

# **STEP2-T PFMI Disclosure Report EBA CLEARING**

10 May 2021

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**Responding institution:**

ABE CLEARING S.A.S. à capital variable (EBA CLEARING), thereafter referred to as “the Company”

**Registered office:**

40 Rue de Courcelles, 75008 France RCS Paris 419 020 193 Authorised share capital: 200.000€

**Jurisdiction(s) in which the FMI operates:**

EU

**Authority(ies) regulating, supervising or overseeing the FMI:**

STEP2-T is overseen by the European Central Bank (ECB) as lead overseer, with the involvement of the national central banks of the Eurosystem. STEP2 Card Clearing service is overseen by the Deutsche Bundesbank as lead overseer, with the involvement of the ECB.

STEP2-T is classified as a Systemically Important Payment System (SIPS). The list of payment systems in the eurozone and their classification can be found at:

<https://www.ecb.europa.eu/press/pr/date/2014/html/pr140821.en.html>

[https://www.ecb.europa.eu/ecb/legal/pdf/en\\_ecb\\_2014\\_36\\_f\\_sign.pdf](https://www.ecb.europa.eu/ecb/legal/pdf/en_ecb_2014_36_f_sign.pdf)

The date of this disclosure is 10 May 2020.

This disclosure can also be found at <https://www.ebaclearing.eu/about-eba-clearing/at-a-glance/reference-documents/>

For further information, please contact [regulatory@ebaclearing.eu](mailto:regulatory@ebaclearing.eu)

## I. Executive summary

EBA CLEARING is a provider of pan-European payment infrastructure solutions. Founded in 1998 by 52 banks, the Company is owned by 49 of the major banks operating in Europe and based on a country-neutral governance model. The payment systems of EBA CLEARING are pan-European by design and desire: they are developed in line with the Company's multinational user community needs and in close co-operation with best-of-breed technology partners.

EBA CLEARING aims to allow cost optimisation for its users and is not seeking profit or shareholder value maximisation. In pursuing its mission, EBA CLEARING is guided by the objective to offer its users solutions that are fit for purpose and efficient, with a special focus on safety and ensuring compliance with regulatory and oversight requirements. EBA CLEARING recognises its role in supporting financial stability and promoting fair and efficient markets; it is committed to discharging these responsibilities.

STEP2 is a pan-European Automated Clearing House, processing retail payments in euro. EBA CLEARING launched it in 2003, following the decision to implement a retail payment system based on direct bank participation of all EU Member States with the objective to eliminate bank-internal routing costs, reduce reconciliation costs, enforce straight-through processing standards and ensure operational resilience.

The platform is one of the key clearing and settlement mechanisms in the Single Euro Payments Area (SEPA), both in terms of processing volumes and participating institutions. As a cornerstone of the SEPA processing infrastructure, STEP2 provides full reach for SEPA Credit Transfers and Direct Debits to over 4,800 payment service providers across all SEPA countries.

As of end 2019, over 150 Participants are directly connected to the STEP2 platform to exchange and settle SEPA files every day; 154 Participants in SEPA Credit Transfer (SCT) and 116 Participants in SEPA Direct Debit (SDD). Since the launch of SEPA, EBA CLEARING has endeavoured to list all Scheme-adhering PSPs in the routing table(s) of the respective STEP2 SEPA Service(s), so that all other PSPs know how to reach them.

Daily average volumes in the STEP2 SEPA Services end 2019 stood at 45.2 million transactions processed per day on average; with a daily average of 57.2 billion on SCT and 5.5 billion on SDD.

STEP2 has to comply with: (a) the four criteria for SEPA-compliant infrastructures defined by the ECB (processing capabilities, interoperability, reachability, choice of banks<sup>1</sup>) and (b) the European Payments Council (EPC) Scheme Rulebooks and Implementation Guidelines for the SEPA Credit Transfer Scheme as well as for the SEPA Direct Debit Core and B2B Schemes<sup>2</sup>.

The STEP2-T System is governed by the STEP2 System documentation, including in particular the STEP2 Rules and Regulations. The STEP2 Rules and Regulations comprehensively cover the rights and obligations arising from participation in the system. The STEP2-T System Documentation is governed by German law.

<sup>1</sup> <https://www.ecb.europa.eu/pub/pdf/other/singleeuropaymentsarea200707en.pdf>

<sup>2</sup> <https://www.europeanpaymentscouncil.eu/about-sepa/sepa-political-legal-and-regulatory-framework>

On 6 February 2020, a meeting of the Legal Advisory Group took place to discuss the draft legal documentation for the implementation of Continuous Gross Settlement (CGS) in STEP2-T. The material aspects of the STEP2-T System and activities relevant will continue with CGS to be unambiguously governed by one single governing law, the German law. All documents forming part of the System Documentation shall continue to be governed by and construed in accordance with the laws of the Federal Republic of Germany. An updated version of the Legal memorandum issued by external counsel to EBA CLEARING has been created to substantiate the Company's self-assessment and the legality of the different components of the design of the current and future STEP2 settlement model. The STEP2-T community had chosen to move to the new settlement in a phased migration starting in May 2021, subject to the issuing of the nihil obstat by the Assessment Group and ending in November 2022. During this period, the existing and the new settlement mechanisms will co-exist. This co-existence period has been designed to minimise implementation risks in light of the industry's loaded implementation agenda. It will allow individual banks and/or communities to choose their preferred migration window in relation to their other ongoing projects. From a payment sending and receiving as well as from a reporting perspective, the changes for the participants will be kept to a minimum.

The Principles for Financial Market Infrastructures (PFMIs) are the international standards for financial market infrastructures, i.e. payment systems, central securities depositories, securities settlement systems, central counterparties and trade repositories and issued by the Committee on Payments and Market Infrastructures (CPMI) and the International Organization of Securities Commissions (IOSCO). They are part of a set of 12 key standards that the international community considers essential to strengthening and preserving financial stability.

The PFMIs are implemented in the euro area by the ECB Regulation (EU 795/2014)<sup>3</sup> on Oversight Requirements for Systemically Important Payment Systems (SIPS Regulation) as amended by ECB Regulation (EU 2017/2094)<sup>4</sup>. It covers both large-value and retail payment systems of systemic importance, whether operated by the Eurosystem's national central banks or private entities. In 2014, STEP2-T and EURO1 were identified by the ECB as SIPS. Thus, STEP2-T is overseen by the ECB as "Competent Authority" within the meaning of the SIPS Regulation, with participation of the national central banks of the Eurosystem.

As an operator of SIPS, EBA CLEARING is required to meet the requirements of the SIPS Regulation. Art 20(5) of the SIPS Regulation sets out that "a SIPS operator shall complete and disclose publicly responses to the CPSS-IOSCO Disclosure framework for financial market infrastructures." Therefore, Section IV of this document contains a detailed description of how EBA CLEARING ensures compliance with the requirements for STEP2 as outlined in the PFMIs. Section V includes various public sources for additional information about EBA CLEARING and STEP2.

**Section II** of the present document presents a summary of the changes in the System since the last disclosure report.

**Section III** provides the general background of the Financial Market Infrastructure (FMI).

**Section IV** is comprised of a Principle-by-principle summary narrative disclosure and **Section V** provides links to public references and resources.

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<sup>3</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014R0795>

<sup>4</sup> <https://eur-lex.europa.eu/eli/reg/2017/2094/oj>

## II. Summary of changes since the last update of the disclosure report

The following paragraphs detail the summary of the key changes that have impacted the STEP2-T system since 2015.

In April 2016, an enhanced extended remittance information service was activated in the STEP2 SCT Service. Further, in November 2016, a combined functional and technical release, which mostly included changes related to amendments brought to the SEPA Scheme Rulebooks of the EPC such as the dismantling of the SDD COR1 option, was implemented.

In November 2017, a combined functional and technical release was deployed which mostly included changes related to amendments brought to the SEPA Direct Debit Business to Business (B2B) Scheme Rulebook of the EPC.

At the request of the users and based on a positive feedback from the user consultation, the release also introduced several service enhancements to the STEP2 SCT Service. The outcome of the annual user consultation on changes for 2018 was reflected in the 2018 release proposal.

The technical release implemented in April 2018 introduced new optional reports further supporting participants in their liquidity management, as had been requested by the users. The changes of the functional release scheduled for implementation in November 2018 were mostly related to the new versions of the EPC SCT Scheme Rulebook coming into effect in November 2018 and the introduction of an additional debit notification file window for SDD Core at 7:00 CET.

### Most Recent Changes to the System

In April 2018, the Company carried out a user consultation on the future evolution of the STEP2 settlement model in light of the revised SIPS Regulation. The results indicated a preference for the introduction of a continuous gross settlement model for the STEP2 SEPA Services.

Considering the participants' ongoing engagement in other substantial mandatory payments industry projects, EBA CLEARING has decided on a phased migration by the user community to the new settlement model, with a phased-in migration due to start in May 2021, pending prior approval from the Overseers.

The introduction of the STEP2-T CGS model has been elaborated based on a consultation of users in 2018 indicating strong support for an evolution of the settlement towards continuous gross settlement, a settlement model for which the need to control liquidity and credit risks is avoided by the use of an RTGS-like design, and in consideration that such a model would also respond to the revised requirements of the SIPS Regulation.

With the introduction of CGS, the STEP2-T System will become a payment system providing for the continuous execution of payments in immediately available euro-denominated central bank funds. The processing of bulks and settlement of resulting bilateral payment orders will occur in real-time on a transaction by transaction basis, and bilateral payment orders are settled immediately or at the latest at the end of the business day provided that sufficient funds are available.

In the first half of 2019, following the user consultation on the Blueprint for evolving the STEP2-T Settlement model, EBA CLEARING proceeded with the work programme aimed at introducing a continuous gross settlement mechanism for the STEP2 SEPA Services by November 2020. With the continuous gross settlement, STEP2 SEPA transactions will settle in a continuous manner, provided there is sufficient liquidity available. The new settlement mechanism further entails an alignment of the liquidity management of the system with the other EBA CLEARING Services, in particular RT1.

These evolutions will provide Participants with additional controls to ensure timely processing of their payments and enhanced resilience for the system. The specifications for the new module to be implemented for this enhanced settlement mechanism were published in November 2019. In parallel, work was done on further evolving the business practices of the system, per request of the users in close consultation with the STEP2 Business Committee as well as with the Treasury and Liquidity Group, with the objective to define best practices supporting the smooth and timely processing of the bilateral gross settlement instructions throughout the day.

CGS provides for the sorting, forwarding, and execution of high-volume bulk payment orders between entities admitted participating in the system for the purpose of the execution of SEPA credit transfers and SEPA direct debits under the relevant SEPA schemes of the European Payment Council.

As part of this settlement model, STEP2-T settlement will be processed using an RTGS-like model, based on continuous gross settlement. The principle of continuous gross settlement is that the processing of bulk transactions occurs continuously during the periods the system is open for settlement, and bilateral payment instructions are settled immediately (provided funds are available), as in other RTGS systems such as TARGET2. The system will queue any bilateral payment instructions that cannot be processed immediately. At the end of the business day, transactions in the queue that have not been settled will be cancelled. Each participant would provide funds for its own payments for which it acts as the debtor party. The need to introduce and control liquidity and credit risks is avoided by implementing an RTGS system design. For valid transactions, STEP2-T will create sub-files by grouping all the transactions in the bulk for the same "Instructed Agent BIC" and for each of these sub-files a bilateral gross settlement instruction is created.

### **STEP2 Functional Release, November 2021**

Given the new versions of the SEPA rulebooks coming into force next year, EBA CLEARING plans to implement one Functional Release in November 2021:

- *SCT Rulebook 2021 and Inter-PSP Implementation Guidelines*

The mandatory changes stemming from the version 2021 of the SCT Rulebook and Inter-PSP implementation Guidelines will be implemented in the STEP2 SCT service. The changes will be reflected in the relevant documentation such as the STEP2 SCT Interface Specifications and XML schemas.

- A recall for a "Fraudulent originated SCT can be sent up to 13 months after original transaction as opposed to 10 business days for the other reasons. This should not impact the STEP2 SCT service as no matching is performed on the recall against the original transaction.
- Multiple status requests on Recall request by the Originator: the format of the status update message (pacs.028.001.01) has changed allowing the inclusion of multiple requests on a recall request by the originator (RFRO) within the same message. This change will impact the STEP2 SCT service XML schemas and business validations.

Other changes on messages and attributes as described in the SCT Implementation Guidelines may impact the STEP2 SCT service XML schemas and / or validation rules (e.g. introduction of the possibility to link a SCT transaction with a preceding Request-To-Pay message).

- *SDD CORE and B2B Rulebooks 2021 and Inter-PSP Implementation Guidelines*

The changes made to the SDD CORE and B2B Rulebooks and Implementation guidelines are clarifications and editorial changes with no impact to the STEP2 M-PEDD Interface.

- *EBICS*

EBA CLEARING will provide compatibility with the new version of the EBICS protocol (v3.0) to maintain the highest levels of efficiency and security for the exchange of files between the STEP2 system and its Participants. A mapping between the existing order types and the new Business Transaction Formats (BTF) will be done allowing backward compatibility with the current version (v2.5) until November 2022.

- *Participant Provisioning via the workstation (DPWS)*

Following the implementation of the Single Sign-On DPWS access in 2020, a number of alignments and improvements across services will continue to be brought enabling Participants to perform self-provisioning in the DPWS (replacing the e-DMRF) and to facilitate the administration of the DPWS SSO users.

### III. General background on the FMI

#### General description of the FMI and the markets it serves

EBA CLEARING is a provider of pan-European payment infrastructure solutions. Founded in 1998 by 52 banks, the Company is owned by 49 of the major banks operating in Europe and based on a country-neutral governance model. The payment systems of EBA CLEARING are pan-European by design and desire: they are developed in line with the Company's multinational user community needs and in close co-operation with best-of-breed technology partners.

EBA CLEARING's mission is to deliver market infrastructure solutions for the pan-European payments industry, to support its users' needs in line with user requirements. The strategic aims of the Company are to ensure a pan-European and country-neutral approach for the development and delivery of infrastructure solutions, thereby ensuring excellence and robustness in delivering our services. EBA CLEARING maintains its track record of timely delivery of user-driven solutions responding to evolving and new demands for infrastructure solutions, thereby demonstrating its openness to stakeholders' needs and agility in its role as market infrastructure solutions provider.

EBA CLEARING aims to allow cost optimisation for its users and is not seeking profit or shareholder value maximisation. In pursuing its mission, EBA CLEARING is guided by the objective to offer its users solutions that are fit for purpose and efficient, with a special focus on safety and ensuring compliance with regulatory and oversight requirements. EBA CLEARING recognises its role in supporting financial stability and promoting fair and efficient markets; it is committed to discharging these responsibilities.

EBA CLEARING manages two Systemically Important Payment Systems, the large-value euro payment system EURO1, and STEP2-T, a pan-European payment infrastructure platform for retail payments in euro across Europe processing SEPA Credit Transfers and Direct Debits.

EURO1, launched in 1999, is a large-value payment system for single same-day euro transactions at a pan-European level. The EURO1 system processes transactions of high priority and urgency, and primarily of large amount, both at a domestic and at a cross-border level.

