the instruction (not even when the instruction reported is against payment).

Reporting to securities side implies that it is the CSD participant the party which in charge of reconciling the penalty, even in case the penalty was imposed due to a settlement failure on the cash side (e.g. in case of a failed RvP). Same as in the semt.018, the owner of the securities account is in charge of reconciling and will have to contact the payment bank providing cash services if it is not its own DCA. The CSD participant will know the transaction to which the penalty applies to and, as a result, will be in a position to recharge it to its payment bank if, after investigation, the latter is held responsible. Please note that to help in this reconciliation, the Daily Penalty List will provide the DCA of the underlying settlement instruction.

Finally, reporting to the CSD participant helps in the monthly collection of the penalties compared with the case where the penalties imposed due to a settlement failure on the cash side would be reported to the payment bank owner of the DCA. Please note that the CSD may not have a relationship with all the payment banks providing cash services to its participants (also in T2S, CSD participants are in the data scope of the relevant CSD, whereas the payment banks are in the data scope of their Central Bank).

C-32: In case of "External CSD settlement instructions²³", T2S will consider **the External CSD** as the owner of the relevant securities account of the underlying settlement instruction. Please refer to the Annex section 12.2- "Clarification for external CSD settlement" for further details.

C-33: In line with **C-12**, in the particular case of LMFPs of settlement instructions sent as already matched, T2S will consider the **Instructing Party of the underlying settlement instruction** as both the **failing and the non-failing party**.

The Instructing Party will have to reconcile and allocate, outside T2S, the penalty to the correct client (i.e. to the owner of the delivering securities account or the owner of the receiving securities account).

C-34: Each penalty will have a **common identification** assigned by T2S that can be used for reconciliation on both sides (by the failing and by the non-failing party). Additionally, T2S will provide an **individual identification to each counterpart**. Consequently, any penalty can be identified by:

- Its Common Id (reference assigned by T2S to the penalty and it is common for both the failing and the non-failing party)
- Its Individual Id (reference assigned by T2S to the single penalty and therefore related specifically to either the failing or to the non-failing party).

I.e.: Two references are reported per penalty in the Penalty List: the Common Id and the relevant Individual Id for the party that is addressed in the report (either the failing or the non-failing party).

²³ As defined in the annex, "External CSD settlement Instructions" are those whose depository is an External CSD and the securities account is unknown in T2S.

To ease the reconciliation, T2S will generate the Individual Ids of the penalties by adding an F or an N at the beginning of the Common Id of the penalty. I.e.:

- Individual Id for the failing party will be "F+Common Id"
- Individual Id for the non-failing party will be "N+Common Id".

5.1 Daily Penalty List

The Daily Penalty List, including the penalties of a business day "D", will be generated after the end of the Night-Time Settlement of "D+1", more precisely after the computation process.

C-35: In order to avoid unnecessary processing and storage in T2S, the Daily Penalty List A2A message will be created to report the previously calculated penalties only if the requiring T2S Actor has set up in advance the configuration needed to receive the Daily Penalty List. The configuration of the Daily Penalty List (standard T2S one-time configuration process) will be done via the T2S GUI.

C-36: The Daily Penalty List shall allow each CSD to receive, in a single message, all the relevant penalties computed for the previous business day. "All the relevant penalties computed" has to be understood as: all the penalties that its participants or the CSD itself (each party created under the data scope of the CSD) are either imposed with or entitled to receive.

Considering that penalties are informed per / sorted by party (i.e. failing or non-failing party), in the new ISO 20022 message for the Daily Penalty List, the party shall be a repetitive block in order to be able to include all the information in a single message. Additionally, T2S shall report cash penalties for a given T2S party sorted by counterparty of the penalty (i.e. non-failing or failing party respectively).

C-37: As described in C-10 and C-10 (bis), penalties can be denominated in different currencies. Consequently, the Daily Penalty List shall inform penalties reported to a given party sorted per currency.

C-38: It shall also be possible for CSD participants that are directly connected to T2S (i.e. DCPs) to receive the Daily Penalty List including all the penalties that this CSD participant (defined in a given CSD) is either imposed with or entitled to receive.

In case a DCP is an active participant of several CSDs, the DCP would have to configure and receive a Daily Penalty List per CSD where it is active / defined as participant. I.e. The DCP will receive, in a different flow/message, one Daily Penalty List for each CSD it is active with. The identification of the relevant CSD (Account Servicer BIC) of each Daily Penalty List will be provided within the message.

C-39: T2S Actors will be able to **configure the Daily Penalty List** according to their wish to:

- receive the Daily Penalty List directly after its creation (via A2A mode)

- not to receive directly after its creation but to query the Daily Penalty List afterwards (this latter query /pulling the Daily Penalty List feature will be available via A2A as well as U2A²⁴).

C-40: All Daily Penalty List pushed in A2A mode will be compressed.

C-41: For the Daily Penalty List a message splitting at business level may occur in order to avoid exceeding the size limitation of 32 MB.

C-42: When sending the Daily Penalty List, T2S shall flag that this message is coming from T2S and, specifically indicate that it is stemming from the "Penalty Mechanism". For this purpose, the business application header of the Daily Penalty List will inform:

- The details of the originator/instructing party of the message same way as T2S does for its outgoing messages (within the "From block" of the business application header)
- The field "Message definition identifier" will include the new MX Identifier for the "Daily Penalty List" message (e.g. semt.xxx).

C-43: Each penalty computed for a given business day and reported to the failing/non-failing party and/or its CSD shall include the details listed hereafter.

For a given business day, each penalty reported will inform:

- **Penalty Details:**
 - Individual Id of the penalty I.e.: reference assigned by T2S to the penalty and that is unique for the relevant party (i.e. the failing or the non-failing party).
 - Common Id of the penalty. I.e.: reference assigned by T2S to the penalty and that is common for both the failing and the non-failing party.
 - Type of penalty. I.e.: "SEFP" or "LMFP"
 - Number of days:
 - Value is always 1 in case of "SEFP".
 - Number of business days used for the calculation of the "LMFP"²⁵.
 - Reference data used in the calculation (repetitive block, one per applicable business day):
 - ISIN classification details including:
 - Financial Instrument Type
 - Liquidity
 - SME Growth Market
 - Penalty Rate in basis points

²⁴ The feature for querying/ pulling the Daily Penalty List will follow the T2S standard rules for querying/ pulling reports

²⁵ The business days as from the ISD until, and either including or excluding, the business day when the instruction is matched in T2S

- Reference Price
- Foreign Exchange Rate Details (optional)
- **Amount of the Penalty:** Provided in the relevant T2S currency and together with:
 - Debit if reported to the failing party (the penalty is imposed)
 - Credit if reported to the non-failing party (entitled to receive the penalty)
- **Related settlement instruction details:**
 - T2S Actor Reference
 - T2S Reference
 - T2S Matching Reference
 - Instructing Party BIC
 - Common trade reference
 - Corporate Action Id
 - ISO Transaction Code
 - Intended Settlement Day (ISD)
 - Securities Account number
 - Securities Account owner BIC
 - Securities Movement Type (DELI or RECE)
 - ISIN
 - Quantity (remaining quantity for SEFP or matched quantity for LMFP)
 - Payment Code (FREE or APMT).
 - DCA number (only in case of settlement instructions against payment)
 - DCA's owner BIC (only in case of settlement instructions against payment)
 - Currency and Amount (remaining amount for SEFP or matched amount for LMFP)
 - Credit/Debit indicator (debit or credit of DCA)
 - Acceptance and Matching timestamps (as per CR-600)
 - Information about the cut-off relevant for the instruction:
 - T2S event for the end of processing the relevant cut-off considered in the calculation of the penalty
 - Execution time of the event
 - In case of "SEFP":
 - Reason code triggering the calculation of the "SEFP" (i.e. the "reason code by the time of the relevant cut-off").

C-44: The Daily Penalty List shall also include, per party, the bilateral net amounts against each counterpart of the penalties reported for the relevant business day. For a given party, the **bilateral net amount** (due or entitled) against a given counterpart is:

- The sum of all penalties reported in the Daily Penalty List that this party is entitled to receive (reported as credit) from a given counterpart (i.e. to be paid by this counterpart); minus
- The sum of all penalties reported in the Daily Penalty List that are imposed to the party (reported as debit) and to be paid to the same given counterpart

If the result is a positive amount, the bilateral net amount will be a credit for the party (i.e. an amount entitled from the counterpart) and if the result is a negative amount, the bilateral net amount will be a debit (i.e. an amount due to the counterpart).

6. U2A penalty queries for CSDs

As already mentioned, once the penalties are computed, they will be reported in the Daily Penalty List (if configured). Additionally, penalties will be also available in U2A to CSDs. Being available in U2A means that authorized users of the CSD²⁶ will be able to query and view the penalties via the T2S GUI.

C-45: For querying penalties, the T2S default rules for queries apply.

For example, given that the query for penalties is in U2A, it will not be possible to send penalty queries to T2S during the maintenance window. In that case, a message will be returned indicating that T2S is currently under maintenance.

Additionally, following the same principle as for the U2A balance queries during the Night Time Settlement cycles, during the processing of penalties (i.e. daily calculation of penalties after the NTS) it won't be possible to query penalties. U2A penalty queries sent during the daily calculation of penalties shall not be stored in T2S for further processing, and the T2S actor should receive a real time message that the daily calculation of penalties is currently running.

C-46: In order to query penalties, a new privilege will be defined in T2S. I.e. "Penalty Query" shall be a new system privilege.

C-47: When processing queries, T2S will only return results where the relevant CSD²⁷ has the right to access the underlying data (i.e. the penalty is in its data scope²⁸).

A CSD can query the following penalties subject to access rights:

- Penalties where the failing party is either one of its participants or the CSD itself (i.e. parties defined within its data scope)
- Penalties where the non-failing party is either one of its participants or the CSD itself.

²⁶ Individual, i.e. an employee of a given CSD, using the T2S GUI

²⁷ CSD whose user has submitted the query

²⁸ In order to determine the data scope of the query, T2S will automatically consider the CSD associated to the user performing the query.

C-48: T2S shall provide the possibility to export the result of the queries from the relevant screen into a csv-file. In line with T2S export functionality: If exporting a list (of penalties), the related search criteria are exported as well, whereas detailed data is only exported if the respective list and the details screen are covered by the same query.

T2S will provide the following penalty queries (U2A only):

The queries presented hereafter are described in terms of search criteria and the results and screen to be provided as response, but do not predicate any specific implementation option in terms of the number of screens needed in T2S to provide these search criteria.

C-49: Penalty query with a reference: In order to query penalties, the query shall require the user to specify at least one or a combination of the following parameters:

- Individual Id of the Penalty
- Common Id of the Penalty
- The T2S Actor Reference of the underlying settlement instruction (and the Instructing Party)
- T2S Reference of the underlying settlement instruction.
- T2S Matching Reference of the underlying settlement instruction.

Query response (depending on the reference used):

- When the **Individual Id** of the Penalty is used as parameter for the query, T2S shall return (subject to access rights) the relevant penalty (for the failing OR the non-failing party) and its details in the **Penalty details screen**.

The **Penalty details screen** will provide the same information provided in the Daily Penalty List (see section 5.1).

Additionally: Subject to access rights, it shall be possible to retrieve all the details of the related settlement instruction (i.e. access to the "Settlement Instruction details screen") from the penalty details screen.

- When the **Common Id** of the Penalty is used as parameter for the query, T2S shall return (subject to access rights) the relevant penalty for the failing party and the relevant penalty for the non-failing party.

In case T2S returns a single penalty, because the user performing the query only has access to view one of the two penalties, the relevant penalty and its details will be provided in the **Penalty details screen** (already described above)

In case the two penalties are returned, the list of penalties will be provided in the **Penalty List screen**. Within this screen, T2S shall provide for each penalty returned:

- Individual ID of the penalty
- Common ID of the penalty

- Type of penalty ("SEFP" or "LMFP")
- Business Day when the penalty was computed
- Status of the penalty (i.e. Active or Removed)
- ISIN
- Amount and currency of the Penalty
- Failing party BIC and parent BIC²⁹
- Non-failing party BIC and parent BIC³⁰
- Related settlement instruction main references:
 - o T2S Actor Reference of the Settlement Instruction
 - o T2S Reference of the Settlement Instruction
 - o T2S Matching Reference

From this screen (**Penalty List screen**), the T2S Actors shall be allowed to query the details of each single penalty reported in the list (i.e. to go to the **Penalty details screen**)

- When either the **T2S Actor Reference** or the **T2S Reference** of the underlying Settlement Instruction is used as parameter for the query, T2S shall return (subject to access rights) all the penalties associated to this Settlement Instruction. It shall be also possible to perform this query directly from the "Settlement Instruction details screen" (via ad-hoc button).

In case T2S returns a single penalty, the relevant penalty and its details will be provided in the **Penalty details screen** (already described above).

In case there is more than one penalty returned, the list of penalties will be provided in the **Penalty List screen** (already described above).

- When the **T2S Matching Reference** is used as parameter for the query, T2S shall return (subject to access rights) all the penalties associated to the two matched Settlement Instructions.

Same as in previous case:

In case T2S returns a single penalty, the relevant penalty and its details will be provided in the **Penalty details screen** (already described above).

