E-Invoicing / E-Billing

International Market Overview & Forecast



Bruno Koch February 2020

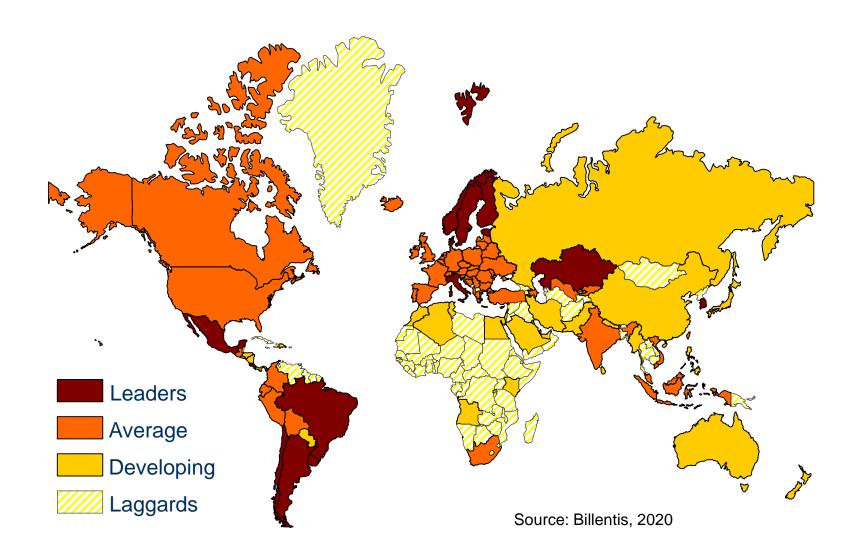


Global overview

04.02.2020 page 2

International E-Invoicing Market 2020 B2B, B2G, G2B and B2C





Expected E-Bill/E-Invoice volume 2020 (billions) & trend radar



Recipient segment	Europe		LATAM		North America		APAC		Rest of World	
Consumer	6		9		5	\Rightarrow	6	<i>→</i>	0.5	
Business & Government	8		13		6		7	7	0.5	

Estimated electronic invoices/bills 2020 (billions, strongly rounded)

Relative growth rates 🥒

The applied definition for e-bills/e-invoices is described on last page of this document.

North America



- Payment, Trade Finance, Dynamic Discounting and Procurement as main drivers in the B2B segment
- Still preference for optimization of internal operations (AR and AP management), but focus on collaboration and electronic interaction between trading partners increasing
- Federal Reserve and e-invoicing work group pushing industry efforts to develop and promote the adoption of standards that enable end-to-end electronic processing of business invoices, payments and remittance information and to build an e-invoicing interoperability framework for vendors. In Q4 2019, two PDF documents were published for <u>download</u>:
 - e-Delivery Network Feasibility Assessment Report
 - Semantic Model Assessment

Latin America



- E-invoicing and electronic tax reporting pushed by public sector
- Real-time audit or invoice data mining by tax authorities with the aim of combating tax evasion
- Mandates for e-invoicing in a majority of Latin American countries
- Brazil, Mexico, and Chile as market leaders
- In 2020, Bolivia, Columbia and Guatemala extending e-invoicing mandate to remaining groups of users
- Other Latin American countries pushing roll-out respectively preparing the field for e-invoicing mandate, in particular Dominican Republic, El Salvador, Honduras, Panama, Paraguay and Peru
- Next step in invoice-related digitalization: exchange of all fiscal documents just in electronic format; affects 20-30 messages

Asia & Pacific



- Meanwhile mature and strongly accelerating. Most promising market regarding invoice volume, absolute and relative e-invoice growth until 2025!
- China is ready for mass market roll-out for B2C and B2B.
- New mandates now in place in Kyrgyzstan and Uzbekistan.
- From April 2020, electronic invoice registration will become mandatory in India. Due to rich invoice content, this is also expected to pave the way for e-invoice transmission to buyers.
- 2-3 countries in Middle East expected to mandate e-invoicing.
- Vietnam makes e-invoices compulsory for all enterprises from November 2020.
- In particular leading ASEAN countries are pushing e-invoicing based on the Peppol interoperability framework.

