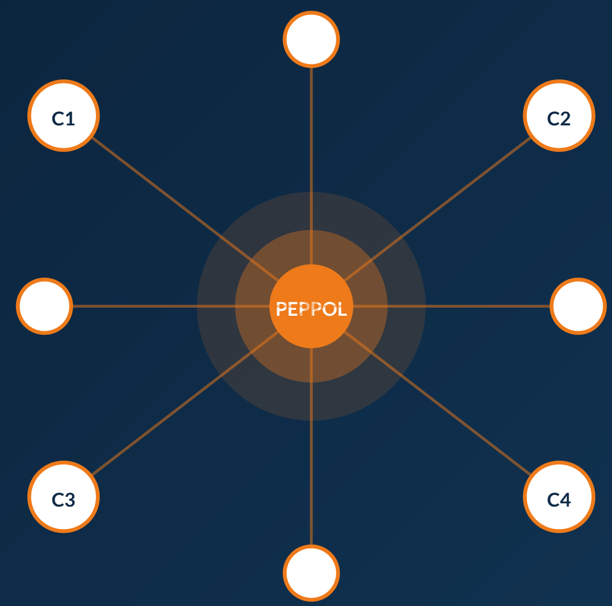
Peppol & the 4-Corner Model

E-Invoicing & E-Reporting Explained
Interoperability, network architecture and ViDA readiness

GLOBAL INTEROPERABILITY FRAMEWORK



Executive briefing | VATupdate Series

Executive summary

Peppol is the global reference framework for interoperable e-invoicing — “connect once, reach many”.

A global network

Peppol began as a European public procurement initiative in 2008 and is now operated globally by OpenPeppol, with national authorities in Europe, APAC and beyond.

The 4-corner model

Supplier → Supplier Access Point → Buyer Access Point → Buyer. Documents travel securely across the network via AS4, using EN 16931 semantics.

Aligned with ViDA

Peppol BIS Billing 3.0 is already EN 16931-compliant, positioning adopters strategically for VAT in the Digital Age and future Digital Reporting Requirements.

Leadership takeaway

Treat Peppol as a finance and compliance transformation lever — not just an IT integration. Investment in master data, Peppol ID governance and Access Point strategy today directly reduces the cost and risk of ViDA and future country mandates.

Why Peppol was created

Peppol was designed to solve fragmentation, high integration costs and cross-border complexity in electronic invoicing.

Fragmented ecosystem

Multiple proprietary networks, EDI VANs and portals — each with their own onboarding, contracts, and technical rules.

Format proliferation

UBL, CII, EDIFACT, XML variants, custom flat files — every trading partner effectively requiring a different setup.

Cross-border pain

Different national systems, languages and legal frameworks blocked seamless intra-EU and global invoice exchange.

Connect once

A single connection to a certified Access Point provides access to the entire global Peppol network.

Reach many

Suppliers can invoice thousands of buyers — public and private — without bilateral integrations.

Standardised

Common document formats (Peppol BIS) and protocols (AS4) enable straight-through automated processing.

Headline: Peppol replaces hundreds of point-to-point integrations with one shared, secure, standardised network.

The four layers of interoperability

Peppol addresses every layer required for two organisations to exchange invoices seamlessly and legally.

TECHNICAL	**How data is exchanged**	Transport protocols, message envelopes and security. Peppol uses the AS4 protocol for secure, reliable transmission.
SEMANTIC	**What data means**	Common definitions for invoice fields, based on EN 16931. Both parties interpret each element identically.
BUSINESS	**How processes align**	Standardised workflows for invoicing, credit notes, disputes and responses via Peppol BIS specifications.
LEGAL	**Validity across borders**	Documents exchanged via Peppol are legally valid for VAT, archiving, audit and evidence purposes.

Control principle: without all four layers, invoices may transmit but cannot be processed automatically or trusted legally.

The Peppol 4-corner model

Four distinct roles enable “connect once, reach many” without bilateral integrations.

CORNER 1
Supplier
Creates the invoice in its ERP or billing system.

CORNER 2
Supplier Access Point
Validates, formats and transmits securely over the network.

PEPPOL NETWORK
SML + SMPs
AS4 transport

CORNER 3
Buyer Access Point
Receives, validates and delivers to the buyer.

CORNER 4
Buyer
Ingests the invoice into ERP or AP automation.

A supplier with 500 customers needs one Access Point connection — not 500 bilateral integrations.

