TMP²

E-CULTURE MAP

AGGREGATION

CITYQUEST

UNCOMMON CULTURE

ATHENA PLUS

Access to cultural heritage networks for Europeana

INNOVATIVE TOOLS FOR THE CREATION, REUSE AND RETRIEVAL OF DIGITAL CULTURAL CONTENT

URBAN EXPLORE

SCHOOLTRIP

BOOKLETS

MOVIO

DIGITAL EXHIBITIONS

ATHENA PLUS

Access to cultural heritage networks for Europeana

PARTNERS

Italy (coordinator)	**Istituto Centrale per il Catalogo Unico delle biblioteche italiane**
Austria	**UMA Information Technology GmbH**
Belgium	**Koninklijke Musea voor Kunst en Geschiedenis**
Belgium	**PACKED Expertisecentrum Digitaal Erfgoed Vzw**
Belgium	**Openbaar Kunstbezit in Vlaanderen Vzw**
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France	**Association Européenne pour la Culture Juive**
France	**Université de Savoie**
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France	**Université Pierre Mendes France**
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Greece	**Hellenic Ministry of Culture and Tourism**
Greece	**University of Patras**
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Italy	**M.E.T.A SRL**
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Lithuania	**Siauliu Ausros Muziejus Valstybes Biudzetine Istaigasam**
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Romania	**Institutul National al Patrimoniului**
Slovenia	**Javni Zavod Republike Slovenije za Varstvo Kulturne Dediscine**
Spain	**Departament de Cultura - Generalitat de Catalunya**
Spain	**Fundacio privada i2cat, Internet i innovacio digital a Catalunya**
Spain	**Ayuntamiento de Girona**
Sweden	**Riksarkivet**
United Kingdom	**Collections Trust Lbg**

ABOUT US

AthenaPlus is a Best Practice Network with **41** institutional partners in **21** European countries. Its main objective is to make cultural heritage more widely accessible through Europeana. By sharing experience from hundreds of experts from all over Europe, the project supports the development of new applications for digital heritage.

Main goals:

To contribute more than three millions metadata records to Europeana, from both the public and private sectors, focusing mainly on museums content, with key cultural stakeholders (ministries and responsible government agencies, libraries, archives, leading research centres, SMEs);

To improve search, retrieval and re-use of Europeana's content, bettering multilingual terminology management, SKOS export and publication tool/API for Content Providers;

To experiment with enriched metadata their re-use adapted for users with different needs (tourists, schools, scholars) by means of tools that support the development of virtual exhibitions, tourist and didactic applications.

AthenaPlus builds on the results of the experience developed by the previous Athena project where LIDO and the Athena Ingestion Server and Mapping Tool MINT have been developed.

The main target groups of AthenaPlus are: the content-contributing community, the aggregators, government and policy bodies, agencies for culture, sister projects, the digital cultural heritage research community, the national research and competence centres in the areas of cultural heritage and e-infrastructures, the tourism sector, the education market and schools, Europeana with its Network and Labs.

The overall objective is to bring together relevant stakeholders and content owners from museums and other cultural institutions all over Europe, as well as evaluate and integrate specific tools, based on a common agreed set of standards and guidelines to create harmonised access to their content.

With **3.4 million** records AthenaPlus is one of the largest Europeana aggregators, second only to The European Library.

39 content providers, including
11 national aggregators
almost **500** cultural institutions
25 European countries

The consortium supplied the Europeana with all sort of records: 3D models, audio and video files, texts and, above all, images. Subjects largely range from the medieval frescos in the Alps regional boundary between France, Italy and Swiss, to important events of the Cyprus history, to klezmer music to archaeology artifacts to important art craft productions across all Europe. Rubens, Rembrandt, Breughel the younger, De Chirico, Botticelli, Arcimboldo and many other old masters will guide the journey of the Internet surfers through the European culture.
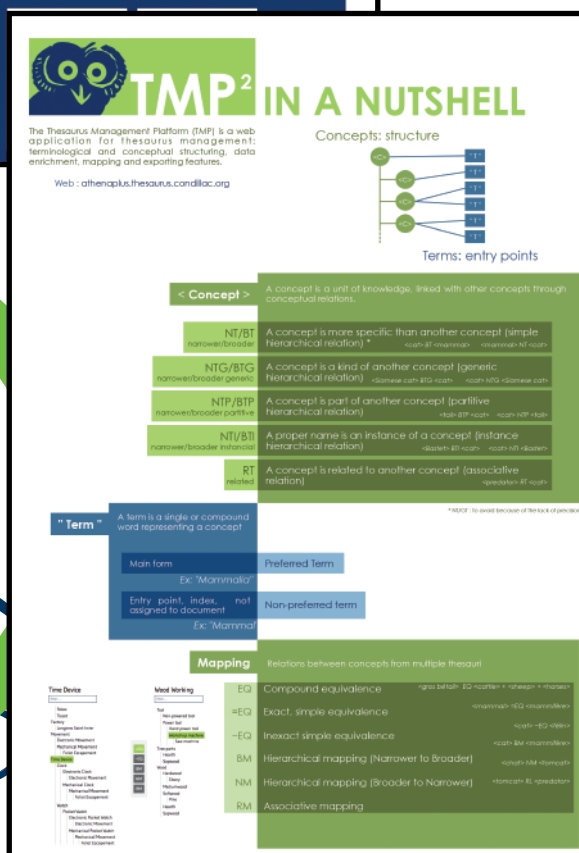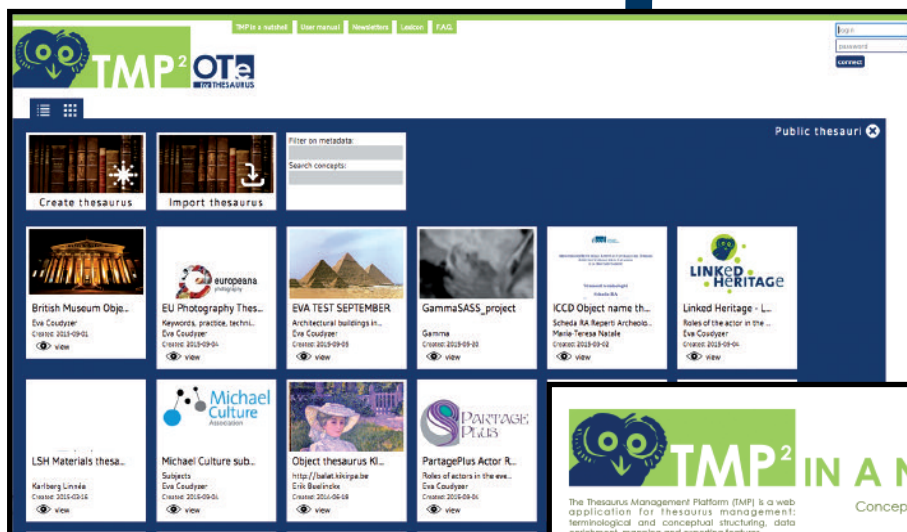
THESAURUS MANAGEMENT PLATFORM

