451 Research® | Advisory

PEPPOL Adoption in the European Union

NOVEMBER 2017

COMMISSIONED BY

TRADESHIFT®

About this paper

A Black & White paper is a study based on primary research survey data that assesses the market dynamics of a key enterprise technology segment through the lens of the "on the ground" experience and opinions of real practitioners – what they are doing, and why they are doing it.

About 451 Research

451 Research is a preeminent information technology research and advisory company. With a core focus on technology innovation and market disruption, we provide essential insight for leaders of the digital economy. More than 100 analysts and consultants deliver that insight via syndicated research, advisory services and live events to over 1,000 client organizations in North America, Europe and around the world. Founded in 2000 and headquartered in New York, 451 Research is a division of The 451 Group.

INTRODUCTION

More than 250,000 public authorities in the European Union annually spend roughly 14% of their gross domestic product procuring goods and services through public tenders. Source-to-pay technology facilitates access to public tenders and improves transparency to hold government authorities accountable in the procurement process. The Pan-European Public Procurement Online (PEPPOL) is an electronic data interchange protocol for public entities and their sellers or suppliers to exchange digital business documents using eProcurement. Today, 16 European countries use PEPPOL to simplify the purchase-to-pay process between suppliers and government bodies.

To understand the state of PEPPOL and the business drivers that lead organizations to adopt it, 451 Research conducted a web-based survey of 153 business owners, executives, managers and directors of organizations that supply goods and services to government entities. Altogether, the 153 respondents from Belgium (25), France (26), Germany (25), the Netherlands (25), and the UK (52) provided sufficient information to understand PEPPOL adoption and the benefits that respondents aimed to derive from online procurement.

KEY FINDINGS

- PEPPOL adoption has been increasing since 2012. Most respondents decided to adopt PEPPOL in 2015, with the majority of interviewees approving it from 2015-2017.

- PEPPOL is not difficult to implement. Most organizations deployed the network within six months of their decision to use it.

- In regard to the pre-award procurement stage, most respondents that adopted PEPPOL for tender offers and document exchange did so to simplify eProcurement, increase new business opportunities and save money. Other reasons included to save time, improve their competitive stance, and gain access to PEPPOL access point services.

- Most respondents have implemented the PEPPOL electronic signature (eSignature) component, followed by electronic ordering (e-ordering), electronic catalog (eCatalogue), Virtual Company Dossier (VCD) and electronic invoicing (e-invoicing).

- Besides the growth of PEPPOL for public eProcurement, the online procurement system is poised for growth in the private sector. Every country represented in the survey had plans for PEPPOL for business-to-business (B2B) procurement.

- Most respondents receive access point services from a private company.

- More respondents said they access the PEPPOL Transport Infrastructure from a stand-alone web interface than an ERP application.

- Brexit will have a minimal impact on PEPPOL adoption in Europe.

Insights to PEPPOL Adoption and Business Benefits

451 Research gained insights into PEPPOL adoption and business benefits from surveying individuals who worked on the supply side of public procurement. These people mostly worked in organizations with more than 500 employees but less than 10,000. Some of those surveyed were from groups with less than 500 employees (17%), and some were from businesses with more than 10,000 (19%). Most of the respondents fit into the information technology and telecommunications segment, followed by the manufacturing, retail and commerce, and business services industries. A minority of respondents identified separately with healthcare, finance, automotive, insurance and education.

Figure 1: Respondent titles

Q. Which of the following best describes your job seniority?

17%

22%

7%

35%

19%

n=153

- Business owner
- C-level
- General manager
- VP-level
- Director
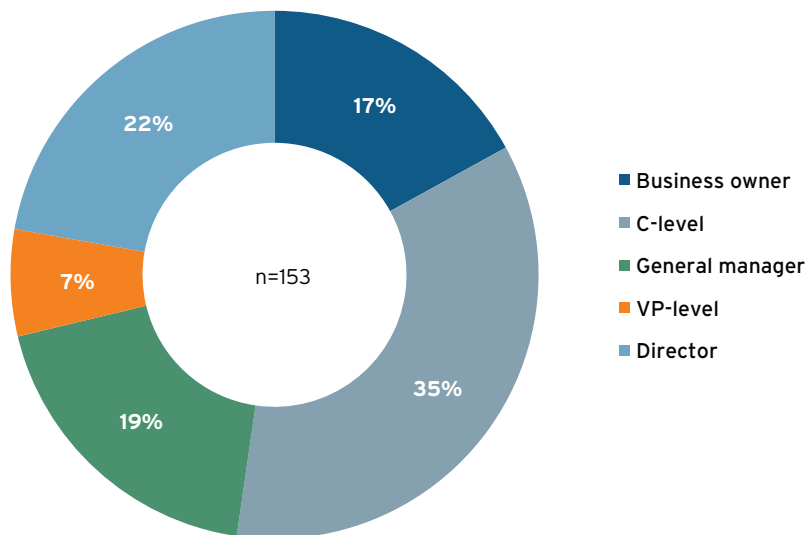
Source: 451 Research, PEPPOL Survey

All respondents were accountable or responsible for the public procurement process as business owners, general managers, C-level executives, vice presidents or directors. Most people surveyed identified with a department of six or more full-time employees dedicated to public procurement or government sales.

