

Euro Retail Payments Board (ERP)

Report of the ERP Working Group on a Single Euro Payments Area (SEPA) Application Programming Interface (API) Access Scheme

ERP Meeting 13 June 2019

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Executive summary

In January 2019 the ERPB established the ERPB Working Group on a Single Euro Payments Area (SEPA) Application Programming Interface (API) Access Scheme (“Working Group”) as a market driven initiative and adopted its mandate. To enhance the benefits of and go beyond the revised Payment Services Directive (PSD2) for the provision of innovative and competitive payment initiation services (PIS) and account information services (AIS) in an integrated European market, the Working Group was tasked to define key elements of a potential SEPA API Access Scheme (“Scheme”) including the high-level description of a Scheme governance, legal aspects to be addressed in the Scheme rulebook and a non-exhaustive list of business requirements.

In line with its mandate, the Working Group developed these key elements with the legal and regulatory requirements of PSD2 constituting the “baseline”, but also going beyond such baseline to encompass value-added services that could be provided as a natural evolution of PSD2, within the contractual framework of a Scheme.

From a conceptual perspective, the Working Group positioned its work as being explorative and broad in nature with the potential to include a diversity of data and transaction initiation services accessible to end-users. The Working Group’s expertise is however limited to payment related services and hence the extension to other financial services as well as to non-financial services will need to be further assessed by relevant subject matter experts in a next stage.

The industry needs to urgently focus on taking full advantage of infrastructure investments made in areas such as instant payments and ‘open asset sharing’¹ in order to be able to address the changing marketplace and to better serve customer needs. This is also linked to the recent concerns expressed by the European Central Bank (ECB) and individual central banks, the European Commission (EC) as well as by national political leaders and authorities, about the European industry’s ability to deliver competitive pan-European solutions to their clients, which they consider essential for the development of a strengthened and integrated payment market for the coming years, also from a European sovereignty perspective.

The Working Group believes that a Scheme would be the best approach to unlock the opportunities from ‘open asset sharing’ beyond PSD2 with a fair distribution of value and risk between the actors in SEPA. Such a Scheme should focus on the exposure (via an API) of non-personal bank owned information, customer data and customer transaction initiation services, whilst fostering innovation, increasing choice for customers and Scheme participants.

¹ This term was chosen in contrast to Open Banking for two reasons; to avoid confusion with UK’s Open Banking initiative, and to allow the scope to extend beyond banking in the future

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The report details a non-exhaustive list of potential business requirements, some related to value added payment services, that could be addressed within a Scheme and which are based on desirable consumer and merchant outcomes. These requirements cover the different stages of a payment including initiation, authorisation, confirmation and execution and include for example payment data enrolment, request to pay, delegation of authentication to an asset broker with a liability shift mechanism and a real-time 'payment guarantee'.

As the Scheme could potentially cover a broad range of services, a layered and modular approach is envisaged, whereby sub-schemes would address specific requirements of different 'asset classes' and an overarching Scheme would ensure interoperability and minimum standards to be applied by each of the sub-schemes.

The report also defines possible high-level Scheme management requirements, which to a large extent are inspired by the European Payments Council (EPC) SEPA payment schemes and would need to be adapted as appropriate to the context of the actual Scheme (and sub-schemes). The Working Group for example agreed that depending on the legal context of the asset class in question, both supervised and non-supervised entities should in principle be able to join the Scheme, that all members will need to adhere to the requirements set by the Scheme and that the Scheme evolution and maintenance process shall be entrusted to the Scheme governing bodies. Participation in the Scheme will be voluntary and market support should be achieved by attractive market opportunities enabled by the Scheme. The potential Scheme manager(s) has (have) however not yet been identified as not within the mandate scope. Moreover, Scheme management internal rules will need to be defined to ensure a proper functioning of the Scheme.

Legal and other aspects to be addressed in the Scheme include inter alia consumer rights, the geographical scope, the adherence process, rights and obligations of participants, compliance, liability and risk management.

With regards to value distribution, asset holders (whether they give access to transaction assets or share data assets, through value-added APIs) should be able to be remunerated for these services by the so-called asset brokers. On the other hand, it is recognised that there might be services offered through the APIs that are not considered value added services and hence might not be subject to remuneration. These asset brokers in turn can bundle such assets into relevant client solutions. Remuneration is envisaged to vary per sub-scheme and service and might be agreed on a bilateral basis within the boundaries of applicable law and regulations. Alternatively, a default remuneration might be set by the Scheme to enable network effects, and as justification for such default remuneration, a robust cost calculation methodology would need to be developed and reviewed from a European Union (EU) competition law perspective. In addition, if such remuneration is not fixed by the Scheme or agreed bilaterally then it will be up to individual Scheme participants to set their prices unilaterally. These prices will need to be justifiable, non-discriminatory and discoverable by other Scheme participants through an API call. The Working Group

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concluded that a Scheme remuneration mechanism would generate network effects but that the specifics would need to be further discussed in a next phase.

The Working Group did not yet look at standards in the sense of one set of technical specifications or one way of asset sharing. Neither did the Working Group examine national API access schemes.

As a possible way forward, the Working Group identified a number of priorities which would need to be explored in a next phase. This would inter alia include a stock taking exercise on existing initiatives (e.g. on e-identity, request to pay), the prioritisation of business requirements, the assessment of the landscape of existing governance structures in order to identify the potential Scheme manager(s). The Working Group is also of the view that this report should be shared with the relevant EU institutions to inform them and to allow for obtaining initial feedback. Finally – subject to a positive outcome of the work on the priorities identified for a next phase - the Working Group suggests preparing a draft implementation roadmap taking into account resource availabilities.

Third-party provider (TPP) participants and EMA dissent with parts of section 6 ‘A possible way forward’. They will clarify separately.

Glossary

Term or acronym	Description
AIS	Account information services as defined by PSD2.
AML	Anti-Money Laundering.
AMLD	Anti-Money Laundering Directive (Directive (EU) 2018/843 of the European Parliament and of the Council of 30 May 2018 amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing and amending Directives 2009/138/EC and 2013/36/EU).
API	Application Programming Interface.
ASPSP	Account-Servicing Payment Service Provider.
Asset	Any form of value (e.g. bank owned data, customer owned data, transaction data, or the ability to execute transactions, payment related and beyond) that is held by an asset holder. In the context of PSD2, payment account balance and transactions would be an information asset owned by the customer and held by the ASPSP and a payment initiation would be a transaction asset involving an ASPSP and payer with the involvement of a TPP.
Asset broker	The entity that uses assets (e.g. data) from the asset holder to deliver value to the end users. Value is being driven by either consumer or corporate demand. In the context of PSD2, a TPP would be an asset broker. The asset broker in the context of GDPR will be considered a data controller or a data processor depending on the degree of control it exercises over the processing of the personal data which form part of the assets
ATM	Automated Teller Machine.
B2B	Business to Business.
BoD	Board of Directors.
CRD IV	Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC.
Data vs Information	Data is raw, unorganised facts that need to be processed. Data can be something simple and seemingly random and useless until it is organised. When data is processed, organised, structured or presented in a given context so as to make it useful, it is called information. (source: https://www.diffen.com/difference/Data_vs_Information)
Data asset holder	The entity that holds the assets (in this case data). A data asset holder is not necessarily the same entity as the data owner. In the context of PSD2

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	a data asset holder would be an ASPSP. The data holder in the context of GDPR is considered the data controller.
Decoupled SCA	SCA takes place via a dedicated device and/or independently activated app.
EC	European Commission.
ECB	European Central Bank.
eIDAS	Regulation (EU) N°910/2014 on electronic identification and trust services for electronic transactions in the internal market (eIDAS Regulation).
ERP	Euro Retail Payments Board.
EU	European Union.
EBA	European Banking Authority.
GA	General Assembly.
GDPR	Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).
IP	Intellectual Property.
NFC	Near Field Communication.
Open asset sharing	Sharing of data and giving access to transaction initiation services. The term was chosen in contrast to Open Banking for two reasons; to avoid confusion with UK's Open Banking initiative, and to allow the scope to extend beyond banking in the future.
Payment guarantee	A 'payment guarantee' service is offered to merchants by asset brokers or asset holders to cover the non-payment of debts arising under a transaction.
P2P	Peer-to-Peer / Person-to-Person.
PAD	Directive 2014/92/EU of the European Parliament and of the Council of 23 July 2014 on the comparability of fees related to payment accounts, payment account switching and access to payment accounts with basic features (Payment Accounts Directive).
PIS	Payment Initiation Services.
POI	Point of Interaction.
POS	Point of Sale.
PSD2	Revised Payment Services Directive (EU) 2015/2366

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PSU	Payment Service User. In the context of GDPR this will be a data subject (if an identified or identifiable natural person).
RTS	Commission Delegated Regulation (EU) 2018/389 with regard to regulatory technical standards for strong customer authentication and common and secure open standards of communication.
SCA	Strong Customer Authentication.
Scheme (SEPA API Access Scheme)	A set of rules, practices and standards providing the organisational, legal and governance framework necessary for the functioning of certain API access services.
SCT	SEPA Credit Transfer.
SDD	SEPA Direct Debit.
SEPA	Single Euro Payments Area: The list of countries and territories which are part of the jurisdictional scope of the SEPA payment schemes can be found here: https://www.europeanpaymentscouncil.eu/document-library/other/epc-list-sepa-scheme-countries .
TPP	Third Party Provider as defined in the context of PSD2. In the context of this report a TPP is called an asset broker due to the potential scope going beyond payments. This is a role that can be taken up by different actors (e.g. banks, fintech's, retailers, telecommunication service providers).
Transaction asset holder	The entity that has the ability to execute transactions (payment related and beyond, e.g. securities transactions).

0. Introduction

In January 2019 the ERPB established the ERPB Working Group on a Single Euro Payments Area (SEPA) Application Programming Interface (API) Access Scheme ('Working Group') (see Annex 1) and adopted its mandate (see Annex 2). To enhance the benefits of and go beyond PSD2 for the provision of innovative and competitive payment initiation services (PIS) and account information services (AIS) in an integrated European market, the Working Group was tasked to define key elements of a potential SEPA API Access Scheme ("Scheme") in the following areas:

- High-level description of the Scheme governance, including stakeholder involvement and market consultation process;
- Legal aspects to be addressed in the Scheme rulebook (e.g. liability, competition issues, user rights);
- Non-exhaustive list of business requirements, in particular for 'value added' services beyond the PSD2/RTS requirements.

In line with its mandate, the Working Group developed these key elements with the legal and regulatory requirements of PSD2 constituting the "baseline", but also going beyond such baseline to encompass 'value-added' services that could be provided in the context of 'open asset sharing' as a natural evolution of PSD2, within the contractual framework of a Scheme.

As part of this explorative stage the Working Group has limited its focus to payment related services to be put under the Scheme governance, in line with its expertise. The Working Group suggests this could be extended to other financial services as well as to non-financial services in a next stage, involving the relevant subject matter experts.

The Working Group has taken a holistic approach towards the possible development of a Scheme and addressed a number of key principles to be considered. In order to make this of practical relevance illustrative client journeys and resulting business requirements have been identified.

It should be stressed that the starting assumption of the working group is that the Scheme would operate within the legal and regulatory framework, and in particular with the requirements set out in the revised Payment Services Directive (PSD2) and the regulatory technical standards (RTS) for strong customer authentication (SCA) and common and secure open standards of communication. The Working Group does not have the expert knowledge to determine which other legislations the Scheme would have to operate under for the non-payment related topics.

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The Working Group is also of the view that should the report be endorsed by the ERPB, relevant European Union (EU) institutions should be approached as a next step to inform them and to allow obtaining initial feedback. The present report is organised as follows to cover the deliverables stipulated in the mandate of the Working Group:

- Section 1 sets the scene by describing the changing market conditions and the need to unlock value and foster innovation in Europe.
- Section 2 provides a description of the ecosystem in support of a Scheme.
- Section 3 identifies key business requirements for a Scheme based on desirable consumer and merchant outcomes.
- Section 4 provides a high-level description of the envisaged Scheme governance.
- Section 5 addresses the legal and other aspects that need to be taken into account in the context of a Scheme.
- Section 6 presents a possible way forward.

