Meeting Minutes – Webinar 27/04/2021

CCCEV 2.0.0 Webinar #2

Project	Action 2016-07 Promoting semantic interoperability amongst the EU Member States	Meeting Date/Time	27/04/2021 11:00-13:00 (GMT+1)
Meeting Type	Webinar	Meeting Location	Cisco Webex Meetings
Meeting Coordinator	Makx Dekkers	Issue Date	30/06/2021

Meeting Agenda
1. Welcome 2. CCCEV v1.00 & v2.00 3. Example 4. Discussion points 5. Wrap-up
Presentation and meeting details: https://joinup.ec.europa.eu/collection/semantic-interoperability-community-semic/event/public-review-cccev-version-200-upcoming-webinar

Attendee Name		**Organisation/Country**
Agota Nemeteh	AN	Hungary
Alexandre Beaufays	AB	PwC
Alexandros Gerontas	AG	Greece
André Lapa	AL	Portugal
Bert Van Nuffelen	BVN	Tenforce
Cécile Guasch	CG	European Commission
Costas Simatos	CS	European Commission

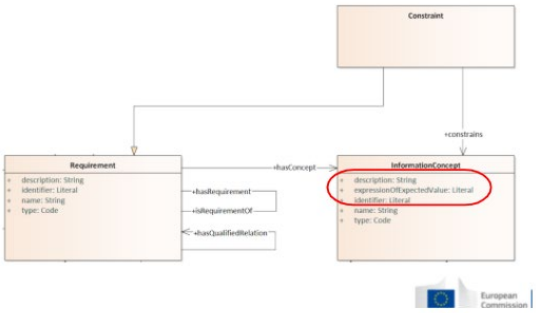
Dietmar Gattwinkel	DG	European Commission
Dimitri Schepers	DS	PwC
Enric Staromiejski	ES	Everis
Eveline Vlassenroot	EV	Belgium
Florian Barthelemy	FB	PwC
Georgia Stathis	GS	The Netherlands
Giampaolo Sellitto	GS²	TOOP
Georgia Lodi	GL	ISTC - CNR Italy
Hatem Ben Sta	HBS	France
Hettel Varik	HV	European Commission
Ivan Penava	IP	Croatia
Jerry Dimitriou	JD	TOOP
Jim Yang	JY	Norway
Jorge Sousa	JS	Portugal
Jose Pedro Revenga	JPR	Spain
Joseph Azzopardi	JA	Malta
Kamen	?	?
Laia	?	?
Luc Gathy	LG	Belgium
Makx Dekkers	MD	Independant / Spain
Marco Pedro	MP	Portugal

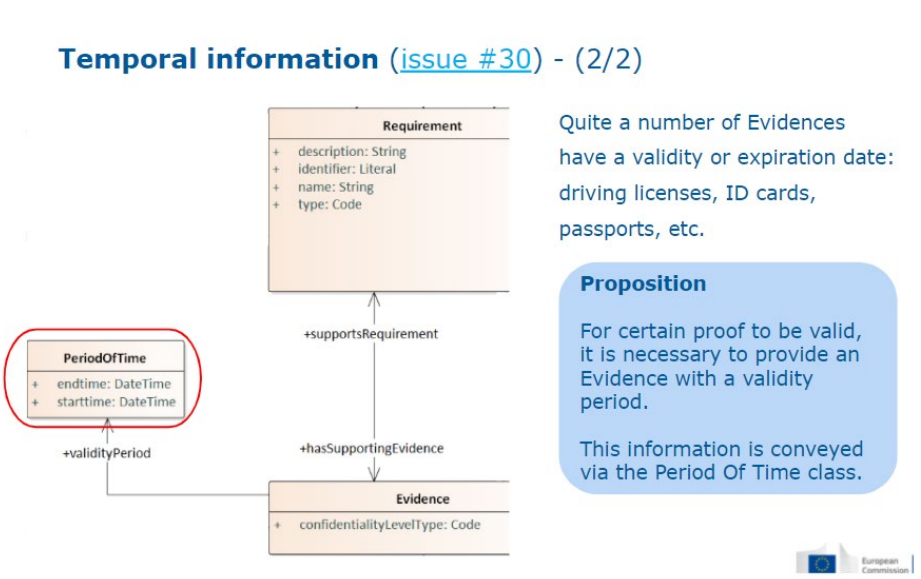
Norman Calleja	NC	Malta
Natalie Muric	NM	European Commission
Nikos Vasilakis	NV	GRNET
Pavlina Fragkou	PF	European Commission
Peter Bruhn Andersen	PBA	Denmark
Petr Křemen	PK	The Czech Republic
Peter Winstanley	PW	Semanticarts
Riitta Alkula	RA	Finland
Rob van Dort	RVD	Mapplica
Sander Van Dooren	SVD	Belgium
Seth van Hooland	SVH	European Commission
Sonja Lutovac	SL	Montenegro
Sven Rasmussen	SR	Denmark
Sven-Erik Ceedigh	SEC	Sweden
Tamas Demeter	TD	Hungary
Tapani Mäkelä	TM	Finland
Tarja Myllymäki	TM²	Finland
Teiteioahe Baziahe	TB	Greece
Uuno Vallner	UV	Estonia
Xavier Desurmont	XD	European Commission (EU Open Data Portal)
Yannis Charalabidis	YC	Greece

