CpML for eSM

Version 1 (v1.0)

Created by EFET

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Content

1 Introduction to eSM

2 About this Document

2.1 Revision History

Version	Date	Changes
1.0	22/03/2019	First version published

2.2 Purpose and Scope

This document contains the specification of the CpML standard. The CpML standard defines the vocabulary for exchanging standardized messages for commodity trading and reporting processes.

The CpML specification corresponds to the underlying XML schemas, which implement this specification. The XML schemas define the data structures and rules for the following document types:

1. CpMLDocument: Market participants generate messages with trade information in a standardized format, the so-called CpMLDocument.

The CpML specification defines a generic vocabulary that can be applied to different business processes. Process-relevant information is described in the corresponding process specifications, for example, the eCM standard.

2.3 Target Audience

This document is for business analysts and IT professionals in the commodity trading business who want to provide standardized trade information in the CpML format for post-trade data processing.

For example, this can be:

- Software engineers and data architects who implement CPML interfaces
- Business analysts who develop process interfaces

The following knowledge is assumed:

- Familiarity with the terms and processes used in the commodity trading industry
- Know-how regarding the structure and functionality of XML schemas

2.4 Additional Information

This section lists web sites or documents with additional information related to the CpML standard.

Ref ID	Description	Source
[1]		
[2]		
[3]		
[4]		
[5]		
[6]		
[7]		
[8]		
[9]		
[10]		
[11]		

2.5 Conventions

2.5.1 Use of Modal Verbs

For compliance with the CPML standard, implementers need to be able to distinguish between mandatory requirements, recommendations and permissions, as well as possibilities and capabilities. This is supported by the following rules for using modal verbs.

The key words "must", "must not", "required", "should", "should not", "recommended", "may" and "optional" in this document are to be interpreted as follows:

Key word	Description
Must	Indicates an absolute requirement. Requirements must be followed strictly in order to conform to the standard. Deviations are not allowed. Alternative expression: required, is mandatory
Must not	Indicates an absolute prohibition. This phrase means that the provision must not be used in any implementation of the CPML standard. Alternative expression: must be omitted

Key word	Description
Should	Indicates a recommendation. Among several possibilities, one is recommended as particularly suitable, without mentioning or excluding others. There may exist valid reasons in particular circumstances to ignore a particular item, but the full implications must be understood and carefully weighed before choosing a different course. Alternative expression: recommended
May	Indicates a permission. This word means that an item is truly optional within the limits of CPML. One data supplier may choose to include the item because a particular transaction requires it or because the data supplier feels that it enhances the document while another data supplier may omit the same item. Alternative expression: optional
Should not	This phrase means that there may exist valid reasons in particular circumstances when the particular behaviour is acceptable or even useful, but the full implications should be understood, and the case carefully weighed before implementing any behavior described with this label. Alternative expression: "not recommended"

2.5.2 Typographical Conventions

This documentation uses the following typographical conventions:

- 'AgentID': Single quotation marks are used to indicate field names.
- "trader": Double quotation marks are used to indicate field values.
- Reporting/Europe: Slashes are used to indicate paths or nested nodes within the schema, for example, ….
- TotalVolumeUnit: Field names and values as well as attributes are consistently written with camel case spelling, as in the schema. There are no spaces between words and each new word starts with an uppercase letter.

2.5.3 Notation of Schema

The CpML schema reference in section 3 is a flat representation of the tree structure in the corresponding XSD schema.

For each main node in the schema, there is a separate section with a table that contains the sections and fields in that node. The fields are listed in the same order as in the schema.

Subsections are indicated with a gray background. The start and end of each section is clearly indicated. Subsections are nested within each other.

For each field, you find information about the usage type, see section 2.5.4, and the business rules. These rules determine the dependencies on other fields or values, where applicable.

Fields and value types are reused in different locations of the schema. Therefore, the general field descriptions and value type descriptions are described in separate sections in alphabetical, see sections 4 and 5.