It should be noted that the Working Group did not yet look at standards in the sense of one set of technical specifications or one way of asset sharing. Neither did the Working Group examine national API access schemes.

An overview of the high-level principles underpinning the work of the Working Group is provided below:

- The explorative work related to the Scheme as a market driven initiative under the mandate given by the ERPB, operates under the applicable legal and regulatory framework and aims to complement PSD2, existing products / services and related regulations with the aim of addressing currently uncovered client demands and practical issues in SEPA.
- The Scheme should be optional to adhere to, future proof and easy to be expanded in scope and functionality to go beyond payments and account information for online payment accounts.
- The Scheme should at the same time create value for all parties in the ecosystem making it attractive for those eligible to join the Scheme at market conditions and cater for a fair and clear distribution of value and risk/liability between the actors.
- Business conditions can be handled in multiple ways. While this report will already outline different options (see section 5.12), specifics need to be further discussed in a next phase.

- Discussions related to business conditions in the context of a prospective Scheme, should be kept around four main principles being transparency, justifiability, non-discrimination and neutrality.
- The illustrative client journeys informed the further sections of the work and potential functional building blocks of the Scheme. In principle, the user interface between the asset broker and the end customer is not meant to be in scope of the Scheme however in certain sub-schemes this might differ.

1. Setting the scene

1.1. Changing marketplace

The Working Group is of the view that the industry needs to urgently focus on taking full advantage of infrastructure investments made in areas such as instant payments and ‘open asset sharing’ in order to be able to address the following changing market conditions:

- Changing purchasing and payment patterns with a strong shift to electronic commerce and from cash payments to e- and m-payments, with the younger generations showing the highest adoption rates.
- Increasing readiness of the ecosystem to cope with new technologies and operating systems including but not limited to smartphones and near field communication (NFC) capable point of sale (POS) terminals and quick response (QR) code support enabling new client journeys.
- New actors in the payment market for both e- and m-commerce setting new standards in client experience. Platforms use network effects to gain fast adoption and to integrate in other business areas such as financial services.
- API economies allow for much faster adoption cycles with significantly lower costs.
- Platform economy fosters ‘winner takes it all’ scenarios with the potential to integrate into the value chain of financial services.
- Although current growth figures² might suggest otherwise, national payment and card schemes risk to gradually lose momentum due to their narrower coverage and lesser economies of scale.

² ECB report on Card payments in Europe, subtitled “the current landscape and future prospects: a Eurosystem perspective:
https://www.ecb.europa.eu/pub/pubbydate/2019/html/ecb.cardpaymentsineu_currentlandscapeandfutureprospects201904~30d4de2fc4.en.html#toc2

These changing market conditions have also resulted in the European Central Bank (ECB) and individual central banks, the European Commission (EC) as well as national political leaders and authorities expressing growing concerns about European industry's ability to deliver competitive pan-European solutions to their clients, which they consider essential for the development of a strengthened European integrated payment market for the coming years³. More broadly, payments have gained in political importance as the authorities emphasise the role of the payment market in strengthening European sovereignty.

1.2. Unlocking value

PSD2 can be seen as an initial step towards a data sharing society. The Working Group would see value in the development of a broader European 'open asset sharing' economy beyond payments and even beyond financial services. This could act as an incentive for other industries to follow but even within the financial services industry further progress can be made in order to unlock value to all actors in the ecosystem. In particular, further value is to be unlocked via collaboration across the industry for customers' convenience.

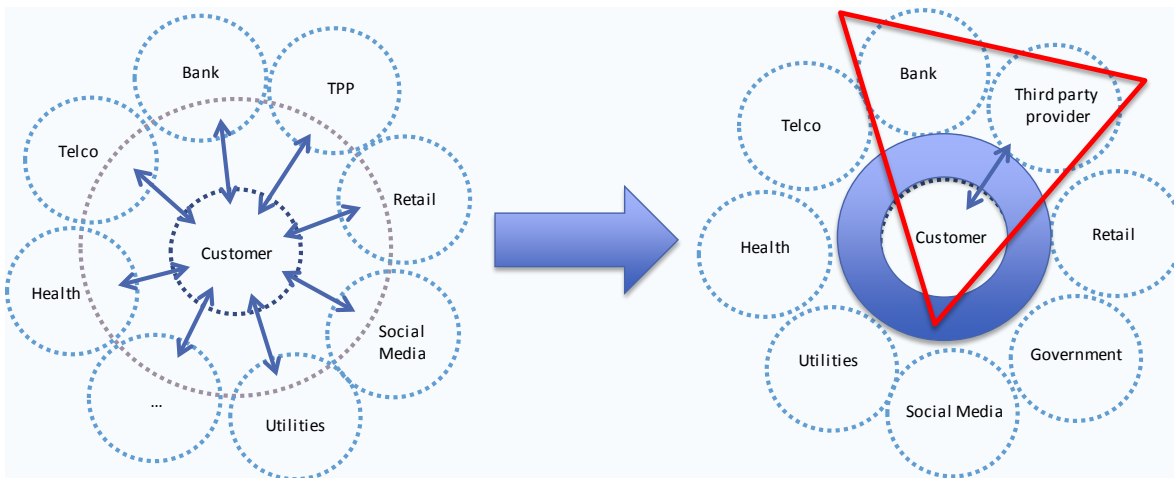


Figure 1: The customer within its (data) bubble: single customer centric agent

As shown in Figure 1, customers are surrounded by parties that possess and use the customer's data. Propositions can be envisioned where an actor (a single customer agent) - facilitated by a set of commonly

³ Recent speeches from S. Lautenschläger (ECB), Y. Mersch (ECB), V. Dombrovskis (EC) and B. Balz (Bundesbank):

https://www.ecb.europa.eu/press/key/date/2019/html/ecb.sp190506~14299d5b80.en.html?utm_source=ecb_linkedin&utm_medium=social&utm_campaign=190506_SLspeech_2019;

<https://www.ecb.europa.eu/press/key/date/2019/html/ecb.sp190207~f900d9105b.en.html>;

<https://www.bundesbank.de/en/tasks/topics/balz-favours-european-solution-for-cashless-payments--776388>; <https://www.ecb.europa.eu/press/key/date/2019/html/ecb.sp190207~f900d9105b.en.html>

agreed rules in a Scheme - positions itself between the customer and these parties, giving the customer a single window to the latter.

A Scheme could focus on the exposure of the following information or services through an API in order to unlock value and foster innovation in Europe:

- **Non-personal bank owned information**

For instance, public information such as standard fee information, ATM and branch locations etc., or non-public information such as aggregated, segmented or statistical business-related information. Such information is for instance included in the UK Open Banking framework as well as in other countries (such as Australia).

The API could be called by regulated and unregulated third-party providers (TPPs) (asset brokers in the context of this report).

- **Customer data**

PSD2 requires account-servicing payment service providers (ASPSPs) (asset holders in the context of this report) to share specific customer payment account data with authorised or registered account information service providers (AISPs). For other customer data services, beyond payment accounts and out of scope of PSD2, it would depend on the applicable legal context (e.g. mortgage, securities, pension, lending, personal identification information). The General Data Protection Regulation (GDPR) applies in all cases.

- **Customer transaction initiation services**

PSD2 enables regulated/authorised payment initiation service providers (PISPs) to initiate payments and ASPSPs are required to provide the necessary information to PISPs. Beyond the scope of PSD2, for other types of customer transaction services, it would depend on the applicable legal context (e.g. mortgage, securities, pension, lending) what asset holders' obligations are. GDPR applies in all cases.

Depending on the type of financial service or information that is shared through an API, the legal context could be different from PSD2, as could be the relevant competent authorities at EU and national level. This will need to be further explored in a next phase via the involvement of relevant subject matter experts.

2. Description of the ecosystem to support a SEPA API Access Scheme

The Working Group defined the Scheme related ecosystem by identifying the relevant actors, possible relations and types of agreements between these actors.

2.1. Actors involved in the ecosystem

As a starting point, the Working Group looked at the PSD2 terminology which is limited to payments i.e.:

- Payment service provider (PSP) is used for ASPSP and for AISP and PISP (TPP);
- Payment service user (PSU) covers both consumer and retailer.

In order to broaden the scope within the financial services industry, a broader terminology is required, and therefore the choice was made to introduce the following typology of actors:

- Data asset holders: actors that possess data (that can be considered valuable – payment related and beyond);
- Transaction asset holders: actors that have the ability to execute transactions (payment related and beyond, e.g. securities transactions);
- Asset brokers: actors that can use assets from other actors to deliver value to the end-users. Value is being driven by either consumer or corporate demand.

The framework is generic in terms of actors but will get specific in the Scheme implementation.

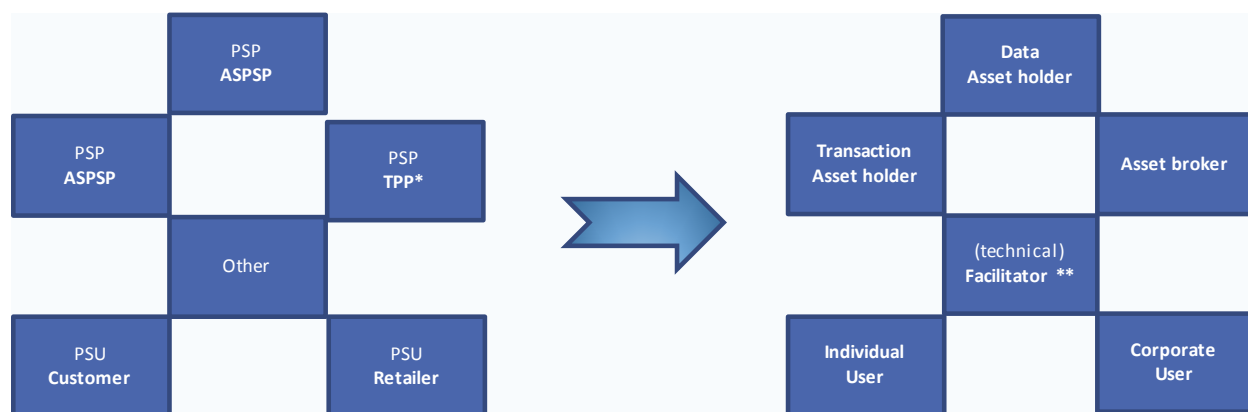


Figure 2: From PSD2 to SEPA API Access Scheme terminology

Transaction asset example: Execution with ‘payment guarantee’

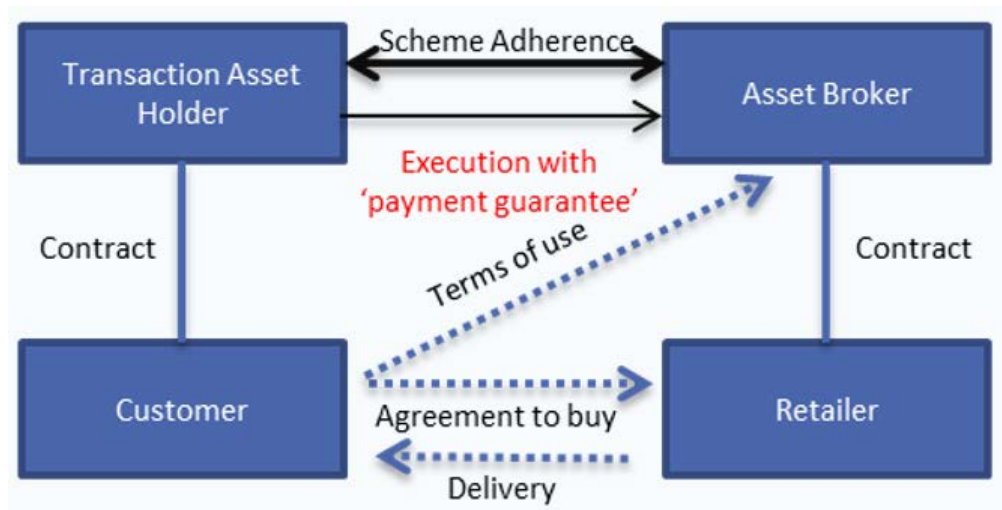


Figure 4: Execution with ‘payment guarantee’

In case of no Scheme, PSD2 allows the PISP to initiate payments and the PISP will need to mitigate the non-execution risk. In the context of PSD2 a PISP might not be able to get a ‘payment guarantee’ from the ASPSP. Here a Scheme could provide further value by allowing the transaction asset holder to offer a real-time ‘payment guarantee’ [within any possible legal framework] and the asset broker may (or may not) choose to take up the offer.

