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ATHENA

Core Content Map for the Recognition of Digital Cultural Heritage Content

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eContentplus

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¹ OJ L 79, 24.3.2005, p. 1.

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0. Executive summary

This deliverable aims at providing an overview of the distribution of digital cultural content across the ATHENA consortium and how this can boost and improve the Europeana building process. This work will help both the ATHENA partners in discovering the real potential of the content under aggregation and the Europeana team in planning enlargement strategies. Knowing quantity, subject, origin of the content provided points out strengths and weaknesses of the project and may address the process of content aggregation.

The deliverable contains two introductory paragraphs, three core sections, and the conclusions:

- paragraph 1 illustrates the overall goals of the ATHENA WP5: to analyse the content that memory institutions put at the project's disposal and which are strategic scenarios that include them;
- paragraph 2 describes the purposes of the deliverable;
- paragraph 3 outlines the content coordination mechanisms of WP5, the ATHENA ingestion plan, and some remarks on the content itself;
- paragraph 4 describes how the ATHENA content can meet the Europeana content strategy development;
- the conclusions draw on the chart of strengths and weaknesses elaborated by Europeana and highlight how ATHENA can contribute to fill some important gaps.

The report underlines the provision of content country by country because the ATHENA added value is raising the profile of under-represented states in Europeana.

1. Objectives of the work coordinated by WP5

The overall objective of the ATHENA work package 5 is to coordinate “the digital content contributed by the participating cultural institutions and to realise the full potential of the different content for their effective inclusion into Europeana”.

This has been realised following two integrated ways, which are strategic and practical:

- clarifying the strategies set up by Member States in terms of aggregation of digital content and provision to Europeana in order to avoid any conflict between the participation to the ATHENA project and that ones to the Europeana family initiatives;
- verifying the real substance of the content that are foreseen to be provided and how they meet the Europeana needs.

The result of this couple of approaches allowed the ATHENA consortium to gather a significant core of digital European content coming from museums collections, whose metadata have been aligned to the Europeana Semantic Elements structure through the ATHENA ingestion tool which is was developed by WP7.

This work has been carried out in full cooperation with both the Europeana representatives that are partner of the ATHENA project through the Stichting European Digital Library, and the “Europeana Content & Partners Group” recently created in the framework of European v1.0 project.

2. Objectives of the deliverable 5.3

2.1 Introduction

‘There are things we know that we know. There are known unknowns. That is to say there are things that we now know we don't know. But there are also unknown unknowns. There are things we don't know we don't know. So when we do the best we can and we pull all this information together, and we then say well that's basically what we see as the situation, that is really only the known knowns and the known unknowns. And each year, we discover a few more of those unknown unknowns.’

6th June 2002, Secretary Donald Rumsfeld Press Conference
NATO Headquarters in Brussels (Belgium) about the operation ‘Enduring Freedom’¹

The Rumsfeld’s quotation - regarding the situation of terrorism and weapons of mass destruction - is not a riddle but an effective way to explain that the reality overcomes imagination and things were worse than the facts showed.

This passage is now often repeated - with a positive meaning - in texts and articles talking about information and knowledge management in a virtual world. In fact, Internet allows even more users to access ‘unknown’ worlds that, however, need to be placed in the path of the user to be discovered.

This consideration drove the WP5 coordinators in the analysis of the content put at the ATHENA project’s disposal by partners and content providers in relation to the Europeana needs. In fact, while the first part of the project was devoted to study the technical aspects of the digital cultural content (metadata standards, domain production, typology, etc.) in order to understand how best aggregate them, the final months are the right time to get through other aspects - quantity, typology and country distribution in particular - that are useful to outline the future steps of both ATHENA and Europeana projects. In fact, since Europeana aims at being the access point to the European culture on the web, it should represent all European countries at their best.

Therefore, the ATHENA map for the recognition of digital cultural heritage content will examine the content distribution that will be put at Europeana disposal in order to make the unknown known.

The deliverable’s main goals are:

- outlining a global vision of the ATHENA digital cultural content (i.e. ‘content map’);
- describing their geographical and thematic distribution;
- identifying strengths and gaps of the project’s content;
- showing how this content can give an added value to Europeana.

The achievement of such objectives will:

- support Europeana for the improvement of the project’s content development strategy for a better valorisation of the European cultures;
- help the ATHENA consortium in the elaboration of new project proposals supporting the growth of Europeana.

¹ <http://www.defense.gov/transcripts/transcript.aspx?transcriptid=3490>

2.2 Methodology

The approach adopted for the elaboration of deliverable 5.3 is a quantitative and qualitative analysis building on the ATHENA ingestion plan, country by country. Internet search for further searches and checking of data was conducted.

2.3 What is a content map?

Bushell and Jafari (1996) coined the term ‘culture map’ whereby the entities concerned with culture can be related to one another through the mapping of their relationship with one another. Mapping of cultural entities will result in an understanding of the cultural market, its operation and more importantly one can understand the way the cultural market relates to other related sectors such as tourism, heritage and education.¹

This is how the MINERVA eC project explained the map of cultural institutions across Europe; this definition inspired the ‘content map’ one that is defined in this deliverable.

Mapping the content within the ATHENA project means to analyse the different kind of resources under the qualitative and quantitative points of view and understanding ownership and nature of such content, how they represent the panorama of the European museums, and how they can integrate the Europeana content.

¹ MINERVA eC Map of Cultural Heritage Sector in Europe (2008). Bushell, R., & Jafari, J. (1996). ‘Developing cultural tourism opportunities’, *Annals of Tourism Research*, vol. 23.

3. ATHENA content

3.1 Introduction

The list of the ATHENA content is part of the project's Description of Work (DoW) that was submitted and approved by the European Commission.

At the beginning of the project (December 2008) WP5 set up that each one of the 33 ATHENA National Contact Points¹ is responsible for the updating the list of collections of his/her own country and for the involvement of new content providers².

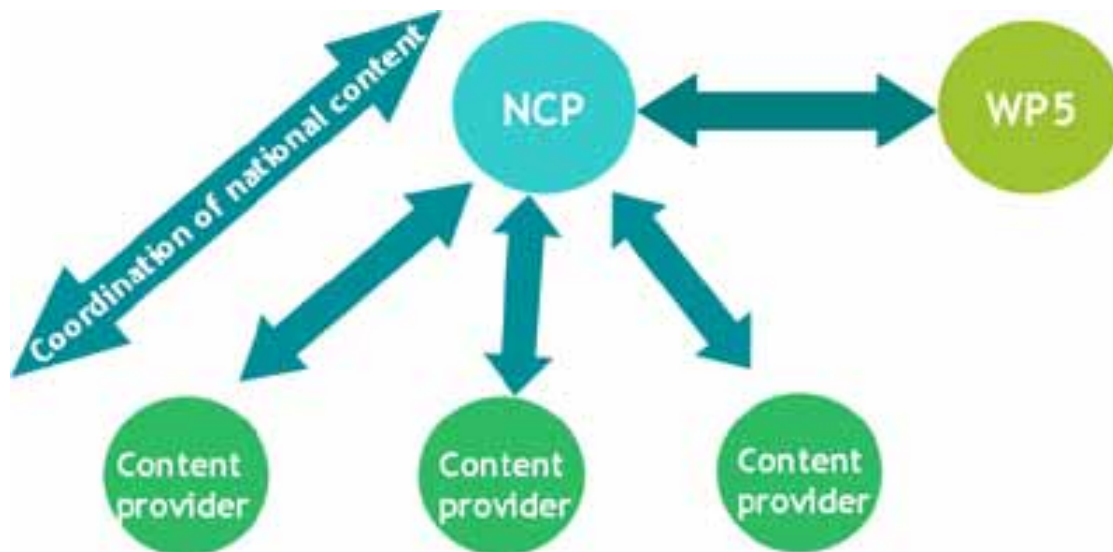


Figure 1 - ATHENA content coordination map.

Updating the list of content providers was a necessary process because many things changed since the proposal was written; first of all, Europeana little by little clarified the aggregation its strategy and, as a consequence, the related projects adapted themselves to even new guidelines, secondly, some cultural institutions weren't in time with the digitisation process and weren't able to give content anymore.

The updating work of the NCPs led in 2010 to a renewal of the DoW that was approved by the Commission. In fact, some of the collections needed to be deleted from the list for various reasons:

- they were harvested (or are still under harvesting) directly by Europeana
- they were more pertinent to other projects (EuropeanaLocal, EFG, APEnet)
- they had copyright problems (and so the metadata couldn't be freely displayed and aggregated)
- the digitisation process was uncompleted or the digital objects didn't have good enough metadata³

¹ <http://www.athenaeurope.org/index.php?en/132/national-contact-points>

² For details on the mission and role of the National Contact Points see deliverable 5.1.

³ For instance, for this reason, ATHENA "lost" a very large collection, the General Historical Catalogue of the Czech National museum, which counted 1,2 million objects.

