MILESTONE

Project Acronym: Ev3
Grant Agreement number: 620484
Project Title: Europeana Version 3

MS7: Draft plan on future topics to be included in the ENUMERATE framework

Revision	1.0
Date of submission	26/11/2014
Author(s)	Wietske van den Heuvel, Gerhard Jan Nauta, Marco de Niet, Marco Streefkerk (DEN Foundation), Gordon McKenna (CollectionsTrust)
Dissemination Level	Public

Project co-funded by the European Commission within the ICT Policy Support Programme

REVISION HISTORY AND STATEMENT OF ORIGINALITY

Revision History

Revision No.	Date	Author	Organisation	Description
0.1	5/11/2014	Wietske van den Heuvel	DEN Foundation	First draft of the report
0.2	18/11/2014	Marco de Niet, Marco Streefkerk, Gerhard Jan Nauta	DEN Foundation	Internal review
0.3	19/11/2014	Wietske van den Heuvel	DEN Foundation	Final draft
0.4	25/11/2014	Gordon McKenna	Collections Trust	Review and annotations
1	26/11/2014	Wietske van den Heuvel	DEN Foundation	Final version

Statement of originality:

This milestone contains original unpublished work except where clearly indicated otherwise.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

Table of Contents

Executive Summary

One of the core principles of the ENUMERATE project was to provide a uniform approach and methodology for collecting high-level data on digital heritage. The outcomes of this report contribute to this by analysing the current framework and other existing practices. Results can be reused and future ENUMERATE surveys will complement other research instead of duplicating it.

This report:

- Investigates the current position of ENUMERATE with respect to other studies in the cultural heritage field that collect metrics;
- Identifies which topics are already covered in other research, which data can be reused and which topics are not yet addressed but should be by ENUMERATE in the future.
- Gives a list of recommendations for the core survey in January and recommendations for the long-term future of ENUMERATE.

We used various approaches for this research that are described in Section 1:

- Analysis of the current ENUMERATE topics;
- Market survey of other existing studies on metrics in the digital heritage domain;
- Organisation of two workshops for collecting feedback.

The results of these three activities are linked through the Europeana Impact Framework that describes three areas of impact: social & cultural, economic, and network & innovation.

The second section analyses the current topics in the ENUMERATE core surveys and the thematic surveys. Instead of adding new topics to the survey, ENUMERATE should try to limit the number of topics and keep the questions very high-level. More detailed questions could be asked in separate surveys and projects.

The third chapter section gives the results of the market survey by looking into the activities of Europeana, national and European statistical agencies, and independent projects and initiatives:

- Europeana monitors activities that cover all three of the impact areas, but these activities currently only focus on activities within Europeana.
- National and international statistical agencies do not collect metrics on network & innovation activities and the metrics that are collected are about culture in general, not digital heritage.
- Other projects collect statistical data on social & cultural and economic impact and they do have some data on digital heritage, but only for a certain domain, country or user group.

ENUMERATE was the only research project that collected data about digital heritage on all three impact areas in the entire cultural heritage field in Europe.

Section four describes the results of the two workshops organised during the business plan meeting at the Europeana Annual General Meeting in Madrid. The participants provided also valuable feedback and ideas on topics and methods to measure the various impact factors.

This leads to a list of recommendations (as described in Section five) for the short-term and the long-term.

Short-term recommendations:

- Use the existing core survey for the next survey round in 2015 to collect data that is coherent with the current data, so that the various data sets can be compared. Fine-tune the questionnaire, if necessary, focussing on high-level data only and for instance leaving out the optional questions about the collection analysis.
- Investigate how these new topics can be incorporated in the ENUMERATE framework in the long term and which indicators are appropriate, for instance through a consultation round or expert meeting.
- Fine-tune the method of estimating the size of the European heritage domain (number of heritage institutions) and update the current one.
- Start planning ahead for the long term recommendations (see below).

Long-term recommendations:

- ENUMERATE should position itself as an independent and branded observatory that contributes to Europeana and is supported by Europeana.
- The observatory should allow reuse of the collected data.
- The observatory should allow aggregation of other metrics on certain topics that are collected by other projects and develop a methodology for this purpose.
- This aggregation is not only a technical issue, the ENUMERATE framework should be a guideline for projects to conduct their research according to these standards. ENUMERATE should therefore continue to actively promote its framework and provide consultation where necessary.
- In order to aggregate data and to conduct surveys, the data should be available at the surveyed institution. The framework should be extended with guidelines for institutions to monitor their activities and to collect data. Together with other stakeholders, like national aggregators, agencies and Europeana, ENUMERATE can play an important role in promoting the collection of data by institutions.
- Organise feedback and consultancy from the field at regular intervals regarding the topics, the collection process and their needs, for instance by organising expert groups and allowing professionals to discuss new topics online.
- Investigate the possibility of incorporating other research methods and data coming from this often more qualitative approach in the observatory.

Introduction

Milestone 7, *Draft plan on future topics to be included in the ENUMERATE framework* contains the results of the analysis of the current ENUMERATE survey, a market survey and two workshops with professionals from the cultural heritage field.

There are many projects and initiatives that collect all kinds of metrics on various topics regarding digital heritage. One of the core principles of the ENUMERATE project was to provide a uniform approach and methodology for collecting high-level data on digital heritage. The outcomes of this report contribute to this by analysing the current framework and other existing practices. Results from current studies can be reused as much as possible and future ENUMERATE surveys will complement other research instead of duplicating it.

The purpose of this report is three-fold:

- Investigate the current position of ENUMERATE with respect to other studies in the cultural heritage field that collect metrics.
- Identify which topics are already covered in other research, which data can be reused and which topics are not yet addressed but should be by ENUMERATE in the future.
- Give a list of recommendations for the core survey in January 2015 and recommendations for the long-term future of ENUMERATE.

The recommendations will be used for the update of the ENUMERATE Conceptual Framework (MS8) and the survey (MS9)

1. Methodology

We used various approaches for this research:

- Analysis of the current ENUMERATE topics;
- Market survey of other existing studies on metrics in the digital heritage domain;
- Organisation of two workshops for collecting feedback.

