MODELLING AND EXCHANGING ANNOTATIONS FOR EUROPEANA PROJECTS

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SWIB15: Semantic Web in Libraries

Zelfportret met baret en opengesperde ogen
1630-1700, Rijksmuseum Netherlands, Public Domain

europeana

Why are annotations useful?

- For users, a means to…

  - Contribute with their knowledge

  - Discuss and share their knowledge with others

- For Cultural Institutions, a new way and opportunity to...

  - Improve the overall quality of their data

  - Contribute to a better semantic description
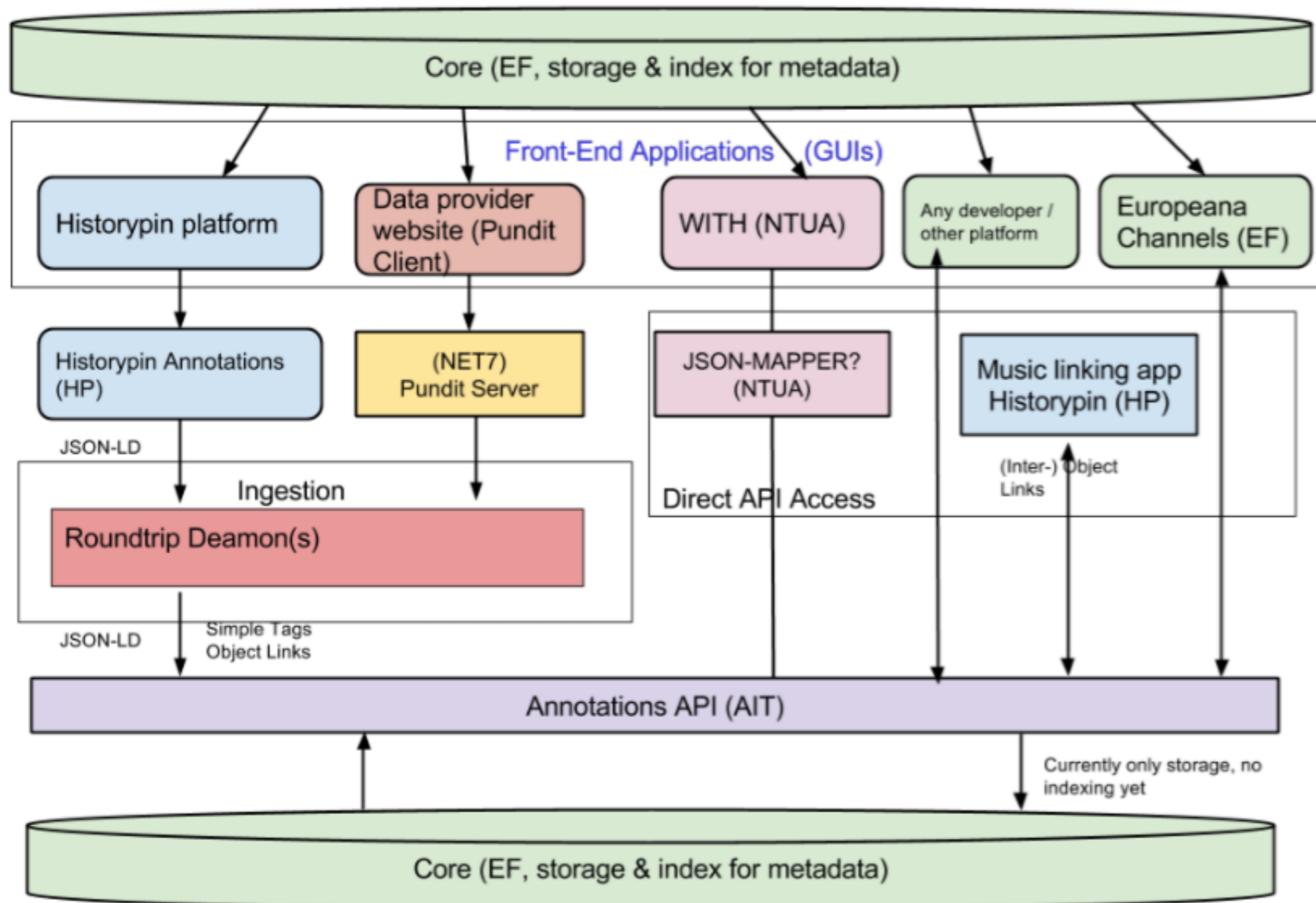
  - Link to the web of data

