CD-ETA Action Plan

Action plan for Collaborative Digitization of Natural and Cultural Heritage

Gorenjska, Slovenia

Version 0.4

Foto: Tomo Jesenčnik, STO, Mediateka

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Abbreviations

BSC   Business Support Centre Kranj (= RDA Gorenjska)

CP   Cohesion policy

CP   Cooperation programme

IPCHS   Institute for preservation of cultural heritage of Slovenia

IRSNC   Institute of the Republic of Slovenia for Nature Conservation

IT   Information technologies

OP   Operational programme

OPSI   Open data portal of Slovenia

RDA   Regional Development Agency of Gorenjska

RDP   Regional Development Plan

SEM   Slovene Ethnographic museum

About CD-ETA project

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. BSC Kranj is one eight partners representing Gorenjska region, Slovenia. 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*".

1. Introduction

This document presents the background, objectives and key actions to be taken in field of digitization of cultural and natural heritage in Gorenjska region, Slovenia, based on the assessed situation, needs and opportunities deriving primarily from the existing policy instruments of the programming period 2014-2020. The Action plan is prepared from the position of the partner BSC Kranj as regional development agency for NUTS3 - Gorenjska region, Slovenia having a coordinative and strategic development role in the region. In this respect and having in mind absence of digitisation funding sources in the existing programmes, the Action plan also indicates potential future directions for heritage digitisation in Gorenjska region.

 Action plan *aims* to:
> Contribute to accelerated use and improvement of existing policies and policy instruments in the field of digitization of cultural and natural heritage in Slovenia, based on the presented case of Gorenjska region;
> Define actions that support the current Operational programme for European Cohesion Policy 2014-2020 in Slovenia and other EU programmes such as Cooperation Programmes under European Territorial Cooperation, Creative Europe Programme, Erasmus Plus, Rural development Plan of Slovenia and other programmes;
> Engage regional stakeholders for design and implementation of common actions within Gorenjska region following the experiences and best practices gained in the Phase 1 of CD-ETA;
> Encourage design of new contents relevant for regional programming in the field of digital society and heritage.

Methodologically the document follows the CD-ETA Action Plan Framework as well as the action plan template model as proposed by the Interreg Europe Programme. The terminology commonly defined by the CD-ETA project is applied whereas the key terms are explained in the Annex 1. The action plan results from the background analysis undertaken by BSC Kranj during the years 2017 and 2018, best-practices learnt from CD-ETA partners and interviews and workshops undertaken during the period September 2018 – March 2019. The draft action plan was discussed with the relevant national authorities (Ministry of Culture of the RS) in order to integrate recommendations and actions into the national strategies and plans, and consequently support new regional initiatives proposed by this Action plan. The subject of the Action plan is *digitization* (converting information into a digital format) as well as *digitalization* (use of digital technologies for new value/ opportunity) of *cultural and natural heritage.*

Cultural heritage as understood in this document encompasses:
> Immovable cultural heritage (monuments, groups of buildings, sites; Slovene register managed by the Ministry of Culture; proposals for registration prepared by the Institute for the Protection of Cultural Heritage);
> Intangible cultural heritage (managed by the Ministry of Culture; registration coordinated by the Slovene Ethnographic museum); In addition, living memory is digitally recorded, but not catalogued, by regional and local libraries.
> Movable cultural heritage (registration and digitization under the jurisdiction of museums).

Natural heritage considers valuable natural features (geomorphological, geological, hydrological, botanical, zoological, ecosystem natural value, trees, landscape value).

2. Background information and the context | From region to policies

Richness, preservation and accessibility of heritage reflects an attitude of individual society or region towards its past and future thus it is important to preserve and restore it. Nowadays, moderen technologies significantly facilitate the preservation processes in terms of registering/archiving, conservation, research, presentation and communication to audiences. Both, digitization as well as digitalization are well embeded in cultural and digital policies as well as practice across national heritage institutions, museums and restoration bodies in Slovenia. However, the new emerging digital technologies day by day raise the potential for digitization and digitalization of heritage. The present chapter provides a summary information of the Slovenian context and gives and overview of the current level of heritage digitization, for the pilot territory Gorenjska region.

About Gorenjska region, Slovenia
Gorenjska, pop. 203.636, is one of twelve Slovenian NUTS 3 development regions. As alpine region located in the trilateral border with Austria in the north and Italy in the west, it is well connected in the European highway, railway and air corridors. Gorenjska is characterized by mountains, forests and medieval towns which determines its extremely rich cultural and natural heritage and biodiversity. The regional economy is driven by manufacturing, tourism and services, including IT sector.

Heritage of Gorenjska region

70 % of the territory of Gorenjska is mountainous

44 % of territory designated as Natura 2000 sites

Significant part of **Triglav National Park** located in Gorenjska region

12 % of all Slovenian valuable natural features located in Gorenjska region

4056 units of immovable cultural heritage registered in Gorenjska

27 units of intangible cultural heritage with origin from Gorenjska registered

Šklofja Loka Passion Play inscribed on the UNESCO Representative list of the intangible cultural heritage of humanity in 2016

8 % of movable cultural heritage digitized by 2016 in museums of Gorenjske region[1]

2 pilot digital interpretative heritage trails in historical town centers or several museum exhibitions applying digital interpretation put in place during last 3 years in Gorenjska region

Figure 1 Gorenjska region in Slovenia

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[1] Survey undertaken in the first phase of CD-ETA project in Gorenjska region, 2016, BSC Kranj

2.1. EU and national strategic context and policy instruments

The shift towards digital society as defined in the European Union *Europe 2020 Strategy* and *Digital Agenda for Europe is* recognized also by Slovenian national and sectoral policies.

The *Digital Agenda for Europe* seeks to optimize the benefits of information technologies for economic growth, job creation and the quality of life of European citizens, as part of the Europe 2020 strategy. The digitization and preservation of Europe's cultural memory which includes print (books, journals and newspapers), photographs, museum objects, archival documents, sound and audio-visual material, monuments and archaeological sites (hereinafter 'cultural material') is one of the key areas tackled by the Digital Agenda.

The Slovenian Development Strategy 2030, December 2017[2] sets 'high quality of life for all' as the primary objective. CD-ETA Action Plan jointly addresses three of twelve strategic goals of Slovenia, in particular:
> Goal 2: Knowledge and skills for a high quality of life and work which deals with the challenges of competences, skills, business models and innovative solutions necessary to cope with the global megatrends such as demographic changes, technological development, digitalization, growing pressures on environment.
> Goal 4: Culture and language as main factors of national identity. The country's rich cultural heritage, as a reflection of its values, beliefs, knowledge and traditions, is recognized as significant development potential which shall be among others preserved, accessed and promoted though digitalization.
> Goal 6: Competitive and socially responsible entrepreneurial and research sector aiming also at developing and environment capable of creating digital trends in response to challenges of fourth industrial revolution.

Digital Slovenia 2020 – Development Strategy for the Information Society until 2020, March 2016[3] is an umbrella strategy determining the strategic directions of the digitization of society and businesses. It aims at harnessing the social and economic potential of ICT and the internet for digital growth, focusing on digital infrastructure, intense use of ICT and the internet, cyber security and an inclusive information society. Digital Slovenia 2020 is closely linked to the Slovenia Smart specialization strategy. Ranking 17th in the EU (2017) in the digital economy and society index of Slovenia lags behind the EU digital leaders, hence tacking the gap stands in the focus of the mentioned strategies.
> Digital Slovenia 2020[4] emphasises that the provision of long-term preservation of digital cultural content in Slovenia is not systemically regulated. Strategic documents for long-term preservation have not been adopted at the national level. Thus, cultural institutions need a long-term common strategy of keeping digital cultural heritage, better interaction (coordination), exchange of experience and, if possible, a common information infrastructure. Further to the Digital Slovenia 2020, Slovenia will support and promote the development and use of high-quality digital content and e-services in Slovenian, the digitisation of cultural heritage, long-term preservation of digital materials as well as the general development of digital language technologies and resources, which will allow the population to use them and encourage it to use the internet. The proposed project addresses the issue of digitisation and long-term preservation of an important part of Slovenian cultural heritage - movable heritage of Gorenjska region.

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[2] http://www.vlada.si/fileadmin/dokumenti/si/projekti/2017/srs2030/en/Slovenia_2030.pdf
[3] http://www.mju.gov.si/fileadmin/mju.gov.si/pageuploads/DID/Informacijska_druzba/pdf/DSI_2020_3-2016_pic1.pdf
[4] http://www.mju.gov.si/fileadmin/mju.gov.si/pageuploads/DID/Informacijska_druzba/pdf/DSI_2020_3-2016_pic1.pdf

Furthermore, the *new draft National programe for Culture 2018 - 2025*[5] considers cultural policy also in the frame of digital transformation. In a parallel process a more concrete document Strategy on Cultural heritage in Slovenian is being drafted following the 'digital' recommendations of the European heritage Strategy for the 21st Century[6]. Both papers are found in the public consultation process.

Draft Slovenia Cultural Heritage Strategy 2018-2026[7] emphasizes the principle of integrated preservation of heritage as a basis for national identity, cultural diversity, attractiveness of the territory for living, education, development, tourism and other economic activities. It is the source of creativity and global recognition of Slovenia. Society, development and knowledge represent the three main pillars. The Knowledge pillar among others aims at increasing the integration of heritage in the information society. The draft strategy proposes an important several measures which directly addresses the CD-ETA Action plan:

> Measure ZU.4. Support to digitalization and internet accessibility and long-term storage of heritage related digital contents;

> Measure zu.5.: Support to increase use of e-services in heritage.

CD-ETA Action plan relevant measures from the draft national Slovenia Cultural Heritage Strategy 2018-2026

Measure ZU.4. Support to digitalization and internet accessibility and long-term storage of heritage related digital contents. Measure combines two sub-themes:

- Access to information on cultural heritage at a single / one spot
- Systematical digitization of cultural heritage related contents, their on-line accessibility and storage

Indicative activities:

- Upgrading of the existing register of immovable and intangible cultural heritage
- Setting up register of movable heritage
- Setting up a common register portal
- Adoption and implementation of plan for digitalization of heritage related contents, their on-line access and establishing of a repository

Measure ZU.5 Support to increase use of e-services in heritage is dedicated to public sector bodies and NGOs implementing different e-services or improving existing operation, networking and audience needs. Measure combines two sub-themes:

- Modernization of ICT and increased use of e-services in organizations dealing with heritage
- Assurance of human resources with IT competences in organizations dealing with heritage

Indicative activities:

- Improvement of broadband access to organizations dealing with heritage
- Programme to improve use of e-services in heritage
- Development of information tools / applications to support the process of heritage preservation
- Upgrading of information system for heritage preservation and monitoring of heritage conservation status
- Modernization of IC technologies in organizations dealing with heritage
- Assurance of human resources with IT competences and IKT trainings for staff in heritage organizations

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[5]http://www.mk.gov.si/fileadmin/mk.gov.si/pageuploads/Ministrstvo/Fotogalerija/2017/8-avgust/NPK_2018-25_za_javno_razpravo.pdf
[6] https://rm.coe.int/16806f6a03
[7] http://www.mk.gov.si/fileadmin/mk.gov.si/pageuploads/Ministrstvo/Zakonodaja/Predpisi_v_pripravi/2018/Strategija_KD_2018-02-19.pdf

In spite of the simulative national strategic framework, the current *Operational Programe for European Cohesion Policy 2014-2020* of Slovenia does not cover digital heritage at all. There exist some measures through which research and enterprise sector could be supported in developing smart business solutions for different fields or design digital tourism products however the benefits for the heritage are only indirect.

BSC Kranj as authorised regional development agency for Gorenjska region and promotor of this Action Plan has discussed the issue with the Ministry of Culture in order to propose some modifications of the existing Operational plan based on the identified regional needs in the process of action planning. As there is no specific instruments and funds allocated for culture sector or heritage in the existing OP the ministry sees no space for negotiation with the managing authority to introduce new measures at this point. The actions developed by this Action plan might only indirectly target the policy instruments and calls for proposals under the *3 priority Axis 3: Dynamic and competitive entrepreneurship for green economic growth investment, investment priority 3.1. Support to entrepreneurship with use of new ideas*.

In this respect, the recent launching of the *new cohesion policy after 2020* stands as an open opportunity for us to propose new policy instruments and address some of the issues of heritage actions in the long-term perspective. In the preliminary outlines the digitization is seen as one of the vehicles for Smarter Europe and implementation of Digital Single Market strategy however it is at the government to recognize it as a filed of investment and to justify its potential. Announced further support to locally-led development strategies (CLLD) and urban development (ITIs) might also provide a framework for the heritage digitization projects.

The Challenge 1 of CD-ETA Action Plan for Gorenjska region is to raise awareness of the local and regional needs for a design of concrete implementation measures supporting digitalization of heritage, primarily within the existing programming period 2014-2020 as well as within the coming new national culture programme and in the Operational programme for European Cohesion policy 2021-2027. Whereas the overall national strategic framework strongly supports the digitization of the society, also in the field of culture, the integration of objectives and measures into the concrete programmes and financial schemes is weak. The currently emerging innovative initiatives shall strongly be linked to the creative industries or depend on success at transnational and centralized EU calls for proposals of the financial perspective 2014-2020.

! Thus, it is recommended by this Action plan to *exploit all possible indirect policy measures to implement first opposed heritage digitalisation actions by the end of the year 2022.* Additionally, BSC Kranj shall support the emphasises that the measures ZU.4. and ZU.5. of the draft *Strategy of Cultural Heritage in Slovenia 2018-2026 are integrated into the future cohesion programmes of Slovenia while Gorenjska region can be regarded as one of pilot territories for some of the actions.*

2.2. EU and international guidelines, standards and practices

2.2.1. International standards

ISO/TR 13028:2010: Information and documentation - Implementation guidelines for digitization of records[8] 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 for the management of non-digital source records following digitization.

2.2.2. Guidelines and recommendations

Commission Recommendations of 27 October 2011 on the digitization and online accessibility of cultural material and digital preservation (2011/711/EU)[9] give strategic recommendations to member states to further develop planning and monitoring of the digitization of books, journals, newspapers, photographs, museum objects, archival documents, sound and audio-visual material, monuments and archaeological sites. Furthermore, the Commission emphasizes improvement of accessibility of public domain cultural materials and strengthening of digital preservation.

Federal Agencies Digital Guidelines Initiative (FADGI)[10] is a collaborative effort started in 2007 by USA federal agencies to articulate common sustainable practices and guidelines for digitized and born digital historical, archival and cultural content. 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.

Digital Preservation Coalition supported by the University of Glasgow is a useful and user-friendly on-line handbook for digital preservation.[11] *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.

2.2.3. Practices

Several countries advanced and developed their own standards and guidelines for digitization in specific fields of heritage which can be observed as a practice for Slovenia and Gorenjska region. Among CD-ETA partners the following are to be emphasized:

> Estonia

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[8] https://www.iso.org/standard/52391.html
[9] https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:283:0039:0045:EN:PDF
[10] http://www.digitizationguidelines.gov/
[11] https://www.dpconline.org/handbook

- Digitisation guidelines for Estonian Museums: Museaalidedigimisejuhend (in Estonian only)
- The National Archives' standards and requirements for the digitisation of analogue records in their collection.
- Estonian National Digitisation Strategy and Action Plan for Cultural Heritage (2018-2023)
- Estonian War Museum policy document

> Spain
  - CER.ES Collective catalogue online project promoting integrated on-line documentation museum management system gathering information and images from as selection of cultural assets that form the collections of some key Spanish museums[12]
  - Hispanic Digital Library[13] (BDH) – an online resource of the National Library of Spain (BNE)[14] that provides free access to thousands of documents digitized.

> Italy
  - See for Me project developing a a prototype for a context-aware audio guide that, based on sensors commonly available in wearable devices like microphone, camera and accelerometers, can identify the artwork that is being looked at, and if the visitor is paying attention (e.g. he is not walking, talking to other persons and stays in front of the artwork) provides the audio guide info[15]
  - Big data in digitization of historical sites, presented by Foundation for Research and Innovation

> Greece
  - ThinkCulture – a platform for improving the experience of a visitor in the field of cultural and natural heritage based on Innovative technology tools[16]
  - "Tholos" in Athens: A new dome-shaped Virtual Reality "Theatre" of Hellenic Cosmos, with a capacity of 130 people. It is a building of exceptional architectural design and with unique technological infrastructure, which hosts the digital collections of the Foundation of the Hellenic World[17]

> Bulgaria
  - IWalk, a 3D presentation of Bulgarian immovable heritage presented by Euroregion Pleven-Olt[18]

3. Situation Analysis Overview | How do we stand in SLOVENIA?

3.1. Legal considerations and organization capacities

In Slovenia, registration of heritage, including managing digital catalogues is governed by two laws (Cultural Heritage Protection Act and Nature Protection Act) and implemented by several public institutions. A short overview is given in the Table 1. Review of the legal framework suggest that:

> **The Slovene legislation** requires registration and determines the key features of individual evidences or catalogues. Whereas there is no detailed legal act regulating natural heritage register, there exists Rules on the Cultural Heritage Register[19].