Europe

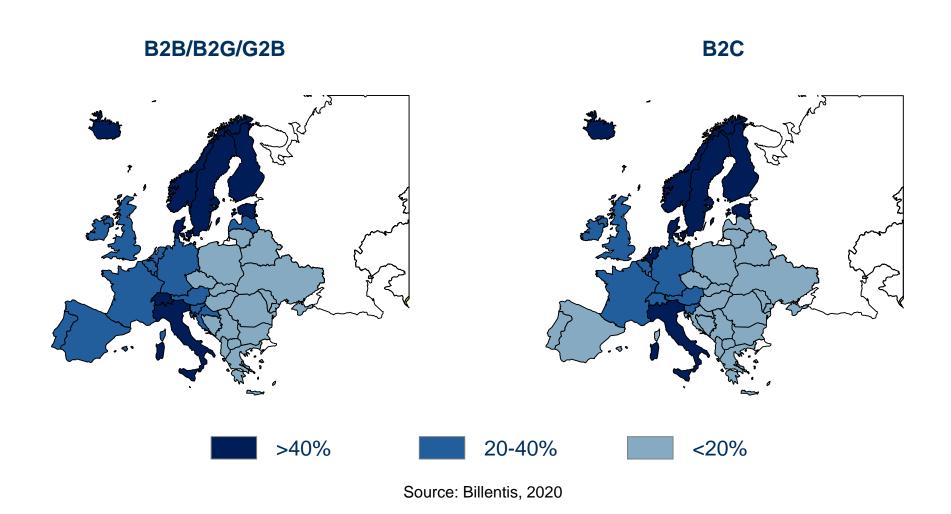


- EU Public Administrations on all federal levels to become 'einvoicing and e-procurement ready' from April 2020
- Latest and coming B2G e-invoicing mandates
 - Croatia, Estonia and France
 - Portugal from April 2020 for businesses with 250+ employees respectively for all from end of 2020
 - German suppliers to the federal administration from November 2020
 - etc.
- Planned B2B e-invoicing mandates
 - Serbia from 2022
 - France after 2023

Predicted Market Adoption 2020

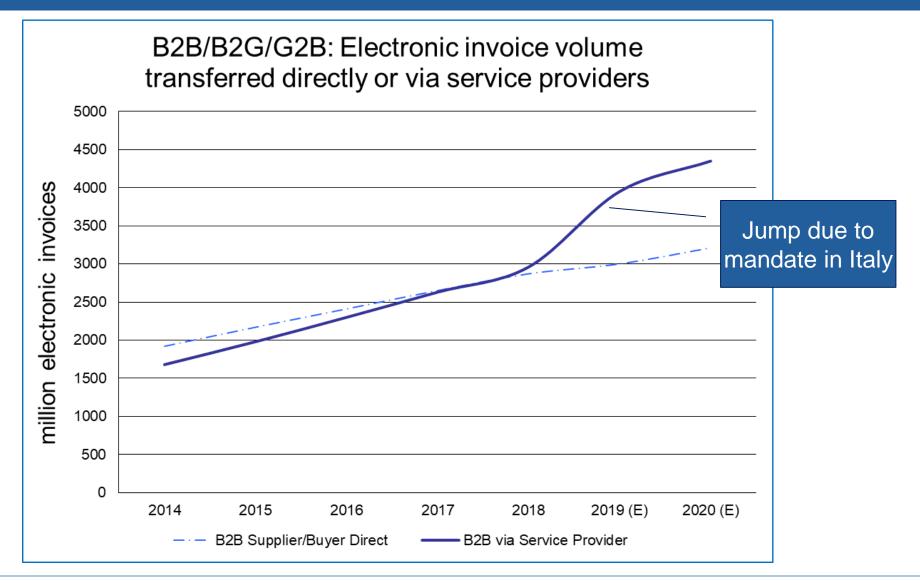


(Electronic share of total invoice/bill volume)



