European Commission

WP4 Data models

Data Semantics, Format and Quality

ISA²

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Introduction to interpreting the UML diagrams

This document was solely prepared for the first SDG formal OOP review cycle. Inside, you can find the first set of data models for the five following evidence types:

- Birth evidence
- Marriage evidence
- Completion of secondary education evidence
- Income tax evidence
- Vehicle registration evidence

Each data model is composed of an UML diagram as well as tables describing the entities, attributes and relationships at a granular level. You can find in the glossary below the definitions of the most important generic terms used for each data model, for instance entity or attribute.

- The UML diagrams and tables were developed in accordance with international standards. When interpreting data models, particular attention should be paid to the cardinalities, which are mentioned on the level of attributes and relationships:For all relationships, the cardinality (e.g. 0..1, 0..*, 1, etc.) is indicated at the *destination* of the relation rather than at the *source*. For instance, in the birth evidence, the relationship *issuingAuthority* has its cardinality indicated on the *destination* side (i.e. PublicOrganisation) and is of 1, meaning the birth evidence model requires one, and exactly one, *issuingAuthority*

- For all attributes, in accordance with UML specifications, the cardinality is also mentioned (e.g. [0..1], [0..*], etc.). If the term is omitted, it implies a cardinality of one, and exactly one. For instance, in the birth evidence, in the *Person* entity, *familyName* and *givenName* attributes have an implied cardinality of one, whereas the *identifier* attribute has a cardinality of zero or multiple.

The UML specification referred to can be consulted here.

While reviewing, please refer to the following questions :

- Do I agree with the proposed data models?
- Are the definitions of entities and attributes clear enough?
- Does the modelling approach make sense from a business requirements point of view?
- Do I agree with the proposed cardinalities (i.e. mandatory versus optional)?
- With data minimisation in mind, should some of the entities and or attributes be eliminated?
- Will my country be able to provide all the mandatory information?

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As indicated, reviewers have until the 6th of November to perform their review and share their comments, if any.

WP4 first review cycle timeline

Year	2020		
Month	SEP	OCT	NOV
First review cycle – WP4		Oct 12 – Nov 6	Nov 13 – Nov 20
OOP Plenary			

Legend: ▢ Member States' review ▢ Author's position ● Review meeting ● Nov 24 – OOP Plenary

GLOSSARY

Application profile
A data model defining which entities and attributes to use, what the cardinalities of the attributes are and recommendations for core vocabularies to be used, in order to support a particular application or use case(s).

Attribute
A characteristic of an entity in a particular dimension such as the weight of an object, the name of an organisation or the date and time that an observation was made, often representing things or events in the real world.

Data model
A data model is an abstract model that organises elements of data and standardizes how they relate to one another. It specifies the entities, their attributes and the relationships between entities.

Entity
A 'thing', such as a vessel, a geographic location, a sensor, a map or something more abstract like an incident, an event or an observation.

Relationship
A link between two concepts; examples are the link between an observation and the sensor that produced it, the link between a document and the organisation that published it, or the link between a map and the geographic region it depicts.

Semantic agreement
Consensus among the working group on the model and data entities that support common services. Apart from the typology of the data entities, the consensus also covers the characteristics of the data entities as expressed in metadata and the use of common controlled vocabularies.