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[12] https://www.interregeurope.eu/policylearning/good-practices/item/330/cer-es/
[13] https://www.interregeurope.eu/policylearning/good-practices/item/1663/biblioteca-digital-hispanica/
[14] http://www.bne.es/en/Catalogos/BibliotecaDigitalHispanica/Acercade/
[15] https://www.interregeurope.eu/policylearning/good-practices/item/83/see-for-me-the-intelligent-audio-guide-project/
[16] https://www.interregeurope.eu/policylearning/good-practices/item/2101/thinkculture-a-platform-for-accessing-experiences/
[17] http://www.tholos254.gr/en/
[18] http://iwalk.bg/?lang=en
[19] http://www.pisrs.si/Pis.web/pregledPredpisa?id=PRAV9583

o Rules on the Cultural Heritage Register (2009) define minimal content, mode of registering as well as requirement to obligatory use of international standards (Dublin Core) and formats in digitalization of heritage register which allows integration of the register thought Slovene aggregator to Europe wide platform Europeana. The Rules also foresee that immovable and movable cultural heritage shall include photographs while intangible heritage shall include video clip. Further to the Rules there should be a unified digital public portal of cultural heritage available by 2011 but it is not yet established. Same applies for Register of Movable cultural heritage. [20]

o One could observe an **evident gap between legal provisions, implementation in practice and current technological development.**

> There are **two official nationwide heritage** registers (i) Register of natural Values – Nature Atlas of Slovenia and ii) Cultural Heritage Register.

o While nature heritage register (natural Atlas of Slovenia) is comprehensive and also imbedded in the Slovene Environmental Atlas, **the three cultural heritage sub-registers (intangible, immovable and movable heritage) are not yet integrated into a single sistem.**

o Furthermore, cultural heritage and natural heritage registers are not linked as well **which diminish the applicability and holistic approach to heritage management.** For individual use one needs to obtain separate digital map layers or data bases and merge them. For immovable cultural heritage layers / data are freely available on OPSI portal since 2019.

o Nevertheless, all of the mentioned registers are digitalized and to certain degree open to public. Relevant public agencies with their human and financial resources manage and update the registers appropriately, some delays occur by registering the intangible cultural heritage due to lack of human resources within the Slovene Ethnographic Museum.

> Registration and digitization of **movable cultural heritage** is subject of individual museums and is not yet supported by unified in nation-wide register. There are 51 public museums and many smaller private collections. The Rules on the preserving and Storage of National treasures and Museum Material, on the Entry in the museum Register and on Granting the Authorization of Carrying out the National Public Service of Museums[21] stipulate in Article 10 that *'museums shall provide basic technical and software equipment for documenting and safeguarding the archive of museum materials and documents and shall assure appropriated maintenance".* To implement these legal provisions, individual museums rely on different private providers of software among which Galis Museum Information System is most popular.

o **As a result, museum catalogues are not connected centrally and accessible to public from one single point.** However, Galis portal (www. museums.si) enables public presentation of museum collections for its clients.

o The financial, technical and human recourses of the museums, in particular local museums, are scarce, thus, **museums lag behind** the scope, security and degree of digital registers of in comparison to other three registers.

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[20] http://www.pisrs.si/Pis.web/pregledPredpisa?id=PRAV11332
[21] http://www.pisrs.si/Pis.web/pregledPredpisa?id=PRAV11332

3.2. Degree of digitization and digitalization of natural heritage

Digitization of Slovene natural values is well represented by register of natural values (Nature Atlas of Slovenia) which I centrally managed and maintained. According to nature conservators of IRSNC opinion **all important natural values are registered in digital atlas** and accessible to public in form of digital map. Nature Atlas of Slovenia is in use also in spatial, water, forest and other planning services as well as in promotion and tourism applications. Several apps using as a baseline the existing digital register emerged in the last years such as www.monolit2go.si, www.nexto.io, www.geago.si which proves the importance of digital registers and demonstrates **a definite move from digitization to digitalization of natural heritage.**

> Hence, there are still opportunities for improving the scope, user experience and connection of the register with other national registers. Nature conservationists and park managers also list a need for digital interpretation of local and regional nature heritage sites and key phenomena for education, awareness and tourism purposes.

3.2.1. Degree of digitization and digitalization of cultural heritage

All important Slovene immovable cultural heritage is according to responsible conservators of IPHSC is **registered in digital register.** Through web tool and digital map basic information on individual items is also accessible to public.

> Similarly to nature heritage register, there is a need to upgrade the capacity of the platform to allow larger the scope of data (technical documents, 3D scans, video.), improve user experience and also integration of the register with other national registers of cultural an natural heritage.

> During the last year's first augmented reality and virtual tours in open space presenting immovable heritage of old historical centres have been developed. There are three practices in Gorenjska region developed, all of them integrating immovable and intangible cultural heritage though storytelling (Romuald in Škofja Loka) . There is a need to upgrade the accessibility of existing and an opportunity to build up a regional virtual torus across all gorenjska old town centres. Synergies in using the same platforms and transfer of the lessons learnt among each other are vital.

Slovene intangible heritage is not yet fully registered as the rules and the register has only been established in 2008 year. The proposals for registration of intangible heritage are open to different actors who still practice or revive certain living heritage and the approval process and registering it takes certain procedure and time. Out of 69 currently registered units many of them are also relevant for Gorenjska region (Beehive paintings, Gingerbread, Making small breads and wooden models, Shingling, Slovene folk-pop music, St. Gregor's day, Basket making, Lace making, Making Bohinj Mohant semi-soft cheese, Making Kranjska Sausage, Škofja Loka Passion Play..). The Ethnographic museum as the coordinator for the inscription in the register published a Guideline[22] which among others encourage and provide guidelines also for the use of appropriate audio or video recording of individual intangible heritage.

> Thus the digitization and digitalization of intangible heritage is an ongoing process and shall be accelerated in the future. with video and multimedia presentations.

Due to the lack of financial, human and technical capacities as well as dispersed approach, Slovene **movable cultural heritage is not yet completely digitalized** while **the share of digitalized collections is even lower.** In Gorenjska region all museums have already set up a digital register however the scope of units digitalized varies from

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[22] https://www.etno-muzej.si/files/prirocnik_o_nesnovni_kulturni_dediscini.pdf

only 0 % in the smallest local museum in Železniki to average of 41 % in other museums. The degree of digitalized museum material by individual museum is given in Table 1 bellow. (*Different data source for 2017 -2018*)

> Although the process is slow the local museums are these days digitalizing the movable heritage in a more systematically way as in the past. While refreshing existing exhibitions or collections or designing new collections and exhibitions museum curators are digitalizing the heritage and at the same time developing virtual collections and introducing digital interpretation (AR, holograms, multimedia..) as part of the existing or new museum exhibitions. No-one of museums form Gorenjska has so far developed a virtual exhibition although some examples initiated by national museums exist.

> Digitization and digitalization process in local museums shall be strengthened and the results better connected, visible and presented to different audiences. Better integration with tourism products is needed.

Table 1 Scope of digitalized units of movable cultural heritage in museums of Gorenjska region (2017)

Museum	Digital register	% of digitalized units (2017)	Web portal	Examples of digital collections
Gorenjsavski muzej	√	27 %	Museums.si https://www.gmj.si/	Mountaineering Collection, Postcards, Ethnology, Ironworks Collection…
Muzeji radovljiške občine	√	10 %	www.mro.si	Collection of painted beehives, Collection Anton Tomaž Linhart, Collection Magušar, Collection of illustrations
Tržiški muzej	√	40 %	DEDI http://www.trziski-muzej.si/?page_id=3283&lang=sl	Digital shoe-makers collection Digital leather collection Collection of historical documents
Gorenjski muzej	√	40 %	Museums.si, Kamra, Europeana Collections, Monasterium.net http://www.gorenjski-muzej.si/	Ethnology, Postcards
Loški muzej Škofja Loka	√	13 %	Museums.si https://www.loski-muzej.si/	Sport History, History of Art – 18th, 19ts, 20th , 21st Cent., Tavčar Collection, Ivan Grohar Art Collection, Castles..
Muzej Železniki	√	0 %	http://www.jzr.si	

Source: Survey, CD-ETA project, BSC Kranj, 2017; Museums. Si, web sites of museums

3.2.2.   Degree of digitization and digitalization of living memory by libraries

Libraries and archives play also an important role in preserving nation heritage for future generations. Both manage several digital platforms where different types of cultural heritage is stored while access depends on level of protection of personal data or other reasons. While archive portal e-ARH.si is managed by national Archives, regional portals collection and archiving local and regional living memory, stories, books and documents are in focus of CD-ETA Action plan. For Gorenjska region two digital platforms are important:

> **www.kamra.si,** an open portal that enables any organization, society or individual to digitally publish and store its heritage - local living memory. There are currently 579 collections of which 53 are from Gorenjska.

> **www.gorenjci.si** is a regional portal that presents people from Gorenjska region who contributed significantly to social, cultural or business progress of the Gorenjska region, in the past or nowadays.

> Both portals are managed by regional libraries and provide valuable digital bank of stories and memories, biographies and events that influenced the everyday life of people. Yet, there exists numerous possibilities to improve the user experience and bring the contents closer to the audiences.

Figure 2 Experts from museums, libraries and heritage institutes brainstorming on CD-ETA Action Plan, workshop, Kranj, 10th October 2018

Reviewing the current degree of digitization and digitalization of heritage in Slovenia and in particular in Gorenjska region and learning from local and international best practices, the following challenges can be summed up:

The Challenge 2 of CD-ETA Action Plan is to bring together separate heritage registers, upgrading their capacities, improve user friendliness and assure technological modernization. The responsibility lies with the relevant line ministries thus the promotor of the idea (in this case regional development agency BSC Kranj) can only propose new measures to the government while neither RDA or the local authorities have any executive power.

The Challenge 3 of CD-ETA Action Plan is to support local and regional museums in accelerating digitization of movable cultural heritage. Human capacities (in staff and know-how), technologies (IT equipment, cameras) and finances of museums shall be strengthened. Joint approach of museums of Gorenjska region shall be promoted.

The Challenge 4 of CD-ETA Action Plan is increased tourism visits and tourism demand for top experiences of destinations and authentic alpine life. Hence, heritage sites, being nature protected areas, nature values, significant historical or areological sites or museums are challenged by different needs and expectations of today's digital generations. Appropriate digital presentation as well as on-site digital interpretation of natural phenomena or cultural sites can considerable strengthen the tourism attractiveness and competitiveness of the Gorenjska region. Having in mind the announcement of Slovenia being a European gastronomic destination of 2021 and a candidacy of city of Kranj for European culture capital of 2025 this topic is of high relevance for the Gorenjska region.

The Challenge 5 of CD-ETA Action Plan is better use of heritage, their existing digital data and registers for education, awareness rising, presentation, signposting, planning or simply different creative business ideas. It is evident that general public is not aware of existing digital heritage contents and potential of heritage due to lack of visibility or lack of attractiveness of particular topic.
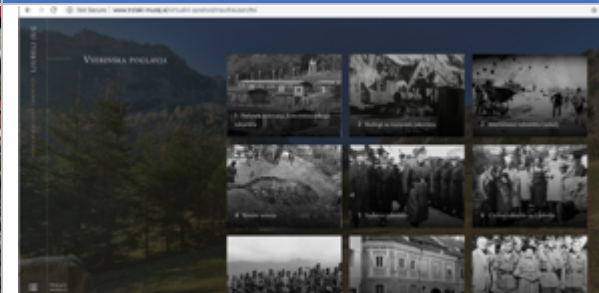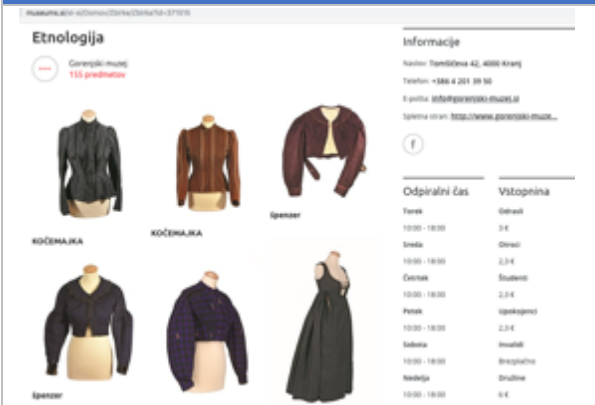
Table 2 Overview of tools and level of digitization and digitalization in Slovenia/ Gorenjska

Area	Legal framework	Responsible institution	Digitization					Assessment	Digitalization			Assessment
			Link to digital catalogue	Scope/ subject of digitization	Target group/ end users	+	-		Selected cases	Target groups/ end users	Opportunities	
Cultural heritage												
Immovable cultural heritage	Cultural Heritage Protection Act Rules on the Cultural Heritage Register	Ministry of Culture (competent professional organisation Institute for the Protection of Cultural Heritage - IPCHS)	https://gisportal.gov.si/rkd	Official digital register and digital map - ID and Name - Municipality - Responsible IPCHS unit - Typology - Short description - Photos - Geolocation - Ownership - Preservation measures etc	Two parts: Public: open to general public Internal: for the Ministry of culture and Institute for Preservation of Cultural Heritage of Slovenia	Updated Digital map On-going e-Heritage project for modernisation of register of immovable and intangible heritage	Complicated procedures for updating due to old software No link to register of intangible and movable heritage Static – not user friendly Only in Slovene language Limited scope of information – other data linked by EID	😐	Diverse use: Spatial planning Education – unofficial paralel project based specialized registers www.dedi.si	Experts Students, pupils	Geolocation – digital marking of heritage sites in situ based on the register Digital interpretation and virtual reality of sites Additional contents possible: old photos, living memory and stories related to the sites, 3D visualisations, technical documents, survey results and blueprints	🙁
Intangible cultural heritage	Cultural Heritage Protection Act Rules on the Cultural Heritage Register	Ministry of Culture (competent professional organisation Slovene Ethnographic museum - SEM)	http://www.nesnovnadediscina.si/en/register	- ID - Name - Municipality - Responsible organisation - Type - Short description - Photos - Location - Long Description	Two parts: Public: open to general public Internal: for the Ministry of culture and SEM	Updated 3x year User friendly Video clips Home page Well organized Instructions Transparent procedures FAQ	Slow procedures and updating (in 2017 only 5 new registrations!)	😐	No application		Communication with audiences, live providers or annual events of intangible heritage Transfer of traditional skills through trainings or NVQ schemes	🙁

Area	Legal framework	Responsible institution	Digitization					Assessment	Digitalization			Assessment
			Link to digital catalogue	Scope/ subject of digitization	Target group/ end users	+	-		Selected cases	Target groups/ end users	Opportunities	
				-Data on bearers -Links to the Register of Immovable Cultural Heritage		Additional bearers can be registered					Additional contents possible: living memory and stories, documentary films	
Movable cultural heritage	Cultural Heritage Protection Act Rules on the Cultural Heritage Register	Individual museums and galleries; Ministry of Culture	No single catalogue/ data base	Several digital data bases run by 51 museums Scope defined by Rules -ID and Name -Typology -Date of origin -Short description -Photos -Author -Correlation to other heritage -Location -Preservation measures etc	Experts - curators	Professional approach Diverse and reach content Technological and user friendly IT solutions offered by business sector (EG. Gallis) Systematic approach: digitization and digitalisation at the same time	No integration of local databases Lack of resources in local museums Lack of digital and audience development skills	☹	Museums.si	Experts Educated professionals People with special interest in arts Education	Increasing the degree of digitization Connect digitization with digital interpretation and virtual exhibitions Learning from each other – sharing the expertise and resources in the regional network of museums	☹
Natural heritage												
Valuable natural features / Nature Protected areas / Natura 2000 sites / Ecologically important areas	Nature Conservation Act	Institute of the Republic of Slovenia for Nature Conservation	https://www.naravovarstveni-atlas.si/web/	On-line register , digital map -ID and Name -Type and level -Short description -Coordinates	Two parts: Public: open to general public Internal: for the INCRS	Digital maps Regularly updated Integrated with environment atlas	No connection to cultural heritage Geolocation Static – not user friendly	☺	Diverse use: Planning Tourism apps www.nexto.io Education www.dedi.si	Experts IT sector Tourists Students, pupils	Geolocation – awareness and preventing measures On-site digital interpretation of natural phenomena of processes	😐
Libraries – living memory, local / regional literature												
Living memory and local/regional literature	Librarianship Act, Protection of	Regional libraries	www.kamra.si www.gorenjci.si www.dlib.si	Kamra: Regional / local concept; Presentation of digital objects as	General public Media Experts	Open to audiences Lifelong-learning	Lack of usage and promotion	☺	Digital collections	Media	Multimedia, video clips On-line communication with audiences	😐

Area	Legal framework	Responsible institution	Digitization						Digitalization			
			Link to digital catalogue	Scope/ subject of digitization	Target group/ end users	+	-	Assessment	Selected cases	Target groups/ end users	Opportunities	Assessment
	Document and Archives and Archival Institutions Act		www.arhiv.gov.si www.siranet.si	stories together with text Gorenjc: bibliographic regional online lexicon		Editing All regions Europeana digital library			News related to important historic events (born on this day..)			

