



EU4Digital

EU4Digital: supporting digital economy
and society in the Eastern Partnership

eDelivery pilot concept

2020



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1 Executive summary

The overall objective of the concept document is to introduce the key aspects of piloting cross-border eTrade (eDelivery) in the Eastern Partnership region.

eDelivery piloting is aimed at:

- Introducing EU best practices of cross-border electronic data exchange to the Eastern partner countries;
- Testing that participating business companies are able to send and receive the exchanged invoice data via eDelivery;
- Facilitating that pilot countries see the value and are willing to adopt the piloted eDelivery solution on a national level.

The objective of the pilot is to facilitate export and import processes by sending invoice data via eDelivery channel for timely data exchange. The scope of piloting is limited to several target countries:

- EaP-EU country pair: Ukraine and Poland;
- EaP-EaP country pair: Armenia and Ukraine.

eDelivery pilot is the starting point to set and test the initial base for invoice data exchange via eDelivery channel. Further, the recommendations will be prepared regarding the required legal, organisational and technical adjustments to be made for full scale solution implementation on a national level; they should facilitate further bilateral dialogue and extension of the pilot.

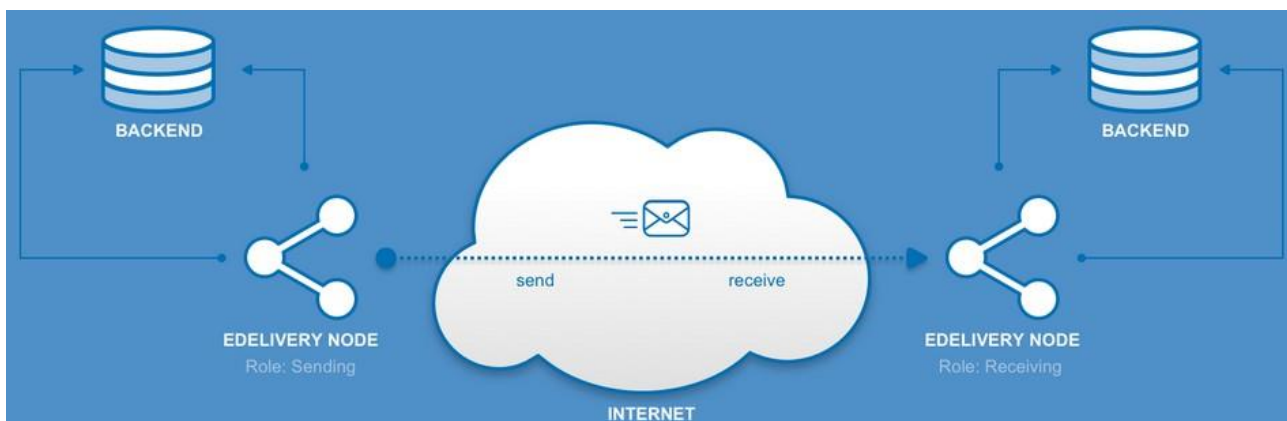
2 Introduction of eDelivery

Connecting Europe Facility's (CEF)¹ eDelivery² building block will be reused for cross-border eTrade pilot, and CEF principles to reuse existing technical specifications and standards rather than to define new ones will be applied.

eDelivery was developed by the European Commission to facilitate the delivery of digital public services across borders. It helps private and public entities to exchange electronic data with other institutions, businesses and citizens, in an interoperable, secure, reliable and trusted way.

eDelivery solution is based on a "4-corner model" where the back-end users exchange data through Access Points instead of sending the data directly. Users can exchange data in a safe and easy manner despite having developed independent IT systems at their end due to Access Points having the same technical specifications (see Figure 1 below).

Figure 1. eDelivery: a high-level illustration



Source: ec.europa.eu

A detailed description of eDelivery solution is presented in the document "R3.1-4.a Cross-border eTrade country state-of-play analysis".

1 More information about CEF: <https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/The+Vision>

2 More information about eDelivery: <https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eDelivery>



3 eDelivery Pilot Concept

3.1 eDelivery Pilot Description

During the eDelivery piloting, cross-border trade partners (companies) will exchange invoice data using eDelivery solution. The pilot will be considered successful if business parties from different pilot countries can exchange agreed data across borders using eDelivery.

Two company pairs are foreseen:

1. Company A in Country A exports and sends eInvoice via eDelivery – Company B in Country B imports and receives eInvoice.
2. Company C in Country B exports and sends eInvoice via eDelivery – Company D in Country A imports and receives eInvoice.

The Peppol eDelivery network was chosen for eDelivery pilot implementation to establish a set of common business processes and technical standards for data exchange. Peppol removes the roadblocks to cross-border document exchange, allowing any business to communicate electronically in any country in the world. Peppol network is a closed community, therefore every participant has to sign an agreement with the association. To prove operational capabilities and conformance to Peppol's specifications – the joining service provider has to pass tests to get access to the production environment.

3.2 What is eInvoicing

Analysis and consultations with partner country representatives and the European Commission resulted that eInvoicing³ was prioritised and selected as the use-case for eDelivery piloting.