Most individuals interviewed were from organizations with a roughly equivalent mix (50-50%, 60-40%, or 40-60%) of local vs. cross-border public procurement contracts. Few individuals were from groups that mostly relied on domestic or foreign contract awards. Respondents identified the UK and France as the top countries in awarding government contracts, followed by Belgium, the Netherlands, Finland and Sweden. Norway and Denmark granted respondents the least awards.

PEPPOL Adoption

PEPPOL adoption has been increasing since 2012. Although some respondents (36%) were early adopters of PEPPOL and decided to adopt the online procurement network before 2015, the majority of those interviewed (64%) chose to take PEPPOL on after 2015.

Figure 2: PEPPOL decision date

Q. Your organization decided to use PEPPOL on ~Q10~. After this date, when did your organization begin using PEPPOL? (Implementation date – Decision date)

Less than 1 month ■ 1 - < 3 months ■ 3 - < 6 months ■ 6 - < 12 months ■ 1 - < 2 years ■ 2+ years
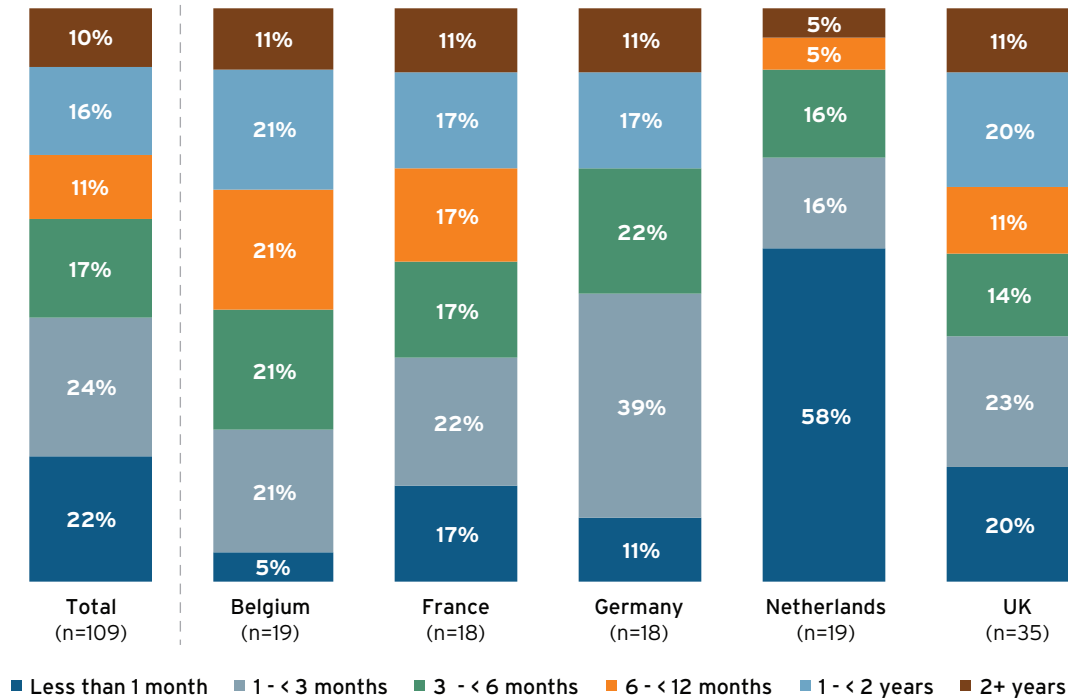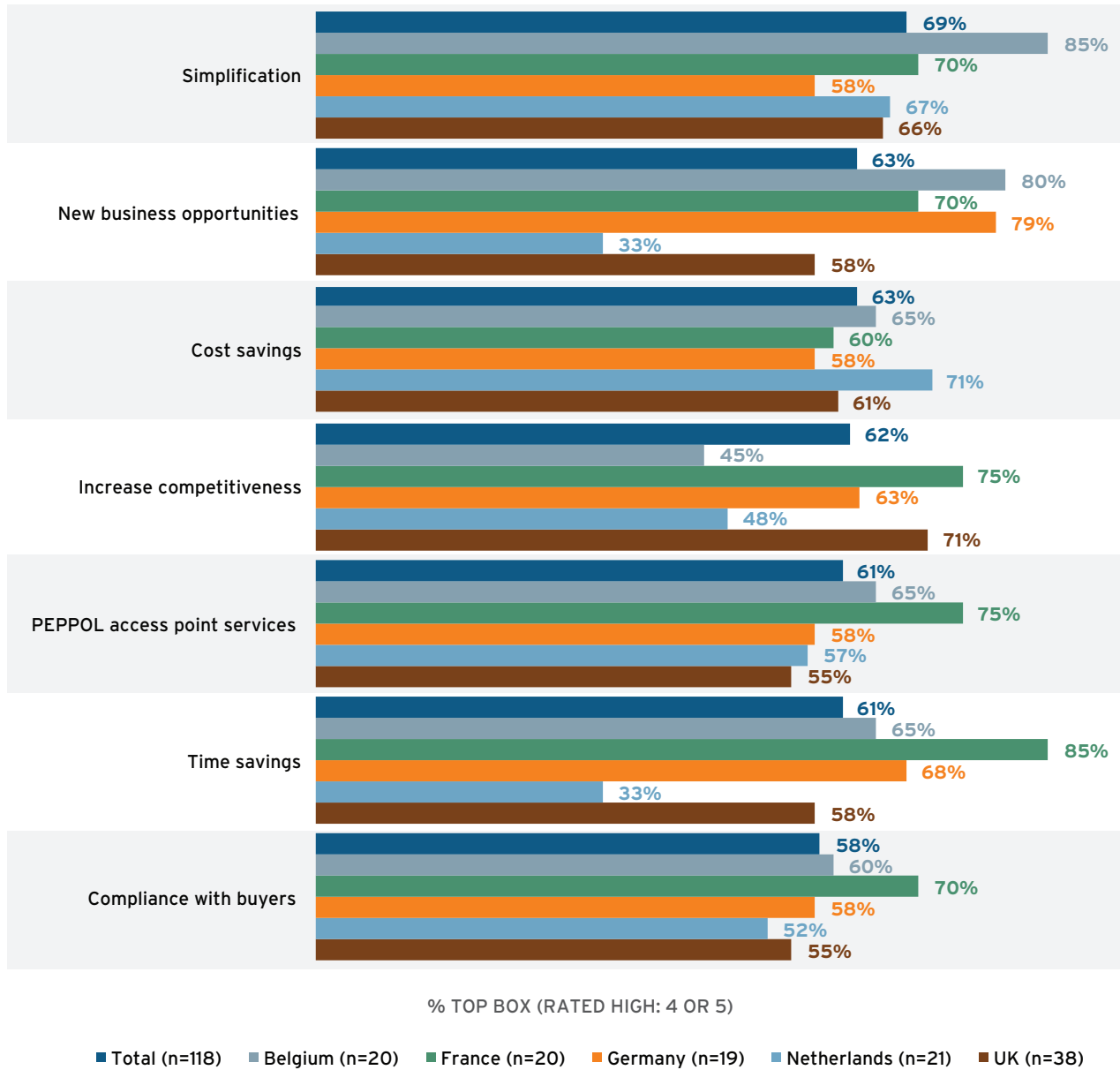
Source: 451 Research, PEPPOL Survey

Most organizations did not have difficulty implementing PEPPOL. Figure 2 shows that a majority of organizations deployed the network within six months of deciding to use it. The Netherlands appeared to have the quickest uptake of PEPPOL, with a majority of respondents implementing the system in less than one month.

Reasons to adopt PEPPOL

Figure 3: PEPPOL adoption reasons

Q. What were the reasons to adopt PEPPOL for tender offers and/or document exchange? Please rate the importance of the reasons from high (5) to low (1).

% TOP BOX (RATED HIGH: 4 OR 5)

■ Total (n=118)　■ Belgium (n=20)　■ France (n=20)　■ Germany (n=19)　■ Netherlands (n=21)　■ UK (n=38)

Source: 451 Research, PEPPOL Survey

With the EU Commission's focus on the pre-award phase of public procurement, we assume that e-invoicing is being adopted for strictly commercial activities and done in compliance with buyers' requirements or for sellers to receive prompt payment for goods and services sold. Regardless, the e-invoicing Directive 2014/55/EU mandates the use of electronic invoices (eInvoices) that the member states must adopt by November 27, 2018. Once the directive is transposed to national law in each member country, we see a further increase in the use of PEPPOL to meet compliance with buyers' requirements.