3.2.3. Slovenia/ Gorenjska region best practices overview

Nature Atlas of Slovenia
http://www.naravovarstveni-atlas.si/

Immovable cultural heritage register
http://www.nesnovnadediscina.si/sl/register

Romuald virtual tour through historic centre– 13 points of Škofja Loka
Passion Play http://www.visitskofjaloka.si/si/dozivetja/tematske-poti/romualdova-pot

Virtual tour WWII Concentration camp Ljubelj
http://www.trziski-muzej.si/virtualni-sprehod/mauthausen/

Ethnological collection of Gorenjski muzej
http://museums.si/sl-si/Domov/Zbirke/Zbirka?id=371515

3D visualization of archaeological site Ajdna
http://visitzirovnica.si/muzejska-soba-ajdna/

Regional portal presenting living memory
www.kamra.si

Regional bibliographic lexicon
www.gorenjci.si

4. Strategy for change | Where do we want to go?

4.1. Intervention strategy

CD-ETA Action plan is addressing the identified challenges and gaps in digital transformation of heritage sector, having a regional effect in Gorenjska Region, Slovenia. This means the region and in particular local institutions dealing with heritage shall move from the existing practice to more proactive approach. Desired change of development model is presented in a chart below.

Current practice	New model 2020+
> Fragmentation: separate registers, different IT solutions > Ad-hock modernisations depending on available budget funding > Project based pilot digitalization practices > Gradual approach towards digitisation of movable cultural heritage in local museums: low cost-efficiency > Traditional interpretation > Learning by doing > Isolated solutions > Expert driven apporach	> Inter-connection of registers > Regional Action plan on digitalisation of cultural heritage > Strategic and proactive approach towards digital transformation of regional heritage > Digital interpretation > Institutional learning and digitisation capacity building > Regional synergies: Transfer of expertise and resources > Regional content and innovation > Audience driven approach

Figure 3 Change of heritage digitization model

With CD-ETA Action Plan Gorenjska regin is heading towards a vision

'*Gorenjska - a leading Slovenian region in digitalization of heritage*'.

This means that

> Gorenjska aims at preserving its natural and cultural heritage by maximizing the scope and quality of heritage digitization;
> Regional and local institutions dealing with heritage will jointly improve the skills, digital technologies and capacities for audience engagement and digital transformation of their institutions and contents;
> Gorenjska will provide attractive and user friendly local digital contents (interpretation) that will support local identity, youth education, tourism/ visitor experience and development of creative cultural industries;
> Gorenjska aims to promote collaboration among public and business entities and audiences in creating new experiences and services related to heritage.
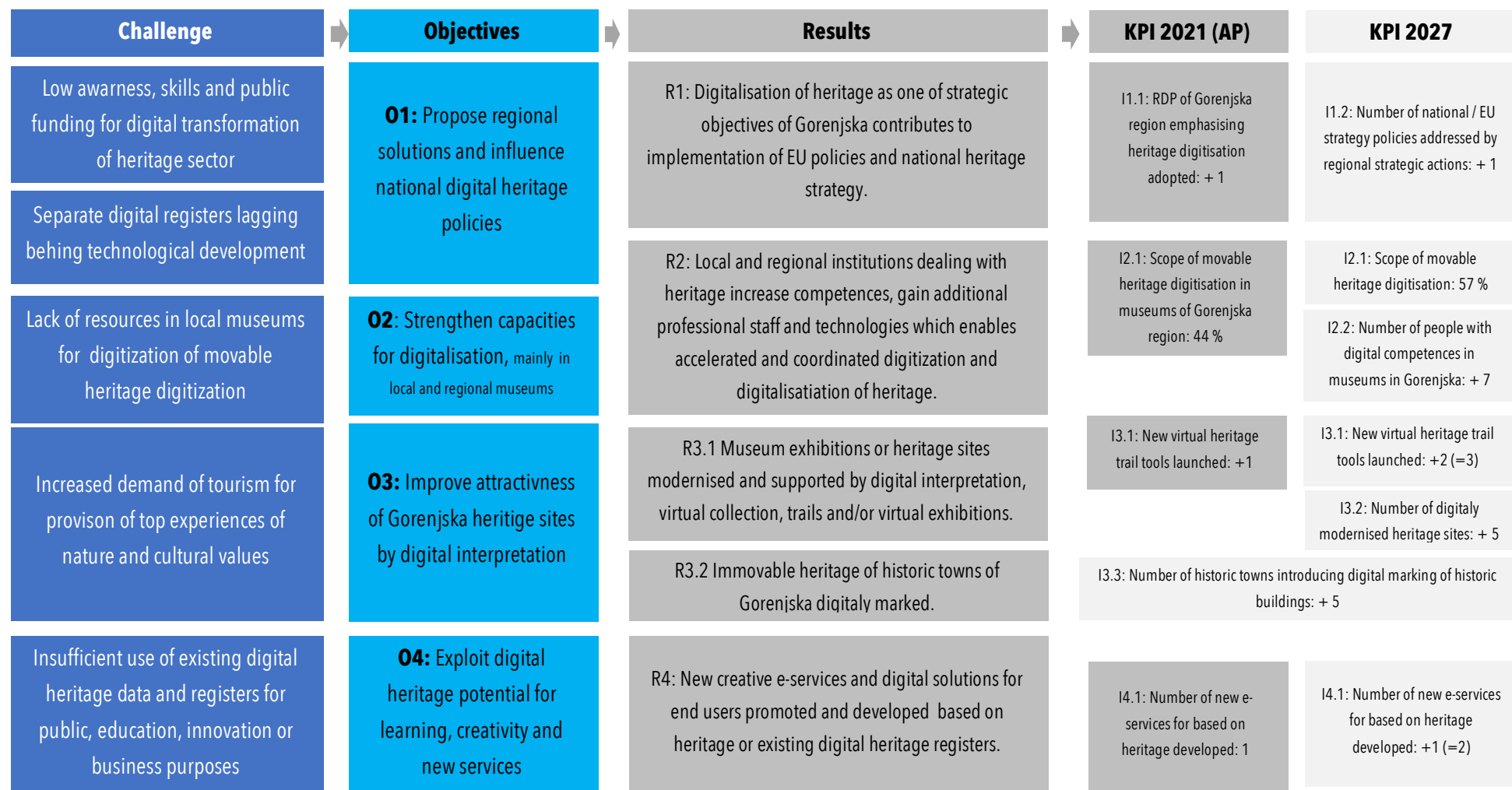
4.2. Objectives, results and indicators

Challenge	Objectives	Results	KPI 2021 (AP)	KPI 2027
Low awareness, skills and public funding for digital transformation of heritage sector	**O1:** Propose regional solutions and influence national digital heritage policies	R1: Digitalisation of heritage as one of strategic objectives of Gorenjska contributes to implementation of EU policies and national heritage strategy.	I1.1: RDP of Gorenjska region emphasising heritage digitisation adopted: + 1	I1.2: Number of national / EU strategy policies addressed by regional strategic actions: + 1
Separate digital registers lagging behing technological development				
Lack of resources in local museums for digitization of movable heritage digitization	**O2:** Strengthen capacities for digitalisation, mainly in local and regional museums	R2: Local and regional institutions dealing with heritage increase competences, gain additional professional staff and technologies which enables accelerated and coordinated digitization and digitalisatiation of heritage.	I2.1: Scope of movable heritage digitisation in museums of Gorenjska region: 44 %	I2.1: Scope of movable heritage digitisation: 57 % I2.2: Number of people with digital competences in museums in Gorenjska: + 7
Increased demand of tourism for provison of top experiences of nature and cultural values	**O3:** Improve attractivness of Gorenjska heritige sites by digital interpretation	R3.1 Museum exhibitions or heritage sites modernised and supported by digital interpretation, virtual collection, trails and/or virtual exhibitions.	I3.1: New virtual heritage trail tools launched: +1	I3.1: New virtual heritage trail tools launched: +2 (=3) I3.2: Number of digitaly modernised heritage sites: + 5
		R3.2 Immovable heritage of historic towns of Gorenjska digitaly marked.		I3.3: Number of historic towns introducing digital marking of historic buildings: + 5
Insufficient use of existing digital heritage data and registers for public, education, innovation or business purposes	**O4:** Exploit digital heritage potential for learning, creativity and new services	R4: New creative e-services and digital solutions for end users promoted and developed based on heritage or existing digital heritage registers.	I4.1: Number of new e-services for based on heritage developed: 1	I4.1: Number of new e-services for based on heritage developed: +1 (=2)

Figure 4 Intervention logic

4.3. Key priority measures and actions

Objectives	Results	Measures	Actions 2021	Actions 2027
O0: Propose regional solutions and influence national digital heritage policies	R0: Digitalisation of heritage as one of strategic objectives of Gorenjska contributes to implementation of EU policies and national heritage strategy.	M0.1: Promotion of Action plan within the Gorenjska region and at the government level	Action 0/1: Regional developement plan of Gorenjska 2021-2027 integrating Action Plan*	
		M0.2 Regional strategic project proposal monitoring, design and fund rising	Action 0/2 Monitoring and technical support in projecfund rising based on this AP*	
O1: Strengthen capacities for digitalisation, mainly in local and regional museums	R1: Local and regional institutions dealing with heritage increase competences, gain additional professional staff and technologies which enables accelerated and coordinated digitization and digitalisatiation of heritage.	M1.1 Assuring human resources with digital competences and moderisation of IC technologies and equipment in local and regional museums for *basic* digitisation of movable heritage.	Action 1/1: Digitisation of movable heritage of Gorenjska region, Phase 1	Action 1/2: Digitisation of movable heritage of Gorenjska region, Phase 2
O2: Improve attractivness of Gorenjska heritige sites by digital interpretation	R2.1 Museum exhibitions or heritage sites modernised and supported by digital interpretation, virtual collection, trails and/or exhibits	M2.1 Support to digital presentation and interpretation of Gorenjska heritage sites, phenomena, museum collections, exhibits and trails	A3/1 Digitalisation of Gorenjska heritage theme trails, Phase 1	Action2: Experience Gorenjska virtual heritage exhibit / A3/2. Digitalisation of Gorenjska heritage theme
	R2.2 Immovable heritage of historic towns of Gorenjska digitaly marked.	M2.3 Digital marking and presentations of heritage in historic towns of Gorenjska	Action 4: Digital marking of cultural monuments in old towns of Gorenjska, P1	Action 4: Digital marking of cultural monuments in old towns of G, P2
O3: Exploit digital heritage potential for learning, creativity and new services	R3: New creative e-services and digital solutions for end users promoted and developed based on heritage or existing digital registers.	M3.1 Supporting start ups, local initiatives and communities for creative use of the heritage for new services, learning, innovation and entrepreenurship	Action 6: Creative Heritage for Orange City Economy	Action 5: Living memory goes digital

Based on key challenges and objectives the proposed actions of Gorenjska region are divided into:

> Short term priority actions which are durable by the end of 2021 and can exploit the policy instruments available in the current programming period and

> Long term strategic priority actions which will be embeded in regional development plan and applicable for implementation by the end of 2027.

*For both type of actions, a further monitoring, coordination with policy makers at national level, coordination of local of stakeholders in the region as well as support in fund raising support is vital for implementation of this Action plan. Thus, two horizontal technical support actions are proposed and shall be carried out within CD-ETA phase 2.

5.1.1. Action 1: Digitisation of movable heritage of Gorenjska region

Part I: General information	
Programme:	**Digitisation of movable heritage of Gorenjska region**
Heritage:	☐ Natural heritage ☐ Immovable cultural heritage ☐ <u>Movable cultural heritage</u> ☐ Intangible cultural heritage ☐ Living memories, local literature
Challenge/objective addressed:	☐ <u>Increase scope of digitization</u> ☐ <u>Increase quality level of digitization and digitalization</u> ☐ <u>Assure long term preservation</u> ☐ Develop digital policies/ strategies for institution ☐ <u>Improve competences and strengthen institutional and technical capacities</u> ☐ <u>Improve accessibility and user experience of digital heritage contents</u> ☐ Exploit business and innovation potential of digitalizing heritage ☐ Establish multisectoral and multilevel cooperation in heritage digitization ☐ Other:
Partner organization (lead partner):	**Gorenjski muzej Kranj** Tomšičeva ulica 42, 4000, Kranj, Slovenia www.gorenjski-muzej.si
Other partner organisations involved (if relevant):	**Loški muzej Škofja Loka** Grajska pot 13, 4240 Škofja Loka, Slovenia/ www.loski-muzej.si **Tržiški muzej** Muzejska 11, 4290 Tržič, Slovenia/ www.trziski-muzej.si **Gornjesavski muzej Jesenice** C. Franceta Prešerna 45, 4270 Jesenice, Slovenia/ www.gmj.si **Muzeji radovljiške občine** Linhartov trg 1, 4240 Radovljica, Slovenia/ www.mro.si **Javni zavod Ratitovec, Železniki (Muzej Železniki)** Otoki 9a, 4228 Železniki/ www.jzr.si
Country:	Slovenia
NUTS2 region:	West Slovenia
Contact person:	Marjana Žibert, direktorica Gorenjski muzej
E-mail:	Marjana.zibert@gorenjski-muzej.si
Phone:	+ 386 4 201 39 56; + 386 41 980 391

Part II: Policy context	
Action plan aims to impact:	☐ <u>Investment for Growth and Jobs programme</u> *(Phase 2: OP 2021-2027)* ☐ European Territorial Cooperation programme ☐ <u>Other regional development policy instrument</u> *(Phase 1: Local programmes for culture)*

Name of policy instrument addressed:	**Phase 1: Local programmes for culture of Municipalities Kranj, Škofja Loka, Radovljica, Jesenice, Tržič:** Existing local cultural programmes support digitisation of movable heritage however the scope is limited to available municipal budgets therefore the digitisation is rather slow. This AP proposes coordinated approach between museums which would allow for joint learning, mentoring of more advanced museums to smaller museums and exchange of scanners and other equipment, when possible. **Phase 2: Slovenia Cultural Heritage Strategy (Draft)[23]:** Project aims to address the following measures: - "ZU.4 Promotion of digitalisation and on-line accessibility and long-term preservation of digital heritage contents", among which setting up register of movable heritage and a joint portal as well as guidelines for long-term storing of digital contents is foreseen. - "ZU.5 Promotion of increased use of e-services in all areas of heritage, among which provision of ICT professionals, modernisation of ICT and increased use of e-services in heritage institutions shall be supported. - The proposed project contributes with implementation of the above measures in the area of movable heritage in coordinated approach of 6 museums representing 10 % of Slovenia heritage. - The aim of the action is also to back up the need for a new policy instrument in the new programming period. With this Action Plan Gorenjska region is proposing to become an pilot region for testing a potential new instrument. *BSC Kranj has representative in the monitoring Committee of Western Slovenia cohesion region and thus can directly influence the policy documents when drafted.*

Part III: Details of the actions envisaged	
Background *(please describe the lessons learnt from the project that constitute the basis for the development of the present Action Plan)*	After analysis of the level of digitization in museums of Gorenjska region, workshop with stakeholders and benchmarking the results with best practices done within the CD.ETA project, Eureopana and other project, it is evident that Gorenjska region lags behind the leading European museums in digitalisation of movable cultural heritage. - Together, five major museum institutions in the region (Jesenice, Kranj, Radovljica, Škofja Loka, Tržič) have in average 41 % of all museums items digitised by the end of 2018. The smallest Museum in Železniki has not yet addressed the digitalisation at all. - The digitisation is limited mostly to digital catalogues of museum items, scanned historic documents and digital photographs of objects. While in the

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[23] http://www.mk.gov.si/fileadmin/mk.gov.si/pageuploads/Ministrstvo/Zakonodaja/Predpisi_v_pripravi/2018/Strategija_KD_2018-02-19.pdf

	past, museums digitised their most valuable collections, during last years the approach has changed. They select topics which are addressed by annual museum exhibitions and upgrade them with digital collections published on internet or integration of digitisation elements being part of the exhibition.
	- Storage of movable heritage is not centralised and unified at the national level. Each museum contracts a supplier of storage space at the local market. This poses a high threat on the quality and certainty of the storage and even risk in losing of cultural heritage.
	- The museums are understaffed and underfinanced in terms of digitalisation resources. Only regional Gorenjska museum in Kranj has 1 fully employed expert for digitisation only while in other museums curators take care of digitisation. In average curators dedicate 10-30 % of their working time for digitisation. One can estimates that in average there are in total 5 FTEs engaged in digitisation of movable heritage in Gorenjska region (population 200.000). There is a desperate need for digital transformation in museums.
	- The museums digitisation funding, other than staff costs, depends on yearly allocation from national budget which is usually limited. For example the biggest regional museum in Kranj has in average up to 5.000 EUR available annual budget for covering the costs of web applications, achieving storage space, digitalisation expertise and new technical equipment. Other museums can afford 1.000 – 3.000 EUR annually for external costs of digitisation and equipment.
	- The absence of national and regional strategy of heritage digitisation and lack of funds is reflected in limited skills level in the museums and poor acquittance with the state-of-the art digitalisation technologies, trends, awareness of digital possibilities and standards.
	- Some of these aspects were observed and learnt from CD-ETA best practice exchange such as project CER.ES Collective catalogue online[24] and SEE for Me: The "intelligent audio-guide" project.[25]
Action *(please list and describe the actions to be implemented)*	**What needs to be done**? In order to address the gap in digitisation of regional movable heritage a comprehensive 8-years programme is propose, divided in two phases: - Phase 1: 2019-2021 (exploiting existing policy programmes) - Phase 2: 2022-2026 (potential new policy instruments based on the draft national heritage strategy and future OP 2021-2027). It is envisaged to systematically raise the competences, technologies and equipment and provide additional human resources to all 6 Gorenjska museum institutions to accelerate the digitisation of key collections in Gorenjska region.

