



Core Vocabularies

Online webinar #1
23rd of April 2021



SEMIC
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INTEROPERABILITY
COMMUNITY

ISA²

Objectives of the webinar

1. Present the new proposed versions of the Core Vocabularies
2. Collect and discuss open points for each vocabulary

Agenda

1. Welcome
2. Context of the revision process of the Core Vocabularies
3. Proposed changes to the Core Vocabularies
4. Wrap-up

1. Welcome

Speaker: Seth van Holland & Pavlina Fragkou

Webinar practicalities



Click on « connect audio » but please mute your microphones



You can also share your questions for the Q&A session via the chat*



The webinar will be recorded

*One question after each speaker + Q&A discussion

Objectives of the SEMIC Solutions



Semantic aspect

"meaning of data elements and the relationship between them. It includes developing vocabularies and schema to describe data exchanges, and ensures that data elements are understood in the same way by all communicating parties;"

Syntactic aspect

"describing the exact format of the information to be exchanged in terms of grammar and format."

2. Context of the revision process of the Core Vocabularies

Speaker: Pavlina Fragkou

SEMIC solutions



DCAT-AP
FOR
DATA PORTALS
IN EUROPE

GeoDCAT-AP
FOR
GEOSPATIAL
DATASETS

StatDCAT-AP
FOR
STATISTICAL
DATASETS

ADMS
ASSET
DESCRIPTION
METADATA
SCHEMA

Specifications

- **Core Person**
- **Core Business**
- **Core Location**
- **Core Public Organisation**
- Core Public Service Vocabulary (Application Profile)
- Core Criterion and Core Evidence
- DCAT-AP
- GeoDCAT-AP (DCAT-AP extension)
- StatDCAT-AP (DCAT-AP extension)
- ADMS

Context of the Core Vocabularies

The Core Vocabularies are a set of semantic assets that aim at capturing the fundamental characteristics of data entities to ensure a minimum level of harmonisation across domains.

CORE
PERSON
VOCABULARY

CORE
BUSINESS
VOCABULARY

CORE
LOCATION
VOCABULARY

CORE
PUBLIC
ORGANISATION
VOCABULARY

describe

The name(s), the date and place of birth/death, and the identifier of a person.

The legal name, address, identifier, company type, and activities of a legal entity.

The different ways of describing a location, e.g. via an address, a geographic name, or a geometry, in alignment with INSPIRE.

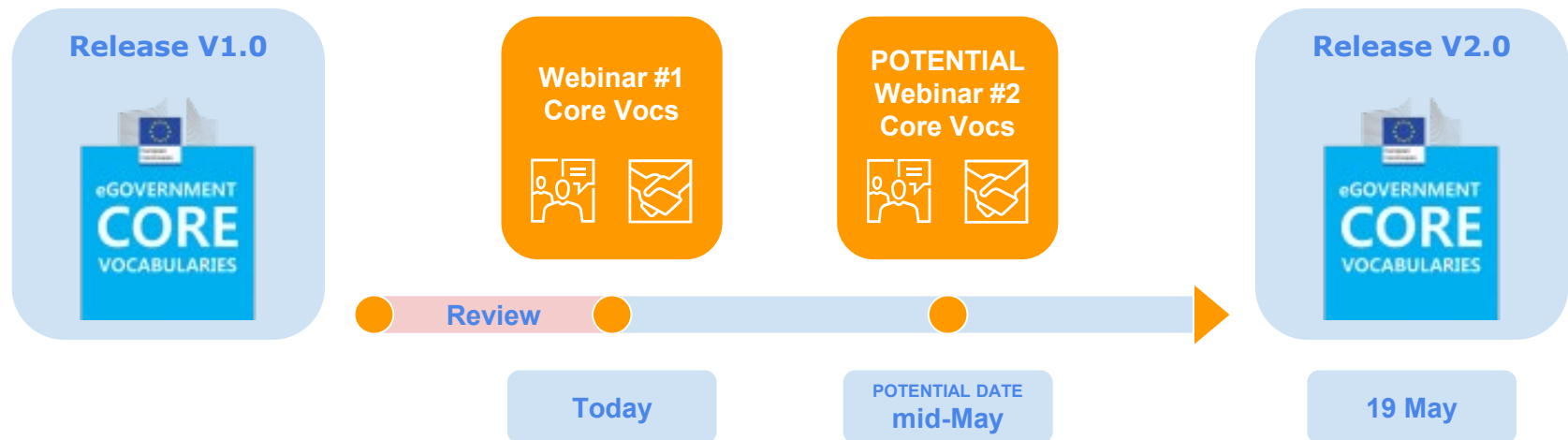
The administrative information, hierarchy, identifiers, events and classification of a public organisation.

Context of the Core Vocabularies

- The initial version (v1.0) of the Core Vocabularies was published in 2013. The Core Public Organisation Vocabulary was added to this list in 2016, together with the Core Public Service Vocabulary.
- Therefore, the revision process in view of a major release (v2.0) of the Core Vocabularies has been initiated by a public review in order to list the points of improvement and changes to be made.
- The objective of this webinar is to introduce the proposed new version (v2.0) of the Core Vocabularies based on your contribution, in order to discuss it and acknowledge it officially.

Revision process of the Core Vocabularies

In case some issues could not be addressed during this webinar, a second webinar could be organised in mid-May to close the pending discussions.



3. Proposed changes to the Core Vocabularies

Speaker: Michiel De Keyzer, Dimitri Schepers, Florian Barthélemy

Types of issues and rationales discussed today



Alignment with external models

SDG WP4, Public Documents, INSPIRE

Alignment between Core Vocabularies

Improved usability

E.g. add recommended codelists, add examples in the usage notes, etc.

Open points

Deprecate, add or adapt concepts, e.g. *"Is there a need for keeping Change class in Core Person?"*

Changed data types

Alignment, multi-language usage or consistency

3.1 Detailed overview of the changes for Core Person

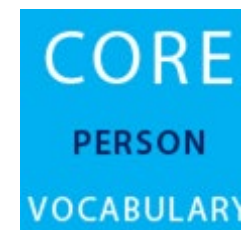
Expected action when the following logo appears



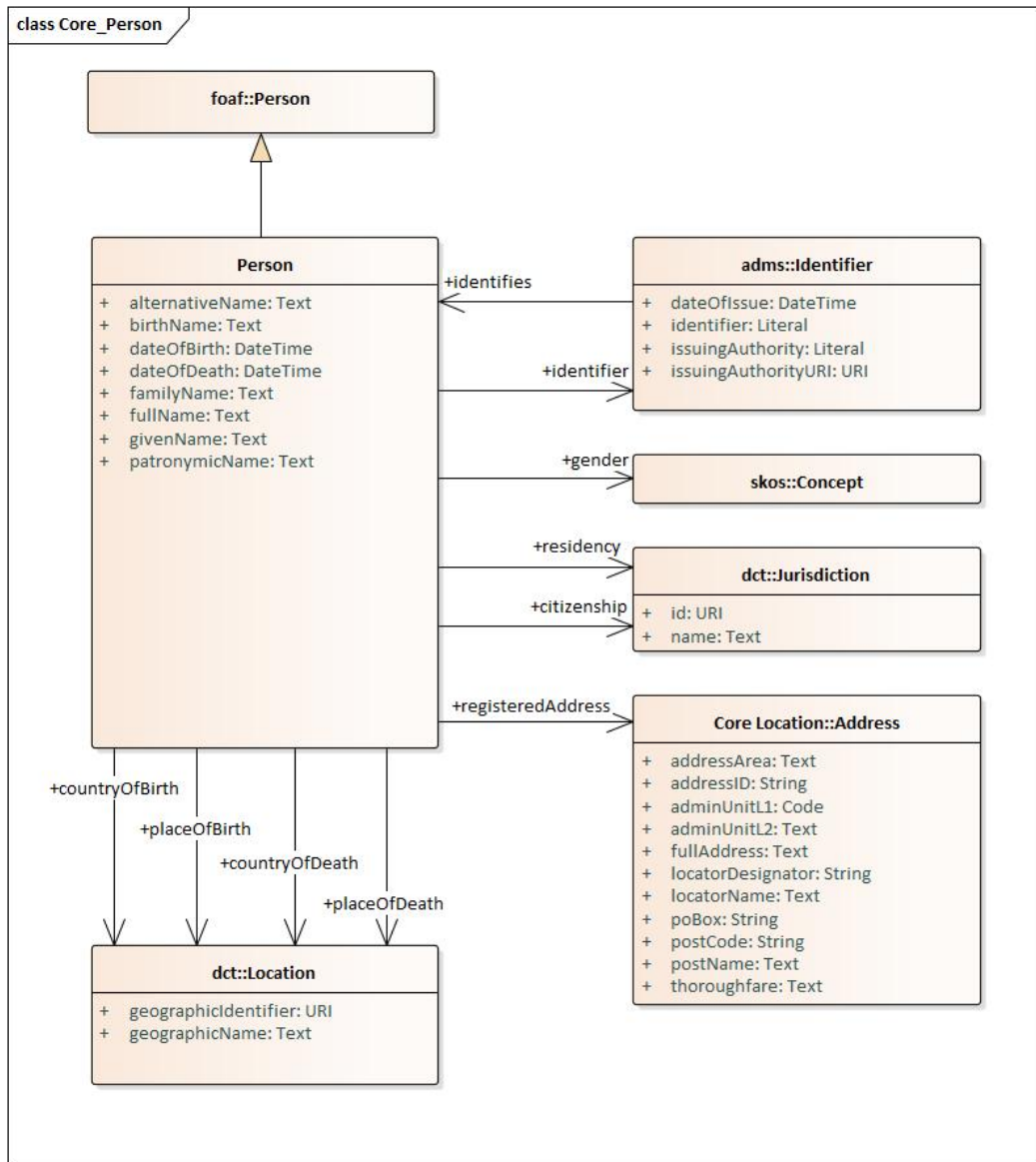
Let's discuss this idea



Let's agree / disagree



Core Person
Vocabulary V2.0



Alignment with external models



Person.givenName (*forename*) is now aligned with SDG WP4 as well as public documents schema to allow for multi-script.