Annotations Landscape
within Europeana Network

- **PATHS project**
  - Automatic semantic enrichments

- **DM2E**
  - Scholarly annotations
  - Using the Pundit toolset (http://thepund.it/)

- **SEALINCmedia**
  - Expert annotation "nichesourcing"
  - Developed the Accurator tool (http://rma-accurator.appspot.com/)

- **Europena Creative**
  - Pre-alpha version of the AnnotationsAPI

- **Europeana 1989**
  - Annotations in HistoryPin.org

- **Europeana V3**
  - Roundtripping of annotations with HistoryPin.org

- **Europeana Food&Drink**
  - Annotations in HistoryPin.org
  - Ongoing...

- **Europeana Sounds**
  - Wider range of user scenarios for annotations
  - Ongoing...

Annotation Scenarios
in eSounds

- A user annotates a Cultural Heritage Object, in particular...
  - Information describing the object
  - Contextual information
  - Media resources representing the object

- In order to...
  - Comment and discuss with other users
  - Tag with terms from controlled vocabularies
  - Relate them together
  - Complete or correct information
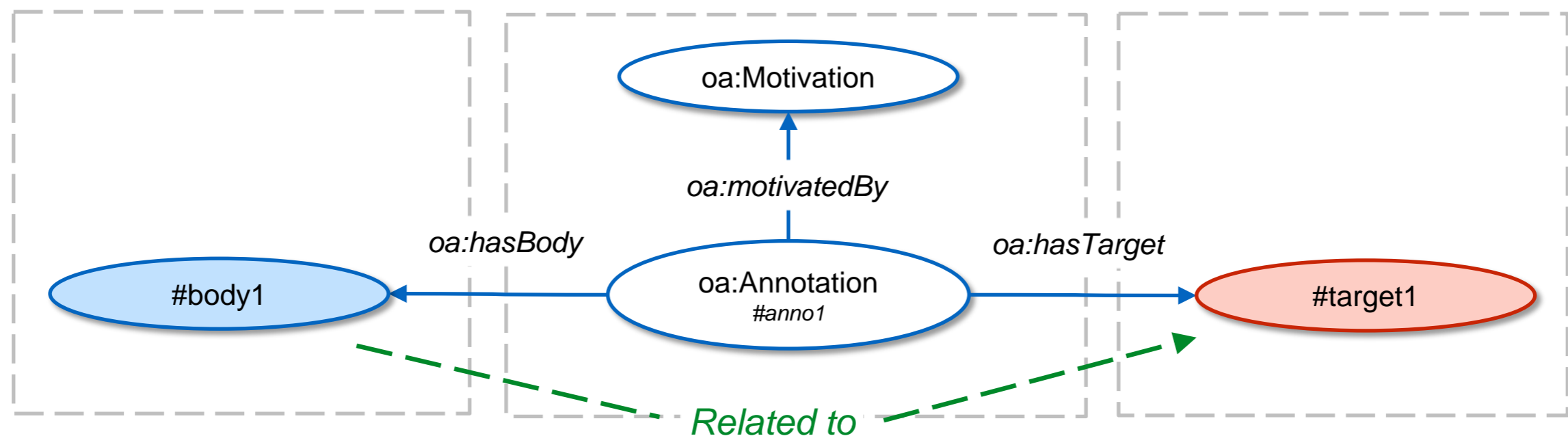 - Favour or moderate annotations made by other users

Overview of the Architecture
eSounds

Core (EF, storage & index for metadata)

Front-End Applications (GUIs)

| Historypin platform | Data provider website (Pundit Client) | WITH (NTUA) | Any developer / other platform | Europeana Channels (EF) |

Historypin Annotations (HP)

(NET7) Pundit Server

JSON-MAPPER? (NTUA)

Music linking app Historypin (HP)

JSON-LD

Ingestion

Roundtrip Deamon(s)

Direct API Access

(Inter-) Object Links

JSON-LD   Simple Tags Object Links

Annotations API (AIT)

Currently only storage, no indexing yet

Core (EF, storage & index for metadata)

Modelling Annotations
interoperability across platforms

- We adopted the W3C Web Annotation Data Model (http://www.w3.org/TR/annotation-model/)

    - presented also at SWIB last year!