In case there is more than one penalty returned, the list of penalties will be provided in the **Penalty List screen** (already described above).

²⁹ The party is the failing or the non-failing party depending on the direction of the penalty as provided in the amount i.e. if Debit it is the failing party; if Credit is the non-failing party

³⁰ The counterpart is the failing or the non-failing party depending on the direction of the penalty as provided in the amount i.e. if Debit it is the non-failing party if Credit is the failing party

C-50: Penalty query by ISIN Code: T2S shall allow querying penalties associated to a given security and as of a specific date (i.e. computed on a given business day). I.e. query parameters:

- Business day
- Security (ISIN code)
- Direction of the penalty (Debit, Credit or all)
- Currency of the penalty
- Type of Penalty (SEFP, LMFP or all)
- Penalty status (active, removed or all)³¹

This query shall require the ISIN and the date as minimum search criteria.

When specifying the Business Day, it shall be allowed to specify a range / period (from/to). Limitations to the number of days will be provided in the in a second step at technical group level depending on volumetric assumptions and performance impacts.

Query response: The query shall return (subject to access rights) the relevant penalty /penalties.

In case T2S returns a single penalty, the penalty and its details shall be provided in the **Penalty details screen** (details described above).

In case there is more than one penalty returned, T2S will provide the list of penalties in the **Penalty List screen** (as described above).

C-51: Penalty query by T2S Party: T2S shall allow querying penalties that a party is imposed with or entitled to receive as of a specific date (i.e. computed on a given business day). I.e. query parameters:

- Business day
- Party BIC
- Party Parent BIC
- Direction of the penalty (Debit, Credit or both)
- Currency of the penalty
- Type of Penalty (SEFP, LMFP or both)
- Penalty status (active, removed or both)
- Counterpart BIC and parent BIC

This query shall require the Party BIC and the date as minimum search criteria.

When specifying the Business Day, it shall be allowed to specify a range / period (from/to). Limitations to the number of days will be provided in the in a second step at technical group level depending on volumetric assumptions and performance impacts.

³¹ For more details about the removal status please refer to the section 7.1

As mentioned before, in order to determine the data scope of the query, T2S automatically considers the CSD associated to the user performing the query. Hence, the parameter Party Parent BIC is only relevant to query those penalties where the CSD itself is reported as failing or non-failing party (e.g. in a LMFP for which the CSD was the Instructing Party of the underlying settlement instruction that was sent already matched).

Query response: The query shall return (subject to access rights) the relevant penalty /penalties.

In case T2S returns a single penalty, the penalty and its details shall be provided in the **Penalty details screen** (details described above).

In case there is more than one penalty returned, T2S will provide the list of penalties in the **Penalty List screen** (as described above).

C-52: System entity wide penalty query: T2S shall allow querying penalties of a CSD as of a specific date (i.e. computed on a given business day). I.e. query parameters:

- Business day
- CSD BIC and system entity wide query flag
- Direction of the penalty (Debit, Credit or all)
- Currency of the penalty
- Type of Penalty (SEFP, LMFP or all)
- Penalty status (active, removed or all)

This query shall require, as minimum search criteria, the CSD BIC, the System entity wide query flag as well as the date (range will not be allowed in this query and a single business day must be provided).

Query response: The query shall return (subject to access rights) the relevant penalty /penalties.

In case T2S returns a single penalty, the penalty and its details shall be provided in the **Penalty details screen** (details described above).

In case there is more than one penalty returned, T2S will provide the list of penalties in the **Penalty List screen** (as described above).

C-53: Query revisions of a Penalty: T2S shall allow querying the revision history of a penalty. As described in following section 7 - "Modification of existing penalties", existing penalties can be modified according to the rules defined in that section.

As a consequence, T2S will allow to query the revisions (history) of a given penalty. This query will be accessible from the **Penalty details screen** containing the details of the penalty for which the T2S Actor wishes to see the history. The results will be provided in the **Penalty revisions screen**.

7. Modification of existing penalties

7.1 Removal of existing penalties by a CSD

According to ESMA's Technical Advice under the CSD Regulation (point 57 in page 17): "in the limited circumstance where settlement cannot be performed for reasons that are independent from any of the participants or the CSD, the penalty would not be charged. In order to achieve that exception, it should be possible to reduce the amount of the penalty to zero. Examples of these occurrences may be a suspension of the instrument from trading and settlement due to reconciliation issues, specific corporate actions which imply the instrument no longer exists, or technical impossibilities at the CSD level. In order to prevent abuse, these exemptions should be approved by the Competent Authority, either through approval of the CSD procedures detailing in which specific cases penalties do not apply, or on a case by case basis".

As a consequence, T2S will provide the CSDs the functionality to remove an already computed and reported penalty (i.e. to reduce the amount of the penalty to zero).

C-54: Removal of existing penalties can be requested in U2A (via T2S GUI) as well as A2A. Nevertheless, no ISO message was deemed necessary for the latter and a flat file communication can be foreseen (to be decided in a second step at technical group level).

C-55: CSDs will be able to request the removal of a penalty only when the penalty was imposed to one of its participants. For this purpose, the T2S operator will grant by default an ad-hoc privilege to the CSDs (e.g. "Privilege: Remove penalties"). The CSDs will then have to grant this privilege to their relevant U2A or A2A users³² that will manage the removal of penalties (i.e. T2S will require this privilege in order to perform the removal of a penalty).

The CSDR TF agreed that CSDs should grant this privilege to their relevant U2A users in 4-Eyes mode.

The privilege will not be available for CSD participants (i.e. CSDs shall not grant this privilege to their participants).

C-56: In order to request the removal of a penalty in U2A, CSDs may query the penalty in the T2S GUI as described in previous section 6. The request for removal (related button) will be done from the Penalty details screen.

C-57: T2S will allow modifying (removing) a penalty only during its appeal period. As described in section 1.3- "Overall timeline for penalties", the appeal period for a penalty starts with the computation and reporting of the penalty, and lasts until (and including) the 11th business day of the following month.

C-58: When the removal of a penalty is requested, the CSD will have to include a description (free text) of the reason why the penalty is removed i.e. set to zero.

³² Each user defined in T2S corresponds to an individual, i.e. an employee of a given T2S Actor using the T2S GUI, or to an application, i.e. a software component of a given T2S Actor interacting with T2S in A2A mode.

C-59: The removal of a given penalty does not have any impact on possible future penalties that could be computed for the same underlying settlement instruction.

C-60: Once a penalty has been removed (i.e. amount has been set to zero), the penalty will be stored in T2S as status "Removed" together with the provided text description. From the point in time a penalty is removed, it will be shown as removed in the GUI.

C-61: T2S will also report the removal of a penalty at the time of the creation of the following Daily Penalty List. For this purpose, T2S will generate a "**List of Modified Penalties**" together with the following **Daily Penalty List** (same time but different list).

I.e. On the following business day after the removal of the penalty, T2S will generate two lists:

- The normal **Daily Penalty List** with the penalties computed for the previous day; and
- The **List of Modified Penalties** including the penalties that have been removed since the generation of the lists of the previous business day. Within the List of Modified Penalties, the penalties that have been set to zero will be reported with:
 - New amount equal to zero,
 - Status "Removed"; and
 - The description (free text) of the reason for the removal provided by the CSD when the penalty was removed.

The **List of Modified Penalties** will be generated only if at least one penalty has been modified since the generation of the lists of the previous business day. Otherwise, the **List of Modified Penalties** will not be generated. Within the **List of Modified Penalties** T2S will provide the new aggregated amounts (debit and credit) per party for the relevant business day for which a penalty has been removed.

Please note that in case penalties related to different business days were removed, T2S will generate a **List of Modified Penalties** per business day.

For example:

During business day 2016-11-25, two penalties are removed by a CSD (e.g. Penalty 1 computed for 2016-11-24 and Penalty 2 computed for 2016-11-23). After the Night Time Settlement of 2016-11-26, T2S will generate two Lists of Modified Penalties:

One informing about the modified penalties for 2016-11-24 (i.e. removal of Penalty 1) and, another, informing about the modified penalties for 2016-11-23 (i.e. removal of Penalty 2).

For more information about the List of Modified Penalties please refer to section 7.3- "List of Modified Penalties".

7.2 Re-inclusion of a previously removed penalty

C-62: To cater for mistakes in the removal of penalties, T2S shall allow CSDs to re-include a penalty that the CSD has previously removed.

C-63: In line with the removal:

- The re-inclusion can be requested in U2A (via T2S GUI) and A2A. For A2A a new communication will be needed but no ISO message is deemed necessary and a flat file communication can be foreseen (to be decided in a second step at technical group level).
- T2S will allow re-including an already removed penalty only during its appeal period i.e. until (and including) the 11th business day of the following month after its computation.
- CSDs will be able to request the re-inclusion of a penalty only when the penalty was imposed to one of its participants. For this purpose, the T2S operator will grant by default an ad-hoc privilege to the CSDs (e.g. "Privilege: Re-include penalties"). The CSDs will then have to grant this privilege to their relevant U2A or A2A users³³ that will manage the penalties.

The privilege will not be available for CSD participants (i.e. CSDs shall not grant this privilege to their participants).

C-64: T2S shall reflect the re-inclusion of penalty that has been previously removed with the following attributes:

- Status 'active'
- Amount of the penalty as it was when the penalty was removed.

C-65: Additionally, when a penalty is re-included, T2S has to calculate again the amount of the penalty as it may have changed due to updates in the reference data while it was removed. This recalculation will be performed in the next T2S daily recalculation process (see following section 7.3).

In order to trigger the recalculation when a penalty is re-included, T2S will flag it as 'to be recalculated after being re-included'. This flag shall remain until the next recalculation process so in case a CSD performs a U2A query during this period, the CSD is aware that the cash penalty has to be re-calculated.

T2S will report the re-inclusion (Penalty with status "active") together with the recalculated amount in the following "**List of Modified Penalties**" (for both the failing and the non-failing party).

³³ Each user defined in T2S corresponds to an individual, i.e. an employee of a given T2S Actor using the T2S GUI, or to an application, i.e. a software component of a given T2S Actor interacting with T2S in A2A mode.

7.3 Automatic update of existing penalties by T2S

C-66: Upon changes of values of the related reference data, T2S shall recalculate affected penalties (those that used the modified reference data in their calculation) and update the penalty in case their details have changed, for example, if there is a new amount due/entitled to receive.

The related reference data triggering the recalculation and possible update of a penalty are:

- Changes in the reference price of a given ISIN for a given business day that was used for the calculation of the penalty³⁴.
- Changes in the values of the attributes of the Securities Subject to Penalties object that was used in the calculation of the penalty. I.e. for a given ISIN, the changes of the value of the Financial Instrument Type, the Liquidity or the SME Growth Market of its Securities Subject to Penalties object that was valid at the time of calculation of the penalty.
- Changes in the values of the Daily Flat Penalty Rate that was used in the calculation of the penalty (either the Securities Penalty Rate or the Cash Penalty Rate).

C-67: T2S will recalculate and update a penalty after changes in the related reference data only during the appeal period of the penalty. As described in section 1.3- "Overall timeline for penalties", the appeal period for a penalty starts with the computation and reporting of the penalty, and lasts until (and including) the 11th business day of the following month.

C-68: T2S will only update those penalties that have not been removed by the CSD (i.e. penalties with status "Removed" will not be updated).

C-69: As mentioned in previous section 7.2, T2S shall also automatically recalculate those cash penalties that have been re-included since the last recalculation process, i.e. those penalties flagged as 'to be recalculated after being re-included'.

C-70: For efficiency reasons, the recalculation process will be done once a day (same time or right after the calculation of new penalties), in a moment in time with low platform workload, for all changes in the reference data occurred along the previous day (more precisely since the previous recalculation process /generation of penalty lists was performed).

C-71: Once a penalty has been re-calculated i.e. the latest reference data has been considered, the penalty will be stored (flagged) in T2S as "Updated".

To inform about the new values after the recalculation process, T2S will generate a **List of Modified Penalties**. T2S will generate the List of Modified Penalties together (or right after) the generation of the following **Daily Penalty List**.

³⁴ As mentioned before, T2S will only recalculate and update the penalties that used the modified reference data. Hence, changes in the price of an ISIN will not trigger the recalculation of penalties computed for a settlement instruction with exchange of cash only (DPFODs or CPFODs), because the price of the ISIN is not used in the calculation of these penalties.

I.e. On the following business day, after the recalculation of a penalty, T2S will generate two lists:

- The normal **Daily Penalty List** with the penalties computed for the previous day; and
- The **List of Modified Penalties** including the updated penalties since the generation of the lists of the previous business day. Within the List of Modified Penalties, the penalties that have been updated will be reported with:
 - New updated amount and values; and
 - Flag "Updated"

The **List of Modified Penalties** will be generated only if at least one penalty has been recalculated/modified since the generation of the lists of the previous business day. Otherwise, the **List of Modified Penalties** will not be generated.

Please note that in case penalties related to different business days are updated, T2S will generate a **List of Modified Penalties** per business day.

