CD-ETA Action Plan Framework

Content

Introduction

This document provides a context and a terminological framework for working with CD-ETA action plan. Terminology defined below might not be the one you are familiar with or the way you use it, but it is important for the project documentation to use the same terminology with the agreed meaning in project context.

Defining terms

Digitisation

Digitisation is the process of converting information into a digital (i.e. computer-readable) format, in which the information is organized into bits. The result is the representation of an object, image, sound, document or signal (usually an analog signal) by generating a series of numbers that describe a discrete set of its points or samples. The result is called digital representation or, more specifically, a *digital image*, for the object, and *digital form*, for the signal. (Wikipedia)

Digitisation does not define the quality (capturing photos with your mobile is also digitisation) nor requirements for metadata collection.

Digitalisation

Digitalisation is the use of digital technologies to change a business model and provide new revenue and value-producing opportunities; it is the process of moving to a digital business. (Gartner glossary)

Digitalisation process provides the workflow how digitised material can be enriched (with metadata for example) to provide and generate new (re)uses of digitised material.

Metadata

Metadata is "data [information] that provides information about other data". Three distinct types of metadata exist: *descriptive metadata*, *structural metadata*, and *administrative metadata*. (Wikipedia)

In cultural heritage sector we mainly talk about the descriptive metadata, when describing the content of the scanned document or the photograph about the object. Structural metadata is used mainly for describing contexts (CIDOC CRM).

Cultural heritage

UNESCO defines Cultural heritage in "Convention concerning the protection of the world cultural and natural heritage" Article 1 as follows:

For the purposes of this Convention, the following shall be considered as "cultural heritage":
● **monuments:** architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of

features, which are of outstanding universal value from the point of view of history, art or science;

- **groups of buildings:** groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art or science;
- **sites:** works of man or the combined works of nature and man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological point of view.

Intangible heritage

UNESCO defines Cultural heritage in "Convention for the Safeguarding of the Intangible Cultural Heritage" Article 2 as follows:

1. The "intangible cultural heritage" means the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their cultural heritage. This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity. For the purposes of this Convention, consideration will be given solely to such intangible cultural heritage as is compatible with existing international human rights instruments, as well as with the requirements of mutual respect among communities, groups and individuals, and of sustainable development.
2. The "intangible cultural heritage", as defined in paragraph 1 above, is manifested inter alia in the following domains:
   a. oral traditions and expressions, including language as a vehicle of the intangible cultural heritage;
   b. performing arts;
   c. social practices, rituals and festive events;
   d. knowledge and practices concerning nature and the universe;
   e. traditional craftsmanship.
3. "Safeguarding" means measures aimed at ensuring the viability of the intangible cultural heritage, including the identification, documentation, research, preservation, protection, promotion, enhancement, transmission, particularly through formal and non-formal education, as well as the revitalization of the various aspects of such heritage.
4. "States Parties" means States which are bound by this Convention and among which this Convention is in force.
5. This Convention applies mutatis mutandis to the territories referred to in Article 33 which become Parties to this Convention in accordance with the conditions set out in that Article. To that extent the expression "States Parties" also refers to such territories.

Underwater heritage

UNESCO defines Cultural heritage in "Underwater Cultural Heritage 2001 Convention" Article 2 as follows:

A. "Underwater cultural heritage" means all traces of human existence having a cultural, historical or archaeological character which have been partially or totally under water, periodically or continuously, for at least 100 years such as:
    a. sites, structures, buildings, artefacts and human remains, together with their archaeological and natural context;
    b. vessels, aircraft, other vehicles or any part thereof, their cargo or other contents, together with their archaeological and natural
    c. context; and
    d. objects of prehistoric character.
B. Pipelines and cables placed on the seabed shall not be considered as underwater cultural heritage.
C. Installations other than pipelines and cables, placed on the seabed and still in use, shall not be considered as underwater cultural heritage.

