

Project

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| Project Acronym: | AthenaPlus |
| Grant Agreement number: | 325098 |
| Project Title: | Access to cultural heritage networks for Europeana |

Deliverable

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| Deliverable name: | Evaluation of the pilot sessions and second release of GLAM sector reference terminologies |
| Deliverable number: | D4.8 |
| Delivery date: | October 2015 |
| Dissemination level: | Public |
| Status | |
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Revision History

| Revision | Date | Author | Organisation | Description |
|----------|---------|-----------------------|--------------|-----------------|
| V0.1 | 2015-10 | Eva Coudyzer | KMKG | First draft |
| | 2015-11 | Monika Hagedorn-Saupe | SPK | comments |
| V0.2 | 2015-11 | Eva Coudyzer | KMKG | Final revisions |
| | 2015-11 | Maria Teresa Natale | ICCU | Formal check |
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Statement of originality

This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.

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1 EXECUTIVE SUMMARY

This deliverable reports on two tasks described in WP4 related to the Terminology Management Platform (TMP): the organisation of training sessions and the collection of vocabularies from the GLAM-sector (*galleries, libraries, archives and museums*).

It reports on the organised pilot sessions meant to refine the functionalities and user friendliness of the semantic mapping tool for terminologies. A detailed overview of the questions asked to the system reviewers, their remarks and recommendations, and the eventual changes made to the TMP are included in this report.

The deliverable also includes the second release of the public terminology resource report (2nd release), presenting an updated overview of the analysis of GLAM terminologies and a detailed overview of the terminologies gathered in the registry of terminologies.

2 INTRODUCTION

The deliverable will start with an overview of the organised training sessions, including a chapter on the organisation and material, an example of a TMP-training programme, an overview of the evaluations carried out and the actions taken as a result of the evaluations in order to improve the TMP.

The second part gives an overview of the terminologies that are available in the TMP and online for AthenaPlus-partners or other GLAM-sector organisations that wish to use and/or consult terminologies. This part of the deliverable is an update of the collection of terminologies presented in D4.1 (August 2013).¹

2.1 Background

The deliverable D4.8 describes the resources needed for importation, mapping and export of terminologies in the Terminology Management Platform, an open-source tool developed by the University of Savoie (<http://athenaplus.thesaurus.condillac.org/>).

¹ D4.1, *First release GLAM sector reference terminologies*, August 2013:
<http://www.athenaplus.eu/index.php?en/156/deliverables-and-documents>

3 Training sessions

3.1 Training sessions: Organisation and material

7 training sessions were organised in the AthenaPlus-project:

| Date | Place | Number of participants |
|-------------------|--------------------|------------------------|
| 7 October 2013 | Berlin, Germany | 20 |
| 20 March 2014 | Bucharest, Romania | 29 |
| 30 September 2014 | Rome, Italy | 12 |
| 27 February 2015 | Riga, Latvia | 31 |
| 20 March 2015 | Budapest, Hungary | 15 |
| 27 March 2015 | Berlin, Germany | 8 |
| 21 October 2015 | Rome, Italy | 70 |

Four of the training sessions were organised during plenary meetings (Bucharest, Berlin, Rome and Riga) and three were organised in smaller groups or so-called pilot-sessions (Rome, Budapest and Berlin). The majority of attendees at the plenary meetings are recurrent. The training sessions in smaller groups often give more efficient and qualitative feedback.

The profile of the participants can be divided in three groups:

- GLAM-sector professionals dealing with collection management and terminologies for indexing and cataloguing
- Students in the cultural domain
- Professionals from software companies working mainly for cultural institutions

The training sessions consisted of a theoretical and a practical part. The theoretical part included an introduction to the semantic web and SKOS (the format used to link terminologies on the web), followed by a live demonstration of the TMP. The day ended with practical exercises with sample-vocabularies from the trainer or trainee.

3.2 Training session: programme

Please find below an example of a training session invitation:



TMP Training Session Rome, September 30 2014

Marie-Véronique LEROI,
Ministry of Culture and Communication (France)

Abstract (this was send out as an introduction in the meeting)

Cultural institutions use reference or in-house terminologies to describe their objects and collections in their database or collections management system.

If the aggregating process is now clear and easy thanks to aggregating tools such as Mint, the process for terminologies is not that easy for cultural institutions.

