REPORT FROM THE EPC EIPP MULTI-STAKEHOLDER GROUP

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1 Executive summary

Scope and deliverables of the EPC Multi-Stakeholders Group on EIPP

Based on an initial analysis in 2015, the ERPB concluded that Electronic Invoice Presentment and Payment (EIPP) is an important opportunity for the retail payments industry. Following two initial stages of work - the identification of barriers preventing EIPP adoption and delivery of a business requirements definition for EIPP - the ERPB has focused EIPP related work in 2018 on the standardisation of business and technical messages and outlining principles for implementing a pan-European interoperable EIPP eco-system.

Following a step-by-step approach, the ERPB agreed on the continuation of the work on the subject of "E-invoicing related to retail payments" in a multi-stakeholder format under the coordination of EPC – the EIPP Multi-Stakeholder Group (EIPP MSG) - established for a one year duration, and tasked to:

- Select a set of ISO 20022 messages for the Request-to-pay (RTP) and, if needed, submit a change request (CR) to ISO to meet the business and technical needs of EIPP.
- Complete the functional design of the EIPP servicing messages described in the ERPB report of November 2017.
- Perform an impact analysis of the new set of messages on the existing SEPA payment schemes.
- Propose a way forward for guiding principles regarding an implementation model for the resulting messages.

Completed deliverables and further findings of the EIPP MSG

Following the introduction in Chapter 2, Chapter 3 provides details about the selection and adoption of the ISO 20022 set of messages for the RTP.

After analysing the existing messages (Creditor Payment Activation Request and Report) of the ISO 20022 standard, the EIPP MSG considered that they were to a large extent suitable for the requirements related to RTP in the EIPP context.

However, to fully meet those requirements, two change requests (CRs) were developed and submitted to the approval body of ISO 20022:

- The first CR enables the addition of optional attachments to support the delivery of the e-invoice within the ISO RTP.
- The second CR, derived from actual business needs, enables the addition of optional data elements to increase flexibility and enable various EIPP product features or service levels.

The CRs are now in the implementation phase for final registration and publication in spring 2019.

Once amended, the ISO RTP could be used in a framework-agnostic manner in various configurations for e-invoicing purposes and additionally would facilitate the attachment of other e-documents within a payment request. All this creates new use cases by the market, including but not limited to innovative solutions for the e-commerce and at physical point-of-sale.

Chapter 4 elaborates on the design of servicing messages harmonised to form a common language for communication between EIPP providers.

After analysing the servicing messages that are commonly used in well-established EIPP solutions, the EIPP MSG concluded that the harmonisation should cover:

- The enrolment of a Payee into the EIPP eco-system.
- The activation of an EIPP service at the initiative of the Payer.
- Complementary dis-enrolment, amendment, deactivation and response messages.

The functions fulfilled by these messages as well as the minimum data elements that would be needed for harmonising the EIPP servicing messages have been identified.

The EIPP MSG shares a common view that the servicing messages should be standardised as ISO 20022 messages.

Chapter 5 contains EIPP MSG guiding principles for an EIPP implementation model, based on the selected ISO RTP and harmonised servicing messages, and covering the following areas of focus:

- Identification of EIPP participants.
- Registries/Directories.
- Networks and routing.
- Security and trust.

The EIPP MSG highlights that working on a common EIPP framework, consisting of harmonised processes, common standards and service agreements at pan-European level, is necessary to achieve the required interoperability of EIPP solutions based on the ISO RTP and harmonised servicing messages.

Chapter 6 presents the results of the analysis on possible impacts of the proposed deployment of the ISO RTP and the creation of the EIPP servicing messages on the existing SEPA payment schemes (SDD, SCT and SCT Inst). It has been concluded that there are no technical or operational impacts on the schemes.

In Chapter 7, the EIPP MSG outlines its suggestions on the way forward as the basis for ERPB further decisions:

- Design and submit a request for the creation of an ISO 20022 set of EIPP servicing messages.
- In parallel, launch the second step, i.e. the development of a common EIPP framework, as agreed by the ERPB in November 2017, taking as a basis the already started work on elements considered essential for implementation of the ISO RTP and EIPP servicing messages within the EIPP eco-system.

In this way it would be possible to provide the market with clear guidelines for a harmonised implementation of the ISO RTP and EIPP servicing messages. The framework together with a clear governance should help create a good basis for compelling EIPP services based on a solid and sustainable business case.

2 Introduction

From the commencement of its work on e-invoicing in relation to retail payments in 2015, the ERPB identified Electronic Invoice Presentment and Payment (EIPP) as an important opportunity for the payments industry. As a first step, the ERPB requested the identification of how to overcome current barriers preventing the development and diffusion of the EIPP services.

As a second step, further work was undertaken on key development aspects of EIPP regarding interoperability and the harmonisation of business requirements, which led to the release of a business requirements document for EIPP in November 2017 (The ERPB EIPP WG Report[1]).

The previous analyses conducted by the ERPB Working Groups on EIPP have found out/revealed that EIPP can enhance efficiency in several ways:

- EIPP is capable of making the end-to-end payment chain efficient and secure by enabling digital processing and the presentment of secure Requests-to-pay (RTP) and related e-invoices through PSPs' electronic channels. This secure process provides user benefits as well as risk mitigation such as the avoidance of man-in-the-middle "IBAN change" attacks. Moreover, it allows for the integration of SEPA Instant and other electronic payment instruments accompanied by automated reconciliation as part of a seamless user experience, both for the payer and the payee.
- In addition, whilst EIPP solutions have been mainly used for recurring invoicing and payments, EIPP also has great potential for triggering one-off payments in online electronic commerce or at physical points-of-sale. This should especially be recognised in the context of PSD2 and SEPA Inst payments likely to expand over the longer-term.

In November 2017 the ERPB invited the EPC to coordinate the new phase of work among payment services providers with the involvement of other stakeholders such e-invoicing solution providers, within a one year timeframe.

Following the step-by-step approach that has characterised the work so far, the ERPB mandated EPC to coordinate the further work on the adoption of an ISO 20022-based message for RTP tailored at the business and technical level to meet the needs of EIPP, and with the harmonisation of the EIPP servicing messages. The work was required to consider the use of the RTP messages in a framework-agnostic manner, allowing the payment of invoices under different models. The ERPB considered that these first steps are essential for the achievement of a minimum service level.[2]

The EPC accepted the invitation from the ERPB and set up a Multi-stakeholder Group (EIPP MSG) to carry out the work. The Board of the EPC adopted the Terms of Reference (ToRs) of the EIPP MSG in January 2018[3]. According to these ToRs the scope of work contains:

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[1] Report of the ERPB Working Group on EIPP - November 2017

[2] *"[...] EIPP functionalities should at a minimum enable: - payees to send securely e-invoices for presentment along with requests-to-pay through the secure electronic channels of the payers' PSPs, and to process and reconcile received payments related to e-invoices/requests-to-pay sent; - payers to receive, view and pay the e-invoices seamlessly through the secure electronic channels of their PSPs."* (from the ERPB Statement published in November 2017)

[3] EPC243-17 Terms of Reference EIPP MULTI-STAKEHOLDER GROUP - 12 January 2018

- Selection of an ISO 20022 message for the Request-to-Pay (ISO RTP) and as necessary, the submission of Change Requests (CRs) to ISO to meet the business and technical needs of EIPP.
- Functional design of the servicing messages for EIPP.
- Proposal for a way forward for guiding principles regarding an implementation model for those messages.
- Impact analysis of the new set of messages on the existing SEPA payment schemes.

The submission of CRs to ISO in the EIPP MSG's scope was made to ensure that the specific business and technical requirements that had been identified for the ISO 20022 RTP message are delivered in a timely fashion. As regards the servicing messages, the EIPP MSG is of the view that the delivery of functional specifications and in due course technical standards and rules, will make an important contribution to an efficient and standardised framework for an interoperable EIPP eco-system.

3 Adoption of the ISO 20022-based Request-to-pay message for EIPP

The November 2017 ERPB WG Report emphasised that for facilitating pan-European integration and smooth uptake of EIPP, the coupling of the RTP message with the e-invoice would be the most pragmatic way forward. This avoids the need for PSPs to separately process XML e-invoices and to extract data for the creation of the RTP.

It was noted – on the receiving side – that the majority of PSPs find it convenient to process an ISO 20022-based RTP message, which would contain as an attachment a human readable (e.g. PDF) and/or a machine-readable XML invoice. On this basis, the ERPB endorsed the adoption of the technical ISO 20022-based RTP message for EIPP[4].

The EIPP MSG took as the starting point the ISO 20022 Creditor Payment Activation Request/Response messages (initially developed by Consorzio CBI) that currently enables the creditor:

- To send a RTP message (pain.013 or "Creditor Payment Activation Request")[5] to the debtor to request the payment; and in turn
- To receive a corresponding status report message (pain.014 or "Creditor Payment Activation Request Status Report")[6] informing as to whether the RTP has for instance been accepted or refused.