2.5.4 Information on Field Usage

Information on mandatory or optional use of a field is specified in column "Usage":

- **O = Optional**. These fields are logically optional and not required by business rules. The information may be present in the eSMDocument.
- **C = Conditional**. These fields are logically conditional, meaning the field must be provided if and only if the specified conditions are met.
- **M = Mandatory**. Mandatory fields are logically required and must always be present, unless the parent field may be omitted.
- **M+C = Mandatory with condition**. Fields with this condition are logically required. According to the business rules, specific values must be set if the specified conditions are met.
- **M+CH = Mandatory, but part of a choice**. One of the fields in an XSD choice section must be provided. Thus, all fields within the choice are marked as mandatory in the schema.

2.5.5 Information on Field Occurrence

If nothing else is stated for a field, the following rules apply with regard to the minimum or maximum occurrence of the field:

- Conditional or optional fields: (0-1)
  These fields can be absent or occur exactly once within the given context.
- Mandatory fields: (1-1)
  These fields must occur exactly once within the given context.

In all other cases, the allowed number of repetitions is clearly indicated. Examples: (0-n) or (1-4).

2.6 eSMDocument IDs

to be completed

3 CpML for eSM Schema Reference

The CpMLDocument extends the basic trade description structure of CpML to include support for settlement of energy transactions according to the EFET eSM Standard Phase 1.

3.1 eSMDocument Root

At root level, an eSMDocument has the following sections:

- Processing, see "ProcessInformation"

3.2 AggregationKeys, see "ProcessInformation

Name	Usage	Type	Business Rule
eSMDocument/ProcessInformation: mandatory section			
LineItemsIncluded	M	TrueFalseFlag	Indicates whether the invoice contains line items.
LineItemsMatching	C	LineItemsMatching-Type	Indicates whether line items are always used for matching the invoice or only in case of a mismatch in the 'InvoiceData' section. **Occurrence:** • If 'LineItemsIncluded' is set to "True", then this field is mandatory. • If 'LineItemsIncluded' is set to "False", then this field must be omitted.
SenderRole	M	SenderRoleType	Indicates which party is sending the document: the official document issuer or the shadow document issuer. In case of self-billing, the official document issuer is the customer, in other cases it is the supplier.
End of **ProcessInformation**			

- AggregationKeys"

3.3 InvoiceData, see "ProcessInformation

Name	Usage	Type	Business Rule
eSMDocument/ProcessInformation: mandatory section			
LineItemsIncluded	M	TrueFalseFlag	Indicates whether the invoice contains line items.
LineItemsMatching	C	LineItemsMatching-Type	Indicates whether line items are always used for matching the invoice or only in case of a mismatch in the 'InvoiceData' section. **Occurrence:** • If 'LineItemsIncluded' is set to "True", then this field is mandatory. • If 'LineItemsIncluded' is set to "False", then this field must be omitted.

Name	Usage	Type	Business Rule
SenderRole	M	SenderRoleType	Indicates which party is sending the document: the official document issuer or the shadow document issuer. In case of self-billing, the official document issuer is the customer, in other cases it is the supplier.
End of **ProcessInformation**			

3.4 AggregationKeys

The AggregationKeys section contains crucial information about an invoice. The data from this section allows to identify the type of the invoice.

Name	Usage	Type	Business Rule
eSMDocument/AggregationKeys: mandatory section			
SupplierSSDSID	M	SSDSIDType	Unique identifier of supplier from System Static Data Standard.
CustomerSSDSID	M	SSDSIDType	Unique identifier of customer from System Static Data Standard.
Commodity	M+C	EnergyProductType	Subject of the trading relationship, referring to power (electricity), gas (natural gas) and renewables (CO2 certificates). **Values:** Only the following values are allowed: ▪ Power ▪ Gas ▪ EUAPhase_3 ▪ EUAPhase_4
DeliveryPointOrZone	C	AreaType	Location where the commodity is physically delivered. Delivery locations are mostly defined by Energy Identification Codes (EIC), indicating the physical location on national or regional gas or electricity grids. **Occurrence:** • If 'PhysicalOrFinancial' is set to "Physical", then this field is mandatory. • Else, this field must be omitted.
MarketInformation	C	MarketInformation-Type	Country or pair of countries (border) where the financial transaction is executed. Gas only: The first country of the pair indicates the side of the border where the last measuring point before the border is located. **Occurrence:** • If 'PhysicalOrFinancial' is set to "Financial", then this field is mandatory. • Else, this field must be omitted.

