Analysis Report: Requirements for ECLI 2.0
Report of Workstream 3 of the Project ‘Building on the European Case Law Identifier’

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1 Introduction

1.1 Objective

The objective of this deliverable is to define the requirements of the ECLI 2.0 identifier and metadata and also to provide a tentative solution to the emerging needs.

The methodology is based on the following inputs:

1. Courts/tribunals feedbacks from the survey collected from ECLI national contact points;
2. ECLI 1.0 specifications;
3. Other standards for legal identifiers (e.g., ELI, Akoma Ntoso, LegalCiteM);
4. Input from the experts in the legal identifier domain.

The outcome is the definition of an extension of the current ECLI 1.0, called ECLI 2.0. The document is organized as follows: Chapter 2 contains some basic principles for legal identifiers; Chapter 3 highlights some issues which were revealed by the questionnaire which was distributed among ECLI coordinators; Chapter 4 contains the functional requirements for the ECLI 2.0 identification system and Chapter 5 contains the technical requirements. Chapter 6 contains functional and technical requirements for the ECLI 2.0 metadata. Finally, Chapter 7 contains an example of the ECLI identifier.

This document is not to be regarded as a full specification of ECLI 2.0. A separate document will be drafted for that purpose.

1.2 Terminology

For a good understanding the following terminology is used throughout this report.¹

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>citation</td>
<td>a situation in which two documents can be considered connected to each other by means of text contained in one of them (the citing document or source) that suggests such connection to a sufficiently expert human reader.</td>
</tr>
<tr>
<td>legal citation</td>
<td>a citation in which the destination of the citation is a legal or legislative document. The source may or may not be of such a nature.</td>
</tr>
<tr>
<td>source</td>
<td>the document, of a pair in a citation relationship, that contains the text of the citation.</td>
</tr>
<tr>
<td>destination</td>
<td>the document (or fragment of a document), of a pair of a citation relationship, mentioned by the textual citation in the source.</td>
</tr>
<tr>
<td>textual citation</td>
<td>a plain-text human-readable mention of a destination as found in a source document, providing sufficient detail for a reader with</td>
</tr>
</tbody>
</table>

¹ Partly copied from OASIS LegalCiteM TC wiki: https://wiki.oasis-open.org/legalcitem/FundamentalRequirements3rd
appropriate domain-specific training (e.g., legal) to identify with precision the relevant text. Textual citations might be:

- **explicit**: when the citation has sufficient elements explicitly written in the text;
- **contextual** (or, more appropriately, **deictic**): e.g., "paragraph 3 of this decision", "previous paragraph of the aforementioned section", etc.;
- **implicit**: e.g., "all relevant legislation on this topic";
- **complete**: when the citation has all the sufficient elements written in the text for defining a unique reference;
- **incomplete**: when the citation has some elements written in the text but others need expert knowledge for disambiguating the source.

reference: a machine-readable representation of a textual citation. References agree with the conceptual and syntactical requirements of the data format of the source document. A reference contains at least the same quantity of information as the textual citation for the purpose of identifying the relevant text, and possibly more. This implies that an human action takes place in the interpretation of the textual citation so as to streamline, disambiguate, formalize and possibly add to the information that the textual citation contains. Generating a reference from a textual citation is therefore an authorial activity, distinct from the authorial activity of creating the textual citation itself.

identifier: a machine-readable structure (most often, a string) univocally associated to a document (or to a fragment of document) to identify it. Identifiers may be provided by the authority hosting or owning the document, or even by a third party. This implies that multiple identifiers may exist for the same document. In practice this means that identifiers must be **univocal** (i.e., an identifier identifies one specific document), but not necessarily **unique** (i.e., many different identifiers may identify the same document). References may use identifiers, or they may not. In particular, references are representations of the citation, and not of the identifier that the citation resolves into. It is also important to notice that legal documents are often cited in multiple ways; for instance, "Public Law 112-29, Sept 16, 2011" is also frequently cited as "Leahy-Smith America Invents Act" or as "125 STAT 284". Since the reference is a representation of the citation, it may very well happen that the reference associated to these citations end up being different.

**ECLI coordinator:** Agent that defines the ECLI policy and structure of a Country or an International Organization.

**ECLI authority:** Agent that is responsible for the ECLI WORK identifier and WORK metadata, mostly a court or tribunal.