The results of these three activities will be linked through the Europeana Impact Framework (Europeana 2014-1), which was developed to measure the output of its investments in three areas: economy, social & cultural and network & innovation. The framework is created to suit the Europeana network ambitions, but it can also be used to compare the current practices of collecting metrics by ENUMERATE, Europeana and other projects.

The image below shows the framework:
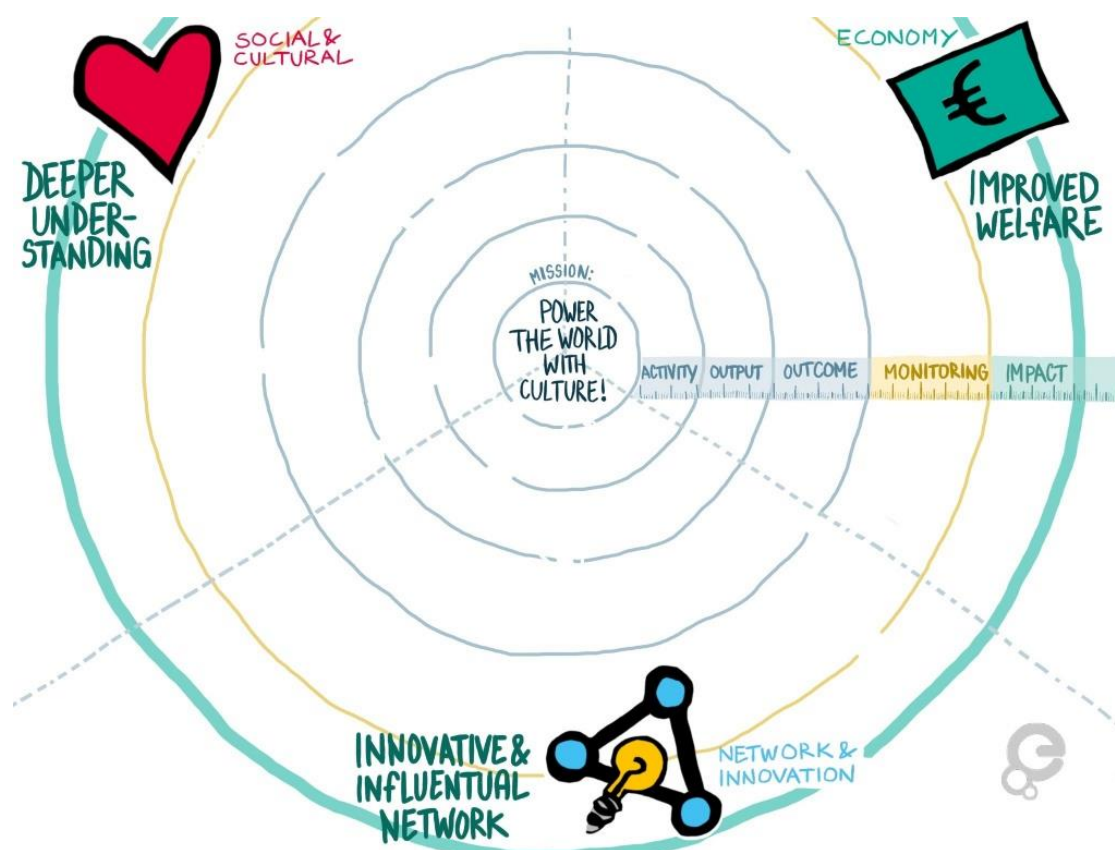
Figure. 1 *Image of the Europeana Impact Framework*

The framework defined three areas, accompanied by three Europeana values.

- Social & cultural – Deeper understanding: Includes activities that have a social and/or cultural impact. Indicators mainly focus on end-use: social media activities, use of the website, educational use, etc.

- Economy – Improved welfare: Describes the economical and value-added impact and includes indicators like funding, investments, reduced costs and increased efficiency, etc.

- Network & innovation – Innovative & influential network: Includes activities that support a more uniform approach to connectivity and interoperability, sustainability and innovation.

Using this framework to plot the various types of research in the field has a few advantages: it provides a blue print of the research data that is already available; and it makes it easier to compare the various types of research. A minor reservation would be that the framework was designed by Europeana for measuring the impact of Europeana activities. A lot of these activities correspond with the activities of individual heritage institutions, but not all. This is especially the case for the area of network & innovation. In the original impact framework, this is the area where the innovation in the Europeana network is measured, but a broader definition is needed for the comparison with ENUMERATE and other studies. In the context of this report, network & innovation also includes indicators on innovation within the individual institutions, whether or not part of the Europeana network.

2. Analysis of the current ENUMERATE topics

ENUMERATE has conducted five surveys: two core surveys and three thematic surveys[1]. The core surveys were used to collect quantitative data on a more generic level, while the thematic surveys were used to gather more detailed, qualitative data on certain topics in order to get a better understanding of the answers given in the first core survey. Besides the two surveys, ENUMERATE has also worked on a methodology to estimate the total size of the European heritage field: the sum of all memory institutions, publicly or privately funded, whether actively involved in digitisation or not, that have curatorial care included in their mission. This estimation is vital to determine the representative rate of the surveys.

2.1. Core surveys

The core surveys addressed four main themes: digitisation activities, digital access, digital preservation and digitisation expenditure. The list below provides a more detailed description of the themes:

Digitisation activities
- Curatorial care as part of the mission (this was merely a question to check whether an institution qualified as a cultural heritage institution)
- Curating digital collections and involvement in digitisation activities.
- Object types currently digitised
- Digitisation strategy

Digital access
- Access policy
- Measuring the use of the digital collection including methods
- Channels through which the digital collections can be accessed

Digital preservation
- Digital preservation strategy in the institution
- Compliance to international standards for digital preservation
- National preservation strategy and infrastructure(only in the first core survey)

Digitisation costs
- Cost components: annual budget for digitization
- Distribution of costs
- Sources of funding

Most of the questions in the core surveys relate to the internal dynamics of the cultural heritage institutions: for instance, whether or not there is a strategy and policy on sustainable preservation, digitisation activities, progress and funding. Only a small part of the surveys focused on the relationship with the end-users.

