1 CENTRAL LIQUIDITY MANAGEMENT (CLM)

1.1 OVERVIEW

1.1.1 Context Diagram

Figure 1 - Context diagram for Central Liquidity Management

[Description of the business processes within the Business Domain, which should be shown as boxes in the diagram above, indicating how they relate to the outside world, or each other]

1.1.2 Business Processes

Business Process Name	BP Reference	Business Process Description
Liquidity Transfer from sending domain to receiving domain	RTGS.BP.CLM.LTOUT	Processing within the RTGS system of an Immediate Liquidity Transfer Order to move liquidity from a cash account within a RTGS system to a T2S or TIPS dedicated cash account.
Inbound Liquidity Transfer processing within receiving domain	RTGS.BP.CLM.LTIN	Processing within the RTGS system of an Inbound Liquidity Transfer to move liquidity from the T2S or TIPS dedicated cash account to a cash account.within the RTGS system

Table 1 - Business Processes for Central Liquidity Management

1.2   LIQUIDITY TRANSFER FROM SENDING DOMAIN TO RECEIVING DOMAIN - RTGS.BP.CLM.LTOUT

The trigger of this process is the reception at business interface level of an Immediate Liquidity Transfer Order to move liquidity from a cash account within the RTGS system to a T2S or TIPS dedicated cash account.

The Immediate Liquidity Transfer Order can be initiated in two different ways:

- Immediate Liquidity Transfer Orders initiated by a Party (owner of the Cash Account that will be debited) or by another Actor operating on its behalf under a contractual agreement; and

- Standing and Predefined Liquidity Transfer Orders triggered once or repeatedly by a given event/time.

