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## 1 Executive Summary

For the 8<sup>th</sup> consecutive year, the European Cards Stakeholders Group (ECSG) welcomes the opportunity to report to the ERPB the status of the preceding 12 months work on SEPA Cards standardisation.

Since the last report, the ECSG has completed the public consultation on the Volume v9.5 and plans to publish v10 at the end of 2022.

Significant updates within v10 of the Volume include the integration of new concepts such as Secure Remote Commerce (SRC), Merchant Initiated Transactions (MITs) and the definition of requirements in the Terminal Security domain to accommodate the use of mobile-off-the-shelf devices as payment terminals.

Regulatory updates are constantly monitored by the association, which focused on the Digital Market and the Digital Services Acts, the eIDAS Digital Wallet and the PSD2 revision.

Progress has been made in the improvement of the labelling process of the Volume Conformance Management Committee (VCMC).

Preliminary activities have been carried out regarding enhanced cryptography to be included in the Volume v11. This is to address potential threats to card payments security due to progress on quantum computing cryptanalysis.

Collaboration with the ERPB and the EPC has progressed, on topics such as Consumer selection of preferred payment instrument as well as Transparency for consumer banking statements.

Finally, after completing the strategic assessment of its activities, the ECSG Board approved during its May meeting the expansion of its scope beyond card-based payments.

As part of the general effort of promoting card industry harmonisation, the ECSG regularly posts articles and other contents related to the card sector through [social media](#).

## 2 ECSG Strategic review and resulting scope expansion beyond card payments

The ECSG started an internal strategic assessment in 2021 to review its vision, mission and objectives. This task has now been completed

The rationale for such a review was to investigate the possible benefits of expanding the scope of the association beyond card based payments, taking into consideration other emerging electronic forms of payments, such as instant payments.

The assessment was carried out by a dedicated Task Force with representatives from all sectors, including representatives from the EPC, **which recommended that the association expand its scope** to include other forms of electronic SEPA regulated retail payments initiated at a Point of Interaction (POI).

**The ECSG believes that the entire ecosystem would become more efficient** if one single multi-stakeholder organisation developed and maintained the necessary requirements relating to the co-existence, transparency and choice across all electronic payment means present at the POI.

**The ECSG Board approved the expansion** by a unanimous decision during its meeting on 30 May 2022. **The decision is expected to be ratified by the General Assembly** by the end of the year.

**The activities will be carried out in collaboration with the EPC and any other relevant stakeholders.** The ECSG will leverage the EPC's work and guidance, especially that of its Multi-Stakeholder Group on Mobile initiated SCT Inst.

The ECSG Board asked the Task Force to continue its work and prepare the necessary changes in the legal structure and governance framework. The Task-Force will also review the organisation of the existing ECSG workgroups (such as e.g. the so-called Expert Teams) and propose - if necessary - a revised structure of the association, adapt its budget, priorities and work-plan, all this in order to allow the start of the activities regarding the new scope at the beginning of 2023.

### 3 Update on the Card standardisation in Europe

This section presents the main changes in the last 12 months in relation to Volume conformance and card standardisation in Europe.

#### 3.1 Release of the Volume v.10

In line with its three-year release schedule, the ECSG activity in 2022 has been focused on Version 10 of the SEPA Cards Standardisation Volume, expected to be published and available on the ECSG website by the end of 2022. Publication is earlier than planned due to limited comments being received during the public consultation.

The main updates in Version 10 were related to

- Additions and clarifications to the functional requirements listed in Book 2 as well as the introduction of Secure Remote Commerce, Acceptor and Merchant Initiated Transactions.
- Integration of new security requirements in Book 4 for Commercial-Off-The-Shelf programmes and an alignment with PCI PTS version 6.
- Integration of a guidance for PSD2-related requirements (such as Merchant Initiated Transactions), non-standard card acceptance (i.e. magnetic stripe, signature on paper), and Card Data Retrieval for Virtual POI from the former Annex 1 within Book 6.