Natural heritage

UNESCO defines Cultural heritage in "Convention concerning the protection of the world cultural and natural heritage" Article 2 as follows:

For the purposes of this Convention, the following shall be considered as "natural heritage":
- **natural features** consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point of view;
- **geological and physiographical formations** and precisely delineated areas which constitute the habitat of threatened species of animals and plants of outstanding universal value from the point of view of science or conservation;
- **natural sites** or precisely delineated natural areas of outstanding universal value from the point of view of science, conservation or natural beauty.

Memory institution

A memory institution is an organization maintaining a repository of public knowledge, a generic term used about institutions such as libraries, archives, museums, sites and monuments records (SMR), clearinghouses, providers of digital libraries and data aggregation services which serve as memories for given societies or mankind. Increasingly such institutions are considered as a part of a unified documentation/information science perspective. (Wikipedia)

Digitisation best practices and standards

International standards

ISO/TR 13028:2010: Information and documentation - Implementation guidelines for digitization of records

ISO/TR 13028:2010: establishes guidelines for creating and maintaining records in digital format only, where the original paper, or other non-digital source record, has been copied by digitizing;

establishes best practice guidelines for digitization to ensure the trustworthiness and reliability of records and enable consideration of disposal of the non-digital source records; establishes best practice guidelines for the trustworthiness of the digitized records which may impact on the legal admissibility and evidential weight of such records; establishes best practice guidelines for the accessibility of digitized records for as long as they are required; specifies strategies to assist in creating digitized records fit for long-term retention; and establishes best practice guidelines for the management of non-digital source records following digitization.

Read more from: https://www.iso.org/standard/52391.html

Existing digitisation guidelines

Federal Agencies Digital Guidelines Initiative (FADGI)

The focus of the Guidelines is on historical, cultural and archival materials. The scope is limited to digitization practices for materials that can be reproduced as still images, e.g., printed matter, manuscripts, maps, and photographic prints, negatives and transparencies.

Technical Guidelines for Digitizing Cultural Heritage Materials: Creation of Raster Image Files

Estonian Ministry of Culture

Digitisation guidelines for Estonian Museums: Museaalidedigimisejuhend (in Estonian only)

The National Archives

The National Archives' standards and requirements for the digitisation of analogue records in their collection.

Best practices

Digital Preservation Coalition

Digital Preservation Coalition's Digital Preservation Handbook provides an internationally authoritative and practical guide to the subject of managing digital resources over time and the issues in sustaining access to them.

Digital Preservation Handbook

Goals

Long term

Following the INTERREG programme and CD-ETA project objectives, the long-term goal of the developed action plans is to improve the implementation of regional development policies and programmes in each participating country / region, in particular Investment for Growth and Jobs

and, where relevant, ETC programmes, in the field of protecting and developing natural and cultural heritage.

Short term

Following the CD-ETA project objectives the short-term goal of the developed action plans is the improvement of 8 regional policy instruments (one in each participating country / region), co-financed by EU structural funds in the field of protecting and developing natural and cultural heritage.

The improved policy instruments will deliver as outputs relevant supported new projects and initiatives at regional or national level.

Existing digitisation and preservation policies

Institutional policies

Estonian War Museum

Estonian War Museum has an overall collection policy which defines what is the focus of the museum. This policy also includes statement about digitisation where the work plan and workflows is defined.

The objective of the collection policy is developing the museum's collections as to help to achieve the goals defined in the Statutes and Strategic Action Plan of the museum. Collecting is aimed at perpetuating and exposing Estonian military history within the museum and outside the organisation and to enable its high level research. The collection policy is a framework document that covers the formation, preservation and use of the collection and serves as a basis for annual work-plans. The policy describes in detail the principles of how the museum collection is supplemented, gives an overview of the state of play of different sub-collections (archive, items, photos etc) and points out respective areas of development and describes the principles how the collections are used.

