



The Global Language of Business

# Implementation of GS1 EDI standards in 2020

Detailed report - version for GS1 MOs

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## Contributors

Name	Organisation
Piergiorgio Licciardello	GS1 Global Office

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# 1 Introduction

## 1.1 Scope and objective

This report presents the implementation of GS1 EDI standards in the year 2020. It is based on the answers of 44 Member Organisations, of which 35 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.

Some questions have been added with the goal of exploring new technologies and trends emerging from the market.

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 different than in previous years (53 in 2019), 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
11. Emerging technologies

The ninth section contains a short analysis of the EDI implementation trends, based on data between 2005 and 2020, as well as estimation for year 2021.

## 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: <http://mozone.gs1.org/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

35 MOs reported that various EDI standards have been implemented in their countries in 2020.

**Table 1** List of countries where EDI is used:

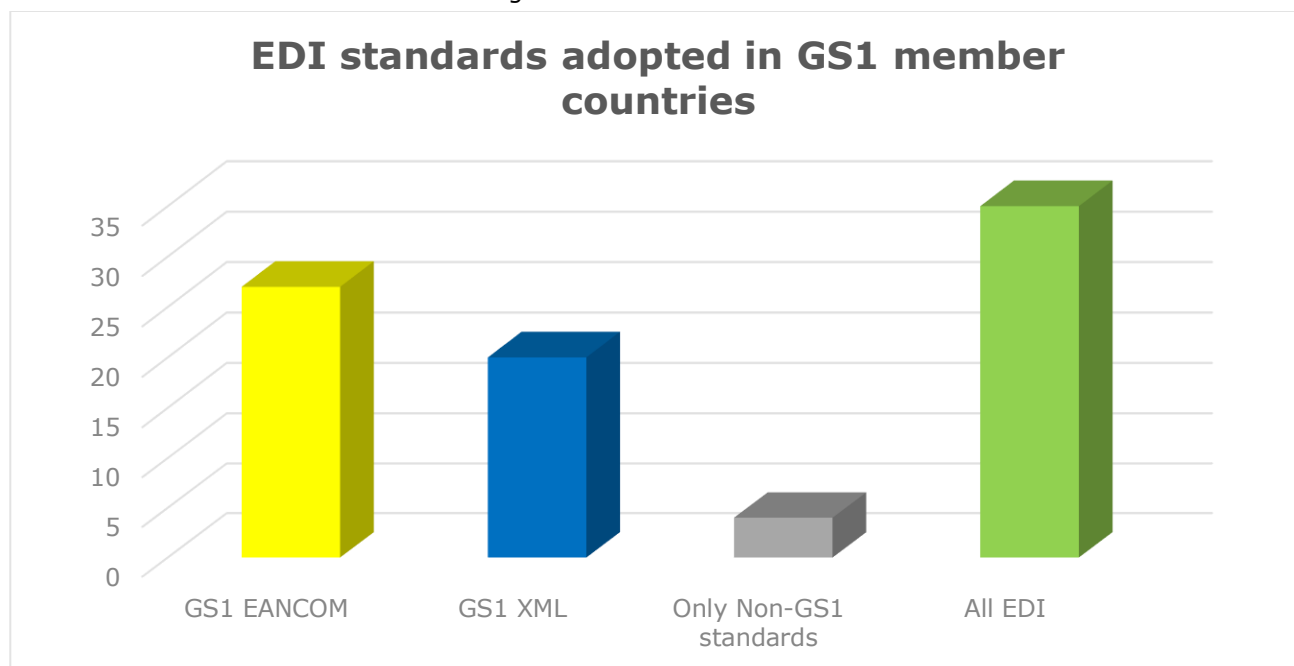
Country	GS1 XML	UN/CEFACT Profiles	EANCOM®	Country	GS1 XML	UN/CEFACT Profiles	EANCOM®
Association Greece	Y			Japan	*	*	*
Australia	Y		Y	Latvia	*	*	*
Austria	Y	Y	Y	Lithuania	Y		Y
Belgium & Luxembourg	Y		Y	Macau			Y
Bolivia	Y			Netherlands	Y		Y
Brasil	*	*	*	Nicaragua			Y
Bulgaria	Y		Y	Norway			Y
Canada	Y		Y	Paraguay	Y		
Chile			Y	Serbia	Y		Y
Colombia			Y	Slovakia			Y
Croatia	Y	Y	Y	South Africa	Y		Y
Czech Republic			Y	Sweden	Y		Y
Denmark	Y		Y	Switzerland	Y		Y
France	Y		Y	Thailand			Y
Germany	Y	Y	Y	UK			Y
Hong Kong			Y	USA	Y		
Hungary			Y	Vietnam	*	*	*
Italy	Y		Y				
TOTAL: 35 countries, GS1 XML: 20, UN/CEFACT Profiles: 3, EANCOM®: 27							