---

[1] More detailed information about the surveys and the questions can be found on the ENUMERATE platform, www.enumerate.eu

2.2. Thematic surveys

The thematic surveys were launched between the two core surveys to gain more insight on some of the topics in the first core survey and to use the feedback to fine-tune the second one. The thematic surveys were set up on three themes:

Costs
This survey aimed to gather more insight in the cost management of digital collections and respondents were asked to collect data about the cost and valorisation of one specific collection. Costs were divided into incidental costs and structural costs. The survey contained general questions about the organisation and its financial management regarding the digital collections and more detailed questions about a specific collection.

Size
The goal of this thematic survey was to obtain more insight in measuring of the size and growth of digital collections (digitisation activities, born-digital collections etc.) by comparing three different approaches. First, the number of records in the collection registration systems were determined, including the number of records for every object type. With the second approach, institutions were asked to provide detailed metrics on their three most important digital collections. The third approach was an extended version of the first core survey: institutions provided estimations on the digitised and the soon-to-be-digitised collections and the percentage of digital objects in relation to the physical objects. The respondents were randomly assigned two methods out of three to collect data.

Access
The thematic survey on access consisted of 22 questions about the access to and use of the digital collections of the participating cultural heritage institutions. The topics were derived from the core survey and augmented where needed. This led to the following list of topics:

- Policy: availability of a policy document on use including the elaboration of specific types of use.
- Access to online digital collections: object types, the part of the digital collection that is available online and through which platforms.
- Conditions of use: legal conditions for users to access and reuse the content and metadata, including licensing fees.
- Monitoring: understanding the methodology used by the institutions to measure use, e.g. number of times a digital collection is accessed, web statistics, use of these statistics within the organisation, number of visitors and visits.

2.3. ENUMERATE and the impact framework

The core surveys and the thematic surveys can be mapped onto the Europeana Impact Framework based on the topics that are covered in the questionnaires.
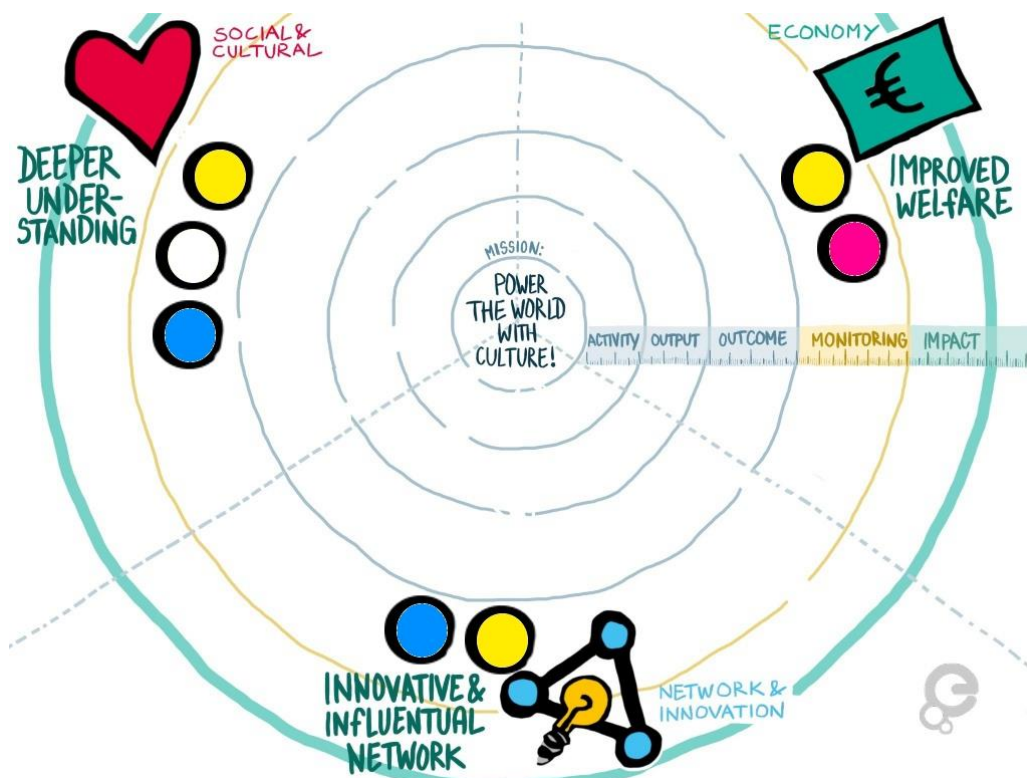

Figure 2: *Mapping of the ENUMERATE topics in the impact framework.*

The yellow dots refer to the core surveys, which covers all three areas of the framework. The white dot refers to the thematic survey on access, the pink one to the thematic survey on costs and the blue ones refer to the thematic survey on size.

2.4. Lessons learned from ENUMERATE

The experiences with the five surveys are documented in the ENUMERATE *Conceptual Framework*. This final deliverable of the ENUMERATE project contains valuable insights for future work on the collection of metrics. An important lesson regarding the topics that are addressed in the surveys is:

> *"It took a tremendous amount of effort to run different small scale surveys to understand more in depth certain issues at a smaller sample of institutions, but in the end the results were not very helpful to finalise the ENUMERATE Conceptual Framework. The lesson learned is that for future surveys in the vein of ENUMERATE it suffices to limit the survey to high level core issues. More in depth questions could better be addressed by specialised projects with a clearly targeted sample of participants."* (ENUMERATE 2014, p7.)

Instead of adding new topics to the survey, ENUMERATE should try to limit the number of topics and keep the questions very high-level. More detailed questions could be asked in separate surveys and projects. In some way, ENUMERATE has already experimented with this approach with the thematic surveys, but the group of participants was not delimited enough, so the expertise of other projects with limited target groups is very much needed.

The market survey in the following chapter will examine if there are projects and initiatives that already address ENUMERATE topics in more detail and if there are possibilities to cooperate or share data in some way. Chapter 4 of this report will look at the institutional side: what kind of data has already been collected and what kind of topics are relevant for the institutions.