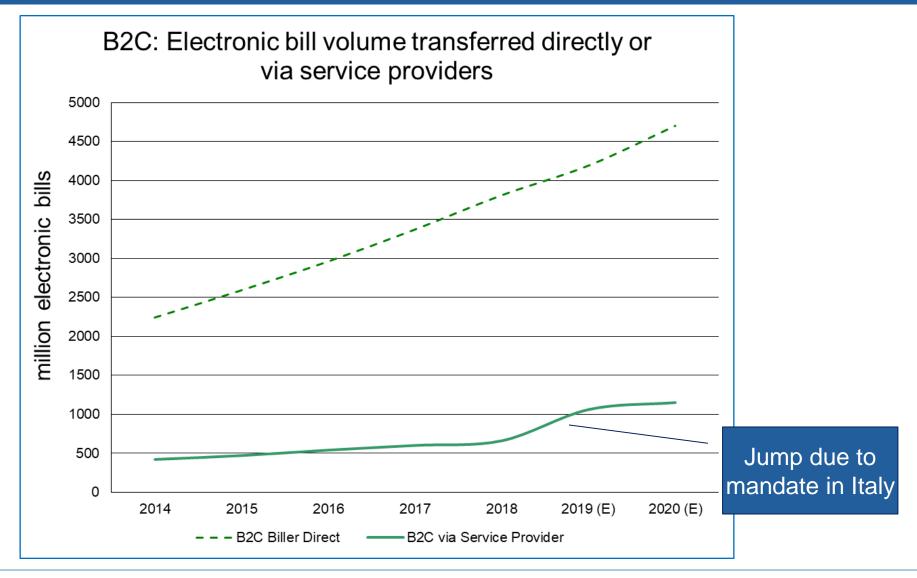
Channels Used for Electronic Invoices B2B/B2G/G2B volume





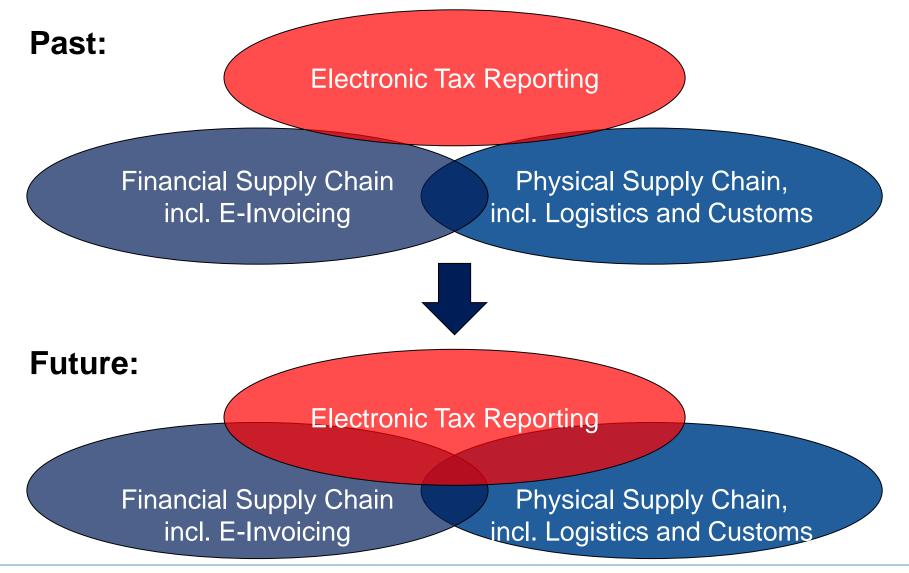
Channels Used for Electronic Bills B2C volume





