

<i>Title</i>	<i>Impact analysis for Simplerinvoicing (SI-UBL 1.2) , NL-CIUS and PEPPOL-CIUS</i>
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Impact analysis on Simplerinvoicing (SI-UBL 1.2) due to NL-CIUS and PEPPOL-CIUS (and thus EN 16931)

1 Executive Summary

Simpler Invoicing has made the decision to make its next release compliant with the EN16931 norm. This can be done by adopting the “EN norm as documented” or to comply to a CIUS. One can create a custom CIUS (strategically not preferred by SI) or an available CIUS. Two available options are NL-CIUS and PEPPOL-CIUS. SI has requested to look at both CIUSes. This document analyzed the impact on SI due to adoption to the EN norm and the two CIUSes.

The EN norm introduces the biggest impact on the SI 1.2 standard, not the CIUSes. The CIUSes only introduce a small delta between them.

The important insight gained in the analysis, is the difference between sending and receiving an invoice within SI-only OR in-between CIUSes. When sending an invoice via a standard that has to comply to two or more CIUSes, that standard has to use the most strict cardinality. All business rules of both receiving CIUSes will be valid. However, this does not apply when you need to RECEIVE an invoice. For example, when one CIUS allows more than one instance of an element, and the other CIUS does not.

At the start of the analysis there were many differences between the CIUSes, however due to interaction with the NL and PEPPOL-CIUS workgroups these have been reduced to a handful. This analysis thus made it possible to adopt both CIUSes in one go, with limited implementation effort and complexity, instead of having to set up a migration plan to adopt two standards.

The analysis in numbers

- There are 24 **new** mandatory elements to be added to SI
 - For 4 of these new element there is a cardinality difference between NL and PEPPOL
- There are 30 cardinality changes for SI (See chapter 6.1)
 - There are 19 optional elements that have to become mandatory
 - There is 1 element which is allowed 0..2, but is now restricted to 0..1
 - The amount of differences between the CIUSes is minimal, which makes adoption
 - Actual difference
 - PEPPOL-CIUS has 3 elements mandatory due to the infrastructure network used (in comparison to NL-CIUS)
 - Difference that might be eliminated
 - NL-CIUS is enforcing 1 Document Type Code, but is considering to make it optional similar to PEPPOL
Info: This element is also new, and thus should not be counted twice in this overview
 - NL-CIUS is enforcing at least 1 taxSubTotal, but is considering to make it optional similar to PEPPOL
 - Current differences that will be eliminated
 - NL-CIUS has 6 mandatory elements (SI optional), which (with 3 new elements) will be proposed to PEPPOL-CIUS as NL specific business rules. This will eliminate them as a delta.
- In order to receive invoices that are compliant to NL and PEPPOL, 49 elements need changes (See chapter 6.2)
 - 1 element (cbc:ProfileID) is now mandatory, but should be optional for NL
 - 33 elements are new to SI, are optional (not included in the 24 mentioned above), but should be allowed when receiving invoices.
 - 15 need to become less strict and thus allow more elements in the message or to become optional.
- 161 Elements need to be dropped from SI
 - 4 mandatory elements need to be dropped
 - There are 59 other mandatory elements but are in an optional group
 - The remaining 97 elements are optional.

2 Introduction and purpose

2.1 Earlier analysis SI versus EN16931-1

In early 2017 Rick Ribbers has executed an impact analysis for the European norm (EN 16931-1, draft version of early 2017) and Simplerinvoicing (SI-UBL 1.2).

The high level summary with the information known at the time was as follows:

1. There are 60 elements that have a more strict cardinality in SI-UBL compared to the EN
2. A total of 53 elements are not matched (of which 3 are mandatory). This indicates that there is a field in the European norm that does not exist in SI-UBL 1.2.
3. Out of the UBL syntax mapping several duplicate mapping from the EN to a single UBL element are made. Note: since the analysis the EN UBL syntax binding is updated significantly, most of the duplicate mappings are solved.
4. There are 134 elements in SI-UBL that are not available in the European norm.
 - a) SI-UBL has introduced several optional elements that do not influence the semantics of the core invoice but are merely there for enriching the invoice with additional data. These additions must be considered an extension to the norm and thus making it a non-compliant e-invoice.
5. Code lists are handled differently in the European norm. Within SI-UBL (like PEPPOL) most code list are restricted to minimize the amount of fields to be processed. Especially the InvoiceTypeCode and PaymentMeansCode contain more elements in the European norm.

Given (1), (2) and (4) there is a big gap between the SI-UBL v1.2 and the EN16931 in order to become fully compliant:

- Support for 134 element (4) must be dropped. Extensions make the invoice non-compliant.

2.2 Introduction of shared CIUSes

Creating a “Core Invoice Usage Specification (CIUS)” is the only way to create a compliant implementation of the European norm. A CIUS is a set of restrictions applied to the European Norm. There are two initiatives for developing a CIUS where Simplerinvoicing is actively participating:

- The “NLCIUS” initiative; initiated by the SMeF governance board, developed by several players in the Dutch e-invoicing market, including Simplerinvoicing, Logius, Dutch ministries, Programmabureau e-factureren, SALES, SETU and a couple of individual market players. The working group was guided and supported by NEN, TNO and Fred van Blommestein (lead editor of the EN).
 - The goal is to have one CIUS for the Dutch market (any2any) where the invoice model is identical to the Simplerinvoicing model and the models of all other associated stakeholders. More info: see presentation of Michiel Stornebrink en Fred van Blommestein during the CAB meeting of 10 Oct. 2017.
 - The NLCIUS is registered for adoption on the ‘Pas toe of leg uit’-lijst of Bureau Forum Standardisatie. This list makes it mandatory for all Dutch governmental bodies to support and comply to the NLCIUS. Other (self-made) CIUS’s are not allowed.
 - NLCIUS is the Dutch translation and implementation guideline of the EN16931-1. The specification is governed by the NEN Standardization platform eProcurement. NEN, TNO and Simplerinvoicing are projectpartners and have received funding for activities in this community platform.
- The “PEPPOL CIUS” initiative, resulting in the PEPPOL BIS v3 specification.

2.3 Earlier discussions/decisions of FB, COP and CAB

The following guidelines for the Change Advisory Board are defined by the COP in May 2017:

See: 20170522-cop-en-adoption-strategy-0.2.docx

- A CIUS is a way to communicate differences to the EN norm. This should be additional to the Simplerinvoicing specification that can be used standalone. Layering specifications should be avoided to make sure there is one place to find information about the standard. This also might be a way for implementers to minimize the impact of the copyright issue with the European norm.
- Simplerinvoicing has a strong adoption in the Dutch market. The guiding principle should be to converge SI-UBL towards the NLCIUS initiative.
- Simplerinvoicing differentiates itself in the market being a PEPPOL Authority. Being a SI-FULL participant, one can guarantee the authenticity and integrity of the e-invoice. SI-UBL itself has no distinctiveness in the market. It helped Simplerinvoicing to start up, but with the adoption of the norm it will definitely change.
- Initially the adoption should focus on developing a core invoice that is compliant to the European Norm. In a later phase additional extensions can be added for both specific sectors and specific invoicing scenarios. For both phases Simplerinvoicing could and should benefit from the work done by different initiatives like NLCIUS and PEPPOL.