Norway has the fastest-growing PEPPOL-based e-invoicing, with 48,000 public and private sector entities registered as of December 2016. E-invoicing is mandatory in Austria, Belgium, Germany, Latvia, Luxembourg, Portugal, Spain and Sweden. Austria, Belgium and Sweden have implemented PEPPOL for e-invoicing. In 2015, more than half of Swedish public authorities connected to PEPPOL. It will be mandatory in Sweden on November 1, 2018. PEPPOL e-invoicing is compulsory for buyers in the Netherlands. Danish suppliers are required to use the national e-invoicing platform, called NemHandel, which connects to the PEPPOL network. Other countries that have adopted PEPPOL include Austria, Croatia, Denmark, France, Ireland, Italy and Poland. (See Appendix B: Select E-invoicing and PEPPOL Adoption in Europe.)

Suppliers primarily adopted PEPPOL to simplify the procurement process – receiving tender offers and exchanging documents with customers. Respondents from Belgium and Germany indicated that new business opportunities were the primary reason to adopt PEPPOL, while French respondents mainly took on PEPPOL to save time. Other top reasons organizations chose PEPPOL were to save money, improve competitiveness, gain access to PEPPOL access point services, and comply with buyer requirements.

PEPPOL COMPONENTS

Figure 4: PEPPOL component use

Q. What PEPPOL components does your organization use? Select all that apply.
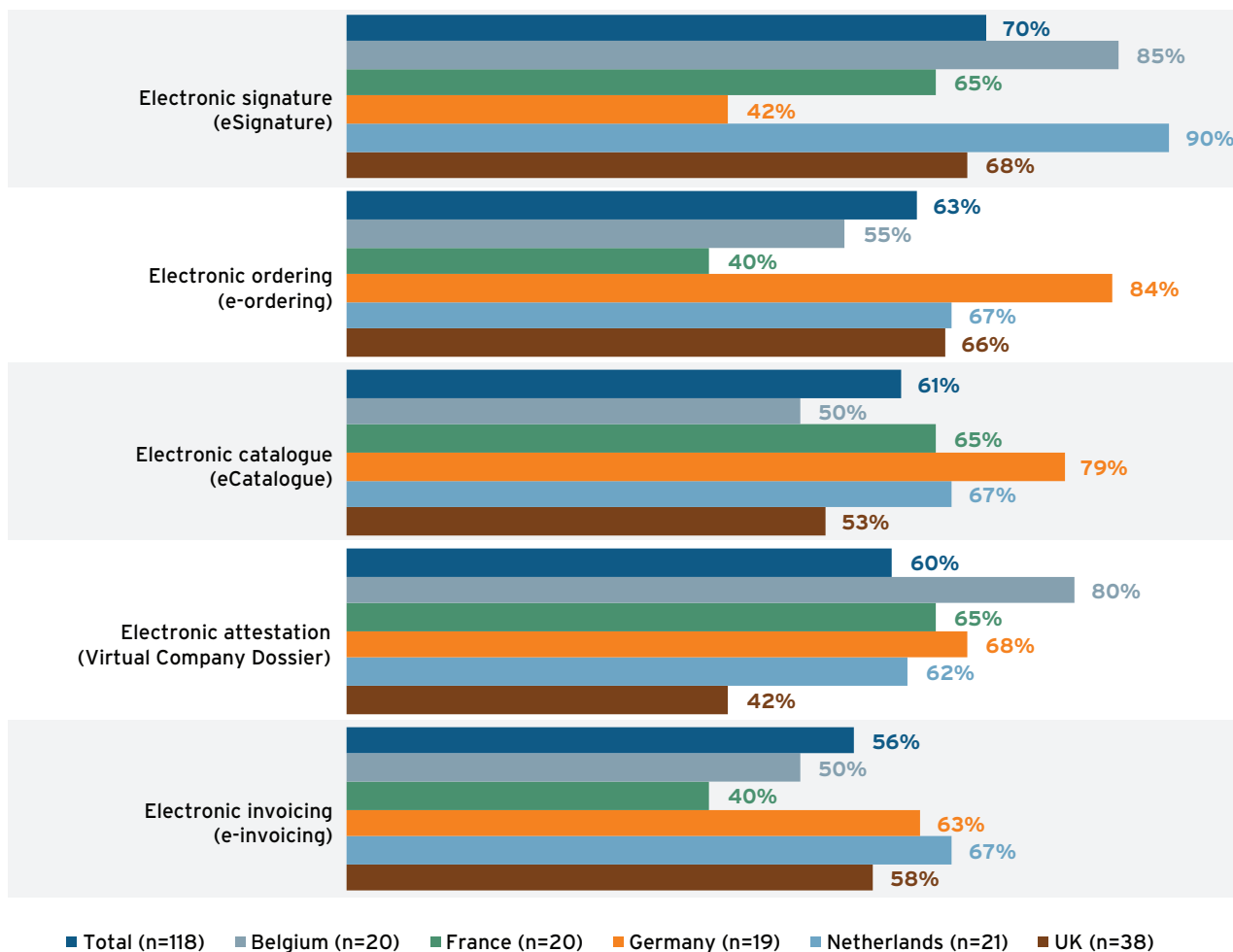
Source: 451 Research PEPPOL Survey