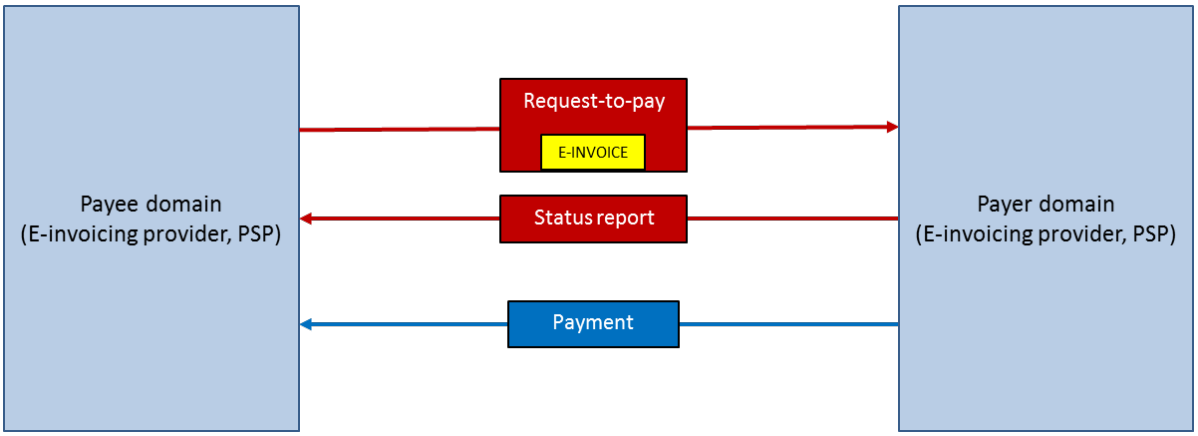
The diagram below illustrates the high-level exchange of these messages between the platforms (domains) on the Creditor/Payee side and the Debtor/Payer side, followed by the payment message itself.

[4] ERPB statement published in November 2017, page 3: ERPB Statement

[5] The Creditor Payment Activation Request (pain.013): *"… is sent by the Creditor sending party to the Debtor receiving party, directly or through agents. It is used by a Creditor to request movement of funds from the debtor account to a creditor"*

[6] The Creditor Payment Activation Request Status Report (pain.014): *"… is sent by a party to the next party in the creditor payment activation request chain. It is used to inform the latter about the positive or negative status of a creditor payment activation request…"*

Figure 1. Request to pay Basic diagram



A more detailed diagram explaining the technical message flows and usage, starting with the sending of the RTP from the creditor until payment initiation by the debtor, is annexed to this report (see annex A).

After assessing the feasibility of the abovementioned ISO 20022 messages, the EIPP MSG concluded that they do indeed fulfil to a large extent the technical and business requirements outlined in the 2017 ERPB WG Report on EIPP[7] (page 17).

3.1 Changes to the ISO 20022 RTP message required for EIPP

The EIPP MSG thoroughly assessed the functionality included in the existing ISO 20022 RTP message and carried out a "gap" analysis against the business expectations of EIPP providers.

A. *First, the focus was on analysing how to best couple the RTP with an e-invoice or other related e-documents.*

It was noted that the current version of the "Creditor Payment Activation Request" (pain.013) message could have accommodated in the field "Related Remittance Information" or "Supplementary Data" a URL reference to present the e-invoice.

However, to fully meet the requirements expressed by the previous ERPB WG on EIPP, the EIPP MSG maintained the vision to include e-invoices as attachments within the pain.013 message. Based on the evidence of market need, it was further realized that the attachments field could also accommodate the insertion of other e-documents.

This also responds to the requirement that the Payer's PSP should receive all the information, including the full e-invoice. The Payer and its PSP need to agree within their bilateral relationship on which part of the information provided with the RTP will be given to the Payer through its end-user electronic interfaces.

Based on this rationale, the EIPP MSG developed a Change Request (CR) to support the *inclusion of attachments in the pain.013 and pain.014 messages*. The CR was submitted via EPC to the ISO 20022 approval bodies on 30 May 2018.

[7] Report of the ERPB Working Group on EIPP - November 2017

The Change Request can be viewed and its progress can be followed in the ISO 20022 Catalogue of CRs(https://www.iso20022.org/catalogue_of_change_requests.page, CR n° 746).

B. Secondly, the focus was directed towards analysing the additional data elements that EIPP providers would require to be present in the ISO 20022 RTP messages.

The EIPP MSG took as a benchmark some of the well-established EIPP solutions and analysed how to further complement the "Creditor Payment Activation Request" (pain.013) and "Creditor Payment Activation Request Status Report" (pain.014) messages. The aim was to make the RTP messages more flexible by including optional information about payment conditions in the request, and a number of choices to be used by the Debtor/Payer in the response.

Specifically:

- The Payee should have the ability to inform the Payer that the amount to be paid can be different from the amount of the RTP (partial payment).
- The Payer should have the ability to inform the Payee in the response message that the amount paid is different from the requested amount.
- New elements allowing for minimal information about applicable penalties for late payments or discounts for early payments, as well as a data element for disclosure of a payment guarantee, are useful to include in order to respond to requirements related to B2B financing techniques such as factoring.
- An optional data element in relation to the expected date of payment, with a view to allowing the Payee to inform the Payer if the payment is permitted before the requested execution date.
- An expiry date of the RTP and the decision date of its acceptance or refusal were also added.

To enhance the adoption of the ISO 20022 RTP messages for EIPP, the EIPP MSG developed a further Change Request *to support the above-mentioned optional elements to be included in the pain.013 and pain.014 messages*. This CR was submitted via EPC to ISO 20022 approval bodies along with the first request. The Change Request and its progress can be viewed in the ISO 20022 Catalogue of CRs (https://www.iso20022.org/catalogue_of_change_requests.page, CR n° 747).

Both CRs were validated by the ISO Payments SEG in July 2018 and analysed for technical implementation in September 2018 by SWIFT as Registration Authority for ISO 20022 messages.

The proposed implementation was accepted under the category of Maintenance Change Request and then approved by the Payments SEG (Standards Evaluation Group) so that in Q4 2018 the technical deliverables can be finalised. At the time of releasing this report, the work in progress is on time to meet the milestone for the publication in Q1 2019 of the new version of the RTP messages containing the elements included in the Change Requests for EIPP.

3.2 Use cases for the ISO 20022 RTP for EIPP

In accordance with the ERPB Statement in November 2017, the EIPP MSG has focused on harmonising the technical interaction between EIPP solution providers through the adapted ISO 20022 RTP standard (hereafter ISO RTP), with the view to supporting pan-European integration. At the same time, the ERPB Statement invited the EIPP

MSG to consider whether the ISO RTP messages could also be used in a framework-agnostic manner, allowing the payment of invoices under various models.

After analysing all relevant e-invoice payment models, the assessment concluded that the ISO RTP could indeed suit such models in a framework-agnostic manner (see annex B). Based on this assessment, it was also confirmed that the ISO RTP could be used quite easily in models that do not require the inclusion of the e-invoice as an attachment within the RTP message.

The 2017 ERPB WG Report on EIPP noted that, when addressing the development of the governance framework for pan-European EIPP solutions, future work "should capitalise on existing solutions, be open to innovation, and establish a level playing field for all regulated players". Based on this background, the new optional "document attachment" feature of the ISO RTP will not only underpin the next steps for the harmonization work, but also enable various use cases for EIPP or other methods for attaching electronic documents for presentment alongside the e-invoice.

Currently, existing EIPP solutions focus mainly on facilitating payment of recurring e-invoices, such as utility bills or subscriptions. Services for the payment of one-off invoices have been quite limited so far. The ISO RTP promises to change this, because it allows the Creditor to digitalise and automate its processes internally and at purchase check-out, whether on-line or off-line. In such a way the Debtor would be enabled to view the invoice/purchase details before payment.

The key use cases beyond simply paying recurring invoices relate to both e-commerce and payment at physical point-of-sale (POS):

- *E-commerce payments (both one-off and recurrent):* The ISO RTP would allow a merchant to send an e-invoice attachment to the payer for presentment and payment depending on the implementation, at the check-out page or in a separate application. The payer could later use the e-invoice as proof of an electronic purchase together with the authorised payment receipt. In the light of the new possibilities opened by PSD2 and observing the growth of innovative payment solutions for online purchases, it can be expected that e-commerce actors will seize the opportunity to leverage the possibility of using account-based payments which can be facilitated by third party Payment Initiation Service Providers. It is also likely that instant payments based on SEPA SCT Inst scheme, that are generated from a ISO RTP, will be a widely used payment instrument since they allow fast payment confirmation and order completion. A simplified process using RTP that could be used in e-commerce is described in the annex C.
- *Point-of-sales payments (one-off):* The ISO RTP would allow the merchant to send an electronic purchase details document (i.e. receipt) in attachment to the payer for presentment and payment at the physical store or other point-of-interaction. The payer could initiate the payment and store the purchase details as an e-receipt[8] acknowledging the supply of goods or services. For clarity, it should be noted that a receipt for the supply of goods or services is not necessarily the same as receipt of payment. The merchant could be legally obliged to give a receipt to the customer as proof of purchase to record the supply of goods or services. In this context, the attached purchase details could

[8] The e-receipt is the digital alternative to the paper receipt provided by retailers (physical or online) containing basic information about the shop, purchase time, payment mean, VAT-information and products purchased. This document can be used by the buyer as a proof of purchase, payment or product guarantee.

be considered as an e-receipt and fulfil the merchant's legal obligation. Combined with new, non-card, upcoming payment methods at POS relying on instant credit transfer (SCT Inst) the e-receipt functionality can leverage the ISO RTP-based eco-system. A simplified process that could be applicable to physical stores is described in the Annex C.