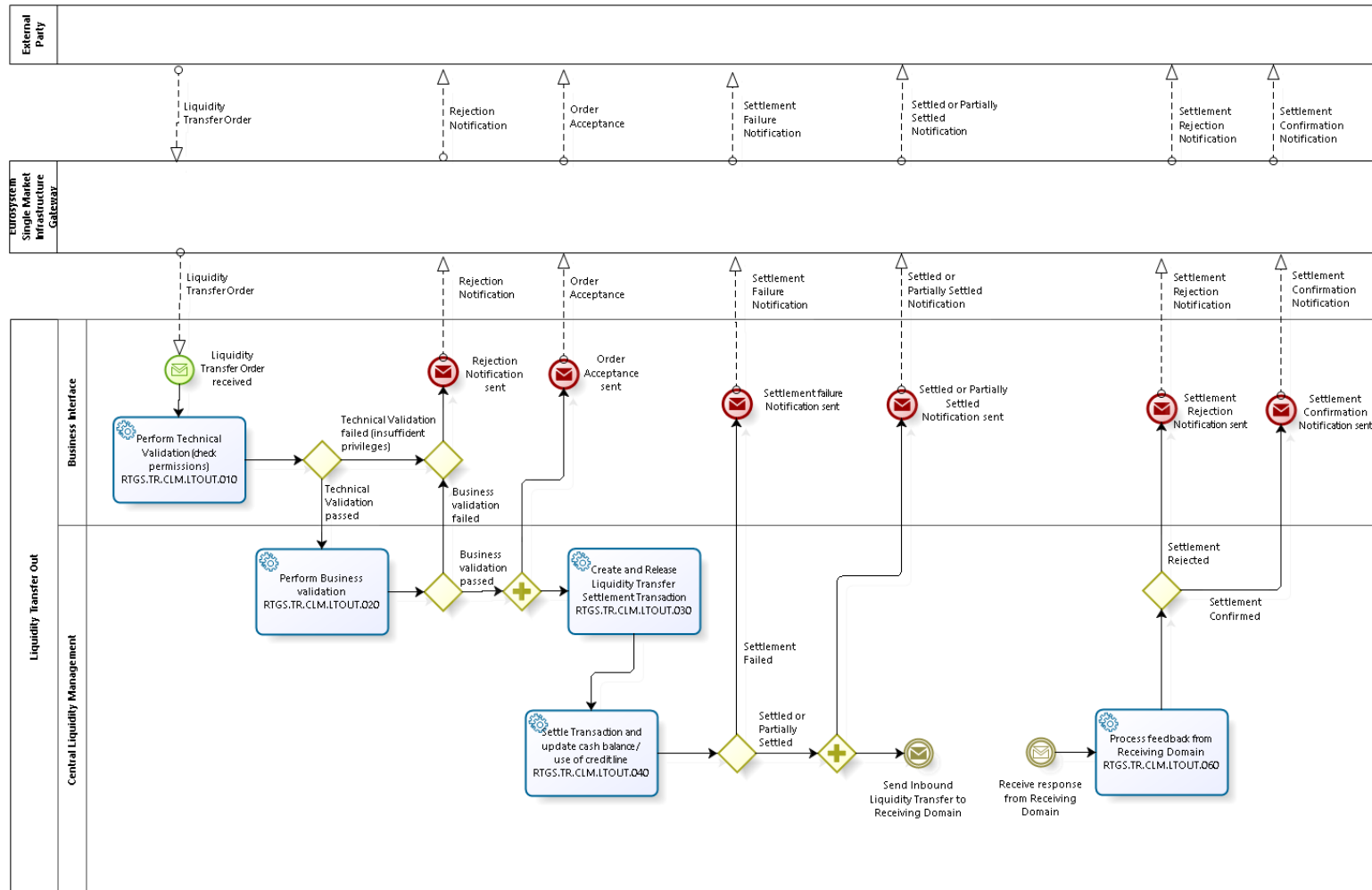### 1.2.1 Business Process Model

Figure 2 - Business Process Model: Liquidity Transfer from Sending Domain to Receiving Domain

1.2.1.1 RECEIVE IMMEDIATE LIQUIDITY TRANSFER ORDER AND CHECK PERMISSION - RTGS.TR.CLM.LTOUT.010

At the reception of an Immediate Liquidity Transfer Order, the business interface shall check that the Party instructing the Immediate Liquidity Transfer has sufficient privileges to instruct on the cash account to be debited.

In case of insufficient privileges, the Immediate Liquidity Transfer shall be rejected and an information message shall be sent to the Instructing Party.

In case of sufficient privileges, the business interface shall route the Immediate Liquidity Transfer Order to the CLM for further validation.

Id	RTGS.UR.CLM.LTOUT.01010
Name	Instructing Party Authorisation Check
Description	The business interface shall identify the Instructing Party as an "active" CB participant / NCB known in the reference data.

Id	RTGS.UR.CLM.LTOUT.01020
Name	Sending Party Check
Description	The business interface shall accept the Immediate Liquidity Transfer order only if the sender of the order has authorisation to submit the transfer order from the instructing party.
	The business interface shall perform this check only if the sender of the liquidity transfer order is different from the Instructing Party in the order.

Id	RTGS.UR.CLM.LTOUT.01030
Name	Outcome of the technical validation process
Description	The business shall inform the Instructing Party regarding the outcome of the technical validation process (according to the subscription) and shall indicate the reason for the rejection.

1.2.1.2 VALIDATE IMMEDIATE LIQUIDITY TRANSFER ORDER - RTGS.TR.CLM.LTOUT.020

The CLM shall perform business validations on the Immediate Liquidity Transfer Order (check mandatory fields existence, duplicate check…).

Business validation is the process of checking the correct content of the Immediate Liquidity Transfer Order.

If invalid, the Immediate Liquidity Transfer Order shall be rejected and a validation status message shall be sent to the Instructing Party.

If the validations are confirmed and successful, the CLM shall route the Liquidity Transfer for further processing. In addition, the positive validation result shall be sent to the Instructing Party (according to the Message Subscription preferences).

Id	RTGS.UR.CLM.LTOUT.02010
Name	Business Validation Rules
Description	The CLM shall validate all incoming Immediate Liquidity Transfer Orders.
	After encountering the first negative validation result, the CLM shall continue to validate as far as possible (taking into account potential independencies between the validated data) and report all negative results together in a single message. Only after performing all logically possible validations the CLM shall reject the order.

Id	RTGS.UR.CLM.LTOUT.02020
Name	Mandatory fields for liquidity transfer orders
Description	The CLM shall check the existence of the mandatory fields for an Immediate Liquidity Transfer Order, which includes:
	- currency
	- transfer cash amount
	- cash account to be debited.