BIRTH EVIDENCE
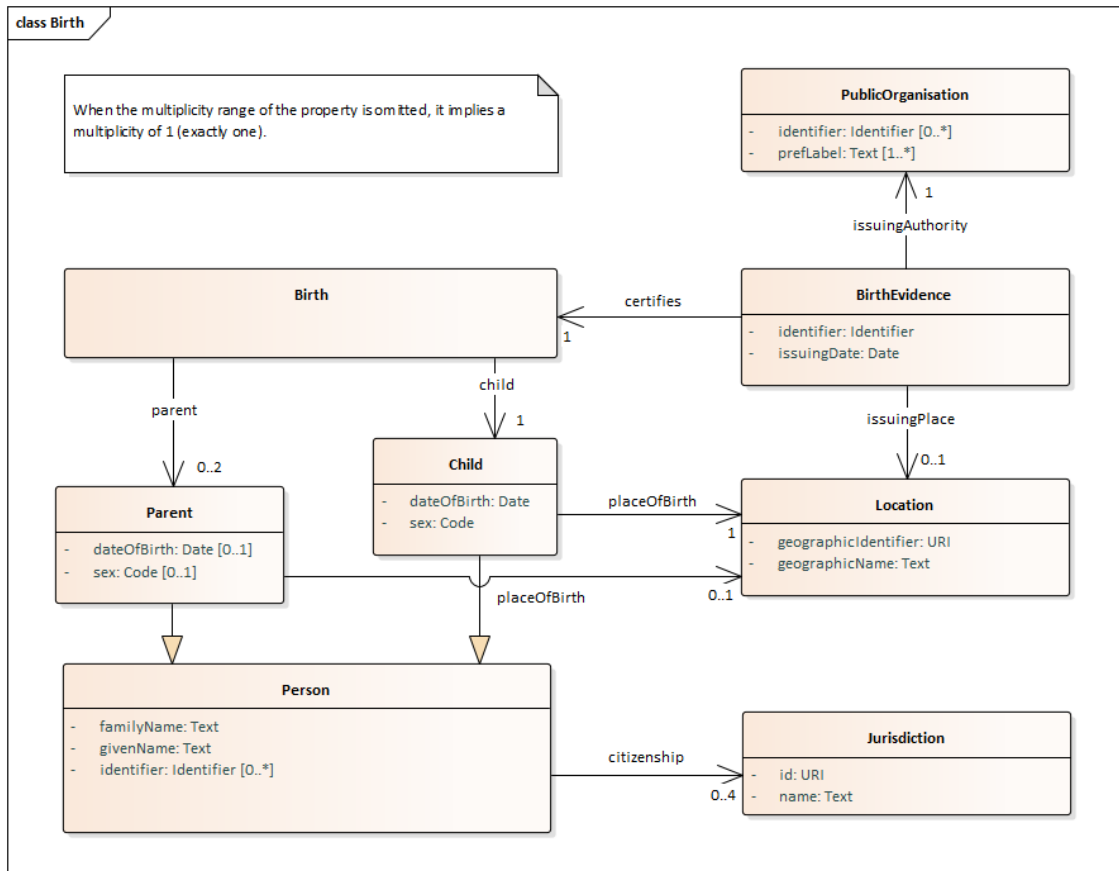
Entities

Birth Evidence

Definition: Official document proving the Birth of a Child.

attribute	expected type	definition	cardinality	code list
identifier	Identifier	An unambiguous reference to the Birth Evidence.	[1..1]	N/A
issuing date	Date	The date on which the Birth Evidence was issued.	[1..1]	N/A
certifies	Birth	Attesting in a formal way that the Birth is true.	[1..1]	N/A
issuing authority	Public Organisation	A Public Organisation with official authority in charge of issuing the Birth Evidence.	[1..1]	N/A

attribute	expected type	definition	cardinality	code list
issuing place	Location	The Location where the Birth Evidence was issued.	[0..1]	N/A

Birth

Definition: The event indicating the moment a Child emerges from the body of another Person, i.e. start of life.

attribute	expected type	definition	cardinality	code list
child	Person	The Person who is born at the Birth.	[1..1]	N/A
parent	Person	The Parent of the Child.	[0..2]	N/A

Child

Definition: A Person of any age, who is a son or daughter.
Subclass of: Person

attribute	expected type	definition	cardinality	code list
date of birth	Date	The day on which the Child was born.	[1..1]	N/A
sex	Code	The chromosomal state, and reproductive organs and structures of a Person that allows them to be distinguished as female or male.	[1..1]	Human Sex
place of birth	Location	The Location where a Person was born.	[1..1]	N/A

Parent

Definition: One of the two Persons who are jointly the cause of the Child's Birth.
Subclass of: Person

attribute	expected type	definition	cardinality	code list
date of birth	Date	The day on which the Parent was born.	[0..1]	N/A

attribute	expected type	definition	cardinality	code list
place of birth	Location	The Location where a Person was born.	[0..1]	N/A
sex	Code	The chromosomal state, and reproductive organs and structures of a Person that allows them to be distinguished as female or male.	[0..1]	[Human Sex](#)

Person

Definition: An individual person who may be dead or alive, but not imaginary.

attribute	expected type	definition	cardinality	code list
identifier	Identifier	The identifier relation is used to link a Person to any formally issued Identifier for that Person.	[0..*]	N/A
given name	Text	A given name, or multiple given names, are the denominator(s) that identify an individual within a family. These are given to a Person by his or her parents at birth or may be legally recognised as 'given names' through a formal process. All given names are ordered in one field so that, for example, the given name for Johan Sebastian Bach is "Johan Sebastian".	[1..1]	N/A
family name	Text	A family name is usually shared by members of a family. This attribute also carries prefixes or suffixes which are part of the family name, e.g. "de Boer", "van de Putte", "von und zu Orlow". Multiple family names, such as are commonly found in Hispanic	[1..1]	N/A

attribute	expected type	definition	cardinality	code list
		countries, are recorded in the single family name field so that, for example, Miguel de Cervantes Saavedra's family name would be recorded as "de Cervantes Saavedra".		
citizenship	Jurisdiction	The citizenship relationship links a Person to a Jurisdiction that has conferred citizenship rights on the individual such as the right to vote, to receive certain protection from the community or the issuance of a passport. Multiple citizenships are recorded as multiple instances of the citizenship relationship.	[0..4]	N/A

Jurisdiction

Definition: The authority that an official organisation has, to make legal decisions about somebody/something.

attribute	expected type	definition	cardinality	code list
name	Text	The name is simply a string that identifies the Jurisdiction, typically a country, with or without a language tag.	[1..1]	Country
id	URI	The value for the id property is a URI for that Jurisdiction.	[1..1]	Country

Public Organisation

Definition: Any organisation that is defined as being part of the public sector by a legal framework at any level.

attribute	expected type	definition	cardinality	code list
preferred	Text	As defined in the ORG	[1..*]	N/A

attribute	expected type	definition	cardinality	code list
label		Ontology, a preferred label is used to provide the primary, legally recognised name of the organisation. An organisation may only have one such name in any given language. Primary names may be provided in multiple languages with multiple instances of the preferred label property.		
identifier	Identifier	Many organisations are referred to by an acronym or some other identifier. For example, among the EU institutions, the ECB is the identifier for the European Central Bank, OLAF for the European Anti-Fraud Office, and so on. These are formally recognised by the European Commission which provides a list of such acronyms. Analogous lists should be used in other contexts.	[0..*]	N/A

Location

Definition: A spatial region or named place.

attribute	expected type	definition	cardinality	code list
geographic name	Text	A geographic name is a proper noun applied to a spatial object. The INSPIRE Data Specification on Geographical Names [INGN] provides a detailed model for describing a 'named place', including methods for providing multiple names in multiple scripts.	[1..1]	N/A
geographic identifier	URI	A URI that identifies the Location.	[1..1]	N/A