2.4 Purpose of THIS document

Taken into account the position of Simplerinvoicing to adopt and converge to the EN16931-1, this document focuses on the delta between:

A. SI and EN16931-1

New information confirms previous conclusions and/or adds new insights based on changes after previous analysis. The EN norm will imply changes (additions, restrictions and removals) independently which CIUS(es) is(are) used. The comparison between SI and EN is therefore a baseline.

Adopting a CIUS implies further restrictions on the EN norm (, and thus on A). Adopting two or more, will imply

B. restrictive changes that are similar and

C. the most restrictive changes in cardinality and (thus also) business rules.

SI is currently confirmative to PEPPOL and may want to adopt to the NL-CIUS and PEPPOL-CIUS at the same time. Thus SI will have to conform to the similarities (B), however having to make a choice between the differences (C). In order for the CAB and COP to make an informative decision for adoption of the European norm via NL-CIUS and/or PEPPOL-CIUS.

2.5 Migration approach

There are several ways in order to make SI compliant to the EN norm and the NL and PEPPOL-CIUSes.

Based on the impact defined in this document one can choose for the best approach (either complexity, urgency, functional impact etc)

(1.2)	Step 1 (1.3a)	Step 2 (1.3b)	Step 3 (1.3c)
a) Current SI	> EN	> +NL-CIUS	> +PEPPOL
b) Current SI	> EN	> +PEPPOL	> +NL-CIUS
c) Current SI	> NL-CIUS (+EN)	> +PEPPOL	
d) Current SI	> PEPPOL (+EN)	> +NL-CIUS	
e) Current SI	> NL + PEPPOL (+EN) (S&R)		
f) Current SI	> NL (S&R) and PEPPOL (S only)	> + PEPPOL (+R)	
g) Current SI	> PEPPOL (S&R) and NL (S only)	> + NL (+R)	

Advantages/Disadvantages

- Approach A+B require 2 intermediate updates, which will lead in a lot of overhead, perhaps unnecessary double changes (due to further restrictions of the same element)
- Approach C+D bundle the EN adoption with one of the CIUSes (1.3a). The second adoption will require a 2nd release (1.3b).
- Bundling the 1.3a and 1.3b seems very reasonable but can be risk full. A migration is not the change by itself, but also implies testing and acceptance. Approach E might be too big to handle all these in one go.
- Approach E is one big release. When sending and receiving only within SI, then technical complexity is lower compared to also allowing NL and/or PEPPOL-CIUS compliant invoices.
- Approach F+G. Restricting cardinality is ok for sending invoices, not when you allow receiving from two or more CIUSes. These two options uses the most strict cardinality in 1.3a allowing to send to both, but only to receive from one CIUS. The next release would enable the receiving part of the invoice according to the other CIUS.

Preliminary advise

- Due to the limited differences between NL and PEPPOL-CIUS it is advised to go for option E.

2.6 Analysis approach

The following topics may imply changes on the standard:

- A. Elements
- B. Cardinality
- C. Semantic data type
- D. Codes en identification numbers
- E. Business Rules
- F. Value range of the element

This document focusses on A, B and E. Because the other ones (C, D and F) are controlled within the implementation of E.

3 Delta analysis SI-UBL 1.2 with EN16931 [Elements and Cardinality]

Elements and cardinality

This chapter identifies the impact of the EN norm on SI, without considering a CIUS.

Not all elements with changes are mentioned in detail, as the impact of the CIUS adds more detail OR the CIUS is more aligned with SI instead of the EN norm, In these cases the actual impact is mentioned in the next chapter

SI same as EN (would be no change for SI)

There are 165 elements which have the same cardinality as the EN norm

SI elements, not used in EN (to be dropped from SI)

The EN norm has 213 unique business terms. SI consists out of 381 bindings. Irrelevant of a CIUS, there are 161 elements (145 fields and 46 groups) in SI that are not used in the EN norm and need to be removed from SI 1.2 in order to become compliant.

SI cardinality	Element	Group	Grand	Ref
			Total	
0..1	66	25	91	A1a
0..n	3	3	6	A1b
1..1	75	18	63	A1c
1..n	1		1	A1d
Grand Total	145	46	161	



Fortunately of the 64 elements in A1c + A1d only 4 are really mandatory. The remaining 60 are in an optional group.

cbc:UBLVersionID
cac:InvoiceLine/cac:TaxTotal/cbc:TaxAmount
cac:PaymentMeans/cac:PayeeFinancialAccount/cac:FinancialInstitutionBranch/cac:FinancialInstitution/cac:Address/cac:Country/cbc:IndentificationCode
cac:PaymentMeans/cac:PayeeFinancialAccount/cac:FinancialInstitutionBranch/cac:FinancialInstitution/cbc:ID

See the appendix for the full list. Please note that SI-UBL has introduced several optional elements that do not influence the semantics of the core invoice but are merely there for enriching the invoice with additional data. These additions must be considered an extension to the norm and thus making it a non-compliant e-invoice.

EN elements, not used in SI (to be added to SI)

Irrelevant of a CIUS, there are 60 elements not in SI, of which 6 fields and 1 group is mandatory. The next chapter will change some of these numbers due to further restrictions within the CIUS. Based on the EN norm, the impact would be as follows:

SI \ EN	EN Element		EN Group		Grand Total
	0..1	1..1	0..1	1..1	
Not in SI	34	6	12	3	55
Grand Total	34	6	12	3	55
<i>Ref</i>	<i>B1a</i>	<i>B1b</i>	<i>B1c</i>	<i>B1d</i>	

See appendix for the full list.

IMPORTANT: The cardinality meets the EN standard NOT any CIUSes. So please use it only as a reference.



Cardinality changes to SI due to EN

There are 221 elements with changed cardinality.
 Most elements equal in SI (which is ok = Green)
 Elements more strict in SI compared to EN is ONLY ok when only sending invoices (Blue)
 Elements more strict in EN compared to SI is ONLY ok when receiving invoices (Orange)

SI\EN	Element			Group						Grand Total
	0..1	0..n	1..1	0..1	0..2	0..n	1..1	1..2	1..n	
0..1	44	1	5	35	1	3	9			98
0..2				1						1
0..n						6			1	7
1..1	24		48	8		2	31	1		114
1..n									1	1
Grand Total	68	1	53	44	1	11	40	1	2	221

4 Delta analysis NL-CIUS and PEPPOL-CIUS [Elements and Cardinality]

In this analysis we purely look at the similarities and differences between the two CIUSes without mentioning the impact on SI. The chapter 5 will take the most strict cardinality of the two and mention the impact for SI.

Similarities between NL and PEPPOL

Row Labels	Elements	Groups	Grand Total
NL=PEP	153	111	264
Not used in NL nor PEP	115	46	161
Grand Total	268	157	329

Note: 161 is the same number as mentioned in chapter 3 (Delta SI and EN)

Differences between NL and PEPPOL

Row Labels	Elements	Groups	Grand Total
NL is more strict	10	1	11
PEPPOL is more strict	1	2	3
Grand Total	11	3	14

5 Delta analysis NL-CIUS and PEPPOL-CIUS [Business Rules]

5.1 Type of business rules

There are 4 layers of business rules identified in PEPPOL.

NL does not have Layer D for other countries than NL. PEPPOL has country specific rules eg DK and NO.