Name	Usage	Type	Business Rule
TotalVolumeUnit	M	UnitOfMeasureType	Unit of measure in which the total volume is expressed.
Currency	M	CurrencyCodeType	Currency applied to the settlement of the transactions of the invoice. Often related to the commodity and the delivery location.
InvoicePeriodStart	M	DateType	Start of the period during which deliveries are to be settled. For monthly invoices, this is the first day of the month by default.
InvoicePeriodEnd	M	DateType	End of the period during which deliveries are to be settled. For monthly invoices, this is the last day of the month by default.
FixedOrFloating	M	FixedOrFloatingType	Indicates the price relation of the transactions that make up the invoice.
PhysicalOrFinancial	M	PhysicalOrFinancial-Type	Indication of the nature of transactions that make up the invoice.
NatureOfPrice	M	NatureOfPriceType	Indicates whether the transaction has a positive or zero price or has a negative price. Negative prices often require a specific treatment, both on the accounting and on the financial settlement side.
Agreement	M	AgreementVersion	Indicates the legal framework that determines general terms and conditions applicable to the traded instruments. The master agreement specifically determines the settlement rules and conditions that apply to the transactions that make up the invoice.
MasterAgreement-Version	M	MasterAgreement-VersionType	Year of master agreement.
End of **AggregationKeys**			

- InvoiceData"
- LineItem, see "LineItem"

3.5 ProcessInformation

Name	Usage	Type	Business Rule
eSMDocument/ProcessInformation: mandatory section			
LineItemsIncluded	M	TrueFalseFlag	Indicates whether the invoice contains line items.
LineItemsMatching	C	LineItemsMatching-Type	Indicates whether line items are always used for matching the invoice or only in case of a mismatch in the 'InvoiceData' section. **Occurrence:** • If 'LineItemsIncluded' is set to "True", then this field is mandatory. • If 'LineItemsIncluded' is set to "False", then this field must be omitted.

Name	Usage	Type	Business Rule
SenderRole	M	SenderRoleType	Indicates which party is sending the document: the official document issuer or the shadow document issuer. In case of self-billing, the official document issuer is the customer, in other cases it is the supplier.
End of **ProcessInformation**			

3.6 AggregationKeys

The AggregationKeys section contains crucial information about an invoice. The data from this section allows to identify the type of the invoice.

Name	Usage	Type	Business Rule
eSMDocument/AggregationKeys: mandatory section			
SupplierSSDSID	M	SSDSIDType	Unique identifier of supplier from System Static Data Standard.
CustomerSSDSID	M	SSDSIDType	Unique identifier of customer from System Static Data Standard.
Commodity	M+C	EnergyProductType	Subject of the trading relationship, referring to power (electricity), gas (natural gas) and renewables (CO2 certificates). **Values:** Only the following values are allowed: ▪ Power ▪ Gas ▪ EUAPhase_3 ▪ EUAPhase_4
DeliveryPointOrZone	C	AreaType	Location where the commodity is physically delivered. Delivery locations are mostly defined by Energy Identification Codes (EIC), indicating the physical location on national or regional gas or electricity grids. **Occurrence:** • If 'PhysicalOrFinancial' is set to "Physical", then this field is mandatory. • Else, this field must be omitted.
MarketInformation	C	MarketInformation-Type	Country or pair of countries (border) where the financial transaction is executed. Gas only: The first country of the pair indicates the side of the border where the last measuring point before the border is located. **Occurrence:** • If 'PhysicalOrFinancial' is set to "Financial", then this field is mandatory. • Else, this field must be omitted.

