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# Implementation of GS1 EDI Standards in 2018

Detailed Report





## Document Summary

Document Item	Current Value
Document Title	Implementation of GS1 EDI Standards in 2018
Author	Anders Grangard – Director, GS1 EDI
Date Last Modified	25-04-2019
Current Document Version	1
Summary of Changes	
Status	For Publication
Document Description (one sentence summary)	This document provides an overview of the use of EDI standards in GS1 member countries.

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## 1. Introduction

### 1.1 Scope and objective

This report presents the implementation of GS1 EDI standards in the year 2018. It is based on the answers of 53 Member Organisations, of which 43 have reported some form of GS1 EDI usage in their countries.

The report covers the implementation of GS1 EDI standards - GS1 XML, GS1 Profiles of the UN/CEFACT XML and GS1 EANCOM® in detail:

- Type and versions of standards implemented
- Number of implementing companies
- Specific messages implemented
- Implementation of EDI standards in core GS1 sectors: Healthcare, Apparel, Footwear & Fashion, Public Procurement and Transport & Logistics
- Communication methods used for exchanging EDI messages
- Member Organisation activities in the area of EDI

There is also general information about Web EDI, non-GS1 EDI standards and proprietary solutions.

We asked similar questions to those from previous years, to provide comparable data. Information included in this report should give a good overview of the business processes in which EDI standards are implemented worldwide as well as the scope of implementation.

### 1.2 Target audience

The primary target audience of this report is the GS1 Global Office and GS1 Member Organisations.

The **GS1 Global Office** uses the survey results to update the GS1 EDI strategy and define the future of EDI. Information obtained during the survey helps in discovering the marketing, communication and training needs of Member Organisations and their users. It helps taking decisions based on the actual market situation, rather than assumptions.

The **GS1 Member Organisations** benefit from the survey results by being able to compare the situation in their market with what is happening in other countries. Knowing what is being implemented where, it is easier to seek assistance when similar needs arise in their country. They can also estimate how the situation may develop in their market, based on information from other countries. It is particularly useful in supporting user companies with the cross-border business relationship.

However, the information presented can also be useful to GS1 user companies, **industry associations, EDI solution providers and other standard development organisations**. It enables them to benchmark their own actual or planned implementation with user groups from their own and other countries. The overview of the market trends may also be a valuable aid in taking decisions about the EDI implementation.

When sharing with external bodies or member companies, Member Organisations may wish to adjust the text to suit the intended audience.

### 1.3 Caveats

Data reported in the survey are partly based on estimation made by GS1 Member Organisations, and partly on surveys conducted on the local markets and information obtained from EDI solution providers. Thus, the implementation report should not be considered as a scientific research, but as an illustration of market trends. However, the estimation is made by people the most suitable for that: the GS1 Member Organisation staff members, having daily contact with their user community and often assisting them in implementation.

- ✓ **Note:** The number of responses received from GS1 Member Organisations is smaller than in previous years (40 in 2017 and 68 in 2016), so comparisons with earlier results should be made with caution. In Section 9, necessary adjustments have been made – on the assumption that implementations in countries that did not provide response did not disappear.

### 1.4 Structure of the document

The report is divided into eleven major sections:

1. Introduction
2. General EDI standards implementation statistics
3. EANCOM®
4. GS1 XML
5. GS1 Profiles of the UN/CEFACT XML
6. Web EDI
7. Non GS1 EDI Standards
8. Communication methods used to send EDI messages
9. EDI implementation overview since 2005 and future trends
10. Use of EDI standards in Healthcare, Apparel, Footwear & Fashion and Public Procurement

The ninth section contains a short analysis of the EDI implementation trends, based on data between 2005 and 2017, as well as estimation for year 2018.

The Appendices contains the list of EDI related projects and experiences, which Member Organisations are willing to share with the GS1 Community and the general comments provided by some GS1 MOs.

### 1.5 Additional information

We are confident that this survey will be of high interest to you and we invite you to visit our website <http://www.gs1.org/EDI> if you would like to have further information regarding our organisation and/or the standards we offer.

An electronic version of this report can be downloaded from the GS1 website: <https://www.gs1.org/standards/edi>. We are open to any comments on any information you would like to see in this report, so that it could best suit your needs in the future. You can submit your comments via the GS1 website <http://www.gs1.org/contact>.

## 2. General EDI implementation statistics

43 MOs reported that various EDI standards have been implemented in their countries in 2017.

Table 1 List of countries where EDI is used:

Country	GS1 XML	UN/CEFACT Profiles	EANCOM®	Country	GS1 XML	UN/CEFACT Profiles	EANCOM®
Argentina	Y		Y	Latvia	*	*	*
Australia	Y		Y	Lithuania	Y		Y
Austria	Y		Y	Netherlands	Y		Y
Belgium & Luxembourg	Y		Y	Macedonia	Y		
Bolivia			Y	Nicaragua			Y
Brasil			Y	Norway	Y		Y
Canada	Y		Y	Paraguay	Y		
China	*	*	*	Philippines	Y		
Colombia	Y			Portugal			Y
Croatia	Y	Y	Y	Serbia	Y		Y
Czech Republic			Y	Singapore	Y		
Denmark	Y		Y	Slovakia			Y
El Salvador			Y	Slovenia	Y		Y
Finland			Y	Spain	Y		Y
France	Y	Y	Y	South Africa	Y		Y
Germany	Y	Y	Y	Switzerland	Y		Y
Greece	Y		Y	Thailand	*	*	*
Honduras	*	*	*	Tunisia			Y
Hungary			Y	Turkey	*	*	*
Ireland	Y		Y	UK			Y
Italy	Y		Y	Vietnam	*	*	*
Japan	*	*	*				
<b>TOTAL: 43 countries, GS1 XML: 25, UN/CEFACT Profiles: 3, EANCOM®: 31</b>							

\* Only non-GS1 standards implemented

Table 2: List of countries where EDI standards were reported as not used:

Ecuador		Pakistan		Korea
Azerbaijan		Nigeria		Turkmenistan
Armenia		Ivory Coast		Kenya
Georgia				

The chart below illustrates the types of EDI standards implemented in 43 GS1 member countries where some form of EDI is being used.