However, this loss was offset by many new adhesions; in fact, some institutions already participating to the project supplied with brand new collections and many new cultural bodies joined the network. The Europeana office itself addressed to ATHENA some request of participation¹.

At present, the ATHENA ingestion plan – based on the list of providers of the new Description of Work approved by the Commission in July 2010 plus brand new providers - counts 225 digital collections corresponding to more than 4.6 million metadata (+1,185,397 still to be confirmed)

Such amount is an estimation of the digital records that the ATHENA project is planning to process. This is due to various reasons:

- some providers couldn't give a more precise evaluation of the digital items since the digitisation process is still under conclusion or data are under revision/updating;
- brand new providers are arranging their participation to ATHENA;
- other providers are questioning their participation because of the nature of the licences that Europeana provided;
- finally, others are not able anymore to provide content (for administrative issues, for management changes, technical reasons, etc.).

It must be underlined that **the amount of 4.6 million metadata refers to the whole set of data that ATHENA is processing for its own purposes** (above all, testing the ingestion software and LIDO, the new harvesting format specific for museums²); 7% of the data (in red in the table below) won't be transferred to Europeana because the providers participate in both ATHENA and Europeana projects and have already sent their data to the European portal. This is the case of Culture.fr, the portal of the French Ministère de la culture et de la communication (MCC), whose digital resources – more than 2 million items – have been already transferred before the ATHENA project started. The French data from Joconde, the union catalogue of the French museums that are in the following chart will be used to test the ingester technical features only. A similar solution was adopted for the digital collections from UK³.

In fact, little by little that the overall Europeana content strategy was developed (final release in August 2009), it clearly appeared that the fact that the same institutions participate in different EU projects could cause some overlapping in content aggregation and delivery to Europeana (this problem is shared by many of the Europeana family projects). ATHENA WP5 leaders got in touch very soon with the Europeana office to deal this matter and tried to find out the best possible solutions for both projects: it was decided that the ATHENA providers that had already sent their data to Europeana, would have cooperated with their records only to test the ATHENA technical features.

The table below lists the ATHENA country partners and their contribution of content in terms of collections, digital records, and providers. The data between brackets are unassessed or not

¹ This workflow between the two projects is in accordance with the Europeana Content Strategy issued in August 2009 (Guideline b: 'If there is a vertical aggregator available an institute should (also) join the vertical integrator').

² See deliverable 3.3 'Specification for conversion tools'.

³ Fitzwilliam Museum, English Heritage, Victoria and Albert, Royal Albert Memorial Museum & Art Gallery, Bristol City Council, Wiltshire Archaeological and Natural History Society).

yet confirmed; the one in red refers to the information that won't be transferred to Europeana (as explained above).

COUNTRY	COLLECTIONS	DIGITAL RECORDS FOR ATHENA	PROVIDERS
Belgium	8 (+ 1)	85,505 (+ 1,710=1 collection to be confirmed)	7 (+1)
Bulgaria	4	16,219	4
Cyprus	6	2,923	4
Czech Republic	24	42,774	2
Estonia	1	5,000	1
Finland	13 (+ 1)	401,062 (+ 889.435=1 collection to be confirmed)	5 (+1)
France	1	2,000	1
Germany	63	1,183,775 + not specified amount	30
Greece	44	323,807 + 20 h/video + 5 sound clips	36
Hungary	9	158,694 (+ 1,080 hours in DVDs and CDs	2
Israel	10 (+6)	163,205 + 6,000 h/video + not specified amount (+ 199,380=6 collections to be confirmed)	2 (+1)
Italy	7 (+ 1)	1,588,000 (+ 1 collection to be confirmed)	2
Latvia	1	12,000	1
Lithuania	1	1,094	1
Luxembourg	1	500	1
Malta	1	998	1
Poland	3	30,500 (+ not specified amount)	1
Romania	5	78,350	1
Russia	5 (+ 2)	43,243 (+ 80,000, + 14,872)	5 (+2)
Slovenia	6	27,602	6
Slovakia	3	44,500	1
Sweden	3	76,000	3
United Kingdom	6	354,508	6
TOTAL	225 (+ 11)	4,642,259 + unassessed collections (+ 1,185,397 to be confirmed)	122 (+5)

3.2 The ATHENA ingestion plan

Since the beginning WP5 structured an ingestion plan in order to keep under control the content put at project's disposal and to supply Europeana with the schedule of the projects uploading. It contains the following fields that are helpful to retrieve all the basic information that the ingestion process requires as well for the elaboration of the present deliverable.

- country
- data provider
- collection name
- technical contact person
- email
- approximate amount of digital objects
- object type (image, text, audio, video)
- preview availability description
- type of upload (ftp, http, OAI-PMH)
- used metadata
- technical information in standard questionnaire¹

¹ This field refers to the standard online questionnaire elaborated by WP3 in order to retrieve the necessary information for the project's deliverables (see deliverable 3.1 for details).

- date delivery to ATHENA
- date delivery to Europeana
- comments
- remarks from Europeana

THE INGESTION PLAN AT A GLANCE

Quantity of content to be uploaded in the ATHENA ingestion tool: 4,642,259 + unassessed collections (+ 1,185,397 to be confirmed)

Number of digital collections: 225 (+11 to be confirmed)

Providers: 123 (+5)

Countries: 20 (including Israel and Russia)

Subjects: fine arts (paintings, installations, etc.), architecture & landscape, dress & textiles, photographs, postcards, folk applied arts, folk music, manuscripts (including the 'Shrine of the Book'), magazines and books of various ages, numismatics, archaeological artefacts (Roman, Hellenistic, Byzantine, prehistoric), autographs, anthropology collections, minerals, literary works, sculptures, ancient glass, classical archaeology, design, prints and drawings, maps, technical machines, industrial archaeology, archival material

3.3 The ATHENA content: some remarks

Provider types (not only museums)

'European museums! ATHENA is your bridge to Europeana' is the slogan of the ATHENA project brochure to attract museums and provide them effective tool for aggregating content and bring them into the European virtual cultural space.

The museum definition given by ICOM is universally known¹; however, the complexity of the cultural history of the European country implies that other kind of institutions 'acquires, conserves, researches, communicates and exhibits' museum objects, and, by the other hand, a museum often 'acquires, conserves, researches, communicates and exhibits' archive and library collections. As a consequence, the ATHENA project covers all the cultural domains, even if museums and museum collections are the significant feature.

The table and diagram below illustrate the breakdown of the ATHENA content providers according to the nature of the participating institutions.

ORGANISATION TYPE	NUMBER OF ORGANISATIONS (%)
museums	70 (54.7%)
aggregators	18 (14%)
national/regional governmental bodies	12 (9.4%)
scientific institutions	7 (5.5%)
(AV)archives	6 (4.7%)
libraries	3 (2.3%)
others	12 (9.4%)
TOTAL	128 (100%)

¹ A museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment." (<http://icom.museum/who-we-are/the-vision/museum-definition.html>)

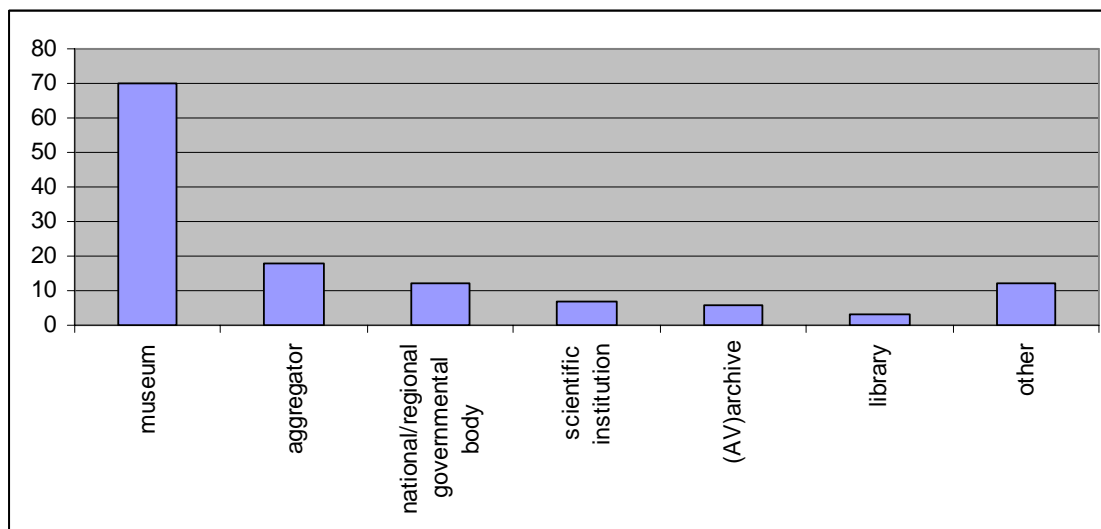


Figure 2 - ATHENA content.