The Terminology Management Platform (TMP) is one of the tools that can help and guide organisations to manage and SKOSify their vocabularies. TMP is an open source web service developed within the cultural heritage project AthenaPlus, contributing to Europeana.

The TMP proposes functionalities for vocabulary management, including: editing and creating vocabularies in an online open environment; importing CSV and SKOS/RDF-formats; mapping between different vocabularies and linking to external resources; exporting and publishing in SKOS/RDF.

Mapping and enriching concepts in the TMP will result in more detailed and meaningful search results on the web, irrespective of language. This will valorise collections managed in cultural institutions on the web, as well as in online catalogues such as Europeana.

The training session will learn participates to:

- Understand the principles of the semantic web and the data models used
- Import and convert into SKOS vocabularies in the TMP
- Create controlled vocabularies in the TMP
- Edit controlled vocabularies in the TMP
- Map controlled vocabularies in the TMP

Programme

10h00 Registration

10h15 -10h30 AthenaPlus introduction

10h30 – 13h00

- Semantic web introduction
- TMP Introduction

14h30 – 16h30

- Practical exercises: create, edit and map vocabularies

Practical information

The training session will be held at ICCU from 10h00 until 16h00.

Address: Istituto Centrale per il Catalogo Unico (ICCU), Viale Castro Pretorio n.105 - 00185 Rome, Italy.

To register, please send an email to mariateresa.natale@gmail.com

Deadline for registration is September 26 2014.

Advance registration is obligatory, all participants must receive a login and password from the TMP administrator.

More detailed information on the training session can be obtained by sending an email to: marie-veronique.leroi@culture.gouv.fr or e.coudyzer@kmg-mrah.be

You are kindly asked to bring your own vocabularies for the practical exercises session.

The training session is free of charge. Lunch will be provided.

3.3 Training session: evaluations

In three cases evaluation forms were used to evaluate the results of the training sessions: one evaluation form was used after the Berlin training in October 2013. Another form was used for the evaluation of the training sessions in Budapest and (the second) Berlin training in March 2015. The evaluation forms used included questions for the trainer and for the trainee.

During the other meetings, the evaluation was assessed ad-hoc and described in meeting minutes and reports and in the bug report form in Google Drive, where they were handled by the technical partner University of Savoie, responsible for the development of the TMP.

3.3.1 *First evaluation (Berlin, October 2013)*

Survey question for the trainer: describe the trainees' feedback

- The internet was unstable during the workshop. The result was that actions in the TMP had to be redone a few times from the beginning
- There were a few comments on the fact that there is no direct return to the local database ("provenance"-issues): changes done in the TMP have to be done equally in the local thesaurus and vice versa
- There was a comment on the manual mapping: who will be responsible for a correct mapping?
- There was a question concerning the terminologies used in the TMP: to which terminologies will the concepts be mapped to?
- There was a question concerning the URIs: will the TMP create URIs and how will this affect URIs already created by the partner.
- There was a question concerning the languages of the terminologies used in the TMP. Why is there no reference language, such as English?
- How can this be used to enrich metadata for Europeana?

Do we have results of the evaluation here? Answers to the questions above?

Survey question for the trainee: describe the trainer's feedback

- The "provenance"-issue is indeed something to be thought off if we want to ensure vocabulary control. It is true that there is no direct link between the terminology in the TMP and the terminology in the local database. Changes, additions etc. of terms in a local database will not be tracked down in the terminology registered in the TMP. This is why the TMP will work with "terminology releases". When a new, more recent version of the terminology is available, this terminology will be re-imported in the TMP and a new release of the mapping will be done.
- The organisation or owner of the vocabulary is responsible for updating the vocabulary in the TMP and in the local database. SKOS-formats of the (mapped) vocabulary can be obtained in the TMP and can be uploaded in the local database.
- In the TMP there are two GUIs: a public and a private (with or without login). E.g. someone with no editor rights, will only be able to consult the terminologies; someone with editor rights will be able to edit, map and export the terminologies. The partners will be responsible for their own mapping. However, when a cross-mapping or a mistake in mapping is done, there will be an automatic warning.