\* Only non-GS1 standards implemented

**Table2** List of countries where EDI standards were reported as not used:

Algeria		Ecuador	Not yet. Promoting the use of it in the scheme XML to healthcare sector.
Azerbaijan		Estonia	No information about usage
Bahrain		Nigeria	Working on implementing EDI very soon
Cameroon	EDI implementation is to complex and costly for locality	Tanzania	
Côte d'Ivoire	No industry has shown an interest yet		

The chart below illustrates the types of EDI standards implemented in 35 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 2020, the implementation of EANCOM® standards was reported by 27 countries. EANCOM® versions 97 and 2002 are implemented in almost the same number of countries – 17 and 16 respectively. Version 94 is still in use in 8 countries.

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 2020	Est. 2021	94	1997	2002	S3	S4
			# of users	# of users	# of users		
Australia	n/a	n/a		Y	Y	Y	
Austria	3000	3050	Y	Y	Y	Y	Y
Belgium & Luxembourg	n/a	n/a		Y	Y	Y	
Bulgaria	800	n/a					
Canada	81	81	Y	Y	Y	Y	
Chile	2%	1.5%			Y		Y
Colombia	n/a	n/a					

<sup>1</sup> The overview of differences between Syntax level 3 and 4 can be found on [GS1 website](https://www.gs1.org/standards/edi/edi-syntax).

Country	EANCOM® Users		Implemented Versions of EANCOM®			EANCOM® 2002 Syntax version	
	Dec 2020	Est. 2021	94	1997	2002	S3	S4
			# of users	# of users	# of users		
Croatia	20	25			Y	Y	
Czech Republic	1850	1950		Y	Y	Y	Y
Denmark	n/a	n/a	Y	Y			
France	15500	n/a	Y	Y	Y	Y	
Germany	10600	11000		Y	Y	Y	Y
Hong Kong	2000	2000		Y	Y	Y	Y
Hungary	2400	2500	Y	Y	Y	Y	Y
Italy	2300	2400		Y			
Lithuania	174	200			Y	Y	Y
Macau	n/a	n/a					
Netherlands	9500	9800		Y	Y	Y	
Nicaragua	50	50		Y			
Norway	500	500	Y				
Serbia	350	370			Y	Y	
Slovakia	1000	n/a		Y	Y	Y	Y
South Africa	50	60	Y	Y			
Sweden	n/a	n/a	Y	Y			
Switzerland	3900	4100		Y	Y	Y	Y
Thailand	n/a	n/a					
UK	n/a	n/a					
TOTAL – 27 countries	54,075	55,386	8 countries	17 countries	16 countries	15 countries	9 countries



**Note:** The total of 2021 estimation has been calculated assuming that, if no estimation is provided, the number of users will remain the same as 2020

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

In many countries where ver. 97 and 2002 are both in use, the majority of users is still on the 97 version.

**Note:** More information about GS1 EANCOM® can be found at the [GS1 website](#)  
Or from the local GS1 Member Organisation.



### 3.2 EANCOM® message implementations

A total of 43 EANCOM® messages have been reported as implemented, the most popular being ORDERS (Order), INVOIC (Invoice), DESADV (Despatch Advice), PRICAT (Price/Sales Catalogue), ORDRSP (Order Response), RECADV (Receiving Advice) and INVRPT (Inventory Report). This order is very similar to previous years. Table 4 below contains the details of messages used.

There are 2 messages with no users: DIRDEB (Direct Debit), CONDRA (Drawing administration)