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[24] https://www.interregeurope.eu/policylearning/good-practices/item/330/cer-es/

[25] https://www.interregeurope.eu/policylearning/good-practices/item/83/see-for-me-the-intelligent-audio-guide-project/

The project does not envisage the digitisation of entire museum collections as this is not cost-effective. The digitisation shall capture the most valuable collections (central collections, 'star items and most fragile items of a museum') and at the same time provide and promote their on-line access to general public through web presentations. The digitisation shall complement the collection programme: the design of museum exhibits, catalogue information's or learning pack of regular museum activities. On the other hand, the digitalised collections need to be better communicated and open to different audiences. Beside preservation aims the programme encourages also increased usage of heritage data.

The programme shall be coordinated by the leading regional museum Gorenjska museum Kranj in close operation with the actions foreseen at the national level as regards establishing national register of movable heritage and common platform for storing. In this context, RDA Gorenjska BSC will propose to the Ministry of Culture that Gorenjska region becomes a pilot region in systematic digitisation of movable heritage in Slovenia, if relevant.

Actions and deliverables
The following activities divided in five thematic work packages are foreseen:
WP1: Capacity building programme
- Identification of a core group of staff from 6 museum institutions (1 from each local museum and 2 from Gorenjska regional museum) who will take over digitisation process in the museum (Phase 1: existing staff - curators, Phase 2: + 1 additional person for each museum – curator for digitisation).
- Detailed training needs assessment among the core group.
- Development and implementation of a training programme in liaison with a specialised training institution. Indicative topics to be covered: planning the digitisation including prioritisation of collections, digitisation life cycle, formats and arhive standards, digital asset management, metadata, copyright, archiving/ long-term preservation, digital collection approach, practical use of new technologies and software, AR, VR and other technologies, audience communication and engagement… The training is more intensive in the start of the programme, however it runs over the next years in order to follow and support the digitisation work in practice and enable learning interactions between the core team members. The training shall be tailored made but at the same time it unified approach must enable dissemination to other Slovene regions.
- Developing 6 detailed digitisation implementation plans for implementing the digitisation within the programme in each museum: detailed annual topics and targets, specific needs for external expertise, definition of levels

of accessibility (who can access, to what level of information), standards of digitization and resolution of copy rights.

Deliverables:

- 7 professionals additionally employed and skilled for digitisation of movable heritage and support digital transformation of museums;
- 6 detailed digitisation implementation plans prepared;
- 1 modern training programme for digitisation of movable heritage developed and tested.

WP2: Technology, archiving and storage enhancement

- Purchase of equipment: Each of participating partners shall equip a new digital manager post with basic digitisation equipment appropriate for local museums. However, it is envisaged that most advanced technology is purchased and installed only at a regional museum Gorenjski muzej while some specific services are even outsourced to specialised business providers. Detailed specification shall be elaborated at the time of procurement due to quick technological developments.
- Software and storage lease: As part of technology appropriate software and safe storage space shall be leased by a joint storage provider. If centralised register including archiving and storage is introduced by that time, the national system shall be applied.
- Providing high speed broadband access in participating museums.

Deliverables:

- 6 mini digitisation studios equipped with basic equipment such as i) digital cameras with appropriate lenses and remote shutter release, ii) scanners with high resolution supporting appropriate formats (TIF, JPEG..), iii) two lights, iv) plan backdrop, v) tripod, vi) table, vii) high capacity computer;
- Special software licences purchased to support the digitisation, archiving and DAM;
- Appropriate storage enabling long-term preservation of digitalised items by a joint storage provider secured

WP3: Digitisation of movable heritage in 6 museum institutions

- Digitisation of movable items: Based on the detailed implementation plan developed during the trainings in WP1 the newly (programme/project) employed person conduct digitisation of items in each of 6 participating museum institutions in coordination with other museum curators. The digitisation shall capture the most valuable collections (central collections, 'star items and most fragile items of a museum') while at the same time support the annual collection programme of each museum. Each person is supposed to digitalise on average of 400 museum items per year, except in case of museums with more demanding items and in smallest museum

where new person is employed for 0,25 FTE only and shall digitalise 100 items annually. The digitisation is preferably approached through digitising a collection. Digital collections shall as much as possible support the annual collection programme of each museum, their exhibits, catalogues and awareness and education activities.

- The programme is coordinated and monitored by a senior curator / digital manager of regional Gorenjska museum.

Deliverables (indicative):

- Gorenjski muzej: 5.200 (p1: 1.200, p2: 4.000) newly digitalised items in 7 collections (indicative strategy: 1. Archaeology of late antic period, 2. Ceramics, 3. Barrel making, 4. Old postcards, 5. Industrial heritage, 6. photo collection of Gorenjska museum);

- Loški muzej Škofja Loka: 5.200 (p. 1.200, p2: 4.000) newly digitalised items in 4 collections (indicative strategy: 1. History collection, 2. Ethnology collection, 3. Archaeology collection, 4. Art collection).

- Tržiški muzej: 5.200 (p1: 1.200, p2: 4.000) newly digitalised items in 4 collections (indicative strategy 1. Textile / clothing collection, 2. Photo collection, 3. Second world war, 4. Skiing collection)

- Gornjesavski muzej: 3.200 (p1: 600, p2: 2.600) newly digitalised items in 7 collections (indicative strategy: 1. Ethnology collection Jesenice, 2. Ethnology collection Liznjekova, 3. Mountaineering postcards, 4. Mountaineering photo collection – photographer Jaka Čop collection, 5. Town and cultural history collection, 6. Mountaineering photo collection, 7. Photo collection form Železar archive)

- MRO: 4.200 (p1: 600, p2: 3.600) newly digitalised items in min 3 collections (indicative strategy: 1. Painted beehive panels (Bee-keeping) 2.Postcards, 3. Nails and screws,…)

- Muzej Železniki: 500 (p1: 0, p2: 500) newly digitalised items in 2 collections (indicative strategy: 1. Blacksmith/ironworks; 2. Lace-making)

- **Total 23.500** (p1: 4.800, p2: 18.700) newly digitalised items in 25 collections

WP4: Awareness and audience access

Digitisation is made for long-term preservation of heritage but also to be easier access and better presented to diverse audiences. Thus, the digitisation shall be continuously supported by targeted awareness rising campaign, mainly focused on the general public, in particular youth generation of the region. The following indictive activities are foreseen attract on-line audiences:

- Preparation of audience development strategy of the programme;

- Survey among local residents on use and understand the purpose of digitalised heritage – repeated 2x during the programme;

- Overall education awareness campaign for increased use and understating of digitalised collections;
- Awareness rising actions run by 6 museums engaging local target groups in digitisation activities and using the digital collections;
- Regular PR activities in and outside the region;
- Specialised events for professional users of digital collection (teachers, tourism managers, journalists…).

Deliverables:
- Audience development strategy
- 2 regional surveys on attitude towards digital heritage
- Education awareness campaign and events implemented

WP5: Project management

Project management will follow general principles of transparent operation, efficient partner and tasks coordination, positive human resource management, sound financial management, regular monitoring and risk management. Lead Partner will take over the coordination and management responsibilities.

Deliverables:
- Regular activity and financial reports as required by the funding programme

Where?

The programme will cover 6 museum institutions in Gorenjska region, Slovenia. Gorenjska is one of 12 Slovenian NUTS 3 regions representing one of traditional regions with distinctive cultural and natural heritage. Within 6 participating museum institutions there are several different town or thematic museums spread across the region, from regional museum with regional arachnological, ethnographical, industrial and other historical collections to thematic museums such bee-keeping, iron and blacksmith museum, Slovenian alpine museum to ski museum or smaller memory houses of different historic persons. Gorenjska museums keep approximately 10 % of Slovenian cultural heritage movable items.

Results/ expected overall programme change in Gorenjska region

- Digitisation of museum's items in Gorenjska region increased from **41 %** (59.200 items) in 2018 to **44 %** (+ 4.800 items) by 2021 and **57 %** (+ 18.700 items) by 2026 which are represented in total at least 25 new digital collections (increase form for x % from x in 2018);
- Capacities for digitisation in museums in Gorenjska region strengthen from 1 to 7 professionals;
- On-line access to digital collections significantly improved from 40 in 2018 to 65 in 2026;

	- Long-term preservation of movable cultural heritage strengthened.
	- Awareness for regional (movable) cultural heritage extended to new audiences, in particular youth.
	Preconditions and assumptions
	- Local cultural programmes (municipal budget) will support digitisation of movable heritage as planned in Phase1;
	- The Strategy of Cultural heritage of Slovenia approved and proposed measures introduced in the new cohesion programme to support Phase 2;
	- Governmental decides to centralise the register for movable heritage and provide a joint platform with storage capacities would contribute to cost-effectiveness and long-term sustainability of the programme.
	- Coordinated approach enables learning interactions, synergies in using technology and equipment and enables greater visibly and impact in society as well as tourism sector in the region.
Players involved *(please indicate organisations in the region who are involved in the development and implementation of the action and explain their role)*	**Lead partner: Gorenjski muzej Kranj** - Overall programme/project management and coordination (WP5) - Engaging 2 professional digital managers (one of them senior, at the same time project manager) - Coordination of Capacity Building (WP1) , Technology enhancement (WP2) and Awareness and audience access actions (WP4) - Implementation of its digitisation plan (WP3) - Purchase of equipment and lease of software/storage (WP2) **All other partners as listed above:** - Implementation of its digitisation plan (WP3) - Purchase of equipment and lease of software/storage (WP2) - Participation in Capacity Building (WP1), Technology enhancement (WP2), Awareness and audience access actions (WP4) and Project Management (WP5) In next stage of programme development partners will decide on the division of joint activities.
Timeframe	2019-2021: Phase 1 – basic phase - only WP 3 activities and some WP5 (regional coordination) 2022-2026: Phase 2 – accelerated digitisation, full implementation (5 years)
Costs (indicative)	**Phase 1: 2019-2021(existing funding instruments)** **Total costs for basic implementation: 407.500 EUR** Staff costs: 382.500 EUR External services & equipment: 25.000 EUR **Phase 2: 2022-2026 (extended funding)** **Total costs for full implementation: 1.586.256 EUR**

	Staff costs:	937.500 EUR
	Administration and travel (10 %):	93.750 EUR
	External services:	437.500 EUR
	Equipment:	117.500 EUR
	Total costs for 5 years by partners:	**1.586.256 EUR**
Funding sources	**Potential funding sources for Phase 1:**[26]	
	Municipalities, RS - cultural programmes	407.500 EUR
	Potential funding sources for Phase 2:	
	EU ERDF or/and national programme	
	of the Ministry of Culture (85%)	1.348.313 EUR
	Partner/municipalities (15 %)	237.938 EUR
	Remark: VAT included as eligible.	

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[26] Indicated funding sources are indicative and subject of availability and succesful project application. Indicated funding under Phase 1 and Phase 2 does not bind the Ministry of Culture nor the municipalities or proposed partner institutions providing national or local public services in culture (IPCH, national and authrised museums) to any direct financial and legal obligations.

5.1.2. Action 2: Experience Gorenjska virtual heritage exhibit

Part I: General information	
Project:	**Experience Gorenjska virtual heritage exhibit**
Heritage:	☐ <u>Natural heritage</u> ☐ <u>Immovable cultural heritage</u> ☐ <u>Movable cultural heritage</u> ☐ <u>Intangible cultural heritage</u> ☐ <u>Living memories, local literature</u>
Challenge/objective addressed:	☐ Increase scope of digitization ☐ <u>Increase quality level of digitization and digitalization</u> ☐ Assure long term preservation ☐ Develop digital policies/ strategies for institution ☐ Improve competences and strengthen institutional and technical capacities ☐ <u>Improve accessibility and user experience of digital heritage contents</u> ☐ <u>Exploit business and innovation potential of digitalizing heritage</u> ☐ <u>Establish multisectoral and multilevel cooperation in heritage digitization</u> ☐ Other:
Partner organization:	**BSC Kranj d.o.o**. Staneta Žagarja 37, 4000 Kranj, Slovenia, www.bsc-kranj.si
Other partner organisations involved (if relevant):	**Potential regional stakeholders /partners:** *partners are identified but the final consortium depends on the selected heritage topic and further development of the project idea.* **Potential knowledge partners:** **Institute of the Republic of Slovenia for Nature Conservation Kranj Regional unit** Tobačna ulica 5, 1000 Ljubljana, Slovenia, www.zsvn.si **Institute for protection of Cultural Heritage of Slovenia Kranj Regional unit, Ljubljana Regional unit** Poljanska cesta 40, 1000 Ljubljana, Slovenia, www.zvkd.si **University of Ljubljana**; Faculty of electrical engineering, Academy for theatre, radio, film and television, Faculty of Social Sciences, Dep. of communication Kongresni trg 12, 1000 Ljubljana, Slovenia, www.uni-lj.si **ZRC SAZU** Novi trg 2, 1000 Ljubljana, Slovenia, www.zrc-sazu.si **Potential partners managing selected sites of exhibits:** **Triglav national park** Ljubljanska cesta 27, 4260 Bled, Slovenia, www.tnp.si **Gorenjski muzej Kranj** Tomšičeva ulica 42, 4000, Kranj, Slovenia, www.gorenjski-muzej.si

	Gornjesavski muzej Jesenice with Slovene Alpine museum
	C. Franceta Prešerna 45, 4270 Jesenice, Slovenia/ www.gmj.si
	Development Agency Sora/ Tourism Board Loško
	Poljanska cesta 2, 4220 Škofja Loka, www.ra-sora.si
	Tourism Board Bohinj / DMO Julian Alps
	Stara Fužina 38, 4265 Bohinjsko jezero, www.bohinj.si
	Zavod za kulturo Bled
	Cesta svobode 11, 4260 Bled, Slovenia, www.zavod-za-kulturo-bled.si
	Zavod Carnica – Zavod za kulturo in turizem (Layer house)
	Struževo 3, 4000 Kranj, Slovenia, http://www.layer.si/si/turizem
	Zavod za kulturo in turizem Žirovnica
	Žirovnica 14, Slovenia, www.zavod-za-kulturo-bled.si
	And/or other municipalities other museums, tourist boards, libraries…
Country:	Slovenia
NUTS2 region:	West Slovenia
Contact person:	Barbara Špehar, Franja Gabrovšek Schmidt
E-mail:	Barbara.spehar@bsc-kranj.si , franja.gabrovsek.schmidt@bsc-kranj.si
Phone:	+ 386 4 281 72 30

