

Report on Collateral Management Harmonisation

Prepared by AMI-SeCo HSG's Collateral Management Harmonisation Task Force
(CMH-TF)

Executive Summary

Financial market stakeholders support the need for collateral management harmonisation in view of fostering the creation of a truly 'domestic pan-European' financial market. Harmonisation reduces heterogeneity, increases collateral mobility, addresses the growing importance of collateral, contributes to ensuring a level playing field, allows for possibly enhancing service levels and, overall, aims at achieving a higher degree of efficiency. All this would also contribute to the European Capital Markets Union (CMU) initiative of the European Commission.

Harmonisation of collateral management is critical to further integration of financial markets in Europe. Market harmonisation of collateral management processes is a further milestone towards the establishment of a pan-European financial market with efficient and effective financial market infrastructures for managing liquidity and securities, thereby promoting the smooth implementation of monetary policy and financial stability. The harmonisation of collateral management procedures should also be viewed in the context of other Eurosystem's deliberations on making collateral management procedures more efficient, in particular in order to further improve integration between cash and collateral. Significant progress has already been made in this regard through the introduction of TARGET2 and the completion of the final T2S migration wave. Furthermore there are ongoing policy considerations by the Eurosystem to consolidate the settlement of mobilisation of marketable collateral in T2S.

Analysis shows that operational barriers to efficient and effective collateral management exist which are related to differences in business processes, workflows and messaging. Operational impediments to an efficient use of collateral across financial markets in Europe are related to diverging processes and interactions in collateral management activities. Other barriers to post-trade arrangements of financial markets in Europe also play a role, such as legal/regulatory barriers, but they are not part of this report as they are expected to be largely covered by other initiatives of CMU. This report sets the collateral management harmonisation agenda to remove primarily the operational barriers.

A holistic approach should be taken to remove the barriers to efficient and effective collateral management. The adoption of latest international standards (such as ISO 20022) for collateral management is an opportunity for moving towards harmonised workflows and business processes as well as a common set of messaging with interoperable market infrastructures based on a common set of data. Major financial market infrastructures in Europe have migrated (or will migrate) to the ISO 20022 standard, in particular for securities settlement (T2S) and cash settlement (T2). The Eurosystem will also use ISO 20022 to manage all processes related to the management of eligible assets as collateral in Eurosystem monetary policy operations (including triparty and corporate actions processes). The focus is on standardisation of messaging based on ISO 20022 and efficiency improvements for financial market infrastructures (FMIs), their users and the Eurosystem, which would also leverage existing infrastructures and increasing interoperability of platforms to facilitate sourcing of collateral¹.

Market stakeholders have identified and agreed upon a set of harmonisation activities in collateral management for which market stakeholders have agreed that harmonisation is most attractive in collateral management. The harmonisation activities are based on set of Guiding Principles for the safety and efficiency of collateral management, i.e. harmonisation should lead to a pan-European, single collateral management rule book, the use of latest international standards (such as ISO 20022), straight-through-processing and increased availability of collateral. For each of the activities and business processes, it is proposed to assign priority levels that take into account the criticality and externalities of each process. In line with the initial thinking of AMI-SeCo, it is proposed that the highest priority (Priority 1) processes are directly related to the markets that have migrated to T2S, are necessary for the safe and efficient functioning of FMIs, monetary policy and collateral management arrangements in T2S markets², and are feasible to be implemented in line with the timing of European integration efforts in the CMU. Lower priority (Priority 2) processes are regarded by market stakeholders as beneficial but might, at this stage, not be absolutely necessary for the safe and efficient functioning of collateral management arrangements in T2S markets. Finally, no prioritisation is assigned to some business processes which, inter alia, were either already harmonised, or where harmonisation might no longer be required or where market practices are still evolving and it is too early to provide guidance ('Non-prioritised items').

The following 10 collateral management harmonisation activities have been identified by market stakeholders. Each harmonisation activity consists of several business processes. Detailed overview tables have been prepared, which list the business processes according to the priority level (annex 1).

¹ To this end, common messaging and workflows could also be a step towards achieving triparty collateral management via the network of triparty agents (triparty interoperability).

² 'T2S markets' in this report refers to the community of CSDs that have migrated to T2S and their CSD participants (including the central banks that use CSDs in T2S).

Collateral Management Harmonisation Activities and their prioritisation		
1	Triparty Collateral Management Processes	Harmonisation of triparty collateral management workflows and messaging. <ul style="list-style-type: none"> • 11 priority 1 business processes • 7 priority 2 business processes Interoperable processes allowing collateral mobility across triparty agents.
2	Corporate Actions processes (relevant for collateral management)	Harmonisation of Corporate Actions processes, workflows and messaging by reinforcing existing harmonisation standards/efforts or adding new harmonisation standards (taking into account specific considerations from a collateral management perspective). <ul style="list-style-type: none"> • 16 priority 1 business processes • 5 priority 2 business processes
3	Taxation processes (relevant for collateral management)	Harmonisation of tax processing in the context of collateral management (taking into account identification of parties in collateralised transactions). Creation of map of different national withholding tax requirements. <ul style="list-style-type: none"> • 8 priority 1 business processes
4	Bilateral Collateral Management processes	Harmonisation of workflows for bilateral collateral management (covering non-cleared OTC derivatives and securities financing). Interoperability and leverage of existing infrastructures and market platforms. <ul style="list-style-type: none"> • 2 priority 1 business processes • 2 priority 2 business process Market practices needed for cleared OTC derivatives.
5	Margin Calls	Interoperability and leverage of existing infrastructures and market platforms for margin processes. <ul style="list-style-type: none"> • 1 priority 1 business process
6	Billing Processes (relevant for collateral management)	Harmonisation of billing procedures, workflows and messaging. <ul style="list-style-type: none"> • 3 priority 1 business process • 2 priority 2 business process
7	Cut-Off Times	Analysis is currently ongoing on minimum requirements for end-of-day cut off times (to avoid possible different value dates in cross-infrastructure transactions in different markets, which may create frictions for market participants active in different markets).
8	Collateral Data	Harmonisation of data exchanges to ensure that information / data is available where necessary. Market practises needed for use of data. <ul style="list-style-type: none"> • 6 priority 1 business processes • 1 priority 2 business process
9	Sourcing of Collateral	10 Minimum requirements for sourcing/movement of collateral across Europe (priority 1).
10	Non-Euro Collateral processes	Market practices for the handling of non-euro denominated collateral (including related corporate action processes). <ul style="list-style-type: none"> • 2 priority 1 business processes

Market stakeholders welcome the significant progress that has been achieved towards harmonisation of Triparty Collateral Management processes. Triparty agents, together with market participants and the Eurosystem, have analysed the harmonisation of triparty processes (between triparty agents and involved stakeholders) and are working on a proposal for harmonisation of triparty collateral management which could be used in the context of Eurosystem credit operations and also in the context of market-related triparty transactions. The finalisation of the harmonisation proposal is subject to some further clarifications/feedback from the Eurosystem and triparty agents as it would require changes to workflows/business processes.

The report takes into account aspects and considerations that are relevant in the context of the Eurosystem's investigations for a new Eurosystem Collateral Management System (ECMS). Areas covered by the report which are key elements for harmonisation for ECMS include (but are not limited to) corporate actions, triparty collateral management services, taxation processes, non-euro collateral processes, billing processes and collateral data exchanges.

With the approval by AMI-SeCo of this report, the next steps could be started, i.e. the definition and implementation of the agreed harmonisation proposals. With approval by AMI-SeCo of this report and the identified harmonisation activities and needs, 'phase one' of the collateral management harmonisation effort could be concluded and the 'phase two' of the effort could be started, i.e. the definition and implementation of the agreed harmonisation proposals. The agreed collateral management harmonisation activities would serve as the basis for the next steps. Work may include further work on the possible definition of standards for harmonised business process/workflows and a monitoring framework.

Substantial market efforts will be needed for the implementation. Market commitment is needed to define concrete harmonisation proposals for the agreed harmonisation activities and needs. In this context, it would also have to be considered whether harmonisation proposals should take the form of harmonisation standards and/or harmonised best market practices. The dedication of market participants is also needed to review and (where needed) enhance ISO 20022 messaging standards with harmonised workflows and data elements.

Implementation of the harmonisation proposals will require close market involvement. It is expected that AMI-SeCo will play a major role in facilitating market involvement and assisting the market in the pursuit of the collateral management harmonisation activities and needs. AMI-SeCo is also taking into account other initiatives on establishing a CMU in the EU and the removal of barriers and bottlenecks to efficient and resilient cross-border post-trading.

With a view to starting the next phase of the Collateral Management Harmonisation effort, i.e. defining a harmonisation proposal for each agreed harmonisation need, AMI-SeCo is invited to:

- a) Approve the report by the HSG's CMH-TF;***
- b) Invite the HSG (CMH-TF) to launch the work of the next phase, as outlined in Section 6 of the report immediately and prepare concrete harmonisation proposals in line with the priorities and high level time lines identified in the report (in particular as regards the timelines for ECMS)***
- c) Request the HSG to provide regular updates (including work planning) on the collateral management harmonisation effort to AMI-SeCo.***

1. Introduction

As it is part of its mandate, the Eurosystem fosters European financial market integration and promotes the delivery of a truly domestic Single Market in Europe. It actively contributes to establishing an integrated Capital Markets Union (CMU) and continues to promote harmonisation of securities settlement with the T2S harmonisation agenda. The Eurosystem contributes as a catalyst in the discussion with market participants and providers of collateral management services.

The Eurosystem's Advisory Group on Market Infrastructures for Securities and Collateral (AMI-SeCo) assists the Eurosystem in contributing to the harmonisation in the fields of securities clearing and settlement, and collateral management, with a view to fostering integrated financial market infrastructures. In its March 2017 meeting, the AMI-SeCo invited the HSG to develop a comprehensive list of collateral management harmonisation activities. Given the importance and complexity of the matter, the HSG decided to establish the CMH-TF. In line with the mandate of the AMI-SeCo and its HSG, the CMH-TF was asked to analyse any matters related to collateral management and identify a list of key harmonisation activities related to the efficient functioning of collateral management. The CMH-TF consists of Eurosystem central banks, market participants and market infrastructures primarily active in collateral management.

The CMH-TF analysed barriers to efficient functioning of collateral management and considered existing market standards/market practices and processes of collateral management, with a view to overcoming fragmentation and operational constraints. The CMH-TF considered recent market developments and earlier work by COGESI³ and also took into account aspects that may be relevant for harmonisation in the

³ Discussions in COGESI led to a preliminary list of proposals for Collateral Management Harmonisation Activities (preliminary CMHAs). See: <https://www.ecb.europa.eu/paym/initiatives/shared/docs/e9dbb-cmh-tf-2017-08-24-1st-meeting-ami-seco-hsg-cmh-tf-item-3-draft-list-of-collateral-management-harmonisation-activities.pdf?f94564b851a33aef93410b2e13f02bc1>

context of the Eurosystem's investigations for a Eurosystem Collateral Management System (ECMS)⁴. For the Eurosystem central banks, ECMS would manage eligible assets as collateral in Eurosystem credit operations. ECMS would establish harmonised functions and services for the Eurosystem and its counterparties.

