Fedlex-JOLux documentation

Release 0.1

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Introduction

This introduction explains some key terms to understand the scope and structure of this webpage and shows how to use it.

1.1 Fedlex

The Swiss federal government operates the **Fedlex** platform to publish the **federal law**. This platform provides a website as frontend with easy navigable functions for finding and reading the federal law.

1.2 Metadata and the Actual Text

The data on the Fedlex platform can be divided into two main categories: the **metadata** and the **actual text** of the legal documents. The metadata contains all the information about a legal document that is not part of the actual text but is necessary to understand the context of the document, its relationships to other documents and its history. The actual text on the other hand, is the content of the legal document itself.

The actual text of the legal documents is available in different formats (e.g. HTML, XML, PDF) through the website of Fedlex. Thereby, only the XML files contain the actual text as **structured data**. This machine readable data is modelled according to the Akoma Ntoso standard. But this is not part of the JOLux ontology and not the focus of this website.

1.3 JOLux Ontology

The metadata of all the legislative documents of the Fedlex platform is available as RDF metadata that is modelled according to the **JOLux ontology**. This ontology is used for describing **legislative resources and their relationships**. JOLux is based on recent developments in bibliographical description, adapting the FRBR model (Functional requirements for Bibliographic Records, developed by the IFLA) in order to describe legislative resources.

This website's goal is to document the JOLux ontology and help users to find their way into the RDF metadata of the Fedlex platform and make the most use of it. It is not the basis for the JOLux ontology meaning that there is no completeness of all the aspects of JOLux in this documentation. So this website can not be used to model metadata according to the JOLux ontology but rather to understand metadata that is already modelled with help of JOLux. If complete insight into the JOLux ontology is necessary, it can be downloaded as Turtle file for further investigation.

1.4 How to Use this Website

This website has sub-pages for all the important Section 16.4. A concept is loosely defined an important element of the JOLux ontology. These sub-pages describe the concept in prose. Additional call-out boxes give short definition of JOLux and other terms (see the example below for ontology). These boxes are all linked in the reference.

Ontology

An ontology is a set of precise descriptive statements about some part of the world (usually referred to as the domain of interest or the subject matter of the ontology). Precise descriptions satisfy several purposes: most notably, they prevent misunderstandings in human communication and they ensure that software behaves in a uniform, predictable way and works well with other software. Source

The visual representation of parts of the JOLux ontology on this website is loosely based on the VOWL project. In addition, multiple colors represent the different abstraction levels of JOLux.

The following figure shows the elements of graphical representation of JOLux in this documentation using an example of a jolux:Act:
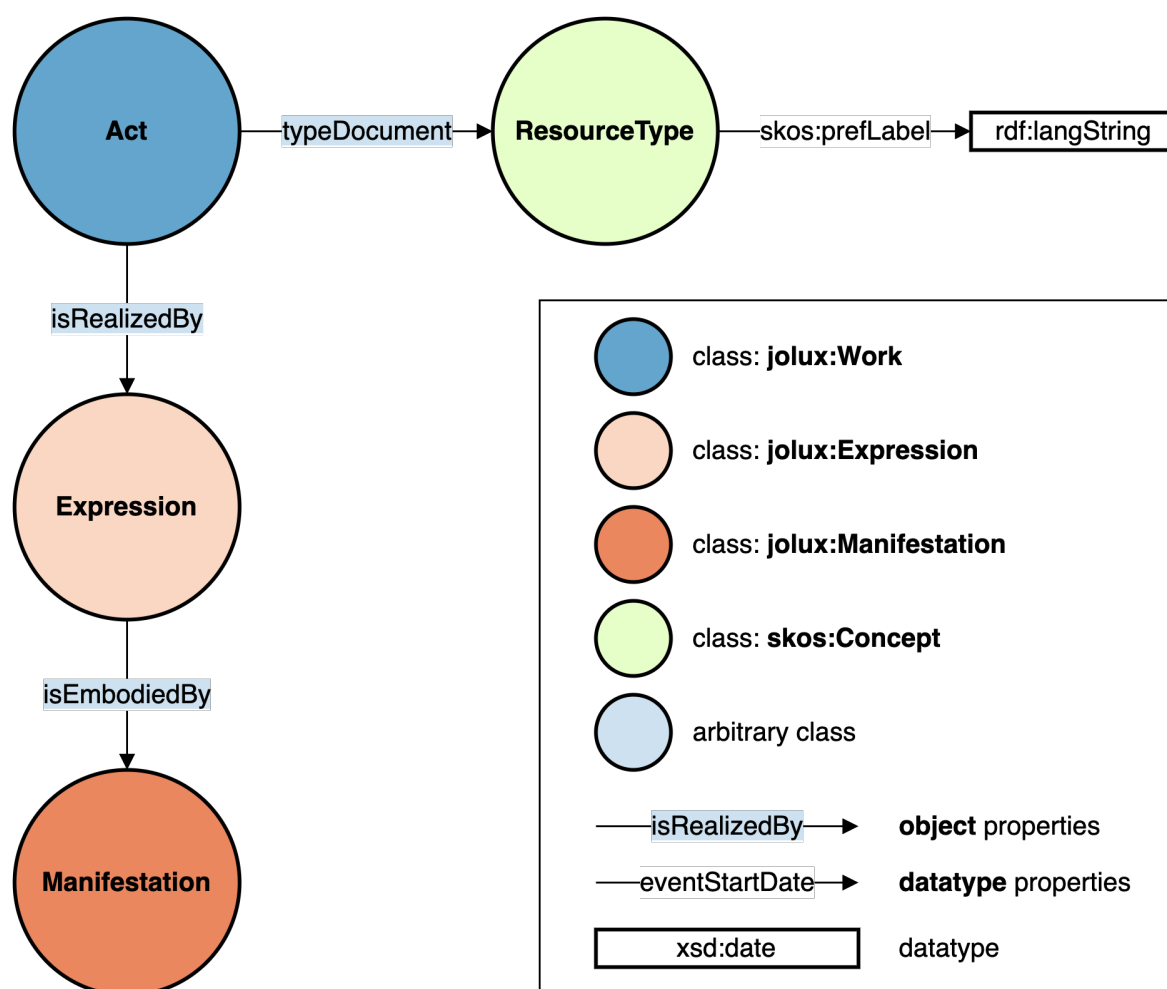
Figure 1.1. Graphical representation of JOLux ontology elements.

The figure above can be read as: Some object of type jolux:Act is connected to an object of type jolux:-

Expression via predicate jolux:isRealizedBy. So the single bubbles do not represent concrete objects but signal class memberships.

1.5 Website as PDF

This website is also available as PDF.

1.6 SPARQL Queries

Throughout this webpage, there are examples of SPARQL queries given. The idea is, that these are real queries that can be executed on the Fedlex SPARQL GUI to get real up to date results. To do so, below every SPARQL example query, there is a "Execute Query" button that transfers the corresponding query into the SPARQL GUI and executes it to show the tabular result. As the source code of these queries is also given, the user should be encouraged to modify these queries directly in the SPARQL GUI or use it programmatically to their own needs.

The following SPARQL query shows this method by giving the 10 newest published joulx:Act that are available:

```
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT * WHERE {
    ?act a jolux:Act;
        jolux:publicationDate ?date.
} ORDER BY DESC(?date)
LIMIT 10
```

1.7 SPARQL Tutorial for JOLux

There is also a tutorial in the form of a *JupyterLite notebook* available that can be run in the browser. The main focus of this interactive tutorial are the SPARQL queries necessary to work with the Fedlex JOLux data. In the notebook, these queries can be directly executed and changed by the user. The tutorial is available here.

1.8 Fedlex URI and URL

All URI of Fedlex raw data resources start with: `https://fedlex.data.admin.ch/eli` whereas `eli` is an abbreviation for European Legislation Identifier.

These URI can be found on the website of Fedlex through a search. The raw data URI is not the URL shown in the browser address field but can be copied by clicking on the chain icon. If an an URI is put into the browser address field, there is an automatic redirection to the webpage URL that displays the corresponding resource.

Examples for the federal constitution in the Classified Compilation:

- URI: https://fedlex.data.admin.ch/eli/cc/1999/404

- URL: https://www.fedlex.admin.ch/eli/cc/1999/404

The easiest way to have a graph like representation of a Fedlex URI (and not a redirection to the URL) is to put it into the metadata viewer of the Fedlex platform. Links to the metadata viewer with prefilled URI can also be programmatically created via URL parameter `value` with the desired URI:

```
https://fedlex.data.admin.ch/en-CH/metadata?value=https:
//fedlex.data.admin.ch/eli/cc/1999/404
```

The URLs given in this documentation are given without language identifier. In reality, there is no such URL as https://www.fedlex.admin.ch/eli/cc/1999/404 but only https://www.fedlex.admin.ch /eli/cc/1999/404/en or with other language identifiers like de, fr, it or rm in the end. But there is a redirection mechanism in place that automatically redirects to the correct language URL according to browser settings if no language identifier is given.

1.9 Namespaces Declarations

The following namespaces are used throughout this documentation:

PREFIX	URI
jolux	http://data.legilux.public.lu/resource/ontology /jolux#
schema	http://schema.org/
skos	http://www.w3.org/2004/02/skos/core#
dcterm	http://purl.org/dc/terms/
xsd	http://www.w3.org/2001/XMLSchema#
rdfs	http://www.w3.org/2000/01/rdf-schema#
rdf	http://www.w3.org/1999/02/22-rdf-syntax-ns#
owl	http://www.w3.org/2002/07/owl#
eu	http://publications.europa.eu/resource/authority/

Abstraction Levels

In JOLux, all the different legislative resources are usually described through **three different levels of abstraction**. These levels are necessary to be able to reference legislative resources either depending on language and file format or not.

2.1 Work, Expression and Manifestation

jolux:Work

The owl:Class **jolux:Work** is a general abstraction for all the different legislative resources in JOLux. All the objects with type jolux:Work have additional types added to differentiate between the diverse legislative resources.

As jolux:Work is a general abstraction, the jolux:Work is *language and file-format agnostic*.

jolux:Expression

The owl:Class **jolux:Expression** is a *language specific* representation of a jolux:Work. The jolux:Expression is *file-format agnostic*.

jolux:Manifestation

The owl:Class **jolux:Manifestation** is a *file-format specific* representation of a jolux:Expression entity. So an jolux:Manifestation is a *language and file-format specific* representation of a jolux:Work.

So basically, jolux:Work, jolux:Expression and jolux:Manifestation always come together to form a rich representation of a legislative resource.

2.2 Object Properties

The vocabulary used to connect these abstraction levels is as following:

jolux:isRealizedBy

The object property **jolux:isRealizedBy** points from a jolux:Work to a jolux:Expression.

jolux:isEmbodiedBy

The object property **jolux:isEmbodiedBy** points from a jolux:Expression to a jolux:Manifestation.

jolux:isExemplifiedBy

The object property **jolux:isExemplifiedBy** points from a jolux:Manifestation to an object that represent the URL of the actual document.

The following figure shows the different abstraction levels and the object properties to connect them:
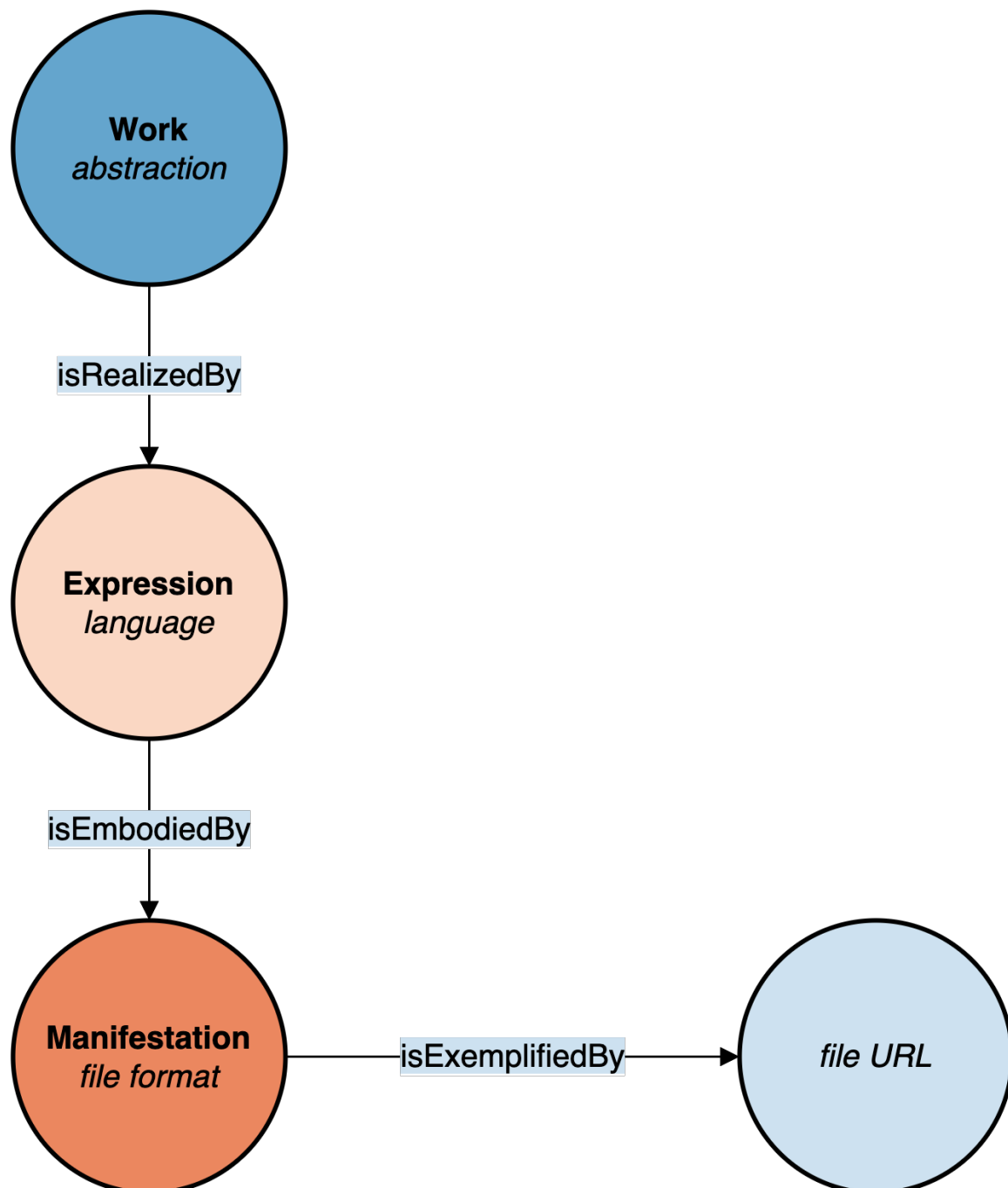
Figure 2.1. Relation between jolux:Work, jolux:Expression und jolux:Manifestation.