4 Harmonisation of the EIPP servicing messages

As a parallel task to the work on adoption of the ISO 20022-based RTP message for EIPP, the ERPB endorsed in its November 2017 statement the harmonization work of the EIPP servicing messages to form a "common language" for communication between EIPP providers. Furthermore, the ERPB WG Report suggested that, based on continuing work, it would be decided whether the servicing messages ought to be standardised as ISO 20022 messages, in a way similar to the ISO RTP.

The previous November 2017 ERPB WG Report on EIPP outlined that servicing messages supporting activation, deactivation and various reporting purposes would be essential for an efficient and trusted EIPP solution. After analysing the servicing messages that are already used in well-established EIPP solutions, the EIPP MSG focused its work on the messages for:

- Informing the EIPP eco-system about the enrolment of a Creditor/Payee.
- EIPP service activation by a Debtor/Payer (a consumer or a business entity), for sending a request that mandates the Creditor to start sending ISO RTPs.
- Complementary dis-enrolment, amendment, deactivation and responses to the abovementioned messages, i.e. for communicating acceptance or rejection.

For clarity, it needs to be mentioned that within the existing EIPP practices, no machine-readable servicing messages are currently being used between the providers when a new EIPP provider is enrolled into the eco-system. This requirement is currently being handled by various "adherence" procedures, which will need to be addressed in a future phase of work on the "EIPP framework".

The following sub-chapters were drafted with reference to the guidance on technical and business requirements set out in the November 2017 ERPB WG Report and endorsed by the ERPB. They aim at identifying the "common denominator" in already used data elements present in the servicing messages of well-established EIPP solutions. This would form the basis of harmonised pan-European EIPP servicing messages. The data elements that are essential for the functioning of the EIPP eco-system are noted to inform concrete standardisation work.

The analysis benefited from a market consultation involving a number of EIPP solutions and stakeholders active in the e-invoicing and payments market. A summary of the answers to this consultation can be found in the Annex F.

At this stage the servicing messages are proposed only at functional semantic level, i.e. as a list of logical names of data elements and their optional/mandatory attribute. In a next step, further analysis will lead to a full description including precise rules linking the data elements, the syntax in which these data elements will be translated together with a proposal that the servicing messages become part of a standardised framework.

4.1 The Creditor/Payee enrolment message

This message is created after completion of the contractual agreement between the Creditor and its EIPP Solution Provider. It is used to inform the EIPP Solution Providers in the eco-system that a new Creditor has been enrolled. The enrolment allows a Creditor to be reachable within the EIPP eco-system and to send RTPs in the EIPP eco-system.

In several existing EIPP solutions this message is sent by the payee EIPP Solution Provider to all payer EIPP Solution Providers; this approach may be suitable for domestic usage, but is not considered appropriate at a pan-European level in order to safeguard scalability and prevent excessive message flows.

The EIPP MSG recommends that this message should be used to add a Creditor into EIPP directories that support pan-European reach for creditors/payees and debtors/payers.

To ensure trust and security, the Creditor enrolment message should:

- certify that the payee is genuine and enrolled by a trusted EIPP Solution Provider participating in the eco-system, to ensure protection against fraud by the impersonation of payees;
- make the payee visible to all payer EIPP Solution Providers participating in the eco-system;
- provide the payer EIPP Solution Provider with an identifier and secure reference/routing address of the payee EIPP Solution Provider to enable the sending of an activation message authorised by the payer to the payee;
- facilitate within the same message structure the management of the amendments to Creditor's details or removing the Creditor from the EIPP eco-system.

A diagram illustrating the technical message flows between a Creditor, its EIPP Solution Provider and an EIPP Repository Provider is annexed to this report (see annex E).

The mandatory data elements to form the basis of the Creditor Enrolment message

The EIPP MSG observed some diversity in the data elements used by the existing EIPP solutions. The consultation referred to above and available as Annex F asked EIPP providers to give feedback on a list of mandatory and optional data elements in the servicing messages.

It was specifically asked which data elements would - at minimum - be needed in the Creditor Enrolment message between EIPP providers.

After discussing the results, the EIPP MSG concluded that the following data elements should be included as mandatory:

- message identification data
- creation date and time
- name and identifier of the message sender such as the EIPP Solution Provider
- name and identifier of the message receiver such as the EIPP Repository/Directory provider
- legal name of the Creditor

- Creditor identification data
- Creditor's secure EIPP address for receiving the messages and payer EIPP activation requests

Optional data elements to enable specific usages of the Creditor enrolment message

In addition to the essential data elements, the EIPP MSG noted that other data elements were used to meet business-specific functionalities. These other data elements could be used to complement the EIPP service at an industry or national level and should be further analysed for standardisation purposes.

The whole list of data elements existing in the analysed eco-systems, together with a concrete description and data field names at the semantic level are included in a technical annex (see annex D).

4.2 The Debtor/Payer EIPP service activation message

Once creditors/payees are known and reachable within the EIPP eco-system, payers can, at their initiative, request the activation of the EIPP service through the electronic channels provided by their PSP.

An Activation message is then sent by the Payer EIPP Solution Provider to the creditor/payee via its EIPP Solution Provider to inform the creditor/payee that the payer gives its consent for receiving RTPs with e-invoice attached and subsequently fully use the service to view and pay the e-invoices through its PSP[9].

A diagram explaining the technical message flows of the regular activation is annexed to this report (see annex E)

The mandatory data elements to form basis for the Activation message

Also for the Activation messages some diversity was observed in the mandatory data elements used by the existing EIPP solutions.

After analysing the results of the consultation, the EIPP MSG concluded that the following data elements should be included as mandatory in the activation message:

- message identification data
- creation date and time
- identifier of the message sender
- legal name of the Creditor
- Creditor identification data
- Creditor's secure EIPP address
- Debtor's secure EIPP address

[9] NB: other models should not be excluded, such as activation initiated by the Payees and the possibility to use the RTPs without a previous activation. However, in such models, the Payer should communicate its identity and give its consent through other channels than the EIPP eco-system.

- Debtor name
- Debtor Identification

For the Activation message, in addition to the essential data elements, other data elements were proposed to meet market-specific functionalities to complement the EIPP service at national level; it has to be noted that they anyway should be further analysed for standardisation purposes.

The whole list of data elements existing in the analysed eco-systems are included in the technical annex (see annex D) which also provides concrete descriptions and data elements' names.

5 Considerations for guiding principles for an implementation model for the RTPs and servicing messages

The EIPP MSG has been asked to make a proposal for a way forward for guiding principles regarding an implementation model for the ISO RTP and servicing messages and their use.

The EIPP MSG has interpreted the term Guiding Principle to include high level concepts and objectives. The term implementation model has been interpreted to encompass the practical aspects of using the recommended messages and standards in a coherent and integrated manner for use at both a domestic and pan-European level in order to achieve interoperability within and between EIPP solutions.

5.1 Guiding principles for the implementation model

It is not in the scope of the current EIPP MSG to propose a detailed blueprint for the infrastructure environment that the future EIPP eco-system should use to provide an implementation model for RTP and servicing messages. However, the EIPP MSG considers that some key guiding principles can be proposed for discussion to help stakeholders envisage how various elements described in the following sections could be implemented e.g. identification and registry/directories, networks and routing of messages, and security.

5.1.1 Identification

Appropriate identifiers of the participants in the EIPP eco-system are needed, ensuring both the reachability of participants and interoperability among EIPP Solution Providers.

The identifiers should guarantee the unique identification within the EIPP eco-system of all entities involved in delivering and using the EIPP solutions: Payees, Payers, EIPP Solution Providers, Network, Directory and Routing Providers.

The use of such identifiers should enable EIPP Solution Provider and/or account switching by the participants.

These identifiers could be:

- For the Payee:
    - Payee ID on the model of the similar identifier Creditor ID in the SEPA Direct Debit Scheme. It could be granted by the EIPP Registry provider as a result of a successful enrolment or can be obtained by the Payee

from a national authority (as for SDD Creditor ID) and reused for EIPP enrolment.

- IBAN: possible when the Payee's EIPP Solution Provider is a PSP and in simple configurations when IBAN can be communicated and a one-to-one relation exists between the Payee commercial identity and its IBAN.
- Tokenised IBAN: as above but when the IBAN in clear form cannot be used, for instance due to data privacy considerations.
- Internal Creditor identifier managed by the Payee's EIPP Solution Provider.
- Other Unique Entity Identifiers, such as VAT ID, etc.

- For the Payer:
  - IBAN: possible when the IBAN can be communicated and a one-to-one relation exists between the Payer identity and its IBAN.
  - Tokenised IBAN: as above but when the IBAN in clear form cannot be used.
  - Internal Customer identifier managed by the Payer's PSP.
  - Other unique identifiers, such as Government e-ID.

When possible re-usage of already existing pan-European components, such as SDD Creditor ID should be a key guiding principle, to avoid proliferation and reduce implementation costs for all actors involved.