Since 2003, EBA CLEARING has been managing and operating the STEP2-T platform, a pan-European Automated Clearing House (ACH) for retail payments in euro, which has been offering SEPA services since January 2008. Today, the STEP2-T platform extends SEPA-wide reach to over 4,800 financial institutions through its SEPA services and is one of the key euro retail payment systems in Europe.

Leveraging the STEP2-T infrastructure, EBA CLEARING also offers STEP2 Card Clearing Service (STEP2-CC), a dedicated system for the clearing and settlement of pre-authorised card-based transactions based on the SEPA Card Clearing Framework. It is currently used for clearing and settling debit card transactions under the German girocard scheme.

Launched in 2013, EBA CLEARING's SEPA-compliant Electronic Database Alignment (SEDA) Service allows financial institutions to exchange, process and route mandate-related information according to business rules specified by the Italian Banking Association (ABI). It is currently mainly used by Italian banks to exchange mandate-related information connected to SEPA Direct Debits.

Also, in 2013, EBA CLEARING launched MyBank, an e-authorisation solution for online payments and other online transactions, which is geared toward facilitating the growth of e-commerce across

Europe. MyBank enables customers to pay for online purchases all across Europe by using their familiar online banking interface. Today, MyBank is owned and managed by PRETA S.A.S., a wholly owned subsidiary of EBA CLEARING.

In 2017, with the support of 39 funding institutions from across SEPA and its technology partner SIA, EBA CLEARING has implemented RT1, a pan-European real-time payment infrastructure platform for euro transactions. The system is open to any AS-PSP adhering to the EPC's SCT Inst Scheme and has handled instant payments in line with the scheme since its launch.

### General organisation of the FMI

EBA CLEARING was created in the form of a *société par actions simplifiée* under French law registered with the Paris Trade and Company Register (RCS Paris) and its head offices are located in Paris, France.

The by-laws of EBA CLEARING as amended with effect as of 05 March 2021, are publicly available on the website of EBA CLEARING at <https://www.ebaclearing.eu/about-eba-clearing/at-a-glance/reference-documents/>.

EBA CLEARING currently has 49 shareholders. Each shareholder holds one share and has one vote at the Shareholders Meeting. The list of shareholders is publicly available on the website of EBA CLEARING at <https://www.ebaclearing.eu/about-eba-clearing/corporate-governance/the-shareholders/>.

The Board is responsible for setting the strategic direction, overseeing management and adequately controlling the Company, with the ultimate aim of directing the Company towards the fulfilment of its strategic aims and long-term objectives. EBA Clearing's by-laws provide that the Company is managed by a Board composed of not more than seventeen (17) members including the Chairperson, the Deputy Chairperson and up to two (2) but not less than one (1) Outside Director who are appointed *intuitu personae* by the Shareholders Meeting for a renewable three-year term.

The Board is assisted by five Board Committees in carrying out its functions:

- the Audit & Finance Committee (AFC)
- the Board Risk Committee (BRC)
- the Strategy and Policy Committee (SPC)
- the Remuneration Committee (RemCo)
- the Nomination and Governance Committee (NGC)

The mission and activities of the Board Committees are set forth in the Company's Annual Report.

In addition, the following expert groups have been created and are consulted on the matters under their expertise:

- Operations and Technical Group
- Treasury and Liquidity Group
- Legal Advisory Group

The responsibility for the day-to-day management rests with the Chief Executive Officer (CEO). The CEO reports to the Board. Heads of Units have delegated power for managing the activities relating to their units. The roles attributed to the various Units coincide with the functions required for carrying out the activities of EBA CLEARING.

Since 2015, a single Service Development and Management Unit has been entrusted with the management of the EURO1/STEP1, STEP2, and RT1 Services, with dedicated senior managers being assigned to the service lines respectively as well as to marketing, user relations and new initiatives.

EBA CLEARING applies a three-lines-of-defence approach for its risk management, ensuring different levels of control. The Chief Risk Officer and the Internal Audit function are independent and have a dotted reporting line to the Board Risk Committee and to the Audit and Finance Committee respectively.

In order to ensure that all types of users are considered in the design and evolution of its systems and offerings, the Company maintains a broad range of communication channels with its (current and potential) users and other stakeholders. There are regular country or regional user meetings with the participation of all respective users and EBA CLEARING management. During these meetings, ongoing activities and projects are discussed and user feedback is requested. In the context of specific projects, steering groups and task forces may be created to ensure efficient exchanges throughout the project or initiative. Furthermore, the Company organises individual user visits and, when appropriate or desired, roadshows and information campaigns.

An identical structure has been adopted for user consultation for the two SIPS operated by the Company. Two Business Committees have been established:

- the EURO1 Business Committee
- the STEP2 Business Committee

Business Committees are consultative bodies providing recommendations to the Board. Business Committees are chaired by a Board member.

A dedicated corporate governance section, setting forth the governance arrangements, lines of responsibility, Board and management role and composition, and relations with stakeholders is included in the Annual Report. A report on the risk management and internal control functions is equally included in the Annual Report. The Annual Report is publicly available on the website of the Company at <https://www.ebaclearing.eu/about-eba-clearing/at-a-glance/reference-documents/>.

Further, the composition of the Board and mission of the Board Committees are published on the website of EBA CLEARING at <https://www.ebaclearing.eu/about-eba-clearing/corporate-governance/the-board/> and <https://www.ebaclearing.eu/about-eba-clearing/at-a-glance/mission-and-objectives/>, respectively.

### Legal and regulatory framework

EBA CLEARING, the SIPS operator of EURO1 and STEP2-T, is a limited liability company incorporated under French law in the form of a *société par actions simplifiée* à capital variable. The Company has branches in Belgium and in Germany, and representative offices in Italy, Finland, and the United Kingdom.

EBA CLEARING's role is primarily that of a 'business administrator'. The Company does not incur any rights or obligations arising from the sending and receiving of payment messages, and at no time does it hold any funds or deposits in relation to the operation of its systems.

STEP2-T is governed by the STEP2-T System Documentation, including in particular the STEP2 Rules and Regulations. The STEP2 Rules and Regulations comprehensively cover the rights and

obligations arising from participation in the system. The STEP2-T System Documentation is governed by German law.

With the introduction of CGS, the system operator took the opportunity to align the legal framework of STEP2-T with the other systems it operates. The material aspects of the STEP2-T System and relevant activities will continue with STEP2 CGS to be unambiguously governed by one single governing law, the German law. All documents forming part of the System Documentation shall continue to be governed by and construed in accordance with the laws of the Federal Republic of Germany. An updated version of the Legal memorandum issued by external counsel to EBA CLEARING has been created to substantiate the Company's self-assessment and the legality of the different components of the design of the current STEP2 cycle based and CGS settlement model.

A legal opinion, in a form satisfactory to the System Operator and to the Overseer, was obtained under the governing law of the system, and is regularly updated. Further, capacity opinions must be provided by each Direct STEP2 Participant for being admitted to a STEP2 Service.

The Company selects technology partners and makes available to users their services and technology, namely processing services using software and technical infrastructure commissioned from SIA S.p.A and calculation and interface capacities using software and technical infrastructure commissioned from SWIFT.

STEP2-T's design for CGS settlement is based on simultaneous settlement on a gross basis of all payments included in a settlement window. For efficiency purposes STEP2-T Participants' calculated positions are settled on Participants' TARGET2 RTGS account via the procedures of TARGET2 Ancillary System Interface (ASI-4 settlement). For the night-time settlement procedure, STEP2-T Participants must also provide a TARGET2 sub-account (ASI-6 Interfaced). In case a Participant does not provide sufficient funds for settlement, the calculation of the positions and settlement will occur without the respective participant and its messages, which are carried forward to the next settlement window, with the exception of the messages in the last cycle of the business day.

Participants may include entities that have a SWIFT BIC or equivalent business identifier code for which a Participant has been appointed (a reachable BIC) in the routing tables maintained for STEP2-T. Payment orders are not allocated to reachable BICs but constitute payment orders of, or, as applicable, addressed to the Participant. The relationship between a Participant and a reachable BIC for which the Participant is acting in relation to the receipt or forwarding of messages contained in files is exclusively governed by their respective bilateral arrangements and is outside of the context of STEP2-T.

The use of networks for the sending and receiving of files containing payment and other messages to and from the STEP2 platform is outside of the scope of the STEP2-T system. Each entity that is a Participant is responsible for its contractual relationship with its network provider(s).

STEP2-T, on which the STEP2 SEPA Services are running, is designated under the Settlement Finality Directive (SFD)<sup>5</sup> and settles in central bank money in TARGET2.

Following the identification of STEP2-T as a systemically important payment system under the SIPS, EBA CLEARING is overseen by the ECB and the Eurosystem's national central banks which monitor the compliance of the Company and the payment systems it operates with the requirements covered in the SIPS Regulation.

<sup>5</sup> <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex%3A31998L0026>

In addition, STEP2 has to comply with the four criteria for SEPA-compliant infrastructures defined by the ECB (processing capabilities, interoperability, reachability, choice of banks<sup>6</sup>) and the EPC Scheme Rulebooks and Implementation Guidelines for the SEPA Credit Transfer Scheme as well as for the SEPA Direct Debit Core and B2B Schemes.

### The STEP2-T System

STEP2 is a pan-European Automated Clearing House, processing retail payments in euro. EBA CLEARING launched it in 2003, following the decision to implement a retail payment system based on direct bank participation from all EU Member States with the objective to eliminate bank-internal routing costs, reduce reconciliation costs, enforce straight-through processing standards and ensure operational resilience.

Today, the system is one of the key clearing and settlement mechanisms in the SEPA, both in terms of processing volumes and participating institutions. As a cornerstone of the SEPA processing infrastructure, STEP2 provides full reach for SEPA Credit Transfers and Direct Debits to payment service providers across all SEPA countries.

STEP2 has been a major building block of SEPA. The timely delivery of its SEPA services as well as the processing capacity, operational robustness and rich functionality of the system made STEP2 the platform of first choice of many Eurozone communities during SEPA migration. It allows payment service providers to send and receive SEPA Credit Transfers and Direct Debits to and from any counterparty in Europe through one channel. A growing number of banks and banking communities across Europe are taking advantage of this single channel approach for both their domestic and cross-border SEPA transactions. It provides fast and reliable processing and settlement of SEPA Credit Transfers and SEPA Direct Debits to its participants all across SEPA.

STEP2 allows banks from the different SEPA countries to exchange payment files directly. Routing tables enable reach to all other banks offering SEPA payments which are not Direct STEP2 Participants. Creating reach through this concept has proven to be a most efficient way for payment service providers (PSPs) to route their payments all over Europe and an effective integration factor for the European payments markets.

Today, over 150 participants are directly connected to the STEP2 platform to exchange and settle SCT or SDD files every day. On the STEP2 routing tables, there are more than 4,700 PSPs from all over SEPA. Since the launch of SEPA, EBA CLEARING has endeavoured that all Scheme-adhering PSPs are listed in the routing table(s) of the respective STEP2 SEPA Service(s), so that all other PSPs know how to reach them.

STEP2 and 15 other SEPA CSMs have established interoperability, which facilitates reach to around 20 percent of the 4,700 reachable BICs listed in the STEP2 SCT routing table. The STEP2 reachability model enables banks to comply with their obligation to be reachable in SEPA. The model is based on:

- **open access:** any SEPA CSM can channel payments via STEP2 on behalf of its participants and designate a direct participant for settlement in TARGET2.
- **central routing tables:** all banks that can be addressed via the STEP2 SEPA Services are

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<sup>6</sup> <https://www.ecb.europa.eu/pub/pdf/other/singleeuropaymentsarea200707en.pdf>

listed in the routing table(s) of the respective service(s), to show that they are reachable. Banks that are reachable through DirectSTEP2 Participants are themselves neither direct nor indirect participants in the system.

- **standard formats:** the use of standard SEPA formats by all SEPA CSMs enables a seamless exchange of data between the infrastructures.
- **direct exchange of files between the CSMs involved:** CSMs that interoperate with STEP2 send and receive files of payments, validation reports, settlement information and reconciliation reports directly to/from STEP2 over one of the currently supported networks.
- **settlement obligation for payment messages sent or received via STEP2 by other SEPA CSMs:** the settlement obligation is assumed by financial institutions enabling the protections of payments under the Settlement Finality Directive.

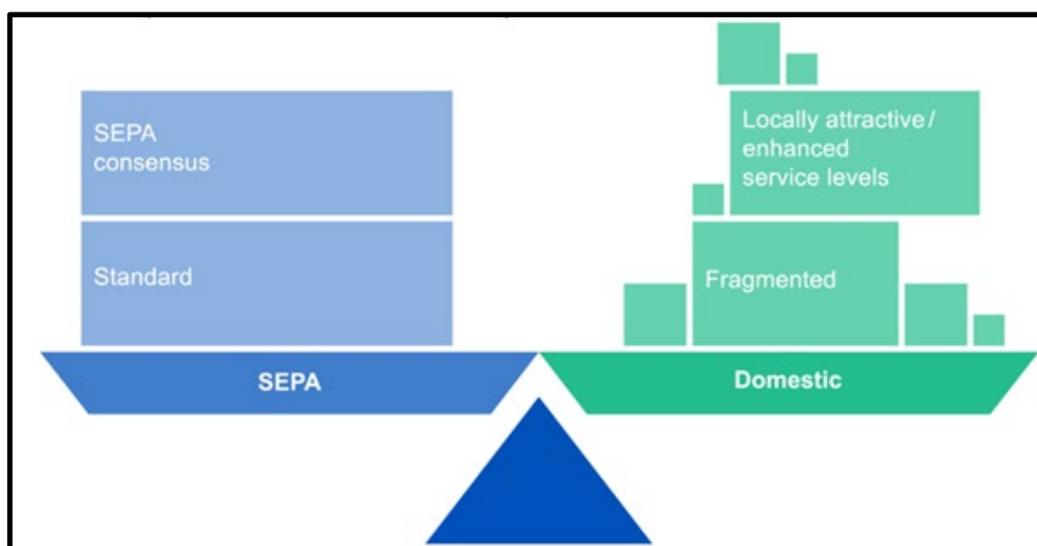


Fig.1 Balancing the banks' different needs in SEPA

As per EBA CLEARING's user say governance<sup>7</sup>, STEP2 is intrinsically user-defined and has evolved as a result of user requirements. Practicality and costs for the users are prime considerations underlying the design of the system, without compromising the resilience and robustness of the system and its compliance with oversight requirements.

In August 2014, the STEP2-T System has been classified as a systemically important payment system by the European Central Bank and is held to the highest oversight requirements.

#### AOS, VAS and Rulebook Scheme options

The EPC Framework allows for Additional Optional Services (AOS) to accommodate the different

<sup>7</sup> see corporate governance section of EBA CLEARING website for more details:  
<https://www.ebaclearing.eu/about-eba-clearing/corporate-governance/user-say-governance/>

Classification: Closed User Group

customer needs and expectations across SEPA. AOS are services agreed between a closed user group of SEPA participants, usually a national community, that are not covered by the EPC SCT or SDD Scheme Rulebooks. The development of AOS allows best-of-breed innovation to enter into the schemes and enables them to evolve over time.

All AOS introduced by one or more communities are listed on the EPC website. They should be available for use by any PSP that wishes to offer this service and should not impact the participants that are not members of the user group.