The relationships between the different actors can either be governed via a Scheme or via multiple bilateral arrangements as depicted in the below figure:

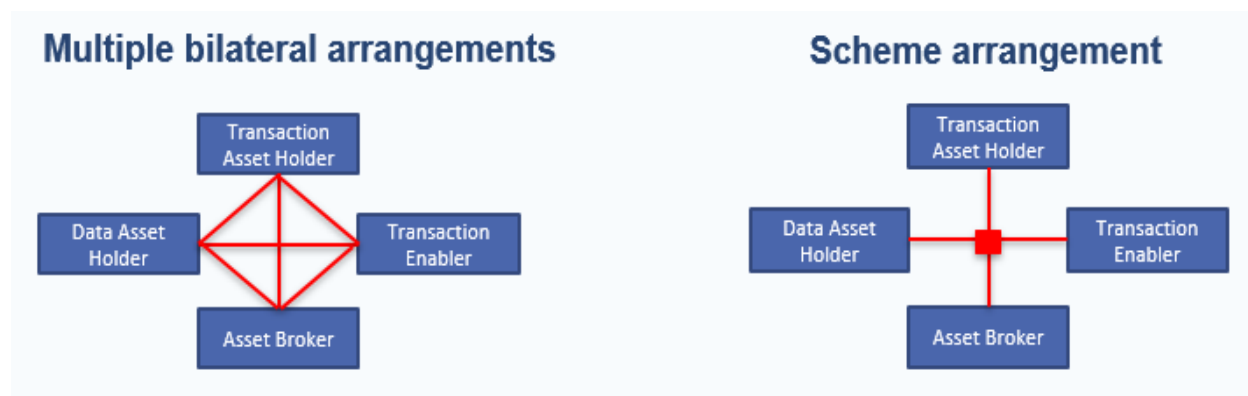


Figure 5: Agreements

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The Working Group believes that a Scheme would be the best option to unlock the opportunities from data sharing beyond PSD2, in particular in view of the below advantages (compared to multiple bilateral agreements):

- A Scheme lowers barriers to entry: parties that meet the eligibility criteria can become part of the ecosystem on a non-discriminatory basis.
- A Scheme solves the “ $(N \times (N-1))/2$ ” problem: new entrants do not have to conclude bilateral agreements with all other participants in the ecosystem.
- With a proper governance, a Scheme balances the differences in bargaining power between large and small participants.
- A Scheme provides the reach and helps to maximise network effects which are required for a pan-European solution.
- A Scheme is cost and resource effective for all participants.

It should be noted that additional (multiple) bilateral agreements between Scheme participants are not precluded as such but must not affect the correct functioning of the Scheme. Typically, business conditions may be the object of additional bilateral agreements (see also section 5.12).

3. Identified business requirements for a SEPA API Access Scheme

As a first step, the Working Group identified and assessed user stories and illustrative customer journeys from which business requirements were derived in the context of a Scheme.

3.1. User stories

The Working Group identified the following non-exhaustive and non-prioritised list of user stories - some of these user stories might already be addressed in the market today:

- Services that make recurrent use of personal data, such as Personal Financial Management (PFM) / Money Management, Cash Management, Portfolio Management, etc.
 - Enrolment and customer consent.
 - Consent renewal.
 - Consent withdrawal.
 - Online information update.
 - Batch information update.

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- Electronic commerce payment & payment at a physical point of interaction (POI) - enrolment and subsequent payments
 - Basic payment
 - Sub-journeys (with/without 'payment guarantee')
 - Refund.
 - Payment with final amount not known at the time of purchase / Pre-authorisation and update pre-authorisation.
 - Payments to multiple merchants (marketplace).
 - Recurring payments.
 - Deferred (recurrent) payments with flexible execution time and amount.
 - Instalment and consumer credit.
- Electronic mandate for SEPA direct debits (SDD)
 - Setting up an electronic mandate.
 - Collection (lifecycle management).
- Loan Applications
 - Use of banking information for credit scoring of a consumer loan application.
 - Use of banking information for credit scoring of a loan application with a payment to secure the deal.
- Account switching / transfer of products
 - Moving SEPA direct debits from one bank account to another bank.
 - Switching a bank product from one account to another.
- Purchase of financial products / services
 - Contracting financial products / services.
- Transversal applications
 - eID identification for anti-money laundering (AML), anti-fraud or contracting purposes.
 - Generic SCA for third party services i.e. to contract for a telephone number from a telecommunication services operator.
- Other
 - Peer-to-peer (P2P) payments.
 - Cash distribution (Automated Teller Machine (ATM), cash back).

3.2. Illustrative customer journeys

The Working Group identified the following illustrative customer journeys for which the preliminary detailed flows can be found in Annex 3:

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- E-commerce payment: First payment based on a bank account with and without a 'payment guarantee'.

Use case: After completing the checkout in an e-commerce scenario, a user pays from their bank account for the first time in a payment service that requires onboarding.

- E-commerce payment: Consecutive payments with and without a 'payment guarantee'.

Use case: After completing the checkout in an e-commerce scenario, a user that has already onboarded in a payment service (if required), performs a subsequent payment.

- Mobile app payment: Consecutive payments with and without a 'payment guarantee'.

Use case: After completing the checkout in an e-&m-commerce scenario, a user that has already onboarded in a payment service, proceeds with a one-click consent and SCA on its mobile device (note: it is a prerequisite that the mobile payment app has been previously activated).

- Mobile payment at POS: Enrolment.

Use case: A user contracts a mobile payment service and enrolls a bank and its accounts for the first time to the service. Preferably, there should be one enrolment for all merchants reachable through the Scheme (note: a customer who has been enrolled in one channel could be automatically enrolled in the other digital channels).

- Mobile payment at POS: Consecutive payments with and without 'payment guarantee'.

Use case: A user wants to pay in a physical store with a payment service whereby the user is already enrolled (note: it is a prerequisite that the mobile payment app has been previously downloaded and the user is enrolled).

- Mobile payment at unattended petrol station (POS).

Use case: A user wants to prepay an amount and use the amount at an unattended fuel station using a payment service that already has the user enrolled (note: it is a prerequisite that the mobile payment app has been previously activated).

- Mobile app payment: one-click pay later.

Use case: Shopper delays payment until after the goods have been shipped on agreed payment term(s).

- E-Identity for customer attribute sharing and/or validation.

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Use case: A user is willing to buy a product or service online that requires a proper identification. It could be for AML purposes, mitigation of risk, age verification, proof of nationality or other reasons.

- PFM / Money management: Bank enrolment.

Use case: A user contracts a PFM or Money management provider and enrolls a bank and its accounts for the first time to the service.

It should be underlined that the illustrative customer journeys are without prejudice to the applicable regulations (e.g. PSD2, GDPR, AMLD).

3.3. Identified business requirements

The following sections provide a non-exhaustive and non-prioritised list of potential business requirements which result from the illustrative customer journeys described in section 3.2 and may be seen as ‘value added services’ in the sense that they may not be required by PSD2 or may be outside of the scope of PSD2 (see also example in Annex 4) or that they are an efficient way for industry players to implement PSD2 in a collaborative manner. A distinction is made between specific business requirements for payment initiation, authorisation, confirmation and execution.

3.3.1. Payment initiation

- **Enrolment of payment data**

Enrolment of a shopper includes identity validation, management of shopper (download and activation of an app, enrolment, de-enrolment and changes of payment service or app) as well as the recording of their payment data and delivery address in the payment service onboarding.

- **E-Identity provider (eIDAS)**

Bank app / card as trusted source of client contact, address and other details, authorisation to share data and payment in one step.

- **Standardisation of QR / barcodes**

The Working Group has identified a need for a pan-European QR standard readable by all apps and mobile devices in Europe (to address the current fragmentation in the market).

- **Proxies at a European level for bank identifiers**

The Working Group has identified a need for a European level mechanism for conversion of proxies for a bank identifier (i.e. IBAN) in a way that would allow the best customer experience.

- **Request to Pay**

Set of rules and technical elements (including messages such as acceptance confirmation) that allow a payee (or creditor) to claim an amount of money from a payer (debtor) for a specific transaction through a trusted network.

3.3.2. Payment authorisation

- **SCA using identity tokens stored on media such as physical or digital cards**

Allows the option to perform SCA at the POI whereby the token would securely store the identity and the authorisation/authentication credentials of the customer, to support the EU-wide creation of authenticated instructions at the POI.

- **Delegation of authentication to the asset broker with a liability shift mechanism**

The liability for an unauthorised transaction is shifting from the asset holder to the asset broker in a scenario whereby the authentication was delegated from the asset holder to the asset broker (without prejudice to PSD2 liability rules). When needed the asset holder reserves the right for exceptional SCA.

- **SCA exemptions**

Asset holders that participate in the Scheme will be strongly recommended to consistently implement a predictability mechanism for all exemption options as foreseen by the Scheme, subject to risk analysis.

- **Potential for asset brokers to ask for an exemption as well as for an exceptional application of SCA.**

Optional feature which enables asset brokers to ask the asset holder for an SCA exemption or an exceptional application for its clients.

- **Decoupled SCA at the physical POS**

Part of the Working Group is of the view that the implementation of a decoupled SCA at the physical POS could further improve the client experience. In addition, the merchants and TPPs note that in order for proximity-type (POS) payment use cases to be supported, decoupled and/or 'embedded' authentication procedures would have to be fully enabled.

- **Identification shopper**

Shopper onboarding requires the truthfulness and accuracy of their identity. This helps preventing fraud and money-laundering, while giving the opportunity to assess their credit risk accurately.

3.3.3. Payment confirmation

- **Real-time 'payment guarantee'**

A 'payment guarantee' service is offered to merchants by asset brokers or asset holders to cover the non-payment of debts arising under a transaction.

- **Payment release notification**

A real time notification service to merchants concerning the release of the payment for settlement / execution.

3.3.4. Payment execution

- **Deferred recurrent payments with flexible execution time and amount (below authorised amount)**

A deferred payment arrangement allows a shopper to buy and receive goods and services with a commitment to begin making payments at a future date.

- **Pre-authorisation and update pre-authorisation of payments**

A pre-authorisation service enables merchants to reserve an amount in order to secure sufficient funds to complete a subsequent payment. The shopper is only paying for the exact 'consumption' or upon delivery of goods and services.

- **Instalment consumer credit or 'pay later'**

This relates to a sum of money due as one of several equal payments for a purchase, after or spread over an agreed period of time.

'Pay Later' is a payment facility proposed at the moment of transaction which offers shoppers the ability either to get the bill and pay for the goods and services at an agreed later time or to use financing facilities offered by or through the merchant. By selecting 'Pay Later' at the point of purchase, shoppers are provided with payment facilities from merchants, asset brokers or asset holders.

- **Refund**

Refund allows a merchant to reimburse the shopper partially or in full in relation to a previous transaction. A refund is executed by the merchant, mostly without the shopper's active interaction (e.g. without the shopper providing IBAN details).