- Based on RDF and defines JSON-LD as default serialization format

- Offers a simple model for exchanging annotations across platforms
    ... but flexible enough to support complex scenarios

- Still in its early stages of design and adoption

Commenting and Tagging
HistoryPin.org

First World War Centenary › Illustrated First World War

By: Illustrated London News LTD

FIRST WORLD WAR CENTENARY
Illustrated First World War

German submarine on view in London

German submarine on view in London

U C 5, a captured German submarine, exhibited at Temple Pier in London with the British ensign flying over the German flag. See more at

ILLUSTRATEDFIRSTWORLDWAR

Illustrated First World War, WW1 Facts, WW1 Soldiers & Women | Illustrated London News

above magazines were published week commencing the 23rd 5. Please make a selection above. [caption attachment_146935" align="alignright" width="429"] German Prisoners in England - being marched off to the Frith Hill Detention Compound.[/caption] Prisoners of War (POW) were key aspects of the propaganda machine in the First World War.

Read the article on illustratedfirstworldwar.com >

COMMENTS & STORIES FROM OUR MEMBERS

Illustrated London ...
said on 22 August 2014

German submarine on view in London - 26 June 1916

U C 5, a captured German submarine, exhibited at Temple Pier in London with the British ensign flying over the German flag.

26 June 1916

TAGS

london | great war | first world war | ww1 | britain

submarine | fww | u-boat | unterseeboot

illustrated sporting and dramatic news

tag name | ADD A TAG

PIN METADATA

Licence: Creative Commons Attribution-NonCommercial-NoDerivs (CC-BY-NC-ND)
Rights Statement:
Added to Historypin: July 31, 2014, 9:44 a.m.

Report this Pin

1914 | 26 June 1916 | 1919
1914 | 1919

edm:ProvidedCHO
http://data.europeana.eu/item/...

oa:tagging

oa:motivatedBy

oa:hasTarget

oa:hasTarget

oa:commenting

oa:Annotation
http://data.europeana.eu/annotation/
historypin/2

oa:motivatedBy

oa:Annotation
http://data.europeana.eu/annotation/
historypin/1

oa:hasBody

oa:hasBody

Annotations API

- Adopts the W3C Web Annotation Protocol (http://www.w3.org/TR/annotation-protocol/)
- Backend developed using MongoDB and Solr
- Alpha version at: http://test-annotations.europeana.eu/