Person.familyName (*surname*) is now aligned with SDG WP4 as well as public documents schema to allow for multi-script.



Person.patronymicName is now aligned with SDG WP4 to allow for multi-script.



Person.fullName is now aligned with SDG WP4 to allow for multi-script.



Person.birthName is now aligned with SDG WP4 to allow for multi-script.



Person.alternativeName is now aligned with SDG WP4 to allow for multi-script.

Alignment with external models



Updated definition of **Person.dateOfBirth/dateOfDeath** based on SDG WP4:
Previous definition : "A date that specifies the birth/death date of a Person."
New definition : "The day on which the Person was born/died."

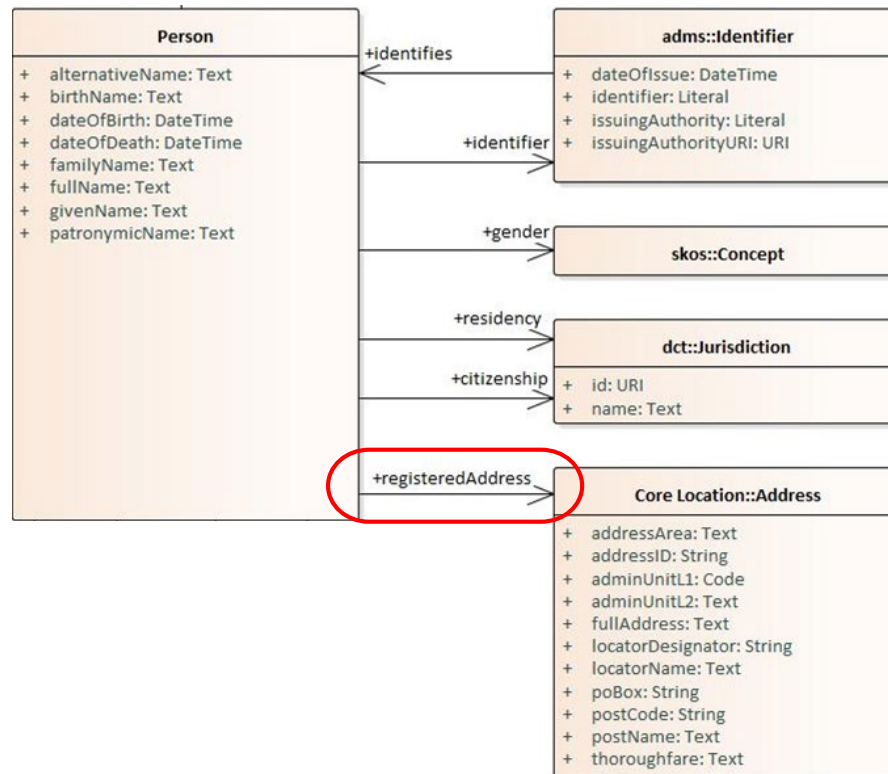


Updated definition of **Person.placeOfBirth/placeOfDeath** based on SDG WP4:
Previous definition : "A Person's place of birth/death."
New definition : "The Location where the Person was born/died."

Alignment with external models



Creation of the relationship **Person.registeredAddress**: Address. This relationship was needed in the models discussed in the SDG WP4.



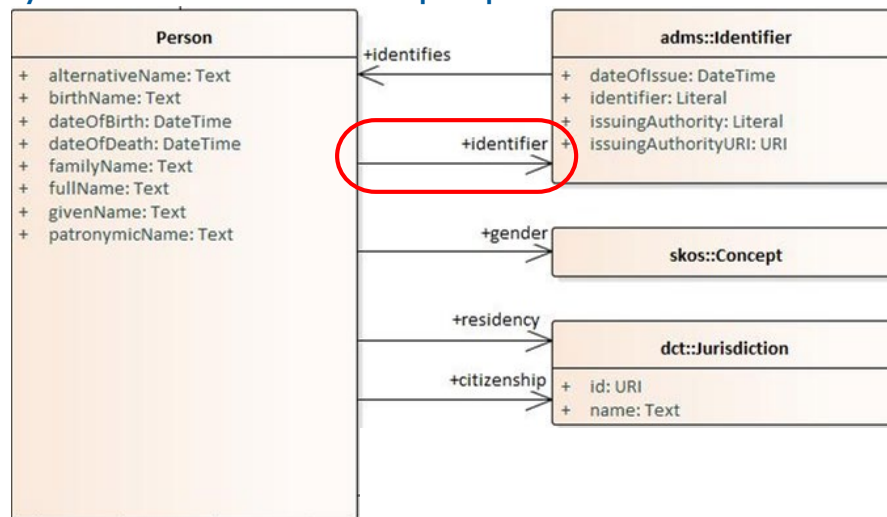
Alignment with external models



Reference to eIDAS regulation and mapping has been added to **Person.identifier**.

As the eIDAS regulation on “Electronic identification” refers to the use of Core Person Vocabulary, a mapping exercise had originally been performed. Therefore, a reference to eIDAS has been added in Core Person in order to take this use into account in the new release.

Based on the proposed changes in Core Person, a further alignment with eIDAS will be necessary to make sure the propositions are also compatible with the usage.



Open points



Change class has been deprecated ([issue #10](#)) as it was only a placeholder.

Reminder of the Change class definition from the v1.0 specification:

"The Change class is envisaged as one that captures any change in a data point. This might be a change in address, a change of name or any other update. It is likely that such a record would make it clear what data element was changed as well as when, why and by whom."

- Do you use this class?
- How do you capture changes in time in records?
- Do you consider versioning and provenance to be an important use case?
- Do you agree with the deprecation of the class?

Open points



Renaming the “id” property to “identifier”

Rationale is to align with the other classes.

Does everyone agree with this change?



For Person.dateOfBirth, SDG WP4 decided to **use the Date datatype instead of the DateTime datatype.** (Issue #9)

Rationale was that the DateTime is not always available. This is also more in line with [schema:birthDate](#), the URI that is being reused by the Core Vocabulary.

Does everyone agree to change the range of dateOfBirth and dateOfDeath to xsd:Date?

Open points



Person.gender currently recommends the use of a controlled vocabulary which should be appropriate for the specific context [in which the class and property are used].

An [issue \(#7\)](#) was raised proposing to remove all references to the human sex/gender since the combination from name and ID should provide enough relevant information.

In the proposed version 2, the gender property is, however, still included. The rationale for this is twofold:

1. The Core Person Vocabulary **does not impose cardinalities**. Implementations are free to refrain from using certain properties.
2. The Vocabulary states that implementers are **free to use a controlled vocabulary that is suitable for their needs** ([issue #13](#)). In some cases the chromosomal or physical state of an individual will be more important than the gender that they express, while in others, the reverse will be true.

Do you agree with this approach?

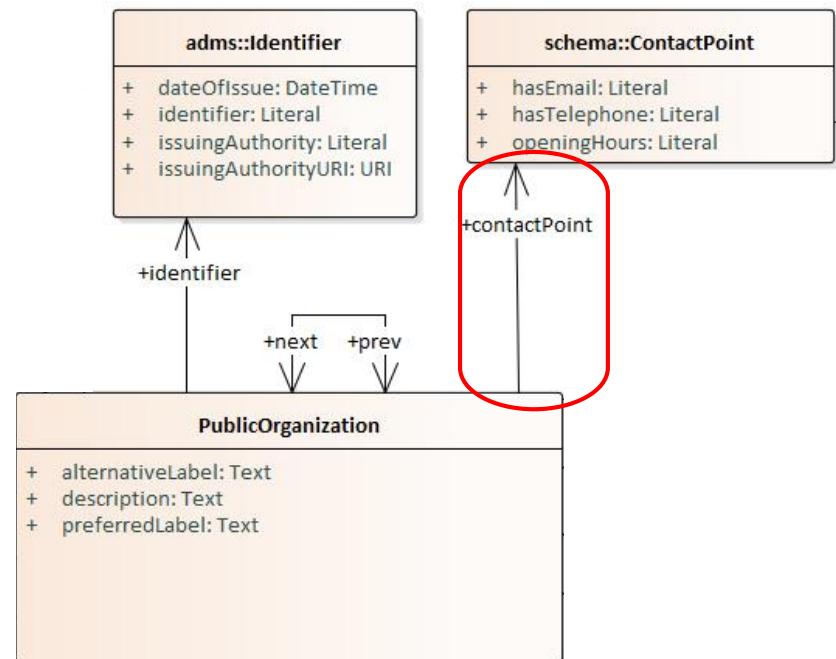
Open points



Is there a need to add contact details to Person and Legal Entity?

Public Organisation has a contact point as opposed to Person and Legal Entity ([issue #5](#)).

- Should it be harmonised across all Core Vocabularies?