### Additional Optional Services supported by STEP2

The STEP2 platform was designed with the flexibility to include additional features for a group of participants on a closed user group basis. The platform currently supports the following AOS:

- acceptance date field, which is used to ensure local compliance in Finland (AOS1)
- extended remittance information, which enables creditors to reference multiple invoices and credit notes in one payment (AOS2).
- account transferability, which is used to ensure local compliance in Italy by seamlessly transferring a payment received for a customer who has left the bank to the new bank (AOS3)
- Greek character set, which can be used as long as a bilateral agreement exists between the sending and the receiving bank
- Slovakian specific symbols for payment identification for SCT, which can be used as long as a bilateral agreement exists between the sending and the receiving bank

Any community interested in an AOS may request its implementation on the STEP2 platform. As a pan-European provider, EBA CLEARING also works with its user community on harmonising requirements across communities where possible. The objective is to deliver AOS satisfying the needs of several national communities.

### Value-added services supported by STEP2

The STEP2 platform supports the following value-added services (VAS):

The Change of Account Identification (CAI) option allows banks to inform each other via a standardised identification modification advice message (camt.022.001.02) about changes in the bank or account details of a customer. CAI is based on the ISO 20022 "Account Modification Advice" message and already in use in France. EBA CLEARING has removed the annual fee for the CAI option in order to promote it as a standardised solution for the exchange of account information messages across SEPA. In consultation with its user community, EBA CLEARING will align its format with the French ones to further facilitate its usage.

SEPA COM Pacifique supports the exchange of credit transfers and direct debits in the SEPA formats between banks in the French SEPA territories FR, GP, RE, MQ, GF, PM, BL, MF and YT and in the non-SEPA overseas territories New Caledonia (NC), French Polynesia (PF) as well as the Wallis and Futuna Islands (WF), which together are known as "SEPA COM".

Dutch Statutory Direct Debit Tax Collection enables participants in a closed user group to use a specific value in the Local Instrument field for SDD Core collections as per a local practice defined by the Dutch Payment Association.

## STEP2 Stand Alone Testing Partner

The STEP2 Stand Alone Testing Partner is a web-based service that allows participants of various STEP2 Services to simulate a testing partner available to submit and receive transactions to the STEP2 System. Access to the tool can be granted by the EBA CLEARING Customer Support Unit (ICU).

### System Design and Operations

#### *Cycle-based Settlement*

##### Functionality and technology

STEP2 provides a state-of-the-art network-independent processing engine, which is based on global XML-based ISO standards and fully compliant with the EPC SCT and SDD Scheme Rulebooks and Implementation Guidelines.

The platform ensures full straight-through processing of all transactions in the interbank space and offers its users the most advanced standard functionality based on the latest technology.

#### **24-hour file sending, payment warehousing and scheduling of payments in a specific cycle:**

Direct STEP2 Participants can send payments at any time. Payment warehousing and cycle scheduling allow participants to choose the date and settlement cycle in which a credit transfer should be processed up to three business days in advance.

#### **Same-day and optional night-time settlement cycles**

**Payment cancellation and recall functionality:** STEP2 provides its participants with the possibility to cancel sent payments after they have been validated but before they have been settled, using a payment cancellation request (camt.056) message. If the payment has already been settled, the message will be forwarded to the beneficiary bank as a Request for Recall in accordance with the EPC Scheme Rulebook requirement.

**Network independence:** Participants can connect to the STEP2 central system through SWIFTNet, SIANet and EBICS. Participants can use two networks in parallel for sending files to STEP2. For receiving their files, participants use a primary channel, which can be switched intraday to a pre-configured secondary channel if the default channel is affected by a technical issue. This intra-day channel switch feature helps banks to mitigate processing risks.

**Machine-readable routing tables:** EBA CLEARING publishes routing tables of all reachable banks for each STEP2 Service, one week ahead of the monthly activation date. They are distributed through a secure network in machine-readable format for automatic import into the banks' systems and are also available for download. The routing tables contain further information on which Additional Optional Services (AOS), optional settlement cycles and processing options each bank has subscribed to.

**Interactive workstation:** Participants have access to an interactive workstation for the monitoring of files and payments, the Direct Participant Web Station (DPWS).

Via the DPWS, users can directly:

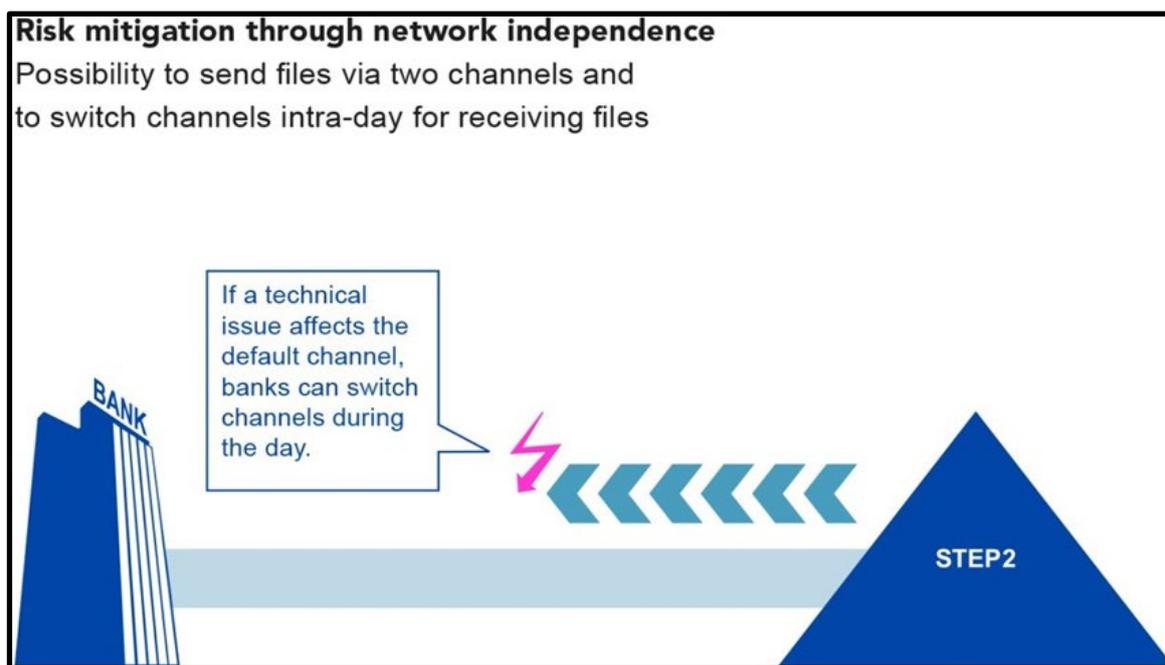
- monitor their real-time bilateral liquidity positions against other participants and against the system

- view the status of individual files, bulks or payments
- request details on archived payments
- ask for the re-transmission of a file
- cancel entire bulks or create a bilateral relationship with any other Participant to exchange files in the batch processing mode

**Reconciliation reports:** STEP2 sends a range of machine-readable reports to the Participants in order to help them with the reconciliation of payments:

- real-time validation report, informing Participants of the validation results with regard to the files they have sent
- pre-settlement report, advising Participants of the amounts to be settled in the upcoming cycle
- cycle reconciliation report, containing a summary of the settlement instructions created for that cycle
- payment cancellation file, notifying Participants that have sent payment cancellations of the status of the payment instructions subject to those requests
- daily reconciliation report, providing reconciliation information related to all of the cycles of that day

This set of advanced standard features optimally supports participant banks in managing their payment traffic on the STEP2 platform and their own processing capacities in a very efficient and flexible manner.



**Fig.2 -Network independence in STEP2**

### Processing modes

STEP2 offers different processing modes depending on the requirements of sender and receiver:

All banks are included by default in the bulk payment processing mode.

Banks may optionally join the batch processing mode in addition, which is applied only to designated payment files exchanged with nominated counterparties and offered at considerably lower cost.

Banks opting for the use of STEP2 to exchange high volumes of SEPA payments can additionally benefit from a committed volume pricing (CVP) pricing option, which further reduces their transaction fees for both single and batch processing modes.

Both processing methods offer secure and reliable payment processing. The bulk payment processing mode is adapted for cross-border usage, since it includes carrying out a wide range of business validation at the level of STEP2. The batch processing mode is useful for the exchange of large volumes of domestic and/or recurrent payments among a smaller group of banks.

### Sorting and validation differences

#### **Sorting:**

In the bulk payment processing mode, a file can contain bulks where all the receivers are mixed together. STEP2 will store all the payments individually and then recreate new output files, one for each receiving bank.

In the batch processing mode, the sending bank will sort and group payments for counterparties with whom they have agreed to exchange payments in this mode. As a result, STEP2 does not have to re-sort millions of payments into new files: after the necessary checks, the system simply delivers to the receiving parties the pre-sorted files submitted by the sending participant.

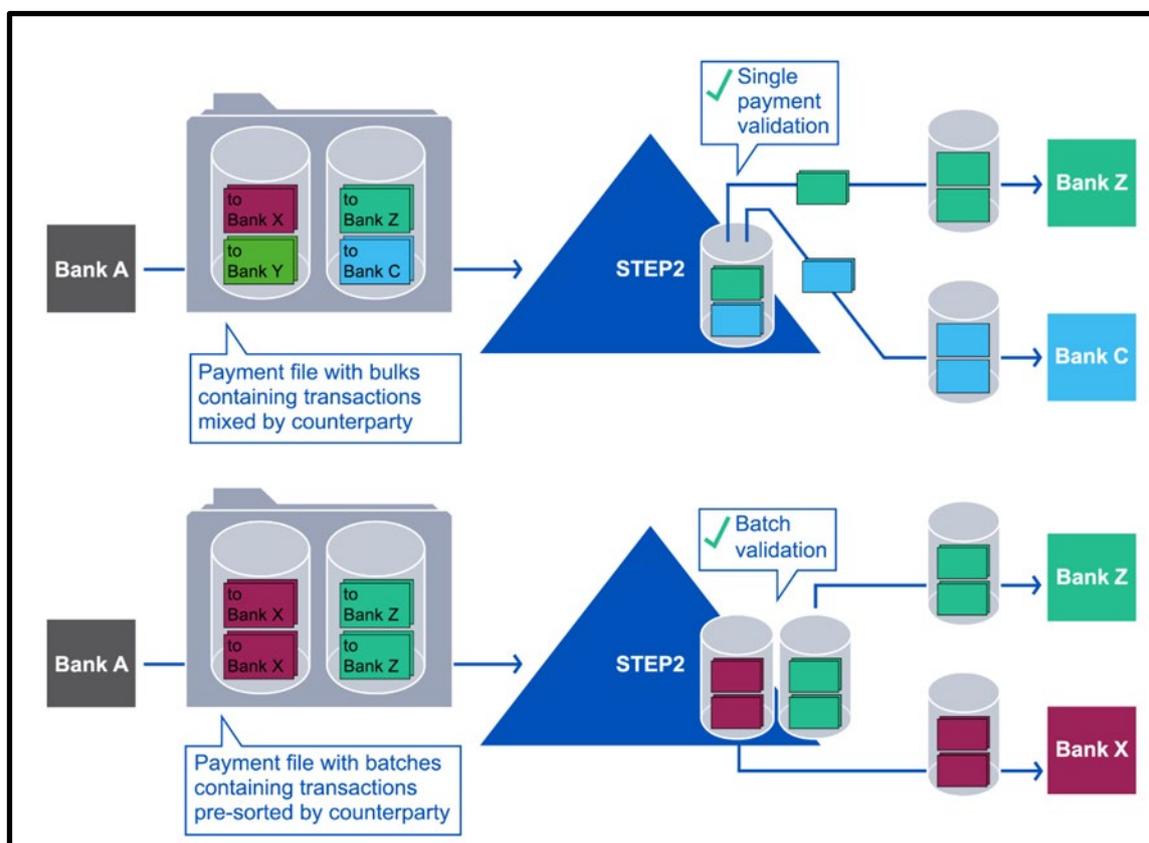
Validation checks for both modes:

STEP2 provides real-time validation of files, reporting back for each file whether the payments inside have been accepted for processing or rejected. STEP2 checks that:

- the file is encrypted, signed and received over a secure network, which supports non-repudiation
- the security credentials of the sender are correct by validating them against stored business data
- the same file has not been previously sent
- the receiver of the payments is present in the respective STEP2 routing table with the correct status
- the number of payments in the file is the same as the number of payments reported in the file header
- the amount in the file header equals the sum of the amounts in the individual transactions
- the XML schema format is respected

STEP2 ensures that:

- mandatory fields are present
- no forbidden fields are present
- field lengths are respected
- field formats are respected



**Fig. 3 Validation in STEP2**

### STEP2 SCT, SDD Core and SDD B2B

STEP2 is fully compliant with the EPC Scheme Rulebook and Implementation Guidelines of the EPC. It processes a high volume of mass retail payments sent to the system by means of files through a secure network. Participation in STEP2, i.e. being able to send and receive files from the service, is restricted to banks operating in SEPA.

In addition to the technical processing features, business practices have been introduced in relation to the handling of payments in a wider, "end-to-end" approach.

The key features that the STEP2 Service offers to the banks are:

- fully Scheme-compliant payment processing
- send - settle - deliver principle
- highly automated processes of maximum resilience
- full Straight-Through-Processing (STP) of all transactions including R-transactions, such as returns
- use of ISO 20022 standards
- multiple intra-day cycles and optional night-time cycles
- payment warehousing and cycle scheduling, which allows participants to choose up to three business days in advance on which date and in which cycle a payment should be processed
- settlement of all the obligations of the STEP2 SCT cycles on a multilateral net basis in TARGET2

- monitoring facilities via the Direct Participant Web Station (DPWS), which provides real-time information on liquidity positions, the status of files or payments in the system, and routing table information.

By using the STEP2 Service, banks can:

- benefit from the low entry costs, from competitive transaction pricing and the fastest delivery channel
- provide their customers with a high-level Scheme-compliant service
- decrease costs by reaching SEPA financial institutions through one access point, by using one channel with one standard interface and by integrating their liquidity for retail SEPA payments in one place

STEP2 has the following generic functions:

- **Returns:** returns can be sent/received mixed with other payments or in separate files.
- **Same-day cycle:** this functionality consists of the sending of payment files on settlement day.
- **Resending of settlement instructions:** this feature enables the resending of failed settlement instructions in order to limit the occurrence of cases when settlement is not completed and leads to the sending of cancelled payment files (CPFs).
- **Payments and files warehousing:** payments or files sent up to three business days ahead of the value date are warehoused and released to the system on the value date.
- **Cancellation of warehoused files and payments:** a web service allows cancellation of warehoused payments or files prior to the start of the relevant processing cycle.
- **Online services:** participants can inquire upon the status of their payment instructions and files using an interactive Workstation. Additionally, they can download the entire up-to-date routing table.

#### *STEP2 SEPA Core Direct Debit (SDD Core)*

SDD Core provides banks in the Single Euro Payments Area with an interbank processing infrastructure for domestic and pan-European direct debits. The SDD Core Service on the STEP2 platform validates, routes, clears, settles and delivers direct debit collections in line with the Scheme Rulebooks of the European Payments Council for SEPA Core Direct Debits.