A wide range of topics were addressed by the CMH-TF for the identification of the barriers to efficient and effective collateral management, including existing market arrangements, market standards and market best practices/guidance. This analysis led to a set of Guiding Principles for overcoming the barriers and guiding the harmonisation of collateral management. Finally, the CMH-TF agreed on a set of harmonisation activities to overcome barriers.

This report is structured as follows: Section 2 describes the barriers to efficient and effective collateral management which market stakeholders/the CMH-TF has identified and agreed upon. Section 3 sets out the CMH-TF's agreed upon Guiding Principles for collateral management harmonisation. Section 4 explains the approach for analysing current differences in the mobilisation and management of collateral that led to identifying the list of harmonisation activities. Section 5 explains the list of harmonisation activities agreed by the CMH-TF and endorsed by the HSG. Section 6 outlines the next steps. Annex 1 provides the detailed overview of the proposed harmonisation activities in tables. Annex 2 provides a preliminary list of terminology used in the context of collateral management to ensure common understanding. Annex 3 provides the list of CMH-TF members and ad hoc observers.

2. Existing barriers to efficient and effective collateral management

Market participants currently manage their collateral assets more proactively in view of market needs and regulatory developments, which results in more frequent interactions and movements of assets from one location to another⁵. In view of these developments, market participants in COGESI expressed the need for enhancements to existing arrangements to better support collateral and liquidity management

⁴ In September 2016, the Eurosystem's Governing Council agreed to conduct the investigation phase for ECMS (until December 2017). See presentation on the impact of ECMS on market participants: https://www.ecb.europa.eu/paym/initiatives/shared/docs/d1b46-ami-seco-2017-07-04-05_item_4_impact_of_ecms_on_market_participants.pdf?549996440041a2447b5de38eaae4141c

⁵ The overall collateral demand has increased, e.g. due to implementation of margin obligations. And at the same time, the demand/scarcity of specific high quality and liquid collateral types has increased which requires implementation of more efficient collateral mobilisation techniques.

activities (see “Euro Repo Market: Improvements for collateral and liquidity management”, 2014).⁶ Market participants in particular expressed the need for collateral to be able to be moved quickly and managed efficiently across Europe via triparty and bilateral collateral management processes. The mobilisation and management of collateral should meet the demand of market participants to use collateral where and when it is needed and to meet regulatory requirements. Market participants in the European Post Trade Forum (EPTF⁷) also underlined the importance of the ability to move collateral efficiently between counterparties, markets and accounts for the adequate functioning of financial markets.

Barriers to an efficient use of collateral across financial markets are particularly related to operational impediments involving triparty and bilateral collateral management arrangements, i.e. differences in the business processes and messaging of collateral management activities, which hamper collateral mobility. Local market practices and arrangements in particular hamper efficient mobilisation of collateral across the euro area and the use of collateralised transactions at end of-day for treasury adjustment operations. Using securities as collateral across Europe often requires the involvement of agents (custodians or CSDs) that are able to handle multiple processes and requirements (e.g., for cash flows related to corporate actions or taxation processes). Other barriers to post-trade arrangements of financial markets in Europe also play a role, such as legal/regulatory barriers, but they are expected to be mainly covered by other initiatives, in particular in the context of the Commission’s Capital Markets Union effort.

As a result of the local collateral management arrangements that have evolved over many years, there is fragmentation and market participants and the Eurosystem counterparties have to deal with different procedures when mobilising collateral with other market participants or the Eurosystem. These differences result in operational inefficiencies which can be particularly detrimental in times of financial stress and collateral shortage, and involve unnecessary cost.

As the euro area’s banking and financial markets become increasingly integrated, industry demand for more efficient and harmonised collateral management arrangements within the Eurosystem central bank community has increased as well. The Eurosystem has explored existing barriers and prospects of harmonisation related to current processes for monetary policy in view of its considerations for the

⁶ The Contact Group for Euro Securities Infrastructures (COGESI) analysed barriers and national restrictions that prevent a greater level of automation and connectivity between market infrastructures. This resulted in the identification of a first list of relevant barriers to collateral mobility that impedes movement of collateral and provision of related services. Market participants in COGESI also stated to identify the main areas for harmonisation of collateral management arrangements: (i) Prompt access to collateral and opportunities of using ISO 20022 for collateral messages in the various layers of the chain; (ii) Improvements for cross-system transactions in Commercial Bank Money (iii) Triparty-related harmonisation

⁷ In early 2016 the European Commission set up the EPTF as an informal expert group on post-trading, including the areas of collateral markets and derivatives. Experts in the EPTF analysed the current state of post trade reform, regulatory initiatives in the post trade space and provided a high level assessment of the dismantling of the Giovannini Barriers. Barriers were identified that are accredited the highest priority for required solution in the context of CMU (https://ec.europa.eu/info/publications/170515-eptf-report_en)

development of a common ECMS. Furthermore there are ongoing policy considerations by the Eurosystem to consolidate the settlement of mobilisation of marketable collateral in T2S. The triggers for the Eurosystem's considerations were key post trade developments in the recent years, in particular the go-live of T2S, ICSDs' public announcements to make their services available also on T2S, the entry into force of the CSDR (in particular the freedom of access to CSDs) and the European Commission's CMU initiative. The Eurosystem therefore actively contributes to the momentum of removing the impediments to efficient collateral management.

3. Guiding Principles for Collateral Management Harmonisation

In response to the issues and impediments to efficient collateral management, the CMH-TF has agreed on five Guiding Principles for the harmonisation of collateral management. The Guiding Principles should contribute to addressing operational issues requiring progressive harmonisation/standardisation of business processes and messaging based on the ISO 20022 standard and efficiency improvements for financial market infrastructures (FMIs), their users and the Eurosystem. Harmonisation does not necessarily cover all bank-to-bank or bank-to-buy side interaction and processes, although it is evident that the proposed harmonisation would lead to benefits for all market stakeholders in Europe.

- **Principle 1: Harmonisation should lead to a single pan-European collateral management rule book for interaction of financial market infrastructures (FMIs) and their users including central banks:** In the past, FMIs were free to impose local market practice rules that work for their business or local needs with specific business processes and messaging. In a pan-European context, this leads to significant heterogeneity. Harmonisation should allow for pan-European practices and rules for interaction of FMIs and their users (including central banks), which promote safe and effective management of collateral relevant for processes related to market transactions and Eurosystem credit operations, involving triparty and bilateral collateral management arrangements. Harmonisation should take into account and be compatible with existing T2S harmonisation standards.
- **Principle 2: Harmonisation should lead to messaging based on latest international standards:** Harmonisation should promote the use of the latest international standards (such as, for example, ISO 20022), which is emerging as the default messaging standard used by the Eurosystem (for T2, T2S and ECMS), FMIs and their communities, and should cover workflows, business processes and data formats relevant to collateral management. Standardisation and technical implementation of the latest international standards fosters automation, reduces cost and contains operational risk. There are also wider benefits of using standardised ISO 20022 messaging and data/workflows, e.g., for internal and external reporting, risk management, decision-making and facilitating aggregation of data.

- **Principle 3: Harmonisation should lead to interoperability.** Harmonisation should lead to interoperable or compatible market infrastructures and arrangements (including data processing platforms/warehouse) to allow interaction across global networks regardless of their technical operating systems. Interoperability should facilitate collateral mobility based on harmonised interaction between market participants for collateral management according to international standards. This is also relevant for interaction of market participants with existing Eurosystem market infrastructures such as TARGET2 and TARGET2-Securities.
- **Principle 4: Harmonisation should lead to straight-through-processing (STP):** Harmonisation should lead to automation of collateral management, i.e. foster the processing of collateral transactions in real time on a straight-through-processing (STP) basis, requiring, as a rule, minimum manual intervention. The sourcing of collateral to/from triparty agents should also be possible using automated processes.
- **Principle 5: Harmonisation should remove operational restrictions which impede availability, usage and mobility of collateral:** Harmonisation should improve the availability, mobility and usage of securities in collateralised transactions and remove restrictions, i.e. related to the need to remove securities from the collateral pool at the time of a corporate action events/due to specific operationally complex taxation processes. Harmonisation of operational processes associated with the usage of securities as collateral through the implementation of harmonised workflows and messaging is therefore needed in order to ensure maximum availability of securities for use as collateral.

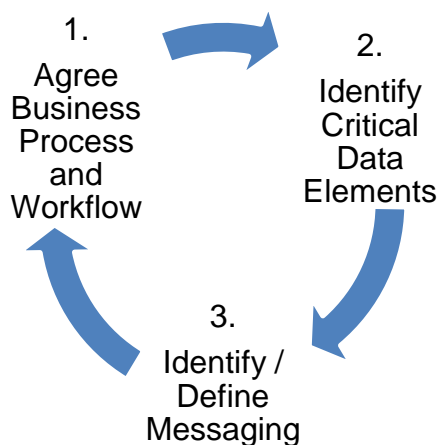
4. The CMH-TF's approach towards overcoming barriers

The objective of the CMH-TF is to deepen the analysis of the AMI-SeCo's/HSG's initial deliberations on collateral management harmonisation with a view to presenting a detailed list of harmonisation needs and activities to the AMI-SeCo/HSG by Q4 2017. Subject to AMI-SeCo approval of the list of CMHAs, work on the next steps of the CMH-TF may include further work on the possible definition of standards for harmonised business process/workflows, the identification of harmonised data elements necessary for the functioning of this process and the identification/definition of ISO 20022 compliant messages. Finally, further work is needed to identify how compliance with the new harmonisation standards/best practices should be measured and at which level. The monitoring framework used in the T2S harmonisation work will be considered in this context.

The CMH-TF agreed to take a 3-step approach to structure the work in each functional area and conduct an in-depth analysis:

1. Define and agree the harmonised business process and workflow
2. For each business process identify the critical data elements necessary for the functioning of this process

3. Identify / define an ISO20022 compliant message by which these data elements should be transmitted



In 2017, CMH-TF had four meetings. In its first meeting, CMH-TF established five substreams, which consisted of members from the Eurosystem, market participants and market infrastructures. Each workstream was coordinated by a substream lead. Additional contributors were invited from outside the CMH-TF to become involved in the substreams and bring expertise from other institutions.

- Substream 1: Triparty Collateral Management (lead: Clearstream – 29 contributors);
- Substream 2: Corporate Actions, Taxation Forms, Non-Euro Collateral Management (lead: Citi – 27 contributors);
- Substream 3: Bilateral Collateral Management, Margin Calls (lead: BNPP – 30 contributors);
- Substream 4: Billing Processes, Cut-Off Times (lead: Monte Titoli– 12 contributors);
- Substream 5: Collateral Dynamic and Static Data (lead: Deutsche Bank– 12 contributors).