There are 9 messages used only in 1 country

**Table 4:** List of EANCOM® message implementation per country

Country	Master Data				Pre-Order	Order				Transport & Delivery										Payment					Report & Planning										Other			# by country														
	PARTIN	PRICAT	PRODAT	PROINQ		CNTCND	REQOTE	QUOTES	ORDCHG	ORDERS	ORDRSP	OSTENQ	OSTRPT	HANMOV	INSDS	IFTMBF	IFTMBC	IFTMIN	IFCSUM	IFTSTA	IFTMAN	DESADV	RECADV	RETANN	RETINS	INVOIC	TAXCON	REMA DV	COMDIS	COACSU	PAYMUL	APERAK	BANSTA	CREMUL	CONTRL	DELFOR	DIRDEB		FINSTA	INVRPT	MSCONS	QALITY	SLSFCT	SLSRPT	CONDRA	GENRAL	AUTACK					
Australia	Y	Y	Y					Y	Y	Y				Y							Y	Y			Y		Y				Y																		12			
Austria		Y	Y	Y				Y	Y	Y			Y	Y			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y		Y	Y	Y	Y		Y	Y	Y	Y	Y	Y		Y						31			
Belgium & Luxembourg									Y	Y			Y	Y			Y			Y	Y	Y	Y	Y	Y	Y		Y					Y							Y			Y	Y	Y					19		
Bulgaria									Y												Y	Y			Y																									4		
Canada		Y		Y	Y	Y	Y	Y	Y	Y		Y	Y	Y				Y			Y				Y				Y		Y																			16		
Chile		Y							Y	Y																										Y														4		
Croatia									Y												Y	Y			Y																										4	
Czech Republic	Y	Y	Y						Y	Y			Y							Y	Y	Y	Y		Y		Y	Y		Y				Y						Y	Y									19		
Denmark									Y	Y											Y				Y																											4
France	Y	Y	Y		Y			Y	Y	Y		Y	Y	Y				Y	Y		Y	Y	Y	Y	Y	Y		Y				Y			Y			Y			Y	Y		Y							24	
Germany		Y		Y		Y	Y	Y	Y	Y			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y				Y			Y	Y					Y	Y		Y							28	
Hong Kong								Y	Y	Y											Y				Y		Y										Y														7	
Hungary	Y	Y							Y	Y											Y	Y			Y																											7
Italy		Y						Y	Y	Y											Y	Y			Y		Y										Y															9
Lithuania	Y	Y	Y					Y	Y	Y								Y	Y		Y	Y	Y		Y																										12	
Netherlands		Y	Y					Y	Y	Y				Y			Y				Y	Y	Y	Y	Y		Y				Y				Y								Y									16

Country	Master Data				Pre-Order		Order				Transport & Delivery										Payment					Report & Planning										Other			# by country																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
	PARTIN	PRICAT	PRODAT	PROINQ	CNTCND	REQOTE	QUOTES	ORDCHG	ORDERS	ORDRSP	OSTENQ	OSTRPT	HANMOV	INSDSE	IFTMBF	IFTMBC	IFTMIN	IFCSUM	IFTSTA	IFTMAN	DESADV	RECADV	RETANN	RETINS	INVOIC	TAXCON	REMADV	COMDIS	COACSU	PAYMUL	APERAK	BANSTA	CREMUL	CONTRL	DELFOR	DIRDEB	FINSTA	INVRPT		MSCONS	QALITY	SLSFCT	SLSRPT	CONDRA	GENRAL	AUTACK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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## 4 GS1 XML

### 4.1 Number of GS1 XML and implemented versions

In 2017, the implementation of GS1 XML standards was reported by 26 countries. The most widely used version set of GS1 XML standards was 2.x, and out of the three latest EDI releases 3.0 and 3.1 were implemented in more countries than the other ones.

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

COUNTRY	2020	Est. 2021	1.X	2.X	3.X	3.3	3.4	3.4.1
Australia	n/a	n/a		Y	Y		Y	Y
Austria	49	55		Y	Y			
Belgium & Luxembourg	n/a	n/a						
Bolivia	n/a	n/a						
Bulgaria	650	700						
Canada	20	n/a						
Croatia	160	200		Y				
Denmark	n/a	n/a			Y			
France	650	n/a		Y		Y	Y	
Germany	520	550		Y	Y	Y	Y	Y
Greece	n/a	n/a						
Italy	500	600		Y				
Lithuania	920	1000				Y	Y	
Netherlands	300	350			Y	Y	Y	
Paraguay	421	442		Y				
Serbia	150	160		Y	Y			
South Africa	50%	60%			Y	Y		
Sweden	5200	5400			Y			
Switzerland	n/a	n/a			Y			
USA	n/a	n/a						
TOTAL – 20 countries								
	9,540	10,127	0 country	8 countries	9 countries	5 countries	5 countries	2 countries



**Note:** The total of 2021 estimation has been calculated assuming that, if no estimation is provided, the number of users will remain the same as 2020

### 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, Order Response, 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 message implementations per country