web-annotation-protocol : Web Annotation Protocol   Expand Operations | Raw

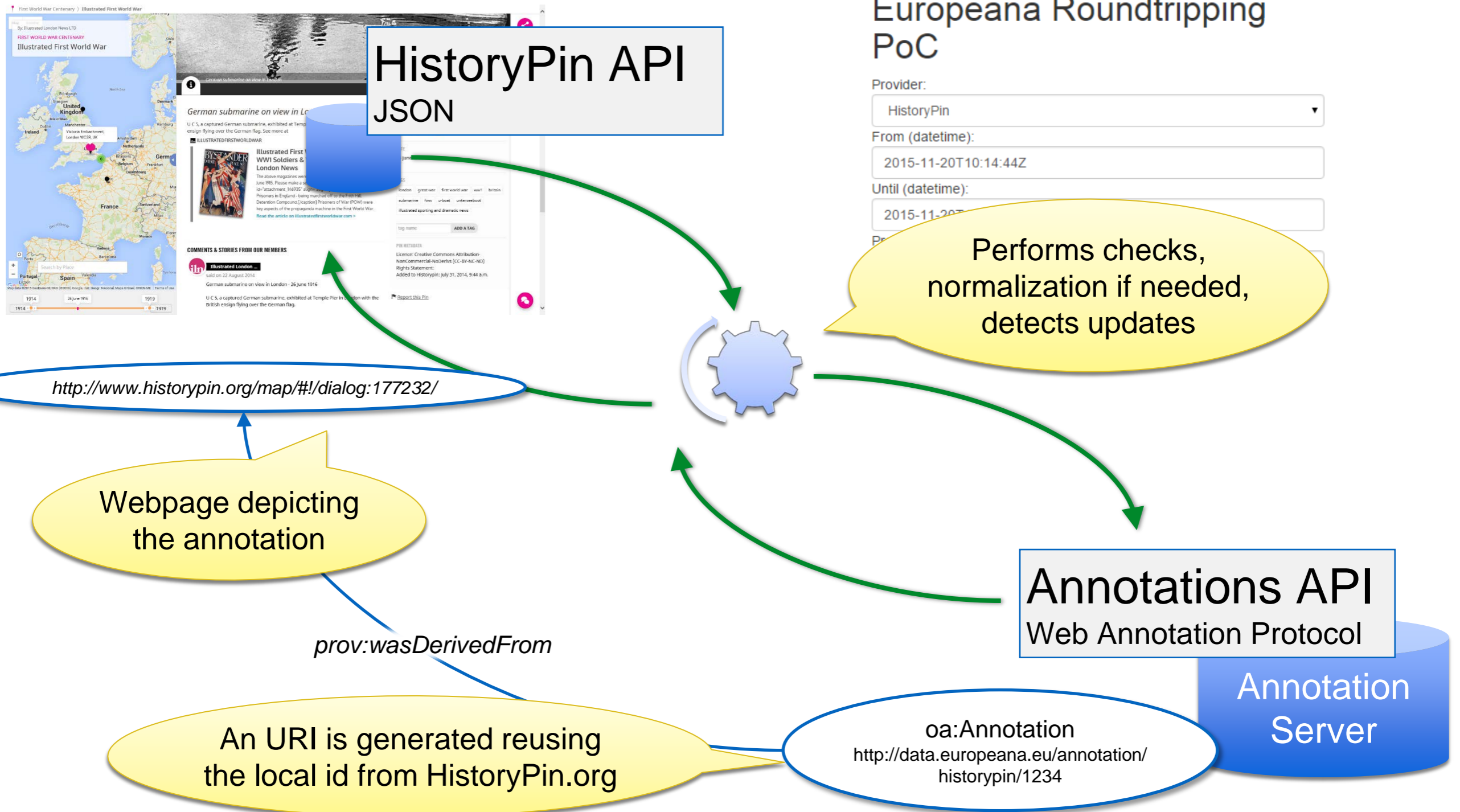| POST | /annotation/ | createAnnotation |
POST	/annotation/{annoType}.jsonId	notationByTypeJsonId
DELETE	/annotation/{provider}/{identifier}	deleteAnnotation
PUT	/annotation/{provider}/{identifier}	updateAnnotation
GET	/annotation/{provider}/{identifier}	getAnnotation
PUT	/annotation/{provider}/{identifier}.jsonId	sonId
DELETE	/annotation/{provider}/{identifier}.jsonId	onJsonId
GET	/annotation/{provider}/{identifier}.jsonId	getAnnotationJsonId

web-annotation-search : Search API   Show/Hide | List Operations | Expand Operations | Raw

GET	/annotation/search	search
POST	/annotation/search	search
GET	/annotation/search.jsonId	search
POST	/annotation/search.jsonId	search