Part II: Policy context	
Action plan aims to impact:	☐ Investment for Growth and Jobs programme *(if OP 2021-2027 is compliant)* ☐ European Territorial Cooperation programme ☐ Other regional development policy instrument
Name of policy instrument addressed:	European Territorial Cooperation programme: Slovenia is eligible for several territorial cooperation programmes (Alpine Space, Danube, Central Europe, Med) which all support measure 6c preservation of natural and cultural heritage. The action is designed in the way that it would add value if transnationally approached. If topic water is selected than the Alpine Space programme would be best. The topic settlement and migration within the Slavic complies with the territory the Danube programme while industrial and crafts heritage could be jointly addressed with partners from Central Europe territory. BSC Kranj will take preliminary steps to set a transnational partnership for one of the above programmes still within this programming period (for the last announced calls), if possible. Otherwise the action will be a priority for 2021-2027. Gorenjska region is a border region to Austria and Italy. In both CPs (Cooperation programme Interreg VA Austria – Slovenia (CP) / Cooperation programme Interreg VA Italia– Slovenia) for 2014-2020 cultural and natural heritage are supported through specific objective 6c Preservation, promotion and development of cultural and natural heritage. *Assumption: RDA BSC Kranj as an*

	observing member of Interreg SI-AT monitoring committee will propose that same or similar measures supporting crossborder cultural and natural heritage preservation and sustainable tourism development will be one of priority issues for the period 2021-2027.[27] Rural development programme of Slovenia 2014-2020 and 2021-2027: *BSC Kranj is authorised operator of LEADER funds /* Community Led Local Development (CLLD) - Local development strategy for Local Action Group Gorenjska Košarica[28] covering 70 % of the Gorenjska region while RA Sora operates the programme for the remaining rural areas of Škofja Loka. *Assumption: The proposed action is of strategic importance as it addresses mainly rural areas of the region in a sustainable way therefore remaining fund of the existing CLLD LEADER programme will be sought. Furthermore, this topic might be included into the new strategy 2021-2027 for the two LAGs in Gorenjska region: LAG Gorenjska košarica and LAG Loško pogorje. BSC Kranj is operator of LAG Gorenjska košarica and initiator of the local strategy.* Investment for Growth and Jobs programme: The current Operational programme for implementation of European Cohesion Policy in the period 2014-2020 supports digital marketing of major tourism destinations of Gorenjska region (Bled, Bohinj, Kranj, Radovljica, Kranjska Gora, Škofja Loka) which could be applied for WP Marketing. Otherwise the current OP does not support tourism product development in Western Slovenia. However, the proposed topic shall be part of the future OP if smart regions, biodiversity presentation, digital tourism product and experience development and digitalisation of cultural heritage will be on agenda. *BSC Kranj has representative in the monitoring Committee of Western Slovenia cohesion region and thus can directly influence the policy documents when drafted.*

Part III: Details of the actions envisaged	
The background *(please describe the lessons learnt from the project that constitute the basis for the development of the present Action Plan)*	Gorenjska region with tis alpine character, diverse landscapes, forests, glaciers, valleys, rivers, over 4.000 years of settlement history and rich industrial heritage of 19-20th century is also popular tourism region in Slovenia. During the last years the region faces increased tourism visits (+ 60 % from 2014 to 2017), manly from foreign markets. However, the tourism growth brings important challenges for sustainable regional development in the future, such as: - Increased interest for natural / cultural attractions is causing too high concentration and pressures at individual hot spots, most of them

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[27] http://www.si-at.eu/en2/programme/
[28] https://www.las-gorenjskakosarica.si/wp-content/uploads/STRATEGIJA_LAS_GK.pdf

	being Natura 2000 or protected as natural/cultural values, (e.g. Vintgar gorge, Bohinj and Bled lake../ Bled castle, Bled otok..); - Low attractiveness of natural/ cultural heritage sights outside hot spots and main tourism destinations (e.g. natural sites such as Dovžan Gorge, Pokljuška Gorge, Jezersko alpine valleys, Kokra valley/ Ajdna archeologically site, numerous industrial heritage monuments …); - Lack of indoor programmes and services for rainy days or pre- and after- summer seasons; - Low knowledge and awareness on local identity, history and heritage among new generations, in particular youngsters. - Museums, libraries, hold enormous quantities of valuable information on heritage which is not visible to a visitor. Museum exhibits are not adjusted to foreign tourists – new visitors are tired of traditional approaches, they are looking for freshness, fun and interactions while learning something new; we need to realise the potential of museums. - Several locations such as public heritage rural houses, visitor centres lack funds to update their exhibitions or bring in new contents; - Kranj, the largest city of the region has announced candidacy for European capital of culture 2025 highlighting cultural phenomena that mark Gorenjska identity: migrations, inheritance and (new) industries. - Slovenia is promoted as active, healthy and green destination which calls for sustainable products based on heritage. - Engaging locals in nature and cultural heritage preservation and presentation through co-creation and new digital media. After studying the regional situation, brainstorming it with regional stakeholders, studying the Guide for Local Governments, Communities and Museums - Culture and local developing: maximising the impact[29] of the OECD/ ICOM (2018) and reviewing some best practices of CD-ETA project partners such as Virtual Reality theatre in Athens[30], big data in digitization of historical sites[31], IWALK BG project[32] THINKCULTERE[33] or Tales of Iceland, start up video-museum[34], a comprehensive joint action of stakeholders - **dispersed virtual exhibition of Gorenjska** is proposed.
Action	**What needs to be done**?

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[29] http://www.oecd.org/cfe/leed/venice-2018-conference-culture/documents/OECD-ICOM-GUIDE-MUSEUMS-AND-CITIES.pdf
[30] Tholos" - Virtual Reality theatre in Athenshttp://www.tholos254.gr/en/
[31] Foundation for Research and Innovation, Italy
[32] Euroregion Pleven-Olt, Bulgariahttp://iwalk.bg/?lang=en
[33] https://www.interregeurope.eu/policylearning/good-practices/item/2101/thinkculture-a-platform-for-accessing-experiences/
[34] http://www.talesfromiceland.is/

(please list and describe the actions to be implemented)	Dispersed virtual exhibit of Gorenjska shall bring together different existing heritage and tourism stakeholders and several less known locations with indoor possibilities in Gorenjska region which can identify with one joint topics: **Topic 1:** Water shaping Gorenjska region**/** From pleistocen ice ages, middle age and industrial area usage of water till todays desires to keep clean and drinking waters and reduce threats of natural disasters and loss of glaciers because of climate change. *Potential locations & topics:* Rateče – Zelenci & Sava, Alpine Museum Mojstrana – glaciers, Bohinjka or Bled TNP visitor centre/ izvir Save Savica & Sava & lakes, Moste – or old hydro power/ na Savi, Kropa or Železniki and power of water, Dovžan gorge – stones and fossils from the tropic oceans - RIC info center, Kranj – Kokra gorge with conglomerate terraces, Jezersko – travertine mine or sources of thermal water, Poljanska and Selška Sora… **Topic 2:** People who settle Gorenjska region through centuries / How people live, eat, move… in Gorenjska from iron age to Roman period, Langobards, Celts and Slavs migrations to todays youngsters. *Potential locations & topics:* Drulovka (stone age – neolitik), Bohinj (iron & bronze age at alpine pastures), Bled (bronze age), Bled (Kranj (Celts - noric, Langobards), Kranj, Mošnje (Romans..), Ajdna and Bašelj (Slavs), Lancove (Ruins of castles from middle age)… til today (Jesenice – multicultural community,)…[35] **Topic 3:** Past and new industries of Gorenjska Industrial and technological tradition significantly influenced today's identity, culture and mindset of people in gorenjska. Learning form times when Gorenjska was industrial leader of the Region and exploiting digital capacities of todays iT industries and new age artists can frame an extraordinary dispersed virtual exhibition across the region. *Potential locations & topics:* Škofja Loka: Hat factory,: Bled and Železniki: embroidery, ace making, Jesenice: steel & iron works, Kranj: textile and electronic tools, Radovljica: ski, wool-products; Tržič: textile, shoemaking. The dispersed virtual exhibition shall become a **virtual story of the region experienced in different places and settings around Gorenjska region**. It shall be hosted by existing institutions and in existing premises, preferably those less visited by tourists. With innovative visual presentations, in terms of content and technology (e.g. VR, AR, VIDEO, films, multimedia, cartoons..) a visitor shall experience a unique experience at each of the spot. Beside virtual experience and interactive learning, visitor shall experience human dimension as well by an interpret/story teller, feel the local atmosfere and taste food of the time or place the individual experience is about. Virtual experience builds on existing museum researches and collections and collective know-how of collaborating museums, tourism boards, nature protection as well as research institutions, education and start-up initiatives.

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[35] http://www.gorenjski-muzej.si/sample-page/projekti/projekt-odkrijmo-arheolosko-dediscino-nasega-podezelja-spoznajmo-se-z-zivljenjem-v-prazgodovini-rimski-dobi-srednjem-veku/

Actions and deliverables

The following activities divided in several work packages are foreseen:

WP1: Concept development

- Survey of visitor/ audience profiles and specific needs (among tourists – attractivity elements as well as among Slovenian students and schools – educative elements)

- Definition of the overall dispersed exhibition concept with final selection of sites, sub- topics and stories of the individual sites and obligatory joint standards (such as duration, story with a highlight, digital technology, same very simple indoor setting including theme related food & drinks, obligatory learning interactions, environment considerations, respect of common exhibit brand design..).
    o Option: open call for ideas from start ups and creative industries in cooperation with BSC co-working Kovačnica

- Customer survey – to check and revise the draft digital exhibit concept by local communities;

- Development of skript, digitalisation plans and technical specifications for individual spot (scientific based but interpreted in an easy, unique and interesting way for diverse audiences; audience not scientific approach..)
    o Option: open call for ideas from start ups and creative industries in cooperation with BSC co-working Kovačnica

- Customer survey – to check and revise the draft digital exhibit concept by local communities;

- Setting up and training team of 8 curators lead by managing curator and digital exhibition manager;

- Approval of individual skript by managing curator and digital exhibition manager;

- Business plan for sustainable operation of the exhibit;

Deliverables:

- 1 overall concept
- max 8 plans for individual spots
- 1 overall business plan

WP2: Setting up dispersed virtual exhibits

- Implementation of 8 virtual sub-exhibits further to agreed skript
    o Undertaking specific researches, if necessary
    o Programming, shooting, designing, filming, special effects, 3D modeling,
    o Compilations and testing
    o Purchasing necessary equipment and supplies
    o Refurnishing the location of the exhibit

- Training of staff and guides/ interprets/ story tellers for the each spot
- Design of a joint single on-line exhibition, if feasible

Deliverables:
- Min 5 - max 8 individual virtual exhibits arranged

WP3: Marketing and communication

The success of the action is measured by number of visitors in dispersed virtual exhibition locations which can be achieved only though efficient communication, promotion and marketing activities. Thus marketing plays an important role on the action. The following indictive activities are foreseen to attract audiences:

- Preparation of communication and marketing plan including common branding of the exhibitions (name, messages, visual identity, key communication tools…)
- Setting up digital and traditional communication tools as per marketing plan – e.g. landing page, video clip/ trailer, podcasts..
- PR during the action to raise local support and recognition
- Conducing digital and traditional marketing campaign before and during piloting period

Deliverables:
- Marketing & communication plan
- PR & Marketing campaign

WP4: Piloting and evaluation

A testing period over half a year to capture main and off tourism season and all target groups is envisaged. During the piloting it is planned to:

- Measure visitor (tourists and students) and local community satisfaction (impact of new exhibit to their community);
- Organise interesting and unusual educative events related to the digital topic at different spots tailor made for different audiences (at least 2 per site); if possible events shall be organised in the way that locals meet / present their region to tourists;
- Evaluate to selected contents and technologies and propose and implement improvements.

Deliverable:
- Customer satisfaction survey;
- 16 events;
- Evaluation report with improvements proposed or already implemented.

WP5: Project management

Project management will follow general principles of transparent operation, efficient partner and tasks coordination, positive human resource management,

	sound financial management, regular monitoring and risk management. Lead Partner will take over the coordination and management responsibilities.
	Deliverables:
	- Regular activity and financial reports as required by the funding programme
	Where?
	The virtual exhibition will be set across Gorenjska region in several locations selected according to the topic of virtual exhibition and in sties
	- with high tourism potential and supporting tourism product strategy of the destination;
	- where virtual presentations would add value to interpretation and degree of visitor experience;
	- with and existing indoor location, preferably in buildings of cultural or at sites of natural heritage;
	- where preservation, tourism and education purpose can be met;
	- with a manager and funds for further operation.
	Results/ Expected change:
	- Attractive virtual educative exhibition dispersed around 5-8 less visited indoor locations across Gorenjska region on same topic in place;
	- Important natural/cultural heritage interpreted in a new way;
	- New tourism product for bad weather and off-season developed;
	- Awareness for regional heritage extended to new audiences, in particular tourists and local youth;
	- Dispersion of tourists across region assures less stress for the nature and more balanced and sustainable development of the region.
	Preconditions:
	- Strong project management;
	- Dedicated and open-minded stakeholders and partners with same vision and best highly professional staff;
	- Du to complexity the overall project might be implemented through phases and different funding options; e.g. WP1= research and technology, WP2+ WP3 = tourism or heritage, WP4 = local communities, rural development..
	- Assured operation after the project end by stakeholders;
Players involved *(please indicate organisations in the region who are involved in the development and*	**Lead partner: BSC Kranj** - Overall project management and coordination of WPs (WP%) - Engaging 2 professionals: content and digital exhibit manager for coordination of WP1, WP2, WP3 and WP4

implementation of the action and explain their role)	- Engaging creative industries to support creative processes - Assuring business part of the project and future operation in coordination with site managers - Assuring common melody and approach through concept and design - Monitoring the piloting phase and provide external evaluation **Knowledge partners:** - Contributing scientific, research and technology inputs of WP1 and WP2 **Potential partners managing selected sites of exhibits:** - Nominating a site manager – curator of the sub-exhibit to prepare the concept (WP1) - Preparing location and setting up their sub-exhibit point (WP2) - Implementing pilot operation including events and customer surveys (WP4) *In the next stage of project development partners will decide on the division of joint activities.*

Timeframe	2019-2021: Project development, partnership building and fund rising
	2022-2024: Implementation
	       2022 digital planning / concept+surveys+business planning
	       2023 setting up + marketing
	       2024- piloting+marketing+evaluation

Costs	**Total costs for 3 years by categories: 2.152.100 EUR** Staff costs: 711.000 EUR Administration and travel (10 %): 71.000 EUR External services: 930.000 EUR Equipment: 200.000 EUR Investments: 240.000 EUR
Funding sources	**Potential funding sources**[36]: EU ERDF (85% without VAT) 1.608.395 EUR Partner/municipalities (15 %, VAT) 543.705 EUR Remark: Funding still needs to be raised. VAT ineligible.

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[36] Indicated funding sources are indicative and subject of availability and succesful project application. Indicated funding does not bind the Ministry of Culture nor the municipalities or proposed partner institutions providing national or local public services in culture (IPCH, national and authrised museums) to any direct financial and legal obligations.