Weekly teleconference calls were organised for each substream, resulting in around 30 conference call meetings. Each substream launched detailed fact-finding exercises to identify the barriers to collateral management. The collected facts of the surveys identified differences in current procedures, workflows and messages, and the substreams actively discussed and analysed the merits of harmonised business processes for both central banks and market participants based on the ISO 20022 standard.

The CMH-TF also considered the Eurosystem investigations on ECMS. The Eurosystem analysis revealed the current highly fragmented landscape of collateral management systems across the Eurosystem. Given the growing importance of collateral, the Eurosystem analysis also identified an opportunity for further financial integration within the Eurosystem’s Market Infrastructure landscape. The ECMS aims to bring several benefits, such as reducing fragmentation and heterogeneity within the Eurosystem, allowing for efficient mobilisation and management of collateral and contributing to the European Capital Markets Union. In principle, the ECMS shall only support harmonised functionalities,

services and processes. The ECMS will benefit from the ongoing and future market harmonisation, notably in the following functional areas: usage of ISO 20022 for all communication between ECMS and all market participants (CSDs, tri-party agents, counterparties); tri-party collateral management services used when mobilising marketable assets in Eurosystem credit operations; corporate actions management. The work of the CMH-TF offers the unique opportunity for market stakeholders to provide input to Eurosystem internal work on ECMS, which is conducted in parallel according to the timeline of the ECMS project.

5. Overview of Collateral Management Harmonisation Activities

5.1 Ten Collateral Management Harmonisation Activities (CMHAs)

The following list of harmonisation activities were identified and agreed by the CMH-TF:

Collateral Management Harmonisation Activities	
1	Triparty Collateral Management
2	Corporate Actions (processes relevant for collateral management)
3	Taxation Processes (relevant for collateral management)
4	Bilateral Collateral Management
5	Margin Calls
6	Billing Processes (relevant for collateral management)
7	Cut-Off Times
8	Collateral Data
9	Sourcing of Collateral
10	Non-Euro Collateral

Each harmonisation activity contains several business processes, which are explained below. A more detailed explanation of the business processes and the harmonisation needs is provided in the Annex 1, which includes overview tables. The tables present (i) an identification of the business process, (ii) a brief explanation of the business process and (iii) the proposed harmonisation need.

Interdependencies have been considered for each harmonisation activity and process (vis-à-vis other activities and processes). Where activities and processes are interrelated, these were taken into account when analysing the resulting harmonisation need. This resulted in the movement of some processes to other activities in view of their relevance for collateral management. The harmonisation activities have the ultimate implementation of ISO 20022 for standardising business processes and messaging in common. It is recalled that, with an ECMS, the Eurosystem would migrate its collateral management infrastructure towards the exclusive usage of ISO 20022 messaging.

5.2 Description of Collateral Management Harmonisation Activities

In the area of **triparty collateral management** there is a need to implement a single harmonised model with common processes for interaction between triparty agents and central banks using (yet to-be-defined) ISO 20022 messaging. Market participants have also identified a need for common messaging and workflows to be adopted by all TPAs in order to reduce the costs associated with adapting to the differing messages and workflows employed by triparty agents. Common messaging and workflows could also be seen as helping achieve triparty interoperability⁸. In line with the time horizon for Eurosystem considerations on harmonisation of triparty procedures, there is a need to agree on a harmonisation proposal in the area of triparty collateral management in Q2 2018 at the latest. A series of priority 1 harmonisation needs have been identified related to the business processes, workflows and messaging. Priority 2 harmonisation needs have also been identified (in Annex 1) with regard to business processes including (but not limited to) the initiation and termination of a triparty collateral transaction. The methodology used for the prioritisation of collateral management harmonisation activities is presented in sub-section 5.3.

The CMH-TF has identified a strong need to harmonise the handling and processing of **corporate action events** (CAs) relevant to collateral management. The need for accurate and timely corporate action information using harmonised messaging is seen as key to ensuring that the impact of upcoming

⁸ A distinction needs to be made between 'triparty settlement interoperability' (TSI) and 'tri-party inventory interoperability' (TII). Both models allow participants to pool collateral across borders in an efficient way and choose their preferred triparty agent.

Triparty settlement interoperability: The TSI model is currently worked upon by the (I)CSDs and ECAG in relation to ECAG's GC pooling services (see COGESI 2014 report on improvements to repo market). TSI should foster collateral mobility through automated trading, CCP clearing, triparty collateral management services and settlement. The timing should be reviewed and specified for the TSI deliverables after T2S full implementation and CSDR's impacts on the Bridge have been implemented.

Triparty inventory interoperability: The provision of inventory management services by a TPA to a Collateral Giver enabling the automatic transfer of assets between his accounts at different TPAs using business processes (selection of assets, mark to market, generation of settlement instructions, etc.) similar or identical to those used for collateral management services.

corporate action events on the pool of collateral is projected accurately. Furthermore the current heterogeneous processes which exist today are seen as a barrier to the use of securities as collateral at the time of a corporate action event. Therefore, and also in view of an ECMS, there is a need to ensure that automated processes can be put in place using harmonised ISO 20022 messaging and harmonised workflows in order to ensure that the securities can remain part of the collateral pool at the time of the corporate action event (thus obviating the need for substitution of these securities). Accordingly, priority 1 harmonisation needs have been identified in the following areas: (1) provision of CA information from the (I)CSD to the collateral taker / giver (2) CA payments (3) negative cash flows (4) corporate action events requiring manual processing (5) CA events requiring specific handling and (6) handling of elective events. A smaller number of priority 2 harmonisation needs were also identified (in Annex 1). Harmonisation proposals in the key areas relevant to workflows and messaging (in particular as regards interaction with an ECMS) should be agreed by end Q2 2018.

As a particular element of CA handling, the need to handle heterogeneous **taxation forms** and procedures has been identified as a barrier to the usage of securities as collateral. Operational differences in taxation processes hinder the mobilisation of collateral and thus may accelerate the scarcity of collateral. Given the importance of the topic, the CMH-TF proposes to assign a priority 1 status to all (eight) identified harmonisation needs.

A number of priority 1 harmonisation needs have been identified in the context of **bilateral collateral management** primarily with regard to the need to promote wider automation for key processes through the usage of interoperable electronic platforms for non-cleared OTC derivatives, repo, and securities lending. For cleared derivatives, there is also a need for a framework of minimum market standards across clearers and CCPs to harmonise the information available to end-users, and the format of this information. Priority 2 needs have also been identified as well as a list of non-prioritised items (in Annex 1).

In the area of **margin calls** a priority 1 harmonisation need has been identified to promote wider use of electronic platforms for margin calls.

In the area of **billing processes**, a combination of priority 1 and priority 2 harmonisation needs have been identified. The increasing movement towards holding collateral in different CSDs puts a subsequent requirement on the collateral taker and collateral giver to manage the different CSD processes for the reconciliation and payment of fees invoices for the assets held as collateral. The need to implement harmonised ISO 20022 messaging for the transmission of the fees invoice together with the migration to harmonised monthly billing cycles (i.e. 1st to 31st of each calendar month) are identified as priority 1 items in this area.

Analysis in the area of **cut-off times** relevant to mobilisation of collateral using links between (I)CSDs on both a DVP and FOP basis is currently ongoing.

A series of core **collateral data elements** have been identified for which there is a need to ensure that data is exchanged in a timely manner in order to ensure harmonised application of the most up to date (accurate) data by all parties (see Annex 2). Today, the most up to date information may only be available to participants in certain markets with the effect that collateral in other markets is not valued using the correct information (e.g. up to date pool factor information, data is not always available on time). Processes to exchange data and workflows to contribute to the collateral data evaluation process are listed in Annex 1.

A series of harmonisation needs related to the **sourcing of collateral** have been identified all of which have been assigned a priority 1 status as the taskforce see the timely sourcing of collateral as being fundamental to the efficient functioning of collateral management processes. A series of needs have been identified related to, amongst others, the maximum time required for the processing of collateral instructions and the need to further improve bridge settlement processes. In addition the market see a need to further encourage non-T2S participating CSDs to join T2S in order to help non-T2S markets achieve the level of service required to ensure the efficient sourcing of collateral.

Processes related to the handling of **non-euro denominated collateral** have been identified as being heterogeneous across markets. Accordingly, two Priority 1 harmonisation needs have been identified to harmonise business processes and messaging in the settlement and custody layers. In particular harmonisation is needed in the sourcing of non-euro denominated collateral together with the handling of cashflows emanating from corporate actions events on non-euro denominated assets.

5.3 Prioritisation and implementation of Collateral Management Harmonisation Activities

To determine the relevance of each harmonisation need vis-à-vis the other harmonisation needs, a prioritisation is applied to group the harmonisation needs. In line with the discussion in AMI-SeCo, the methodology is largely based on the framework that is used in the context of the T2S harmonisation agenda⁹, but is amended and complemented with the harmonisation needs for collateral management.

Priority 1	Activities (business processes and messages) necessary for the safe and efficient functioning of collateral management arrangements in T2S markets (involving the Eurosystem, collateral management service providers (CMSPs) and users of collateral management services (UCMS) in T2S markets). The activities are only priority 1 if:
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⁹ The T2S harmonisation agenda is using the following high level approach: Priority 1 activities are necessary to ensure efficient and safe cross-CSD settlement in T2S. Priority 2 activities are not essential to ensure safe and efficient cross-CSD settlement in T2S, but they are key for the enhancement of the competitive environment and the efficiency of T2S, and could continue to be pursued after the markets’ migration to T2S.

	<ul style="list-style-type: none"> • directly related to the markets that have migrated to T2S, involving financial market infrastructures (FMIs) and their users including Eurosystem central banks. • necessary for the safe and efficient functioning of financial market infrastructures, monetary policy and collateral management arrangements in T2S markets, and • feasible to be implemented in line with the timing of European integration efforts in the CMU.
Priority 2	Activities (business processes and messages) that are beneficial but not essential for the safe and efficient functioning of collateral management arrangements in T2S markets, and involve activities beyond T2S markets.
Non-prioritised items	Activities (business processes and messages) are not prioritised for several reasons, i.e. because the market practices are still evolving and it is too early to provide guidance ¹⁰ , or guidance is not needed (i.e. several collateral management arrangements were considered as already harmonised and/or not related to workflows/interactions between stakeholders). Additionally, some business processes were identified, inter alia, as not required in the future.

In addition to the key criteria for prioritisation listed above, the criticality of processes and the dependencies/externalities should also be considered.

- Criticality of processes for priority 1 items refers to the key collateral management processes that highly relevant for meeting the Guiding Principles set out in Section 3 of this report. Critical processes should establish a harmonised way of interaction for financial market infrastructures (FMIs), their users and central banks in markets that have migrated to T2S. The harmonisation should allow stakeholders to ‘speak the same language’ and act in the ‘pan-European domestic market’ (with harmonised key business processes). Harmonisation should allow market participants in T2S markets to use providers outside their home country, for collateralisation of transactions according to standardised processes and messages, for Eurosystem and market operations. Criticality of processes for priority 2 items indicates that harmonisation would be beneficial for collateralised transactions, but are beyond T2S market and/or may not be essential for the interaction between providers, users and the Eurosystem in T2S markets.