The **TMP²** (Thesaurus Management Platform), is a web portal for thesaury management. The TMP offers:
- creation and editing of thesauri, favouring a conceptual approach
- specification of all types of hierarchical relations (generic, instantial, partitive)
- extensive concept information (notes, images etc.)
- management of multilingualism
- integration of ISO standards 25964-1 and ISO 25964-2 on thesauri
- import and export in SKOS, JSON and RDF
- thesaurus mapping.

TMP² is freely accessible (read only) to anyone.
User accounts are created for project members and associated organisations.
The TMP was developed in the framework of two European projects dedicated to cultural heritage.

Thesaurus, Terminology, Ontology: three approaches based on the notion of term and concept, not to be confused.

Ontologies, in the sense of knowledge engineering, constitute one of the most promising ways for representing thesauri and multilingual terminologies. This is why the development of the TMP2 relies on the principle of ontoterminology (a terminology whose notional system is a formal ontology) and the OTe engine (OntoTerminology engine), developed by the Condillac Research Group of the University of Savoie.

Import & export of thesauri

The **TMP²** Platform allows to import and export thesauri under different formats.
The import function is accessible on the homepage.
It takes into account two exchange formats: SKOS and CSV. The **TMP²** verifies
the structure of the imported files and the semantic coherence of the data,
so that the import is performed in batch mode.

The tool relies on the ISO 25964 standard on thesauri. Three types of hierarchical
relations are taken into account: BTG (generic), BTP (partitive) and BTI (instance).
These relations do not exist in SKOS and they will be automatically translated in
a simple "broader" of "narrower" hierarchical relation.

The export of a thesaurus is done by his/her owner from the homepage.
It is possible to export in SKOS and JSON.
The JSON format is more complete than the SKOS format, because it includes all the
information stored in the thesaurus, more specifically the hierarchical relationships
of ISO 25964 (BTG, BTP, BTI) which are not translated in SKOS.

Link to the service:
http://athenaplus.thesaurus.condillac.org/

Responsible partners:
requirements and testing
Koninklijke Musea voor Kunst en Geschiedenis, Belgium

software development
Université de Savoie, France

training
Ministère de la culture et de la communication, France

SKOS

Simple Knowledge Organization System (SKOS) is a W3C recommendation designed for representation of thesauri, classification schemes, taxonomies, subject-heading systems, or any other type of structured controlled vocabulary. SKOS is part of the Semantic Web family of standards built upon RDF and RDFS (Resource Description Framework, http://www.w3.org/RDF/), and its main objective is to enable easy publication and use of such vocabularies as linked data. (source: Wikipedia)
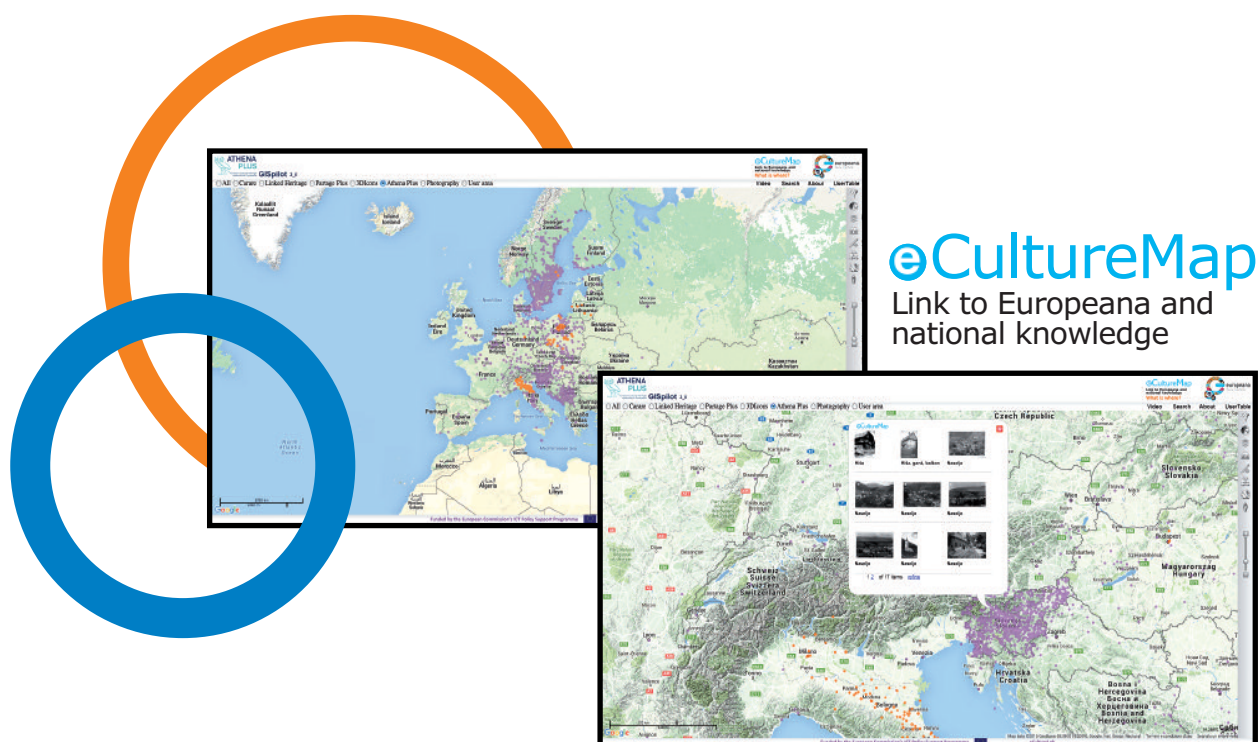
CSV

or "Comma-Separated values" is an open format in which data are represented in a tabular structure with values separated by commas. A CSV file is a text file where each line of text corresponds to one line in the table and the commas correspond to the separation between the columns. The pieces of text separated by a comma correspond to the content of the table cells (source: Wikipedia).