For example:

During business day 2016-11-25, two penalties are updated by T2S (e.g. Penalty 1 computed for 2016-11-24 is updated due to a change in the price, and also Penalty 2 computed for 2016-11-23 is updated due to a change in the price). After the Night Time Settlement of 2016-11-26, T2S will generate two Lists of Modified Penalties:

One informing about the modified penalties for 2016-11-24 (i.e. update of Penalty 1) and, another, informing about the modified penalties for 2016-11-23 (i.e. update of Penalty 2).

For more information about the List of Modified Penalties please refer to following section 7.4 below.

7.4 List of Modified Penalties

The List of Modified Penalties shall be generated by T2S when there has been a modification (removal or update) in a penalty since the generation of the previous business day lists. Otherwise, the **List of Modified Penalties** will not be generated. In case that there has been modifications of more than one penalty, and these penalties were computed for different business days, T2S will generate a **List of Modified Penalties** per business day as described in sections 7.1 and 7.3.

The **List of Modified Penalties** shall behave in the same way than the Daily Penalty List in terms of possible recipients, configuration and structure of the information. As a consequence:

C-72: In order to avoid unnecessary processing and storage in T2S, the List of Modified Penalties A2A message will be created to report the previously recalculated penalties only if the requiring T2S Actor has set up in advance the configuration needed to receive the List. The configuration of the List of Modified Penalties (standard T2S one-time configuration process) will be done via the T2S GUI.

C-73: It shall be possible for both CSDs and DCPs to receive the List of Modified Penalties. The penalties will be informed per failing and non-failing party (i.e. sorted by party). DCPs will need to configure one List of Modified Penalties per CSD they are active with.

C-74: T2S Actors will be able to configure the List of Modified Penalties according to their wish to:

- receive the List of Modified Penalties directly after its creation (via A2A mode)
- not to receive directly after its creation but to query the List of Modified Penalties afterwards (this query /pulling the report will be available in A2A as well as in U2A).

C-75: All the Lists of Modified Penalties pushed in A2A mode, which exceed the minimum compression size of 2 kb, will be compressed.

C-76: For the the List of Modified Penalties a message splitting at business level may occur in order to avoid exceeding the size limitation of 32 MB.

C-77: When sending the List of Modified Penalties, T2S shall flag that this message is coming from T2S and, specifically indicate that it is stemming from the "Penalty Mechanism" (for more information please see **C-42**).

C-78: For each penalty reported in the List of Modified Penalties (i.e. each penalty that has been recalculated), its details will be provided with the same structure as in the Daily Penalty List but with the new values after the recalculation.

The List of Modified Penalties shall also include per party and counterpart, the bilateral net amounts (against each counterpart) of the penalties reported for that business day, but updated after the modifications performed in the penalties (i.e. considering the new data).

8. Monthly aggregated amounts

In line with the requirements of Articles 16 and 17 of the DTS on Settlement Discipline, the CSDR TF agreed that CSDs should perform the collection and distribution of penalties once a month.

Although the CSDs will perform the monthly collection and distribution of penalties outside T2S, the CSDR TF agreed that T2S should provide, once a month, the aggregated amounts of penalties to facilitate the CSDs in the collection and distribution processes.

C-79: In this respect, and in line with the description provided in section 1.3, the CSDR TF agreed that on the 14th business day of the month, T2S will provide the aggregated amounts of the penalties computed for the business days of the previous month.

C-80: When calculating the monthly aggregated amounts, T2S will consider the last available value of the amount of each penalty aggregated. I.e. T2S will take into account all the modifications performed on the penalties that are aggregated.

Consequently, when calculating the monthly aggregated amounts, LCMM will consider the removal, the re-inclusion or the automatic updates that can occur in the penalties since their initial computation and reporting, until the end of their appeal period (until and including the 11th business day of the following month³⁵).

C-81: In the monthly reporting T2S shall provide, per currency and party, the **bilateral net amounts** against each of the counterparts of the penalties computed for the business days of the previous month.

Accordingly, for each party and currency, T2S shall provide a monthly bilateral net amount equal³⁶ to:

- The sum of all cash penalties of the previous month in the relevant currency, that a party is entitled to receive (reported as credit) from a given counterpart (i.e. to be paid by this counterpart);

Minus

- The sum of all cash penalties of the previous month in the relevant currency and that were imposed to the party (reported as debit), and to be paid to the same counterpart.

This calculation method was considered by the CSDR TF as the most appropriate because:

First, given that the exposures are calculated/split per counterpart (bilateral net amounts), non-payments can be isolated from the rest. I.e. the participants affected by a non-payment of its counterpart could be easily identified as well as the amount that cannot be distributed by the CSD since it was not collected.

³⁵ As described in section 7.4- List of modified penalties, the updates made on the 11th (last day as per appeal period) will be reported on the List of modified penalties sent on of the 12th (same way as it is done for any other business day).

³⁶ By definition, the monthly bilateral net amounts must be equal to the sum of the daily bilateral net amounts of the business days of the previous month (considering the latest values that T2S would have reported in the List of Modified Penalties in case there has been any change since the reporting in the Daily Penalty List).

According to the regulation, CSDs should collect first and distribute afterwards (in order to avoid entering in any risk). Therefore, a calculation method, where amounts not paid in time cannot be isolated from the rest, was seen as a huge risk for the mechanism because many other payments could be blocked or delayed. This risk would be amplified and more difficult to manage in a cross CSD scenario, where several actors will have to reconcile the amounts that can be paid or distributed. Hence, the possibility to be able to isolate non-payments was seen as essential in a cross CSD penalty mechanism where non-payments could, otherwise, affect or even block the collection and distribution process of several CSDs.

Additionally, this calculation method provides a netting, which is required by the regulation. This netting is performed on bilateral basis and not on unilateral basis in view of the benefits explained before.

Furthermore, it was considered that the bilateral netting reduces enough the required liquidity.

Finally, the bilateral netting allows T2S to report the penalties computed for and against CCPs, as well as to provide the monthly exposures from the CCP against other CSD participants and vice versa, but to easily exclude these exposures and their payments (i.e. easily isolated) from the collection and distribution processes of the CSDs, as it is required by article 18 of the Draft Technical Standards on Settlement Discipline³⁷.

Overall, the CSDR TF found this method for the calculation of the monthly aggregated amounts as the most appropriate approach between the ones analysed.

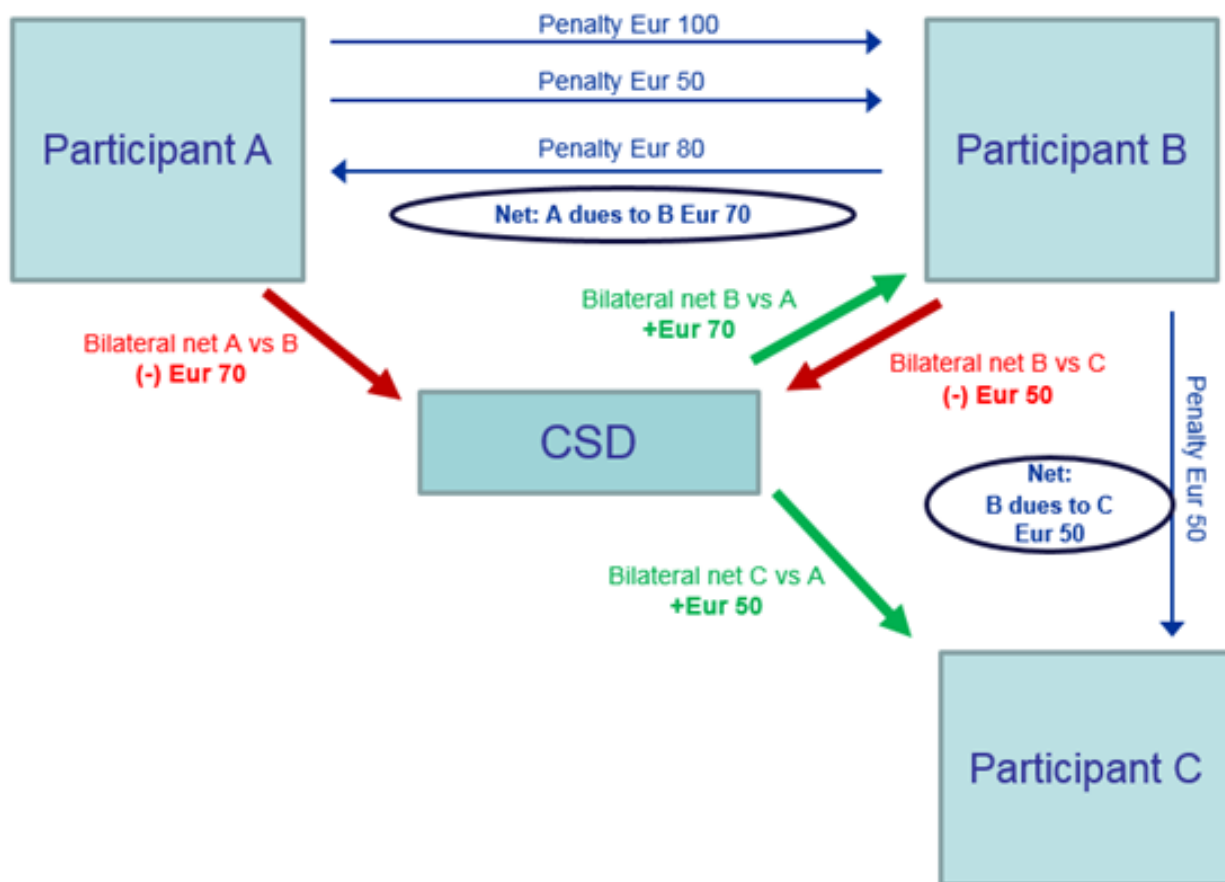
See also "List of CSDR Items for Clarification": Item 19 "Calculation of aggregated amounts for collection and redistribution of penalties".

³⁷ Relevant quote of Article 18 (Penalty mechanism for a participant that is a CCP):

"1- A CSD shall not charge or redistribute a cash penalty for a settlement fail in respect of which a CCP is either a failing participant or a receiving participant.

2- Where paragraph 1 applies, on a daily basis, a CSD shall provide the CCP with the calculation of the cash penalties for the failed settlement instructions that the CCP has submitted to the CSD."

Example I: Monthly calculation of aggregated amounts in an Intra CSD penalties scenario



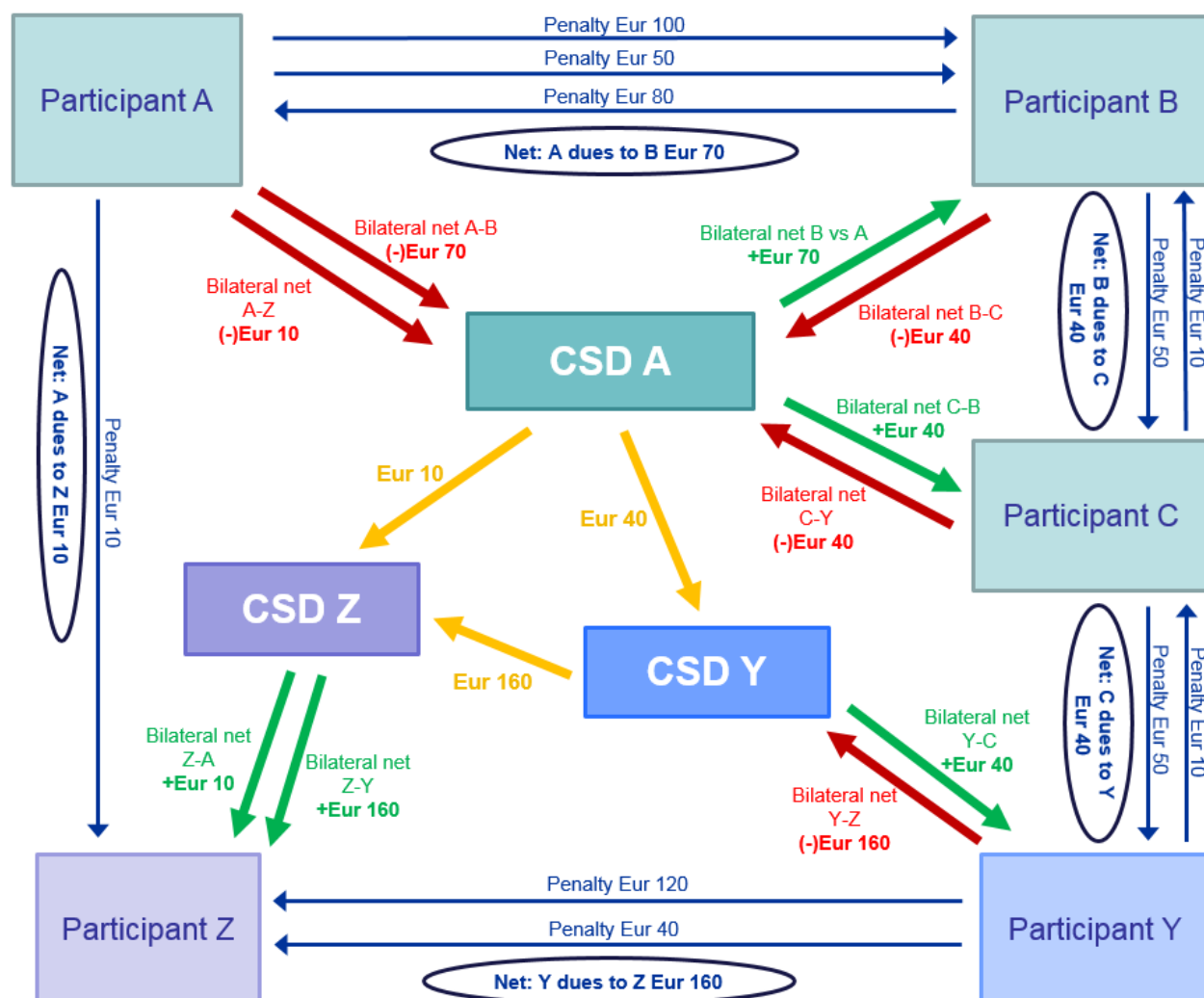
T2S calculates, per participant and counterpart, the monthly bilateral net amounts of all the penalties from previous month:

- Participant A vs Participant B: Net Eur 70 (due by A to B)
- Participant A vs Participant C: No penalties → Net 0
- Participant B vs Participant C: Net Eur 50 (due by B to C)

Each monthly bilateral net amount is reported to both, the paying participant (arrows in red) and the receiving participant (arrows in green)

Note: For those parties that do not have penalties with each other, T2S will not report a zero bilateral amount. Zero bilateral amounts will be reported only if there are penalties between the two counterparts and their sum is zero.