The below table provides a summary of the business requirements to improve the customer experience:

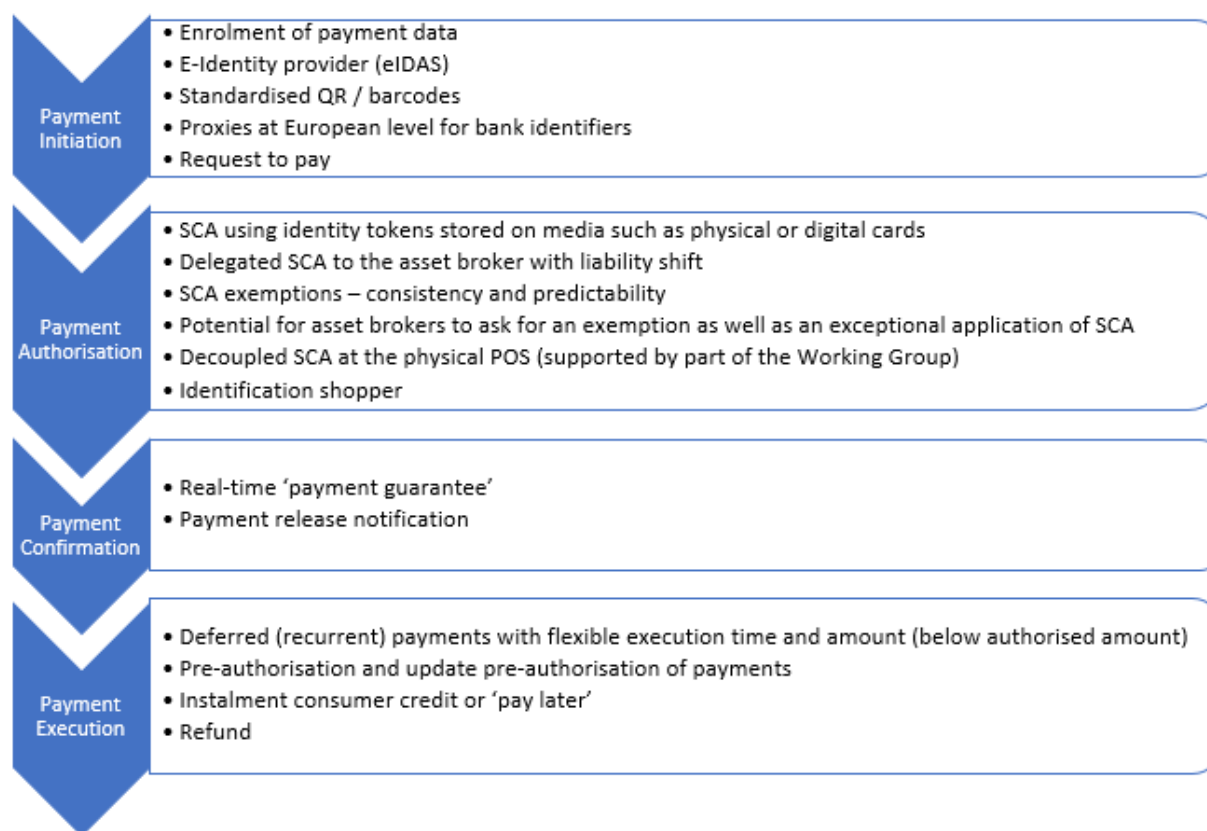


Figure 6: Overview business requirements

Also, the Working Group concurred that the Scheme should ensure a consistent functional implementation.

4. Scheme governance

4.1. A possible Scheme structure

Having established that the development of a Scheme would be the best way forward, the Working Group looked into the topic of Scheme governance.

As the Scheme could potentially cover a broad range of services, the Working Group envisages a layered and modular approach, whereby sub-schemes would address specific requirements of different asset classes and an overarching Scheme would ensure interoperability and minimum standards to be applied by each of the sub-schemes.

ERP Working Group on a SEPA API Access Scheme

Participation in the Scheme will be voluntary and market support should be achieved by ensuring that attractive market opportunities can be enabled by the Scheme. Scheme participants can decide whether they participate in one or more of the sub-schemes. There is no clear view as yet on the ownership of the Scheme and sub-schemes as not within the mandate scope and hence the Working Group suggests reviewing this topic in a next phase.

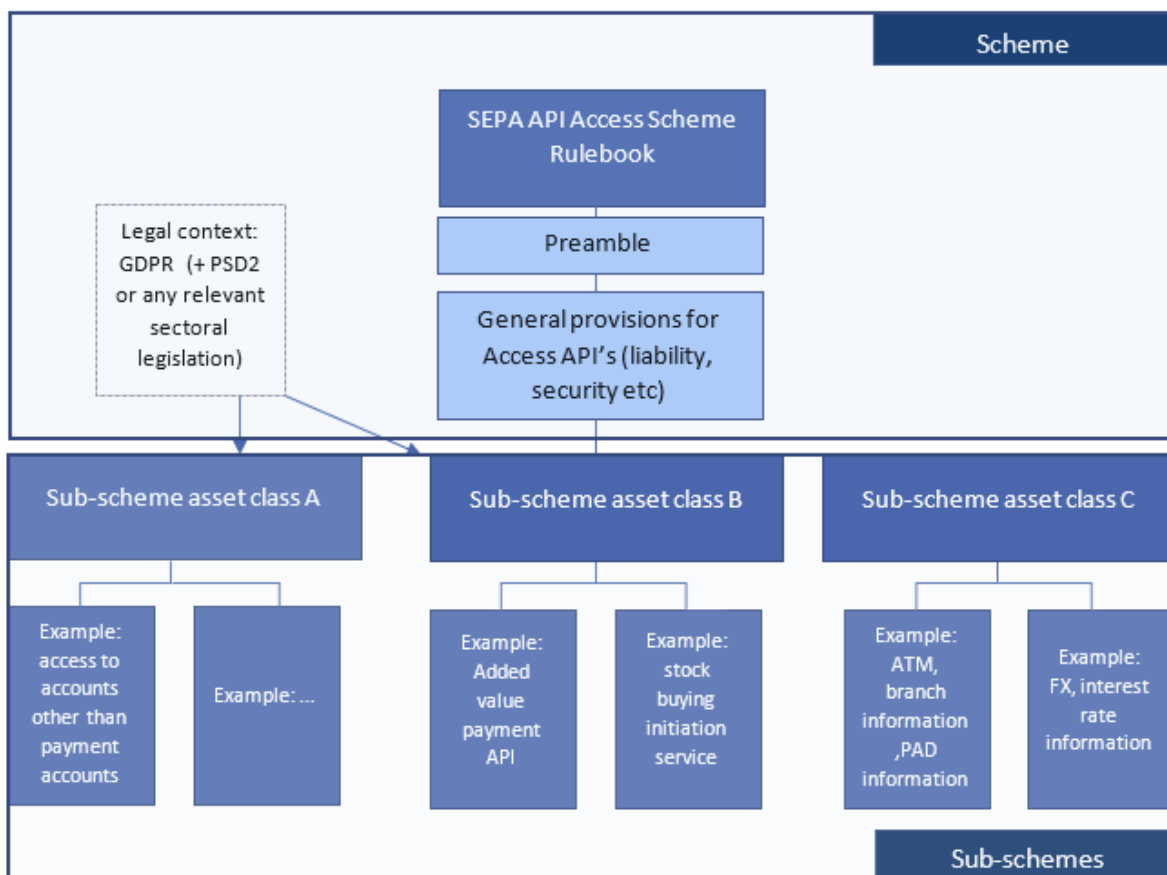


Figure 7: Possible structure of the SEPA API Access Scheme Rulebook

4.2. Membership

In principle, subject to applicable regulatory requirements, the Scheme membership should be open to:

- **Supervised entities:** The activities of these entities are regulated and supervised by a competent authority. Examples include the license to act as a credit institution (CRD IV), the license to act as a payment institution (PSD2) or to certify customer identities.
- **Non-supervised entities:** The activities of such entities do not require by law to be regulated and supervised by a competent authority. Non-supervised entities could, for example, be merchants, technical facilitators, etc.

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Regulated and non-regulated entities can join the Scheme ecosystem in various capacities and membership categories via the successful completion of an adherence process (see also section 5.1). The extent of each members' activity will depend on its underlying regulatory status.

4.3. Scheme requirements

Scheme requirements related to membership and insurance could include:

- The Scheme should be open to all eligible actors in the ecosystem, both as members (direct and associate) and as participants.
- Supervised and non-supervised entities should be able to join the Scheme. Membership is governed by private law and has to be obtained from the Scheme manager(s).
- All members will need to adhere to the requirements set by the Scheme.
- Compliance to Scheme requirements could imply certification by an external trusted auditor.
- An 'entry-level' membership should be foreseen that allows new players to quickly access the Scheme.
- Members' status and Scheme fees will closely depend on the nature and extent of their activities, from full membership to associate membership, voting or non-voting rights.
- A specific status (observers) could be granted to the "demand" side, i.e., merchants and consumers (who could alternatively be Scheme participants).
- The Scheme rules govern the contractual relationships between members (e.g. principles for business conditions, liability) and between members and the Scheme manager(s) (e.g. funding, intellectual property, security).
- The Scheme evolution and maintenance process shall be entrusted to the Scheme governing bodies.
- A Scheme should establish minimum rules for Scheme actors to be able to meet their respective liabilities as defined above. For this purpose, it might be worth to take into account the EBA Guidelines on the criteria on how to stipulate the minimum monetary amount of the professional indemnity insurance or other comparable guarantee under Article 5(4) of PSD2. These guidelines apply to AISP and PISP. For services that fall outside the scope of PSD2, the Scheme could envisage an insurance mechanism or comparable guarantee system based on similar principles. These requirements should only apply to Scheme actors which are not subject to provisions about initial capital, own funds or other safeguarding requirements.

ERP Working Group on a SEPA API Access Scheme

The following table provides an overview of the Scheme requirements to be met by eligible members depending on the service provided:

SERVICE	ASSET BROKER Authorised under PSD2	SCHEME REQUIREMENTS
Value added services PIS (under PSD2) e.g. PIS and 'payment guarantee'.	Yes	<ul style="list-style-type: none"> • Specific scheme requirements to ensure efficient management of the 'payment guarantee' (card scheme requirements to serve as reference). • Compliance should be certified by an external trusted auditor.
Value added service beyond AIS e.g. aggregation of both payment and non-payment accounts.	Yes, for payment accounts.	<ul style="list-style-type: none"> • Scheme requirements should map AIS standards as set in PSD2 for non payment account data. • Compliance should be certified by an external trusted auditor.
Access to non-payment account data only.	PSD2 does not apply.	<ul style="list-style-type: none"> • Scheme requirements should map AIS standards as set in PSD2. • Compliance should be certified by an external trusted auditor.
Transactions out of scope of PSD2 (e-ID attributes, electronic mandates).	PSD2 does not apply.	<ul style="list-style-type: none"> • Scheme requirements will demand the same standards as the one required for this type of activity. • Compliance should be certified by a external trusted auditor.

Figure 8: Scheme requirements per type of service

4.4. Role based decision process

The Scheme's governing bodies should represent the entire membership and voting rights should be structured so as to ensure a true and balanced representation of it:

- The General Assembly (GA) should represent all Scheme members.
- The Board of Directors (BoD) will be elected by and report to the GA and will represent the various roles present within the Scheme with a maximum number of seats (e.g. 20). Observers may be invited to join Board meetings.

Decision making processes within the GA and the BoD will ensure that features and any major subsequent changes will be adopted by a large majority of members (e.g. 70 per cent). Decision making powers will be decided at a later stage.

The Working Group envisages that day to day Scheme management would be devoted to the appointed Scheme manager(s). Working groups will be created on an ad hoc basis by the BoD upon recommendation from the Scheme manager(s).

4.5. Scheme management internal rules

Scheme management internal rules need to be defined to ensure a proper functioning of the Scheme. These would contain clear descriptions of the internal organisation, structure, rules and processes that make up the Scheme management. The rules would also describe change management processes (see section 5.7) and the way the Scheme manager(s) would interact with any Scheme overseer.

5. Legal and other topics to be addressed in a SEPA API Access Scheme

The Scheme (including sub-schemes) would not seek to provide a means of legal compliance with PSD2 or other applicable legal frameworks but will have to be consistent with them and ensure that all authorised and regulated entities under the corresponding legal framework can comply with its requirements. The Scheme would enhance the benefits of existing legal frameworks and facilitate value added services, i.e. transaction initiation services other than payment initiation, sharing of bank owned, or customer data other than online payment account data. The legal context for all the services covered by the Scheme will be GDPR and any (sectoral) applicable legislation (mortgage, securities, pension, etc.) as well as general EU competition law and consumer protection rules.

5.1. Adherence process

As already stipulated in section 4, eligibility criteria will be defined by the Scheme, and will depend on the applicable sub-scheme and legal context. The adherence process should be an assessment of the fulfilment of the eligibility criteria and no additional criteria should be added.

There should be a governance body (partially composed of independent members) dedicated to overseeing adherence applications and there also has to be an appeals process in place.

