

T2S adaptation plan

LCH.Clearnet SA Cash Markets

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Abbreviations

APMT	Instruction type of T2S iso20022 "Against Payment" used by LCH.SA in the settlement instructions		
BIF	Buy-In Information File reporting sent by LCH.SA to CMFs		
CA	Corporate Actions		
CASG	T2S Corporate Actions Sub Group		
CET	Central European Time		
CMF	Clearing Member firm of LCH.SA		
CBL	Clearstream Banking Luxembourg		
CNS	Continuous Net Settlement		
CSDR	CSD regulation		
DA	Delivery Account: aggregation of positions from the PA's of the CMF/TMF into one netted position: The Original ISD is kept in the DA, One DA is linked to one SAC in T2S		
DCA	Dedicated Cash Account in T2S		
DCP	Directly Connected Party to T2S		
DEAG	Delivery Agent		
DVP	Delivery versus Payment		
DWP	Delivery with Payment		
EB	Euroclear Bank		
EBE	Euroclear Belgium		
EF	Euroclear France		
ENL	Euroclear Nederlands		
FoP	Free of Payment		
HDD	Harmonisation des Dates de Distribution (new CA Markets Standards)		
HDR	Harmonisation des Dates de Réorganisation (new CA Markets Standards)		
ICP	Indirectly Connected Party to T2S		
ISD	Intended Settlement Date: the original ISD is kept in the DA, whilst the ISD of the settlement instruction according to the CNS process receive always the next business settlement day		
LCH.SA	LCH.Clearnet SA		
NBB-SSS	National Bank of Belgium - Securities Settlement System		
Payment Bank <u>/ Paying</u> <u>Agent</u>	The Payment Bank is the entity to which the cash account in T2 belongs; the final sweep from the DCA in T2S will occur on the RTGS account of the payment Bank		
PFoD	Payment Free of Delivery		
POA	Power of Attorney		
PI	Platform Interface managed by Euroclear France to route settlement		

	instructions to ESES platform or to Euroclear Bank	
REAG Receiver Agent		
SA	Settlement Agent: entity taking care of the security account open in T2S	
SAC	Securities Account in T2S	
SDN	Settlement Date Netting	
SIF	Settlement Instructions File reporting sent by LCH.SA to CMFs	
STP Straight Through Processing: automated process with no intervent the CMF		
TDGS	Trade Date Gross Settlement	
T2S	Target 2 securities	
<u>TCS</u>	Trade confirmation service	
TDN	Trade Date Netting	
TDGS	Trade Date Gross settlement (operating mode for non-guaranteed trades)	
TLRF	Trade Leg Reconciliation File (private File from LCH.SA)	
UDFS	User Detailed Functional Specifications	
VAN	Value Added Network required to access T2S for DCP	

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1 Introduction

24 CSDs, among them Euroclear Group (EBE, EF, ENL), Interbolsa and NBB_SSS, signed in June 2012 the framework agreement to outsource the settlement of securities transactions to the new European Settlement platform T2S.

LCH.Clearnet SA (LCH.SA) clears the transactions negotiated on Euronext cash Markets and other trading regulated markets (EQUIDUCT). The settlement of these transactions takes place in the CSD designated by LCH.SA.

In addition, for ESES markets, LCH.SA also allows the settlement in EB in commercial bank money.

This document has the objective to inform Clearing Members of LCH.SA adaptation to T2S, and to:

- Highlight the opportunities offered by T2S for an efficient settlement of CCP transactions
- Inform the settlement agent/paying agent who provides custody support to the clearing member.
- Inform trading community around the clearing activity.

This document does not intend to duplicate the various CSD documents that the CSDs issue to their participants' community. It will mainly focus on the adaptation of the settlement of cleared transactions against LCH.SA. However, some overlap of information cannot be avoided. Additional communication tools such as general presentations and meetings will be organised by LCH.SA along with the migration waves.

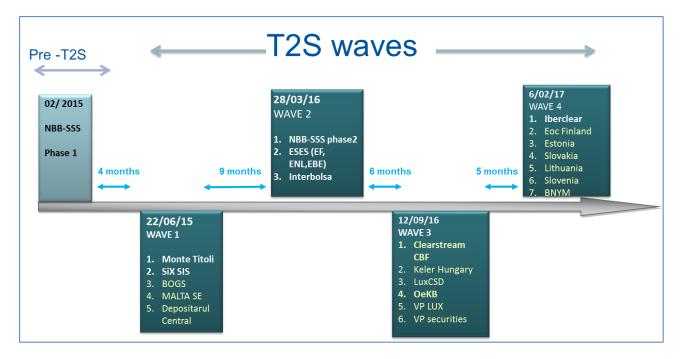
LCH.SA declared its access to T2S as Direct Connected Party (DCP) both for securities and cash management and will use the ISO20022 messaging standards.

LCH.SA will connect as DCP as from the first migration wave and retained SWIFT as Value Added Network (VAN) to connect to T2S engine.

The NBB-SSS changes of February 2015 are considered as a pre-T2S wave ahead of the 4 waves defined by the Eurosystem.

With regards to Cash Markets, LCH.SA activity will be impacted in the second migration wave which is expected to be launched on 28 March 2016.

Hereunder, the overall T2S program for LCH.SA clearing activities related to both cash and bonds/repos markets. In bold LCH.SA as current Directly Connected Party in the CSDs.



2 New Concepts and Opportunities Offered by T2S

2.1 ICP / DCP

Banks (Clearing Members, Custodians, Payment Banks, CCP) can either connect directly to T2S (Directly Connected Participant (DCP) or rely on the CSDs to which they belong to or another technical T2S access provider as an Indirectly Connected Participant (ICP).

LCH.SA as a leading CCP in relationship with several CSDs in Europe with a strong expertise and added value in post-trade services from Risk Management to Settlement, decided:

- To connect as a DCP to T2S in order to industrialise its connection with T2S.
- To minimize operational risk to access to T2S.
- To allow reduction of post trade clearing / deliveries fees.

2.2 ISO 20022

As a DCP, LCH.SA communicates with the T2S platform using the ISO 20022 standard. LCH.SA will fully endorse this new standard. It will be a new opportunity to enhance its reporting related to the settlement activity (SIF, BIF), cf. appendix.

Clearing Members who choose to become DCP can rely on T2S reporting (real time / batch report in ISO 20022 format). Clearing Members who choose to become ICP will rely on their various CSDs to receive settlement instructions in format defined by the CSDs.

Client impact: In any case, message subscription set-ups will have to be defined by Clearing Members with their CSDs.

2.3 CSD of "Reference" versus Issuer CSD and Investor CSD,

The concept of CSD of "Reference" known in ESES is no longer relevant inT2S.

T2S standardizes CSDs related concepts: Issuer CSD, Investor CSD, Technical Issuer CSD, External CSD....Please refer to the T2S UDFS for the definition of these concepts.

International CSDs (Euroclear Bank and Clearstream Banking Luxembourg) are not recognized in T2S as CSD. They are outside T2S. Such ICSD can open an omnibus account in one or several CSDs in T2S. In that case they are defined as T2S actors CSD participants.

2.4 Intra CSD vs Cross CSD Settlement

One of the main goals of T2S is to ease cross CSD settlement in Europe and reduce related settlement costs.

T2S provides the opportunity for each CSD to extend their settlement and custody services to a wider range of eligible ISINs. Therefore, provided that "CSD Links" are built between the investor CSD and the Issuer CSD, each ISIN can be settled in a multiple list of Investor CSDs

T2S would then increase competition across CSDs and bring new opportunities for participants to optimize their operations.

2.5 Free choice of CSD

LCH.SA is willing to offer its members the possibility to fully benefit from new T2S opportunities. In that way, LCH.SA is studying how to implement and manage a new offer: the free choice of CSD.

Some **prerequisites** will be required to implement such service:

- The ISIN has to be eligible in one T2S Investor CSD.
- The Investor CSD would allow LCH.SA to send transactions on securities accounts where LCH.SA does not necessarily have a security account. PoA have to be recognized by the CSD where LCH.SA has no security account (no contractual relationship with this CSD).
- The Investor CSD has confirmed it has not identified technical constraints (MSRT) to allow an efficient settlement and realignment with the chain of CSDs.
- The Investor CSD has confirmed that Corporate Actions are managed in line with the Standards (CAJWG & CASG) and the Issuer CSD.
- LCH.SA has assessed impacts related to operational risks and its consequences on controls and
 operational procedures. Also, LCH.SA has to handle cross CSD settlement.
- Procedures to manage <u>Clearing Member and</u> Settlement Agent-<u>defaults/Paying Agent insolvency</u> are consistent among T2S CSDs in a cross-border context. <u>The ECB has created a dedicated "T2S</u> <u>task force on insolvency procedure"</u> with that objective.

In order to mitigate T2S migration risks, this new offer will be implemented post wave 2 / wave 3 migration on a case-by-case basis. If Clearing Members confirm their interest in such an offer, bilateral discussion will be set up to manage the changes.