2.3 SPARQL Examples

The following question uses the above introduced abstraction levels to drill down from the URI of the Federal Constitution in the Official Compilation to the link of the PDF document in German:

```
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT * WHERE {
    <https://fedlex.data.admin.ch/eli/oc/1999/404> jolux:isRealizedBy ?expression.
    ?expression jolux:language <http://publications.europa.eu/resource/authority
/language/DEU>;
        jolux:isEmbodiedBy ?manifestation.
    ?manifestation jolux:userFormat <https://fedlex.data.admin.ch/vocabulary
/user-format/pdf-a>;
        jolux:isExemplifiedBy ?url.
}
```

Federal Gazette (BBl)

The *Federal Gazette (BBl)* is according to the lexicon of parliamentary terms a general bulletin published by the Confederation, that includes the following texts:

- dispatches from the Federal Council with drafts of laws and other decisions for submission to the Federal Assembly

- reports by Federal Assembly committees with draft proposals and the relevant opinions of the Federal Council

- decrees and acts approved by the Federal Assembly that are subject to an optional or a mandatory referendum, with the exception of federal acts declared to be urgent, which are published in the Official Compilation

- rulings by the Federal Chancellery on the preliminary examination, success or failure of popular initiatives and referendums

- decrees issued by the Federal Council on the results of the popular votes (including all cantonal results)

- reports by the Federal Council on the National Council elections (including all cantonal results) submitted to the National Council

- instructions issued by the Federal Council

The abbreviation BBl is the official English abbreviation according to Termdat but origins from the German "Bundesblatt".

Hint for legal laypersons

Federal Gazette, Official Compilation and Classified Compilation are the three main publications in the legislation process. The basic idea (greatly simplified) is the following:

- the Federal Gazette is used to publish the reasons for a legislative process and documents the process

- the Official Compilation is the legally binding publication of all legislation in chronologically order with only the delta (changes) to already existing legislation

- the Classified Compilation is sorted by topics and contains the consolidated legislation (only the currently valid legislation)

During the legislative process, these three publications are of different importance. During development, the Federal Gazette is the most important, for entry into force, the Official Compilation (OC) and for working with the current state of the law, the Classified Compilation (CC).

3.1 Example

Throughout this sub-page, the federal council dispatch to the change in the federal constitution for a 13th monthly pension payment.

- URI: https://fedlex.data.admin.ch/eli/fga/2022/1485
- URL: https://www.fedlex.admin.ch/eli/fga/2022/1485
- Metadata viewer

3.2 URI

The URI of an entry in the Federal Gazette contains the following parts:

- Standard namespace and path: `https://fedlex.data.admin.ch/eli/`
- the part `fga/` denotes the Federal Gazette, meaning that this URI identifies something that is part of the Federal Gazette
- `YYYY/` is the year of the publication
- `ID` an identifier that has no specific meaning but is restarting every new year, for older entries there are also combined numbers possible like `https://fedlex.data.admin.ch/eli/fga/1849/3_215__` that refer to pages in the pulication.

3.3 General Structure

Every entry in the Federal Gazette is of type jolux:Act.

jolux:Act

The owl:Class **jolux:Act** is used for entries in the Federal Gazette and the Official Compilation. It is of the same abstraction level as jolux:Work and all jolux:Act are also jolux:Work.

For jolux:Act in the Federal Gazette, the additional abstraction levels jolux:Expression and jolux:Manifestation are also available for all entries in the Federal Gazette.

The following figure shows the general structure of an entry in the Federal Gazette:
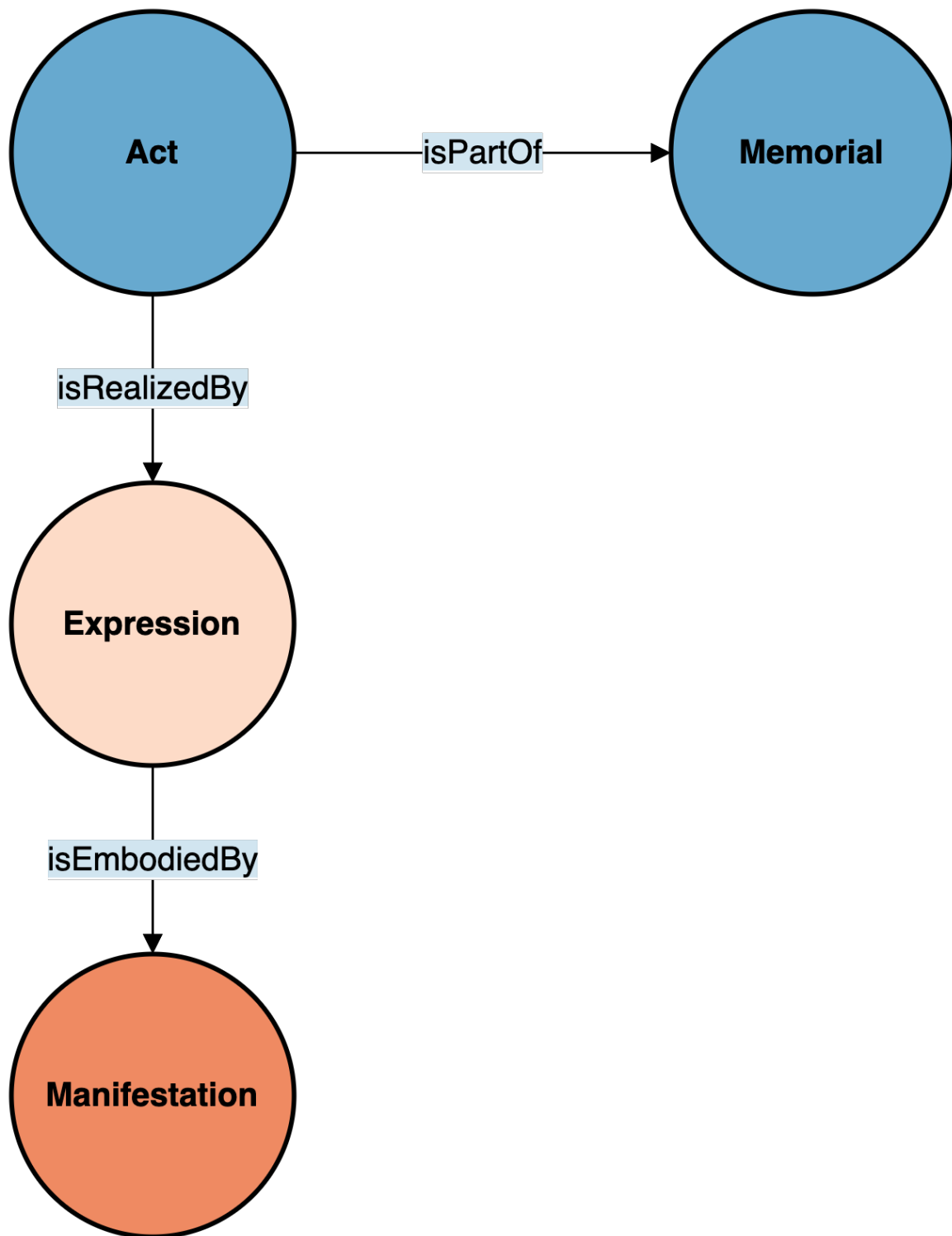
Figure 3.1. General structure of an entry in the Federal Gazette.

As the Federal Gazette is published in a sequential and chronologically order, the sequence within the current year is annotated via jolux:sequenceInTheYearOfPublication:

---

jolux:sequenceInTheYearOfPublication

The data property **jolux:sequenceInTheYearOfPublication** is used to connect the jolux:Act of the Federal Gazette to the number of the sequence in the current year.

Each entry in the Federal Gazette is the result of publication process that is linked via jolux:legalResourceWasPublishedByPublicationProcess:

---

jolux:legalResourceWasPublishedByPublicationProcess

The object property **jolux:legalResourceWasPublishedByPublicationProcess** is used to connect an entry in the Federal Gazette to the publication process that led to the publication of this entry.

3.4 Datatype Properties

- jolux:publicationDate
- jolux:dateDocument
- jolux:sequenceInTheYearOfPublication

3.5 Object Properties

Object properties that point to a vocabulary entry:
- jolux:processType
- jolux:typeDocument
- jolux:legalResourceFamilyType
- jolux:legalResourcePublicationCompleteness
- jolux:legalResourceGenre
- jolux:responsibilityOf

Object properties that point to an individual:
- jolux:legalResourceWasPublishedByPublicationProcess
- jolux:isRealizedBy
- jolux:isPartOf

3.6 SPARQL Examples

The following SPARQL query shows the 10 latest federal council dispatches in the Federal Gazette with Italian titles:

```
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>

SELECT ?dispatch ?date ?title WHERE {

   ?dispatch jolux:legalResourceFamilyType <https://fedlex.data.admin.ch
/vocabulary/resource-family/fga> ;
        jolux:typeDocument <https://fedlex.data.admin.ch/vocabulary/resource-type
```

```
/23> ;
        jolux:publicationDate ?date ;
        jolux:isRealizedBy ?expression .

  ?expression jolux:title ?title ;
        jolux:language <http://publications.europa.eu/resource/authority/language
/ITA> .

} ORDER BY DESC(?date) LIMIT 10
```

Official Compilation (OC)

The *Official Compilation (OC)* is according to the lexicon of parliamentary terms the compilation of primarily the federal constitution, federal acts and federal decrees.

This part explains all the important objects that build an entry in the Official Compilation and it does so with the help of the federal constitution as an example of an entry in the Official Compilation.

Hint for legal laypersons

Entries in the Official Compilation do not represent something like a current consolidated version of a legislative resource but are some kind of "building blocks" of an actual legislative resource. Updates to a legal text are published as "deltas" to already existing texts - much like an additional commit in software development.

In distinction from the Official Compilation, the current consolidated legislative resources are modelled in the Classified Compilation.

4.1 Example

Throughout this sub-page, the federal constitution is used as an example of an entry in the Official Compilation.

- URI: https://fedlex.data.admin.ch/eli/oc/1999/404
- URL: https://www.fedlex.admin.ch/eli/oc/1999/404
- Metadata viewer

4.2 URI

The URI of an entry in the Official Compilation contains the following parts:

- Standard namespace and path: `https://fedlex.data.admin.ch/eli/`
- the part `oc/` denotes the Official Compilation, meaning that this URI identifies something that is part of the Official Compilation of the federal law
- `YYYY/` is the year of the publication (for older acts this can just be a number from 1 to 63 and roman I to XI)
- `ID` an identifier that has no specific meaning but is restarting every new year and for older entries, this can also be linked to the starting page number for each language (e.g. `https://fedlex.data.admin.ch/eli/oc/1/183_154_179`)

4.3 General Structure

Every entry in the Official Compilation is of type jolux:Act.

For jolux:Act in the Official Compilation, the additional abstraction levels jolux:Expression and jolux:-Manifestation are also available for all entries except some older ones (e.g. `https://fedlex.data.admin.ch/eli/oc/1/183_154_179`).

The following figure shows the general structure of an entry in the Official Compilation:
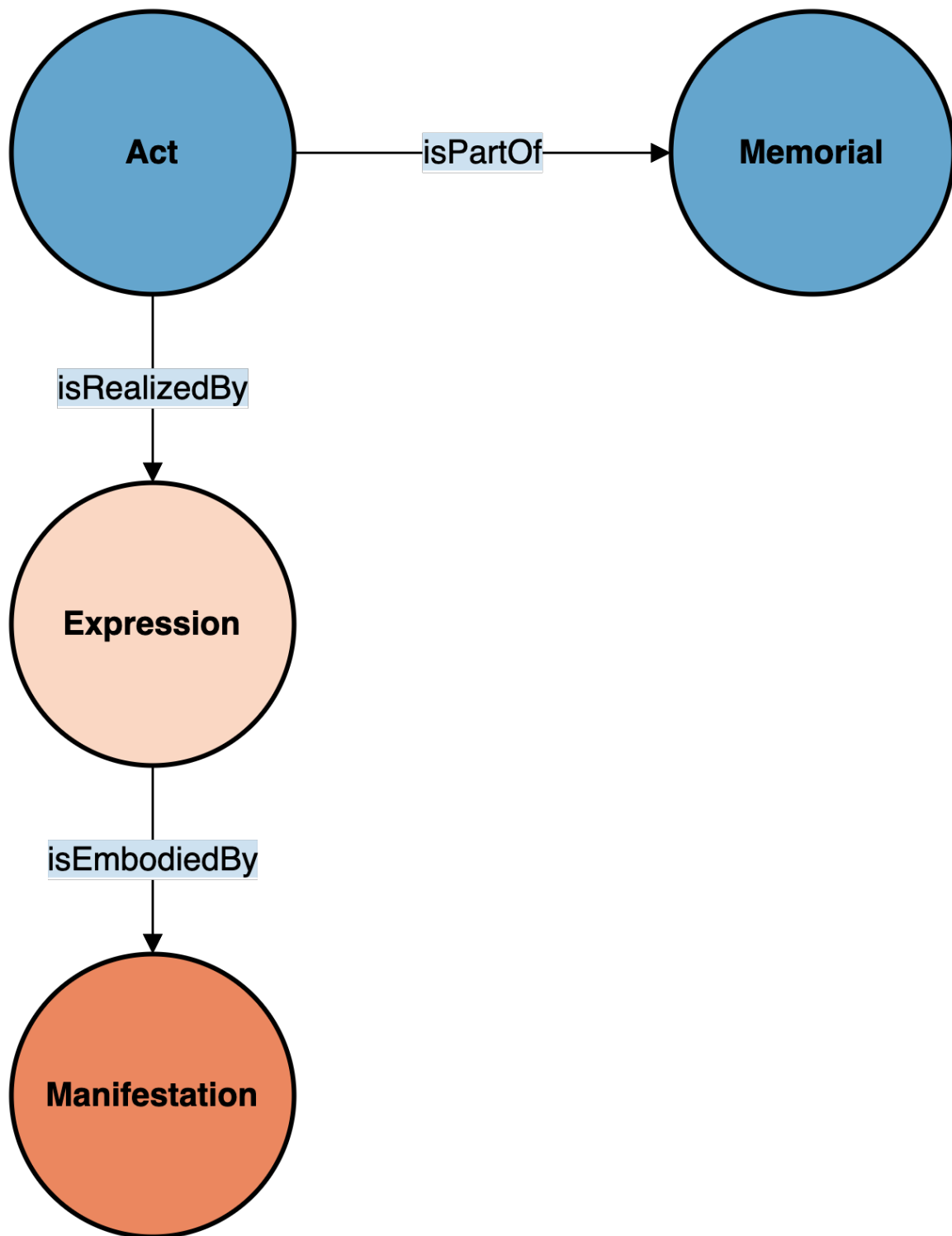
Figure 4.1. General structure of an entry in the Official Compilation.

As the jolux:Act is a very abstract representation of a legislative resource, there is e.g. no title of the law attached to the jolux:Act because this is something language specific and therefore added to the jolux:Expression of the jolux:Act.

As the Official Compilation is released in a weekly bulletin, all jolux:Act are part of such a bulletin via

jolux:isPartOf and the bulletin itself is a type jolux:Memorial:

---

jolux:isPartOf

The object property **jolux:isPartOf** is used to connect a jolux:Act to the weekly bulletin that it is part of.

---

jolux:Memorial

The owl:Class **jolux:Memorial** is used for the weekly bulletin that contains the new entries of the Official Compilation and for the Federal Gazette.

