

RETARUS WHITEPAPER

Peppol: Connecting with the public sector in Europe and worldwide

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Since its inception, the European Union has not only proven to be a haven of democracy, political stability, and security, but it also facilitates successful business dealings. Peppol (Pan-European Public Procurement Online) is one of these successful projects, simplifying the entire process of electronic procurement across borders. It is regarded as the most important driver for electronic procurement by public authorities in the EU.

The advantages of Peppol

Standardized

procurement process

The international Peppol project aims to **standardize the entire procurement process** from the beginning to the end and is already being used in 28 countries within the EU, Australia, Canada, New Zealand, and Singapore, with varying degrees of intensity. **Ideally, every company should be able to exchange structured electronic documents such as catalogues, supplier documentation, purchase orders, and invoices with every public client.** Peppol makes this possible by defining a network, uniform processes, technical protocols, and formats. The firmly defined conditions and the dynamic networking of the Peppol Access Points result in numerous technical and economic advantages.

Advantages

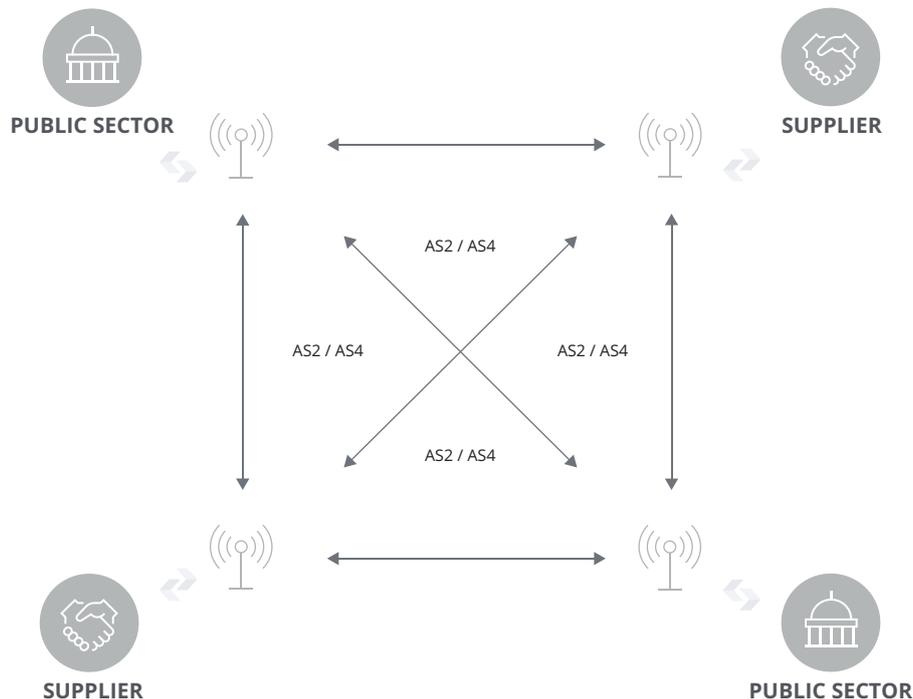
- ✓ **Automated EDI data exchange of configuration parameters**
– minimizing the effort of system setup
- ✓ **Automation of the B2G invoice process and cost-saving coverage of the entire purchase-to-pay process chain**
- ✓ **Cross-border coverage**
enables exchange with all partners registered in the Peppol network via a single connection
- ✓ **Encrypted and acknowledged transmission** within the network via Peppol Access Points
- ✓ **Ability to use as B2B network**

As soon as the specific Peppol ID of a recipient is known for addressing, electronic documents can be sent to them without further complications – sent with a higher security standard compared to email, the control is accomplished via EDI protocols (AS2 and AS4) and a Peppol Access Point.

The Peppol network and how it works

4-corner model

The exchange of documents in the **Peppol eDelivery Network** is based on the **4-corner model** consisting of a sender, a receiver, and their Access Points. To ensure seamless cooperation different message types are transmitted within the network using one of the two syntaxes **UBL (Universal Business Language)** or **UN/CEFACT Cross Industry Invoice (CII)**.



The only requirement for accessing the eDelivery Network is a certified **Access Point (AP)**. This AP enables the electronic exchange of documents. Once a document has been transmitted to the AP via the ERP system, it is then transferred to the AP of the respective partner within the network, following the Peppol guidelines. This also applies in reverse.