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- The concepts can be mapped to every terminology in the TMP. It is advised to make a difference in terminologies according to metadata type, sector (e.g. terminologies for libraries, museums etc.). The organisation or owner of the vocabulary is responsible for the number and quality of the mapping
- The TMP can create URIs when the partner has not created its own URIs. Partners who already have created URIs for their concepts, will use their own URIs. The persistency of the URIs will be guaranteed.
- In the TMP it is possible to choose the language of the terminology. There will be no predefined reference language.
- We planned a meeting with Regine Stein and NTUA that evening to discuss the possibilities of integration in MINT. Task 4.3 of WP4 will also investigate semantic enrichment of cultural metadata with Linked Open Data. We will communicate more about this task at the plenary meeting.

Survey question: give a final evaluation of the workshop (positive and negative aspects)

Positive:

- Partners tested the TMP
- There were questions and recommendations from the participants (mostly from: Dan Matei, Maria Sliwinska)

Negative:

- We asked beforehand to bring proper terminologies. Not many partners brought their own terminology.
- Internet went up and down
- It is difficult to explain the possibilities of the TMP when not everyone has a thorough knowledge of SKOS and the semantic web (different levels of knowledge)

Survey question: How do you think that this workshop could be improved?

- Flawless WIFI
- A more step-by-step practical approach with predefined terminologies
- Organise non-overlapping workshops with other WPs

3.3.2 Second evaluation (Budapest, March 2015; Berlin, March 2015)

Survey question: give a final evaluation of the pilot session (positive and negative aspects)

Positive:

- The tool answers a professional need
- The tool is intuitive and ergonomic
- The layout of the tool is attractive

Negative:

- Many basic functionalities are not available (Import, SKOSification, export)
- Links and notes from Dbpedia cannot be managed properly
- The way to re-import the SKOSified and mapped terminology in the Collecton management system is still to be solved

At the plenary meetings in Bucharest, Riga and Rom no special evaluation form was used, instead the participants were invited to comments and give feed-back in the meetings-

3.3.3 *Ad hoc evaluation*

The following bugs were reported and remarks were given during the meetings, from June 2014 until September 2015:

Comments on the layout

- The drop down menu of languages is confusing. Is there a more user-friendly way to display the languages you can choose from?
- Is there a facilitated view for non-experts?
- Metadata, e.g. "languages": how to fill in the languages +separation with comma's?
- Import notification blocks the login-logout button.

Comments on functionality

- Search metadata (title, author, description) on the homepage: the search result is unclear
- Is it possible to add a box where one can add an acronym of the thesaurus (instead of the complete name)?
- The link to DBPedia must not be automatic, you should be able to delete, edit etc.
- It is not clear where you can add scope notes
- It should be possible to add "related terms" within one thesaurus (next to BT and NT)
- Why is "EQ" a mapping relation next to "~EQ" and "=EQ". It is confusing.
- Metadata: what is the difference between subject and coverage?
- DBPedia abstract should be deleted (see evaluation)
- Notes: provide possibility to delete notes
- Provide visible URIs in metada-box and in concept editing page
- Show URIs of the concept (in metadata-box or in conceptual pane)
- The URI is created by the TMP or the original (imported) URI must be imported
- Show mapped URIs of the concept, e.g. when imported thesaurus has been mapped to other resources (~ PartagePlus thesaurus) has been mapped to AAT
- Show the scope note of the concept when mapping
- Display « Stop mapping » clearer or change the mapping-display
- Develop « user management »
- Put in place e SPARQL-endpoint
- Metadata-box: add the creation date of the terminology
- Metadata-box: for the languages, add a drop-down list with all the existing languages (ISO acronym)
- Add a FAQ and lexicon
- Verify cycles with rule: when there is a generic, partitive or instance relation, RT with the term is not possible.
- Provide possibility to delete or add the DBPedia extracts
- For the mapping: which language is chosen for the mapping? Can you change the language in the mapping page?
- Users can import themselves SKOS or CSV
- Users can export themselves SKOS or CSV
- Integrate version management
- Include a filter/search box in editing page so you can search for: modification date, concept, preferred term, notes etc.
- Semi-automatic mapping: status?
- "DA" Danish is missing as a language

- "LT" Lithuanian is missing as a language
- Contact information of the owner should be added
- Diacritics in "user rights" page should be displayed correctly
- Large thesauri do not work correctly