Name	Usage	Type	Business Rule
TotalVolumeUnit	M	UnitOfMeasureType	Unit of measure in which the total volume is expressed.
Currency	M	CurrencyCodeType	Currency applied to the settlement of the transactions of the invoice. Often related to the commodity and the delivery location.
InvoicePeriodStart	M	DateType	Start of the period during which deliveries are to be settled. For monthly invoices, this is the first day of the month by default.
InvoicePeriodEnd	M	DateType	End of the period during which deliveries are to be settled. For monthly invoices, this is the last day of the month by default.
FixedOrFloating	M	FixedOrFloatingType	Indicates the price relation of the transactions that make up the invoice.
PhysicalOrFinancial	M	PhysicalOrFinancial-Type	Indication of the nature of transactions that make up the invoice.
NatureOfPrice	M	NatureOfPriceType	Indicates whether the transaction has a positive or zero price or has a negative price. Negative prices often require a specific treatment, both on the accounting and on the financial settlement side.
Agreement	M	AgreementVersion	Indicates the legal framework that determines general terms and conditions applicable to the traded instruments. The master agreement specifically determines the settlement rules and conditions that apply to the transactions that make up the invoice.
MasterAgreement-Version	M	MasterAgreement-VersionType	Year of master agreement.
End of **AggregationKeys**			

3.7 InvoiceData

Name	Usage	Type	Business Rule
eSMDocument/InvoiceData: mandatory section			
DocumentID	M	IdentityType	Unique identifier of the invoice document, often issued and/or adopted by the company's ERP system.
InvoiceDate	M	DateType	Date of issue of the invoice.
InvoiceData/Supplier: mandatory section			
VATID	M	VATIDType	VAT number as identifier used by the supplier's national tax authority.
VATRepresentative	O	AlphanumericType	Person/organisation acting as the supplier's tax representative.

Name	Usage	Type	Business Rule
VATJurisdiction-Currency	M	CurrencyCodeType	Currency applicable within the jurisdiction of the supplier.
TaxPoint	O	DateType	The tax point refers to the last day of delivery of the commodity, in this case the last day of the month. This field is only required where the date of supply for VAT purposes is different to the invoice date.
LegalName	M	AlphanumericType	Legal name identifying the supplier in a national or regional company register.
IdentifierCode	M+C	ESMIdentifierCode-Type	Supplier identifier code as currently applied in different official registries. **Values:** • If 'TypeOfIdentifierCode' is set to "EIC", then this field must contain a valid EIC. • If 'TypeOfIdentifierCode' is set to "LEI", then this field must contain a valid LEI. • If 'TypeOfIdentifierCode' is set to "ACERCode", then this field must contain a valid ACER code.
TypeOfIdentifierCode	M	TypeOfESMIdentifier-CodeType	Type of code detailing the nature of the supplier identifier code.
CompanyRegistry-Number	M	AlphanumericType	Number of the register where the supplier is registered.
CompanyRegistry-Name	M	AlphanumericType	Name of the register where the supplier is registered.
CompanyRegistryCity	M	AlphanumericType	City of the register where the supplier is registered.
CompanyRegistry-Country	M	CountryCodeType	Country of the register where the supplier is registered.
BranchInformation	O	AlphanumericType	Information about the specific supplier branch acting as the party in this invoice.
Supplier/AddressDetails: mandatory section			
Street	M	AlphanumericType	Street name of the supplier's address.
StreetNumber	M	AlphanumericType	Street number of the supplier's address.
City	M	AlphanumericType	City of the supplier's address.
PostalCode	M	PostalCodeType	Postal code of the supplier's address.
Country	M	CountryCodeType	Country of the supplier's address, expressed as ISO code.
End of **AddressDetails**			
Supplier/ContactDetails: mandatory section			
FirstName	O	AlphanumericType	First name of supplier contact.
FamilyName	O	AlphanumericType	Family name of supplier contact.
PhoneNumber	O	PhoneNumberType	Phone number of supplier contact.
Email	O	EmailType	E-mail address of supplier contact.