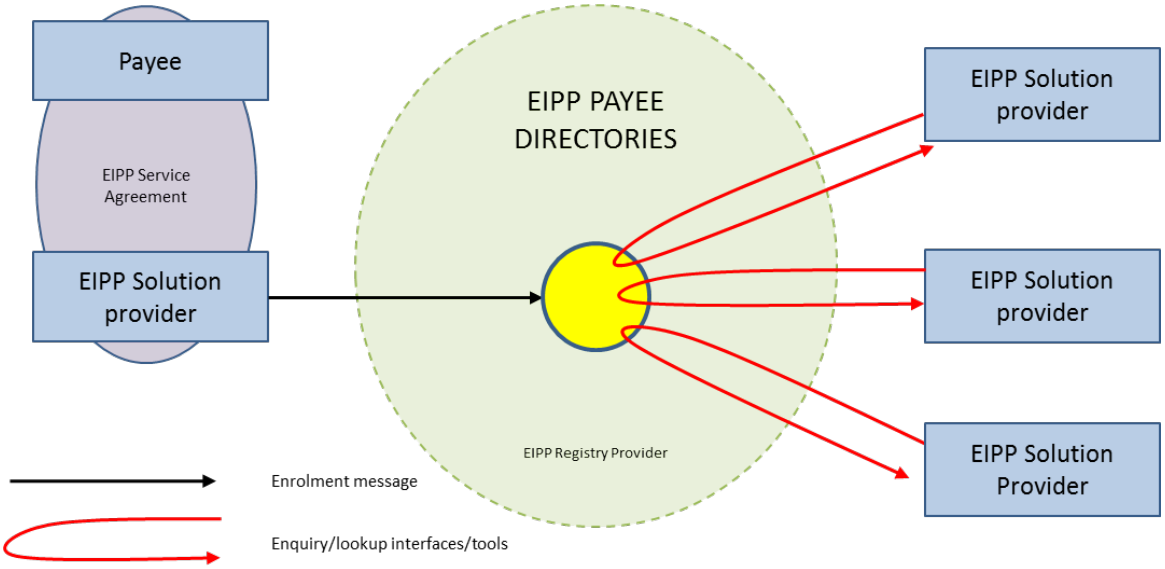
5.1.2 Registries / Directories for enrolled Payees

As mentioned in the above section related to servicing messages (see section 4), an interoperable EIPP eco-system requires the use of mechanisms to securely store the identifiers of actors and provide functions to retrieve up-to-date identification information to EIPP Solution Providers.

Thus, payees enrolment data distribution and storage, associated update and removal functions as well as retrieval/query function can be performed within data storages of specialised EIPP providers, named here "EIPP Registry providers", and exposed to Payer EIPP Solution Providers through secure and robust interfaces.

In terms of information distribution several topologies could be analysed from both technical, business models and governance perspectives, such as:

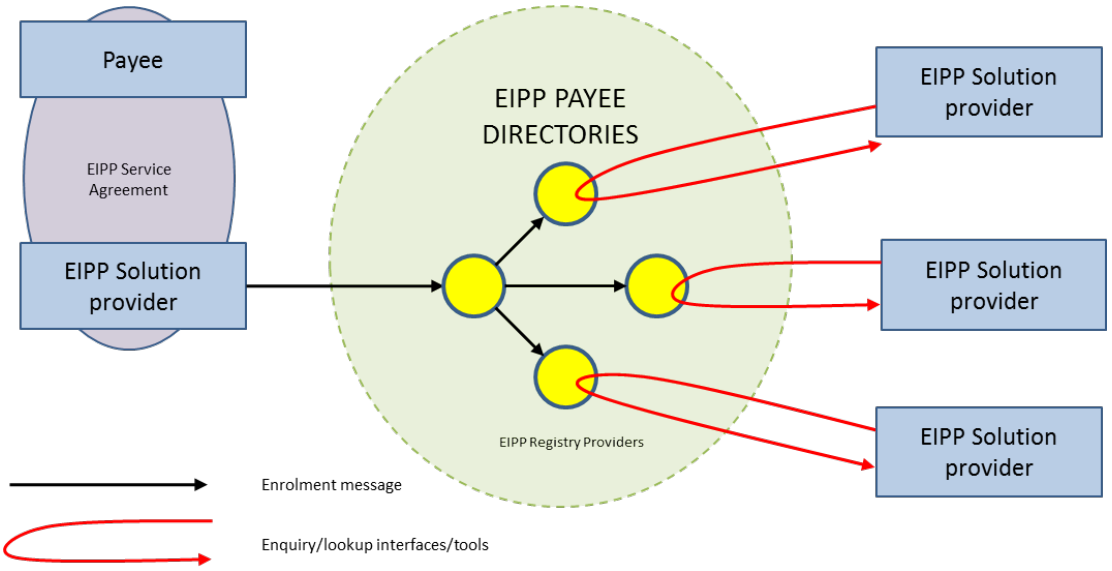
Figure 2. Centralised: a single, pan-European Registry provider



Payees EIPP Solution Providers send enrolment messages along with dis-enrolment and update of enrolment-related data to the centralized EIPP Registry Provider that stores them in the Enrolled Payee Register.

EIPP Solution Providers can access the repository using secure interfaces or API in place with the EIPP Registry Provider to retrieve needed information about enrolled payees.

Figure 3. Decentralised, by EIPP Register Provider operating within specific geographical areas, such as country or group of countries



Payees EIPP Solution Providers send enrolment messages along with dis-enrolment and update of enrolment-related data to the their EIPP Registry Provider that stores them in the Enrolled Payee Register and distribute them to all EIPP Registry Providers in the EIPP eco-system.

Payers EIPP Solution Providers can access the repository of their EIPP Registry Provider using secure interfaces or API in place with the EIPP Registry Provider to retrieve needed information about enrolled payees.

Regardless of the model, EIPP Registry providers should be part of the EIPP eco-system and this capacity should be certified within the EIPP eco-system.

Directories should at least store data about all EIPP Solution Providers (PSPs, EISPs) adhering to the pan-European eco-system, directory/registry providers, and the enrolled creditors/payees.

In addition to the main functions for enrolment and querying, functions such as "polling" and "forwarding" of requests might be needed in case of decentralised topologies in order to find the most appropriate repository where the information should be stored or retrieved from.

Continuous access availability and integrity of data should be guaranteed.

5.1.3 Networks and routing of messages

Enrolment messages, service activations messages and RTP messages delivery need to correctly reach their intended receivers.

The message sender's EIPP Solution Providers and other intermediary entities will use the technical "end-point" identifiers and routing addresses of these receivers to securely send the messages to the receivers EIPP Solution Providers.

At the network level several solutions could be foreseen, such as:

- The PSP as EIPP Solution Providers could use the existing inter-PSP networks (through ACHs, bilateral or intra-group channels).
- The EISP as EIPP Solution Providers could use existing networks, designed and operated primarily for e-invoicing and supply chain messaging purposes.
- The CEF e-Delivery network, one of the building blocks of the European Commission's Connecting Europe Facility (CEF) should be explored to assess whether it could be used for EIPP purposes.

The EIPP MSG suggests to take advantage of existing operating capabilities.

5.1.4 Security and trust achievement

Whilst trust between users of PSP services can be considered achieved through the strong regulations to which the PSPs are subject and by the broader relationship between the PSPs and the users, trust between all actors in a mixed, complex and pan-European EIPP eco-system needs to be ensured through the adoption of specific measures.

The key principles in ensuring trust could be:

- The status of actors and the roles they perform have to be clearly defined. Processes assigned to each role (KYC, AML, GDPR, know your supplier, etc.) relevant to security and trust should be properly executed and controlled.
- The specific measures that could be needed to achieve trust need to take into account the trust among all eco-system participants.
- Trust of Payees is essential for Payers given the potential risk that an entity may fraudulently present itself as a Payee and attempt to extort money from the Payer via forged Requests-to-pay.
- This relation of trust should be supported through by implementing a secure environment for Payee enrolment and dis-enrolment including technical measures at the level of messages.

At the level of data security, all actors in the chain – EIPP Solution Providers (PSPs, non-PSPs) and Registry/Directory providers should take the measures to enforce the data confidentiality, evidence and integrity:

- Data in data stores and the messages themselves should be secured and protected.
- Messages should be encrypted and authenticated.
- Access to data should be controlled to mitigate information security risks and specific risks such as: the impersonation of EIPP providers and of payees, and message tampering (e.g. fraud by modification of the Payee's IBAN for collecting payments).

5.2 EIPP framework

As set out in the previous report of the ERPB Working Group on EIPP, a common European EIPP framework, consisting of harmonised processes and service agreements at pan-European level, is necessary to achieve the interoperability of EIPP solutions.

This framework should be created with a cooperative approach by all market stakeholders that should first define a governance model and identify the entity to become responsible for the pan-European EIPP solution network governance and management.