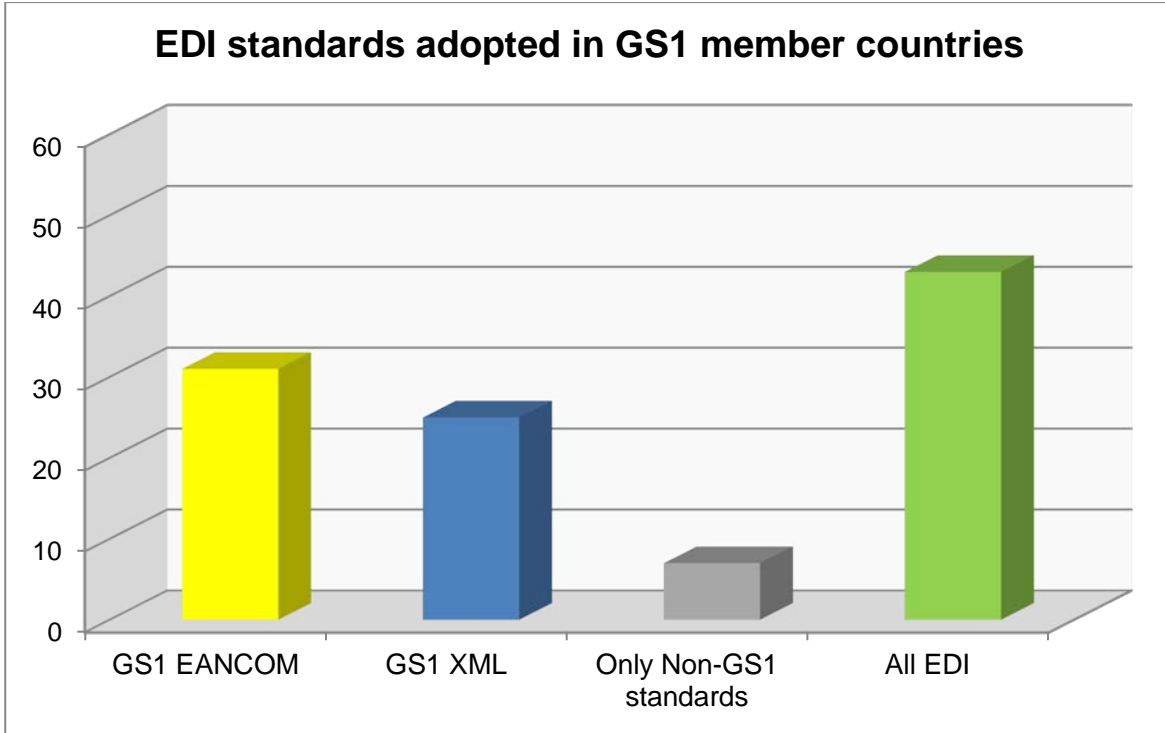


Figure 1: Types of EDI standards implemented in GS1 member countries



### 3. GS1 EANCOM®

#### 3.1 Number of GS1 EANCOM® and implemented versions

In year 2018, the implementation of EANCOM® standards was reported by 31 countries. EANCOM® versions 97 and 2002 are implemented in almost the same number of countries – 19 and 23 respectively. It should be noted, however, that many more companies in these countries use EANCOM 97 than 2002, although the exact number is not available. Version 94 is still in use in 9 countries. If counted in terms of user companies, the EANCOM® 97 is by far the most used one.

An additional question has been asked about the syntax version<sup>1</sup> used for EANCOM® 2002, to help determine the future development of EANCOM® standard. The number of users of specific versions is included in the Table 3 below.

Table 3: List of countries where EANCOM® is used:

Country	EANCOM® Users		Implemented Versions of EANCOM®			EANCOM® 2002 Syntax version	
	Dec 2018	Est. 2019	94	1997	2002	S3	S4
			# of users	# of users	# of users		
Argentina	2000	2000			2000		2000
Australia	n/a	n/a		Y	Y	Y	
Austria	2930	2980	Y	Y	Y	Y	Y <sup>1</sup>
Belgium & Luxembourg	n/a	n/a		Y	Y	Y	
Bolivia	43	n/a					
Brasil	100	140					
Canada	81	82	Y	Y	Y		
Croatia	15	20			15		
Czech Republic	1510	1550		770	740	1283	227
Denmark	3000	3000	Few	Majority	Few	Y	
El Salvador <sup>2</sup>	75	75			75		
Finland	n/a	n/a					
France	15000		150	12000	1850	Y	
Germany	10500	10700		8250	2250	2200	50
Greece	n/a	n/a			Y		
Hungary	2100	2200	Y	Y	Y	Y	
Ireland	2500	2600	1350	800	350	Y	
Italy	2100	2200		2100			
Lithuania	119	119			119	Y	Y
Netherlands	9000	9020	Y	Y	Y	Y	
Nicaragua	10	15		10			
Norway	450	470	450				
Portugal	2850	2900		200	2700	Y	
Serbia	160	220			160	160	
Slovakia	850	900		660	190	Y	Y
Slovenia	900	900		Y	Y	Y	
South Africa	n/a	n/a					
Spain	8400	10000	Y	Y	Y		
Switzerland	3510	3700		Y	Y	Y	Y
Tunisia	n/a	n/a					
UK	n/a	n/a		Y	Y	Y	
<b>31 countries</b>	<b>68,203</b>	<b>70,791</b>	<b>9 countries</b>	<b>19 countries</b>	<b>23 countries</b>	<b>17 countries</b>	<b>7 countries</b>

<sup>1</sup> The overview of differences between Syntax level 3 and 4 can be found on [GS1 website](#).



Note: "Y" means that no information about the number of users, even estimated, is available to this Member Organisation, although the version is known to have been used.

**Additional comments about versions of GS1 EANCOM®**

<sup>1</sup> **GS1 Austria:** Syntax 4 is used only for an invoice with a signature

<sup>2</sup> **GS1 El Salvador:** the ORDERS is implemented with 3 retailers (2 super markets: Super Selectos and Walmart, and 1 department store: Almacenes SIMAN) and 72 suppliers, but not all the suppliers are working with the 3 retailers

Note: More information about GS1 EANCOM® can be found at the

[GS1 website](#)

Or from the local GS1 Member Organisation.









## 4. GS1 XML

### 4.1 Number of GS1 XML and implemented versions

In 2018, the implementation of GS1 XML standards was reported by 25 countries. The most widely used version set of GS1 XML standards was 3.x, and out of the three latest EDI releases 3.0 and 3.3 were implemented in more countries than the other ones.