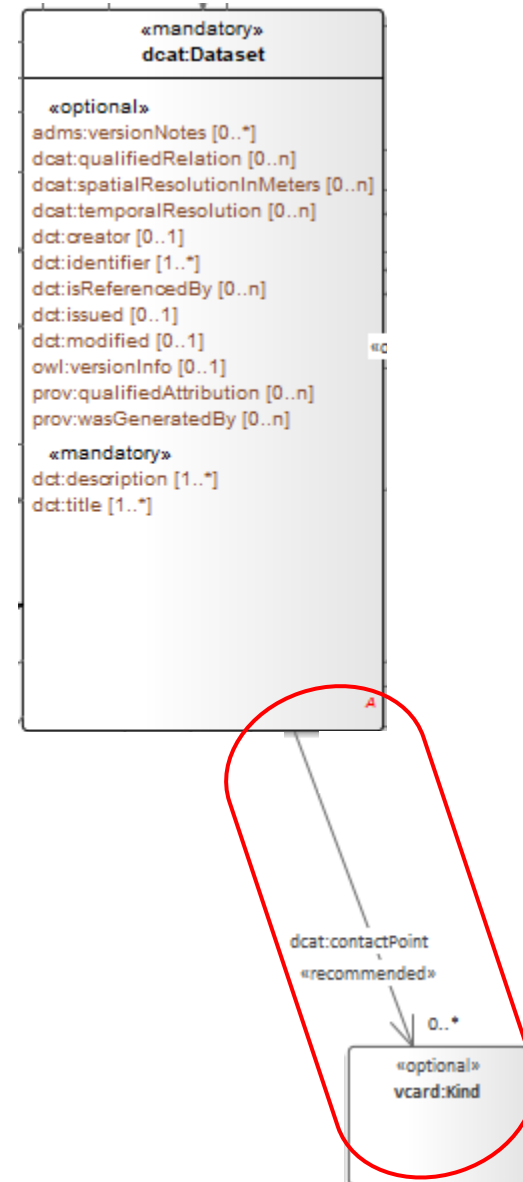
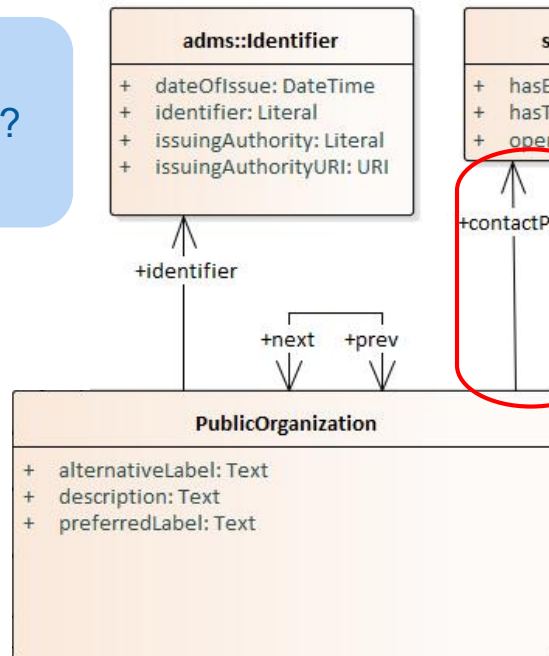
Open points



Direct usage of schema.org

[Issue #10](#) (CPOV) also emphasizes the need to reduce the dependency towards schema.org and replace it with alternatives, such as vcard (W3C - currently used in DCAT-AP) or by defining a European equivalent.

- What are your views?



Open points



Is there a need to describe how an Agent or a Person may have different roles ?

3 different options seem possible :

1

Using the member property from FOAF

- This can only be used to express membership of a Group. Very limited use case.

2

Using the Role and Membership classes from the Organization Ontology

- Role denotes a role that a Person or other Agent can take **in** an Organization.
- Membership is the instantiation of such a Role for a specific Agent.

3

Using the Participation class from CPSV-AP

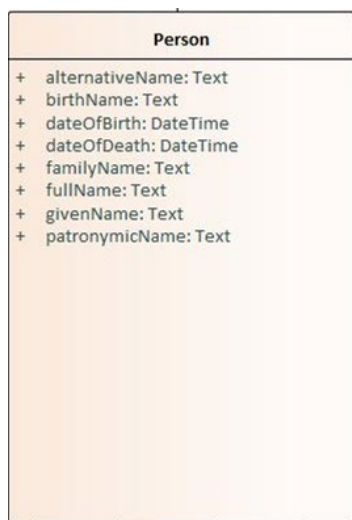
- Competent Authority restricts simple statement (e.g. no additional role, contractual information).
- The Participation class can be mapped to the Organization Ontology's Membership.

- Is there a need to describe the various roles or participations of an Agent?
In which vocabulary?
- Do you agree to add the Participation class to Core Person / Business / Public Organisation?

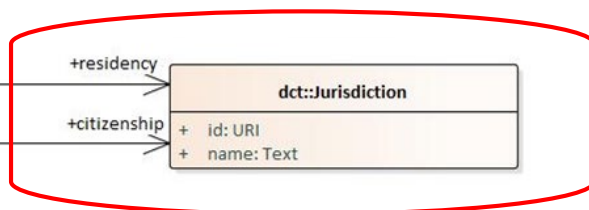
Improved usability



Clarification of the Jurisdiction class ([issue #15](#))



It is currently unclear how the Jurisdiction is to be used.
What should be its contents?

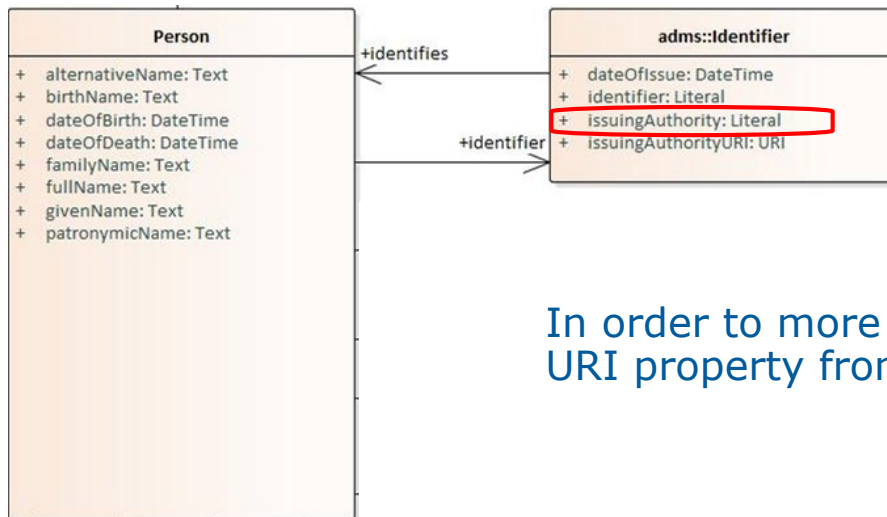


- Do we change the Jurisdiction class to Location?
- Do we clarify its usage via the recommendation of a controlled vocabulary for countries?

Improved usability



Renaming the issuingAuthority property to issuingAuthorityName ([issue #14](#))



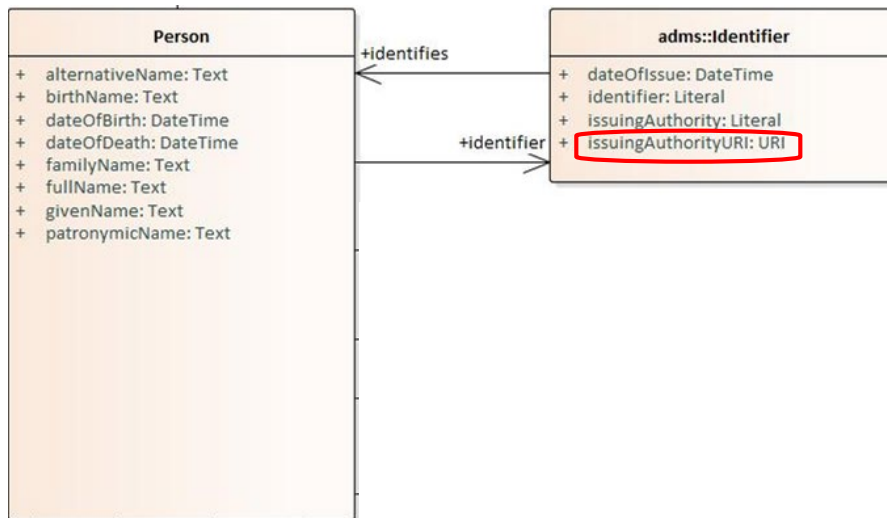
In order to more clearly differentiate the URI property from the name property.

- Does everyone agree with this change?

Improved usability



Have the `issuingAuthorityURI` property point to a class instead of a URI
([issue #14](#))



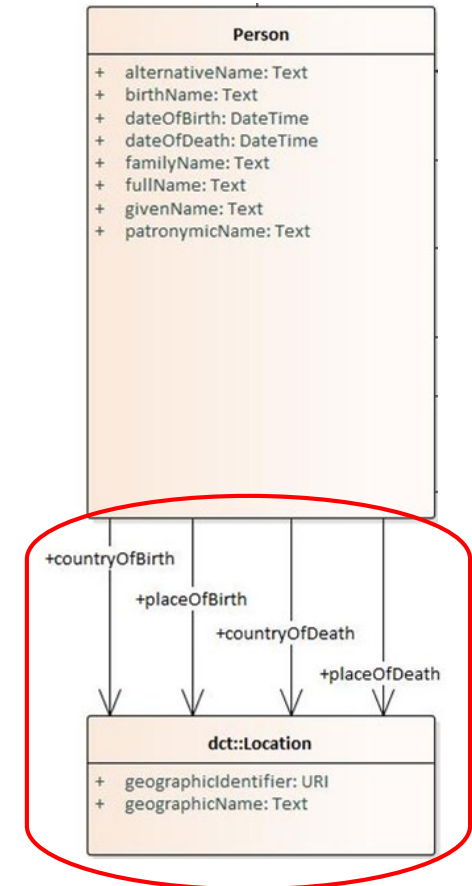
- Do we want to restrict the range of `issuingAuthorityURI` to a specific class, such as `org:Organization`?

