EUROPEAN CENTRAL BANK
EUROSYSTEM

T2S CHANGE REQUEST FORM
General Information (Origin of Request) ☐ User Requirements (URD) or GUI Business Functionality Document (BFD) ☒ Other User Functional or Technical Documentation (SYS)

Request raised by: 4CB		**Institute:** 4CB	**Date raised:** 24/08/2022
Request title: T2S alignment to ISO 10962:2021 CFI code – addition of new codes			**Request No.:** T2S-0791-SYS
Request type: Common	**Classification:** Standards compliance		**Urgency:** Normal
1. Legal/business importance parameter[1]: Medium		**2. Market implementation efforts parameter[2]:** Low	
3. Operational/Technical risk parameter[3]: Low		**4. Financial impact parameter[4]:** Low	
Requestor Category: 4CB		**Status:** Allocated to a release	

Reason for change and expected benefits/business motivation:

T2S makes use of several ISO Standards for codes, all of which are part of ISO 20022. T2S internal validations and processing are based on specific published versions of each ISO Standard. 4CB carry out a periodic review of ISO Standards implemented on T2S side in order to determine the T2S software's continuing adherence to the existing Standards, also considering the possible updated versions of each ISO Standard published since the last review. Upon publication of an updated version of a given ISO Standard, this review may lead to different possible outcomes depending on the nature of the update: either the T2S software is assessed to be already in line with the update – in which case the new ISO Standard version is then declared as the version officially implemented in T2S implementation – or a software change is required to maintain the alignment.

The version of ISO 10962 implemented in T2S corresponds to the ISO 10962:2015 version of the standard, implemented with CR534. This version of the standard restricts the possible values in the Classification of Financial Instruments (CFI) codes that may be input as part of the Securities data in CRDM. Two new versions of the standard (ISO 10962:2019 and ISO 10962:2021) were published since the version used in T2S. The 4CB review highlighted the need for two types of changes:
- New CFI code patterns should be allowed
- Currently allowed CFI code patterns should no longer be allowed

In order to allow the transition to the new standard in an ordered manner, two CRs are being raised, one for each of the changes listed above. This CR focuses on the first change required in a chronological order, i.e. the addition of new code patterns.

Description of requested change:

The internal processing corresponding to CRDM business rules for the CFI Code in the Securities object should be updated to allow new values foreseen in the ISO 10962:2021 standard.

No impact has been detected on the Financial Instrument Type categories based on the CFI codes and used in the T2S Penalty Mechanism as described in T2S UDFS section 1.2.7.

The full list of new code patterns is below. In line with the ISO Standard, the term "Attribute" represents the four final characters in the code pattern (e.g. "first attribute" is the third character in the code).

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[1] Legal/business importance parameter was set to ''Medium' because with this change T2S will be compliant with the latest ISO standard related to CFI codes.

[2] Market implementation effort parameter was set to 'Low' because this change will not require a long implementation time on the side of Participating CSDs, CBs and their communities so that they take full benefit of the change.

[3] Operational/technical risk parameter was set to 'Low' because this change is not expected to have a significant operational impact on the Participating CSDs, CBs or 4CB.

[4] Low < 100kEUR < Low-Medium < 200 kEUR < Medium < 400kEUR < High < 700kEUR < Very high

The "X" character represents an undefined value and as such is used to represent the code patterns.