How an invoice travels through Peppol

Seven steps from creation in the supplier's ERP to processing in the buyer's AP system.

1	**Create**	Supplier generates invoice in ERP or billing system.
2	**Send to Access Point**	ERP transmits invoice to the supplier's certified Access Point.
3	**Validate & format**	Access Point checks Peppol BIS / EN 16931 compliance and converts if needed.
4	**Lookup routing**	Access Point queries the SML → SMP to find the correct buyer Access Point.
5	**Transmit via AS4**	Invoice sent securely between Access Points using the AS4 protocol.
6	**Receive & validate**	Buyer Access Point receives, validates and forwards to the buyer.
7	**Process**	Buyer ingests structured invoice into ERP or AP automation for touchless handling.

Access Points, SMP and SML

Three components make the Peppol network dynamic, secure and scalable.

Access Points

Certified gateways that connect participants to the Peppol network. They handle:

- Message validation & format conversion
- Encryption & digital signatures (AS4)
- Routing to the correct recipient
- Connection to sender/receiver ERP

Service Metadata Publisher (SMP)

An **address book entry** for a Peppol participant, storing:

- Peppol ID (unique identifier)
- Supported document types
- Serving Access Point & endpoint
- Supported transport protocols

Service Metadata Locator (SML)

The **DNS of the Peppol network** — the master directory that tells Access Points where to find each participant's SMP.

Simple analogy

SML = internet DNS (tells you where to look)
SMP = address book (tells you the details)
Access Point = post office (delivers the message)

Peppol BIS documents

Standardised specifications ensure every participant reads documents the same way.

BIS BILLING 3.0	**Invoices & credit notes**	Aligned with EN 16931, expressed in UBL 2.1. The core specification used globally for structured e-invoicing.
BIS ORDER	**Purchase orders**	Standardised electronic purchase orders enabling automated procurement workflows.
BIS DESPATCH ADVICE	**Shipping notifications**	Confirms shipment and delivery details, feeding downstream three-way match processes.
BIS ORDER RESPONSE	**Order acknowledgement**	Enables buyers and sellers to confirm, reject or adjust orders electronically.
BIS CATALOGUE	**Product catalogues**	Structured product data exchange between suppliers and buyers for procurement systems.

Country-specific extensions (CIUS) accommodate local VAT rules, identifiers and legal references.

Operational impact — suppliers and buyers

Peppol reshapes accounts receivable, accounts payable, ERP integration and master data governance.

For suppliers (AR / Order-to-Cash)

- Fully electronic invoice issuance — no PDF/paper
- ERP must produce Peppol UBL (directly or via middleware)
- Customer master data must carry Peppol IDs
- Frictionless customer onboarding
- Monitoring dashboard for sent / delivered / rejected
- Faster payment cycles, lower DSO

For buyers (AP / Procure-to-Pay)

- Structured invoices arrive directly in AP workflow
- Straight-through processing and 3-way matching
- Supplier onboarding without bespoke EDI setups
- ERP or AP automation ingests UBL natively
- Improved VAT compliance and audit trail
- Enables broader P2P digital transformation

Practical example: a Belgian hospital receiving 3,000 supplier invoices via Peppol automated 85% of AP processing — versus 20–30% under mixed PDF/EDI.

Peppol and government mandates

Governments increasingly anchor national e-invoicing strategies on the Peppol framework — with varying adoption models.

BE Belgium

Mandatory B2B structured e-invoicing from 1 January 2026, with Peppol BIS as the default standard.

SG Singapore

InvoiceNow national initiative, built on Peppol and operated by IMDA as Peppol Authority.

AU Australia

ATO acts as Peppol Authority; adopted for B2G with active promotion for B2B use.

NZ New Zealand

MBIE is Peppol Authority; B2G adoption in place, encouraging voluntary B2B.

NO Norway

Peppol pioneer; mandatory for B2G and widely adopted for B2B invoicing.

SE Sweden

Mandatory B2G e-invoicing via Peppol since 2019.

NL Netherlands

Peppol mandatory for B2G invoicing to central government.

MY Malaysia

MDEC appointed as Peppol Authority; Peppol integrated alongside LHDN mandate.

JP Japan

Digital Agency serves as Peppol Authority; JP BIS supports qualified invoice system.

Governance rule: participation approaches vary — voluntary, B2G-mandatory or full B2B mandate. Verify country-specific extensions per jurisdiction.