Country	Align	Order				Deliver						Transport Management				Warehousing								Pay					Plan					Other			
	Item Data Notification	Order	Configure to Order	Order Response	Consumption Report	Despatch Advice	Despatch Advice – Cash Handling Ext.	Despatch Advice – Fish Traceability Ext.	Despatch Advice - Meat Product Ext.	Inventory Report	Receiving Advice	Transport Capacity Requirements	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	Claims Notaification	Request for Payment	Debit or Credit Advice	Invoice	Settlement	Goods Requirements	Goods Requirements Response	Purchase Conditions	Replenishment Proposal	Replenishment Request	Application Receipt Acknowledgement	Product Recall	# of messages by country
Australia	Y	Y		Y	Y	Y				Y	Y		Y	Y										Y					Y	Y	Y				Y	14	
Austria	Y	Y																Y																	Y		4
Bulgaria		Y				Y					Y																	Y									4
Croatia	Y	Y																																			2
Denmark		Y																																			2
France		Y				Y	Y				Y					Y	Y	Y	Y	Y	Y		Y				Y			Y	Y				Y		15
Germany		Y		Y		Y			Y	Y	Y		Y	Y	Y			Y	Y	Y								Y									13
Italy		Y		Y		Y	Y				Y																								Y		6
Lithuania		Y		Y		Y					Y															Y		Y									6



Country	Align	Order				Deliver						Transport Management				Warehousing									Pay					Plan					Other		
	Item Data Notification	Order	Configure to Order	Order Response	Consumption Report	Despatch Advice	Despatch Advice – Cash Handling Ext.	Despatch Advice – Fish Traceability Ext.	Despatch Advice - Meat Product Ext.	Inventory Report	Receiving Advice	Transport Capacity Requirements	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	Claims Notaification	Request for Payment	Debit or Credit Advice	Invoice	Settlement	Goods Requirements	Goods Requirements Response	Purchase Conditions	Replenishment Proposal	Replenishment Request	Application Receipt Acknowledgement	Product Recall	# of messages by country
Netherlands		Y		Y		Y				Y	Y						Y	Y				Y	Y					Y	Y	Y	Y	Y	Y	Y			16
Paraguay																											Y	Y									2
Serbia		Y		Y			Y			Y	Y																	Y									6
South Africa		Y	Y	Y	Y	Y	Y			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			Y	Y	Y				Y		Y	Y	Y	Y	Y			25
Sweden	Y												Y			Y	Y	Y	Y			Y	Y														8
Switzerland	Y	Y		Y		Y				Y																		Y									6
TOTAL	5	13	1	8	2	9	4	0	1	6	9	1	4	3	2	3	4	6	4	2	1	3	4	2	0	1	2	9	2	4	4	2	2	2	3	1	

## 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

Three MOs reported that these profiles either have been implemented in their countries or such implementation is being considered.

The results are presented in the 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
Austria				Y
Croatia	Y			
Germany <sup>1</sup>				Y
TOTAL	1	1	1	2

## 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 8** List of countries where Web EDI is used:

COUNTRY	2020	Est. 2021	COUNTRY	2020	Est. 2021
Australia	n/a	n/a	Lithuania	900	n/a
Austria	970	1050	Netherlands	750	775
Baharain	n/a	n/a	Nigeria	n/a	n/a
Belgium & Luxembourg	n/a	n/a	Norway	n/a	n/a
Brasil	n/a	n/a	Paraguay	421	442
Bulgaria	650	700	Serbia	180	200
Canada	902	927	Slovakia	450	n/a
Chile	n/a	n/a	Sweden	n/a	n/a
Croatia	120	140			
Czech Republic	790	820			
France	1300	1300			
Germany	6200	6300			
Greece	n/a	n/a			
Hong Kong	95%	95%			
Hungary	600	600			
Italy	3700	3800			
Japan	n/a	n/a			
Latvia	1120	1300			
Total	In 2020: 19,053 in 26 countries, estimated for 2021: 19,704				



**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.

## 7 Non GS1 EDI standards and solutions

Non-GS1 EDI standards have been implemented in 14 countries.