This entity should have assigned the responsibility to:

- Identify all the elements of the EIPP eco-system that should be harmonised within the common framework such, as EIPP processing service providers agreements, network, directory and routing services agreements, etc.
- Develop documentation such as a rulebook, implementation guidelines, adherence agreements, trust and security guidelines, etc. that constitute the foundation of a pan-European EIPP solution scheme.
- Define and manage the practical procedures for the adherence of EIPP Solution Providers (PSPs, e-invoicing solution providers).
- Propose interoperability guidelines.
- Manage the EIPP framework elements, including:
    - Change management of the technical EIPP messages (collecting the market needs, elaborating the change requests, performing consultations and liaising with standardisation institutions).
    - Management of EIPP Solution Providers' enrolment.
- Regularly follow market trends and evolutions in the regulatory framework that could make the EIPP eco-system evolve towards additional innovative services (use of RTP beyond e-invoicing, take-up of the use of mobile devices for financial services, etc.).

6 Impact on the existing SEPA payment schemes

The EPC has analysed the impacts that the proposed development of the RTP ISO 20022 message and the creation of the EIPP servicing messages could have on the existing payment schemes, SDD, SCT and SCT Inst.

Based on the analysis, the EIPP MSG concluded that:

- There is no technical impact on the schemes themselves. However, there may be the requirement for "business rules" at the EIPP level to ensure the correct transposition of information present in the RTP into the current version of the SEPA payment messages. This could, for instance, be achieved by a mapping between pain.013/014 and pain.001/pacs.008 and their Implementation Guidelines (to be produced).
  The payment messages currently used within the SCT and SCT Inst schemes (pain.001, pacs.008, etc.) are based on an earlier version of ISO 20022 payment messages whereas the RTP messages foreseen for EIPP are the latest versions of the pain.013 and pain.014 ISO 20022 messages. This could be an issue because the RTP will be used to generate payment messages. However, in the view of the PSPs, the impact is minimal so that the backward conversion of the RTP in its latest version in payment messages can be easily implemented.
- There is no operational impact on SDD schemes (Core and B2B) as the future pan-European and interoperable EIPP eco-system will build on the credit transfer-based schemes, e.g. SCT and SCT Inst.

- As SCT and SCT Inst are the payment schemes that will be used by the upcoming EIPP eco-system, at the level of technical messages the change maintenance cycles of the RTP messages should align with the changes applied to payment messages (pain.001, pacs.008) and the respective change cycles of SEPA Rulebooks and Implementation Guidelines).
- From a business perspective the uptake of the EIPP eco-system may lead to substantial growth of SCT and SCT Inst volumes as payment instruments for new business opportunities.

7 Suggested way forward

Following the step-by-step approach agreed by the ERPB in November 2017 and its own Terms of Reference, the EIPP MSG has confirmed the adoption of an ISO 20022 set of messages for RTP and has provided the functional design of harmonised EIPP servicing messages. This includes the identification of the minimum necessary data elements and other data elements supporting various business needs. In addition, it was concluded that these servicing messages should be standardised within the same framework as the RTP, i.e. ISO 20022.

The EIPP MSG suggests that the following concrete next steps in the way forward could be:

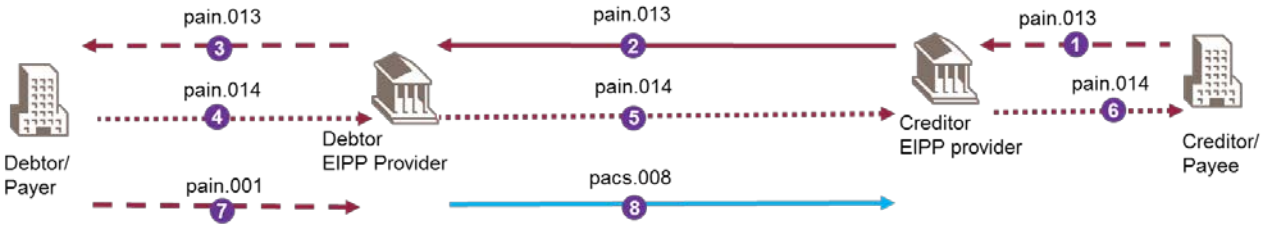
- Design and creation of an ISO 20022 set of EIPP servicing messages involving all relevant stakeholders.
- In parallel, launch the second step, i.e. the development of a common EIPP framework, as agreed by the ERPB in November 2017, taking as a basis the already started work by the current MSG. Further work should continue on elements of an EIPP eco-system framework that were detailed in Chapter 5:
    - Definition of the governance model and identification of a governance entity and governance processes for the EIPP eco-system.
    - Definition of key components of the EIPP eco-system including:
        - Roles and responsibilities of EIPP Providers.
        - Rules for entity identifiers.
        - Requirements for registers/directories.
        - Networking model to be used within the EIPP eco-system.
    - Documentation requirements and the necessary business rules/rulebooks and agreements for use of the EIPP ISO 20022 messages.
    - Management processes for technical and operational elements such as identification, registries/directories, security/trust requirements, and change management/maintenance of the message sets.
    - Identification of further elements required to guarantee interoperability between EIPP Solution Providers at pan-European level using a common EIPP eco-system and proposal of interoperability guidelines.

In this way it would be possible to provide the market with clear guidelines for a harmonized implementation of the ISO RTP and EIPP servicing messages. The framework together with a clear governance would help creating a solid basis for an interoperable and secure EIPP eco-system in Europe.

8 Annexes

A. ISO 20022 RTP standard

Use of the pain.013 and pain.014 for initiating payments:

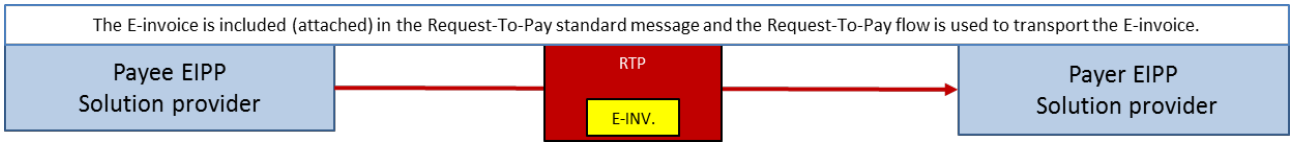


The steps represented above are:

1. The Payee sends an RTP to its EIPP Solution Provider. This first step is optional, as the RTP can be created by the Payee EIPP Solution Provider on behalf of the Payee.
2. The RTP is sent through the EIPP network up to the Payer EIPP Solution Provider to enable the payment initiation.
3. Optionally, the RTP is forwarded to the Payer (in case of the B2B Payers, having implemented the processing of ISO 20022 messages).
4. If activated by the payer, a response message, pain.014, is created and sent to its provider by the Payer.
5. If present, this response is forwarded back to the Payee's EIPP Solution Provider. In case of negative answer, this response message becomes mandatory.
6. Depending on the agreement between the Payee and its provider, the Payee's EIPP Solution Provider can forward it the received pain.014.
7. The Payer – if it can process the ISO 20022 messages – uses the received pain.013 message to build a pain.001 (payment initiation) message representing an SCT or SCT Inst transaction. In many cases – especially in B2C or where a bilateral agreement exists between the Payer and its PSP for processing the RTPs and the payment messages – this pacs.008 message is generated directly from the received RTP without the use of the pain.001 message. The Payer still has the full control on this generation through its Web or mobile banking application.

The Payer's PSP generates a pacs.008 representing an SCT or SCT Inst transaction in the Inter-PSP space.

B. Possible configurations to use the RTP for E-invoicing



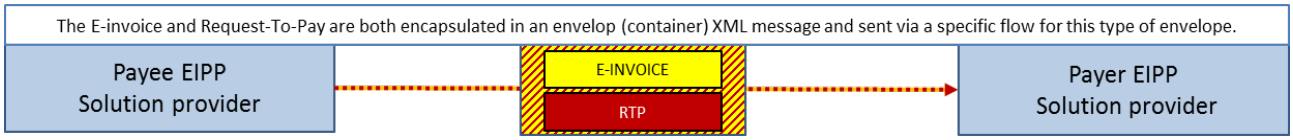
This configuration requires a common standard for the RTP. The RTP includes the e-invoice as an attachment; multiple invoice formats to be used (e.g. XML structured data, binary content that ultimately enables a human-readable medium, such as PDF).

This is the configuration for achieving interoperability between providers, regardless the standards used for the e-invoice.

This configuration may be optimal in a scenario where both the Payer's and the Payee's EIPP Solution Providers are PSPs, since existing payment infrastructures can be exploited to enable efficient and secure EIPP delivery and processing.

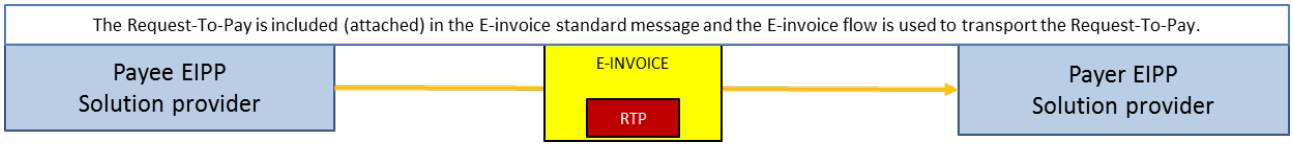
On the Payer side the EIPP Solution Provider should be a PSP, as the primary purpose of the RTP is to allow payment initiation.