#### 3.2 Regulatory Updates

The ECSG continues to closely monitor the EU regulatory framework for the provision of financial services and the security of IT infrastructures. The ECSG is also investigating the potential impact for card payments and use cases from the future deployment of the Digital Wallet set out by the eIDAS v2.0 regulation.

Some of the announced regulations, such as the Digital Market Act (DMA) are likely to have an impact in the way card payment applications are stored and access the electrical interfaces available in mobile devices. The Digital Services Act (DSA), might for instance impact the way cloud services are offered. New roles appear to be introduced in these new legal texts and the ECSG needs to understand how they map/overlap with existing roles in card payment systems. On the security side, the Digital Cybersecurity Act may have an influence in the way components of payment systems are designed and certified.

The ECSG is also aware of the ongoing consultations for the evolution of the PSD2 launched by the European Commission.

The ECSG's opinion is that at present, we do not have sufficient information with regards to the evolution of the regulatory ecosystem applicable to the ECSG scope. Further investigation will proceed once these regulations and their corresponding delegated acts are enacted.

### 3.3 Progress in Volume Conformance

The Volume Conformance Management Committee (VCMC) has continued its ongoing activity of evaluating and granting labels for implementation specifications.

The process was confirmed by the Board to continue to be based on two pillars:

- Self-Assessment
- Voluntary nature

Most of the main pan-European implementation specifications had already obtained a label in the past and with the publication of the Volume 9 in January 2020 some have renewed their label. This is the case of the Berlin Group – for their SEPA Card Clearing (SCC) format. At the time of writing this report, girocard and nexo have informed the VCMC that they are in the process of renewing their label.

The actual, detailed status of the labelled specifications can be accessed on the [VCMC web page](#).

In parallel to the actual labelling of specifications, the VCMC has carried out some improvements for the overall clarity of the labelling process.

One improvement is that a checklist of individual functional requirements is now required from new applicants. This will result in a larger degree of accuracy regarding the Self-Assessment process, both for the applicant and the VCMC.

Also, the optional applicability of the labelling process for security requirements has been clarified.

Finally, it is worth mentioning that the labelling process has been an integral part of the strategic discussions within the ECSG towards the expansion of its scope beyond pure card payments. All through these discussions, the importance of having a conformance process in place has been reaffirmed. As part of the adaptations necessary to implement the expanded scope into the different ECSG processes and workstreams, the VCMC will work to put the necessary processes and documentation in place to accommodate the labelling of non-card implementation specifications.

### 3.4 Annual Report on ISO 20022 initiatives in the Acquirer to Issuer Domain

#### 3.4.1 Context

Since 2017, the ECSG Volume Sub-Group has been monitoring the status of the initiatives to use ISO 20022 in the A2I domain in the market, in order to identify specific SEPA requirements to be taken into account, e.g. triggered by Schemes or by Regulation.

### 3.4.2 Current status

At the date of the report, no new initiative using ISO 20022 in the A2I domain has been identified in the market. EPI, the European Payment Initiative, which had been evaluated the implementation of a new European-wide card scheme leveraging ISO 20022 decided in early 2022 not to pursue this goal.

The same two initiatives as last year are using ISO 20022 in the A2I domain.

- The SEPA Card Clearing (SCC) Framework, which specifications have been labelled as conformant towards the SCS Volume Version 8.0, and the conformance has just been renewed against v9.0.
- ATICA provides a specification covering the full transaction life cycle (Authorisation, Clearing, Settlement and Disputes) within the Acquirer to Issuer environment. The latest version is version 3, published by ISO in July 2022.

## 3.5 Standardisation progress in the Card-to-Terminal, Terminal-to-Acquirer and Acquirer-to-Issuer domains

The main updates for v10 of the Volume apply to:

- Additions and clarifications to the functional requirements listed in Book 2 as well as the introduction of Secure Remote Commerce, Acceptor and Merchant Initiated Transactions.