4.4 Datatype Properties

- jolux:publicationDate
- jolux:dateEndApplicability
- jolux:dateEntryInForce
- jolux:dateNoLongerInForce
- jolux:dateDocument

4.5 Object Properties

Object properties that point to a vocabulary entry:

- jolux:processType
- jolux:typeDocument
- jolux:classifiedByTaxonomyEntry
- jolux:legalRessourceGenre
- jolux:responsibilityOf

Object properties that point to an individual:

- jolux:isRealizedBy
- jolux:isPartOf

4.6 SPARQL Examples

The following SPARQL query shows all the different jolux:Expression for the federal constitution:

```
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT ?expression WHERE {
    <https://fedlex.data.admin.ch/eli/oc/1999/404> jolux:isRealizedBy ?expression.
}
```

The following SPARQL query shows all the different jolux:Manifestation for the federal constitution:

```
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT ?manifestation WHERE {
    <https://fedlex.data.admin.ch/eli/oc/1999/404> jolux:isRealizedBy ?expression.
```

```
    ?expression jolux:isEmbodiedBy ?manifestation.
}
```

The following SPARQL query shows all the different jolux:Act that have the legal genre "Basic legislation" and are not yet in force.

```
PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT ?act ?date WHERE {
    ?act jolux:legalResourceGenre <https://fedlex.data.admin.ch/vocabulary
/legal-resource-genre/100>;
        jolux:dateEntryInForce ?date.
  FILTER(?date > xsd:date(NOW()))
}
```

Classified Compilation (CC)

The *Classified Compilation (CC)* (also known as Systematic Compilation) is according to the lexicon of parliamentary terms a regularly updated and revised collection of the legislative resources of the Official Compilation arranged under subject headings.

An important aspect of the Classified Compilation is the classification of the entries according to a legal taxonomy. A deeper explanation of the Classified Compilation is also available in German /French/Italian.

This part explains all the important objects that build an entry in the Classified Compilation and it does so with the help of the federal constitution as an example of an entry in the Classified Compilation.

Hint for legal laypersons

Entries in the Classified Compilation are consolidations of entries in the Official Compilation. The main reason for having a Classified Compilation is a better usability of the legislative resources because the Classified Compilation represents the current state of a legislative resource.

It is important to realize that the Classified Compilation is not legally binding, the source of the "true law" is always the Official Compilation.

5.1 Example

Throughout this sub-page, the federal constitution is used as an example of an entry in the Classified Compilation.

- URI: https://fedlex.data.admin.ch/eli/cc/1999/404
- URL: https://www.fedlex.admin.ch/eli/cc/1999/404
- Metadata viewer

5.2 URI

The URI of an entry in the Classified Compilation contains the following parts:

- Standard namespace and path: `https://fedlex.data.admin.ch/eli/`
- the part `cc/` denotes the Classified Compilation, meaning that this URI identifies something that is part of the Classified Compilation of the federal law
- `YYYY/` is the year of the publication
- `ID` an identifier that has no specific meaning

The `ID` part has no specific meaning but is following the basic act in the Official Compilation. So the URI of an entry in the Classified Compilation can be created by replacing the `oc` in the URI of the basic act with `cc`. E.g. the URI of the federal constitution in the Official Compilation is `https://fedlex.data.admin.ch/eli/oc/1999/404` and the URI of the federal constitution in the Classified Compilation is `https://fedlex.data.admin.ch/eli/cc/1999/404`. This does not hold true for cases where the base act is not part of the Official Compilation but of the Federal Gazette. In this case, the `fga` part is replaced by `cc` and a suffix `_fga` is appended to the `ID` part E.g. `https://fedlex.data.admin.ch/eli/fga/2012/1262` becomes `https://fedlex.data.admin.ch/eli/cc/2012/1262_fga`. There are other special cases like `https://fedlex.data.admin.ch/eli/cc/2012/136` is based on `https://fedlex.data.admin.ch/eli/fga/2008/1057`.

5.3 General Structure

Every entry in the Classified Compilation is of type jolux:ConsolidationAbstract.

jolux:ConsolidationAbstract

The owl:Class **jolux:ConsolidationAbstract** is used for entries in the Classified Compilation.

It is a consolidation because it consolidates different entries from the Official Compilation into a single document that shows the current state. The term *abstract* is not so much meant as a summary but as an abstraction.

A jolux:ConsolidationAbstract has a jolux:Expression attached for representing the title and abbreviation in different languages of this consolidation because this does not change. But there are no jolux:Manifestation these only exist for jolux:Consolidation.

jolux:Consolidation

The owl:Class **jolux:Consolidation** is used for versions that represent a jolux:ConsolidationAbstract at a specific time. It is of the same abstraction level as jolux:Work and all jolux:Consolidation are also jolux:Work.

The different jolux:Consolidation are no "deltas" of the changes but always the complete state a the specific point in time.

For jolux:Consolidation, the additional abstraction levels jolux:Expression and jolux:Manifestation are usually also available for all entries. This excludes some older ones and those that are not yet published.

The connection between jolux:Consolidation and jolux:ConsolidationAbstract is made with jolux:isMemberOf.

jolux:isMemberOf

The object property **jolux:isMemberOf** is used to connect a jolux:Consolidation to a jolux:ConsolidationAbstract. It is also used to connect the weekly bulletins of the Official Compilation to the yearly collection.

Each jolux:ConsolidationAbstract is based on an jolux:Act through jolux:basicAct.

jolux:basicAct

The object property **jolux:basicAct** is used to connect a jolux:ConsolidationAbstract to a jolux:Act. The connected act is the first version of the consolidation.

The following figure shows the general structure of an entry in the Classified Compilation:
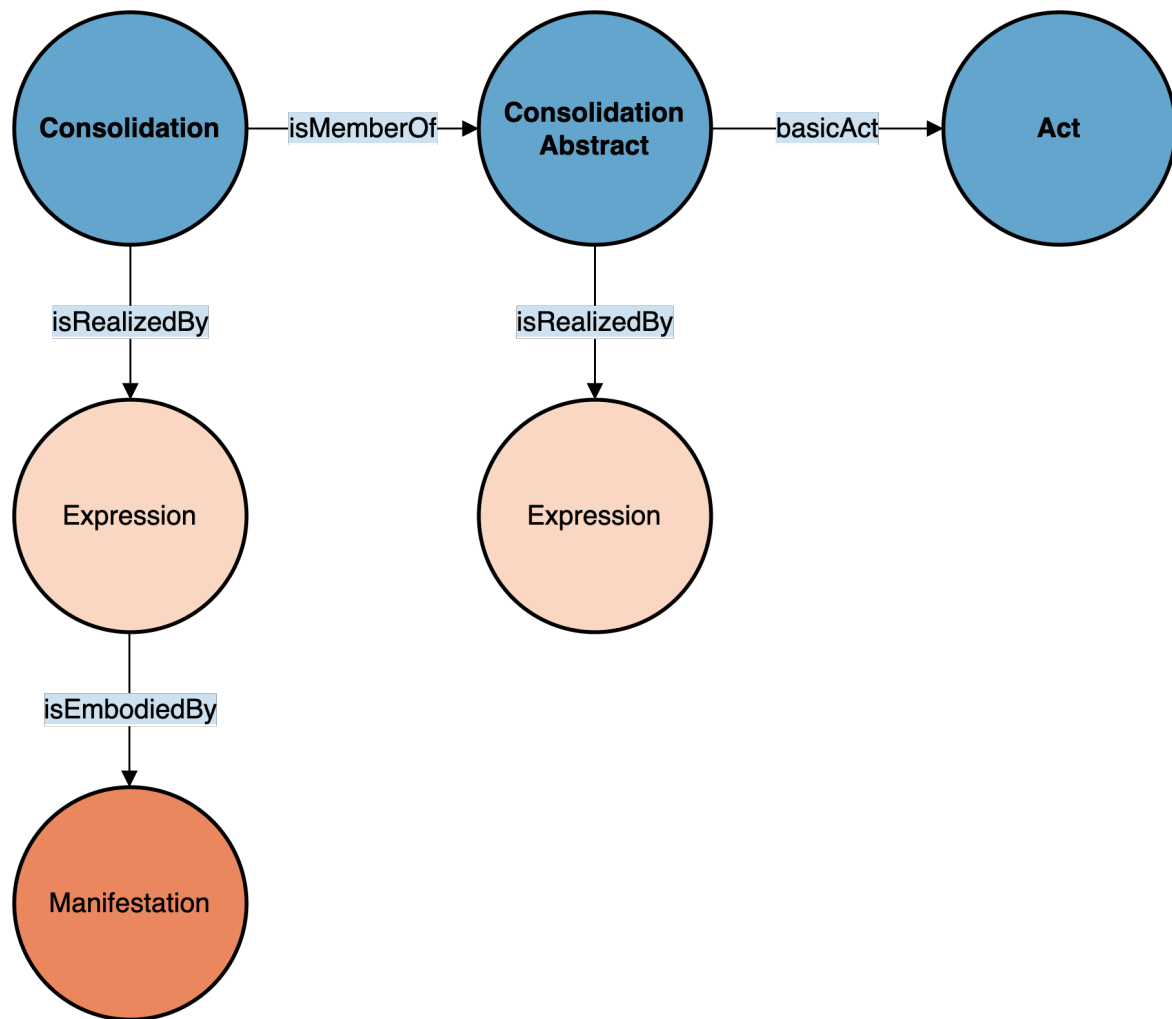
Figure 5.1. General structure of an entry in the Classified Compilation.

5.4 Legal Taxonomy

As the name Classified Compilation suggests, there is a classification scheme that sorts the entries in the Classified Compilation according to a legal taxonomy. This taxonomy is hierarchical and formulated as vocabulary.

5.5 Datatype Properties

5.5.1 jolux:ConsolidationAbstract

- jolux:dateEntryInForce
- jolux:dateDocument
- jolux:dateNoLongerInForce
- jolux:dateEndApplicability

5.5.2 jolux:Consolidation

- jolux:publicationDate
- jolux:dateApplicability
- jolux:dateEndApplicability

5.6 Object Properties

5.6.1 jolux:ConsolidationAbstract

Object properties that point to a vocabulary entry:

- jolux:typeDocument
- jolux:classifiedByTaxonomyEntry
- jolux:inForceStatus

Object properties that point to an individual:

- jolux:basicAct
- jolux:isRealizedBy

5.6.2 jolux:Consolidation

Object properties that point to an individual:

- jolux:isMemberOf
- jolux:isRealizedBy

5.7 SPARQL Examples

The following SPARQL query shows all the different versions of the federal constitution:

```
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT * WHERE {
    ?consolidation jolux:isMemberOf <https://fedlex.data.admin.ch/eli/cc/1999/404>.
}
```

The following SPARQL query gives the PDF link to the latest version of the constitution in English through a chain to jolux:Consolidation, jolux:Expression and jolux:Manifestation:

```
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT * WHERE {
    ?work jolux:isMemberOf <https://fedlex.data.admin.ch/eli/cc/1999/404>;
               jolux:dateApplicability ?date;
               jolux:isRealizedBy ?expression.
  ?expression jolux:language <http://publications.europa.eu/resource/authority
/language/ENG>;
               jolux:isEmbodiedBy ?manifestation.
  ?manifestation jolux:format <http://publications.europa.eu/resource/authority
/file-type/PDF>;
               jolux:isExemplifiedBy ?url.
} ORDER BY DESC(?date)
```

```
LIMIT 1
```

Drafts

The process of a *draft* leads to a new or updated legislative resource.

6.1 Example

Throughout this sub-page, the following draft that led to a change in the SR 192.12 is used as an example.

- URI: https://fedlex.data.admin.ch/eli/dl/proj/7021/0317

- URL: No URL for jolux:Draft available

- Metadata viewer

In the given example, the draft is about changing an already existing law, the necessary steps (independent from any JOLux modelling) included:

- 21-04-12: publication of opening of the consultation process, published in the Federal Gazette (BBl)

- execution of the consultation process, more details to this actual process are given here, consultation started on 21-03-31 and ended on 21-07-07

- 21-12-06: publication of the federal council dispatch from 21-11-24, published in the Federal Gazette (BBl)

- 21-12-06: publication of the draft law, published in the Federal Gazette (BBl)

- parliamentary process (no changes required), 22-03-10 until 22-06-17

- 22-06-28: publication of the changed law with decision from 22-06-17, published in the Federal Gazette (BBl)

- 22-10-06: expiration of the referendum period

- 22-10-11: publication of the changed law with decision from 22-06-17 and entering into force on 22-11-01 in the Official Compilation (OC)

- 22-11-01:publication of the changed law in the Classified Compilation (CC)

6.2 URI

The URI of a draft contains the following parts:

- Standard namespace and path: `https://fedlex.data.admin.ch/eli/`

- the part `dl/proj` is used as path for all drafts (dl stands for draft legislation and proj for project)

- `XXXX/YYYY` is an identifier

6.3 General Structure

Every draft is of type jolux:Draft.

---

jolux:Draft

The owl:Class **jolux:Draft** is used for drafts.

The following figure shows the general structure of a draft:
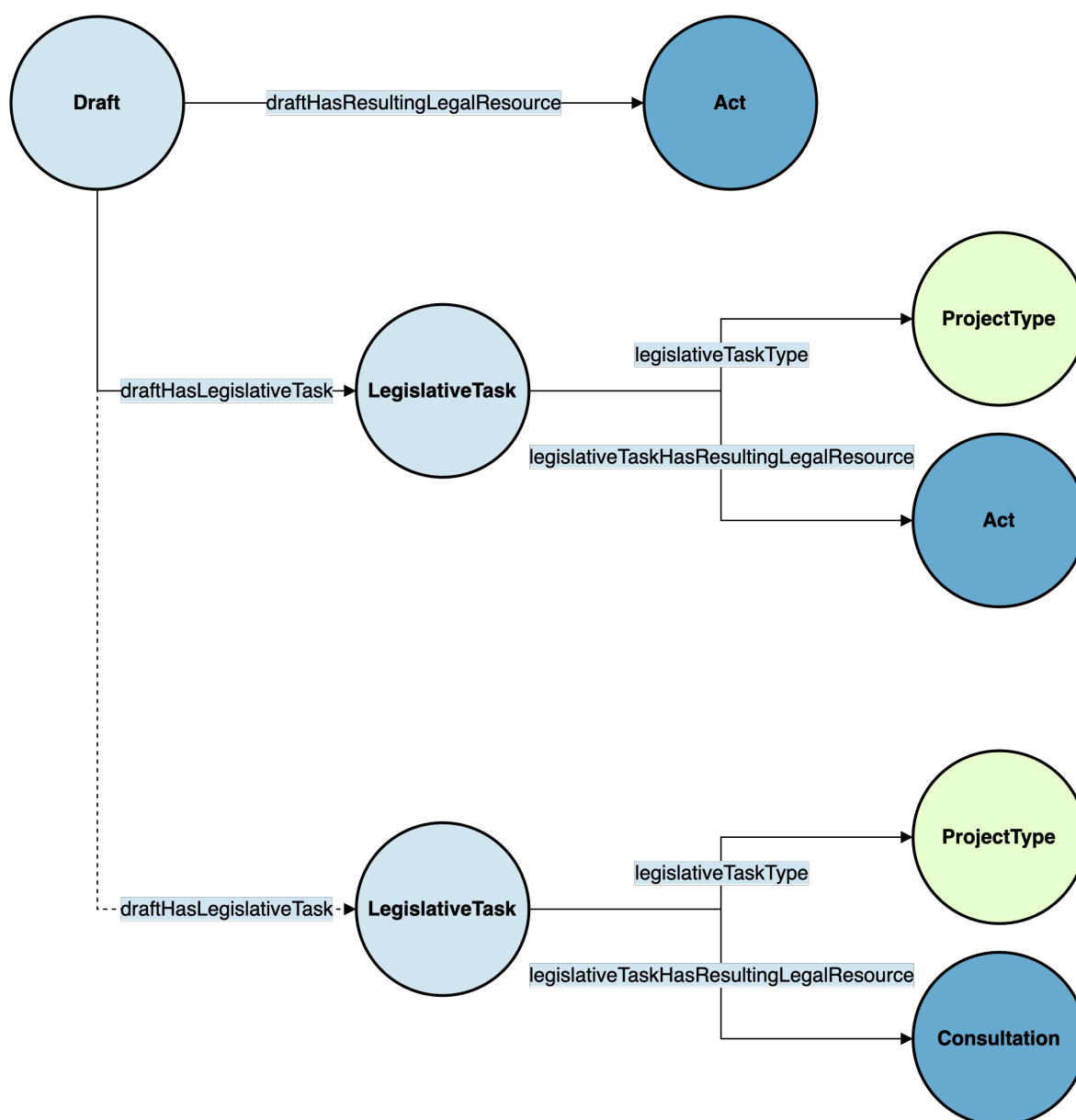
Figure 6.1. General structure of a draft.