MARRIAGE EVIDENCE
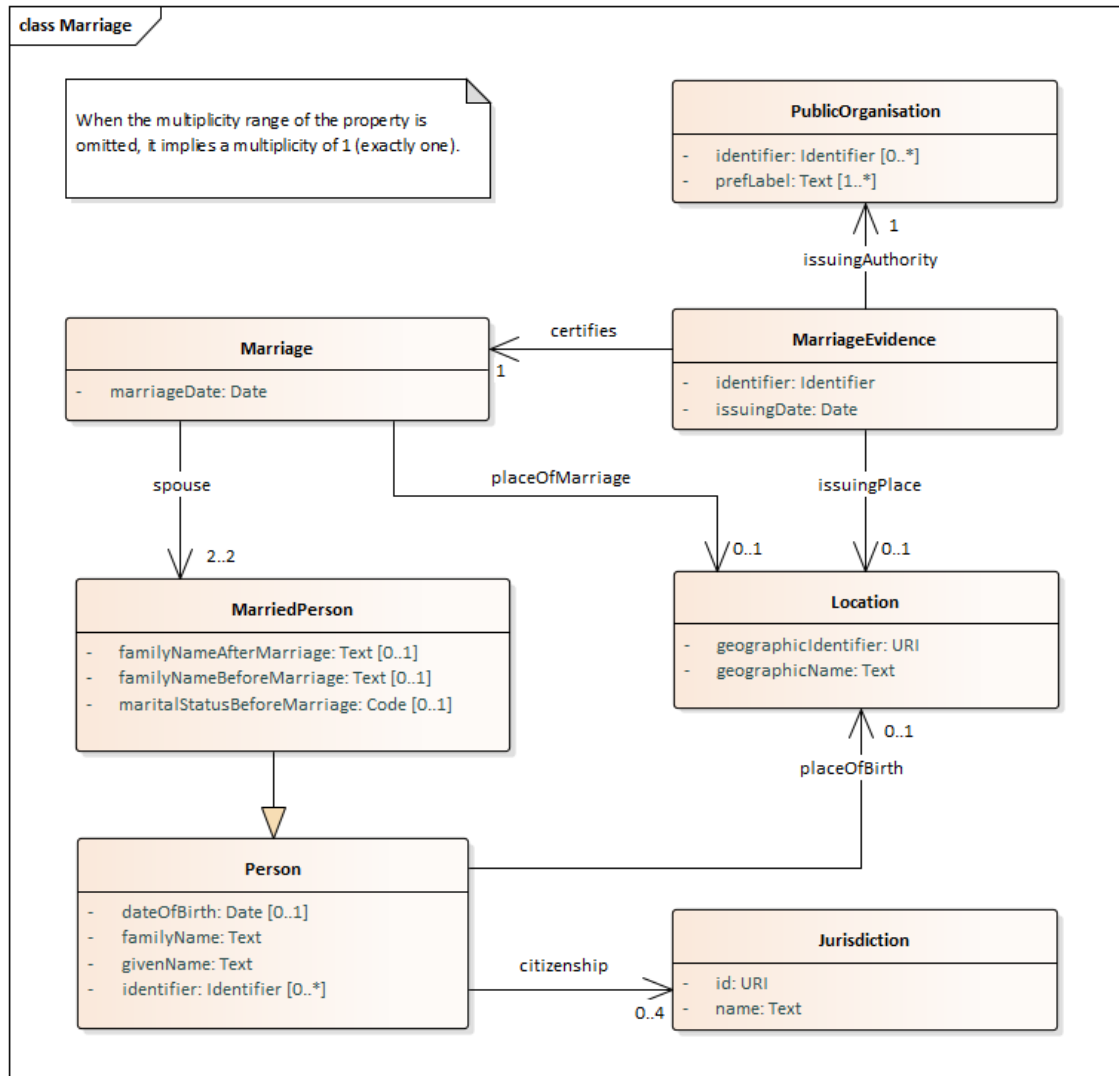
Entities

Marriage Evidence

Definition: Official document proving the Marriage of two Persons.

attribute	expected type	definition	cardinality	code list
identifier	Identifier	An unambiguous reference to the Marriage Evidence.	[1..1]	N/A
issuing date	Date	The date on which the Marriage Evidence was	[1..1]	N/A

attribute	expected type	definition	cardinality	code list
		issued.		
certifies	Marriage	Attesting in a formal way that the Marriage is true.	[1..1]	N/A
issuing authority	Public Organisation	A Public Organisation with official authority in charge of issuing the Marriage Evidence.	[1..1]	N/A
issuing place	Location	The Location where the Marriage Evidence was issued.	[0..1]	N/A

Marriage

Definition: A legally accepted relationship between two Persons in which they live together.

attribute	expected type	definition	cardinality	code list
marriage date	Date	The date on which the Marriage took place.	[1..1]	N/A
place of marriage	Location	The Location where the Marriage took place.	[0..1]	N/A
spouse	Person	The Person that was married.	[2..2]	N/A

Married Person

Definition: A Person who has entered into a Marriage. **Subclass of**: Person

attribute	expected type	definition	cardinality	code list
family name after marriage	Text	This property contains the family name after the Marriage of the Person.	[0..1]	N/A
family name before marriage	Text	This property contains the family name before the Marriage of the Person.	[0..1]	N/A
marital	Code	Situation with regard to	[0..1]	Marital

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attribute	expected type	definition	cardinality	code list
status before marriage		whether a Person is single, married, separated, divorced or widowed.		Status