Bugs

- Upload image: image cannot be deleted, new image does not replace old one, sometimes upload not possible due to image name/format
- Diacritics do not show
- List of terms show mixed languages, according to the language set when the concept was added
- BT and NT cannot be deleted (nor replaced)
- Deleting thesauri is not possible
- Adding a BT/NT: the concept reproduces four times
- When mapping: selecting two concepts makes the list of mapping relations disappear
- Languages do not show in drop-down menu
- The metadata-box is too small for content
- Bug in the filtering/searching tab (change the display list or icon of your result and search results gets lost)
- Spelling mistake in mapping page: "with" instead of "width"

3.4 Training reviews: actions

→ Based on the first evaluation (Berlin 2013) we decided that the TMP should be re-assessed, as described in the first review progress report (April 2014):

The development of the TMP has been based on functionalities described in deliverables, an http-model and feedback from users in training sessions and workshops (e.g. PACKED-workshop September 2013). In February 2014, two meetings about the TMP were organized in Brussels, with technical developers and with potential users. The goal of these meetings was to discuss the current status of the TMP (verifying if all functionalities are available and are working) and to look at the suggestions formulated by the reviewers in the final review of Linked Heritage (e.g. revision of the interface; list of vocabularies etc.). The conclusion of the meetings in Brussels was that:

- *The TMP lacks functionalities*
- *The TMP is not user-friendly*

The status of the TMP was not considered stable enough to start importing and mapping terminologies collected in D4.1 and semantically enrich concepts with external sources (T4.3).

Keeping in mind the feedback of the users and the technical requirements necessary for a complicated tool like the TMP, we have established a new work plan with the University of Savoie for a re-assessment of the TMP functionalities and user interfaces. Please read the document TMP 2.0 – Roadmap for a more detailed planning.

A new roadmap was presented to the partners with clear description of the technical (back-end) specifications and the functionalities necessary to meet the objectives in WP4. We refer to D4.5² for a detailed explanation. Extra training material was provided for the users: an extensive user manual, a leaflet with a short introduction and a F.A.Q.-page.

→ The second evaluation focused on the missing functionalities in the TMP: import of various file-formats and export of terminologies in CSV and SKOS. These functionalities have been included in the TMP since then.

The DBPedia abstract was considered not useful and/or correct (e.g. misinterpretation of the concept) and was deleted from the TMP. A SPARQL-endpoint was created to publish the terminologies and make them available to other end-users.

² D4.5, *Second Release of the Terminology Management Platform (TMP2)*, April 2014 : <http://www.athenaplus.eu/index.php?en/156/deliverables-and-documents>

3.5 Evaluation follow-up: ad hoc comments

The table below gives an overview of the actions taken, following the remarks by users on lay-out, bugs and functionality.

| Remark (bug, layout, functionality) | Solution |
|---|--|
| The drop down menu of languages is confusing. Is there a more user-friendly way to display the languages you can choose from? | The languages are now shown in a row, instead of in a drop down list. |
| Is there a facilitated view for non-experts? | No, there is one (user-friendly) view for experts and non-experts. |
| Metadata, e.g. "languages": how to fill in the languages + separation with comma's? | We simplified the selection of languages: the languages in a row can be selected by clicking on them, instead of writing them in a free text box. |
| Search metadata (title, author, description) on the homepage: the search result is unclear. | We added a search "concepts" and a search for "title", "author" and "description". |
| The link to DBPedia must not be automatic, you should be able to delete, edit etc. | Following the majority of negative comments on the automatic DBPedia-link, we decided to delete the DBPedia-link. |
| It is not clear where you can add scope notes. | We added a separate box for notes: users can add scope notes, editorial notes, history notes, change note and definitions. |
| It should be possible to add "related terms" within one thesaurus (next to BT and NT). | It is now possible to add associated concepts or "related terms". |
| Is it possible to add a box where one can add an acronym of the thesaurus (instead of the complete name)? | A free-text field was added in the metadata-box to add acronyms of the terminology. |
| Why is "EQ" a mapping relation next to "~EQ" and "=EQ". It is confusing. | Mapping to "EQ" without specification has been deleted. |
| Metadata: what is the difference between subject and coverage? | Definitions are taken from the Dublin Core Element Set (2014): "subject": Is the topic of the resource, for example "archaeology", "architecture" etc. "coverage": The spatial or temporal topic of the resource, the spatial applicability of the resource, or the jurisdiction under which the resource is relevant., for example "applied arts in the Victorian age". |
| DBPedia abstract should be deleted (see evaluation) | See supra. |
| Notes: provide possibility to delete notes | Notes can easily be deleted and edited. |
| Provide visible URIs in metada-box and in concept editing page | URI's have been made visible. They can also be clicked with a link to additional information about the link. |
| Show URIs of the concept (in metadata-box or in conceptual pane) | URI of the concept has been made clearly visible on the editing page. |
| The URI is created by the TMP or the original (imported) URI must be imported | The TMP creates automatic URIs, but published URIs can be automatically linked to these new URIs. An automatic link to the original webpage is created. |