The four most important elements of Peppol

1. Member: Everyone who is directly involved in the Peppol network must also be a paying member. Suppliers and public administrations (senders and receivers) are usually not included.

2. Authorities: Government agencies responsible for appointing AP providers and ensuring the trustworthiness of the infrastructure, its model, and their respective territory operations. There are currently 13 Peppol Authorities worldwide.

3. A certified **Access Point (AP)** is the connection to the Peppol eDelivery Network.

4. Peppol SML (Service Metadata Locator) is a centralized directory service and returns an SMP (Service Metadata Publisher) address when requested by the Peppol ID. The SMP service is usually provided by the same service providers that also offer an Access Point.

Peppol-ID for addressing

In this context, the **Peppol ID** is used to transmit an electronic invoice. It is used for technical addressing of the recipient within the Peppol network and consists of a unique ID number. The network system used is based on the ISO 15459 format scheme for unique identifiers. The Peppol ID is a combination of a defined Issuing Agency Code (IAC) and a value assigned by the respective issuer. The respective Peppol-ID can be determined via the following public portal: <https://directory.Peppol.eu/public>.

Peppol in Germany

Transmission of E-Invoices

For an international view of Peppol, it is worth looking at Germany first – a market that is constantly changing in terms of established invoicing processes. A wide variety of transmission channels, formats, and media types still exist in Germany. However, anyone wishing to issue invoices to the public sector (B2G) in the future will have to do so electronically (electronic invoicing). It is likely that the federal and state governments will be encouraged to offer Peppol as a transmission channel if they provide a web service for submitting electronic invoices.¹ For companies, this means that invoice data must be transmitted in a structured manner in the format of a standardized **XRechnung**.

Peppol is the defined communication channel for automated transmission – especially regarding the connection to other public institutions of EU countries. Smaller transmissions can be submitted manually via decentralized portals of the federal and state governments or via different email / DE-mail addresses.

The difference between XRechnung and Peppol

The main component of Peppol is the eDelivery Network, through which electronic documents such as invoices can be transmitted easily and securely – in uniform processes and formats. One document type that can be transmitted via the Peppol network is XRechnung. This standard developed by the German Coordination Office for IT Standards („KoSIT“) is the only approved electronic format for invoices to the German administration. The XRechnung consists of an XML file whose semantic core elements are regulated by the DIN EN 16931 standard and whose syntax can adhere to both the Universal Business Language (UBL) and the CII scheme (Cross Industry Invoice) of UN/CEFACT. The XRechnung is addressed internally via the respective route ID (Leitweg-ID). For some authorities, the Leitweg-ID may correspond to the Peppol ID, but not always.

¹ 27th meeting of the IT Planning Council on 25 October 2018, available online at: https://www.it-planungsrat.de/SharedDocs/Sitzungen/DE/2018/Sitzung_27.html?pos=10.

Peppol ID Structure

9930	DE811459192
Issuing Agency Code	Value Provided by Issuing Agency
The first four digits of the Peppol ID describe the type of the following number. For example, the code “9930” means that it is followed by a German VAT ID. An index of all available codes can be found on the Peppol website.	The second part of the ID after the colon corresponds to the previously defined code. For a sender, a VAT ID or a GLN (Global Location Number) is recommended. This does not need to be registered. The recipient enters both the code and the corresponding number which must be registered as a whole.
Please find a detailed presentation here: https://Peppol.eu/wp-content/uploads/2017/12/Peppol_Policy-for-use-of-identifiers-300-11_certificates.pdf	

Peppol internationally

Common, international implementation

The **advantages of a common, international implementation** are obvious: the already mentioned uniform standard in accordance with Directive 2014/55/EU on electronic invoicing for public contracts in the European Union ensures internationally comprehensible documentation. Based on the introduced SML and SMP services, which allow dynamic addressing based on the standard protocols AS2 and AS4, no further arrangements are necessary. A glance at the member countries shows that the implementation of a common Peppol network is already well underway.

The **Austrian administration**, for example, offers domestic and foreign contract partners the possibility of submitting their invoices via a central channel within the framework of the e-government application “E-Billing.GV.AT.” For this purpose, a Peppol Access Point has been set up which accepts e-invoices transmitted via the Peppol eDelivery Network and forwards them for processing. Public administration contract partners have the option of using an existing Access Point for the transmission of e-invoices.²

² E-bill in Austria, available online at: https://www.erechnung.gv.at/erb?p=info_channel_Peppol.