National policies

Estonian National Digitisation Strategy and Action Plan for Cultural Heritage(2018-2023)

There are more than 900 million culturally valuable heritage artefacts located in national memory institutions that deserve to be digitized. Today, only ca 10% has been digitized. There are considerable variations concerning the digitization rate of different types of artefacts that has resulted from the current fragmented approach to digitization: the memory institutions have digitized their collections following their whims and available resources, but a coherent, structured and joint approach towards digitizing has been lacking. There is no critical mass of digitized cultural heritage in Estonia that would include user-friendly and wholesome digitized

artefacts from all types of cultural heritage. This has hampered the development of various business services based on the use of digitized cultural heritage. Mass digitization is also remarkably cheaper than order-based digitization, the difference being approximately 37% in total.

In order to overcome these problems the Estonian National Digitization Strategy and Action Plan for Cultural Heritage (2018-2023) was approved in March, 2018. The policy document aims to ensure that a critical mass of cultural heritage will be efficiently digitized, collectively preserved and made public by 2023. The main objectives of the policy document are:
1. to enable digital access to up to ⅓ of the cultural heritage in Estonian memory institutions
2. to develop consolidated architecture and service provision for archiving cultural heritage, its long-term preservation and back-up
3. to make public information related to 1.2 million cultural heritage artefacts as third level open data

In order to achieve the objective, the management structure supporting the digitization of cultural heritage will be readjusted. Achieving the objective also helps to increase public awareness and creates preconditions for using digitized cultural heritage in business, ensuring increased efficiency of the services provided by memory institutions and enhancing satisfaction with the quality of public services. The complementary objectives of the policy document are, thus:
4. to increase knowledge concerning digitization and digital cultural heritage in memory institutions, partner organisations and among youth
5. to create with partners possibilities for the active reuse and processing of cultural heritage in different economic sectors
6. to increase public awareness of and satisfaction with e-services in the cultural sector

The policy document proposes relevant actions in a total amount of 9.16 MEUR (0.88 MEUR state budget, 8.28MEUR EU structural funds) in the span of 5.5 years. The action plan contains 25 activities or sub-projects.

Dissemination

Open Access

Reuse

Legal considerations

Action plan

CD-ETA project foresees the improvement of 8 regional policy instruments (in all participating countries), that are – preferably – co-financed by EU structural funds. The action plans describe the state of play in each participating country, the policy instrument it will address and proposes concrete measures and mechanisms for its improvement. As a result of negotiations with the relevant national authorities the policy documents will be improved according to the suggestions of the national action plan, resulting in supported new projects and initiatives at regional or national level.

Introduction to action

The "Collaborative Digitization of Natural and Cultural Heritage" project (CD-ETA) is co-financed from the Interreg Europe programme. The project partnership consists of eight partners from seven countries from across the Europe, led by "Euroregion Pleven-Olt" from Bulgaria. The project duration is 60 months (1st stage 36 months, second stage 24 months) with a total budget of 2 360 600 EUR.

The main objective of the project is to "*improve adoption of the digitization policy for natural and cultural heritage and to be prepared the implementation of best practices into the participating regions, according to their needs. The implementation of this common plan for cooperation work on interregional level will contribute for establishing of uniform standards in the mass digitization of natural and cultural heritage*".

Current status

Overview and relevant policy instruments and strategies
In Estonia the digitization of cultural heritage takes place according to the Estonian National Digitisation Strategy and Action Plan for Cultural Heritage (2018-2023). The strategy defines the main problems in Estonia in the field of cultural heritage digitization, sets respective objectives and defines a set of measures (action plan) to achieve them in a given time- and financial frame. The policy is targeted at state owned memory institutions and applies for the whole of Estonia. It complies with other national strategy documents (such as the Estonian Information Society Strategy 2020, Estonian *Operational Programme* (*OP*) for Cohesion Policy Funds 2014-2020 etc.) and helps to achieve the objectives of the National 2020 Strategy.