3. Market survey: other data collecting organisations, projects and initiatives

This small-scale market study was done to investigate which topics are already covered in statistical research about digital cultural heritage and to describe the relationship between ENUMERATE, Europeana and Europeana projects, national and international statistical agencies and projects and initiatives that collect metrics. One of the outcomes of ENUMERATE was a non-exhaustive list of resources, including other surveys, and this inventory was used as a basis for the market survey. The market survey only focuses on the collection of statistical data; all other resources in the inventory are excluded for this research. The list is still being updated on a regular interval and can be consulted on delicious.com[2]. We also looked at international and national statistics agencies.

3.1. ENUMERATE, Europeana and Europeana projects

ENUMERATE ran for three years as an independent project, before it became part of the Europeana project family. There is clearly a need for a project like ENUMERATE. Europeana is collecting information on their user behaviour by a biennial user study and web statistics. The newly launched Europeana statistics dashboard[3] not only allows Europeana, but also the institutions that provide their collections, to monitor their user behaviour more closely.

The main difference between ENUMERATE and the collection of statistics by Europeana is illustrated by the image below:

Figure 3: *Image from the Europeana Strategy 2015-2020 report representing the potential of Europeana.*

---

[2] See the full list of resources, including the projects and institutions from the market survey on https://delicious.com/enumeratesources
[3] Europeana statistics dashboard: http://statistics.europeana.eu/welcome

The pile of 'books' represents the amount of cultural heritage in Europe. 10% (c300 million objects) of it, is digitised and 12% from it is available on Europeana (Europeana 2014-2). Whereas Europeana focuses on statistics inside their network (green area), ENUMERATE is also collecting metrics about institutions that are outside the network (grey area). Another difference lies in the scope of the research: Europeana mainly focuses on end-use, while ENUMERATE mainly investigates the processes inside the institution.

Various Europeana projects, like Europeana Awareness[4], have done research that benefits from the statistical research in ENUMERATE and its predecessor NUMERIC, but there is no other large-scale collection of metrics. Most projects do conduct surveys, but only amongst the project partners, or the end-users, and the results are often not actively distributed and promoted beyond the stakeholders of the projects.

3.2. National and international statistical agencies

The statistical platforms of 34 national agencies in Europe were analysed[5]. Four of them did not have statistics on culture available (at least not in English). Two other platforms did not provide any English translation of the platform. The rest of these agencies collected statistics on culture in more or less detail, most of them about museum visits or collections available in libraries and archives. None of these agencies collects data about digital heritage, digitisation or the availability of online collections.

The statistics of the national agencies are aggregated by Eurostat. Eurostat provides the same kind of metrics on culture. Eurostat commissioned the European Statistical System Network on Culture (ESSnet Culture) to create a framework for the collection of more detailed numbers on culture by Eurostat and the national agencies in the future. The results of this research were published in 2012 and there has been some attention for digital heritage:

> *"Technological changes that have taken place in recent years particularly affect cultural activities: digitization not only leads to changes in innovation and industrial processes (with impacts upon the creation, production and dissemination of cultural goods of various branches) but also in cultural practices (equipment and uses, social networks, consumption etc.) mixing the role of producers and consumers, of amateurs and professionals. Furthermore, new technologies have led to changes in the economies of cultural sectors (organization of production and distribution models) as well as to considerations of new public policies (copyrights, funding of culture, access to digital society, education and social cohesion etc.)." (ESSnet 2012, p 37.)*

This raises the expectations regarding the list of criteria, however, when looking at these criteria, digitisation is merely seen as an act of preservation and in some regard, as dissemination (*ESSnet 2012*). The actual list with recommendations for topics include digitisation of cultural heritage, but only high-level and as a preservation activity for certain cultural institutions. This is understandable, since the statistics on culture also include performing arts, architecture and other forms of culture. On the other hand performing arts, architecture and even the creative industry all create, collect and preserve forms of (digital) cultural heritage. A project like Europeana Fashion[6], is a beautiful example of digital cultural heritage from the creative industry.

---

[4] See for instance the blogpost http://pro.europeana.eu/pro-blog/-/blogs/1655051.
[5] We used the contact list of Eurostat:
http://epp.eurostat.ec.europa.eu/portal/page/portal/links/national_statistical_offices
[6] Europeana Fashion: http://www.europeanafashion.eu/portal/home.html

Another interesting platform that collects statistics on culture in Europe (and in this case, world-wide) is the UNESCO Institute for Statistics. In 2009, they developed a new framework that also takes technological development within the cultural heritage sector into account (UNESCO 2009). The framework does mention digital heritage as part of certain types of collections, for instance: online books as part of book publishing or as an independent indicator, like web portals.[7] Currently, their statistics platform only shows data from the cinema statistics survey in 2012. In 2015, a new survey will be published about cultural employment.

3.3. Other projects and initiatives in the cultural heritage field

There are a number of other initiatives and projects that collect statistics about digital cultural heritage in Europe. For this market survey we conducted desk research and limited the non-exhaustive selection to initiatives and projects that:

- Focus on Europe or a European country
- Collect or aggregate (reuse of existing research) data from various cultural institutions
- Are active somewhere between 2012 and 2014

We found a number of examples and listed them below:

1. Swiss Heritage Institutions on the Internet/Open Glam Benchmark survey[8]
A pilot survey to establish where Switzerland's cultural heritage institutions stand with regard to open data and crowdsourcing, how they see the opportunities and risks associated with these trends and what potential benefits they consider these have to offer. It resulted in the European-wide Open Glam Benchmark survey that was and still is being carried out in various European countries. The data is reusable[9].

2. Culture24: Let's get real[10]
A British project that educates cultural heritage institutions in how to measure their online activities, their meaning and impact on institutional policies. The project was aimed at cultural institutions in general and had an end-user focus with metrics like: how are museum websites used? Number of visitors? How to measure use in social media? The project also created a methodology for using web statistics. The data is not reusable.

3. European group on Museum Statistics (EGMUS)[11]
The main concern of EGMUS is the collection, comparison and analysis of Europe-wide museum statistics. They collect main statistics on museums from an end-user and economic perspective and they used a few indicators from ENUMERATE, like the cost of digitisation and the percentage of the collection that is digitised. The data is reusable.

4. Erfgoedmonitor[12]
Collection of metrics on heritage by the Dutch government. Only a few indicators relate to digital heritage and most are from ENUMERATE. The indicators related to digital heritage have an end-user focus. Part of the data is reusable.