Yasui Hideyuki	YH	Japan

Summary of the meeting

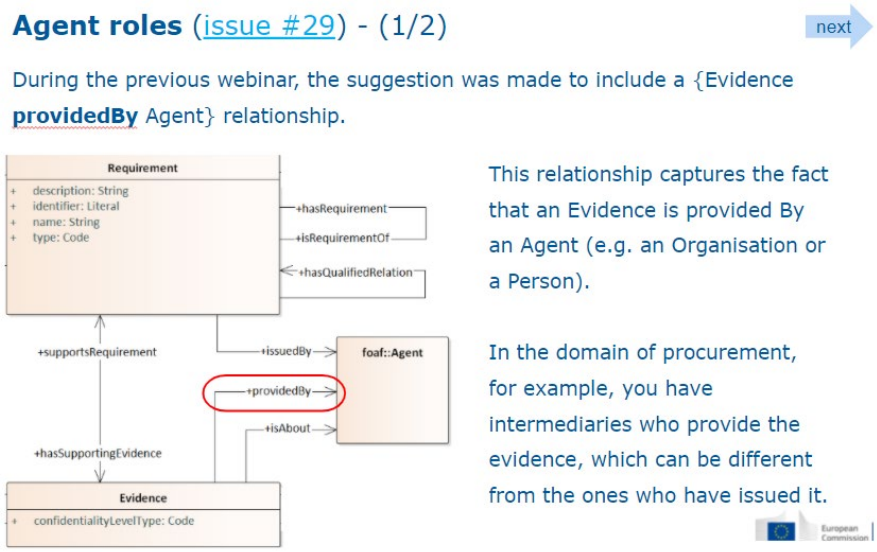
Topic	Summary
Welcome	• Seth van Hooland (SvH) opened the webinar by welcoming the participants and covered the agenda. • Pavlina Fragkou (PF) stated the objectives of the webinar and provided a quick reminder about the revision process of CCCEV 2.0. • PF tackled the debated question of the pronunciation of CCCEV. Giampaolo Sellitto (GS²), Alexandros Gerontas (AG) and Jim Yang (JY) endorsed the official pronunciation of CCCEV.
CCCEV v1.00 & v2.00	• Afterwards, PF went through the main differences between the diagram of the first and the second version of CCCEV in order to acquaint the audience with the scope of the webinar's topic.
Example	• After introducing himself to the participants, Makx Dekkers (MD) explained that presenting an example would help the participants to visualise the different changes proposed in this new version of CCCEV. MD emphasised that some of the comments and remarks expressed during the previous webinar have been taken into account in the example. • Dimitri Schepers (DS) started by explaining the rationale leading to a new version of CCCEV before presenting the diagram of CCCEV v2.00. Afterwards, DS illustrated these changes with the evidence requester / provider example. DS put emphasis on the new terms that have been added to the model (e.g. the expressionOfExpectedValue property from the Information Concept class). • Enric Staromiejski (ES) explained that TOOP is requesting to have a repository of ontologies that could be used to define concepts that a base registry could ask for. Therefore, ES **wondered if a similar idea to specify concepts and their name spaces could be applied to CCCEV**. Bert Van Nuffelen (BVN) explained that the identification of the concept is performed via the identifier of the InformationConcept. However, additional information such as a collection of information concepts or particular ontologies are not part of the model and therefore not represented. • Giorgia Lodi (GL) **asked for some clarification on the**