Category	Group	Attribute modified	Value	CFI Code
Debt	DT	First	K	DTKXXX
Swaps	SR	Fourth	D	SRXXXD
Swaps	SR	Fourth	N	SRXXXN
Swaps	ST	First	H	STHXXX
Swaps	ST	First	B	STBXXX
Swaps	ST	First	C	STCXXX
Swaps	SF	Fourth	C	SFXXXC
Swaps	SM	Fourth	E	SMXXXE
Non Listed and Complex	HR	First	E	HREXXX
Non Listed and Complex	HR	Third	C	HRXXCX
Non Listed and Complex	HR	Third	F	HRXXFX
Non Listed and Complex	HT	First	H	HTHXXX
Non Listed and Complex	HT	First	B	HTBXXX
Non Listed and Complex	HT	First	C	HTCXXX
Non Listed and Complex	HF	First	B	HFBXXX
Non Listed and Complex	HF	First	C	HFCXXX
Non Listed and Complex	HF	First	D	HFDXXX
Non Listed and Complex	HF	First	E	HFEXXX
Non Listed and Complex	HF	First	Q	HFQXXX
Non Listed and Complex	HF	First	U	HFUXXX
Non Listed and Complex	HF	First	W	HFWXXX
Non Listed and Complex	HF	First	Y	HFYXXX
Non Listed and Complex	HF	Second	J	HFXJXX
Non Listed and Complex	HF	Second	K	HFXKXX
Non Listed and Complex	HF	Second	L	HFXLXX
Non Listed and Complex	HM	Second	J	HMXJXX
Non Listed and Complex	HM	Second	K	HMXKXX
Non Listed and Complex	HM	Second	L	HMXLXX
Forwards	JF	First	U	JFUXXX
Forwards	JF	First	V	JFVXXX
Forwards	JF	First	S	JFSXXX
Forwards	JF	First	W	JFWXXX
Forwards	JF	First	J	JFJXXX
Forwards	JF	First	K	JFKXXX
Forwards	JF	First	L	JFLXXX
Forwards	JF	First	N	JFNXXX
Forwards	JF	Third	R	JFXXRX
Forwards	JC	Third	C	JCXXCX
Forwards	JR	Third	C	JRXXCX
Forwards	JT	First	C	JTCXXX
Forwards	JT	First	H	JTHXXX

Forwards	JT	Third	S	JTXXSX

Submitted annexes / related documents:

CFIDeltaISO2015-2021.xlsx: full list of changes from the ISO 10962:2015 standard to the ISO 10962:2021 version.

Outcome/Decisions:

*CRG on 21 September 2022: the CRG agreed to request the preliminary assessment of CR-791.

*CRG on 12 January 2023: the CRG agreed to recommend CR-791 for authorization by the T2S Steering Level.

*AMI-SeCo on 26 January 2023: the AMI-SeCo agreed with the CRG recommendation of CR-791 for T2S Steering Level Authorisation.

*NECSG on 27 January 2023: the NECSG agreed to authorise CR-791.

*CSG on 27 January 2023: the CSG agreed to authorise CR-791.

*MIB on 1 February 2023: the MIB agreed to authorise CR-791.

*PMG on 7 February 2023: the PMG agreed to launch the detailed assessment of CR-791 with a view of scoping in Release 2024.NOV.

*CRG on 15 November 2023: the CRG agreed to recommend to the PMG the inclusion of CR-791 in the scope of R2024.NOV.

*OMG on 15 November 2023: the OMG identified no operational impact from the inclusion of CR-791 in the scope of R2024.NOV.

*PMG on 17 November 2023: the PMG agreed to recommend the inclusion of CR-791 in the scope of R2024.NOV.

*CSG on 21 December 2023: the CSG approved the inclusion of CR-791 in the scope of R2024.NOV.

*NECSG on 21 December 2023: the NECSG approved the inclusion of CR-791 in the scope of R2024.NOV.

*MIB on 21 December 2023: the MIB approved the inclusion of CR-791 in the scope of R2024.NOV.

Documentation to be updated:

CRDM UDFS

1.3.4.3 Description of the entities

1. Securities

ATTRIBUTE	DESCRIPTION
CFI	Classification of the security according to ISO/~~DIS~~ 10962:202~~15~~1~~(E)~~ standards.

4.5.3.6 Securities - New

Flat file column	Excel Column	Column Name	Format	Description	Rules	Occurs per Record	Occurs per Group
2	B	Record Id	NUMERIC (10)	Unique identifier of the record.	Must occur in each line of the record.	1..n	
		Group "Securities"					1..1
3	C	ISIN	CHAR (12)	Actual value for the securities code, (the ISIN for the security).			1..1
4	D	CFI Code	CHAR (6)	Classification of the security according to ISO/~~DIS~~ 10962:202~~15~~1~~(E)~~ standard.			1..1
[…]							