Electronic invoicing is the exchange of an electronic invoice data between a supplier and a buyer. An electronic invoice (eInvoice) is an invoice that has been issued, transmitted and received in a structured data format which allows for its automatic and electronic processing, as defined in Directive 2014/55/EU.

An invoice is considered as electronic when it contains data from the supplier in a machine-readable format, that can be automatically imported into the buyer's Account Payable system without requiring manual entering. Also, they do not include a visual representation of the invoice data, though it can be temporarily rendered during processing or transposed into visual formats.

To conclude, a human readable version of electronic invoice can be created for the reading purposes. However, the objective of invoice automation is not to viewing the invoice but rather exchanging structured data that can be electronically processed.

3.3 Good practices of eInvoicing

A key objective of the European standard on eInvoicing (EN 16931) is to make it possible for sellers to send invoices to many customers by using a single eInvoicing format and thus not having to adjust their sending and/or receiving to connect with individual trading parties. To achieve this the European standard on eInvoicing defines the core elements of an electronic invoice in a semantic data model.

Some of the European countries already implemented and adopted the usage of eInvoicing standard on a national level. Several examples are provided below.

Norway⁴. The European eInvoicing standard in the country is implemented, and co-exist with the Norwegian standard called E2B. In Norway, public entities use the Peppol eDelivery Network to send and receive eInvoices. Solution providers operating Peppol Access Points often provide eInvoicing solutions for creating, submitting, transmitting, receiving and processing eInvoices. Both economic operators and contracting authorities rely on the service of these service providers. From 2019 it is mandatory for all contracting authorities to require their suppliers to send and themselves to receive and process eInvoices according to the EU Norm using EHF/Peppol BIS Billing and the Peppol eDelivery network.

Denmark⁵. The Consolidated Law on Public Payments states that all-natural and legal persons must provide a bank account ("Nemkonto") into which the public authorities can make the payment. No other way of payment

3 More information about eInvoicing: <https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/What+is+eInvoicing>

4 More about eInvoicing in Norway: <https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eInvoicing+in+Norway>

5 More about eInvoicing in Denmark: <https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eInvoicing+in+Denmark>



is foreseen by the Act. B2G eInvoicing is mandatory since 2005. Economic operators can submit eInvoices using three main tools:

- a. Fully integrated eInvoice-enabled Enterprise Resource Planning (ERP) solutions (software or web-based).
- b. ERP solutions in combination with an open-source software provided by the Danish Business Authority, the NemHandel message handler client.
- c. Manually created in the web-based invoicing portals (webform).

3.4 Peppol eDelivery network testing environment

eDelivery pilot aims to show the benefits and facilitate the usage of eDelivery building block in cross-border commercial communication. eDelivery helps users to exchange electronic data and documents with one another in a reliable and trusted way and is based on a distributed model called “4-corner model”. For the pilot, PEPPOL eDelivery network will be used as the only one solution ensuring conformance to CEF eDelivery requirements and enabling eInvoicing operations between Eastern partner and EU countries without the necessity of additional bilateral agreements as Peppol eDelivery network is the most used communication channel in Europe.

As the Peppol eDelivery network is the closed community, Eastern partner countries will have to nominate domestic organizations to operate access point and to sign an agreement with the OpenPEPPOL association. This agreement obliges the signing party to follow the network compliancy policy and Peppol Business Interoperability Specification (BIS)⁶ describing requirements for exchanged documents.

Therefore, the test (also known as acceptance) environment will be used, which will allow to test the data exchange in full scale but without additional implications to the legal environment and necessity to make any amendments in national legislation. The Peppol eDelivery test environment is used by Peppol to check the compliance of a new member and cannot be used for the exchange of legally acceptable eInvoices. Accordingly, it will serve only as a proof of concept.

After the completion of the pilot, if the Eastern partner countries will be willing to remain the members of Peppol eDelivery network, they will have to pass a compliance test to connect to the production environment. Therefore, proper documentation and recommendation will be provided about eDelivery and eInvoicing to ease the onboarding process.

4 Concept of eDelivery pilot architecture

4.1 Process of invoice data exchange during the pilot

The piloting of invoice data exchange via eDelivery will be performed by exchanging an electronic invoice and in parallel – a physical invoice. Throughout the pilot, participating companies, buyer and seller, will be able to exchange electronic messages that are compliant with Peppol BIS requirements.

It is important to note that during the piloting, electronic invoice document will not have legal validity in the current accounting procedures of participating parties.