List of LCH.SA authorized CSDs at the launch of wave 2 for settlements in Central Bank Money:

One ISIN traded on (Euronext markets and other cash trading venues)…	and issued in CSDs	is today settled in CSDs	will as start of wave 2 be settled in the CSDs authorized by LCH.SA:
Paris/Brussels/Amsterdam	EF	EF as CSD of reference	EF
Paris/Brussels/Amsterdam	ENL	ENL as CSD of reference	ENL
Paris/Brussels/Amsterdam	EBE	EBE as CSD of reference	EBE
Brussels corporate / government bonds	NBB_SSS	NBB_SSS	NBB_SSS
Paris/Brussels/Amsterdam	Non ESES issued	EF or EBE or ENL (CSD of reference)	EF ¹
Lisbon	Interbolsa	Interbolsa	Interbolsa
Lisbon	Non issued in Interbolsa (CBF, EB, CBL)	Interbolsa	Interbolsa

For non euro settlements, refer to chapter 7 Settlement of guaranteed transactions outside T2S.

¹ Euroclear decision to be confirmed

2.6 ISIN traded on more than one financial market on Euronext and settled in several CSDs

Few ISINs are traded on more than one financial market on Euronext and settled in several CSDs. For example, but not exhaustively: trades on Banco Santander executed on both Portuguese and Dutch markets are settled respectively in Interbolsa and ENL.

At the launch of T2S wave 2, the situation will remain unchanged. Depending on the trading platform, settlement instructions will settle respectively in their "authorised CSD".

In a later stage, LCH.SA will offer the full netting (one settlement location) irrespective of the trading venue.

For each ISIN/Currency pair, LCH.SA defines a unique settlement platform where a gross trade (for non guaranteed products) or a cleared netted position (for guaranteed products) will be settled. This platform is either T2S or EB, depending on the product (please refer to chapter 5)

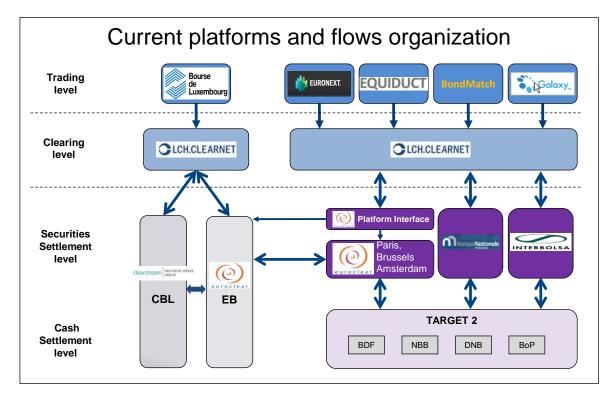
2.7 Settlement operating Model

T2S implementation has no impact on the netting model operated by LCH.SA.

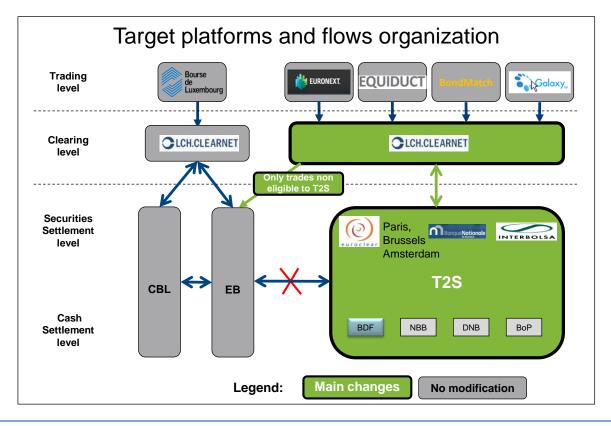
For cash equity business, LCH.SA will continue to operate in Continuous Net Settlement (CNS) model for all markets with the exception of settlement in NBB_SSS, which is running under Settlement Date Netting (SDN) model.

3 Impacts Overview

Current platforms and flows for settlement are based on a hybrid model for ESES markets and on a silo model for NBB-SSS and Interbolsa.



T2S impacts settlement-related processes concerning cash equity markets cleared by LCH.SA.



T2S impacts the following processes:

- LCH.SA and CMF accounts structure
- Instrument Securities Referential data
- Settlement
- Buy-in-, penalties and cash compensation
- Settlement related member reporting (SIF & BIF)
- Corporate Actions on flows

T2S should not have an impact on the following processes:

- Trade management and interfaces between Market venues and LCH.SA
- Position management in LCH.SA books
 - CMF account structure organization in LCH.SA books: Position Accounts, Margin Accounts, Delivery Accounts.
 - Nevertheless, CMFs have to review their securities account structure at both CSD and NCB level. Links between DAs and SACs may therefore have to change.
- Risk management processes (deposit, margin)
- Collateral Management
- Member connectivity to LCH.SA

Still under analysis

• Liquidation process (direct participant and/or clearing member bankruptcy)

4 Denomination of parties and accounts structure

4.1 LCH.SA

As a T2S party, LCH.SA will be DCP after being "certified" by the ECB and "authorized" by Banque de France and the following CSDs:

- EF
- EBE
- ENL
- Interbolsa
- NBB-SSS

LCH.SA will send all instructions as Technical and Business Sender through its VAN provider SWIFT.

4.1.1 Target cash account structure

In Banque de France, LCH.SA party will be identified by a combination of two BICs: Banque de France BIC + LCH.SA BIC dedicated to cash management

• LCH.SA BIC will be BACPFRPPTG2

LCH.SA will have to open one Dedicated Cash Account for its activities dedicated to cash markets. LCH.SA's DCA name should be:

• "C"+"BIC of BDF"+"BACPFRPPTG2LISTEDEQUITY"

4.1.2 Target securities account structure

In each CSD, LCH.SA party will be identified by a combination of two BICs: CSD BIC + LCH.SA BIC dedicated to settlement activities:

• LCH.SA BIC will be BACPFRPPXXX

LCH.SA will have to open securities accounts in each CSD (EF, EBE, ENL, NBB-SSS, Interbolsa).

For each CSD, LCH.SA will segregate its Securities Account (SAC) structure with a "standard account" and a "buy-in account".

For its activity in EF, LCH.SA is using "Nature De Compte" (NDC) 000 and 010. As NDC does not exist in T2S, EF opted for segregated securities account in T2S. Therefore LCH.SA will have to segregate its account structure in EF:

- Standard account 000 and Standard account 010
- Buy-in account 000 and Buy-in account 010

The various securities accounts opened in the CSDs will be adapted and will follow the new T2S coding standard:

- Char 1 4 the first 4 characters of the BIC of the CSD
- Char 5 15 BIC of the account owner (LCH.SA: BACPFRPPXXX)
- Char 16 35 current CSD account number + free text possible

LCH.SA will complete the table below in the following versions of this document.

CSD	Standard account	Buy in account
EF bearer	SICVBACPFRPPXXX000L100000000599	SICVBACPFRPPXXX000L100000000598
EF registered	SICVBACPFRPPXXX010L100000000599	SICVBACPFRPPXXX001L100000000598
ENL	NECIBACPFRPPXXX000L100000000599	NECIBACPFRPPXXX000L100000000598
EBE	CIKBBACPFRPPXXX000L100000000599	CIKBBACPFRPPXXX000L100000000598
Interbolsa		
NBB SSS		
ICSD	Standard account	Buy in account
EB	Unchanged: 00000013404	Unchanged: 00000013406
CBL	Unchanged: 00000013404	Unchanged: 00000013406

4.2 Clearing Member Firms Delivery Accounts principles

The DA is a proprietary account belonging to the CMF in LCH.SA's books.

The Security Account (SAC) and the Cash Account (DCA) belong respectively to the Settlement Agent (SA) and paying agent who can be the same legal entity as the CMF or third parties to whom the CMF outsources the settlement process.

The DA contains all the addresses (BIC, SAC, DCA) and attributes (instructions to be sent on "Hold" or "Released") LCH.SA needs to send the settlement instructions on behalf of the CMF.