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	
		2020	Est. 2021
Australia	Oracle cXML	n/a	n/a
	UBL	n/a	n/a
	JSON	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
	API	n/a	n/a
Brazil	NFE	1.923 Millions	n/a
Chile	IDOC	30%	n/a



Country	Standard	# of users	
		2020	Est. 2021
	EDICL	40%	
Croatia	OAGI	n/a	n/a
	UBL	n/a	n/a
France	Gencod (old French language)	n/a	n/a
Hungary	EDIFACT (not EANCOM)	100	100
Italy	XML PA per pblic administration	3.9 millions	4 millions
Japan	Ryutsu BMS	15.200	16.400
Latvia	Details n/a	797	890
Norway	NeB Supply used in Construction	n/a	n/a
	local profile EHF XML used in public procurement	181.000	200.000
Sweden	UBL	n/a	n/a
	National format based on XML developed by the Building and construction sector	n/a	n/a
	Odette	n/a	n/a
Vietnam	EDIFACT	n/a	n/a
Total	14 countries		

**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.

## 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 than 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
Australia		Y			Y		Y
Austria		Y		Y	Y		Y
Belgium & Luxembourg		Y		Y	Y	Y	Y
Brasil					Y		Y
Bulgaria		Y			Y		
Canada		Y		Y	Y		Y
Chile		Y					
Croatia		Y					Y
Czech Republic	Y	Y			Y		Y
France		Y					Y
Germany		Y		Y	Y		Y
Hong Kong		Y			Y	Y	Y

COUNTRY	AS1	AS2	AS3	AS4	Web Services	ebMS	VAN
Hungary		Y		Y	Y		
Italy		Y			Y		Y
Japan		Y			Y	Y	Y
Latvia		Y					
Lithuania		Y		Y	Y		Y
Netherlands		Y			Y	Y	Y
Nicaragua	Y	Y			Y		
Norway							Y
Paraguay					Y		
Serbia		Y			Y		Y
Slovakia		Y			Y		Y
Sweden		Y			Y		Y
Switzerland			Y		Y		
Vietnam		Y					
Total	2	22	1	6	20	4	18

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

The EDI implementation survey has been run for 16 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 16 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 15 years, and the forecast for 2021.

From the chart it is clear that GS1 EANCOM® is still widely used. The number of users amongst GS1 member companies is now more than 120,000 companies with still a positive forecast.

The GS1 XML standard after a period of modest implementation levels during first years, is now exceeding 46.000 companies manifesting essentially a trend of stability.

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.

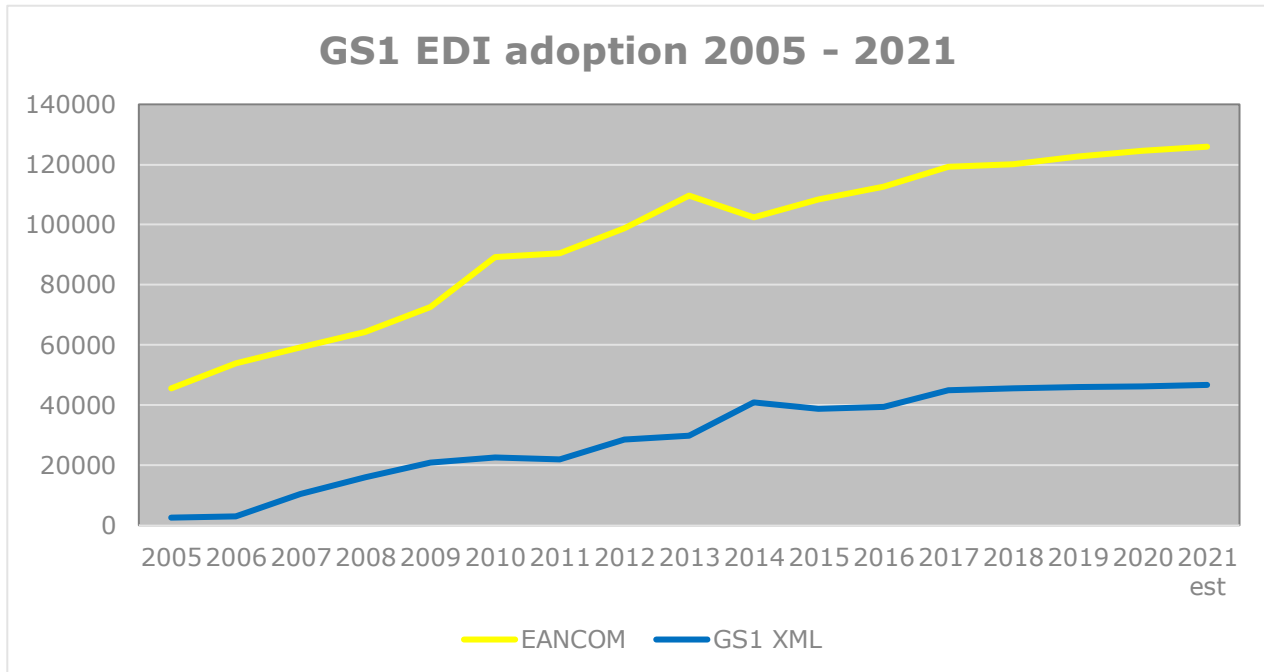
This year survey has started to investigate new trends, emerging technologies and syntaxes that could eventually support future EDI implementation.