If also the Payee EIPP Solution Provider is a PSP, the existing payment network can be used or, at a minimum, provide a level of reference so that the security and access mechanisms related to payments can be reused or replicated.

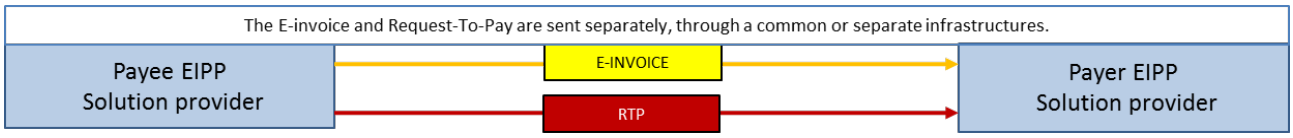


To optimise the transmission of both e-invoice and RTP as well as to reuse access methods combined the participants' identities, some solutions may use a local, specific proprietary format to build a unique message. This message encapsulates in an XML envelop (container) both the RTP and the e-invoice. The e-invoice part may be re-encoded to allow its inclusion in an XML structure.

The applications on sending and receiving EIPP Solution Providers may need complex modules to assembly, encode, decode and de-assembly the envelop for the use for e-invoicing needs or payments needs (RTP). Interoperability could be achieved but requires agreements on the use of a common format for the container, compatible with security requirement of the schemes used by the enclosed messages.



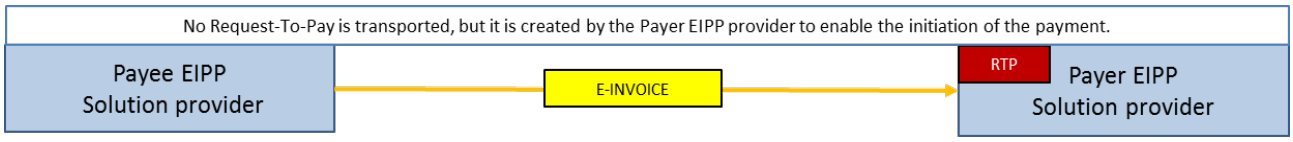
In this configuration existing standards and channels for e-invoicing are used also to deliver RTP. The RTP is not a separate message but inserted part of the e-invoice structure (for example as an attachment). By extracting only this part, the Payer EIPP Solution Provider is able to initiate the payment. By integrating the RTP within the e-invoice this option assumes that no separation is required between the full content of the e-invoice and the RTP part. Interoperability is possible only between participants sharing the same e-invoice format.



In this configuration, the e-invoice and RTP are sent separately, through common or separate infrastructures. It may be the result of an addition of RTP functionality to existing e-invoicing applications. It allows the use of different standard for the RTP than for the e-invoice and requires the RTP channel to be secured independently. The access to the e-invoice from the RTP is possible using a reference/link.

A variant of this configuration is the use of the same providers and the same channels, for the 2 distinct messages. The security requirements and access mechanisms are then easier to implement, ideally using those of the RTPs as more secure and designed for interoperability.

Interoperability is possible between participants sharing a common RTP format and using bilateral channels for e-invoicing or also sharing the same e-invoicing format.



In this configuration, existing standards and channels for e-invoicing are re-used. The RTP message is not transmitted from the Payee to the Payer, but is created by the Payer EIPP Solution Provider, which in this case is an e-invoicing service that forwards the RTP to the Payer's PSP for payment initiation. The Payer EIPP Solution Provider needs to implement a module to extract from the e-invoice the content needed for the RTP.

C. Possible use of the RTP beyond E-invoicing

- In physical stores:
  - The cash register system prepares the data for the RTP message that can include an e-document for further use after the payment, or other attachments.
  - The payment terminal establishes the link with the payment device (e.g. mobile application). Regardless the proximity technology used, the application captures the customer identity including its PSP.
  - The full RTP is sent through the EIPP network to the customer/payer's PSP for further use.
  - The RTP is used to initiate the payment after customer consent and, if the payment was successful an e-receipt can be made available and stored by the customer PSP.
- In e-commerce:
  - The online merchant creates a RTP based on the shopping cart filled by the customer.
  - Provided that the merchant has a contract with a PISP and the customer chooses to use this PISP, the RTP can be forwarded to the PISP for completion, along with the customer identity.
  - After authentication (executed under the rules on strong customer authentication applicable to this particular case) the PISP is able to complete the RTP and to forward it to the end-user PSP (ASPSP).
  - Upon consent of the end-user, the RTP can be further used for payment initiation.

D. Structure of EIPP servicing messages

The tables below list the data elements existing in the analysed solutions, together with a concrete description and data field names at the semantic level.

Payee Enrolment message

Element name	Element description	Essential
Header		
Message Identification	Point to point reference assigned by the instructing party and sent to the next party in the chain to unambiguously identify the message. It is the unique identifier assigned in the system of the sender in order to avoid duplications.	Yes
Message Creation Date Time	Date and time at which a message was created by the instructing party	Yes
Message Sender	Section identifying the message Sender (Creditor or Creditor's EIPP Provider)	Yes
- Message Sender Id	Identifier of the message sender such as BIC of the Creditor's PSP in case if the Creditor's EIPP Solution Provider is a PSP; other identifier if the Creditor's EIPP Solution Provider is another type of trusted entity	Yes
Message Receiving Party	Section identifying the message Receiver	Yes
- Message Receiver Id	Identifier of the message receiver.	Yes
Message Initiating Party	Creditor itself or the party that initiates the request on behalf of the Creditor. Name of the Enrolment request initiator, can be different than the Payee	No
- Initiating Party's Id	Initiating Party's identifier e.g the Creditor/Payee´s EIPP Solution Provider.	No
Creditor´s starting date	When the Creditor enrolment becomes effective	No
Creditor´s visibility start date	When the Creditor will start to be shown in the Payer´s PSP interface	No
Creditor´s visibility end date	When the Creditor will end to be shown in the Payer´s PSP interface	No
Creditor global visibility	Boolean TRUE if the Creditor wants to be visible by Payers FALSE if it doesn't want to be visible by Payers	No
EIPP Activation allowed	The acceptance of Activations through the Scheme. Possible values: YES – if it will be possible for the Payer to present Activations through its PSP; NO – if the Payee will accept Activations requests only when they are submitted through channels supported by him. (NB: this activation method is out of scope)	No
URL to information web page	The Creditor has an information web page to which the Payer can be linked for further information.	No
Payee Activation web page	The Creditor has its own activation dialogue box/web page to which the Payer will be linked to activate the service (NB: the authentication method for accessing this page is out of scope)	No
Payee information		
Creditor/Brand Name	A name by which the Payee/Creditor is known, other than legal name. The Creditor's name to be shown to the Debtor	No
Creditor Legal Name	The formal name by which the Creditor is registered in the national registry of legal entities	Yes
Creditor Identification	An identification of the Creditor: VAT id or other (assigned by an authority)	Yes

Creditor Postal Address	Creditor's postal address: street, city, postal code, country	Yes
Creditor Contact Details	Creditor contact point e.g. email address	No
Creditor Contract Identification	The structure describing the contract concluded between the Payee with its EIPP Solution Provider containing the e-invoice submission agreement.	No
Ultimate Creditor	Ultimate party to which an amount of money is due (same format as for Creditor).	No
Creditor activity code	Identification of the activity of the Creditor	No
Creditor EIPP address	The Creditor's electronic invoicing address to which the Debtor activation has to be delivered. It is used by the Payer's PSP for Activations after querying the record where the Enrolment is stored	Yes
Creditor logo	Commercial logo of the Creditor	No
Payment Information		
Creditor PSP identifier ("BIC")	An identifier for the PSP where a payment account is located. E.g. BIC. Can be identical with the Creditor EIPP Solution Provider if the PSP provides both EIPP service and payment service to the Creditor.	No
Creditor Payment account ("IBAN")	A unique identifier of the financial payment account e.g. IBAN.	No
e-Invoice information		
Creditor e-invoice Template Identification	The value of the field must correspond to TemplateID if the Payee and the Payer's PSP have agreed to use a non-standard e-invoice template and these templates have been previously shared between the parties	No
e-Invoice Limited Presentment	Boolean value indicating whether the Payee allows limited presentment of the e-invoice, i.e. only the e-invoice data needed for payment initiation.	No
Creditor customer identification	The unique identifier of the Payer required by the Creditor, in text. e.g the reference number or customer number. Unique identification provided by the web bank or web payment services user, with which the Creditor can identify the Payer in its system.	No
PaymentPeriod	The interval of date within which the Payee expects the payment to be executed by the Payer. This can be used by the Payer's PSP to select the dates for automatic payments or to enable the payment action in the e-banking environment.	No
- FirstDay	The first day from which the invoice can be paid.	No
- LastDay	The last day by which the invoice can be paid.	No
Contract Comment	Additional information can be indicated in the Payer's PSP if the Payee concludes with the PSP a bilateral agreement on the use of this field.	No

Seller Instruction Free Text	Seller's instructions for the RTP recipient (Payer). The instructions provided by the Creditor to the Customer. The instructions can include e.g. the time required by the Creditor to transfer to the e-invoice service. The PSP can display the information in the Customer's own service language.	No
Instruction for Creditor EIPP Solution Provider	Further information related to the processing of the Request-to-pay message, provided by the initiating party, and intended for the Creditor EIPP Solution Provider.	No