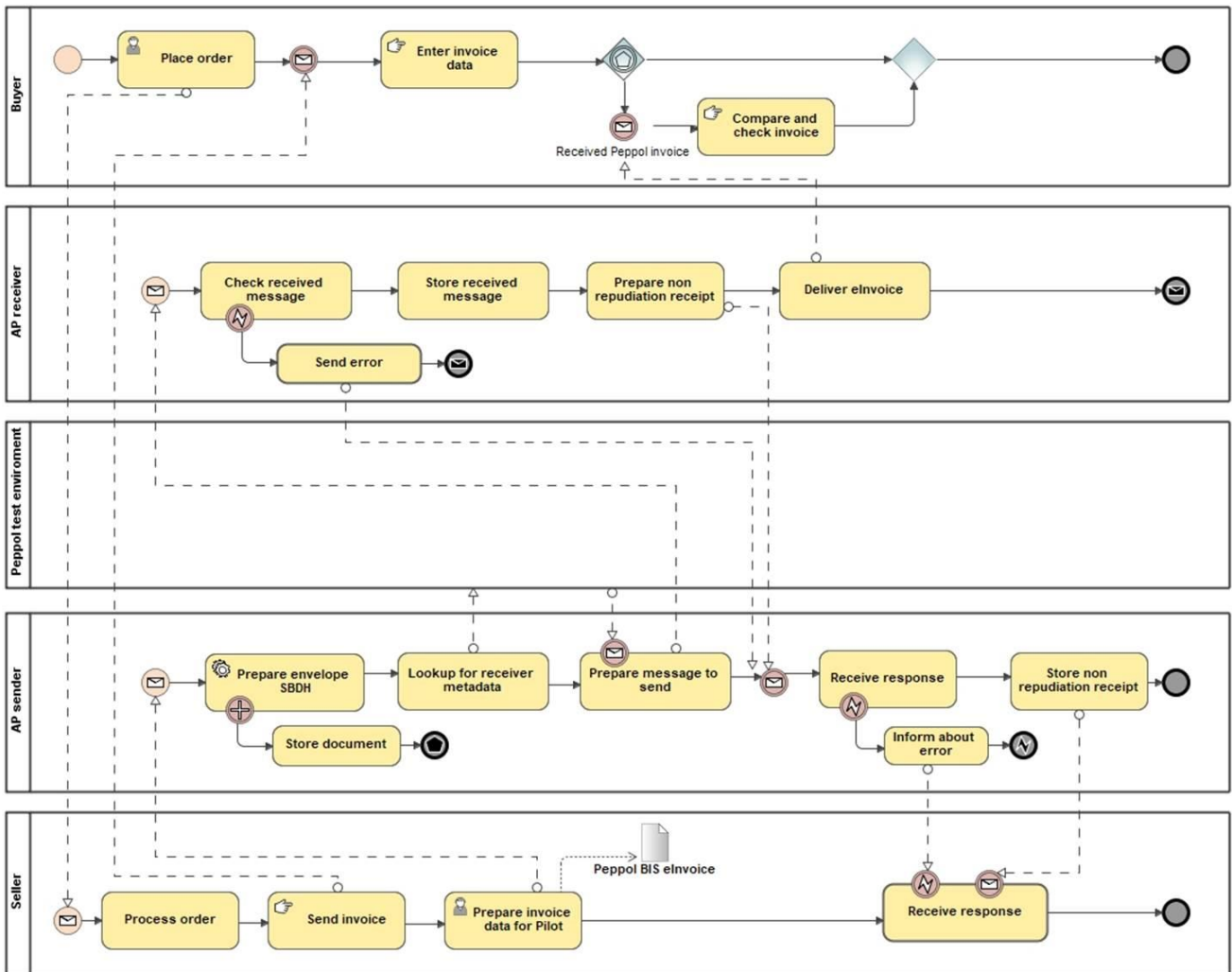
However, during the pilot participating companies will be able to:

- see the benefits of exchanging the electronic invoice, i.e. faster processing of data, potential to improve the effectiveness of business processes;
- get familiar with EU standards and apply them in practical way, gain knowledge on exchanging electronic data with EU and EaP countries;
- be ready to go into production environment when solution will be adopted country-wide.

The process of electronic and physical invoice exchange during the pilot is reflected in the Figure 2 below.

