

To Whom It May Concern

13.08.2019 No 12-3/15 37-1

Confirmation Letter

The Estonian Ministry of Culture recognizes the efforts the Estonian War Museum - General Laidoner Museum has made during the INTERREG co-operation programme co-financed project "Collaborative Digitization of Natural and Cultural Heritage" (CD-ETA).

The developed Estonian action plan reflects the state of play and needs for further improvement of digitizing heritage artefacts in Estonian memory institutions. We give our full support to the Estonian War Museum - General Laidoner Museum in implementing the said Estonian action plan.

Yours sincerely,

Merilin Piipuu

Undersecretary for Cultural Heritage



CD-ETA: Collaborative Digitization of Natural and Cultural Heritage.



Action Plan for the Estonia



Introduction

Digitization and digital technologies have become an integral part of our everyday life and economic development. However, it is acknowledged that the majority of natural and cultural values are not subject to digitization yet. This does not enable the general public to access them. It is also clear that innovative solutions are required that will ensure conservation, promotion and development of natural, cultural and historical heritage.

The issue of how to improve this situation is a common challenge for all regions in Europe. CD-ETA project was launched to improve the deployment of digitization policies of cultural and natural heritage by including international best practices from the participating regions into national or regional relevant policy documents. The project has achieved to develop such documents for the better organization of the management and exploitation of natural and cultural heritage through digitization for each of the partnering regions. Thus, altogether eight related to Growth & Jobs or ETC programmes have been improved, with all stakeholders benefitting from them.

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Estonian CD-ETA Action Plan

The action plan is aimed at influencing the relevant policies: in general the "Operational Programme for Cohesion Policy Funds 2014-2020" and the "Estonian National Digitization Strategy and Action Plan for Cultural Heritage 2018-2023"² and the "Estonian" War Museum Development Plan 2016-2020"³ in particular.

Operational Programme for Cohesion Policy Funds 2014-2020 is 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 Digitization Strategy and Action Plan for Cultural Heritage. Improvement of the policy instrument takes place through better targeted and focused new projects and improved governance in the field.

Estonian National Digitization Strategy and Action Plan for Cultural Heritage (2018-2023) aims to ensure that a critical mass of cultural heritage will be efficiently digitized, collectively preserved and made public by 2023. The strategy has two focuses:

- overcoming fragmentation in and achieving increased volumes in digitization and its volume-based impact
- developing cultural and creative industry focused business cases on the basis of digitized cultural heritage artefacts

The main objectives of the policy document are:

- 1. to enable digital access to up to 1/3 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 available as third level open data
- 4. to increase knowledge concerning digitization and digital cultural heritage in memory institutions, partner organisations and among youth

https://ec.europa.eu/regional_policy/en/atlas/programmes/2014-2020/estonia/2014ee16m3op001

² https://www.kul.ee/et/kultuuriparandi-digiteerimine-2018-2023-tegevuskava

³ https://media.voog.com/0000/0038/0044/files/S%C3%B5jamuuseumi%20arengukava%202016-2020.pdf

- 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 strategy contains altogether 25 specific fields of interventions (sub-projects) of which 10 are directly linked to digitization of manuscripts and other documents, 4 to photos, 4 to films and 4 to artwork. The action is supporting achieving objective 1 (to enable digital access to up to $\frac{1}{3}$ of the cultural heritage in Estonian memory institutions). It foresees that 24 443 760 pages of manuscripts, 10 100 000 pages of printed materials 1 962 917 photos, 730 films and 76 666 artworks from different museums and memory institutions (including Estonian War Museum) will be made digitally available by 2023.

The Estonian War Museum Development Plan 2016-2020_defines the mission statement, vision and goals in the main fields of activity (popularization of Estonian military heritage and the collections of the museum to stakeholders and public; researching and collecting items, materials and phenomena related to military heritage; and carrying out relevant research work) of the museum for 2020.

The Estonian War Museum Collection Policy was developed with inspiration from the CD-ETA project and all the best practices introduced. 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 subcollections (archive, items, photos etc.) and points out respective areas of development and describes the principles how the collections are used.

Starting from April 1st, 2019 the position of a full-time digitization specialist is established in the museum. The tasks of the specialist include developing and piloting new digitization methods and tools, digitize museum collections and upload their digital versions into the Estonian Museum Information System MUIS, cooperate with other digitization specialists in Estonian memory institutions etc. Creation of this position was inspired by the need to invest more time and resources into digitization, also highlighted during the CD-ETA thematic seminars.

Focus and implementation of the Estonian CD-ETA action plan

Names of the actions:

- Action 1: Interlinking different digitized materials and artefacts
- Action 2: 3D models in museum context
- Action 3: Hand written text recognition (HTR)

Relevance to the project

The selected three actions are a direct result from the CD-ETA project, all derived from the pool of best practices introduced and explained during the project events.