5.1 Business Rules

BR NAME	DESCRIPTION	INBOUND MESSAGE	REPLY MESSAGE	CODE USE	REASON CODE	ERROR TEXT
DSC1700	When performing a Securities Create request, the CFI must be compliant with ISO/~~DIS~~ 10962:202~~15~~1~~(E)~~ standards.	reda.006	reda.008		REJT	CFI not compliant with ISO/~~DIS~~ 10962:202~~15~~1~~(E)~~ standards
DSU1410	When performing a Securities Create request, the CFI must be compliant with ISO/~~DIS~~ 10962:202~~15~~1~~(E)~~ standards.	reda.006	reda.008		REJT	CFI not compliant with ISO/~~DIS~~ 10962:202~~15~~1~~(E)~~ standards

CRDM UHB Book 2

4.3.2.46 Security – New/Edit Screen

Reference for error message	Field or button	Error Text	Description
DSC1700	- CFI Code field - Submit button	CFI not compliant with ISO/~~DIS~~ 10962:202~~15~~1~~(E)~~ standards	When performing a Securities Create request, the CFI must be compliant with ISO/~~DIS~~ 10962:202~~15~~1~~(E)~~ standards.
DSU1410	- CFI Code field - Submit button	CFI not compliant with	When performing a Securities Update request, the CFI must be compliant with

		ISO/~~DIS~~ 10962:202<u>1</u>~~15(E)~~ standards	ISO/~~DIS~~ 10962:202<u>1</u>~~15(E)~~ standards.

Preliminary assessment:

- **Financial impact: Low**
- **Impacted modules: CRDM, LCMM and SETT**
- **Impact on other Eurosystem Services or Projects: n/a**
- **Risk analysis: No risks have been identified during the preliminary assessment**
- **Findings:**

The internal processing corresponding to CRDM business rules DSC1700 and DSU1410 for the CFI Code in the Securities object should be updated to allow new values foreseen in the ISO 10962:2021 standard.

Change reference to new CFI code standard for the following messages/tags in MyStandards. "CFIOct2015Identifier" to be replaced by 2021 reference[5].

Message	path
reda.006	/Document/SctyCreReq/Scty/FinInstrmAttrbts/ClssfctnTp/ClssfctnFinInstrm
reda.007	/Document/SctyMntncReq/UpdTp/UpdTp/Modfy/FinInstrmAttrbts/ClssfctnTp/ClssfctnFinInstrm
reda.010	/Document/SctyQry/SchCrit/ClssfctnFinInstrm
reda.012	/Document/SctyRpt/SctyRptOrErr/SctyRptOrBizErr/SctyRpt/FinInstrmAttrbts/ClssfctnTp/ClssfctnFinInstrm
semt.013	/Document/IntraPosMvmntInstr/FinInstrmAttrbts/ClssfctnTp/ClssfctnFinInstrm
semt.016	/Document/IntraPosMvmntPstngRpt/FinInstrm/FinInstrmAttrbts/ClssfctnTp/ClssfctnFinInstrm
semt.029	/Document/IntraPosMvmntQryRspn/Mvmnts/Mvmnt/MvmntDtls/FinInstrmAttrbts/ClssfctnTp/ClssfctnFinInstrm
semt.034	/Document/IntraPosMvmntPdgRpt/Mvmnts/Mvmnt/FinInstrmAttrbts/ClssfctnTp/ClssfctnFinInstrm
sese.023	/Document/SctiesSttlmTxInstr/FinInstrmAttrbts/ClssfctnTp/ClssfctnFinInstrm
sese.030	/Document/SctiesSttlmCondsModReq/AddtlInf/ClssfctnTp/ClssfctnFinInstrm
sese.032	/Document/SctiesSttlmTxGnrtnNtfctn/FinInstrmAttrbts/ClssfctnTp/ClssfctnFinInstrm

The messages and fields that could be impacted by the addition of new code patterns in the Classification of Financial Instruments (CFI) codes, are the following ones:

- Sese.025
/Document/SctiesSttlmTxConf/FinInstrmAttrbts/ClssfctnTp/ClssfctnFinInstrm

- Sees.028
/Document/SctiesSttlmTxAllgmtNtfctn/FinInstrmAttrbts/ClssfctnTp/ClssfctnFinInstrm

- Semt.002
/Document/SctiesBalCtdyRpt/BalForAcct/FinInstrmAttrbts/ClssfctnTp/ClssfctnFinInstrm
/Document/SctiesBalCtdyRpt/SubAcctDtls/BalForSubAcct/FinInstrmAttrbts/ClssfctnTp/ClssfctnFinInstrm