JSON

or "JavaScript Object Notation" is a format for textual data derived form the object notations in JavaScript. It can represent data in a structured way, accompanying information with labels that identify all the different elements. JSON is promoted as a low-overhead alternative to XML (source: Wikipedia).

E-CULTURE MAP

eCultureMap
Link to Europeana and national knowledge

The eCultureMap has been developed to demonstrate the use and re-use of Europeana, AthenaPlus and other digital cultural heritage content, when browsing the content geographically. Currently the map has three main uses: a user may find out what cultural content is present on a certain location, plan a cultural route or upload own content.

The AthenaPlus GIS PILOT

This pilot has been developed in the framework of eCultureMap. The eCultureMap is the effort of Europeana partners to put their cultural content on one single geographical knowledge map when ingesting their metadata to Europeana. The eCultureMap currently displays more than 2 millions objects from several Europeana related projects such as Athena, Carare, Linked Heritage, AthenaPlus, PartagePlus and others.

The AthenaPlus GIS pilot map works as an alternative user interface for Europeana and other cultural portals. The map provides a clear overview of the content that is aggregated within one specific project but also enables easy browsing and discovery of the other content that's linked in the database. Several powerful features have been developed, illustrated by some use cases.

The pilot action created the following results:
- eCultureMap connected with Google Street View
- Powerful refine search among items on a certain location
- Three use cases:
  - Van Wittel vedutes
  - Geocoding historical photographs
  - Architectural heritage
- eCultureMap augumented reality mobile application: you can browse over 2 million cultural objects from the eCultureMap on your mobile device. The application is free for download (Android only)
- AthenaPlus GIS Pilot APIs: two additional APIs are available for web developers of cultural heritage related portals. The API enables the reuse of eCultureMap data and can be embedded into any webpage and/or mobile application.

Geographic location is one of the most important attribute of a cultural heritage item. It can describe provenience, the current institution, and the location of events related to the artifact. The most valuable geographic description comes in the form of digital geographic coordinates.

Use and reuse of geographical location information of cultural content is very important. For example travel portals usually include an interactive geographic map with locations of hotels, service venues, museums and other interesting places/spaces. For cultural tourism it is a pity that on these maps, none or just a few more or less randomly cultural objects are presented with very poor linked information. Therefore it is strongly advised to merge the travel service information with cultural content services.

Cultural mapping refers to the assignment of cultural objects and resources to a geographical or non-geographical knowledge map. Europeana is connecting a large number of digital cultural objects (currently over 30 million) from European museums, libraries, archives and multi-media institutions. The content is ready for use by the general public, professionals, students, tourists, ... The eCultureMap is an attempt to re-use this content as a geographical knowledge map.

Link to the pilot implementation:
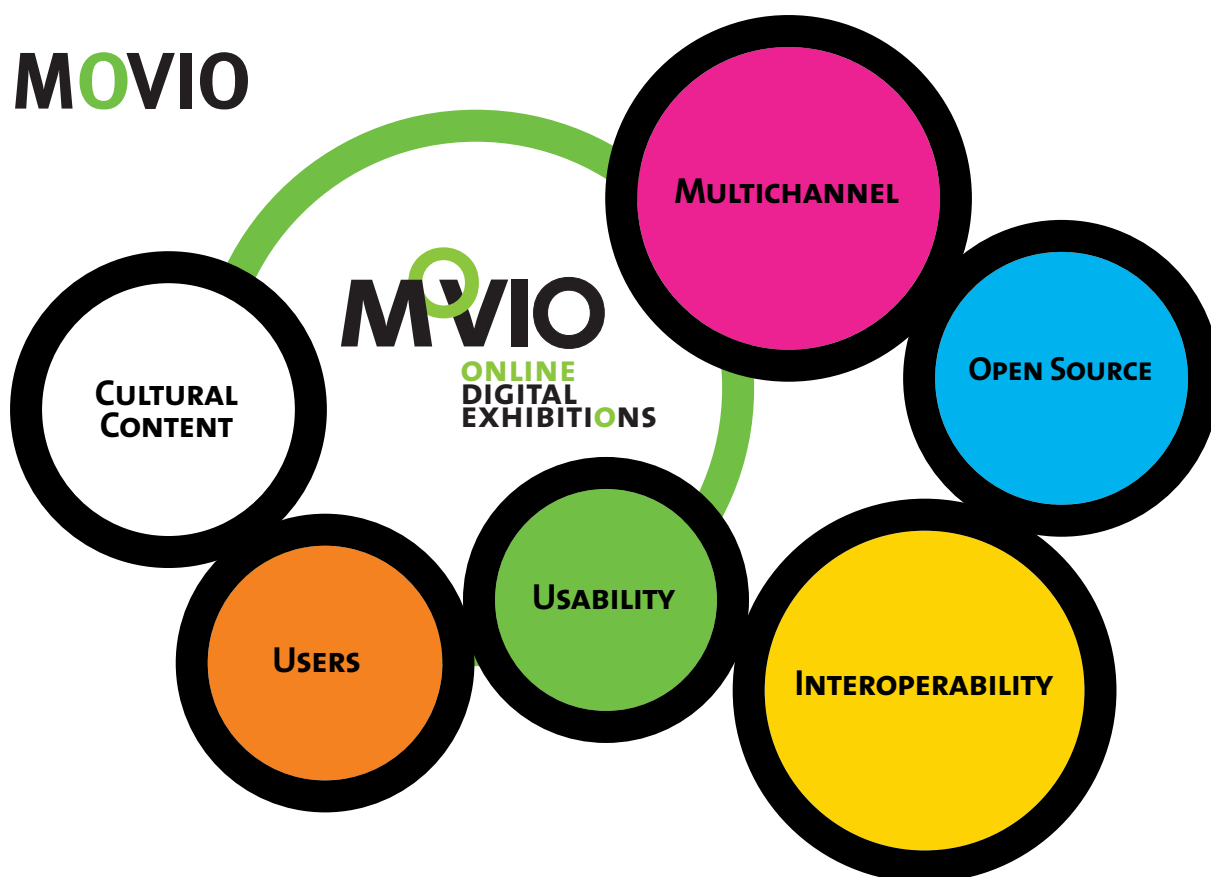http://athenaplus.eculturelab.eu/GISpilot_2_0/.