- Action 1 was first introduced during the thematic seminar "Digitalization of Monuments and Archaeological Sites" in Greece (March 2018) by J. Bradley Kiesling. The presentation on the "Topos Text"⁴ best practice showed what the possibilities to interlink different digitized materials and artefacts with each other are. For example, if heritage site X has a digital exhibition or additional information, the developed application creates location-based links to literature, art or music: which writers (painters, composers etc.) have mentioned the site, when was it done and what has been the context. As a result, it would be possible to combine heritage sites and cultural phenomena from a completely new and comprehensive point of view.
- Action 2 was first introduced during the thematic seminar "Digitization of museums and galleries" in Italy (May 2017) by Roberto Scopigno from CNR-ISTI Visual Computing Lab. The presentation on the Digital Fabrication Techniques for Cultural Heritage best practice showed the different possibilities provided by 3D presenting and documenting. Artefacts made accessible through 3D could be used for promoting cultural and creative industries (film and gaming industry), tourism (replicas for commercial purposes) and also for academic purposes. Besides these possibilities, the foremost objective is to improve access and create copies of rare or deteriorated objects.: Additional financing opportunities for mainstreaming the pilot are Estonian Heritage Board, Estonian Ministry of Culture, Estonian Centre of

 $^{^{4} \}underline{\text{https://www.interregeurope.eu/policylearning/good-practices/item/920/topostext-primary-historical-sources-in-geographic-context/}$

- Support Services and the budgets of the different museums / memory institutions involved.
- Action 3 was first introduced during the thematic seminar Isabel Bordes Cabrera in Spain (June 2018) by National Library of Spain. The presentation on the Experience of the Hispanic Digital Library and best practice showed the possibilities to bring into life and use of various handwritten materials. They could be used for the development of new products and services for the end-users and tourists. It would help to develop and fill with relevant content e-exhibitions and virtual tours and also to create new ones, also the solution could be used to develop new tools for the immensely popular genealogy market.

Nature of the action

 Action 1: Interlinking different digitized materials and artefacts based on geolocatoin. The content of the action is to interlink different digitized materials and artefacts that enable to develop the touristic potential of heritage sites, attract new tourists and elaborate new tourist routes. Therefore a wide range and types of different heritage objects have to be digitized and made publicly available. This is what the Estonian National Digitization Strategy and Action Plan for Cultural Heritage 2018-2023 aims to achieve? During the 2nd implementation phase of the Strategy five cooperation projects will be launched. These will be aimed at developing viable and feasible business cases based on the different digitized artefacts. Our role in implementing Action 1 is to monitor the implementation of the digitization process (including suggestions for the selection of materials and artefacts as a whole and from our collections in particular), proposing cooperation project ideas based on the acquired best-practice and to counsel the stakeholders. Regular monitoring meetings will be organised between stakeholders and CD-ETA Estonian team. In terms of influencing the Estonian War Museum Development Plan 2016-2020 our role is to digitize different types of materials and artefacts and to develop a pilot case where the best-practice has been followed and the touristic potential of our museum enhanced through the interlinked different digitized materials. This pilot will be also demonstrated to the stakeholders.

- Action 2: 3D models in museum context. The content of the action is to develop 3D models of heritage artefacts that could be later used for educational / academic, industrial and touristic purposes. While drafting the Estonian National Digitization Strategy and Action Plan for Cultural Heritage 2018-2023, it was decided that no specific 3D focus will be developed. Therefore we shall apply for a pilot action from the CD-ETA project (Estonian under-spending) to obtain in-depth knowledge about the possibilities and benefits 3D could offer, using the expertise and knowhow of Italian partners and the best-practice presented. We shall influence the Estonian War Museum Development Plan by implementing a test-case, using the pilot action funds. For influencing the Estonian National Digitization Strategy and Action Plan for Cultural Heritage 2018-2023, we shall organise trainings for the stakeholders (sub-project 24 of the Strategy) where 3D, best-practice and our test-case will be introduced.
- Action 3: Hand written text recognition (HTR). The content of the action is to develop and fill with relevant context e-exhibitions and virtual tours to promote tourism and to work out new products for the growing genealogy market, based on manuscripts that cannot be currently automatically processed. A large number of similar types of manuscripts need to be digitized in order to enable machine learning and HTR. This is what the Estonian National Digitization Strategy and Action Plan for Cultural Heritage 2018-2023 aims to achieve. During the 2nd implementation phase of the Strategy five cooperation projects will be launched. These will be aimed at developing viable and feasible business cases based on the different digitized artefacts. Our role in implementing Action 3 is to monitor the implementation of the digitization process (including suggestions for the selection of manuscripts as a whole and from our collections in particular), proposing cooperation project ideas based on the acquired best-practice and to counsel the stakeholders. Regular monitoring meetings will be organised between stakeholders and CD-ETA Estonian team. In terms of influencing the Estonian War Museum Development Plan 2016-2020 we shall develop a pilot case where HTR will be deployed on certain types of manuscripts for improving our exhibitions and tours. This pilot will be also demonstrated to the stakeholders.

Stakeholders involved

The stakeholders for the three actions are the same, but they can be divided according to the policy documents to be influenced:

Estonian National Digitization Strategy and Action Plan for Cultural Heritage 2018-2023:

- Ministry of Culture. Responsible for the implementation of the Strategy.
- Estonian National Archives. Responsible for digitizing manuscripts, documents and photos, co-responsible for digitizing films. Providing objects to be digitized.
- Estonian Literary Museum. Co-responsible for digitizing the printed materials.
 Providing objects to be digitized.
- Tartu University. Co-responsible for digitizing the printed materials. Providing objects to be digitized.
- Estonian National Museum. Responsible for digitizing material artefacts. Providing objects to be digitized.
- Art Museum of Estonia. Responsible for digitizing artworks. Providing objects to be digitized.
- Estonian Public Broadcasting. Co-responsible for digitizing films. Providing objects to be digitized.
- All other Estonian museums and memory institutions (including Estonian War Museum) provide objects to be digitized.