Up to 3 levels of information are foreseen in the DA and will be used in the settlement instruction:

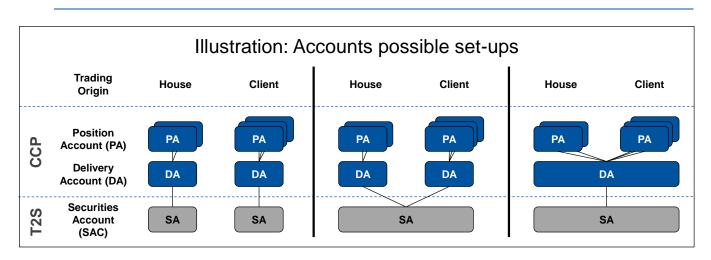
Party 1: (mandatory) owner of the account in T2S

Party2: (optional): client of party 1

Party 3: (optional) client of party 2

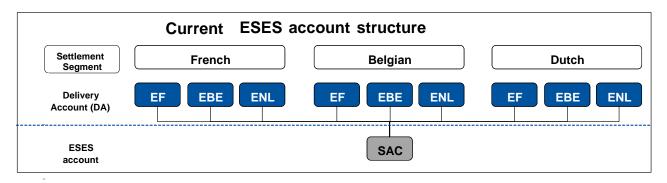
- CMF can use as many DAs as they need
- One DA is only linked to one SAC² in T2S via its Settlement and Cash attributes
- Several DAs could be linked to the same SAC in T2S

² With the exception of EF with 2 SACs ("nature de compte" 000 and 010) for one DA



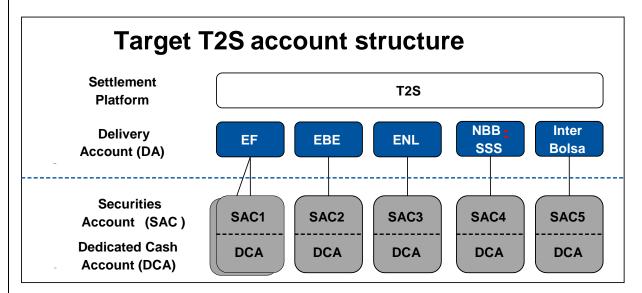
Since a DA is linked to a unique SAC, LCH.SA and Clearing Members' target account structure in T2S have a direct impact on the current DA structure.

LCH.SA will let the settlement segment concept go. As a result, the current high number of DAs for the 3 ESES markets (minimum 9) will be reduced to a minimum of 3 (one per CSD).



Within T2S migration, LCH.SA will simplify the client's account structure principles:

- A settlement platform T2S with at least 1 SAC / CSD
- A settlement platform EB as ICSD



Due to EF "Nature de Compte" constraints, the CMF will have to open one SAC per "Nature de Compte" and LCH.SA will link one DA to 2 SACs (Please refer to chapter 6.7 for more details).

Client impacts:

1. CMF will be requested to rationalize the number of DA

2. LCH.SA and CSDs will define a dedicated process to support and implement CMF account structure modifications. Further information will follow during Q2 2015

5 Securities Referential data

LCH.SA and Euronext agree to segregate trades not admitted to clearing services.

This segregation enables LCH.SA to **harmonise processes related to non guaranteed trades** across market segments and therefore provide unified services and reports across LCH.SA markets.

Trades admitted into the clearing services could be settled <u>either</u> into one "authorized" CSD (EF, EBE, ENL, NBB-SSS, Interbolsa) or outside T2S (EB).

LCH.SA classifies securities and/or transactions according to the following rules:

	Trades admitted into the clearing services		Not admitted into the
	Guaranteed trades	Non-guaranteed trades	clearing services
Settlement in T2S	LCH.SA is the counterparty of the CMF T2S <u>is selected for the</u> <u>ISIN/CUR</u> Refer to § 6	The CMF of the buyer and the CMF of the seller of the original trade are face to face; LCH.SA's role is to route in STP mode the settlement instructions. T2S is selected for the ISIN/CUR Refer to § 8	LCH.SA will longer receive trades from Euronext
Settlement outside T2S* (*EB)	LCH.SA is the counterparty of the CMF <u>EB is selected for the</u> ISIN <u>/CUR</u> Refer to § 7	The CMF of the buyer and the CMF of the seller of the original trade are face to face. LCH.SA's role is to route the settlement instructions in STP mode. <u>EB is selected for the ISIN/CUR</u> Refer to § 8	Refer to § 9

6 Settlement of guaranteed netted transactions in T2S

	Trades admitted into the	Not admitted into the	
	Guaranteed trades	Non-guaranteed trades	clearing services
Settlemen in T2S	Related to ISIN classified as guaranteed by the CCP LCH.SA is the counterparty of the CMF The ISIN is eligible in T2S and allows cross-CSD settlement. Operating model: Continuous Net Settlement (CNS) or SDN	Refer to § 8	Refer to § 9

At the end of every day, LCH.SA prepares the netted settlement instructions after the completion of the CNS<u>/SDN</u> processes and sends them directly to T2S.

LCH.SA will prepare the settlement instructions in ISO 20022 format and will send them to T2S segregated by CSD (one file per CSD).

The timing of sending of instructions should be around 6.30pm / 7pm CET.

The aim is that CCP instructions participate in the first night time batch of T2S (sequence 4) in order to benefit from the top priority and deliver reporting files to CMFs as early as possible.

The reporting of the settlement instructions prepared by LCH.SA will be given through the SIF record 160.

6.1 Netted Instructions to settle within the DVP settlement window

A large majority of netting results are DVP/ RVP. However, some strange nets may occur, such as:

- A "Payment free of Delivery" (PFoD) when the clearing member has bought and sold the same quantity of a security but at different prices.
- A "Delivery with payment" DWP or "Receive with payment" RWP when both securities and cash are in the same direction.
- A "Free of payment" FOP when the net obligation is only a quantity of securities with no associated cash. In that case, LCH.SA will send a DVP with cash amount at zero.
- "Zero securities and zero cash": Since there is neither a security, nor a cash transfer, there will be no settlement instructions to send to T2S.

LCH.SA will handle all kind of netting results and their payment settlement type will always be <u>"Against</u> <u>Payment"</u> ("<u>APMT</u>")-. This insures that settlement is final at the **end of the DVP cut off of 4pm CET** and not beyond.

Transactions type is summed up in the matrix below:

Netting result	DVP/RVP	PFOD	FOP	DWP/RWP
From	LCH.SA	LCH.SA	LCH.SA	LCH.SA
То	Authorised CSD	Authorised CSD	Authorised CSD	Authorised CSD
Securities movement type	DELI/RECE	DELI/RECE	DELI/RECE	DELI/RECE
Payment settlement type	APMT	APMT	APMT	APMT
Delivering party	LCH.SA or the CMF	LCH.SA or the CMF	LCH.SA or the CMF	LCH.SA or the CMF
Quantity	Х	0	Х	Х
Cash amount	Y	Y	0	Y
Cash direction for the delivering party	Credit/Debit	Credit/Debit	Credit/Debit	Debit/Credit

When LCH sends "Already Matched" transactions through a sese023, the security movement type is based on the CCP's perspective.

6.2 Settlement Instruction Characteristics

At the launch of wave 2, the CCP security account and its counterpart securities accounts are expected to remain in the same authorised CSD:

- The 2 legs of the settlement instructions will be "intra CSD".
- LCH.SA will therefore use the facilities offered by T2S ISO 20022 as much as possible and use <u>"already matched instructions"</u> unless there are technical constraints preventing their use.

The more important fields follow:

Field in SESE 023	Value (s)	Comment
Securities transaction	TRAD	For all standards instructions included the one linked to a transformation
type	CLAI	In case of CA on flows related to cash or security distribution
Settlement priority	Blank	Priority 2 will be set up by each CSD at the level of LCH.SA security account and will apply to all settlement instructions of the CMF against the CCP
Settlement transaction condition	NOMC	When CNS is used, LCH.SA will specify in the instructions that the CSD has not to generate the market claim or the transformation
condition	Blank	When SDN is used, LCH.SA will not fill in the field and the default action will therefore apply: the CSD will generate the market claim or the transformation if any
Sottlement parameter	Released	When CMF requests "Released" in DA
Settlement parameter	Hold	When CMF requests "Hold" in its DA,

Field in SESE 023	Value (s)	Comment
Trade date	D+1	As currently in ESES, the trade date is populated with the same value as the settlement date
ISD	D+1	Will receive the next business date: D+1
CUM/EX indicator	Not used	This Tag will not be used by LCH as all transactions will not deviate from the rules of the regulated market
Partial settlement indicator	PARQ	Not modifiable
Party 1 level	BIC11 <u>+ SAC</u> of the counterparty against LCH	Mandatory: the BIC11 will represent the owner of the security account in the CSD which cover the activity of the CMF <u>+ the SAC on which the securities will settle</u> : could be the CMF itself or its settlement agent in the CSD
Party 2 level		Optional: the BIC 11 or proprietary format of the owner of the security account under the party level1: could be the CMF or a client of the CMF
Party 3 level		Optional: the BIC or proprietary format of the owner of the security account under the Party level 2: could be the CMF or the client of the CMF

Client impacts: Potential impacts are detailed paragraphs 6.3 to 6.7.

6.3 Settlement Instruction Priority

LCH.SA as CCP will receive the privilege from the CSDs to settle with the Top priority (level 2) as foreseen by T2S for CCP/stock exchange transactions. The Top priority (level 2) is set up by default in the CCP accounts in T2S.

Consequently, all instructions against the CCP will settle with that Top priority.

Client impacts: None

6.4 Hold and Release

LCH.SA will offer Clearing Members the flexibility to send their own leg on "release" or on "hold" status.

By default, all settlement instructions against LCH.SA standard account will receive the "released" status".

Settlement instructions sent in "released" mode will not be allowed to be put on hold by the SA

However, the CMF will be authorised to request to LCH.SA to flag one or several DA's with the indicator "Hold". As a result, all settlement instructions stemming from such a DA will be sent in "hold" status.