Id	RTGS.UR.CLM.LTOUT.02030
Name	Currency Check
Description	The CLM shall check that the currency is a valid currency.
	Since the integrated platform shall be technically capable of providing cash settlement in Euro or non-Euro central bank money, Liquidity Transfers in all currencies allowed in the settlement domains shall be possible.

Id	RTGS.UR.CLM.LTOUT.02040
Name	Account Validity Check
Description	The CLM shall allow a liquidity transfer order only if the order refers to cash account(s) that are neither blocked nor logically deleted.

Id	RTGS.UR.CLM.LTOUT.02050
Name	Duplicate Check
Description	The CLM shall check for and reject a duplicate submission of an incoming order on the basis of a combination of the Instructing Party identifier and the order reference assigned by the Instructing Party. The duplicate check shall compare the reference of each incoming order with the reference of Immediate Liquidity Transfer Orders that have not settled yet and those orders settled in the past predetermined period of 3 business days.

Id	RTGS.UR.CLM.LTOUT.02060
Name	Amount Check
Description	The CLM shall check for the existence of the transfer amount and allow an amount of zero only for the maintenance of an existing standing liquidity transfer.

Id	RTGS.UR.CLM.LTOUT.02070
Name	Outcome of the validation process
Description	The CLM shall inform Instructing Parties (according to the subscription), regarding the outcome of the validation process and shall indicate the reason for the rejection of any order.

Id	RTGS.UR.CLM.LTOUT.02080
Name	Full Audit trail
Description	The CLM shall keep an audit trail documenting events and status changes during the entire life cycle of an Immediate Liquidity Transfer Order, which includes 1. Date and timestamp of change 2. User ID of process or user making the change 3. Type of status change 4. Attribute value of status change.

1.2.1.3 CREATE AND RELEASE CORRESPONDING SETTLEMENT TRANSACTION - RTGS.TR.CLM.LTOUT.030

If the business validations are confirmed and successful for Immediate Liquidity Transfer Orders, the CLM shall create the corresponding Settlement Transaction and forward it to the relevant settlement system.

Id	RTGS.UR.CLM.LTOUT.03010
Name	Liquidity Transfer Settlement Transaction creation and release
Description	After the successful business validation of an Immediate Liquidity Transfer Order, the CLM shall generate the corresponding Settlement Transaction. The priority of the created Settlement Transaction shall be based on the priority indicated by the Party in the Immediate Liquidity Transfer Order or in the reference data for standing and predefined orders.

1.2.1.4   SETTLE TRANSACTION AND UPDATE CASH BALANCE / CREDIT LINE -
          RTGS.TR.CLM.LTOUT.040

Id	RTGS.UR.CLM.LTOUT.04010
Name	Immediate execution of Settlement Transactions linked to Immediate Liquidity Transfer Orders
Description	A Settlement Transaction linked to an Immediate Liquidity Transfer Order shall be executed in real time. The Settlement Transaction shall be queued on a first-in-first-out basis for settlement purposes.

The relevant settlement system shall check whether the booking is feasible. Three different scenarios are possible: full, partial and no execution.

Id	RTGS.UR.CLM.LTOUT.04020
Name	Full execution
Description	If the available liquidity on the account to be debited is sufficient to execute the Settlement Transaction, the relevant settlement system shall update the balances of the accounts involved on a gross basis: the requested cash account shall be debited and the Dedicated Transit Account shall be credited. The Settlement Status shall be updated to "Settled".

Id	RTGS.UR.CLM.LTOUT.04030
Name	Partial execution
Description	If the available liquidity on the cash account to be debited is only partly sufficient to execute the Settlement Transaction with partial settlement allowed, the Settlement Transaction shall be executed up to the cash amount which can be settled. No further settlement attempt shall be done for the cash amount which cannot be settled. The Settlement Status of the Immediate Liquidity Transfer shall be set to "Partially settled".

Id	RTGS.UR.CLM.LTOUT.04040
Name	No execution
Description	In case there is either no liquidity available on the cash account to be debited or insufficient liquidity with partial settlement not allowed, the Settlement Transaction shall not be settled and no liquidity shall be transferred at all. In this case the Settlement Status shall be set to "Not Executed".