As the draft process is closely related to the parliamentary process, the id for this process is given by

---

jolux:parliamentDraftId:

---

jolux:parliamentDraftId

The data property **jolux:parliamentDraftId** is used to connect a jolux:Draft to the identifier of the parliamentary process that leads to the new legal resource.

For each draft, there is also a draft id registered that is also part of the URI but is given as separate property for easier access:

---

jolux:draftId

The data property **jolux:draftId** is used to connect a jolux:Draft to the identifier of the draft.

The main result of the draft process is the draft law that is connected to the draft via jolux:hasResultingLegalResource and is from type jolux:Act:

---

jolux:hasResultingLegalResource

The object property **jolux:hasResultingLegalResource** is used to connect a jolux:Draft to the resulting legal resource that is of type jolux:Act. The draft law enters afterward the parliamentary process.

The different tasks of the draft process are connected to the draft via jolux:draftHasLegislativeTask:

---

jolux:draftHasLegislativeTask

The object property **jolux:draftHasLegislativeTask** is used to connect a jolux:Draft to the different legislative tasks that are part of the draft process.

6.4 Datatype Properties

- jolux:parliamentDraftId
- jolux:draftId

6.5 Object Properties

Object properties that point to an individual:

- jolux:hasResultingLegalResource
- jolux:draftHasLegislativeTask

6.6 SPARQL Examples

The following SPARQL query retrieves the 10 latest drafts that involve a consultation process and have a published draft law:

```
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>

SELECT DISTINCT ?draft ?date WHERE {
  ?draft a jolux:Draft ;
         jolux:draftHasLegislativeTask ?task ;
         jolux:hasResultingLegalResource/jolux:dateDocument ?date .
  ?task jolux:legislativeTaskType <https://fedlex.data.admin.ch/vocabulary
```

```
/type-projet/1> .
} ORDER BY DESC(?date) LIMIT 10
```

The following SPARQL query retrieves all drafts with their resulting legal resource and the type and date of the resulting legal resource, ordered by date of the resulting legal resource:

```
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>

SELECT DISTINCT * WHERE {

  ?draft a jolux:Draft;
        jolux:parliamentDraftId ?CuriaId ;
        jolux:hasResultingLegalResource ?act .
  ?act jolux:typeDocument/skos:prefLabel ?type ;
                        jolux:dateDocument ?date .

      FILTER(lang(?type) = "de")

} ORDER BY DESC(?date)
```

Impacts

Impacts is what connect entries in the Classified Compilation and Official Compilation. The entries in the Classified Compilation are consolidations of entries in the **Official Compilation**. This means that entries in the Official Compilation usually have an impact on entries in the Classified Compilation.

Impacts are modelled as jolux:LegalResourceImpact.

---

jolux:LegalResourceImpact

The owl:Class **jolux:LegalResourceImpact** is used to build an entry in the Classified Compilation out of different entries in the Official Compilation. Entries in the Official Compilation have impacts on entries in in the Classified Compilation. The jolux:LegalResourceImpact has two main predicates. jolux:impactFromLegalResource points to the source of the impact and jolux:impactToLegalResource points to the impacted resource.

7.1 Example

Throughout this sub-page, the following jolux:LegalResourceImpact is used as an example.

- URI: https://fedlex.data.admin.ch/eli/oc/2015/104/legal-analysis/LegalResourceImpact/1
- URL: No URL available for jolux:LegalResourceImpact
- Metadata viewer

7.2 URI

The URI of a jolux:LegalResourceImpact contains the following parts:

- it starts with the URI of the entry in the Official Compilation that is the source for the impact.
- `/legal-analysis/LegalResourceImpact/` denotes all impacts
- `ID` an identifier that has no specific meaning

7.3 General Structure

The following figure shows the connection between entries in the Official Compilation and Classified Compilation trough jolux:LegalResourceImpact:
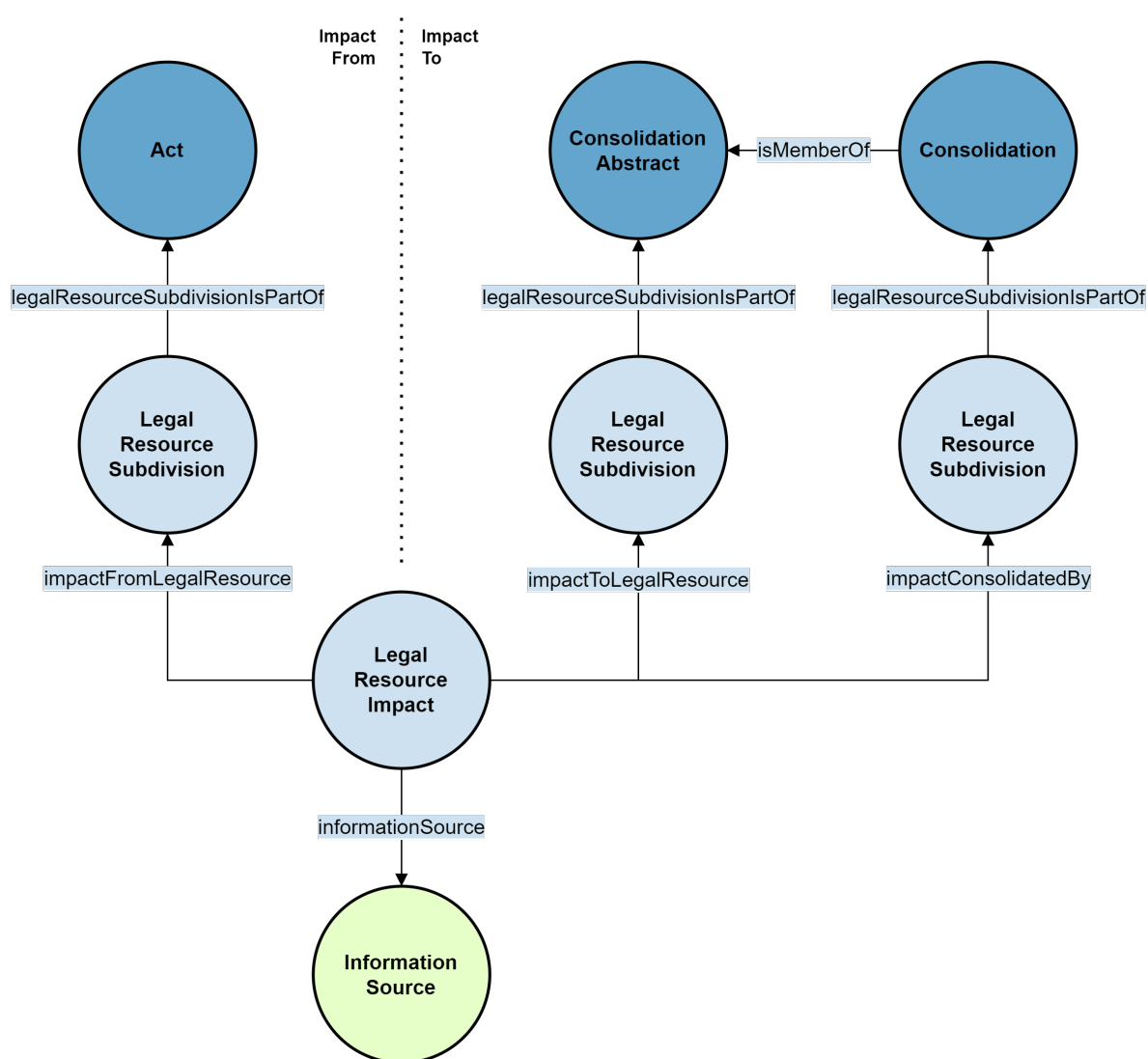
Figure 7.1. Connection between entries in the Official Compilation and the Classified Compilation through impacts.

As it is shown in the figure above, the connection between jolux:LegalResourceImpact and the entries in the Official Compilation and Classified Compilation is not direct but through jolux:LegalResourceSubdivision. The predicates used to connect the source and the target of the impact are jolux:impactFromLegalResource and jolux:impactToLegalResource.

jolux:impactFromLegalResource

The object predicate **jolux:impactFromLegalResource** is used to connect a jolux:LegalResourceImpact to a jolux:LegalResourceSubdivision as a source of the impact.

jolux:impactToLegalResource

The object predicate **jolux:impactToLegalResource** is used to connect a jolux:LegalResourceImpact to a jolux:LegalResourceSubdivision as a target of the impact. The difference to jolux:impactConsolidatedBy is that the target here is the jolux:ConsolidationAbstract.

jolux:impactConsolidatedBy

The object predicate **jolux:impactConsolidatedBy** is used to connect a jolux:LegalResourceImpact to a jolux:LegalResourceSubdivision that is part of the corresponding jolux:Consolidation. The difference to jolux:impactToLegalResource is that the target here is the jolux:Consolidation and not the jolux:ConsolidationAbstract.

7.4 Datatype Properties

- jolux:legalResourceImpactHasDateEntryInForce

7.5 Object Properties

Object properties that point to a vocabulary entry:
- jolux:legalResourceImpactHasType
- jolux:informationSource

Object properties that point to an individual:
- jolux:impactFromLegalResource
- jolux:impactToLegalResource
- jolux:impactConsolidatedBy

7.6 SPARQL Examples

The following query shows all the entries in the Official Compilation, that have an impact on the federal constitution:

```
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT DISTINCT ?act ?date WHERE {
  ?impact jolux:impactFromLegalResource/jolux:legalResourceSubdivisionIsPartOf
 ?act;
    jolux:impactToLegalResource/jolux:legalResourceSubdivisionIsPartOf <https:
//fedlex.data.admin.ch/eli/cc/1999/404>.
  ?act jolux:dateEntryInForce ?date.
} ORDER BY ?date
```

Subdivisions

To structure a legislative resource further, jolux:LegalResourceSubdivision is used:

jolux:LegalResourceSubdivision

The class **jolux:LegalResourceSubdivision** is used to structure each legislative resource into units: Article (basic unit) and elements above and below this in the hierarchy, as well as annexes and other elements. The concrete unit is attached by using jolux:legalResourceSubdivisionType.

8.1 Example

Throughout this sub-page, the following jolux:LegalResourceSubdivision is used as an example.

- URI: https://fedlex.data.admin.ch/eli/cc/1999/404/text
- URL: No URL available for jolux:LegalResourceSubdivision
- Metadata viewer

8.2 URI

The URI of a jolux:LegalResourceSubdivision contains the following parts:

- it starts with the URI of the entry in the Official or Consolidated Compilation
- `/type` denotes the type of the subdivision

8.3 General Structure

The following figure shows the general structure of a jolux:LegalResourceSubdivision:
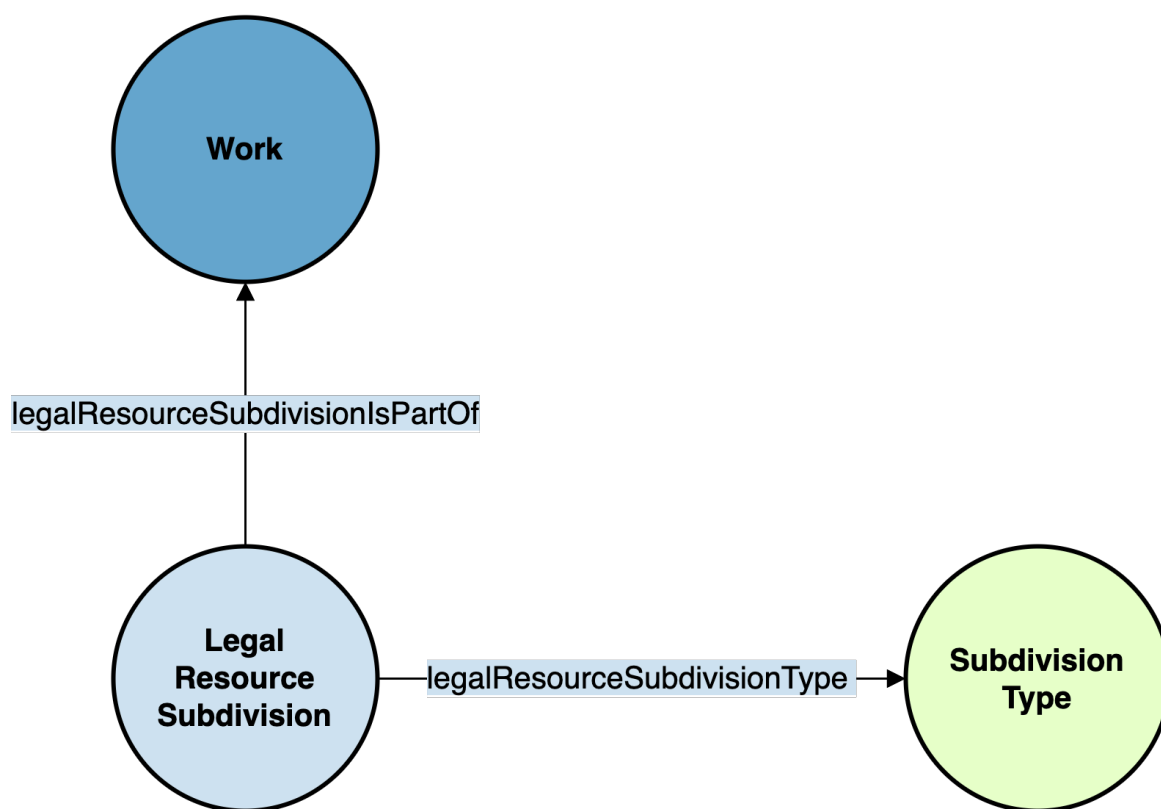
Figure 8.1. General structure of a jolux:LegalResourceSubdivision.

The jolux:LegalResourceSubdivision is bound to a jolux:Work through jolux:legalResourceSubdivisionIsPartOf.

jolux:legalResourceSubdivisionIsPartOf

The property **jolux:legalResourceSubdivisionIsPartOf** is used to connect a jolux:LegalResourceSubdivision with its jolux:Work.