It appears that the UBL is in use in interesting number of countries (13), predominantly European (12) probably due to European e-Invoicing rules.

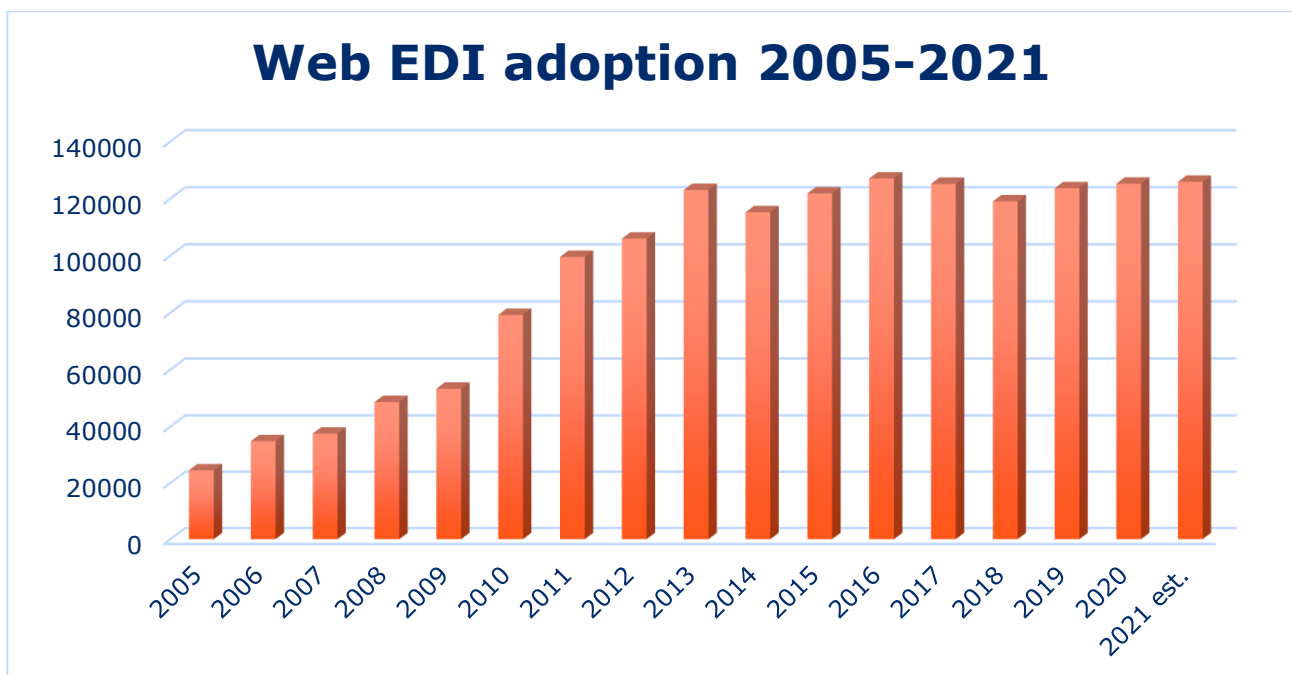
JSON and API cannot be considered “under investigation” technologies, as there appear to be in use in a significant set of countries.

At the moment the Blockchain technology has no real implementation yet but it’s under investigation in 8 countries.