In comparison with the first analysis on the ATHENA content providers (deliverable 3.1, April 2009; the focus was on standards), it is clear that the campaign of acquisition of new museums and aggregators of museum objects and the rearrangement of the list of providers for the project Description of Work fully modified the composition of this group:

	2009		2010
Museums	50 (37.6%)	=>	70 (54.7%)
Libraries	4 (3.0%)	=>	3 (2.3%)
(AV)archives	15 (11.3%)	=>	6 (4.7%)
Aggregators	6 (4.5%)	=>	18 (14.0%)
Others	58 (43.5%)	=>	31 (24.3%)

At present the typological map of the ATHENA content providers shows that there was a considerable increase of the participating museums or aggregators of museum digital objects; at the same time, institutions other than museums decreased.

The presence of heterogeneous cultural bodies in ATHENA means also that they appreciated the tools that were created to support museums in the aggregation process towards Europeana (the LIDO schema and the ingestor above all).

Collection themes

The ATHENA content providers deliver to Europeana a wide range of content covering many aspects of the European culture.

THEMES	%
mixed themes	15
archaeology	13
paintings, drawings, prints, fine arts, sculptures	11
local, regional, national history; social history	10
newspapers, periodicals, books, ex libris	7
industrial & technical objects	6

manuscripts, incunabula, miniatures, ancient maps	5
music & cinema (AV & memorabilia); AV records	5
ethnography/ethnology	5
photographs	4
natural history	4
architecture	4
archival documents	3
folk art	3
contemporary art	2
numismatic	2
costume, textiles, and fashion	1

Archaeological and art objects (paintings, drawings, prints, fine arts, sculptures) are the most frequent themes since the core subject of ATHENA are the museums (13% and 11% upon the total); however, while art objects are quite even distributed across country partners, the archaeological collections come mainly from Greece. This fact should be reckoned with in case of the elaboration of a proposal for an ATHENA follow up: a more balanced distribution of themes across the participating countries will assure a better representativeness of the European museum.

Many participating museums (15%) have “mixed theme” collections; this means that they manage collections of various kinds and covering many subjects. This is the case with both local and national museums (or aggregators): the local museums collect objects and documents at city, province or regional level in order to illustrate the history of a specific place through times, from prehistory to present, and themes (local archaeology, architecture, natural history etc.). Some examples: the city museums of Leipzig, Berlin (Germany), Athens (Greece), and Bristol (UK); the “*land*” museum Badisches Landesmuseum Karlsruhe; the culture portal of the German North-West regions. By the other hand the national museums or aggregators have the same mission but on a larger scale (for instance, the National Museum of Slovenia and the Latvian museum aggregator), and often aspire to collect objects and documents of universal interest like the Israel Museum of Jerusalem that has collections of African, American, and Asian art. Moreover mixed themes collections are managed by museums dealing with very specific topics, like the Museum of Literature Petöfi that collects art and relics about Hungarian writers.

“*Museum*” and “*museum digital collection*”

The analysis of the institutions contributing to ATHENA pointed out that **only a small part of the participating museums have the direct and full control of the whole digitisation life-cycle** (as described by the MINERVA project)¹:

1. **Digitisation Project Planning** (The Reasons for the project, Human Resources, Research, Risks)
2. **Selecting Source Material for Digitisation** (Establish Selection Criteria, Selection Against the Criteria)

¹ http://www.minervaeurope.org/structure/workinggroups/goodpract/document/goodpractices1_3/practicalguidelines.htm

3. **Preparation for Digitisation** (Hardware; Software; Environment)
4. **Handling of Originals** (Moving and Manipulating Original Material)
5. **The Digitisation Process** (Using Scanners; Using Digital Cameras; Software Applications for OCR)
6. **Preservation of Digital Master Material** (File Formats; Media Choices; Migration Strategies)
7. **Meta-Data** (The Scope of Meta-Data Used for Object Description; Appropriate Meta-Data Standards)
8. **Publication** (Image Processing; 3D and Virtual Reality Issues; Online Publication)
9. **IPR and Copyright** (Establishing Copyright; Safeguarding Copyright)
10. **Managing Digitisation projects** (Digitisation Process management; Team Development; Staff Training; Working with Third Parties for Technical Assistance; Working with Third Parties in Cooperative projects and Content Sharing; Costs)

This usually happens because digitisation is not in the mission of the museums (see the experience of museum-digital in Germany, Annex I): as a consequence the necessary funding is erratic and recovered, for instance, through targeted projects (national or European), ministerial funding within national digitisation programmes. This means that the equation “museum” and “museum digital collection” can’t always be drawn.

The consequences for the management of content within ATHENA were important and caused some delay in the workflow:

- **the museum digital objects are stored, aggregated, managed and preserved outside the museum** => difficulties in using them for the project purposes (Who’s the person in charge for the uploading? Who shall allow the content publication? Who is/are the right owner(s)?)

However, they were completely solved.

Museum aggregators

The ATHENA network of partners and content providers counts 18 aggregators; it is noteworthy that 11 of them are museum and not cross-domain aggregators. This information is all but useless because museum aggregators did not have a high visibility in the digital cultural information space. In fact, the ATHENA and Europeana survey on aggregators issued at the end of 2009¹ highlighted that only 3 upon 30 European aggregators were born within the museum domain; furthermore, there’s a lack of presence of museum aggregators among the Europeana family projects. This is the reason why it was decided to give some more information about them in this deliverable. In fact, cross-domain aggregators can provide museum content too but their metadata are usually simplified since their structure was not build for the specific needs of museums.

¹ See ATHENA deliverable 5.2, annex I Analysis of the Europeana and Athena Survey for Aggregators.

The listed museum aggregators share some common features: they are mainly set up by ministries or national agencies managing the museums' heritage with the principal scope of cataloguing and managing museum object databases (i.e. national registers). Sometimes the synergy with ATHENA boosted their creation or accelerated their online publication. The following descriptions refer to aggregators with a public interface.

Joconde¹ is the union catalogue of the French museums promoted by the Ministère de la Culture et de la Communication: archaeology, fine arts, decorative arts, ethnology, history, science and technology are the topics covered. Joconde was born in 1975 to allow a coherent cataloguing and an easy access to the information; today it includes 442,200 object records, of which 254,800 are illustrated by one or more images. The information comes from more than 340 museums.



Figure 3 – Joconde, the French museums aggregator

Museum-digital² is the initiative carried out by the Institute for Museum Research (SMB-PK) in Berlin, Germany, to stimulate small museums to publish their data online with the support of ATHENA. Starting point for museum-digital is the situation in the museum themselves, which is often characterised by lack of financial and human resources, in particular for digitisation; furthermore, the museum curators are often not well-disposed towards the online publication of their data. To compensate for these shortcomings, it was developed a system that can be used by all museums, no matter how and with what resources they manage; a help-desk team works to convince museum managers to share their objects online. At present the system is organised into seven individual portals corresponding to a

¹ <http://www.culture.gouv.fr/documentation/joconde/fr/pres.htm>

² <http://www.museum-digital.de/>

specific geographic area (“*land*”). The concept of this project and all the results are illustrated in Annex I.

The museum-digital metadata are also compliant with the standards of the German Digital Library.

SMOL – Finnish Museums Online¹ is the joint search portal of the Finnish museums promoted by the National Board of Antiquities. The number of participating museums and the amount of searchable materials are continually growing. The portal now holds over 140,000 records of objects and images. Finnish Museums Online aims to increase the accessibility of museum collections: in fact it allows access also to works not chosen for the exhibition.

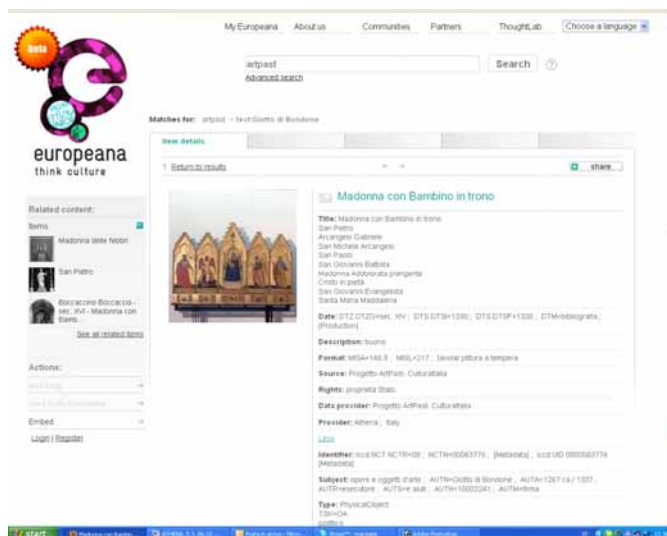
MuIS² is the Museum Public Portal of Estonia promoted by the Ministry of Culture. It was created in the fall of 2010 and gives access to about 1,300,000 objects in 51 museums. It is open to the users and accepts their knowledge and experiences.

eSbirky³, the aggregator of the Czech museums, was even born within ATHENA; currently contains a highlight selection of items exposed in the participating museums but is intended as the first step towards the creation of a large database of Czech museums and galleries. The concept of this project is illustrated in Annex I.