The PEPPOL network consists of several components, including eSignature, e-ordering, eCatalogue, electronic attestation (VCD) and e-invoicing. Most individuals surveyed have implemented a PEPPOL eSignature component (70%), followed closely by elements for eOrdering, eCatalogue and VCD, with eInvoicing bringing up the rear, which was surprising. It may be telling that many survey respondents' country profiles did not bespeak PEPPOL e-invoicing requirements, which means room for growth with the EU e-invoicing mandate. (See Appendix B.)

The UK and France awarded respondents the most public contracts. PEPPOL e-invoicing in the UK is limited to the National Health Service, and France has its national e-invoicing platform, called Chorus Factures. Belgium has a national e-invoicing platform, called Mercurius, and Germany is distracted from PEPPOL with the ZUGFeRD eInvoice format. But Directive 2014/55/EU mandating e-invoicing in EU member countries by November 2018 will drive organizations to adopt a standard and transport for e-invoicing – at least for suppliers to compete in eProcurement outside of their national boundaries. We assume PEPPOL standards will rise to this occasion.

From another look at the survey data, we found that some respondents integrate software with an invoicing application, but these same respondents did not indicate they use a PEPPOL e-invoicing component. We assume these respondents combine e-invoicing with an enterprise application and use an electronic data interchange to transmit invoices to buyers.

Besides PEPPOL's growth trajectory in the public sector, almost all respondents indicated that they are using or plan to use PEPPOL for private sector procurement.