Table 5: List of countries where the GS1 XML standards are used:

COUNTRY	2018	Est. 2019	1.X	2.X	3.0	3.1	3.2	3.3
Argentina	2200	2200		200				10
Australia	n/a	n/a		Y	Y	Y		Y
Austria	48	50		1		46	1	
Belgium & Luxembourg	n/a	n/a						
Canada	2	2		1	1			
Colombia	n/a	n/a						
Croatia	150	160		Y				
Denmark <sup>1</sup>	140	145		Y				
France	650			Y				
Germany	530	550		370	20	50	60	30
Greece <sup>2</sup>	n/a	n/a			Y	Y	Y	
Ireland	4	9			4			
Italy <sup>3</sup>	300	400		25		Y		275
Lithuania	885	900						885
Macedonia	18	25					18	
Netherlands	200	250				Y	Y	Y
Norway	2	2		2				
Paraguay	353	450		353				
Philippines	n/a	n/a						
Serbia	150	170		75	45	30		
Singapore	n/a	n/a	Y					
Slovenia	115	150		65				50
South Africa <sup>4</sup>	200	250				Y	Y	Y
Spain	400			Y			Y	
Switzerland	20	30				Y		
<b>25 countries</b>	<b>4,367</b>	<b>4,793</b>	<b>1 country</b>	<b>14 countries</b>	<b>6 countries</b>	<b>9 countries</b>	<b>7 countries</b>	<b>8 countries</b>

Note: "Y" means that no information about the number of users, even estimated, is available to this Member Organisation, although the version is known to have been used.

#### Additional comments

<sup>1</sup> **GS1 Denmark:** [Ver 2.x used for] GUSI INVOICE

<sup>2</sup> **GS1 Greece:** The MO members implement it in their internal systems, not through services provided by our MO.

<sup>3</sup> **GS1 Italy:** Yes, for Cash Handling and GDSN. 2.8 for Cash EDI

<sup>4</sup> **GS1 South Africa:** We need to build more resources to assist the industry adoption



## 4.2 GS1 XML message implementations

The details of the implementation of particular messages are presented in Table 6 on the following pages.

Last year, the most widely implemented GS1 XML messages were Order, Despatch Advice, Receiving Advice and Invoice, similar to the previous years.

Note: The table lists official GS1 XML message names.

Visit GS1 website to find:

- [More information about GS1 XML](#)
- [Definitions of messages and their components](#) and [information about GS1 XML design](#)
- [Download message packets](#)

Or contact the local GS1 Member Organisation.



Table 6: List of GS1 XML EDI message implementations per country

	Align	Deliver			Deliver					Transport			Warehousing						Pay			Plan						Other										
	Item Data Notification	Order	Configure to Order	Order Response	Consumption Report	Despatch Advice	Despatch Advice – Cash Handling Ext.	Despatch Advice - Meat Product Ext.	Inventory Report	Receiving Advice	Receiving Advice - Cash Handling Extension	Transport Instruction &Response	Transport Status Request &Notification	Transport Pick-up Drop-off Request &Conf.	Warehousing Inbound Instruction	Warehousing Inbound Notification	Warehousing Outbound Instruction	Warehousing Outbound Notification	Warehousing Operations Instruction	Warehousing Operations Notification	Logistics Inventory Report Request	Logistics Inventory Report	Advanced Remittance Notification	Request for Payment	Debit or Credit Advice	Invoice	Settlement	Goods Requirements	Goods Requirements Response	Performance Measurement	Purchase Conditions	Replenishment Proposal	Replenishment Request	Application Receipt Acknowledgement	Product Recall	Cash processing machines	# of messages by country	
Argentina		Y				Y				Y																Y												4
Australia		Y		Y	Y	Y						Y	Y										Y			Y	Y	Y	Y						Y			12
Austria	Y	Y														Y																	Y				4	
Croatia	Y	Y																																			2	
Denmark	Y	Y				Y		Y	Y	Y																Y											7	
France		Y				Y	Y			Y	y				Y	Y	Y	Y							Y			Y	Y					Y			13	
Germany		Y		Y		Y		Y	Y	Y		Y	Y	Y			Y	Y								Y											12	
Greece		Y				Y																															2	
Ireland		Y		Y		Y				Y																Y											5	
Italy <sup>1</sup>	Y	Y		Y		Y	Y		Y																							Y		Y		7		
Lithuania		Y		Y		Y			Y														Y		Y												6	
Macedonia		Y		Y		Y		Y	Y																Y												6	



	Align	Deliver			Deliver			Transport			Warehousing						Pay			Plan					Other												
	Item Data Notification	Order	Configure to Order	Order Response	Consumption Report	Despatch Advice	Despatch Advice – Cash Handling Ext.	Despatch Advice - Meat Product Ext.	Inventory Report	Receiving Advice	Receiving Advice - Cash Handling Extension	Transport Instruction &Response	Transport Status Request &Notification	Transport Pick-up Drop-off Request &Conf.	Warehousing Inbound Instruction	Warehousing Inbound Notification	Warehousing Outbound Instruction	Warehousing Outbound Notification	Warehousing Operations Instruction	Warehousing Operations Notification	Logistics Inventory Report Request	Logistics Inventory Report	Advanced Remittance Notification	Request for Payment	Debit or Credit Advice	Invoice	Settlement	Goods Requirements	Goods Requirements Response	Performance Measurement	Purchase Conditions	Replenishment Proposal	Replenishment Request	Application Receipt Acknowledgement	Product Recall	Cash processing machines	# of messages by country
Netherlands	Y	Y	Y			Y			Y	Y		Y			Y	Y	Y	Y	Y	Y	Y	Y				Y	Y	Y	Y	Y	Y	Y					22
Norway		Y																																			1
Paraguay		Y																						Y	Y												3
Serbia		Y		Y		Y			Y	Y																Y											6
Singapore		Y		Y																																	2
Slovenia		Y		Y		Y			Y	Y		Y		Y								Y				Y						Y					10
South Africa		Y		Y		Y				Y					Y	Y	Y	Y	Y	Y						Y		Y	Y		Y						15
Spain	Y	Y				Y			Y																	Y											5
Switzerland	Y	Y		Y		Y			Y												Y	Y				Y											8
<b>TOTAL</b>	<b>7</b>	<b>21</b>	<b>1</b>	<b>#</b>	<b>1</b>	<b>#</b>	<b>3</b>	<b>2</b>	<b>7</b>	<b>13</b>	<b>1</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>5</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>14</b>	<b>2</b>	<b>4</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>1</b>	<b>1</b>	

**Additional comments about GS1 XML messages**

<sup>1</sup> **GS1 Italy:** Only for Cash Handling

## 5. GS1 profiles of the UN/CEFACT XML messages

GS1 has developed subsets (profiles) of four UN/CEFACT XML messages:

- Cross Industry Order
- Cross Industry Order Response
- Cross Industry Despatch Advice
- Cross Industry Invoice

Four MOs reported that these profiles either have been implemented in their countries or such implementation is being considered, but only two pointed specific message being implemented. The results are presented in Table 7 below.