The jolux:LegalResourceSubdivision have a type from the subdivision types vocabulary.

Hint for legal laypersons

With help of jolux:LegalResourceSubdivision, it is possible to divide a legislative resource also on the level of the individual articles. But this is not systematically done (yet). The single articles are only modelled when it is necessary for a jolux:LegalResourceImpact (see Section 8.5 below).

8.4 Object Properties

Object properties that point to a vocabulary entry:

- jolux:legalResourceSubdivisionType

Object properties that point to an individual:

- jolux:legalResourceSubdivisionIsPartOf

8.5 SPARQL Examples

The following query shows all the subdivisions of the federal constitution in the Classified Compilation with its types:

```
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT * WHERE {
  ?subdivison jolux:legalResourceSubdivisionIsPartOf <https://fedlex.data.admin.ch
/eli/cc/1999/404>;
    jolux:legalResourceSubdivisionType ?type.
}
```

History

The term **history** is used to list all legislative resources that are relevant for a specific entry in the Classified Compilation.

There is the possibility to see all relevant events for a specific entry in the Classified Compilation in the web frontend by adding `/history` to the URL of the entry. E.g. for seeing all the events for the Federal Constitution (not available in English), the URL would be `https://www.fedlex.admin.ch/eli/cc/1999/404/de/history`.

There are different mechanisms how legislative resources can be relevant for the history:

9.1 Draft

In creating a new legislative resource, a jolux:Draft is created.

---

jolux:Draft

A **jolux:Draft** is used to bundle all the activities and documents during the process of drafting a new legislative resource.

The following figure shows the general structure of a jolux:Draft:
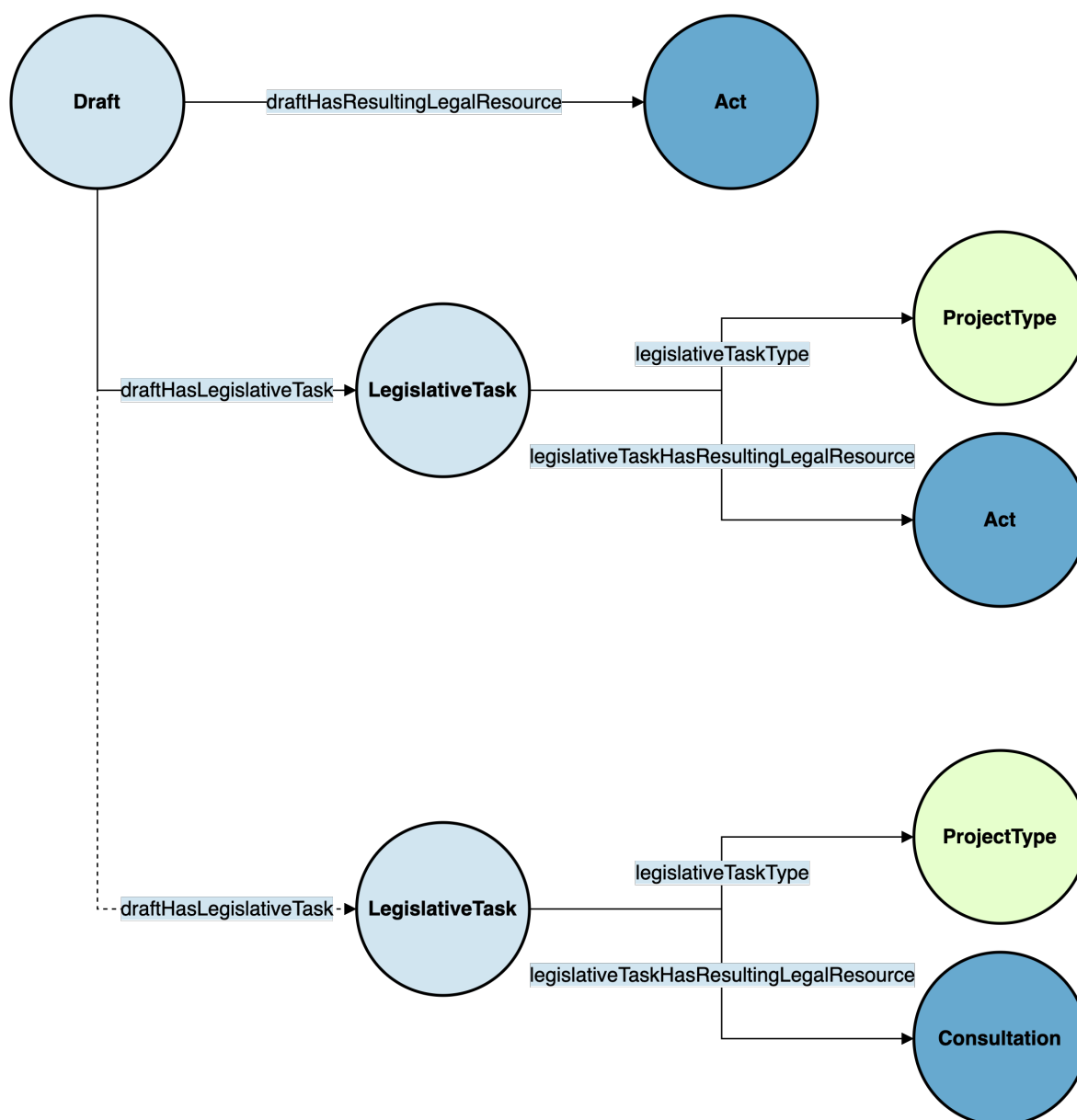
Figure 9.1. General structure of a jolux:Draft.

The following SPARQL query shows all the jolux:Act that werde involved in drafting the Federal Constitution:

```
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT ?act WHERE {
    ?draft jolux:hasResultingLegalResource <https://fedlex.data.admin.ch/eli/oc
/1999/404>;
        jolux:draftHasLegislativeTask ?task.
    ?task jolux:legislativeTaskHasResultingLegalResource ?act.
}
```

9.2 Impact

If new legislative resources are created that have an impact on existing ones, they are modelled as Figure 7.1.

The following SPARQL query shows all the jolux:Act that have an impact on the Federal Constitution:

```
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT DISTINCT ?act WHERE {
    ?impact jolux:impactFromLegalResource/jolux:legalResourceSubdivisionIsPartOf
 ?act;
        jolux:impactToLegalResource/jolux:legalResourceSubdivisionIsPartOf <https:
//fedlex.data.admin.ch/eli/cc/1999/404>.
 }
```

Changes

The term **changes** is used to list all changes to a specific entry in the Classified Compilation on the level of single articles.

There is the possibility to see all changes of a specific entry in the Classified Compilation in the web frontend by adding `/changes` to the URL of the entry. E.g. for seeing all the changes of the Federal Constitution (not available in English), the URL would be `https://www.fedlex.admin.ch/eli /cc/1999/404/de/changes`.

Changes are extracted from Figure 7.1. There are two methods used to depict the concerned articles depending on the date of the change.

10.1 Older Changes

The concerned articles of older changes are modelled via a jolux:impactToLegalResourceComment:

---

jolux:impactToLegalResourceComment

The datatype property **jolux:impactToLegalResourceComment** lists the impacted articles on the legislative resource from the Figure 7.1 as `rdf:langString`.

10.2 Newer Changes

For newer changes, the impacted articles are modelled as jolux:LegalResourceSubdivision and connected via jolux:impactToLegalResource.

10.3 Information Sources

To find out, whether a Figure 7.1 and accordingly the change is generated by the old or the new method, the property jolux:informationSource can be used. The following objects are used:

- old system for chronology: https://fedlex.data.admin.ch/vocabulary/information-source /data-from-geschaeftsstaende

- old system for modifications: https://fedlex.data.admin.ch/vocabulary/information-source /data-from-mutation

- new system, used for chronology and modifications: https://fedlex.data.admin.ch/vocabulary /information-source/data-from-legiconso

10.4 SPARQL Examples

The following sparql query lists all the impacts on the Federal Constitution. The concerned articles are either given in the jolux:impactToLegalResourceComment or modelled as jolux:LegalResourceSubdivision:

```
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT * WHERE {

    ?subdivision jolux:legalResourceSubdivisionIsPartOf <https:
//fedlex.data.admin.ch/eli/cc/1999/404>.
    ?impact jolux:impactToLegalResource ?subdivision;
        jolux:impactFromLegalResource/jolux:legalResourceSubdivisionIsPartOf ?act;
        jolux:legalResourceImpactHasType ?type.

    OPTIONAL {
        ?impact jolux:impactToLegalResourceComment ?comment.
    }

    FILTER (!BOUND(?comment) || lang(?comment) = "de")
}
```

Citations

Legal texts often refer other legislative resources in the form of citations. In JOLux, citations are modelled as jolux:Citation.

---

jolux:Citation

A **jolux:Citation** is used to model citations between legislative resources.

The following figure shows the general structure of a citation:
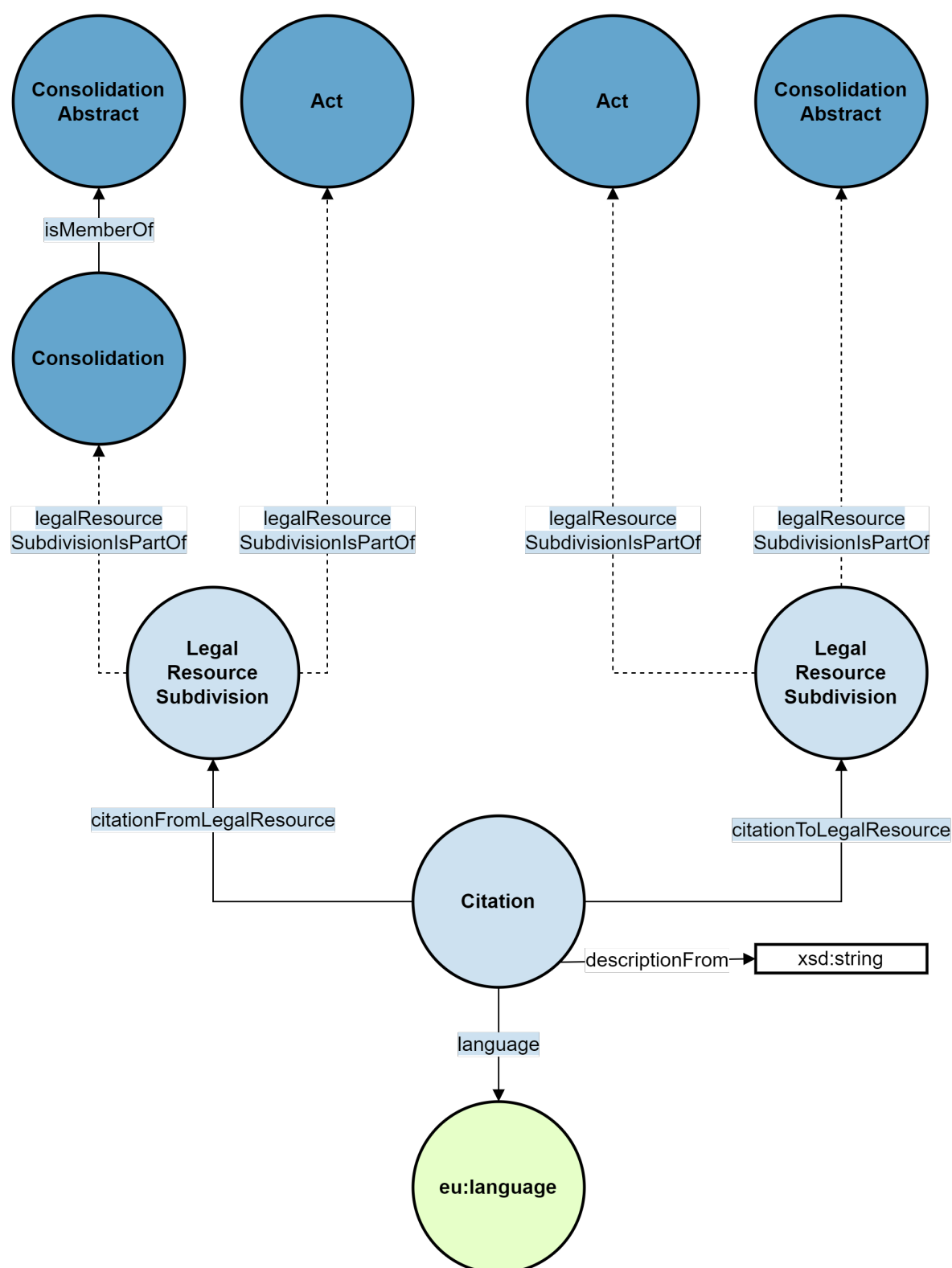
Figure 11.1. General structure of a citation. The dashed lines mean either one of the outgoing connections can be set.

The citations for an entry in the Classified Compilation can be shown with the following URL (example for the Federal Constitution): https://www.fedlex.admin.ch/eli/cc/1999/404/de/quotes.

These pages are only available in German, French, and Italian.

11.1 From and To

A citation *from* means the citing resource whereas *to* means the cited resource. So if a legislative resource cites the Federal Constitution, the citation goes *from* this resource *to* the Federal Constitution.

jolux:citationFromLegalResource

The object property **jolux:citationFromLegalResource** is used to connect a jolux:Citation to a jolux:LegalResourceSubdivision that is the **citing** document.

jolux:citationToLegalResource

The object property **jolux:citationToLegalResource** is used to connect a jolux:Citation to a jolux:LegalResourceSubdivision that is the **cited** document.

The Citation can either go from a jolux:Act or a jolux:Consolidation to another jolux:Act or jolux:ConsolidationAbstract. All combinations are possible. But on the *to* side, there is no direct jolux:-Consolidation possible, so if the cited resource is in the Classified Compilation, it is always the jolux:ConsolidationAbstract that is cited.

11.2 SPARQL Examples

The following SPARQL query shows all the jolux:ConsolidationAbstract with its German titles that cite the Federal Constitution:

```
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT * WHERE {
    ?citation jolux:citationToLegalResource/jolux:legalResourceSubdivisionIsPartOf
 <https://fedlex.data.admin.ch/eli/cc/1999/404>;
                                         jolux:citationFromLegalResource
/jolux:legalResourceSubdivisionIsPartOf/jolux:isMemberOf
 ?consolidationAbstractFrom.
  ?citation jolux:descriptionFrom ?descriptionFrom;
          jolux:language <http://publications.europa.eu/resource/authority
/language/DEU>.
  ?consolidationAbstractFrom jolux:isRealizedBy ?expressionFrom.
  ?expressionFrom jolux:language <http://publications.europa.eu/resource/authority
/language/DEU>;
             jolux:title ?titleFrom.
}
```

The following SPARQL query shows the first 100 jolux:Citation between two jolux:Act:

```
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
SELECT DISTINCT * WHERE {
    ?citation a jolux:Citation;
       jolux:citationFromLegalResource/jolux:legalResourceSubdivisionIsPartOf
/rdf:type jolux:Act;
       jolux:citationToLegalResource/jolux:legalResourceSubdivisionIsPartOf
/rdf:type jolux:Act.
}
limit 100
```

Consultations

A *consultation* is the process of asking for feedback on a draft of a legislative resource.