Improved usability



Country of birth/death versus Place of birth/death ([issue #12](#))

- Is there a need for a specific country of birth/death property? Is this not covered by place of birth/death?
- If there is a need, proposal to make it a subproperty.



Core Person : your feedback



Do you have any other points you would like to discuss or raise?

3.2 Detailed overview of the changes for Core Business

Expected action when the following logo appears



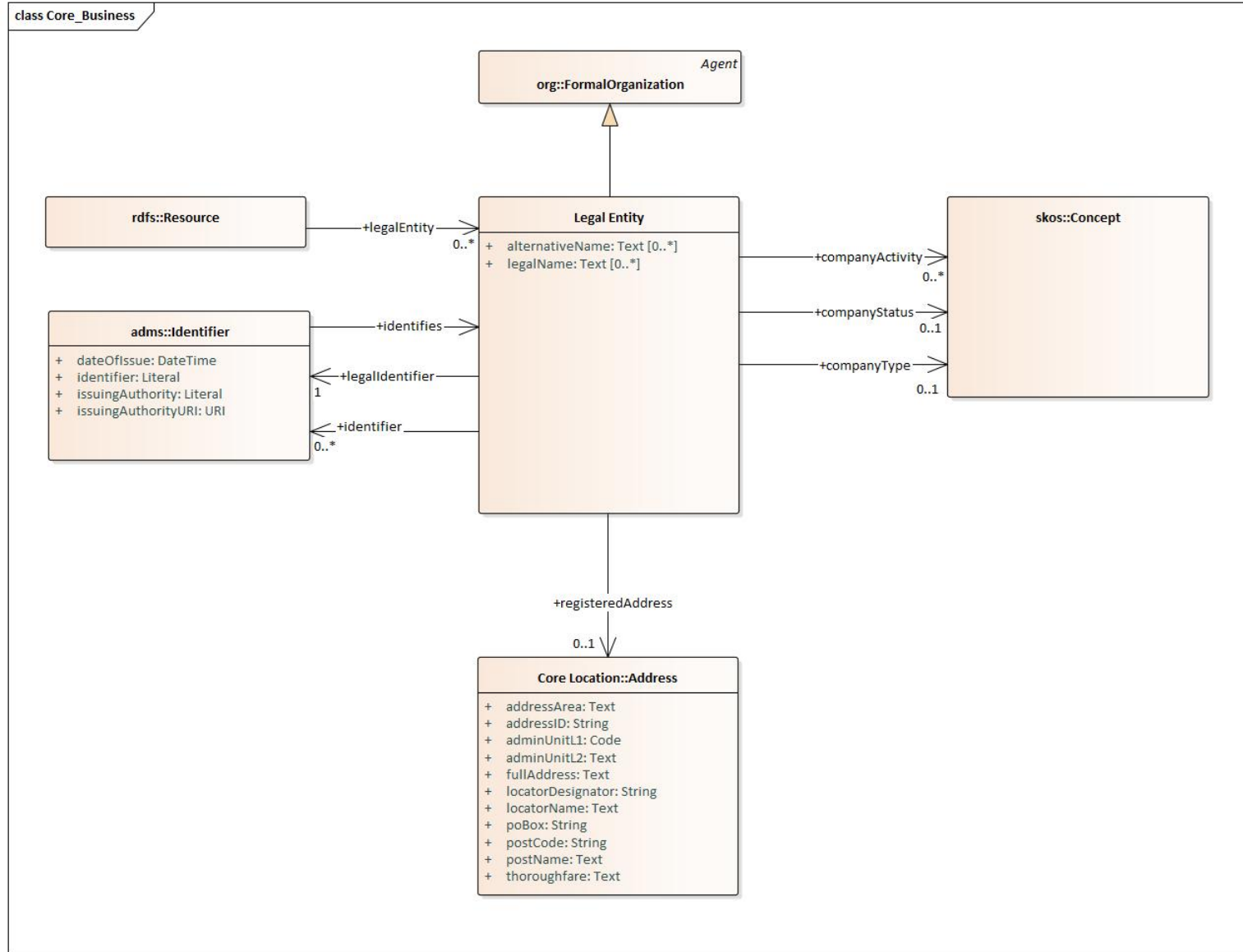
Let's discuss this idea



Let's agree / disagree



Core Business Vocabulary V2.0



Open points

 **Change class has been deprecated ([issue #10](#))**. Cfr. previous discussion.

 **Does the company Type of a Legal Entity capture its legal form and which controlled vocabularies can be used for it? ([issue #11](#), [#8](#))**
Proposition to rename company Type to “legal Form Type” to increase clarity.

- Do you agree with the renaming proposition?
- Is there a need for recommending or listing some controlled vocabularies for the property?
- If yes, what kind of controlled vocabularies?

Existing lists are:

- [AnaCredit](#) from the European central Bank and one of its [annexes on legal entities per country](#).
- [ISO 20275](#): Entity Legal Forms Code List available in different formats such as [XLS](#). The list also provides names of legal entities per country.

Open points



The **Licence class has been deprecated** as it was only a placeholder in version 1 ([issue #7](#)).

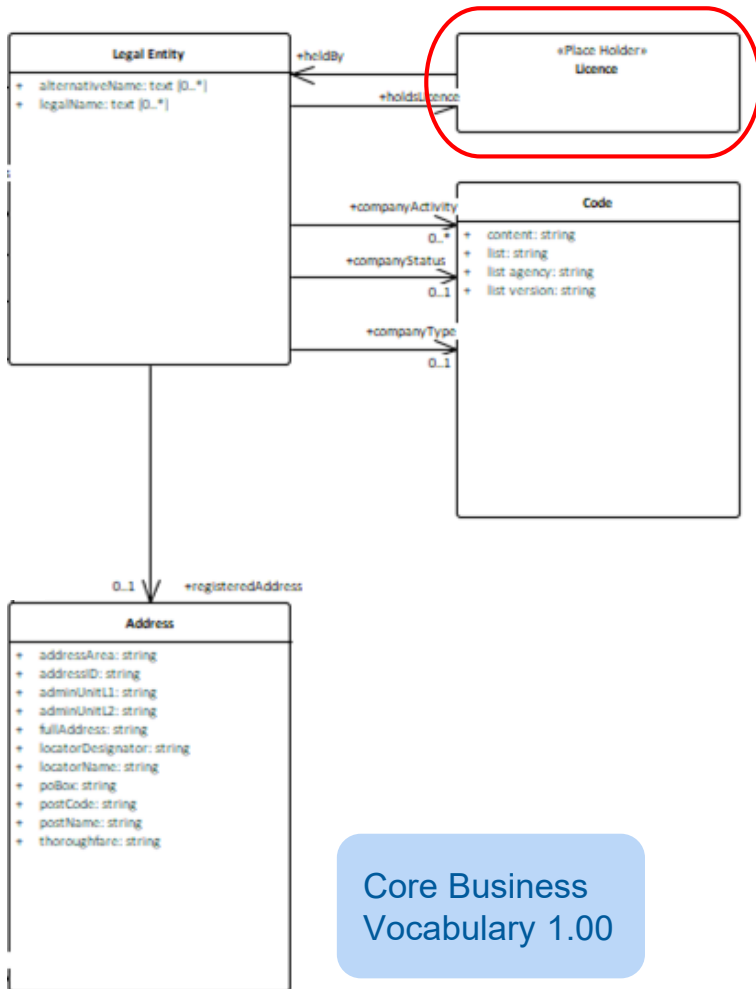
Reminder of the Licence class definition from V1.0 specification:

*“In the context of a business register, the term licence refers to a **permit to carry out a particular activity** such as banking or mining. The Licence class is therefore envisaged as being similar to the Identifier Class in which a specific body is registered with a recognised authority.”*