#### *STEP2 SEPA Business-to-Business Direct Debit (SDD B2B)*

SDD B2B provides banks in the Single Euro Payments Area with an interbank processing infrastructure for domestic and pan-European direct debits. The SDD B2B Service on the STEP2 platform validates, routes, clears, settles and delivers direct debit collections in line with the Scheme Rulebooks of the European Payments Council for SEPA B2B Direct Debits.

## STEP2-T CGS

Continuous gross settlement (“CGS”) comprises the following key principles:

- Bulk transactions are processed in real-time time and bilateral instructions are settled immediately provided that sufficient funds are available;
- Each participant would provide funds for its own payments for which it acts as the debtor party;
- The need to control liquidity and credit risks is avoided by using an RTGS system design;
- All positions are funded in central bank funds held on technical account in TARGET2;
- Settlement of bilateral instructions upon processing is subject to availability of sufficient funds: it is

not possible to have a negative position, nor is it possible to anticipate funding at a later point in time;

- Files for which funds are then not available are queued; off-setting algorithms for optimal queue resolution are used like in RTGS payment systems;
- Funding may be provided by available liquidity or through incoming payments;
- Liquidity management tools will be made available to allow Participants to make best possible use of their funds.

In light of such design principles, Participants will not incur a payment obligation vis-à-vis the system, nor towards each other or vis-à-vis the community of all other Participants arising from the clearing and settlement process. Participation in and sending and receiving payment transactions through the STEP2-T system does not entail liquidity or credit risk.

The project to migrate the STEP2 SEPA Services from a settlement cycle approach to a continuous gross settlement mechanism was launched in July 2019 and has been taken forward in extensive consultation with the STEP2 user community and the Overseers. The new settlement mechanism is scheduled to start operating in May 2021 in parallel mode. A successive migration of all users will follow until November 2022, which will enable our service users to optimally coordinate the major infrastructure projects they are running concurrently and thus help to limit any related implementation risks.

Under the CGS model, STEP2 Participants hold a specific amount in central bank funds kept by the ECB in the technical account (TARGET2 Technical Account) used for the STEP2-T CGS. Such amount (always positive or minimum zero) is adjusted in real time upon settlement of each individual bilateral payment instruction of which the STEP2 Participant is the recipient or sender. During TARGET opening times, each Participant may at any time transfer its central bank funds in the TARGET2 Technical Account to its TARGET2 PM account. Upon receipt of the input files (ICF/IDF) and validation of the individual transactions, the STEP2 System sorts the bulks into so-called “Sub-files” according to the receiving STEP2 Participant. In the case of batch processing mode, incoming batches are already pre-sorted according to instructed Agent by the sending STEP2 Participant, and therefore upon validation each batch will result in a Sub-file. Each of such Sub-files sorted by receiving STEP2 Participant, will constitute a bilateral instruction for the purpose of the continuous settlement between the instructed agent and the instructing agent. Warehoused SCT transactions are included for processing on the interbank settlement date at the start of the relevant settlement window. Direct Debits are included for processing on the interbank settlement date after the latest moment for submitting pre-settlement R-messages. Each validated file generates bilateral gross instructions which are warehoused until the interbank settlement date.

On interbank settlement date, bilateral instructions can settle immediately (provided that sufficient funds are available in the TARGET2 technical account), or if they cannot be settled immediately, they will be queued. Funding in the TARGET2 technical account may be provided by available liquidity or through incoming payments. Like in TARGET2 RTGS, optimisation mechanisms run from time to time allowing the settlement of queued instructions in a liquidity efficient manner. Participants can manage all SEPA products (SCT, SDD CORE and SDD B2B) from a single queue allowing an efficient use of liquidity or can opt for distinct queues for each SEPA instrument.

Each STEP2 Participant can view their own position throughout the business day. Participants can fund and withdraw funds to/from their position throughout the day during TARGET2 opening hours. Each STEP2 Participant can set upper and lower liquidity thresholds which will be monitored by the system to generate alerts when these thresholds are reached. Optionally, automatic liquidity adjustments based on such configurable thresholds can be triggered. Different thresholds can be

set during different periods throughout the day. The files containing settled transactions and periodic reconciliation reports will be delivered at scheduled checkpoints during the day.

The CGS architecture can be summarised into the following phases:

1. Start of the continuous settlement window
2. Input files processing
3. Sub-files creation
4. Funds availability and settlement
  - Queue (if bilateral gross instruction exceeds the participant's funds balance)
5. Liquidity Adjustment Checkpoints and output distribution
6. End of the continuous settlement window
  - Rejection of queued sub-files

## Clearing and settlement

### *Cycle-based Settlement*

STEP2 provides fast and reliable processing and settlement of SEPA Credit Transfers and SEPA Direct Debits to its participants across SEPA. The STEP2 clearing and settlement infrastructure is operational on all TARGET days and offers the following key features to its participants:

- multiple intra-day cycles and optional night-time cycles for SEPA Credit Transfers
- “send – settle – deliver” based design with settlement subject to sufficient funds
- settlement of the STEP2 SCT and SDD cycles on a bilateral gross basis with calculated positions in TARGET2
- settlement before delivery for SCTs – by strictly applying this principle, STEP2 enables participants to book any payments received onto their customers' accounts without any credit risk
- payment warehousing and SCT cycle scheduling functionality
- monitoring facilities via the direct participant web station (DPWS), which provides real-time information on liquidity positions, on the status of files or payments in the system, routing table information and much more

The main benefits of these arrangements are the following:

- optimal support of the banks' intra-day liquidity management
- the possibility for banks to better control and plan their processing and ensure smoother payment flows
- a highly secure and resilient settlement process
- a flexible evolution of the service offering in line with the future needs of the participant banks and their customers
- absence of liquidity or credit risk arising from participation in the STEP2 System

### Clearing and settlement phases

Each payment cycle can be divided into three standard phases:

- **Validation phase:** from the opening time of the cycle until the sending cut-off time, incoming and warehoused payments for this cycle are validated and stored.
- **Settlement phase:** from settlement opening time until settlement cut-off time, STEP2 calculates the position of each Participant towards every other Participant and sends the results to the TARGET2 Interface for settlement in TARGET2.

- **Output phase:** when settlement has been completed, STEP2 delivers the payments and reconciliation reports to the Participants.

## Settlement of STEP2 in TARGET2

Participating banks settle their STEP2 messages by paying a net calculated amount in TARGET2. STEP2 first creates bilateral gross instructions and reports them to the banks, calculates the positions and sends these amounts to TARGET2 using the Ancillary System Interface.

Participants in the STEP2 SEPA Services have the possibility to request MT 900 / MT 910 and MT 940 / MT 950 messages from TARGET2 for reconciliation purposes.

A number of measures and procedures are in place to ensure that the STEP2 SEPA Services settlement is carried out in a smooth manner, even under more exceptional circumstances:

- **Pre-settlement report:** after each sending cut-off for a settlement cycle, STEP2 sends to the Participants the liquidity positions they will have to settle in the upcoming cycle.
- **Information period:** apart from the possibility to monitor their real-time settlement position via the DPWS, Participants have a 15-minute information period before each settlement for liquidity management reasons. This information period allows the participants to check whether they are short or long with regard to their STEP2 payments and to take the necessary actions. The start of the information period is communicated to the settlement banks in TARGET2 by an ICM Broadcast.
- **Operational monitoring:** in the rare case that a Participant in the STEP2 SEPA Services might be lacking liquidity at the time of settlement, EBA CLEARING is in a position to detect this rapidly through operational monitoring and can contact the participant to ensure it tops up its RTGS account in order to prevent any delay in the settlement and distribution of output files.

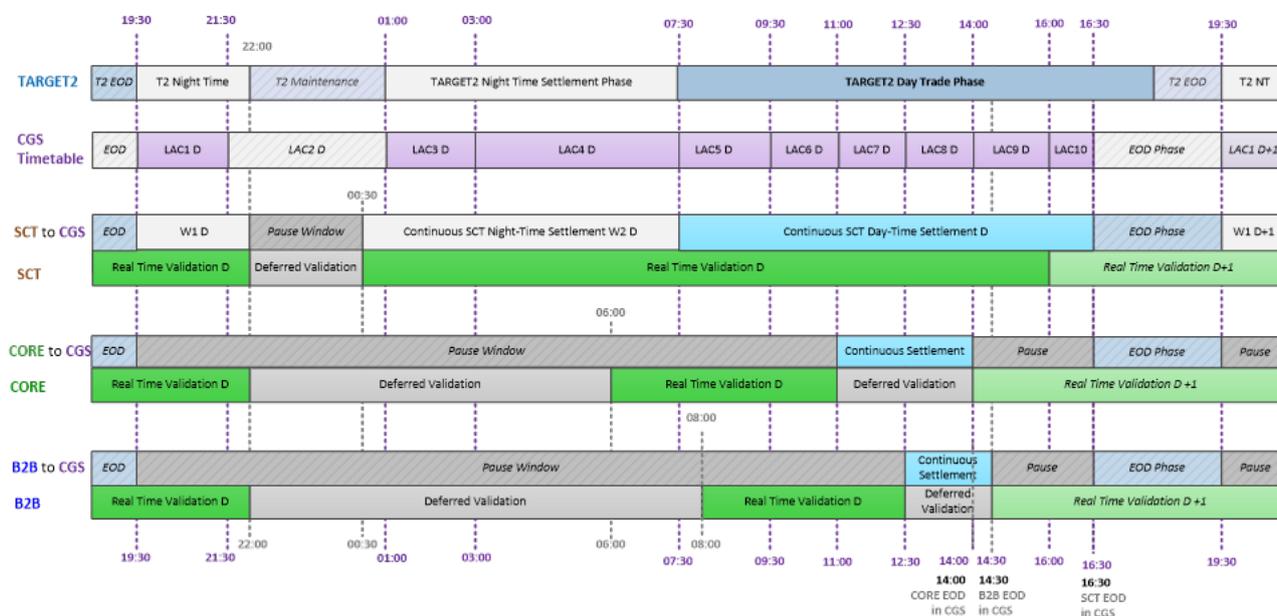


Fig. 4 STEP2 SEPA Services Daily timetable

## Settlement in STEP2 SCT

STEP2 SCT provides the following clearing and settlement cycle arrangements:

- **Five day-time cycles:** participants are free to send payments for settlement during any of these five cycles but must be ready to process incoming payments during each of them. The sending cut-off of the last settlement cycle in the day stands at 16:00 CET.
- **Two optional night-time cycles:** participation is on a closed user group basis, i.e. any bank wishing to send or receive payments during either or both of the optional cycles has to register separately for each optional cycle.
- **Possibility to request additional cycles:** any community interested in additional cycles may enquire about their implementation in the STEP2 SCT Service.

## Settlement in STEP2 SEPA Direct Debit Core

The STEP2 SDD Core settlement takes place between 12:00 and 12:45 CET. The STEP2 SDD Core Service validates in real-time from 06:00 to 11:00 CET and from 14:00 to 22:00 CET.

SDD notification files are delivered to debtor banks six times a day.

STEP2 separates the SDD transactions in order to deliver collections and cancellations/ rejects/returns in different files. This allows participants to first process transactions with same-day value (R-transactions) and then transactions with future settlement dates (collections).

Sending cut-off times: participants can send collections for the following business date until 16:00 CET. The sending cut-off for sending R-transactions is at 11:00 CET.

## Settlement in STEP2 SEPA Direct Debit Business-to-Business

The STEP2 SDD B2B settlement takes place between 13:00 and 13:45 CET. The STEP2 SDD B2B Service validates in real-time from 08:00 to 12:00 CET and from 14:30 to 22:00 CET.

SDD notification files are delivered to debtor banks six times a day.

STEP2 separates the SDD transactions in order to deliver collections and cancellations/ rejects/returns in different files. This allows participants to first process transactions with same-day value (R-transactions) and then transactions with future settlement dates (collections).

Sending cut-off times: participants can send collections for the following business date until 15:00 CET. The sending cut-off for sending R-transactions is at 12:00 CET.

## Clearing & Settlement in CGS

The following summarises certain key features relating to the settlement of payment orders within STEP2-T when Participants use the CGS mechanism; these features are exactly the same as in the existing RT1 System:

(a) CGS will use settlement procedure 6 real-time (ASI6 RT) within the Ancillary System Interface of TARGET2-ECB for its settlement operations and the transfer of funds between Participants. For that purpose, EBA CLEARING will enter into an agreement with the European Central Bank ("ECB") as the operator of TARGET2-ECB by which the relevant provisions of the TARGET2 Guideline will be implemented ("Settlement Account Agreement").

(b) Pursuant to the Settlement Account Agreement, the ECB will open a dedicated technical account for STEP2-T in TARGET2-ECB ("Settlement Account"). On the Settlement Account, central bank funds denominated in euro will be paid in by the Participants from their designated PM accounts in TARGET2 ("Funding Transfers"). A Funding Transfer will occur when the amount thereof is credited to the Settlement Account (and simultaneously debited to the relevant PM account).

(c) The central bank funds credited to the Settlement Account will constitute funds of the Participants whereas EBA CLEARING as the designated holder of the Settlement Account will be agreed not to be the holder of such funds or any related monetary rights, whether in a fiduciary capacity or otherwise.

(d) Each Participant will be the holder of a specified amount of the central bank funds credited to the Settlement Account ("Euro Balance"). Participants may use any amount of their Euro Balance to make payments within STEP2-T ("STEP2 Payments") or withdraw funds from the Settlement Account to their designated PM accounts in TARGET2 ("Withdrawals"), in each case up to the amount of their Euro Balance. A Withdrawal will occur when the amount thereof is debited to the Settlement Account (and simultaneously credited to the relevant PM account).

(e) A Participant's Euro Balance will be continuously determined and recorded by the IT systems used for STEP2-T and will, at any time, be equal to:

- (a) the total amount until such time of all Funding Transfers made by such Participant; plus
- (b) the total amount until such time of all STEP2 Payments received by such Participant; minus
- (c) the total amount until such time of all STEP2 Payments made by such Participant; minus
- (d) the total amount until such time of all Withdrawals made by such Participant.

It is clarified in the legal documentation of STEP2-T ("System Documentation") that a Participant's Euro Balance cannot be negative and that the sum of all Euro Balances (being zero or positive) will at all times be equal to the total amount of central bank funds credited to the Settlement Account. The amount of each Euro Balance recorded from time to time in the IT System will be referred to as the "Recorded Euro Balance".

### Settlement of payment orders within CGS

Payment orders within STEP2-T ("Payment Orders") will be settled using the CGS mechanism according to the following rules, which will be set out in the STEP2-T Documentation:

(a) The format of input files, their receipt, validation, sorting into sub-files and warehousing until the applicable interbank settlement date will not change for files processed using CGS. This means that Participants will continue to be able to send files, including bulks of individual payment messages (credit transfers as well as direct debits), to STEP2-T. These files will be sorted into sub-files and validated so that each sub-file contains individual payment messages of the same message type addressed to the same BIC address with the same intended interbank settlement date; as today, credit transfer and direct debit messages will not be included in the same sub-files. STEP2-T Documentation will clarify that each such validated sub-file will constitute a Payment Order for the purposes of STEP2-T.

(b) Each Payment Order will be settled (i.e., carried out within the meaning of Article 3(1) SFD) by the execution of a STEP2 Payment from the Participant specified in such Payment Order as the payer ("Payer") to the Participant specified in such Payment Order as the payee ("Payee") in the aggregated amount of all individual payment messages included in the relevant subfile.