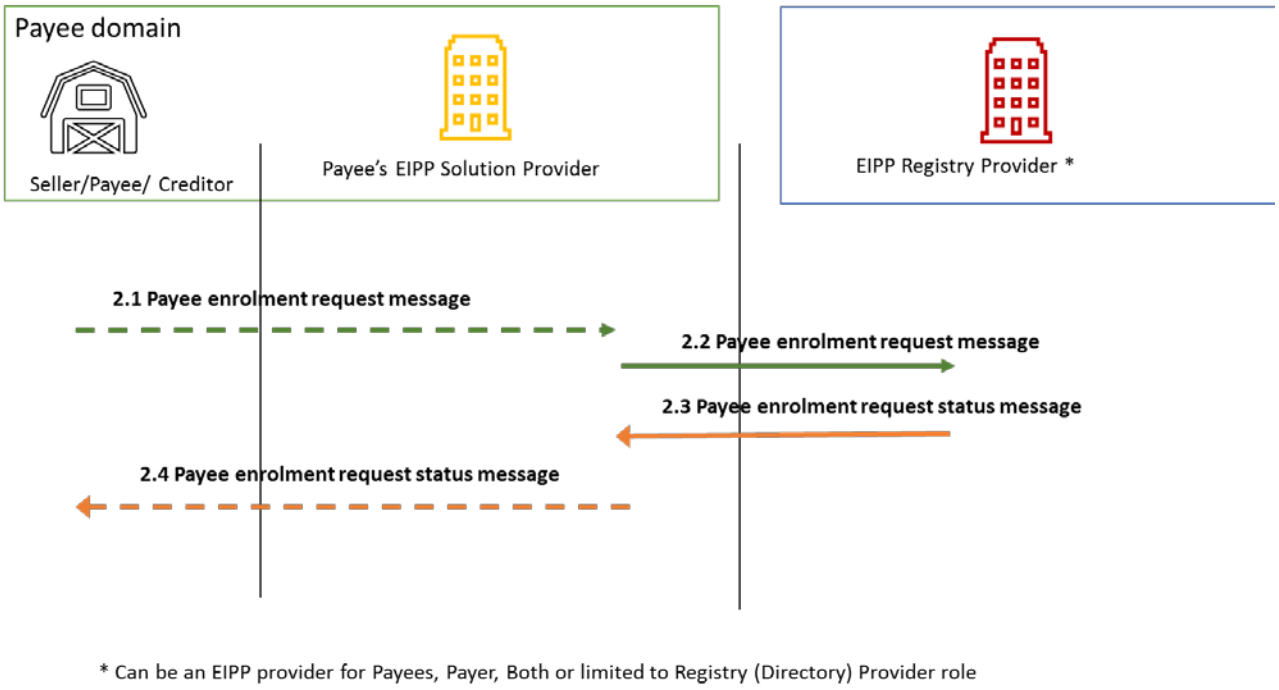
Activation message

Element name	Element description	Essential
Header		
Message Identification	Point to point reference assigned by the instructing party and sent to the next party in the chain to unambiguously identify the message.It is the unique file identifier assigned in the system of the sender in order to avoid duplications.	Yes
Message Creation Date Time	Date and time at which a message was created by the instructing party.	Yes
Message Sender	Section identifying the message Sender (Payer's PSP)	Yes
- Message Sender Id	Identifier of the message sender such as Debtor PSP's BIC	Yes
Message Receiving Party	Section identifying the message Receiver	Yes
- Message Receiver Id	Identifier of the message receiver such as BIC of the Creditor's PSP in case if the Creditor's EIPP Solution Provider is a PSP; other identifier if the Creditor's EIPP Solution Provider is another type of trusted entity	Yes
Message Initiating Party	The party that initiates the request on behalf of the Debtor. Can be different from the Payer's PSP	No
- Initiating Party's Id	Identifier of the message initiating party such as BIC of the Payer's PSP	Yes
Identification of the Creditor´s EIPP Solution Provider	Creditor's EIPP Solution Provider identifier.	Yes
Debtor		
Debtor legal name	The formal name by which the Debtor is registered.	Yes
Debtor's display name	A name by which the Payer/Debtor is known, other than legal name. The Debtor's name to be shown to the Creditor	No
Debtor Identification	The code/registration number of the Debtor submitting the Activation request, e.g. IBAN, a number sequence (token) in IBAN format, national ID number, etc.	Yes
Debtor email	Debtor's email address	No
Debtor address	Debtor's postal address	No
Debtor EIPP address	The Debtor's EIPP Solution Provider address	Yes
e-Invoice information		
PresentmentType	Possible values: FULL – if full information of the presented e-invoice should be presented to the Payer; PAY – if only information necessary to make payment should be presented to the Payer.	No
Creditor customer identification name	The unique identifier of the Payer required by the Creditor e.g. the reference number or customer number.	No
Creditor		
Creditor Identification	An identification of the Creditor: VAT id or other (assigned by an	Yes

	authority).	
Creditor Contract Identification	The structure describing the data of the Payee with whom a new e-invoice submission agreement is concluded.	No
Creditor EIPP Solution Provider address	The Creditor's EIPP solution provider address to which the Debtor activation has to be delivered.	Yes

E. Technical message flows for EIPP servicing messages

Payee enrolment



For simplification, the diagram contains generic types of request and response messages, but the request in practice can be of 3 forms: request for adding a Payee ("NEW"), request for updating a Payee ("UPDATE"), request for removing a Payee ("DELETE"). The corresponding status message should also be distinguished.

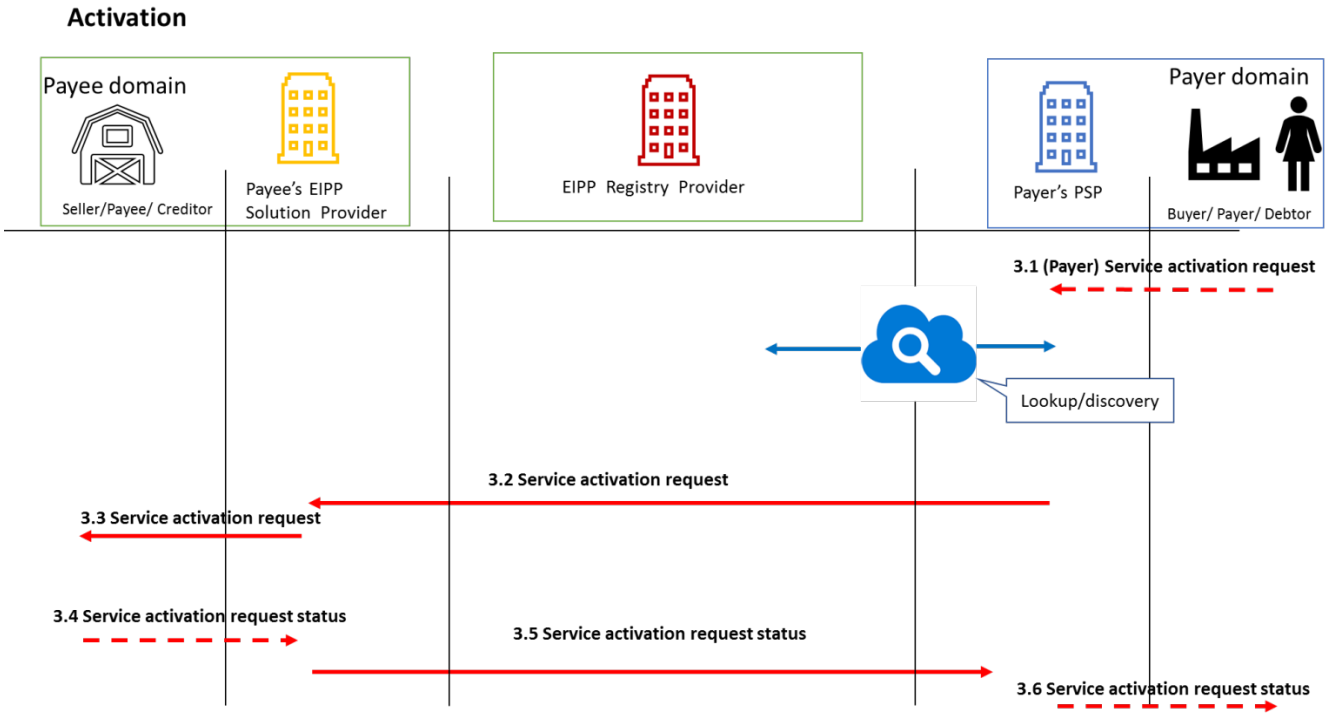
Messages description:

2.1 Payee enrolment request message (optional): can be a subset of the message 2.2, sent by the Payee itself or by an entity acting on behalf of the Payee to the Payee's EIPP Solution Provider containing the Payee's data for insertion/update into the EIPP eco-system or Payee's identifiers for removal. It is expected to be used by large corporations having the capability to create and process EIPP servicing messages, or by companies acting as "hubs" or "Collection Factories" for smaller Payees for this service.