Digitalisation of Tax Reporting, Financial and Physical Supply Chain (1)





Digitalisation of Tax Reporting, Financial and Physical Supply Chain (2)



- In the past, <u>Tax Reporting</u> was often just an isolated side activity.
 In the future it might become THE trigger for the digitalisation and automation. LATAM and some countries in Asia, Southern and Eastern Europe are leading the way.
- The <u>Financial Supply Chain</u> is affected first of increasing requirements by tax authorities. In advanced countries in LATAM, businesses have to electronically transmit in real-time invoices and all other tax relevant messages to the tax authorities. Some Asian and European countries require in step one just invoice extracts, but extend this in step two to full content invoices (e.g. Italy). Likely, in the future, they will also require the electronic transmission of all other tax relevant documents. The messages are also appropriate to be exchanged between businesses.
- In the <u>Physical Supply Chain</u>, goods might be tracked and traced.
 Data shall be transmitted in real-time to the tax authorities.

Digitalisation of Tax Reporting, Financial and Physical Supply Chain (3)



Expected long-term digitisation scenario:





Progress to internationally align interoperability cross different B2B networks and to consider requirements for tax clearance models

04.02.2020 page 15

Some international harmonisation steps for electronic invoicing & tax reporting



- Established interoperability frameworks increasingly collaborate, including e-invoicing standardisation
- Alignment between approaches of key associations like ALATIPAC, Business Payments Coalition, CIAT, ConnectONCE, EESPA, GS1, IMDA, Peppol and Trans-Tasman e-invoicing agreement.
- ICC Expert Dialog group working on best practice for Continuous Transaction Controls
- Geographic Expansion
 - Former European approaches are expanding internationally
- Functional Extensions
 - Besides the former B2B transmission, future support of clearance models with message exchange to/from tax authorities
 - Support of additional data, messages and tax systems (VAT + GST)



Definitions & Methodology

04.02.2020 page 17

Methodology



- Screening and interpreting 750+ key sources, including:
 - Official statistics in particular from countries with clearance models, knowing these figures accurately
 - Country and industry specific user surveys
 - Figures from large invoice issuers & recipients (e.g. telecom, utilities, card issuers, public sector, health services, retail industry), published online or in corporate responsibility reports
 - Figures of leading service providers
 - Consolidated figures of domestic E-Invoicing associations
- Numerous interviews with local experts
- In total, results of surveys with 20,000+ enterprises and 15,000+ consumers are considered in these statistics and forecasts

Definitions as used in my statistics



Not considered as e-invoices:

Fiscal documents not representing a commercial transaction followed by "demand for payment", e.g. bank statements, waybills

Fully digital invoices that are not tax-compliant due to lack of integrity, authenticity and legibility

'Electronic invoices' that are supported by legally relevant paper summary invoices (parts of the EDI world), scanned or printed/archived by recipients (if just the paper version is stored as the 'new' de-facto original).

'Asymmetric e-invoice', buyers can demand a printed invoice and consider it as the legal original invoice.

Major bulk of paper invoices, even if in parallel some invoice data are transmitted to the tax authorities or trading partner.

E-invoices in the broader legal sense:

'Simplified low value' e-invoices with reduced content requirements (often just 4-8 mandatory data fields) and without customer authentication

Legally can this category include invoices in a broader sense.

E-invoices in the narrow legal sense:

Only this part is included in the statistics.

E-invoices with the full content (typically 8-16 mandatory fields) and authentication of the issuer & recipient.

Two organisations in the role as supplier and buyer exchange a digital and tax-compliant invoice as the valid original invoice. They exchange them directly, via service providers and/or via the platform provided by tax authorities. These e-invoices are preserved. They are the only relevant original invoices for the tax authorities and auditors.

Paper representations can be found, but will never be considered as the legal original versions.