(c) Each STEP2 Payment will be executed in real time by a simultaneous reduction of the Recorded Euro Balance of the Payer of the relevant Payment Order and increase of the Recorded Euro Balance of the Payee of the relevant Payment Order, each in the amount of the relevant Payment Order. This simultaneous adjustment of the Recorded Euro Balances of the Payer and the Payee will be defined in the STEP2-T Documentation to constitute an equal and simultaneous adjustment of the related Euro Balances and will be referred to as the "Processing" of the relevant Payment Order.

(d) Under the STEP2-T Documentation, Processing of Payment Orders will occur during one or more settlement windows ("Settlement Windows") on the intended interbank settlement date specified in the relevant Payment Order, provided that the amount of the relevant Payment Order does not exceed the Euro Balance of the relevant Payer.

(e) Payment Orders that are not immediately Processed at the point in time at which they are included in the settlement process as a result of an insufficient Euro Balance of the relevant Payer will be queued until such Euro Balance is sufficient in order to Process the relevant Payment Order. To determine if a Payer's Euro Balance is sufficient for the Processing of a Payment Order, bilateral and multilateral optimisation algorithms similar to those used in other RTGS systems such as TARGET2 will be used.

(f) If the relevant Payer's Euro Balance remains insufficient for the Processing of a Payment Order and such Payment Order is not Processed by the relevant settlement cut-off time ("Settlement Cut-off Time") at the end of the intended interbank settlement date, such Payment Order will be cancelled.

## Frequent intraday settlement and finality

The design of the settlement model of STEP2-T is based on payment orders being transmitted to the recipient thereof after settlement has occurred (“send – settle – deliver”). Payment orders are only accepted for settlement provided there are sufficient funds. Payment orders are final, i.e. an irrevocable and unconditional transfer of funds has occurred, upon completion of settlement.

STEP2-T’s design for settlement is based on simultaneous settlement on a gross basis of all payments included in a settlement window. For efficiency purposes Direct STEP2 Participants’ calculated positions are settled on participants’ TARGET2 Payment Module (PM) account via the procedures of TARGET2 Ancillary System Interface (ASI-4 settlement). For the night-time settlement procedure, Direct STEP2 Participants must also provide a TARGET2 sub-account (ASI-6 Interfaced).

The STEP2-T system applies a calculation for the sending of debit orders and credit orders included in the settlement file to the external settlement system, i.e. TARGET2-ECB. This is to ensure that its participants can benefit from liquidity efficiency, and also to reduce intraday liquidity needs at the level of the participants.

Participants are responsible for the smooth settlement of their transactions in STEP2-T and for taking all appropriate measures to ensure that sufficient liquidity is available in a timely manner.

In case a Participant does not provide sufficient funds for settlement, the calculation of the net positions and settlement will occur without the respective Participant and its messages. In practice, this means that the Participant that does not have sufficient funds in its Technical Account to fund its position, shall be excluded from that Settlement Cycle. Only payment orders for which the calculated positions can give rise to simultaneous settlement of gross obligations are included in each round for settlement, i.e. those payment orders that are sufficiently funded. The provision of sufficient funds to cover any calculated position is a condition for acceptance of payment orders for settlement, as is the case for RTGS systems. Delivery of payment orders only takes place after settlement, and payment orders that were not included in a settlement round are ‘queued’ or can be rejected, similarly to what is in place for RTGS systems.

EBA CLEARING as system operator of STEP2 has put in place a number of operational mechanisms and tools to reduce the likelihood of non-settlement of payment orders entered in the system. They include, for example, alerting participants of potential lack of liquidity in their accounts, so this can be remedied in a timely manner, as well as other mechanisms with the aim of incentivising participants to manage their liquidity positions appropriately throughout the day.

The design of the system together with the applicable rules and the processes in place leads to a system with no payment obligation incurred by participants vis-à-vis the system, each other or the community of all other participants from the clearing and settlement process. Today, therefore, participating in, and sending and receiving payment transactions through the STEP2 system does not entail liquidity risk or credit risk for the system.

## STEP2 CGS Settlement & Finality

### **Final settlement takes place no later than the end of the intended settlement date**

Article 9 SIPS Regulation requires that a SIPS Operator establishes rules and procedures to enable

final settlement to take place no later than the end of the intended settlement date. This requirement will be met for the CGS mechanism by respective provisions in the STEP2-T Documentation as well as in the technical specifications of STEP2-T pursuant to which:

(a) Processing of Payment Orders will occur during one or more Settlement Windows on the intended interbank settlement date specified in the relevant Payment Order, provided that the amount of the relevant Payment Order does not exceed the Euro Balance of the relevant Payer (using, where appropriate, optimisation algorithms) (see points (4)(d) and (e) above); and

(b) If the relevant Payer's Euro Balance remains insufficient for the Processing of a Payment Order and such Payment Order is not Processed by the relevant Settlement Cut-off Time at the end of the intended interbank settlement date, such Payment Order will be cancelled (see point (4)(f) above). This means that settlement of any Payment Orders will only take place on the intended interbank settlement date, no unsettled Payment Order will survive the intended interbank settlement date and no settlement will be deferred to the next business day of STEP2-T.

### **Resilience and business continuity**

The STEP2 platform is a highly resilient processing system with full disaster recovery features and operational procedures that are regularly practised with the user community. It provides the following key benefits:

**A scalable processing engine:** the STEP2 Services are based on a highly efficient and robust processing engine capable of handling all the SEPA traffic if needed.

**A highly experienced operator:** the technical provider and operator of the STEP2 platform is SIA, one of the largest financial processors in Europe. The SIA processing environment offers state-of-the-art technology with high resilience features.

**Three processing sites:** the primary site maintained by SIA runs in cluster configuration with data sharing facility and a power distribution layout that has a fully radial configuration. The second processing site, also maintained by SIA, is equivalent to the primary site and works in a synchronous mode, meaning that all data is replicated in real time. A third processing site, which ensures business continuity in case of a regional disaster, was put in place by SIA and IBM and activated in January 2014.

**Three operations centres for system monitoring:** EBA CLEARING runs three separate operations centres in different countries. Two of these independent sites operate in parallel mode during the processing day. The three sites are engaged in a regular rotation of shifts and ensure a constant monitoring of the different STEP2 Services.

**Customer support for operations-related queries and emergency situations:** The Investigations and Customer Support Unit (ICU) is EBA CLEARING's single point of contact for all operations-related queries.

**Several channels and tools for incident and crisis communication:** while the common language is English, customer support is additionally provided in other languages by the multilingual staff.

**Crisis simulation exercises:** these exercises are organised on an annual basis. Their main objective is to test the functionality of the disaster recovery arrangements, both in terms of file sending/receiving and connectivity to participants' workstations.

ISO 27001 certification: since January 2013, EBA CLEARING's Information Security Management System, which is geared at managing and securing the Company's information assets, has been certified as ISO 27001-compliant. In 2018, the Company's Information Management System was re-certified to the new ISO 27001:2013 standard.

### **Admission & default rules**

In order to fulfil the admission criteria for STEP2, a Participant must:

- be authorised to conduct banking business
- have TARGET2 account access, i.e.
- have a direct participant status in TARGET2 or the status of an indirect participant in TARGET2 with multi-addressee access, or
- have a central bank which undertakes to provide a TARGET2 account for settlement for such direct participant
- be able to send files in the required format specified by EBA CLEARING
- have its registered office or a branch in the EEA / SEPA, i.e. participate in the system via an office located in the EEA or, for the SEPA Services, in the geographical area of SEPA
- provide a capacity opinion for each STEP2 Service it participates in.

In addition to the above, for each of the STEP2 SEPA Services (SCT, SDD Core and SDD B2B), it is a condition for admission that the applicant adheres to the corresponding SEPA Scheme Rulebook of the European Payment Council.

Participants may include in the routing tables maintained for STEP2 entities which have a BIC (ISO9362) for which a Participant has been appointed (a "reachable BIC"). Reachable BICs do not send or receive payment orders directly through STEP2; all payment orders are included in the files sent and received by the Participants. The relationship between a Participant and a reachable BIC for which the Participant is acting in relation to the receipt or forwarding of messages contained in files is exclusively governed by their respective bilateral arrangements and is outside of the context of the STEP2-T System.

### **Exclusion, suspension and withdrawal from the STEP2-T System**

The occurrence of a suspension or exclusion event and the consequences thereof for the suspended / excluded participant and for the other participants are determined solely in accordance with the STEP2 Rules and Regulations. The system's rules are proprietary and confidential; they are available to all participants and prospective participants, and to relevant authorities including the ECB and Eurosystem central banks as overseers of STEP2.

A Participant will be excluded from the system by the system operator in case of a confirmed insolvency event affecting the Participant.

Operational issues of a Participant will be addressed in first instance through the activation of incident handling and, as applicable, crisis management arrangements.

### **Exclusion**

Events that may give rise to exclusion comprise in particular:

- termination of TARGET2 access
- loss of banking license

- insolvency

A STEP2-T Participant may also be excluded in case a suspension event has not been remediated within 30 calendar days.

### Suspension

The criteria for participation in STEP2 consist of necessary technical and operational requirements to enable sending and receiving of files, and requirements that are necessary to enable participation in the settlement arrangements.

A Participant may be suspended if non-compliance with the ongoing criteria for participation cannot be mitigated, e.g. in the case of relocation outside the EEA / SEPA.

### Withdrawal from the system

A STEP2-T Participant can withdraw from the system by giving notice – at least five processing days in advance – of terminating the Participant Processing Service Agreement, or the Accession Agreement.

### Basic statistical data

The average daily volumes and values on a monthly basis are published on the public website:

STEP2 SCT: <https://www.ebaclearing.eu/services/step2-sct/statistics/>

STEP2 DD Core: <https://www.ebaclearing.eu/services/step2-sdd-core/statistics/>

STEP2 DD B2B: <https://www.ebaclearing.eu/services/step2-sdd-b2b/statistics/>

A monthly statistical country report on the SDD Core and SDD B2B Services, including on the R-transactions, reason codes and technical rejections, is available to all participants on the EBA CLEARING Customer Portal. These reports are also made available to the EPC and to the ECB.

A dedicated statistical report on operational performance is made available via the EBA CLEARING user portal.

### Envisaged changes to the system

Considering the current design of the STEP2-T System and evolving regulatory context, during May and June 2018 EBA CLEARING conducted a consultation among the users to receive input on their expectations regarding the future of the STEP2 settlement model based on different options that were identified. The results of the consultation indicated that users strongly support the evolution of the STEP2 settlement model towards continuous gross settlement. It was further considered that such settlement model design would also respond to the revised regulatory requirements introduced by the SIPS Regulation regarding credit and liquidity risks.

In response to the feedback received from participants and pending prior nihil obstat from the Overseer, it is EBA CLEARING's intention to focus resources on evolving the current STEP2 settlement design towards implementation of continuous gross settlement.

The project to migrate the STEP2 SEPA Services from a settlement cycle approach to a continuous gross settlement mechanism was launched in July 2019 and has been taken forward in extensive

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Classification: Closed User Group

consultation with the STEP2 user community and the Overseers. The new settlement mechanism is scheduled to start operating in November 2020 in parallel mode. A successive migration of all users will follow until November 2022, which will enable our service users to optimally coordinate the major infrastructure projects they are running concurrently and thus help to limit any related implementation risks.

#### IV. Principle-by-principle summary narrative disclosure

STEP2-T has been classified as a SIPS falling under the SIPS Regulation implementing the PFMI for payment systems in the euro area, and notification of such classification was made to EBA CLEARING on 21 August 2014. As such, the below table details how STEP2-T complies with the Principles for Financial Market Infrastructures applicable to payment systems.

Principles	Summary of compliance
<p><b>Principle 1: Legal Basis Article 3</b> An FMI should have a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions</p>	<p>STEP2-T has a well-founded legal basis under all relevant jurisdictions.</p> <p>The STEP2-T System is governed by the STEP2-T System Documentation, including in particular the STEP2-T General Terms and Conditions. The STEP2-T General Terms and Conditions comprehensively cover the rights and obligations arising from participation in the system. The STEP2-T System Documentation is governed by German law.</p> <p>The STEP2-T system is included in the list of designated systems under the Directive 98/26/EC of the European Parliament and of the Council of 19 May 1998 on settlement finality in payment and securities settlement systems (Settlement Finality Directive or SFD) since 2009 (see <a href="https://www.esma.europa.eu/sites/default/files/library/designated_payment_and_securities_settlement_systems.pdf">https://www.esma.europa.eu/sites/default/files/library/designated_payment_and_securities_settlement_systems.pdf</a>). Considering admission and participation criteria, STEP2-T thus benefits from the application of the SFD protections.<sup>8</sup></p> <p>A legal opinion, in a form satisfactory to the System Operator and to the Overseer, was obtained under the governing</p>

<sup>8</sup> The SFD aims at reducing the systemic risk associated with participation in payment and securities settlement systems, and in particular the risk linked to the insolvency of a participant in such a system. In particular, the SFD obliges Member States to ensure that transfers orders and netting should be legally enforceable under all EU jurisdictions and binding on third parties, that transfer orders cannot be revoked after a moment defined by the rules of the system, that insolvency proceedings should not have a retroactive effect on the rights and obligations of participants in a system and that collateral security should be insulated from the effects of the insolvency law applicable to the insolvent participant. The SFD further determines that in the event of insolvency proceedings being opened against a participant in a system, the rights and obligations arising from, or in connection with, the participation of that participant shall be determined by the law governing that system.