A	Validation of syntax	<ul style="list-style-type: none"> • Check well-formedness • Tag names and attributes must be correctly written and follow the UBL 2.1 sequence • All UBL 2.1 mandatory elements must be present. • The element's contents must be according to the element's type definition.
B	Validation against EN 16931	<p>To verify that the instance message is compliant to the european standard, like:</p> <ul style="list-style-type: none"> • Valid codes for currencies, countries, tax etc. • Mandatory elements according to EN 16931. • Logical correlations between information element, i.e. that start date is at least lower than end date, calculations give the correct result etc.
C	CIUS - General rules	<p>General rule that applies to all invoices and are triggered by the existence of one or more specific business term(s).</p> <ul style="list-style-type: none"> • Example rule text An invoice must have a buyers reference or an order reference • Context that triggers the rule Existence of either Buyer reference (BT-10) OR Purchased order reference (BT-13)
D	CIUS - Country qualified validation rules	<p>Applies only for invoices issued in a specific country. The rule is triggered by the given country code of the seller (BT-40).</p> <ul style="list-style-type: none"> • Example rule text When the Seller is Swedish, the Legal Registration Number must be numeric with 10 digits. • Context that triggers the rule Existence of Seller/Address/CountryCode='SE' AND existence of Seller/LegalRegistrationNumber

All PEPPOL schematron files can be found on: <https://github.com/OpenPEPPOL/peppol-bis-invoice-3/tree/master/rules>

5.2 Business Rule comparison

NL and PEPPOL describe and enforce their business rules in different ways. NL is more descriptive in their documentation, whereas PEPPOL has assigned specific business rules for each of them, in most cases these are also implemented in schematron files.

	Business Rule Category		#BR's In PEPPOL	#BR's In NL-CIUS	
Validation of syntax	BR	Integrity rules	58	58	No differences between CIUS-es
	BR-DEC	Diverse	21	Yes	NL mentions rules in document, not as separate BR
	UBL-CR	Diverse	644	Yes	NL and PEPPOL both Exclude this element. NL has not explicitly created a BR for it.
	UBL-DT	Diverse	22	Yes	3x NL mentions rules in document, not as separate BR
					19x NL and PEPPOL both EXCLUDE other element
	UBL-SR	Diverse	40	Yes	36x NL mentions rules in document, not as separate BR
				4	4x NL mentions rules in BR's
	PEPPOL-EN16931-F	Diverse	1	Yes	NL mentions rule in document, not as separate BR
BR-CO	Conditions	24	24	No differences between CIUS-es	
Validation against EN 16931 and CIUS - General rules	BR-S	VAT std tariff	10	10	No differences between CIUS-es
	BR-Z	Zero rated VAT	10	10	No differences between CIUS-es
	BR-E	Exempt from VAT	10	10	No differences between CIUS-es
	BR-AE	VAT reverse charge	10	10	No differences between CIUS-es
	BR-IC	Intra-community supply	12	12	No differences between CIUS-es
	BR-G	Export outside the EU	10	10	No differences between CIUS-es
	BR-O	Not subject to VAT	14	14	No differences between CIUS-es
	BR-CL	Code list compliancy	20	Yes	EN (and in some cases also NL) mentions rules in document, not as separate BR
PEPPOL-EN16931-CL	Additions to BR-CL	7	Yes	NL or EN mentions rules in document, not as separate BR	

	PEPPOL-EN16931-P	Diverse	2	Yes	NL mentions rule in document, not as separate BR
	PEPPOL-EN16931-R	Diverse	27	*1	<p>PEPPOL has introduced several Business Rules that either checks or makes calculations in order to verify the compliancy with their (additional) business rules.</p> <p>TNO concluded: -5 very minor issues, not really deltas per se. -3 minor deltas, one of which is trivial -1 that likely is a mistake in PEPPOL.</p> <p>The two significant deltas are 'electronic address' for buyer and seller, which are mandatory in PEPPOL and optional in NL CIUS/EN</p>
	BR-IG	Diverse	20	*2	IGIC and IPSI are not supported in NL-CIUS - VAT Category Code. Only the values in Table 14 – VAT category code are allowed.
CIUS - Country qualified validation rules	NO-R	Diverse	2	#NA1	Nordic specific business rules in PEPPOL, no need for these in NL-CIUS
	DK-R	CIUS - General rules	2	#NA2	Danish specific business rules in PEPPOL, no need for these in NL-CIUS
	BR-NL	Diverse	*3	35	NL specific business rules in NL-CIUS
		Grand Total	964	158	

Conclusion

- (NA1+2) Additional business rules need to be triggered when sending to specific countries via PEPPOL (NO-R and DK-R).
- (*1+*2) When receiving an invoice from PEPPOL more values need to be supported and thus more business rules need to be triggered (BR-IG)
- (*3) PEPPOL-CIUS will be requested to adopt the NL-CIUS's BR-NL business rules. Eliminating a delta

6 Delta analysis SI vs EN + NL + PEPPOL-CIUS [Elements and Cardinality]

In this chapter we define the true impact of the adoption of 2 CIUSes and thus the compliance to the EN norm.

6.1 Cardinality change for SI (When sending invoices)

In this table you can see that SI has a large cardinality (less strict)

SI cardinality	0..1	1..1	1..n	Grand Total
0..1				
Cardinality change due to EN		14		14
Cardinality change due to NL		6		6
Cardinality change due to NL+PEPPOL (not EN)		5		5
Cardinality change due to PEPPOL		2		2
0..2				
Cardinality change due to EN	1			1
0..n				
Cardinality change due to NL			1	1
1..1				
Cardinality change due to PEPPOL		1		1
Grand Total	1	28	1	30

6.2 Cardinality change for SI (When receiving invoices)

In this table you can see how many elements have a more strict cardinality. Without adjustments SI would reject these invoices.

SI cardinality	0..1	0..2	0..n	Grand Total
0..1				
s_ok, Si stricter (than EN, and thus NL+PEPPOL)		1	2	3
1..1				
s_ok, Si stricter (than EN, and thus NL+PEPPOL)	12			12
nok, SI 1..1 > NL 0..1 PEPPOL 1.1	1			1
Not existent in SI				
New in EN and optional	33			33
Grand Total	46	1	2	49

6.3 New Elements

SI cardinality	1..1	Grand Total
(blank)	24	24
NEW for SI, due to EN and strict NL	4	4
NEW for SI, due to EN and strict NL+PEPPOL	20	20
Grand Total	24	24