Person

Definition: An individual person who may be dead or alive, but not imaginary.

attribute	expected type	definition	cardinality	code list
identifier	Identifier	The identifier relation is used to link a Person to any formally issued Identifier for that Person.	[0..*]	N/A
given name	Text	A given name, or multiple given names, are the denominator(s) that identify an individual within a family. These are given to a Person by his or her parents at birth or may be legally recognised as 'given names' through a formal process. All given names are ordered in one field so that, for example, the given name for Johan Sebastian Bach is 'Johan Sebastian'.	[1..1]	N/A
family name	Text	A family name is usually shared by members of a family. This attribute also carries prefixes or suffixes which are part of the family name, e.g. "de Boer", "van de Putte", "von und zu Orlow". Multiple family names, such as are commonly found in Hispanic countries, are recorded in the single family name field so that, for example, Miguel de Cervantes Saavedra's Family Name would be	[1..1]	N/A

attribute	expected type	definition	cardinality	code list
		recorded as "de Cervantes Saavedra".		
date of birth	Date	The day on which the Person was born.	[0..1]	N/A
place of birth	Location	The Location where the Person was born.	[0..1]	N/A
citizenship	Jurisdiction	The citizenship relationship links a Person to a Jurisdiction that has conferred citizenship rights on the individual such as the right to vote, to receive certain protection from the community or the issuance of a passport.	[0..4]	N/A

Jurisdiction

Definition: The authority that an official organisation has, to make legal decisions about somebody/something.

attribute	expected type	definition	cardinality	code list
name	Text	The name is simply a string that identifies the Jurisdiction, typically a country, with or without a language tag.	[1..1]	Country
id	URI	The value for the id property is a URI for that Jurisdiction.	[1..1]	Country

Public Organisation

Definition: Any organisation that is defined as being part of the public sector by a legal framework at any level.

attribute	expected type	definition	cardinality	code list
preferred label	Text	As defined in the ORG Ontology, a preferred label is used to provide the primary,	[1..*]	N/A

attribute	expected type	definition	cardinality	code list
		legally recognised name of the organisation. An organisation may only have one such name in any given language. Primary names may be provided in multiple languages with multiple instances of the preferred label property.		
identifier	Identifier	Many organisations are referred to by an acronym or some other identifier. For example, among the EU institutions, the ECB is the identifier for the European Central Bank, OLAF for the European Anti-Fraud Office, and so on. These are formally recognised by the European Commission which provides a list of such acronyms. Analogous lists should be used in other contexts.	[0..*]	N/A

Location

Definition: A spatial region or named place.

attribute	expected type	definition	cardinality	code list
geographic name	Text	A geographic name is a proper noun applied to a spatial object. The INSPIRE Data Specification on Geographical Names [INGN] provides a detailed model for describing a 'named place', including methods for providing multiple names in multiple scripts.	[1..1]	N/A
geographic identifier	URI	A URI that identifies the Location.	[1..1]	N/A

SECONDARY EDUCATION COMPLETION EVIDENCE
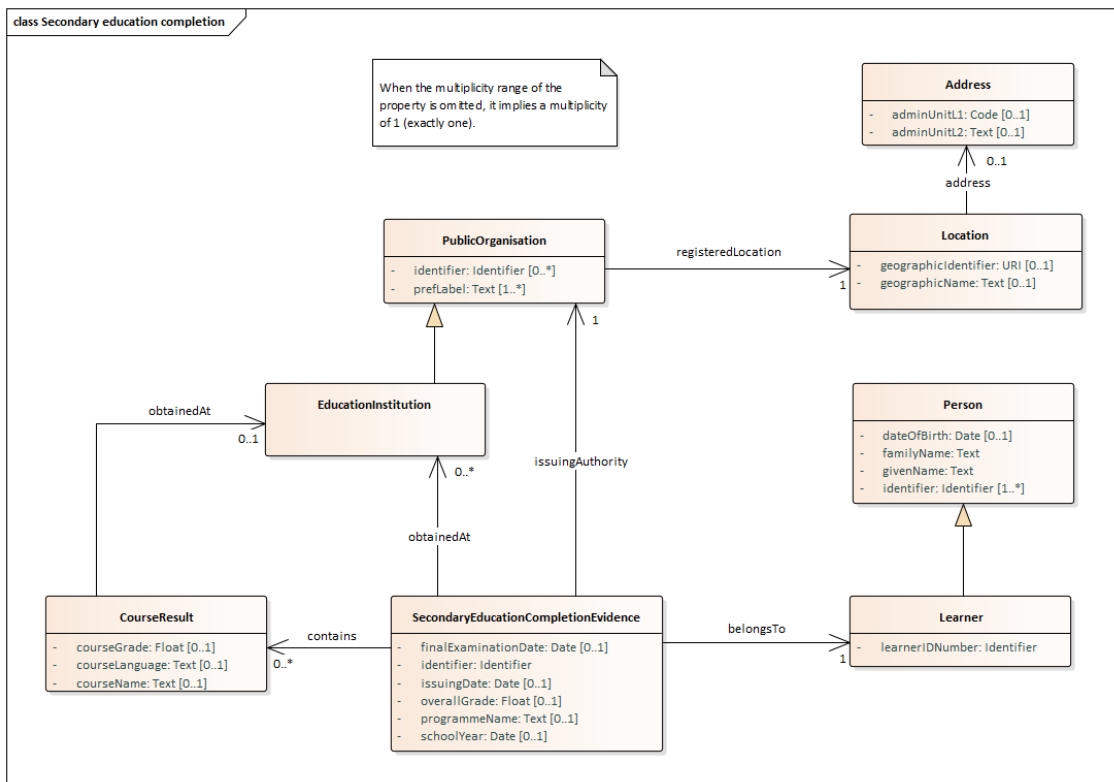
Entities