Link to training material:
http://wiki.athenaplus.eu/index.php/ECultureMap

Responsible partner:
Javni Zavod Republike Slovenije za Varstvo Kulturne Dediscine, Slovenia

MOVIO

MOVIO
ONLINE
DIGITAL
EXHIBITIONS

Multichannel

Open Source

Cultural Content

Usability

Users

Interoperability

An open source user-friendly and tool for realising digital exhibitions in an easy, creative and funny way. It can be used by curators, students, schools, and whoever wants to create a digital exhibition.

MOVIO is a kit: it is not just a software, it includes a set of tools and services:
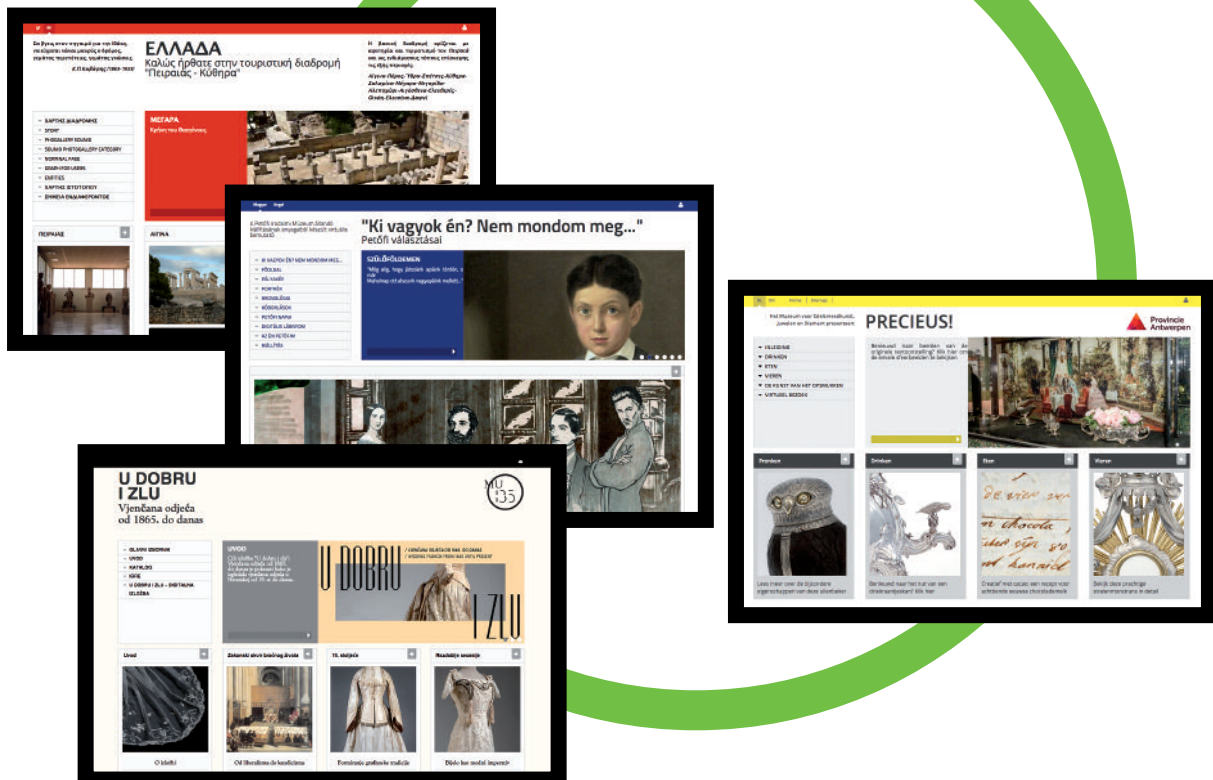
- a Content management System (**CMS MOVIO**) for the realization of online digital exhibitions
- **CMS MOVIO** for mobile devices (microsite): iPhone and Android smartphones and tablets
- **MOVIO APP** for generating aps on mobile platforms
- **MOVIO HUB,** an online catalogue of digital and real exhibitions, available also on **MOVIO APP**
- Online tutorials and **interactive training** on the use of the kit and implementation of the guidelines for the creation of online digital exhibitions.
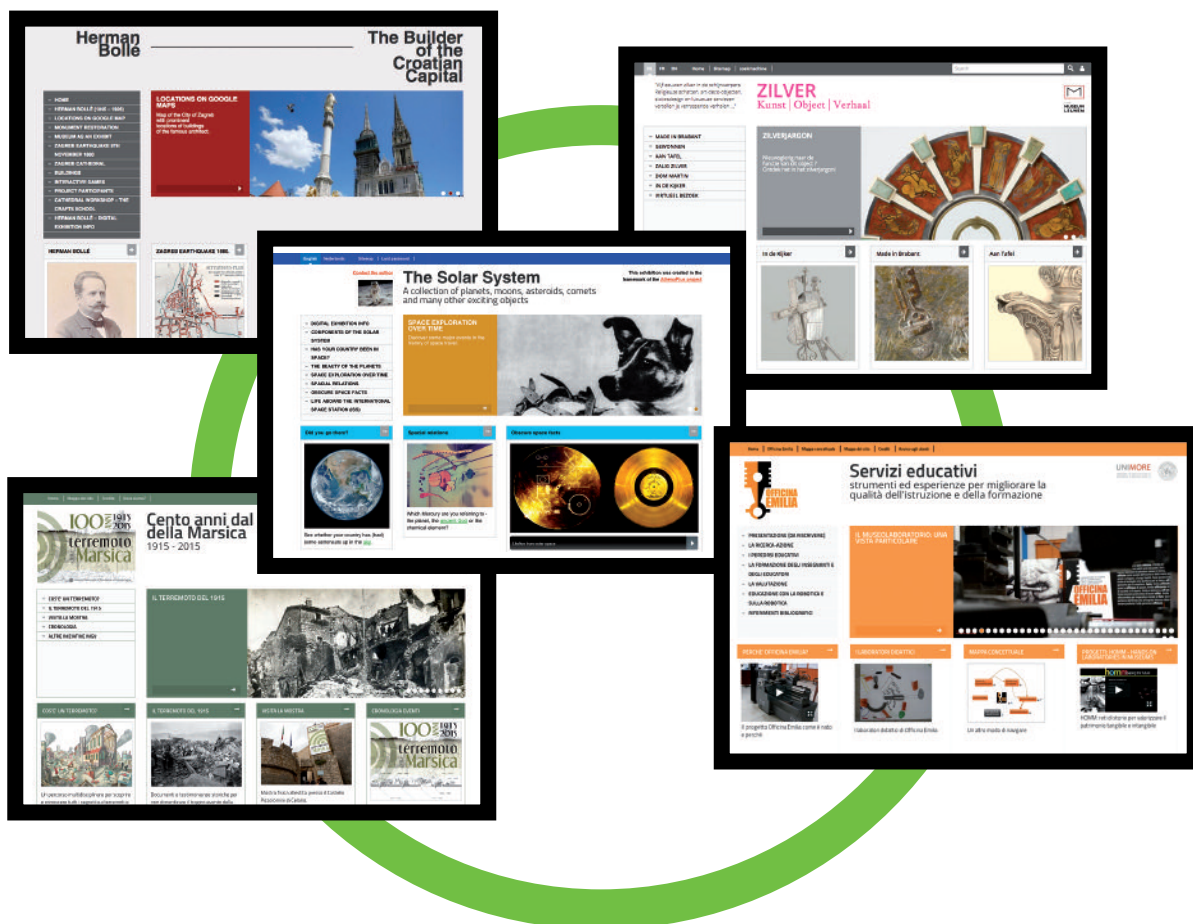
BACK-END