	difference between Evidence and Evidence Type. DS reminded her that an evidence is a specific instantiation of an EvidenceType for a specific Agent, e.g. John Doe's ID card. ES paraphrased this explanation by saying that an Evidence Type can be considered as a template that describes what data is to be provided and in which format. • Costas Simatos (CS) inquired **if the InformationConcept also serves to provide instructions on how to evaluate the criterion or if it is meant to be something more specific?** MD answered that the idea of the Information Concept is quite broad: the addition brought since the last version is the expression of the expected type of data. • Lastly, Peter Bruhn Andersen (PBA) asked **how does CCCEV 2.0.0 relate to W3C's Verifiable Credentials Data Model?** MD and SVH responded that this would be discussed later during the webinar.
Discussion points	**Expressing expected values** - (2/2) **Proposition** We have added a property "expression Of Expected Value" (as a function) in the Information Concept class to make the Requirement machine-processable. We leave the expression language for this property open. The current example is in a non-existent language: `{EQUALS {TODAY.date - Evidence.issued < 3 months}}`. Examples of common programming languages for defining such functions are xPath, javascript, OCL constraints (UML), or RIF.  • Petr Křemen (PK) **wondered how the validity/usability of the models will be tested?** BVN explained that evaluation of language expression is part of the AP role. With this regard, the property added does not require additional specific sub-elements (such as minimum or maximum expected values) but concatenate all of them into this new property. • Further, Cécile Guasch (CG) **wondered how to annotate the expression language used?** BVN explained that annotating a language used in a model is something that might not be possible with the current proposed version. ES suggested having a look at FNO, an ontology developed by UGent that could be reused in that case.



- CS asked **if the constraint could be used to enumerate expected/possible values for a criterion's evaluation?** BVN explained that it depends on the case to represent but that is something, indeed, that could be possible.
- PK inquired **if the Period of Time class could be linked to an existing ontology** (such as OWL Time ontology)? BVN answered that this has not been considered yet.
- Tamas Demeter (TD) asked **if both properties of the Period of Time class (endTime & startTime) were mandatory**. BVN answered that the properties were not mandatory.
- CG asked additional information about **How to assess the validity of an evidence with time (endtime) as it is usually done via duration?** BVN explained that the validity aspect is expressed via the constraint included in the Information Concept which is a generic approach. CG replied that this proposition might lack business insights.
- AG **wondered if a renewal process could be associated with expired evidences?** MD answered that it was unfortunately out of the scope of the revision process and that if an evidence is expired, the criterion will fail and the process will have to be restarted.
- CS **inquired if the expressions from the InformationConcept are meant to have flexible and expressive definitions for humans to understand or are they meant also for the actual evaluation** (e.g. a compatible script execution engine such as a JavaScript engine)? BVN explained that agreements have to be made during the implementation process (such as how to identify values you receive, how do you integrate values you received,

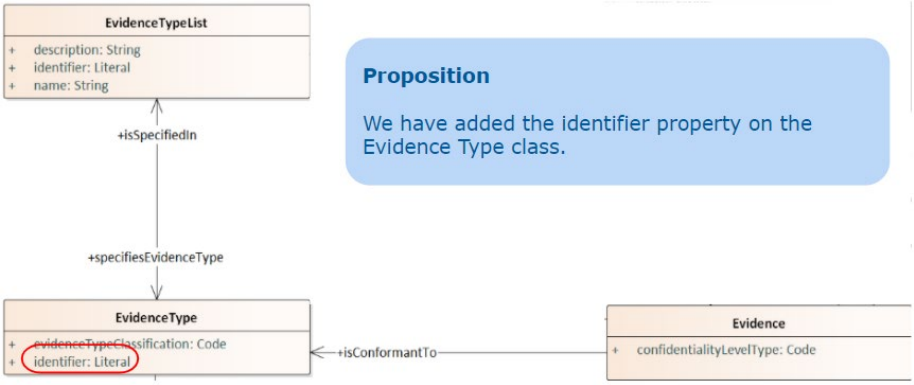
etc). CS concluded by saying that to correctly process expressions by the script engine, it is rather complex to make them human friendly (because human readability will disappear).