Id	RTGS.UR.CLM.LTOUT.04050
Name	Number of Dedicated Transit Accounts
Description	The CLM shall allow one dedicated transit account per settlement system and currency.

Id	RTGS.UR.CLM.LTOUT.04060
Name	Settlement status message
Description	After settlement has taken place, a settlement status message shall be sent to the Instructing Party (according to the Message Subscription preferences).

1.2.1.5 SEND OUTBOUND LIQUIDITY TRANSFER - RTGS.TR.CLM.LTOUT.050

Id	RTGS.UR.CLM.LTOUT.05010
Name	Outbound Liquidity Transfer
Description	In case of full or partial execution of the Settlement Transaction, the CLM shall send an Outbound Liquidity Transfer to T2S or TIPS for subsequent processing (i.e. the credit of the T2S or TIPS dedicated cash account).

1.2.1.6 PROCESS FEEDBACK FROM T2S OR TIPS - RTGS.TR.CLM.LTOUT.060

The CLM shall process the feedback received from T2S or TIPS. Two different scenarios are possible: confirmation or rejection.

Id	RTGS.UR.CLM.LTOUT.06010
Name	Successful execution of Outbound Liquidity Transfer
Description	A confirmation shall imply that the Liquidity Transfer has been booked successfully within T2S or TIPS. The status of the Liquidity Transfer shall be updated from "Settled" or "Partially Settled" to "Confirmed".
	A settlement status message shall be sent to the Instructing Party (according to the Message Subscription preferences).

Id	RTGS.UR.CLM.LTOUT.06020
Name	Unsuccessful execution of Outbound Liquidity Transfer
Description	A rejection shall imply that the Outbound Liquidity Transfer has not been successfully processed within T2S or TIPS. In such a case, the CLM shall automatically create a reversal of the linked Settlement Transaction in order to debit the Transit Account and credit the cash account.
	The Status of the Liquidity Transfer shall be updated from "Settled" or "Partially Settled" to "Rejected". A settlement status message shall be sent to the Instructing Party (according to the Message Subscription preferences).

Id	RTGS.UR.CLM.LTOUT.06030
Name	Operational procedures if no confirmation received
Description	If no confirmation is received from the receiving domain within a predefined timeframe, an alert message shall be generated by the CLM to the operational team for investigation purposes.

1.2.2 Inbound Liquidity Transfer processing within CLM - RTGS.BP.CLM.LTIN

The trigger of this process is the reception by the business interface of an Inbound Liquidity Transfer sent by T2S or TIPS to be processed by CLM.