Table 7: Implementation of GS1 profiles of UN/CEFACT XML

COUNTRY	Cross Industry Order	Cross Industry Order Response	Cross Industry Despatch Advice	Cross Industry Invoice
Croatia	Y			
France <sup>1</sup>				Y
Germany <sup>2</sup>				Y
<b>TOTAL</b>	<b>1</b>			<b>2</b>

### Additional comments about GS1 UN/CEFACT profiles

<sup>1</sup> **GS1 France:** CII D16A for hybrid EDI - Factur-X

<sup>2</sup> **GS1 Germany:** ZUGFerd, Factur-X

## 6. Web EDI

The Web EDI involves the exchange of electronic documents via an internet enabled platform. The business messages are available to the users as web forms that can either be filled-in manually or in automated way. The message is then converted by the translation application into the suitable EDI standard and transferred to the other user company.

GS1 does not provide separate guidelines for the WEB EDI, but some GS1 MO do provide local guides.

Table 9: List of countries where Web EDI is used:

COUNTRY	2018	Est. 2019	COUNTRY	2018	Est. 2019
Argentina	1200	1200	Japan	n/a	n/a
Australia	n/a	n/a	Latvia	783	1030
Austria	850	970	Lithuania	900	900
Belgium & Luxembourg <sup>1</sup>	n/a	n/a	Macedonia	14	20
Bolivia	43	80	Netherlands	700	710
Brasil	n/a	n/a	Nicaragua	2	2
Canada	902	927	Norway <sup>4</sup>	n/a	n/a
Croatia	100	120	Paraguay	227	280
Czech Republic	555	570	Portugal	2700	2700
Denmark <sup>2</sup>	245	280	Serbia	185	230
El Salvador <sup>3</sup>	75	n/a	Slovakia	400	420
Finland	240	240	Slovenia <sup>5</sup>	300	300
France	1150	n/a	South Africa	n/a	n/a
Germany	6100	6300	Spain	1478	3000
Honduras	100	100	Switzerland	n/a	n/a
Hungary	500	500	Thailand	300	400
Ireland	3150	5150	UK	n/a	n/a
Italy	3500	3600			
<b>Total</b>	<b>In 2018: 26,669 in 35 countries, estimated for 2019: 31,254</b>				

Note: "n/a" means that no information about the number of users, even estimated, is available to this Member Organisation, although the Web EDI solutions are known to have been used.

### **Additional comments about Web EDI**

- <sup>1</sup> **GS1 Belgium & Luxembourg:** We do know the numbers are raising, because retailers keep on onboarding new suppliers. Lots of them use webEDI solutions.
- <sup>2</sup> **GS1 Denmark:** There are several companies that offer this type of service in Denmark.
- <sup>3</sup> **GS1 El Salvador:** The information that we know is that 1 retailer has a Web EDI solution, and the 72 suppliers has the option, but we don't know the number that are using it.
- <sup>4</sup> **GS1 Norway:** There are several thousands of WEB EDI users. Numbers are not known
- <sup>5</sup> **GS1 Slovenia:** Low estimate.



## 7. Non GS1 EDI standards and solutions

Non-GS1 EDI standards have been implemented in 28 countries. The most widely used ones are: UBL and various local standards (including ANSI X12). These results are very similar to previous years. The details can be found in Table 10 below.

Table 10: List of non GS1 EDI standards used in GS1 member countries:

Country	Standard	# of users	
		2017	Est. 2018
Australia	ANSI X12	n/a	n/a
Austria	UN/EDIFACT	n/a	n/a
	ebInterfaceXML	n/a	n/a
	Odette/VDA	n/a	n/a
Belgium & Luxembourg	BIS + e-fff (so not only for B2G)	n/a	n/a
	Tradacoms	n/a	n/a
	Bilaterally agreed flat files and xml	n/a	n/a
Brazil	FINANCIAL EDI	400000	415000
	MERCANTIL EDI	300000	310000
	AUTOMOTIVE EDI	60000	63000
Canada	UCS 880 and 875	27	50
	UK" is valid in 4010, but not for GTIN	4	20
China <sup>1</sup>	EDIFACT	25000	30000
	ebXML	10000	12000
	RosettaNet	100	150
Croatia	OAGI	n/a	n/a
	UBL	n/a	n/a
Denmark	UBL 2.1 Invoice	200,000	200,000
	MEDCOM medical communication EDIFACT	2,600	2,600
Finland	TIEKE's national standards	n/a	n/a
France	Gencod	1	n/a
	BASDA 5DIY/Hardware)	n/a	n/a
	ANSIX12	n/a	n/a
Germany	OpenTrans	n/a	n/a
	BMEcat	n/a	n/a
	EDIFACT-Subsets	n/a	n/a
Greece	Details n/a	n/a	n/a
Honduras	Details n/a	n/a	n/a
Hungary <sup>3</sup>	EDIFACT (not EANCOM)	100	n/a
Ireland	TradaComs	n/a	n/a
	BASDA 5DIY/Hardware)	n/a	n/a
	ANSIX12	n/a	n/a
Italy	UBL	864	900
	XML PA	2000000	4000000
Japan	Ryutsu BMS	12300	13500
Netherlands <sup>4</sup>	EDIFACT	n/a	n/a
	BG Pharma protocol	n/a	n/a
	BMECAT	n/a	n/a
Nicaragua	Details n/a	n/a	n/a



Norway <sup>2</sup>	local profile e2b Invoice XML	1000	1000
	local profile EHF XML used in public procurement	15000	15000
Portugal	xCBL used by 1 retailer	650	700
Serbia	Details n/a	n/a	n/a
Slovenia <sup>3</sup>	e-Slog	10000	n/a
South Africa	Details n/a	n/a	n/a
Spain	facturae	n/a	n/a
	UBL	n/a	n/a
	CSL (books)	n/a	n/a
Switzerland	Details n/a	n/a	n/a
Thailand	Text file transfer	n/a	n/a
UK	PEPPOL	n/a	n/a
	TRADACOMS	n/a	n/a
<b>Total</b>	<b>28 countries</b>	<b>3,037646</b>	<b>5,074021</b>

Note: "n/a" means that no information about the number of users, even estimated, is available to this Member Organisation, although the standard is known to have been used.

**Additional comments about non-GS1 EDI standards**

<sup>1</sup> **GS1 China:** Most small businesses use custom data exchange standards

<sup>2</sup> **GS1 Norway:** All numbers are guestimates

<sup>6</sup> **GS1 Slovenia:** Number of users is probably bigger, since this is used in government and all companies invoicing to government.

## 8. Communication methods used to exchange EDI messages

The most popular communication channel used to send the EDI messages is AS2, followed by Web Services and Value Added Networks. This result is similar to previous years, but it is clear that more and more companies use Internet to exchange EDI messages, hence the growing popularity of AS2 and web services. The details are presented in Table 11 below.

Table 11: List of communication methods used to exchange EDI messages.