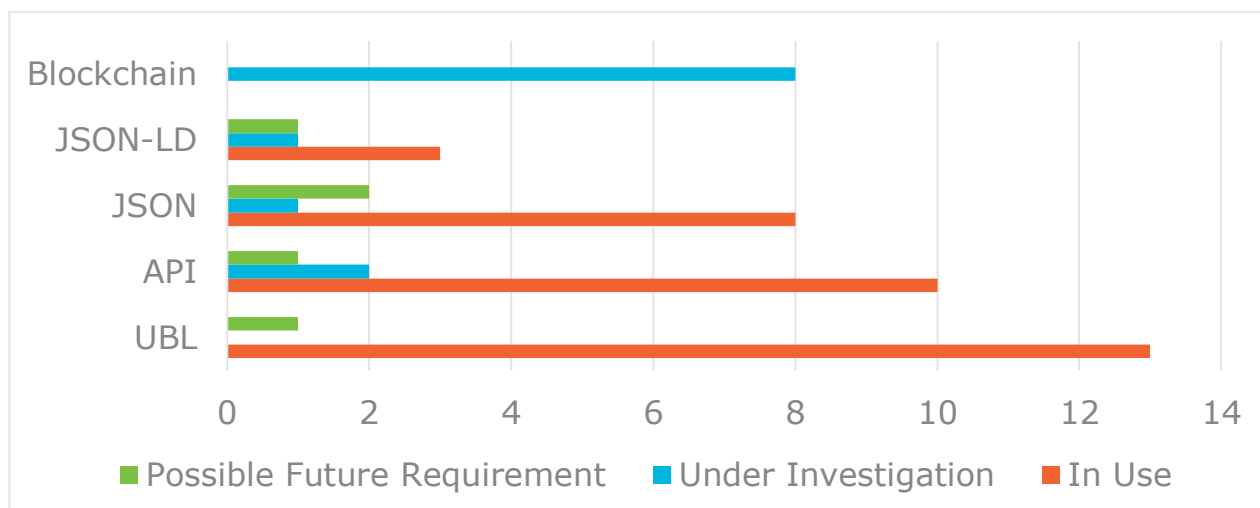
Some results are shown in figure 5.



**Figure 3:** Adoption of GS1 EDI standards 2005-2020 and forecast for 2021



**Figure 4:** Adoption of Web EDI 2005-2020 and forecast for 2021



**Figure 5:** Emerging technologies vs countries

## 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® 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 11 countries are presented in Table 12 below.

**Table 12:** Use of EDI standards in Healthcare sector

COUNTRY	EANCOM®	GS1 XML	HL7	Other	GS1 Global HC Guidelines		
					Used	New impl.	Local guide update
Australia	Y	Y		Y	Y		Y
Austria	Y						
Belgium & Luxembourg	Y			Peppol BIS v3	Y	Y	
Brasil				Y			
Canada				Y			
France	Y						
Germany	Y	Y			Y		
Hong Kong	Y				Y		Y
Netherlands	Y				Y		
Serbia	Y	Y			Y		
Sweden	Y				Y		Y
TOTAL 11	9	3		4	7	1	3

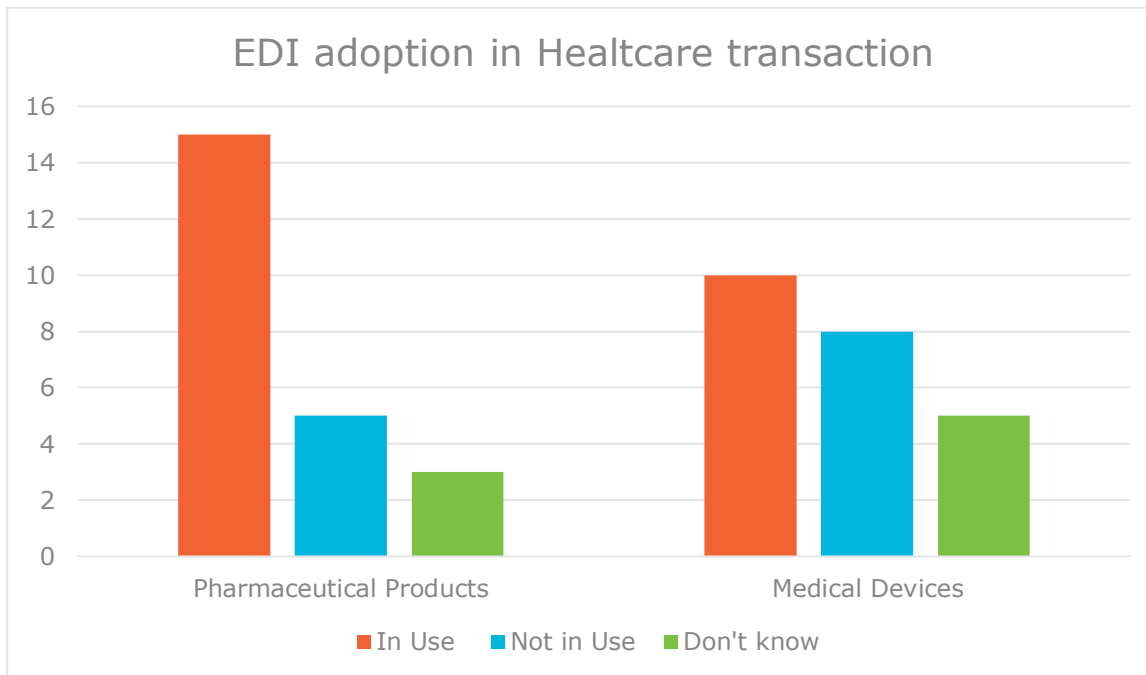
#### **Additional comments**

This year a couple of additional questions has been introduced in the survey about the healthcare sector.