---

[7] The UNESCO Framework for Cultural Statistics, pp. 52-56.
[8] The results from the Swiss survey can be found here:
http://www.wirtschaft.bfh.ch/uploads/tx_frppublikationen/Estermann_2013_Swiss_Heritage_Institutions_in_the_Internet_Era.pdf. More information on the Open Glam Benchmark survey can be found here:
http://outreach.wikimedia.org/wiki/GLAM/OpenGLAM_Benchmark_Survey
[9] Reusable means that the raw data can be downloaded in some format and can be reused for other means.
[10] All results of the project can be found here: http://weareculture24.org.uk/projects/action-research/
[11] http://www.egmus.eu/
[12] http://www.erfgoedmonitor.nl/

5. EBLIDA[13]
The survey offers statistics on libraries in Europe and describes the number of Public and Academic Libraries (including National and University Libraries), their number of registered users, media stocks, number of loans, number of visits, e-visits and number of staff. The data is not reusable.

6. National surveys
Member states conduct national surveys and collect data about digital heritage. Some of these results are also reported to the Member States Expert Group on Digitisation and Digital Preservation (MSEG)[14]. This group was set up in 2007 and implements the Commission recommendation on Digitisation & Digital Preservation, exchanges information and good practice and assists the Commission in monitoring developments in the way in which digital culture can be marketed. MSEG publishes reports on regular intervals about the overall situation in Europe and the individual member states.

The reports contain relevant information about the digitisation of cultural heritage, like policy on digitisation, targets, funding and cooperation with the creative industry and support of the goals of Europeana. MSEG works closely together with ENUMERATE in order to harmonise the national reports. Member states benefit from this cooperation and vice versa.

ENUMERATE provides a harmonised approach on data collection and benefits from the contacts between the member states ministries with the cultural heritage field. For instance in the case of France, the national survey could incorporate (some of) the questions of the ENUMERATE core survey, which enables ENUMERATE to use the data from this survey. In addition, France would then be able to benchmark their results with other member states.

The desk research for this market survey shows, that there are no independent projects and initiatives that collect metrics on digital cultural heritage in the way ENUMERATE has done. They do collect metrics, but only for a single country or for a specific domain (e.g. museums, libraries) or from a specific point like the end-user.

3.4 Mapping the results in the impact framework

The results of the market survey are mapped to the Europeana Impact Framework. The red dots refer to Europeana and to Europeana projects, the blue ones to the national and international statistic agencies, the green to the other projects and the yellow ones represent ENUMERATE.

---

[13] http://www.eblida.org/activities/kic/
[14] All reports can be found online through: https://ec.europa.eu/digital-agenda/en/member-states-expert-group-digitisation-and-digital-preservation-mseg
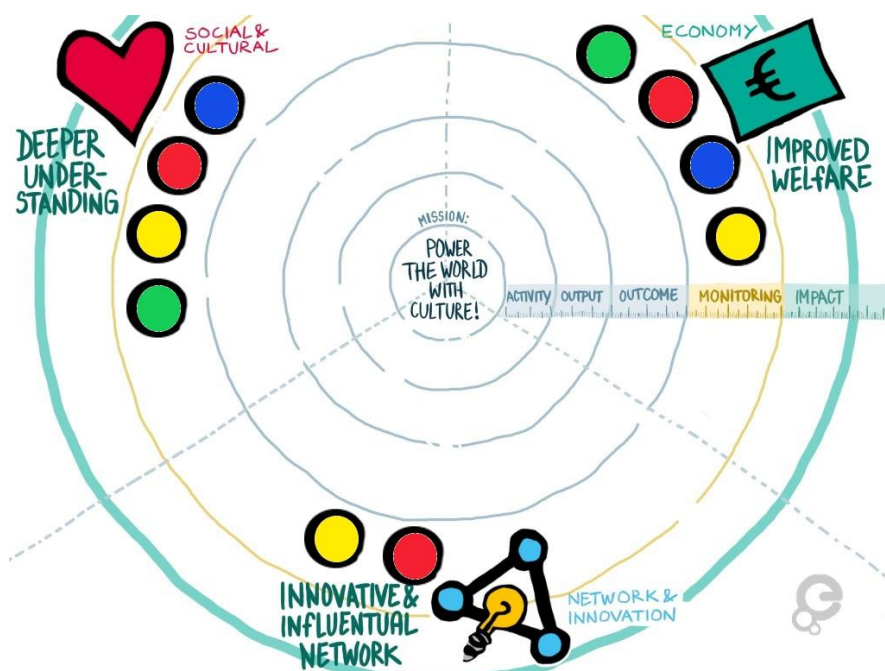
Figure 4: *Result of the market survey shown in the impact framework.*

- Europeana and Europeana projects, like ENUMERATE, monitoring activities cover all three of the impact factors, but these activities currently only focus on activities within Europeana.
- National and international statistical agencies: there are no metrics collected on network & innovation activities and the metrics that are collected are about culture in general, not digital heritage.
- Other projects: these projects collect statistical data on social & cultural and economic impact and they do have some data on digital heritage, but only for a certain domain, country or user group.
- ENUMERATE: this is the only research project that collects data about digital heritage on all three impact factors in the entire cultural heritage field in Europe. Since monitoring activities are much less on the impact of the network & innovation then on the other two, ENUMERATE should pay extra attention to collecting metrics in this area. There is a need to formulate questions that could be integrated in existing monitoring initiatives.

4. Collecting metrics from the perspective of cultural heritage institutions

ENUMERATE and Europeana cannot collect relevant data, if the individual institutions do not monitor their activities themselves, so it is important to gain more insight in the kind of data that is already being collected. We therefore organised two workshops during the Europeana Network Annual General Meeting (AGM)[15] were professionals from the cultural heritage field were invited to share their experiences.

The Europeana Impact Framework was used as a basis for the discussion. We are aware that the participants are mainly working for institutions that are already ahead in digitising and sharing their collections, so they might not represent the entire cultural heritage field. However, the baseline of these institutions does provide an indication of what is needed for the entire sector. For instance, if institutions already have extensive mechanisms for measuring their activities, it makes sense to extend the number of topics and the level of detail in the ENUMERATE survey, but if they do not, we need to lower the level of ambition and focus on getting the actual data first.