Estonian War Museum Development Plan 2016-2020

• Estonian War Museum. Responsible for digitizing its collections and making them publicly available.

Timeframe (please specify the timing envisaged for actions)

- Estonian National Digitization Strategy and Action Plan for Cultural Heritage 2018-2023
- Estonian War Museum Development Plan 2016-2020 (the Development Plan is updated annually)

The timeframe applies for all three actions.

Costs (please estimate the costs related to the implementation of action 1)

- Estonian National Digitization Strategy and Action Plan for Cultural Heritage 2018-2023 9.16 MEUR (0.88 MEUR state budget, 8.28MEUR EU structural funds)
- Estonian War Museum Development Plan 2016-2020

Estimated costs for the actions are 430 000 EUR.

Funding sources

Estonian National Digitization Strategy and Action Plan for Cultural Heritage 2018-2023

- Operational Programme for Cohesion Policy Funds 2014-2020
 - Estonian War Museum Development Plan 2016-2020 state budget, revenue, other sources.

The funding sources are same for all three actions.

Request for pilot action

Project Acronym:	CD-ETA
Project Index (PGI):	PGI00008
Title of the pilot action	Adapting the 3D modelling best-practice from CD-ETA project to the Estonian situation
Policy instrument(s) addressed:	Operational Programme for Cohesion Policy Funds 2014-2020
Partner(s) concerned	Estonian War Museum General Laidoner Museum (EWM); Foundation for Research and Innovation (FRI)
Country	Estonia, Italy
Date of request:	05-13.2019

Reminder

Pilot actions are implementation-related activities dedicated to testing a new approach. This usually refers to the transfer of existing practices between partner regions. But it can also relate to a new initiative jointly designed by the partner regions during phase 1 and jointly implemented in phase 2. As reflected in the present form, pilot actions are possible under Interreg Europe under strict conditions only and the description provided in the form should be as detailed and as clear as possible.

Request for pilot action must be submitted to the programme as soon as it is ready and by the end of phase 1 at the latest. It will then be assessed by the Joint Secretariat which may require further clarifications. In case the pilot actions meet the programme's requirements, the Joint Secretariat will recommend it for approval to the Monitoring Committee. If approved, the application form will be updated through the request for changes procedure.

Further information can be found in section "4.2.2 Phase 2 – monitoring of the action plan implementation" in the programme manual.

A. Overall relevance of the request

A.1 Context and nature of the pilot action

Please describe precisely the nature of the activities envisaged and justify why this pilot action is important in the context of the project. Please also specify the main beneficiaries of the pilot action.

Overall context

During the eight thematic international seminars and national / regional stakeholder meetings of the INTERREG Europe CD-ETA project (https://www.interregeurope.eu/cd-eta/) in Phase 1 a lot of interesting and important information about the situation and best practices of digitization of natural and cultural heritage in the partner countries was revealed. The state of play varies from country to country: in some countries it is more common and wide-spread than in others and also the rationale for making heritage digital is different. This has also led to the adoption / leaving out certain methods and approaches of digitization in national / regional policy instruments. A lesson learnt also from the CD-ETA project is that not all best practices can be automatically transferred from one partner to another. The reason for that can be technical and technological, organizational and structural — but also financial. In some cases the introduction / piloting of acquired best practices is not possible as the relevant policies do not foresee such pilots and have not allocated funds respectively.

Nature and justification of the activities envisaged



Although Estonia is well advanced in general ICT development and also in digitizing natural and cultural heritage artefacts in museums and memory institutions, certain approaches are not paid sufficient attention to. One of such is 3D modelling, that was introduced during the CD-ETA Phase I thematic seminar "Digitization of museums and galleries" in Italy (May 2017) by Roberto Scopigno from CNR-ISTI Visual Computing Lab. The presentation on the *Digital Fabrication Techniques for Cultural Heritage* best practice showed the different possibilities provided by 3D presenting and documenting. Artefacts made accessible through 3D could be used for promoting cultural and creative industries (film and gaming industry), tourism (replicas for commercial purposes) and also for academic purposes. Besides these possibilities, the foremost objective is to improve access and create copies of rare or deteriorated objects. 3D model is one of the most objective ways of documentation, as you do not make choices what to measure – you measure everything. For the CCI enterprises a simple 2D version (image, photo) is not sufficient and 3D solutions are sought for.

The 3D possibilities are used in Estonian museums and memory institutions only on a small scale. This hampers the effective cooperation between museums and memory institutions with creative and cultural industries (CCI), does not enable to fulfil the full economic potential of both sectors and thus does not contribute to the economic development and service export of Estonia.

There is a clear need to introduce a wider use of 3D modelling of cultural and natural heritage artefacts in museums and memory institutions, to train and influence the policy makers on the importance and possibilities offered by 3D and to improve the delivery of the policy instrument (see below).

The proposed pilot action consists of four strands of activities:

- Adapting the 3D modelling best-practice from CD-ETA project to the Estonian situation,
- Develop 3D model test-cases (pilots) using artefacts in EWM collections,
- Training of Estonian stakeholders (museums and memory institutions) on 3D modelling and its possibilities in CCI
- Organising round-table discussions with policy makers, museums and memory institutions, CCI entrepreneurs etc. to influence the delivery of the policy instrument concerned.