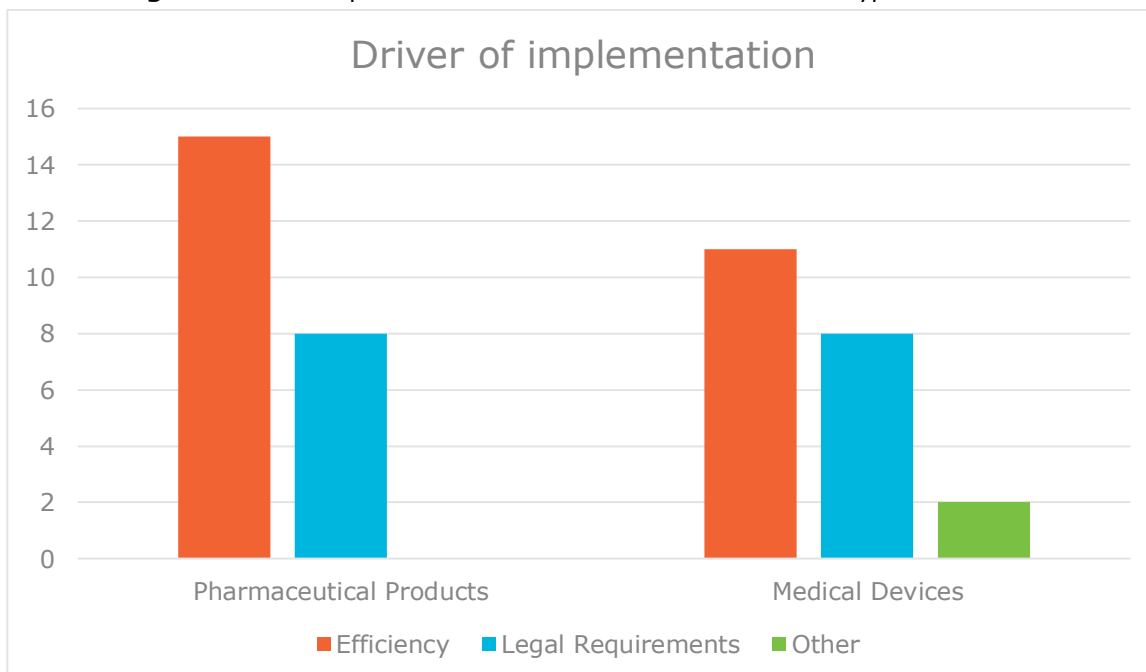
In specific:

- Use of EDI in pharmaceutical products transactions and medical devices transactions
- Reasons for the adoption: efficiency vs legal requirement

Figure 6 and 7 provide a vision on the results.



**Figure 6:** EDI adoption on different Healthcare transaction types



**Figure 7:** EDI implementation driver

## 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
Australia		Y	
Austria	Y		
Belgium & Luxembourg			Y
Brasil			Y
Canada			Y
Chile			Y
Czech Republic	Y		
Germany	Y	Y	UN/CEFACT CI
Italy			eBiz
Japan			Ryutsu BMS
Lithuania	Y		
Netherlands	Y		
TOTAL 12	5	2	7

## 10.3 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
Australia		Y
Austria	Y	Y
Belgium & Luxembourg	Y	Y
Bulgaria	Y	
Cameroon	Y	
Czech Republic	Y	
France	Y	
Germany	Y	Y
Italy	Y	
Lithuania	Y	Y
Netherlands	Y	Y

COUNTRY	EANCOM®	GS1 XML
Serbia	Y	
Slovakia	Y	
Sweden		Y
<b>TOTAL 14</b>	<b>12</b>	<b>7</b>

## 10.4 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. The results received from 5 countries are presented in Table.

**Table 16:** Use of GS1 standards in other sectors

Country	Construction		Rail Industry	
	EANCOM	XML	EANCOM	XML
Australia		Y		Y
Belgium & Luxembourg	Y			
France	Y		Y	
Germany	Y			
Netherlands	Y			
<b>TOTAL</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>1</b>