Appendix

A1. New mandatory elements (24) to be added to SI

Row Labels	Group	EN	NL	PEP
cac:DespatchDocumentReference/cbc:ID	FALSE	0..1	1..1	1..1
cac:ReceiptDocumentReference/cbc:ID	FALSE	0..1	1..1	1..1
cac:OriginatorDocumentReference/cbc:ID	FALSE	0..1	1..1	1..1
cac:AdditionalDocumentReference/cac:Attachment/cbc:EmbeddedDocumentBinaryObject/@filename	FALSE	1..1	1..1	1..1
cac:AdditionalDocumentReference/cbc:DocumentTypeCode	FALSE	Not spec	1..1 *1	0..1
cac:AccountingSupplierParty/cac:Party/cac:PostalAddress/cac:AddressLine/cbc:Line	FALSE	0..1	1..1	1..1
cac:AccountingCustomerParty/cac:Party/cac:PostalAddress/cac:AddressLine/cbc:Line	FALSE	0..1	1..1	1..1
cac:TaxRepresentativeParty/cac:PostalAddress	TRUE	1..1	1..1	1..1
cac:TaxRepresentativeParty/cac:PostalAddress/cbc:StreetName	FALSE	0..1	1..1 *2	0..1
cac:TaxRepresentativeParty/cac:PostalAddress/cbc:CityName	FALSE	0..1	1..1 *2	0..1
cac:TaxRepresentativeParty/cac:PostalAddress/cbc:PostalZone	FALSE	0..1	1..1 *2	0..1
cac:TaxRepresentativeParty/cac:PostalAddress/cac:AddressLine/cbc:Line	FALSE	0..1	1..1	1..1
cac:TaxRepresentativeParty/cac:PostalAddress/cac:Country	TRUE	1..1	1..1	1..1
cac:TaxRepresentativeParty/cac:PostalAddress/cac:Country/cbc:IdentificationCode	FALSE	1..1	1..1	1..1
cac:Delivery/cac:DeliveryLocation/cac:Address/cac:AddressLine/cbc:Line	FALSE	0..1	1..1	1..1
cac:Delivery/cac:DeliveryParty/cac:PartyName	TRUE	1..1	1..1	1..1
cac:Delivery/cac:DeliveryParty/cac:PartyName/cbc:Name	FALSE	0..1	1..1	1..1
cac:PaymentMeans/cac:PaymentMandate/cac:PayerFinancialAccount/cbc:ID	FALSE	0..1	1..1	1..1
cac:AllowanceCharge/cbc:BaseAmount/@currencyID	FALSE	1..1	1..1	1..1
cac:InvoiceLine/cac:DocumentReference/cbc:ID	TRUE	0..1	1..1	1..1
cac:InvoiceLine/cac:DocumentReference/cbc:DocumentTypeCode	FALSE	Not spec	1..1	1..1
cac:InvoiceLine/cac:AllowanceCharge/cbc:BaseAmount/@currencyID	FALSE	1..1	1..1	1..1
cac:InvoiceLine/cac:Item/cac:StandardItemIdentification/cbc:ID/@schemeID	FALSE	1..1	1..1	1..1



cac:InvoiceLine/cac:Item/cac:CommodityClassification/cbc:ItemClassificationCode/@listID FALSE 1..1 1..1 1..1

*1 NL-CIUS is enforcing 1 Document Type Code, but is considering to make it optional similar to PEPOL.

*2 NL-CIUS has 6 mandatory elements (SI optional), which (with 3 new elements as documented here) will be proposed to PEPOL-CIUS as NL specific business rules. This will eliminate them as a delta.

A2. 30 cardinality changes for SI

A2.1 19 optional elements that have to become mandatory

Row Labels	Group	Si	EN	NL	PEP
cac:AccountingSupplierParty/cac:Party/cac:PostalAddress/cac:Country	TRUE	0..1	1..1	1..1	1..1
cac:AccountingSupplierParty/cac:Party/cac:PartyTaxScheme/cbc:CompanyID	FALSE	0..1	0..1	1..1	1..1
cac:AccountingSupplierParty/cac:Party/cac:PartyLegalEntity	TRUE	0..1	1..1	1..1	1..1
cac:AccountingSupplierParty/cac:Party/cac:PartyLegalEntity/cbc:RegistrationName	FALSE	0..1	1..1	1..1	1..1
cac:AccountingCustomerParty/cac:Party/cac:PostalAddress	TRUE	0..1	1..1	1..1	1..1
cac:AccountingCustomerParty/cac:Party/cac:PostalAddress/cac:Country	TRUE	0..1	1..1	1..1	1..1
cac:AccountingCustomerParty/cac:Party/cac:PartyTaxScheme/cbc:CompanyID	FALSE	0..1	0..1	1..1	1..1
cac:AccountingCustomerParty/cac:Party/cac:PartyLegalEntity	TRUE	0..1	1..1	1..1	1..1
cac:AccountingCustomerParty/cac:Party/cac:PartyLegalEntity/cbc:RegistrationName	FALSE	0..1	1..1	1..1	1..1
cac:PayeeParty/cac:PartyName	TRUE	0..1	1..1	1..1	1..1
cac:TaxRepresentativeParty/cac:PartyTaxScheme/cbc:CompanyID	FALSE	0..1	1..1	1..1	1..1
cac:Delivery/cac:DeliveryLocation/cac:Address/cac:Country	TRUE	0..1	1..1	1..1	1..1
cac:PaymentMeans/cac:PayeeFinancialAccount/cac:FinancialInstitutionBranch/cbc:ID	FALSE	0..1	0..1	1..1	1..1
cac:PaymentTerms/cbc:Note	FALSE	0..1	0..1	1..1	1..1
cac:AllowanceCharge/cac:TaxCategory	TRUE	0..1	1..1	1..1	1..1
cac:LegalMonetaryTotal/cbc:PayableRoundingAmount/@currencyID	FALSE	0..1	1..1	1..1	1..1
cac:LegalMonetaryTotal/cbc:PayableAmount/@currencyID	FALSE	0..1	1..1	1..1	1..1
cac:InvoiceLine/cac:Item/cac:CommodityClassification/cbc:ItemClassificationCode	FALSE	0..1	0..n	1..1	1..1
cac:InvoiceLine/cac:Item/cac:ClassifiedTaxCategory	TRUE	0..1	1..1	1..1	1..1



A2.2 Reduction from 0..2 to 0..1

1 element which is allowed 0..2, but is now restricted to 0..1

Row Labels	Si	EN	NL	PEP
cac:PaymentTerms	0..2	0..1	0..1	0..1

A3. Delta NL and PEPPOL

A3.1 Actual difference

PEPPOL-CIUS has 3 elements mandatory due to the infrastructure network used (in comparison to NL-CIUS)

Row Labels	Group	Si	EN	NL	PEP
cbc:ProfileID	FALSE	1..1	0..1	0..1	1..1
cac:AccountingSupplierParty/cac:Party/cbc:EndpointID	TRUE	0..1	0..1	0..1	1..1
cac:AccountingCustomerParty/cac:Party/cbc:EndpointID	TRUE	0..1	0..1	0..1	1..1

A3.2 Differences that might be eliminated

NL-CIUS is enforcing 1 Document Type Code, but is considering to make it optional similar to PEPPOL

See also the table note in appendix A1.

Row Labels	Group	EN	NL	PEP
cac:AdditionalDocumentReference/cbc:DocumentTypeCode	FALSE	Not spec	1..1 *1	0..1

NL-CIUS is enforcing at least 1 taxSubTotal, but is considering to make it optional similar to PEPPOL

Row Labels	Group	Si	EN	NL	PEP
cac:TaxTotal/cac:TaxSubTotal	TRUE	0..n	1..n	1..n	0..n

A3.3 Current differences that will be eliminated

NL-CIUS has 6 mandatory elements (SI optional), which (with 3 new elements) will be proposed to PEPPOL-CIUS as NL specific business rules. This will eliminate them as a delta.