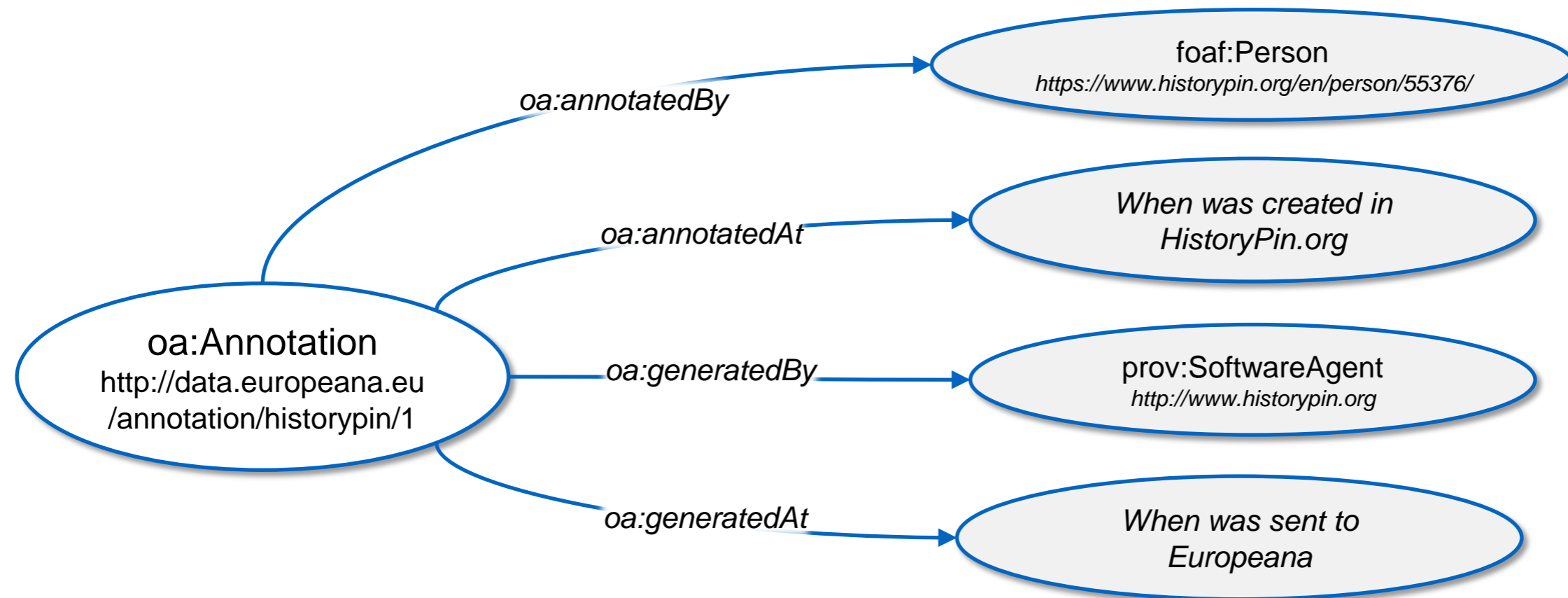> Auxiliary methods for developers to quickly create annotations using only parameters

> CRUD methods structured per Annotation Provider (e.g. HistoryPin.org)

> Additional methods for Search
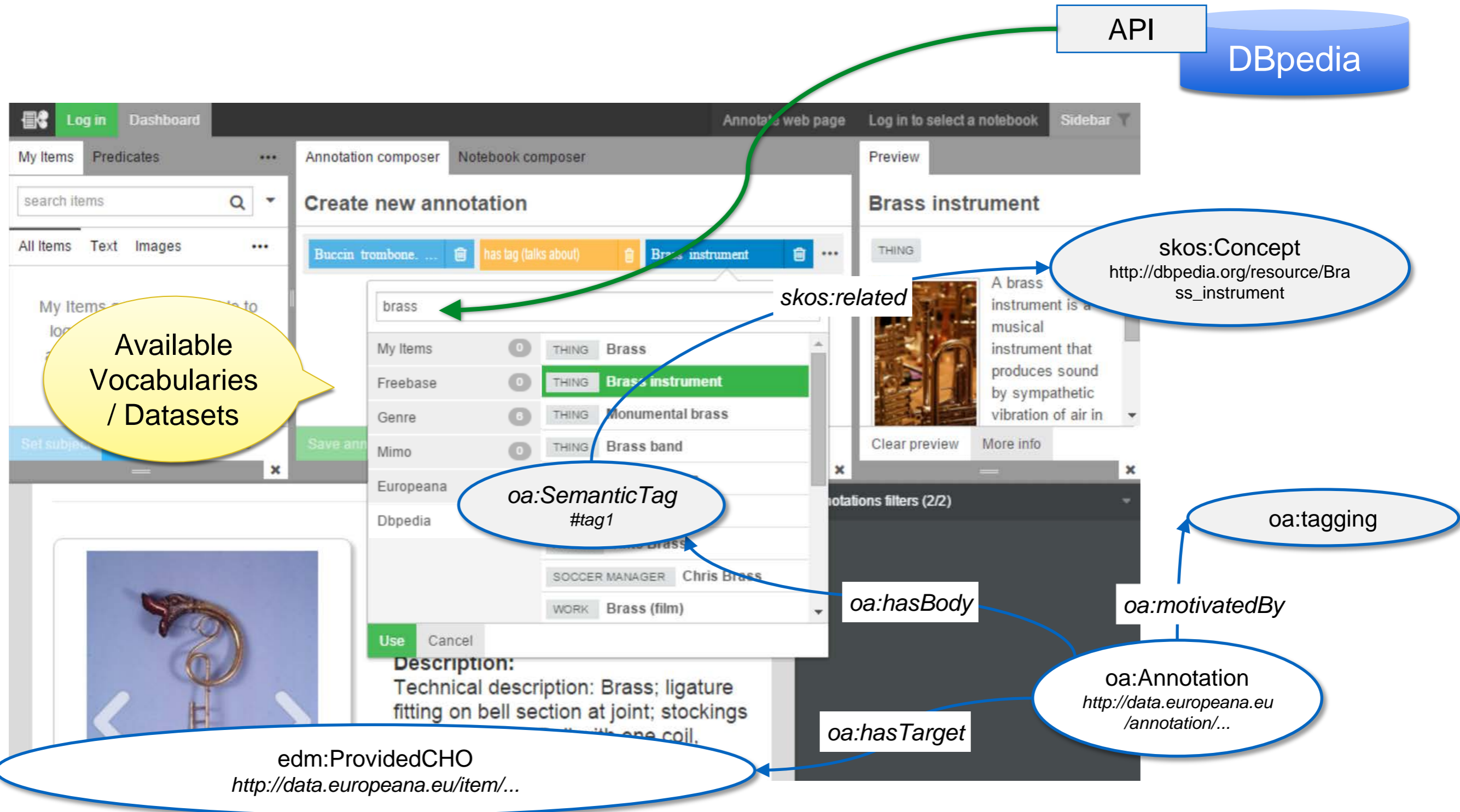
Exchanging Annotations
with HistoryPin.org