The Scheme should detail the content of the adherence application form, process of submitting an adherence application, the timelines that the application procedure by the Scheme manager(s) should follow, whether there is a possibility to support the adherence process at national level, the details of the register of Scheme members, whether there would be any conditions for re-applying in case of unsuccessful application, and what the appeals possibilities and process would look like. Moreover, the adherence process should be separate for different sub-schemes.

5.2. Business, technical and operation rules

The exact content of the business, technical and operational rules will depend on the service to be covered by the (sub)Scheme. Broadly, such rules should include normal process flow, exception process flow, execution times, content and data format of different messages etc. The rules will reflect the different client journeys and the related business requirements.

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The Scheme would be codified in a rulebook, and participants would apply the implementation guidelines, as part of the Scheme. As stipulated in section 4.5, the governance of the Scheme including change management would be reflected in Scheme management internal rules.

5.3. Rights and obligations of participants

The exact rights and obligations will depend on the service to be covered by the (sub)Scheme.

Scheme participants would have to comply with the following broad guiding principles that generally govern SEPA schemes:

- All sub-scheme adhering participants would have to comply with the Scheme on the same basis as all other participants.
- Participants would participate on the basis that the regulatory level playing field principle is respected.
- Participants adhere to the rulebook, implementation guidelines, Scheme management internal rules and any other relevant document, as amended in accordance with the Scheme change management process.

5.4. Compliance (dispute resolution, sanctions)

Two main categories should be considered under dispute resolution:

- Disputes between Scheme participants regarding the application of the Scheme rules.
- (Potential) breaches of the Scheme rules by a Scheme participant.

The Scheme manager(s) should have procedures and a governance body in place to deal with disputes between Scheme participants or between a Scheme participant and the Scheme manager. It could be envisaged that the body is composed of different members for different sub-schemes in order to ensure relevant expertise.

The dispute resolution mechanism should consist of different levels: conciliation, arbitration, litigation, rules for the choice of jurisdiction for arbitration. It should also describe the conditions to be fulfilled in order to submit a complaint to the Scheme manager and in which cases such complaints could be rejected by the Scheme manager.

The Scheme should describe the process and timelines for filing, handling, investigating a dispute or a rules compliance case and should describe the sanctions available to the Scheme manager.

5.5. Contractual provisions (IP, Governing law)

The Scheme should be the intellectual property (IP) of the Scheme manager(s) and the governing law of the Scheme should be that of the country where the Scheme manager is located.

5.6. Consent management (including revocation)

The Scheme should also provide rules related to consent management of the end-user to the asset holder and asset broker, giving the consumer full control and visibility of who is accessing his/her assets and how to revoke his/her consent.

5.7. Scheme change management process

The Scheme should detail the Scheme change management process. A key success factor of such a Scheme is that it stays relevant to Scheme participants and end users and includes relevant market demands and developments.

The change management process should be open and transparent and should allow all stakeholders (not only Scheme participants) to suggest possible changes to the Scheme (or different sub-schemes).

The Scheme rules should detail how stakeholders are able to submit such requests and against what criteria they should be evaluated. In order to ensure transparency, all change requests should be submitted to a public consultation, together with the Scheme manager's analysis of the change requests. The final decision-making process on change requests should also be included.

5.8. Risk management

It is envisaged that the Scheme should have a risk management annex in which the possible risks related to the Scheme are highlighted and recommendations are provided on how these risks should be managed by the Scheme participants.

5.9. Security

PSD2 (and related European Banking Authority (EBA) legal instruments developed under PSD2) already contains security provisions, but the Scheme would have to consider additional security measures applying PSD2 security principles as the area of data to be shared or transaction to be initiated is enlarged, especially for services beyond the scope of PSD2.

Rules and/or guidelines and/or recommendations on security aspects from other schemes or security bodies should be looked at, especially for non-regulated Scheme participants (e.g. merchants).

5.10. Liability

The liability section of the Scheme should cover different topics such as the liability shift mechanism and liability provisions for breach of Scheme rules by any Scheme participant, and this without prejudice to applicable regulation such as PSD2. Moreover, a distinction should be made depending on whether the service relates to data transfer or transactions initiation.

5.11. Responsibility

Notwithstanding the division of liabilities outlined in section 5.10, the Scheme may wish to address how to divide the responsibility towards the client in terms of complaints handling in the case of a problem with an initiated transaction or information having been shared. From the customer perspective, a single point of contact to address in case of problems could be the most attractive solution. In any case, automated processes will however need to be foreseen to handle any “repairs” needed and any compensation required between parties. Problems in relation to the service provided by the asset broker or asset holder respectively need to be resolved by the corresponding party.

5.12. Business conditions

The Working Group assessed whether the business conditions could either be left outside the scope of the Scheme – which would imply the need for bilateral contracts between Scheme participants (but without affecting the correct functioning of the Scheme) – or be included within the Scheme.

The Working Group concluded it is important to distinguish two elements that could be eligible for remuneration i.e. the asset exposed through the API service by the asset holder and the API service itself as provided by the asset holder.

It may depend on the concrete asset if the asset holder is entitled to monetise the asset, since it may belong to a customer of the asset holder (e.g. this may be the case for certain customer data under GDPR). The API service itself is always eligible for remuneration.

If business conditions were included in the Scheme, then the following options should be considered:

- Bilateral remuneration agreements between Scheme participants.
- Possibility of a default remuneration set by the Scheme in absence of a bilateral agreement and to enable network effects.
- Remuneration not fixed by the Scheme but up to individual Scheme participants to set their prices unilaterally; prices should be justifiable, non-discriminatory and discoverable by other Scheme participants through an API call.

The Working Group concurred that rules for the settlement of amounts could also be part of the Scheme.

The monetisation of APIs is in essence an individual business decision of the market participant offering data or transaction assets through the API. However, the ecosystem consists of a two-sided market whereby the asset broker wants to offer a service to its customers but needs data or functionality from the asset holder through the SEPA Access API. To create the network effects required to achieve SEPA wide reach participation, the Scheme must be attractive for both asset holders and asset brokers. To this end, the asset holder typically needs a remuneration from the asset broker for the data or the transaction initiation service it exposes through the SEPA Access API.

The Scheme would solve the “(N x (N-1))/2” number of bilateral agreements problem (e.g. 5,000 SEPA API Scheme participants would result in 12,497,500 bilateral agreements). This however requires a fall-back remuneration all participants can count on but can deviate from by bilaterally agreeing on a different remuneration (i.e. default or bilateral remuneration).

The remuneration is envisaged to vary per sub-scheme and service. In addition, as a justification for such default remuneration, a robust cost calculation methodology would need to be developed and reviewed from an EU competition law perspective.

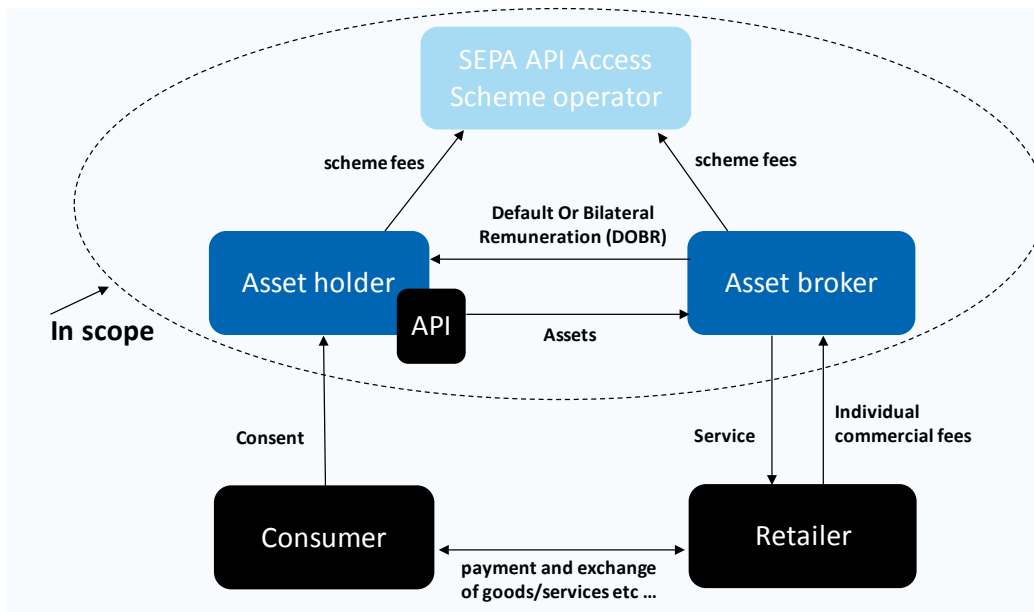


Figure 9: The economics of remuneration in a Scheme as two-sided platform

Please see Annex 5 for a value creation and distribution example related to a scenario whereby a first-time customer buys physical goods online from an e-merchant, which justifies the need for a remuneration to the asset holder by the asset broker.

5.13. Geographical scope

As a starting point the geographical scope is defined as SEPA, subject to a regulatory level playing field. When looking at specific asset classes in a next phase the geographical scope will need to be reassessed and determined.

6. A possible way forward

The Working Group identified the following priorities to be explored in a next phase. TPP participants and EMA dissent with parts of section 6. They will clarify separately.

First step:

Define and further detail the principles and requirements on the services that would be deemed value-added and as such could be subject to remuneration. This is perceived as a critical success factor for the Scheme. The Working Group agreed that this needs to be based on a fair distribution of value and risk.

Next steps:

- Conduct a cross check with other ongoing work streams (covering e.g. e-identity, RTP, instant payments at the POI, mobile initiated SCT) that may impact the development of the potential payment related part of the Scheme.
- Prioritise business requirements.
- Draft additional client journeys and derive business requirements for P2P payments, business-to-business (B2B) payments and other payments.
- Draft internal scheme management requirements between asset holders and asset brokers for example covering dispute and incident handling.
- Assess the landscape of existing governance structures in order to identify the Scheme manager(s).
- Assess with relevant subject matter experts in a next stage the extension to other financial services as well as to non-financial services as the Working Group's expertise is limited to payment related services.
- Agree to start drafting content for certain issues based on the above working assumptions related to inter alia:
 - Consumer issues.
 - Security.
 - Liability.
 - Rights and obligations of participants.
 - Compliance
 - Principles for business conditions.

The Working Group is also of the view that the present report would benefit from being shared with the relevant EU institutions to inform them and to allow for obtaining initial feedback.

Finally – subject to a positive outcome of the work on the priorities identified for the next phase - a draft implementation plan would need to be prepared taking into account resource availabilities of the main stakeholders, in particular over the coming three months.

The ERPB is invited to:

- Consider the report.
- Discuss the way forward (as summarised in section 6).
- Consider the extension of the mandate to allow the Working Group to work on the priorities as defined in section 6, taking into consideration resource constraints.

Annex 1: List of ERP Working Group participants

Category	Stakeholder organisation	Representative
Co-chairs	EBF	Christian Schäfer – Deutsche Bank
	FoEF	Arturo González Mac Dowell – Eurobits
ERP Stakeholders	BEUC	Jean Allix Alternate: Farid Aliyev
	EACB	Matthias Hönisch - The National Association of German Co-operative Banks (BVR) Alternate: Marieke van Berkel - EACB
	EBF	Gijs Boudewijn – Dutch Payments Association Alternate: Anni Mykkänen - EBF
	EMA	Thaer Sabri Alternate: Ruth Mitchell
	EPC	Alain Benedetti – BNP Paribas Alternate: Andrea Cogerino - Intesa Sanpaolo
	EPIF	Florenca Solazzi – PayPal Alternate : Pascale Brien - PayPal
	ESBG	Diederik Bruggink – ESBG Alternate: Robert Renskers - Volksbank
	EuroCommerce	Marina Fajardo - Carrefour Alternate: Pascal Spittler – IKEA
TPPs	Bankin'	Joan Burkovic
	Klarna	Aoife Houlihan
	PPRO/Tink	Ralf Ohlhausen Alternate: Tomas Prochazka – Tink
	Trustly	Oscar Berglund Alternate: Jörn-Jakob Röber
Central Banks	ECB	Helmut Wacket Alternate: Massimo Cappuccio / Iddo de Jong
	DE	Jan Lukas Korella
	FR	Thomas Piveteau
	LT	Auris Germanavicius
	PT	Hugo Mira
Observers	EBA	Helene Oger-Zaher Alternate: Dirk Haubrich
	European Commission	Nicolò Brignoli Alternate: Remo Croci
Secretariat	EPC	Etienne Goosse Christophe Godefroi

Annex 2: Mandate ERP Working Group on a SEPA API Access Scheme



ERP Secretariat

23 January 2019
ERP/2018/021

MANDATE OF THE WORKING GROUP ON A SEPA API ACCESS SCHEME

Based on Article 8 of the mandate of the Euro Retail Payments Board (ERP) a working group is set up with the participation of relevant stakeholders to define key elements of a potential SEPA API Access Scheme ("Scheme").