Example II: Monthly calculation of aggregated amounts in a cross CSD penalties scenario



T2S calculates, per participant and counterpart, the monthly bilateral net amounts of all the penalties from previous month:

- Participant A vs Participant B: Net Eur 70 (due by A to B)
- Participant A vs Participant Z: Net Eur 10 (due by A to Z)
- Participant B vs Participant C: Net Eur 40 (due by B to C)
- Participant C vs Participant Y: Net Eur 40 (due by C to Y)
- Participant Y vs Participant Z: Net Eur 160 (due by Y to Z)

Each monthly bilateral net amount is reported to both, the paying participant (arrows in red) and the receiving participant (arrows in green)

Note1: For those parties that do not have penalties with each other, T2S will not report a zero bilateral amount.

Note2: The yellow arrows (intermediate distribution of amounts between CSDs in cross CSD penalties) are out of scope of T2S and just depicted in order to have the full picture

The red and green arrows and amounts depicted in the diagrams, relate to the monthly amounts reported by T2S (i.e. the bilateral net amounts of the penalties computed for the business days of the previous month for each participant).

It is out of the scope of this document the process outside T2S for CSD's collection of the debit amounts and redistribution of credit amounts. Nevertheless, it is worth clarifying that, as agreed by the CSDR TF, CSDs will:

- collect from their participants, in a single payment (e.g. with multiple references), the sum of their debit (payable) bilateral net amounts against participants that are not CCPs; and
- redistribute to their participants, which are not a CCP, the sum of their credit (entitled) bilateral net amounts also in a single payment.

Therefore, as illustration of the above, in the example II, considering that participant A, participant B and participant Z are not a CCP, CSD A will collect 80 Euros in one single payment from its participant A (i.e. the sum of participant A's debit bilateral net amounts).

In order to facilitate the collection and redistribution process outside T2S, the ISO 20022 message for reporting monthly aggregated amounts shall have:

- A field to allow informing to each participant about the sum of all debit bilateral net amounts to be paid to the CSD (sum of the debit net amounts against participants that are not CCPs), and
- A field to allow informing to each participant, which is not a CCP, about the sum of all credit bilateral net amounts to be received from the CSD (sum of the credit net amounts).

None of these two fields will be used by T2S.

8.1 Reporting of the monthly aggregated amounts

T2S will perform the calculation of the monthly aggregated amounts on the 14th business day of each month. T2S will perform this process in a period of low traffic (e.g. at 6:30 am), the detailed schedule will be defined at technical group level in a future step. The reporting of the newly calculated monthly aggregated amounts will be performed afterwards.

C-82: In order to avoid unnecessary processing in T2S, the A2A message reporting the previously calculated monthly aggregated amounts, will be created only if the requiring T2S Actor has set up in advance the configuration needed to receive it. The configuration of the Monthly aggregated amounts report (standard T2S one-time configuration process) will be done via the T2S GUI.

C-83: The A2A message reporting the Monthly aggregated amounts shall allow each CSD to receive, in a single message, all the monthly bilateral net amounts for all of its participants.

C-84: Similar to the Daily penalty List and the List of Modified Penalties, it shall be possible for both CSDs and DCPs to receive the Monthly aggregated amounts. DCPs will need to configure their reporting per CSD they are active with.

C-85: All the monthly aggregated amounts reporting pushed in A2A mode, which exceed the minimum compression size of 2 kb, will be compressed.

C-86: For the monthly aggregated amounts reporting a message splitting at business level may occur in order to avoid exceeding the size limitation of 32 MB.

Additionally to the A2A reporting, once the monthly aggregated amounts are calculated, they will be also available in U2A to CSDs.

Being available in U2A means that authorized users of the CSD³⁸ will be able to query and view the penalties via the T2S GUI.

C-87: When processing queries, T2S will only return results where the relevant CSD³⁹ has the right to access the underlying data (i.e. the party is in its data scope⁴⁰).

A CSD can query the aggregated amounts, subject to access rights, when the party is either one of its participants or the CSD itself (i.e. parties defined within its data scope)

C-88: Monthly bilateral net amount query: T2S shall allow querying the monthly bilateral net amounts for a given party. I.e. query parameters:

- Month (past 3 months)
- Party BIC
- Party Parent BIC
- Currency
- Counterpart BIC and parent BIC

This query shall require the Month and the Party BIC as minimum search criteria.

As already mentioned, in order to determine the data scope of the query, T2S automatically considers the CSD associated to the user performing the query. Hence, the parameter Party Parent BIC is only relevant to query those amounts for the CSD itself.

Query response:

The query shall return (subject to access rights) the relevant monthly bilateral net amount(s) and their direction for the Party (debit or credit).

³⁸ Individual, i.e. an employee of a given CSD, using the T2S GUI

³⁹ CSD whose user has submitted the query

⁴⁰ In order to determine the data scope of the query, T2S will automatically consider the CSD associated to the user performing the query.

9. Daily schedule of the T2S Penalty Mechanism

As already introduced in the General Principles for the Penalty Mechanism, more precisely in the Timing for computation and reporting of penalties section 2.2, the approach foreseen is to perform the calculation and the reporting during the T2S Real-Time settlement of the following business day.

This section aims a description and overview of the occurrence, along the T2S business day, of the processes for computation and reporting of penalties together with the other main processes described in this document. This section provides an overall representation including the main milestones for each process as well as their occurrence along the business day.

For this purpose, the following diagrams are presented and described:

1. Milestones of the business day for considering an instruction as subject to computation of penalties
2. Milestones of the business day for the computation and reporting of new penalties
3. Milestones of the business day for the recalculation and reporting of modified penalties
4. Milestones of the business day for the processes performed once a month for the monthly reporting of penalties and aggregated amounts

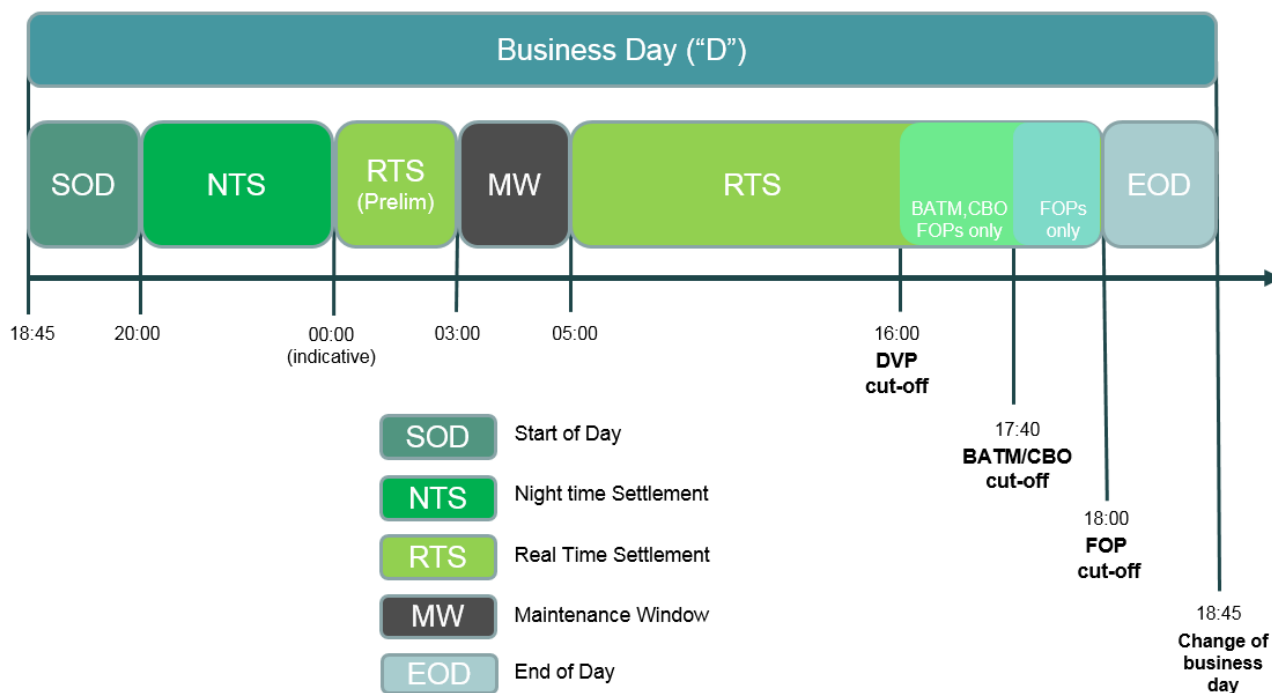
Finally, considering all the above:

5. Overall summary of the processes occurring in a business day

Please note that the proposed times are based on the volumetric assumptions described in following section 10.

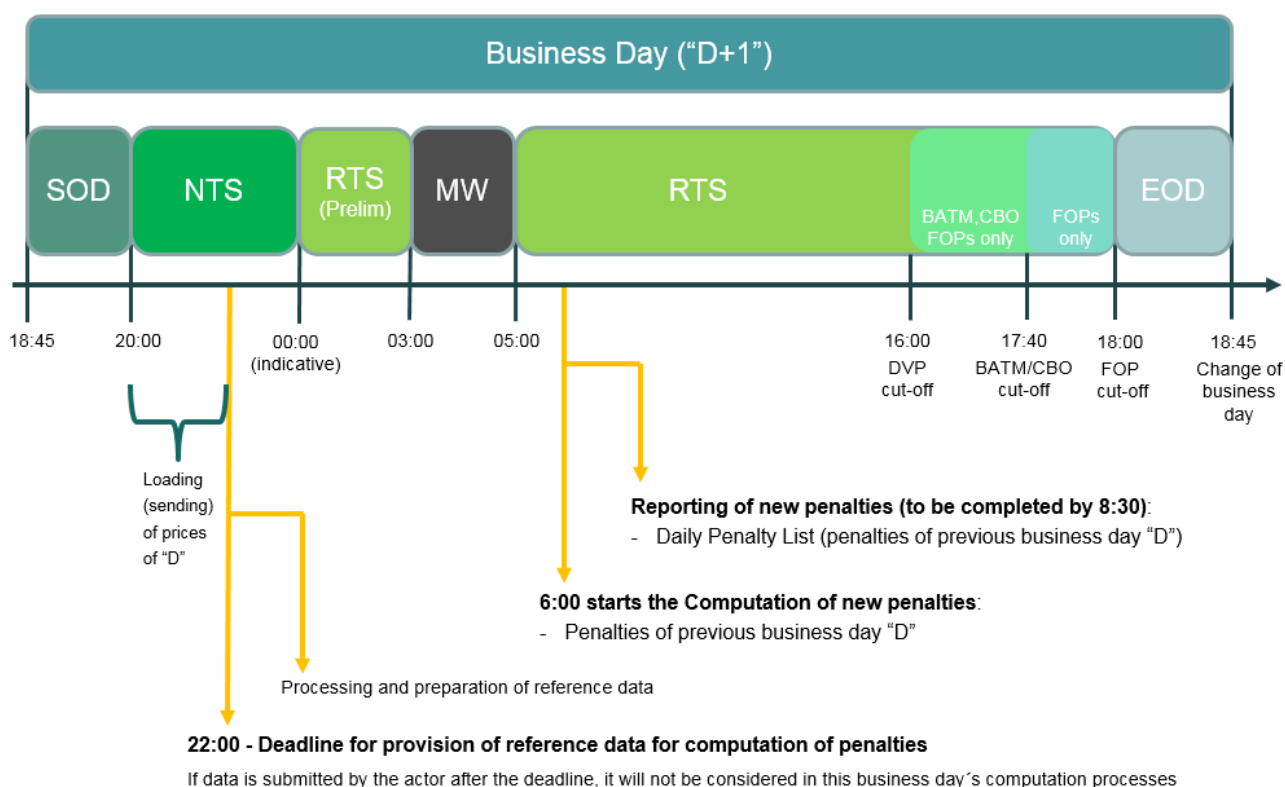
Diagram 1: Milestones of the business day for considering an instruction as subject to computation of penalties

The milestones of a business day for considering an instruction as subject to computation of penalties are the latest point in time where an instruction (whose intended settlement day has been reached) can settle on that business day (i.e. the settlement cut-offs). Additionally it is also important the change of business day. This diagram illustrates the scheduled time for each of them:



- **DVP cut off:** The end of processing of the DVP cut-off is used to identify DVP Settlement Instructions eligible for the computation, for this business day, of a Settlement Fail Penalty (SEFP) as well as of a Late Matching Fail Penalty (LMFP).
- **BATM/CBO cut off:** The end of processing of the BATM/CBO cut-off is used to identify BATM/CBO Settlement Instructions eligible for the computation, for this business day, of a Settlement Fail Penalty (SEFP) as well as of a Late Matching Fail Penalty (LMFP).
- **FOP cut off:** The end of processing of the FOP cut-off is used to identify FOP Settlement Instructions eligible for the computation, for this business day, of a Settlement Fail Penalty (SEFP) as well as of a Late Matching Fail Penalty (LMFP).
- **Change of business day** is used to identify the matching date of a settlement instruction. It is used to identify the latest point in time when a Late Matching Fail Penalty (LMFP) of a settlement instruction can be computed for this business day.