State of play
There are more than 900 million culturally valuable heritage artefacts located in national memory institutions that deserve to be digitized. Today, only ca 10% has been digitized. There are considerable variations concerning the digitization rate of different types of artefacts that has resulted from the current fragmented approach to digitization: the memory institutions have digitized their collections following their whims and available resources, but a coherent, structured and joint approach towards digitizing has been lacking. There is no critical mass of digitized cultural heritage in Estonia that would include user-friendly and wholesome digitized artefacts from all types of cultural heritage. This has hampered the development of various business services based on the use of digitized cultural heritage. Mass digitization is also

remarkably cheaper than order-based digitization, the difference being approximately 37% in total.

In order to overcome these problems the Estonian National Digitization Strategy and Action Plan for Cultural Heritage (2018-2023) was approved in March, 2018. The policy document aims to ensure that a critical mass of cultural heritage will be efficiently digitized, collectively preserved and made public by 2023. The main objectives of the policy document are:
1. to enable digital access to up to ⅓ of the cultural heritage in Estonian memory institutions
2. to develop consolidated architecture and service provision for archiving cultural heritage, its long-term preservation and back-up
3. to make public information related to 1.2 million cultural heritage artefacts as third level open data

In order to achieve the objective, the management structure supporting the digitization of cultural heritage will be readjusted. Achieving the objective also helps to increase public awareness and creates preconditions for using digitized cultural heritage in business, ensuring increased efficiency of the services provided by memory institutions and enhancing satisfaction with the quality of public services. The complementary objectives of the policy document are, thus:
4. to increase knowledge concerning digitization and digital cultural heritage in memory institutions, partner organisations and among youth
5. to create with partners possibilities for the active reuse and processing of cultural heritage in different economic sectors
6. to increase public awareness of and satisfaction with e-services in the cultural sector

The policy document proposes relevant actions in a total amount of 9.16 MEUR (0.88 MEUR state budget, 8.28MEUR EU structural funds) in the span of 5.5 years. The action plan contains 25 activities or sub-projects.

Policy instruments to be improved
The policy instrument to be improved is the "Operational Programme for Cohesion Policy Funds 2014-2020", the national framework for the implementation of structural funds in Estonia. The implementation of the policy instrument is carried out through different sectoral policies and strategies. In case of digitization, this is the Estonian National Digitisation Strategy and Action Plan for Cultural Heritage (2018-2023). As already explained in the CD-ETA application, the improvement of the policy instrument takes place through better targeted and focused new projects and improved governance in the field. The approach taken in the Estonian National Digitisation Strategy and Action Plan for Cultural Heritage (2018-2023) clearly complies with the recommended course of action as outlined in the application and achieved through close cooperation with the CD-ETA project team:
● the focus of the strategy is to develop cultural and creative industry focused business cases on the basis of digitized cultural heritage artefacts
● the strategy foresees launching joint projects in Estonia to overcome the current fragmentation (see above) in digitization and to achieve increased volumes in digitization and volume-based impact
● the strategy includes approaches derived from best-practices in the field from CD-ETA project partner countries

The responsible authority for the delivery and implementation of the Estonian National Digitisation Strategy and Action Plan for Cultural Heritage (2018-2023) is the Ministry of Culture.

The Ministry has played an active role as a stakeholder in the project activities (participating in local and international events and expressing its opinion concerning the development of the current Action Plan) and used the gained knowledge and experience also outside the direct scope of the CD-ETA project.

Scope

Overall objective of the action plan
The overall objective for the Estonian action plan – as foreseen in the application - was to ensure an increased number of supported new initiatives related to digitizing cultural heritage. This has been achieved in the Estonian National Digitisation Strategy and Action Plan for Cultural Heritage (2018-2023) where altogether 25 sub-projects have been set out for achieving the objectives and results of the strategy. This complies directly also to achieving the objectives of Estonian OP.