As a result, 3D modelling will become more wide-spread in Estonian museums and memory institutions that will help to develop cooperation with CCI and thus contribute to achieving the aims and objectives of the policy instrument.

Main beneficiaries of the pilot action

- Museums and memory institutions enhanced knowledge about 3D modelling and its benefits for museological, educational, academic and entrepreneurial purposes;
- CCI entrepreneurs improved possibilities for economic activities and growth using the 3D models of artefacts created in the museums and memory institutions;
- Policy making institutions enhanced understanding of the positive connexion between 3D modelling, CCI and economic development and growth.

A.2 Compliance with the programme requirements

Please explain further how the pilot action complies with the programme's requirements in terms of:

A.2.1 Policy relevance and durability

How will the pilot action contribute to improving the policy instrument addressed?

Is it confirmed that the pilot action is a full part of the action plan for the region concerned?

What are the plans to ensure the durability of the pilot action in case of success?

Contribution of the pilot action to improving the policy instrument concerned.

The policy instrument addressed is the Estonian Operational Programme for Cohesion Policy Funds 2014-2020 that covers all investments necessary for successfully using structural funds in Estonia during the period. In particular, the project focuses at two strands of the policy instrument: Estonian National Digitization Strategy and Action Plan for Cultural Heritage (ENDSAP), co-financed from it and the specific measures 5.3 (development of creative industries) and its sub-activities 5.3.4/5 (integrating creative industries with other sectors) and 5.3.6 (raising awareness about creative industries).

ENDSAP (approved by the Minister of Culture in 2018) aims to ensure that a critical mass of cultural heritage will be efficiently digitized, collectively preserved and made public by 2023. It is financed from the Operational Programme (9.16 MEUR in total, of which 8.28 MEUR structural funds and 0.88 MEUR national co-financing). The strategy has two focuses:



- overcoming fragmentation in and achieving increased volumes in digitization and its volume-based impact and
- developing cultural and creative industry focused business cases on the basis of digitized cultural heritage artefacts.

The main objectives of ENDSAP are:

- to enable digital access to up to ⅓ of the cultural heritage in Estonian memory institutions
- to develop consolidated architecture and service provision for archiving cultural heritage, its long-term preservation and back-up
- to make public information related to 1.2 million cultural heritage artefacts available as third level open data
- to increase knowledge concerning digitization and digital cultural heritage in memory institutions, partner organisations and among youth
- to create with partners possibilities for the active reuse and processing of cultural heritage in different economic sectors
- to increase public awareness of and satisfaction with e-services in the cultural sector

ENDSAP contains altogether 25 specific fields of interventions (sub-projects) of which 10 are directly linked to digitization of manuscripts and other documents, 4 to photos, 4 to films and 4 to artwork, such as "Digitization of artefacts having national or cultural value" or "Digitization of artefacts having national value and high interest among researchers" or "Digitization of art heritage" or "Digitization of film heritage". The strategy is nationwide, i.e. the artefacts to be digitized are located in different Estonian museums and memory institutions (including the Estonian War Museum) and will be specifically selected for the implementation of a specific subproject: X artefacts from museum A, Y from museum B, Z from museum C etc.

At the current digitisation action plan objects and documents are digitised in traditional way, so regular photographs are taken. We have proposed to pilot also with 3D content (mainly meshed models) to analyse possibilities to use it more widely and as well as long term preservation issues. A successful pilot in 3D modelling combined with establishing a clear link between 3D and enhanced possibilities for CCI as well as the roundtable meetings will demonstrate the policy makers that 3D digitizing will significantly improve and enhance the policy instrument and helps to achieve its objectives.

The pilot action is full part of the action plan developed for the region concerned.

Plans to ensure the durability of the pilot action in case of success

If our pilot action proves to be successful, there is a remarkable chance that ENDSAP will support the mainstreaming of the pilot and a selected number of artefacts will be digitized in 3D format within the suitable thematic subprojects during 2020-2023. Additional financing opportunities for mainstreaming the pilot on a small scale are Estonian Heritage Board, Estonian Ministry of Culture, Estonian Centre of Support Services etc. Also EWM will continue to develop 3D models of the artefacts in the museum collections post project.

There is also remarkable possibilisti that iif the pilot proves to be successful, there will be a possibility to include 3D digitized objects into MUIS.

The timeline for updating MUIS is as follows. Full update of MuIS is planned to happen in next four years. Public portal changes (including implementation of 3D viewer) will happen probably on year two, so not before 2020 autumn. During the pilot we are able to work out the best practices for long term preservation and presentation of 3D datasets for cultural heritage. 3D digitisation done during the pilon can be used even before the updates to MuIS are implemented as the file management system is already in place and we can host the files for external viewers.

A.2.2 Interregionality

How is the pilot action linked to the interregional exchange of experience process?

How does it relate to knowledge / practice learnt from other project partners?

The pilot action is directly linked to international exchange of experience and practices learnt from other project partners.