Diagram 2: Milestones of the business day for computation and reporting of new penalties



Relevant T2S Actors have to send the reference data to be used in the computation of penalties. In order to have the reference data considered for the computation process, the reference data has to be provided before 22:00 deadline. Moreover, it is expected that the main volume of reference data (i.e. the prices) is received between 20:00 and the deadline. As mentioned in the reference data section, in the processing of the related reference data, in case a price for a given business day is not provided, T2S will consider the the price from the previous business day (i.e. the latest loaded in T2S).

The computation of the penalties of business day "D" will be performed during the RTS of the following business day ("D+1"). After analysis of the 4CB, the best suitable time to start the computation process is at 6:00. It is better to start at 6:00 and not right after the end of the Maintenance Window (MW) in order to allow T2S to deal with the peak of settlement instructions that are received in this slot (mainly because they were queued during the MW). As already mentioned, the computation will use the reference data provided before the related deadline.

The reporting of the newly penalties will follow the computation process, and considering the volumetric assumptions (see section 10) it is expected to be completed by T2S at 8:30.

The diagram illustrates the timeline for Business Day (D+2), starting at 18:45 and ending at 18:45 the following day. The timeline is divided into several segments, each with a specific time point and associated activity:

- 18:45:** Change of business day
- 20:00:** Loading (sending) of prices of "D+1"
- 00:00 (indicative):** Loading (sending) of updates of prices of "D" and removal/re-inclusion for penalties of "D"
- 03:00:** Processing and preparation of reference data
- 05:00:** Reporting of new and modified penalties (to be completed by 8:30):
 - Daily Penalty List (new penalties of "D+1")
 - List of Modified Penalties (updates on penalties of "D")
- 06:00:** starts the Computation and Recalculation:
 - Computation of new penalties (Penalties of "D+1")
 - Recalculation of existing penalties (updates on penalties of "D")
- 16:00:** DVP cut-off
- 17:40:** BATM/CBO cut-off
- 18:00:** FOP cut-off
- 18:45:** Change of business day

The timeline is divided into segments by vertical lines, with the following labels above them:

- SOD** (Start of Day)
- NTS** (No Trade Settlement)
- RTS (Prelim)** (Real Time Settlement - Preliminary)
- MW** (Market Watch)
- RTS** (Real Time Settlement)
- BATM,CBO FOPs only** (Best Available Trade Market, Continuous Best Offer, Foreign Order Processing only)
- FOPs only** (Foreign Order Processing only)
- EOD** (End of Day)

Every business day, T2S will perform the recalculation process together with the computation process. Same way as for the computation, the recalculation will use the data provided before the deadline.

The reporting of the modified penalties will follow the recalculation process and considering the volumetric assumptions (see section 10) it is expected to be completed by T2S at 8:30.

Diagram 4: Milestones of the business day for the processes performed once a month for the monthly reporting of penalties and aggregated amounts

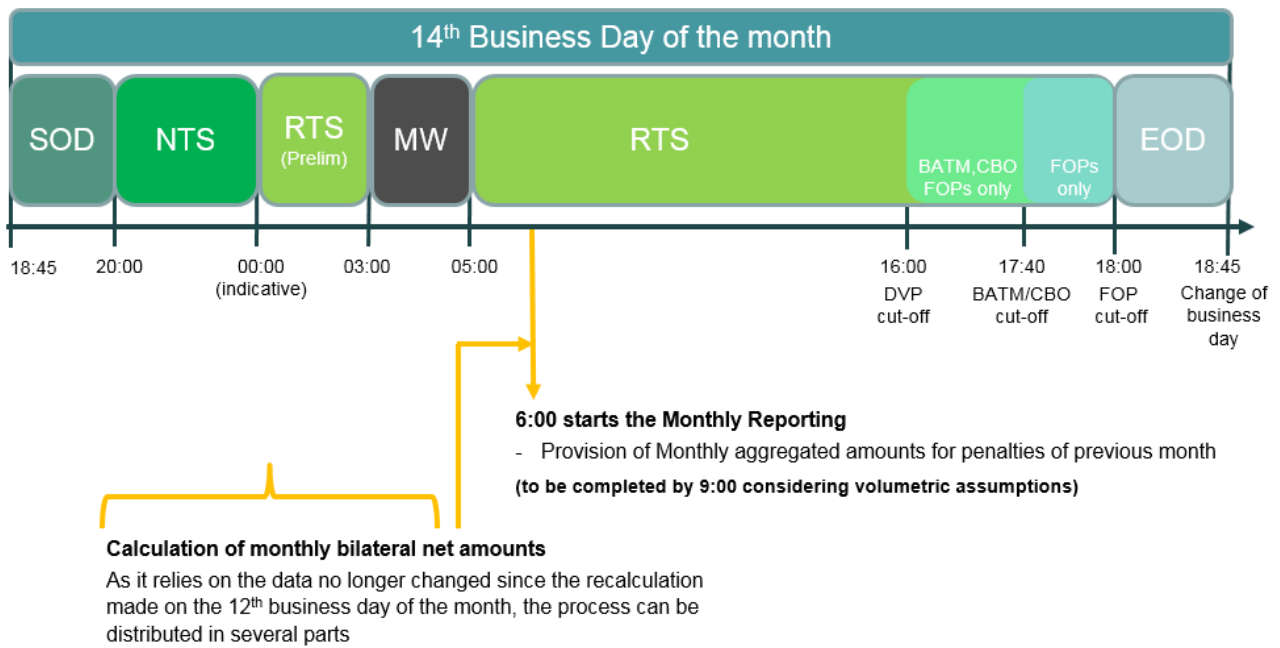
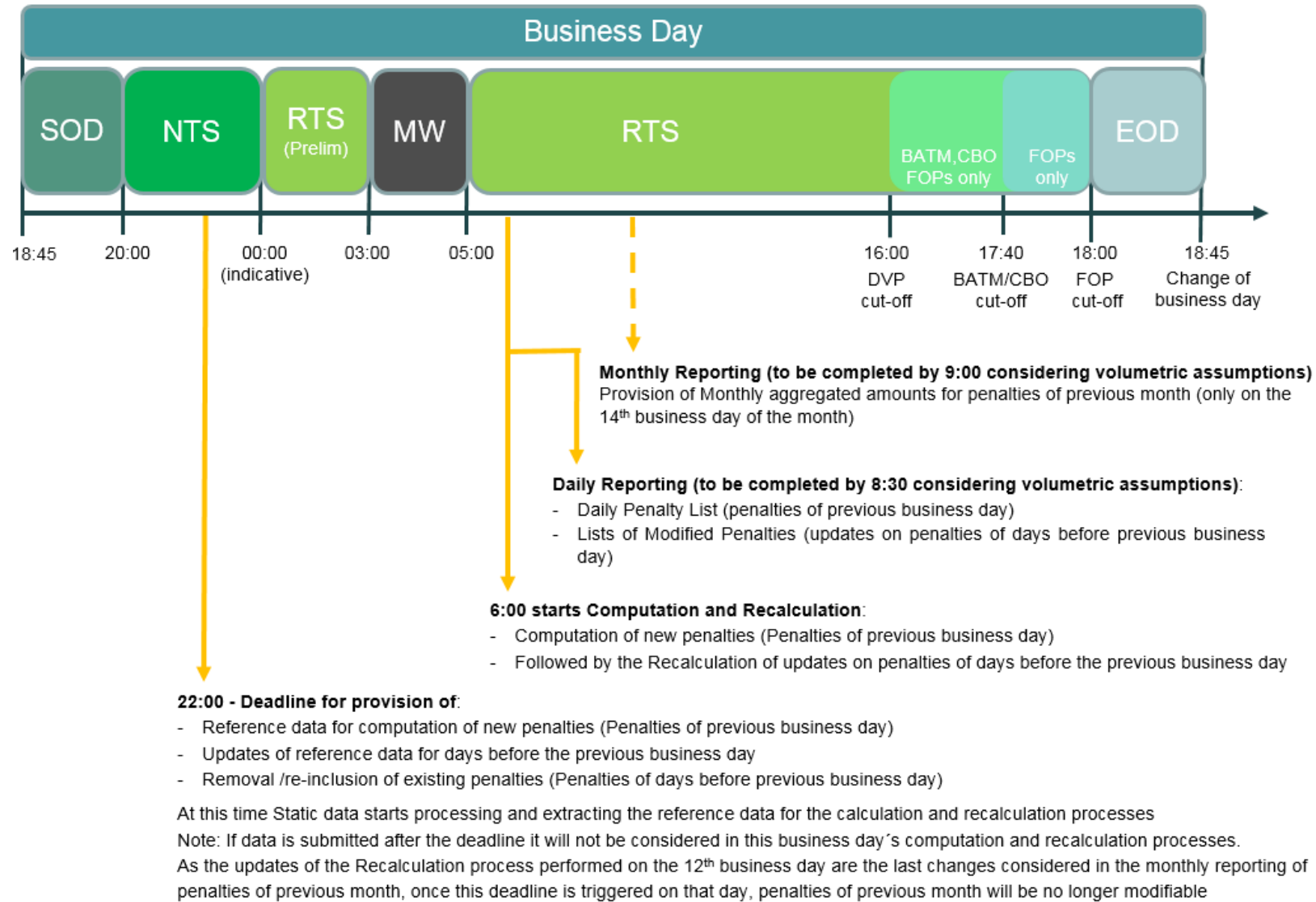


Diagram 5: Overall summary of the processes occurring in a business day



Note: It won't be possible for the users to query penalties from the Maintenance Window (MW) until the end of the Daily Reporting

10. Volumetric assumptions

As regards volumetric assumptions on reference data, since no regulatory certainty can be obtained at this stage, the current working assumption is to take a “worst case” scenario and consider in scope of the T2S Penalty Mechanism all T2S securities issued in EU countries.

The 4CB will query the T2S database to perform the estimates, which will then be shared with CSDs for validation. The number of active securities issued in EU countries will be considered as estimate for the number of active/valid elements contained in the list of Securities Subject to Penalties. Each of them should have one daily price. The **open question (1)** is which will be the variance of the range for Securities Subject to Penalties (and consequently prices) in order to estimate a maximum or upper limit.

CSDR TF working assumption is that there be an initial loading of Securities Subject to Penalties for those securities in scope, which already exist in T2S before the activation of the T2S Penalty Mechanism. For more information regarding the migration (activation) of the T2S Penalty Mechanism, please see next section 11.

It is considered that the number of items of the list of Securities Subject to Penalties created, updated and deleted per day be in line with the number of securities issued in EU countries that are created, updated and deleted per day. The **open question (2)** is which will be the daily distribution/peaks.

Another **open question (3)** is for the estimation of the distribution/peaks within a given day for the reception of new Daily Prices as well as updates and deletions. The Article 7- Determination of market values of the COMMISSION DELEGATED REGULATION (EU) C(2016) 7154 of 11.11.2016 supplementing Regulation (EU) No 909/2014, refers generally to the closing price. Consequently, the only assumption made is that the reception of new Daily Prices (creation) cannot take place before 18:00 and it is unlikely to be before 20:00. It will last until the deadline for reception of reference data.

Regarding the volumetric assumptions on dynamic data (number of penalties), 4CB will also query the T2S database to perform the estimates as follows:

- The daily average number of failed settlement instructions in T2S (subject to analysis for SEFPs). From this number, which sub-set of instructions have ISO transaction code different from CORP and REDM (please note that for the reporting of penalties, each penalty is reported to the failing and the non-failing party)
- The average number of settlement instructions sent late to T2S i.e. with ISD before the business day when the instruction is accepted in T2S (subject to analysis for LMFPs). From this number, sub-set which instructions have ISO transaction code different from CORP, REDM and CLAI. Additionally it will be required the average number of days that the instructions are sent late.

For further information on concrete numbers please refer to the detail assessment of CR654.