Peppol and ViDA

Peppol is technology-neutral under ViDA, but strongly aligned — making it a strategic solution for future compliance.

What ViDA introduces

- Digital Reporting Requirements (DRR) for intra-EU B2B
- Structured e-invoicing based on EN 16931
- Cross-border reporting replaces VIES from 1 July 2030
- Increased focus on interoperability between MS

Why Peppol is well positioned

- Peppol BIS Billing 3.0 already aligned with EN 16931
- Existing global network for structured exchange
- Evolution to 5-corner model (with tax authority)
- Proven governance via OpenPeppol & national authorities

Important clarification

Peppol is **not automatically mandatory** under ViDA. ViDA sets requirements for structured e-invoicing and digital reporting but remains technology-neutral. However, Peppol is widely viewed as the most future-proof strategic choice for organisations preparing for ViDA and expanding national mandates.

Implementation priorities & lessons learned

Peppol success depends more on data governance, change management and testing than on XML generation alone.

1

Master data quality

Cleanse VAT IDs, addresses and Peppol IDs before go-live. Poor data is the #1 cause of routing and validation failures.

2

Peppol ID governance

Maintain accurate mapping between internal customer/supplier IDs and Peppol participant identifiers.

3

ERP readiness

Assess ability to generate/consume UBL. Deploy middleware or Access Point conversion where needed.

4

Change management

Align finance, IT, procurement and business stakeholders — Peppol is not purely a technology project.

5

Supplier / customer adoption

Onboarding campaigns and education are essential. Being Peppol-ready alone is not enough.

6

Testing & exception handling

End-to-end testing with Access Points and clear procedures for rejections, outages and errors.

Recommended action plan

Prioritise foundations now; build strategic capability for ViDA and expanding country mandates.

NOW

Cleanse master data, select an Access Point provider and pilot with strategic trading partners.

NEXT 90 DAYS

Formalise Peppol ID governance, ERP integration approach and end-to-end validation testing.

2026–2028

Scale onboarding across customers and suppliers; align with country-specific mandates as they enter force.

BY 2030

Integrate ViDA cross-border DRR; extend Peppol adoption to procurement flows and 5-corner reporting.

Decision ask: sponsor a single global Peppol workstream covering Access Point strategy, master data, ERP integration and ViDA readiness.

Key takeaways

Ten concepts every tax, finance and compliance leader should retain.

1. Peppol is a **global interoperability framework** for structured e-invoicing and procurement documents.
2. It solves **fragmentation**, integration cost and cross-border complexity.
3. Interoperability spans **technical, semantic, business and legal** layers.
4. The **4-corner model** enables “connect once, reach many”.
5. **Access Points** are certified gateways handling validation, security and routing.
6. **SMP** is the address book; **SML** is the DNS of the network.
7. **Peppol BIS** aligns with EN 16931, standardising invoice structure and semantics.
8. Governments in Belgium, Singapore, Norway, Australia, Malaysia and Japan actively use Peppol.
9. Peppol aligns strongly with **ViDA** but is not automatically mandatory under it.
10. Success depends on **data, ERP readiness and change management** — not just technology.

Further reading & primary references

Official and specialist sources for Peppol, EN 16931 and ViDA.

- **OpenPeppol AISBL — governance body and specifications**
  https://peppol.org
- **European Commission — eInvoicing initiative and EN 16931**
  https://ec.europa.eu/digital-building-blocks/sites/display/DIGITAL/eInvoicing
- **Directive 2014/55/EU — electronic invoicing in public procurement**
  https://eur-lex.europa.eu/eli/dir/2014/55/oj
- **Council Directive (EU) 2025/516 — ViDA package**
  https://eur-lex.europa.eu/eli/dir/2025/516/oj
- **National Peppol Authorities — BE (FPS BOSA), SG (IMDA), AU (ATO), NZ (MBIE), NO (Digdir), SE (DIGG), NL (NPa), MY (MDEC), JP (Digital Agency)**
  Refer to each authority's official portal
- **VATupdate — Peppol & global e-invoicing coverage**
  https://www.vatupdate.com
- **VATupdate — country e-invoicing briefings and mandate trackers**
  https://www.vatupdate.com/category/e-invoicing/

Regulatory landscapes evolve rapidly. Readers should verify current requirements with official sources and qualified advisors before making implementation decisions.