Some masterpieces

The network of the ATHENA partners and providers is very varied; it includes museums and cultural institutions of every level: local, regional, national. This implies that the digital records provided to ATHENA are various too: they can have a great local importance but lesser at national level or, at the opposite, to be absolute masterpieces.

The Europeana user can have a wonderful experience browsing the digital items provided by ATHENA and cross times and artistic styles: from Giotto’s painting and frescos to the works of the British contemporary artist Damien Hirst, from the Dead Sea Scrolls to the Parthenon Frieze and more...

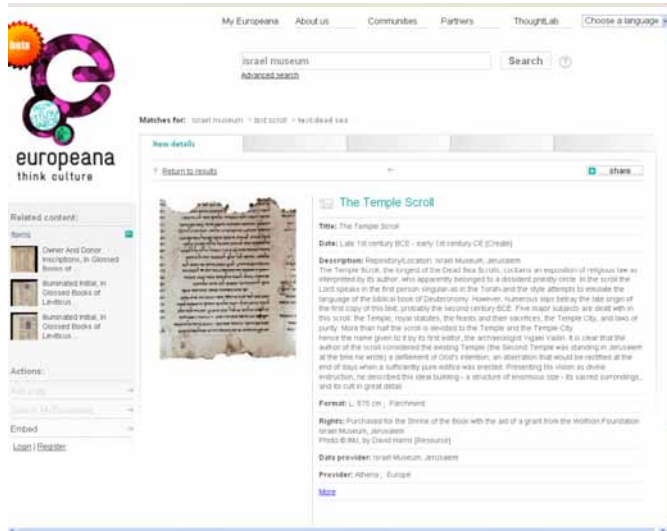


CulturaItalia – Progetto ArtPast (IT):
Madonna con bambino in trono e
santi, Giotto di Bondone (1330)

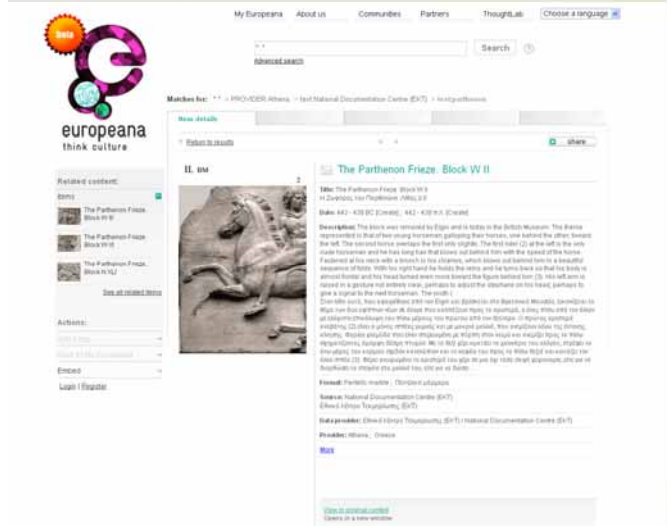
1 <http://suomenmuseotonline.fi/en>

2 http://www.muisee/portaal/en_GB/

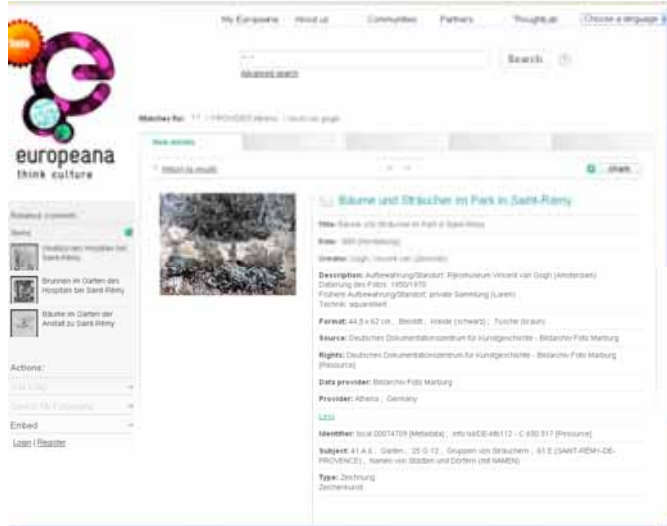
3 <http://www.esbirky.cz/cz/>



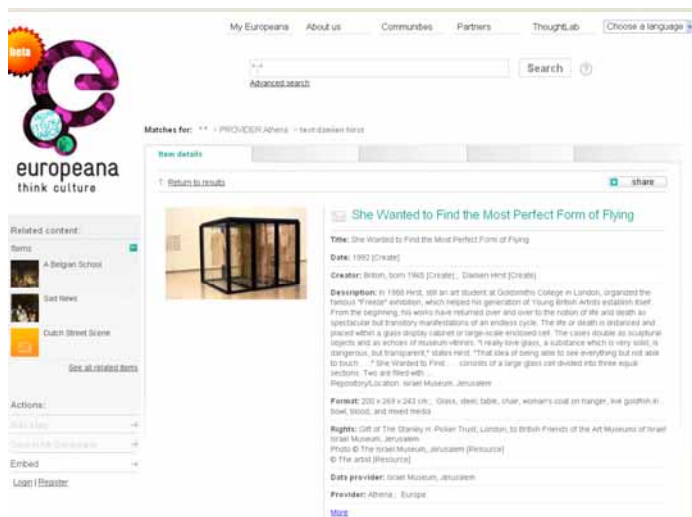
Israel Museum (IL): the Temple Scroll (late 1st century BC)



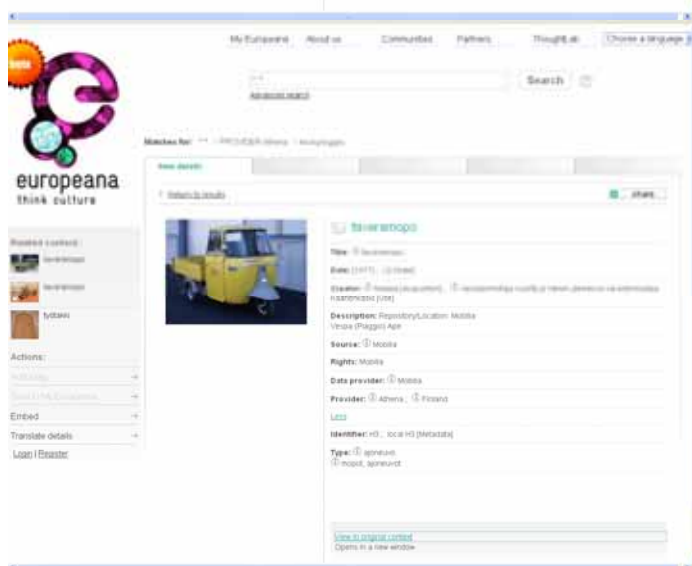
National Documentation Centre - EKT (GR): the Parthenon Frieze. Block W II (442 - 438 BC)



Bildarchiv Foto Marburg (DE): Vincent van Gogh "Bäume und Sträucher im Park in Saint-Rémy" (1889)



Israel Museum (IL): Damien Hirst, “She wanted to find the most perfect form of flying” (1992)



Mobilia Museum (FI), Vespa (Ape) Piaggio, (1977)

4. Connections with Europeana

4.1 Introduction to the content scenario in Europeana

In November 2010 the Commission announced that Europeana passed the initial target for 2010 of 10 million objects¹. In fact, the European portal was launched in 2008 with 2 million objects only that became 14 at the end of the current year.

Such successful goal was reached thanks to the contribution of all Member States plus other non EU members (Iceland, Switzerland, Norway, Russia, and Serbia).

However, the input of Member States is uneven; France and Germany are the largest contributors (nearly 17% each) while the other countries are left behind (almost half of the total list of countries score very low with less than 1%).

The Member States' Expert Group (MSEG) on digitisation and digital preservation of the European Commission is carrying out a survey on how single Member States can contribute to fill the Europeana content gaps in. In fact last 10 May Council Conclusions outlining the future of Europeana invite Member States to “develop [...] a roadmap for increasing the content accessible through Europeana in a balanced way, covering all Member States and sectors (text, audio, sound, image) and including the masterpieces of Europe's cultural heritage”.

The content shown in Europeana is unbalanced too; many images and few audios and videos, many pictures of art-historical artefacts but few archaeological and so on. This means that if Europeana wants to really represent ‘THE’ cross-section of Europe's cultural heritage, it needs further quality material from all Member States. Many are the reason why this happens: the ‘digitisation divide’ among Member States and culture sectors (libraries are in the van of digitisation), lack of presence of huge aggregators of digital content, etc. The ATHENA project can help in this process.