¹⁰ In the list of non-prioritised items, it is too early to provide guidance but there is a willingness by market participants to harmonise a wide range of these processes and market practices (in order to meet legal and regulatory requirements), and they are being discussed in industry fora (see annex 1 under non-prioritised items)

- Dependencies of the processes upon other processes should also be considered, because there could be an impact or dependency upon other processes. For example, the harmonisation of processes for triparty collateral management may introduce changes to other workflows and messaging activities. The harmonisation of processes related to corporate actions may be closely associated with the CMHA on handling of taxation forms.

6. The next phase

After the approval of the report by AMI-SeCo, the next steps towards implementation have to be developed for the harmonisation needs identified in this report. **In this next phase (Phase Two) of the AMI-SeCo's collateral management harmonisation effort, a harmonisation proposal should be defined for each agreed harmonisation need.** It will have to be determined by AMI-SeCo, if a harmonisation proposal should result in a standard or a market practice. The harmonisation proposal should document the business process, the data elements necessary for the functioning of this process and (if available) the ISO 20022 message which should be used for the transmission of the required data elements. If the ISO 20022 message is not available, the harmonisation proposals should define the time plan for developing the messaging (i.e. what, when and who should develop the ISO 20022 message). The harmonisation proposals should take into account the existing T2S harmonisation standards. Phase Two also requires the setting up of a framework for monitoring compliance with agreed collateral management harmonisation proposals. The successful conduct of this Phase Two work will thus lead to the following **deliverables**:

- **defining a harmonised business process and workflow** to address the identified harmonisation needs, in line with the ISO 20022 standard, where applicable;
- **identifying the data elements necessary for the functioning of this process**;
- **identifying / defining an ISO 20022 compliant message(s) by which these data elements should be transmitted**; this includes identifying the message(s) that will require updates and/or development of new messages needed for collateral management (taking into account the schedule for the updates or development of ISO 20022 messages);
- **identifying who will have to implement the new harmonisation proposal** and what should be monitored at which level (e.g. only at the level of CMSPs, at the level of direct users of CMSPs, at national level) and how.
- **preparing a detailed timeline for the definition and implementation of the harmonisation proposal.** The timeline should take into consideration various criteria, e.g. key timelines for the implementation of the harmonisation proposal in the proposed Eurosystem Collateral Management System (ECMS) which will rely exclusively on the usage of the ISO 20022 standard for communication with market participants.

- **further enhancing a glossary for commonly used terminology relevant to collateral management harmonisation activities** (work has already commenced in this regard).

A detailed **timeline** should plan the work for the deliverables mentioned above. Not all deliverables should be scheduled at the same time, but a timetable should be developed to set different milestones (taking into account that, as a first milestone, the description/definition of harmonised business processes and workflows should be detailed). The timetable should cover the planning for the short term (2018) and longer term (upcoming five years), and also has to take, where relevant, into account the timetable and planning of the ECMS project.

Regular updates should be provided to AMI-SeCo over the coming months and years. By the end of Q2 2018, the following should be presented to AMI-SeCo on the status of the work:

- An intermediary report with a first list set of harmonisation proposals for business processes, including in particular proposals in areas which are particularly relevant for FMIs and their users (including central banks).
- A longer term planning (covering planning up to end-2022) with key milestones for the remaining harmonisation proposals and the next steps (including planning for the business processes/workflows, data elements and messaging).

The CMH-TF stands ready to work on the deliverables identified for Phase Two, and any additional deliverables which might be identified in conducting this work.

Annex 1: Collateral Management Harmonisation Activities (CMHAs) and Harmonisation Needs

Overview of Collateral Management Harmonisation Activities (CMHAs) and Harmonisation Needs				
CMHA	Title	Priority 1	Priority 2	Non-Prioritised
1	Triparty Collateral Management	11	7	16
2	Corporate Actions	16	5	1
3	Taxation Processes	8	0	0
4	Bilateral Collateral Management	2	2	10
5	Margin Calls	1	0	0
6	Billing Processes	3	2	1
7	Cut-Off Times	0	0	0
8	Collateral Data	6	1	1
9	Sourcing of Collateral	10	0	0
10	Non-Euro Collateral	2	0	0
		59	17	29

105 processes analysed in total, from which 76 harmonisation needs were identified

Priority 1 Harmonisation Needs

Priority 1: Triparty Collateral Management (CMHA1)			
No.	Process	Process Description	Harmonisation Need
1	Increase of Triparty Collateral Exposure (Global Amount)	An instruction sent by a trading party to its triparty agent to instruct the agent to perform a specific action on a collateral management transaction. It is also sent by an account owner to an account servicer where the account servicer manages the account at the triparty agent on behalf of the trading party. In response a message is sent by the triparty agent after the receipt of a collateral instruction from its client. The Receiver is either the collateral taker or the collateral giver or their account servicer. Today the messaging and workflow differ per triparty agent where the increase of a triparty collateral exposure amount may be conducted (i) unilaterally or (ii) with the need for matching instructions depending on the TPA.	There is a need to implement harmonised messaging and workflows for the increase of a triparty collateral exposure amount.
2	Decrease of Triparty Collateral Exposure (Global Amount)	An instruction sent by a trading party to its triparty agent to instruct the agent to perform a specific action on a collateral management transaction. It is also sent by an account owner to an account servicer where the account servicer manages the account at the triparty agent on behalf of the trading party. In response a message is sent by the triparty agent after the receipt of a collateral instruction from its client. The Receiver is either the collateral taker or the collateral giver or their account servicer. This message provides valuation results as well as the status of the collateral instruction and the status of the proposed collateral movements (cash and securities).	There is a need to implement harmonised messaging and workflows for the decrease of a triparty collateral exposure amount.
3	Revaluation (Reception of a new Collateral Exposure Statement)	A statement sent by the TPA to the collateral taker following the revaluation of the assets allocated as a result of price or reference data changes (e.g. change in the haircut of the asset).	There is a need to implement harmonised messaging and workflows for the revaluation of a triparty collateral exposure amount.

Priority 1: Triparty Collateral Management (CMHA1)			
No.	Process	Process Description	Harmonisation Need
4	Compulsory Decrease of Triparty Collateral Exposure Due to Deduction of Up-Coming Corporate Action Event	In the context of Eurosystem triparty collateral management, the TPA may send a message to the central bank regarding a compulsory decrease of the Triparty Collateral Exposure amount due to an upcoming corporate action event.	Eurosystem central banks will consider the implementation of a harmonised business process.
5	End-of-Day Reporting on Stocks	A message sent by a triparty agent to both the collateral giver and the collateral taker or to an account servicer, who manage the account at the triparty agent on behalf of a trading party, providing the details of the valuation of both the collateral and the exposure. It is sent in the following circumstances: after all collateral movements have been affected (after settlement-initiated) to show the end (fixed) positions (current status) or, taking into account all collateral management instructions (including pending initiation and/or initiated).	There is a need to provide end-of-day reporting on stocks via a standardised message.
6	Unilateral Removal of Specific Asset(s)	A request sent by the collateral giver / taker to the TPA requesting the removal of a specific asset(s) from the basket of securities collateralising the collateral exposure.	There is a need to define a formatted ISO 20022 message for the communication of the unilateral removal of specific asset(s)
7	Partial Settlement of Triparty Collateral Exposure Increase	Specifies whether partial settlement of the increase in collateral exposure is permitted	There is a need to ensure that partial settlement of triparty collateral exposures is possible (to the extent that the product allows) using any TPA in order to improve market liquidity.
8	Provision of Real Time Information on Securities Collateralising Triparty Collateral Exposure	Identifies whether real-time information is available to the collateral giver / taker on the securities collateralising the triparty exposure amount	There is a need to provide real time availability of information on flows (securities movements) to the collateral taker / giver.

Priority 1: Triparty Collateral Management (CMHA1)			
No.	Process	Process Description	Harmonisation Need
9	Handling of a Maximum Triparty Collateral Exposure Value	Identifies whether the TPA allows the setting of a maximum triparty collateral exposure amount	To be further analysed. There is need to ensure that the handling of a maximum triparty collateral exposure amount is supported using a harmonised (possibly existing) workflow (relevant to Eurosystem central banks).
10	Handling of Cash Proceeds Related to Corporate Action Events	Identifies how cash positions related to the execution of a corporate action event are treated and reported	The Eurosystem central banks will consider the implementation of a harmonised business process.
11	Rejection of Decrease Instruction	A rejection of a request to decrease the triparty collateral exposure. The rejection is sent from the collateral taker to the TPA.	There is a need to implement harmonised messaging and workflows for the rejection of a triparty collateral exposure decrease request (relevant to central banks).

Priority 1: Corporate Actions (CMHA2)			
No.	Process	Process Description	Harmonisation Need
1	Workflow for Mandatory CA Events	<p>There is a need to implement a standardised workflow for the processing of mandatory events:</p> <ol style="list-style-type: none"> 1. Sending of CA Notification to Collateral Taker (Giver) 2. Provision of final CA notification on or before the record date 3. Provision of CA Confirmation message on Payment Date 	<p>There is a need to implement a standardised workflow for the processing of mandatory events:</p> <ol style="list-style-type: none"> 1. Sending of CA Notification to Collateral Taker (Giver) 2. Provision of final CA notification on or before the record date 3. Provision of CA Confirmation message on Payment Date
2	Workflow for Elective CA Events	<p>There is a need to implement a standardised workflow for the processing of mandatory with choice or elective events:</p> <ol style="list-style-type: none"> 1. Sending of CA Notification to Collateral Taker (Giver) 2. Send of CA Instruction by Collateral Taker (Giver) before event deadline 3. Provision of CA Status and Processing Advice by (I)CSD to the Collateral Taker (Giver) 4. Provision of final CA notification on or before the record date 5. Provision of CA Confirmation message on Payment Date 	<p>There is a need to implement a standardised workflow for the processing of mandatory with choice or elective events:</p> <ol style="list-style-type: none"> 1. Sending of CA Notification to Collateral Taker (Giver) 2. Send of CA Instruction by Collateral Taker (Giver) before event deadline 3. Provision of CA Status and Processing Advice by (I)CSD to the Collateral Taker (Giver) 4. Provision of final CA notification on or before the record date 5. Provision of CA Confirmation message on Payment Date
3	Identification of Parties in a Collateral Transaction	<p>There is a need to identify all parties to a collateral transaction in order to ensure that both the collateral giver and collateral taker can be identified and notified accordingly.</p>	<p>There is a need to identify all parties to a collateral transaction in order to ensure that both the collateral giver and collateral taker can be identified and notified accordingly.</p>

Priority 1: Corporate Actions (CMHA2)			
No.	Process	Process Description	Harmonisation Need
4	Provision of Sufficient Information to Calculate Expected Payment Amount / Security Movement in the Corporate Action Notification	In some cases, insufficient information is provided in the corporate action notification message in order to enable the collateral giver / collateral taker to calculate the expected payment amount / security movement in advance of the corporate action payment date.	There is a need to ensure that a minimum set of information is provided in the CA notification in order to ensure the collateral giver / collateral taker can always estimate the impact of the corporate action event on the collateral pool in advance of the corporate action payment date (further analysis will be needed on identifying the minimum set of information required for relevant CA-event-types/messages).
5	Consistency of Information Provided by Issuer CSD and Investor CSD for Same CA Event	<p>There are instances where the information provided by the Issuer CSD and the Investor CSD for the same underlying CA event differs.</p> <p>Such differences are due to the following reasons (amongst others):</p> <ul style="list-style-type: none"> - ISO announcement messages are not always formatted the same way (each CSD has its own formatting) - each CSD has its own scope of events supported. In case the issuer CSD announces an event not supported by the Investor CSD, then the nearest suitable event type supported by the Investor CSD is used. - number of decimals used per CSD is different - the processing of market claim on flat bonds on the German market (use of TD i.o. SD) <p>The deviation between Issuer and investor CSD might impact the processing of the event, and as such the possibility for a security to be used properly as collateral.</p>	There is a need to ensure that the information provided by Issuer CSD is passed on in a consistent manner by the Investor CSD in line with the agreed market standards.