Specific objective of the action plan
The desired change in the policy instrument was to develop a mechanism focused at increased possibilities for digitizing cultural heritage. This has been achieved by the Estonian National Digitisation Strategy and Action Plan for Cultural Heritage (2018-2023). There was no need to change the policy instrument as such, but to ensure that in terms of creative and cultural industries development and digital society transformation also digitization of cultural heritage will be tackled. This has been achieved already by now.

Achieving the desired change
The desired changes have already been achieved. Through the stakeholder meetings and by individual cooperation with the policy owner the Estonian National Digitisation Strategy and Action Plan for Cultural Heritage (2018-2023) was developed and approved in spring 2018. The project partner will continue monitoring the implementation of the action plan and influences it accordingly. For the detailed description, see table 1.

Time-frame of the action
2016-2018

Indicators that the goals are met

Achievement of the goals will be measured at the following levels:
- Activity level, i.e. if the described action plan was carried out in the time-frame (working group established, new version of policy instrument completed etc.). This will be measured within the project. The devised action plan was carried out in the initial time-frame and the Estonian National Digitisation Strategy and Action Plan for Cultural Heritage (2018-2023) was approved in 2018.

- Result level, i.e. relevant policy instruments amended accordingly, approved by the policy instrument owner and enacted. This will be measured within the project. The Estonian National Digitisation Strategy and Action Plan for Cultural Heritage (2018-2023) is in force since March 2018. The strategy aims to ensure that a critical mass of cultural heritage will be efficiently digitized, collectively preserved and made public by 2023.

- Impact level, i.e. how the change in the policy instrument affected the overall situation. This will be measured post- project. Altogether 25 sub-projects have been set out for achieving the objectives and results of the Estonian National Digitisation Strategy and Action Plan for Cultural Heritage (2018-2023) that will
    - Enable digital access to up to ⅓ of the cultural heritage in Estonian memory institutions,
    - develop consolidated architecture and service provision for archiving cultural heritage, its long-term preservation and back-up
    - make public information related to 1.2 million cultural heritage artefacts as third level open data

Table 1. Achieving the desired change

Stakeholder (market)	What change (impact) is needed/intended/aspired to?	This is our contribution	Our Activities	Sub activity	Our Outputs
	The bigger picture	*To help bring about that change*	*Delivered by Estonian War Museum*		
Cultural Heritage Institutions (CHI)	There are more than 900 million culturally valuable heritage artefacts located in national memory institutions that deserve to be digitized. Today, only ca 10% has been digitized. There are considerable variations concerning the digitization rate of different types of artefacts that has resulted from the current fragmented approach to digitization: the memory institutions have digitized their collections following their whims and available resources, but a coherent, structured and joint approach towards digitizing has been lacking. There is no critical mass of digitized cultural heritage in Estonia that would include user-friendly and wholesome digitized artefacts from all types of cultural heritage. This has hampered the development of various business services based on	We have wide network of connections with CHIs around the Europe to share and learn about digitisation activities	Developing partnerships	Arranging seminars, workshops and events to share our experience and skills.	Number of partnerships developed
			Coordinating the networking of CHIs	Providing consultation to other CHIs	Number of events arranged
					Number of CHIs consulted
		We have been working with improving our digitisation workflow, as well as organising better our collection policies. Our	Attending at thematic working groups	Giving input and feedback about digitisation guidelines	Published collection management plan
				Giving input to museum information system development	Published collection workflow

the use of digitized cultural heritage. Mass digitization is also remarkably cheaper than order-based digitization, the difference being approximately 37% in total.	experience can be applied to other CHIs.			Published helper tools and case studies for museum information system
		Preparing museum's digitisation strategy	Setting the digitisation standards	Standards in place
			Setting the digitisation priorities	Priorities in place
		Promoting open access and working with access issues	Inventory of our access policies	Content access and publishing policies in place
			Sharing our experience	Number of events participated
			Making our own content freely accessible	Number of items accessible