**ECLI publisher:** Agent that is responsible for an ECLI EXPRESSION identifier and metadata.

**Register Authority of ECLI publishers. Proposed: European Commission.**
The meaning of the terms MUST, MUST NOT, SHOULD and MAY in this section and in the following sections are as defined in RFC 2119.²

For the provision of metadata the following terms are used:

<table>
<thead>
<tr>
<th>Mandatory:</th>
<th>The element in the ECLI 2.0 identifier or a metadata MUST be provided by the authority and publisher.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended:</td>
<td>The element in the ECLI 2.0 identifier or a metadata SHOULD be provided by the authority and publisher.</td>
</tr>
<tr>
<td>Optional</td>
<td>The element in the ECLI 2.0 identifier or a metadata MAY be provided by the authority and publisher.</td>
</tr>
</tbody>
</table>

2 State of the Art Principles

2.1 Principles for Legal Identifiers

In the last decades several standards have arisen in the legal informatics domain for modelling legal source identifiers. Some principles³ for managing the long-term preservation of the identifiers and for their maintainability over time can be summarized here:

1) **Persistent**: identifiers at all levels must maintain the same form over time regardless of the political, archival and technical events happened since their first generation;
2) **Global**: all relevant documents by all relevant bodies should be represented;
3) **Memorizable**: identifiers should be easy to write down, easy to remember, easy to correct if they were written incorrectly, easy for the end user to use;
4) **Meaningful**: identifiers should mean something; it should be possible to make assumptions about the kind, freshness and relevance of a citation by looking only at the identifier;
5) **Guessable across levels**: references to different levels of the same document must be similar;
6) **Guessable across document classes**: references to different instances of the same document type (e.g., ordinance, judgment, opinion) must be similar;
7) **Guessable across document components**: references to different components of the same document at the same level must be similar;
8) **FRBR model** is recommended for modelling the WORK, EXPRESSION, MANIFESTATION levels;
9) **Flexible**: name should include all the legal traditions, including multilingual aspects;

10) **Tokenizable**: identifiers should follow rules of composition that are machine-readable.

### 2.2 Principles of Legal Identifier Metadata

Metadata in Linked Open Data⁴ should be designed following some principles:

1) **Reuse**: Do not invent something already existing and reuse as much as possible existing ontology or well-known vocabulary. In this light the ISA Core Vocabulary⁵ and ELI ontology could be used for inspiration.

2) **Patterns**: If you intend to invent something new, use patterns.

3) **Mapping**: If you have some existing metadata model, use mapping mechanisms for connecting them to existing well-known vocabularies if relevant. Use these relationships⁶ of Core Vocabulary for mapping metadata:
   - a) Has exact match
   - b) Has close match
   - c) Has related match
   - d) Has broad match
   - e) Has narrow match

4) **FRBR**: metadata should be organized following WORK, EXPRESSION, MANIFESTATION levels.

### 3 Questionnaire Results

A questionnaire has been sent to all EU Member States as well as the three European courts that have implemented ECLI (Court of Justice of the European Union, European Court of Human Rights, Boards of Appeal of the European Patent Organization) about the publication of court decisions. One section of this questionnaire was dedicated to ECLI. This section was returned by 18 respondents. It revealed different practices as regards the implementation. Some remarkable outcomes of the questionnaire that are relevant for ECLI 2.0 are:

1) For Member States with a substantial number of courts it is difficult to create court codes that are both recognizable by human readers while not having more than 7 characters.
2) The fifth element creates problems with uniqueness, especially if the case number is used.
3) Versioning of court decisions (e.g. corrigenda) creates problems.

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⁴ [http://www.w3.org/TR/ld-bp/](http://www.w3.org/TR/ld-bp/)
⁵ [https://joinup.ec.europa.eu/asset/core_vocabularies/asset_release/core-vocabularies-v20#download-links](https://joinup.ec.europa.eu/asset/core_vocabularies/asset_release/core-vocabularies-v20#download-links)
4) Additional information is being added to the fifth element, sometimes necessary for the uniqueness of the identifier (e.g. a date added to a case number) while sometimes only for informative purposes (e.g. the type of decision).

5) Some Member States assign ECLI only to published decisions, while others also assign it to decisions which are not published (yet).

6) Various Member States print ECLI on the document containing the decision.