Row Labels	Group	SI	EN	NL	PEP
cac:AccountingSupplierParty/cac:Party/cac:PostalAddress/cbc:StreetName	FALSE	0..1	0..1	1..1	0..1
cac:AccountingSupplierParty/cac:Party/cac:PostalAddress/cbc:CityName	FALSE	0..1	0..1	1..1	0..1
cac:AccountingSupplierParty/cac:Party/cac:PostalAddress/cbc:PostalZone	FALSE	0..1	0..1	1..1	0..1
cac:AccountingCustomerParty/cac:Party/cac:PostalAddress/cbc:StreetName	FALSE	0..1	0..1	1..1	0..1
cac:AccountingCustomerParty/cac:Party/cac:PostalAddress/cbc:CityName	FALSE	0..1	0..1	1..1	0..1
cac:AccountingCustomerParty/cac:Party/cac:PostalAddress/cbc:PostalZone	FALSE	0..1	0..1	1..1	0..1

INFO: The other 3 were mentioned above in appendix a1:

cac:TaxRepresentativeParty/cac:PostalAddress/cbc:StreetName	FALSE	0..1	1..1 *2	0..1
cac:TaxRepresentativeParty/cac:PostalAddress/cbc:CityName	FALSE	0..1	1..1 *2	0..1
cac:TaxRepresentativeParty/cac:PostalAddress/cbc:PostalZone	FALSE	0..1	1..1 *2	0..1



A4. SI too strict to receive invoices

In order to receive invoices that are compliant to NL and PEPPOL, 49 elements need changes (See chapter 6.2)

A4.1 cbc:ProfileID is now mandatory, but should be optional for NL

Row Labels	Group	Si	EN	NL	PEP
cbc:ProfileID	FALSE	1..1	0..1	0..1	1..1

A4.2 New but optional

33 elements are new to SI, are optional (not included in the 24 mentioned above), but should be allowed when receiving invoices.

Row Labels	Group	Reference	EN	NL	PEP
cac:InvoicePeriod/cbc:DescriptionCode	FALSE	B1_a	0..1	0..1	0..1
cac:OrderReference/cbc:SalesOrderID	FALSE	B1_a	0..1	0..1	0..1
cac:BillingReference/cac:InvoiceDocumentReference/cbc:IssueDate	FALSE	B1_a	0..1	0..1	0..1
cac:DespatchDocumentReference	TRUE	B1_c	0..1	0..1	0..1
cac:ReceiptDocumentReference	TRUE	B1_c	0..1	0..1	0..1
cac:OriginatorDocumentReference	TRUE	B1_c	0..1	0..1	0..1
cac:AdditionalDocumentReference/cbc:DocumentDescription	FALSE	B1_a	0..1	0..1	0..1
cac:AccountingSupplierParty/cac:Party/cac:PostalAddress/cac:AddressLine	TRUE	B1_c	0..1	0..1	0..1
cac:AccountingSupplierParty/cac:Party/cac:PartyLegalEntity/cbc:CompanyLegalForm	FALSE	B1_a	0..1	0..1	0..1
cac:AccountingCustomerParty/cac:Party/cac:PostalAddress/cac:AddressLine	TRUE	B1_c	0..1	0..1	0..1
cac:AccountingCustomerParty/cac:Party/cac:PartyLegalEntity/cbc:CompanyID/@schemeID	FALSE	B1_a	0..1	0..1	0..1
cac:PayeeParty/cac:PartyIdentification/cbc:ID/@schemeID	FALSE	B1_a	0..1	0..1	0..1
cac:PayeeParty/cac:PartyLegalEntity/cbc:CompanyID/@schemeID	FALSE	B1_a	0..1	0..1	0..1
cac:TaxRepresentativeParty/cac:PostalAddress/cbc:AdditionalStreetName	FALSE	B1_a	0..1	0..1	0..1
cac:TaxRepresentativeParty/cac:PostalAddress/cbc:CountrySubentity	FALSE	B1_a	0..1	0..1	0..1
cac:TaxRepresentativeParty/cac:PostalAddress/cac:AddressLine	TRUE	B1_c	0..1	0..1	0..1

cac:Delivery/cac:DeliveryLocation/cbc:ID/@schemeID	FALSE	B1_a	0..1	0..1	0..1
cac:Delivery/cac:DeliveryLocation/cac:Address/cac:AddressLine	TRUE	B1_c	0..1	0..1	0..1
cac:Delivery/cac:DeliveryParty	TRUE	B1_c	0..1	0..1	0..1
cac:PaymentMeans/cbc:PaymentMeansCode/@Name	FALSE	B1_a	0..1	0..1	0..1
cac:PaymentMeans/cac:CardAccount/cbc:HolderName	FALSE	B1_a	0..1	0..1	0..1
cac:PaymentMeans/cac:PayeeFinancialAccount/cbc:Name	FALSE	B1_a	0..1	0..1	0..1
cac:PaymentMeans/cac:PaymentMandate	TRUE	B1_c	0..1	0..1	0..1
cac:PaymentMeans/cac:PaymentMandate/cbc:ID	FALSE	B1_a	0..1	0..1	0..1
cac:PaymentMeans/cac:PaymentMandate/cac:PayerFinancialAccount	TRUE	B1_c	0..1	0..1	0..1
cac:AllowanceCharge/cbc:MultiplierFactorNumeric	FALSE	B1_a	0..1	0..1	0..1
cac:AllowanceCharge/cbc:BaseAmount	FALSE	B1_a	0..1	0..1	0..1
cac:InvoiceLine/cac:DocumentReference	TRUE	B1_c	0..1	0..1	0..1
cac:InvoiceLine/cac:DocumentReference/cbc:ID/@schemeID	FALSE	B1_a	0..1	0..1	0..1
cac:InvoiceLine/cac:AllowanceCharge/cbc:AllowanceChargeReasonCode	FALSE	B1_a	0..1	0..1	0..1
cac:InvoiceLine/cac:AllowanceCharge/cbc:MultiplierFactorNumeric	FALSE	B1_a	0..1	0..1	0..1
cac:InvoiceLine/cac:AllowanceCharge/cbc:BaseAmount	FALSE	B1_a	0..1	0..1	0..1
cac:InvoiceLine/cac:Item/cac:CommodityClassification/cbc:ItemClassificationCode/@listVersionID	FALSE	B1_a	0..1	0..1	0..1

A4.3 Less strict

15 need to become less strict and thus allow more elements in the message or to become optional.

Row Labels	Group	Si	EN	NL	PEP
cac:InvoicePeriod/cbc:StartDate	FALSE	1..1	0..1	0..1	0..1
cac:InvoicePeriod/cbc:EndDate	FALSE	1..1	0..1	0..1	0..1
cac:BillingReference	TRUE	0..1	0..n	0..n	0..n
cac:AccountingSupplierParty/cac:Party/cac:PartyIdentification	TRUE	0..1	0..n	0..n	0..n
cac:AccountingSupplierParty/cac:Party/cac:PartyIdentification/cbc:ID/@schemeID	FALSE	1..1	0..1	0..1	0..1



cac:AccountingSupplierParty/cac:Party/cac:PartyName	TRUE	1..1	0..1	0..1	0..1
cac:AccountingSupplierParty/cac:Party/cac:PartyTaxScheme	TRUE	0..1	0..2	0..2	0..2
cac:AccountingSupplierParty/cac:Party/cac:PartyLegalEntity/cbc:CompanyID/@schemeID	FALSE	1..1	0..1	0..1	0..1
cac:AccountingCustomerParty/cac:Party/cac:PartyIdentification/cbc:ID/@schemeID	FALSE	1..1	0..1	0..1	0..1
cac:AccountingCustomerParty/cac:Party/cac:PartyName	TRUE	1..1	0..1	0..1	0..1
cac:AccountingCustomerParty/cac:Party/cac:PartyLegalEntity/cbc:CompanyID	FALSE	1..1	0..1	0..1	0..1
cac:TaxTotal/cac:TaxSubTotal/cac:TaxCategory/cbc:Percent	FALSE	1..1	0..1	0..1	0..1
cac:InvoiceLine/cac:InvoicePeriod/cbc:StartDate	FALSE	1..1	0..1	0..1	0..1
cac:InvoiceLine/cac:InvoicePeriod/cbc:EndDate	FALSE	1..1	0..1	0..1	0..1
cac:InvoiceLine/cac:Price/cbc:BaseQuantity/@unitCode	FALSE	1..1	0..1	0..1	0..1