Priority 1: Corporate Actions (CMHA2)

No.	Process	Process Description	Harmonisation Need
6	Usage of Standardised Calculation Formula	<p>Corporate actions payments are managed differently depending in the instrument type and the CA event type (which should follow international standards) which results in the need to handle different approaches to the calculation of the CA payment amount. Today four different international standards exist for the calculation of the payment amount: European/French Method, English, Effective and German method.</p>	<p>There is a need to implement a harmonised market practice for the calculation of CA payment amounts.</p>
7	Reconciliation of Actual CA Payment Amount vs. Expected CA Payment Amount	<p>The following cases may occur which lead to a difference between the actual and expected CA payment amount:</p> <ul style="list-style-type: none"> > Change of rates vs. rate provided in previously announced notification > Potential difference in entitlement calculation could take place due to different fractional rounding being applied, application of proration amount at different levels (market level, registered owner level, instruction level) > Differences in no. of decimals used can lead to reconciliation failure > Event update announced at depository but not updated in the CSD > Change by another event, e.g. PRED > Incorrect information in the securities database in EB > Issuer/agent mistake 	<p>There is a need to implement harmonised market practices in order to reduce instances where the actual CA payment amount does not match the expected payment amount.</p>

Priority 1: Corporate Actions (CMHA2)

No.	Process	Process Description	Harmonisation Need
8	Payment Procedures per CSD	In some markets a single payment aggregating the total amount due for coupons and redemptions is made (in the case of the German market this practice will change in 2018), whilst in other cases a payment per ISIN per CA is made allowing a clear link to be made between the CA notification and the CA payment.	There is a need to ensure that all markets comply with the market standard i.e. one payment per ISIN per CA rather than the aggregation of the payment.
9	Handling of Rounding Differences	The number of decimals used in the calculation of payment amounts differs per market e.g. usage of 6 or 8 decimals, which results in a need to handle rounding differences.	There is a need to implement a harmonised market practice regarding the usage of decimals in order to eliminate the occurrence of rounding differences (which lead to cases of reconciliation failure).
10	Handling of Negative Cash Flows	The current process for handling negative cash flows is heterogeneous and may involve a number of complex processes (e.g. collateral taker/giver). As negative cash flows are not currently handled by all CSDs no standardised procedure exists.	There is a need to implement a harmonised workflow for the handling of negative cash flows.

Priority 1: Corporate Actions (CMHA2)

No.	Process	Process Description	Harmonisation Need
11	Corporate Action Events Requiring Manual Processing	<p>A significant number of CA events and business processes require manual processing today. Examples include:</p> <ul style="list-style-type: none"> > Use of free text messaging - large amounts of free text are included in notification of certain events provided by Clearstream / Euroclear > Non-compliance with ISO standards - some markets do not abide yet to swift ISO standards (Portugal/Spain/Germany/Austria/Switzerland/ESES), therefore preventing STP integration of incoming swifts, also events which do not fit easily into an event template will require manual processing. > Manual processing of CA instruction - Not possible to send outgoing MT565 to the agent currently (ESES markets), submission of instruction to the market requires the manual completion of physical forms, excel documents and manual transfer of rights/stock or cash to the agent on the agent instruction deadline. 	<p>There is a need to conduct further analysis on the reason why free format messages are used, which should be conducted with a view to later defining harmonised rules and ISO 20022 messaging to allow the transmission of CA data in a structured message thus facilitating straight through processing of all CA events. Accordingly there will be a need to conduct further analysis at the level of the CA event.</p>
12	Process for the Substitution of Fungible Securities	Processes for the execution of the substitution of fungible securities (Pari-Passu CA event) are different across markets.	<p>There is a need to implement a harmonised procedure and workflow for the execution of the Pari-Passu CA event.</p>

Priority 1: Corporate Actions (CMHA2)			
No.	Process	Process Description	Harmonisation Need
13	Processing of CA Events Using 'Modified Following Business Day Convention'	In some markets corporate actions are paid using the 'Modified Following Business Day convention' which means that, for the purposes of payment, in the event that the payment date falls on a holiday, the payment will be due on the immediately following day, or, if that day falls in the following month, on the day immediately preceding the original payment date. In the case of Monte Titoli a CA notification message is sent containing the balances and indicating the "record time", on which the payment will be based.	As the practice appears to be specific to securities issued in one market, there is a need to implement a standardised procedure and workflow in line with that adopted in other markets.
14	Handling of CA Events with Different Quotation Types	Today the calculation approach for UNIT securities (i.e. data fields to process in the message) is different to that used for FAMT securities.	There is a need to implement a harmonised rule for the calculation of corporate action payments.
15	Handling of Elective CA Events	Today the processing of elective CA events requires a significant amount of manual intervention. Proceeds from voluntary events are not processed via T2S standard CA flows which means no ISO20022 messaging received to trigger the STP release of payments - all paydates are currently manually processed. Furthermore there are differences in how the collection of responses are handled.	There is a need to support automated processing of voluntary events where more than one deadline and several options with detailed differences exist (more than one deadline and several options - mostly exist in those cases where an early deadline is offered)

Priority 1: Corporate Actions (CMHA2)			
No.	Process	Process Description	Harmonisation Need
16	Collateral Valuation Process	For collateral valuation the instrument price is used (obtained from market places or data vendors), however in some cases the most recent price already reflects a corporate action which has been announced but not yet processed, this may lead to swings in the collateral value (example: stock-split announced and security trading under new price but the split has not yet been processed)	There is a need to harmonise the use of instrument prices around pending corporate actions for the calculation of collateral values (potential for a best market practise: refer to last available price prior to the start of the corporate actions)

Priority 1: Taxation Processes (CMHA3)			
No.	Process	Process Description	Harmonisation Need
1	Identification of Existing Differences per Market Relevant to Collateral Management	Identification of differences per market which may impact the use of certain securities as collateral. An overview is needed to identify the differences and the common issues before analysing the possibilities to standardise processes.	<p>There is a need to create a comprehensive map which should show the different national withholding tax requirements and the (I)CSD processes per market. The map should focus on analysing the following elements:</p> <ul style="list-style-type: none"> - Differences in withholding tax requirements Portugal, Spain, Italy, France and US (e.g. Corporate action payments with withholding taxes are executed for the following countries (depending on the collateral structure)) - Identification of national specificities e.g. Spain: Withholding tax for each payment, France: special bonds, requirements depending on the (foreign) counterparty and/or (foreign) assets. - Differences in the tax services which (I)CSDs offer (or are allowed to offer since it may not be possible for CSDs to offer certain services) tax services and some not (but do substitution). - Differences in processing by CSDs depending on the asset type and the role of the client. - The type of collateral (e.g. government bond, corporate bond), the market (issuer country) and the issuer. - Differences in taxation forms per (I)CSD in the context of withholding taxes. - The impact of various European foreign tax and US – tax requirements on the usage of certain securities as collateral.
2	Identification of Collateral Transaction (and Relevant Parties) for Taxation Purposes	Identification of all parties to a collateral transaction together with their tax status for the purposes of managing the related tax processes.	<p>There is a need to identify all parties to a collateral transaction together with their tax status for the purposes of managing the related tax processes. It could be further analysed whether it would be appropriate to apply the collateral giver tax status to the proceeds and whether this could become a harmonised rule for the tax treatment of collateral. It could be considered to further analyse this topic through examining similar mechanisms in other markets (e.g. US). In order to manage such a process there would be a need to:</p> <ol style="list-style-type: none"> 1/ identify the collateral transactions 2/ record who is the collateral giver and collateral taker 3/ apply the Tax status of collateral giver to the proceeds of the CA 4/ potentially credit directly the collateral giver's account (in instances where consent is provided by the collateral taker)

Priority 1: Taxation Processes (CMHA3)			
No.	Process	Process Description	Harmonisation Need
3	Identification of Tax Treatment of Securities Depending on Collateral Transaction Type	Identification of differences in the tax treatment of securities when used as collateral, for example, securities used in a Repo or securities lending transaction could have a different treatment than the ones used for sell or purchase.	There is a need to identify the collateral transaction type (e.g. using existing ISO transaction types such as Reverse Repo (RVPO), Sell Buy Back (SBBK)) and standardise tax processing procedures for securities used as collateral. Today a security used in a repo or securities lending transaction could have a different tax treatment to that applied to the sale or purchase of a security. The transaction type may also be relevant when considering the parties/ownership in view of the country of residence and tax processes/rates.
4	Provision of Tax Service by (I)CSDs	Identification of differences in the tax services provided by CSDs together with the potential impact on the usage of certain assets as collateral in certain markets.	There is a need to further analyse how the tax service offered by the various CSDs impacts the tax handling of securities used in collateral management operations across different CSDs. - For instance, if the investor CSD does not offer tax reclaim service on some assets, then if the collateral taker want to benefit from tax reclaim, this collateral taker will need to use services of an agent on the local market to have that refund processed. - hence it can result in a complex process, and can be a burden to expand cross CSD CM activity Furthermore it should be analysed whether the CSD is able to provide tax services in all markets as today the CSD might not be in a position to directly offer tax services depending on the regulation in the market.
5	Identification of Securities Subject to Withholding Tax	Identification of the securities used in a collateral transaction which are subject to withholding tax.	There is a need to be able to identify counterparty holdings (securities) subject to withholding tax in advance of the record date of a corporate action event.
6	Transmission of Information on Counterparty Taxation Status to Local (I)CSD	There is a requirement for the collateral taker to pass on relevant information on a counterparty's tax status to the local (I)CSD.	There is a need to define a standardised workflow using ISO 20022 messages to transmit relevant information on a counterparty's tax status to the local (I)CSD. It should be analysed to what extent there are requirements to send paper documentation.