HistoryPin API
JSON

Europeana Roundtripping PoC

Provider:

HistoryPin ▾

From (datetime):

2015-11-20T10:14:44Z

Until (datetime):

2015-11-20T...

Performs checks, normalization if needed, detects updates

http://www.historypin.org/map/#!/dialog:177232/

Webpage depicting the annotation

prov:wasDerivedFrom

Annotations API
Web Annotation Protocol

Annotation Server

An URI is generated reusing the local id from HistoryPin.org

oa:Annotation
http://data.europeana.eu/annotation/
historypin/1234

Capturing Provenance
for HistoryPin.org

oa:Annotation
http://data.europeana.eu
/annotation/historypin/1

oa:annotatedBy

foaf:Person
https://www.historypin.org/en/person/55376/

oa:annotatedAt

When was created in HistoryPin.org

oa:generatedBy

prov:SoftwareAgent
http://www.historypin.org

oa:generatedAt
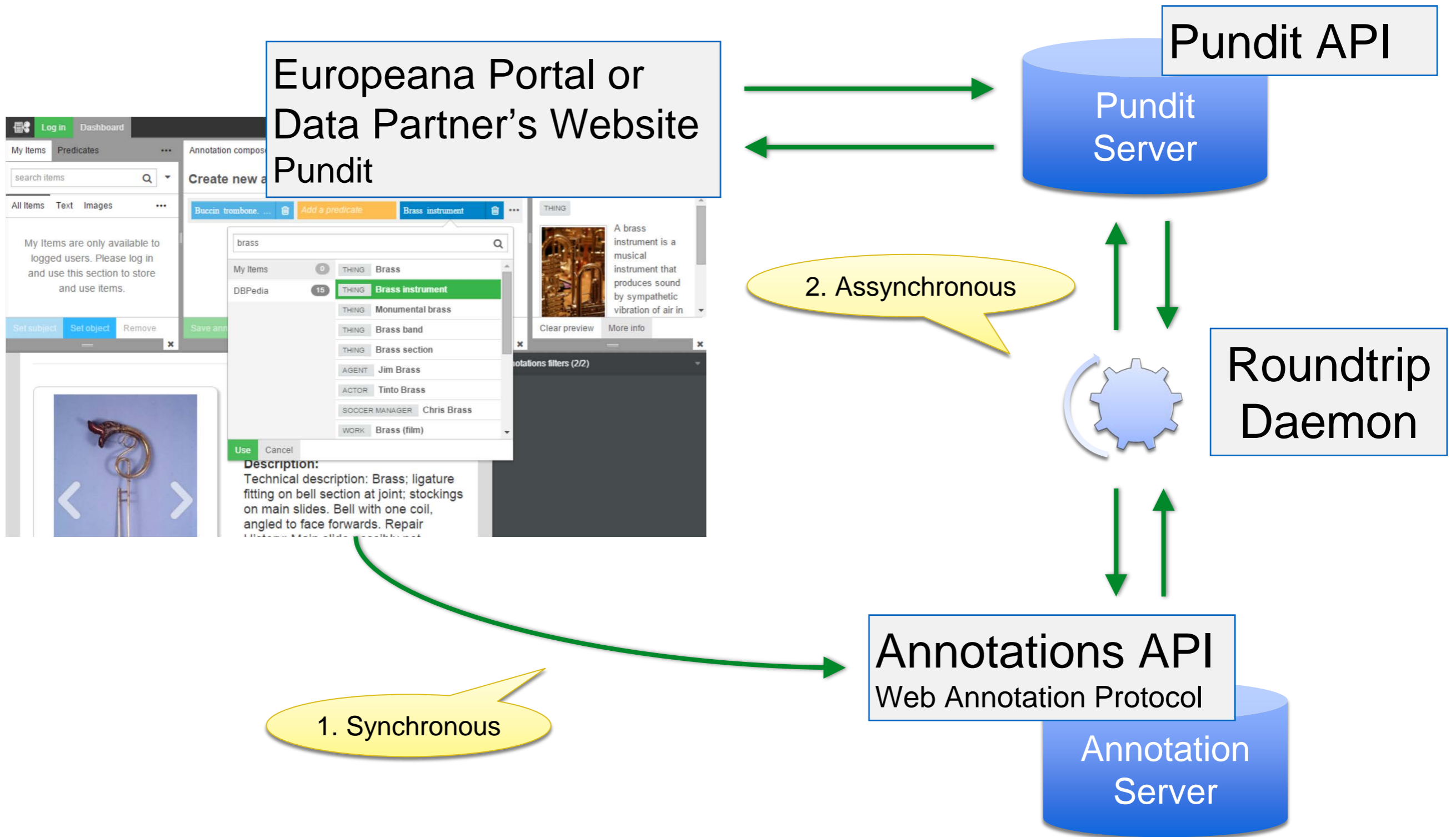
When was sent to Europeana