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| Show mapped URIs of the concept, e.g. when imported thesaurus has been mapped to other resources (~ PartagePlus thesaurus) has been mapped to AAT | The mapped thesauri are shown in the mapping box. From there they can easily be deleted or edited. |
| Show the scope note of the concept when mapping. | The scope note of the mapped concept is shown during the mapping. |
| Display « Stop mapping » clearer or change the mapping-display | The mapping functionality has been updated: instead of a new page in the TMP, mappings can now be done from the editing page of the owner's thesaurus. It is enough to search similar concepts in the search box and the TMP displays automatically all similar concepts from other reference terminologies. Concepts can be selected and the relation can be defined easily. This workflow is user-friendly and stimulates mapping between terminologies. |
| Develop « user management ». | At the moment the user management is basic: the creator or importer of the terminology is the "owner" and has all rights. As an owner, he can add other registered users to edit, export and import the owner's terminology. |
| Put in place e SPARQL-endpoint | A SPARQL-endpoint has been put in place: http://athenaplus.thesaurus.condillac.org/sparql |
| Metadata-box: add the creation date of the terminology | The creation date is added automatically in the metadata box. |
| Metadata-box: for the languages, add a drop-down list with all the existing languages (ISO acronym) | The languages have been added with their ISO-acronym. |
| Add a FAQ and lexicon | F.A.Q. and Lexicon have been added. |
| Verify cycles with rule: when there is a generic, partitive or instance relation, RT with the term is not possible. | Cycles have been tested and corrected. |
| Provide possibility to delete or add the DBPedia extracts | See supra. |
| For the mapping: which language is chosen for the mapping? Can you change the language in the mapping page? | The language of the mapping is not important anymore in the new mapping functionality, see supra. |
| Users can import themselves SKOS or CSV. | Users can import SKOS-files. CSV-files should be sent to the administrator who will import the files. |
| Users can export themselves SKOS or CSV | Users can export in SKOS and Json. |
| Integrate version management. | Version management has not been integrated. It is the responsibility of the terminology-owner to update their terminologies (local and in the TMP). |
| Include a filter/search box in editing page so you can search for: modification date, concept, preferred term, notes etc. | At the moment, users can search for "concepts" and "title", "author" and "description". |
| Semi-automatic mapping: status? | There is no semi-automatic mapping at the moment, but mapping has been made very easy with the search functions in the editing page. |
| "DA" Danish is missing as a language | Danish has been added as a language. |
| "LT" Lithuanian is missing as a language | Lithuanian has been added as a language. |
| Contact information of the owner should be added. | Contact information has not been added yet. |

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| Large thesauri do not work correctly. | It takes more time to display large thesauri, but they are displayed and can be edited. |
| Import notification blocks the login-logout button | Buttons are displayed more correctly. |
| Upload image: image cannot be deleted, new image does not replace old one, sometimes upload not possible due to image name/format | Bug has been resolved. |
| Diacritics do not show | Diacritics (for example used in the Romanian language) are displayed correctly. |
| BT and NT cannot be deleted (nor replaced) | Bug has been resolved. |
| Deleting thesauri is not possible. | Bug has been resolved. |
| Adding a BT/NT: the concept reproduces four times. | Bug has been resolved. |
| When mapping: selecting two concepts makes the list of mapping relations disappear. | Bug has been resolved. |
| Languages do not show in drop-down menu. | Bug has been resolved. |
| The metadata-box is too small for content. | Bug has been resolved. |
| Bug in the filtering/searching tab (change the display list or icon of your result and search results gets lost). | Bug has been resolved. |
| Spelling mistake in mapping page: "with" instead of "width". | Spelling was changed. |

4 Terminology resource report

Deliverable D4.1 (August 2013) gave an overview of suitable terminologies used by cultural institutions collaborating in the AthenaPlus and Linked Heritage projects. Suitable terminologies will be imported in the repository of the Terminology Management Platform (TMP), where they can be mapped to other terminologies using SKOS properties and exported in RDF so they can be reused as linked open data.