- **ES reacted to the insertion of the providedBy relationship by asking to insert creator, publisher and provider properties as well.** BVN explained that the rationale justifying this change refers to the publisher property from DCAT, appearing as the most appropriate solution. On the other hand, GS², CS and GL expressed some doubts about the mapping with publisher as a creator is significantly different than a publisher. MD stated that the definition of publisher has a wider connotation, but these remarks will be taken into account. CG recommended to look at PROV-O ontology to see if the existing relationship "wasAttributedTo" could be reused in that case.

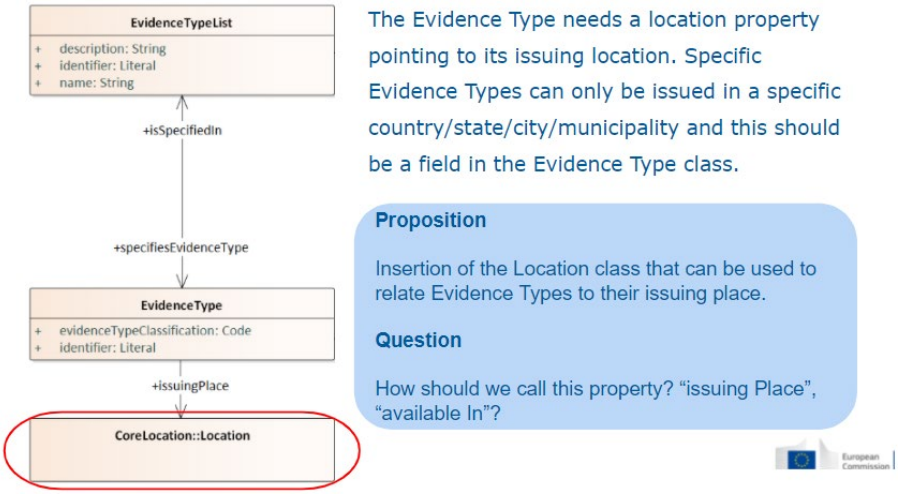
Evidence Type has no ID (issue #31)

It seems that the Evidence Type class does not contain an identifier or, if it does, this is implicit and/or optional.



- Jerry Dimitriou (JD) agreed with this proposition as systems such as eCertis require this information. On the other hand, PBA asked **why this identifier shouldn't remain implicit (similarly to an RDF identifier)?** MD explained that in the Core Vocs everything is optional. BVN added that expressing the identifier explicitly was only done in order to facilitate it.

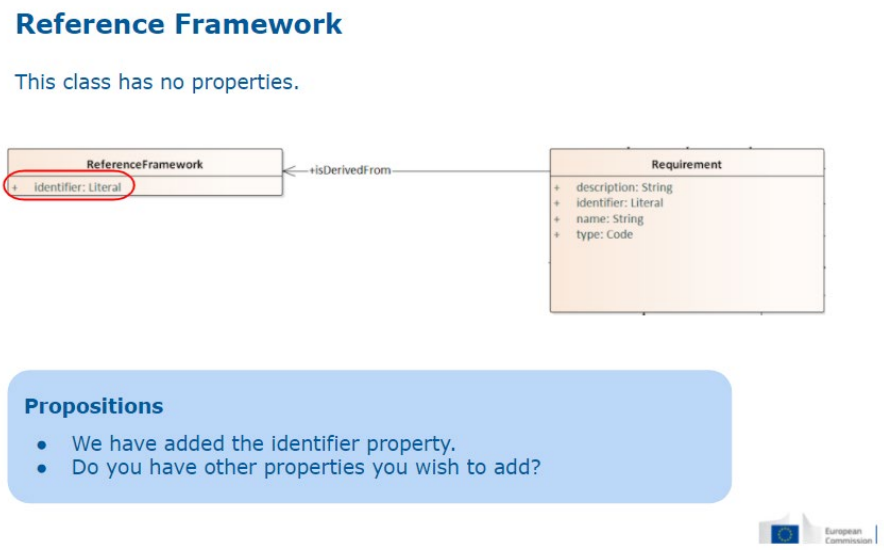
Evidence Type needs to have a Jurisdiction issuing location (issue #32)



- Riitta Alkula (RA) **wondered why Location was used instead of an issuer?** MD answered that according to the functional requirements, there is need to know in which region the evidence has been provided but not by whom.