Figure 5: PEPPOL use for private sector procurement

Q. Is your organization using or planning to use PEPPOL for private sector procurement?

Using | Planning to use | No plans | Don't know
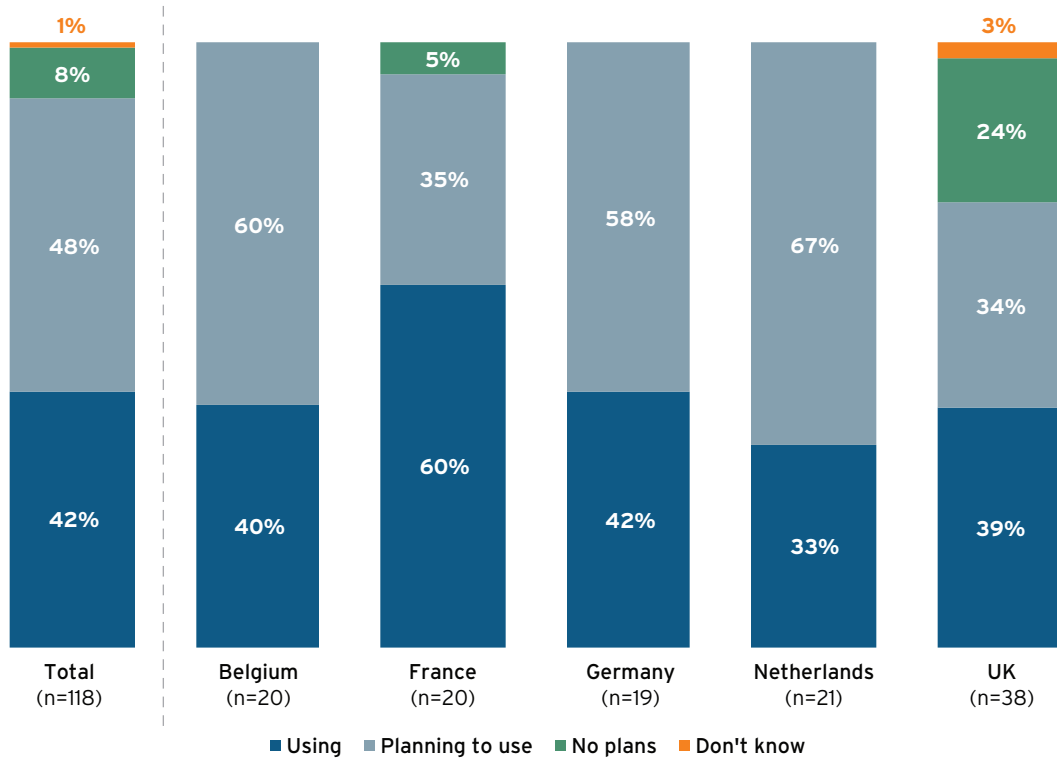
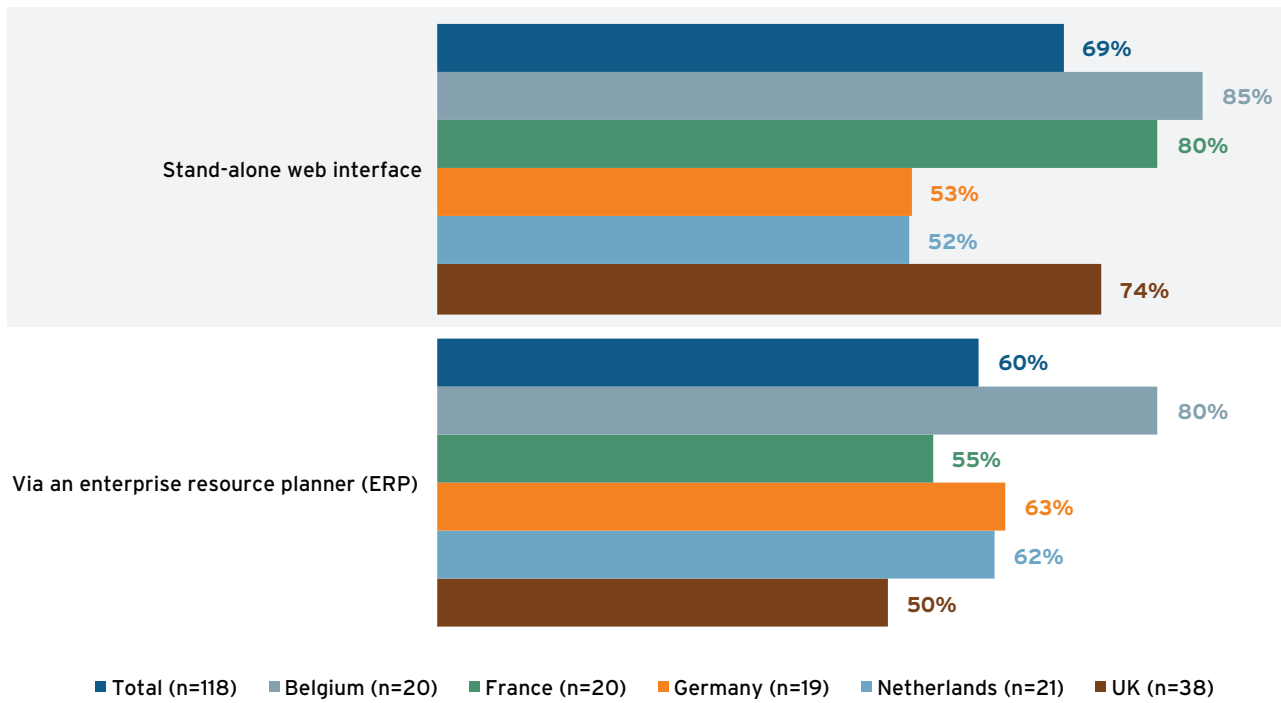*Source: 451 Research, PEPPOL Survey*

PEPPOL private sector use is poised for growth in all the countries profiled in the survey. We assume what's good for business-to-government procurement is good for B2B procurement. France appears to lead the way for PEPPOL's B2B eProcurement. Few respondents had no plans for PEPPOL's private sector use.

Accessing PEPPOL Transport Infrastructure

PEPPOL access point services are provided by private companies, administered by public entities, or are self-owned and operated. More than half of respondents who use PEPPOL receive access point services from a private corporation. Less than half use access points administered by a public entity. A small number of respondents own and operate access points.

Figure 6: PEPPOL Transport Infrastructure access

Q. How does your organization access the PEPPOL transport infrastructure? Check all that apply.

Stand-alone web interface
- 69%
- 85%
- 80%
- 53%
- 52%
- 74%

Via an enterprise resource planner (ERP)
- 60%
- 80%
- 55%
- 63%
- 62%
- 50%

■ Total (n=118) ■ Belgium (n=20) ■ France (n=20) ■ Germany (n=19) ■ Netherlands (n=21) ■ UK (n=38)

Source: 451 Research PEPPOL Survey

Although some respondents may use e-invoicing with an ERP application, most organizations use a stand-alone web interface to access the PEPPOL Transport Infrastructure.