The back-end of MOVIO is the area where the curators create and manage the content of its digital exhibition. The back-end offers functionalities to manage:

- THE BACK-END LANGUAGE
- THE MULTILINGUALISM OF THE CONTENT
- THE GRAPHICAL TEMPLATES
- THE ONTOLOGY RELATED TO THE DIGITAL EXHIBITION
- THE MEDIA ARCHIVE
- THE USER PROFILES AND THE USERS
- THE PAGE TYPES AND THE RELATIVE TOOLS AVAILABLE IN THE CMS
- THE EXPORT FOR THE APP
- THE EUROPEANA API
- THE INTEROPERABILITY WITH MOVIO HUB
- SOME SOCIAL FUNCTIONS

MOVIO main functionalities

Ontology builder
Tool that enables the curator to manage the conceptual map of the content to be published in the digital exhibition, and to offer the visitor new and unexpected paths throughout the exhibition.

Storyteller
The story can be narrated using a sequence of texts, images, audios and videos, enabling also user interaction.

Timeline
MOVIO integrates TimelineJS, an open source tool that allows rich and interactive chronologies,which can be native or imported from a Google spreadsheet. Each event becomes a part of a greater narration.

Googlemaps
integration of the Google API enabling the geolocalisation of point of interests.

Image galleries
Several types of digital galleries allow the curator to valorise images, changing the visualisation according to editorial needs.

Hotspots
The curator may select some elements of a single image, and highlight them. The marked spot may be linked to a tooltip, to another section of the digital exhibition or to external links.

Europeana API
Through it, selected content within Europeana, can be embedded in MOVIO pages.

Tourist services
The possibility to link and geolocalise tourist operators and services.

Module builder
The possibility to import CSV files and made the content searchable.

MOVIO APP

It is the framework for the creation of mobile applications based on the exhibitions created with CMS MOVIO. MOVIO APP is a customized version of an exhibition that can be distributed on AppStore and Google Play. These apps can also be browsed offline and updated directly from the server.

MOVIO HUB

Web service acting as a catalogue of all the digital exhibitions realised with CMS MOVIO, whose information is imported automatically through interoperability procedures. By registering in the service, also institutions who did not realise exhibitions with MOVIO, may advertise their physical exhibitions.

Link to training material:
http://wiki.athenaplus.eu/index.php/MOVIO

Responsible partners:
general coordination
ICCU

software development
META Group, Italy

training
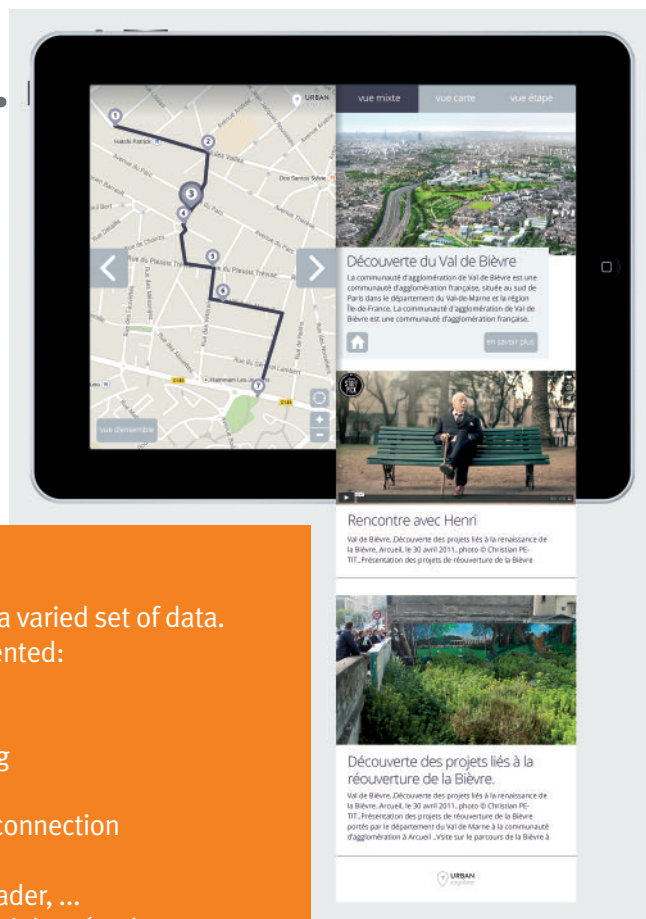PACKED ExpertisecentrumDigitaal Erfgoed Vzw, Belgium