4.1. Mapping the impact framework

The images below were taken during the workshops and show the results. The green, yellow and pink post-its with the numbers 1 to 3 were used to prioritize the three impact factors from the perspective of the institutions. The blue post-its contain ideas on how to measure the impact and the red dots indicate that institutions are already using that particular method for measuring impact.
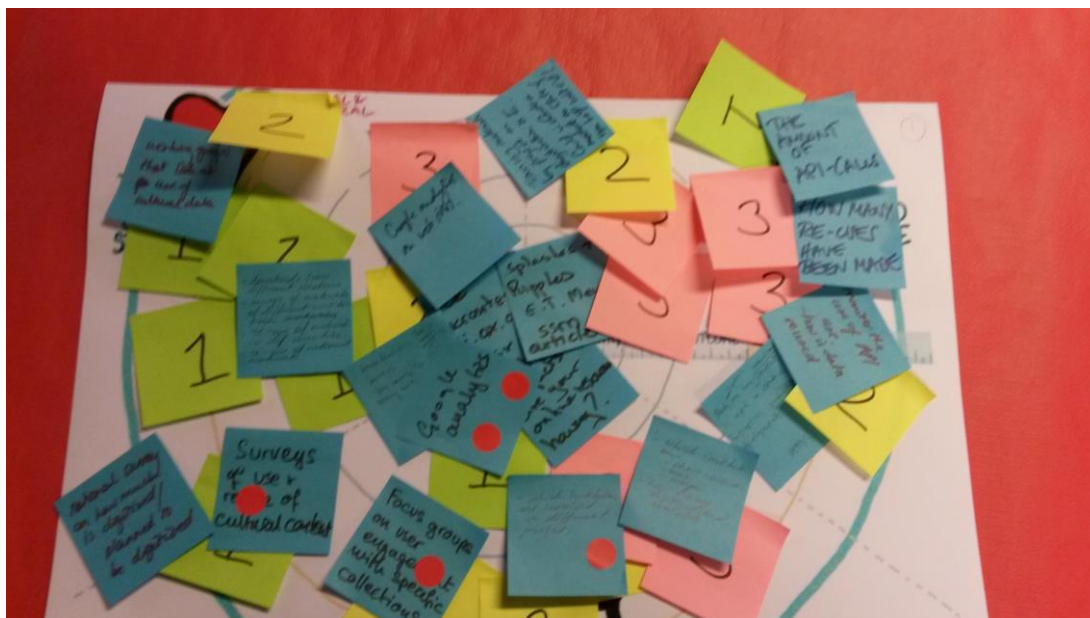

Figure 5: *Result from the first workshop*

Figure 6: *Result from the second workshop.*

4.2. Main findings

Both sessions were very productive. For most institutions, the economic impact has the lowest priority compared with the social & cultural impact and the impact of the network & innovation. The only participant that labelled the economic impact as most important was from a national governmental agency. The social & cultural impact had the highest priority for most institutions and this corresponds with the findings from ENUMERATE (ENUMERATE 2014).

The participants provided also valuable feedback and ideas on topics and methods to measure the various impact factors:

Methods

- (National) survey;
- Google Analytics and web statistics in general;
- Focus groups;
- Testing with end-users.

High-level overview of topics (a detailed list can be found in 4.3.)

- User statistics on the use and reuse of the digitised content (for every institution in different countries) by different user groups.
- The amount of digitised content and the amount of content that will be digitised in the future.
- Information on network and innovation like the availability of training for professionals, which institutions are involved in which projects and the value of connecting different portals to Europeana.
- Indicators on business modelling like metrics to prove for museums that open licences are better for business or how content is used in the creative businesses.
- Awareness. How widely-known is Europeana, the public domain awareness level in the GLAM community.

- Society. The money schools save on not needing to buy high quality trusted cultural content or literacy and cultural engagement amongst young people and children.

Metrics that are already being used and collected

- Surveys on use and reuse of digital content;
- *Google Analytics* and web statistics in general;
- Focus groups on user engagement regarding the various collections;
- Which institutions are involved in which projects;
- Metrics to prove for museums that open licences are better for business.

The institutions already measure the use of their websites and conduct surveys and focus groups on user engagement, use and some reuse. They usually do not collect statistics on more complex topics, like the number of teachers using their content the way content is reused in creative businesses.

We also discussed with the participants whether or not ENUMERATE should position itself as an independent project that contributes to Europeana or as part of Europeana. The participants indicated that ENUMERATE should remain a separate project in some way to make sure that institutions that contribute to Europeana are not over-represented in the research.

4.3. Relevant topics for ENUMERATE

The list of topics contains metrics that already fit in the current *ENUMERATE* Framework and new ones. Some of them will or could be monitored in the future by the new Europeana dashboard. Others fall outside the scope. Some indicators could be part of more than one category. The table below indicates how the proposed topics can be measured.

Social & Cultural impact

Topic	ENUMERATE	Europeana Dashboard	Out of scope
Use and reuse of the digitised content (for every institution in different countries)	x	x	
The amount of digitised content and the amount of content that will be digitised in the future	x		
Downloads from different countries		x	
User engagement regarding the various collections	x	x	
The amount of digitised content that is available	x	x	
Whether or not Europeana is widely known			x
Access to and reputation of cultural heritage amongst different user groups			x
Literacy and cultural engagement amongst young people and children			x
Number of teachers using Wikipedia			x
Number of hits on the website coming from Europeana		x	

Number of likes		x	
Youth crime and suicide decrease thanks to increased community feelings			x

Economic impact

Topic	ENUMERATE	Europeana Dashboard	Out of scope
Use and reuse of the digitised content (for every institution in different countries)	x	x	
The amount of digitised content and the amount of content that will be digitised in the future	x		
API-calls and use		x	
How content is used in creative businesses			x
The amount of digitised content that is available	x	x	
Whether or not Europeana is widely known			x
Access to and reputation of cultural heritage amongst different user groups			x
Metrics to prove for museums that open licences are better for business	x	x	x
The value of connecting different portals to Europeana	x	x	x
The money schools save on not needing to buy high quality trusted cultural content			x
Long-term unemployed people who work as a volunteer in a cultural heritage organisation			x
Number of funded projects that have digitised cultural content	x		
Value propositions for cultural heritage			x