- If Location as stated in CCCEV 2.0 refers to the place where the Evidence is provided, **GL and CS inquired about the**

validity aspect of the evidence, how to assess that the evidence comes from a verified agent? In addition to this, CG pointed out that this constraint was handled with a predicate while the duration is handled with a Constraint expression. BVN explained that the Requirements can capture the validity of an evidence (by requiring the credentials authority to be part of a list that is acknowledged) but not interpret the legislation by itself. Dietmar Gattwinkel (DG) said that the proposed issuing location seems to be a proxy for a group of users and not really a spatial location. Even if requirements can capture the validity of the Evidence (by requesting credentials from an authority that needs to be part of a list). BVN proposed to use another label for this relationship.



- GL **challenged the real need of having an identifier property to allow the expression of a URI**. MD agreed but added that in some cases besides RDF, this property could be useful.

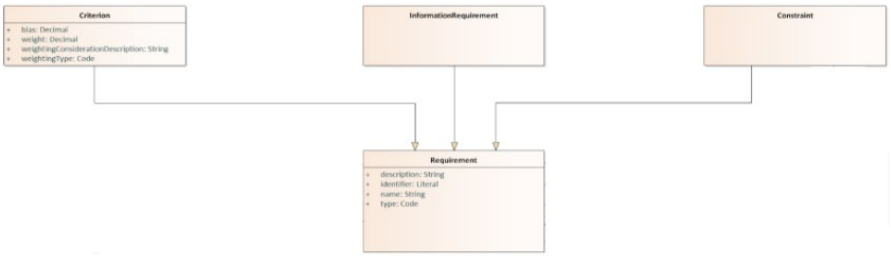
- There was a general agreement on considering the Reference Framework as a super class (and therefore more general than the Legal Framework). Consequently, there is no need to add additional properties in this Core Vocabulary (but this role of super class needs to be stated in the external description of the Reference Framework).

Flow of Requirements (issue #36) - (1/2)

next

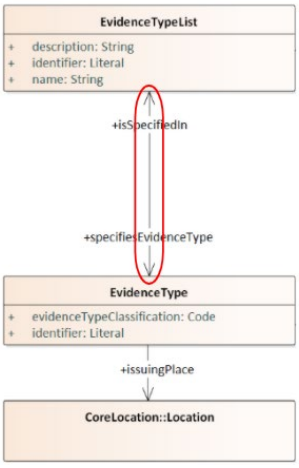
In the example presented during the webinar dd. 2021-03-30, the following flow of Requirements was given:

- Criterion: The applicant is an adult.
- Information Requirement: The age of the applicant.
- Constraint: The applicant must be at least 18 years of age.



- There was a general agreement on letting the decisions of following (or not) the flow of requirement steps to the Application Profile (and keep it flexible within the Core Vocs).

Bidirectional relationships (issue #34)



There are use cases where the queries might go in two directions and there is no generally preferred direction, e.g. start from atomic requirements and go up versus start from general requirements and drill down.

Bidirectional relationships are however not needed from a purely semantic perspective.

Proposition

Do you agree to keep the bidirectional relationships where the preferred direction is not clearly defined?

- There was a general agreement to keep bidirectional relationships where the preferred direction is not clearly defined.

Mapping with W3C's Verifiable Credentials (issue #37)

During the previous webinar, the question was raised how CCCEV relates to other endeavours that standardize similar concepts, most notably, W3C's Verifiable Credentials.
Two of W3C VC's core concepts are 'claim' and 'credential'. These two notions are related to Evidence and Supported Value.

Proposition

VC offers an approach to address the challenges that are related to establishing trust in data about a subject in a distributed context which is not part of CCCEV. In order to combine both, a dedicated application profile of CCCEV for VC has to be created to limit the interpretation options.

- Do you agree with this approach?

- There was a general agreement on the creation of a dedicated application profile for CCCEV that would reuse W3C's verifiable credentials. ES explained that pilots around evidence, blockchain and SDG should be interested in the development of CCCEV-AP. SVH proposed to dedicate a specific slot during SEMIC 2021 to discuss this point specifically. PBA suggested taking into account Profile Content Negotiation by Profile solutions to develop this, which was agreed by BVN.

Transformation for structured evidence (issue #33)

As part of the Single Digital Gateway, it would be useful if the Evidence Type could be associated with a *transformation* that filters the structure such that the output is limited (or customized) to the Requirement.