Principles	Summary of compliance
	<p>law of the system, and is regularly updated.</p> <p>Further, capacity opinions must be provided by each Direct STEP2 Participant for being admitted to a STEP2 Service.</p> <p>The material aspects of STEP2-T and activities relevant thereto are unambiguously governed by one single governing law.</p> <p>The design of the settlement model of STEP2-T is based on payment orders being transmitted to the recipient thereof after settlement has occurred (“send – settle – deliver”). Payment orders are only accepted for settlement, provided there are sufficient funds. Payment orders are final, i.e. an irrevocable and unconditional transfer of funds has occurred upon completion of settlement.</p> <p>The STEP2-T System Documentation, as well as related operational and technical documents concerning the operation of the system are available to all participants. Updates and changes, as well as explanatory notes when relevant, are notified prior to their effective date to all participants.</p> <p>In 2014, STEP2-T was identified by decision of the Governing Council of the European Central Bank (ECB) as a Systemically Important Payment System under the SIPS Regulation. In this sense, the STEP2-T System is overseen by the ECB as Competent Authority, with voluntary participation by national central banks of the Eurosystem. Details of the oversight framework can be found in the Company’s Annual Report in the “Oversight of the Payment Systems of EBA CLEARING” section.</p> <p><b>STEP2-T CGS:</b> The introduction of the STEP2-T CGS model has been elaborated based on a consultation of users in 2018 indicating strong support for an evolution of the settlement towards continuous gross settlement, a settlement model for which the need to control liquidity and credit risks is avoided by the use of an RTGS-like design, and in consideration that such a model would also respond to the revised requirements of the SIPS Regulation.</p> <p>With the introduction of CGS, the STEP2-T System will become a payment system providing for the continuous execution of payments in immediately available euro-denominated central bank funds. The processing of bulks and</p>

Principles	Summary of compliance
	<p>settlement of resulting bilateral payment orders will occur in real-time on a transaction by transaction basis, and bilateral payment orders are settled immediately or at the latest at the end of the business day provided that sufficient funds are available.</p> <p>The STEP2-T CGS will provide for the sorting, forwarding, and execution of high-volume bulk payment orders between entities admitted to participate in the system for the purpose of the execution of SEPA credit transfers and SEPA direct debits under the relevant SEPA schemes of the European Payment Council. Similar to today, the system is designed to allow that account servicing payment service providers (AS-PSPs) that have adhered to those SEPA schemes are able to comply with their obligations under the relevant scheme rulebooks.</p> <p>In a nutshell, CGS will allow the STEP2-T System to work as follows:</p> <ul style="list-style-type: none"> <li>• each validated file generates a number of aggregated bilateral payment orders which are settled individually and in real-time in STEP2-T continuously throughout the day; a final transfer, i.e. irrevocable and unconditional transfer of funds, of processed payment orders occurs upon the simultaneous reduction of the balance of the paying Participant and increase of the balance of the paid Participant in the system;</li> <li>• each Participant is entitled to and owns a balance of central bank funds credited on a technical account opened in TARGET2-ECB for the purposes of STEP2-T CGS under an agreement emulating the TARGET2 participation agreement entered into in the context of the RT1 System of EBA CLEARING</li> <li>• settlement of bilateral payment orders upon processing is subject to sufficient funds: it is not possible to have a negative balance, nor is it possible to anticipate funding at a later point in time;</li> <li>• each Participant will provide funds for its own payments for which it acts as debtor. Funding may be provided by available liquidity or through incoming payments;</li> <li>• liquidity management tools will be made available to allow Participants to make best possible use of their funds, in particular Participants will be allowed to fund and withdraw funds to/from their balance at any time of the day (when TARGET2 allows);</li> <li>• payment orders for which funds are then not available are queued and algorithms for optimal queue resolution are used similar to what exists in RTGS payment systems;</li> <li>• possibility for automatic liquidity adjustments based on configurable thresholds;</li> <li>• reporting of settled transactions can be made available at the choice of the Participant at regular intervals or</li> </ul>

Principles	Summary of compliance
	<p>immediately following settlement.</p> <p>The introduction of this new settlement model for the STEP2- T System will mainly impact the settlement as well as balance management via funding and withdrawals. Technical and operational impact for the system and Participants will be very limited in other areas.</p> <p>Considering the above, the material aspects of STEP2-T CGS that require a high degree of certainty include: The clarity of the moments of entry, irrevocability and finality, especially when there is an insolvency; as part of the use of TARGET2 for funding transfers and withdrawals, the legal basis for the funds of the Participants held in the so-called 'technical account' maintained in the TARGET2 system.</p> <p><b>Relevant legal systems</b></p> <p>The material aspects of the STEP2-T System and activities relevant thereto are and will continue with STEP2 CGS to be unambiguously governed by one single governing law, i.e. German law. All documents forming part of the System Documentation are as of today and shall continue to be governed by and construed in accordance with the laws of the Federal Republic of Germany.</p> <p>The historical reasons for the choice of German law include, in particular, the aim to reduce the number of governing laws for the various aspects of the system. This latter aspect is in particular relevant for STEP2-T CGS, since TARGET2, having its seat in Germany, will act as provider of the technical account. In this respect, an agreement for participation and provision of funds transfer services in TARGET2 for the purpose of STEP2-T CGS (the Participation Agreement), currently being drafted by TARGET2 in discussion with EBA CLEARING, shall be governed by German law.</p> <p>Unchanged as compared to today, the use of networks for the sending and receiving of files containing payment and other messages to and from STEP2-T is outside of the scope of the STEP2-T System. Each Direct Participant must ensure it is able to send and receive STEP2 files in the format as specified by the STEP2-T System Operator and is otherwise responsible for its contractual relationship with its network provider(s).</p>

Principles	Summary of compliance
	<p><b>Legal basis for each material aspect</b></p> <p><u>FMI legal basis</u></p> <p>To ensure that the introduction of STEP2 CGS in the STEP2- T System provides the adequate legal certainty for all relevant aspects, the introduction of those changes followed the established approach applied for the current System's legal basis, summarised hereafter:</p> <p>The STEP2-T System Documentation has been elaborated with the assistance of external counsel and is maintained by external counsel. Amendments to the legal documentation are made by external legal counsel, allowing for reliance on a continued high degree of legal certainty, and providing assurance that the system documentation will include an opinion on the validity and enforceability of amendments made from time to time to the provisions of the legal documentation.</p> <p>A reasoned legal opinion was provided on issues arising under the laws of Germany in connection with the participation by banking institutions in the STEP2-T System, including the validity and enforceability of the system documents. The legal opinion on such documents is updated at regular intervals.</p> <p>As a condition for admission, each Participant is requested to provide a capacity opinion to confirm, inter alia, that its obligations under the STEP2-T System docs are legal, valid and binding, and that the performance of its rights and obligations will not cause such Participant to violate any laws or regulations applicable to it.</p> <p>The legal basis of STEP2-T System under CGS will support the finality of transactions as follows:</p> <p>Finality of payment orders:</p> <p>Each Payment Order in STEP2-T System using CGS will be settled on a gross basis in real-time by the transfer of funds held on the TARGET2 Technical Account from the balance of the paying Participant (reduction of balance) to the balance of the paid Participant (corresponding increase of balance). The settlement of a Payment Order requires that its amount does not exceed the Participant's balance. If the relevant Participant's balance held in the TARGET2 Technical</p>

Principles	Summary of compliance
	<p>Account is sufficient to settle a Payment Order, such order will be simultaneously accepted for settlement and settled. Payment orders are thus final, i.e. an irrevocable and unconditional transfer of funds has occurred with SFD meaning, upon completion of the adjustment of the Participants' balances. If the relevant balance is insufficient, queueing mechanisms exist.</p> <p>Moment of Entry: Moment of entry of a Payment Order into STEP2-T System under CGS pursuant to the system documentation will be the moment during a settlement window upon which such order will be included in the settlement process on the relevant intrabank day.</p> <p>Irrevocability: Payment orders can be revoked by the sending Participant until they are settled by their corresponding TARGET2 funds transfer. A payment order shall thus become irrevocable with the meaning of the SFD at the point in time at which it is accepted for settlement.</p> <p>The features of STEP2-T CGS in terms of finality and settlement of payment orders can validly be agreed and the finality and settlement of payment orders would be recognised under German law.</p> <p>Payment orders in STEP2-T CGS will remain effective notwithstanding any subsequent opening of insolvency proceedings in respect to the relevant Participants. The right of a Participant to revoke a Payment Order will likewise not be affected by its insolvency.</p> <p>In summary, during a settlement window, a payment order will enter and be settled immediately provided there is sufficient funds in the balance of the paying Participant and the settlement will be effected by way of a Funds Transfer to the Balance of the payee.</p> <p>The fund transfers in TARGET2 for the funding and withdrawals operations between the Technical Account and the PM accounts of the Participants are a matter of the legal framework of the TARGET2 system.</p>

<p><b>Principle 2: Governance Article 4</b></p> <p>An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders.</p>	<p>The governance arrangements of STEP2 are effective, accountable and transparent, thus supporting the stability of its payment services. For more information about the Company's governance bodies see the Corporate Governance section on the EBA CLEARING website (<a href="https://www.ebaclearing.eu/about-eba-clearing/corporate-governance/">https://www.ebaclearing.eu/about-eba-clearing/corporate-governance/</a>).</p> <p>The involvement of stakeholders in decisions, as well as the objectives of the system, are specified in an unambiguous and transparent manner within the Company's internal policies and procedures. Governance arrangements are clearly and thoroughly documented ensuring clear and direct lines of responsibility and accountability. The set of governance arrangements are fit-for-purpose to meet the strategic aims and objectives of the Company, and they are designed to make them future-proof. The Board Nomination and Governance Committee supports in monitoring the effectiveness of the corporate governance framework.</p> <p>In addition to the Company's governance bodies, to ensure that all types of users are represented in the design and evolution of its systems and offerings, the Company maintains a broad range of communication channels with its (current and potential) users and other stakeholders. An identical structure has been adopted for user consultation for the two SIPS operated by the Company in the form of two business committees: the EURO1 Business Committee and the STEP2 Business Committee. Business committees are consultative bodies providing recommendations to the Board. Business committees are chaired by a Board member. The STEP2 Business Committee, the Operations and Technical Group and the Treasury and Liquidity Group serve as the main consultation mechanisms to receive feedback, discuss any issues related to the system and highlight any potential changes to the functionalities of STEP2 and other EBA CLEARING systems.</p> <p><b>STEP2-T CGS:</b> No change in the governance arrangements. In order to ensure tools provided are adequate for the Participants of the STEP2-T CGS system, EBA CLEARING's governance comprises an active collaboration with its Participants in order to seek continuous feedback on its systems. The STEP2 Business Committee, the Operations and Technical Group, the Treasury and Liquidity Group and the Legal Advisory Group serve as the main consultation mechanisms to receive feedback, discuss any issues related to the system and highlight any potential changes to the functionalities of the systems operated by EBA CLEARING.</p> <p>As per EBA CLEARING's User Say Governance model, the Company uses these channels to ensure that the systems and the tools provided in them, evolve as per user needs and are found to be adequate on a consistent basis.</p>
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Principles	Summary of compliance
<p><b>Principle 3: Framework for the comprehensive management of risks</b>  <b>Article 5</b>            An FMI should have a sound risk-management framework for comprehensively managing legal, credit, liquidity, operational, and other risks.</p>	<p>EBA CLEARING’s risk management activities are organised within a “three lines of defence” mode of operation, the Heads of Units are the first line of defence, the Risk Management Unit and the Regulatory and Oversight Affairs Unit are the second line of defence and Internal Audit is the third line of defence. The three lines of defence model incorporates the embedding of risk management and risk awareness throughout the Company. Moreover, the model highlights the different levels of control and means for escalation, if required.</p> <p>The second line of defence, the risk management function supported by the Chief Risk Officer, ensures high standards of risk management through the development and maintenance of the risk management framework, including specific guidelines and policies. It coordinates the implementation of risk initiatives and raises the Chief Executive Officer’s awareness of risks and consolidated levels, and it supports the Board in optimising EBA CLEARING’s overall risk tolerance and risk limits. In addition, organisational arrangements are in place to ensure operational independence of the second line from the rest of the organisation.</p> <p>EBA CLEARING’s risk management framework has been developed based on EBA CLEARING’s specific risk universe. The risk management framework is composed of the risk assessment methodology, risk tolerance methodology, risk tolerance statement, risk universe and risk identification.</p> <p>The Company’s risk management framework governance policy (approved by the Board of Directors) describes the organisational structure, management oversight, roles, responsibilities and activities that EBA CLEARING considers necessary to support the embedding of strong risk management throughout its activities.</p> <p>Reviews of the policies and methodologies of the risk management framework are prepared annually by the Chief Risk Officer and updates are communicated to the Chief Executive Officer, senior management and to the Board Risk Committee (and reported to the Board via the Board Risk Committee).</p> <p>EBA CLEARING carries out independent audits on a periodic basis to ensure that all risk tools and methodologies were maintained in line with best industry practice and oversight requirements during the assessment period.</p>

Principles	Summary of compliance
	<p>Participants are required to have technical and operational controls and procedures in place, particularly with regards to security. EBA CLEARING monitors and collects further information about those additional requirements on those participants that are regarded as critical due to their significant participation in the system.</p> <p><b>STEP2-T CGS:</b> No change.</p>
<p><b>Principle 4: Credit risk</b> <b>Article 6</b> An FMI should effectively measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes. An FMI should maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence.</p>	<p>It is EBA CLEARING's view that credit risk, does not arise in the context of the STEP2-T System.</p> <p>Reference is made to the description of the system's design in the preceding sections of this disclosure report.</p> <p><b>STEP2-T CGS:</b> Credit risk, i.e. the risk arising from the inability of a Participant to pay its settlement obligations when due or at a later time in the future, does not arise in the context of the STEP2-T Continuous Gross Settlement System.</p>
<p><b>Principle 7: Liquidity risk</b> <b>Article 8</b> An FMI should effectively</p>	<p>Participants are responsible for the smooth settlement of their transactions in STEP2- T and for taking all appropriate measures to ensure that sufficient liquidity is available in a timely manner.</p>

Principles	Summary of compliance
<p>measure, monitor, and manage its liquidity risk. An FMI should maintain sufficient liquid resources in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate liquidity obligation for the FMI in extreme but plausible market conditions.</p>	<p>In case a Participant does not provide sufficient funds for settlement, the calculation of the net positions and settlement will occur without the respective Participant and its messages. Only payment orders for which the net calculated positions can lead to simultaneous settlement of gross obligations are included in each round for settlement. The provision of sufficient funds to cover any net calculated position is a condition for acceptance of payment orders for settlement, as is the case for RTGS systems. Delivery of payment orders only takes place after settlement, and payment orders that were not included in a settlement round are 'queued' or can be rejected, similarly to what is in place for RTGS systems.</p> <p>EBA CLEARING as system operator of STEP2 has put in place a number of operational mechanisms and tools to reduce the likelihood of non-settlement of payment orders in the system. These include amongst others alerting participants of potential liquidity issues in their accounts, so this can be remedied in a timely manner, as well as other mechanisms with the aim of incentivising participants to manage their liquidity positions appropriately throughout the day.</p> <p>As confirmed with external legal counsel, it is EBA CLEARING's conclusion that due to the design of the system together with the applicable rules and the processes in place, credit and liquidity risks arising from settlement of payment orders are fully mitigated.</p> <p><b>STEP2-T CGS:</b>            With the evolution of the settlement model of STEP2-T, EBA CLEARING has improved the settlement flow of STEP2-T and has removed the dependency of Participants on other Participants for settlement of their payment orders, through the implementation of an RTGS model for settlement.</p> <p>In STEP2-T CGS, if a Participant has insufficient funds, the transactions are queued until the liquidity is available and if the Participant does not update its liquidity, then the transactions are cancelled at the end of the day.</p> <p>To further support this enhancement, liquidity and queue management tools will be available in STEP2-T CGS to allow</p>

Principles	Summary of compliance
	<p>for:</p> <ul style="list-style-type: none"> <li>• Discretionary Funding Transfers and Withdrawals throughout the day during TARGET2 opening times;</li> <li>• Optional automatic liquidity adjustments based on configurable thresholds;</li> <li>• Monitoring and revocation of queued Payment Orders.</li> </ul> <p>Under the CGS Model, STEP2-T Participants hold a specific amount in central bank funds kept by the ECB in the technical account (TARGET2 Technical Account) used for the STEP2-T CGS. Such amount (always positive or minimum zero) is adjusted in real time upon settlement of each individual bilateral payment instruction of which the STEP2-T Participant is the recipient or sender.</p> <p>During TARGET opening times, each Participant may at any time transfer its central bank funds in the TARGET2 Technical Account to its TARGET2 PM account.</p> <p>Funding in the TARGET2 technical account may be provided by available liquidity or through incoming payments. Further, optimisation mechanisms will run from time to time allowing the settlement of queued instructions in a liquidity efficient manner.</p> <p>Participants will be able to manage all SEPA products (SCT, SDD CORE and SDD B2B) from a single queue allowing an efficient use of liquidity or can opt for distinct queues for each SEPA instrument.</p> <p>In terms of monitoring, each STEP2-T Participant will be able to view their own position throughout the business day. Participants will be able to fund and withdraw funds to/from their position throughout the day during TARGET2 opening hours.</p> <p>STEP2-T CGS will provide liquidity management tools allowing Participants to set upper and lower thresholds which</p>