5.1.3. Action 3: Digitalisation of Gorenjska heritage theme trails

Part I: General information	
Project	**Digitalisation of Gorenjska heritage theme trails**
Heritage:	☐ <u>Natural heritage</u> ☐ <u>Immovable cultural heritage</u> ☐ <u>Movable cultural heritage</u> ☐ <u>Intangible cultural heritage</u> ☐ <u>Living memories, local literature</u>
Challenge/objective addressed:	☐ Increase scope of digitization ☐ <u>Increase quality level of digitization and digitalization</u> ☐ Assure long term preservation ☐ Develop digital policies/ strategies for institution ☐ Improve competences and strengthen institutional and technical capacities ☐ <u>Improve accessibility and user experience of digital heritage contents</u> ☐ <u>Exploit business and innovation potential of digitalizing heritage</u> ☐ <u>Establish multisectoral and multilevel cooperation in heritage digitization</u> ☐ Other:
Partner organization:	**BSC Kranj**
Other partner organisations involved (if relevant):	**BSC Kranj d.o.o.** Staneta Žagarja 37, 4000 Kranj, Slovenia, www.bsc-kranj.si
Country:	**Potential regional stakeholders /partners:** **RAGOR – Development Agency of Zgornja Gorenjska** Spodnji Plavž 24e, 4270 Jesenice, Slovenia, www.ragor.si **Development Agency Sora/ Tourism Board Loško** Poljanska cesta 2, 4220 Škofja Loka, <u>www.ra-sora.si</u> **Institute of the Republic of Slovenia for Nature Conservation Kranj Regional unit** Tobačna ulica 5, 1000 Ljubljana, Slovenia, www.zsvn.si **Institute for protection of Cultural Heritage of Slovenia Kranj Regional unit, Ljubljana Regional unit** Poljanska cesta 40, 1000 Ljubljana, Slovenia, <u>www.zvkd.si</u> **Mestna knjižnica Kranj** Gregorčičeva ulica 1, 4000 Kranj, <u>www.mkk.si</u> **Muzeji radovljiške občine** Linhartov trg 1, 4240 Radovljica, Slovenia/ <u>www.mro.si</u> **Partner 7-8: TBD** When locations and partners for new virtual tours (WP2) are selected it is recommended to involve their relevant institutions (e.g. Občinska knjižnica Jesenice, Tržiški muzej. Ljudske univerze, LTOji ....) as partners in the project.
NUTS2 region:	Slovenia
Contact person:	West Slovenia

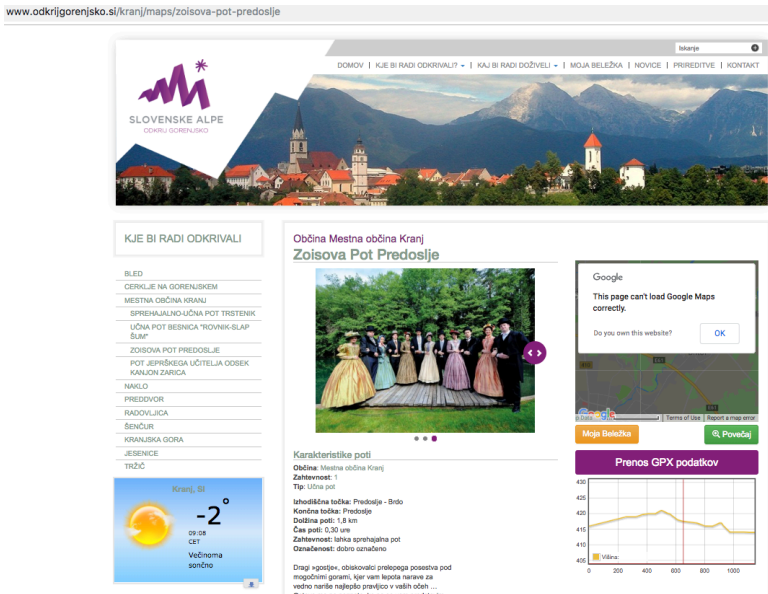| E-mail:	Barbara Špehar, Franja Gabrovšek Schmidt
Phone:	Barbara.spehar@bsc-kranj.si , franja.gabrovsek.schmidt@bsc-kranj.si

Part II: Policy context	
Action plan aims to impact:	☐ Investment for Growth and Jobs programme *(if OP 2021-2027 is compliant)* ☐ European Territorial Cooperation programme ☐ Other regional development policy instrument (*Rural Development Programme of Slovenia 2014-2020, 2021-2027*)
Name of policy instrument addressed:	Rural development programme of Slovenia 2014-2020: Community Led Local Development (CLLD) - Local development strategy for Local Action Group Gorenjska Košarica[37] includes two thematic areas which address cultural heritage and its application in tourism: - Thematic area 1: New jobs creation - Thematic area 3: Environment protection and nature preservation *Assumption: The remaining funds under the programming period 2014-2020 in LAG Gorenjska košarica managed by BSC Kranj and LAG Loško pogorje might be raised to fund this project. If the project as foreseen can not be fully implemented within the given funds, the topics of this project will be proposed as priorities for the new strategy 2021-2027 for the two LAGs in Gorenjska region: LAG Gorenjska košarica and LAG Loško pogorje. BSC Kranj is operator of LAG Gorenjska košarica and initiator of the local strategy.* Creative Europe 2014-2020: Culture Cooperation projects Radovljica historic town virtual tour is being implemented within the Creative Europe programme while the results might be capitalised in dissemination of their experience and platform to other old towns in Gorenjska region. The Culture cooperation project instrument might be applied for this action.

Part III: Details of the actions envisaged	
The background *(please describe the lessons learnt from the project that constitute the basis for the development of the present Action Plan)*	- There are more than 100 different traditional theme trails dedicated to natural and cultural heritage spread over the Gorenjska region. Trails have been developed during the last 20 years thus they are in different physical shape and quality. Usually they start in a certain point in a village or near a rural or even forest road where a parking space is available. Sometimes starting points are hard to find for non-local people. Trails are marked and equipped with information panels explaining different natural and cultural phenomena. The quality of presentation varies significantly and it is not always provided in second language. There are sometimes view point and

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[37] https://www.las-gorenjskakosarica.si/wp-content/uploads/STRATEGIJA_LAS_GK.pdf

resting places arranged along the trail. Most often these trails are well known to locals who use them for recreation. Due to absence of information in English language, hard to find starting points and appropriate interpretations, tourists are a minor visitor group. Hence, theme trails in the vicinity of tourist centres or in Triglav national park are more attracted by tourists.

- Examples of trails: Sava river trail, Forest learning trails, Castle trail, Golden horn trail, Rikli trail, Panorama trail, Old miners trail, Bee-keeping trail, Literature trail, Local culinary trail of poljane valley…

- Majority of trails does not provide guided tours by a professional or local guide thus the visitor is left alone with the information which is given on the information panels.

- 70 % of the trails are presented in a web page http://www.odkrijgorenjsko.si while other trails can be found at individual local tourism destination sites. The web "Odkrijmo Gorenjsko" (Discover Gorenjska) provides basic information on the individual trail (location, duration, topics, length, duration, difficulty level, type of trail..) including GPS tracks which can be downloaded. The description gives a basic idea of natural and cultural heritage attractions along the trail. The portal was funded by LEADER funds and is managed by BSC Kranj. It is available in Slovene language only. the web site has limited visitation, much bellow its potential if appropriately presented and promoted to target groups.

- Furthermore, there exist a valuable digital data bank of living memory www.kamra.si and regional bibliographical lexicon www.gorenjci.si . Particular stories and digital materials from these two portals could be linked to relevant trails and in such a way improve their attractiveness (e.g. Simon Jenko as a key character – writer of Trail of Jeprca teacher).

- In addition, two apps - virtual interactive tours in old town centres were launched during last years:
  o Romualdova trail[38] in Škofja Loka, presenting traditional passion story of Christ as intangible heritage at 13 points of the medieval historic centre). It is based on a game /challenge approach and VR technology developed on Nexto platform. Romualdova trail was also presented as a best practice in the frame of CD-ETA project and it seems to be most visited among the two Gorenjska virtual tours. Its acceptance and piloting is monitored by BSC Kranj in the frame of CD-ETA.

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[38] http://www.visitskofjaloka.si/si/dozivetja/tematske-poti/romualdova-pot

	o AR walk through Kranj old centre, presenting main cultural heritage sites in historic centre of Kranj with leading Slovenian poet France Prešeren as one of the main characters.
	- The diverse topics and 100 different locations of theme trails across Gorenjska region provide an enormous unexploded and hidden potential for unique visitor experience of heritage outside highly visited hot spots with crowds of tourists (e.g. such as Bled and Bohinj lake, Vintgar gorge..). Furthermore, trails are not sufficiently integrated into local school's programme and local societies.
	- Based on the experiences with the regional theme trail portal, the two virtual trails and best practices review such as IWALK BG project,[39] See for Me[40], CD-ETA Romualdova trail or Zermatt trail planner web and app,[41] we believe that accelerated better digital integration and communication of existing trail information on theme trails and further digitalization of some of the trails would significantly increase the accessibility of the variety of heritage trails hidden in the region.

Figure 5 Existing web www.odkrijgorenjsko.si in Slovene language |
| **Action**

(please list and describe the actions to be implemented) | **What needs to be done**?

In order to exploit the existing potential, it is necessary to improve the current web presentation (or its integration into a tourism platform), enhance digital access through smart phones/tablets and develop several additional virtual tours for trails having the highest tourism potential. In parallel, it is important to train trail managers to update digital information, engage target groups in development and promote the digital tool among key target groups: i) local |

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[39] http://iwalk.bg/?lang=en presented by Euroregion Pleven-Olt, Bulgaria

[40] https://www.interregeurope.eu/policylearning/good-practices/item/83/see-for-me-the-intelligent-audio-guide-project/

[41] https://www.zermatt.ch/en/Media/Planning-hikes-tours

communities and schools, ii) tourism boards, info centres, guides and accommodation providers, outdoor agencies, iii) media, iv) visitors.

Actions and deliverables

The following activities divided in work packages are foreseen:

WP1: Upgrading heritage trail digital tools: www.odkrijgorenjsko.si / www.discoverGorenjska & its conversion into a mobile App

The existing website www.odkrijgorenjsko.si represents the baseline information on the heritage theme trails however due to its weak usage it needs detailed revision, corresponding upgrade and conversion into an app. The following activities are envisaged:

- Revision of the site from client/ end user (communication) and technology (most efficient transformation into an app) perspective including proposals for content (structure) and technological amendments; If more efficient an integration of the web site into an existing and more popular EU wide platform can be also considered as an option (e.g. Outdoor Active).
- Revising the information of existing 74 theme trails, updating information, improving photos, exposing top experiences and most important cultural or heritage sites and improving attractiveness with the related interested topics collected in www.kramra.si or www. gorenjci.si
- Adding additional trails from Gorenjska municipalities which are not covered yet with same scope of information
- Adding new functionalities to web & app
    o Trail search/planning tool through criteria: selecting best trail according to client preferences (e.g. duration, location, topic..)
    o Improving the capacity and technology of interactive Map: speed, geopositioning of the user. etc
    o Off-line operation
    o Engaged and involve clients/ visitors, client testimonies, etc
    o Social media integration through images, trails experience sharing..
- Adding new contents, such as:
    o Local guides booking
    o Local food possibilities
    o Tips on equipment and clothing, emergency contacts
    o Updates on situation on the trails: such as closures, events, organised guiding tours time plan, etc
    o Special section on Virtual tours in old town centres

        o   Special section on Share your best Gorenjska trail (open peer-to-peer communication with residents and visitors sharing their heritage trails)

- Redesign to be visually appealing with improved images (photo, video)
- Preparing English version
- Converting website contents into a Mobile App applicable for Android / IOS
- Definition of one single operator of the web/app and assurance of funds for annual maintenance
- Identification and training of responsible digital communication officers or trail managers for updating the web/app and communication with visitors

Deliverables:

- www.odkrijgorenjsko.si modernised, extended to all trails in the region, available also in English language and better integrated in tourism portals
- App of Gorenjska theme trails published in IOS and Android version

WP2: Virtual theme trails in historic centres of Gorenjska

- Monitoring and evaluating the use and visitor experience of the existing three virtual tours and develop proposals for dissemination and development of 3 new virtual tours.
- Selecting 3 locations for development of virtual theme trails, preferably in other historic towns of Gorenjska region: Radovljica (full launching and upgrading di.Story theme trail in old town centre). Jesenice (virtual theme trail How people used to live) and Tržič (potential upgrading of shoemaker's virtual trail). In this way regional virtual interactive tours have a critical number of products that can be promoted for tourist or education purposes in old town centres.
- The design process shall include several phases at each of the site :
    - o   Setting up a team at each site: curator, tourism representative, multimedia/VR/AR expert, digital communication expert
    - o   Review of the potential topics interesting for digitalisation in the individual historical setting
    - o   Audience, their needs and ideas identification
    - o   Synopsis of the virtual tour including selection of cultural/natural heritage topics, leading character (if needed) and most appropriate technologies and selection of languages
    - o   Creative and technological development and design process of a demo version in IOS and Android environment
    - o   Testing with audiences
    - o   Final version and launching
    - o   Setting permanent or movable info panels at the key entrance points of the locations with information and instructions on the

virtual tour (e.g. central parking areas, in front of tourist information centres, in front of main museum…)

During the process the lead partner will assure coordination and exchange of learnings between individual sites.

Deliverables:

- 3 virtual interactive trails developed and in use

WP3: Promotion www.discoverGorenjska and App

Making the web portal and apps popular and in use among tourists and local population is the end goal of the project. Therefore close cooperation of key stakeholders from tourism, media and local partners throughout the project and an extensive promotion and media campaign are envisaged. The virtual trails product shall be highlighted during the campaigns. The promotional and communication campaign shall be elaborated in a detailed communication plan and shall among other include:

- Design of a common identity/brand of trails of Gorenjska;
- Proposal of campaign key messages and promo actions (such as award for the person hiking the most of the trails in one summer season);
- Local, regional and national media coverage throughout the project;
- Presentations of the idea, demo versions and final products to the key stakeholders from the field of tourism, educational and local community (existing tourism guides, local teachers, tourism informator…);
- Optimization of the web site in search engines and lease of new domains such as discovergorenjska.com;
- Linkages and integration of the web site and apps of main tourism destination portals of Gorenjska region such as www.bled.si ..);
- Advertising the App and virtual torus in key national and destination portals;
- Efficient promotional material to remind visitors and locals on the App and virtual tours (e.g. leaflets, mobile panels, stickers for the TIC..);
- Making special small signs/plates notifying the visitor to download and use the App with GPS track or virtual toru where available;
- Promotion of the website/tool through key social media (Trip Advisor, Instagram…) .

Deliverables:

- Communication plan for the campaign including a common brand identity
- Promotional campaign implemented before and during one summer season

WP4: Project management

Project management will follow general principles of transparent operation, efficient partner and tasks coordination, positive human resource management, sound financial management, regular monitoring and risk management. Lead Partner will take over the coordination and management responsibilities.

Deliverables:
- Regular activity and financial reports as required by the funding programme

Where?

The programme will cover all heritage theme trails in all 18 municipalities in Gorenjska region, Slovenia. Gorenjska is one of 12 Slovenian NUTS 3 regions representing a traditional region with distinctive cultural and natural heritage. Gorenjska accounts for 10 % of Slovene population and it is the leading alpine tourism destination of the country, representing 1.126.577 visits or 23 % of tourist visits in 2017 in Slovenia). 83 % of tourists in Gorenjska are foreign visitors.

Results/ expected overall programme change in Gorenjska region

- Increased awareness, recognition and acceptance of the digital tool of Gorenjska trails among tourists and residents. Web & app become a useful tool for planning daily excursions for tourists spending holidays in Gorenjska region (in particular families with smaller children, seniors, hikers..), for residents looking for learning the nature and cultural heritage while exercising (hiking) and schools organising different learning activities for their students in the local area.
- As a result, we expect increased visit of less known cultural and natural heritage sites along the theme trails, both from foreign tourists and local visitors.
- Indirectly, promotion of 100 theme heritage trails as a comprehensive tourism product can contribute to dispersion of tourists from overvisited hot spots. On the other hand, increased visits of them trails and virtual tours will contribute to sustainable development of less developed rural areas and declining town centres.

Targets:
- Phase 1: Number Virtual tours: 2 in 2018 to 3 by end of 2021
- Phase 2: Number Virtual tours: 2 in 2018 to 4 by end of 2023
    Modernised digital tools for Gorenjska heritage trails by end of 2023
- Number Virtual tours: 2 in 2018 to 5 by end of 2027

Preconditions and assumptions

- Potential project application for LEADER LAS Gorenjska košarica approved in 2019-2020. In the stage of project application for funds it might happen that the project will be divided in several phases or applications depending on policy instruments available.

	- Readiness of local tourist boards and municipalities to join and fund the project if the proposed policy instruments will not be sufficient.
Players involved *(please indicate organisations in the region who are involved in the development and implementation of the action and explain their role)*	**Lead Partner: BSC Kranj** BSC Kranj as regional development agency and manager of LEADER LAS funds is responsible for coordination of balanced regional development and promotion of hidden potentials. In this respect BSC is taking over the coordinative role between key stakeholders: municipalities, tourism boards and nature and cultural heritage institutions. BSC Kranj will search for appropriate funding sources and will manage the project and promotional activities (WP3 and WP4). **Potential partner roles:** **RAGOR – Development Agency of Zgornja Gorenjska** RAGOR as a local development agency has initiated the existing portal of heritage theme trails www.odkrijgorenjsko.si and will therefore take over the WP1 and provide missing trails for municipalities Bohinj and Gorje. **Development Agency Sora/ Tourism Board Loško** SORA as a local development agency and tourism board for Škofja Loka area will be in charge to provide missing theme trails for the municipalities in their territory as they are not yet included in the portal. As managers of Romualdova virtual tour in Škofja Loka will take over implementation and coordination of WP2. **Institute of the Republic of Slovenia for Nature Conservation Kranj Regional unit/ Institute for protection of Cultural Heritage of Slovenia Kranj Regional unit, Ljubljana Regional unit** Both institutes will revise the existing contents of the presented trails on the web and highlight the most important cultural heritage values of individual theme trail. **Mestna knjižnica Kranj** The regional library will assure connectivity of digital contents collected in www.kamra.si and www.gorenjci.si with relevant theme trails. **Partners 7-8: Partners developing new virtual tours** These partners will coordinate the design process of their virtual interactive tour.
Timeframe	2019-2021: Phase 1: WP2 - one virtual tour (part of WP2) 2022-2023: Phase 2: WP2 – one additional virtual tour, WP 3, WP 4 and WP5 2024-2027: Phase 3_ WP2 - one additional virtual tour
Costs *(indicative)*	**Total costs by categories:** **241.400 EUR** Staff costs: 99.000 EUR Administration and travel (10 %): 9.900 EUR External services: 132.500 EUR Equipment: 0 EUR

Funding sources	**Potential funding sources**[42]**:**
	Leader LAG Gorenjska košarica (85%) * 130.370 EUR
	Leader LAG Loško pogorje (85%) 52.993 EUR (P2,P4,P8)
	Partners/municipalities (15 %, incl. VAT) 58.037 EUR
	*Remark: VAT is ineligible and covered by partners or their respective municipalities. *Alternative: Creative Europe Cooperation projects or local municipal funds*

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[42] Indicated funding sources are indicative and subject of availability and succesful project application. Indicated funding under does not bind the programme operator nor the municipalities or proposed partner institutions providing national or local public services in culture (IPCH, national and authrised museums) to any direct financial and legal obligations.