11. Migration (activation) of the T2S Penalty Mechanism

The CSDR TF agreed that penalties should be computed considering the fails that occur on or after the activation date of the T2S Penalty Mechanism. Consequently:

- T2S will compute SEFPs from the activation date onwards. There won't be any SEFP computed prior to the activation date.
- T2S will compute LMFPs from the activation date onwards. There won't be any LMFP computed prior to the activation date. In the specific case where an instruction with ISD prior to the activation date is matched in T2S after the activation date, T2S will compute a LMFP. Nevertheless, in the computation of this LMFP, T2S will not consider the business days prior to the activation date (i.e. instead of considering as from the ISD until the day when the instruction is matched, T2S will consider only as from the activation date until the day when the instruction is matched).

In order to illustrate the above, please find hereafter some examples based on the assumption that the activation date is, for instance, Monday, 18th of November 2019.

- A DVP settlement instruction enters and is matched in T2S at 10:00 on its ISD (Friday 15th of November 2019).
 - T2S will not compute the Settlement Fail Penalty if it fails to settle on its ISD (Friday 15th of November 2019) as it is before the activation date.
 - However, if the instruction fails to settle again on "ISD+1" (Monday, 18th of November 2019), then T2S will compute a Settlement Fail Penalty for "ISD+1". This penalty will be reported together with all penalties computed for Monday, 18th of November 2019 (i.e. after the NTS of Tuesday, 19th of November 2019)
- A DVP settlement instruction, with ISD 14th of November 2019, is matched at 14:00 one business day after its ISD (i.e. MBD= "ISD+1"= Friday 15th of November 2019). Given that matching occurs before the activation date, T2S will not compute a LMFP for this instruction.
- A DVP settlement instruction, with ISD 15th of November 2019, is matched at 14:00 two business days after its ISD (i.e. MBD= "ISD+2"= Tuesday 19th of November 2019). Given that matching occurs after the activation date, T2S will compute a LMFP for this instruction. Nevertheless, in the computation of this LMFP, T2S will not consider the days prior to the activation date. Therefore, in this example, T2S will consider only one business day for the LMFP (i.e. the LMFP will apply just for Monday, 18th of November 2019).

As agreed by the CSDR TF, the above will be achieved by setting the appropriate validity periods of the reference data (e.g. of the securities subject to penalties). Further details will be provided in the 4CB detail analysis.

12. Annex

12.1 Clarification for the eligibility of transformations to penalties

See also "List of CSDR Items for Clarification": Item 11 "Scope of instructions subject to penalties".

It was agreed by the CSDR TF that transformations should be kept in scope for both, Late Matching Fail Penalties and Settlement Fail Penalties.

The reasoning behind is that there will be neither an issue on reconciling penalties for transformations nor a double penalisation for transformed instructions.

In order to explain the above, please find hereafter a reminder of the process for a transformation as well as the T2S standard for the ISD of the transformed instructions (so called settlement date (SD) in the T2S standard)

- The Corporate Actions Joint Working Group (CAJWG) definition of transformations: Process by which pending transactions, on or after Record Date (RD)/ Market Deadline, are cancelled and replaced by new transactions in accordance with the terms of the Reorganisation.
- T2S Corporate actions standard – Transformations standard 7: The earliest settlement date (SD) of the new transaction(s) should be the latest between the payment date (PD) of the entitlement and the SD of the underlying transaction.

In order to illustrate the processing for transformation and penalties, two examples are provided hereafter:

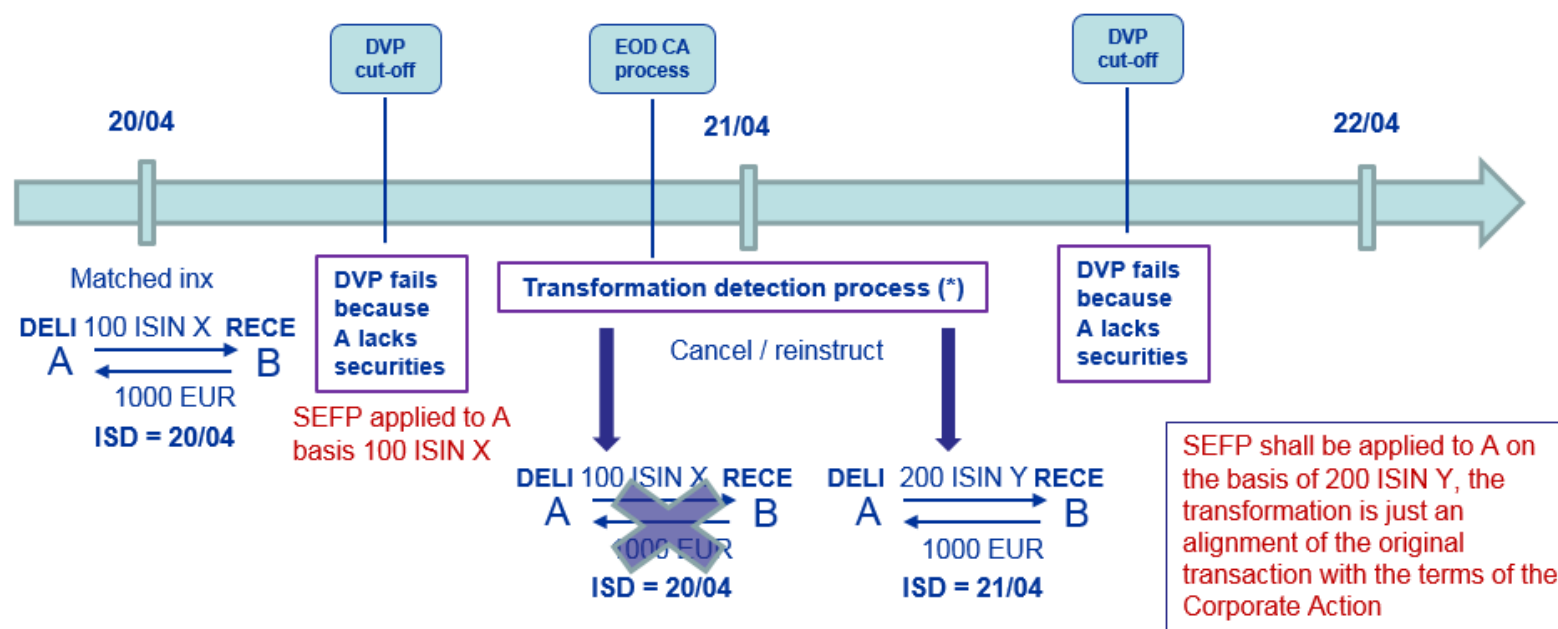
- Example 1: Standard scenario where the transformation is detected on time (at the end of record date)
- Example 2: Scenario where the transformation is detected late. I.e.: Underlying settlement instruction was sent late and consequently the transformation detection process occurred late (since it only applies for matched instructions) and hence the transformed instruction is sent late as well.

This scenario helps in understanding why penalties computed are correct if the eligibility of the security to penalties is correctly set up. It provides a view on the late matching fail penalties computed for both, the underlying instruction and the transformed instruction.

Example 1: Standard scenario where the transformation is detected on time

Transformations, eligibility to penalties (standard scenario)

- A delivers 100 ISIN X to B against 1000 Euros, ISD = 20/04 (DVP)
- Corporate Action on 20/04 (Reorganisation date-RD)
Reorganisation details: Stock split 1 ISIN X = 2 ISIN Y , Payment Date (PD=21/04)



(*) Transformed instruction:

- Instructing Party=CSD
- Already matched for intra-CSD transactions.
- ISD = Latest date between PD of the CA on stock and ISD of the original transaction, according to T2S Transformation Standard 7

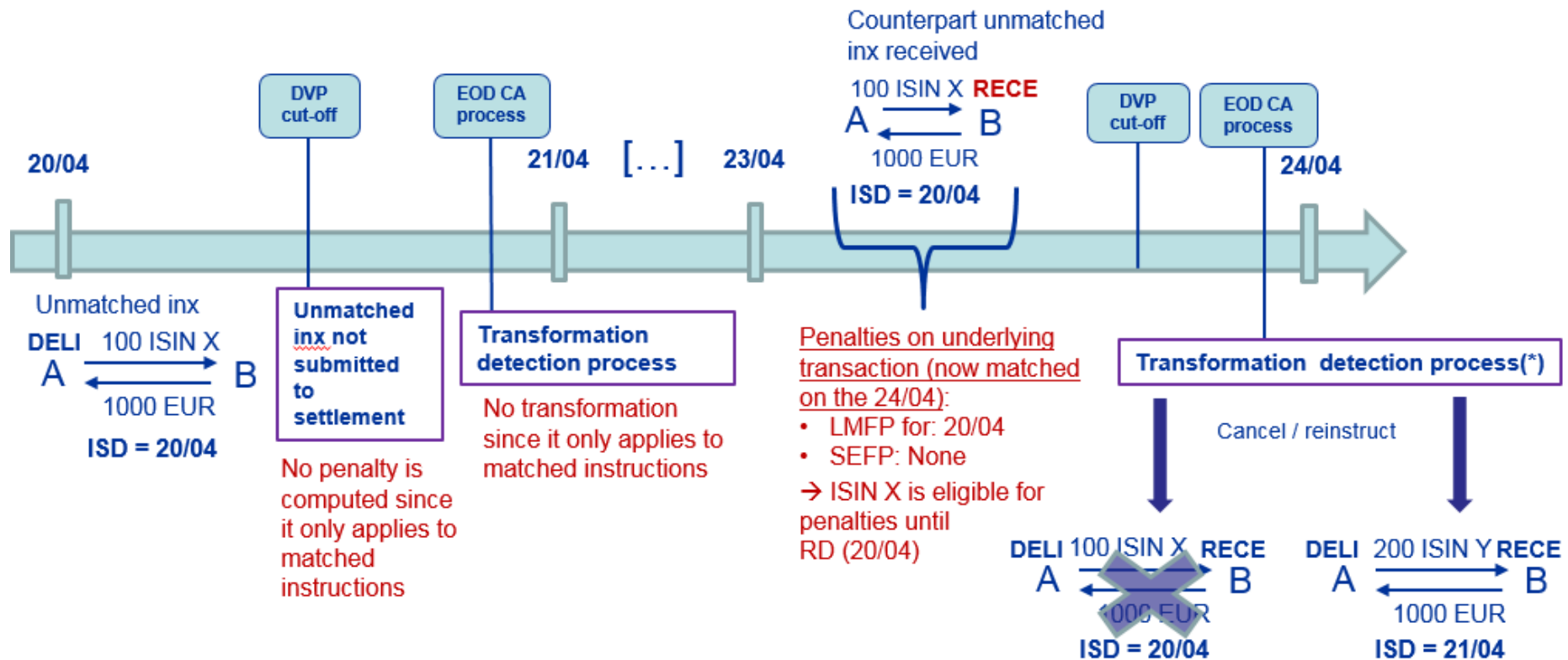
Example 2: Scenario where the transformation is detected late. I.e.: Underlying settlement instruction was sent late and consequently the transformation detection process occurred late (since it only applies for matched instructions) and hence the transformed instruction is sent late as well.

This scenario helps in understanding why penalties computed are correct if the eligibility of the security to penalties is correctly set up. It provides a view on the late matching fail penalties computed for both, the underlying instruction and the transformed instruction.

Transformations eligibility to penalties (late matching scenario)

- A delivers 100 ISIN to B against 1000 Euros, ISD = 20/04 (DVP)
- Corporate Action on 20/04 (Reorganisation date- RD)
Reorganisation details: Stock split 1 ISIN X = 2 ISIN Y , Payment Date (PD=21/04)

Assumption: with the new functionality incorporated with T2S CR515, the CSDs will set the maturity date of the old ISIN equal to the RD (20/04) and T2S will allow instructions from CSD participants for 20 days after the maturity date of the ISIN.



(*) Transformed transaction:

- Instructing Party=CSD; already matched for intra-CSD transactions
- ISD = Latest date between PD of the CA on stock and ISD of the original transaction, according to T2S Transformation Standard 7

Penalties on Transformed transaction:

- LMFP for 21,22 and 23/04
- Prices used: 21,22,23/04 (for ISIN Y)

➡ **Consistent approach**
Requires all CSDs to follow the same rules for setting eligibility of reorganised ISIN to penalties (i.e. until RD)

12.2 Clarification for external CSD settlement

See also "List of CSDR Items for Clarification": Item 13 "Cross-border settlement penalty reconciliation".

In the context of T2S, external CSD settlement can be defined as settlement which involves one CSD not participating in T2S. In case penalties are imposed in the context of T2S external CSD settlement because the instruction and its ISIN are in scope, the process will involve a chain of transactions and therefore further clarification was deemed necessary.

An External CSD (CSD not participating in T2S) is defined as a specific party type "External CSD" by a CSD participating in T2S (with which it has established a legal relationship outside T2S). An "External CSD" T2S party is considered as a CSD Participant of the CSD in T2S.

In this context, "External CSD settlement instructions" are those whose depository is an External CSD, i.e.:

- Delivering settlement instructions whose Delivering Depository is an External CSD
- Receiving settlement instructions whose Receiving Depository is an External CSD

These settlement instructions may be sent either: i) directly by the External CSD (if DCP); ii) by the CSD in T2S on behalf on the External CSD; or iii) by another authorised party.