4 Functional Requirements for ECLI 2.0

The analysis of the current use of ECLI 1.0, using national web sites and questionnaires, stressed the fact that there are some hidden needs not well addressed by the current syntax of ECLI 1.0.

4.1 Casing

ECLI was designed with emphasis on literal use in text. According to the current Council Conclusions ECLIs should be written in capitals, but mixed case is permitted (since this is essential in the citation habits of certain jurisdictions).

ECLI is case-insensitive: there is no difference in meaning as to their capitalization. It is expected that the casing is preserved when storing ECLIs.

Requirement #1

ECLI 2.0 is case insensitive. The URI in XML and RDF lowercase takes precedence. Metadata: “preferredForm” with the values “uppercase, lowercase, mixcase”.

Example:
The following variants of ECLI are equivalent even if one is preferred by the authority.

<table>
<thead>
<tr>
<th>ECLI:DE:BVERWG:2012:300512B1WB58.11.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>ecli:de:bverwg:2012:300512b1wb58.11.0</td>
</tr>
<tr>
<td>ECLI:DE:BVerWG:2012:300512B1WB58.11.0</td>
</tr>
</tbody>
</table>

4.2 Extension of the Date

In some situations the date is included in the fifth element for reasons of disambiguation, especially if the case number is used in the fifth element and there is more than one decision in the proceedings.
4.3 Extension of the Court Code

Problem: the court code limited to seven chars creates problems for several countries.

4.4 FRBR levels

ECLI 1.0 is meant as a WORK identifier, while there is also need to identify and/or cite different expressions and/or manifestations.

4.4.1 Language Expression

A court decision can exist in different languages. It should be possible to point to the correct language version, as required by the context of the citation. Different variants for such language expressions can exist:

1) A court decision can exist in different languages which are all equally authoritative, in case the court has rendered/issued/pronounced the decision in all the languages.

2) A court decision can exist in different official/original languages while only one is authoritative (e.g. CJEU: most decisions are issued by the CJEU in various EU languages,
while the only language legally binding is the “language of the proceedings” that is authoritative).

3) Decisions can be translated by third parties. These are non-authoritative, and might be official or not. Such non-official translations might be published on the site of the rendering court or at a different location, while these two translations do not have to be the same.

4) Apart from full translations, often translated summaries exist. They can be regarded as a linguistic variant of an ECLI, but one can wonder when translated metadata are discriminative enough to 'earn' the title of a language variant.

For specifying the authoritativeness of the source we use metadata (see par. 6) as well as the type of the document (e.g. summary).

<table>
<thead>
<tr>
<th>Requirement #5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add information about the linguistic expression required in the reference only if that information is also available in the citation, and specify the editorial expression as well.</td>
</tr>
</tbody>
</table>

4.4.2 Material Expression

There are situations, although not frequent, where different material (temporal) versions exist. This happens when clerical or substantive errors have been made, necessitating a new version by the issuing court. Different solutions can be chosen by the court, e.g. issuing a new decision as a corrigendum to the original one, or replacing the original decision.

<table>
<thead>
<tr>
<th>Requirement #6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add information about the temporal version in the identifier and add metadata connected to them. Leave the definition/listing of such versions to the National ECLI Coordinators and define only when they should introduce it.</td>
</tr>
</tbody>
</table>

4.4.3 Editorial Expression

The authority that emits the decision, could produce versions that are edited for different reasons: anonymization for privacy purposes is one of the most frequent, but also summary and comments are not infrequent in several judicial systems.

1) Anonymized/ Obscured Version.
An anonymized or obscured version could be produced by the authority or by a private sector publisher. The anonymized or obscured text is modified from the original version, creating a new expression. ECLI 2.0 should permit to identify this anonymized version.

2) Summary version

In various judicial traditions summary judgments exist. Three types of summaries can be identified:

   a) A summary that is a rewording of the decision written by the court;
   b) An abridged version, which is an extract of the most relevant paragraphs of the decision;
   c) Only the part containing the final decision.

It should be noted here that commentaries by third parties (e.g. commercial publishers) have to be considered as separate works, that have a relation with the court decision, but are not part of it or its metadata.