Name	Usage	Type	Business Rule
End of **ContactDetails**			
Supplier/BankingDetails: mandatory section			
IBAN	M	IBANType	IBAN code of supplier banking details.
BIC	M	BICType	BIC of supplier banking details.
AccountHolder	O	AlphanumericType	Account holder of supplier banking details.
End of **BankingDetails**			
End of **Supplier**			
InvoiceData/Customer: mandatory section			
VATID	O	VATIDType	VAT number as identifier used by the customer's national tax authority.
LegalName	M	AlphanumericType	Legal name identifying the customer in a national or regional company register.
IdentifierCode	M+C	ESMIdentifierCode-Type	Customer identifier code as currently applied in different official registries. **Values:** • If 'TypeOfIdentifierCode' is set to "EIC", then this field must contain a valid EIC. • If 'TypeOfIdentifierCode' is set to "LEI", then this field must contain a valid LEI. • If 'TypeOfIdentifierCode' is set to "ACERCode", then this field must contain a valid ACER code.
TypeOfIdentifierCode	M	TypeOfESMIdentifier-CodeType	Type of code detailing the nature of the supplier identifier code.
Customer/AddressDetails: mandatory section			
Street	M	AlphanumericType	Street name of the customer's address.
StreetNumber	M	AlphanumericType	Street number of the customer's address.
City	M	AlphanumericType	City of the customer's address.
PostalCode	M	PostalCodeType	Postal code of the customer's address.
Country		CountryCodeType	Country of the customer's address, expressed as ISO code.
End of **AddressDetails**			
Customer/ContactDetails: mandatory section			
FirstName	O	AlphanumericType	First name of customer contact.
FamilyName	O	AlphanumericType	Family name of customer contact.
PhoneNumber	O	PhoneNumberType	Phone number of customer contact.
Email	O	EmailType	E-mail address of customer contact.
End of **ContactDetails**			

Name	Usage	Type	Business Rule
End of **Customer**			
InvoiceData/NetAmount: mandatory section			
TotalAmount	M	PriceType	Total settlement amount which is due according to the transactions in the scope of the invoice document.
TotalAmountCurrency	M	CurrencyCodeType	Currency in which the total net amount is expressed.
End of **NetAmount**			
TotalVolume	M	QuantityType	Total settlement volume which is due according to the transactions in the scope of the invoice document.
InvoiceData/VATDetails: mandatory section			
VATRate	M	QuantityType	VAT rate applicable to the invoice document.
VATAmount	M	PriceType	VAT amount, total net amount multiplied by VAT rate.
VATAmountCurrency	M	CurrencyCodeType	Currency in which the VAT amount is expressed.
VATAmountDomestic	C	PriceType	VAT amount expressed in the currency of the domestic country. **Occurrence:** • If 'VATAmountDomesticCurrency' differs from 'VATAmountCurrency', then this field is mandatory. • If 'VATAmountDomesticCurrency' is identical to 'VATAmountCurrency', then this field must be omitted.
VATAmountDomestic-Currency	M	CurrencyCodeType	Currency in which the VAT amount is expressed in the corresponding country.
End of **VATDetails**			
InvoiceData/GrossAmount: mandatory section			
TotalAmount	M	PriceType	Sum of the total net amount and the VAT amount.
TotalAmountCurrency	M	CurrencyCodeType	Currency in which the total net amount is expressed.
End of **GrossAmount**			
SelfBilling	M	TrueFalseType	Indicates whether this document is part of a self-billing process.
TaxStatement	M	AlphanumericType	General text description of the applicable tax regime.
PaymentDate	M	DateType	Due date of the gross amount.
RegulatoryWording	C	AlphanumericType	Information on the regulatory context of the invoice.
FXRate	O	QuantityType	FX rate applied to convert the VAT amount into the domestic VAT amount.