12.1 Example

Throughout this sub-page, the following consultation with a possible impact on the federal constitution is used as an example:

- URI: https://fedlex.data.admin.ch/eli/dl/proj/2022/59/cons_1
- URL: https://www.fedlex.admin.ch/de/consultation-procedures/ended/2022#https://fedlex.data.admin.ch/eli/dl/proj/2022/59/cons_1
- Metadata viewer

12.2 URI

The URI of a consultation contains the following parts:

- Standard namespace and path: `https://fedlex.data.admin.ch/eli/`
- the part `dl/proj` is used as path for all consultations (dl stands for draft legislation and proj for project)
- `YYYY/` is the year of the consultation
- `ID` an identifier that has no specific meaning but restarts every year
- `cons_1` is used for every consultation

12.3 General Structure

Every consultation is of type jolux:Consultation.

jolux:Consultation

The owl:Class **jolux:Consultation** is used for consultations.

A jolux:Consultation has a foreseen impact to a legislative resource. This is given by jolux:foreseenImpactToLegalResource:

jolux:foreseenImpactToLegalResource

The object property **jolux:foreseenImpactToLegalResource** is used to connect a jolux:Consultation to a jolux:Work (usually a jolux:ConsolidationAbstract).

The jolux:Consultation is structured into different jolux:ConsultationTask that are connected to the jolux:Consultation with the object property jolux:hasSubTask:

jolux:ConsultationTask

The owl:Class **jolux:ConsultationTask** is used for the different tasks of a jolux:Consultation.

jolux:hasSubTask

The object property **jolux:hasSubTask** is used to connect a jolux:Consultation to a jolux:ConsultationTask.

The following figure shows the general structure of a consultation:
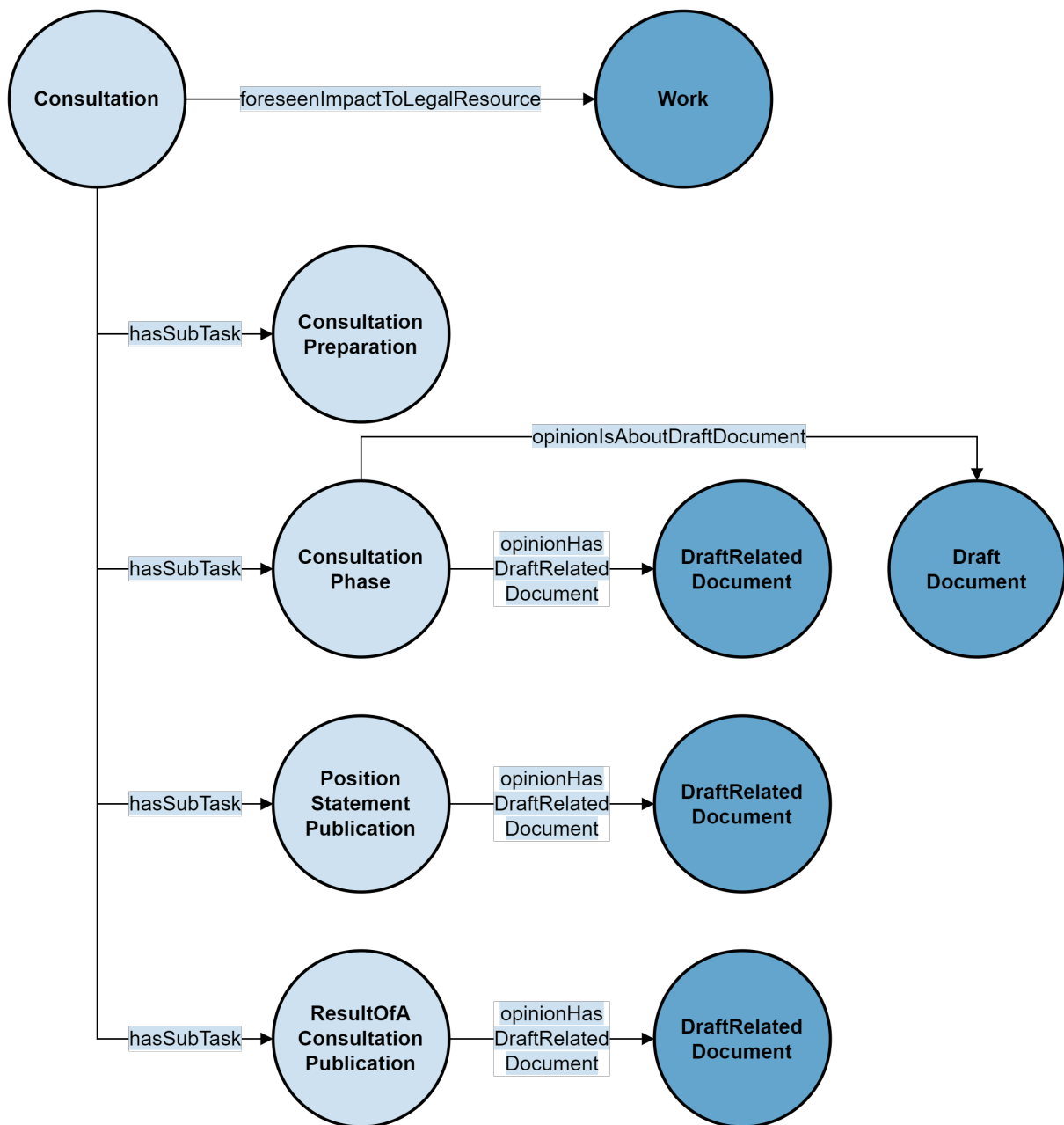
Figure 12.1. General structure of a consultation.

There are four types of jolux:ConsultationTask:

- jolux:ConsultationPreparation
- jolux:ConsultationPhase
- jolux:PositionStatementPublication
- jolux:ResultOfAConsultationPublication

jolux:ConsultationPreparation

The owl:Class **jolux:ConsultationPreparation** is used for the preparation of a consultation. It contains mainly some metadata. It is not always present for every consultation.

jolux:ConsultationPhase

The owl:Class **jolux:ConsultationPhase** is used to form the actual object of the consultation.

The following figure shows the structure of the jolux:ConsultationPhase:
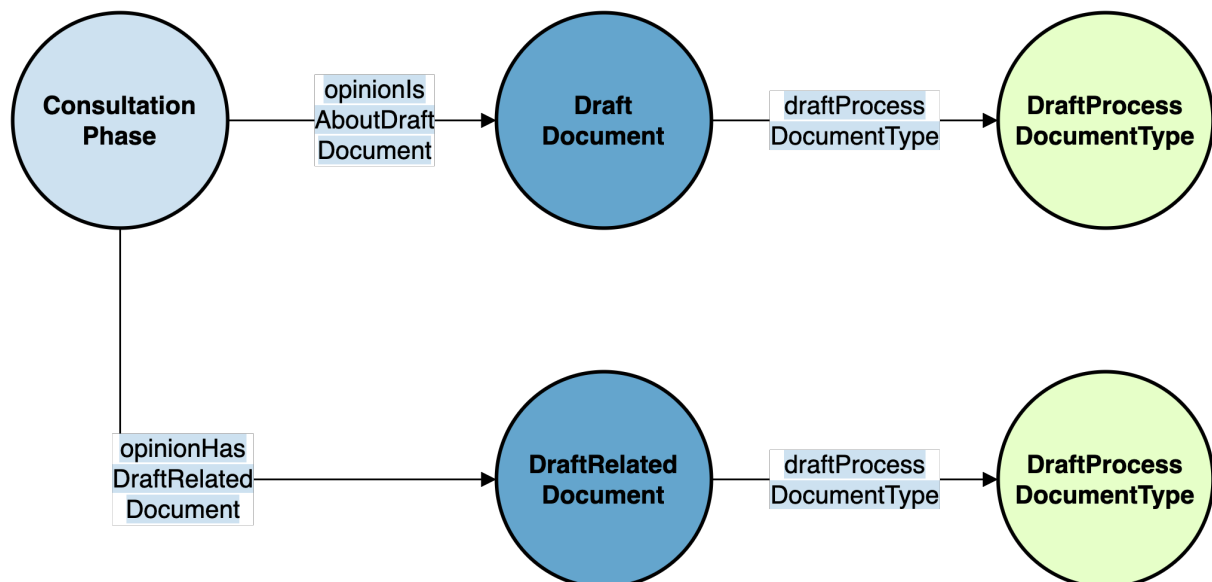
Figure 12.2. Structure of a jolux:ConsultationPhase. There are multiple documents of type jolux:DraftRelatedDocument.

The most important properties for a jolux:ConsultationPhase are:

- jolux:opinionIsAboutDraftDocument
- jolux:opinionHasDraftRelatedDocument

jolux:opinionIsAboutDraftDocument

The property **jolux:opinionIsAboutDraftDocument** is used to connect the actual consultation document to the jolux:ConsultationPhase.

jolux:opinionHasDraftRelatedDocument

The property **jolux:opinionHasDraftRelatedDocument** is used to connect the accompanying documents to the different jolux:ConsultationTask (e.g. jolux:ConsultationPhase).

All the jolux:DraftRelatedDocument from the jolux:ConsultationPhase have a jolux:draftProcessDocumentType that has the supercategory https://fedlex.data.admin.ch/vocabulary/draft-document-type/10

The most important documents of the jolux:ConsultationPhase have the following entries from the draft document types vocabulary:

- the actual draft document: https://fedlex.data.admin.ch/vocabulary/draft-document-type/11
- the explanatory report: https://fedlex.data.admin.ch/vocabulary/draft-document-type/12
- The recipients list: https://fedlex.data.admin.ch/vocabulary/draft-document-type/14

---

jolux:PositionStatementPublication

The owl:Class **jolux:PositionStatementPublication** is used to publish the complete collected position statements of the consultation recipients.

All the jolux:DraftRelatedDocument from the jolux:PositionStatementPublication have a jolux:draftProcessDocumentType that has the supercategory https://fedlex.data.admin.ch/vocabulary/draft-document-type/20

The most important document of the jolux:PositionStatementPublication has the following entry from the draft document types vocabulary:

- the complete collected opinions from the consultation recipients: https://fedlex.data.admin.ch/vocabulary/draft-document-type/21

---

jolux:ResultOfAConsultationPublication

The owl:Class **jolux:ResultOfAConsultationPublication** is used to publish the result of a consultation in form of a report of the consultation publishing authority.

All the jolux:DraftRelatedDocument from the jolux:ResultOfAConsultationPublication have a jolux:-draftProcessDocumentType that has the supercategory https://fedlex.data.admin.ch/vocabulary/draft-document-type/30

The most important document of the jolux:ResultOfAConsultationPublication has the following entry from the draft document types vocabulary:

- the results report: https://fedlex.data.admin.ch/vocabulary/draft-document-type/31

12.4 Datatype Properties

12.4.1 jolux:Consultation

The following SPARQL query shows all different datatype properties for jolux:Consultation. These properties are self explanatory.

12.4.2 jolux:ConsultationTask

- jolux:eventEndDate
- jolux:eventStartDate

12.5 Object Properties

12.5.1 jolux:Consultation

Object properties that point to a vocabulary entry:

- jolux:consultationStatus
- jolux:isOpinionOf

Object properties that point to an individual:

- jolux:foreseenImpactToLegalResource

- jolux:hasSubTask

12.5.2 jolux:ConsultationTask

Object properties that point to a vocabulary entry:

- jolux:institutionInChargeOfTheEvent
- jolux:institutionInChargeOfTheEventLevel2

Object properties that point to an individual:

- jolux:opinionHasDraftRelatedDocument
- jolux:opinionIsAboutDraftDocument

12.6 SPARQL Examples

The following SPARQL query shows all the jolux:Consultation with their title in French that have a foreseen impact to the federal constitution:

```
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT * WHERE {

    ?consultation a jolux:Consultation;
        jolux:foreseenImpactToLegalResource <https://fedlex.data.admin.ch/eli/cc
/1999/404>;
        jolux:eventTitle ?title.

    FILTER(lang(?title) = "fr")
}
```

The following SPARQL query shows all the planned consultations and the one that are in preparation with their title in German:

```
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT * WHERE {

    ?consultation a jolux:Consultation;
        jolux:eventTitle ?title;
        jolux:consultationStatus ?status.

  VALUES ?status {
    <https://fedlex.data.admin.ch/vocabulary/consultation-status/0>
    <https://fedlex.data.admin.ch/vocabulary/consultation-status/1>
  }

  FILTER(lang(?title) = "de")
  }
```

The following SPARQL query gives the links to the Italian result reports of the 10 last closed consultations.

```
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT ?title ?date ?url WHERE {

    ?consultation a jolux:Consultation;
        jolux:eventTitle ?title;
        jolux:hasSubTask ?result_phase, ?consultation_phase.
```

```
    FILTER(lang(?title) = "it")

    ?result_phase a jolux:ResultOfAConsultationPublication;
        jolux:opinionHasDraftRelatedDocument ?result.
    ?result jolux:draftProcessDocumentType <https://fedlex.data.admin.ch
/vocabulary/draft-document-type/31>;
        jolux:isRealizedBy ?expression.
    ?expression jolux:language <http://publications.europa.eu/resource/authority
/language/ITA>;
        jolux:isEmbodiedBy ?manifestation.
    ?manifestation jolux:userFormat <https://fedlex.data.admin.ch/vocabulary
/user-format/pdf-a>;
        jolux:isExemplifiedBy ?url.

    ?consultation_phase a jolux:ConsultationPhase;
        jolux:eventEndDate ?date.

} ORDER BY DESC(?date)
LIMIT 10
```

International Treaties

According to Termdat, an international treaty is an "international agreement concluded between states in written form and governed by international law, whether embodied in a single instrument or in two or more related instruments and whatever its particular designation".

Hint for legal laypersons

International Treaties are sometimes but not always approbated into the Official Compilation.

13.1 Example

Throughout this sub-page, the following treaty process is used as an example.

- URI: https://fedlex.data.admin.ch/eli/treaty/2024/0311
- URL: https://www.fedlex.admin.ch/eli/treaty/2024/0311/de
- Metadata viewer

13.2 URI

The URI of a treaty process contains the following parts:

- Standard namespace and path: `https://fedlex.data.admin.ch/eli/`
- the part `treaty/` shows that it is about a treaty
- `YYYY/` is the year of the publication
- `ID` an identifier that has no specific meaning

13.3 General Structure

Treaties evolve around a jolux:TreatyProcess.

jolux:TreatyProcess

The owl:Class **jolux:TreatyProcess** is used group the important elements of an international treaty.