A concrete annotation
from HistoryPin.org

```
{
    "@context": "http://www.w3.org/ns/oa-context-20130208.json",
    "@id": "http://test-annotations.europeana.eu/annotation/historypin/136290",
    "@type": "oa:Annotation",
    "annotatedAt": "2015-02-27T12:00:43",
    "annotatedBy": {
        "@id": "https://www.historypin.org/en/person/55201/",
        "@type": "foaf:Person",
        "name": "Lise Schauer"
    },
    "body": "bus",
    "motivation": "oa:tagging",
    "serializedAt": "2015-02-28T13:00:34",
    "serializedBy": {
        "@id": "https://www.historypin.org/en/person/55201/",
        "@type": "foaf:Person",
        "name": "Lise Schauer"
    },
    "target": "http://data.europeana.eu/item/9200257/BibliographicResource_3000055619928"
}
```

Taggging with Controlled Vocabularies with Pund.it

API

DBpedia

Available Vocabularies / Datasets

skos:related

skos:Concept
http://dbpedia.org/resource/Brass_instrument

oa:SemanticTag
#tag1

oa:tagging

oa:hasBody

oa:motivatedBy

oa:hasTarget

oa:Annotation
http://data.europeana.eu/annotation/...

edm:ProvidedCHO
http://data.europeana.eu/item/...