URBAN EXPLORE

Urban Explore is a tool to create and manage mobile apps as touristic and cultural digital guides in the context of collective or solo visits. As a complement to a speaker story (heritage expert, historian, city planner, art professional), the mobile app offers an access to the audio-visual history / memory of a place, in an original and emotional way.

Based on the use of digital resources in mobility, Urban Explore offers a new way of sharing and reading an area or a specific location. Convening in situ testimonies, text documents or audiovisual archives, from Europeana and other sources, the app enables to give a singular vision of the territory: it provides access to a set of selected and editorialized digital cultural content according to the theme of the walk. The user embarks on an exploration: he is guided by the story of a speaker and navigates through the contents over the path, digital tablet in hands. The application is designed as a fully adaptable device according to the place of the visit of the treated themes and the expected objectives in terms of mediation.

The device allows the aggregation of different set of data within a mobile app: Europeana data, open data, user generated contents, cultural institution contents, resources from virtual exhibitions...
The pilot is planned to be adapted to specific places (city areas, museums) and aims to link video, audio and pictures (as archives material) to a place users are going through.

Urban explore is based on a **specific CMS integrating mobile app builder software**. This means that you build the content of the tour in the online editor, then publish it to become a mobile app.

General functionalities

The online CMS allows building a specific tour app from a varied set of data. The following general functionalities have been implemented:

- Generation of a path on a map
- Set up of the path: colour, thickness
- Positioning of map markers for content pop up opening
- Upload of content (video, sound, image)
- Local hosting of content on the iPad for a use without connection
- Easy update
- Customising of the graphic interface: colours, logo, header, …
- Specific dashboard to explore, select and reuse external data (such as as Europeana data).

Use cases

The Urban Explore pilot was developed and tested for a collective visit, combining physical and digital mediation: the participants are guided by a speaker who uses the app to enrich the visit thanks to media. The participants are not autonomous, they browse content with the app after the speaker invites them to watch a picture or a video in link with a step of the visit.

Several other use cases are possible:

- In the framework of a solo visit: the user is totally autonomous in his visit path and his use of the mobile app. In this case, the user walks between different points of interest proposing medias and the mediation is based on the mobile app
- Outdoor touristic route
- Enriched urban promenades
- Indoor digital guide (in a museum, in a cultural institution, or a particular place).

The Urban Explore application is available in a web version for access to features and additional content. The web version is a transposition of the mobile application on the web. It retains the same design and the same content.
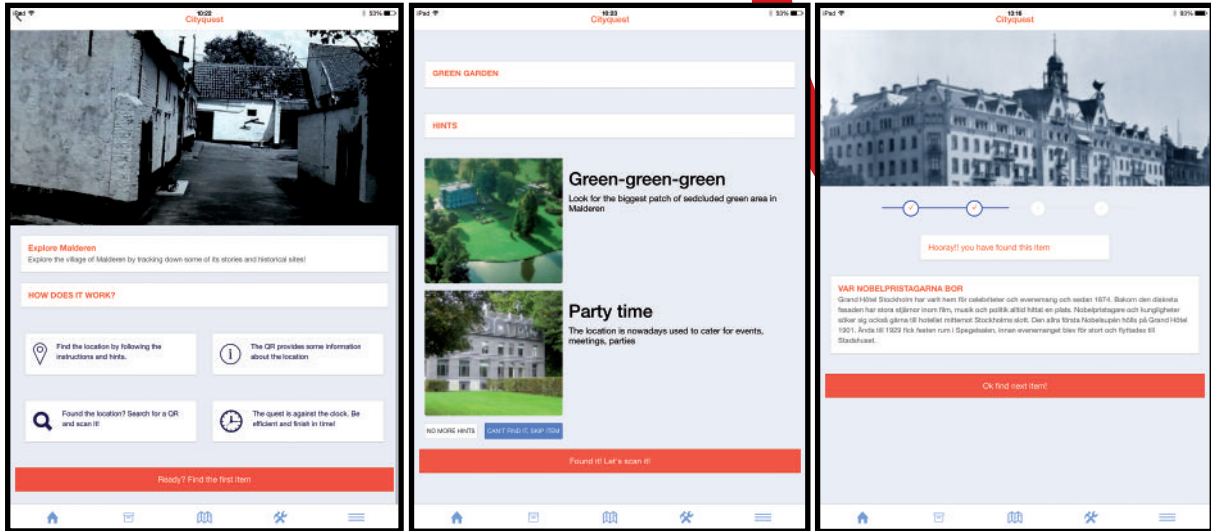
Link to training material:
http://wiki.athenaplus.eu/index.php/Urban_Explore

Responsible partner:
Dedale, France

CITYQUEST

CityQuest allows cultural organisations to easily create a quest online, and publish it to a mobile app. Send your visitors around the city to discover items from your collection and the locations they are connected to. Based on hints and media you track down an item, scan the QR code on its location and learn the (hi)story behind it.

CityQuest is a very straightforward tool. The online interface gathers all steps required to create your quest, in one single webpage. What story do you want to tell? What is the subject of your quest? Who are you making it for? This might affect your ideas on which Clues to give, the items to look for, tone in the texts, length of the walk. A good CityQuest is also highly linked with the possibilities of the place (city, village, …) in which it will take place. Can you choose nice pedestrian paths? Are walking distances appriopriate for the audiences/age group you have in mind?