The purpose of the Inbound Liquidity Transfer is to move liquidity from a T2S or TIPS dedicated cash account to a cash account within the RTGS system.
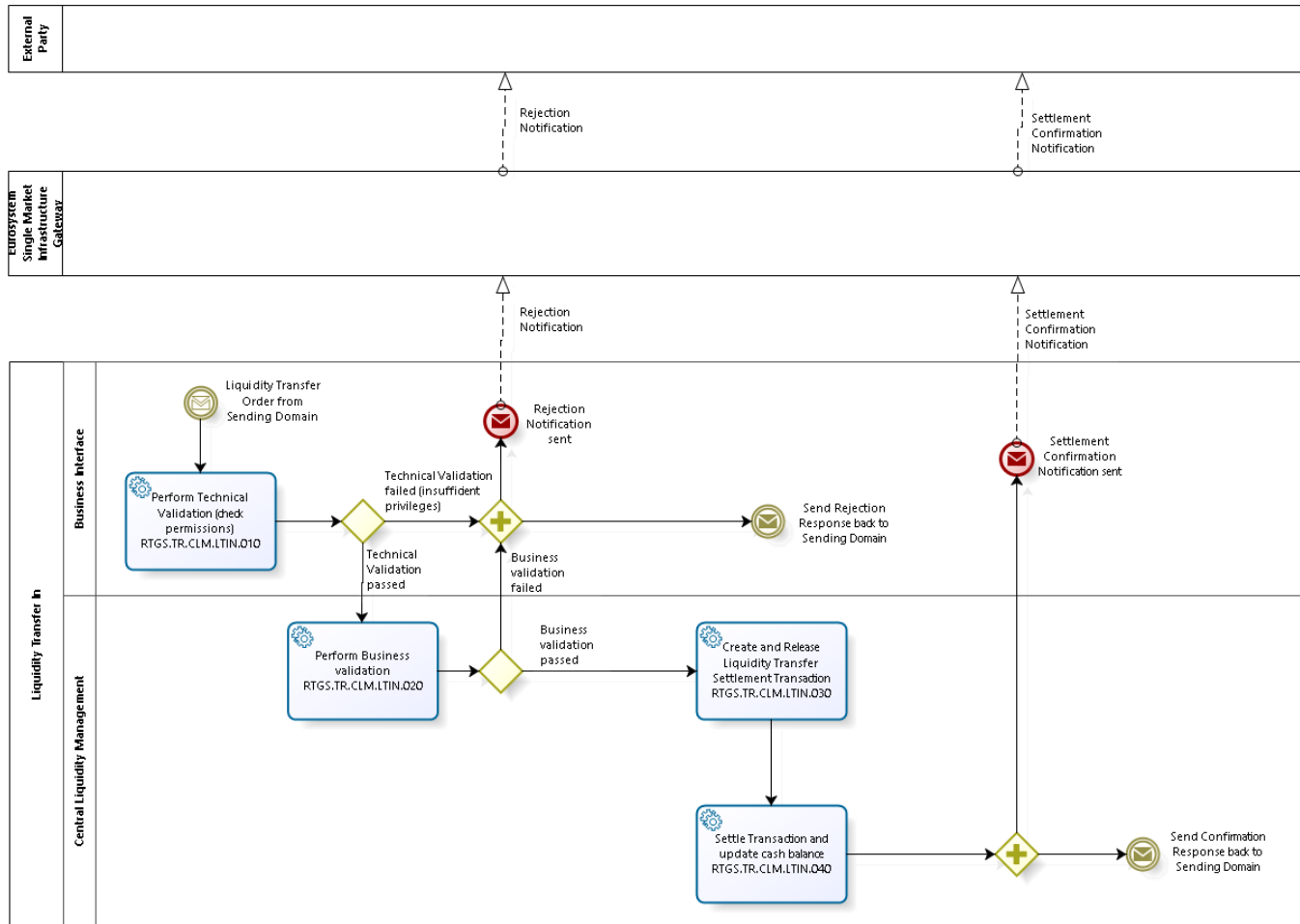
1.2.3   Business Process Model

Figure 3 - Business Process Model: Inbound Liquidity Transfer processing within Receiving Domain

1.2.3.1 RECEIVE AND ROUTE INBOUND LIQUIDITY TRANSFER ORDER FROM T2S OR TIPS - RTGS.TR.CLM.LTIN.010

At the reception of the Liquidity Transfer generated by the T2S or TIPS, the business interface shall check that the settlement system instructing the Inbound Liquidity Transfer has sufficient privileges to instruct on the Dedicated Transit Account to be debited.

In case of insufficient privileges, the Inbound Liquidity Transfer shall be rejected and an information message shall be sent to the relevant settlement system (T2S or TIPS).

Id	RTGS.UR.CLM.LTIN.01010
Name	Instructing Party Authorisation Check
Description	The business interface shall identify the instructing system (T2S or TIPS) as an "active" settlement system known in the reference data.

Id	RTGS.UR.CLM.LTIN.01020
Name	Outcome of the technical validation process
Description	The business shall inform the instructing system (T2S or TIPS) regarding the outcome of the technical validation process and shall indicate the reason for the rejection.

1.2.3.2 VALIDATE INBOUND LIQUIDITY TRANSFER - RTGS.TR.CLM.LTIN.020

CLM shall carry out several business validations on an Inbound Liquidity Transfer. It shall be checked if:

Id	RTGS.UR.CLM.LTIN.02010
Name	Mandatory fields for Inbound Liquidity Transfers
Description	The CLM shall check the existence of the mandatory fields for an Inbound Liquidity Transfer, which includes: - currency - transfer cash amount - cash account to be credites.

Id	RTGS.UR.CLM.LTIN.02020
Name	Currency Check
Description	The CLM shall check that the currency is a valid currency. Since the integrated platform shall be technically capable of providing cash settlement in Euro or non-Euro central bank money, Inbound Liquidity Transfers in all currencies allowed in the settlement domains shall be possible.