4.4.4 Implicit and Explicit Legal Citations

Theoretically speaking case law references included in decisions (or other documents) are static, frozen to a given version, variant, language when the judge takes the decision. This is a principle of theory of law that leads all the interpretation work of the judge. It is not possible to cite something different that the judge did know at the moment of the decision and it is not possible, using digital versions, to deference some citations in an approximate manner (e.g., all the versions in all the languages). However, decisions are mostly monolingual and monoversion and are atomically cited as whole document. For this reason the WORK level is often used for case law citations because the final decision that the judge wants to refer to, is an invariant among languages and versions. Although in many jurisdictions citations are often made by using an expression level identifier (e.g. a reporter or a commercial magazine), in this new scenario two different situations are eligible: 1) it must be possible for citations to specify just the Work mentioned or only the default ‘best-expression’ according to the end-user parameters (e.g. only the Italian linguistic version); 2) it must also be possible for citations to specify a specific Expression.

As to temporal or material versions, these are defined by the authorities which assign ECLI. E.g.: the CJEU can define that language expressions can be used, and if they do, they are supposed to be referring to the language versions created by the CJEU itself. In Germany all documents are in German, so a language expression is useless and confusing. Nevertheless, of course decisions can be translated into e.g. Romanian, but to refer to it a more specific addressing is needed, including the creator of the language expression.
4.5 Fragments in the Reference

Even if citations to a judgment are made at the work level, sometimes we find a citation to a specific fragment of the decision. The citations must include the precise information of the point to cite. Sometimes it is necessary to make a citation to an interval of paragraphs or a list of fragments.

<table>
<thead>
<tr>
<th>Type of Fragment</th>
<th>Abbreviation to be used</th>
</tr>
</thead>
<tbody>
<tr>
<td>part</td>
<td>part</td>
</tr>
<tr>
<td>section</td>
<td>sec</td>
</tr>
<tr>
<td>subsection</td>
<td>subsec</td>
</tr>
<tr>
<td>paragraph</td>
<td>para</td>
</tr>
<tr>
<td>subparagraph</td>
<td>subpara</td>
</tr>
<tr>
<td>decision (final part of the decision containing the actual decision)</td>
<td>decision</td>
</tr>
<tr>
<td>annex</td>
<td>anx</td>
</tr>
</tbody>
</table>

4.6 Query for API

A language for the query API is required in order to favour interoperability and for collecting court decisions using a common syntax.
4.7 Double Syntax

ECLI 1.0 is not an HTTP URI. This has been an explicit design choice for the following reasons:

1) Contrary to e.g. legislative documents, in many jurisdictions there is not a single authoritative online version of a court decision, which makes hard to establish the domain-part of an HTTP-URI.

2) ECLI was perceived to be a human readable identifier, using a full HTTP-URI would decrease the willingness of legal authors to use ECLI in textual documents for referring to court decisions.

For many web developers this is serious hindrance, since this makes it hard to refer to a document that is identified by an ECLI. Some ECLI implementing Member States provide a deeplink containing ECLI, which is sometimes actively promoted and sometimes harder to discover. Some Member States have not implemented an ECLI deeplink (yet).

As a result it is not possible to use ECLI within the Semantic Web: some ECLIs do not have an absolute URI, others have more than one, but it cannot be established they are actually the same.

For these reasons for ECLI 2.0 it is suggested to allow two syntaxes, fully equivalent:

1) Colon-based syntax for backward compatibility and for a possible urn scheme registration with IETF;

2) Slash-based syntax for HTTP-URIs. Although ECLI 2.0 must be case insensitive, because of the requirements of the HTTP specifications this syntax version must be lower-cased.

Example:

ECLI form: ECLI:DE:BVerWG:2012:300512B1WB58.11.0
HTTP-URI form: /ecli/de/bverwg/2012/300512b1wb58.11.0
5  Technical Requirements for the Identifier

5.1  Augmented Backus-Naur Form

<table>
<thead>
<tr>
<th>Requirement #12</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECLI 2.0 identifier is formalized in ABNF (Augmented Backus-Naur Form)</td>
</tr>
<tr>
<td>[RFC5234] meta-language.</td>
</tr>
</tbody>
</table>

5.2  HTTP convertible

<table>
<thead>
<tr>
<th>Requirement #13</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECLI 2.0 should be easily convertible into HTTP-URI according to the HTTP protocol. An XSLT should be provided for the transformation in order to assure the compatibility among the two syntaxes.</td>
</tr>
</tbody>
</table>

5.3  JSON Serialization

<table>
<thead>
<tr>
<th>Requirement #14</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECLI 2.0 identifier is formalized using a JSON serialization. This is useful for improving the API interchange among software components.</td>
</tr>
</tbody>
</table>

5.4  Absolute HTTP URIs

It is recommended to use the ECLI identifier in any repository. Nevertheless, due to technical, financial, legal or organisational constraints this might not be achievable, in the short term or at all.