At the end of December 2010, Europeana gives access to 15,009,060 metadata; this amount includes also the first ATHENA contribution which is equal to 1,776,656 (11.8% upon the total). Such huge quantity places the ATHENA project as the major Europeana provider.

However ATHENA has to gather and send to Europeana much more content; this means that ATHENA can increase the Europeana content in a significant way. In fact, the Europeana team thinks that 15 million objects is a very respectable number that meets the Commission expectations but the amount of objects searchable through Europeana should keep on growing to attract even more users and to ensure that users come back to the portal. And the speed of this growth depends largely on the pace of digitisation in the European countries.

The Europeana geographical breakdown of content shows that the contributions of Member States are unbalanced and some countries are underrepresented; equally, the diversity of the types of content should be increased through the provision of audio and video content. Furthermore, the presence of museums among the institutions providing content to Europeana is quite poor compared with those ones of libraries or aggregators. Such problems are also in the agenda of the Member States' Expert Group.

In short, ATHENA can strongly support Europeana in increasing its profile and help it to fill its gaps.

¹ 18th November 2010, reference: IP/10/1524 ‘Digital Agenda: Europeana gives online access to over 14 million examples of Europe's cultural heritage’ (<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/1524&type=HTML>).

4.2 Europeana and ATHENA: the geographical distribution

This Commission's press release of November 2010 contained a detailed table with the Europeana content contribution by country; what is impressive is that most of them supply with less than 1%. The Europeana office itself recognises this loss of balance and is working to overcome it.

The Europeana Content Development Strategy (December 2010) also announces: "There are a number of countries with less than 1% in contribution and as some of these are small, it is unlikely that they will ever have a significant percentage, but some are severely underrepresented for content available in Europeana compared to that available in their country"¹.

ATHENA can boost this process since many of its partner countries are included among the "small" Europeana providers. The table below shows how this may happen during 2011: many countries will raise their profile in Europeana by contributing content through ATHENA: for instance, Cyprus will jump from the current 39 metadata to 2,962 (percentage increase of 7,494.8!) or Czech Republic from 11,760 to 54,634 (+ 364.5%).

Besides a more homogenous geographical breakdown of content, ATHENA can supply Europeana with another added value because it will provide – the one and only among the projects of the Europeana family - digital cultural content from countries whose culture is tightly connected with the European one: Russia and Israel. In fact ATHENA is processing metadata of Russian and Israeli institutions; at present only the Israel Museum has already sent its metadata (5,240) that are counted under the voice "Europe" in the Europeana portal together with the provisions of other European projects².

¹ Europeana Content Development Strategy p. 7. http://www.version1.europeana.eu/c/document_library/get_file?uuid=8fead8af-676f-4a86-b819-e4b9082ff8cc&groupId=10602

² Besides ATHENA this voice gathers the following projects: "The memory of paper", DISMARC-EuropeanaConnect, BHL Europe, The European Library, Centre Virtuel de la Connaissance sur l'Europe, VideoActive, Europeana Travel, ACE Association des Cinémathèques Européennes.

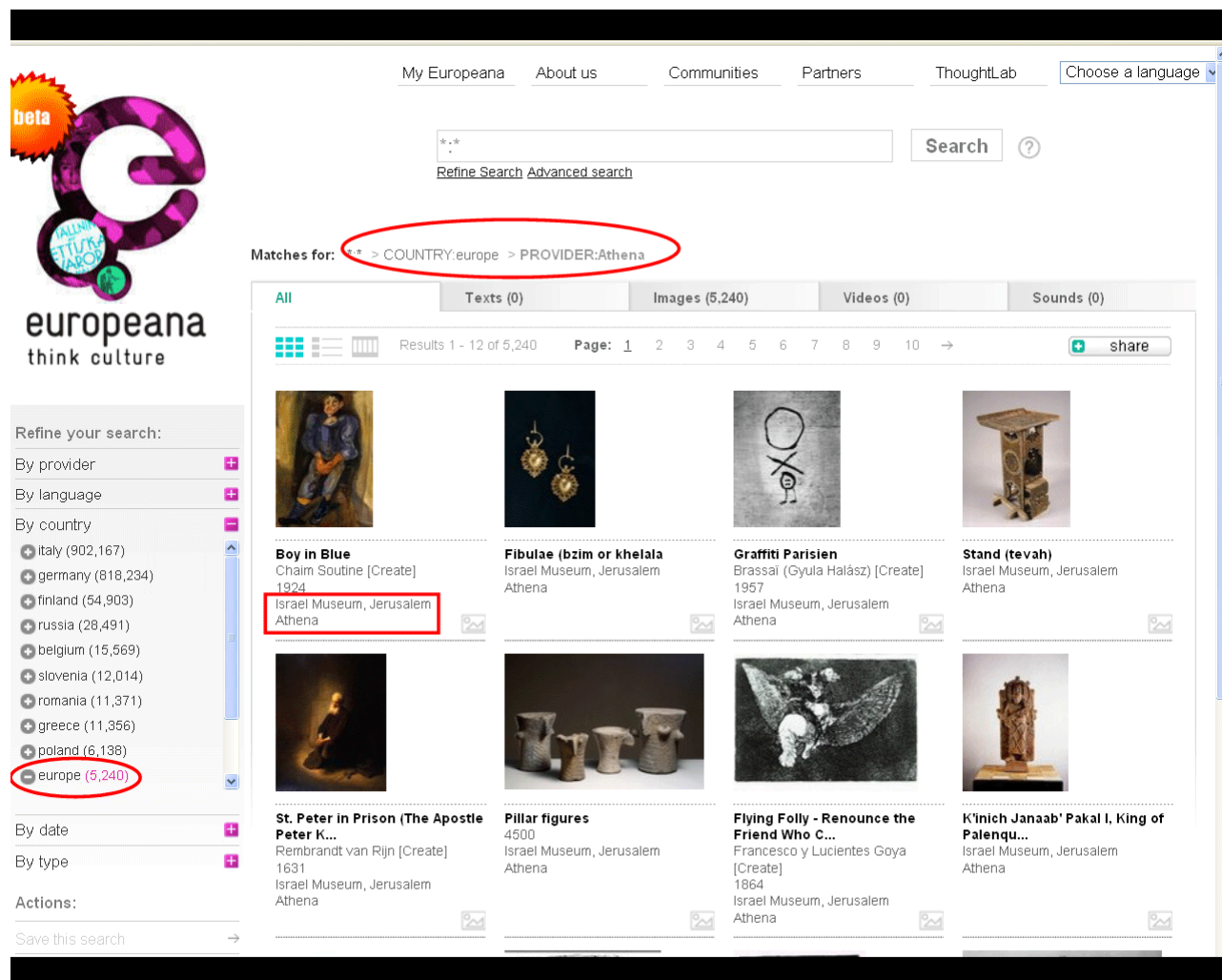


Figure 4 – Israel content in Europeana

NB: at the time of this report (December 2010), ATHENA has already provided some content to Europeana from Belgium, Israel, Germany, Greece, Hungary, Italy, Romania, Russia, and Slovenia; nevertheless, **the percentage increase is calculated considering the total ATHENA contribution.**

COUNTRY	IN EUROPEANA	ATHENA CONTRIBUTION	INCREASE
France*	2,626,362	—	—
Germany	2,556,954	1,183,775 (including 801,718 already sent to Europeana)	+ 67.4
Sweden	1,417,259	76,000	+ 5.3
Spain	1,293,029	—	—
Italy	1,271,867	1,588,000 (including 902,167 items already sent to Europeana)	+ 429.5

Netherlands	1,153,212	—————	—————
Ireland	945,330	—————	—————
Norway	940,472	—————	—————
UK*	897,137	—————	—————
Poland	411,088	30,500	+ 7.41
Belgium	208,603	85,505	+ 40.9
Finland	191,481	401,062	+ 209.4
Greece	172,935	323,807 (including 9,874 items already sent to Europeana)	+ 187.2
Slovenia	142,161	27,602 (including 3,142)	+ 19.4
Denmark	61,354	—————	—————
Austria	47,335	—————	—————
Iceland	44,500	—————	—————
Estonia	39,101	5,000	+ 12.7
Switzerland	32,722	—————	—————
Russia	28,209	43,243 (including 28,209 items already sent to Europeana)	+ 100
Luxembourg	24,890	500	+ 2.0
Romania	22,824	78,350 (including 11,371 items already sent to European)	+ 684.1
Slovakia	21,758	44,500	+ 204.5
Portugal	15,470	—————	—————
Bulgaria	12,212	16,219	+ 132.8
Czech Republic	11,760	42,774	+ 363.7
Hungary	10,939	158,694 (including 1,194 items already sent to European)	+ 1,628.4
Lithuania	7,731	1,094	+ 14.1
Serbia	5,576	—————	—————
Malta	3,300	998	+ 30.2
Latvia	1,899	12,000	+ 631.9
Cyprus	39	2,923	+ 7,494.8

* The collections from France and United Kingdom won't be transferred to Europeana because they are already in (see page 8).

