

## PAN-EUROPEAN PUBLIC PROCUREMENT ON-LINE (PEPPOL)

### What is PEPPOL

The Pan-European Public Procurement On-Line (PEPPOL) is a set of open standards and specifications which enables the exchange of standardised machine-readable documents between business partners. Some of the documents it can carry include: e-Invoice, e-Advance Shipping Notes, e-Catalogues, Message Level Responses and e-Orders.

PEPPOL is owned and maintained by the non-profit organisation OpenPEPPOL, and governed by a multilateral agreement structure. It was formed from the EU's need for cross-border interoperability in public procurement processes, and has gone on to prove its relevance outside Europe and for business-to-business interoperability.

There are 304 members from 32 countries on the PEPPOL network, with 199 Certified Access Points (AP) in 23 countries in Europe and North America. These APs serve over 160 thousand entities who exchanged more than 85 million electronic invoice transactions in 2018.

### Benefits of PEPPOL

PEPPOL standards and specifications enables business process interoperability, with its eDelivery Network and Transport Infrastructure Agreements providing the technical and legal basis for interoperability.

Buyers and suppliers are free to choose their preferred AP provider. Once enabled, buyers and sellers are connected with all PEPPOL participants already on the network. These APs facilitate a 'Connect once, Connect to all' concept which accelerates access to other players. E-invoicing offers the following main business benefits.

- *Cost reduction:* Moving from paper to e-invoices eliminates or reduces several costs to businesses such as storage and retrieval costs.

- *Faster payment cycles via improved verification and validation:* E-invoicing can accelerate invoice processing and payment times<sup>1</sup>. A common standard would allow quicker validation and reduce payment processing delays. According to Enterprise Singapore's<sup>2</sup> SME Financing Survey 2017, delays in customer payments was the top finance-related concern. The survey also noted three in five SMEs faced delayed payments from customers.
- *Access to new financing options:* E-invoicing allows for accurate and near-real time visibility of payment cycles. This enables better business sustainability and growth through efficient cash flow management. It also has the potential to enable more efficient supply-chain financing that could increase working capital and liquidity.

The PEPPOL approach is best positioned to meet Singapore's domestic needs while having an international outlook for the following reasons:

- An open standard intended to bridge interoperability across competing business solutions;
- Tried and tested standard, handling millions of transactions across Europe;
- Clear technical and legal frameworks at national and international levels;
- The capability to "connect once, connect to all" – the ability to deal with any other business on the network seamlessly; and
- A single and standardised means of issuing and receiving e-invoices with others on the PEPPOL network.

### **PEPPOL entities**

**OpenPEPPOL:** OpenPEPPOL is a non-profit international association under Belgian law (Association Internationale Sans But Lucratif) and consists of both public and private

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<sup>1</sup> A 2017 US Federal Reserve Bank of Minneapolis study indicates that about 92% of e-invoices were paid on time compared to 45% of paper invoices.

<sup>2</sup> The survey was conducted in 2017 by SPRING Singapore, now known as Enterprise Singapore, formed as a result of a merger with International Enterprise Singapore on 1 April 2018.

sector members. The association assumes full responsibility for the development and maintenance of the PEPPOL specifications, building blocks and its services and implementation.

**PEPPOL Authority:** PEPPOL Authorities are appointed by OpenPEPPOL to set national rules and country-specific requirements for service providers in the Authority's country to conform to. The local PEPPOL Authority is also in charge of approving and certifying Service Metadata Providers and Access Point providers. Currently, there are twelve PEPPOL Authorities (including Singapore):

- Agency for Digital Government (Sweden)
- Agency for Digital Italy (Italy)
- Agency for Public Management and eGovernment (Norway)
- Danish Business Authority (Denmark)
- Department of Health (UK)
- Department of Public Expenditure and Reform (Ireland)
- Federal Public Service Policy and Support (Belgium)
- Free Hanseatic City of Bremen – KoSIT (Germany)
- Infocomm Media Development Authority (Singapore)
- OpenPEPPOL AISBL
- Ministry of Economic Development (Poland)
- SimplerInvoicing (Netherlands)

Countries with no authorities can have SMP and AP providers approved and certified by OpenPEPPOL.

As Singapore's PEPPOL Authority, IMDA can set national rules and specifications that meet Singapore's domestic requirements, as well as appoint and certify service metadata publishers<sup>3</sup> and AP providers. IMDA will also ensure conformance to the PEPPOL technical and service standards.

**Access Point (AP) providers:** APs receive messages from their clients – and if necessary PEPPOL-format them – then route the messages to the relevant receiving AP

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<sup>3</sup> Service metadata publishers are akin to localized address books for PEPPOL's network. OpenPEPPOL maintains a master list

node via the eDelivery Network. Each AP is a node on the network. The receiving AP will send on received messages to the intended final recipient.

AP providers may offer value-added services, such as formatting non-standardised messages into the PEPPOL format (E.g. from PDF invoice to the machine-readable PEPPOL format), beyond being sender/receivers. It is expected that this is one area where key differentiation, innovation and competition can arise to provide a robust e-invoicing ecosystem marketplace.

**PEPPOL Service Metadata Publisher (SMP) providers:** Businesses who have signed up for, and can receive, PEPPOL documents must publish their receiving capabilities (e.g. delivery addresses, business processes and document types supported, etc.) using a separate service called a Service Metadata Publisher (SMP). The SMP is a local address book which lists businesses and their chosen receiving capabilities. The central address book - the Service Metadata Locator - is maintained and managed by OpenPEPPOL in cooperation with the European Commission.