Name	Usage	Type	Business Rule
FXCurrencyPair	O	FXCurrencyPairType	Pair of VAT amount currency and domestic VAT amount currency. **Occurrence:** • If 'VATAmountDomesticCurrency' differs from 'VATAmountCurrency', then this field is mandatory. • If 'VATAmountDomesticCurrency' is identical to 'VATAmountCurrency', then this field must be omitted. **Values:** • The currencies in this field must correspond to the currencies in 'VATAmountCurrency' and 'VATAmountDomesticCurrency'. **Note:** In the future, this data may be derived automatically by the process.
FXReference	O	FXReferenceType	Link to officially published fixing value for the FX rate.
ExciseTaxInformation	O	AlphanumericType	Indirect tax applied by the local government of the supplier to the specific commodity embedded in the invoice.
End of **InvoiceData**			

3.8 LineItem

Name	Usage	Type	Business Rule
eSMDocument/LineItem: optional, repeating section **Repetition:** • For each line item that is to be matched, one 'LineItem' section is provided.			
SupplierTradeID	M	TradeIDType	Unique reference number of the transaction according to the supplier's ETRM system.
CustomerTradeID	O	TradeIDType	Unique reference number of the transaction according to the customer's ETRM system.
UTI	M	UTIType	Unique Trade Identifier (UTI) acting as unique reference for the transaction, shared between supplier and customer.
SettlementVolume	M	QuantityType	Total settlement volume of the transaction which is due according the scope of the invoice document.
SettlementVolume-Unit	M	UnitOfMeasureType	Unit of measure in which the volume is expressed.
Description	O	AlphanumericType	Descriptive text on additional specifications of the transaction, for example, to reflect the name of the strategy it belongs to.
PhysicalOrFinancial	M	PhysicalOrFinancial-Type	Indicates whether the transaction leads to a physical delivery or a financial exchange of equivalent values.
Price	M	PriceType	Price of the transaction expressed per unit of measure.

Name	Usage	Type	Business Rule
PriceCurrency	M	CurrencyCodeType	Currency in which the price is expressed.
LineItem/NetAmount: mandatory section			
TotalAmount	M	PriceType	Total settlement amount which is due according to the transactions comprised in the scope of the invoice document.
TotalAmountCurrency	M	CurrencyCodeType	Currency in which the total net amount is expressed.
End of **NetAmount**			
DeliveryPointOrZone	C	AreaType	Location where the commodity is physically delivered. Delivery locations are mostly defined by Energy Identification Codes (EIC), indicating the physical location on national or regional gas or electricity grids. **Occurrence:** • If 'PhysicalOrFinancial' is set to "Physical", then this field is mandatory. • Else, this field must be omitted.
MarketInformation	C	MarketInformation-Type	Country or pair of countries (border) where the financial transaction is executed. Gas only: The first country of the pair indicates the side of the border where the last measuring point before the border is located. **Occurrence:** • If 'PhysicalOrFinancial' is set to "Financial", then this field is mandatory. • Else, this field must be omitted.
DeliveryStartDate	M	DateType	Start of the period during which deliveries are to be settled within the scope of this invoice. The delivery start date must be on or after the 'DeliveryStartDate' in the 'InvoiceData' section.
DeliveryEndDate	M	DateType	End of the period during which deliveries are to be settled within the scope of this invoice. The delivery end date must be before or on the 'DeliveryEndDate' in the 'InvoiceData' section. **Note:** For the Gas Day, the delivery end date is the day on which the last Gas Day within the delivery period starts, not the day on which the delivery actually ends. Example: For a monthly delivery in January, the delivery end date is January 31.
VATRate	O	QuantityType	VAT rate applicable to the transaction **Values:** • This field may use zero or positive prices only.
VATAmount	O	PiceType	VAT amount, total net amount multiplied by VAT rate.
TradeDate	M	DateType	Date the transaction took place.

Name	Usage	Type	Business Rule
DateOfFirstDelivery	M	DateType	First delivery date of the transaction.
DateOfLastDelivery	M	DateType	Last delivery date of the transaction.
End of **LineItem**			

4 Description of New CpML Field Names

The following tables list all new CpML field names in alphabetical order. The valid values derived from the types are listed in the field type descriptions.