Also, in a substantial number of jurisdictions decisions are published by more than one institute/website.

Finally, in RDF triple stores or RDF applications absolute URIs are required. An absolute (HTTP) URI might not always be known, it might not exist, or there might be more than one, and/or in different variants of the formatting.

Therefore, there MUST be one HTTP URI that can always be used if an ECLI exists. It has to exist at the WORK level, and is created by:

- replacing colons by slashes
- lowercasing everything

prefixing it with http://ecli.eu/
This is to create an HTTP URI that can always be used for identification, whether or not an HTTP URI has been introduced by the ECLI assigning authority. It is not meant for resolution, although a resolution mechanism could be attached to it. To determine that one ECLI is the same as the other, this variant MUST always be added to ECLI 2.0 metadata in the RDFa linearization with an <owl:sameAs />, like:

```
  <ecli:preferredForm>ECLI:NL:HR:2015:483</ecli:preferredForm>
  <owl:sameAs rdf:resource="http://ecli.eu/ecli/nl/hr/2015/483"/>
</rdf:Description>
```

**Requirement #15**
The authority part for the ECLI 2.0 HTTP URI must always at least be assigned to the domain http[s]://ecli.eu/

### 6 ECLI 2.0 Metadata

ECLI 1.0 defines metadata, which have been extended and translated into an XSD schema. The goal of this chapter is to:
- Enrich ECLI 1.0 metadata with additional metadata;
- Reuse as much as possible the existing vocabulary especially if already adopted by some standardization or authority body;
- Mapping the existing ECLI 1.0 metadata on the new vocabulary.

The metadata scheme shouldn’t be too complicated, keeping in mind that a lowest common denominator often leads to more interoperability than a very detailed but incomprehensible scheme that tries to cover all possible varieties.

#### 6.1 ECLI 1.0 Metadata

The current metadata scheme contains the following elements:

<table>
<thead>
<tr>
<th>Metadata</th>
<th>Multiple Definition</th>
<th>Mandatory</th>
<th>Multilingual</th>
<th>Fixed list of values</th>
</tr>
</thead>
<tbody>
<tr>
<td>abstract</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
6.2 Functional Requirements for ECLI 2.0 Metadata

6.2.1 Types of Documents.

It has turned out that the list of values for the document types does not cover the needs.

Requirement #16
Enlarge the values of the types of document

6.2.2 Types of References

It has turned out that the list of values for the Reference types does not cover the needs.
### Requirement #17
Enlarge the values of the type of Reference with "replacing" and "replacedBy"

### 6.2.3 FRBR Hierarchy of Metadata

### Requirement #18
The metadata of the different levels of FRBR must be clearly separated.

### 6.2.4 Metadata at Work level

### Requirement #19
Add the following metadata at the Work Level

<table>
<thead>
<tr>
<th>New Metadata at Work Level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Metadata</strong></td>
</tr>
<tr>
<td>Case number</td>
</tr>
<tr>
<td>Importance of decision</td>
</tr>
<tr>
<td>Preferred form case sensitivity</td>
</tr>
<tr>
<td>parties</td>
</tr>
</tbody>
</table>

---

This project is co-funded by the European Union
<table>
<thead>
<tr>
<th>Judge and non-judge (specification of current element ‘contributors’)</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral citation</td>
<td></td>
</tr>
<tr>
<td>Date of deposit</td>
<td></td>
</tr>
<tr>
<td>Official language of the decision (ISO 3166-1 alpha-3)</td>
<td>X</td>
</tr>
<tr>
<td>Alias <a href="">owl:sameAs/</a></td>
<td>X</td>
</tr>
</tbody>
</table>