The Estonian partner, stakeholders and policy makers were, of course, aware of 3D modelling prior to CD-ETA project. Due to different reasons it is not very much developed in Estonia and its links and connexions with CCI and other economic activities are weak. During the CD-ETA Phase I thematic seminar "Digitization of museums and galleries" in Italy (May 2017) the presentation on the *Digital Fabrication Techniques for Cultural Heritage* by Roberto Scopigno from CNR-ISTI Visual Computing Lab showed the different possibilities



provided by 3D presenting and documenting. Artefacts made accessible through 3D could be used for promoting cultural and creative industries (film and gaming industry), tourism (replicas for commercial purposes) and also for academic purposes. Besides these possibilities, the foremost objective is to improve access and create copies of rare or deteriorated objects. 3D model is one of the most objective ways of documentation, as you do not make choices what to measure – you measure everything. For the CCI enterprises a simple 2D version (image, photo) is not sufficient and 3D solutions are sought for This was the background for the pilot action. The Italian experience of successfully integrating 3D modelling with CCI is a success story that needs to be adapted to the Estonian situation and developed further on.

A.2.3 Additionality

Why can the pilot action not be financed by the policy instrument addressed or by other local / regional / national funds?

The pilot action cannot be financed from the policy instrument through ENDSAP as the strategy and the subprojects already being implemented focus only on digitizing the artefacts in 2D format, i.e. a digital copy will be made (a photo). Nevertheless, in the frames of ENDSAP Estonian Museum Information System (MUIS) will be updated. If our pilot action is successful, possibilities for digitizing objects in 3D could be developed as well. In addition to ENDSAP there are no sufficiently large/scale funding opportunities currently for financing 3D modelling development for museums and memory institutions.

Possibilities for additional funding are:

Estonian Heritage Board: programme "Support to the development of museums". The next call under the programme will be in 2020. We think that is necessary to move faster and sustain the impetus of the CD-ETA project. The programme is also more focused not to finance pilot actions, but to sustain and develop already elaborated and functional solutions.

Ministry of Culture: programme "Digital cultural heritage". The next call under this programme will be most likely in autumn 2019. We think that is necessary to move faster and sustain the impetus of the CD-ETA project. The amounted of money allocated to the call has traditionally been approximately 20 000EUR. It means that our proposed project would apply for too large a share of the resources available. However, if a successful pilot has been implemented, this programme could be used for carrying out continuous 3D digitizing. The result of this proposed pilot action (adapted and piloted 3D model for Estonia / EWM) enables to be more effective and efficient in the digitizing process. This also increases the chances while applying for funding from the "Digital cultural heritage" programme: we can prove that we are cost-effective and can achieve results also in case of only moderate financing.

Estonian Centre of Support Services: programme "Support to cultural initiatives from the Gambling Tax". The programme is being reformed. It was closed in the end of 2018 and no new calls are planned until 2020. We think that is necessary to move faster and sustain the impetus of the CD-ETA project.

B. Planned activities

Please describe precisely the different activities to be implemented for the pilot action during each semester of phase 2.

PHASE 2

Semester 1

01.06.2019 - 30.09.2019

Adapting the 3D modelling best-practice from CD-ETA project to the Estonian situation. The Italian
experience and best-practice needs to be adapted to the Estonian situation, especially in connexion
with combining 3D and CCI. This means taking into account the relevant technological,
socioeconomical and museological differences. Furthermore, the outcomes of 3D modelling should be
included into the Estonian Museum Information System (MUIS) as digitized artefacts. Currently MUIS
does not support this format and relevant improvements have to be made. In semester 1 we do not



implement anything and the activities are targeted at learning from the best practices and analyses carried out in other countries, especially Italy. The adaptation process contains:

- o a kick-off meeting between all interested Estonian partners with Italian colleagues online where the pilot and knowledge and experience exchange details will be agreed upon
- o workshop where the Italian best-practice is presented and discussed
- o preparation of the initial work-flow and 3D viewer prototype for MUIS.
- Organising round-table discussion with policy makers, museums and memory institutions, CCI entrepreneurs etc. to influence the delivery of the policy instrument concerned. The 1st round-table discussion will be dedicated to analysing and assessing the state of play of implementing ENDSAP: what has been achieved and what are the shortcomings. The chosen best-practice from Phase I will be introduced and analysed in detail what and why should be done to integrate a similar solution to ENDSAP. The meeting also helps to receive feedback from the participants which specific items and improvements would be beneficial for them while documenting and presenting cultural heritage objects in 3D.
- Project management and information dissemination. The activity is aimed at ensuring that the pilot action achieves its objectives and the general public is aware of the progress taking place.

Semester 2

01.10.2019 - 31.03.2020

- Adapting the 3D modelling best-practice from CD-ETA project to the Estonian situation. The Italian experience and best-practice needs to be adapted to the Estonian situation, especially in connexion with combining 3D and CCI. This means taking into account the relevant technological, socioeconomical and museological differences. Furthermore, the outcomes of 3D modelling should be included into the Estonian Museum Information System (MUIS) as digitized artefacts. Currently MUIS does not support 3D content so the output will be presented partly via prototype which takes data from MUIS fileserver but presents it in external application.
- Develop 3D model test-cases (pilots) using artefacts in EWM collections. A valuable part of the collections of EWM uniforms before WWII will be photographed and 3D models created. Fragile fabrics can be presented thus in an interactive way in museum as well as over the online tool and be used later on by CCI entrepreneurs in developing their products and services. The pilot will also help to establish the best solution for the 3D workflow and presentation of objects in the Estonian Museum Information System (MUIS, www.muis.ee) as files or models.
 - Testing and evaluating the 3D capture workflow to find out best option for Cultural Heritage institutions. Main aspects of evaluation would be:
 - cost of equipment and software
 - training needed for museum employees
 - compatibility with web-viewers
 - workflow compatibility with existing digitisation workflows
 - long term preservation issues
- Organising round-table discussion with policy makers, museums and memory institutions, CCI entrepreneurs etc. to influence the delivery of the policy instrument concerned. The 2nd round-table discussion will be dedicated to describing and introducing the 3D model adapted to Estonian case and how it could benefit the CCI.
- Project management and information dissemination. The activity is aimed at ensuring that the pilot action achieves its objectives and the general public is aware of the progress taking place.