4.1 A–D

Field name	Definition	Based on type
AccountHolder	Name of banking account holder.	AlphanumericType
BranchInformation	Supplier branch acting as invoice party.	AlphanumericType
BIC	Bank identifier code as defined by ISO 9362.	BICType
City	Name of a city.	AlphanumericType
Country	Country name, represented as ISO 3166-1 alpha-2 code.	CountryCodeType
CustomerTradeID	Unique transaction reference number according to the customer's ETRM system.	TradeIDType
CompanyRegistryName	Number of the register where a company is listed.	AlphanumericType
CompanyRegistry-Number	Number of the register where a company is listed.	AlphanumericType
CompanyRegistryCity	City of the register where a company is listed.	AlphanumericType
CompanyRegistry-Country	Country of the register where a company is listed.	CountryCodeType
CustomerSSDSID	Unique customer identifier, as defined by the System Static Data Standard.	SSDSIDType
Description	Text that describes additional transaction specifications.	AlphanumericType

4.2 E–L

Field name	Definition	Based on type
Email	E-mail address.	EmailType
ExciseTaxInformation	Indirect tax applied by the local government.	AlphanumericType
FamilyName	A person's family name.	AlphanumericType
FirstName	A person's first name.	AlphanumericType
FixedOrFloating	Price relation of the transactions that make up an invoice.	FixedOrFloatingType
FXCurrencyPair	Pair of VAT amount currency and domestic VAT amount currency.	FXCurrencyPairType
IBAN	International bank account number as defined by ISO 13616:2007.	IBANType
IdentifierCode	Identifier code of a supplier or customer of an invoice as currently applied in different official registries, for example, an EIC.	ESMIdentifierCodeType

Field name	Definition	Based on type
InvoiceDate	Date of issue of an invoice.	DateType
InvoicePeriodStart	Start date of the settlement period for deliveries.	DateType
InvoicePeriodEnd	End date of the settlement period for deliveries.	DateType
IdentifierCode	Identifier code of a supplier or customer of an invoice as currently applied in different official registries, for example, an EIC.	ESMIdentifierCodeType
LegalName	Legal identifier of a company in a national or regional company register.	AlphanumericType
LineItemsIncluded	Indicates whether an invoice contains line items.	TrueFalseFlag
LineItemsMatching	Indicates whether line items are used for matching an invoice.	LineItemsMatchingType

4.3 M–R

Field name	Definition	Based on type
MarketInformation	Indicates a country or pair of countries (border) where a financial transaction is executed.	MarketInformationType
NatureOfPrice	Indicates whether a transaction has a positive or zero price or a negative price.	NatureOfPriceType
PaymentDate	Due date of an invoice amount.	DateType
PhoneNumber	Phone number with international prefix.	PhoneNumberType
PhysicalOrFinancial	Indicates the nature of the transactions that make up an invoice.	PhysicalOrFinancialType
PostalCode	Postal code in country-specific format.	PostalCodeType
PriceCurrency	Currency in which a price is expressed.	CurrencyCodeType
RegulatoryWording	Information on the regulatory context of an invoice.	AlphanumericType

4.4 S–Z

Field name	Definition	Based on type
SenderRole	Indicates the sender of a document: the official document issuer or the shadow document issuer.	SenderRoleType
SelfBilling	Indicates whether an invoice is part of a self-billing process.	TrueFalseType
SettlementVolume	Total settlement volume that is due according to the scope of an invoice document.	QuantityType
SettlementVolumeUnit	Unit of measure in which the settlement volume is expressed.	UnitOfMeasureType
SupplierSSDSID	Unique identifier of a company, as defined by the System Static Data Standard.	SSDSIDType