Deliverable D4.8 updates the list of (published) terminologies. Below the overview of partner thesauri and of thesauri published by other organisations.

4.1 Partner thesauri / Thesauri used by partners

| Organisation using the terminology | City & Country | Terminology |
|---|--------------------------------------|---|
| Stiftung Preussischer Kulturbesitz | Berlin, Germany | SYSTEMATIK des Museums Europäischer Kulturen (<i>SYSTEMATIK of the Museum of European Cultures</i>) |
| Stiftung Preussischer Kulturbesitz Gottfried Wilhelm Leibniz Universitaet | Berlin, Germany Hannover, Germany | GND (Integrated Authority File) of the German National Library |
| Gottfried Wilhelm Leibniz Universitaet | Hannover, Germany | STW Thesaurus for Economics |
| Nationalmuseum | Stockholm, Sweden | Geografi-thesaurus |
| Nationalmuseum | Stockholm, Sweden | Kategori-thesaurus |
| Nationalmuseum | Stockholm, Sweden | Material-thesaurus |

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| Philipps Universitaet Marburg | Marburg, Germany | Material terms |
| Philipps Universitaet Marburg | Marburg, Germany | Technique terms |
| Philipps Universitaet Marburg | Marburg, Germany | Object type terms |
| Philipps Universitaet Marburg | Marburg, Germany | Classification terms |
| Ministère de la Culture et de la Communication | Paris, France | Thésaurus de la désignation des œuvres architecturales et des espaces aménagés |
| Ministère de la Culture et de la Communication | Paris, France | Thésaurus-matières pour l'indexation des archives locales |
| Rijksbureau voor Kunsthistorische Documentatie | The Hague, The Netherlands | Getty AAT (<i>Dutch version</i>) – Getty Research Institute |
| Association Européenne pour la Culture Juive - Ben Uri Gallery-London Jewish Museum of Art | London, UK | |
| Association Européenne pour la Culture Juive - Steinheim Institute | Duisburg, Germany | |
| SPK, Staatliche Museen zu Berlin | Berlin, Germany | Getty AAT (German version) |
| Riksarkivet | Stockholm, Sweden | Thesaurus on cartography and historical and archival research |
| Petofi Irodalmi Muzeum | Budapest, Hungary | Authority file: Hungarian Biographical Index |
| Petofi Irodalmi Muzeum | Budapest, Hungary | Authority file: Hungarian Emigrant Writers |
| Petofi Irodalmi Muzeum | Budapest, Hungary | Authority file: Bibliography of Contemporary Authors |
| Petofi Irodalmi Muzeum | Budapest, Hungary | Authority file: Awards and Awardees |
| Petofi Irodalmi Muzeum | Budapest, Hungary | Authority file: Hungarian Recipients of the Legion of Honours |
| Petofi Irodalmi Muzeum | Budapest, Hungary | Authority file: Graduate database |
| Petofi Irodalmi Muzeum | Budapest, Hungary | Authority file: The Hungarian Nobility Genealogy |
| Petofi Irodalmi Muzeum | Budapest, Hungary | Authority file: Hungarian Family History Repository |
| Petofi Irodalmi Muzeum | Budapest, Hungary | Authority file: Budapest Topography |
| Petofi Irodalmi Muzeum | Budapest, Hungary | Authority file: Graves of Hungarian Writers |
| Petofi Irodalmi Muzeum | Budapest, Hungary | Subject Headings (current) – Köztaurusz (in near future) (only the last one is considered in this survey) |