As the current ISO20022 for sese.023 only provides a unique field to receive this indicator, LCH.SA will be prevented to use "already matched instructions".

The CMF<u>and its SA</u>_should bear in mind the consequences of such action:

- All instructions put on hold prevent settlement
- LCH.SA strongly recommends automating the release mechanism so that settlement can effectively start for the DVP night cycle and in particular no later than for the second night cycle where the first partialing is activated.
- Any instruction still on hold will be considered as a "fail" by LCH.SA with the penalty and buy-in regime as per the LCH.SA rules.

The following table sums up the possible cases

DA of the CMF	Leg of LCH.SA	Matching status
Released by default	Always released	Already matched
Hold set up	Always released	2 legs to be matched

Client impacts:

If CMFs decide to put their own leg "on hold", they will have to release their instructions as quickly as possible in the course of the day and before the DVP cut-off time.

During the implementation phase, LCH. SA will send CMF a form containing all the data related to the DA (BIC, SAC , DCA , H/R etc....

6.5 Partial Settlement

LCH.SA and their counterparties will participate in the 3 partial settlement windows to maximise the settlement of transactions from the seller to the CCP and from the CCP to the buyer. This mandatory participation is part of LCH.SA Rulebook.

LCH.SA will not allow any change of the flag allowing deviating from the partial settlement which is the T2S default rule.

LCH.SA will indicate "**PARQ**" in the partial parameter meaning that the partial settlement will be triggered based on the minimum security settlement unit defined by the Security Maintenance Entity (SME) CSD in the T2S static data.

Client impacts:

Clients in ESES and Interbolsa already support the partial feature.

Clients "X" in NBB-SSS need to support / develop the function.

6.6 Cancellation

As per the CNS principle, LCH.SA will centrally cancel pending transactions at the end of the DVP cut-off. With the PoA given by the CMF to LCH.SA:

- The cancellation request of LCH.SA will apply to both legs at once, with no intervention from the counterparty.
- The cancellation request will be executed after the end of the DVP cut-off (4pm CET) and after internal consistency checks.

The responsibility of sending cancellation requests will be transferred from Euroclear/Interbolsa to LCH.SA at the launch of T2S wave 2.

LCH.SA will use the sese.020 to initiate the cancellation request.

The cancellation will also apply for the following needs:

- Initiation of the buy-in procedure
- Management of default/bankruptcy

<u>To be noted:</u> For NBB-SSS the process differs as the fails are recycled by the CSD (no cancellation process).

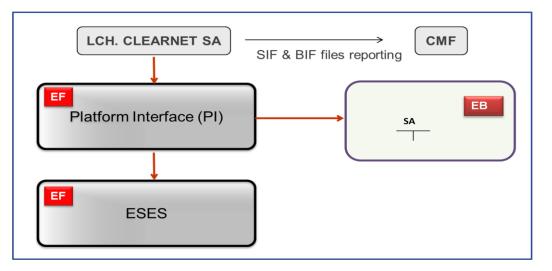
Client impacts:

DCPs can subscribe to T2S cancellation advices and/or to T2S copy service for cancellation request message.

ICPs have to define their service subscription with CSDs.

6.7 Settlement in T2S for Clearing Member with <u>settlement solution</u> in EB

The current model hereunder, whereby the Euroclear France (Platform Interface) routes stock exchanges flows either to ESES or to EB as ICSD will be abandoned.



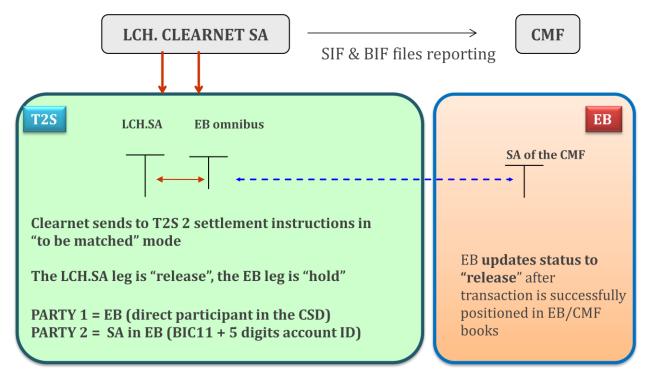
LCH.SA and Euroclear will substitute this service as follows at the launch of wave 2:

- The CMF (or its SA) in EB will maintain its security and cash accounts in EB
- LCH.SA in ESES (or in another CSD in T2S) maintains its securities account in the "authorised CSD"
- The settlement instructions settle in T2S in central bank money against the omnibus account of EB (as direct participant in ESES and global custodian of the CMF)
- The SESE 023 will indicate the BIC 11 and SAC of EB in PARTY 1 and the proprietary security account of the CMF (or its settlement agent) (on 5 digit in EB) in the PARTY level 2
- This EB client will therefore be debited / credited by EB (in commercial bank money) after EB has checked the security or cash provision of the SA or paying agent

In order to allow such service:

- LCH.SA will send "to be matched instructions" in T2S with the EB's leg put "on Hold".
- EB will release the instruction as quickly as possible after the necessary checks of provision both on cash and or security side of the CMF (or its SA) in EB.

Hereunder the schema that will be used as of T2S wave2:



Client impacts:

Clearing members will receive from LCH.SA the content of the settlement instructions through SIF reports. For further information, the SA of the CMF are invited to contact EB directly

7 Settlement of guaranteed transactions outside T2S

	Trades admitted into the clearing services		Not admitted into the
	Guaranteed trades	Non-guaranteed trades	clearing services
Settlement in T2S	Refer to § 6	Refer to § 8	
Settlement outside T2S* (*EB)	Related to ISIN not eligible in T2S: ETF primary deposited in EB Related to trades in non-euro currency (not eligible in T2S) The settlement instructions will be routed exclusively to EB as (I)CSDs Operating model: CNS	Refer to § 8	Refer to § 9

Reminder: the clearing and post trade services of the activity of Bourse du Luxembourg do not change.

LCH.SA will settle outside T2S some transactions not eligible in T2S.

The settlement location will be **Euroclear Bank as ICSD** where the cash payment is in commercial bank money.

The transaction with the following properties will settle in EB (as ICSD):

- The settlement currency is not eligible in T2S (i.e. non euro for wave 2). Are also included in this category, all market claims instructions in non euro related to the underlying transaction expressed in euro or not in fails status in T2S on Record date of the Corporate Action.
- International ETF denominated in euro for which EB is the primary issuer CSD will also settle in EB (same as today).
- Transactions on corporate bonds not admitted in ESES (BondMatch, Galaxy).

The life cycle of these guaranteed transactions relies on EB services that will be enhanced with the introduction of T2S. Please refer to EB documentation and further notices to receive more detailed information.

LCH.SA will prepare the netted settlement obligation after the CNS process and send them to EB on ISD-1 for value date ISD.

Contrary to the current situation where net buyers settlement and net sellers settlement ends respectively at 3.45pm and 4.15pm CET, the end of DVP window will be identical regardless of the instruction direction against LCH.SA (DELI versus RECE).

The end of settlement in EB will be fully harmonized and fixed at 4 pm CET.

The settlement transactions will be in <u>already "to be</u> matched status" and release mode. The introduction of Hold and Release function by EB is foreseen at the launch of T2S wave 3.

LCH.SA will send all types of strange net except DWP/RWP.

For a DWP, RWP, LCH.SA will send a D0P/R0P and a PFOD not linked (Always APMT instructions). In consequence, EB will not have to manage the split of a DWP/RWP into a FOP & PFOD and the consequences on the reporting.

Result of netting	LCH.SA sends always instruction Against payment APMT	
Cash: 0 Security: Yes No cash, only security delivery	D0P/R0P	One instruction (for the <u>SA)</u>
DWP/RWP Cash in same direction than securities	D0P/R0P + PFOD	2 <u>instructions (one for the</u> securities and the other for <u>the cash)</u>
PFOD No security, only cash movement	PFOD	One instruction (for the <u>SA)</u>
0/0	nothing	No instruction
DVP/RVP	DVP/RVP	One <u>instruction (for the</u> <u>SA)</u>

8 Non Guaranteed trades

	Trades a	dmitted into the clearing services	Not admitted into the clearing services	
Guaranteed trades		Non-guaranteed trades	cleaning services	
	Refer to § 6	Related to an ISIN classified as non- guaranteed by LCH.SA, or trade made via TCS where the trading member requests no guarantee		
Settlement in T2S		The CMF of the buyer and the CMF of the seller of the original trade are face to face. LCH.SA's role is to route in STP mode the settlement instructions		
		The ISIN is eligible in T2S and allows cross-CSD settlement		
		Operating model (fully harmonised): Trade Date Gross Settlement (TDGS)	Refer to § 9	
Settlement	Refer to § 7	The CMF of the buyer and the CMF of the seller of the original trade are face to face. LCH.SA's role is to route the settlement instructions in STP mode		
outside T2S* (*EB)		The settlement instructions will be routed to EB as (I)CSDs		
		Operating model (fully harmonised): Trade Date Gross Settlement (TDGS)		

LCH.SA will harmonise the process related to non guaranteed trades across its markets (FR, BL, NL, PT).