Elements to be dropped from SI due to EN

161 Elements need to be dropped from SI as these are not supported by EN (and thus also not PEPPOL and NL CIUS)

Four (4) mandatory elements (which are not part of an optional group) might have a large impact on the functional flow, these are:

Row Labels

- cbc:UBLVersionID
- cac:InvoiceLine/cac:TaxTotal/cbc:TaxAmount
- cac:PaymentMeans/cac:PayeeFinancialAccount/cac:FinancialInstitutionBranch/cac:FinancialInstitution/cac:Address/cac:Country/cbc:IndentificationCode
- cac:PaymentMeans/cac:PayeeFinancialAccount/cac:FinancialInstitutionBranch/cac:FinancialInstitution/cbc:ID

The remaining 157 to be dropped elements and groups are:

Row Labels	Group	Ref	Si
cbc:AccountingCostCode	FALSE	A1a	0..1
ext:UBLExtensions	TRUE	A1a	0..1
ext:UBLExtensions/ext:UBLExtension	FALSE	A1d	1..n
cac:AccountingCustomerParty/cac:Party/cac:Contact/cbc:ID	FALSE	A1a	0..1
cac:AccountingCustomerParty/cac:Party/cac:Contact/cbc:Telefax	FALSE	A1a	0..1
cac:AccountingCustomerParty/cac:Party/cac:PartyIdentification/cbc:ID/@schemeAgencyID	@	A1a	0..1
cac:AccountingCustomerParty/cac:Party/cac:PostalAddress/cbc:BuildingNumber	FALSE	A1a	0..1
cac:AccountingCustomerParty/cac:Party/cac:PostalAddress/cbc:Department	FALSE	A1a	0..1
cac:AccountingCustomerParty/cac:Party/cac:PostalAddress/cbc:PostBox	FALSE	A1a	0..1
cac:AccountingCustomerParty/cbc:AdditionalAccountID	FALSE	A1a	0..1
cac:AccountingCustomerParty/cbc:CustomerAssignedAccountID	FALSE	A1a	0..1
cac:AccountingCustomerParty/cbc:SupplierAssignedAccountID	FALSE	A1a	0..1
cac:AccountingSupplierParty/cac:Party/cac:Contact/cbc:ID	FALSE	A1a	0..1
cac:AccountingSupplierParty/cac:Party/cac:Contact/cbc:Telefax	FALSE	A1a	0..1



cac:AccountingSupplierParty/cac:Party/cac:PartyIdentification/cbc:ID/@schemeAgencyID	@	A1a	0..1
cac:AccountingSupplierParty/cac:Party/cac:PartyLegalEntity/cac:RegistrationAddress	TRUE	A1a	0..1
cac:AccountingSupplierParty/cac:Party/cac:PartyLegalEntity/cac:RegistrationAddress/cac:Country	TRUE	A1a	0..1
cac:AccountingSupplierParty/cac:Party/cac:PartyLegalEntity/cac:RegistrationAddress/cac:Country/cbc:IdentificationCode	FALSE	A1c	1..1
cac:AccountingSupplierParty/cac:Party/cac:PartyLegalEntity/cac:RegistrationAddress/cbc:CityName	FALSE	A1a	0..1
cac:AccountingSupplierParty/cac:Party/cac:PartyLegalEntity/cbc:CompanyID/@schemeAgencyID	@	A1c	1..1
cac:AccountingSupplierParty/cac:Party/cac:PartyTaxScheme/cbc:ExemptionReason	FALSE	A1b	0..n
cac:AccountingSupplierParty/cac:Party/cac:PostalAddress/cbc:BuildingNumber	FALSE	A1a	0..1
cac:AccountingSupplierParty/cac:Party/cac:PostalAddress/cbc:Department	FALSE	A1a	0..1
cac:AccountingSupplierParty/cac:Party/cac:PostalAddress/cbc:PostBox	FALSE	A1a	0..1
cac:AccountingSupplierParty/cac:Party/cbc:EndpointID/@schemeAgencyID	@	A1a	0..1
cac:AccountingSupplierParty/cbc:AdditionalAccountID	FALSE	A1b	0..n
cac:AccountingSupplierParty/cbc:CustomerAssignedAccountID	FALSE	A1a	0..1
cac:AdditionalDocumentReference/cbc:DocumentType	FALSE	A1a	0..1
cac:AdditionalDocumentReference/cbc:ID/@schemeAgencyID	@	A1a	0..1
cac:AllowanceCharge/cac:TaxCategory/cbc:TaxExemptionReason	FALSE	A1a	0..1
cac:AllowanceCharge/cac:TaxCategory/cbc:TaxExemptionReasonCode	FALSE	A1a	0..1
cac:AllowanceCharge/cac:TaxTotal	TRUE	A1a	0..1
cac:AllowanceCharge/cac:TaxTotal/cbc:TaxAmount	FALSE	A1c	1..1
cac:BuyerCustomerParty	TRUE	A1a	0..1
cac:BuyerCustomerParty/cac:Party	TRUE	A1c	1..1
cac:BuyerCustomerParty/cac:Party/cac:PartyIdentification	TRUE	A1b	0..n
cac:BuyerCustomerParty/cac:Party/cac:PartyIdentification/cbc:ID	FALSE	A1c	1..1
cac:BuyerCustomerParty/cac:Party/cac:PartyName	TRUE	A1b	0..n
cac:BuyerCustomerParty/cac:Party/cac:PartyName/cbc:Name	FALSE	A1c	1..1
cac:BuyerCustomerParty/cbc:AdditionalAccountID	FALSE	A1b	0..n
cac:BuyerCustomerParty/cbc:CustomerAssignedAccountID	FALSE	A1a	0..1