⁶ <https://peppol.eu/downloads/post-award/>

Figure 2. Pilot business process diagram



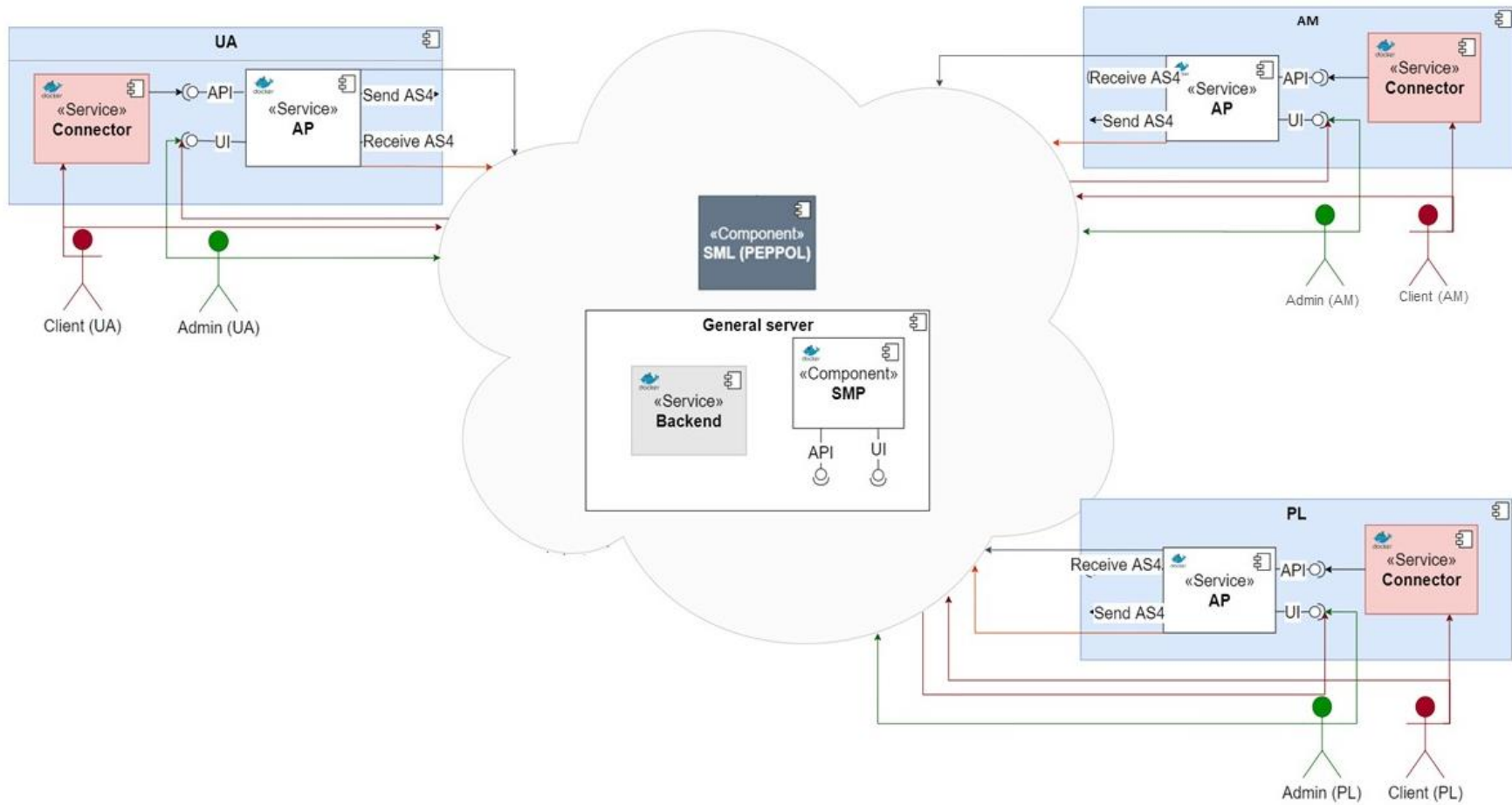
4.2 Pilot Architecture

The participating parties will be able to connect to the Peppol eDelivery network using local Access Points. The AP will give the ability to exchange data between countries - send and receive invoices. Local administrators will be able to moderate the data flow using Peppol integrated servers. The participating parties will be able to connect to the graphics user interface (GUI) to gain access to their received or sent data. Overall, Peppol eDelivery network assures the data flow stability and transparency.

The graphical representation of eDelivery pilot architecture is represented in the figure below.



Figure 3. eDelivery Pilot Architecture Diagram





The architecture of eDelivery pilot consist of the following components:

1. **Actors.** System consists of few actors – the Client and the Admin. The Client will be able to connect to the Peppol eDelivery network and AP via Connector and Backend servers. Also, will be able to send and receive AS4, using the provided network. The Admin will be able to access the AP’s UI directly, monitor its presence and delivery. Also, using the Peppol general server – will be able to connect to the SMP.
2. **Connector.** Software connectors perform transfer of control and data among components. Connectors can also provide services, such as persistence, invocation, messaging and transactions, that are largely independent of the functionalities of interacting components. These services are usually considered to be ‘facilities components’ in widely used middleware standards such as CORBA, DCOM and RMI.
3. **Access Point.** Every connecting country will have their own AP, which will secure a fluid AS4 transaction – sending and receiving. The AP will also communicate with the SML of the Peppol network, allowing secure metadata containment. Using an API, the selected country’s AP will be able to connect to a centralized SMP.
4. **Backend.** It’s responsible for storing, organizing data and ensuring everything on the client-side works properly. The backend communicates with the frontend, sending and receiving information to be displayed as a user interface. The backend connects the Client with an API, making it easier to use the system with a simple GUI.
5. **Peppol SML.** Peppol eDelivery network is the infrastructure, which allows the participants to connect to a single SML using an AP. The centralized Peppol SML will contain the required metadata for different participants to connect to their assigned SMP.

4.3 Indicative invoice structure to be exchanged

It was indicated that Peppol BIS will be used, as it is mandatory by Peppol compliance policy. Moreover, Peppol BIS Billing 3.0⁷ eInvoice will be used to test eDelivery infrastructure and message exchange between nominated parties. The invoice document is one of the most used documents in commercial operations and it has a simple and well-known structure.