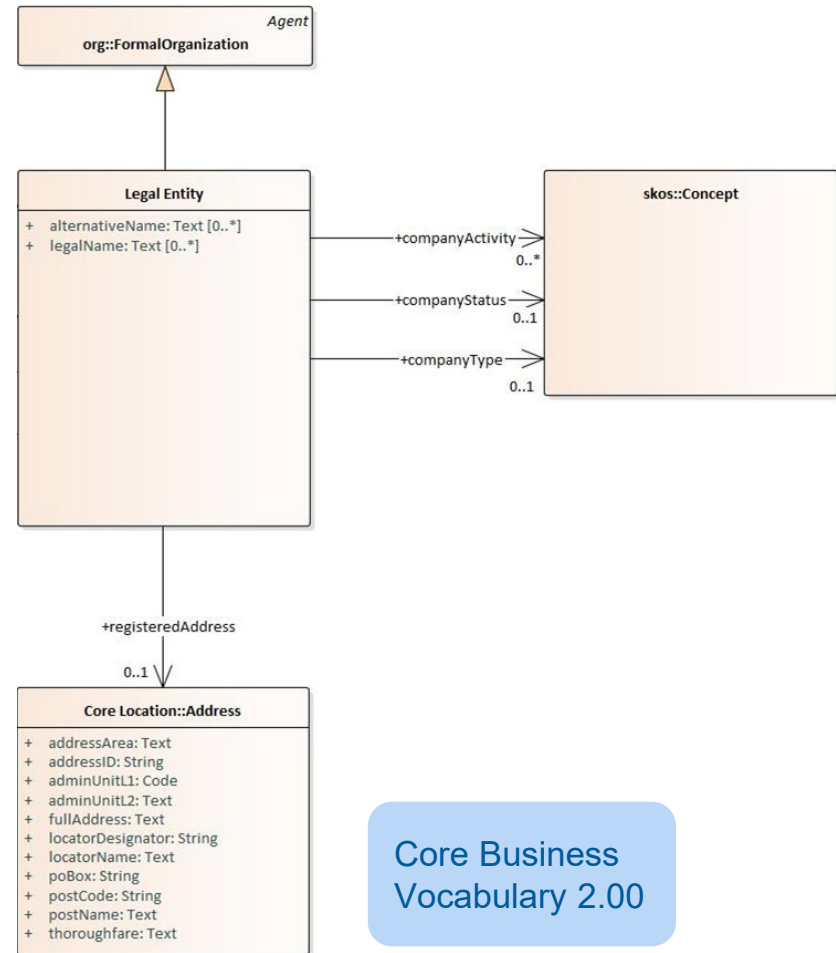
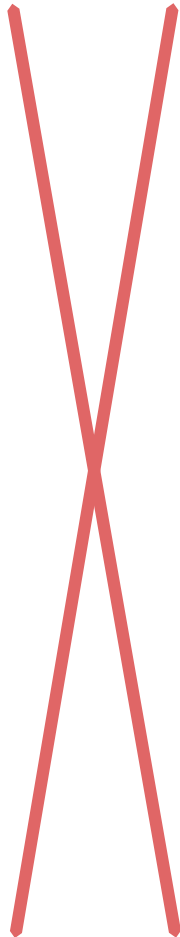
Comparison between versions v1.00 & v2.00 in the next slides

- Is there a need for this class in Core Business? What are your use cases?
- If yes, what should be included under it?
 - General rights/permits to provide or carry specific activities?
 - Rights provided to an organisation through a patent

Comparison between v1.00 & v2.00



Core Business Vocabulary 1.00



Core Business Vocabulary 2.00

Open points



Cardinalities are explicitly needed according to the Core Business specification ([Issue #4](#) and [issue #12](#))

Core Vocabularies do normally not impose mandatory properties. However, a legal entity can only have a *legal* status if it is given by a suitable authority.

Legal Entity	
+	alternativeName: Text [0..*]
+	legalName: Text [0..*]

Therefore the working group decided (in version 1) that a Legal Entity class could not sensibly be defined without a legal identifier.

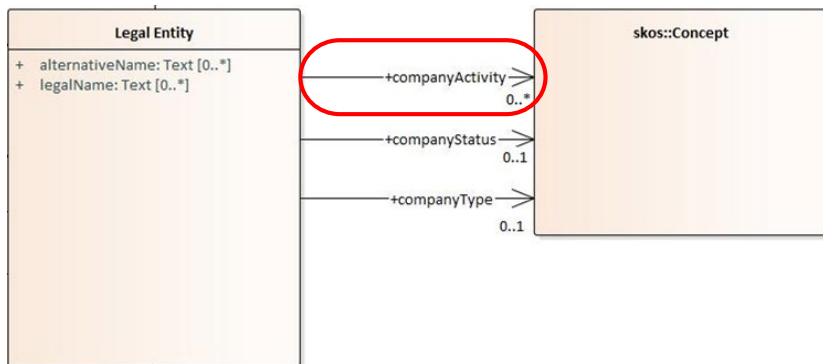
The legal identifier is therefore a fundamental and mandatory relationship between a legal entity and the authority with which it is registered.

- Does this remain a valid interpretation and usage for Legal Entity?

Open points



Change the name of company Activity property ([Issue #10](#))



Proposition: change the name from “company Activity” to “legal Entity Activity” to align with the name of the main class.

Moreover, non-profit organisations would not be covered by the term company while they should be covered by Legal Entity.

- Do you agree with the proposition and the interpretation?

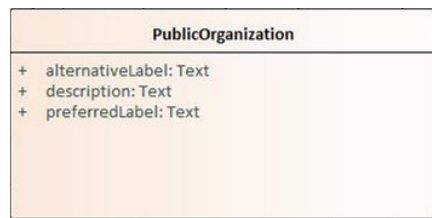
Open points



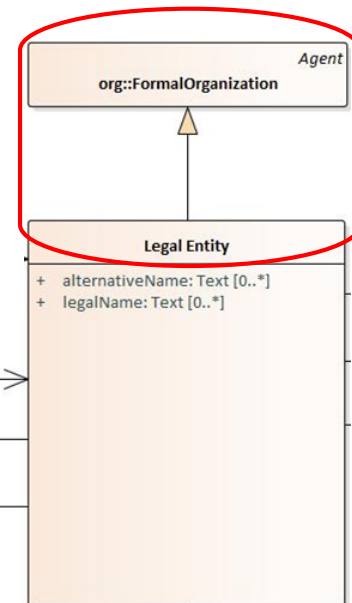
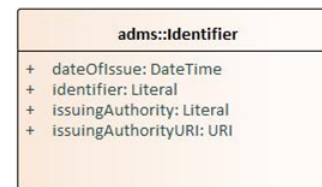
Connection between Core Business and Core Public Organisation and external models ([issue #14](#))

In the Organization Ontology and the Registered Organization Vocabulary, the following classes are defined: [rov:RegisteredOrganization](#) is a subclass of [org:FormalOrganization](#) which is a subclass of [org:Organization](#).

Core Public Organisation



Core Business



- Should this connection be made more explicitly?
- Should further alignments take place? E.g. Identifier.issuingAuthority

Open points



Core Business and Core Public Organisation have different levels of granularity ([issue #8](#))

The two Core Vocabularies have different levels of granularity. CPOV defines more detailed concepts such as ContactPoint, ChangeEvent, Organizational Unit, etc.

Core Public Organisation v1.0.0

cv:PublicOrganization is defined as a subclass of org:Organization. In some cases, albeit rare ones, a Public Organization may not be a legal entity, such as the Flemish Information Agency being recognised as a Public Organization, but not being a legal entity. Furthermore, the definition is considered sufficiently distinct that it is inappropriate to define cv:PublicOrganization as a subclass of org:FormalOrganization which may otherwise be considered natural.

- What do we want to capture with each vocabulary?
- Is the interpretation on the left still valid?
- Should all concepts that are relevant to all types (Legal Entity / Public Organisation) of org:Organization be directly related to it instead of its subclasses, making these concepts de facto reusable by any subclass of Organization?

Open points



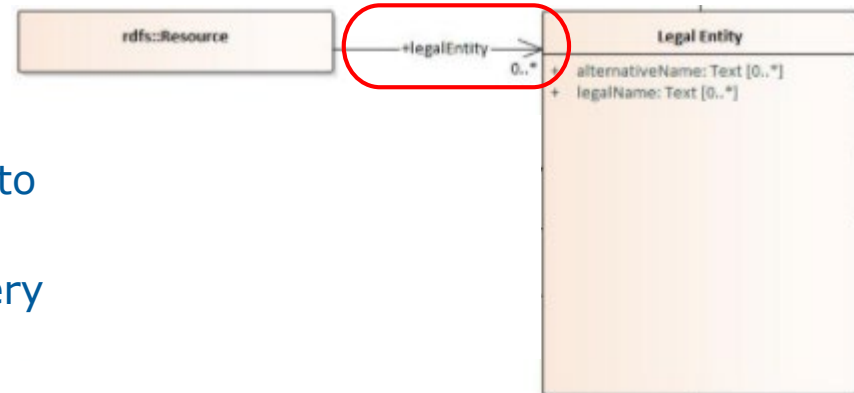
Relationship between Legal Entity and Resource ([issue #13](#))

In Core Business, the legal entity relationship can be used to link any resource to a Legal Entity class. This is useful, for example, where an organisation includes one or more legal entities. The Dublin Core term `isPartOf` is a suitable inverse of this relationship.

Issue:


Rename the relationship “hasPart” to be consistent with the usage note referring to “isPartOf”.