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| Royal Armoury, Hallwyl and Skokloster museums | Stockholm, Sweden | Classification-thesaurus of the Royal Armoury, Hallwyl and Skokloster museums |
| Biblioteca Academiei Române | Bucharest, Romania | Numismatic and sphragistic terminology |
| Siauliu Ausros Muziejus Valstybes Biudzetine Istaigasam | Šiauliai, Lithuania | Classification systems for museums and museum objects (LIMIS-thesaurus) |
| Lietuvos Dailes Muziejus | Vilnius, Lithuania | |
| Royal Institute of Cultural Heritage | Brussels, Belgium | KIK-IRPA thesaurus (multiple domains) |
| Royal Institute of Cultural Heritage | Brussels, Belgium | KIK-IRPA persons and institutions |
| Royal Institute of Cultural Heritage | Brussels, Belgium | KIK-IRPA Christian faith thesaurus |
| Museum of Arts and Crafts | Zagreb, Croatia | Thesaurus of the Museum of Arts and Crafts, Zagreb |
| Biblioteca nazionale centrale di Roma | Roma, Italia | Nuovo Soggettario |
| Biblioteca nazionale centrale di Roma Central Library of the Bulgarian Academy of Sciences Arts and Theatre Institute | Roma, Italia Sofia, Bulgaria Prague, Czech Republic | Dewey Decimal Classification (DDC) |
| Museum of Fine Arts-National Gallery | Budapest, Hungary | Keywords-thesaurus of the Museum of Fine Arts-National Gallery, Budapest |
| Europeana Photography project | | Europeana Photography Vocabulary |
| IU-DU | Prague, Czech Republic | Theatre Institute Library Classification of Specialized Literature (TILC) |
| Royal Museums of Art and History | Brussels, Belgium | KMKG/MRAH-Object name thesaurus |
| Royal Museums of Art and History | Brussels, Belgium | KMKG/MRAH-Geography thesaurus |
| Royal Museums of Art and History | Brussels, Belgium | KMKG/MRAH-Techniques and Materials |
| Ayuntamiento de Girona | Girona, Spain | Descriptors-LEMAC (thesaurus of the City Council of Girona) – Catalan adaptation of LCSH |
| Ayuntamiento de Girona | Girona, Spain | Descriptors- names (people, places, organisations) (thesaurus of the City Council of Girona) |
| Ministero dei Beni e della attività culturali e del turismo | Roma, Italy | Thesaurus PICO 4.3 |

| | | |
|--|-------------------|--|
| Association Européenne pour la Culture Juive - Medem Library | Paris, France | Subject headings |
| Plantin-Moretus Prentenkabinet | Antwerp, Belgium | Vocabulary <i>Plantin-Moretus prentenkabinet</i> |
| Stedelijke Musea Mechelen | Malines, Belgium | Vocabulary <i>Stedelijke Musea Mechelen</i> |
| British Museum | London, UK | British Museum Thesaurus |
| Israel Museum | Jerusalem, Israel | Vocabulary Israel Museum |
| Fédération Wallonie-Bruxelles | Brussels, Belgium | AICIM-thesaurus |
| Fédération et Ressources sur l'Antiquité | Nanterre, France | PACTOLS-thesaurus |
| Eesti Vabariigi Kultuuriministeerium | Talinn, Estonia | MuS sõnastikud |

4.2 Other published thesauri (partly used by the above named institutions)

| Organisation | Terminology | URL |
|--|---|---|
| Food and Agricultural Organization of the United Nations | AGROVOC | http://aims.fao.org/standards/agrovoc/about |
| European Union | Eurovoc | http://eurovoc.europa.eu/ |
| United States Department of Agriculture | National Agricultural Library (NAL) thesaurus | http://www.nal.usda.gov/ |
| European Environment Information and Observation Network | General Environmental Thesaurus (GEMET) | http://www.eionet.europa.eu/gemet/about |
| Leibniz Information Centre for Economics | Thesaurus for Economics (STW) | http://zbw.eu/stw/versions/latest/about |
| OCLC | DDC Dewey Decimal Classification | http://www.oclc.org/dewey/resources/summaries.en.html |
| Hungarian National Library | National Széchényi Library's vocabularies | http://nektar1.oszk.hu/librivision_hun.html |
| German National Library | DNB authority files, GND (Gemeinsame NormDatei) | http://www.dnb.de/EN/Standardisierung/GND/gnd.html |
| United Nations Educational, Scientific and Cultural Organization | UNESCO-thesaurus | http://databases.unesco.org/thesaurus/ |
| Bibliothèque Nationale de France | BnF subject headings (RAMEAU) | http://data.bnf.fr/semanticweb-en |