- Semt.015
/Document/IntraPosMvmntConf/FinInstrmAttrbts/ClssfctnTp/ClssfctnFinInstrm

- Semt.017
/Document/SctiesTxPstngRpt/FinInstrmDtls/InvstmtFndsFinInstrmAttrbts/ClssfctnTp/CFI
/Document/SctiesTxPstngRpt/SubAcctDtls/FinInstrmDtls/InvstmtFndsFinInstrmAttrbts/ClssfctnTp/CFI

- Semt.019
/Document/SctiesSttlmTxAllgmtRpt/AllgmtDtls/FinInstrmAttrbts/ClssfctnTp/ClssfctnFinInstrm

- Semt.040
/Document/SctiesAcctPosRspn/Bals/BalForAcct/FinInstrmAttrbts/ClssfctnTp/ClssfctnFinInstrm

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[5] Need to decide on a unified reference to the 2021 framework that is common for all messages.

/Document/SctiesAcctPosRspn/Bals/SubAcctDtls/BalForSubAcct/FinInstrmAttrbts/ClssfctnTp/ClssfctnFinInstrm

Detailed assessment:

EUROSYSTEM ANALYSIS – GENERAL INFORMATION	

T2S Specific Components		Common Components	
LCMM			
	Instructions validation		
	Status management		
	Instruction matching		
	Instructions maintenance		
	Penalty Mechanism		
Settlement			
	Standardisation and preparation to settlement		
	Night-time Settlement		
	Daytime Recycling and optimisation		
	Daytime Validation, provisioning & booking		
	Auto-collateralisation		
Liquidity Management			
	Outbound Information Management		
	NCB Business Procedures		
	Liquidity Operations		
T2S Interface		**Eurosystem Single Market Infrastructure Gateway** (from R6.0 June 2022)	
	Communication		Communication
	Outbound Processing		Outbound Processing
	Inbound Processing		Inbound Processing
Static Data Management *(until June 2022)*		**Common Reference Data Management** *(from R6.0 June 2022)*	
	Party data management		Party data management
	Securities data management		Securities data management
	Cash account data management		Cash account data management
	Securities account data management	X	Securities account data management
	Rules and parameters data management		Rules and parameters data management
Statistics and archive		**Statistics and archive**	
	Statistical information (until June 2022)		Short term statistical information
	Legal archiving (until June 2022)		Legal archiving (from R6.0)
			Data Warehouse (from R6.0)
Information *(until June 2022 containing reference data)*		**CRDM business interface** *(from R6.0 June 2022)*	
	Report management		Report management
	Query management		Query management
			Communication
			Outbound Processing
			Inbound Processing
Operational Services			
X	Data Migration (T2S DMT)		Data Migration (CRDM DMT, from R6.0)
	Scheduling (until June 2022)		Business Day Management (from R6.0)
			Business Day Management business interface (from R6.0)
	Billing (until June 2022)		Billing (from R6.0)
			Billing business interface (from R6.0)
	Operational Monitoring		Operational and Business Monitoring
	MOP Contingency Templates		

Impact on major documentation		
Document	**Chapter**	**Change**
Impacted GFS chapter		n.a.
Impacted UDFS chapter	1.3.4.3 Description of the entities 4.5.3.6 Securities – New 5.1 Business Rules	Change of ISO Standard for Security CFI code
Additional deliveries for Message Specification (UDFS, MyStandards, MOP contingency templates)	MyStandards, semt.013, 016, 029, 034 sese.023, 030, 032 MyStandards, reda.006, reda.007, reda.010, reda.012	Add reference to ISO 2021 CFI code scheme for the specified messages; Add an editorial annotation to the CFI fields in order to reference to the v.2021 of the standard.
UHB	4.3.2.46 Security – New/Edit Screen	Change of ISO Standard for Security CFI code for business rules DSC1700 and DSU1410
Other impacted documentation (FA Sch. 05, FA Sch. 07)		n.a.
Impacted GDPR message/ screen fields		No impact
Links with other requests		
Links	Reference		Title	

OVERVIEW OF THE IMPACT OF THE REQUEST ON THE T2S SYSTEM AND ON THE PROJECT

Summary of functional, development, infrastructure and migration impacts

Amendment of CRDM Business rules DSC1700 and DSU1410 in order to change the validation on Security CFI code.