1. Scope

The revised Payment Services Directive (PSD2) introduced Payment Initiation Services (PIS), Account Information Services (AIS) and the confirmation on the availability of funds to boost innovation and competition in payment services. The related Regulatory Technical Standards (RTS) require Account Servicing Payment Service Providers (ASPSPs) to offer an interface. The standardisation of the interface will facilitate the provision of efficient, integrated and harmonised PIS and AIS and pan-European reach for consumers and businesses.

In order to reap the full benefits of PSD2 for the provision of innovative and competitive PIS and AIS services in an integrated European market, the ERP agreed that the working group should define the key elements of a Scheme. These key elements shall be developed with the legal and regulatory requirements of PSD2 constituting the "baseline", but also going beyond such baseline to encompass value-added ('premium') services that may be provided in context of 'open banking' as a natural evolution of PSD2 within the contractual framework of the Scheme. These key elements could establish the foundation of a possible future rulebook and of possible future implementation guidelines of the Scheme.

In this regard, the legal and regulatory requirements represent the indispensable basis upon which to establish a Scheme in the sense of (i) business requirements, (ii) governance arrangements, as well as (iii) a standardised API interface. The preparatory work for such Scheme shall not impede the efforts of market participants to duly implement PSD2 and related legal and regulatory requirements within the defined timelines.

2. Deliverables

The ERP working group is expected to prepare a report covering the key elements of a Scheme in the following areas:

- a. the high level description of the scheme governance, including stakeholder involvement and market consultation process;
- b. legal aspects to be addressed in the scheme rulebook (e.g. liability, competition issues, user rights);
- c. a non-exhaustive list of business requirements, in particular for 'premium' services beyond the PSD2/RTS requirements.

The working group may consider providing additional key elements that may be needed to enhance the efficiency and/or safety of a Scheme.

3. Time horizon

The working group will be established in January 2019 and shall deliver its report on the key elements of a Scheme by June 2019 for discussion of the next steps.

4. Participants and chairmanship

The working group shall include representatives of banks and PIS/AIS providers with a broad experience and a good understanding of the key business, operational and technical requirements as well as the legal and governance elements that are needed for a Scheme. Knowledge and expertise in 'open banking' services based on API technology would be an asset. While representation of the ERPB supply side shall remain lean, it shall equally represent the different business models of both ASPSPs and TPPs. It is equally important to have representatives of ERPB demand side stakeholder groups actively participating in the WG. One representative of the ECB and a limited number of representatives of euro area NCBs are invited to join the working group as active participants. Furthermore, a representative of the European Commission and the European Banking Authority will be invited as observers. The working group will be co-chaired by a representative of PIS/AIS-providers and a representative of ASPSPs. The secretariat will be provided by the European Payments Council.

Members and the co-chairs will be appointed by the ERPB Chair based on suggestions from their respective associations as well as from PIS/AIS providers.

5. Rules of procedure

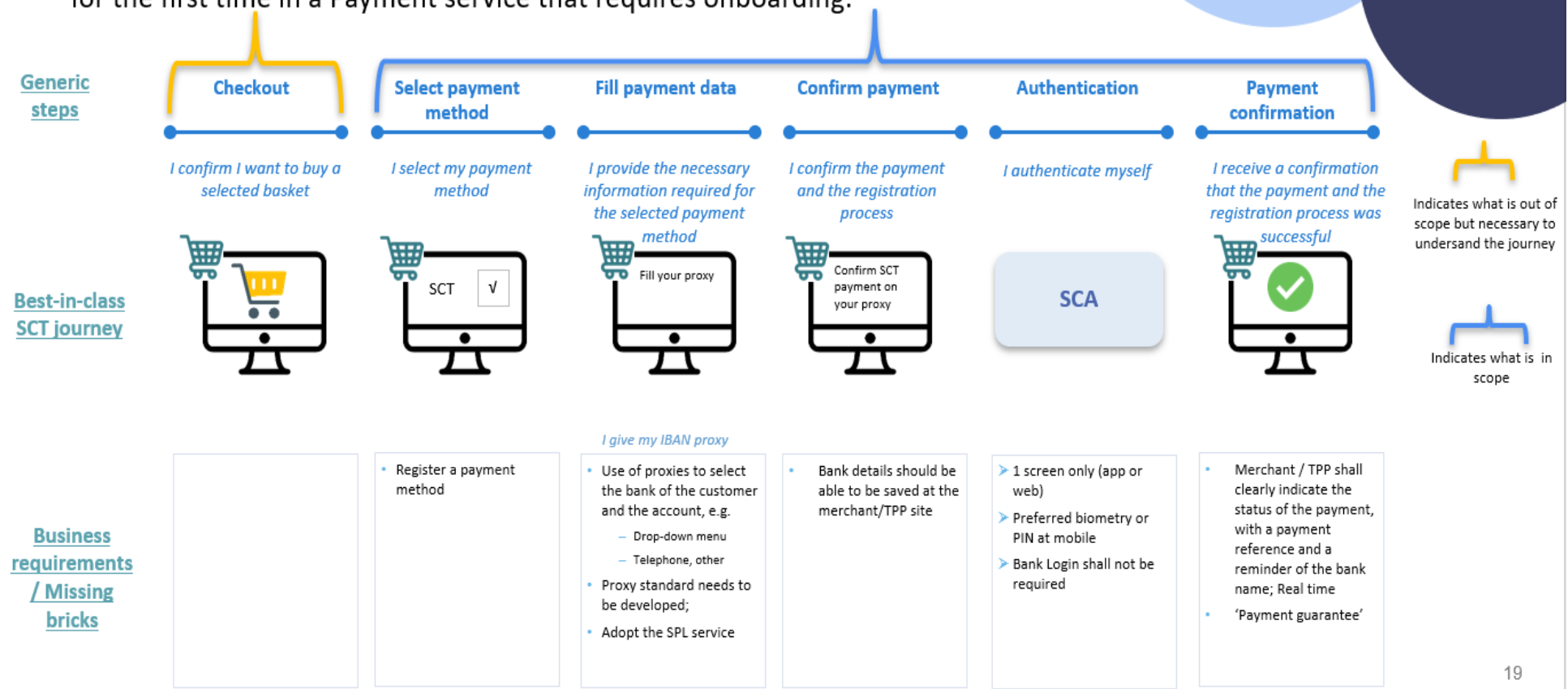
The mandate of the ERPB defines a broad set of rules for the procedures of its working groups: the working group takes positions on a ¾ majority basis; dissenting opinions are mentioned in any relevant documents prepared by the working group. The members of the group decide on how to organise secretarial support, timing and rules of meetings and communication via written procedure, as well as on the need and format of any interim working documentation produced. Costs related to the operation, meetings, chairmanship and secretariat are carried by the members of the group themselves. Members of the working group may interact with representatives of European standardisation initiatives for specific topics, where relevant.

Annex 3: Illustrative customer journeys

Illustrative Customer journey #1a

eCommerce payment: First payment based on a bank account with & w/o 'payment guarantee'

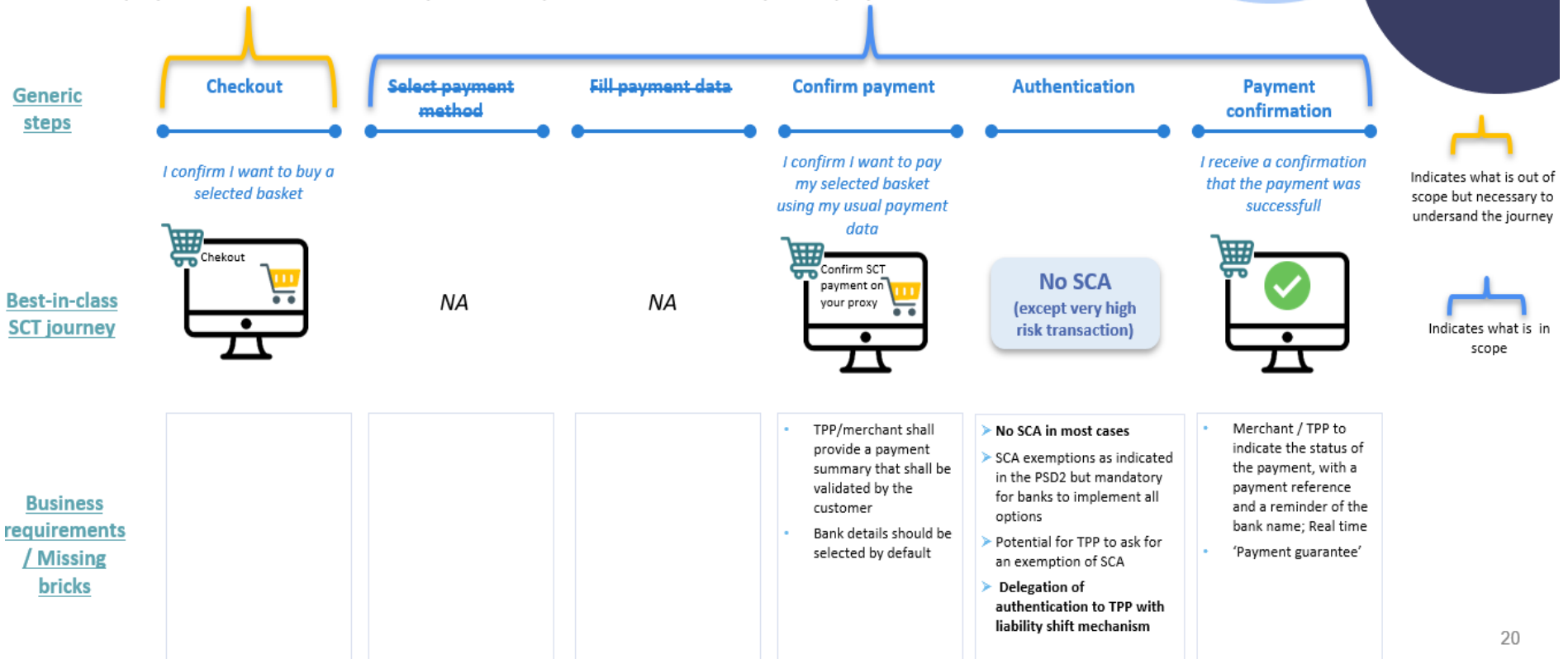
Use case: after completing the checkout in an eCommerce scenario, a user pays from his bank account for the first time in a Payment service that requires onboarding.



Illustrative Customer journey #1b

eCommerce payment: Consecutive payments with & w/o 'payment guarantee'

Use case: after completing the checkout in an eCommerce scenario, a user that has already onboarded on a payment service that requires so, performs a subsequent payment.