Principles	Summary of compliance
	<p>will be monitored by the system and will trigger alerts when a Participant's balance goes above or below the liquidity thresholds they have set for themselves.</p> <p>Optionally, automatic liquidity adjustments based on such configurable thresholds can be triggered.</p> <p>Different thresholds can be set during different periods throughout the day.</p> <p>STEP2-T will continue to provide intraday reports to the Participants for reconciliation purposes. This helps the Participants manage their positions in an appropriate manner.</p> <p>The following reports will support liquidity management:</p> <p>The Liquidity Management Report is a file that contains the liquidity operations between Liquidity Adjustment Checkpoints and is distributed to Participants at LAC settlement cut-off time. The file provides the information required to perform reconciliation processes. The file is sent via the Participant's preferred channel, which can be any of the services where the given Settlement BIC is used in association with a Participant configuration.</p> <p>The Liquidity Notification File is a file sent to Participants when a liquidity adjustment takes place, or a configured optional threshold is breached. The file is also sent via the preferred channel, which can be any of the services where the given Settlement BIC is used in association with a Participant configuration.</p> <p>The files containing settled transactions and periodic reconciliation reports will be delivered at scheduled checkpoints during the day. Further, Participants have access to real-time information in the Direct Participant Workstation (DPWS) which can be used to monitor and manage the instructions for which the Participant has to provide liquidity, held in queue. The STEP2- T workstation (DPWS) provides a consolidated view on the queue(s). This enables the Participant</p>

Principles	Summary of compliance
	<p>to examine their position with respect to each other Participant. This information is based on the files received and processed by STEP2-T from each Participant and thus reflects real-time positions only during the times when real-time validation is available.</p> <p>The information available via this interface can assist Participants with their day-to-day operations by supplementing the summary information and statistics made available via the Daily Reconciliation Report and Monthly Statistics Report.</p> <p>Detailed information on specific credit messages is available only via the DPWS. Information related to interest calculation and liquidity management is also available from this interface.</p> <p>In addition, a new set of APIs are available allowing machine to machine integration and automation of the queue management function. The information available for each instruction (sub-file) includes:</p> <ul style="list-style-type: none"> <li>• The underlying service (i.e. SCT, COR, B2B)</li> <li>• The original bulk reference (Message ID)</li> <li>• The timestamp of entry in the queue</li> <li>• The Creditor Party BIC</li> <li>• The amount of the instruction</li> <li>• Number of payments included in the sub-file</li> </ul> <p>The API calls will cover the same operations:</p> <ul style="list-style-type: none"> <li>• View current, historic and forecasted position in STEP2</li> <li>• Add funds to STEP2 position from PM (RTGS) account</li> <li>• Authorise funds request</li> <li>• Withdrawal from STEP2 position to PM (RTGS) account</li> <li>• Authorise withdrawal</li> </ul>

Principles	Summary of compliance
	<ul style="list-style-type: none"> <li>• Set/Authorise default values for LAC position bandwidth, where position bandwidth is determined by base position, minimum position and maximum.</li> <li>• Set/Authorise custom values for LAC position bandwidth up to one year in the future</li> </ul> <p>Further, STEP2-T CGS much like other RTGS systems such as TARGET2, will also execute optimisation algorithms which may also be triggered when certain conditions are being fulfilled like a set number and / or value of queued instructions and thus regardless of the set time interval between two optimisation rounds.</p> <p>The following optimisation will run sequentially and for a certain number of iterations depending on the liquidity situation and / or presence of gridlocks:</p> <ul style="list-style-type: none"> <li>• Optimisation mechanism #1: Simultaneous gross settlement</li> <li>• Optimisation mechanism #2: Bilateral offsetting</li> <li>• Optimisation mechanism #3: Multilateral offsetting</li> </ul> <p>On the other hand, EBA CLEARING as System Operator of STEP2-T, will monitor the liquidity positions of the Participants of the system. It will also receive alerts when a Participant has insufficient funding (or excess of funds) in line with set thresholds. The system may – under certain conditions – automatically adjust the Participant’s position (i.e. if the Participant has explicitly approved, in line with the thresholds that the Participant has set). STEP2-T will use the TARGET2 ASI-6 real time procedure allowing Participants to fund or withdraw funds from their positions at any time when TARGET2 is open.</p> <p>In addition to the above, EBA CLEARING has a specific tool to monitor the flows between TARGET2 and STEP2-T to make sure each liquidity transaction (inbound and outbound) is properly executed.</p> <p>In order to ensure tools provided are adequate for the Participants of the STEP2-T CGS system, EBA CLEARING’s</p>

Principles	Summary of compliance
	<p>governance comprises an active collaboration with its Participants in order to seek continuous feedback on its systems. The STEP2 Business Committee, the Operations and Technical Group, the Treasury and Liquidity Group and the Legal Advisory Group serve as the main consultation mechanisms to receive feedback, discuss any issues related to the system and highlight any potential changes to the functionalities of the systems operated by EBA CLEARING.</p> <p>As per EBA CLEARING's User Say Governance model, the Company uses these channels to ensure that the systems and the tools provided in them, evolve as per user needs and are found to be adequate on a consistent basis.</p> <p>Also note that in STEP2-T CGS, there is no liquidity provider to the system. Liquidity comes from the Participants.</p>
<p><b>Principle 8: Settlement finality</b>  <b>Article 9</b>            An FMI should provide clear and certain final settlement, at a minimum by the end of the value date. Where necessary or preferable, an FMI should provide final settlement intraday or in real time.</p>	<p>STEP2 benefits from the protection of the Settlement Finality Directive (SFD) and is included in the list of designated systems under the SFD.</p> <p>The design of the settlement model of STEP2-T is based on payment orders being transmitted to the recipient thereof after settlement has occurred ("send – settle – deliver"). Payment orders are only accepted for settlement provided there are sufficient funds. Payment orders are final, i.e. an irrevocable and unconditional transfer of funds has occurred upon completion of settlement.</p> <p><b>STEP2-T CGS:</b></p> <p>The STEP2-T System is governed by German law and is designated under and thus benefiting from the protections of the SFD. STEP2-T is dedicated to the processing of high-volume bulk payment orders in relation to the execution of SEPA payments. The introduction of the continuous gross settlement ("CGS") mechanism in November 2020 is aimed at increasing the resilience of the System. CGS largely derives from the real-time gross settlement model used for the RT1 System, which is also operated by EBA CLEARING.</p> <p>During a transition period from 2021 to 2022, the CGS model will co-exist with the current 'cycle-based' settlement</p>

Principles	Summary of compliance
	<p>model to allow Participants in STEP2-T ("Participants") to migrate to the new modality. The current model will remain unchanged during the transition period; it will be phased out at the end of 2022.</p> <p><b>Key features of CGS:</b>  The following summarises certain key features relating to the settlement of payment orders within STEP2-T when Participants use the CGS mechanism:</p> <ul style="list-style-type: none"> <li>a) CGS will use settlement procedure 6 real-time (AS16 RT) within the Ancillary System Interface of TARGET2-ECB for its settlement operations and the transfer of funds between Participants. For that purpose, EBA CLEARING will enter into an agreement with the European Central Bank ("ECB") as the operator of TARGET2-ECB by which the relevant provisions of the TARGET2 Guideline will be implemented ("Settlement Account Agreement").</li> <li>b) Pursuant to the Settlement Account Agreement, the ECB will open a dedicated technical account for STEP2-T in TARGET2-ECB ("Settlement Account"). On the Settlement Account, central bank funds denominated in euro will be paid in by the Participants from their designated PM accounts in TARGET2 ("Funding Transfers"). A Funding Transfer will occur when the amount thereof is credited to the Settlement Account (and simultaneously debited to the relevant PM account).</li> <li>c) The central bank funds credited to the Settlement Account will constitute funds of the Participants whereas EBA CLEARING as the designated holder of the Settlement Account will be agreed not to be the holder of such funds or any related monetary rights, whether in a fiduciary capacity or otherwise.</li> <li>d) Each Participant will be the holder of a specified amount of the central bank funds credited to the Settlement Account ("Euro Balance"). Participants may use any amount of their Euro Balance to make payments within STEP2-T ("STEP2 Payments") or withdraw funds from the Settlement Account to their designated PM accounts in TARGET2 ("Withdrawals"), in each case up to the amount of their Euro Balance. A Withdrawal will occur when the amount thereof is debited to the Settlement Account (and simultaneously credited to the relevant PM account).</li> </ul>

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	<p>e) A Participant's Euro Balance will be continuously determined and recorded by the IT systems used for STEP2-T and will, at any time, be equal to (a) the total amount until such time of all Funding Transfers made by such Participant; plus (b) the total amount until such time of all STEP2 Payments received by such Participant; minus (c) the total amount until such time of all STEP2 Payments made by such Participant; minus (d) the total amount until such time of all Withdrawals made by such Participant. It will be clarified in the legal documentation of STEP2-T ("System Documentation") that a Participant's Euro Balance cannot be negative and that the sum of all Euro Balances (being zero or positive) will at all times be equal to the total amount of central bank funds credited to the Settlement Account. The amount of each Euro Balance recorded from time to time in the IT System will be referred to as the "Recorded Euro Balance".</p> <p>Settlement of payment orders within CGS:</p> <p>Payment orders within STEP2-T ("Payment Orders") will be settled using the CGS mechanism according to the following rules, which will be set out in the STEP2-T Documentation:</p> <ul style="list-style-type: none"> <li>a) The format of input files, their receipt, validation, sorting into sub-files and warehousing until the applicable interbank settlement date will not change for files processed using CGS. This means that Participants will continue to be able to send files, including bulks of individual payment messages (credit transfers as well as direct debits), to STEP2-T. These files will be sorted into sub-files and validated so that each sub-file contains individual payment messages of the same message type addressed to the same BIC address with the same intended interbank settlement date; as today, credit transfer and direct debit messages will not be included in the same sub-files. STEP2-T Documentation will clarify that each such validated sub-file will constitute a Payment Order for the purposes of STEP2-T.</li> <li>b) Each Payment Order will be settled (i.e., carried out within the meaning of Article 3(1) SFD) by the execution of a STEP2 Payment from the Participant specified in such Payment Order as the payer ("Payer") to the Participant specified in such Payment Order as the payee ("Payee") in the aggregated amount of all individual payment</li> </ul>

Principles	Summary of compliance
	<p>messages included in the relevant sub-file.</p> <p>c) Each STEP2 Payment will be executed in real time by a simultaneous reduction of the Recorded Euro Balance of the Payer of the relevant Payment Order and increase of the Recorded Euro Balance of the Payee of the relevant Payment Order, each in the amount of the relevant Payment Order. This simultaneous adjustment of the Recorded Euro Balances of the Payer and the Payee will be defined in the STEP2-T Documentation to constitute an equal and simultaneous adjustment of the related Euro Balances and will be referred to as the "Processing" of the relevant Payment Order.</p> <p>d) Under the STEP2-T Documentation, Processing of Payment Orders will occur during one or more settlement windows ("Settlement Windows") on the intended interbank settlement date specified in the relevant Payment Order, provided that the amount of the relevant Payment Order does not exceed the Euro Balance of the relevant Payer.</p> <p>e) Payment Orders that are not immediately Processed at the point in time at which they are included in the settlement process as a result of an insufficient Euro Balance of the relevant Payer will be queued until such Euro Balance is sufficient in order to Process the relevant Payment Order. To determine if a Payers Euro Balance is sufficient for the Processing of a Payment Order, bilateral and multilateral optimisation algorithms similar to those used in other RTGS systems such as TARGET2 will be used.</p> <p>f) If the relevant Payer's Euro Balance remains insufficient for the Processing of a Payment Order and such Payment Order is not Processed by the relevant settlement cut-off time ("Settlement Cut-off Time") at the end of the intended interbank settlement date, such Payment Order will be cancelled.</p> <p><u>Final settlement takes place no later than the end of the intended settlement date</u></p>

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	<p>Article 9 SIPS Regulation requires that a SIPS Operator establishes rules and procedures to enable final settlement to take place no later than the end of the intended settlement date. This requirement will be met for the CGS mechanism by respective provisions in the STEP2-T Documentation as well as in the technical specifications of STEP2-T pursuant to which:</p> <p>a) Processing of Payment Orders will occur during one or more Settlement Windows on the intended interbank settlement date specified in the relevant Payment Order, provided that the amount of the relevant Payment Order does not exceed the Euro Balance of the relevant Payer (using, where appropriate, optimisation algorithms); and</p> <p>b) If the relevant Payer's Euro Balance remains insufficient for the Processing of a Payment Order and such Payment Order is not Processed by the relevant Settlement Cut-off Time at the end of the intended interbank settlement date, such Payment Order will be cancelled. This means that settlement of any Payment Orders will only take place on the intended interbank settlement date, no unsettled Payment Order will survive the intended interbank settlement date and no settlement will be deferred to the next business day of STEP2-T.</p>
<p><b>Principle 9: Money settlements</b>  <b>Article 10</b>            An FMI should conduct its money settlements in central bank money where practical and available. If central bank money is not used, an FMI should minimise and strictly control the credit and</p>	<p>Money settlements among participants in STEP2 take place in TARGET2, i.e. in central bank money, at the end of each settlement cycle.</p> <p><b>STEP2-T CGS:</b> this still does not apply, there are no settlement cycles in CGS, settlement occurs on a continuous basis.</p>

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<p>liquidity risk arising from the use of commercial bank money.</p>	
<p><b>Principle 13: Participant default rules and procedures</b>  <b>Article 12</b>            An FMI should have effective and clearly defined rules and procedures to manage a participant default. These rules and procedures should be designed to ensure that the FMI can take timely action to contain losses and liquidity pressures and continue to meet its obligations.</p>	<p>The rules and procedures to manage a participant default are set out in detail in the STEP2 General Terms and Conditions; a summary of which is available on the EBA CLEARING website: <a href="https://www.ebaclearing.eu/services/step2-t-platform/admission-criteria-and-default-rules/">https://www.ebaclearing.eu/services/step2-t-platform/admission-criteria-and-default-rules/</a></p> <p>The occurrence of a suspension or exclusion event and the consequences thereof for the suspended / excluded participant and for the other participants are determined solely in accordance with the STEP2 General Terms &amp; Conditions. A Participant will be removed from the system by the System Operator in case of a confirmed insolvency event affecting the Participant.</p> <p>Operational defaults will be addressed in first instance through the activation of incident handling and, as applicable, crisis management arrangements.</p> <p><b>STEP2-T CGS:</b> A financial default is not applicable in the case of STEP2-T CGS, given that if a Participant has insufficient funds, its transactions are queued and not accepted for settlement until the liquidity is available and if the Participant does not update its liquidity, then the transactions are cancelled at the end of the day.</p> <p>The occurrence of a suspension or exclusion event and the consequences thereof for the suspended / excluded participant and for the other participants are determined solely in accordance with the STEP2 General Terms &amp; Conditions. A Participant will be removed from the system by the System Operator in case of a confirmed insolvency event affecting the Participant.</p>