The following figure shows the general structure of a treaty process:
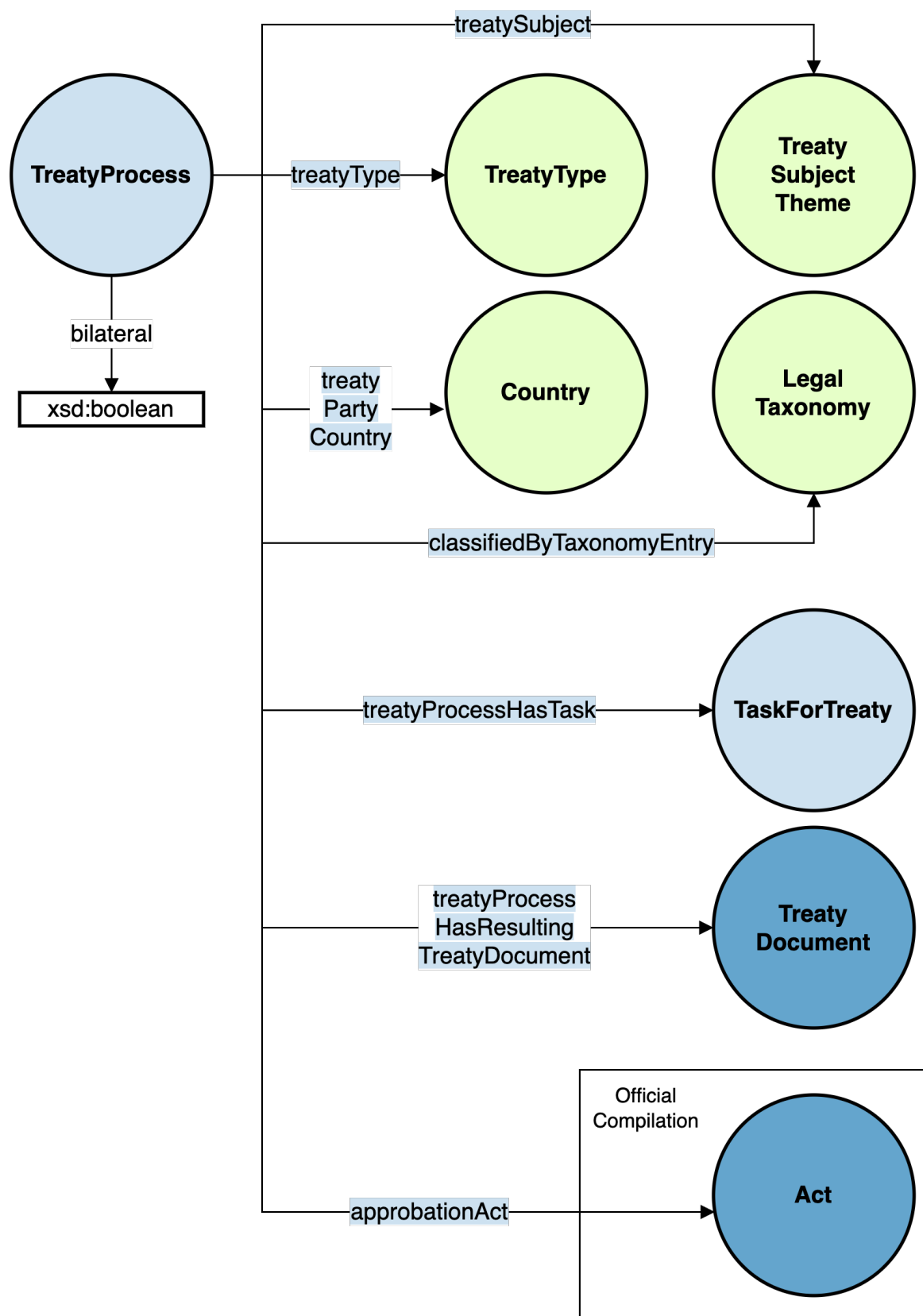
Figure 13.1. General structure of a treaty process.

A jolux:TreatyProcess is described by the following properties:

jolux:bilateral

The datatype property **jolux:bilateral** is used to classify whether a treaty is bilateral. The datatype is xsd:boolean.

jolux:titleTreaty

The datatype property **jolux:titleTreaty** links to the title of the treaty. The datatype is rdf:langString.

jolux:treatySignatureDate

The datatype property **jolux:treatySignatureDate** links to the date of the signature of the treaty. The datatype is xsd:date.

jolux:treatySignaturePlace

The datatype property **jolux:treatySignaturePlace** links to the place of the signature of the treaty. The datatype is xsd:string.

Entities of class jolux:TreatyProcess have different jolux:TaskForTreaty added.

jolux:TaskForTreaty

The owl:Class **jolux:TaskForTreaty** is used as class for all the tasks that are necessary for concluding a treaty.

The tasks are linked to the process via jolux:treatyProcessHasTask.

jolux:treatyProcessHasTask

The object property **jolux:treatyProcessHasTask** links a jolux:TreatyProcess to a jolux:TaskForTreaty.

The possible types of tasks are given in the section Section 13.6.

The result of an international treaty is always a jolux:TreatyDocument.

jolux:TreatyDocument

The owl:Class **jolux:TreatyDocument** is used for the resulting treaty of the jolux:TreatyProcess.

The jolux:TreatyDocument is linked via jolux:treatyProcessHasResultingTreatyDocument.

jolux:treatyProcessHasResultingTreatyDocument

The object property **jolux:treatyProcessHasResultingTreatyDocument** links a jolux:TreatyProcess to a jolux:TreatyDocument.

If there is an approbation into the Official Compilation The approbation act is linked to the treaty process via jolux:approbationAct.

jolux:approbationAct

The object property **jolux:approbationAct** links a jolux:TreatyProcess to a jolux:Act in the Official Compilation.

13.4 Datatype Properties for jolux:TreatyProcess

- jolux:bilateral
- jolux:titleTreaty
- jolux:treatySignatureDate
- jolux:treatySignaturePlace

13.5 Object Properties for jolux:TreatyProcess

Object properties that point to a vocabulary entry:

- jolux:treatySubject
- jolux:treatyType
- jolux:treatyPartyCountry
- jolux:classifiedByTaxonomyEntry

Object properties that point to an individual:

- jolux:treatyProcessHasTask
- jolux:treatyProcessHasResultingTreatyDocument
- jolux:approbationAct

13.6 SPARQL Examples

The following SPARQL query shows all the different classes that are used on a jolux:TaskForTreaty to further segment these tasks:

```
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT DISTINCT ?class WHERE {
  ?task a jolux:TaskForTreaty;
        a ?class.
  FILTER(?class != <http://data.legilux.public.lu/resource/ontology/jolux#Event>)
}
```

The class jolux:Event is filtered because all jolux:TaskForTreaty are also jolux:Event.

The following SPARQL query shows the 100 newest treaties that have an English title with the approbation act if available:

```
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT * WHERE {

  ?treaty_process a jolux:TreatyProcess;
                  jolux:treatySignatureDate ?date;
                  jolux:titleTreaty ?title.

  OPTIONAL {
    ?treaty_process jolux:approbationAct ?act.
  }
```

```
  FILTER(lang(?title) = "en")
  FILTER(?title != ""@en)

}
ORDER BY DESC(?date)
LIMIT 100
```

Vocabularies

In RDF, a vocabulary is a **set of predefined terms**, that is used to describe resources. These terms are defined in a way that allows them to be used **consistently across different datasets**. In the case of JOLux, vocabularies are specifically used only on the object position of RDF triples.

Fedlex defines and makes use of multiple vocabularies. This sub-page lists an overview and the main vocabularies and its associated properties that are used in describing the legislative resources.

14.1 Available Vocabularies

As all vocabularies are modelled as having the class skos:ConceptScheme, the metadata viewer can give all the vocabularies as incoming relations to skos:ConceptScheme and therefore serves as an overview on all available vocabularies.

In addition, the following SPARQL query shows all vocabularies with its name in English, German and French. The name is either `dcterms:title` where available and otherwise `rdfs:label` or empty if there is neither:

```
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
PREFIX dcterms: <http://purl.org/dc/terms/>
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
SELECT DISTINCT ?vocabulary ?name_en ?name_de ?name_fr WHERE {
    ?vocabulary a skos:ConceptScheme.

  # English title
  OPTIONAL {
    ?vocabulary dcterms:title ?title_en .
    FILTER(LANG(?title_en) = "en")
  }

  # German title
  OPTIONAL {
    ?vocabulary dcterms:title ?title_de .
    FILTER(LANG(?title_de) = "de")
  }

  # French title
  OPTIONAL {
    ?vocabulary dcterms:title ?title_fr .
    FILTER(LANG(?title_fr) = "fr")
  }

  # English label
  OPTIONAL {
    ?vocabulary rdfs:label ?label_en .
    FILTER(LANG(?label_en) = "en")
```

```
  }

  # German label
  OPTIONAL {
    ?vocabulary rdfs:label ?label_de .
    FILTER(LANG(?label_de) = "de")
  }

  # French label
  OPTIONAL {
    ?vocabulary rdfs:label ?label_fr .
    FILTER(LANG(?label_fr) = "fr")
  }

  # Use ?title if available and otherwise ?label
  BIND(COALESCE(?title_en, ?label_en) AS ?name_en)
  BIND(COALESCE(?title_de, ?label_de) AS ?name_de)
  BIND(COALESCE(?title_fr, ?label_fr) AS ?name_fr)
}
```

14.2 Hierarchical Vocabularies

Some vocabularies are modelled as hierarchy or taxonomy of entries. The following SPARQL query lists all vocabularies that use a hierarchy:

```
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
PREFIX dcterms: <http://purl.org/dc/terms/>
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
SELECT DISTINCT ?vocabulary ?name_en WHERE {
    ?vocabulary a skos:ConceptScheme;
                skos:hasTopConcept ?top_concept.
  ?top_concept skos:narrower ?narrow.

  # English title
  OPTIONAL {
    ?vocabulary dcterms:title ?title_en .
    FILTER(LANG(?title_en) = "en")
  }

  # English label
  OPTIONAL {
    ?vocabulary rdfs:label ?label_en .
    FILTER(LANG(?label_en) = "en")
  }

  # Use ?title if available and otherwise ?label
  BIND(COALESCE(?title_en, ?label_en) AS ?name_en)
}
```

14.3 Act Types

Act Types

- URI: https://fedlex.data.admin.ch/vocabulary/legal-resource-genre
- Description: The **act types** vocabulary is used to classify the type of a jolux:Act.
- Predicates: jolux:legalResourceGenre

- Metadata viewer

The following SPARQL query shows all the entries of this vocabulary with its labels:

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT DISTINCT ?term ?label WHERE {
    ?term a skos:Concept;
        skos:inScheme <https://fedlex.data.admin.ch/vocabulary
/legal-resource-genre>;
        skos:prefLabel ?label.
    FILTER (lang(?label) = "en")
}
```

14.4 Consultation Status

Consultation Status

- URI: https://fedlex.data.admin.ch/vocabulary/consultation-status
- Description: The **consultation status** vocabulary is used to classify the current status of a jolux:Consultation.
- Predicates: jolux:consultationStatus
- Metadata viewer

The following SPARQL query shows all the entries of this vocabulary with its labels:

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT DISTINCT ?term ?label WHERE {
    ?term a skos:Concept;
        skos:inScheme <https://fedlex.data.admin.ch/vocabulary
/consultation-status>;
        skos:prefLabel ?label.
    FILTER (lang(?label) = "en")
}
```

14.5 Countries

Countries

- URI: https://fedlex.data.admin.ch/vocabulary/country
- Description: The **countries** vocabulary is used to link to a specific country.
- Predicates: jolux:treatyPartyCountry
- Metadata viewer

The following SPARQL query shows all the entries of this vocabulary with its labels:

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT DISTINCT ?term ?label WHERE {
```

```
    ?term a skos:Concept;
        skos:inScheme <https://fedlex.data.admin.ch/vocabulary/country>;
        skos:prefLabel ?label.
    FILTER (lang(?label) = "en")
}
```

14.6 Draft Document Types

Draft Document Types

- URI: https://fedlex.data.admin.ch/vocabulary/draft-document-type
- Description: The **draft document types** vocabulary is used to classify the different types in a jolux:Consultation.
- Predicates: jolux:draftProcessDocumentType
- Metadata viewer

The following SPARQL query shows all the entries of this vocabulary with its labels:

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT DISTINCT ?term ?label WHERE {
    ?term a skos:Concept;
        skos:inScheme <https://fedlex.data.admin.ch/vocabulary
/draft-document-type>;
        skos:prefLabel ?label.
    FILTER (lang(?label) = "de")
}
```

As this is a hierarchical vocabulary, the following SPARQL query shows the hierarchy of the entries:

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>

SELECT (GROUP_CONCAT(CONCAT(STR(?endpoint_level), ": ", STR(?endpoint_label));
 separator = " <---- ") AS ?hierarchy) WHERE {
    SELECT * WHERE {
        ?endpoint skos:narrower* ?intermediate;
            skos:prefLabel ?endpoint_label.
        FILTER(lang(?endpoint_label) = "de")
        {
            SELECT ?endpoint (COUNT(?endpoint) as ?endpoint_level) WHERE {
                BIND (<https://fedlex.data.admin.ch/vocabulary
/draft-document-type> as ?root)
                ?root skos:hasTopConcept/skos:narrower* ?intermediate.
                ?intermediate skos:narrower* ?endpoint.
            } GROUP BY ?endpoint ORDER BY ?endpoint_level
        }
    } ORDER BY ?intermediate ?endpoint_level
} GROUP BY ?intermediate ORDER BY ?hierarchy
```

14.7 Enforcement Status

Enforcement Status

- URI: https://fedlex.data.admin.ch/vocabulary/enforcement-status

- Description: The **enforcement status** vocabulary is used to classify the type of a jolux:ConsolidationAbstract.

- Predicates: jolux:inForceStatus

- Metadata viewer

The following SPARQL query shows all the entries of this vocabulary with its labels:

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT DISTINCT ?term ?label WHERE {
    ?term a skos:Concept;
        skos:inScheme <https://fedlex.data.admin.ch/vocabulary
/enforcement-status>;
        skos:prefLabel ?label.
    FILTER (lang(?label) = "en")
}
```

14.8 Impact Types

Impact Types

- URI: https://fedlex.data.admin.ch/vocabulary/impact-type

- Description: The **impact types** vocabulary is used to classify the type of a jolux:LegalResourceImpact.

- Predicates: jolux:legalResourceImpactHasType

- Metadata viewer

The following SPARQL query shows all the entries of this vocabulary with its labels:

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT DISTINCT ?term ?label WHERE {
    ?term a skos:Concept;
        skos:inScheme <https://fedlex.data.admin.ch/vocabulary/impact-type>;
        skos:prefLabel ?label.
    FILTER (lang(?label) = "en")
}
```

14.9 Information Sources

Information Sources

- URI: https://fedlex.data.admin.ch/vocabulary/information-source

- Description: The **information sources** vocabulary is used to give the information source of a jolux:LegalResourceImpact.

- Predicates: jolux:informationSource

- Metadata viewer

The following SPARQL query shows all the entries of this vocabulary with its labels:

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT DISTINCT ?term ?label WHERE {
    ?term a skos:Concept;
        skos:inScheme <https://fedlex.data.admin.ch/vocabulary
/information-source>;
        skos:prefLabel ?label.
    FILTER (lang(?label) = "en")
}
```

There is a special case where the predicate jolux:informationSource is used with a predicate that is not in the vocabulary. The following SPARQL query shows the first 100 entries with this object:

```
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT DISTINCT * {
    ?act jolux:informationSource <https://fedlex.data.admin.ch/vocabulary
/information-source/data-from-ff-excel> .
} LIMIT 100
```

14.10 Legal Institution

Legal Institution

- URI: https://fedlex.data.admin.ch/vocabulary/legal-institution

- Description: The **legal institution** vocabulary is used to add the responsibility of an institution for jolux:Act.