5.1.4. Action 4: Digital marking of cultural monuments in old towns of Gorenjska

Part I: General information	
Project	**Digital marking of cultural monuments in old towns of Gorenjska**
Heritage:	☐ Natural heritage ☐ Immovable cultural heritage ☐ Movable cultural heritage ☐ Intangible cultural heritage ☐ Living memories, local literature
Challenge/objective addressed:	☐ Increase scope of digitization ☐ Increase quality level of digitization and digitalization ☐ Assure long term preservation ☐ Develop digital policies/ strategies for institution ☐ Improve competences and strengthen institutional and technical capacities ☐ Improve accessibility and user experience of digital heritage contents ☐ Exploit business and innovation potential of digitalizing heritage ☐ Establish multisectoral and multilevel cooperation in heritage digitization ☐ Other:
Partner organization:	**Združenje zgodovinskih mest Slovenije/ Association of Historic Cities** Mestni trg 15, 4220 Škofja Loka, Slovenia, http://www.zgodovinska-mesta.si/
Other partner organisations involved (if relevant):	**Potential partners or stakeholders:** **Institute for protection of Cultural Heritage of Slovenia Kranj Regional unit, Ljubljana Regional unit** Poljanska cesta 40, 1000 Ljubljana, Slovenia, www.zvkd.si **Municipalities participating in the project** (City municipality of Kranj, Municipality of Škofja Loka, Municipality of Jesenice, Municipality of Tržič, Municipality of Radovljica)
Country:	Slovenia
NUTS2 region:	West Slovenia
Contact person:	Mateja Hafner Dolenc
E-mail:	Mateja.hafner@siol.net
Phone:	+ 386 41 762 741

Part II: Policy context	
Action plan aims to impact:	☐ Investment for Growth and Jobs programme *(if OP 2021-2027 is compliant)* ☐ European Territorial Cooperation programme ☐ Other regional development policy instrument
Name of policy instrument addressed:	Creative Europe – Co-operation projects, Call for 2020 is in focus of this action as Creative Europe has strong synergies with the promotion of culture are directly contributing to the implementation of the Digital Single Market strategy. The action contributes to the programme as it is

	- strengthening audience development as a means of improving access to European cultural and creative works and tangible and intangible cultural heritage and extend access to cultural works to children, young people, people with disabilities and underrepresented groups; - fostering capacity building through innovative approaches to creation, develop and test new and innovative models of revenue, management and marketing for the cultural sectors, in particular as regards the digital shift , and developing new skills for cultural professionals; - raising awareness of common history and values, and reinforce a sense of belonging to a common European space. The promotor of this action association of historic town has been already involved in two Creative Europe projects thus it has the ability to set up a consortium around this topic. Since the implementation depend on the success on the call an alternative policy instrument is future OP for Cohesion policy in relation to digitization of cultural heritage and urban development. *BSC Kranj has representative in the monitoring Committee of Western Slovenia cohesion region and thus can directly influence the policy documents when drafted.*

Part III: Details of the actions envisaged

The background *(please describe the lessons learnt from the project that constitute the basis for the development of the present Action Plan)*	- There are several historic towns with important and protected immovable cultural heritage in the Gorenjska region: Kranj, Škofja Loka, Tržič, Radovljica, Stara Sava/Jesenice, Bled and Železniki. Further to the official register of immovable cultural heritage there are 26 monuments of national importance and 658 monuments of local importance in the listed municipalities. The detailed analysis undertaken within CD-ETA project shows that in their historic centres there are 445 buildings. - In majority of sites historic buildings, in particular those have been marked several decades ago but the marking was not well maintained and is in most cases outdated and not in line with the national Rules on Marking Cultural Monuments (OG of RS, no 57/11)[43] and Guideline on Marking Cultural Monuments issued by the Ministry of Culture. The proposed marking is based on the label of the Hague Convention for Protection of Cultural Property of immovable heritage and digital contents (currently QR code) linked to the narrative description of the official register. - In close cooperation with the Ministry of Culitre proposed solutions shall be revised due to technological development since 2011 when the guidelines were published: (i) QR technology shall be revised in case other state of the

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[43] http://www.pisrs.si/Pis.web/pregledPredpisa?id=PRAV9585

	art solutions are more appropriate but still cost-effective; (ii) Editing narrative short description from the register to better suit different audiences. (iii) Historic or other images or other content shall be uploaded. - The Ministry of Culture is responsible for marking all monuments of national importance, while municipalities shall mark cultural monuments of local importance. Municipality of Škofja Loka has already marked some monuments (without digitalising) while the other listed not yet however without changing the descriptions from the register.
Action *(please list and describe the actions to be implemented)*	**What needs to be done**? - In order to achieve a comprehensive and relevant marking in Gorenjska historic towns heritage, the described national system needs to be implemented for local and national monuments and to our opinion upgraded in terms of digital content, and digital technology. - The whole action shall be coordinated by the Association of Historic Cities of Slovenia based in Škofja Loka in close cooperation with the Ministry of Culture, Institute for protection of Cultural Heritage of Slovenia (ICHS) , interested municipalities and selected external sub-contractors. Project will consist of several activities: - Activity 1: Marking all monuments of national importance in Gorenjska region (Ministry of Culture). - Activity 2: Identification of approx. 160 local monuments relevant for digital marking in bellow listed participating historic towns. Indicative criteria shall capture outstanding monuments in terms of quality of preservation, location, its programme and accessibility. Only monuments with owners' consent shall be regarded. Selection will be done by the lead partner in assistance with Partner 1 and municipalities. Proposal for upgrading the technology of marking following the national guidelines. This activity will be done by the lead partner in assistance with external professionals. - Activity 3: Revision and eventual editorial work on the official description of local monuments in the register including translations, proofreading, preparation of additional photo and video contents. This activity will be done by the lead partner in close cooperation with the Institute for preservation of cultural heritage of Slovenia, Ministry of Culture and in assistance with external professionals. - Activity 4: Selection / lease of a platform and application to run the data base if national platform does not enable desired presentations. - Activity 5: Production and installation of physical marks with QT codes or other recognition system.

- Activity 6: Launching the digital marking system for historic towns of Gorenjska region including evaluation of the first 4 months of operation. Agreement on maintenance of the data base and the physical marks.

Optional: If funds enable:

- digital marking shall offer the technological solution which enables access to digital content also to people with different disabilities.
- implementation of other types of marking (e.g. info panels) for detailed presentation of monuments as proposed by the ministerial Guidelines,
- the action shall be complimented with the development of diverse virtual trails in the historic centres,
- the digital marking shall extend to other important cultural monuments to rural areas outside historic centres (example of Church Jamnik).

Where?

The project will be implemented in historic towns of Gorenjska region: Kranj, Tržič, Škofja Loka, Radovljica, Jesenice/ Stara Sava and Železniki.

Gorenjska is one of 12 Slovenian NUTS 3 regions representing a traditional region with distinctive cultural and natural heritage. Gorenjska accounts for 10 % of Slovene population and it is one of the leading tourism destination in the country, representing 1.126.577 visits or 23 % of tourist visits in 2017 in Slovenia). 83 % of tourists in Gorenjska region are foreign visitors. With the tourism arrivals historic towns of Gorenjska are found in revitalisation phase over the decades of decline. In this respect emphasising the existing most valuable immobile cultural heritage in the historic centres is vitally important for the increased tourism flow.

Results/ expected overall programme change in Gorenjska region

- 29 monuments of national importance and 160 cultural monuments of local importance marked and equipped by smart phone recognition technology which provides visitor with additional information and historic images of the particular monument in Slovene and English language.
- Improved digital access to information on the history and historic events related to most valuable national and local cultural monuments, both for tourists as well as local residents.
- Indirect contribution to increased awareness on the protection of cultural heritage among local residents.

Targets:

- 29 cultural monuments of national importance and 160 cultural monuments of local importance marked and supplied with digital contents

Preconditions and assumptions

- Proposed EU funds available for implementation otherwise the project shall be negotiated with participating municipalities to fund it;

	- Municipalities interested to co-finance the project; - Ministry of Culture implements marking of monuments with national importance in participating municipalities in 2019.
Players involved *(please indicate organisations in the region who are involved in the development and implementation of the action and explain their role)*	**Združenje zgodovinskih mest Slovenije/ Association of Historic Cities** Lead partner will implement the whole project in close coordination with municipalities and ICHS. With its staff LP will coordinate municipalities and prepare baseline contents which will be later on edited, digitalised and marked by selected external sub-contractors. This assures same quality level, unified approach and cost-efficiency. **Potential partners:** **Ministry of Culture** being responsible for the national register of immovable heritage will enable access to the register data for digital marking for cultural monuments of local importance. Furthermore, it will conduct marking of cultural monuments of national importance in the region. **Institute for protection of Cultural Heritage of Slovenia, Kranj Regional unit, Ljubljana Regional unit** ICHS as official institution for preservation and conservation of cultural monuments will participate in selection of monuments to be marked, preparation of basic contents and materials and conservational supervision of physical marking on the propriate spots of individual monuments. **Municipalities participating in the project** (City municipality of Kranj, Municipality of Škofja Loka, Municipality of Jesenice, Municipality of Tržič, Municipality of Radovljica): cooperating in selection of local monuments, solving legal issues –consents of owners, logistical support in setting up the system
Timeframe	Phase 1 (2019): Marking of cultural monuments of national importance Phase 2 (2021-2023): Marking of cultural monuments of local importance
Costs	**Total costs by categories:** **106.880 EUR*.** *Phase 2 only Staff costs: 21.000 EUR Administration and travel (10 -20%): 4.200 EUR External services: 70.480 EUR Equipment: 11.200 EUR
Funding sources	**Potential funding sources*[44]:** Creative Europe (60 % of eligible costs) 59.808 EUR Partners/municipalities (40 % + VAT) 39.872 EUR *Phase 2 only, P1 is funded by the Ministry of Culture as part of a national action.

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[44] Indicated funding sources are indicative and subject of availability and succesful project application. Indicated funding under Phase 1 and Phase 2 does not bind the Ministry of Culture nor the programme operator nor the municipalities or proposed partner institutions providing national or local public services in culture (IPCH, national and authrised museums) to any direct financial and legal obligations.

5.1.5. Action 5: Living Memory *(in Gastronomy)* goes digital

Part I: General information	
Project / Programme	**Living Memory (in Gastronomy) goes digital**
Heritage:	☐ Natural heritage ☐ Immovable cultural heritage ☐ Movable cultural heritage ☐ <u>Intangible cultural heritage</u> ☐ <u>Living memories, local literature</u>
Challenge/objective addressed:	☐ Increase scope of digitization ☐ <u>Increase quality level of digitization and digitalization</u> ☐ <u>Assure long term preservation</u> ☐ Develop digital policies/ strategies for institution ☐ <u>Improve competences and strengthen institutional and technical capacities</u> ☐ <u>Improve accessibility and user experience of digital heritage contents</u> ☐ Exploit business and innovation potential of digitalizing heritage ☐ <u>Establish multisectoral and multilevel cooperation in heritage digitization</u> ☐ Other:
Partner organization:	**BSC Kranj d.o.o.(with co-working)** Staneta Žagarja 37, 4000 Kranj, Slovenia, www.bsc-kranj.si
Other partner organisations involved (if relevant):	**Potential partners:** **Mestna knjižnica Kranj** (and other libraries from Gorenjska) Gregorčičeva ulica 1, 4000 Kranj, www.mkk.si **High school for gastronomy and tourism Bled** Prešernova cesta 32, 4260 Bled, www.vgs-bled.si **Ljudska univerza Kranj/ Adult education centre Kranj** - coordinator of Multi-generation centre of Gorenjska Cesta Staneta Žagarja 1, 4000 Kranj, Slovenia, www.luniverza.si **Chamber of Craft Kranj –** coordinator of regional chambers Staneta Žagarja 37, 4000 Kranj, Slovenia, www.oozkranj.com **Development Agency Sora** Poljanska cesta 2, 4220 Škofja Loka, www.ra-sora.si **Tourism Radovljica** Linhartov trg 9, 4240 Radovljica, Slovenia, www.radolca.si **Other stakeholders:** Top 10 restaurants of Gorenjska[45] Slovenian ethnographic museum
Country:	Slovenia
NUTS2 region:	West Slovenia
Contact person:	Breda Karun
E-mail:	mkk@mkk.si

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[45] https://siol.net/trendi/kulinarika/najboljse-gostilne-na-gorenjskem-473314

Phone:	+386 4 201 35 50

Part II: Policy context	
Action plan aims to impact:	☐ Investment for Growth and Jobs programme *(if OP 2021-2027 is compliant)* ☐ European Territorial Cooperation programme ☐ <u>Other regional development policy instrument</u>
Name of policy instrument addressed:	<u>Rural development programme of Slovenia 2014-2020 and 2021-2027:</u> *BSC Kranj is authorised operator of LEADER funds* / Community Led Local Development (CLLD) - Local development strategy for Local Action Group Gorenjska Košarica[46] covering 70 % of the Gorenjska region while RA Sora operates the programme for the remaining rural areas of Škofja Loka. Both programmes already support local food and use of traditional dishes in modern culinary however and some of the funds are still available for the next years. *Assumption: The proposed action is addresses mainly rural areas of the region in therefore this topic might be funded from current LAG strategy or included into the new strategy 2021-2027 for the two LAGs in Gorenjska region: LAG Gorenjska košarica and LAG Loško pogorje. BSC Kranj is operator of LAG Gorenjska košarica and initiator of the local strategy.* *Alternative:* <u>EEA and Norwegian Financial Mechanisms 2014-2021</u> in Slovenia will support projects enhancing human capital in the area of education, scholarships, apprenticeships and youth entrepreneurship. Since the programe is not yet launched in Slovenia it is assumed, further to the Blue book, that the programme will look for cooperation and partnership projects between education, research and the work of work as well as projects improving of quality of education and training and adult participation in lifelong learning. With slight modifications the present action might comply with this programme objectives.

Part III: Details of the actions envisaged	
The background *(please describe the lessons learnt from the project that constitute the basis for the development of the present Action Plan)*	- Living memory as intangible heritage is closely related to present and past daily life of the people. Thus, it is of high interest for local residents as well as visitors. Intangible heritage is officially collected and digitally registered by Slovenian ethnographic museum while there are many other different institutions (libraries, adult education institutes..), initiatives of civil society, inter-generation circles and individuals who record and report on past rural or city life, economies, family and regional events, dialects, literature.. Although there exists methods and tools in the form of digital portals such as www.kamra.si or www.gorenjci.si , there is evident lack of cooperation and coordination between different institutions in addressing the regional living

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[46] https://www.las-gorenjskakosarica.si/wp-content/uploads/STRATEGIJA_LAS_GK.pdf

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memory. More organised approach is needed to address the issue systematically and preserve joint efforts in an accessible digital form.

- **Slovenia is nominated for European region of Gastronomy for 2021** which is already raising motivation for food among different actors, from restaurants to schools and youngsters. Food plays an important role in Slovenian history, daily file, events .. Slovene culinary is as diverse as its the landscape. Although Gorenjska is a traditional region with recognised gastronomy there are still many varieties and tastes between valleys and villages. Some of them are already presented in the brochure Taste Gorenjska[47] , while some are also officially listed as intangible heritage (gingerbread, wooden models for dražgoški kruhek, mohant – special cheese from Bohinj, production of kranjska sausage..). But there are much more traditional local dishes not recognised by locals, traditional and modern regional kitchen/ regional restaurants / chefs and visitors such as *Jurjeva kapa, loška smojka, ajdovi krapi, govnač, žganci, tržiška bržola*…[48].

- The action is complementary to several other projects and events running in the region such as Open kitchen, food festivals, schools culinary contests, regional culinary quality scheme, local production of traditional sorts..

- Learning from others such as CD ETA Hispanic Digital Library[49] ot IGCAT - south Aegean project on Gastronomy knowledge transfer[50] makes us believe, **regional gastronomy could be the first topic for joint digital cooperation** among different professional institutions, businesses and civil society, focusing on inter-generation learning by digital preservation and presentation of living memory. However other topics are not excluded thus gastronomy can be amended with other while keeping the approach.

- **Other alternative topics for the same approach**: Living with/by the water/river , Living in the mountains…

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Action

(please list and describe the actions to be implemented)

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What needs to be done?