Namely:

- Reference to SRC specifications has been introduced along with relevant definitions that entailed the revision of Remote Transactions with Stored Card Data.
- A Bulletin was published in October 2021 to integrate MITs in the Volume before the publication of version 10. The Bulletin provides clear definitions of an MIT, of the mandate authorising the payee to initiate the MIT, and of the new term “Acceptor Initiated Transaction (AIT)” to also cover a Card Transaction initiated by the Acceptor (merchant) based on stored Card Data where the Acceptor is the payer, together with updates to terminology related to functional requirements and implementation guidelines.
- Integration of a guidance for PSD2-related requirements (such as Merchant Initiated Transactions), non-standard card acceptance (i.e. magnetic stripe, signature on paper), and Card Data Retrieval for Virtual POI from the former Annex 1 within Book 6.

### 3.6 Standardisation progress in the Terminal Security domain

The alignment process of the ECSG Book 4 high-level security requirements was continued by finalising the integration of PCI PTS version 6 to keep Book 4 up to date.

The main updates of Volume version 10, however, applied to the integration of new security requirements in Book 4 for Commercial-Off-The-Shelf programmes. These updates follow a paradigm shift in the industry from traditional payment devices relying on hardware security as the primary protection mechanism to a new payment acceptance method utilising Commercial Off-the-Shelf (COTS) solutions. Instead of relying on physical security the assurance of these COTS solutions moves to initial security evaluations and continuing monitoring by a back-end system. The Volume version 10 now includes the COTS methods

- contact card payment with PIN on COTS, requiring a secure card reader, and
- contactless card payment without PIN on COTS.

The third variant, contactless card payment with PIN on COTS, will be integrated as soon as appropriate following the industries solutions and their assessment by the ECSG's Innovation Expert Team.



## 4 Ongoing ECSG activities for Volume v11

The ECSG has already turned its attention to the impact of technological innovation, payment-related regulations and the initiatives of other standards bodies on the development of Card payment in SEPA to prepare v11 of the Volume.

### 4.1 Evolution towards enhanced cryptography

2022 is a year rich in announcements by the card payment cryptographic community. First EMVCo have released their Elliptic Curve Cryptography (ECC) specifications for contact transactions. Those initial specifications will be complemented by a second set of specifications to secure contactless transactions, using a secure channel between the card and the terminal established using an ECC protocol. As a result, the ECSG Board already approved the incorporation of a future Bulletin into Volume v10.

Simultaneously, the ECSG has continued technical efforts to evaluate the relevance for the European card payments industry of the Quantum-Resistant (post-quantum) algorithms contest by the NIST. The NIST has released the list of post-quantum crypto-algorithms to be standardized. They intend to counter future threats coming from the development of commercial quantum-computers. With that respect, the challenge is whether the state-of-the-art in card technology features the sufficient computing resources to store and execute post-quantum cryptographic algorithms.

The ECSG has also reviewed in detail the positions on migration to stronger cryptography released by different National Security Agencies. The migration of existing systems to Post-Quantum crypto-algorithms pre-selected by NIST is still considered premature. Instead a progressive transition using hybrid approaches is discussed (mix of classical and post-quantum cryptographic methods).

The ECSG will continue its investigation effort for these technological challenges.

### 4.2 Cooperation with the ERPB and EPC

The ECSG has continued during the last year its collaboration with the two organisations:

- ERPB Working Group on Transparency for retail payment end-users:  
after participating last year in the Working Group that led to the report submitted to the June 2021 ERPB meeting, the ECSG contributed to the impact assessment, which was conducted during the first half of 2022, after the endorsement by the ERPB of the Working Group's recommendations. The ERPB report endorsed by the July 2022 ERPB meeting requests the ECSG's contribution in what the "Payment schemes" category of addressees is concerned in the recommendations. Consequently, the ECSG, at its Board Meeting of September 22<sup>nd</sup>, 2022, agreed to open up an action for one of its expert working groups to look at the recommendations, including the three proposed actions involving the ECSG and assess possible impacts on the SEPA Volume. In parallel, a letter was sent to the ERPB Secretariat clarifying that, within the context of the ECSG scope, the ECSG

will not be able to fulfil the “monitoring” role of the Payment Schemes assigned in the ERPB report, as this is not part of the ECSG mandate.