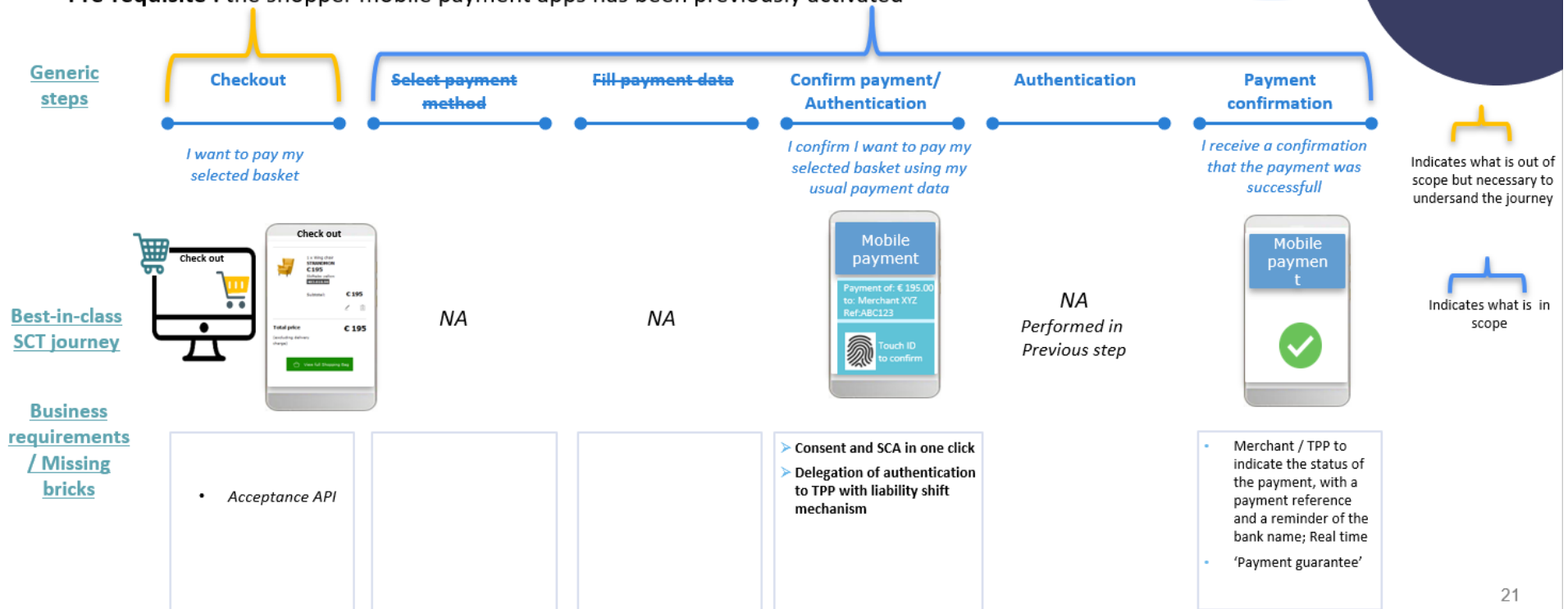


Illustrative Customer journey #1c

Mobile app payment: Consecutive payments with & w/o 'payment guarantee'

Use case: after completing the checkout in an e-&m-Commerce scenario, a user that has already onboarded on a payment service, proceed with one click consent and authentication on their mobile device

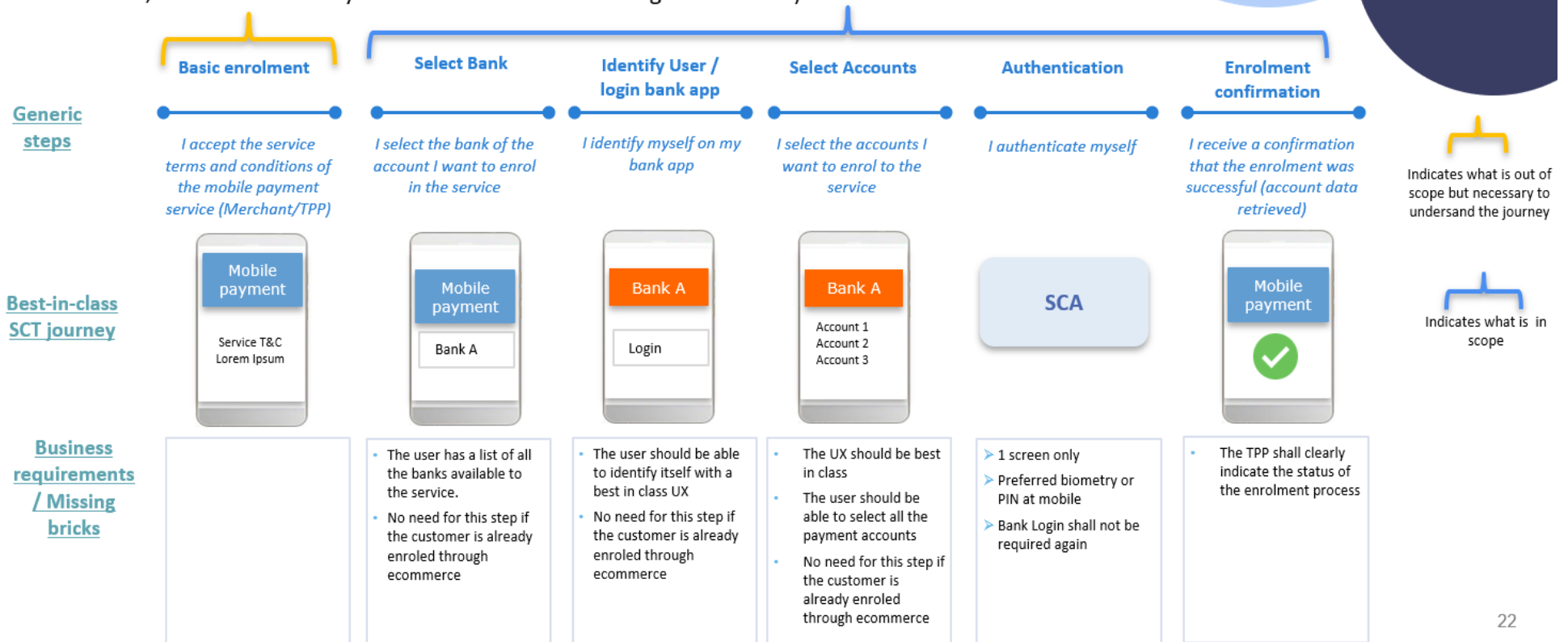
Pre-requisite : the shopper mobile payment apps has been previously activated



Illustrative Customer journey #2a

Mobile payment at POS: Enrolment

Use case: a user contracts a Mobile payment service and enrolls a bank and its accounts for the first time to the service;
This enrolment shall be linked to e-commerce enrolment for each merchant (If a customer has been enrolled in either channel, he is automatically enrolled in the rest of the digital channels)

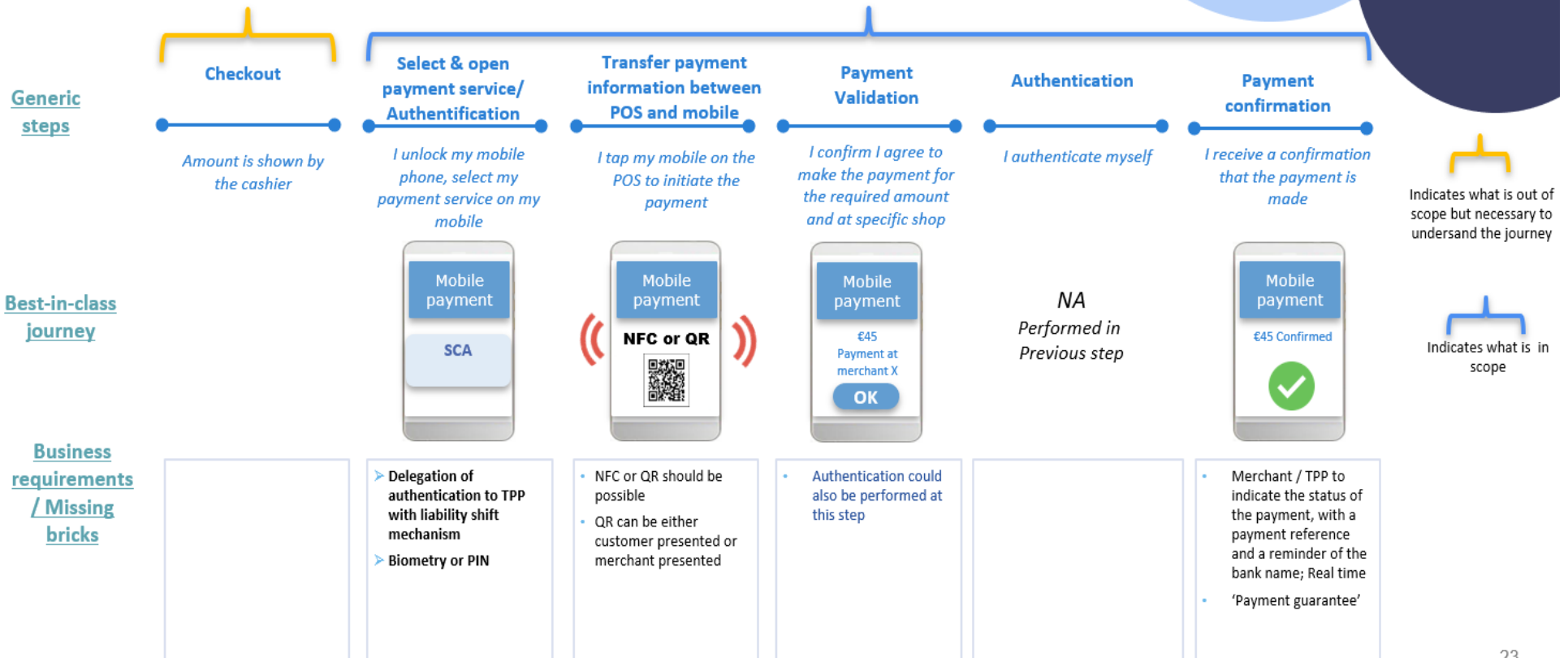


Illustrative Customer journey #2b

Mobile payment at POS: Consecutive payments with & w/o 'payment guarantee'

Use case: a user wants to pay in a physical store with a Payment service where the user is already registered

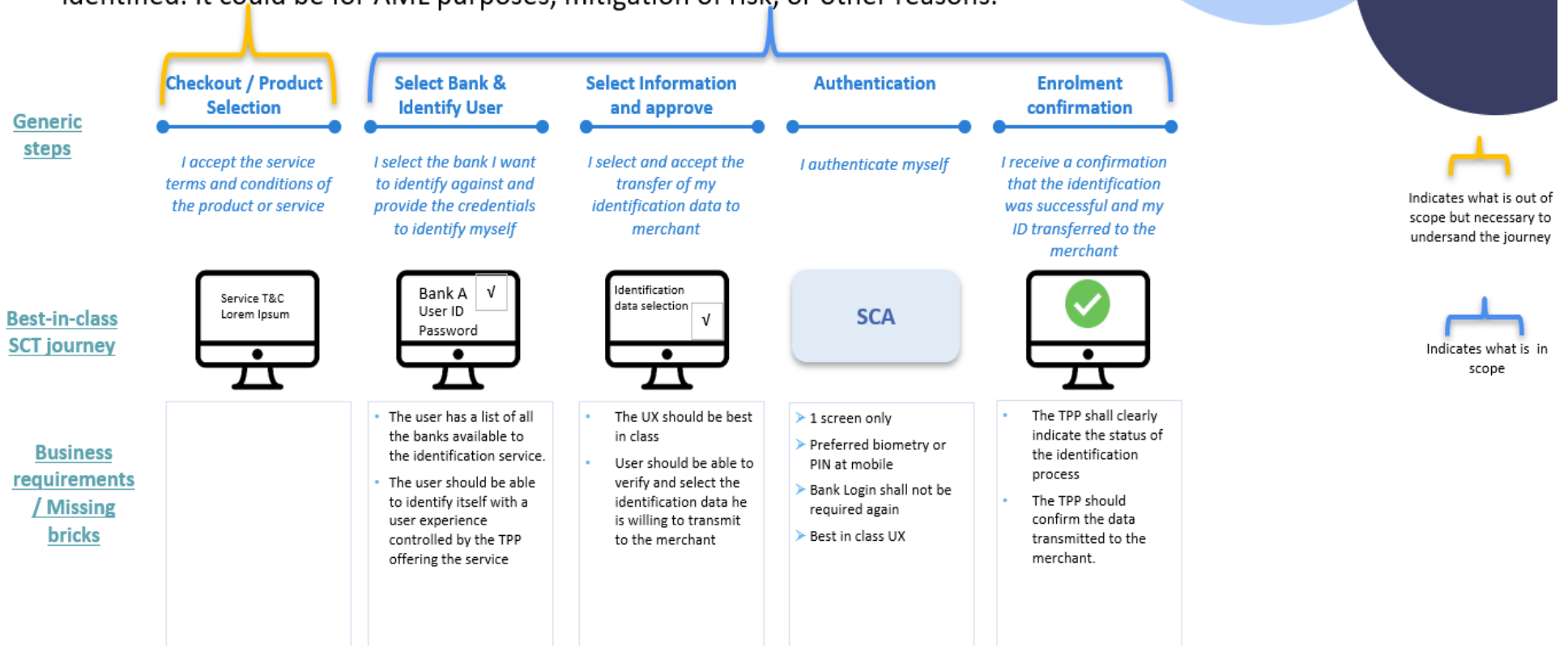
Pre-requisite : the shopper mobile payment apps has been previously downloaded and user is enroled



Illustrative Customer journey #3

E-Identity for KYC purposes

Use case: a user is willing to buy a product or service online that requires that he is properly identified. It could be for AML purposes, mitigation of risk, or other reasons.