Field name	Definition	Based on type
Street	Street name without street number.	AlphanumericType
StreetNumber	Street number, which may contain letters and digits.	AlphanumericType
SupplierTradeID	Unique transaction reference number based on the supplier's ETRM system.	TradeIDType
TaxPoint	The last day of the month in which the last delivery occurs according to the contract.	DateType
TaxStatement	General text description of the applicable tax regime.	AlphanumericType
TotalAmount	Total settlement amount that is due according to the scope of an invoice document.	PriceType
TypeOfIdentifierCode	Type of an identifier code.	TypeOfESMIdentifier-CodeType
VATAmount	VAT amount, total net amount multiplied by VAT rate.	PriceType
VATAmountCurrency	Currency in which the VAT amount is expressed.	CurrencyCodeType
VATAmountDomestic	VAT amount expressed in the domestic currency.	PriceType
VATAmountDomestic-Currency	Currency in which the domestic VAT amount is expressed.	CurrencyCodeType
VATID	VAT number as identifier used by the company's national tax authority.	VATIDType
VATJurisdictionCurrency	Currency that applies in the jurisdiction of the supplier.	CurrencyCodeType
VATRate	VAT rate that applies to an invoice document or a transaction.	QuantityType
VATRepresentative	Person/organisation acting as tax representative.	AlphanumericType

5 Description of New CpML Field Types

The following tables list all new CpML field types in alphabetical order. Where applicable, valid values are described. The Length column describes the maximum string length, where applicable. If nothing else is stated, the minimum string length is 1.

5.1 A-D

Field Type	Definition	Base Type	Length
AlphanumericType	Generic type to describe strings containing letters, digits, blanks, and special characters such as slashes or dots. No trailing or leading whitespace is allowed.	string	
BICType	Text string representing a BIC, using 8 or 11 characters: ▪ 4 letters: institution or bank code ▪ 2 letters: country code according to ISO 3166-1 ▪ 2 letters or digits: location code ▪ 3 letters or digits: optional branch identifier Example: DEUTDE2HXXX	string	11

5.2 E–L

Field Type	Definition	Base Type	Length
EmailType	String representing an e-mail address. Must include a local part (user name) followed by @ and a domain part.	string	
ESMIdentifierCode-Type	Identifier code of the customer or supplier of an invoice, represented as EIC, LEI or ACER code.	string	20
FixedOrFloating-Type	The following values are allowed: • Fixed • Floating	string	
FXCurrencyPairType	Two alphabetic currency codes according to ISO 4217, separated by a slash. Example: EUR/GBP	string	7
IBANType	String representing an IBAN according to ISO 13616:2007: ▪ 2-letter country code according to ISO 3166-1 ▪ 2-digit checksum ▪ Country-specific bank account number with up to 30 alphanumeric characters Example: DE91100000000123456789	string	34
LineItemsMatching-Type	The following values are allowed: ▪ Always ▪ IfMismatch ▪ Never	string	

5.3 M–R

Field Type	Definition	Base Type	Length
MarketInformation-Type	String representing a country or pair of countries using 2-letter country codes according to ISO 3166-1. If two countries are indicated, they are separated by a slash. Example: DE/NL	string	5
NatureOfPriceType	The following values are allowed: ▪ PositiveOrZero ▪ Negative	string	
PhoneNumberType	String representing an international phone number, starting with + and followed by numbers. Zeros for local prefixes should not be indicated. Special characters such as brackets, hyphens, blanks, or slashes are not allowed. Example: +4930987654321	string	
PhysicalOrFinancial-Type	The following values are allowed: • Physical • Financial	string	
PostalCodeType	String representing a postal code in the format of the corresponding country. Only capital letters, digits, and blanks are allowed.	string	10

5.4 S–Z

Field Type	Definition	Base Type	Length
SenderRoleType	Indicates the sender of a document. The following values are allowed: ▪ OfficialDocumentIssuer ▪ ShadowDocumentIssuer	string	
SSDSIDType	String that combines a VAT ID with an EIC, separated by an underscore. Example: GB684966762_21X000000001022V	string	
TypeOfESM-IdentifierCodeType	The following values are allowed: • EIC • LEI • ACERCode	string	
VATIDType	String representing a VAT ID, a 2-letter country code followed by 9 to 11 numerical digits.	string	

Appendix A. Glossary of Terms

Term	Description
BIC	Business Identifier Code
ETRM system	Energy Trading and Risk Management system
EIC	Energy Identification Code
IBAN	International Bank Account Number
LEI	Legal Entity Identifier
SSDS	System Static Data Standard
UTI	Unique Trade Identifier
VAT	Value-added Tax