This pilot aims to showcase the exchange of documents and does not seek to align eInvoicing requirements nor legally bind eInvoice. Therefore, eInvoice structure used in the pilot will be as minimal as possible. In the table below only the most relevant fields with descriptions are extracted that need to be considered when actual pilot activities will be conducted and nominated companies will have to fill the information from real invoice documents. GLN will be used as EaP country participant identifier as it is acknowledged by Peppol BIS and can be easily obtained from local GS1 organization.

Table 1. Relevant fields of electronic invoice

Field	Description
ID	Invoice number A unique identification of the Invoice. The sequential number required in Article 226(2) of the directive 2006/112/EC [2], to uniquely identify the Invoice within the business context, time-frame, operating systems and records of the Seller. No identification scheme is to be used.
IssueDate	Invoice issue date The date when the Invoice was issued. Format "YYYY-MM-DD"
InvoiceTypeCode	Invoice type code A code specifying the functional type of the Invoice. NOTE: In pilot document code 380 (UN/CEFACT UNCL1001) will be used.

⁷ <http://docs.peppol.eu/poacc/billing/3.0/>



Field	Description
	Commercial invoice (1334) Document/message claiming payment for goods or services supplied under conditions agreed between seller and buyer.
AccountingSupplierParty->EndpointID	Seller electronic address Identifies the Seller's electronic address to which a business document may be delivered.
AccountingSupplierParty->PartyName	Seller trading name A name by which the Seller is known, other than Seller name (also known as Business name).
AccountingSupplierParty->PartyLegalEntity->CompanyID	Seller legal registration identifier An identifier issued by an official registrar that identifies the Seller as a legal entity or person. In order for the buyer to automatically identify a supplier, the Seller identifier (BT-29), the Seller legal registration identifier (BT-30) and/or the Seller VAT identifier (BT-31) shall be present
AccountingCustomerParty->EndpointID	Buyer electronic address Identifies the Buyer's electronic address to which a business document should be delivered.
AccountingCustomerParty->PartyLegalEntity->CompanyID	Buyer legal registration identifier An identifier issued by an official registrar that identifies the Buyer as a legal entity or person.
TaxTotal->TaxCategory->ID	VAT category code Coded identification of a VAT category. Must be clarified by both sender and receiver. Suggestion to use „Not VAT object“
TaxTotal->TaxCategory->TaxExemptionReason	VAT exemption reason text A textual statement of the reason why the amount is exempted from VAT or why no VAT is being charged.

4.4 Scope of eDelivery pilot

After initial discussions with pilot countries about the eDelivery piloting activity, the possible expectations were identified. Therefore, it was summarised how these expectations will be covered in the scope of eDelivery pilot.

In the scope of eDelivery pilot the following **will be tested**:

- the discovery and identification of participating parties (businesses and Public administrations);
- interoperable, secure, reliable and trusted data exchange channel – eDelivery – between selected pilot country pairs;
- the exchange of digital invoice messages between participating parties via trusted eDelivery channel.

In the scope of eDelivery pilot the following **is not included**:

- harmonization of document standards;
- assurance of legal validity of digital invoice;
- testing exchange of documents, other than invoices;
- changes in related processes other than documents exchange and validity testing (e.g., treasury servicing of budget funds, tax audits, court proceedings, archiving);
- legal activities in relation to eSignature (these would be done in a separate dedicated pilot);
- development of specific legislative amendments to implement pilot results at the nation-wide level;
- connectivity between end-user (incl. EDI providers) back-end system and eDelivery infrastructure

4.5 Alternatives of eDelivery pilot Infrastructure

For the eDelivery pilot activity implementation two alternatives of infrastructure are available (note: pilot concept architecture is based on alternative no. 1):



1. **Alternative no.1:** using Cloud infrastructure leased by EU4Digital Facility (new APs) (only for the piloting period). (more detailed information about Pilot infrastructure is presented in Annex 2. “ List of requirements and rules for preparation of infrastructure for eDelivery pilot ”).
2. **Alternative no.2:** using existing national infrastructure (APs).

4.6 Key participants of eDelivery pilot

The table below represents the key participants of eDelivery pilot activity with their role definitions, main responsibilities and other relevant information. The team consisting of these participants is an eDelivery pilot working group.