Non Guaranteed Transactions will settle based on the Trade Date Gross Settlement model. In that model, the CMF of the buyer and the CMF of seller of the original trade are face to face. LCH.SA's role is to route in STP mode the settlement instructions like a pass through.

- Settlement instructions are sent by end of trade date with priority 2 (because Technical Sender = CCP)
- LCH.SA will send to T2S the 2 legs (<u>SA of CMF1 against the SA of CMF2</u>) to the "Authorized" CSD

LCH.SA will offer Clearing Members the flexibility to send their own leg on "release" or on "hold" status. The table below summarizes the possible cases:

DA of the CMF buyer	DA of the CMF seller	Matching status
Released	Hold	2 legs to be matched
Hold	Hold	2 legs to be matched
Hold	Released	2 legs to be matched
Released	Released	Already matched

Corporate Actions on flows:

- CA on flows are under the CSD's responsibility
- The Opt-out indicator will not be filled by LCH.SA and will remain blank.

Client impacts: 1. One harmonized process for all markets 2. Notice of trade leg and notice of posting reported to the CMF as currently 3. Trade reporting is done in the TLRF file (batch) 4. Reporting related to non guaranteed instructions in SIF of T+1 record 165 5 The trade id from Euronext will be propagated into the common trade id as an optional matching field in the SESE.023

9 Non Clearable Securities

	Trades admitted into the clearing services		Not admitted into the clearing	
	Guaranteed trades	Non-guaranteed trades	services	
Settlement in T2S	Refer to § 6	Refer to § 8	LCH.SA will no longer receive	
Settlement outside T2S* (*EB)	Refer to § 7	Refer to § 8	trades from Euronext	

In order to allow the harmonisation of non guaranteed transaction across all markets, LCH.SA and Euronext are working on a common solution to exclude some specific securities and related trades.

Scope:

- Any ISIN and related trades which cannot be sent in STP mode to the designated settlement system of the CSD / ICSD in Europe with which LCH.SA has a technical link (T2S and EB / CBL)
- Any ISIN and related trades which cannot be correctly valorised (because of a lack of data/parameters in LCH.SA's IT system)

At this stage, around 100 ISIN fall in this situation (non comprehensive list):

- Bonds traded on Euronext Amsterdam with a missing bond factor for which LCH SA cannot compute a valuation
- Bonds traded on Euronext Amsterdam with a deviating record date for which LCH SA computes incorrect accrued interests and valuation
- A few Registered Belgian registered securities for which the CSD needs additional checks ahead of settlement. Such securities are classified as "not T2S transferable".
- Some French securities not admitted in EF such as "Ordres de Mouvement"

Process (under finalization):

- Euronext will filter the trades upfront. They will not enter into the clearing system of LCH.SA
- Euronext will disclose the identity of the buyer to the seller and vice versa in a specific field of the execution confirmation message.
- Referential data of Euronext to specify that such trades will not be admitted into the clearing service of LCH.SA <u>. A complete list of "non clearable" will be provided end of Q1 2015</u>

Client impacts:

1. Since LCH.SA will no longer receive such trades, the TMF and its Settlement Agent will have to ensure by themselves bilateral settlement against the counterparty

2. No reporting will be provided by LCH.SA

10 Fails and Buy-in

10.1 Fails Recycling responsibility

When the CSD is ESES or Interbolsa: Fails will not be recycled in T2S as LCH.SA operates the CNS.

When the CSD is NBB-SSS: Fails will be recycled in T2S until the start of the buy-in procedure.

10.2 Mandatory Buy-in and Cash Compensation

LCH.SA is willing to simplify and enhance the current process



LCH.Clearnet will offer CMFs, for both buys and sells, the flexibility to instruct the buy-in from a dedicated SAC related to the buy-in activity instead of the current "standard" SAC specified in the DA address. This has been requested by some CMFs who want to segregate the buy-in process from the regular settlement. A dedicated account is serves both parties: the buyer who is ensured to allocate the received securities to the entitled party as well as the seller who is certain to deliver the securities from the actual default party.

The timing and process will be as follows:

- Trade Date: date on which the trade is executed
- ISD: expected date for settlement
- From ISD to ISD +4 : recycling into the CNS process / calculation of penalties on fails by LCH.SA
- ISD+4 (end of day): initiation of the buy-in and triggering of eligible default seller and allocated waiting buyer on fails still pending (reporting into the new BIF)
- ISD+5:
 - 7 am : tender offer is available on LCH.SA web-site
 - Start of day: eligible fails are automatically reinstructed by LCH.SA against the buy-in account of LCH.SA. The default seller keeps higher priority for settlement against potential new sellers
 - The default seller has to confirm by fax before noon its commitment to deliver to LCH.SA, In that case, the transaction should then settle as soon as possible but no later than 3pm. Otherwise, if the default seller is unable to deliver, LCH will cancel the pending transaction in T2S
 - Any new potential sellers have to confirm their delivery by fax before 12 am. They will be informed by LCH.SA if their offer is retained or not at noon. The new seller has to instruct in DVP to be matched against LCH.SA, the Free of payment without matching not being allowed in T2S.

- When LCH.SA has indeed received the securities, it will redeliver them to the waiting buyer on the same day and no later than 4pm (DVP cut off)
- At 3pm , if the default or the new seller has still not delivered the securities, LCH.SA will cancel the related unsettled instructions
- All actions performed by LCH.SA on ISD+5 need to be completed by 4pm CET ahead of the DVP cut off
- ISD+6: In case no security has been found, LCH.SA will compute a cash compensation in favour of the waiting buyer. This cash compensation will be instructed through a Payment Free of Delivery (PFoD) and will then settle one day ahead of the current procedure (ISD +6 vs. ISD +7)

Client impacts: The table below highlights main changes.

The detailed reports in BIF & SIF will be communicated in a later version.

Date and time	Default seller	New seller(s)	Waiting buyer(s) No action	LCH.SA
ISD+4 eod	Automatic reinstruction against the Buy-in account of LCH.SA		Automatic reinstruction against the Buy-in account of LCH.SA	
ISD+5 until noon	Default seller has to confirm by noon its commitment to deliver	Selected new seller will be informed at noon. They have to instruct their leg in DVP (and no more Free of payment) against the Buy-in account of LCH.SA		At noon: LCH.SA will centrally cancel the settlement instructions against the default seller if <u>he confirms he</u> <u>will not deliver the</u> <u>securities</u>
ISD+5 between 12 and 4pm CET			The waiting buyer receives the securities (RVP against the original price)	LCH.SA will match against the new seller(s) so that the transaction can settle .
ISD+6	(if no securities found), the default seller is debited by a cash compensation (PFoD) from LCH.SA		(if no securities found), the waiting buyer receives a cash compensation (PFoD) from LCH.SA	

11 Corporate Actions Management

LCH.SA as CCP will handle the process of CA on flows for markets in CNS process.

Within SDN model (settlement of the Belgian debt or corporate debt in NBB-SSS), it is the responsibility of the CSD to perform CA on flows.

Very few changes would be introduced due to T2S compared with amendments that LCH.SA will undergo with the launch of the stream 5 of ESES market.

11.1 Market Claims and Transformation

Process related to CNS markets:

- LCH.SA cancels fails every day and identify if they are eligible for a CA on flows
- LCH.SA will generate in its internal clearing system (NSI) the regularization (market claim or transformation) based on the netted position with their original ISD at the DA level.
 - LCH.SA will follow the principles defined by CAJWG & CASG
 - LCH.SA will send Market Claims and Transformations to T2S
 - To avoid double processing of Market Claims and Transformations (CSD and CCP), settlement instructions will receive the <u>Opt out indicator</u>: No Market Claim (NOMC)
 - · Non euro cash distribution related to an underlying securities in euro will settle in EB
- The book entries related to the processing of market claim (CLAI) and cancel/replace (TRAN) will be reported in the SIF file record 125.

Main changes due to T2S:

- With regards to reimbursement of bonds at maturity date and the related transformation process, LCH.SA's settlement instructions will be rejected by T2S (as per T2S current rules accepting only transformation from CSD (and not CCP) as from the maturity date of a CA). Therefore, LCH.SA will settle the cash amount in T2.
- The segregated market claim will receive the transaction type CLAI; LCH.SA will not include in the CNS process the positions related to market claim in cash (Payment free of delivery) or market claim in security (delivery without payment).

Client impacts: For further details, please refer to Bulletin 5 December 2014 – New Standards implementation on Corporate Actions for the CCP

11.2 Buyer protection

As far as buyer protection service is concerned, LCH.SA will use the standards and the new template issued by the CAJWG related to the "manual buyer protection" as soon as possible provided that the underlying market or CSD is also ready to support the service. ESES markets announced they will offer the service of elective events at the launch of the T2S wave 3, i. e. 6 months after their migration on T2S. Interbolsa informed they will assist members to implement the process, as it will be bilateral in a first step.

Further information will be communicated in the course of 2015.