4.3 The ATHENA added value

The final consideration of the Europeana Content Development Strategy says that “Analysis of the content accessible to Europeana shows the gaps in the content for the user. Europeana

will actively seek to fill these gaps by encouraging content holders to digitise and provide the metadata.

The analysis (Summer 2010) shows that overall, the four best-represented subjects are:

1. Books and articles: manuscripts, rare books, literature, poetry and ephemera.
2. (art-)Historical artefacts: postcards, ethnographic material, folkloristic objects and medals.
3. Photography: historical photographic collections of certain regions as well as ethnographic collections, and portraits.
4. Art: paintings and drawings.

The content is relatively recent, over half of the collections holds content from between the 18th and 20th centuries. Prehistory and the Middle Ages, as well as contemporary times are underrepresented with around 25% together¹.

This paragraph is supported by a chart that summarises the main gaps according Europeana: this synthetic overview highlights strong and weak areas within each category (text, image, video, and sound) according to several characteristics (subject, time period, language, country). This chart is included below as published by Europeana; the ATHENA contribution by sector and typology is highlighted in yellow. The project will be able to reinforce many weak areas that Europeana pointed out. In particular, since the ATHENA consortium is made up mainly of museums and the content provided is normally metadata of museum objects, the gaps of the ‘image’ category will be largely filled in (see red column in the table below). At the same time ATHENA will be able to cover underrepresented subjects providing archaeological objects rather than music scores.

By the other hand, like Europeana ATHENA is processing metadata of cultural digital objects belonging to the most recent time period, save for some archaeological collections.

¹ See footnote 20.

	TEXT		IMAGE		VIDEO		SOUND	
	Strong	Weak	Strong	Weak	Strong	Weak	Strong	Weak
Subject	Books & articles (manuscripts, literature, etc.), periodicals (newspapers, magazines), archives	Music (scores & lyrics), texts about performing arts & film, political documents, UGC	Photography, (art-)historical artefacts, art, historical maps	Technical, archaeology, medical, biology, economy	TV broadcast, recording, documentary	Silent film, news, interviews	Dialects & accents, folk, radio	Music (jazz, contemporary, classic), wildlife sounds, ethnographical recordings
Time Period	16-20 th centuries	Prehistory-14 th & contemporary	17-20 th centuries	Prehistory-14 th century	Contemporary & 20 th century	Prehistory-19 th century	Contemporary & 20 th century	Prehistory-19 th century
Language	English, French, German, Spanish, Latin	Bulgarian, Icelandic, Latvian, Lithuanian, Maltese, Portuguese, Romanian	English, French, German, Swedish	Bulgarian, Czech, Danish, Estonian, Finnish, Greek, Hungarian, Irish, Latvian, Lithuanian, Maltese, Norwegian, Polish, Portuguese, Romanian, Slovak	English, French, German, Spanish	Bulgarian, Estonian, Latvian, Lithuanian, Maltese, Polish, Slovak, Slovene	English, French, German	Bulgarian, Czech, Danish, Dutch, Estonian, Greek, Hungarian, Latvian, Lithuanian, Maltese, Portuguese, Romanian, Slovak, Spanish
Country	Spain, Ireland, France, Germany	Belgium, Bulgaria, Cyprus, Estonia, Iceland, Latvia, Lithuania, Luxembourg, Poland, Romania, Slovakia, Sweden, Switzerland	Germany, France, Sweden	Cyprus, Czech Republic, Estonia, Finland, Hungary, Iceland, Latvia, Lithuania, Luxembourg, Macedonia, Monaco, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Switzerland, United Kingdom	Austria, Europe	Belgium, Bulgaria, Cyprus, Estonia, Finland, Greece, Hungary, Iceland, Latvia, Lithuania, Luxembourg, Norway, Poland, Romania, Slovakia, Slovenia, Sweden	France, Austria	Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden

4.4 Workflow to transfer ATHENA data to Europeana

This paragraph is the contribution of the ATHENA WP6 “Analysis of IPR issues and definition of possible solutions” that organised the data flow towards Europeana. In fact, when the Europeana licences were released in April 2010, the network of our content providers expressed many doubts; however the ATHENA management dispelled them and organised the content provision it is described below. This paragraph illustrates the cooperation between WP5 and WP6; this subject will be illustrated in an exhaustive way in the deliverable 5.5 “Implementation plan for taking the content into Europeana”¹.

Within the project, a workflow was set up in order to be able to transfer data from ATHENA content providers to Europeana.

This transfer could only be guaranteed by combining a set of permissions:

- Content providers agree to transfer their data from the ATHENA repository to Europeana
- Technical partner NTUA agrees to transfer the data to Europeana only in the framework of the tasks and activities foreseen by the ATHENA project and upon authorisation by the project coordinator.

During the lifetime of the ATHENA project, Europeana issued a set of agreements covering the transfer and (re)use of data that was delivered to Europeana by content providers. A ‘Data Provider Agreement’ was developed to be concluded between Europeana and individual data providers; a ‘Data Aggregator Agreement’ was developed to be concluded between an aggregator and Europeana.

In order for ATHENA to be able to sign such agreement, the permission from all aggregator’s content providers was needed. Therefore the ATHENA project management circulated a letter to be signed by each individual ATHENA content provider. The letter stated: *“I hereby agree that the ATHENA Project Coordinator signs the Europeana Data Aggregator Agreement on my behalf. I therefore allow the transfer to the Europeana server of the data I made available to ATHENA project via the ATHENA Ingestion Tool.”*

After having received this written declaration from the content providers, the ATHENA project management could engage in a Data Aggregator Agreement with Europeana.

The content providers also had to indicate that ATHENA was allowed to transfer the data to Europeana: *“In my capacity as Legal Representative of the ATHENA consortium, I commit to transfer to Europeana the metadata and data contributed by the Content Provider to ATHENA via the ATHENA Ingestion Tool at the terms and conditions defined by the Europeana Data Aggregator Agreement.*

The data transfer to Europeana will only take place once the Content Provider has explicitly agreed about it by signing the ATHENA-Europeana transfer agreement.” (Letter written by Rosella Caffo, project coordinator)

When this transfer agreement was received by the project management, the availability of the content was communicated to NTUA (the technical partner of ATHENA). NTUA is in charge

¹ **Discussion on Europeana agreements: when Europeana launched its agreements, the ATHENA consortium (alongside other project consortia) provided feedback on the definitions and articles in this first version of the agreements. Europeana received so much feedback that a revision of the current agreements was deemed necessary. At the time of writing this deliverable, the discussion on the scope of and provisions in the agreements between Europeana and its multitude of content providers and aggregators is still ongoing. It might be possible that by the end of the ATHENA project, a new version of the Europeana agreements will be issued. The ATHENA project management and the WP6 on IPR issues have already anticipated this possibility.**



of physically gathering all data, and commits to process the data contributed only in the framework of the tasks and activities foreseen by the ATHENA project, and to only transfer them to the Europeana server after having been authorised to do so by the project coordinator.

The project management also provided each partner with a copy of the Europeana Data Provider Agreement, which could be signed by the partner and Europeana at the end of the ATHENA project. At that moment, Europeana will engage in a direct relation with each ATHENA content provider.

5. Conclusions

- Managing such a large network of content providers (127) was possible only thanks to the appointments of ATHENA National Contact Points that could act as a bridge between the WP5 coordinator and the contributors.
- In two years, the ATHENA project managed to improve the profile of the consortium of content providers taking on board many more museums than the original composition. This happened thanks to active role of the National Contact Points that were made aware of the importance of involving more and more museums in order to make the project successful.
- This awareness had also some practical consequence; the two good practices described in Annex I show that ATHENA was the starting point for the implementation of other national aggregation. In fact, the necessity of delivering content to ATHENA or boosted some already ongoing initiatives, like the Finnish aggregator SMOL, or even brand new ones like museum-digital and eSbirky.
- The composition of the ATHENA consortium of providers symbolises the range of the European museums: it gathers small, medium, and large institutions of local, regional, and national levels. Also the themes of the collections that content providers cover many aspects of the European culture: archaeological and art-historical artefacts of course, but also technical objects, ethnological and ethnographical documents, music and sounds etc.
- The ATHENA providers will provide by the end of the project many masterpieces of the European culture: from the Parthenon frieze to Van Gogh's painting.
- ATHENA can supply Europeana with content coming from Member States and subjects that are underrepresented within the European portal.
- The ATHENA consortium is able to provide Europeana also content beyond the Member States, from Russia and Israel, whose culture is tightly connected with the European one. Until now this added value is not provided by the other projects of the Europeana family.
- ATHENA dispelled some partners' doubts on the statements of the agreements provided by Europeana and got ready for transferring the aggregated data accordingly. At the end of the project each content provider will have to negotiate with the European portal the conditions to be there.