The full list of new code patterns is in the table below.

Category	Group	Attribute modified	Value	CFI Code
Debt	DT	First	K	DTKXXX
Swaps	SR	Fourth	D	SRXXXD
Swaps	SR	Fourth	N	SRXXXN
Swaps	ST	First	H	STHXXX
Swaps	ST	First	B	STBXXX
Swaps	ST	First	C	STCXXX
Swaps	SF	Fourth	C	SFXXXC
Swaps	SM	Fourth	E	SMXXXE
Non Listed and Complex	HR	First	E	HREXXX
Non Listed and Complex	HR	Third	C	HRXXCX
Non Listed and Complex	HR	Third	F	HRXXFX
Non Listed and Complex	HT	First	H	HTHXXX
Non Listed and Complex	HT	First	B	HTBXXX
Non Listed and Complex	HT	First	C	HTCXXX
Non Listed and Complex	HF	First	B	HFBXXX
Non Listed and Complex	HF	First	C	HFCXXX
Non Listed and Complex	HF	First	D	HFDXXX
Non Listed and Complex	HF	First	E	HFEXXX
Non Listed and Complex	HF	First	Q	HFQXXX
Non Listed and Complex	HF	First	U	HFUXXX
Non Listed and Complex	HF	First	W	HFWXXX
Non Listed and Complex	HF	First	Y	HFYXXX
Non Listed and Complex	HF	Second	J	HFXJXX
Non Listed and Complex	HF	Second	K	HFXKXX
Non Listed and Complex	HF	Second	L	HFXLXX
Non Listed and Complex	HM	Second	J	HMXJXX
Non Listed and Complex	HM	Second	K	HMXKXX
Non Listed and Complex	HM	Second	L	HMXLXX
Forwards	JF	First	U	JFUXXX
Forwards	JF	First	V	JFVXXX
Forwards	JF	First	S	JFSXXX
Forwards	JF	First	W	JFWXXX
Forwards	JF	First	J	JFJXXX
Forwards	JF	First	K	JFKXXX
Forwards	JF	First	L	JFLXXX
Forwards	JF	First	N	JFNXXX
Forwards	JF	Third	R	JFXXRX
Forwards	JC	Third	C	JCXXCX

Forwards	JR	Third	C	JRXXCX
Forwards	JT	First	C	JTCXXX
Forwards	JT	First	H	JTHXXX
Forwards	JT	Third	S	JTXXSX

The CFIDeltaISO2015-2021.xlsx lists all changes from the ISO 10962:2015 standard to the ISO 10962:2021 version.

Add an editorial annotation to the following message tags in MyStandards to reference to new CFI code standard.

Message	path
reda.006	/Document/SctyCreReq/Scty/FinInstrmAttrbts/ClssfctnTp/ClssfctnFinInstrm
reda.007	/Document/SctyMntncReq/UpdTp/UpdTp/Modfy/FinInstrmAttrbts/ClssfctnTp/ClssfctnFinInstrm
reda.010	/Document/SctyQry/SchCrit/ClssfctnFinInstrm
reda.012	/Document/SctyRpt/SctyRptOrErr/SctyRptOrBizErr/SctyRpt/FinInstrmAttrbts/ClssfctnTp/Clssfctn FinInstrm

Main cost drivers

- Introducing new code patterns for CFI code for the object "Security" with impacts for CRDM Common Component (BE, DMT, GUI);
- Addition of the reference to ISO 2021 CFI code scheme in several ISO messages.

Impact on other TARGET Services and projects

No impact on other Eurosystem services (T2, TIPS) or projects (ECMS) has been identified during DA.

Summary of project risk

No risk has been identified during DA.

Security analysis

No adverse effect has been identified during security assessment.

02 November 2023

Cost assessment on Change Requests

T2S-791-SYS – T2S alignment to ISO 10962:2021 CFI code - addition of new codes			
One-off	Assessment costs* - Preliminary - Detailed	2,000.00 10,000.00	Euro Euro
One-off	Development costs	85,928.30	Euro
Annual	Operational costs - Maintenance costs - Running costs	 6,662.04 0.00	 Euro Euro

*The relevant assessment costs will be charged regardless of whether the CR is implemented (Cf. T2S Framework Agreement, Schedule 7, par. 5.2.3).