Gather the content
Once you know the storyline of your Quest, you should gather the content that will be featured in it. Descriptive texts, cryptic hints, images … need to be collected, edited or written, and checked in terms of possible copyrights.

Go out and test

A crucial element in the success of the Quest you've designed, is the testing phase.
Go out and play the Quest by yourself. Take on another person who is not familiar with the subject of your Quest, in order to see whether he/she understands the cryptic descriptions you've used to target the object to be found.
Perhaps some items turn out to be too difficult, others too straightforward.
Other media clues might be better suited; the walking distance between two items might be too short/long. These are aspects of your Quest that can only be tested by experiencing it.

Make regular checks and inform the community

One of the key elements in your CityQuest are the QR codes that provide more information on the place, subject, object that is discovered by the player.
When you're organising an active CityQuest, these codes will be visible throughout your town. Check with owner(s) of the locations that you wish
to feature, and make sure you do not damage anything by adhering a QR code to an object or location.

**CityQuest is available for free download
from Google Play and iTunes store.
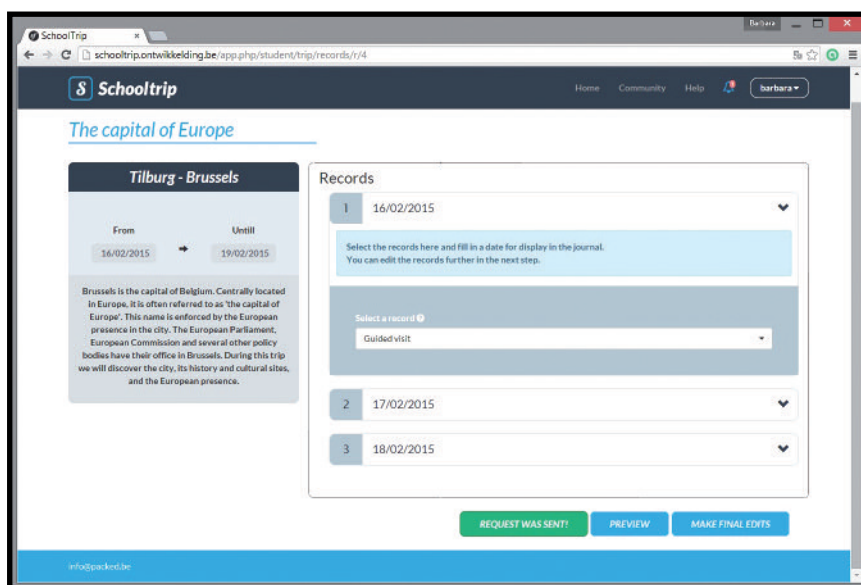You can also find the CityQuest code package on GitHub at**
http://wiki.athenaplus.eu/index.php/CityQuest

Link to training material:
http://wiki.athenaplus.eu/index.php/CityQuest

Responsible partner:
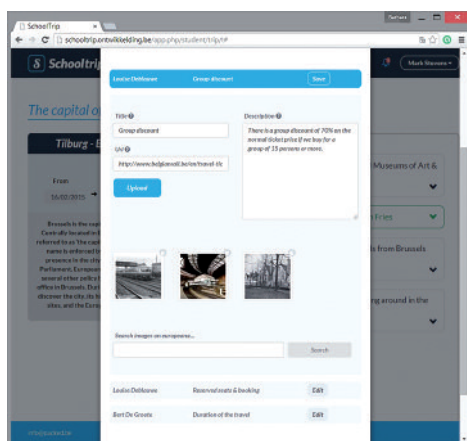PACKED Expertisecentrum Digitaal Erfgoed Vzw, Belgium

SCHOOLTRIP

Schooltrip is a tool that allows students to create their own school journey. Through an online interface the teacher can set a couple of parameters defining the skeleton of the trip. Students fill the template with information on practicalities, cultural heritage sites to visit, historical information, and so on. They learn to plan a travel from a to z, while incorporating our cultural heritage. At the end, a journal-like document is generated which can be used as itinerary guidebook.

Schooltrip is a tool that allows students to create their own school journey. Through the interface, the teacher can set a couple of parameters defining the skeleton of the trip. Students fill the template with information on practicalities, cultural heritage sites to visit, historical information, and so on.
The students, guided by the teacher, learn to plan a travel from a to z, while incorporating our cultural heritage.
At the end, a journal-like document is generated which can be used as itinerary guidebook.

The travel journal, which is the end product of the Schooltrip trajectory, requires thus:
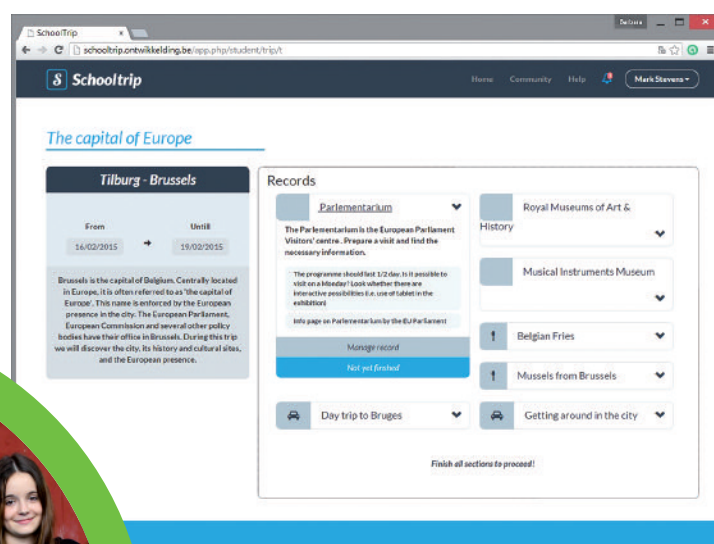• preparatory work by the teacher/administrator
• searching content (texts, images, links, ...) by the students

SchoolTrip also features a function to search for additional media on Europeana.