- *EPC MSG MSCT on Consumer selection of preferred payment instrument:*  
following the work with the ERPB Working Group on a framework for instant payments at the POI, the ECSG participated in a joint task force with the EPC ad-hoc multi-stakeholder group for Mobile Initiated SEPA Credit Transfers, and submitted its report to the 25 November 2021 ERPB meeting;
- *Follow-up on ERPB/2019/RECG:*  
an ad hoc group, composed of the EPC MSG MSCT co-chairs, the ECSG Chair and Vice-Chair, and the management representatives of nexo presented three conclusions on recommendations 4, 5 and 11, to the 25 November 2021 ERPB meeting. The ad-hoc group committed to report again on the topic to the ERPB after one year.

The ECSG continues to report on the implementation of standards related to payment cards (the present document).

### 4.3 Innovations in Card Payments

Since the ERPB meeting in November 2021, the ECSG Innovation Expert Team has investigated different technologies for potential inclusion in the Volume v11, according to the priorities set out in the programme of work for 2022-2024. This investigation effort covers the continuous monitoring of market developments for technologies already in the programme of work in 2021 (Internet-of-Things, QR-Code payments) as well as new developments with potential interest for card payments (e.g. e-IDAS v2.0 digital wallets).

As part of its mission, the Innovation ET pays a continuous attention to the innovation in the area of payments security. New threats, disclosed security vulnerabilities for card system components and published attacks on existing card payment systems, both in the EU and worldwide are discussed. Security countermeasures are then decided in specific ECSG working groups, prior to their integration as security requirements in the Volume.

The objective is that the Volume v11 aligns with the state-of-the art technology supportive of use cases for cards and other retail payment instruments in the ECSG scope. As an example, the work initiated in 2020 by the Innovation ET has resulted in the integration of the COTS technology in the Volume v10.

In 2022 the ECSG started to review different scenarios for the use of Digital Wallets for card payments. The potential disruptive impact of the e-IDAS digital wallets for payments has been the object of a specific review. Payment use cases are being investigated by an expert group made up of representatives of EU governments. The ECSG will resume its activity in this area as soon as this group delivers its conclusions.

It should be noted that, after a discussion with the European Payments Council and the European Central Bank, Central Bank Digital Currencies (e.g. Digital Euro) will not be included in the next phase of the programme of work of the ECSG. Its inclusion will be evaluated in a subsequent phase.

## **4.4 Collaboration with standardisation bodies and specification providers**

The ECSG continues to collaborate with internationally recognised Standards bodies with whom they have already established formal liaisons, such as EMVCo and PCI-SSC. Together with local European card schemes they contributed crucially as specification providers to the update of the Books 2 and 4 of version 10 of the Volume (see § 2). In addition, the ECSG will reach out to other standards bodies such as ISO, EPC and FIDO where appropriate.

## 5 Conclusion

Since the last report, the ECSG has continued working to take into account the evolutions of card payments in terms of innovation (e.g. the use of mobile-off-the-shell devices as payment terminals), regulations (e.g. the impacts of the Digital Market and the Digital Services Acts) and the changes in the technological context (e.g. enhanced cryptography following the advance in quantum computing), with the aim to reflect this work in the Volume v11.

It has also progressed in the improvement of the Labelling process.

The association decided to expand its scope beyond card-based payments, with the objective to start working on new topics in 2023. When ratified by the General Assembly at the end of 2022, this important decision will impact the ECSG and its work on the European standardisation in every sense, starting from the name of the organisation, its working structure and the Volume itself. The target will be, however, not to define “silos” for card and non-card payments in separate domains, but to enable an integrated standardisation approach at the same point of interaction.

The ECSG is also looking forward to the ongoing collaboration with the EPC and the ERPB, collaboration which is likely to be reinforced with the expansion of the scope.