cac:BuyerCustomerParty/cbc:SupplierAssignedAccountID	FALSE	A1a	0..1
cac:ContractDocumentReference/cbc:DocumentType	FALSE	A1a	0..1
cac:ContractDocumentReference/cbc:DocumentTypeCode	FALSE	A1a	0..1
cac:Delivery/cac:DeliveryLocation/cac:Address/cbc:BuildingNumber	FALSE	A1a	0..1
cac:Delivery/cac:DeliveryLocation/cac:Address/cbc:Department	FALSE	A1a	0..1
cac:DeliveryTerms	TRUE	A1a	0..1
cac:DeliveryTerms/cac:SpecialTerms	FALSE	A1c	1..1
cac:InvoiceLine/cac:AllowanceCharge/cac:TaxCategory	TRUE	A1c	1..1
cac:InvoiceLine/cac:AllowanceCharge/cac:TaxCategory/cac:TaxScheme	TRUE	A1c	1..1
cac:InvoiceLine/cac:AllowanceCharge/cac:TaxCategory/cac:TaxScheme/cbc:ID	TRUE	A1c	1..1
cac:InvoiceLine/cac:AllowanceCharge/cac:TaxCategory/cac:TaxScheme/cbc:ID/@schemeAgencyID	@	A1c	1..1
cac:InvoiceLine/cac:AllowanceCharge/cac:TaxCategory/cac:TaxScheme/cbc:ID/@schemeID	@	A1c	1..1
cac:InvoiceLine/cac:AllowanceCharge/cac:TaxCategory/cbc:ID	TRUE	A1c	1..1
cac:InvoiceLine/cac:AllowanceCharge/cac:TaxCategory/cbc:ID/@schemeAgencyID	@	A1c	1..1
cac:InvoiceLine/cac:AllowanceCharge/cac:TaxCategory/cbc:ID/@schemeID	@	A1c	1..1
cac:InvoiceLine/cac:AllowanceCharge/cac:TaxCategory/cbc:Percent	FALSE	A1a	0..1
cac:InvoiceLine/cac:AllowanceCharge/cac:TaxCategory/cbc:TaxExemptionReason	FALSE	A1a	0..1
cac:InvoiceLine/cac:AllowanceCharge/cac:TaxCategory/cbc:TaxExemptionReasonCode	FALSE	A1a	0..1
cac:InvoiceLine/cac:AllowanceCharge/cac:TaxTotal	TRUE	A1a	0..1
cac:InvoiceLine/cac:AllowanceCharge/cac:TaxTotal/cbc:TaxAmount	TRUE	A1c	1..1
cac:InvoiceLine/cac:AllowanceCharge/cac:TaxTotal/cbc:TaxAmount/@currencyID	@	A1c	1..1
cac:InvoiceLine/cac:Delivery	TRUE	A1a	0..1
cac:InvoiceLine/cac:Delivery/cac:DeliveryLocation	TRUE	A1a	0..1
cac:InvoiceLine/cac:Delivery/cac:DeliveryLocation/cac:Address	TRUE	A1a	0..1
cac:InvoiceLine/cac:Delivery/cac:DeliveryLocation/cac:Address/cac:Country	TRUE	A1a	0..1
cac:InvoiceLine/cac:Delivery/cac:DeliveryLocation/cac:Address/cac:Country/cbc:IdentificationCode	TRUE	A1c	1..1
cac:InvoiceLine/cac:Delivery/cac:DeliveryLocation/cac:Address/cac:Country/cbc:IdentificationCode/@listAgencyID	@	A1c	1..1



cac:InvoiceLine/cac:Delivery/cac:DeliveryLocation/cac:Address/cac:Country/cbc:IdentificationCode/@listID	@	A1c	1..1
cac:InvoiceLine/cac:Delivery/cac:DeliveryLocation/cac:Address/cbc:AdditionalStreetName	FALSE	A1a	0..1
cac:InvoiceLine/cac:Delivery/cac:DeliveryLocation/cac:Address/cbc:BuildingNumber	FALSE	A1a	0..1
cac:InvoiceLine/cac:Delivery/cac:DeliveryLocation/cac:Address/cbc:CityName	FALSE	A1a	0..1
cac:InvoiceLine/cac:Delivery/cac:DeliveryLocation/cac:Address/cbc:CountrySubentity	FALSE	A1a	0..1
cac:InvoiceLine/cac:Delivery/cac:DeliveryLocation/cac:Address/cbc:PostalZone	FALSE	A1a	0..1
cac:InvoiceLine/cac:Delivery/cac:DeliveryLocation/cac:Address/cbc:StreetName	FALSE	A1a	0..1
cac:InvoiceLine/cac:Delivery/cac:DeliveryLocation/cbc:ID	FALSE	A1a	0..1
cac:InvoiceLine/cac:Delivery/cbc:ActualDeliveryDate	FALSE	A1a	0..1
cac:InvoiceLine/cac:Delivery/cbc:Quantity	FALSE	A1a	0..1
cac:InvoiceLine/cac:Item/cac:ClassifiedTaxCategory/cac:TaxScheme/cbc:ID/@schemeAgencyID	@	A1c	1..1
cac:InvoiceLine/cac:Item/cac:ClassifiedTaxCategory/cac:TaxScheme/cbc:ID/@schemeID	@	A1c	1..1
cac:InvoiceLine/cac:Item/cac:ClassifiedTaxCategory/cbc:ID/@schemeAgencyID	@	A1c	1..1
cac:InvoiceLine/cac:Item/cac:ClassifiedTaxCategory/cbc:ID/@schemeID	@	A1c	1..1
cac:InvoiceLine/cac:Item/cac:CommodityClassification/cbc:CommodityCode	TRUE	A1a	0..1
cac:InvoiceLine/cac:Item/cac:CommodityClassification/cbc:CommodityCode/@listID	@	A1c	1..1
cac:InvoiceLine/cac:Item/cac:OriginCountry/cbc:IdentificationCode/@listAgencyID	@	A1c	1..1
cac:InvoiceLine/cac:Item/cac:OriginCountry/cbc:IdentificationCode/@listID	@	A1c	1..1
cac:InvoiceLine/cac:Price/cac:AllowanceCharge/cac:TaxCategory	TRUE	A1c	1..1
cac:InvoiceLine/cac:Price/cac:AllowanceCharge/cac:TaxCategory/cac:TaxScheme	TRUE	A1c	1..1
cac:InvoiceLine/cac:Price/cac:AllowanceCharge/cac:TaxCategory/cac:TaxScheme/cbc:ID	TRUE	A1c	1..1
cac:InvoiceLine/cac:Price/cac:AllowanceCharge/cac:TaxCategory/cac:TaxScheme/cbc:ID/@schemeAgencyID	@	A1c	1..1
cac:InvoiceLine/cac:Price/cac:AllowanceCharge/cac:TaxCategory/cac:TaxScheme/cbc:ID/@schemeID	@	A1c	1..1
cac:InvoiceLine/cac:Price/cac:AllowanceCharge/cac:TaxCategory/cbc:ID	TRUE	A1c	1..1
cac:InvoiceLine/cac:Price/cac:AllowanceCharge/cac:TaxCategory/cbc:ID/@schemeAgencyID	@	A1c	1..1
cac:InvoiceLine/cac:Price/cac:AllowanceCharge/cac:TaxCategory/cbc:ID/@schemeID	@	A1c	1..1
cac:InvoiceLine/cac:Price/cac:AllowanceCharge/cac:TaxCategory/cbc:Percent	FALSE	A1a	0..1