### **PEPPOL Components**

PEPPOL has three components:

- eDelivery Network
- Business Interoperability Specifications (BIS)
- Transport Infrastructure Agreements (TIA)

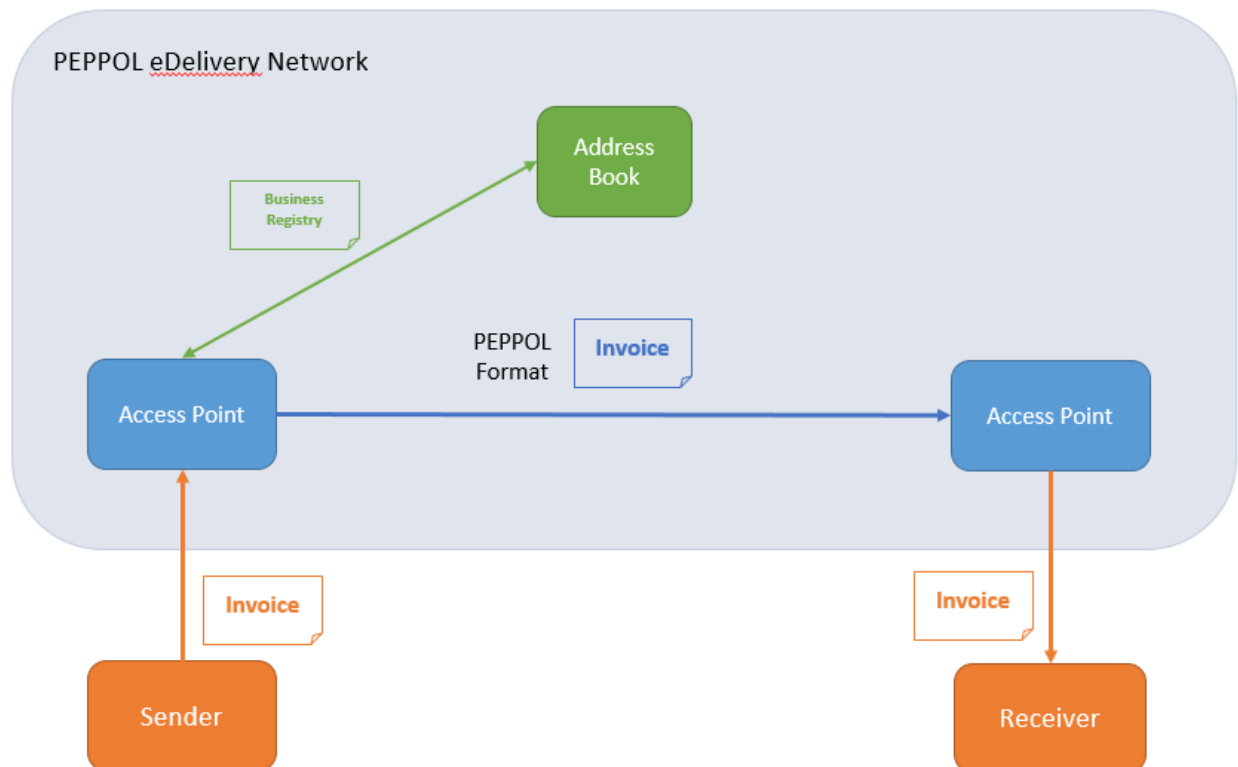
Combined, the three components provide the organisational, technical and legal basis for interoperability of PEPPOL.

**eDelivery Network:** The eDelivery Network connects all Access Points. Standardised messaging protocols and formats, alongside digital signatures are used to secure messages during transit.

**BIS:** BIS is a collection of specifications each encapsulating the common business processes and technical standards for a specific transmission item (e.g. e-Invoices). Documents sent on the eDelivery Network must adhere to their relevant BIS

specifications. BIS is maintained by OpenPEPPOL and based on the open ISO standard “Universal Business Language” (UBL – ISO/IEC 19845).

**TIA:** All businesses that wish to be SMPs or AP Providers, must sign the TIA with OpenPEPPOL or the Authority appointed by OpenPEPPOL. This is to ensure that services are provided in conformance to the technical standards and service specifications of OpenPEPPOL and the relevant authority.



*Figure 1: Sample of sending an e-Invoice on the PEPPOL network*

*Senders/Receivers can either connect directly to an Access Point or through third parties (eg. Accounting platforms) who are connected to Access Points.*

**For more information:**

E-mail: [info@peppol.eu](mailto:info@peppol.eu)

Web address: [www.peppol.eu](http://www.peppol.eu)

**List of Certified Access Points Providers in Singapore**

<b>Access Point (registered business name)</b>
ONPEPPOL.SG registered under Consumer Cloud Technology Service Pte Ltd
DataPost Pte Ltd
Esker Document Automation Asia Pte Ltd
IBM Singapore Pte Ltd
Pagero AB
PracBiz Pte Ltd
EzyProcure registered under Singapore E-Business Pte Ltd
SMECEN Pte Ltd
StarHub Ltd
Tradeshift ApS
eInvoice.sg registered under Workflow Management & Document Consulting Asia Pte Ltd