Semester 3

01.04.2020 - 30.09.2020

• Training of Estonian stakeholders (museums and memory institutions, CCI entrepreneurs, policy makers etc.) on 3D modelling and its possibilities in CCI. The focus of the training will be the links and connexions between 3D modelling and CCI. The training will take place as a workshop where all participating partners have the possibility to share their opinion as to how to influence ENDSAP. The training session will be organised by the pilot action partners, EWM and FRI, involving – if necessary – also additional external lecturers. One full-day (8ah) training session will take place for approximately 10-15 people. All participants are working on a daily basis either with digitizing in memory institutions or developing cooperation between museums and CCI either at practical (museum) or policy-making level. The participants will get to know in detail the possibilities 3D digitizing offers for the museums and CCI and are able to plan both digitizing process and cooperation with CCI in a more efficient way. The core focus of the training will be the development of 3D models and respective work-flow in the context of CCI. Information concerning the training of Estonian stakeholders will be disseminated to the possible participants through:



- **a.** "The Museums' mailing list" maintained by the Ministry of Culture. This mailing list contains all Estonian museums and it is the usual channel for the Ministry of Culture to disseminate information relevant and useful for all museums in the country. This ensures that the information will reach the relevant audience and the recipients know that this information is important and useful for them
- b. Social media accounts of EWM and the Ministry of Culture
- •
- Organising round-table discussion with policy makers, museums and memory institutions, CCI entrepreneurs etc. to influence the delivery of the policy instrument concerned. The 3rd round-table discussion will be dedicated to the deployment of 3D modelling in ENDSAP.
- Project management and information dissemination. The activity is aimed at ensuring that the pilot action achieves its objectives and the general public is aware of the progress taking place.

Semester 4

No content related activities should take place in this semester. The last months of the project should be entirely dedicated to the project closure.

C. State Aid

Funds used to implement pilot actions have to comply with state aid rules, in line with article 107 of the TFEU. Therefore, the JS has to assess if the pilot activities proposed by the project can be considered as state aid relevant. The activity carried out within the pilot could be state aid relevant if it has a commercial nature, is market related, it grants an economic benefit to the beneficiary that the beneficiary would not have received without the pilot and is thus able to distort the competition within the EU. If the proposed pilot action falls under state aid rules, the aid will be granted under the de minimis regulation¹. According to this regulation, an organisation cannot receive more than EUR 200,000 of de minimis aid in the last 3 fiscal years. This means that, if the pilot action is state aid relevant and the project partner will receive de minimis aid, there will be specific procedures to follow. If the pilot benefits directly the project partner, a self-declaration will have to be provided by the project partner. In cases where third parties receive benefits from the pilot, they will be considered as the recipient of state aid/de minimis and projects partners bear the responsibility to ensure that state aid /de minimis rules are respected by the third parties, by collecting such self-declarations from them. Further information on state aid can also be found in section "2.7.5 State aid" in the programme manual.

In order to allow the JS to assess whether the proposed pilot is state aid relevant, we kindly ask you to reply to the questions below.

- Can any of the pilot activities be considered as an economic activity, i.e. market relevant, profit oriented or likely to improve the financial situation of the partner? Please justify as much as possible your answer, and if applicable, please explain how the pilot action could improve the financial situation of the project partner.

¹ 'Commission Regulation (EC) No 1407/2013 of 18 December 2013 on the application of Articles 107 and 108 of the Treaty on the Functioning of the European Union to de minimis aid'



None of the pilot activities can be considered as an economic activity, i.e. market relevant, profit oriented or likely to improve the financial situation of the partner.

- Will there be a specific third party organisation or a selected group of third party organisations (other than the external experts sub-contracted in compliance with public procurement rules) involved in the pilot that could benefit from market related, or profit oriented activities, likely to improve their financial situation? If yes, please define the activities they will participate in and explain why you consider that they are market related and how they could bring an economic benefit to the third party.

No specific third party organisation or a selected group of third party organisations (other than the external experts sub-contracted in compliance with public procurement rules) that could benefit from market related, or profit oriented activities and likely to improve their financial situation will be involved in the pilot.

D. Partnership

Which partner(s) of the project will be in charge of the implementation of the pilot action?

Partner name:	Country	Role in the pilot:
Estonian War Museum	Estonia	Adapting the 3D modelling best-practice from CD-ETA project to the
		Estonian situation, developing 3D model test-cases in EWM, organising
Museum (EWM);		trainings for Estonian stakeholders, organising roundtable discussions.
Foundation for	Italy	Knowhow and expertise on successfully integrating 3D modelling with
Research and		CCI, assisting on 3D model test-cases in EWM, training of Estonian
Innovation (FRI)		stakeholders

Does the pilot action imply the introduction of new partners in the partnership?