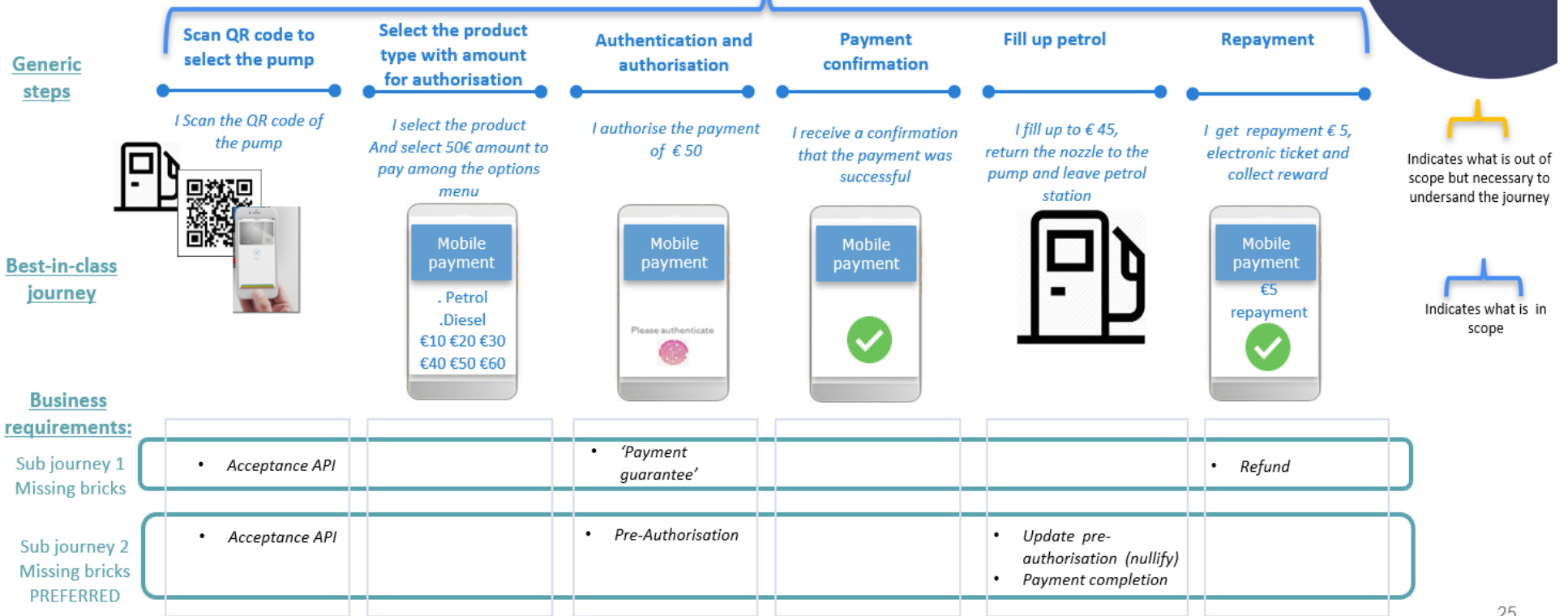


Illustrative Customer journey #4

Mobile payment at unattended petrol station (POS)

Use case: a user wants to fill his deposit and pay for it at an unattended petrol station with a payment service that already has the user registered

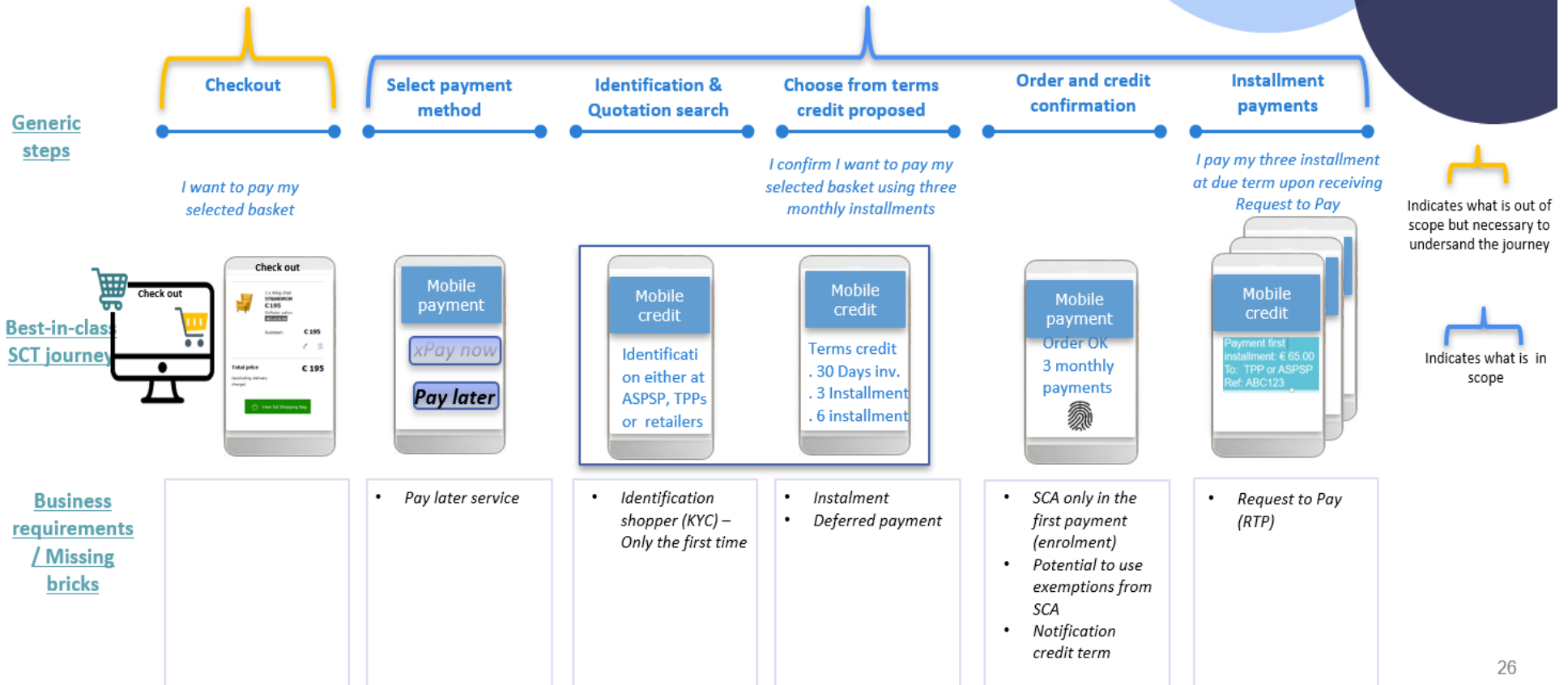
Pre-requisite : the shopper mobile payment apps has been previously activated



Illustrative Customer journey #5

Mobile app payment: one click pay later

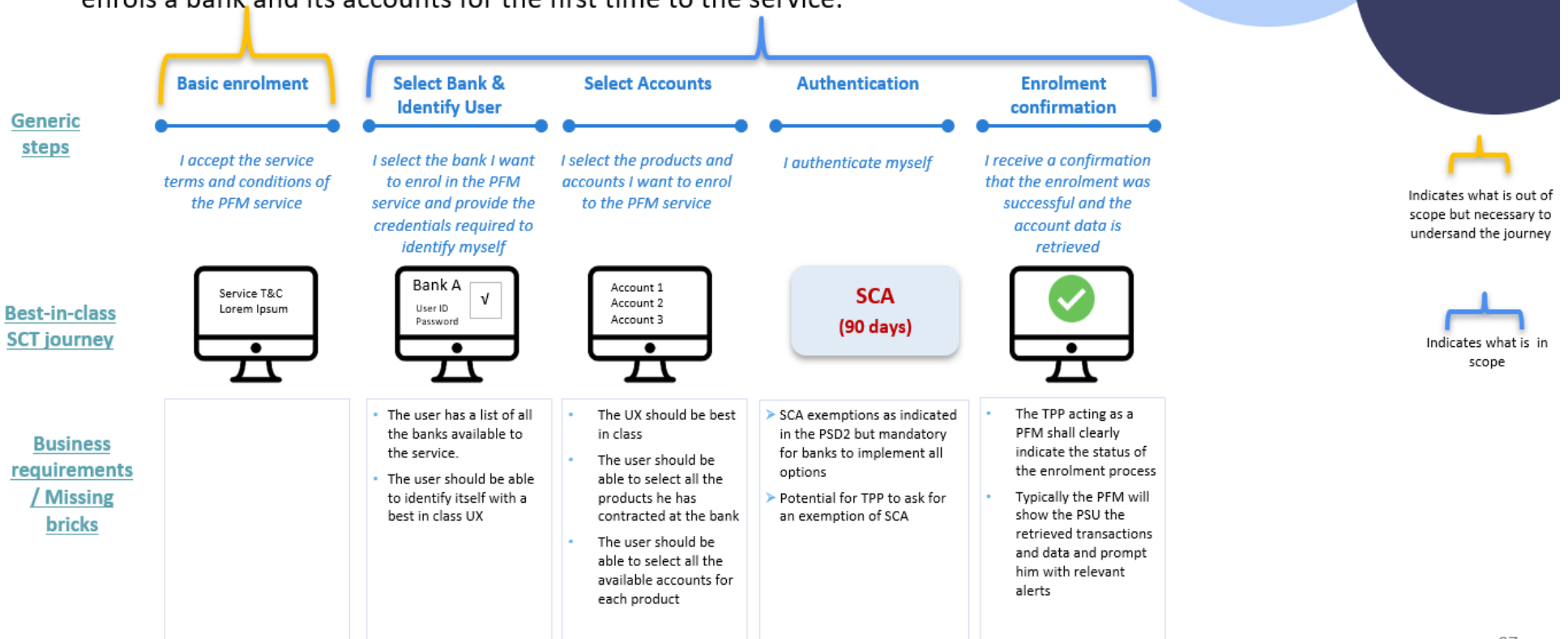
Use case: Shopper delays payment to after their goods have been shipped on agreed payment term(s)



Illustrative Customer journey #6

PFM / Money Management : Bank Enrolment

Use case: a user contracts a Personal Financial Management (PFM) or Money Management and enrolls a bank and its accounts for the first time to the service.



Annex 4: Illustration: Client Journey 1a – e-commerce payment: first payment based on a bank account

- *Missing bricks requiring specific legal provisions in the sub-scheme: (1) 'payment guarantee', (2) proxy service, (3) SCA exemption requested by the TPP, (4) future dated payments/standing orders with deviating final amount and date*
- *Main impacts foreseen by these business requirements:*
 - **While all features require detailed business, technical and operational rules as well as commercial considerations, specific legal considerations are required with regards to:**
 - **'Payment guarantee':**
 - liability provisions to foresee that in case the payer's PSP gives a 'payment guarantee', it will execute the payment and accept any liability for unauthorised or incorrectly executed payment transactions.
 - **SCA exemption requested by the asset broker:**
 - Consent handling.
 - Rights and obligations.
- *Related considerations*
 - There should be no impact on more administrative aspects such as the adherence process, compliance processes, scheme management processes and contractual provisions.
 - For all, the detailed process flow to be described under business, operational and technical requirements.

Annex 5: Example value creation and distribution

Use case of a possible “win-win” situation:

- A first time customer buys physical goods (needing shipment) from an eMerchant