COUNTRY	AS1	AS2	AS3	AS4	Web Services	ebMS	VAN	Other
Argentina		Y			Y			
Australia		Y			Y		Y	
Austria		Y			Y		Y	SFTP
Belgium & Luxembourg <sup>1</sup>		Y		Y	Y		Y	
Bolivia		Y						
Brasil	Y	Y	Y	Y	Y		Y	FTP, API (REST)
Canada <sup>2</sup>		Y			Y		Y	
China	Y	Y	Y	Y	Y	Y	Y	
Croatia		Y			Y		Y	
Czech Republic		Y			Y		Y	Y
Denmark		Y	Y	Y		Y	Y	
El Salvador		Y			Y			FTP
France		Y			Y		Y	
Germany		Y			Y		Y	Y
Greece		Y						Y
Honduras					Y			
Hungary		Y			Y		Y	
Ireland		Y			Y		Y	SFTP, FTP, x.400
Italy		Y						
Japan		Y				Y		JX(Base on SORP-RPC)
Latvia		Y						
Lithuania		Y		Y	Y		Y	
Macedonia					Y		Y	
Netherlands		Y			Y	Y	Y	
Nicaragua	Y	Y						SMTP protocol
Norway							Y	FTP and others
Paraguay		Y			Y			
Portugal <sup>3</sup>	Y	Y					Y	
Serbia			Y	Y	Y			Y
Slovakia		Y			Y		Y	
Slovenia		Y					Y	SFTP
Spain	Y	Y					Y	smtp (s/mime)
South Africa		Y			Y			
Switzerland			Y		Y			Y
Thailand						Y	Y	
Tunisia								VPN SSL, VPN IPSEC, SMTP/POP3
UK		Y			Y		Y	

Vietnam	Y	Y	Y			Y		ebms.vn
<b>Total</b>	<b>6</b>	<b>31</b>	<b>6</b>	<b>6</b>	<b>24</b>	<b>6</b>	<b>23</b>	<b>16</b>

**Additional comments about EDI communication methods**

<sup>1</sup> **GS1 Belgium & Luxembourg:** We don't have information about this. We know that VANs, webservices and ASx methodes are been used.

<sup>2</sup> **GS1 Canada:** Almost all traffic is through VANs

<sup>3</sup> **GS1 Portugal:** AS1 and VAN - less used over the years

## 9. GS1 EDI implementation overview since 2005 and future trends

The EDI implementation survey has been run for 14 years now. Although a large part of data is based on estimation since absolute figures often are very difficult to obtain, these are made by people the most suitable for that: the GS1 Member Organisation staff members, having daily contact with their user community.

Due to some inconsistencies in the responses received every year, the charts presented below the chart represent statistical approximation of the 14 year results. Thus, they should be considered only as a trend illustration, rather than absolute figures.

Figure 3 illustrates the implementation of GS1 EANCOM® and GS1 XML in last 14 years, and the forecast for 2018.

The Web EDI implementation is growing at even a greater rate, which indicates that also smaller companies and organisations are increasingly embracing EDI based information exchange. See figure 4.

From the chart it is clear that GS1 EANCOM® is far from being an 'old and obsolete' technology. The number of users amongst GS1 member companies is now more than 100,000 companies and in 2018 it is forecasted to increase by further 5.000. The details of the GS1 EANCOM® implementation results are presented in Figure 5.

The newer – comparing to the 'classic' EDI – GS1 XML standard after a period of modest implementation levels during first years, is now exceeding 35.000 companies. The details of the GS1 XML implementation results are presented in Figure 6.

Please note that the slight dip in some of the figures in last years does not mean that the implementation rate is decreasing, but more GS1 MOs base the figure they report on actual market data, rather than estimation. Besides, some MOs from countries where EDI is widely implemented did not provide figures this year, hence some correction of the reported numbers.

In general, the interest and actual adoption of the electronic form of business documents exchange is constantly growing, confirming the benefits the companies can get from this form of business integration.