The teacher does not only create the general framework for the trip - where to go, when to leave, what the must-sees are - but also explains to the students how to work with the application. By working with an application like Schooltrip, the students also become more media and tech aware. There is no one-way process of knowledge transfer, but they're looking up their own information and work with a tool that is new to their experience.

SchoolTrip can be used in a one-to-one relation (1 Teacher, 1 Student completing the full Trip), or one-to-many (1 Teacher, multiple Students working in a group to complete the full Trip).
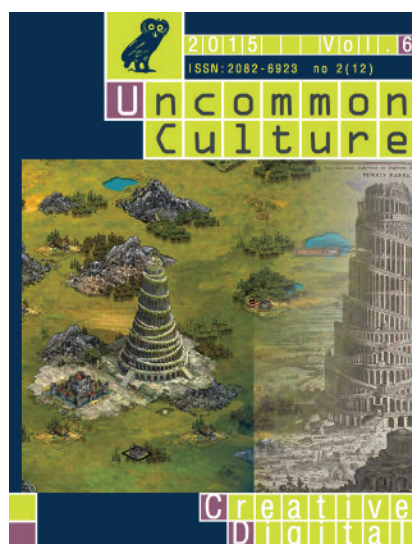
SchoolTrip is released under the MIT License and is available for free download.
You can find the SchoolTrip code package on GitHub at
https://github.com/PACKED-vzw/schooltrip

Link to training material:
http://wiki.athenaplus.eu/index.php/SchoolTrip

Responsible partner:
PACKED Expertisecentrum Digitaal Erfgoed Vzw, Belgium

UNCOMMON CULTURE

The *Uncommon Culture* journal, that started in the framework of the previous ATHENA project, appears as a supporting tool for cultural heritage promotion.

The journal mission is to "provide unique perspectives on a rich variety of cultural activities in Europe. Examining cultural institutions and their collections, this magazine gives new insight into diverse cultural activities". Moreover, it promotes Europeana and other European projects contributing to Europeana, as well as initiatives leading to this goal.
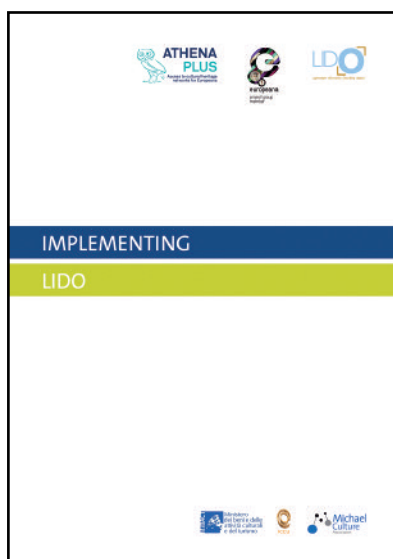
Uncommon Culture is available in printed and online version:
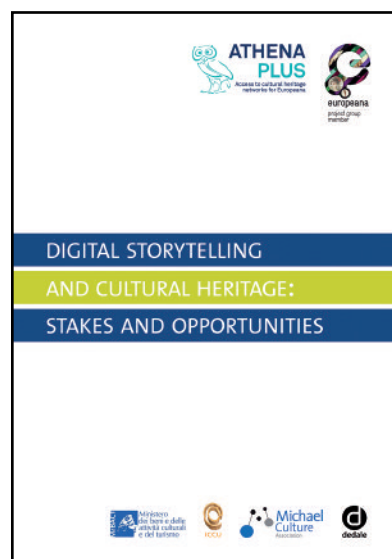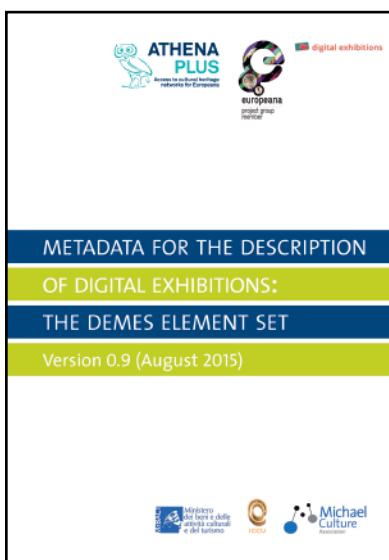http://uncommonculture.org/index

Responsible partner:
International Center for Information Management Systems and Services (ICIMSS), Poland

PUBLICATIONS

IMPLEMENTING
LIDO

A methodology for implementing LIDO (Lightweight Information Describing Objects), and in doing so give help and advice to potential and new users of LIDO seeking to employ it.

A set of 30 descriptive elements specific to digital exhibitions, grouped into seven semantic sections based on existing standards.the seven sections, including the elements, are packaged together in a wrapper called Digital Exhibition Metadata Elements Set (DEMES).

METADATA FOR THE DESCRIPTION OF DIGITAL EXHIBITIONS: THE DEMES ELEMENT SET
Version 0.9 (August 2015)

DIGITAL STORYTELLING AND CULTURAL HERITAGE: STAKES AND OPPORTUNITIES

What is digital storytelling? What tools, devices and services are available? What are the recommendations and technical guidelines for GLAMs wanting to carry out digital storytelling projects? The aim of this publication is to inform cultural institutions on stakes and opportunities given by digital storytelling and answer to their doubts.

The AthenaPlus publications extend the series of publications produced during the ATHENA and Linked Heritage projects. Here the list of the other booklets available:

- Digitisation Standard Landscape
- Guidelines for geographic information
- Persistent identifiers: recommendations
- Lightweight Information Describing Object: LIDO
- Your terminology as a part of the semantic web recommendations for design and management
- Geocoded digital Cultural Content

Download them at:
http://www.athenaplus.eu/index.php?en/169/publications

Responsible partners:
Istituto centrale per il catalogo unico delle biblioteche italiane (ICCU), Italy
Stiftung Preussischer Kulturbesitz (SPK), Germany

INFO
HTTP://WWW.ATHENAPLUS.EU
INFO@ATHENAPLUS.EU

ATHENA
PLUS
Access to cultural heritage
networks for Europeana