Priority 1: Taxation Processes (CMHA3)			
No.	Process	Process Description	Harmonisation Need
7	Tax Reclaim Process for Securities Used as Collateral	Identification of differences in the tax reclaim process for collateral.	There is a need to implement a harmonised workflow to manage the tax reclaim process.
8	Handling of Tax Reduction	Identification of differences in rules for the handling of reduction in withholding tax depending on -market (issuer country) -security (e.g. government bond, corporate bond) -issuer	There is a need to further analyse the differences which exist in the handling of reductions in withholding tax with a view to determining whether a harmonised workflow can be put in place.

Priority 1: Bilateral Collateral Management (CMHA4)			
No.	Process	Process Description	Harmonisation Need
1	Exchanges for Substitutions	Email exchanges for substitutions implying operational risks and settlement issues. There is a growing interest from vendors in this space. (For OTC derivatives (uncleared), REPO, SLAB)	There is the need to promote wider use of electronic platforms for substitutions and to promote the interoperability between the various initiatives launched at particular points of the processing chain
2	Minimum Market Standards Framework for Cleared Derivatives Across Clearers and CCPs	For cleared derivatives, the connectivity between Clearers and Clients/Asset Servicers is diverse. There is no common framework, implying substantial development requirements to integrate the information from reports (for reconciliation, payments...). Every onboarding is cumbersome as every clearer appears to have its own operational market standards as well. Upcoming EMIR deadlines for category 3 and 4 will imply a growing industry concern in this space.	There is a need for a "Minimum market standards" framework across Clearers and CCPs to harmonize the information available to end-users and its format

Priority 1: Margin Calls (CMHA5)			
No.	Process	Process Description	Harmonisation Need
1	Exchanges for Margin Calls	Email exchanges are used for margin calls. Several utilities are already active in this space but the industry needs to address the cost issue for some players especially buy-side, for complete harmonisation. It is mentioned this point is being addressed by some market participants. (For OTC derivatives (uncleared), REPO, SLAB)	There is the need to promote wider use of electronic platforms for margin calls and to promote the interoperability between the various initiatives launched at particular points of the processing chain

Priority 1: Fee and Billing Processes (CMHA6)

No.	Process	Process Description	Harmonisation Need
1	Provision of Minimum Set of Data in billing (fees Invoice)	The current set of data provided in the fees invoice is heterogeneous. A minimum set of information needs to be provided in the fees invoice, per securities account held with the CSD.	There is a need to provide a minimum set of information in the fee invoices. The invoice should provide (as a minimum) the following set of information (per securities account held with the CSD): Account No. at CSD, Gross Fee, Net Fee, Total V.A.T
2	Messaging Format for the Transmission of billing Information	Differences in current messages requires the definition of a standardised format by which fees information should be transmitted e.g. ISO 20022 message.	There is a need to define a standardised ISO 20022 message format through which fees information should be transmitted in order to support the automation of the fee and billing process by market participants.
3	Billing Period and Billing Frequency	Differences in the current timing and frequency with which billing information is provided to market participants requires the introduction of a harmonised billing period.	There is need to define a standardised billing period (monthly period covering the 1st of each month to the end of each month).

Priority 1: Collateral Data (CMHA8)			
No.	Process	Process Description	Harmonisation Need
1	Data Exchange - Availability of Prices for Collateral	CSDs typically do not have prices on their databases but have to obtain them from marketplaces or data vendors. These prices (in particular theoretical prices for instruments not traded on an exchange) are not always available on time. This could limit the availability and eligibility of collateral in some CMS.	There is a need to determine a harmonised approach to ensure that information is available at CMS when it is needed for the collateral management processes.
2	Data Exchange - Outstanding Amount	For some asset classes (Italian Stripped bonds, UK Gilts) the outstanding amount is not public information. As this information is needed for the eligibility of collateral, CMS have difficulties to determine, whether the use of a given security might exceed agreed concentration limits on a bond	There is a need to obtain information on outstanding amount (for example it could be considered whether DMOs should make information on the outstanding amounts public on their website or provide that information through data vendors to CMS and CSDs).
3	Data Exchange - Pool Factor	The pool factor is used to calculate the right notional amount which is still outstanding. Typically this is provided by the calculation agent but not always provided in time for the correct calculation of the collateral value	There is a need that the pool factor becomes available to all parties in a timely manner to ensure harmonised data exchange in order to apply the latest information. It could be considered whether the information is made centrally available from issuer CSDs or data vendors (if applicable) - Calculation agents to provide information in any case directly to the Issuer CSD.
4	Data Exchange - Minimum Denomination Amount	For some ABSs the minimum denomination amount is used instead of the pool factor. If the correct and up-to-date minimum denomination amount is not available, the correct and timely processing of collateral management events cannot be ensured.	It has to be ensured that the data exchange on the minimum denomination amount takes place in a harmonised and timely manner.

Priority 1: Collateral Data (CMHA8)			
No.	Process	Process Description	Harmonisation Need
5	Data Exchange - Unit Size	For assets which are denominated in units, accurate information on unit size is required for Collateral Management purposes. Therefore, the relevant parties need to have the correct information when a Collateral Management event takes place.	There is a need to ensure that the data exchange on the unit size takes place in a harmonised and timely manner.
6	Data Exchange - All Other Data Elements	Parties involved in the Collateral Management process need to have accurate and up-to-date information on data elements related to Collateral Management stored in their system. Therefore, an harmonised, efficient and timely exchange of these other data elements not specifically mentioned in the list are of utmost importance in order to ensure correct and prompt execution of Collateral Management processes.	There is a need to exchange all other data elements relevant to Collateral Management Activities in a harmonised, efficient and timely manner as to ensure the correct processing of all collateral transaction events.

Priority 1: Sourcing of Collateral (CMHA9)			
No.	Process	Process Description	Harmonisation Need
1	Real Time or Quasi Real Time Settlement	Members are of the view that collateral transactions should be settled in real-time or quasi real-time. Accordingly CSD's must support real time or quasi real time settlement.	There is a need to ensure that all EU CSDs can support real time or quasi real time settlement.
2	Automated Processing at CSD Level	Collateral instructions sent to the (I)CSD should be processed by the (I)CSD in a fully automated manner, and manual procedures in some CSDs should be removed (if any still exist).	There is a need to ensure that fully automated processes are in place at CSD level to facilitate the timely processing of collateral movements. Manual procedures in some CSDs should be removed (if any still exist).
3	Same Day Settlement	Same day settlement of collateral should be possible.	There is a need to ensure that same day settlement is possible for all collateral instructions.
4	Pre-Matching of Collateral Instructions	Some market have a pre-matching process for settlement instructions – this process should be automated or considered as not required for collateral transfers.	There is a need to ensure that the pre-matching process is either fully automated or instead considered as not required for collateral transfers.
5	Maximum Time Limit for Settlement of Collateral	A transfer of collateral should take less than 20 minutes from the initiation of the instruction until the finalisation of the settlement especially when there is an Agent/Global custodian involved in the settlement process.	There is a need to ensure that a transfer of collateral should take less than 20 minutes from the initiation of the instruction to the settlement.

Priority 1: Sourcing of Collateral (CMHA9)			
No.	Process	Process Description	Harmonisation Need
6	Elimination of National Specificities / Processes Impacting Collateral Mobility	<p>Further harmonisation of settlement/tax specific requirements in certain markets should be reviewed in the context of collateral. Members cited the examples of the Italian Tax process, Turkish Tin number, Spanish Equities for loan, UK Stamp duty as being just some of the exceptions in EU markets which require special processes to be put in place (often manual process) – this impacts mobility of collateral. Members explained that national specific requirements/processes could reduce collateral mobility.</p> <p>First, currently collateral movements are not identified as collateral transfers (versus settlement transactions), and there is a need to identify and communicate collateral information. Second, and in addition to the identification of collateral transactions in settlement at CSDs, there is also the need to enrich the securities instruction in light of the tax process requirements. Tax obligations are different and make it complex. This might reduce the willingness of counterparties to mobilise an asset as collateral.</p>	<p>There is a need to further harmonise and eliminate specific requirements which remain in certain markets and thus impact the mobility of collateral. These specificities increase the complexity of using such assets as collateral with the result being a reduction in the willingness of the collateral giver and / or collateral taker to accept such assets as collateral.</p>
7	Effect of Omnibus Account Structure on Settlement Efficiency	<p>Members identified a need to further analyse the overall impact on collateral mobility of the need to ensure asset segregation (e.g. because of upcoming regulation/market practices).</p>	<p>There is a need to further analyse whether the usage of an omnibus account structure at CSD level can help to increase collateral mobility.</p>
8	Eligibility of Euro-Denominated EU Securities for Use in T2S or via the Bridge	<p>As a minimum all securities in EU markets should be Bridge or T2S eligible.</p>	<p>There is a need to ensure that, as a minimum, all securities in EU markets should be Bridge or T2S eligible.</p>

Priority 1: Sourcing of Collateral (CMHA9)			
No.	Process	Process Description	Harmonisation Need
9	Settlement Efficiency via the Bridge	Improvements of the Bridge are needed to further improve settlement efficiency. A second phase of enhancements were successfully implemented on 19 June 2017 (further improving the Bridge input deadlines, increase the number of exchanges files in order to decrease the turnaround settlement times to between 10-40 minutes compared to 35-90 minutes before.	There is a need for further Improvements to the Bridge to further improve settlement efficiency.
10	T2S Participation	The market sees it as highly beneficial to encourage non-T2S participating CSDs to join T2S to improve collateral fluidity and access to all markets in order to source collateral according to harmonised procedures. There should be an effort to reach out to these CSDs / markets to make these assets available for use as collateral in all EU markets in a harmonised way.	Market participants have identified a need to encourage non-T2S participating CSDs to join T2S to improve collateral fluidity and access to all markets in order to source collateral according to harmonised procedures.

Priority 1: Non-Euro Collateral Management (CMHA10)			
No.	Process	Process Description	Harmonisation Need
1	Handling of Non-Euro Corporate Action Payments	The process is heterogeneous across CSDs. Some (I)CSDs convert the cash proceeds of a CA event related to non-euro denominated collateral into the euro equivalent before crediting the collateral taker, whilst other CSDs always remit the FX proceeds.	There is a need to implement a harmonised workflow for the payment of non-euro denominated corporate actions.
2	Eligibility of Non-Euro Denominated EU Securities for Use in T2S or via the Bridge	All EU non euro-securities eligible in Euroclear or Clearstream should be Bridge Eligible where possible	There is a need to ensure that all EU non euro-securities eligible in Euroclear or Clearstream should be Bridge Eligible.