Secondary Education Completion Evidence

Definition: Official document proving that a Student completed secondary education (ISCED 2011 level 3).

attribute	expected type	definition	cardinality	code list
identifier	Identifier	An unambiguous reference to the Secondary Education Completion Evidence.	[1..1]	N/A
overall grade	Float	A mark indicating a degree of accomplishment for the whole year (in percentage).	[0..1]	N/A
school year	Date	The annual period of sessions of the Education Institution.	[0..1]	N/A
final	Date	The date of the final	[0..1]	N/A

attribute	expected type	definition	cardinality	code list
examination date		assessment designed to test the qualification or knowledge acquired.		
issuing date	Date	The date on which the Secondary Education Completion Evidence was issued.	[0..1]	N/A
programme name	Text	The programme name of the Secondary Education.	[0..1]	N/A
issuing authority	Public Organisation	The Public Organisation that issued the Secondary Education Completion Evidence.	[1..1]	N/A
contains	Course Result	The Course Results which the Secondary Education Completion Evidence contains.	[0..*]	N/A
belongs to	Student	The Student to which the Secondary Education Completion Evidence belongs.	[1..1]	N/A
obtained at	Education Institution	The Education Institution that educated the Student.	[0..*]	N/A

Course Result

Definition: Grade obtained after finishing/completing a course.

attribute	expected type	definition	cardinality	code list
course name	Text	Name given to a number of lectures or other matters dealing with a subject.	[0..1]	N/A
course grade	Float	A mark indicating a degree of accomplishment for a particular course (in percentage).	[0..1]	N/A
course	Text	Language in which the	[0..1]	N/A

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attribute	expected type	definition	cardinality	code list
language		course was taught.		
obtained at	Education Institution	The Education Institution that organized the course.	[0..1]	N/A

Education Institution

Definition: An Organisation that provides instructional services to individuals or education-related services to individuals and other educational institutions.
Subclass of: Public Organisation
No additional attributes are defined for this entity. It does inherit, however, all the attributes from Public Organisation listed here below.

Public Organisation

Definition: Any organisation that is defined as being part of the public sector by a legal framework at any level.

attribute	expected type	definition	cardinality	code list
preferred label	Text	As defined in the ORG Ontology, a preferred label is used to provide the primary, legally recognised name of the organisation. An organisation may only have one such name in any given language. Primary names may be provided in multiple languages with multiple instances of the preferred label property.	[1..*]	N/A
identifier	Identifier	Many organisations are referred to by an acronym or some other identifier. For example, among the EU institutions, the ECB is the identifier for the European Central Bank, OLAF for the European Anti-Fraud Office, and so on. These are formally recognised by the European Commission which provides a list of such acronyms. Analogous lists should be used in other contexts.	[0..*]	N/A

attribute	expected type	definition	cardinality	code list
registered location	Location	The registered location of the Public Organisation.	[1..1]	N/A

Learner

Definition: A Person who attended school.

attribute	expected type	definition	cardinality	code list
learner ID number	Identifier	An unambiguous reference to the Student.	[1..1]	N/A

Person

Definition: An individual person who may be dead or alive, but not imaginary.

attribute	expected type	definition	cardinality	code list
identifier	Identifier	The identifier relation is used to link a Person to any formally issued Identifier for that Person.	[1..*]	N/A
given name	Text	A given name, or multiple given names, are the denominator(s) that identify an individual within a family. These are given to a Person by his or her parents at birth or may be legally recognised as 'given names' through a formal process. All given names are ordered in one field so that, for example, the given name for Johan Sebastian Bach is "Johan Sebastian".	[1..1]	N/A
family name	Text	A family name is usually shared by members of a family. This attribute also carries prefixes or suffixes which are part of the family name, e.g. "de Boer", "van de Putte", "von und zu Orlow".	[1..1]	N/A

attribute	expected type	definition	cardinality	code list
		Multiple family names, such as are commonly found in Hispanic countries, are recorded in the single family name field so that, for example, Miguel de Cervantes Saavedra's family name would be recorded as "de Cervantes Saavedra".		
date of birth	Date	The day on which the Person was born.	[0..1]	N/A

Location

Definition: A spatial region or named place.

attribute	expected type	definition	cardinality	code list
geographic name	Text	A geographic name is a proper noun applied to a spatial object. The INSPIRE Data Specification on Geographical Names [INGN] provides a detailed model for describing a 'named place', including methods for providing multiple names in multiple scripts.	[0..1]	N/A
geographic identifier	URI	A URI that identifies the Location.	[0..1]	N/A
address	Address	The address property relationship associates a Location with the Address entity.	[0..1]	N/A

Address

Definition: An "address representation" as conceptually defined by the INSPIRE Address Representation data type.

attribute	expected type	definition	cardinality	code list
admin unit	Code	The uppermost	[0..1]	[Country](#)

attribute	expected type	definition	cardinality	code list
level 1		administrative unit for the address, almost always a country.		
admin unit level 2	Text	The region of the address, usually a county, state or other such area that typically encompasses several localities.	[0..1]	N/A