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|--|--|---|
| German Archaeological Institute, DARIAH-De project | Zenon archaeological thesaurus | |
| Portale della Cultura Italiana On-line, Cultura Italia | Thesaurus PICO 4.3 | http://www.culturaitalia.it/pico/thesaurus/4.3/thesaurus_4.3.0.skos.xml |
| CNRS-Frantique (Fédération de bibliothèques et de centres de documentation en archéologie) | PACTOLS thesaurus, Peoples, Anthroponymes, Chronologie, Toponymes, Oeuvres, Lieux et Sujets | http://frantiq.mom.fr/thesaurus-pactols |
| Amsterdam Museum | Amsterdam Museum thesaurus and person authority files | http://pro.europeana.eu/thoughtlab/linked-open-data |
| OCLC | VIAF, Virtual International Authority File | http://viaf.org/ |
| Library of Congress | Library of Congress Subject Headings | http://www.loc.gov/aba/cataloging/subject/ |
| UKAT | UK Archival Thesaurus (UKAT) | http://www.ukat.org.uk/ |
| The Netherlands Institute for Sound and Vision, Dutch archives for public broadcast television | Common Thesaurus Audiovisual Archive | http://datahub.io/nl/dataset/gemeenschappelijke-thesaurus-audiovisuele-archieven |
| Library of Congress | MARC Code lists (relators, geographic areas etc.) | http://id.loc.gov/vocabulary/relators.html |
| Rijksbureau voor Kunsthistorische Documentatie | Dutch version of the Art and Architecture Thesaurus (RKD) | http://www.getty.edu/research/tools/vocabularies/ |
| Rijksbureau voor Kunsthistorische Documentatie | Iconclass, a classification system designed for art and iconography | http://www.iconclass.nl/home |
| SENESCHAL (project) | Cultural heritage thesauri and vocabularies from English Heritage, Royal Commission on Ancient & Historical Monuments of Scotland (RCAHM) and Royal Commission on Ancient & Historical Monuments of Wales (RCAHMW) | http://www.heritagedata.org/blog/ |
| MULTITA (project) | Thesaurus Styles and Periods | http://www.belspo.be/belspo/fedra/proj.asp?l=en&COD=AG/LL/169 |

| | | |
|---|---|---|
| MULTITA (project) | Thesaurus Textiles (objects, materials, techniques) | http://www.belspo.be/belspo/fedra/proj.asp?!=en&COD=AG/LL/169 |
| ICOM-CIDOC Working Group Data Harvesting and Interchange (et al.) | LIDO-event types (Lightweight Information Defining Objects) | (www.athenaplus.eu) |
| ICOM-CIDOC Working Group Data Harvesting and Interchange (et al.) | LIDO-actor roles (Lightweight Information Defining Objects) | (www.athenaplus.eu) |
| SPK | German AAT | www.aat-deutsch.de |

5 CONCLUSIONS

The deliverable *D4.8, Evaluation of the pilot sessions and second release of GLAM-sector reference terminologies*, focuses on two objectives described in the Description of Work of the AthenaPlus-project: the organisation of pilot or training sessions and the collection of suitable terminologies for mapping in the Terminology Management Platform.

7 training sessions were organised in the AthenaPlus-project. 4 training sessions were organised during AthenaPlus plenary meetings and 3 pilot sessions were organised in smaller groups. In the training sessions during the plenary meetings mainly AthenaPlus-partners participated. The public attending the pilot sessions consisted of employees and students working in the cultural field and some private organisations working mainly for cultural organisations. The name list of participants can be obtained on demand.

Three evaluations were carried out by means of evaluation forms: one after the training in Berlin in 2013 and one each after the pilot sessions in Berlin and Budapest in 2015. The first evaluation led to a large re-assessment of the TMP, including a new road-map, more attractive layout and efficient back-end infrastructure, introduced by the technical partner University of Savoie.

The second evaluation accelerated the development of the import and export-functionalities in the TMP. The ad-hoc remarks and bug reports were tracked and solved in the current version of the TMP. The user manual was updated and uploaded in the TMP (see TMP homepage).

The list of GLAM-sector reference terminologies, the so-called terminology registry, consists of monolingual and multilingual terminologies that can be used and/or consulted by AthenaPlus-partners or other organisations. The list contains 77 terminologies. For more detailed information on these terminologies, please read D4.1 (September 2013).