Priority 2 Harmonisation Needs

Priority 2: Triparty Collateral Management (CMHA1)			
No.	Process	Process Description	Harmonisation Need
1	Initiation of a Triparty Collateral Transaction	An instruction sent by a trading party to its triparty agent to instruct the agent to initiate a collateral management transaction. It is also sent by an account owner to an account servicer where the account servicer manages the account at the triparty agent on behalf of the trading party.	There is a need to implement harmonised messaging and workflows for the initiation of a triparty collateral transaction (relevance of process for central banks to be confirmed by TPA. For market participants only one TPA does not adopt a standard workflow).
2	Termination (Closure) of a Triparty Collateral Transaction	A request to terminate the triparty transaction sent by the Collateral Giver to both the Collateral Taker and the TPA.	There is a need to implement harmonised messaging and workflows for the termination of a triparty collateral transaction (Relevance of process for central banks needs to be confirmed by TPA. For market participants only one TPA does not adopt a standard workflow).
3	Cancellation of a Pending Triparty Collateral Exposure Instruction	A request sent by the collateral giver / taker to the TPA to cancel a pending instruction. An instruction may only be cancelled if: <ul style="list-style-type: none"> • Its status is NMAT, • Or its status is FUTU with an execution request date in the future (i.e. not the current date). 	There is a need to implement harmonised messaging and workflows for the cancellation of a triparty collateral exposure. There is a need to ensure that all TPAs allow for the cancellation of unmatched trades and matched trades for future value so that communications are consistent and comparable across the TPAs.
4	Future Dated Processing	Indicates whether it is possible for the collateral giver / taker to send a triparty instruction in advance of the execution date of the instruction.	There is a need to ensure that all TPAs allow the sending of future-dated instructions for all relevant exposure types (to the extent that the product allows). It needs to be confirmed if it is needed for central bank operations. Currently future-dated instructions are not handled by all TPAs in the case of (1) bilateral pledges and (2) PADJ instructions

Priority 2: Triparty Collateral Management (CMHA1)			
No.	Process	Process Description	Harmonisation Need
5	Usage of Baskets (Including Messaging Used)	Outlines whether and how the collateral giver / taker can restrict the use of triparty services to a certain group of eligible assets	There is a need to implement a standardised format of communication (including selection criteria) for lists of eligible assets.
6	Amendment of Trade Details (Rate, Basket, Termination Date)	Identifies how amendment of trade details (e.g. rate, basket, termination date) are communicated to the TPA.	There is a need to implement harmonised messaging and workflow for the communication of information on amendments of trade details (rate, basket, termination date).
7	Trade Type Supported by TPA	Identifies which trade types are supported by TPAs.	There is a need to ensure that in cases where a TPA offers the same type of product as another TPA, that the communication with users is conducted in a harmonised way.

Priority 2: Corporate Actions (CMHA2)			
No.	Process	Process Description	Harmonisation Need
1	Provision of Complete Corporate Action Notification in Advance of the Payment Date	In some instances, the collateral giver / taker is not in receipt of final (complete) corporate action notifications in advance of the payment date e.g. the corporate action notifications is sent late or with incomplete information.	There is a need to identify, and subsequently eliminate, all barriers to providing sufficient information on upcoming CA events to the collateral giver / collateral taker in a timely manner (i.e. in advance of the payment date)
2	Processing of Delayed CA Payments	No standardised procedure or message is used to inform clients of delays in the execution (payment) of a corporate action event. In some markets the client is not informed of a delay in the payment.	There is a need to implement a standardised market practice and message to inform clients of a delay in the processing of the CA payment.
3	CA Events where Participation Requires the Blocking of Securities	Identification of those CA events where participation in the CA event requires the blocking of securities.	Further input / analysis is required in order to clarify if the same set of CA events are subject to blocking across all CSDs. Accordingly there may be a need for harmonisation in this area.
4	Usage of Default Options in CA Events	Identification of instances / markets where a default option for the processing of a CA event does not exist.	There is a need to ensure that a default option for each CA event is provided in all CSDs. (To be confirmed with all CSDs. To note: default options will be supported in ESES CSDs as of March 2018 following ESES enhancement)
5	Handling of Fees for Participation in Elective CA Events	There are differences in how early consent solicitation fees (CA event ID CONS for the events BMET or XMET), often for consent to proposals for changing terms and conditions of company bonds, are handled.	There is a need to implement a standardised workflow for the payment of consent fees related to participation in certain CA events

Priority 2: Bilateral Collateral Management (CMHA4)			
No.	Process	Process Description	Harmonisation Need
1	Exchanges for Interests Payments	Email exchanges for interests payments. Several utilities already active in this space but the industry needs to address the cost issue for some players especially buy-side, for complete harmonisation. It is mentioned this point is being addressed by some market participants	There is a need to promote wider use of electronic platforms and the interoperability between the various initiatives launched at particular points of the processing chain.
2	Settlement Sequencing	Maintaining settlement efficiency to ensure collateral settles as early as it possibly can without friction and the need to effectively manage intra-day liquidity through credit usage.	There is a need to promote early settlement for collateral-related transactions.

Priority 2: Billing Processes (CMHA6)			
No.	Process	Process Description	Harmonisation Need
1	Identification of Fees Related to Collateral Management Activities	The billing invoice differs across markets and identification of collateral management related activities is not provided in a harmonised manner. A common invoice process is required for collateral management and other services.	There is a need to identify fees related to collateral management activities (Further analysis is needed and could potentially be achieved by setting up a separate account for collateral management activities which would allow the provision of a detailed statement).
2	Identification of the Asset Class used for Billing Purposes	Common information on the asset class is needed in the fees invoice and a common definition of asset classes for the purpose of fee billing could be adopted by all (I)CSDs.	There is a need to define a common asset classification for use across all CSDs in order to facilitate the reconciliation and payment of fees.

Priority 2: Collateral Data (CMHA8)

No.	Process	Process Description	Harmonisation Need
1	Multiple Places of Settlement and Safekeeping	Some securities have multiple places of settlement and safekeeping which creates additional complexity and barriers to efficient settlement process if correct information on the settlement and safekeeping locations is not available to all parties in a timely manner. This process not only applies to collateral management procedures, but is mainly valid for general settlement and custody activities.	There is a need to ensure that information on multiple places of settlement and safekeeping are transmitted to all relevant parties in a harmonised and timely manner.

Non-Prioritised Business Processes

Non-Prioritised Business Processes: Triparty Collateral Management (CMHA1)			
No.	Process	Process Description	Harmonisation Need
1	End-of-Day Reporting on Flows (Securities Movements)	A message sent by an account servicer (account servicing institution) to an account owner or its designated agent provide the details of increases and decreases of holdings which occurred during a specified period, for all or selected securities in the specified safekeeping account or sub-safekeeping account which the account servicer holds for the account owner.	No harmonisation need for end-of-day reporting on flows has been identified on the basis that intraday reporting on flows (securities movements) could be provided to the collateral taker / giver using harmonised messages.
2	Compulsory Decrease of Triparty Collateral Exposure Due to Revaluation	A compulsory decrease of the Triparty Collateral Exposure amount following a change in the eligibility status or valuation of the underlying securities collateralising the triparty transaction.	The same harmonised messaging and workflows will be used as for the revaluation of a triparty collateral exposure amount.
3	Reporting Frequency	The frequency with which a collateral and exposure reporting statement is provided	There is no harmonisation need for the timing of reporting –TPAs should provide frequencies acceptable to their clients.
4	Automatic Increase / Decrease of Triparty Collateral Exposure following Revaluation	Identifies whether a revaluation of the collateral leads to an automatic increase or decrease of the triparty exposure amount	There is a need to further analyse whether it is feasible and desirable for the triparty agent to automatically increase / decrease the triparty collateral exposure amount following revaluation.
5	Accounting Modalities	The collateralisation technique employed in the triparty transaction	There is no need to harmonise (with current different account structures employed by different TPAs, as long as this structure does not impeded the implementation of harmonised workflows and messaging).

Non-Prioritised Business Processes: Triparty Collateral Management (CMHA1)			
No.	Process	Process Description	Harmonisation Need
6	Handling of Adjustment to Triparty Collateral Exposure	Identifies whether the request to adjust the exposure amount is communicated to the TPA on a Delta or a Cancel and Replace basis	There is a need to have a single method (i.e. Cancel and Replace instead of Delta) for the handling of adjustments to the triparty collateral exposure amount. However, Delta approach is only used in the US market and thus from a European perspective there is harmonised usage of the Cancel and Replace method.
7	Amendment of Triparty Collateral Exposure Instruction	Identifies whether the TPA provides the possibility for the collateral giver / taker to amend the triparty instruction already sent to the TPA	It is considered that the harmonised market practice should be to rely on the usage of the cancel and replace method rather than the amendment of such instructions.
8	Acknowledgment of Triparty Collateral Exposure Instruction Messages	Identifies whether the TPA sends a message to the collateral giver / taker acknowledging receipt of a triparty instruction	No harmonisation need identified.
9	Handling of Pending Instructions - Unmatched Instructions	Specifies how pending instructions are treated when the instructions are not yet matched	There is no harmonisation need as the cancellation process is to be used.
10	Handling of Pending Instructions - Undercollateralised Transactions	Specifies how pending instructions are treated when the exposure is matched but there is insufficient collateral to settle the instruction.	There is no harmonisation need as the partial settlement process is to be used.
11	Opening Hours	The hours during which triparty services are available for use	There is a need for extended opening hours in order to facilitate optimal transfer of liquidity and triparty interoperability

Non-Prioritised Business Processes: Triparty Collateral Management (CMHA1)			
No.	Process	Process Description	Harmonisation Need
12	Settlement of a Triparty Collateral Transaction	Once triparty transaction accepted and matched by collateral giver and taker, the TPA will perform the collateral allocation (either delivery vs cash or FOP depending on transaction type) to settle cash and securities between the transacting parties.	There is a no harmonisation need. It should be ensured that CSDs provide users of triparty services with standardised reporting on settlement. Users should get reporting when triparty instructions are unmatched, when they differ, when they match and when they settle. At the underlying level, users should receive reporting of collateral and cash.
13	Collateral Substitution	Where collateral giver requires a recall of a security position allocated to the triparty collateral exposure. TPA will allocate a new security position of equivalent value to collateral taker and remove the old security position to credit back to collateral giver.	There is no need for harmonisation. Substitution should be universally offered and automated to the maximum extent possible in order to aid liquidity. Both FOP and DVP should be offered (depending on the account set up).
14	Settlement of Collateral on an SSS	Identifies where the settlement of the underlying collateral takes place.	No harmonisation need identified.
15	Governing Law	Identifies the Governing Law under which the triparty transaction takes place.	While TPAs should be allowed to operate under different laws, for true interoperability it should be clear how exposures between one TPA and another TPA are handled legally.
16	Credit Lines	Identifies whether credit lines are provided by TPAs and, if yes, whether any differences exist in how these credit lines are provided.	No harmonisation need identified.

Non-Prioritised Business Processes: Corporate Actions (CMHA2)			
No.	Process	Process Description	Harmonisation Need
1	Corporate Action Payments in CoBM and CeBM	Identifies any differences which may emerge in the handling of CA payments made in Central Bank Money vs. Commercial Bank Money.	Payments may be made in either commercial bank money or central bank money depending on the account setup of the participant (i.e. the (I)CSD). Foreign currency payments are always made in commercial bank money.