The above clarification, regarding the treatment in T2S of "External CSD" parties as CSD Participants of the CSD in T2S, is very relevant for the penalty mechanism because it implies that: in external CSD settlements for which a penalty is computed, T2S will consider the "External CSD" as either the failing party or the party entitled to receive the penalty. In other words, in "External CSD settlement instructions", the "External CSD" acts as Account owner. This is in line with the fact that the participants of an "External CSD" are not known by T2S (i.e. they are not T2S parties).

Four examples (two for each of the two most representative scenarios for external CSD settlement) are provided hereafter in order to illustrate how the T2S Penalty Mechanism will work in external CSD settlement scenarios:

First scenario: Issuer CSD in T2S and investor CSD outside:

- Example 1: Delivery from Participant I (at issuer CSD I) to Participant A (at investor External CSDA)
- Example 2: Delivery from Participant A (at investor External CSDA) to Participant I (at issuer CSDI)

Second scenario: Investor CSD in T2S and issuer CSD outside:

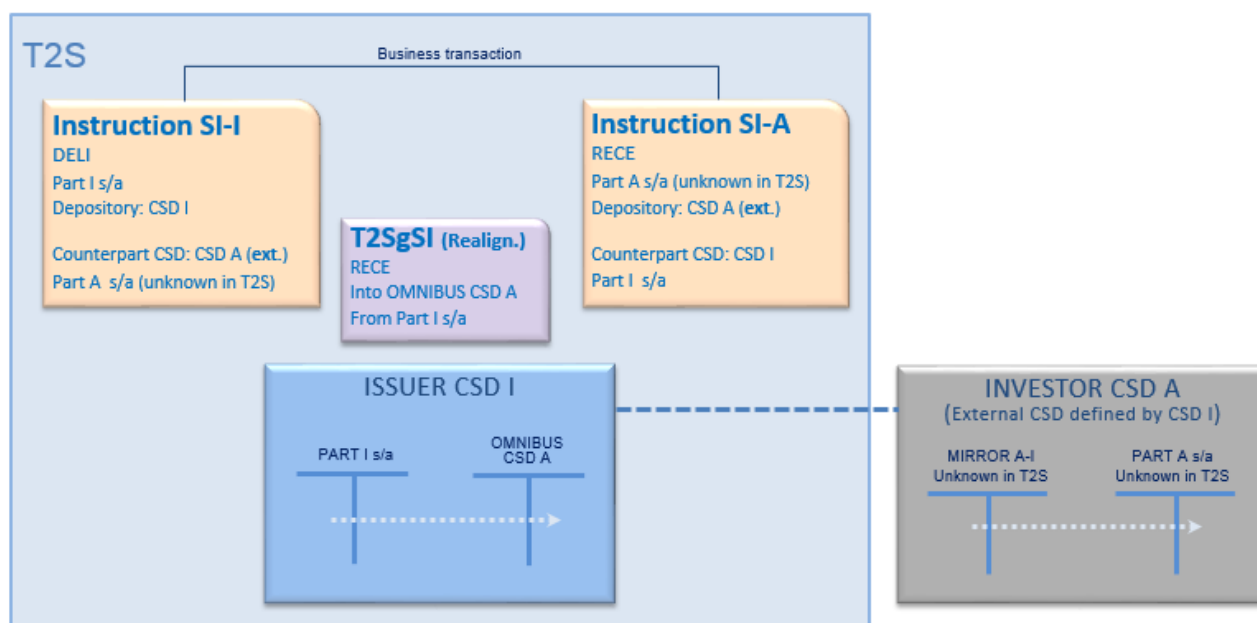
- Example 1: Delivery from Participant I (at External CSDI issuer of the security) to Participant A (at investor CSDA)
- Example 2: Delivery from Participant A (at investor CSDA) to Participant I (at External CSDI issuer of the security)

First scenario with Issuer CSD in T2S (CSD I) and investor CSD (CSD A) outside and defined as “External CSD” by CSD I

Example 1: Delivery from Participant I (at Issuer CSD I) to Participant A (at investor External CSDA)

The business transaction is composed by the matched settlement instructions: SI-I and SI-A.

- SI-I is a delivering settlement instruction of a CSD in T2S (CSDI)
- SI-A is a receiving “External CSD settlement instruction” (CSDA)
- Additionally, T2S will generate a settlement instruction (T2SgSI) for realignment purposes within the CSDI.



In this scenario, if SI-I is subject to a penalty in T2S (Participant I is the failing party):

1. Details of the penalty will be provided by T2S in the Daily Penalty List of issuer CSD I:
 - Penalty imposed to Participant I; and
 - “External CSD A” is entitled to receive the penalty.

The CSD I shall provide the “External CSD A” with the details of the penalty

Note that if "External CSD A" acts as DCP, then the "External CSD A" could receive the Daily Penalty List directly from T2S.

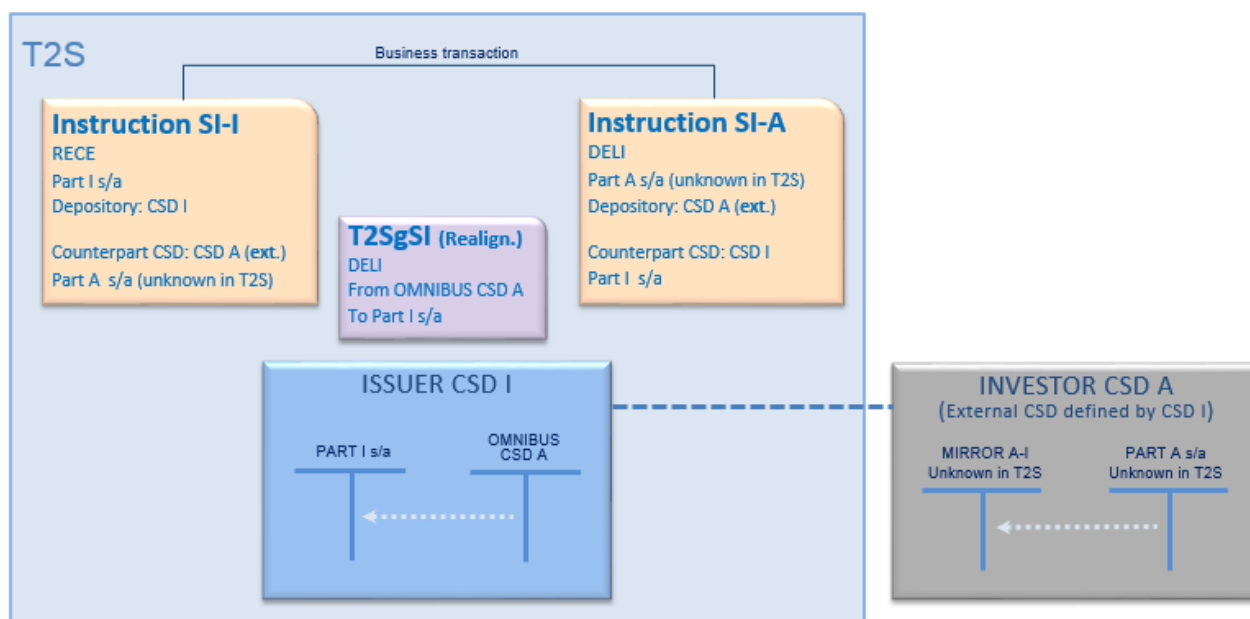
2. The “External CSD A” shall reconcile the details of the penalty provided (the one calculated by T2S) with the penalty calculated in its own system (theoretically for the same amount) and distribute the information to its participant, hence providing Participant A with the information about the penalty it is entitled to receive.

First scenario with Issuer CSD in T2S (CSD I) and investor CSD (CSD A) outside and defined as “External CSD” by CSD I

Example 2: Delivery from Participant A (at investor External CSD A) to Participant I (at Issuer CSDI)

The business transaction is composed by the matched settlement instructions: SI-I and SI-A.

- SI-A is a delivering “External CSD settlement instruction” (CSDA)
- SI-I is a receiving settlement instruction of a CSD in T2S (CSDI)
- Additionally, T2S will generate a settlement instruction (T2SgSI) for realignment purposes within the CSDI.



In this scenario, if SI-A is subject to a penalty in T2S (“External CSD A” is the failing party):

1. Details of the penalty will be provided by T2S in the Daily Penalty List of issuer CSD I:
 - Penalty imposed to “External CSD A”; and
 - Participant I is entitled to receive the penalty.

The CSD I shall provide the “External CSD A” with the details of the penalty

Note that if “External CSD A” acts as DCP, then the “External CSD A” could receive the Daily Penalty List directly from T2S.

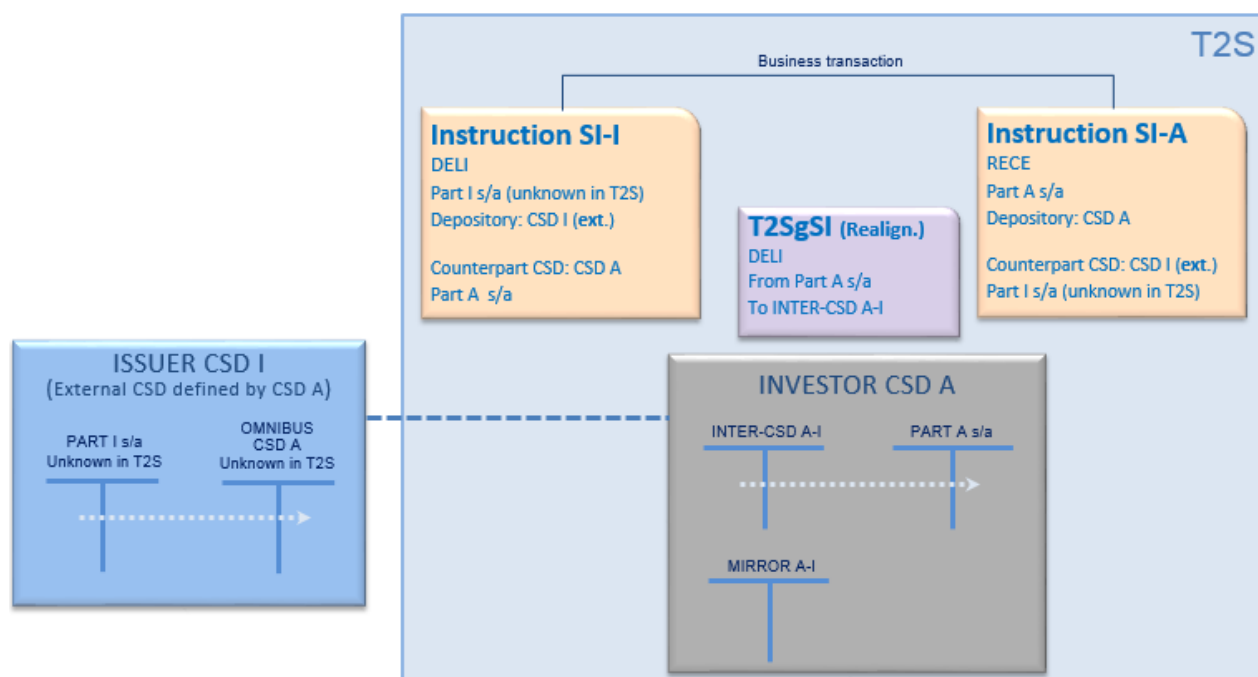
2. The “External CSD A” shall reconcile the details of the penalty provided (the one calculated by T2S) with the penalty calculated in its own system (theoretically for the same amount) and distribute the information to its participant, hence providing Participant A with the information about the penalty it is imposed with.

Second scenario with investor CSD (CSD A) in T2S and the issuer CSD (CSD I) outside and defined as External CSD by CSD A

Example 1: Delivery from Participant I (at External CSDI issuer of the security) to Participant A (at investor CSDA)

The business transaction is composed by the two matched settlement instructions: SI-I and SI-A.

- SI-I is a delivering "External CSD settlement instruction" (CSDI)⁴¹
- SI-A is a receiving settlement instruction of a CSD in T2S (CSDA)
- Additionally, T2S will generate a settlement instruction (T2SgSI) for realignment purposes within the CSDA.



In this scenario, if SI-I is subject to a penalty in T2S (Participant A is the failing party):

1. Details of the penalty will be provided by T2S in the Daily Penalty List of investor CSD A:
 - Penalty imposed to "External CSD I"; and
 - Participant A is entitled to receive the penalty

The CSD A shall provide the "External CSD I" with the details of the penalty

Note that if "External CSD I" acts as DCP, then the "External CSD I" could receive the Daily Penalty List directly from T2S.

2. The "External CSD I" shall reconcile the details of the penalty provided (the one calculated by T2S) with the penalty calculated in its own system (theoretically for the same amount) and distribute the information to its participant, hence providing Participant I with the information about the penalty it is imposed with.