- Predicates: jolux:responsibilityOf, jolux:isOpinionOf, jolux:jolux:institutionInChargeOfTheEvent, jolux:institutionInChargeOfTheEventLevel2

- Metadata viewer

The following SPARQL query shows all the entries of this vocabulary with its labels:

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT DISTINCT ?term ?label WHERE {
    ?term a skos:Concept;
        skos:inScheme <https://fedlex.data.admin.ch/vocabulary/legal-institution>;
        skos:prefLabel ?label.
    FILTER (lang(?label) = "en")
}
```

As this is a hierarchical vocabulary, the following SPARQL query shows the hierarchy of the entries:

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>

SELECT (GROUP_CONCAT(CONCAT(STR(?endpoint_level), ": ", STR(?endpoint_label));
 separator = " <---- ") AS ?hierarchy) WHERE {
    SELECT * WHERE {
        ?endpoint skos:narrower* ?intermediate;
            skos:prefLabel ?endpoint_label.
        FILTER(lang(?endpoint_label) = "de")
        {
            SELECT ?endpoint (COUNT(?endpoint) as ?endpoint_level) WHERE {
                BIND (<https://fedlex.data.admin.ch/vocabulary/legal-institution>
 as ?root)
                    ?root skos:hasTopConcept/skos:narrower* ?intermediate.
```

```
                    ?intermediate skos:narrower* ?endpoint.
            } GROUP BY ?endpoint ORDER BY ?endpoint_level
        }
    } ORDER BY ?intermediate ?endpoint_level
} GROUP BY ?intermediate ORDER BY ?hierarchy
```

14.11 Legal Taxonomy

Legal Taxonomy

- URI: https://fedlex.data.admin.ch/vocabulary/legal-taxonomy
- Description: The **legal taxonomy** vocabulary is used to classify entries of a jolux:ConsolidationAbstract.
- Predicates: jolux:classifiedByTaxonomyEntry
- Metadata viewer

The following SPARQL query shows all the entries of this vocabulary with its labels:

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT DISTINCT ?term ?label WHERE {
    ?term a skos:Concept;
        skos:inScheme <https://fedlex.data.admin.ch/vocabulary/legal-taxonomy>;
        skos:prefLabel ?label.
    FILTER (lang(?label) = "en")
}
```

As this is a hierarchical vocabulary, the following SPARQL query shows the hierarchy of the entries:

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>

SELECT (GROUP_CONCAT(CONCAT(STR(?endpoint_level), ": ", STR(?endpoint_label));
 separator = " <---- ") AS ?hierarchy) WHERE {
    SELECT * WHERE {
        ?endpoint skos:narrower* ?intermediate;
            skos:prefLabel ?endpoint_label.
        FILTER(lang(?endpoint_label) = "de")
        {
            SELECT ?endpoint (COUNT(?endpoint) as ?endpoint_level) WHERE {
                BIND (<https://fedlex.data.admin.ch/vocabulary/legal-taxonomy> as
 ?root)
                ?root skos:hasTopConcept/skos:narrower* ?intermediate.
                ?intermediate skos:narrower* ?endpoint.
            } GROUP BY ?endpoint ORDER BY ?endpoint_level
        }
    } ORDER BY ?intermediate ?endpoint_level
} GROUP BY ?intermediate ORDER BY ?hierarchy
```

As this is a very important vocabulary, there are also two special webpages that show these hierar-chical legal taxonomy entries. One for Swiss law and one for international law.

14.12 Procedure Types

Procedure Types

- URI: https://fedlex.data.admin.ch/vocabulary/type-procedure
- Description: The **procedure types** vocabulary is used to classify the type of a jolux:Act.
- Predicates: jolux:processType
- Metadata viewer

The following SPARQL query shows all the entries of this vocabulary with its labels:

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT DISTINCT ?term ?label WHERE {
    ?term a skos:Concept;
        skos:inScheme <https://fedlex.data.admin.ch/vocabulary/type-procedure>;
        skos:prefLabel ?label.
    FILTER (lang(?label) = "en")
}
```

14.13 Publication Completeness

Publication Completeness

- URI: https://fedlex.data.admin.ch/vocabulary/publication-completeness
- Description: The **publication completeness** vocabulary is used to classify the completeness of a jolux:Act.
- Predicates: jolux:legalResourcePublicationCompleteness
- Metadata viewer

The following SPARQL query shows all the entries of this vocabulary with its labels:

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT DISTINCT ?term ?label WHERE {
    ?term a skos:Concept;
        skos:inScheme <https://fedlex.data.admin.ch/vocabulary
/publication-completeness>;
        skos:prefLabel ?label.
    FILTER (lang(?label) = "en")
}
```

14.14 Resource Family

Resource Family

- URI: https://fedlex.data.admin.ch/vocabulary/resource-family
- Description: The **resource family*** vocabulary is used to classify the type of a jolux:Act.

- Predicates: jolux:legalResourceFamilyType

- Metadata viewer

The following SPARQL query shows all the entries of this vocabulary with its German labels (no English labels available):

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT DISTINCT ?term ?label WHERE {
    ?term a skos:Concept;
        skos:inScheme <https://fedlex.data.admin.ch/vocabulary/resource-family>;
        skos:prefLabel ?label.
    FILTER (lang(?label) = "de")
}
```

14.15 Subdivision Types

Subdivision Types

- URI: https://fedlex.data.admin.ch/vocabulary/subdivision-type

- Description: The **subdivision types** vocabulary is used to classify the type of a jolux:LegalResourceSubdivision.

- Predicates: jolux:legalResourceSubdivisionType

- Metadata viewer

The following SPARQL query shows all the entries of this vocabulary with its labels:

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT DISTINCT ?term ?label WHERE {
    ?term a skos:Concept;
        skos:inScheme <https://fedlex.data.admin.ch/vocabulary/subdivision-type>;
        skos:prefLabel ?label.
    FILTER (lang(?label) = "en")
}
```

As this is a hierarchical vocabulary, the following SPARQL query shows the hierarchy of the entries:

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>

SELECT (GROUP_CONCAT(CONCAT(STR(?endpoint_level), ": ", STR(?endpoint_label));
 separator = " <---- ") AS ?hierarchy) WHERE {
    SELECT * WHERE {
        ?endpoint skos:narrower* ?intermediate;
            skos:prefLabel ?endpoint_label.
        FILTER(lang(?endpoint_label) = "de")
        {
            SELECT ?endpoint (COUNT(?endpoint) as ?endpoint_level) WHERE {
                BIND (<https://fedlex.data.admin.ch/vocabulary/subdivision-type>
 as ?root)
                ?root skos:hasTopConcept/skos:narrower* ?intermediate.
                ?intermediate skos:narrower* ?endpoint.
            } GROUP BY ?endpoint ORDER BY ?endpoint_level
        }
    } ORDER BY ?intermediate ?endpoint_level
} GROUP BY ?intermediate ORDER BY ?hierarchy
```

14.16 Text Types

Text Types

- URI: https://fedlex.data.admin.ch/vocabulary/resource-type

- Description: The **text types** vocabulary is used to classify the text type of a jolux:Work.

- Predicates: jolux:typeDocument, jolux:historicalTypeDocument

- Metadata viewer

The following SPARQL query shows all the entries of this vocabulary with its labels:

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT DISTINCT ?term ?label WHERE {
    ?term a skos:Concept;
        skos:inScheme <https://fedlex.data.admin.ch/vocabulary/resource-type>;
        skos:prefLabel ?label.
    FILTER (lang(?label) = "en")
}
```

As this is a hierarchical vocabulary, the following SPARQL query shows the hierarchy of the entries:

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>

SELECT (GROUP_CONCAT(CONCAT(STR(?endpoint_level), ": ", STR(?endpoint_label));
 separator = " <---- ") AS ?hierarchy) WHERE {
    SELECT * WHERE {
        ?endpoint skos:narrower* ?intermediate;
            skos:prefLabel ?endpoint_label.
        FILTER(lang(?endpoint_label) = "de")
        {
            SELECT ?endpoint (COUNT(?endpoint) as ?endpoint_level) WHERE {
                BIND (<https://fedlex.data.admin.ch/vocabulary/resource-type> as
?root)
                ?root skos:hasTopConcept/skos:narrower* ?intermediate.
                ?intermediate skos:narrower* ?endpoint.
            } GROUP BY ?endpoint ORDER BY ?endpoint_level
        }
    } ORDER BY ?intermediate ?endpoint_level
} GROUP BY ?intermediate ORDER BY ?hierarchy
```

14.17 Treaty Subject Themes

Treaty Subject Themes

- URI: https://fedlex.data.admin.ch/vocabulary/treaty-subject-theme

- Description: The **treaty subject themes** vocabulary is used to classify the subject of a jolux:TreatyProcess.

- Predicates: jolux:treatySubject

- Metadata viewer

The following SPARQL query shows all the entries of this vocabulary with its labels (only in German because there are no English labels):

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT DISTINCT ?term ?label WHERE {
    ?term a skos:Concept;
        skos:inScheme <https://fedlex.data.admin.ch/vocabulary
/treaty-subject-theme>;
        skos:prefLabel ?label.
    FILTER (lang(?label) = "de")
}
```

14.18 Treaty Types

Treaty Types

- URI: https://fedlex.data.admin.ch/vocabulary/treaty-type
- Description: The **treaty types** vocabulary is used to classify the type of a jolux:TreatyProcess.
- Predicates: jolux:treatyType
- Metadata viewer

The following SPARQL query shows all the entries of this vocabulary with its labels (only in German because there are no English labels):

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT DISTINCT ?term ?label WHERE {
    ?term a skos:Concept;
        skos:inScheme <https://fedlex.data.admin.ch/vocabulary/treaty-type>;
        skos:prefLabel ?label.
    FILTER (lang(?label) = "de")
}
```

14.19 User Formats

User Formats

- URI: https://fedlex.data.admin.ch/vocabulary/user-format
- Description: The **user formats** vocabulary is used to classify the file type of a jolux:Manifestation.
- Predicates: jolux:userFormat
- Metadata viewer

The following SPARQL query shows all the entries of this vocabulary with its labels (only in German because there are no English labels):

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
PREFIX jolux: <http://data.legilux.public.lu/resource/ontology/jolux#>
SELECT DISTINCT ?term ?label WHERE {
    ?term a skos:Concept;
        skos:inScheme <https://fedlex.data.admin.ch/vocabulary/user-format>;
```

```
        skos:prefLabel ?label.
    FILTER (lang(?label) = "de")
}
```

Dates

Concerning legislation, there are a number of dates that are important during the legislative process. All the date literals are modelled with datatype `xsd:date`. The following list tries to give the most important date properties according the lifetime of a legal resource.

15.1 Creation of Legislative Resources

jolux:eventStartDate

The property jolux:eventStartDate is used to indicate the start date of a legislative process (e.g. jolux:Consultation).

jolux:eventEndDate

The property jolux:eventEndDate is used to indicate the end date of a legislative process (e.g. jolux:Consultation).

15.2 Legislative Resources

jolux:dateDocument

The property jolux:dateDocument is used to indicate the decision date of an act, or the date on which the document was adopted. For bills, where there is no formal adoption date, the Document Date is used as the reference date.

jolux:publicationDate

The property jolux:publicationDate denotes the date of first publication in one of the collections. If the same document is republished, this date does not change: it is always the date of the initial publication that is decisive. On the other hand, for consolidations, several publication dates may exist: each new publication of the file generates a new date.

Hint for legal laypersons

During introduction of a new law, there are two similar but different dates relevant: the date of the **entry into force** and the date of the **applicability** of the law. These two dates can differ. It can happen that the entry into force comes before the law is applicable. This is mainly to allow for preparing the necessary changes in the affected organizations. During this period of time there could

be some transitional provisions in place.

jolux:dateEntryInForce

The property jolux:dateEntryInForce denotes the date on which the law starts to have a legal effect (see above).

jolux:dateApplicability

The property jolux:dateApplicability denotes the date from which a law is applicable (see above).

Hint for legal laypersons

During cancellation of a law, there are two similar but different dates relevant: the date of the **end of applicability** and the date of the **no longer in force**. The end of applicability is the last day where the law is applicable. The no longer in force date is the first day that the law has no more a legal effect. These two dates can differ in both direction. It could be that the law is first no more applicable and no longer in force later or vice versa.

jolux:dateEndApplicability

The property jolux:dateEndApplicability denotes the last day where a law is applicable.

jolux:dateNoLongerInForce

The property jolux:dateNoLongerInForce denotes the first day on which the law has no more a legal effect.

15.3 Special Dates

jolux:legalResourceImpactHasDateEntryInForce

The property jolux:legalResourceImpactHasDateEntryInForce denotes the effective date of an jolux:LegalResourceImpact.

Reference

The following terms are all to be understood as prefixed with `jolux:`, so the full URI for e.g. Act is: `http://data.legilux.public.lu/resource/ontology/jolux#Act`. The terms are sorted alphabetically.

16.1 JOLux Classes

- Act
- Citation
- Consolidation
- ConsolidationAbstract
- Consultation
- ConsultationTask
- ConsultationPhase
- ConsultationPreparation
- Draft
- Expression
- LegalResourceImpact
- LegalResourceSubdivision
- Manifestation
- PositionStatementPublication
- ResultOfAConsultationPublication
- TaskForTreaty
- TreatyDocument
- TreatyProcess
- Work

16.2 JOLux Datatype Properties

Dates:

- dateApplicability
- dateDocument

- dateEndApplicability
- dateEntryInForce
- dateNoLongerInForce
- eventEndDate
- eventStartDate
- legalResourceImpactHasDateEntryInForce
- publicationDate

Others:

- bilateral
- draftId
- impactToLegalResourceComment
- parliamentDraftId
- sequenceInTheYearOfPublication
- treatySignatureDate
- treatySignaturePlace
- titleTreaty

16.3 JOLux Object Properties

Link to vocabulary entries:

- classifiedByTaxonomyEntry
- consultationStatus
- foreseenImpactToLegalResource
- historicalTypeDocument
- inForceStatus
- informationSource
- institutionInChargeOfTheEvent
- institutionInChargeOfTheEventLevel2
- isOpinionOf
- legalResourceFamilyType
- legalResourceGenre
- legalResourceImpactHasType
- legalResourcePublicationCompleteness
- legalResourceSubdivisionType
- processType
- responsibilityOf
- treatyPartyCountry
- treatySubject
- treatyType
- typeDocument

- userFormat

Link to individuals:

- approbationAct
- basicAct
- citationFromLegalResource
- citationToLegalResource
- draftHasLegislativeTask
- opinionHasDraftRelatedDocument
- opinionIsAboutDraftDocument
- hasResultingLegalResource
- hasSubTask
- impactConsolidatedBy
- impactFromLegalResource
- impactToLegalResource
- isEmbodiedBy
- isExemplifiedBy
- isMemberOf
- isPartOf
- isRealizedBy
- legalResourceSubdivisionIsPartOf
- legalResourceWasPublishedByPublicationProcess
- treatyProcessHasResultingTreatyDocument
- treatyProcessHasTask

16.4 Concepts

- Abstraction Levels
- Changes
- Citations
- Classified Compilation (CC)
- Consultations
- Dates
- Drafts
- Federal Gazette (BBl)
- History
- Impacts
- Official Compilation (OC)
- Subdivisions
- Treaties
- Vocabularies