Client impacts: - No impact at this stage :

12 Launch Strategy

LCH.SA launch strategy definition is under progress.

A new communication will be issued for all works related to the migration of the clearing activity to T2S.

LCH.SA is closely interdependent of the migration of each CSD and will adapt its own migration process based on one hand on its DCP status and on the other hand on the process and methodology imposed by the CSD and T2S.

Client impacts: To be defined



13 Appendices

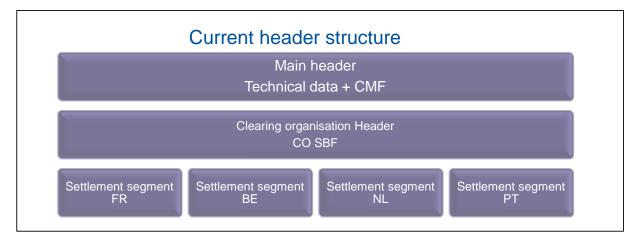
13.1 New SIF File Structure for Activity Settling in T2S

LCH.SA will review the current SIF structure for markets and activity migrating to T2S.

It is expected that all Cash Euronext Market will migrate to T2S at the same time; however, if one CSD is not ready for the second wave, the reporting of settlement activity will remain in the old current SIF file.

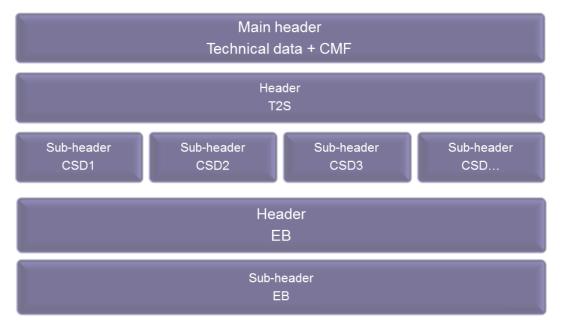
Timing for SIF sending should not be modified (6.30pm / 7pm CET).

Reminder of the current SIF structure:



New SIF will be organized by settlement platform (header T2S, header EB as ICSD ...) and per CSD if relevant (sub header).

Foreseen header structure



13.1.1 SIF Filename

The filename will respect the following convention PSIFxxxxxxxYYYYMMDD.txt and PSIFxxxxxxXYYYMMDD.csv.

Field No	Field Name	Mandatory	Length	Position	Туре	Description
1	Platform	Y	1	1	alpha	Type of the file (production file vs. test file) Value 'P' or 'T'
2	File Type	Y	3	2	alpha	Type of the file. Value 'SIF'.
3	Participant code	Y	10	5	alpha	Code of the member corresponding to the Clearing Member.

Field No	Field Name	Mandatory	Length	Position	Туре	Description
4	Business date	Y	8	15	num	Business Date

13.1.2 Main header

One SIF Main Header is generated for each member file as follows:

Field No	Field Name	Mand.	Length	Pos	Туре	Description				
1	Record type	Y	5	1	alpha	Type of record. Value '00000'				
2	File type	Y	3	6	alpha	Type of the file. Value 'SIF'				
3	Date time creation	Y	14	9	num	Date and time of the creation of the file. Format: YYYYMMDDHHMMSS.				
4	Business date	Y	8	23	num	Reference day in LCH Clearnet. Format: YYYYMMDD				
5	Participant code	Y	10	31	alpha	Code of the member corresponding to the Clearing Member.				
6	Participant BIC code	Y	11	41	alpha	BIC Code of the Clearing Member				
7	Filler	Y	460	52	alpha					

13.1.3 Settlement platform subheader

SIF sub Header per clearing member and settlement platform is generated as follows

Field No	Field Name	Mand.	Length	Pos	Туре	Description			
1	Record type	Y	5	1	alpha	Type of the record. Value '00001'			
2	File type	Y	3	6	alpha	Type of the file. Value 'SIF'			
3	Datetime creation	Y	14	9	num	Date and time of the creation of the file. Format: YYYYMMDDHHMMSS			
4	Business date	Y	8	23	num	Reference day in LCH Clearnet. Format: YYYYMMDD			
5	Participant code	Y	10	31	alpha	Code of the member corresponding to the Clearing Member.			
6	Participant BIC code	Y	11	41	alpha	BIC Code of the Clearing Member			
7	Settlement Platform	Y	3	52	alpha	ttlement platform code. Value 'T2S', 'EB ')			
10	Filler	Y	457	55	alpha				

13.1.4 CSD subheader

One SIF sub Header per clearing member, settlement platform and CSD is generated as follows:

Field No	Field Name	Mand.	Length	Pos	Туре	Description			
1	Record type	Y	5	1	alpha	Type of the record. Value '00002'			
2	File type	Y	3	6	alpha	Type of the file. Value 'SIF'			
3	Date time creation	Y	14	9	num	Date and time of the creation of the file. Format: YYYYMMDDHHMMSS			

Field No	Field Name	Mand.	Length	Pos	Туре	Description			
4	Business date	Y	8	23	num	Reference day in LCH Clearnet. Format: YYYYMMDD			
5	Participant code	Y	10	31	alpha	Code of the member corresponding to the Clearing Member.			
6	Participant BIC code	Y	11	41	alpha	BIC Code of the Clearing Member			
7	Settlement Platform	Y	3	52	alpha	Settlement platform code (T2S, EB)			
8	CSD / code	Y	5	55	alpha	Code representing the CSD where the instructions settle.			
9	CSD / BIC	Y	11	60	alpha	Crepresenting the CSD where the instructions settle.			
10	Filler	Y	441	71	alpha				

(I) CSD codes:

- EB for Euroclear bank
- EF fro Euroclear france
- ENL for euroclear nederlands
- EBE for euroclear Belgium
- NBBSS for NBB-SSS
- IBLSA for Interbolsa

13.1.5 CSD subfooter

One SIF sub footer per clearing member, settlement platform and CSD is generated as follows:

Field No	Field Name	Mand.	Length	Pos	Туре	Description
1	Record type	Y	5	1	alpha	Type of the record. Value '99997'.
2	File type	Y	3	6	alpha	Type of the file. Value 'SIF'
3	Line counter	Y	15	9	num	Number of lines in the file, including header and footer lines
4	Filler	Y	488	24	alpha	

13.1.6 Settlement platform subfooter

One SIF sub footer per clearing member, settlement platform is generated as follows:

Field No	Field Name	Mand.	Length	Pos	Туре	Description
1	Record type	Y	5	1	alpha	Type of the record. Value '99998'.
2	File type	Y	3	6	alpha	Type of the file. Value 'SIF'
3	Line counter	Y	15	9	num	Number of lines in the file, including header and footer lines
4	Filler	Y	488	24	alpha	

13.1.7 Main Footer

One SIF Main Footer is generated for each member file as follows:

Field No	Field Name	Mand.	Length	Pos	Туре	Description				
1	Record type	Y	5	1	alpha	Type of the record. Value '99999'.				
2	File type	Y	3	6	alpha	Type of the file. Value 'SIF'				
3	Line counter	Y	15	9	num	Number of lines in the file, including header and footer lines				
4	Filler	Y	488	24	alpha					

13.1.8SIF detail record

New SIF main modifications:

- Record types are identified with three digits. First digit is always 1 and the two following digits correspond to the record type in the old SIF
- Record type "150" (cancelled non settled position) merged with type "140"
- Record type "170" (net cash) removed
- New record: Type "162" (outbound Buy-in instructions already settled)
- Fields 25 to 28 will be introduced in end March 2015 with HDD/HDR projects

Legend: Color coding

• First cell in red: new field

Record type 00110 to 00140

Field No	Field Name	Mand.	Length	Туре	Description	Description	Description	Description	Description					
Ref	References													
1	Record type	Y	5	alpha	" 00110" netting phase 1	" 00120" Fails in the DA	" 00125" CA on fails	" 00130" Fails after CA	" 00140" manual book entries					
2	LCH.Clearnet instruction's reference	N	16	alpha	Empty	Outbound internal reference	Outbound internal reference (of the mother security)	Outbound internal reference	Outbound internal reference in case of cancellation, empty in case of creation					
3	Settlement Platform instruction reference	N	16	alpha	Empty	Inbound external reference	Inbound external reference (of the mother security)	Inbound external reference	Inbound external reference in case of cancellation, empty in case of creation					

Field No	Field Name	Mand.	Length	Туре	Description	Description	Description	Description	Description				
4	Counterparty 's CSD	N	11	alpha	BIC of the CSD where LCH-CN operates its securities account.	BIC of the CSD where LCH-CN operates its securities account.	BIC of the CSD where LCH-CN operates its securities account.	BIC of the CSD where LCH-CN operates its securities account.	BIC of the CSD where LCH-CN operates its securities account.				
Par	Party 1, 2 and 3												
5	Participant DA Id	N	23	alpha	Delivery Account external id of the Clearing Member	idem	idem	idem	idem				
6	BIC of the Participant in the CSD	N	11	alpha	Participant BIC for the security account of the Settlement address-Party 1 of the Member DA.	idem	idem	idem	idem				
7	Participant security account (=SAC in T2S)	N	35	alpha	Participant security account of the Settlement address - party 1 of the Member DA.	idem	idem	idem	idem				
8	BIC of the Client (level 2)	N	11	alpha	Client or custodian BIC code of the Settlement address-Party 2 of the Member DA.	idem	idem	idem	idem				