INCOME TAX DECLARATION EVIDENCE
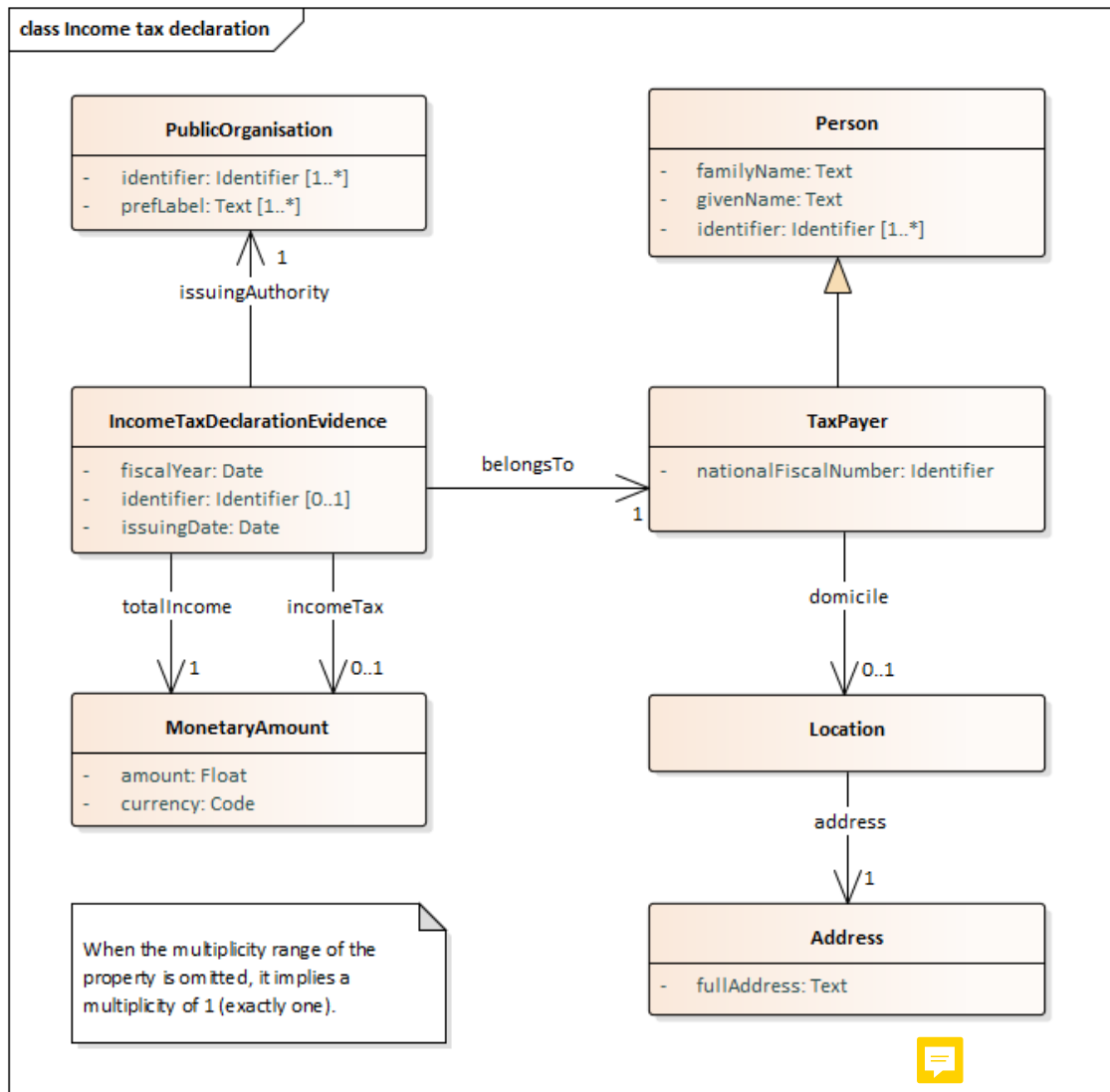
Entities

Income Tax Declaration Evidence

Definition: Official document in which a Tax Payer declares the Monetary Amount that he or she has earned and the income taxes that he or she has paid in one fiscal year.

attribute	expected type	definition	cardinality	code list
identifier	Identifier	An unambiguous reference to the Income Tax Declaration Evidence.	[0..1]	N/A
issuing date	Date	The date on which the Income Tax Declaration was issued.	[1..1]	N/A
fiscal year	Date	Reference year for which the Income Tax is due.	[1..1]	N/A
belongs to	Tax Payer	The Tax Payer to whom the Tax Declaration applies.	[1..1]	N/A
issuing authority	Public Organisation	The National Competent Authority which is in charge of issuing the Income Tax Declaration.	[1..1]	N/A
total income	Monetary Amount	The total amount of taxable income of the Tax Payer in the respective year, as reported by the tax payer in accordance with the laws and regulations of the country where the income was reported.	[1..1]	N/A
income tax	Monetary Amount	The total amount (positive or negative) of tax due on the income in the respective year, in accordance with the laws and regulations of the country where the income was reported.	[0..1]	N/A

Monetary Amount

Definition: A monetary value.

attribute	expected type	definition	cardinality	code list
currency	Code	The currency in which the Monetary Amount is expressed.	[1..1]	[Currency](#)
amount	Float	The quantitative value of the Monetary Amount.	[1..1]	N/A

Tax Payer

Definition: A Person subject to pay an income tax.
Subclass of: Person

attribute	expected type	definition	cardinality	code list
national fiscal number	Identifier	An unambiguous reference to the Tax Payer.	[1..1]	N/A
domicile	Location	A Person's fixed, permanent and principal home for legal purposes.	[0..1]	N/A

Person

Definition: An individual person who may be dead or alive, but not imaginary.