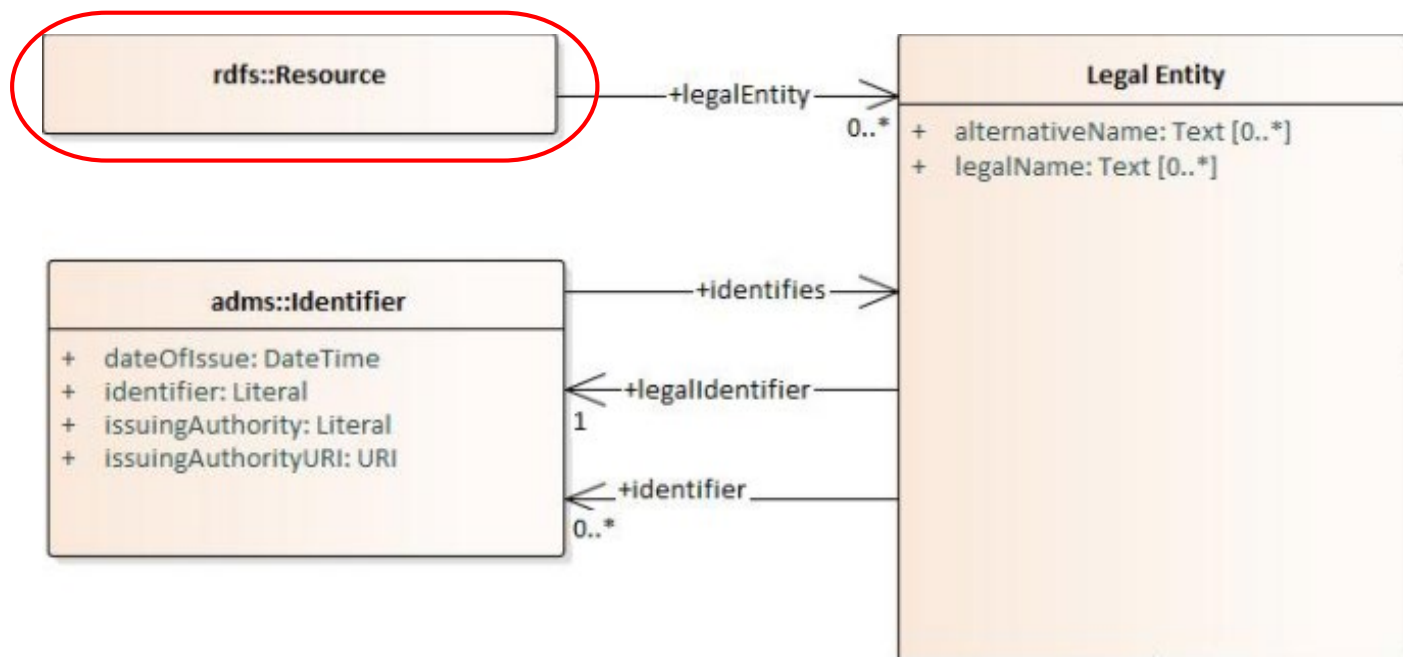
The objectives of the property are not very clear. Apart from the example, is there a more general need for this property?



- Do you have other use cases for this property?
- Should we remove the property?
- If not, do you agree with the proposition to rename it?

Alignment between Core Vocabularies

-  The **Resource** class has been added in the diagram in order to be able to include the legalEntity property within the diagram (that already existed in v1 but was simply not visualized).



Open points



Distinction between Address and Site classes ([issue #1](#), [#6](#))

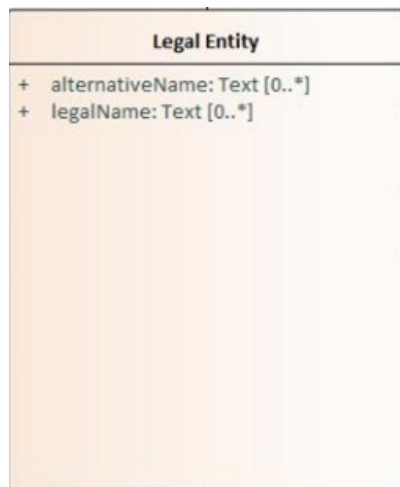
Core Business and Core Person link the Legal Entity/Person classes directly to the registered Address as a special case, while the Organization Ontology treats the Registered Site as just one Site among others (with the Site having an Address).

In Core Business, a Legal Entity can have a registered Address.

The **registered Address** *“may or may not be the actual address at which the legal entity does its business, it is commonly the address of their lawyer or accountant, but it is the address to which formal communications can be sent. In RDF terms, registeredAddress is a sub property of the more general address property that links any resource to an associated address without further semantics.”*

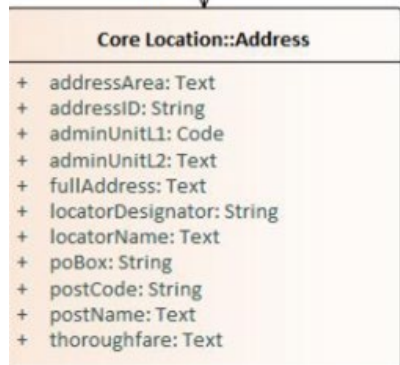
- Is there a need to provide more information and/or possibilities regarding the addresses of a Legal Entity?
- More generally, is there a need to align Core Business with the Organization Ontology and the Registered Organization Vocabulary?

Core Business

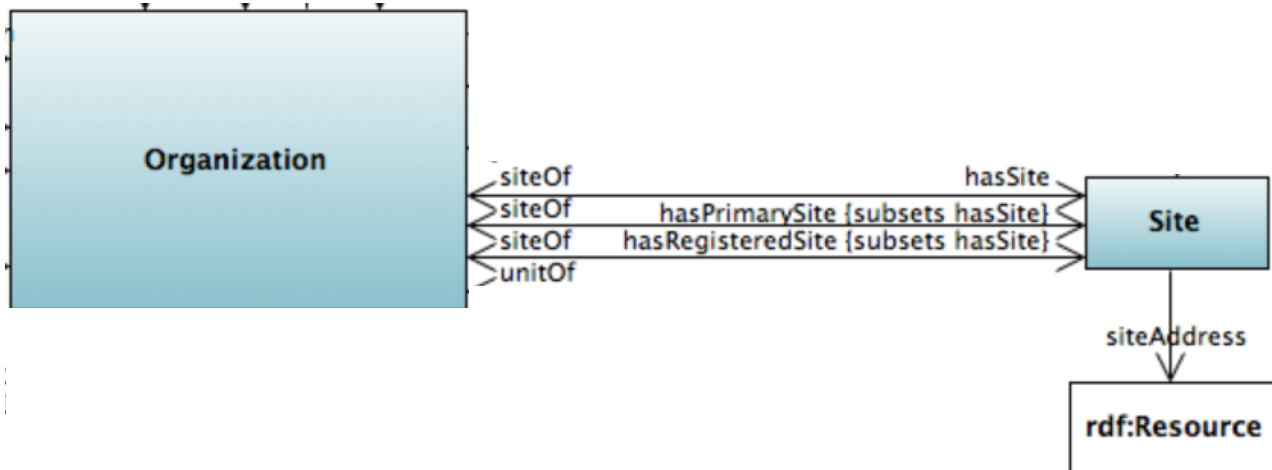


+registeredAddress

0..1



Organization Ontology



Open points



Distinction between Address and Site classes ([issue #1](#), [#6](#))

In the Organization Ontology, an Organization has one or more Sites defined.

org:Site is defined as *“an office or other premise at which the organization is located. Many organizations are spread across multiple sites and many sites will host multiple locations”*.

org:Site has a property **org:siteAddress** which *“indicates an address for the site in a suitable encoding. Use of a well-known address encoding such as the vCard [vcard-rdf] vocabulary is encouraged but the range is left open to allow other encodings to be used. The address may include email, telephone, and geo-location information and is not restricted to a physical address.”*.

Finally, an Organization and a Site can have different relations, such as **org:hasSite** or **org:hasRegisteredSite** (*“Indicates the legally registered site for the organization [...]”*).

Core Business: your feedback



Do you have any other points you would like to discuss or raise?

3.3 Detailed overview of the changes for Core Location

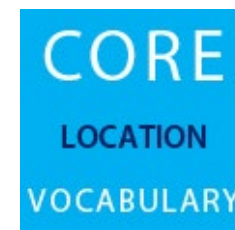
Expected action when the following logo appears