### 6.2.5 Metadata at Expression Level

#### Requirement #20
Add the following metadata at the Expression Level

<table>
<thead>
<tr>
<th>New Metadata at Expression Level</th>
<th>Multiple Definition</th>
<th>Mandatory</th>
<th>Multilingual</th>
<th>Fixed list of values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compiler (author of the expression)</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creation date (of the expression) – yyyy-mm-dd</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expression identifier</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Start date and end date of validity of the expression – yyyy-mm-dd</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language of the current expression – ISO 3166-1 alpha-3</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of content expression</td>
<td>x</td>
<td></td>
<td>x full, anonymized, amended, abridged version)</td>
<td></td>
</tr>
</tbody>
</table>
This project is co-funded by the European Union

<table>
<thead>
<tr>
<th>Metadata</th>
<th>Multiple Definition</th>
<th>Mandatory</th>
<th>Multilingual</th>
<th>Fixed list of values</th>
</tr>
</thead>
<tbody>
<tr>
<td>editor (author of the manifestation)</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>creation date (of the manifestation) - yyyy-mm-dd</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a data format (or a well-know abbreviation of it) – e.g., PDF</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>authoritativeness of the manifestation (boolean flag, optional) &quot;yes&quot; or &quot;no&quot; if explicitly present, &quot;not known&quot; if absent.</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6.2.6 Metadata at Manifestation Level

**Requirement #21**
Add the following metadata at the Manifestation Level

**New Metadata at Manifestation Level**

<table>
<thead>
<tr>
<th>Metadata</th>
<th>Multiple Definition</th>
<th>Mandatory</th>
<th>Multilingual</th>
<th>Fixed list of values</th>
</tr>
</thead>
<tbody>
<tr>
<td>editor (author of the manifestation)</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>creation date (of the manifestation) - yyyy-mm-dd</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a data format (or a well-know abbreviation of it) – e.g., PDF</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>authoritativeness of the manifestation (boolean flag, optional) &quot;yes&quot; or &quot;no&quot; if explicitly present, &quot;not known&quot; if absent.</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6.3 Technical Requirements for ECLI 2.0 Metadata

6.3.1 RDF, RDFa and JSON-LD Format of Metadata

**Requirement #22**
The metadata are formalized in RDF/XML, RDFa and in JSON-LD to facilitate the detection of metadata inside HTML pages. An RDF-schema is necessary.
## 7 ECLI 2.0 Identifier Syntax

The following scheme gives an overview of the syntax to be used for the ECLI identifier, based on an example of the CJEU.

<table>
<thead>
<tr>
<th>Work:</th>
<th>ECLI:EU:C:2014:317</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expression URI in HTTP syntax:</td>
<td>ecli/eu/c/2014/317(aca/esp/v1)</td>
</tr>
<tr>
<td>Expression with some elements skipped:</td>
<td>ECLI: IT:CASS:2012:7553CIV(:V1)</td>
</tr>
<tr>
<td>ECLI:EU:C:2014:317(:V1)</td>
<td></td>
</tr>
<tr>
<td>Manifestation:</td>
<td>ECLI:EU:C:2014:317(:ACA:ESP:V1)(:PDF)</td>
</tr>
<tr>
<td>Fragment:</td>
<td>ECLI:EU:C:2014:317#para41</td>
</tr>
<tr>
<td></td>
<td>ECLI:EU:C:2014:317(:ACA:ESP:V1)#part2-para3</td>
</tr>
<tr>
<td></td>
<td>ECLI:EU:C:2014:317(:ACA:ESP:V1)(:HTML)#part2-para3</td>
</tr>
<tr>
<td>Intervals and Ranges:</td>
<td>Range (from – to) #para34-36</td>
</tr>
<tr>
<td>List</td>
<td>#para34,37,38</td>
</tr>
<tr>
<td>Query Syntax for the API:</td>
<td>ECLI:EU:C:2014:317 Returns all expressions related with the work or the default option (see the par. 4.4.4)</td>
</tr>
<tr>
<td></td>
<td>ECLI:EU:C:2014:317(:ACA:ESP:$) Returns all expression content versions (if any) in Spanish, published by ACA</td>
</tr>
<tr>
<td></td>
<td>ECLI:EU:C:2014:317(:ACA:ESP:$)(:PDF) Returns all PDF manifestations related to content versions (if any) in Spanish, published by ACA</td>
</tr>
<tr>
<td>Pivotal HTTP URI for work level</td>
<td><a href="http://ecli.eu/ecli/eu/c/2014/317">http://ecli.eu/ecli/eu/c/2014/317</a></td>
</tr>
</tbody>
</table>