6. References

ATHENA project

<http://www.athenaeurope.org/index.php?en/1/home>

18th November 2010, reference: IP/10/1524 ‘Digital Agenda: Europeana gives online access to over 14 million examples of Europe’s cultural heritage’

<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/1524&type=HTML>

Council conclusions on the future of Europeana, 10 May 2010

<http://register.consilium.europa.eu/pdf/en/10/st08/st08843.en10.pdf>

Europeana portal

<http://www.europeana.eu/portal/index.html>

Europeana project

<http://www.version1.europeana.eu/web/guest>

Europeana Content Strategy

<http://version1.europeana.eu/web/europeana-project>

MINERVA eC Map of the cultural heritage sector in Europe

<http://www.minervaeurope.org/intranet/minervaplus/deliverables.asp>

ANNEX I

This section tells two stories; both of them share the fact that they happened thanks to ATHENA.

The first one is the realisation of the German initiative of museum-digital. This moral can be drawn: while few top level cultural institutions discuss about aggregation of digital content, metadata standards, persistent identifiers etc., a critical mass of museums don't even guess what a digital object is, how it can be represented and give visibility to the owner. And this doesn't happen only in Germany.

Museum-digital

The creation of www.museum-digital.de was directly inspired by the ATHENA project. In January 2009 six museums of all kinds and of all sizes in Saxony-Anhalt (one of the federal states in Germany) were coming together to discuss digitisation. A common aim was defined as to find out how it might be possible, under the prevailing circumstances in the museums, to publish museum-object-information of every description and of all kinds of museums collectively and to do this in a form that the information can be delivered to Europeana easily.

museum digital

md: blog
Stand der Dinge
abonnieren (rss)

md: sachsen-anhalt
77 Museen
479 Sammlungen
6346 Objekte
Neue Einträge (rss)

md: rheinland-pfalz
43 Museen
219 Sammlungen
2708 Objekte
Neue Einträge (rss)

md: thüringen
38 Museen
136 Sammlungen
1483 Objekte
Neue Einträge (rss)

md: berlin
8 Museen
20 Sammlung
577 Objekte
Neue Einträge (rss)

md: r-e-m
1 Museum
1 Sammlung

museum-digital ...

Bei museum-digital geht es vor allem um Objekte - Museums-Objekte, um genau zu sein. Es geht um die Frage, wie diese online bekannt und recherchierbar gemacht werden können. Ausgangspunkt für museum-digital ist die Situation in den Museen selbst, die oft gekennzeichnet ist durch Mangel an finanziellen und personellen Mitteln. Häufig fehlt auch Erfahrung im Einsatz von Internet-Technologie.

Um diese Mängel auszugleichen wird ein System entwickelt, welches weitestgehend kostenfrei, zeitsparend und zudem einfach verwendbar ist. Ein System, dass von allen Museen genutzt werden kann, egal auf welche Weise und mit welchen Mitteln sie im Museum selbst die Informationen zu ihren Objekten verwalten. "Keimzelle" der Entwicklung von museum-digital ist die AG Digitalisierung des Museumsverbandes Sachsen-Anhalt, die in ihrer Arbeit vom Institut für Museumsforschung (SMB-PK) unterstützt wird. Museum-digital selbst ist nicht auf Sachsen-Anhalt beschränkt, es kann überall zum Einsatz kommen. Von Beginn an sind zahlreiche Erfahrungen aus Rheinland-Pfalz und anderen Bundesländern eingeflossen.

Die Informationen zu Museums-Objekten werden bei museum-digital in eine Form gebracht, die eine Einbindung derselben in die geplante sogenannte Deutsche Digitale Bibliothek, die europeana oder in andere Portale ermöglicht - sofern es vom betreffenden Museum gewünscht wird.

Für alle, die sich über Twitter oder Facebook stets über Neuzugänge bei museum-digital informieren lassen möchten, ist museum-digital auch dort vertreten. Neu erfasste Objekte aus allen museum-digital - Plattformen erscheinen spätestens 30 Minuten nach ihrer Erfassung automatisch an den entsprechenden Stellen.

➔ museum-digital bei twitter
➔ museum-digital bei facebook

Zu den einzelnen Plattformen gelangen Sie durch Klicken auf eines der Bilder am linken Rand.

Menu ...
▶ Start
▶ Formulare
▶ Kontakt

Hilfen und Hinweise ...
▶ Bilder
▶ Dateinamen
▶ europeana

Letzte Einträge ...

[md:sa] Plakat/ Aufruf Landbevölkerung "Landarbeit ist...!", 2. Weltkrieg, Nationalsozialismus (Museum Weißenfels - Schloss Neu-Augustusburg)

Großformatiges Plakat mit Aufruf an Landbevölkerung während des 2. Weltkrieges; Text: (auszugsweise) "Landarbeit ist vaterländischer Hilfsdienst!"

[md:sa] Serienschein, Kreis Ballenstedt (100 Pfennig) (Stiftung Moritzburg - Kunstmuseum des Landes)

VS: Kreis Ballenstedt, mittig Abb: Viktorshöhe, II. 100 Pfg, Gültig bis 4 Wochen nach öffentlicher Aufkündigung, Zweig; re. 100 Pfg, Ballenstedt den 22. 8.1921, Der Kreisausschuss Unterschrift ?; Zweig; Nr. 030533, RS: Was tuschelt am Ramberg? im Moos u. Farn und rennet u. . . .

[md:sa] Serienschein, Kreis Ballenstedt (75 Pfennig) (Stiftung Moritzburg -

Fig. 5 - museum-digital, the German museum aggregator

With this intention “museum-digital” came into being. From the beginning the ATHENA project assured support for museum-digital and this was essential for creating the initiative. Because the ATHENA help-desk would help with the final step of publishing in Europeana, the initiative could focus on the content production. Doing this some insights were gained which might **help to understand some hidden dimensions of digitisation**.

The first step of the initiative was analysing what kind of information related to a single museum-object is generally published by museums and which information Europeana is publishing. A “set of basic information” was determined. Twenty museums in Saxony-Anhalt were asked to create and send such information for **5 of their objects**. They were also asked to report **the time it took to create or gather the information** and how they gathered it. **The reports were surprising.**

Some museums only had “scientific names” for their objects and no further information (e.g. vernacular name) in their database(s). Others relied on MS-Excel-Files (calling it a database). Still others used one big MS-Word-File with one page per object (and again considering this to be a database). Some still used dbase2 or Paradox – antiquated and outdated software, without updates for many years. Some still relied on record cards. Many had their information distributed like having the object-name in a database but the object-measurements only on a record card. Those who used self made databases or databases given to them by local authorities did often not know how to export their data.

Images showing the objects most often did not exist, they had to be created, often by taking the object from the depot, cleaning it, taking a photograph, bringing the object back into the depot. Some museums did not have a camera and it took some time to organise one.

The reports revealed that no museum had the defined “set of basic information” (name of object, kind of object, description, material, technique, measurements and production information) at hand and at one place. The duration for the collation was 3 minutes to 3 hours (!) per object. At the same time it became visible that a lot of the information was not up-to-date (some entries in the record cards were more than 40 years old!), was not recorded at all or contained abbreviations only comprehensible for specialists.

A clear line of distinction was drawn and the aim was more clearly defined: there are worlds between inventories (created for indoor use) and publication. The initiative would focus basically at the latter even if this means to put special efforts into creation of the information (for the public). Only in very few cases it seemed to be advisable to take publication-information directly from an inventory-database.

As a next step it was analysed how to bring the collected information online since that Europeana and other aggregators will use only the content that is accessible online. Because the museums were of many different kinds an understanding had to be developed. Archaeological museums know times like “late Neolithic”, art museums know “early Baroque” others would write “1620”, some museums would write “World War 1” others would prefer “WW1”. Some museums record the place of the creation of an object using the name of the place at the time of creation (e.g. Karlsbad instead of Karlovy Vary); others use the modern name only. A multitude of different practices! A database was created which allows all this possibilities because it is impossible to impose a strict set of rules on all the

museums participating. There are traditions which have to be respected. An intelligent data management was the solution.