Table 2. Key participants of eDelivery pilot

#	Role	Responsibilities and relevant information
1.	EU4Digital Facility expert team	<p>EU4Digital Facility expert team consists of:</p> <ul style="list-style-type: none"> • Coordinating experts. Responsible for coordination and organization of the eDelivery pilot implementation, has a direct contact with the Client (the European Commission). • Technical experts. Subject matter experts of eDelivery, responsible for eDelivery pilot concept definition and technical eDelivery pilot implementation. <p>EU4Digital Facility expert team will be responsible for:</p> <ul style="list-style-type: none"> • Implementation of the eDelivery pilot project at pilot country level (definition of scope, development of pilot case, technical implementation of pilot project). • Leasing Cloud infrastructure for pilot purposes for the piloting period (<i>if this alternative is selected</i>). • Consulting and supporting all pilot countries, in terms of obtaining certificates from CEF and PEPPOL that Access Points (AP) and Service Metadata Publishers (SMP) are tested, functioning and ready for pilot. • Support all pilot countries, in terms of obtaining confirmation from PEPPOL that AP and SMP are ready to go-live in test environment. • Preparation of training material and training provision for pilot countries. • Preparations of recommendations for full scale pilot project implementation on a national level in the pilot and other Eastern partner countries.
2.	Coordinating institution in pilot country	Responsible for coordination and management of the eDelivery pilot activity on a country level.
3.	eDelivery Access Point owner	<p>Responsible for management and maintenance of eDelivery Access Point.</p> <p>Potential benefits to participate:</p> <ul style="list-style-type: none"> • Access to the network with more than 250 Access Points ready to deliver messages to the EU, Singapore, New Zealand, and Australia markets. • Security and authenticity of the messages, through the usage of OASIS AS4 profile, certificates and governance methods of Peppol association. • Peppol BIS 3.0 Billing specification (CEN/TC 434 CIUS) is maintained by EU and Peppol community, therefore no need to develop domestic, closed standards. • Possibility to enable fully automated eInvoice data processing. <p>Risks and obstacles:</p> <ul style="list-style-type: none"> • Peppol obliges participants to use BIS specifications (can be ignored in EU4Digital pilot project). • Occasionally Peppol changes BIS specification, therefore maintenance of the infrastructure is needed.



#	Role	Responsibilities and relevant information
		<p>Expenses:</p> <ul style="list-style-type: none"> • Peppol association membership fees depend on number of employees in the organisation and in more detail can be found in Peppol web site⁸. <ul style="list-style-type: none"> ○ Sign-up fee from €750 to €3,000 (will be covered by EU4Digital). ○ Annual fee from €1,500 to €5,250 (during pilot period will be covered by EU4Digital). • Infrastructural expenses (during pilot period will be covered by EU4Digital). • SSL certificates (covered by AP owner). <p>The AP owner will have to obtain the SSL certificate (channel between the client and the server) in order for other parties to discover the Access point. Following options are available for reserving the server name:</p> <ul style="list-style-type: none"> • Using the existing (*.4digital.space) – owned and used in Fitek EDI test environment. • Using existing server name owned by responsible institution. • Creating a new name. Available alternatives to obtain a new server name are the following: <ul style="list-style-type: none"> ○ Use freeware (example: https://letsencrypt.org/) – to be used in pilot test environment (note: needs additional configuration and support) ○ Buy wildcard *.name.end (example: https://uk.godaddy.com/web-security/wildcard-ssl-certificate).
4.	<p>Access Point Service provider in the EU (in case of EU-EaP pilot)</p>	<p>Responsible for registering EU company to Peppol acceptance SML and SMP, support EU companies to send/receive eInvoice to/from Eastern Partner country company and check the correctness of received invoice.</p> <p>Benefits of participation:</p> <ul style="list-style-type: none"> • Substantial contribution to promote the digital single market and Peppol network in Eastern partner countries. • The above leads to - becoming the „go-to“ company for potential clients in Ukraine and other Eastern partner countries. • When/ if Eastern partner countries join the Peppol network in full scope, the participating Service provider would be the first one that will have a chance to offer data exchange to its clients with piloting countries. • Promote the company through EU4Digital channels and beyond; be involved in EU4Digital network and potentially build new business relationships.
5.	<p>Government institution (optional)</p>	<p>Public institution that has a business case to receive an electronic invoice exchange in the B2B transaction.</p>
6.	<p>Participating companies (exporting and importing)</p>	<p>Companies are responsible for participation in the pilot implementation process and shall be ready to take part in the piloting invoice data exchange.</p> <p>Participating companies will have a possibility to:</p> <ul style="list-style-type: none"> • test the solution free of charge and get free technical consultations on how to implement the full-scale solution; • get familiar with EU eInvoicing standards and apply them in practical way, gain knowledge on exchanging electronic data / documents with EU and EaP countries; • promote the company as innovative and digitally driven through EU4Digital channels and beyond; • be involved in EU4Digital network and potentially build new business relationships; • be ready when solution will be adopted country-wide. In case of successful piloting, there's a potential that governments of Eastern partner countries will adopt the usage of the piloted solutions. The participating companies will already know the solution concept, have experience in using it and will be the first to put it into practice.