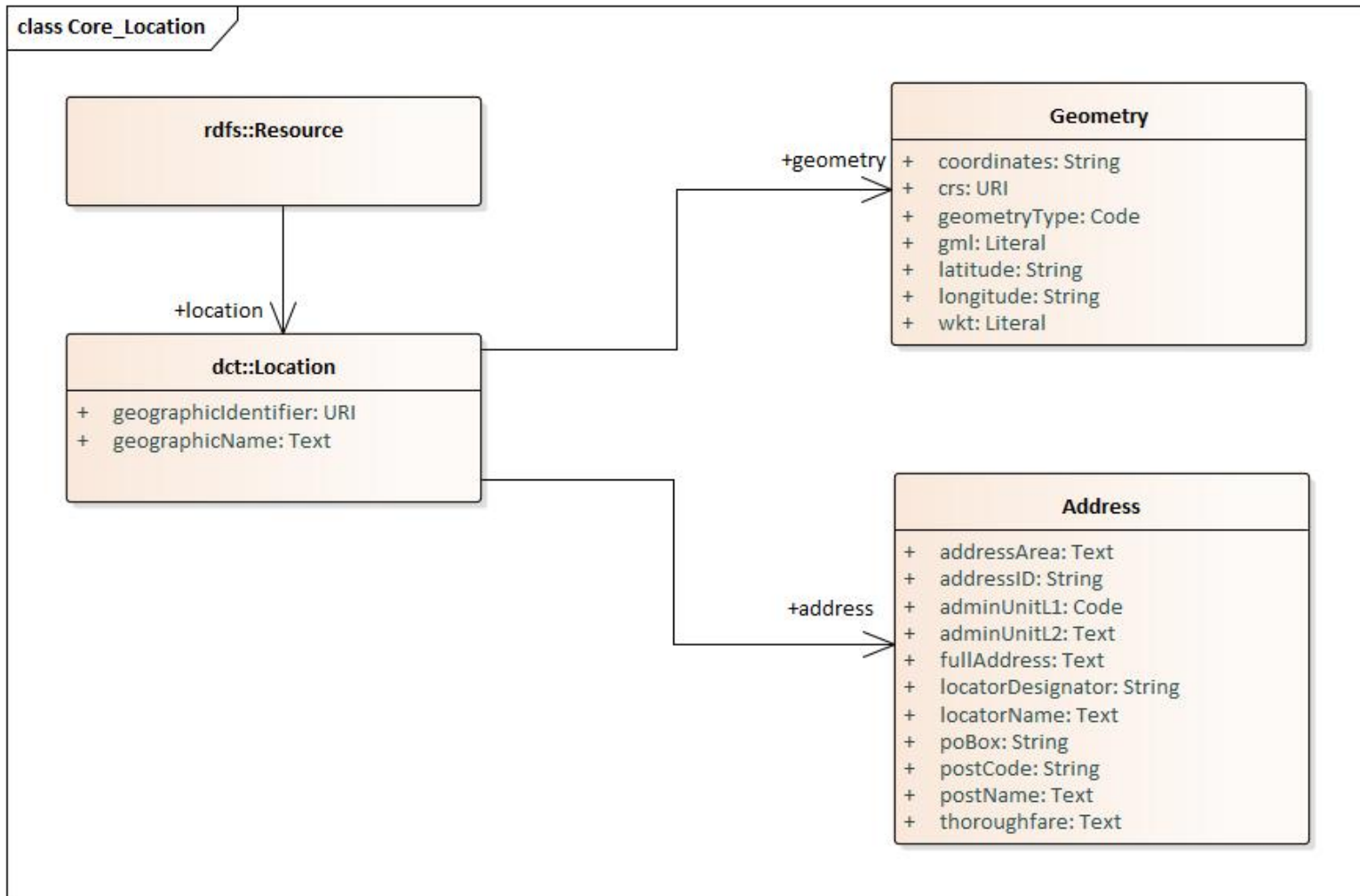
Let's discuss this idea



Let's agree / disagree



Core Location
Vocabulary V2.0



Alignment with external models



Improved definition of Location based on SDG WP4:

Previous definition: "A spatial region or named place."

New definition: "An identifiable geographic place or named place."



Improved definition of Address based on SDG WP4:

Previous definition: "Representation of an address spatial object for use in external application schemas that need to include the basic, address information in a readable way."

New definition: "A spatial object that in a human-readable way identifies a fixed location of a property."

Alignment with external models



Improved definition of Address.locatorDesignator based on INSPIRE

Previous definition: "A number or a sequence of characters that uniquely identifies the locator within the relevant scope(s). The full identification of the locator could include one or more locator designators."

New definition: "A number or a sequence of characters which allows a user or an application to interpret, parse and format the locator within the relevant scope. A locator may include more locator designators."



Improved definition of Address.adminUnitL1 based on INSPIRE

Previous definition: "The uppermost administrative unit for the address, almost always a country."

New definition: "The name or names of a unit of administration where a Member State has and/or exercises jurisdictional rights, for local, regional and national governance. Level 1 refers to the uppermost administrative unit for the address, almost always a country."

Alignment with external models



Improved definition of Address.adminUnitL2 based on INSPIRE

Previous definition: *"The region of the address, usually a county, state or other such area that typically encompasses several localities."*

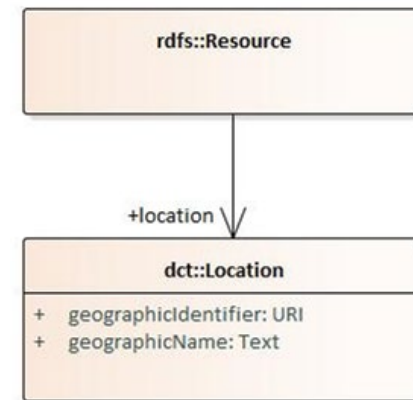
New definition: *"The name or names of a unit of administration where a Member State has and/or exercises jurisdictional rights, for local, regional and national governance. Level 2 refers to the region of the address, usually a county, state or other such area that typically encompasses several localities."*

Alignment between Core Vocabularies



The **Resource** class has been added in the diagram in order to be able to include the location property within the diagram (that already existed in v1 but was simply not visualized).

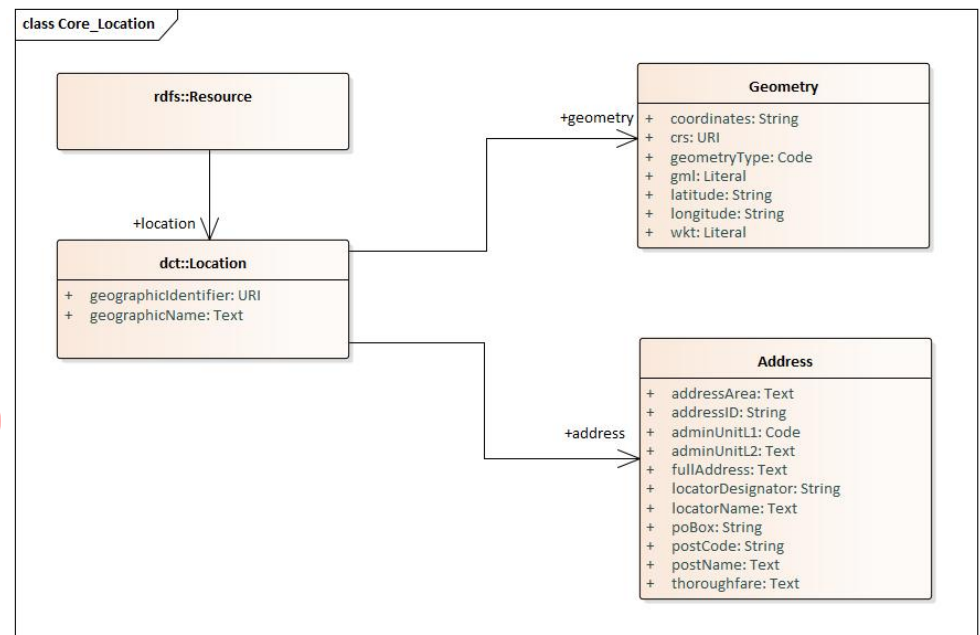
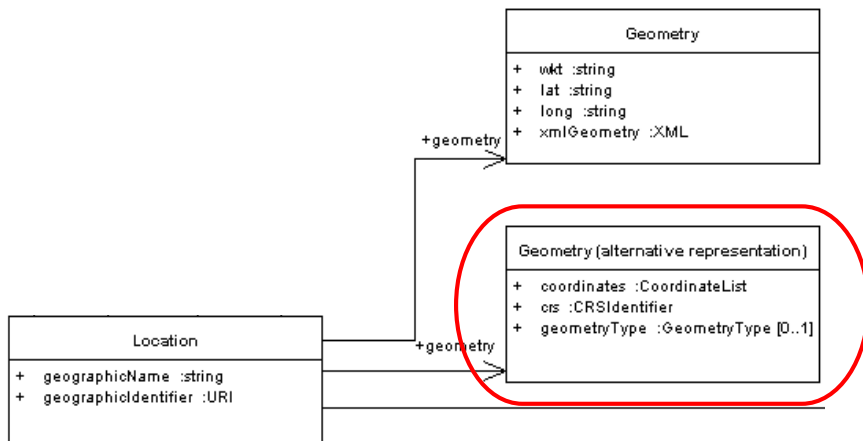
Cf. Core Business discussion.



Improved usability



Removal of the Geometry (alternative representation) class to decrease ambiguity



Improved usability



Addition of a recommended controlled vocabularies for Address.adminUnitL2 in order to facilitate the usage.

Some recommended codelists from the EU Publications Office include: Administrative Territorial Units (ATU), NUTS and Local Administrative Units (LAU).

The first arrondissement of Paris is for example expressed as "http://publications.europa.eu/resource/authority/atu/FRA_AR_PAR01" in the ATU controlled vocabulary.

Address	
+	addressArea: Text
+	addressID: String
+	adminUnitL1: Code
+	adminUnitL2: Text
+	fullAddress: Text
+	locatorDesignator: String
+	locatorName: Text
+	poBox: String
+	postCode: String
+	postName: Text
+	thoroughfare: Text



Addition of an example in the usage notes for most properties of the Address class to increase understandability.

Open points



Range of locn:geometry (Issue #5)

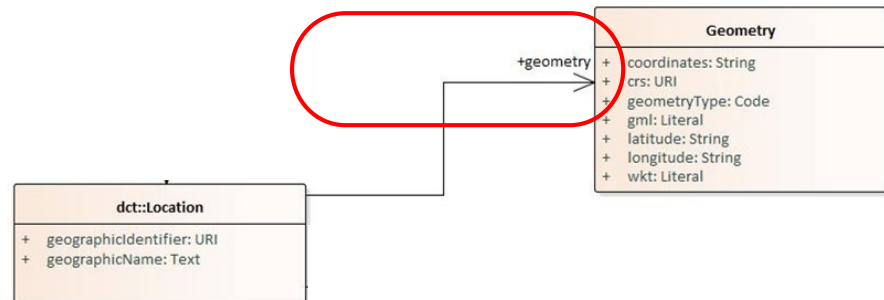
In the [specification](#), the range of the property locn:geometry is set to the class locn:Geometry. Nevertheless, in the usage note, it is mentioned that literals and URIs are also accepted ranges (see also the examples).