Exchanging Annotations
with Pund.it

Europeana Portal or
Data Partner's Website
Pundit

Pundit API

Pundit Server

2. Assynchronous

Roundtrip Daemon

Annotations API
Web Annotation Protocol

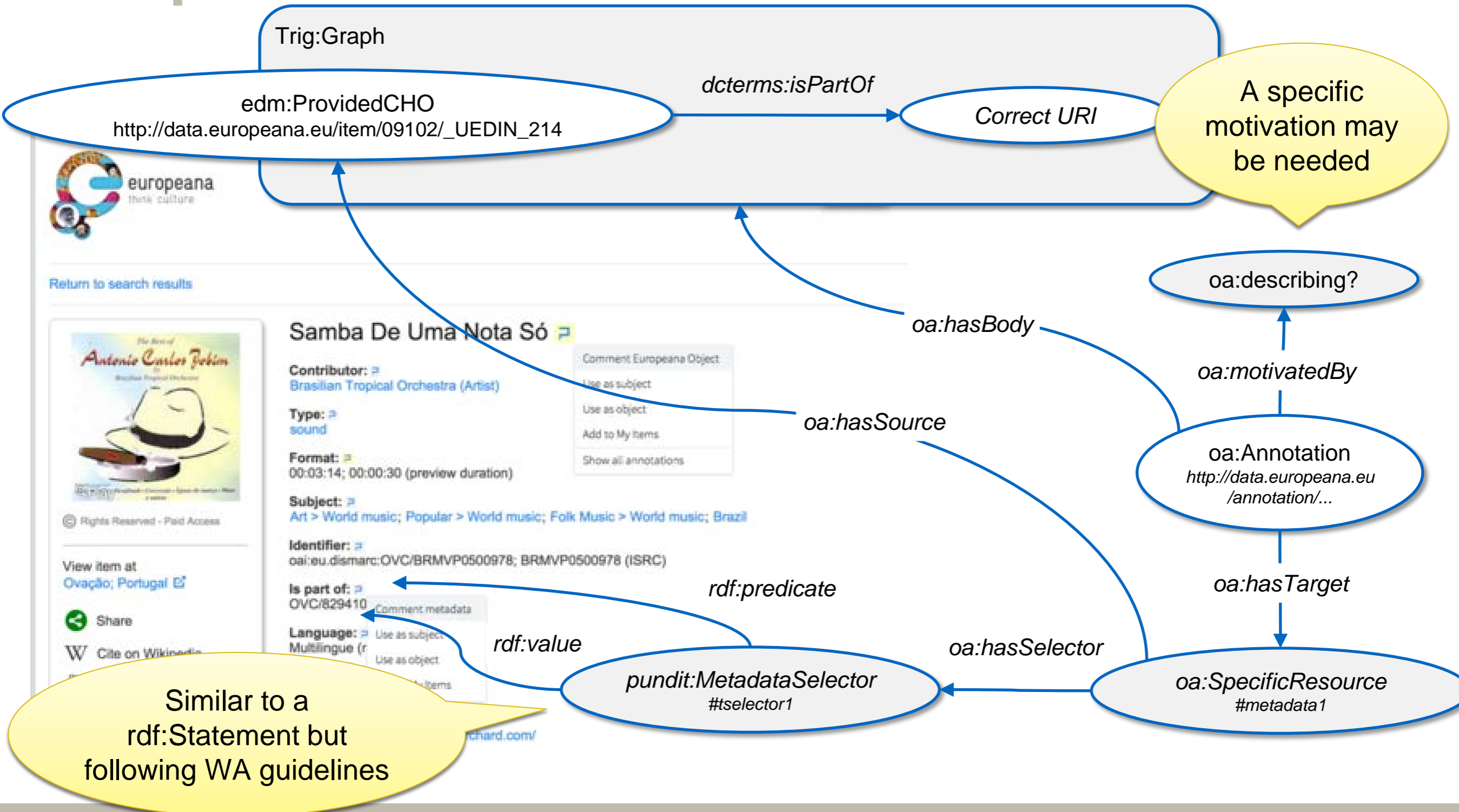Annotation Server

1. Synchronous

Modelling Metadata Annotations
A proposal

- We consider metadata annotations as...

  - any annotation that refers to or asserts a statement to the information describing an object in order to complete or correct it

- Ideally, and like other annotations, they should be

  - agnostic to the way they are presented to the user in the interface
  - machine readable

- So that metadata annotations can

  - survive changes to the interface design;
  - allow them to be easily shared outside the interface they were originally created;
  - allow for other software applications to take further advantage of it

Modelling Metadata Annotations
Proposal for a correction

wrapping up...

- *Representing and exchanging annotations is relevant for many applications in the Europeana Network*

    … it is still work in progress

- **On modelling...**

    - W3C Web Annotation Data Model gives a good interoperable base

    - Need for best practices for specific applications / domains to ensure consistency across platforms

        - i.e. for metadata annotations

- **On exchange...**

    - Web Annotation Protocol has just been release

    - Support for more methods is essential (i.e. search)

    - Still needs to mature and achieve wider adoption

The Wardens of the Amsterdam Drapers' Guild, Known as 'The Syndics'
Rembrandt Harmensz. van Rijn
1662, Rijksmuseum
Netherlands, Public Domain

europeana

#AllezCulture

Thank you!