⁸ <https://peppol.eu/get-involved/join-openpeppol/>



#	Role	Responsibilities and relevant information
7.	Observer (<i>optional</i>)	<p>An observer in eDelivery pilot activity is a non-official participant role granted by the EU4Digital Facility and / or responsible institution from confirmed pilot country that allows without active participation to contribute to pilot implementation activities and learn about the progress, major achievements and obtain key results.</p> <p>Opportunities:</p> <ul style="list-style-type: none"> • Participation in quarterly eDelivery pilot implementation status workshops about the current progress and major achievements. • Possibility to participate in the eDelivery site visit in one of the pilot countries to observe how the pilot operates in practice and discuss possibilities to replicate it in other Eastern Partner countries. • After the completion of eDelivery pilot, obtain the recommendations of required legal, organisational, technical and other changes that is required for successful eDelivery implementation on a country level. • On-case-by-case basis participate in other working discussions and coordination meetings of the pilot implementation. <p>Responsibilities / tasks:</p> <ul style="list-style-type: none"> • While attending the workshops, participating in communication with EU4Digital Facility team, ensure the confidentiality of presented / shared information. • Contribute when necessary with observations about the country / industry specific process and suggest strategies / provide opinion that would add value going further. • Actively learn by participating in meetings / workshops / site visits.

4.7 eDelivery pilot timeline and outputs

It is foreseen that the eDelivery pilot will be completed by the end of 2020 (for more information see Annex 6.1. “Pilot project implementation plan”). After the completion of the pilot activity two outputs will be presented:

1. Recommendations regarding the required legal, organisational and technical adjustments to be made for full scale eDelivery implementation on a national in pilot countries.
2. Handover the results for the pilot countries. Transfer of eDelivery network node components that were used (developed) during the piloting activity:
 - Fully configured working AP;
 - Fully configured working SMP;
 - Node backend.

It is foreseen that the invoice data exchange piloting will last for two months (indicatively October-November 2020) or until 10-15 invoice data transactions are performed between participating companies. After that, the successfulness of the pilot will be evaluated. It is considered that the pilot is successful if:

- Participating public and private parties understand how eDelivery operates and are able to use the developed solution;
- Participating business companies are able to send and receive the exchanged invoice data via eDelivery;
- Pilot countries see the value and are willing to adopt the piloted solution on a national level according to the provided recommendations.

5 Legal validity of eInvoice

As previously mentioned, an electronic invoice (eInvoice) is an invoice that has been issued, transmitted, and received in a structured data format that allows for its automatic and electronic processing (standard - EN16931). The benefits of the standard were stated in the Electronic invoicing in public procurement document⁹:

⁹ <https://eur-lex.europa.eu/legal-content/EN/LSU/?uri=CELEX%3A32014L0055>



1. “The standard should make it possible to set up **user-friendly** (easy-to-understand and easy-to-use) electronic invoicing systems. The standardization exercise will take into account the specific needs of **small and medium-sized enterprises**, as well as **smaller contracting authorities and contracting entities**, which have limited staff and financial resources.
2. The standard will also be **suitable for use in commercial transactions between businesses**, as well as in the area of public procurement”

To achieve full automation and better interoperability between countries EU also introduced eDelivery as a common standardized way of exchanging messages.

Because of the nature of the European Union governance model eInvoicing Directive implies requirements to receive invoice only to public institutions and does not mandate obligation to private sector. Therefore interaction between entities need to be decomposed and analysed separately stipulating intersection points. There are four types of interactions that will be used in this document and might be subject to further deeper legal analysis in future activities beyond the scope of this pilot:

- B2B – business to business
- B2G – business to government including public procurement process
- B2A – business to controlling agencies, i.e. tax inspectorate, customs, banks, etc.
- B2J – business to courts when disputes, frauds, etc. need to be resolved

Most of the invoicing implementations, showcased in this document, was applied to B2G transactions in public procurement process leaving B2B to self-adjustment and expecting that business will reuse those practices in private sector.

5.1 Implementation of invoicing

The eDelivery pilot aims to showcase the benefits of a common standardised way of exchanging messages, and to deliver recommendations of needed actions and amendments in legislation. Therefore, it is not intended to give an exact list of amendments to implement eDelivery and invoicing into national law, instead, best practices will be shown to give the perspective of needed steps.

There were two countries selected that have the most penetration of invoice usage in B2G transactions and could serve as the best example of what needs to be done. In both use cases, countries mandated the requirement for sending electronic invoices to public institutions in the public procurement process.

5.2 Norway’s practice of invoice implementation

From 2011 onwards, all central authorities were required to receive invoices electronically. In 2012, it became mandatory for the suppliers of central government entities to invoice them electronically. From 2 April 2019 it is mandatory for all contracting authorities to require their suppliers to send and themselves to receive and process invoices according to the EU Norm using EHF/Peppol BIS Billing and the Peppol eDelivery network.

Additionally, the central government contracting authorities issuing invoices are mandated to offer to send EHF/Peppol BIS Billing 3.0 invoices to business recipients.

To comply with EU Norm and enable invoicing Norway implemented EN16931 invoicing standard¹⁰ along with Peppol BIS Billing specification and mandated Peppol network as their national way of message exchange. This was done in “Regulations on electronic invoice in public procurement” (Forskrift om elektronisk faktura i offentlige anskaffelser) law¹¹.