Impact on network & innovation

Topic	ENUMERATE	Europeana Dashboard	Out of scope
Which institutions are involved in which projects		x	x
The availability of training materials on digital collections and curation for professionals	x		x
Whether or not Europeana is widely known			x
Access to and reputation of cultural heritage amongst different user groups			x
Level of autonomy of action for GLAM partners versus	x		

open content users			
Level of awareness in the GLAM community on public domain issues			x
Publicly available networking information			x
Number of institutions directly involved in Europeana-family projects		x	x
The number of GLAM partners that are trained to participate in Wikimedia projects	x		x

5. New topics and future work

5.1. Short term: ENUMERATE in Europeana v3

One important lesson from ENUMERATE is that for a quantitative data collection, the survey should be high-level with a limited number of topics. More detailed surveys should be conducted by specialised projects that may address a smaller sample of participants. The market survey showed that ENUMERATE is the only research project that collects data about digital heritage on all three impact factors in the entire cultural heritage field in Europe.

Since previous monitoring activities are much less on the impact of the network & innovation than on the other two, it is suggest that ENUMERATE should pay extra attention to collecting metrics in this area. Participants in the workshops provided input on which metrics could be collected and the metrics they are already collecting. Some of them are already being measured within ENUMERATE. The new ones are listed below:

- The availability of training materials on digital collections and curation for professionals;
- The number of GLAM partners that are trained to participate in Wikimedia projects;
- Level of awareness in the GLAM community on public domain issues.

These new topics are all part of the network & innovation area and the results of the workshops confirm the results of the market survey. Taking all this into account, this leads to the following recommendations for ENUMERATE in Europeana v3:

- Use the existing core survey for the next survey round in 2015 to collect data that is coherent with the current data, so the various data sets can be compared. Fine-tune the questionnaire if necessary, focussing on high-level data only and for instance leave out the optional questions about the collection analysis.
- Investigate how these new topics can be incorporated in the ENUMERATE framework in the long term and which indicators are appropriate, for instance through a consultation round or expert meeting.
- Fine-tune the method of estimating the size of the European heritage domain (number of heritage institutions) and update the current one.
- Start planning ahead for the long term recommendations (see below).

The recommendations above will be used to update the current ENUMERATE Conceptual Framework (MS8) in preparation for the survey (MS9).

5.2. Long term: beyond Europeana v3

ENUMERATE will hopefully continue its activities as part of the Europeana DSI financed by the CEF programme and an observatory will be built for this purpose. The results from the analysis of the current ENUMERATE topics, the market survey and the workshops show that, in order to increase the quality and quantity of the collected data, ENUMERATE (and Europeana) should follow the recommendations below:

- ENUMERATE should position itself as an independent and branded observatory that contributes to Europeana and is supported by Europeana.
- The observatory should allow reuse of the collected data.

- The observatory should allow aggregation of other metrics on certain topics that are collected by other projects and develop a methodology for this purpose.
- This aggregation is not only a technical issue, the ENUMERATE framework should be a guideline for projects to conduct their research according to these standards. ENUMERATE should therefore continue to actively promote its framework and provide consultation where necessary.
- In order to aggregate data and to conduct surveys, the data should be available at the surveyed institution. The framework should be extended with guidelines for institutions to monitor their activities and to collect data. Together with other stakeholders, like national aggregators, agencies and Europeana, ENUMERATE can play an important role in promoting the collection of data by institutions.
- Organise feedback and consultancy from the field at regular intervals regarding the topics, the collection process and their needs, for instance by organising expert groups and allowing professionals to discuss new topics online.
- Investigate the possibility of incorporating other research methods and data coming from this often more qualitative approach in the observatory.

The recommendations above go beyond the question which topics and questions are to be incorporated in future surveys, but whatever topics are chosen; without actual data and an infrastructure that supports the collection, aggregation, reuse and sustainability of this data, the research on statistics about digital cultural heritage will never fully mature and reach its full potential.

References

Bína, V., Chantepie, P., Deroin, V., Frank, G., Kommel, K., Kotýnek, J., & Robin, P. (2012). *ESSnet-Culture final report.* Luxembourg: Eurostat. http://ec.europa.eu/culture/library/reports/ess-net-report_en.pdf

EBLIDA. (2014). *Knowledge and Information Centre (KIC) Survey*. EBLIDA. http://www.eblida.org/Activities/KIC/EBLIDA-Knowledge-and-Information-Centre-KIC-Survey-September-2014.pdf

Estermann, B. (2013). *Swiss Heritage Institutions in the Internet Era. Results of a pilot survey on open data and crowdsourcing*. Bern: Bern University of Applied Sciences, E-Government Institute. http://www.wirtschaft.bfh.ch/uploads/tx_frppublikationen/Estermann_2013_Swiss_Heritage_Institutions_in_the_Internet_Era.pdf

Europeana. (2014). *Europeana strategy 2015*. The Hague: Europeana. http://pro.europeana.eu/documents/858566/0610b04a-8100-4c8a-8043-114515001043

Europeana. (2014). *We transform the world with culture. Europeana Strategy 2015-2020*. The Hague: Europeana. http://pro.europeana.eu/documents/858566/640ac847-0dfc-4b01-9f36-d98ca1212ec9

Finnis, J., Chan, S., & Clements, R. (2011*). Let's Get Real. How to Evaluate Online Succes*? Brighton: Culture24. http://www.keepandshare.com/doc/3148918/culture24-howtoevaluateonlinesuccess-2-pdf-september-19-2011-11-15-am-2-5-meg?da=y

Malde, S., Finnis, J., Kennedy, A., Ridge, M., Villaespesa, E., & Chan, S. (2013). *Let's Get Real 2. A journey towards understanding and measuring digital engagement*. Brighton: Culture24. https://culture24.wufoo.com/forms/download-the-lets-get-real-2-report/

Nauta, G., & De Niet, M. (2014). *ENUMERATE Conceptual Framework*. The Hague: Digitaal Erfgoed Nederland. http://www.enumerate.eu/fileadmin/ENUMERATE/documents/ENUMERATE_Conceptual_Framework.pdf