BREXIT IMPACT AND OTHER PROTECTIONIST/POPULIST TRENDS

On June 23, 2016, 51.9% of the participating UK electorate (72.2%) voted in a referendum to leave the EU, which is popularly known as Brexit. On March 29, the British government invoked Article 50 of the Treaty on the European Union, which details the process by which a member country may withdraw from the EU. Per Article 50, the UK is on a course to leave the EU by March 2019.

The referendum was divisive for British citizens in 2016, but the divisions and factions, whether for or against leaving the EU, have cooled. In 2016, some organizations decided to implement PEPPOL (14%), but few respondents from the UK opted to deploy the network. Political uncertainty breeds financial instability, and we can only assume that the referendum had a chilling effect on PEPPOL adoption. In 2017, PEPPOL adoption in the UK will rival its adoption prior to Brexit, from 2012-14.

Prime Minister Theresa May most likely affected the change in direction from 2016 to 2017. In January, May set out 12 principles to guide the government through Brexit. Principle 8 aims to ensure free trade with European markets, and Principle 9 promises to secure new trade agreements with other countries.

The British government's policy paper on the "*Continuity in the availability of goods for the EU and the UK*" (August 21, 2017) recognizes that the EU is the UK's top trading partner. The paper documents that the EU is UK's largest market for goods and, in 2016, EU member states exported more goods to the UK than to any third country. In the interest of maintaining an integrated trade and economic relationship after the UK's exit from the EU, the government proposed four principles toward an agreement on goods, which included:

- "Goods placed on the single market before exit should continue to circulate freely in the UK and EU, without additional requirements or restrictions."

- "Where businesses have undertaken compliance activities prior to exit, they should not be required to duplicate these activities … to place goods on the UK and EU market after exit."

- "Where goods are supplied with services [including those offered before departure], there should be no restriction to the provision of these services that could undermine the agreement on goods."

The law of England and Wales will reflect European Community Law. The European Union (Withdrawal) Bill, which repeals the European Communities Act 1972, passed its second reading in the House of Commons. The Withdrawal Bill, popularly known as the Repeal Bill, will prepare UK statutes for a smooth withdrawal from the EU and lay the groundwork to reenact Community Law in England and Wales.

PEPPOL does not operate under the auspices of the EU or the UK. OpenPEPPOL, a non-profit international association under Belgian law (association internationale sans but lucratif) is responsible for the development and maintenance of PEPPOL specifications, services and implementation in Europe. The association's purpose is to enable European businesses to electronically deal with any European public sector buyer in the procurement process.

As the UK government adds legal certainty to Brexit and continues to bring confidence to the UK's import and export trade post-Brexit, businesses on both sides of the English Channel will soon resume business as usual. And as OpenPEPPOL operates extra-politico, it will continue to align European suppliers with public sector buyers through Brexit and other events that lead to political instability. Hence, we see the minimal impact of Brexit on PEPPOL adoption as long as online procurement remains a high priority for public entity buyers to drive down costs and for suppliers to comply with customers' requirements, save time, and acquire new business opportunities.

Conclusion: The 451 Take

PEPPOL adoption and use in the EU is increasing in public and private sector eProcurement to simplify the procurement process. Besides simplification, organizations chose PEPPOL to increase new business opportunities, save money, improve their competitiveness and gain access to PEPPOL access point services. Although complying with buyers' requirements was not a top choice in adopting PEPPOL, we see that reason gaining more traction as e-invoicing becomes the norm throughout the EU.

With Directive 2015/55/EU, mandating e-invoicing in member countries, PEPPOL's growth will accelerate to November 2018 and beyond to comply with new national laws implementing the directive. The impact of Brexit and other protectionist and political trends will have little to no effect on PEPPOL adoption because the network is apolitical, bringing public sector buyers and suppliers together without political ramifications.

Appendix A: PEPPOL Fundamentals

Pan-European Public Procurement Online comprises a set of standards for business documents and a network where public buyers and sellers or suppliers communicate. PEPPOL is designed to facilitate eProcurement, allowing any business to interact in eProcurement with any European public authority. From a high level, eProcurement has two phases: pre-award and post-award.

In the pre-award phase, PEPPOL offers a VCD for suppliers to submit company information, which includes certificates, attestations and evidence information in a standardized format. Additional pre-award PEPPOL services include an eCatalogue to provide product information to buyers in the tendering process and a pan-European eSignature validation service. In the post-award contract phase, PEPPOL-compliant business documents, such as eCatalogues, eInvoices and eOrders are exchanged via interconnected PEPPOL access points for public entities and their suppliers.

The PEPPOL network allows buyers and suppliers to transfer electronic business documents across Europe via access points. Through access points provided by private companies and government agencies, business documents can be validated and processed using methods implementing the PEPPOL Business Interoperability Specification, which supports Universal Business Language.