Norway does not have separate law describing invoicing usage for private sector, instead legal terms used in public procurement law can be reused in B2B. Essential requirements for B2A interactions are mandated in Accountancy law and VAT law. Electronic invoices issued for B2B has indirect legal binding through public procurement law.

5.3 Denmark’s practice of invoice implementation

The Consolidated Law on Public Payments states that all-natural and legal persons must provide a bank account (“Nemkonto”) into which the public authorities can make the payment. No other way of payment is foreseen by the Act.

¹⁰ <https://www.standard.no/no/Nettbutikk/produktkatalogen/Produktpresentasjon/?ProductID=1114365>

¹¹ <https://lovdata.no/dokument/SF/forskrift/2019-04-01-444>



Furthermore, the “Order on an electronic settlement with public authorities”, Order No. 206 of 11.03.2011 includes general provisions, such as information on invoices from public entities to natural or legal persons, invoices for public entities, use of infrastructure, etc. The legislation stipulated the mandatory standard for eInvoicing in public procurement in Denmark – OIOUBL. It is provided and maintained by the Danish Business Authority.

The legislation also stipulated that public entities should use the OIO Reliable Asynchronous Secure Profile (OIORASP), which is a profile of web service standards. It makes it possible to exchange business documents (such as eInvoices) through the Internet with a high degree of security and reliability in the transactions. B2G eInvoicing is mandatory since 2005. It started with UBL.

To comply with EU Norm and enable eInvoicing Denmark implemented EN16931 eInvoicing standard¹² and mandated requirement for economic operators to send electronic invoices to the public institutions by law “Electronic Billing Bill for Public Procurement” (Lov om elektronisk fakturering ved offentlige udbud)¹³. Additionally, to enable Peppol network usage and mandate Peppol BIS Billing specification the “Order on electronic invoicing in the pan-European service-oriented infrastructure” (Bekendtgørelse om elektronisk fakturering i den fælleseuropæiske serviceorienterede infrastruktur)¹⁴ law was issued.

Denmark separated public procurement requirements and legal description of standards, therefore Peppol BIS is acknowledged in almost any commercial operation regardless B2G or B2B. Although this law cannot be treated as implicit B2B transactions mandate because in addition it aims to oblige public institutions to be able to receive eInvoice.

5.4 Conclusions

Both Denmark and Norway at first implemented EN16931 eInvoicing standard and made amendments in the public procurement law to require electronic invoices in B2G traffic. Expecting that those standards would be used in B2B interactions at some point. In Norway's case, the Peppol network and BIS specification were acknowledged as national standards. In Denmark's case, Peppol specification was acknowledged as additional optional specification along with national standard OIOUBL. eInvoice usage in B2B has indirect legal binding through public procurement laws, but nevertheless there are no implicit restrictions on eInvoicing usage and in most cases it is used as a primary document. When company is inspected by Tax authority, eInvoice document can be used for audit purposes along with tax reports. In case of dispute eInvoice can be used in courts as evidence, but it depend on practices and case.

More information about eInvoicing and how it was implemented in countries can be found in CEF Digital Connecting Europe [eInvoicing](#)¹⁵ web site. To learn more about eDelivery benefits and usage information can be found in CEF Digital Connecting Europe [eDelivery](#)¹⁶ web site.

5.5 Recommendations

To adopt and legally bind eInvoice and eDelivery standards to national legislation amendments need to be done. It has to be noted that changes may vary from country to country depending on local laws. Therefore, in the course of eDelivery piloting activity it will be analysed how the recommendations provided below could be implemented on a national level and be compliant with national legislation.

After piloting, legal recommendations for full scale solution implementation will be prepared. However development of specific legislative amendments to implement pilot results at the nation-wide level is out of the scope of the eDelivery pilot.

Here is the list of recommendations:

1. The **top-down approach** should be used, where standards are adopted regardless of current legal rules and needed amendments are done afterward through constant gap analysis;
2. **eInvoicing standard**¹⁷ should be acknowledged and **adopted** by local standardization organization;

¹² <https://webshop.ds.dk/da-dk/standard/ds-en-16931-12017>

¹³ <https://www.retsinformation.dk/eli/lta/2018/1593>

¹⁴ <https://www.retsinformation.dk/eli/lta/2019/346>

¹⁵ <https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eInvoicing>

¹⁶ <https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eDelivery>

¹⁷

https://standards.cen.eu/dyn/www/f?p=204:7:0:::FSP_LANG_ID,FSP_ORG_ID:25,1883209&cs=1CDA8CD73987CB3258753C3B03B0371D5



3. **Peppol network** with Peppol BIS Billing specification should be **mandated by law** as acknowledged standards;
4. **eInvoice legal acknowledgement** shall be in separate law to give clear understanding for business that it is not limited to B2G and can be used in B2B;
5. eInvoicing standard should be used in **public procurement** invoicing process (a.k.a. B2G) as a first step;
6. B2B **should not be restricted** in eInvoicing and eDelivery standards usage;
7. Controlling institutions should **not add additional requirements** that could require usage of business terms not included in standards, instead adjustment of existing procedures recommended to keep the same required control.