We therefore propose to make the range a owl:unionOf of those three.

geometry

Literal,
Geometry
or URI

Associates
any Resource
with the
corresponding
geometry.



Open points



Requirements coming from updated ISO standards or external regulations

Is there a need to align with [ISO 19160-1](#) [Address](#)?

Or other ISO standards such as :
[ISO 19112](#),
[ISO 19139:2007](#),
[ISO 19119](#); or
[ISO 19115](#) ?

Were there changes in [ISO 3166-1](#) and [ISO 3166-2](#) that impact the usage notes in the specifications of the different Core Vocabularies?

Date formats:
[ISO 8601:2004](#) has been revised in 2019 (leading to [ISO 8601:2019](#)).

Is there a need for an update in the different Core Vocabularies?

Core Location : your feedback



- Do you have other points to be discussed or raised ?

3.4 Detailed overview of the changes for Core Public Organisation

Expected action when the following logo appears



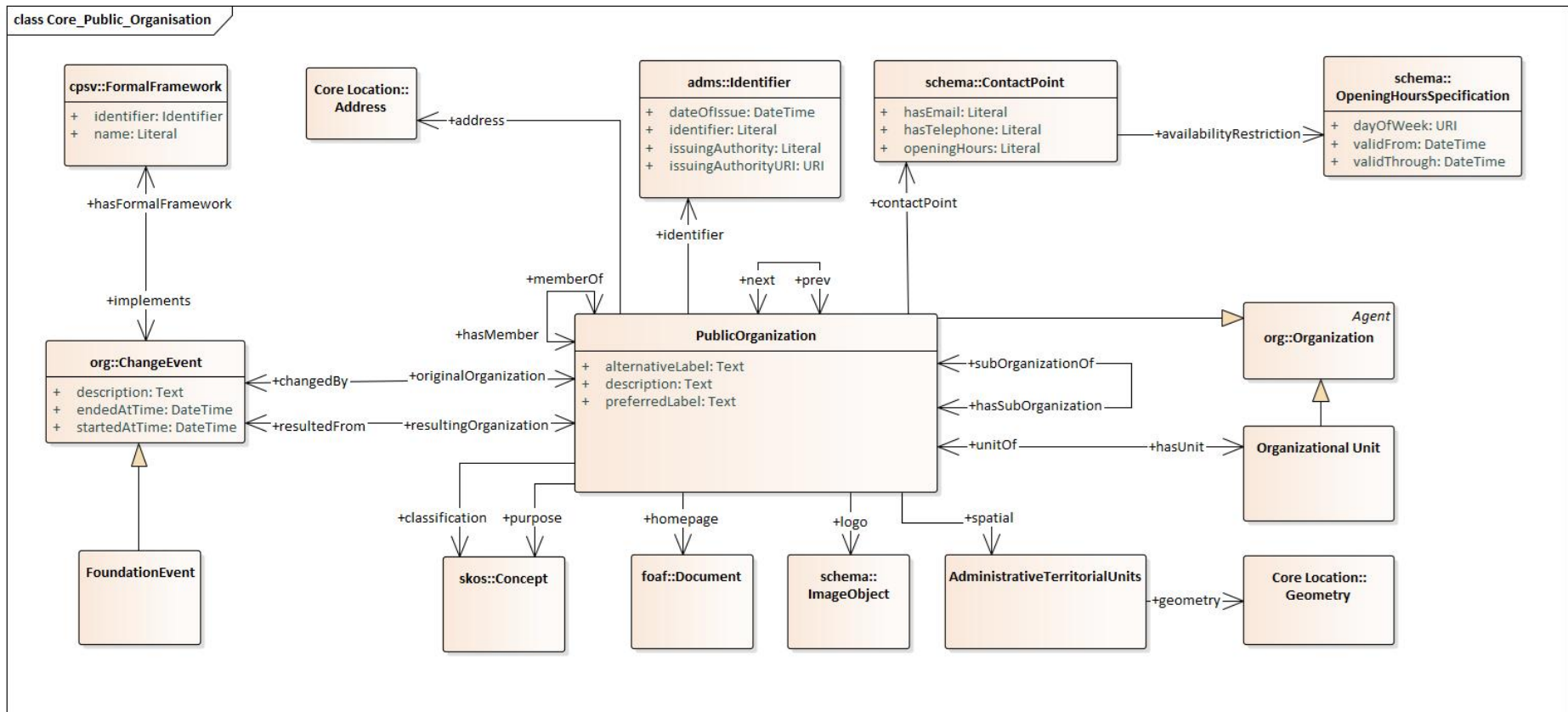
Let's discuss this idea



Let's agree / disagree



Core Public Organisation Vocabulary V2.0



Improved usability



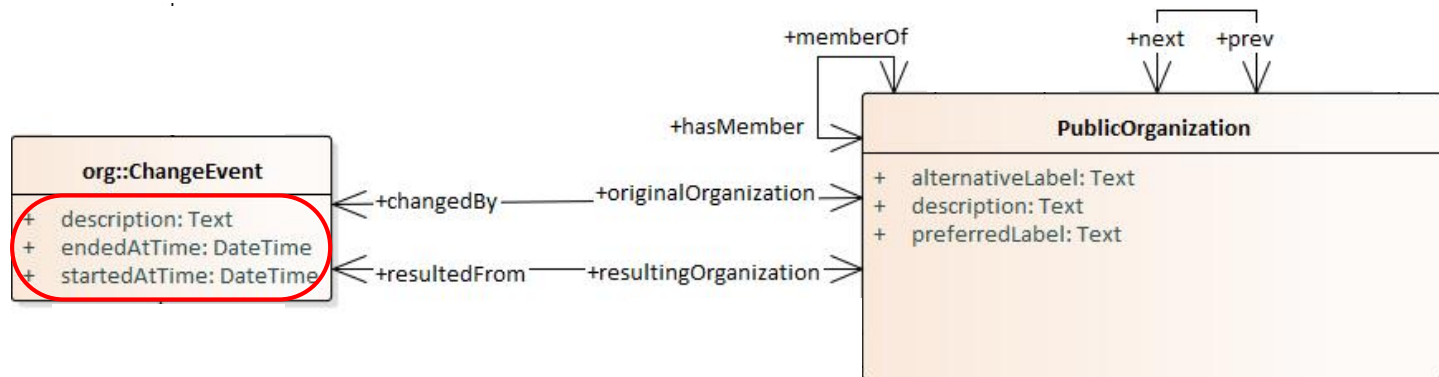
Addition of the description property to provide content to the ChangeEvent class (in alignment with the Organization Ontology).



Addition of a the startedAtTime property to provide content to the ChangeEvent class (in alignment with the Organization Ontology).



Addition of a the endedAtTime property to provide content to the ChangeEvent class (in alignment with the Organization Ontology).



Open points



Legal framework class, alignment with CPSV-AP and CCCEV ([Issue #5](#))

The CPOV reuses cpsv:FormalFramework.

That class is however changed to **eli:LegalResource** in [CPSV-AP](#) while CCCEV v2.0.0 is proposing a new class [ReferenceFramework](#).

Definition of eli:LegalResource

- This class represents the legislation, policy or policies that lie behind the Rules that govern the service.

Definition of Reference Framework

- A source from where Requirements are identified and derived.
- Usual Reference Frameworks are legal and non-legal specifications. Examples include procedures, tendering legislation, etc.

- Do you agree to use eli:LegalResource within CPOV?

Core Public Organisation : your feedback



- Do you have other points to be discussed or raised ?

Changed data types

CORE
PERSON
VOCABULARY

CORE
LOCATION
VOCABULARY

CORE
PUBLIC
ORGANISATION
VOCABULARY

Many data types have been adapted in all Core Vocabularies.
The rationales were the following:

1. Alignment with SDG WP4, INSPIRE, Public Documents or between Core Vocabularies
2. To allow for multi-language (or -script)
3. Correction or consistency in the Core Vocabulary

Changed data types

Alignment with SDG WP4, INSPIRE or between Core Vocabularies and/or to allow for multi-language usage



Person.familyName: Text
 Person.givenName: Text
 Person.alternativeName: Text
 Person.birthName: Text
 Person.fullName: Text
 Person.patronymicName: Text



Address.adminUnitL2: Text
 Address.fullAddress: Text
 Address.addressArea: Text
 Address.locatorName: Text
 Address.postName: Text
 Address.thoroughfare: Text



Public organization: alternative label expects a text value
 Public organization: description expects a text value
 Public organization: identifier expects a literal value
 Public organization: preferred label expects a text value
 PublicOrganization.identifier: Identifier

Changed data types

Correction or consistency in the Core Vocabulary

CORE
LOCATION
VOCABULARY

Location.geographicName

expects a text value. Also updated the usage note example accordingly.

Address.adminUnitL1: Code

CORE
PUBLIC
ORGANISATION
VOCABULARY

ContactPoint.openingHours

expects a literal value

4. Wrap-up

Next steps

1. Continue the discussion on GitHub :

<https://github.com/SEMICeu/Core-Person-Vocabulary/issues>

<https://github.com/SEMICeu/Core-Business-Vocabulary/issues>

<https://github.com/SEMICeu/Core-Location-Vocabulary/issues>

<https://github.com/SEMICeu/CPOV/issues>

1. Let's finalise the discussions during the next Core Vocabularies webinar taking place around mid-May.

Reminder : Don't forget that the second webinar dedicated to CCCEV will be held in between on April 27th (11:00-13:00 CET).



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