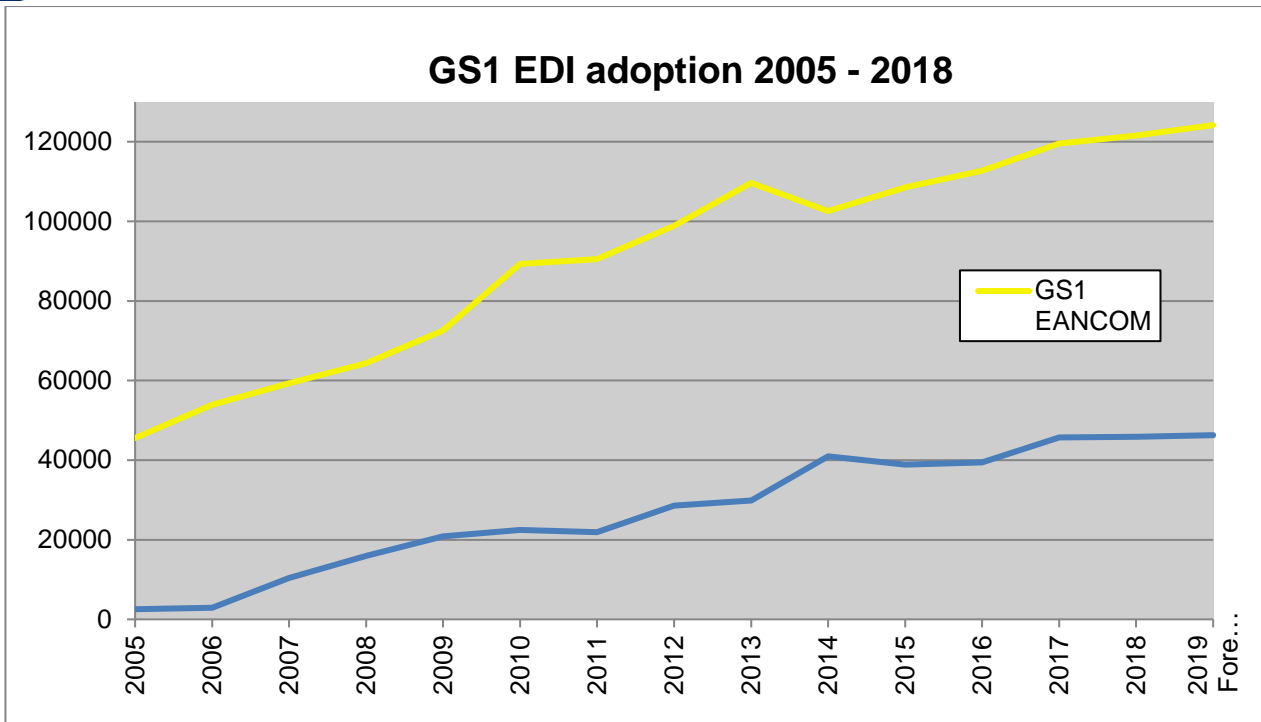


Figure 3: Adoption of GS1 EDI standards 2005-2018 and forecast for 2019

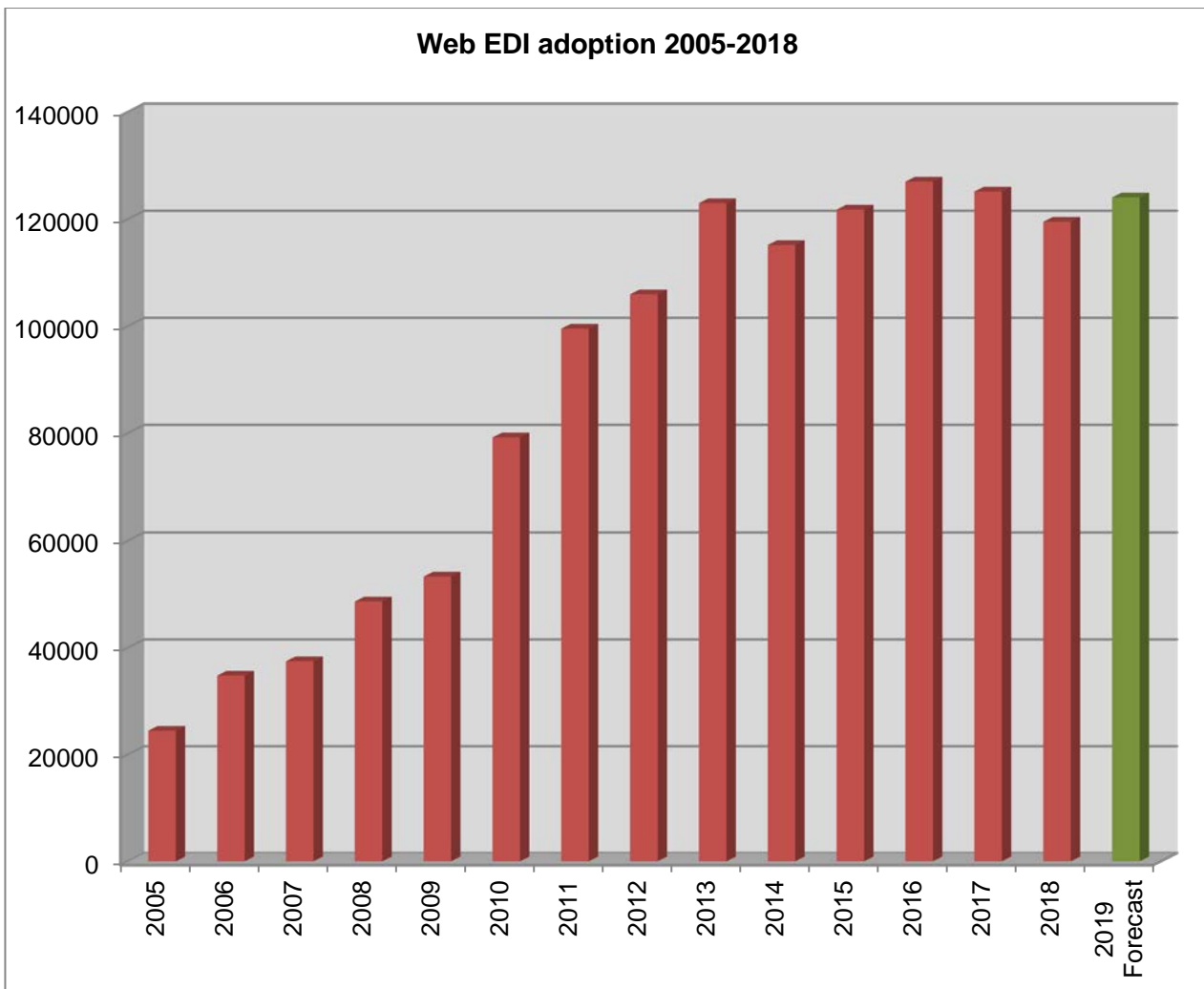


Figure 4: Adoption of Web EDI 2005-2017 and forecast for 2018

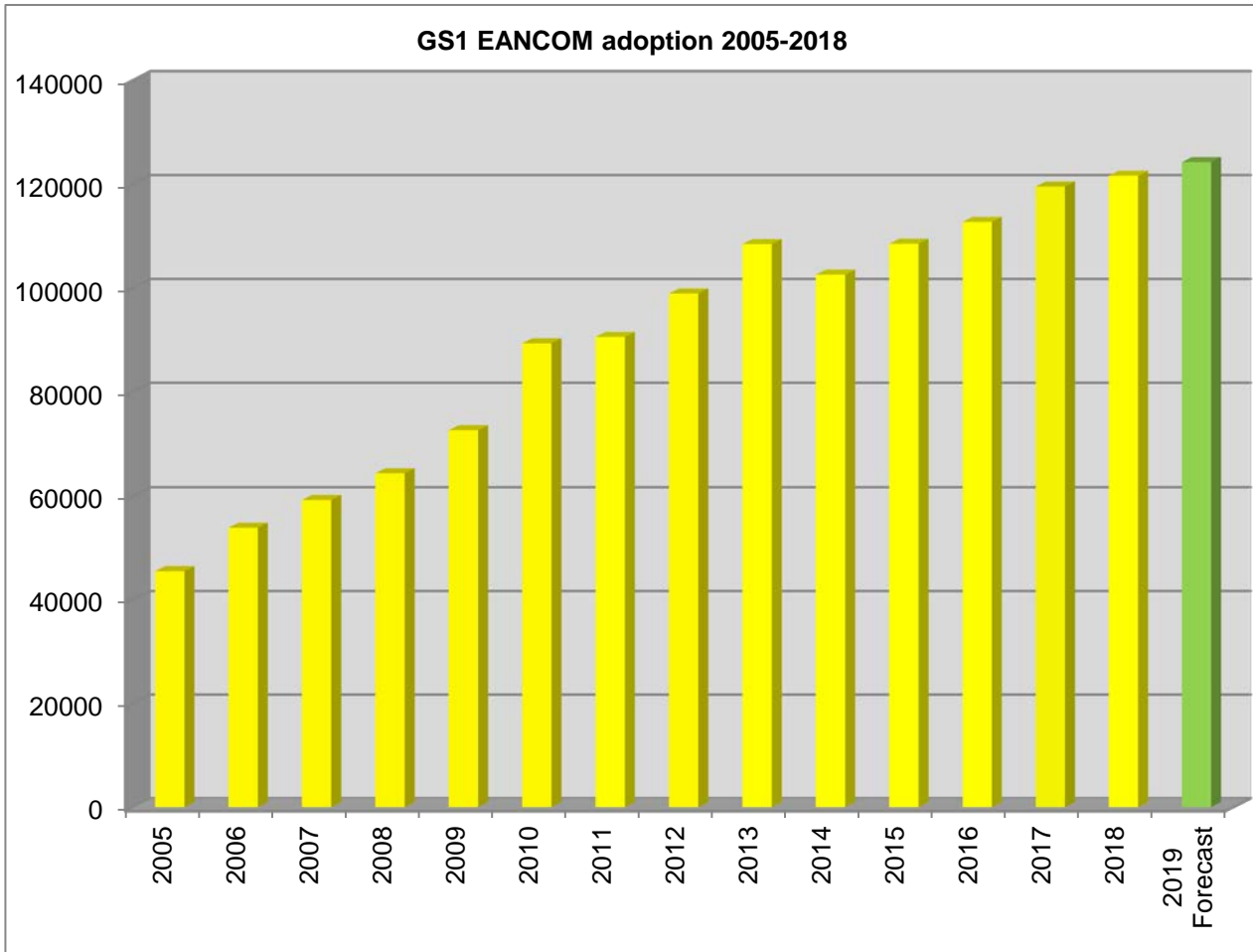


Figure 5: Adoption of GS1 EANCOM® 2005-2018 and forecast for 2019

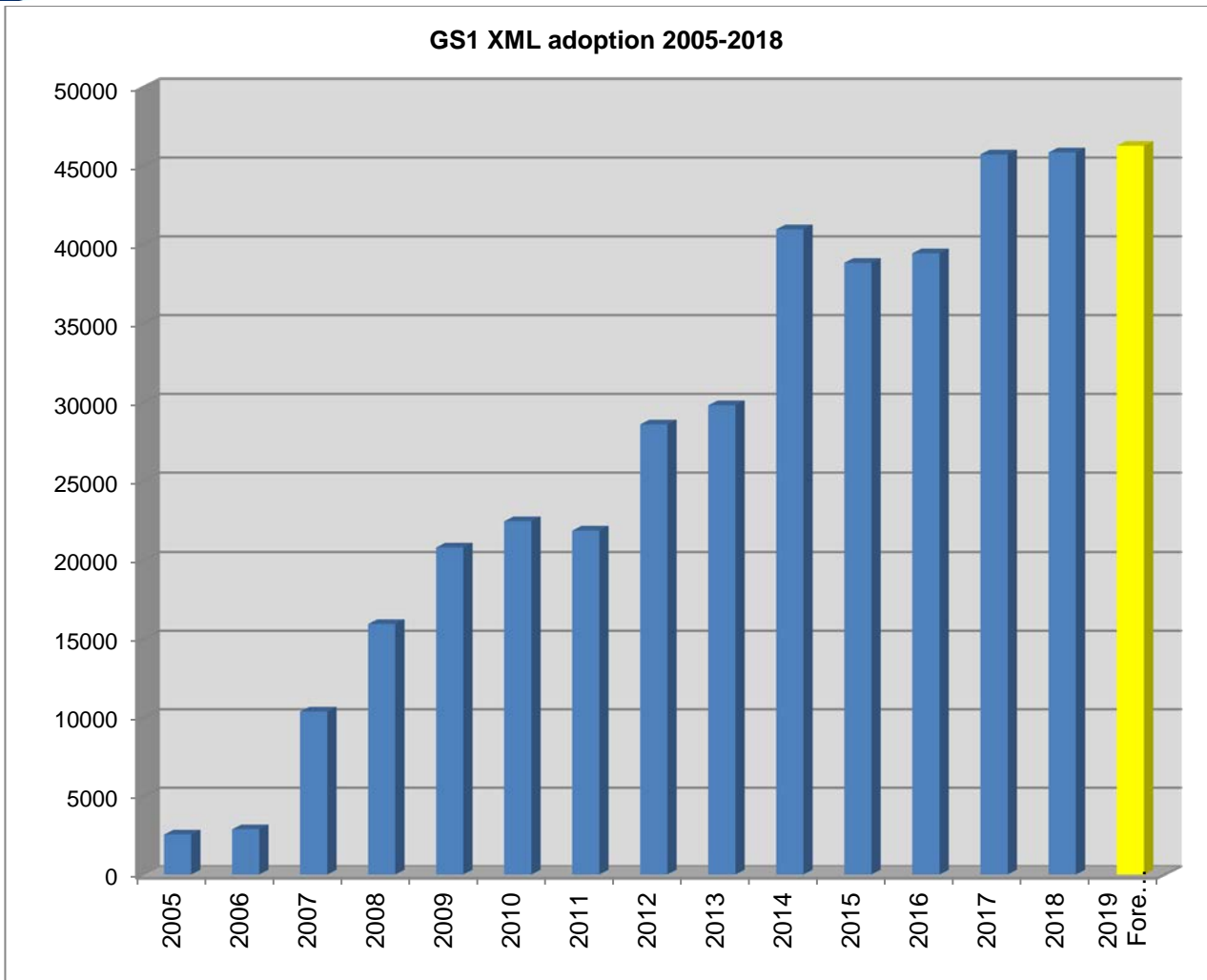


Figure 6: Adoption of GS1 XML 2005-2018 and forecast for 2019

## 10. Sectors using EDI standards

This section describes the EDI standards implemented in: Healthcare, Apparel Footwear & Fashion, Public Procurement and Transport & Logistics.

### 10.1 Use of EDI standards in Healthcare

In Healthcare sector, we asked questions about the implementation of the GS1 EDI standards: GS1 EANCOM<sup>®</sup> and GS1 XML, as well as HL7 – widely used by Healthcare worldwide and possible other standards. We asked also whether the newly published [GS1 EDI Healthcare Guidelines](#) are implemented in by GS1 members and whether they are used for new implementations or as a base for update of existing local guidelines.

The results received from 18 countries are presented in Table 12 below.