cac:InvoiceLine/cac:Price/cac:AllowanceCharge/cac:TaxCategory/cbc:TaxExemptionReason	FALSE	A1a	0..1
cac:InvoiceLine/cac:Price/cac:AllowanceCharge/cac:TaxCategory/cbc:TaxExemptionReasonCode	FALSE	A1a	0..1
cac:InvoiceLine/cac:Price/cac:AllowanceCharge/cac:TaxTotal	TRUE	A1a	0..1
cac:InvoiceLine/cac:Price/cac:AllowanceCharge/cac:TaxTotal/cbc:TaxAmount	TRUE	A1c	1..1
cac:InvoiceLine/cac:Price/cac:AllowanceCharge/cac:TaxTotal/cbc:TaxAmount/@ccts:currencyID	@	A1c	1..1
cac:InvoiceLine/cac:Price/cac:AllowanceCharge/cbc:AllowanceChargeReason	FALSE	A1a	0..1
cac:InvoiceLine/cac:Price/cac:AllowanceCharge/cbc:MultiplierFactorNumeric	FALSE	A1a	0..1
cac:InvoiceLine/cac:Price/cbc:BaseQuantity/@unitCodeListID	@	A1c	1..1
cac:InvoiceLine/cac:TaxTotal	TRUE	A1a	0..1
cac:InvoiceLine/cac:TaxTotal/cac:TaxSubTotal	TRUE	A1b	0..n
cac:InvoiceLine/cac:TaxTotal/cac:TaxSubTotal/cac:TaxCategory	TRUE	A1c	1..1
cac:InvoiceLine/cac:TaxTotal/cac:TaxSubTotal/cac:TaxCategory/cac:TaxScheme	TRUE	A1c	1..1
cac:InvoiceLine/cac:TaxTotal/cac:TaxSubTotal/cac:TaxCategory/cac:TaxScheme/cbc:ID	TRUE	A1c	1..1
cac:InvoiceLine/cac:TaxTotal/cac:TaxSubTotal/cac:TaxCategory/cac:TaxScheme/cbc:ID/@schemeAgencyID	@	A1c	1..1
cac:InvoiceLine/cac:TaxTotal/cac:TaxSubTotal/cac:TaxCategory/cac:TaxScheme/cbc:ID/@schemeID	@	A1c	1..1
cac:InvoiceLine/cac:TaxTotal/cac:TaxSubTotal/cac:TaxCategory/cbc:ID	TRUE	A1c	1..1
cac:InvoiceLine/cac:TaxTotal/cac:TaxSubTotal/cac:TaxCategory/cbc:ID/@schemeAgencyID	@	A1c	1..1
cac:InvoiceLine/cac:TaxTotal/cac:TaxSubTotal/cac:TaxCategory/cbc:ID/@schemeID	@	A1c	1..1
cac:InvoiceLine/cac:TaxTotal/cac:TaxSubTotal/cac:TaxCategory/cbc:Percent	FALSE	A1a	0..1
cac:InvoiceLine/cac:TaxTotal/cac:TaxSubTotal/cbc:Percent	FALSE	A1a	0..1
cac:InvoiceLine/cac:TaxTotal/cac:TaxSubTotal/cbc:TaxableAmount	TRUE	A1a	0..1
cac:InvoiceLine/cac:TaxTotal/cac:TaxSubTotal/cbc:TaxableAmount/@currencyID	@	A1c	1..1
cac:InvoiceLine/cac:TaxTotal/cac:TaxSubTotal/cbc:TaxAmount	TRUE	A1c	1..1
cac:InvoiceLine/cac:TaxTotal/cac:TaxSubTotal/cbc:TaxAmount/@currencyID	@	A1c	1..1
cac:InvoiceLine/cac:TaxTotal/cac:TaxSubTotal/cbc:TransactionCurrencyTaxAmount	TRUE	A1a	0..1
cac:InvoiceLine/cac:TaxTotal/cac:TaxSubTotal/cbc:TransactionCurrencyTaxAmount/@currencyID	@	A1c	1..1
cac:InvoiceLine/cac:TaxTotal/cbc:TaxAmount/@currencyID	@	A1c	1..1



cac:InvoiceLine/cbc:AccountingCostCode	TRUE	A1a	0..1
cac:InvoiceLine/cbc:AccountingCostCode/@listName	@	A1a	0..1
cac:InvoiceLine/cbc:AccountingCostCode/@listVersionID	@	A1a	0..1
cac:InvoiceLine/cbc:InvoicedQuantity/@unitCodeListID	@	A1c	1..1
cac:PaymentMeans/cac:PayeeFinancialAccount/cac:FinancialInstitutionBranch/cac:FinancialInstitution	TRUE	A1a	0..1
cac:PaymentMeans/cac:PayeeFinancialAccount/cac:FinancialInstitutionBranch/cac:FinancialInstitution/cac:Address	TRUE	A1a	0..1
cac:PaymentMeans/cac:PayeeFinancialAccount/cac:FinancialInstitutionBranch/cac:FinancialInstitution/cac:Address/cac:Country	TRUE	A1a	0..1
cac:PaymentMeans/cac:PayeeFinancialAccount/cac:FinancialInstitutionBranch/cac:FinancialInstitution/cac:Address/cbc:AdditionalStreetName	FALSE	A1a	0..1
cac:PaymentMeans/cac:PayeeFinancialAccount/cac:FinancialInstitutionBranch/cac:FinancialInstitution/cac:Address/cbc:BuildingNumber	FALSE	A1a	0..1
cac:PaymentMeans/cac:PayeeFinancialAccount/cac:FinancialInstitutionBranch/cac:FinancialInstitution/cac:Address/cbc:CityName	FALSE	A1a	0..1
cac:PaymentMeans/cac:PayeeFinancialAccount/cac:FinancialInstitutionBranch/cac:FinancialInstitution/cac:Address/cbc:CountrySubEntity	FALSE	A1a	0..1
cac:PaymentMeans/cac:PayeeFinancialAccount/cac:FinancialInstitutionBranch/cac:FinancialInstitution/cac:Address/cbc:PostalZone	FALSE	A1a	0..1
cac:PaymentMeans/cac:PayeeFinancialAccount/cac:FinancialInstitutionBranch/cac:FinancialInstitution/cac:Address/cbc:StreetName	FALSE	A1a	0..1
cac:PaymentMeans/cac:PayeeFinancialAccount/cac:FinancialInstitutionBranch/cac:FinancialInstitution/cbc:Name	FALSE	A1a	0..1
cac:PaymentMeans/cbc:PaymentChannelCode	FALSE	A1a	0..1
cac:PaymentMeans/cbc:PaymentDueDate	FALSE	A1a	0..1
cac:PaymentTerms/cac:ValidityPeriod	TRUE	A1a	0..1
cac:PaymentTerms/cac:ValidityPeriod/cbc:EndDate	FALSE	A1a	0..1
cac:PaymentTerms/cac:ValidityPeriod/cbc:StartDate	FALSE	A1a	0..1
cac:PaymentTerms/cbc:PenaltyAmount	TRUE	A1a	0..1
cac:PaymentTerms/cbc:PenaltyAmount/@currencyID	@	A1a	0..1
cac:PaymentTerms/cbc:PenaltySurchargePercent	FALSE	A1a	0..1
cac:PaymentTerms/cbc:SettlementDiscountAmount	TRUE	A1a	0..1
cac:PaymentTerms/cbc:SettlementDiscountAmount/@currencyID	@	A1a	0..1
cac:PaymentTerms/cbc:SettlementDiscountPercent	FALSE	A1a	0..1
cac:TaxExchangeRate	TRUE	A1a	0..1
cac:TaxExchangeRate/cbc:CalculationRate	FALSE	A1c	1..1



cac:TaxExchangeRate/cbc:Date	FALSE	A1a	0..1
cac:TaxExchangeRate/cbc:MathematicOperatorCode	FALSE	A1c	1..1
cac:TaxExchangeRate/cbc:SourceCurrencyCode	FALSE	A1c	1..1
cac:TaxExchangeRate/cbc:TargetCurrencyCode	FALSE	A1c	1..1
cac:TaxTotal/cac:TaxSubTotal/cac:TaxCategory/cac:TaxScheme/cbc:ID/@schemeAgencyID	@	A1c	1..1
cac:TaxTotal/cac:TaxSubTotal/cac:TaxCategory/cac:TaxScheme/cbc:ID/@schemeID	@	A1c	1..1
cac:TaxTotal/cac:TaxSubTotal/cbc:TransactionCurrencyTaxAmount	TRUE	A1a	0..1
cac:TaxTotal/cac:TaxSubTotal/cbc:TransactionCurrencyTaxAmount/@currencyID	@	A1c	1..1