- In order to build on existing portals (www.kamra.si) , methods of digitisation of living memory, initiatives and institutions in the region dealing with living memory and interested in gastronomy, the proposed action intends to digitalise traditional and contemporary preparation of food most typical for different areas of Gorenjska. The brochure Taste of Gorenjska represents a baseline for selection of relevant dishes while the process itself shall:
  o Be coordinated at regional level and between different stakeholders;

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[47] http://www.bled.si/en/news/2015/01/165-Taste-Gorenjska
[48] http://arhiv.gorenjskiglas.si/article/20070101/C/301019894/znacilne-gorenjske-jedi
[49] https://www.interregeurope.eu/policylearning/good-practices/item/1663/biblioteca-digital-hispanica/ and
   http://www.bne.es/en/Catalogos/BibliotecaDigitalHispanica/Acercade/
[50] https://igcat.org/south-aegean-gastronomy-knowledge-transfer-across-generations/

- o Engage local population of different ages, sex and gastronomy professions as possible;
- o Promote transfer of gastronomy knowledge from older to young generations and future chefs, and digitalisation knowledge from youth to elderly generation (win-win;
- o Digitalisation process shall have i) educative, ii) heritage preservation purpose and iii) social inclusion purpose;
- o Increase knowledge base and awareness of what is and what is not traditional culinary of Gorenjska and how it is interpreted today or how it can be interpreted in the future.
- o Propose official registration of certain regional dishes at the official register by the Slovenian ethnographic museum.
- o Besides the final digital output also the process and collaboration matters.
- The whole action shall be centrally coordinated by professional institutions which through tis channels engage different target groups (teen-agers/ students, restaurant chefs, grannies (grad mamas) ....

Project will preferably consist of several WPs and activities:

WP 1: Preparing a detailed digitalisation process plan
- Defining what, what scope (approx. 30-40 dishes from the brochure taste of Gorenjska or 2 per local community) digitally recorded and presented in educative and inspiring way in terms of cooking technology, local ingredients, dish presentations, taste and.., target audiences), which digital technology (preferably short up to 10 min films), required minimum standards for , traditional and contemporary dish presentation, prepared in collaboration of three parties i) youngsters, ii) elderly and iii) chef/restaurant form Gorenjska regin.
- The identification of existing restaurants preparing certain dishes, existing elderly circles of life-long programmes and current gastronomy competitions in schools.
- Defining approach of the implementation and preparation of guidelines
Deliverables:
- Digitalisation plan

WP 2: Implementation of the digitalisation
- Option 1: through an open call to youngsters up (age 14-20) as leaders of the team of three partners
- Option 2: through organised approach to secondary / high schools, adult education centres and existing restaurants
- Provision of support and mentoring to local teams

- Selection of best videos and their technical and editorial preparation for publishing on a portal as a unique collection of intangible heritage, preferably kamra.si

Deliverables:
- 30-40 digitalised technologies/skills in preparing gorenjska dishes in traditional and modern way

WP 3: Educative and awareness campaign on regional gastronomy
- Campaign plan
- Strong regional and national PR campaign aiming at raising importance of preserving the traditional skills
- Preparation of an overall film on the process of digitalising living memory with testimonies of participating teams
- Education campaign among professionals (chambers, restaurants sections) and gastronomy schools and chambers including participation at different culinary, tourism, digital, well-being or other events supporting the Slovenia gastronomy region 2021
- Webinars or special workshop events for restaurants and students

Deliverables:
- Educative and awareness campaign on regional gastronomy implemented

WP 4. Project management

Project management will follow general principles of transparent operation, efficient partner and tasks coordination, positive human resource management, sound financial management, regular monitoring and risk management. Lead Partner will take over the coordination and management responsibilities.

Deliverables:
- Regular activity and financial reports as required by the funding programme

Where?

The project will be implemented in historic towns of Gorenjska region: Kranj, Tržič, Škofja Loka, Radovljica, Jesenice/ Stara Sava and Železniki.

Gorenjska is one of 12 Slovenian NUTS 3 regions representing a traditional region with distinctive cultural and natural heritage. Gorenjska accounts for 10 % of Slovene population and it is one of the leading tourism destination in the country, representing 1.126.577 visits or 23 % of tourist visits in 2017 in Slovenia). 83 % of tourists in Gorenjska region are foreign visitors. With the tourism arrivals historic towns of Gorenjska are found in revitalisation phase over the decades of decline. In this respect emphasising the existing most valuable immobile cultural heritage in the historic centres is vitally important for the increased tourism flow in the mentioned towns.

	Results/ expected overall programme change in Gorenjska region - Significant movement in awareness, passion and care for gastronomy heritage in Gorenjska region stimulated; - Increased competences among youngsters and professionals on regional cuisine; - Empowered elderly participating in sharing traditional cooking skills, - Improved digital access to information on most significant tractional reginal dishes most valuable national and local cultural monuments, both for tourists as well as local residents. - Indirect contribution to sustainable tourism and local development. Targets: - 30-40 most typical dishes digitally recorded in following unified method, stored and preserved for future generations and/or available as a learning tool for gastronomy students or existing workers in restaurants, hotels - More than 90 local residents (youth, adult, professionals, teachers) directly involved in digital production with new skills and learning interaction experience - More than 500 stakeholders form tourism, media, education, catering business, digital sector actively participating events or digital communication **Preconditions and assumptions** - Proposed EU funds available for implementation otherwise the project shall be negotiated with participating municipalities or sponsors to fund it.
Players involved *(please indicate organisations in the region who are involved in the development and implementation of the action and explain their role)*	**Lead partner:** **BSC Kranj:** Project management, Regional networking of relevant stakeholders, organising the call and hackathon facilities in coworking, support in engaging young talents and creative community within Kovačnica co-working space **Other potential partners:** **Mestna knjižnica Kranj** (and other libraries from Gorenjska) Technological and methodological strategy and coordination as consent manager of portal www.kamra.si for Gorenjska region **High school for gastronomy and tourism Bled** Support in preparing guidelines and mentoring the teams in digitalisation; Provision of experts and trainers in gastronomy and tourism marketing **Ljudska univerza Kranj/ Adult education centre Kranj** - as coordinator of Multi-generation centre of Gorenjska they will be in charge of motivating adults generations and support inter-generation learning

	Chamber of Craft Kranj – as coordinator of regional chambers they have access to restaurants and chefs around Gorenjska region; thus they shall motivate them for cooperation and trainings; they could support teams in Kranj region **Development Agency Sora-** with experiences in local food products the agency might support and mentor the teams operating in Loško area **Tourism Radovljica -** with experiences in Tests of Radovljica event they can significantly contribute to the quality of the call, support the local teams in the Julian alps destination and/or take over **Secondary school for gastronomy and tourism Radovljica/ Ekonomska gimnazija in srednja šola Radovljica** They shall motivate students to take over the projects of filming the traditional dishes according to the guidelines and provide them mentoring. **Other stakeholders:** Existing restaurants of Gorenjska already preparing the traditional dishes Slovenian ethnographic museum
Timeframe	2019-2020: Project development and fund rising 2021-2022: Implementation
Costs	**Total costs for 2 years by categories:** 200.400 EUR Staff costs: 114.000 EUR Administration and travel (10 %): 11.400 EUR External services: 75.000 EUR
Funding sources	**Potential funding sources[51]:** Leader LAG Gorenjska košarica (85%) * 129.367 EUR Leader LAG Loško pogorje (85%)* 27.730 EUR Partners/municipalities/ donors (15 %, incl. VAT) 43.303 EUR *Remark: VAT is ineligible and covered by partners or their respective municipalities. * Alternative: EEA and NFM*

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[51] Indicated funding sources are indicative and subject of availability and succesful project application. Indicated funding does not bind the programme operator nor the municipalities or proposed partner institutions providing national or local public services in culture (IPCH, national and authrised museums) to any direct financial and legal obligations.

5.1.6. Action 6: Creative Heritage for Orange City Economy

Part I: General information	
Project / Programme	**Creative Heritage for Orange City Economy-** promoting heritage as a source of digital creativity, learning and innovation in orange city
Heritage:	☐ Natural heritage ☐ Immovable cultural heritage ☐ Movable cultural heritage ☐ Intangible cultural heritage ☐ Living memories, local literature
Challenge/objective addressed:	☐ Increase scope of digitization ☐ Increase quality level of digitization and digitalization ☐ Assure long term preservation ☐ Develop digital policies/ strategies for institution ☐ Improve competences and strengthen institutional and technical capacities ☐ Improve accessibility and user experience of digital heritage contents ☐ Exploit business and innovation potential of digitalizing heritage ☐ Establish multisectoral and multilevel cooperation in heritage digitization ☐ Other:
Partner organization:	**Zavod Carnica – Zavod za kulturo in turizem (Layer house)** Struževo 3, 4000 Kranj, Slovenia, http://www.layer.si/si/turizem
Other partner organisations involved (if relevant):	**Partner: BSC Kranj d.o.o.(with Kovačnica Co-working unit)** Staneta Žagarja 37, 4000 Kranj, Slovenia, www.bsc-kranj.si
Country:	Slovenia
NUTS2 region:	West Slovenia
Contact person:	Selman Čorović, direktor
E-mail:	selmanster@gmail.com, Selman.corovic@layer.si
Phone:	+386 40 859 421

Part II: Policy context	
Action plan aims to impact:	☐ Investment for Growth and Jobs programme *(if OP 2021-2027 is compliant)* ☐ European Territorial Cooperation programme ☐ Other regional development policy instrument (Erasmus + Programme of the European Union)
Name of policy instrument addressed:	Erasmus Plus+ : Strategic Partnerships The action aims to stimulate creative approach towards heritage within the education sector therefore it complies with the objectives of Erasmus Plus Strategic Partnership projects which support innovation in education. Synergies with Erasmus+ will be reinforced by more systematically mainstreaming the needs of cultural education and training institutions into the existing and future actions.
Part III: Details of the actions envisaged	

The background	City of Kranj as an economic, cultural, administrative, education and service centre of Gorenjska region has gone through difficult industrial transformation over last 30 years. The past industrial skills and technical background is nowadays expressed in strong software, telecommunication and number of start-ups in web applications, cryptocurrencies, blockchain and other digital technologies.
(please describe the lessons learnt from the project that constitute the basis for the development of the present Action Plan)	While the remains of immobile industrial heritage can be seen all over the city the past traditional industrial skills such as textile production, sewing, shoe making … are represented today only in small but emerging design and art studios and workshops.
	Layer House as a driver of new cultural stream of Kranj city sees huge unexploited opportunity in inspiring new generations in creative use of industrial heritage being living memory, traditional skills, movable or immovable industrial heritage for artistic expression, education, multimedia or innovative business ideas.
	Industrial Creativity and so-called Orange Economy (creativity, culture, talent and innovation) are also in the focus of Kranj candidacy for European Capital of Culture 2025 thus it is important to appropriately approach youth and schools/education. Similar practices were observed by CD-ETA partners, in particular in „think Culture – integrated platform for access to experiences".[52]
Action	**What needs to be done**?
(please list and describe the actions to be implemented)	Today's young generations grow with digital devices therefore different virtual tools are the best way to engage young generations (teenagers and students) in heritage. The project therefore **aims** to develop and test together with youngsters/ students, university academics (higher education level) and designers/ entrepreneurs (ground level) several **virtual learning tool(s) (internet level) which would stimulate and facilitate creative process and thinking based on industrial (for example textile) heritage of Kranj city.** The tool(s) shall be educative and can have different form from e-learning tools or apps, educative games, educative podcasts, videoclips, etc. The supporting process shall integrate methods such as Hackathon, SCRUM, problem-based learning (PBL), CDIO[53] and be supported by a manual and a course (if possible on-line) for teachers. The tools shall be tested in education process of secondary and high schools of City of Kranj and then disseminated in the region Slovenia and in potential other partner countries.
	Project will consist of several indicative activities:
	- Activity 1: Analysis – Discovering framework and culture for development

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[52] https://www.interregeurope.eu/policylearning/good-practices/item/2101/thinkculture-a-platform-for-accessing-experiences/

[53] educational concept that stress enginiring fundamentals set in the context of conceiving, designing, implementing and operating real-world systems and products

- o Identification of local stakeholders from education, in orange economy – creative and heritage sector
- o Identification of areas and sectors of industrial heritage to be addressed though the virtual learning technology (e.g. textile)
- o Needs assessment among the target group (youth, students): what pulls youth into the creative process; what skills and competences are needed
- Activity 2: Product Design - Proposal of innovative education toolkit
  - o Development of a learning plan (learning technology): aims, didactical and IT methods applied, competences to be stimulated, topics and contents
  - o Proposal of virtual learning tools which best address the proposed learning technology and heritage area.
- Activity 3: Orange tool prototyping, testing and evaluation
  - o Development of a prototype of the virtual learning tool (shooting some creative processes in practice, programming, modelling,..)
  - o Development of manual and training course for teachers
  - o First test with small group if students)
  - o Launch of the virtual tool
  - o Second testing with several schools / high schools in the city and region
  - o Evaluation of tool and creative competences achieved
- Activity 4: Dissemination & exploitation of results
  - o Promotion and if possible accreditation of a tool within the Slovene education and heritage sector (museums, libraries..)
  - o Transfer of the tool in other European cities with strong orange economy sector ambitions
  - o Promotion through European wide networks such as Europeana…
- Activity 5: Project Management & validation & quality

Where?

The project will be implemented in City of Kranj (54,000 population) being the cultural and creativity hub of Gorenjska region, Slovenia. City of Kranj is a candidate city for European Capital of Culture 2025.

Results/ expected change by end by 2022:
- At least 1 virtual learning tool promoting innovation and creative processes in education based on industrial heritage, preferably textile of Kranj
- At least 5 teachers in secondary and high schools understanding and able to apply the virtual learning tool in the education process

	- At least 100 youngsters/students inspired in heritage creativity process through learning experiencing of the virtual tool **Preconditions and assumptions** - Local stakeholders interested in cooperation and committed in introducing a new approach - The national education authorities accepting the education tool
Players involved *(please indicate organisations in the region who are involved in the development and implementation of the action and explain their role)*	**Zavod Carnica – Zavod za kulturo in turizem (Layer house):** project content management, product design and concept **BSC Kranj d.o.o.(with Kovačnica Co-working unit)** Project management, coordination, testing, accreditation and dissemination **Other stakeholders:** - Faculty of Organisational Sciences - Gorenjski muzej and other cultural institutions - Creative industries initiatives - Industrial (textile) design start ups - Chamber of Craft/ Chamber of Commerce - Secondary and high schools in Kranj and Gorenjska region.
Timeframe	2019: Analysis 2020: Product Design & Prototyping 2021: Orange tool prototyping, testing and evaluation & Dissemination
Costs	Staff costs and external services: 131.246 EUR Travel, subsistence and other costs: 13.800 EUR Total 145.046 EUR
Funding sources	Potential funding sources[54]: Erasmus Plus Alternative: Call for proposals on Promotion of creative cultural industries – centre for creativity 2019f[55]

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[54] Indicated funding sources are indicative and subject of availability and succesful project application. Indicated funding does not bind the programme operator nor the municipalities or proposed partner institutions providing national or local public services in culture (IPCH, national and authrised museums) to any direct financial and legal obligations.

[55] http://www.mk.gov.si/si/javne_objave/javni_razpisi/?tx_t3javnirazpis_pi1%5Bshow_single%5D=1911

Date:	
Signature:	
Stamp	

Partner control confirmation	Will be available when project is approved.
Date:	
Signature:	
Stamp:	

Control report	

Annex 1 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)

Development Council of the Gorenjska region, Slovenia, agrees to support and promote the implementation of the Action plan for Collaborative Digitization of Natural and Cultural Heritage of Gorenjska region.

The Action plan to which this statement refers to was developed within the Interreg Europe project CD-ETA.

Date: 20 June 2019

Name and position:

Stanislav Bobnar, president of the Development Council of the Gorenjska region

Signature:

AGREEMENT ON IMPLEMENTATION

Subject: Agreement on the implementation of the Action plan "Collaborative Digitization of Natural and Cultural Heritage of Gorenjska region"

Project: CD-ETA

Name of Institution: Ministry of Culture

Contact person: mag. Ksenija Kovačec Naglič

Ministry of Culture of the Government of Republic of Slovenia agrees to support and promote the implementation of the Action plan for Collaborative Digitization of Natural and Cultural Heritage of Gorenjska region, whereas indicated funding sources stated in am action plan are indicative and subject of availability and successful project application in the future.

The Action plan to which this statement refers to was developed within the Interreg Europe project CD-ETA.

Indicated activities stated in am action plan do not bind the Ministry of Culture of Republic of Slovenia financially or legally.

Sincerely Yours,

Ljubljana, __28. 06. 2019__

mag. Zoran Poznič
Minister