Field No	Field Name	Mand.	Length	Туре	Description	Description	Description	Description	Description
9	Client security account level 2	N	35	alpha	Client or custodian security account of the Settlement address Party 2 of the Delivery account the Member DA.	idem	idem	idem	idem
10	BIC of the Client (level 3)	N	11	alpha	Client BIC code of the Settlement address-Party3 of the Member DA	idem	idem	idem	idem
11	Client security account level 3	N	35	alpha	Client security account of the Settlement address-Party3 of the Member DA.	idem	idem	idem	idem
Inst	ruction paran	neters	;						
12	Hold&Release	N	1	alpha	Instruction "on Hold" o r" Released" indicator (H/R)	empty	empty	empty	empty
13	ISIN	N	12	alpha	ISIN of the instrument	ISIN	ISIN	ISIN	ISIN
14	Trading code	Ν	12	alpha	Trading code of the Instrument	Trading code	Trading code	Trading code	Trading code
15	Intended Settlement Date	Y	8	num	ISD of the DA Position Balance	ISD of the DA Position Balance	ISD of the book entry	ISD of the DA Position Balance	ISD of the book entry

Field No	Field Name	Mand.	Length	Туре	Description	Description	Description	Description	Description
16	Quantity Credit/Debit indicator	N	1	alpha	If DA quantity balance =>0 then C. If DA quantity balance <0 then D	If DA quantity balance =>0 then C. If DA quantity balance <0 then D	If quantity of the Book entry >= 0 then C. If quantity of the Book entry <0 then D.	If DA quantity balance =>0 then C. If DA quantity balance <0 then D	If quantity of the Book entry >= 0 then C. If quantity of the Book entry <0 then D.
17	Quantity	N	18	num	quantity of the DA Position Balance.	quantity of the DA Position Balance.	quantity of the Book entry.	quantity of the DA Position Balance.	quantity of the Book entry.
18	Quantity unit	N	3	alpha	Quantity unit code of the DA Position Balance. UNT or FMT	UNT or FMT	UNT or FMT	UNT or FMT	UNT or FMT
19	Cash Credit/Debit indicator	N	1	alpha	If cash amount =>0 then C. If cash amount <0 then D.	If cash amount =>0 then C. If cash amount <0 then D.	If Cash amount of the Book entry >=0 then C. If Cash amount of the Book entry <0 then D.	If cash amount =>0 then C. If cash amount <0 then D.	If Cash amount of the Book entry >=0 then C. If Cash amount of the Book entry <0 then D.
20	Cash amount	Y	18	num	Cash amount	Cash amount of the DA Position Balance.	Cash amount of the Book entry	Cash amount of the DA Position Balance.	Cash amount of the Book entry

Field No	Field Name	Mand.	Length	Туре	Description	Description	Description	Description	Description
21	Payment currency	Y	3	alpha	Payment currency of cash amount	idem	idem	idem	idem
22	Participant cash account (=DCA in T2S)	Ν	34	alpha	Participant cash account of the Settlement address-Party 1 of the Member DA.	idem	idem	idem	idem
Ada	litional paran	neters							
23	Book entry type	N	3	alpha	Empty	Empty	Book entry type code	Empty	Book entry type code
24	Book entry comment	N	30	alpha	Empty	Empty	Empty	Empty	Book entry comment
25	Corporate event type	N	4	alpha	Empty	Empty	COE CAEV of the Bookentry	Empty	Empty
26	Corporate event CORP	N	16	alpha	Empty	Empty	COE CORP of the Bookentry	Empty	Empty
27	Corporate event COAF	N	16	alpha	Empty	Empty	COE COAF of the Bookentry	Empty	Empty
28	Corporate event Info	N	4	alpha	Empty	Empty	COE info of the Bookentry	Empty	Empty
30	Trade reference	N	10	alpha	Empty	Empty	Empty	Empty	Empty
31	Filler	Y	108	alpha					

Reco	ord type 00160 to 00165										
Field No	Field Name	Mand.	Length	Туре	Description	Description	Description	Description			
Ref	eferences										
1	Record type	Υ	5	alpha	"00160" outbound settlement instructions	"00161" outbound settlement instruction on the Buy- in account	" 00162" outbound Buy-in instructions already settled	"00165" Non guaranteed settlement instructions			
2	LCH.Clearnet instruction's reference	N	16	alpha	Outbound internal reference	Outbound internal reference	Outbound internal reference	Outbound internal reference			
3	Settlement Platform instruction reference	N	16	alpha	Empty	Empty	Empty	Empty			
4	Counterparty 's CSD	N	11	alpha	BIC of the CSD where LCH-CN operates its securities account.	BIC of the CSD where LCH-CN operates its securities account.	BIC of the CSD where LCH-CN operates its securities account.	BIC of the CSD where the counterparty operates its securities account			
Par	ty 1 , 2 and 3										
5	Participant DA Id	N	23	alpha	Delivery Account external id of the Clearing Member	idem	idem	idem			

Field No	Field Name	Mand.	Length	Туре	Description	Description	Description	Description
6	BIC of the Participant in the CSD	N	11	alpha	Participant BIC for the security account of the Settlement address- Party 1 of the Member DA.	idem	idem	idem
7	Participant security account (=SAC in T2S)	N	35	alpha	Participant security account of the Settlement address - party 1 of the Member DA.	idem	idem	idem
8	BIC of the Client (level 2)	N	11	alpha	Client or custodian BIC code of the Settlement address- Party 2 of the Member DA.	idem	idem	idem
9	Client security account level 2	N	35	alpha	Client or custodian security account of the Settlement address Party 2 of the Delivery account the Member DA.	idem	idem	idem
10	BIC of the Client (level 3)	N	11	alpha	Client BIC code of the Settlement address- Party3 of the Member DA	idem	idem	idem

Field No	Field Name	Mand.	Length	Туре	Description	Description	Description	Description
11	Client security account level 3	Ν	35	alpha	Client security account of the Settlement address- Party3 of the Member DA.	idem	idem	idem
Inst	ruction parar	neters	;					
12	Hold&Release	N	1	alpha	Instruction "on Hold" o r" Released" indicator (H/R)	Hold or Release indicator of the outbound	Hold or Release indicator of the outbound	Hold or Release indicator of the outbound
13	ISIN	N	12	alpha	ISIN of the instrument	ISIN	ISIN	ISIN
14	Trading code	Ν	12	alpha	Trading code of the Instrument	Trading code	Trading code	Trading code
15	Intended Settlement Date	Y	8	num	ISD of the DA Position Balance	ISD of the outbound	ISD of the outbound	ISD of the outbound
16	Quantity Credit/Debit indicator	N	1	alpha	If DA quantity balance =>0 then C. If DA quantity balance <0 then D	Debit/Credit code of the outbound	Debit/Credit code of the outbound	Debit/Credit code of the outbound
17	Quantity	N	18	num	quantity of the DA Position Balance.	quantity of the outbound	quantity of the outbound	quantity of the outbound
18	Quantity unit	N	3	alpha	Quantity unit code of the DA Position Balance. UNT or FMT	UNT or FMT	UNT or FMT	UNT or FMT

Field No	Field Name	Mand.	Length	Туре	Description	Description	Description	Description
19	Cash Credit/Debit indicator	N	1	alpha	If cash amount =>0 then C. If cash amount <0 then D.	Debit/Credit code of the outbound	Debit/Credit code of the outbound	Debit/Credit code of the outbound
20	Cash amount	Y	18	num	Cash amount	Cash amount of the outbound.	Cash amount of the outbound.	Cash amount of the outbound.
21	Payment currency	Y	3	alpha	Payment currency of cash amount	idem	idem	idem
22	Participant cash account (=DCA in T2S)	N	34	alpha	Participant cash account of the Settlement address- Party 1 of the Member DA.	idem	idem	idem
Ada	litional paran	neters						
23	Book entry type	N	3	alpha	Empty	Empty	Empty	Empty
24	Book entry comment	N	30	alpha	Empty	Empty	Empty	Empty
25	Corporate event type	N	4	alpha	Empty	Empty	Empty	Empty
26	Corporate event CORP	N	16	alpha	Empty	Empty	Empty	Empty
27	Corporate event COAF	N	16	alpha	Empty	Empty	Empty	Empty

Field No	Field Name	Mand.	Length	Туре	Description	Description	Description	Description
28	Corporate event Info	N	4	alpha	Empty	Empty	Empty	Empty
30	Trade reference	N	10	alpha	Empty	Empty	Empty	External Trade reference of the non guaranteed trade
31	Filler	Y	108	alpha				