PEPPOL Transport Infrastructure Agreements (TIAs) regulate the relationship between access point providers. TIAs establish a many-to-many legal framework to exchange business documents instead of bilateral agreements between service providers. Hence, PEPPOL enables interoperability to share, comprehend and electronically process information. PEPPOL does not replace existing systems; it connects them.

Appendix B: Select E-invoicing and PEPPOL Adoption in Europe

European Union: The European Commission implemented an e-invoicing platform, called e-PRIOR, which is based on PEPPOL specifications and connects to the PEPPOL infrastructure.

Austria: Since 2014, e-invoicing the federal government is mandatory, and all suppliers are obliged to use eInvoices according to Austrian ICT consolidation law (IKTKonG). The PEPPOL transport infrastructure is an acceptable means to transmit eInvoices.

Belgium: The public sector stimulates the adoption of business-to-government e-invoicing with Mercurius, a B2G e-invoicing platform based on the EU's e-PRIOR system. Belgium integrated PEPPOL with Mercurius, and since April 1, 2016, the public sector recommends PEPPOL to receive invoices. Belgium is also the home of a PEPPOL Authority, which qualifies persons or entities that want to be access point providers. Authorities provide access point providers with support in testing and validating access points, act as a clearinghouse for all public administrations that receive PEPPOL messages, monitor compliance with PEPPOL's legal and policy considerations for access points, and provide information support for PEPPOL users.[1]

Denmark: Since 2005, Danish suppliers are required to send eInvoices through the national e-invoicing platform, called NemHandel, using the OIOUBL eInvoice format. Like PEPPOL eInvoices, OIOUBL relies on the Universal Business Language. NemHandel is PEPPOL-enabled.

England: The National Health Service requires PEPPOL standards for electronic purchase orders and invoice messaging, and mandates their exchange on PEPPOL access points. Since October 2016, the Department of Health has acted as a PEPPOL Authority for National Health Service entities.

France: In January 2012, the Modernization Law of the French Administration mandated e-invoicing for the French ministries and related entities. The Simplification Law (October 4, 2013) required all suppliers to send e-invoices to the public sector by the beginning of 2017, when a gradual rollout of e-invoicing ensued in public and private areas for completion by January 1, 2020. The Chorus Factures, which connects to a PEPPOL access point, is the national portal for e-invoicing to French public entities.

Germany: Due to Germany's focus on the ZUGFeRD eInvoice format, the country is not actively supporting PEPPOL documents. The ZUGFeRD promotes eInvoice exchange in the public and private sectors. Any size organization, even freelancers, can use the ZUGFeRD's PDF/A-3 format, which supports human-readable PDF/A content with embedded machine-readable XML. But given the EU Directive 2014/55/EU mandating e-invoicing, Germany may have to accept PEPPOL documents for suppliers to compete for public tenders in other member countries.

Italy: Since 2015, e-invoicing to the public sector is mandatory for all public entities. Suppliers are required to send invoices in a national XML format, called FatturaPA. The Italy Digital Agency (AgID) coordinates the adoption of a unified system of eProcurement in the public sector and defines the interoperability requirements of systems. For interoperability, AgID introduced PEPPOL as a reference architecture, and it acts as a PEPPOL Authority.

Norway: Since 2012, Norway has required public authorities to use e-invoicing for all procurement activities. The central government mandates its suppliers use the EHF format, which is a national deployment of the PEPPOL Business Interoperability Specifications, and recommends PEPPOL access points to exchange documents.

Poland: Poland will implement the EU Directive 2014/55/EU before November 2018. The country will gradually roll out e-invoicing to the public and private sector from 2018 to 2020. In November 2018, contracting parties must accept structured eInvoices. In November 2020, suppliers must issue structured eInvoices.

Sweden: The Swedish government will implement the EU Directive on e-invoicing into law by 2018. Since 2014, the Swedish public sector has championed PEPPOL as the messaging standard for following electronic documents: eCatalogues and Svehandel (eOrders and eInvoices). The Swedish National Financial Management Authority focus has been to introduce e-invoicing and establish a common infrastructure to facilitate cross-border trade.

---

1   There are eight PEPPOL Authorities: Beleid en Ondersteuning – Stratégie et Appui (BOSA) in Belgium; Agency for Digitisation in Denmark; Department of Health (NHS) in England; Agency for Digital Italy (AgID) in Italy; SimplerInvoicing in the Netherlands; Agency for Public Management and eGovernment (Difi) in Norway; Ministry of Economic Development in Poland; and the Swedish National Financial Management Authority (ESV) in Sweden.