attribute	expected type	definition	cardinality	code list
identifier	Identifier	The identifier relation is used to link a Person to any formally issued Identifier for that Person.	[1..*]	N/A
given name	Text	A given name, or multiple given names, are the denominator(s) that identify an individual within a family. These are given to a Person by his or her parents at birth or may be legally recognised as 'given names' through a formal process. All given names are ordered in one field so that, for example, the given name for Johan Sebastian Bach is "Johan Sebastian".	[1..1]	N/A

attribute	expected type	definition	cardinality	code list
family name	Text	A family name is usually shared by members of a family. This attribute also carries prefixes or suffixes which are part of the family name, e.g. "de Boer", "van de Putte", "von und zu Orlow". Multiple family names, such as are commonly found in Hispanic countries, are recorded in the single family name field so that, for example, Miguel de Cervantes Saavedra's family name would be recorded as "de Cervantes Saavedra".	[1..1]	N/A

Public Organisation

Definition: Any organisation that is defined as being part of the public sector by a legal framework at any level.

attribute	expected type	definition	cardinality	code list
preferred label	Text	As defined in the ORG Ontology, a preferred label is used to provide the primary, legally recognised name of the organisation. An organisation may only have one such name in any given language. Primary names may be provided in multiple languages with multiple instances of the preferred label property.	[1..*]	N/A
identifier	Identifier	Many organisations are referred to by an acronym or some other identifier. For example, among the EU institutions, the ECB is the identifier for the European Central Bank, OLAF for the European Anti-Fraud Office, and so on. These are formally recognised by the European	[1..*]	N/A

attribute	expected type	definition	cardinality	code list
		Commission which provides a list of such acronyms. Analogous lists should be used in other contexts.		

Location

Definition: A spatial region or named place.

attribute	expected type	definition	cardinality	code list
address	Address	The address property relationship associates a Location with the Address entity.	[1..1]	N/A

Address

Definition: An "address representation" as conceptually defined by the INSPIRE Address Representation data type.

attribute	expected type	definition	cardinality	code list
full address	Text	The complete address written as a string, with or without formatting.	[1..1]	N/A

VEHICLE REGISTRATION EVIDENCE

class Vehicle registration

When the multiplicity range of the property is omitted, it implies a multiplicity of 1 (exactly one).

Vehicle
- actualMass: Number
- CO: Float [0..1]
- CO2: Float [0..1]
- commercialName: Text [1..*]
- engineCapacity: Number [0..1]
- engineMaximumNetPower: Number [0..1]
- environmentalCategory: Code [0..1]
- fuelTypeOrPowerSource: Code
- HC: Float [0..1]
- HCplusNOx: Float [0..1]
- identificationNumber: Identifier
- make: Text
- maxTechnicallyPermissableLadenMass: Number [0..1]
- NOx: Float [0..1]
- powerToWeightRatio: Number [0..1]
- seats: Number
- standingPlaces: Number [0..1]
- type: Text
- typeApprovalNumber: Text [0..1]
- typeVariant: Text [0..1]
- typeVersion: Text [0..1]

VehicleRegistrationEvidence
- endRegistrationDate: Date [0..1]
- firstRegistrationDate: Date [0..1]
- registrationNumber: Identifier
- startRegistrationDate: Date
- status: Code [0..1]

PublicOrganisation
- identifier: Identifier [1..*]

certifies — 1

issuingAuthority — 1

vehicleOwner [0..1]   vehicleLegalUser [0..*]   holder [0..1]

Agent
- identifier: Identifier [0..*]

registeredLocation — 0..1

placeOfBirth — 0..1

Location

address

Address
- fullAddress: Text

1

undergoes [0..1]

Organisation
- prefLabel: Text [1..*]

Person
- dateOfBirth: Date [0..1]
- familyName: Text
- givenName: Text

::*Agent*
- identifier: Identifier [0..*]

TechnicalInspection
- lastInspectionDate: Date
- validityPeriod: Period

Entities

Vehicle Registration Evidence

Definition: Official document proving the registration of a Vehicle.

attribute	expected type	definition	cardinality	code list
registration number	Identifier	A numeric or alphanumeric identifier that uniquely identifies the Vehicle (or vehicle owner) within the isssuing region's vehicle register. Also known as license/number plate.	[1..1]	N/A
status	Code	Actual status of the vehicle registration.	[0..1]	Issue #16
first registration date	Date	Date of first registration of the Vehicle (somewhere in the world).	[0..1]	N/A
start registration date	Date	Start date of registration of the Vehicle in the Member State.	[1..1]	N/A
end registration date	Date	End date of registration of the Vehicle in the Member State. (Is populated if the vehicle has been de-registered in the Member State.)	[0..1]	N/A
certifies	Vehicle	The Vehicle that is the subject of the Vehicle Registration Evidence.	[1..1]	N/A
issuing authority	Public Organisation	A Public Organisation with official authority in charge of issuing the Vehicle Registration Evidence.	[1..1]	N/A
vehicle owner	Agent	The natural person or legal person that is the legal owner of the vehicle (i.e. the entity that has bought the vehicle, and has the right to sell it).	[0..1]	N/A

attribute	expected type	definition	cardinality	code list
vehicle legal user	Agent	The natural person or legal person that has the legal right to use the Vehicle.	[0..*]	N/A
holder	Agent	The natural person or legal person in whose name the vehicle is registered.	[0..1]	N/A

Vehicle

Definition: A machine, usually with wheels and an engine, used for transporting people or goods on land, especially on roads.