Field No	Field Name	Mand.	Length	Mapping Sese.023	Mapping Sese.025
Refere	ences				
1	Record type	Y	5	Tag (ISO 20022) (name)	Tag (ISO 20022) (name)
2	LCH.Clearnet instruction's reference	N	16	TxId (Transaction Identification)	TxIdDtls/AcctOwnrTxId (TransactionIdentificationDetails/AccountOwnerTransa onIdentification) : Replace the fifth character by a "-". e.g. 2014X12-03343434 is received it becomes 2014-12-03343434
3	Settlement Platform instruction reference	N	16	N/A	TxIdDtls/MktInfrstrctrTxId (TransactionIdentificationDetails/MarketInfrastructure sactionIdentification)
4	Counterparty 's CSD	N	11	N/A	N/A
Party	1 , 2 and 3	1	2		
5	Participant DA Id	N	23	N/A	N/A
6	BIC of the Participant in the CSD	N	11	DlvrgSttlmPties\Pty1\Id\AnyBIC (DeliveringSettlementParties/Party1/Identification) or RcvgSttlmPties \Pty1\Id\AnyBIC (ReceivingSettlementParties/Party1/Identification)	DlvrgSttImPties\ Pty1\ Id\ AnyBIC (DeliveringSettlementParties/Party1/Identification) or RcvgSttImPties \Pty1\Id\AnyBIC (ReceivingSettlementParties/Party1/Identification)

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Field No	Field Name	Mand.	Length	Mapping Sese.023	Mapping Sese.025
7	Participant security account (=SAC in T2S)	N	35	DlvrgSttlmPties \Pty1\SfkpgAcct\ld (DeliveringSettlementParties/Party1/Safekeeping Account/Identification) or RcvgSttlmPties \Pty1\SfkpgAcct\ld (ReceivingSettlementParties/Party1/Safekeeping Account/Identification)	DlvrgSttlmPties \Pty1\SfkpgAcct\Id (DeliveringSettlementParties/Party1/SafekeepingAccount /Identification) or RcvgSttlmPties \Pty1\SfkpgAcct\Id (ReceivingSettlementParties/Party1/SafekeepingAccount/ Identification)
8	BIC of the Client (level 2)	N	11	DlvrgSttlmPties\Pty2\ Id\AnyBIC (DeliveringSettlementParties/Party2/Identification/ AnyBIC) or RcvgSttlmPties\Pty2\ Id\AnyBIC (ReceivingSettlementParties/Party2/Identification/ AnyBIC)	DlvrgSttlmPties\Pty2\ ld\AnyBIC (DeliveringSettlementParties/Party2/Identification/AnyBIC) or RcvgSttlmPties\Pty2\ ld\AnyBIC (ReceivingSettlementParties/Party2/Identification/AnyBIC)
9	Client security account level 2	N	35	DlvrgSttlmPties\Pty2\SfkpgAcct\ld (DeliveringSettlementParties/Party2/Safekeeping Account/Identification) or RcvgSttlmPties \Pty2\SfkpgAcct\ ld (ReceivingSettlementParties/Party2/Safekeeping Account/Identification)	DlvrgSttlmPties\Pty2\ SfkpgAcct (DeliveringSettlementParties/Party2/SafekeepingAccount) or RcvgSttlmPties \Pty2\ SfkpgAcct (ReceivingSettlementParties/Party2/SafekeepingAccount)
10	BIC of the Client (level 3)	N	11	DlvrgSttlmPties\Pty3\ Id\AnyBIC (DeliveringSettlementParties/Party3/Identification/ AnyBIC) or RcvgSttlmPties \Pty3\ Id\ AnyBIC (ReceivingSettlementParties/Party3/Identification/ AnyBIC)	DlvrgSttlmPties\Pty3\ Id\AnyBIC (DeliveringSettlementParties/Party3/Identification/AnyBIC) or RcvgSttlmPties \Pty3\ Id\ AnyBIC (ReceivingSettlementParties/Party3/Identification/AnyBIC)
11	Client security account level 3	N	35	RcvgSttlmPties \Pty3\ SfkpgAcct\ Id (ReceivingSettlementParties/Party3/Safekeeping Account/Identification) or DlvrgSttlmPties\Pty3\ SfkpgAcct\Id (DeliveringSettlementParties/Party3/Safekeeping Account/Identification)	RcvgSttlmPties \Pty3\ SfkpgAcct (ReceivingSettlementParties/Party3/SafekeepingAccount) or DlvrgSttlmPties\Pty3\ SfkpgAcct (DeliveringSettlementParties/Party3/SafekeepingAccount)

Field No	Field Name	Mand.	Length	Mapping Sese.023	Mapping Sese.025							
Instru	Instruction parameters											
12	Hold&Release	N	1	SttlmParams\ HldInd\ Ind (SettlementParameters/HoldIndicator/Indicator)	N/A							
13	ISIN	N	12	FinInstrmId\ ISIN (FinancialInstrumentIdentification/ISIN)	FinInstrmId\ ISIN (FinancialInstrumentIdentification/ISIN)							
14	Trading code	N	12	N/A	N/A							
15	Intended Settlement Date	Y	8	TradDtls\ SttImDt\ Dt\ Dt (TradeDetails/SettlementDate/Date/Date)	TradDtls\ SttImDt\ Dt\ Dt (TradeDetails/SettlementDate/Date/Date)							
16	Quantity Credit/Debit indicator	N	1	N/A	N/A							
17	Quantity	N	18	If UNT QtyAndAcctDtls\ SttImQty\ Qty\ Unit (QuantityAndAccountDetails/SettlementQuantity/ Quantity/Unit) else QtyAndAcctDtls\ SttImQty\ Qty\ FaceAmt (QuantityAndAccountDetails/SettlementQuantity/ Quantity/FaceAmount)	If UNT QtyAndAcctDtIs\ SttImQty\ Qty\ Unit (QuantityAndAccountDetails/SettlementQuantity/Quantity /Unit) else QtyAndAcctDtIs\ SttImQty\ Qty\ FaceAmt (QuantityAndAccountDetails/SettlementQuantity/Quantity /FaceAmount)							
18	Quantity unit	Ν	3	N/A	N/A							
19	Cash Credit/Debit indicator	N	1	SttImAmt\ CdtDbtInd (SettlementAmount/CreditDebitIndicator)	SttlmAmt\ CdtDbtInd (SettlementAmount/CreditDebitIndicator)							
20	Cash amount	Y	18	SttImAmt\ Amt\ (SettIementAmount/Amount)	SttImAmt\ Amt\ (SettIementAmount/Amount)							

Field No	Field Name	Mand.	Length	Mapping Sese.023	Mapping Sese.025
21	Payment currency	Y	3	SttImAmt\ Amt\ (SettIementAmount/Amount)	SttImAmt\ Amt\ (SettIementAmount/Amount)
22	Participant cash account (=DCA in T2S)	N	34	CshPties\ Dbtr\ CshAcct\ Prtry (CashParties/Debtor/CashAccount/Proprietary) CshPties\ Cdtr\ CshAcct\ Prtry (CashParties/Creditor/CashAccount/Proprietary)	CshPties\ Dbtr\ CshAcct\ Prtry (CashParties/Debtor/CashAccount/Proprietary) CshPties\ Cdtr\ CshAcct\ Prtry (CashParties/Creditor/CashAccount/Proprietary)

Additional parameters

23	Book entry type	Ν	3	N/A	N/A
24	Book entry comment	N	30	N/A	N/A
25	Corporate event type	Ν	4	N/A	N/A
26	Corporate event CORP	N	16	N/A	N/A
27	Corporate event COAF	Ν	16	N/A	N/A
28	Corporate event Info	N	4	N/A	N/A
30	Trade reference	N	10	TradId (TradeIdentification)	TradId (TradeIdentification)
31	Filler	Y	108		

13.2 New BIF Structure

- BIF and SIF structure will be identical.
- Record types are identified with three digits. First digit is always 1 and the two following digits correspond to the record type in the old BIF file.

Since it's not always possible to warn a member before engaging in the "buy in" process (typically in the case of an "early buy-in"). LCH.SA is currently studying whether to keep BIF 10 records.

As a result, the new BIF structure will be published in a later stage

13.3 Use of references in BIF and SIF files

Both files contain trade reference information provided by

- LCH.SA: each trade LCH.SA novates or transmits to a settlement platform has an outbound reference computed by LCH (field 2)
- A trading venue: in case of non guaranteed trade (field 30)
- T2S : when a trade fails to settle, LCH.SA reports the failure information with both LCH.SA trade reference and T2S's trade reference (field 3)

	Information sent to the settlement platform		Information received from the settlement platform
	Reference outbound	Trade reference	Reference inbound
	Field 2	Field 30	Field 3
Guaranteed in "to be matched" transactions	A reference computed by LCH.SA	N/A	The reference, as provided by T2S, of the trade that failed
Guaranteed in "already matched" transactions	A reference computed by LCH.SA	N/A	The reference, as provided by T2S of the trade that failed
Non guaranteed trades (SIF Only)	A reference computed by LCH.SA	The trade reference as provided by the trading venue	N/A