Stroeker, N., & Vogels, R. (2014). *Survey Report on Digitisation in European Cultural Heritage Institutions 2014.* The Hague: ENUMERATE. http://www.enumerate.eu/fileadmin/ENUMERATE/documents/ENUMERATE-Digitisation-Survey-2014.pdf

UNESCO. (2009). *The 2009 UNESCO Framework for Cultural Statistics*. Montreal: UIS. http://www.uis.unesco.org/culture/Documents/framework-cultural-statistics-culture-2009-en.pdf

Appendix A – List of the institutions and projects from the market survey

Name	URL
National statistical agencies	
Statistik Austria	http://www.statistik.at/web_en/statistics/education_culture/culture/index.html
CBS	http://www.cbs.nl/en-GB/menu/themas/vrije-tijd-cultuur/cijfers/default.htm
Statistical Council of Bosnia and Herzegovina	http://www.bhas.ba/index.php?option=com_publikacija&view=publikacija_pregled&ids=1&id=4&n=Culture%20and%20art
Croation Bureau of Statistics	http://www.dzs.hr/default_e.htm
Statistical Service of Cyprus	http://www.mof.gov.cy/mof/cystat/statistics.nsf/other_101main_en/other_101main_en?OpenForm&sub=1&sel=1
Czech Statistical Office	http://vdb.czso.cz/vdbvo/en/hledej.jsp?vo=null&q_text=arts&q_rezim=3
Danmarks Statistik	http://www.dst.dk/en/Statistik/emner.aspx#3
Statistics Finland	http://www.tilastokeskus.fi/til/klt_en.html
Statistisches Bundesamt	https://www.destatis.de/EN/FactsFigures/SocietyState/EducationResearchCulture/Culture/Culture.html
Insee	http://www.insee.fr/fr/publications-et-services/default.asp?cx=011031962541167842879%3Aradlwwkh1lw&ie=ISO-8859-1&nojs=0&q=culture&sa=&page=services%2Frecherche.htm&cof=FORID%3A9
KSH	http://www.ksh.hu/culture_sport
Statistics Iceland	http://www.statice.is/Statistics/Culture
CSO	http://www.cso.ie/en/
Latvijas Statistika	http://www.csb.gov.lv/en/statistikas-temas/culture-key-indicators-30642.html
Statistics Lithuania	http://www.stat.gov.lt/en/home
STATEC	http://www.statistiques.public.lu/stat/ReportFolders/ReportFolder.aspx?IF_Language=eng&MainTheme=3&FldrName=8&RFPath=82
Monstat	http://www.monstat.org/eng/page.php?id=78&pageid=78
Statistics Norway	https://www.ssb.no/en/kultur-og-fritid

Statistics Portugal	http://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_base_dados
P3C	http://webrzs.stat.gov.rs/WebSite/Public/PageView.aspx?pKey=55
Statistical office of the Slovak republic	http://slovak.statistics.sk/wps/portal/ext/themes/demography/culture/about/!ut/p/b1/jZHNTsQgFEafxSfgo6U_s2TqlGKwttDiyMZ0MTE1TseF8fmlDSsTqXdHOIfv3gtx5EzcMn3Pb9PXfFumj_Xs8te-kOXxSDnKrABka0bAGlQs98CLB_BHcfzyW32CHHgn9AOjYFnwl8Dq877vjbIWwiY1ZEoF2tH3UBfBrwRvWKGAUokMkjejPvRpCp7-r_9IwOrXpkv4gYnqXj_566FKSqPyBKDBjwCrb1UX8ptHClmrznangWqL4EeAWL7Id_I9sDP_M3EbEtvgBsS-eG9JLt4F23nBT9E2t-uFmMtCPq_jVmfM8p3xux9SGTUb/dl4/d5/L2dBISEvZ0FBIS9nQSEh/
Instituto Nacional de Estadistica	http://www.ine.es/en/inebmenu/mnu_cultyocio_en.htm
Statistics Sweden	http://www.scb.se/en_/Finding-statistics/Statistics-by-subject-area/Culture-and-leisure/
Gov.uk Statistics	https://www.gov.uk/government/statistics?keywords=&topics[]=arts-and-culture&departments[]=all&from_date=&to_date=
Statistics Belgium	http://statbel.fgov.be/en/statistics/figures/
Statistics Estonia	http://www.stat.ee/culture
Swiss statistics	http://www.bfs.admin.ch/bfs/portal/en/index/infothek/publ.html
Istat	http://www.istat.it/en/communication-culture-and-leisur
Statistical Office of the Republic of Slovenia	http://www.stat.si/eng/tema_demografsko_kultura.asp
El.Stat	http://www.statistics.gr/portal/page/portal/ESYE/PAGE-themes?p_param=A1802
Institutul National de Statistica	http://www.insse.ro/cms/en/content/culture-statistics
Statistics Bulgaria	http://www.nsi.bg/Index_e.htm
Central Statistical Office of Poland	http://stat.gov.pl/en/topics/culture-tourism-sport/
National Statistics Office Malta	http://www.nso.gov.mt/site/page.aspx
International statistical agencies	
Eurostat	http://epp.eurostat.ec.europa.eu/portal/page/portal/culture/introduction
Unesco institute for statistics	http://www.uis.unesco.org/DataCentre/Pages/default.aspx

Independent initiatives and projects	
Open Glam benchmark survey	http://outreach.wikimedia.org/wiki/GLAM/OpenGLAM_Benchmark_Survey
Swiss Heritage Institutions in the Internet Era	http://www.wirtschaft.bfh.ch/uploads/tx_frppublikationen/Estermann_2013_Swiss_Heritage_Institutions_in_the_Internet_Era.pdf
Culture24: Let's get real	http://weareculture24.org.uk/projects/action-research/
European Group on Museum Statistics (EGMUS)	http://www.egmus.eu/
Erfgoedmonitor	www.erfgoedmonitor.nl
EBLIDA	http://www.eblida.org/activities/kic/
MSEG	https://ec.europa.eu/digital-agenda/en/member-states-expert-group-digitisation-digital-preservation
Europeana	
Europeana dashboard	http://statistics.europeana.eu/welcome