Non-Prioritised Business Processes: Bilateral Collateral Management (CMHA4)			
No.	Process	Process Description	Harmonisation Need
1	FX Forwards and Swaps Collateralisation - Documentation / Treatment Not Aligned Between Jurisdictions	Very much an issue for everyday life and mis-alignments between EU and other jurisdictions, however it will be challenging to negotiate any form of alignment. (For OTC derivatives (uncleared))	No priority assigned as the process relates to a global requirement which is beyond the remit of the CMH-TF. Harmonisation would be welcomed but is dependent on regulatory and policy initiatives rather than industry initiatives.
2	Bilateral Margin Rules - Settlement Timeline Obligations Not Aligned Between Jurisdictions (T0 / T+1)	Very much an issue for everyday life and mis-alignments between EU and other jurisdictions, however it will be challenging to negotiate any form of alignment. (For OTC derivatives (uncleared))	No priority assigned as the process relates to a global requirement which is beyond the remit of the CMH-TF. Harmonisation would be welcomed but is dependent on regulatory and policy initiatives rather than industry initiatives.
3	Market Data Cut-Offs (Rates, FX)	Divergence of market data cut-offs (rates, fx) in the valuation process could create disputes especially in relationships between EU and non EU counterparties. (For OTC derivatives (uncleared))	No priority assigned due to ongoing analysis on Cut-Off Times (CMHA7).

Non-Prioritised Business Processes: Bilateral Collateral Management (CMHA4)			
No.	Process	Process Description	Harmonisation Need
4	Collateral Disputes	Collateral Disputes - market practice issues : tolerance thresholds not aligned - disputes sometimes not significant for a given firm 1 could be significant for the other firm 2 (and need traction for resolution from firm 1) - Before Uncleared Margin Rules, a dispute threshold equal to the MTA was the general market practice. However since the Uncleared Margin Rules, some CSAs have very small MTA (several KEUR) and therefore requires a higher level in absolute terms. (For OTC derivatives (uncleared))	No priority assigned as this relates to a private legal framework and thus terms imposed by the law/regulation imposes become a non-negotiable point of the contract. It is considered that members of matching utilities will drive work in this area.
5	Standard Settlement Instructions	Information related to collateral SSIs still mostly sits at each firm's level - The broader picture is that BCBS 261 is one important regulatory point that could require some form of harmonisation.	No priority assigned as this topic relates more to Collateral Data (CMHA8) as it covers a specific data issue.
6	Asset Segregation	Inconsistent application of asset segregation rules for securities accounts	No priority assigned as this topic is being assessed separately in a regulatory context in other fora.
7	Message Exchanges for Substitutions Implying Operational Risks and Settlement Issues	Email exchanges for substitutions implying operational risks and settlement issues	No harmonisation need identified as covered by CMHA2 (Corporate Actions) – and fall under the wider recommendations for interoperability.

Non-Prioritised Business Processes: Bilateral Collateral Management (CMHA4)			
No.	Process	Process Description	Harmonisation Need
8	Messaging Standards for Exchanging Legal Documentation to Trade Lifecycle Management.	Proprietary standards. Lack of convergence and harmonisation in information messaging standards. This concerns all fields from Legal documentation to trade lifecycle management. (For OTC derivatives (uncleared), REPO, SLAB)	No harmonisation need identified as SFTR will drive harmonisation in this field due to the many common and harmonised data fields that will be needed for SFT. This will promote the spread of ISO 20022 messaging to other asset classes also.
9	Post-Trade Reporting Structure	Regulatory reporting demand very large data flows that demand stringent data standardisation. Post-Trade reporting structure is too complex (For OTC derivatives (uncleared), REPO, SLAB)	No harmonisation need identified as will be covered by SFTR (additional relevant points could be also be analysed under CMHA8 – Collateral Data if needed).
10	Standardisation of Documentation	Lack of standardisation of documentation. Difficult to achieve 100% standardisation as a CSA needs to respond to some privately negotiated terms, depending on legal and risk/credit views. Point may be tackled at ISDA. EFAMA explains the impact of collateral matrixes will make it difficult to reach. Workgroup agrees that a possible way to go forward would be to recommend an industry-wide central HQLA matrix administered by a central party (still to be determined) - that the parties to a CSA could negotiation parties would agree to refer to.	No prioritisation assigned due to the fact standardisation of bilateral documentation would not be possible. A centralised data warehouse could be beneficial in this regard but would be difficult to establish.

Non-Prioritised Business Processes: Billing Processes (CMHA6)			
No.	Process	Process Description	Harmonisation Need
1	Identification of Relevant Data Elements for the Fee Calculation	Those elements of asset valorisation relevant to the calculation of the fee (as a minimum pool factors) should be taken into account by all (I)CSDs in calculating custody fees	The pool factor is taken into account in the calculation of custody fees in all CSDs.

Non-Prioritised Business Processes: Collateral Data (CMHA8)			
No.	Process	Process Description	Harmonisation Need
1	Usage of Correct SSI Data	Correct and updated Standard Settlement Instructions need to be available in order to ensure prompt settlement and straight through processing.	There is a need to transmit SSI information to the relevant parties in a harmonised, timely and efficient manner so that storage and usage of correct data is ensured when the exchange of collateral is instructed.

Annex 2: Draft Terminology (to be further developed in next phase)

Terminology: Triparty Collateral Management	
Name	Description
Triparty Agent (TPA)	The triparty service provider (referred to as “triparty agent” or “TPA”) responsible for the processing of instructions on behalf of both collateral giver and the collateral taker
Triparty Collateral Management Services (TCMS)	Triparty collateral management services (TCMS) provided by triparty agents (TPAs) allow counterparties to optimise the use of their portfolios of securities when collateralising credit and other exposures across different products and instruments (e.g. repo, securities lending, central bank credit, secured loans, and exposures arising from over-the-counter transactions). As part of their daily operations, TPAs provide services such as collateral (auto)selection, valuation and substitution, optimisation of the composition of the triparty pool (“allocation cycles”) and corporate actions processing
Triparty Securities Lending Services (TSLs)	Triparty collateral management and settlement services for bilaterally-agreed loans of securities
Triparty Securities Lending Services 1 (TSLs1)	TSLs1 provides settlement and valuation of a securities loan as well as the related collateral management for the duration of the trade. The simultaneous exchange of the loaned securities against collateral enables the settlement of both sides of the transaction.
Triparty Securities Lending Services 2 (TSLs2)	TSLs2 provides collateral management and valuation services but not the settlement of loaned securities, as the latter is done bilaterally.
Triparty Transaction	A transaction created by the triparty agent upon receipt of the deal information from the two trading parties. A transaction is created, can be changed and is terminated.
Lifecycle of Triparty Transaction	When a transaction is initiated, agreed on by both parties, accepted and declared valid by the triparty agent, the lifecycle of the transaction starts. The transaction will normally last as long as the underlying deal. At the end of its lifecycle a transaction is closed.
Triparty Instruction	The trading parties will request the triparty agent to perform certain instructions on the collateral management transaction. An instruction can be to initiate a transaction, modify the terms of a transaction, or close a transaction (non-exhaustive list of instructions). The triparty agent will send feedback on the requested instruction.

Terminology: Triparty Collateral Management

Name	Description
Lifecycle of Triparty Instruction	The lifecycle of a triparty instruction starts when the user of the triparty service sends an instruction message. At receipt of the instruction message, the triparty agent will process the instruction and assign a status (that is, valid or rejected). At each step in the lifecycle of an instruction a different status will be assigned. For example, an instruction can be valid for processing or rejected because it is incorrect. If an instruction needs to be matched (for example, two initiation- instructions from party A and B need to match) it can have a status matched or unmatched. Other statuses describe the sufficiency or eligibility of the collateral.
Initiation	Creation of a Triparty Transaction.
Termination	Closing of the Triparty Transaction.
Principal/Exposure Adjustment	Change of principal/exposure adjustment.
Transaction Amount	The intended amount of the triparty transaction.
Value of Collateral Held	The total value (after haircuts) of posted collateral for the transaction.
Total Exposure Amount	The total exposure amount to be covered by collateral.

Terminology: Collateral Data

Data Element	Description/Definition
ISIN	Securities Identification Number
Maturity Date	Maturity date of the security used as collateral
First / Last Trading Day	First or last trading day of a security
UNIT Size Information (for assets where quantity is expressed as UNIT)	Determines the quantity of one unit of a bond
Minimum Deliverable Amount	Minimum amount to be instructed for a single settlement instruction
Minimum Denomination Amount	Lowest denomination of issue available for purchased
Outstanding Amount	Amount of the security that exists in the market

Terminology: Collateral Data

Data Element	Description/Definition
Pool Factor	Partial repayment without reduction of nominal amount
Index Factor	Determines to what extent a certain index influences the price of an asset
Primary Exchange	Exchange where the instrument is first listed
Settlement Location	Possible settlement locations (description of issuer CSD and possible Investor CSDs)
Place of Issuance	Issuer CSD, where the global note is located
Asset Rating Information	Evaluation of credit risk associated with the asset
Collateral Quality	Code that classifies the risk of the security used as collateral (e.g. investment grade, non-investment grade)
Classification of a Security Used as Collateral	CFI code of the security used as collateral
Jurisdiction of the Issuer	Jurisdiction of the issuer of the security used as collateral. In case of securities issued by a foreign subsidiary, the jurisdiction of the ultimate parent company shall be reported or, if not known, jurisdiction of the subsidiary.
LEI of the Issuer	LEI of the issuer of the security used as collateral.

Annex 3: List of members AMI-SeCo HSG Collateral Management Harmonisation Task Force (CMH-TF)

Institution	Name
 <i>Chair and Secretariat</i>	
BNY Mellon	Gesa Benda (<i>Chairperson</i>)
European Central Bank	Benjamin Hanssens (<i>Rapporteur</i>)
 <i>Members</i>	
Banca d'Italia	Mr Valentino Baglioni
Banque de France	Françoise Chevrin
BME Clearing	Teresa Castilla
BNP Paribas Securities Services	Hélène Virello
BNY Mellon	Claire Allum
Citi	Michael Payne
Clearstream	Fabrice Tomenko
Danske Bank A/S	Rebekka Schultz
Deutsche Bank	Marko Niederheide
Deutsche Bundesbank	Antje Heikamp
DZ Bank	Oliver Deutscher
ECB	Gary McNamara
EFAMA	Vincent Dessard
Eurex Clearing	Oliver Bartel
Euroclear	Jan Grauls
Goldman Sachs	Kathleen Bendernagel
JP Morgan	Michele Filippini
LCH	Caroline Colette Jones
Morgan Stanley	Adam G. Bate
Monte Titoli	Umberto Granata

Northern Trust

Anna Matson

Société Générale

Pierre Lebel

UBS

Sally Shackleton

Chair Substream 2 (Citi)

Marcello Topa

Additional experts:

Euroclear France

Ms Caroline Derocle

European Central Bank

Mr Markus Mayers

European Central Bank

Ms Audren Plancon

Clearstream Banking Frankfurt

Mr Dirk Rothenbach