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	<p>Operational defaults will be addressed in first instance through the activation of incident handling and, as applicable, crisis management arrangements.</p> <p>However, more generally, non-compliance with the criteria for participation, including operational criteria, may also give rise to a suspension or exclusion. The STEP2-T legal Documentation revised to include CGS will continue to define a number of criteria for participation to the system including legal criteria and primarily requirements related to the entity having the ability to comply and to ensure compliance on a continuous basis with the technical and operational requirements of the System. This includes technical and operational requirements aiming at ensuring availability of the Participant and minimising operational disruption in order to send and receive STEP2 Files, STEP2 Sub-Files containing Messages during the operational times of the System, as set forth in the System Documentation.</p> <p>The declaration of an exclusion or suspension is decided by EBA CLEARING.</p> <p>In case of insolvency proceeding or moratorium against a Participant, EBA CLEARING has no discretion as it must either exclude or suspend the Participant upon receiving confirmation by competent authorities or the Participant itself of such events.</p> <p>In case of other exclusion or suspension events, EBA CLEARING has certain discretion to declare suspension or exclusion as it may but is not obliged to do so if it receives sufficient evidence to conclude to the existence of such exclusion or suspension event. Importantly, EBA CLEARING's decision will depend on the precise circumstances, and EBA CLEARING would seek to mitigate and solve any adverse circumstances, in particular in the case of an operational issue, through the activation of the incident handling and crisis management arrangements to avoid recourse, if not required, to a suspension or exclusion.</p>
<p><b>Principle 15: General business risk</b></p>	<p>Within its enterprise risk management framework, EBA CLEARING has developed the tools to identify, monitor and</p>

Principles	Summary of compliance
<p><b>Article 13</b> An FMI should identify, monitor, and manage its general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that it can continue operations and services as a going concern if those losses materialise. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services.</p>	<p>manage its general business risk.</p> <p>Further, it has developed a Recovery and Orderly Wind Down Policy (ROWD) together with a ROWD plan and a detailed Plan to Raise Additional Capital, if ever required, to ensure the Company holds sufficient liquid net assets to cover potential general business losses so that it can continue operating its critical services, including the operation of STEP2, as a going concern.</p> <p><b>STEP2-T CGS:</b> No change.</p>
<p><b>Principle 16: Custody and investment risks</b> <b>Article 14</b> An FMI should safeguard its own and its participants' assets and minimise the risk of loss on and delay in access to these assets. An</p>	<p>EBA CLEARING does not incur any rights or obligations arising from the sending and receiving of payment messages. At no time does EBA CLEARING hold any funds or deposits in relation to the operation of its systems.</p> <p>The Company has developed and maintains a Treasury and Investment Policy which documents how the liquid net assets funded by equity are held and how the monitoring of whether the amount remains sufficient is done.</p> <p><b>STEP2-T CGS:</b> No change.</p>

Principles	Summary of compliance
<p>FMI's investments should be in instruments with minimal credit, market, and liquidity risks.</p>	
<p><b>Principle 17: Operational risk</b>  <b>Article 15</b>            An FMI should identify the plausible sources of operational risk, both internal and external, and mitigate their impact through the use of appropriate systems, policies, procedures, and controls.            Systems should be designed to ensure a high degree of security and operational reliability and should have adequate, scalable capacity. Business continuity management should aim for timely recovery of</p>	<p>EBA CLEARING has embedded the identification of operational risks to its services within its enterprise risk management framework, through which operational risks are monitored and the implementation of mitigating controls are tracked. Further, it leverages its business continuity management system and its ISO 27001 certified information security management system to ensure a high degree of security and operational reliability and that it has adequate contingency arrangements in place for the timely completion of daily processing in its services.</p> <p>The STEP2 platform is a highly resilient processing system with full disaster recovery features and operational procedures, including an information and cyber security strategy and framework, that are regularly practiced with the user community. It provides the following key benefits:</p> <ul style="list-style-type: none"> <li>• A scalable processing engine: the STEP2 Services are based on a highly efficient and robust processing engine capable of handling all the SEPA traffic if needed.</li> <li>• A highly experienced operator: the technical provider of STEP2 is SIA, one of the largest financial processors in Europe. The SIA processing environment offers state-of-the-art technology with exceptional resilience features.</li> <li>• Three processing sites: the primary site maintained by SIA runs in cluster configuration with data sharing facility and a power distribution layout that has a fully radial configuration. The second processing site, also maintained by SIA, is equivalent to the primary site and works in a synchronous mode, meaning that all data is replicated in real time. A third processing site, which ensures business continuity in case of a regional disaster, was put in place by SIA and IBM and activated in January 2014.</li> <li>• Three operations centres for system monitoring: EBA CLEARING runs three separate operations centres in different countries. Two of these independent sites operate in parallel mode during the processing day. The three sites are engaged in a regular rotation of shifts and ensure a constant monitoring of the different STEP2</li> </ul>

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<p>operations and fulfilment of the FMI's obligations, including in the event of a wide-scale or major disruption.</p>	<p>Services.</p> <ul style="list-style-type: none"> <li>• Customer support for operations-related queries and emergency situations: the Investigations and Customer Support Unit (ICU) is EBA CLEARING's single point of contact for all operations-related queries.</li> <li>• The Company also has several channels and tools in place for incident and crisis communication.</li> <li>• Crisis simulation exercises: these exercises are organised by EBA CLEARING and SIA on an annual basis. Their main objective is to test the functionality of the disaster recovery arrangements, both in terms of file sending/receiving and connectivity to participants' workstations, including in a cyber-attack scenario.</li> <li>• ISO 27001 certification: since January 2013, EBA CLEARING's information security management system, which is geared towards managing and securing the Company's information assets, has been certified as ISO 27001-compliant. In 2018, the Company's information management system was re-certified to the new ISO 27001:2013 standard.</li> </ul> <p>On a quarterly basis, EBA CLEARING provides a service report to its participants, containing information related to STEP2's performance and availability indicators.</p> <p><b>STEP2-T CGS:</b> No change</p>
<p><b>Principle 18: Access and participation requirements</b>  <b>Article 16</b>            An FMI should have objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access.</p>	<p>STEP2 has objective and publicly disclosed criteria for participation, which permit fair and open access.</p> <p>These criteria have been developed using a risk-based approach and are available on the EBA CLEARING website: <a href="https://www.ebaclearing.eu/services/step2-t-platform/admission-criteria-and-default-rules/">https://www.ebaclearing.eu/services/step2-t-platform/admission-criteria-and-default-rules/</a></p> <p>In order to fulfil the admission criteria for STEP2, a Participant must:</p> <ul style="list-style-type: none"> <li>• be authorised to conduct banking business</li> <li>• have TARGET2 account access, i.e.</li> <li>• have a direct participant status in TARGET2 or the status of an indirect participant in TARGET2 with multi-addressee access or have a central bank which undertakes to provide a TARGET2 account for settlement for such Direct Participant.</li> </ul>

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	<ul style="list-style-type: none"> <li>• be able to send files in the required format, i.e. be able to send STEP2 files in the format specified by EBA CLEARING;</li> <li>• have its registered office or a branch in the EEA / SEPA, i.e. participate in the system via an office located in the EEA or, for the SEPA Services, in the geographical area of SEPA;</li> <li>• provide a capacity opinion, i.e. provide a capacity opinion with respect to its participation for each STEP2 Service it participates in.</li> </ul> <p>In addition to the above, admission to each of the STEP2 SEPA Services (SCT, SDD Core and SDD B2B) is conditional on the participant's adherence to the corresponding EPC SEPA Scheme Rulebook.</p> <p>Participants may include in the routing tables maintained for STEP2 entities which have a BIC (ISO9362) for which a Participant has been appointed (a reachable BIC). Reachable BICs do not send or receive payment orders directly through STEP2; all payment orders are included in the files sent and received by the Participants. The relationship between a Participant and a reachable BIC for which the Participant is acting in relation to the receipt or forwarding of messages contained in files is exclusively governed by their respective bilateral arrangements and is outside of the context of the STEP2-T system.</p> <p><b>STEP2-T CGS:</b> No change.</p>
<p><b>Principle 19: Tiered participation arrangements</b>  <b>Article 17</b>            An FMI should identify, monitor, and manage the material risks to the FMI arising from tiered participation</p>	<p>In line with the PFMI, EBA CLEARING's approach to determining tiered participation in STEP2-T is based on the premise that tiered participation arrangements occur in a payment system when some firms (tiered participants) rely on the services provided by other firms (direct participants) to use the system's central payment, clearing or settlement facilities.</p> <p>For STEP2-T, direct participants and the management of risks they present are fully covered by the Rules and Regulations and related procedures for STEP2-T. Risks are addressed according to the standards of the PFMI implemented by the SIPS Regulation. The Rules and Regulations of STEP2-T establish the duties of direct participants relating to reachable BICs. They include the duty to promptly provide upon request any information deemed necessary by the STEP2-T System operator to identify, monitor and manage any material risks to the STEP2-T System arising from arrangements with such reachable BICs in accordance with the STEP2 System operator's regulatory duties.</p>

Principles	Summary of compliance
arrangements.	<p>For STEP2, EBA CLEARING has defined tiered participation based on the following criteria:</p> <ol style="list-style-type: none"> <li>1) Tiered participation concerns the relationship between direct participants and addressable entities included in the routing tables maintained for each STEP2 Service (entities which have a SWIFT BIC or equivalent business identifier code for which a Participant has been appointed (each a reachable BIC)).</li> <li>2) Where a reachable BIC refers to a branch of a Participant, the risks are considered to be addressed at the level of the Participant, and such reachable BIC is not considered within the scope of tiered participation arrangements.</li> <li>3) Tiered participation concerns immediate customers of the direct participants.</li> <li>4) Where a reachable BIC refers to an entity that belongs to the same banking group, the risks are considered to be addressed at the level of the requirements applying to a direct participant (and its affiliates), and such reachable BIC is not considered within the scope of tiered participation in STEP2.</li> <li>5) Reachable BICs that do not belong to the same banking group as the respective direct participant are considered as tiered participants.</li> </ol> <p><b>STEP2-T CGS:</b> No change.</p>

<p><b>Principle 21:</b> <b>Efficiency and effectiveness</b></p> <p><b>s</b></p> <p><b>Article 18</b> An FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves.</p>	<p>STEP2-T has to comply with the four criteria for SEPA-compliant infrastructures defined by the ECB (processing capabilities, interoperability, reachability, choice of banks) and the EPC Scheme Rulebooks and Implementation Guidelines for the SEPA Credit Transfer Scheme as well as for the SEPA Direct Debit Core and B2B Schemes.</p> <p>To ensure the Company understands its users' needs and in accordance with its user say governance structure, and in order to facilitate that all types of users are considered in the design and evolution of its systems and offerings, the Company maintains a broad range of communication channels with its (current and potential) users and other stakeholders. An identical structure has been adopted for user consultation for the two SIPS operated by the Company in the form of two business committees which have been established: the EURO1 Business Committee and the STEP2 Business Committee.</p> <p>These business committees are consultative bodies providing recommendations to the Board. All decisions affecting a system for which a Business Committee has been established are made by the Board upon consultation with the relevant Business Committee. Business Committees are chaired by a Board member.</p> <p>In addition, the following expert groups have been established:</p> <ul style="list-style-type: none"> <li>• Operations &amp; Technical Group (OTG): its mission is to analyse and review proposals and to formulate recommendations relating to operational, procedural, functional and technical aspects of the systems of EBA CLEARING.</li> <li>• Legal Advisory Group (LAG): its mission is to analyse and review proposals from a legal point of view and to formulate appropriate legal recommendations. The LAG also assists in the monitoring of legal projects and formulates recommendations regarding the resourcing for given projects.</li> <li>• Treasury and Liquidity Group (TLG): its mission is to act as an advisory expert group relating to the management and use of liquidity within the systems operated by EBA CLEARING.</li> <li>• Other expert fora may be established in accordance with identified needs.</li> </ul> <p>Finally, a service performance and availability report is published on a quarterly basis for users and other relevant stakeholders.</p>
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Principles	Summary of compliance
	<p>(See section III on system design and operation for more details on STEP2's efficiency and effectiveness to meet user and market needs).</p> <p><b>STEP2-T CGS:</b> No change.</p>
<p><b>Principle 22: Communication procedures and standards</b> <b>Article 19</b> An FMI should use, or at a minimum accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement, and recording.</p>	<p>STEP2 uses internationally accepted communication procedures and standards, such as BIC codes to identify its participants.</p> <p>In accordance with its user say governance structure, and in order to ensure that all types of users are considered in the design and evolution of its systems and offerings, the Company maintains a broad range of communication channels with its (current and potential) users and other stakeholders, such as EBA CLEARING's critical service providers.</p> <p><b>STEP2-T CGS:</b> No change.</p>
<p><b>Principle 23: Disclosure of rules, key procedures, and market data</b> <b>Article 20</b> An FMI should have clear and comprehensive rules</p>	<p>The system's documentation which is available to all users of STEP2 enables participants to have a clear understanding of the system's impact on the risks they incur through their participation.</p> <p>In addition, the Company publishes key information via relevant updates of the publicly available pages on the website of EBA CLEARING. The Company has also made available to participants in the User portal all the service documentation, including a FAQ on compliance and due diligence purposes and finally present disclosure report complements EBA CLEARING's disclosure of rules, key procedures and market data.</p>

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<p>and procedures and should provide sufficient information to enable participants to have an accurate understanding of the risks, fees, and other material costs they incur by participating in the FMI. All relevant rules and key procedures should be publicly disclosed.</p>	<p><b>STEP2-T CGS:</b> No change.</p>

## V. List of publicly available resources

EBA CLEARING and STEP2-T:

- “About EBA CLEARING” section on website: <https://www.ebaclearing.eu/about-eba-clearing/at-a-glance/the-company/>
- By-laws of EBA CLEARING: <https://www.ebaclearing.eu/about-eba-clearing/at-a-glance/reference-documents/>
- EBA CLEARING Shareholders: <https://www.ebaclearing.eu/about-eba-clearing/corporate-governance/the-shareholders/>
- EBA CLEARING Board: <https://www.ebaclearing.eu/about-eba-clearing/corporate-governance/the-board/>
- EBA CLEARING Board Committees: <https://www.ebaclearing.eu/about-eba-clearing/corporate-governance/board-committees/>
- EBA CLEARING Annual Report 2019: [https://www.ebaclearing.eu/media/azure/production/2462/eba-clearing-annual-report-2019\\_single-page-view.pdf](https://www.ebaclearing.eu/media/azure/production/2462/eba-clearing-annual-report-2019_single-page-view.pdf)
- STEP2-T section EBA CLEARING website: <https://www.ebaclearing.eu/services/step2-t-platform/overview/>
- STEP2-T Statistics:
  - SCT: <https://www.ebaclearing.eu/services/step2-sct/statistics/>
  - SDD Core: <https://www.ebaclearing.eu/services/step2-sdd-core/statistics/>
  - SDD B2B: <https://www.ebaclearing.eu/services/step2-sdd-b2b/statistics/>