Table 12: Use of EDI standards in Healthcare sector

COUNTRY	EANCOM <sup>®</sup>	GS1 XML	HL7	Other	GS1 Global HC Guidelines		
					Used	New impl.	Local guide update
Argentina		Y					
Australia	Y	Y	Y	Oracle cXML	Y		Y
Austria	Y		Y		Y	Y	
Belgium & Luxembourg <sup>1</sup>				Y			
Brasil	Y				Y	Y	
Canada			Y		Y	Y	
Czech Republic	Y						
Denmark	Y	Y		UBL	Y		
Germany	Y	Y			Y		Y
Ireland	Y	Y			Y	Y	
Macedonia		Y					
Netherlands <sup>2</sup>	Y	Y	Y	IHE, Dicom, BG pharma protocol	Y		Y
Serbia	Y	Y					
South Africa	Y	Y			Y	Y	
Spain	Y			facturae			
Switzerland		Y			Y	Y	
Thailand							
Vietnam			Y	DICOM			
<b>TOTAL 18</b>	<b>11</b>	<b>10</b>	<b>5</b>	<b>6</b>	<b>10</b>	<b>6</b>	<b>3</b>

#### **Additional comments**

<sup>2</sup> **GS1 Belgium & Luxembourg:** There is small organisation called "eHealth" (3-corner-model) that has created it's own national standard.

<sup>4</sup> **GS1 Netherlands:** GS1 Global HC Guidelines only in (pre)pilot setting





## 10.2 Use of EDI standards in Apparel, Footwear & Fashion

In Apparel, Footwear & Fashion sector we checked implementation of the GS1 EDI standards: GS1 EANCOM® and GS1 XML, as well as and possible other standards. The results received from 12 countries are presented in Table 13 below.

Table 13: Use of EDI standards in Apparel, Footwear & Fashion sector

COUNTRY	EANCOM®	GS1 XML	Other
Austria	Y		
Belgium & Luxembourg	Y		
Czech Republic	Y		
Denmark	Y	Y	UBL
El Salvador <sup>1</sup>	Y	Y	
France	Y		
Germany	Y		e. g. PRANKE
Ireland	Y		
Italy	Y		eBiz
Japan			Ryutsu BMS
Netherlands	Y		Pranke
Spain	Y		
<b>TOTAL 12</b>	<b>11</b>	<b>2</b>	<b>5</b>

### Additional comments

<sup>1</sup> **GS1 El Salvador:** Almacenes SIMAN (department store). We have developed a guideline in the message ORDER approved by Honduras, El Salvador, Guatemala



### 10.3 Use of EDI standards in Public Procurement

In Public Procurement sector we checked implementation of the GS1 EDI standards: GS1 EANCOM® and GS1 XML, as well as and possible other standards. The results received from 9 countries are presented in Table 14 below.

Table 14: Use of EDI standards in Public Procurement sector

COUNTRY	EANCOM®	GS1 XML	Other
Australia			UBL/ebXML
Austria	Y		ebInterface
Belgium & Luxembourg			PEPPOL BIS + UBL.be (subset on EN16931)
France			UN/XML - UBL
Germany	Y		
Italy			UBL and XML PA
Lithuania			UBL 2.1 invoice (All companies supplying goods and services to the public sector)
Netherlands			UBL
Norway			local XML-syntax EHF, based on UBL
Spain	Y	Y	Also facturae (Healthcare, Defense)
Thailand			ebXM
Vietnam			UN/EDIFACT CUSCAR D98B, edXML
<b>TOTAL 12</b>	<b>3</b>	<b>1</b>	<b>11</b>

## 10.4 Use of EDI standards in Transport, Warehousing, Logistics & Delivery

Because of significant difficulty in separating out the implementation of EDI for Transport & Logistics and other processes, we calculated the number of GS1 XML and EANCOM® logistic and warehousing messages reported by each country. The results are presented in Table 15 below.

Table 15: Use of EDI standards in Transport, Warehousing, Logistics & Delivery

COUNTRY	EANCOM®	GS1 XML
Argentina	Y	Y
Australia	Y	Y
Austria	Y	Y
Belgium & Luxembourg	Y	
Bolivia	Y	
Brasil	Y	
Canada	Y	
Croatia	Y	
Czech Republic	Y	
Denmark	Y	Y
Finland	Y	
France	Y	Y
Germany	Y	Y
Greece	Y	Y
Hungary	Y	
Ireland	Y	
Italy	Y	Y
Lithuania	Y	Y
Netherlands	Y	Y
Norway	Y	
Portugal	Y	
Serbia	Y	Y
Slovakia	Y	
Slovenia	Y	Y
South Africa	Y	Y
Spain	Y	Y
Switzerland	Y	Y
<b>TOTAL 27</b>	<b>27</b>	<b>15</b>

### 10.5 Use of EDI standards in other sectors

EDI is used by GS1 Member Companies in other sectors. For the following twelve implementation areas we checked implementation of the GS1 EDI standards: GS1 EANCOM® and GS1 XML, as well as other standards. The results received from 10 countries are presented in Table 16 and 17 below.

Table 16: Use of EANCOM in other sectors

Country	FMCG (Fast Moving Consumer Goods)	Foodservice	DIY (Do It Yourself) products	Construction, plumbing, electro-technical products	Media and Entertainment	Consumer Electronics	Upstream (EDI between consumer goods manufacturers and their suppliers)	Waste management	Cash handling	RTI (Returnable Transport Items) management	Agricultural Crop data information sharing	Customs
Australia	Y		Y			Y						
Austria	Y	Y	Y			Y	Y	Y		Y		Y
Belgium & Luxembourg <sup>1</sup>	Y	Y	Y	Y		Y	Y			Y		
France	Y	Y	Y	Y			Y					
Germany	Y	Y	Y		Y	Y	Y	Y	Y	Y		
Italy	Y	Y	Y									
Netherlands <sup>2</sup>	Y	Y	Y				Y			Y		
Norway	Y	Y	Y									
Spain	Y	Y	Y		Y	Y	Y					
<b>TOTAL</b>	<b>9</b>	<b>8</b>	<b>9</b>	<b>2</b>	<b>2</b>	<b>5</b>	<b>6</b>	<b>2</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>1</b>

Table 16: Use of GS1 XML in other sectors

Country	FMCG (Fast Moving Consumer Goods)	Foodservice	DIY (Do It Yourself) products	Construction, plumbing, electro-technical products	Media and Entertainment	Consumer Electronics	Upstream (EDI between consumer goods manufacturers and their suppliers)	Waste management	Cash handling	RTI (Returnable Transport Items) management	Agricultural Crop data information sharing	Customs
Australia		Y					Y					
Austria	Y								Y			
France							Y		Y			
Germany	Y						Y		Y	Y		
Italy									Y			
Lithuania	Y											
Netherlands <sup>2</sup>	Y	Y								Y		
Norway							Y					
Spain							Y		Y			
<b>TOTAL</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>5</b>	<b>2</b>		

**Additional comments about EDI in other sect**

<sup>1</sup> **GS1 Belgium & Luxembourg:** For all sectors, we don't know if GS1 XML has been implemented or not. For construction, plans to copy the Dutch SALES standards <http://cp.etim.nl/salesetim>

<sup>2</sup> **GS1 Netherlands:** Construction: Propriety XML solution, BMECAT