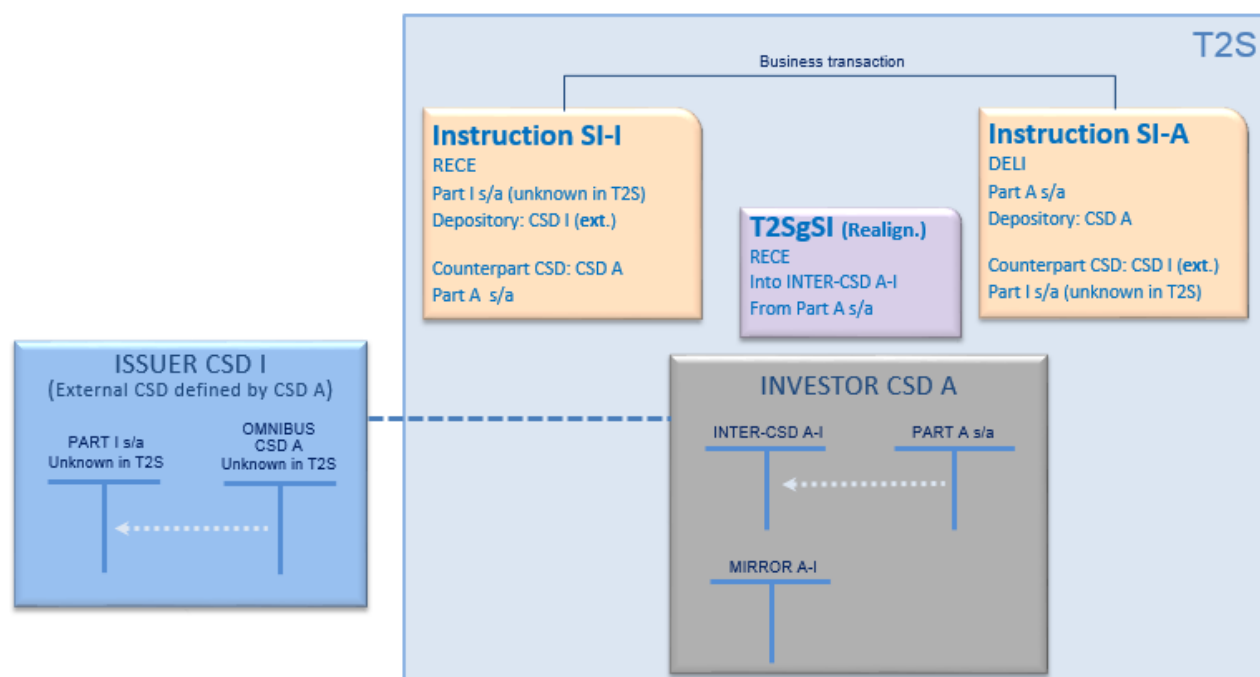
⁴¹ Please note that following the settlement chain, issuers CSDs do not instruct investor CSDs. This instruction (SI-I) is generated by the investor CSD for matching purposes in T2S (it is generated either upon the receipt of an allotment from CSDI or once its Participant A has instructed).

Second scenario with investor CSD (CSD A) in T2S and the issuer CSD (CSD I) outside and defined as External CSD by CSD A

Example 2: *Delivery from Participant A (at investor CSDA) to Participant I (at External CSDI issuer of the security)*

The business transaction is composed by the two matched settlement instructions: SI-I and SI-A.

- SI-A is a delivering settlement instruction of a CSD in T2S (CSDA)
- SI-I is a receiving "External CSD settlement instruction" (CSDI)⁴²
- Additionally, T2S will generate a settlement instruction (T2SgSI) for realignment purposes within the CSDA.



In this scenario, if SI-A is subject to a penalty in T2S (Participant A is the failing party):

1. Details of the penalty would be provided by T2S in the Daily Penalty List of investor CSD A:
 - Penalty imposed to Participant A; and
 - "External CSD I" is entitled to receive the penalty

The CSD A shall provide the "External CSD I" with the details of the penalty

Note that if "External CSD I" acts as DCP, then the "External CSD I" could receive the Daily Penalty List directly from T2S.

2. The "External CSD I" shall reconcile the details of the penalty provided (the one calculated by T2S) with the penalty calculated in its own system (theoretically for the same amount) and distribute the information to its participant, hence providing Participant I with the information about the penalty it is entitled to receive.

⁴² Please note that following the settlement chain, issuers CSDs do not instruct investor CSDs. This instruction (SI-I) is generated by the investor CSD for matching purposes in T2S (it is generated either upon the receipt of an allotment from CSDI or once its Participant A has instructed).

12.3 Clarification on statuses and reasons for SEFP

Within the CSDR TF it was discussed whether i) all reasons for failure that do not relate to the counterparty, or ii) only a sub-set (e.g. lack of securities), shall be considered to determine a participant as failing party (i.e. if the penalty has to be imposed or not to a participant).

The final agreement was that “any reason for the failure of the eligibility/provision check associated to the instruction and not to the counterparty instruction” shall be considered. For the list of possible reasons, please refer to the T2S UDFS.

The below analysis provides a clarification by example, with the usage of the linking functionality, that all the reasons for non- or unsuccessful settlement have to be considered as a general principle, and not just “Lack of securities” and “Lack of cash”, in order to ensure consistent application of the penalties.

For this purpose the following business case is presented:

- Party A delivers securities to Party B
- Party B delivers the same securities to Party C

I.e. Party A → Party B → Party C

This settlement chain can be instructed in T2S, by Party B, either not using the T2S linkage functionality or using it.

Hereafter both cases are shown, first case where the linkage functionality is not used (case of instructions without LINKs) and second case where the linkage functionality is used (case of instructions with LINKs)

Case of instructions without LINKs

Party A: SI-A DELI (to counterpart Party B)

Party B: SI-B1 RECE (from Party A)

Party B: SI-B2 DELI (to counterpart Party C)

Party C: SI-C RECE (from Party B)

Case of instructions with LINKs

Party A: SI-A DELI (to counterpart Party B)

Party B: SI-B1 RECE (from Party A)

Party B: SI-B2 DELI (to counterpart Party C)
and with Link AFTER SI-B1

Party C: SI-C RECE (from Party B)

Considering the situation where Party A fails to deliver to Party B, due to lack of securities, and consequently Party B also fails to deliver:

If the reasons for settlement failure that are related to links (for example unsettled because it states a link WITH or AFTER another failed instruction) are not considered for being subject to penalties then, in each of the two cases described, it would imply the following net result in terms of the penalties computed:

Penalties in case of instructions without LINKs

SI-A is subject to penalty to be paid by Party A (to Party B)

SI-B2 is subject to penalty to be paid by Party B (to Party C)

Net result:

Party A pays;

Party B flat;

Party C receives.

Penalties in case of instructions with LINKs

SI-A is subject to penalty to be paid by Party A (to Party B)

SI-B2 is not subject to penalty because the reason for failure is the link and not the lack

Net result:

Party A pays;

Party B receives;

Party C flat.

As shown with this example:

If those reasons for failure, that are related to links (such as unsettled because the instruction is stating a link WITH or AFTER another failed instruction), are not considered for the computation of penalties, the result of the penalties imposed would not be the same and will differ depending on whether the instruction analysed used links or not.

Moreover, it was agreed at the TF that not having the same result is not in line with the principles of the Regulation. According to the Technical Advice under the CSD Regulation- Final Report (pages 60-61):

- No modification of the calculation of penalties in the context of chain transactions shall occur;
- This approach ensures that counterparties that are acting as intermediaries in a chain remain effectively "flat" in terms of exposure.

On page 17 of the same document it is mentioned that: "Such a mechanism should be effective in targeting participants which fail to deliver the securities on ISD, and which should be fully subject to the penalty, but should also immunize participants that are failing because they are being failed in turn, because the penalty due would be offset by the penalty received".

Considering all the above, it was agreed that, as a general principle: reasons for settlement failure that are related to links as well as any other reason code (i.e. not only lack of securities and lack of cash) shall be considered for imposing a penalty as long as they are associated to the instruction and not to the counterpart's instruction.

With the agreed approach, both cases (instructions without links or with links) will have the same result in terms of penalties computed. I.e.:

Net result of this chain independently on whether it is instructed in T2S using linkage functionality or not:

Party A pays;

Party B flat;

Party C receives.

12.4 Overview of the possible combinations for the CFI mapping table

The following table shows (i) what are the allowed combinations of values for the three attributes Financial Instrument Type, Liquid/Illiquid and SME Growth Market, and (ii) the corresponding Asset Type and Penalty Rate values for each allowed combination.

Financial Instrument Type	Liquid/Illiquid	SME Growth Market	Allowed	Asset Type	Penalty Rate	Comments
SHRS	Liquid	Listed	Yes	SME Growth Market Share	0.25bp	
SHRS	Illiquid	Listed	Yes	SME Growth Market Share	0.25bp	
SHRS	<i>null</i>	Listed	No	<i>n/a</i>		
SHRS	Liquid	Not Listed	Yes	Liquid Shares	1bp	
SHRS	Illiquid	Not Listed	Yes	Illiquid Shares	0.5bp	
SHRS	<i>null</i>	Not Listed	No	<i>n/a</i>		
SOVR	Liquid	Listed	No	<i>n/a</i>		
SOVR	Illiquid	Listed	No	<i>n/a</i>		
SOVR	<i>null</i>	Listed	Yes	SME Growth Market Bonds	0.15bp	This has been identified as SME Growth Market Bonds, however, it is NOT a possible combination in the mapping table. To be checked by the CSDR TF
SOVR	Liquid	Not Listed	No	<i>n/a</i>		
SOVR	Illiquid	Not Listed	No	<i>n/a</i>		
SOVR	<i>null</i>	Not Listed	Yes	Government and municipal bonds	0.1bp	
DEBT	Liquid	Listed	No	<i>n/a</i>		
DEBT	Illiquid	Listed	No	<i>n/a</i>		
DEBT	<i>null</i>	Listed	Yes	SME Growth Market Bonds	0.15bp	
DEBT	Liquid	Not Listed	No	<i>n/a</i>		
DEBT	Illiquid	Not Listed	No	<i>n/a</i>		
DEBT	<i>null</i>	Not Listed	Yes	Corporate Bonds	0.2bp	
SECU	Liquid	Listed	No	<i>n/a</i>		
SECU	Illiquid	Listed	No	<i>n/a</i>		
SECU	<i>null</i>	Listed	Yes	SME Growth Market Share and other financial instruments	0.25bp	
SECU	Liquid	Not Listed	No	<i>n/a</i>		
SECU	Illiquid	Not Listed	No	<i>n/a</i>		
SECU	<i>null</i>	Not Listed	Yes	Illiquid Shares and other financial instruments	0.5bp	
ETFS	Liquid	Listed	No	<i>n/a</i>		
ETFS	Illiquid	Listed	No	<i>n/a</i>		
ETFS	<i>null</i>	Listed	Yes	SME Growth Market Share and other financial instruments	0.25bp	
ETFS	Liquid	Not Listed	No	<i>n/a</i>		
ETFS	Illiquid	Not Listed	No	<i>n/a</i>		
ETFS	<i>null</i>	Not Listed	Yes	Illiquid Shares and other financial instruments	0.5bp	
UCIT	Liquid	Listed	No	<i>n/a</i>		
UCIT	Illiquid	Listed	No	<i>n/a</i>		
UCIT	<i>null</i>	Listed	Yes	SME Growth Market Share and other financial instruments	0.25bp	
UCIT	Liquid	Not Listed	No	<i>n/a</i>		
UCIT	Illiquid	Not Listed	No	<i>n/a</i>		

UCIT	<i>null</i>	Not Listed	Yes	Illiquid Shares and other financial instruments	0.5bp	
MMKT	Liquid	Listed	No	<i>n/a</i>		
MMKT	Illiquid	Listed	No	<i>n/a</i>		
MMKT	<i>null</i>	Listed	Yes	SME Growth Market Bonds	0.15bp	
MMKT	Liquid	Not Listed	No	<i>n/a</i>		
MMKT	Illiquid	Not Listed	No	<i>n/a</i>		
MMKT	<i>null</i>	Not Listed	Yes	Corporate Bonds / Government and Municipal Bonds	0.2bp or 0.1bp	Short term paper issued by non-public bodies is meant to be included in the "Corporate bonds" category, whereas money market instruments issued by public authorities fall under the category "Government and municipal bonds". This may be an issue because it would need an additional parameter to determine the applicable penalty rate which is the issuing entity. To be checked by the CSDR TF.
EMAL	Liquid	Listed	No	<i>n/a</i>		
EMAL	Illiquid	Listed	No	<i>n/a</i>		
EMAL	<i>null</i>	Listed	Yes	SME Growth Market Share and other financial instruments	0.25bp	
EMAL	Liquid	Not Listed	No	<i>n/a</i>		
EMAL	Illiquid	Not Listed	No	<i>n/a</i>		
EMAL	<i>null</i>	Not Listed	Yes	Illiquid Shares and other financial instruments	0.5bp	
OTHR	Liquid	Listed	No	<i>n/a</i>		
OTHR	Illiquid	Listed	No	<i>n/a</i>		
OTHR	<i>null</i>	Listed	Yes	SME Growth Market Share and other financial instruments	0.25bp	
OTHR	Liquid	Not Listed	No	<i>n/a</i>		
OTHR	Illiquid	Not Listed	No	<i>n/a</i>		
OTHR	<i>null</i>	Not Listed	Yes	Illiquid Shares and other financial instruments	0.5bp	