Scandinavia leads

the pack

Local e-invoicing formats and exchange systems have been established in **Scandinavian countries** for many years. Today, Scandinavia has an e-invoicing rate of over 40 percent – clearly leading the pack in Europe.³ A provider model was chosen for the exchange of electronic documents between companies and the public administration. Standardized formats and national registers of all involved business partners were the key to success – like the later approach of Peppol.

In May 2018, the government of **Singapore** also joined the Peppol network and signed an agreement to establish a Peppol Authority. This agreement made Singapore the first country outside of Europe to do so. The Info-Communications Media Development Authority (IMDA) will be commissioned to establish uniform rules and specifications as well as certify AP providers. The IMDA also ensures conformity with the technical service standards of Peppol.⁴

Conclusion: Successful document dispatch digitization

Peppol:

Already common

The European path of **digitization** continues. In mid-February 2020, EU Commission President Ursula von der Leyen presented the EU Commission's digital strategy. The overarching goal is to establish Europe as a global, digital key player without losing sight of smaller members and institutions – with the Peppol project being a prime example. In the field of electronic document dispatch, the use of the Peppol eDelivery Network is already widespread, thanks in part to the EU Commission's drive to promote it. The attractiveness of being able to reach many recipients directly with a single connection has also been recognized by countries outside the EU. There is no need to set up individual connections. Instead, the eDelivery Network allows each subscriber to be reached directly via the respective Access Point. The 388-member

³ Study "E-bill is undergoing major market changes", available online at: https://billentis.com/Marktstudie2017_elektronische_Rechnung.pdf.

⁴ Singapore first Peppol Authority outside Europe, available online at: <https://Peppol.eu/singapore-first-Peppol-authority-outside-europe/>.

organization **OpenPeppol AISBL**, supported by the European Commission, continues to develop and operate the web service based infrastructure of Peppol. If you are interested, you can find information on the current status here:

<https://Peppol.eu/>.

Implemented

by a trustworthy partner

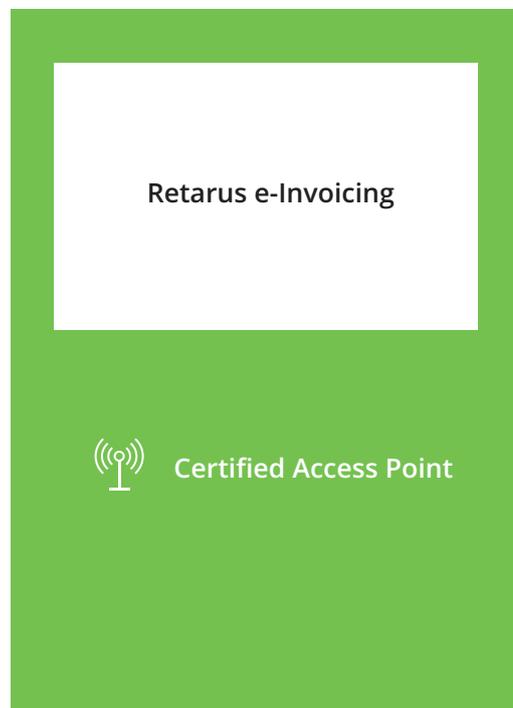
Ideally, the Peppol connection and its implementation is accomplished by a trustworthy partner. **Retarus** is fully certified as a “Certified Peppol Access Point” and offers an e-invoicing solution to successfully connect all stakeholders to the Peppol eDelivery Network. These include the public sector and eventually B2B customers. In addition, Retarus is very familiar with systems integration, international formats for electronic invoicing, and highly scalable cloud services. All that is needed is electronic billing data in any format via any communication protocol. The rest is handled by Retarus’ experts for Business Integration Services.

Access to the Peppol network

Retarus offers an E-Invoicing solution to integrate **all** your customers and suppliers.



BUSINESS INTEGRATION PLATFORM



PUBLIC SECTOR ¹



PUBLIC SECTOR ²



B2B CUSTOMERS & SUPPLIERS ³



B2C CUSTOMERS ⁴

¹ Peppol

² Direct Access FR (Chorus Pro), IT (SDI), CH etc.

³ via EDI, ZUGFeRD (hybrid), Clearing Center (IT), PDF (signed) etc.

⁴ via PDF, Transactional E-Mail