The pilot action does not imply the introduction of new partners in the partnership.

If yes, please specify

Partner name:	Country:	Role in the pilot:

Will other stakeholders be involved in the implementation of the pilot action?

Yes, stakeholders that already participated in Estonian Phase I stakeholder meetings (museums, memory institutions, policy making bodies etc.) will be involved in the pilot action in training and roundtable discussion activities.



E. Budget

Please fill in the attached excel sheet.

F. Questions for the Joint Secretariat

Part to be completed by the Interreg Europe Joint Secretariat

1. JS clarifications

The pilot action cannot be recommended for approval unless the following points are sufficiently clarified:

Policy relevance and durability:

If we understand well, the ENDSAP (co-financed by the Operational Programme, although it is a separate strategy) has already approved funds for a specific project to update the MUIS. And if the pilot action proves successful, there will be a possibility to include 3D digitized objectives in the MUIS update, which would mean a better implementation of that project. Please confirm if this understanding is correct. Please clarify the timeline for this project to update the MUIS.

Additionality

Apart from the ENDSAP which currently focuses only on 2D artefacts, you refer to additional sources of financing that could mainstream the pilot in case of success: the Estonian Heritage Board, the Ministry for Culture, and the Estonian Centre of Support Services. Please clarify which funds / programmes managed by these institutions could provide this financing, and why these funds / programmes could not already finance the pilot action now i.e. why is Interreg Europe funding needed to carry out the pilot action.

Estonian Heritage Board: programme "Support to the development of museums". The next call under the programme will be in 2020. We think that is necessary to move faster and sustain the impetus of the CD-ETA project. The programme is also more focused not to finance pilot actions, but to sustain and develop already elaborated and functional solutions.

Ministry of Culture: programme "Digital cultural heritage". The next call under this programme will be most likely in autumn 2019. We think that is necessary to move faster and sustain the impetus of the CD-ETA project. The amounted of money allocated to the call has traditionally been approximately 20 000EUR. It means that our proposed project would apply for too large a share of the resources available. However, if a successful pilot has been implemented, this programme could be used for carrying out continuous 3D digitizing. The result of this proposed pilot action (adapted and piloted 3D model for Estonia / EWM) enables to be more effective and efficient in the digitizing process. This also increases the chances while applying for funding from the "Digital cultural heritage" programme: we can prove that we are cost-effective and can achieve results also in case of only moderate financing.

Estonian Centre of Support Services: programme "Support to cultural initiatives from the Gambling Tax". The programme is being reformed. It was closed in the end of 2018 and no new calls are planned until 2020. We think that is necessary to move faster and sustain the impetus of the CD-ETA project.

Planned activities:

More details need to be provided on the precise activities and outputs that will be carried out to prepare, test, evaluate and mainstream the 3D modelling solution.

• In semester 1, it is written that improvements have to be made to the MUIS in order to include the outcomes of 3D modelling. This sounds like a relevant objective, but needs to be broken down into specific numbered steps described in detail along with the associated outputs. Please revise the



planned activities for all semesters accordingly, making sure also to indicate who will do what (i.e. in which steps will the Italian partner staff or external experts be involved)

In semester 1 we do not implement anything, it is purely phase for learning from best practices and anlyses. Proposed detailed plan:

- **a.** Initial meeting with intersted parties: plannig the pilot and the knowlege exchage event (chaired by Archaeovision)
- b. Workshop where Italian best practice is presented and discussed
- **c.** Meeting with stakeholders to get more feedback and idea what would be beneficial for them when documenting and presenting cultural heritage objects in 3D
- d. Preparation of initial workflow and 3D viewer prototype for MulS
- In semester 3, regarding the training of Estonian stakeholders, please confirm who will deliver the training, how many training sessions will happen, how many people will be trained, how the participants who will benefit from the training will be selected.
 - Training will be led by external partner. Selection process is on a first come, first served basis. Maximum amount for training (if one trainer) is 12 people. It is planned to be two-day hands on training.
- The testing element needs to be better reflected in the planned activities. Please confirm what aspects
 of the 3D modelling are planned to be tested, and how the success of the pilot action will be evaluated
 or measured in semester 3.
 - 3D-technologies are deveoping fast and it is mainly lead by surevey and gaming industries. In cultural heritage sector we need more stability, especially when it comes for long ter preservation of documentaion and datasets. On of the main focus of the pilot is find and thest the best file-formats and workflows for data-capture for cultural heritage sector. We also need to test the usability of possible services (MulS public portal) and make sure that what we implement is actually needed and used by museum professionals or by CCI.