While it was easy to come to the conclusion that each object needs a photograph and a description, it was not so easy to define the requirements for such a description (how long should it be, who shall be the addressee ...). The simplest solution was accepted: each museum writes the descriptions as it thinks best, minimum 20 characters. Again there are a lot of traditions involved: **the description of a work of art written by an art historian looks very different from the description of a technical object (like e.g. a camera) written by a technician** – even if both have the intention to write for a broader audience. In many smaller museums, which often belong to a city or a county, there is only a very limited staff. The director plus one or two aides are running the museum. Such museums are very common in Germany and many of them are in existence since many years. These museums have very diverse groups of objects collected over time. If, for example, the actual director is an archaeologist he nevertheless might have many thousands butterflies or old and modern valuable paintings in the museum. The result is a description of a butterfly or a modern painting by an archaeologist! Or in other cases it might be the description of a stone-age-axe by an art-historian or the description of a pit lamp by a biologist. It does not have to be a wrong, bad or incomplete description; quite often such descriptions are more than sufficient to inform a broader audience about the objects. **The main obstacle is that in most cases the director does not feel well with publishing such information he himself considers unprofessional or amateurish! A lot of discussions were necessary to convince.** In the end most agreed to give it a try. The information that was published on the Saxony-Anhalt portal (www.museum-digital.de/san) and the feedback was observed. In nearly all the cases it was positive and the hesitation decreased.

None of the originally participating museums has an IT-Department, even the big ones don't have. The work with digital material (images, files containing data, etc.) had to be done by non-specialists. And, most important, in nearly no museum there is someone whose work is exclusively focussing on the handling of museum-object-data. In all cases the creation of digital material for publication is an additional task.

The answer of the initiative was to keep the requirements low: No one is forced to publish all information about all of the objects in the museum. Respect the limitations and do only what is possible! If a museum wants to publish all objects, that is fine, but there is no rule to do so. And more, **the initiative museum-digital created a software tool for data ingestion which can be used by everyone without the slightest knowledge about IT.** A museum can insert its objects into the common database one-by-one or it can import its data from its inventory database and adjust it to the requirements of publication with the initiatives software tool.

The publication of the Saxony-Anhalt portal created a domino effect: already a few weeks after its inauguration a second initiative was created in Rhineland-Palatine, another of the federal states. This initiative did very much the same as the first one and the results were similar.

The first object from one of the originally participating six museums went online in June 2009. Meanwhile, in February 2011 more than 12.000 objects are online and 197 museums are participating coming from 6 of the 16 federal states.

After the next data-ingestion there will be more than 5.400 objects transferred by the ATHENA ingester and made visible in Europeana. This is not a really big number of objects – that is not the aim of the initiative. **The initiative is successful because it proves that every museum can find a way from content production to publishing in Europeana and that this is possible even under poor conditions and without any special knowledge.** Many museums still have to assure themselves that it is gainful to publish object-information in the internet. Museum-digital, ATHENA and Europeana help them.

eSbírky

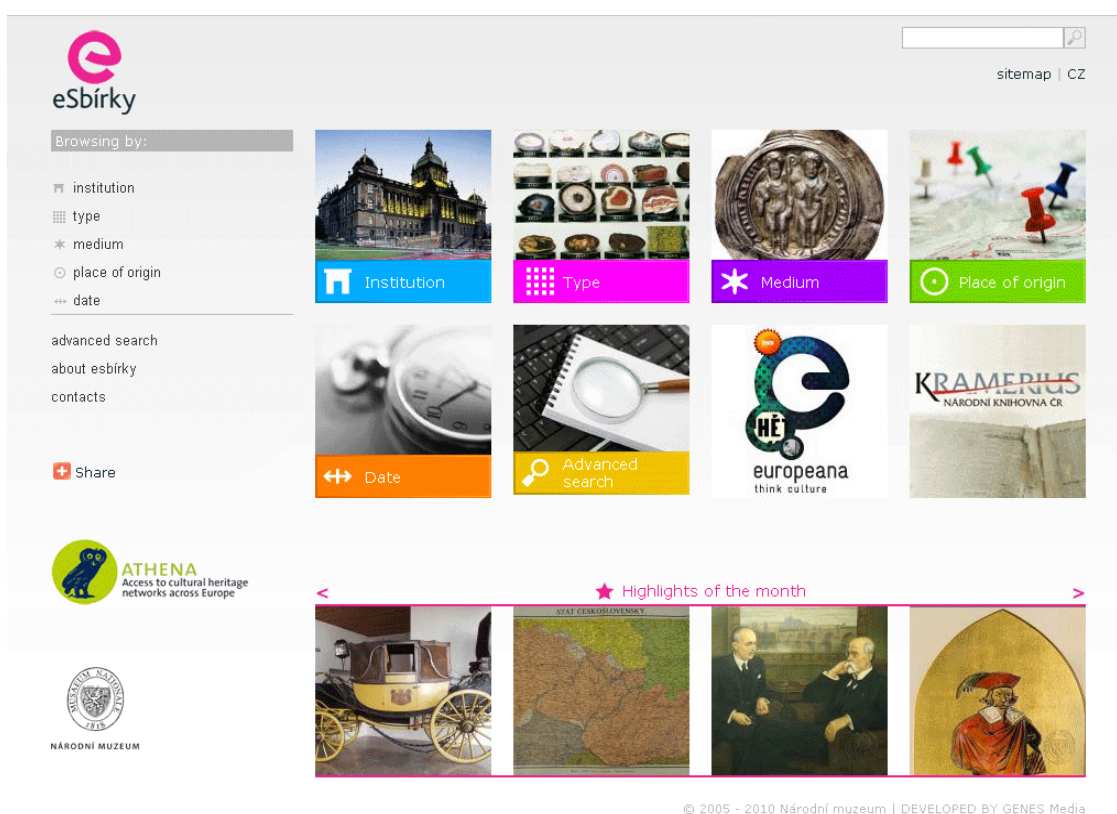


Fig. 6- eSbírky, the Czech museum aggregator

The development of the application took two years. **It was originally intended only for presentation purposes at the National Museum, as part of its involvement in Project ATHENA.** It was also intended as a model project of connecting Czech culture institutions into the European digital library. The fact that the similar presentation appeared to be financially unrealistic, especially for regional museums, lead to the transformation of the primary portal virtualni.nm.cz to eSbírky.cz in the second half of 2010.

Joining of the eSbírky is free of charge and open to all cultural institutions in the Czech Republic. During the first two months of operating, six other cultural institutions also joined. These were mostly museums which felt the need to present their work using modern technologies.

However for the Museum of Czech Tramping the virtual environment of eSbirky is the only presentation channel, the only place where it exists. The institution is undertaking efforts to establish the real museum. In the meantime, we can follow the creation of the real museum institution step-by-step thanks to eSbirky. The portal currently presents total of 10,000 items which include photography and audio items, and in the future will also include audio-visual records.

Every joined institution has its own login and password. It can administer its collections presented in eSbirky. The team of National museum who is the owner of the portal makes the technical and methodical support of contributing and also mapping the metadata for Europeana.

From the beginning the portal has been structured as a user-friendly environment that allows visitors to use information at several levels. The browsing and searching engines are structured to be attractive to the general public and the professional community as well. In addition to the online presentation eSbirky is the virtual reading room. eSbirky offers searching based on the following categories: institutions, type of collection, material, date, and place of origin. The short interactive presentation called 'Objects of the Month' is aimed at the general public. It seeks to draw attention to interesting artefacts from various collections, which can be also seen as links to various thematic areas. Finally through the presentation eSbirky can react to various cultural events such as the birth of important people and various anniversaries.

An important element of the portal is **eCard**. This is an interactive element that communicates information about collection items, but also about eSbirky and the participating institutions especially to the younger generation accustomed to electronic communication. eCard also serves as original electronic and promotional material of eSbirky which allows users to modify its content. An integral part of eSbirky is also connection with the social networks such as Facebook or Twitter. Users of these networks may comment upon, rate and discuss artefacts.

What is the future of eSbirky? We continue to work on the on-line presentation intensively. Right now we are developing an online game application for child visitors called little eSbirky, which will follow professionals working in museum institutions. Through the right format we will show what happens behind the scenes at the museum. The tasks for the near future are virtual exhibitions, which are extensions to projects similar to eSbirky in the world. Appropriately chosen attractive themes may increase interest in visiting eSbirky and the institutions themselves as well. The eSbirky portal will thus become a virtual exhibition hall, which will allow presentation of items which are not easily able to be exhibited for various reasons such as: poor condition, large size, high cost of presentation or lack of security. The next development of the application will be the creation of user accounts, which will allow visitors to work creatively with a presentation and to design and curate their own exhibition.

There is lot of work to do. The emergence and development of cyberspace provides new opportunities not only for communications with the visitor in the virtual world (outside the physical museum environment), but also for own development of museums. Although there remain many questions concerning the museums in virtual environment (e.g. real vs. virtual visitor experience, loss of authenticity of digitized items and so on), the digitization and on-line presentation have become integral part of the work of modern museums. Visitors have



already found their way to the virtual place. It is the turn of museums professionals to become more involved in on-line presentation and communication. We hope that the number both of museum institutions and presented items will increase in close future so that eSbirky becomes the real aggregator.

ANNEX II

List of the ATHENA National Contact Points

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