Example

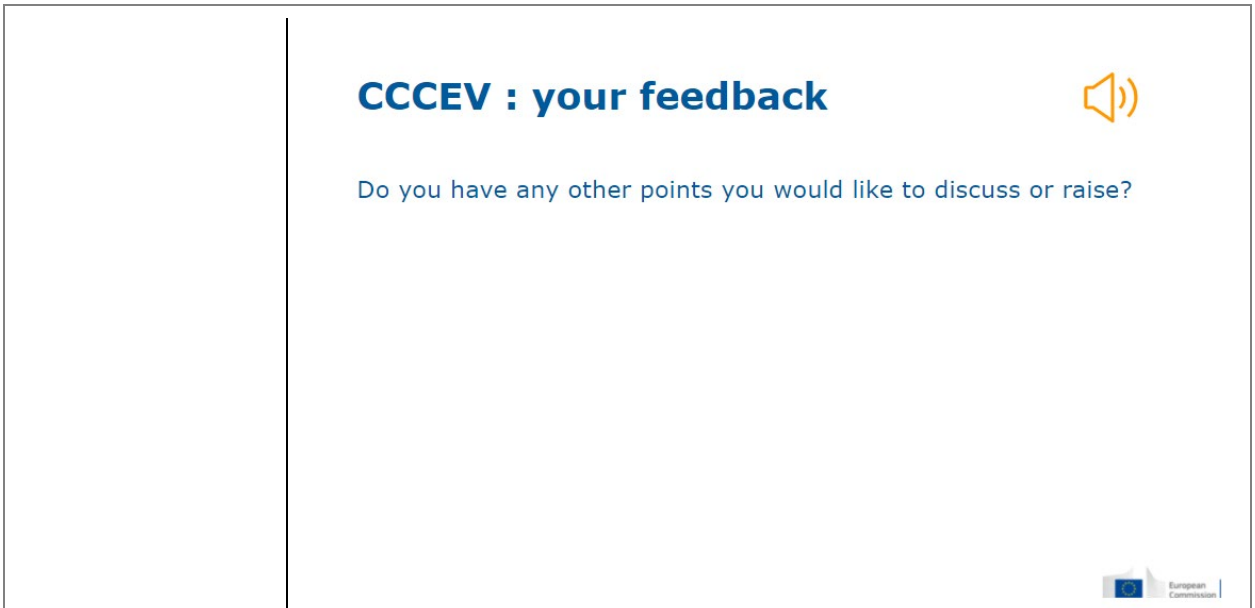
It may be relevant to know whether a natural person is an adult at a particular point in time. This fact can be proven by a birth certificate, but this could have irrelevant information, such as the identities of the parents, place of birth, or the exact date of birth is not relevant. A transformation could change a structure like "2000-01-01" to "true".

Proposition

This is an important request targeting data minimization in the SDG OOP. We propose to look into this as part of the specific needs of the SDG.

- Do you agree with this approach?

- CS reacted to this by advising to follow this approach from a very practical point of view (via the organisation of pilots for instance).

	 • Natalie Muric (NM) pointed out that a usual problem with Enterprise Architect is that if no cardinalities are specified, per default the software will assign 1 to 1 cardinality. NM recommended taking this into account while updating the diagram. • PK explained that the Czech Republic is currently designing an OntoUML-compatible assembly line of conceptual models. PK added that he could provide additional information / demonstration for testing purposes.
Wrap-up	• To conclude the webinar, SVH thanked all the participants for the fruitful and enriching discussions. SVH explained that the final version of CCCEV will be produced and published in the June.

Issue list

- [Expressing expected values] How to annotate the expression language used in the model? Suggestion: FNO, an ontology developed by UGent that could be used.
- [Temporal information] Could Period of Time class be linked to existing ontology? Suggestion: OWL Time ontology
- [Temporal information] How to assess the validity of an evidence with time (endtime) as it is usually done via duration? See Issue #30
- [Agent roles] Mapping with Publisher seemed discussed : there is a need to have a specific definition for this situation. Either we propose a tailored definition, either we can change the relationship (suggestion : PROV-O ontology "wasAttributedTo") See Issue #29
- [Evidence type jurisdiction issuing location] Location class refers to the place where the Evidence type can be provided. If the validity of an Evidence is captured via

Requirement (support request for credentials authority that needs to be part of a list that is acknowledged) it is not possible to deduct this information from the legislation. Suggestion: change and rename the label proposed for the relationship?