JS Feedback, 04/06/2019

ACTIVITIES:

- Planned activities:
 - The proposed detailed work plan for semester 1 provided in your reply to the clarification does not reflect what is currently described under semester 1. The work plan has to be revised accordingly so that any details about the planned activities are described directly in the relevant semester. Please see respective additions in green under the section "semester 1".
 - ii) The work plan needs to provide tailored information for each semester. Currently, the information on developing 3D model test-cases using artefacts in EWN collections is identical semester 2 and 3. Please revise so that the precise steps are described under each semester. Please see respective additions in green under the section "semester 3"
- Training of Estonian stakeholders: Thank you for confiming that the participants will be selected on a first-come-first-served basis. Please explain how the possibility to participate in the training will be communicated to stakeholders, particularly those who could potentially have an economic advantage from the knowledge gained in the training.
- <u>Element of testing</u>: Thank you for confirming that the focus of the pilot is to identify the best file-formats and work flows for data-capture for the cultural heritage sector. Please describe in the planned activities section directly (in the semester when the activity will be carried out) which aspects of the 3D modelling are planned to be tested. Please also describe in semester 3 the activities through which the results of the test will be evaluated or measured. Please see respective additions above in green under the section "semester 2"

BUDGET:

- In table 2 'External expertise and services': costs to develop 3D model test cases are planned. However, it seems that in the column 'contracting partner', the name of the company that will be contracted has been inserted (i.e. 'Archaeovision LLC). First, this is not in line with the public procurement rules. Please remove the name of this company and confirm that your partners are aware that all public procurement rules have to be observed. Second, please indicate in this column which project partner will contract an external provider for this service (from the information provided in table 1 it seems that PP8 will be the contracting partner).
 - **a.** We have removed the name of the possible contracting partner and confirm that all public procurement rules will be observed while selecting the contracting partner. EWM will be the partner responsible for contracting the external provider.
- Table 4 "Total budget breakdown per budget line and partner" in part 2 of the budget table has not be filled in. Please fill in this table.



2. JS final recommendations

State a	Yes	No	
1/ Does the pilot action represer and for which a market exists activity in the meaning of the Co			
(n° 2016/C 262/01)?			
2/ Could the financial situation of result of the pilot (i.e. could t competition)?			
3/ Will there be any economic be relevance)			
Conclusion			

Fulfilment of criteria?	Yes	No
1/ Relevance		
2/ Additionality		
3/ Interregionality		
4/ Feasibility (including finance)		
Final recommendation		

Instructions

In order to assess the budget of the pilot action, we need to know the budget breakdown per budget line and per partner of the pilot action and how the budget of the pilot action will be integrated in the total project budget. It is also important to know whether the pilot action will be financed through the project's underspending or whether additional funding is requested.

In this file you will find two sheets:

1) Pilot action budget:

Table 1 - Total pilot action budget: in this table you need to fill in the budget of the pilot action, broken down by partner (in case several partners are involved in the implementation of the pilot) and by budget line.

Table 2 - External expertise and services: if external expertise costs are planned in table 1, you need to provide a detailed description of these costs in table 2, listing in separate lines the planned costs according to the different type of costs. Please try to be as precise as possible, so that we can clearly understand the type of external support/service needed for the implementation of the pilot.

Table 3 - Equipment: if equipment costs are planned in table 1, you need to provide a detailed description of these costs in table 2.

2) Total project budget:

- In this sheet you should reply to the question on whether the pilot action will be financed through the project's underspending (please reply "yes" if the pilot action will be entirely financed through the underspending or "no" if it will require additional funding). If additional funding is requested, please specify in this sheet how much additional ERDF is requested and by which partner(s)
- Table 1 Total budget breakdown per budget line and partner: in this table you will need to fill in the total project budget broken down by partner and by budget line, including the budget of the pilot action.

Please indicate in the table below the budget of the pilot action, broken down by partner (if applicable, e.g. if more than one partner will be involved in the implementation of the pilot action) and by budget line. If the pilot action will generate net revenues, please indicate them in the table below (if no revenues, you can just leave the cell blank.

N.B. fill in only the white cells!

Table 1 - Total pilot action budget								
				External				
		Office and	Travel and	expertise and		Net	Total pilot action	
Partner	Staff costs	administration	accommodation	services	Equipment	revenues	budget	
EWM	6 000,00 €	900 €	- €	3 000,00 €	- €	- €	9 900,00 €	
FRI	3 000,00 €	450 €	600,00 €	- €	- €	- €	4 050,00 €	
	- €	-€	- €	- €	- €	- €	- €	
Total	9 000,00 €	1 350,00 €	600,00 €	3 000,00 €	- €	- €	13 950,00 €	

Please indicate in the table below a detailed description of the external expertise and services and equipment needed for the implementation of the pilot action (if any).

N.B. fill in only the white cells!

Table 2 - External expertise and services					
Contracting					
N°	Description	partner	Amount		
1	Develop 3D mode	Archaeovision LLC	3000		
2					
3					
total			3 000,00 €		

Table 3 - Equipment						
NIO	Barantatian	Contracting	A			
N°	Description	partner	Amount			
1						
2						
3						
total			- €			

If additional funding is necessary for the pilot action, please specify the partner(s) concerned by the additional funding request and how much additional ERDF is requested by this/these partner(s)

Please indicate in the table below the new total project's budget, broken down by partner and by budget line (including the budget for the pilot action).

N.B. fill in only the white cells!

	Table 4 - Total budget breakdown per budget line and partner								
Partner	Preparation costs	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Net revenues	Total partner budget	
	- €	- €	-€	- €	- €	- €	- €	- €	
		- €	-€	- €	- €	- €	- €	- €	
		- €	- €	- €	- €	- €	- €	- €	
		- €	- €	- €	- €	- €	- €	- €	
		- €	- €	- €	- €	- €	- €	- €	
		- €	- €	- €	- €	- €	- €	- €	
	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Total	- €	- €	- €	- €	- €	- €	- €	- €	