2.2 Payee enrolment request message (mandatory): based on the previous message, controlled by the Payee EIPP Solution Provider before sending it to the final recipient. It can be also created by the Payee EIPP Solution Provider itself as a technical representation of a request for enrolment received from a Payee through other channels different from the previous message (e.g. as a result of a contract). The final recipient is another EIPP provider having a role of registry provider in the EIPP eco-system.

2.3 Payee enrolment request status message (mandatory): the EIPP Registry provider should respond positively or negatively to the request message

2.4 Payee enrolment request status message (optional): the Payee EIPP Solution Provider can forward the previous status message to the initial sender (Payee) if the latter sent the initial request.



For simplification, the diagram contains generic types of request and response messages, but the request in practice can be of 3 forms: request for a new Activation ("ACTIVATE"), request for updating an existing Activation record ("UPDATE-ACTIVATION"), request for deactivation ("DEACTIVATE"). The corresponding status message should also be distinguished.

Messages description:

3.1 (Payer) Service activation request (optional): sent by the Payer to its PSP containing the Payer's and Payee's data. It is expected to be used B2B by companies having the capability to create and process EIPP servicing messages

3.2 Service activation request (mandatory): this is the Activation message sent from the Payer's PSP to the EIPP Solution Provider of the Payee. It may be created following a lookup/discovery operation in the EIPP Registry Providers network executed by the Payer's PSP, after a search performed by the Payer for the Payee in the E-banking/m-banking interface. This operation is out of scope of the "Servicing messages" topic in this document.

3.3 Service activation request (mandatory): the previous request is forwarded to the Payee's systems for final processing.

3.4, 3.5, 3.6 Service activation request status (3.4, 3.6 optional, 3.5 mandatory): The corresponding status messages can be sent back from the Payee to the Payer to confirm the final status of the initial request.

F. Results of the market consultation for EIPP servicing messages

Country	General remarks	Remarks on servicing messages
France	There is a need for strong end-to-end trust chain The roles and responsibilities of each actor should be clearly identified, as a fundament of the robust trust chain For fraud prevention and anti-money laundering, if the trust and security are not guaranteed, there is a risk of non-use of the service There is a need to have a global workflow describing the entire processing chain (from enrolment to payment) The process should be adapted to different use cases For EIPP framework, the most efficient organization(s) in terms of scalability, performance, security and openness should be selected	A complete and consistent set of messages is needed Each message has to be precisely defined, with mapping conditions between enrolment, activation and RTP Should take on a large part in the guarantee of security against fraud and money laundering The content should not be redundant with RTP, to avoid inconsistency (it should be complementary with RTP) Leave open possibilities of RTP (e.g. choice of account) Mandatory elements: only those strictly necessary to send RTPs, others should be optional Message Receiver Id" should be mandatory in Activation request and response, "Reason code" mandatory only if "Message Accepted "=NO in Activation response
Croatia	The proposals should be aligned with the e-invoice definition from the Directive 2014/55/EU	The proposed data elements "Template Identification" and "e-Invoice Limited Presentment" are confusing and may be in contradiction with the Directive Many data elements in the proposal are not currently used New data elements proposed: "Process/Trx ID" linking all the messages of a transaction, Correlated Message Identification", linking a message with another one, "EIPP Service Information" with a sublevels "EIPP Service Identification", "EIPP Service instance Identification", "EIPP Service Action", "EIPP Service Terms Reference"
Italy		Questions whether the enrolment message is sent from each creditor to each debtor bank. If yes, there are issues for debtors' banks: storing the info, risk of having partial information, how is managed

		for banks becoming active after the start of the service; issues for Creditors (not up-to-date list of Banks, how to manage all changes, etc) Proposal for unique pan-European directory or country based Proposal to use the same formatting as the creditor SDD ID for "Initiating Party's Id" "Instruction for Creditor PSP" / "Instruction for Creditor EIPP Solution Provider" should be structured The Creditor Payment account" should be the IBAN (as RTP translates into payment)
Spain		"Initiating Party's Id" should be mandatory if the previous field is filled "Creditor activity code" should not be mandatory "Creditor Payment account" should be mandatory "Debtor legal name", "Debtor Identification ", "Creditor customer identification name": all should be mandatory but not tested "Creditor Legal Name" data element should be added

G. Glossary of terms

Term	Definition	Remark/background*
EIPP	E-Invoice Presentment and Payment solutions These solutions combine e-invoicing services and payment services. They are facilitated directly/indirectly by payment service providers and/or e-invoicing service providers, enabling: • **The Payer** to flexibly receive and manage e-invoices and/or requests-to-pay and to pay them with existing payment instruments (i.e. credit transfers, direct debits, card payments) without the need to manually copy paste or type in data for initiating the payment • **The Payee** to digitalise processing of its invoices and to send/route them to the Payers.	This is in the scope and focus of work by the EPC Multi-stakeholder Group (MSG). EIPP service role can be played by several actors fulfilling the minimum requirements, e.g. PSP, EISP, Payee
EIPP provider	Company offering EIPP services	This term generically covers PSPs, e-invoicing solution providers (EISP), EIPP Solution Providers and Registry/Directory providers
EISP (E-invoicing solution provider)	Company offering e-invoicing solutions and services, such as creation, delivery, routing of e-invoices and requests-to-pay, automatic reconciliation of e-invoices with payment data, conversion services, interfaces with ERP applications, etc.	Used in this report for non-PSP EIPP providers
EIPP Solution Provider	Company offering EIPP solutions and services to payees and payers	This term generically covers providers that enable end-users (Payees and Payers) to use EIPP services
EIPP Registry/Directory provider	Company offering Registry/Directory services to EIPP providers	
Supplier/Payee/Sender/Issuer/ Creditor	In the EIPP context it is the originator of the e-invoice. It is also the provider of the goods and services and the beneficiary of the funds transferred in the payment flow.	These terms may be interchanged, although the term Payee is the most used.
Consumer/Payer/Receiver/Debtor/ Buyer	In the EIPP context it is the recipient of the e-invoice. It is also the party receiving the goods and services and the originator of the funds transferred in the payment flow.	These terms may be interchanged, although the term Payer is the most used.
PSP	Payment Service Provider	This covers the entities operating in the payments industry as defined by PSD2
Electronic invoice (e-invoice)	An invoice that has been issued and received in any electronic format. (2006/112/CE, amended by 2010/45/EU).	
E-invoice presentation	A representation of an e-invoice in a human readable format (e.g. PDF)	It is also often the sole version of the invoice presented to Payers. It is also possible, although not optimal that the visual representation is the sole version of the invoice created in the issuer's system. Another variation is a visual presentation in which a structured electronic format is embedded.
Request-to-pay	An EIPP message representing a claim for payment.	This forms a message to the Payer in an EIPP solution giving the minimum information allowing the initiation of payment without the need to type in any payment related data.
Servicing messages	Additional EIPP messages essential for operating interoperable EIPP solutions	These messages are: message for enrolment of actors in the EIPP eco-system, message for service activation along with their corresponding amendment, cancelation and response messages.

H. Timeline of the ERPB and EPC activities in relation with EIPP

- Meeting of the ERPB on 26 November 2015:
  - ERPB Secretariat's Note presenting the e-invoicing landscape and barriers preventing the take-up and development of e-invoicing in relation with payments in SEPA: link "e-invoicing solutions related to retail payments – the way forward in Sepa"
  - Mandate of the first ERPB Working Group : link "Mandate of the working group on e-invoicing solutions related to retail payment"
  - Decision and next steps agreed by the ERPB: in the "ERPB statement", page 2
- Meeting of the ERPB on 28 November 2016:
  - Report of the first ERPB Working Group : link "Report from the Working Group on e-invoicing solutions related to retail payments", detailing the European landscape of EIPP solutions, the barriers preventing the take-up and the options to overcome these barriers
  - Decision and next steps, according to the options proposed by the first Working Group, in the "ERPB statement", page 2
- Meeting of the ERPB on 29 November 2017:
  - Report of the 2nd ERPB Working Group, setting out the minimum requirements at the level of business rules and technical standards for EIPP: link "ERPB WG on EIPP report"
  - Decisions and next steps: in the "ERPB statement", page 3
- European Payments Council (EPC):
  - January 2018: Terms of Reference of the EPC Multi-Stakeholder Group on EIPP

I. Composition of the EIPP MSG

Name	Institution
Chairs	
Massimo Battistella	EACT
Pirjo Ilola	EPC (Finance Finland)
Sarah Elfstrand	EPC (Swedbank AB)
Jacques Vanhautere	EPC (SEPAmail.eu)
Albrecht Wallraf	EPC (BdB)
Carlota Sustacha	EPC (BBVA)
Jean Allix	BEUC
Tarik Zerkti	ECommerceEurope
Michel Gillis	EESPA
Charles Bryant alternate: Johannes Vermeire	EESPA
Pascal Spittler	EuroCommerce
Observers	
Dominique Forceville	SWIFT
Kari Kemppainen alternate: David Ballaschk	Eurosystem (ECB) Eurosystem (Deutsche Bundesbank)
Rainer Olt alternate: Bernard Darrius	Eurosystem (Eesti Pank) Eurosystem (Banque de France)
Roxanne Romme	EC/DG FISMA
Secretariat	
Valentin Vlad	EPC