Id	RTGS.UR.CLM.LTIN.02030
Name	Account Validity Check
Description	The CLM shall allow an Inbound Liquidity Transfer only if the order indicates cash account(s) that are neither blocked nor logically deleted.

Id	RTGS.UR.CLM.LTIN.02040
Name	Duplicate Check
Description	The CLM shall check for and reject a duplicate submission of an Inbound Liquidity Transfer on the basis of a combination of the Instructing Party identifier and the order reference assigned by the Instructing Party. The duplicate check shall compare the reference of each incoming order with the reference of Inbound Liquidity Transfers that have not settled yet and those settled in the past predetermined period of 3 business days.

Id	RTGS.UR.CLM.LTIN.02050
Name	Amount Check
Description	The CLM shall check for the existence of the transfer amount and allow an amount of zero only for the maintenance of an existing standing liquidity transfer.

Id	RTGS.UR.CLM.LTIN.02060
Name	Business Validation Rules
Description	The CLM shall validate all incoming Inbound Liquidity Transfers. After encountering the first negative validation result, the CLM shall continue to validate as far as possible (taking into account potential independencies between the validated data) and report all negative results together in a single message. Only after performing all logically possible validations the CLM shall reject the order.

Id	RTGS.UR.CLM.LTIN.02070
Name	Outcome of the validation process
Description	The CLM shall inform the instructing system (T2S or TIPS) and the Instructing Party (according to the subscription), regarding the outcome of the validation process and shall indicate the reason for the rejection of any order.

Id	RTGS.UR.CLM.LTOUT.02080
Name	Full Audit trail
Description	The CLM shall keep an audit trail documenting events and status changes during the entire life cycle of an Inbound Liquidity Transfer, which includes

	1. Date and timestamp of change
	2. User ID of process or user making the change
	3. Type of status change
	4. Attribute value of status change.

1.2.3.3   CREATE AND RELEASE CORRESPONDING SETTLEMENT TRANSACTION - RTGS.TR.CLM.LTIN.030

If the business validations are confirmed and successful for Inbound Liquidity Transfers, the CLM shall create the corresponding Settlement Transaction and forward it to the relevant settlement system.

Id	RTGS.UR.CLM.LTIN.03010
Name	Liquidity Transfer Settlement Transaction creation and release
Description	After the successful business validation of an Inbound Liquidity Transfer, the CLM shall generate the corresponding Settlement Transaction.
	The priority of the created Settlement Transaction shall be based on the priority indicated by the Instructing Party in the Inbound Liquidity Transfer.

1.2.3.4   SETTLE TRANSACTION AND UPDATE CASH BALANCE / CREDIT LINE - RTGS.TR.CLM.LTIN.040

Id	RTGS.UR.CLM.LTIN.04010
Name	Immediate execution of Settlement Transactions linked to Inbound Liquidity Transfers
Description	A Settlement Transaction linked to an Inbound Liquidity Transfer shall be executed in real time.
	The Settlement Transaction shall be queued on a first-in-first-out basis for settlement.

The relevant settlement system shall check whether the booking is feasible. Two different scenarios are possible: full and no execution.

Id	RTGS.UR.CLM.LTIN.04020
Name	Full execution
Description	If there is no blockage of the cash account to be credited, the relevant settlement system shall update the balances of the accounts involved on a gross basis: the requested cash account shall be credited and the Dedicated Transit Account shall be debited. The Settlement Status shall be updated to "Settled".

Id	RTGS.UR.CLM.LTIN.04030
Name	No execution
Description	If the cash account to be credited is blocked, the Settlement Transaction shall not settle and no liquidity shall be transferred at all. In this case the Settlement Status shall be set to "Not Executed".

Id	RTGS.UR.CLM.LTIN.04040
Name	Number of Dedicated Transit Accounts
Description	The CLM shall allow one dedicated transit account per settlement system and currency.

Id	RTGS.UR.CLM.LTIN.04060
Name	Settlement status message
Description	After settlement has taken place, a settlement status message shall be sent to the instructing system (T2S or TIPS) and the Instructing Party (according to the Message Subscription preferences).