attribute	expected type	definition	cardinality	code list
identification number	Identifier	Vehicle identification number (VIN).	[1..1]	N/A
make	Text	The make of the Vehicle, e.g. Ford, Opel, Renault, etc.	[1..1]	N/A
type	Text	The type of the Vehicle as described in B. of Annex II of 2007/46/EC.	[1..1]	N/A
type variant	Text	The type variant of the Vehicle as described in B. of Annex II of 2007/46/EC.	[0..1]	N/A
type version	Text	The type version of the Vehicle as described in B. of Annex II of 2007/46/EC.	[0..1]	N/A
commercial	Text	The commercial	[1..*]	N/A

attribute	expected type	definition	cardinality	code list
name		name of the Vehicle, e.g. Focus, Astra, Megane.		
maximum technically permissable laden mass	Number	The maximum technically permissable laden mass of the Vehicle (in kg).	[0..1]	N/A
actual mass	Number	The mass of the vehicle in service with bodywork, and with coupling device in the case of a towing vehicle in service from any category other than M1 (in kg).	[1..1]	N/A
type approval number	Text	The type-approval number.	[0..1]	N/A
engine capacity	Number	The engine capacity (in cm3).	[0..1]	N/A
engine maximum net power	Number	The engine maximum net power (in kW).	[0..1]	N/A
fuel type or power source	Code	The type of fuel or power source.	[1..1]	TBD
power to weight ratio	Number	The power to weight ratio (in kW/kg). (Only for motorcycles.)	[0..1]	N/A
seats	Number	The number of	[1..1]	N/A

attribute	expected type	definition	cardinality	code list
		seats, including the drivers seat.		
standing places	Number	The number of standing places (where appropriate).	[0..1]	N/A
environmental category	Code	Indication of the environmental category of EC type-approval.	[0..1]	Directive 70/220/EEC(2) or Directive 88/77/EEC(3)
CO2	Float	Exhaust emissions of carbon dioxide (in g/km).	[0..1]	N/A
CO	Float	Exhaust emissions of carbon monoxide (in g/km).	[0..1]	N/A
HC	Float	Exhaust emissions of hydrocarbon (in g/km).	[0..1]	N/A
NOx	Float	Exhaust emissions of nitrogen oxides (in g/km).	[0..1]	N/A
HC + NOx	Float	Exhaust emissions of hydrocarbon and nitrogen oxides (in g/km).	[0..1]	N/A
undergoes	Technical Inspection	The last Technical Inspection the Vehicle underwent.	[0..1]	N/A

Technical Inspection

Definition: The event when a Vehicle's compliance to the technical and legal specifications is verified.

attribute	expected type	definition	cardinality	code list
last inspection date	Date	The last date on which the Vehicle underwent a Technical Inspection.	[1..1]	N/A
validity period	Period	The Period during which the Vehicle is deemed technically safe to drive on public roads and after which it needs to be inspected again.	[1..1]	N/A

Agent

Definition: Any entity that is able to carry out actions.

attribute	expected type	definition	cardinality	code list
identifier	Identifier	The identifier relation is used to link an Agent to any formally issued Identifier for that Agent.	[0..*]	N/A
registered location	Location	The registered Location of the Agent.	[0..1]	N/A

Person

Definition: An individual person who may be dead or alive, but not imaginary.
Subclass of: Agent

attribute	expected type	definition	cardinality	code list
given name	Text	A given name, or multiple given names, are the denominator(s) that identify an individual within a family. These are given to a Person by his or her parents at birth or may be legally recognised as 'given names' through a formal process. All given	[1..1]	N/A

attribute	expected type	definition	cardinality	code list
		names are ordered in one field so that, for example, the given name for Johan Sebastian Bach is "Johan Sebastian".		
family name	Text	A family name is usually shared by members of a family. This attribute also carries prefixes or suffixes which are part of the family name, e.g. "de Boer", "van de Putte", "von und zu Orlow". Multiple family names, such as are commonly found in Hispanic countries, are recorded in the single family nme field so that, for example, Miguel de Cervantes Saavedra's family name would be recorded as "de Cervantes Saavedra".	[1..1]	N/A
date of birth	Date	The day on which the Person was born.	[0..1]	N/A
place of birth	Location	The Location where the Person was born.	[0..1]	N/A

Organisation

Definition: Represents a collection of people organised together into a community or other social, commercial or political structure. The group has some common purpose or reason for existence which goes beyond the set of people belonging to it and can act as an Agent. Organisations are often decomposable into hierarchical structures.
Subclass of: Agent

attribute	expected type	definition	cardinality	code list
preferred label	Text	As defined in the ORG Ontology, a preferred label is used to provide the primary, legally recognised name of the organisation. An organisation may only have one such name in any given language.	[1..*]	N/A

attribute	expected type	definition	cardinality	code list
		Primary names may be provided in multiple languages with multiple instances of the preferred label property.		

Public Organisation

Definition: Any organisation that is defined as being part of the public sector by a legal framework at any level.
Subclass of: Organisation

attribute	expected type	definition	cardinality	code list
identifier	Identifier	The identifier relation is used to link a Public Organisation to any formally issued Identifier for that Public Organisation.	[1..*]	N/A

Location

Definition: A spatial region or named place.

attribute	expected type	definition	cardinality	code list
address	Address	The address property relationship associates a Location with the Address entity.	[1..1]	N/A

Address

Definition: An "address representation" as conceptually defined by the INSPIRE Address Representation data type.

attribute	expected type	definition	cardinality	code list
full address	Text	The complete address written as a string, with or without formatting.	[1..1]	N/A

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