



DELIVERABLE D.T.2.1.1

| | | |
|--------------|--|--------------------------|
| Title | Guidelines for successful implementation of strong and interconnected museum clusters | Final version 06/2021 |
|--------------|--|--------------------------|

Author(s):
National Tourism Cluster „Bulgarian Guide“
With collaboration of all PPs

Project ID DTP3-1-359-2.2



Table of Contents

| | |
|--|----|
| List of figures and tables | 2 |
| Abbreviations | 3 |
| Introduction..... | 4 |
| 1. General Scope of the Living Danube Limes Project | 5 |
| 1.1. Key objectives..... | 5 |
| 1.2. Placement and strengthening of museum cluster and visitor centers in the Danube Limes region 6 | |
| 1.3. Strategy for a successful Living Danube Limes Museum Cluster | 6 |
| 2. What is a Museum Cluster ? | 6 |
| 2.1. Cluster concept..... | 6 |
| 2.2. Why a Museum Cluster | 8 |
| 3. Identification of the LDL Museum Cluster | 9 |
| 3.1. Methodology | 9 |
| 3.2. Analysis of the targeted cluster participants along the Danube | 9 |
| 3.2.1. Types of analyzed sites | 9 |
| 3.2.2. Geographical allocation | 10 |
| 3.2.3. Ownership, importance, and focus..... | 11 |
| 3.2.4. Level of innovation..... | 13 |
| 3.2.5. Labeling and networking..... | 14 |
| 3.3. Identified characteristics of the museum structure..... | 16 |
| 3.3.1. Profile of participants, visitors, and existing structures..... | 16 |
| 3.3.2. Benefits for the participants | 17 |
| 3.3.3. Benefits for the visitors | 18 |
| 3.3.4. Collaboration and cooperation | 20 |
| 3.3.5. Challenges and obstacles | 23 |
| 3.4. SWOT Analysis of LDL Museum Cluster..... | 23 |
| 4. Recommendations for the establishment of LDL museum cluster..... | 25 |
| Conclusion | 29 |
| References..... | 30 |



List of figures and tables

| | |
|---|----|
| <i>Figure 1: Aspects of the LDL Project</i> | 5 |
| <i>Figure 2: Categories of sites, own graphic, NTC BG Guide</i> | 10 |
| <i>Figure 3: Geographical allocation of targeted sites, own graphic, NTC BG Guide</i> | 11 |
| <i>Figure 4: Danube location of museums, tourist centers, visitor centers, and others on Google Maps, own graphic, NTC BG Guide</i> | 11 |
| <i>Figure 5: Importance of the identified museums/sites, own graphic, NTC BG Guide</i> | 12 |
| <i>Figure 6: Ownership of the museums/sites, own graphic, NTC BG Guide</i> | 12 |
| <i>Figure 7: Focus of the museums/sites, own graphic, NTC BG Guide</i> | 13 |
| <i>Figure 8: Level of innovations by countries, own graphic, NTC BG Guide</i> | 14 |
| <i>Figure 9: Percentage of the identified sites/museums, being part of a network by countries; own graphic, NTC BG Guide</i> | 14 |
| <i>Figure 10: Categories of networks/labels; own graphic, NTC BG Guide</i> | 15 |
| <i>Figure 11: Typical profile of visitors; own graphic, NTC BG Guide</i> | 16 |
| <i>Figure 12: Annual number of visitors; own graphic, NTC BG Guide</i> | 17 |
| <i>Figure 13: Museums/Sites’ expectations, own graphic, NTC BG Guide</i> | 18 |
| <i>Figure 14: Common initiatives, own graphic, NTC BG Guide</i> | 18 |
| <i>Figure 15: Interactions with visitors, own graphic, NTC BG Guide</i> | 19 |
| <i>Figure 16: Advantages for visitors, own graphic, NTC BG Guide</i> | 20 |
| <i>Figure 17: Collaboration with stakeholders, own graphic, NTC BG Guide</i> | 20 |
| <i>Figure 18: Cooperation with other organisations, own graphic, NTC BG Guide</i> | 22 |
| <i>Figure 19: Interest to contribute to LDL Museum Cluster, own graphic, NTC BG Guide</i> | 22 |
| <i>Figure 20: Challenges faced by the museums/sites, own graphic, NTC BG Guide</i> | 23 |
| <i>Table 1: Challenges faced by the museums/sites, own graphic, NTC BG</i> | 24 |



Abbreviations

| | |
|-------|---|
| AR | Augmented Reality |
| DLMC | Danube Limes Museums Cluster or LDL Museum Cluster |
| ECCP | European Cluster Collaboration Platform |
| EOMIC | European Observatory for Clusters and Industrial Change |
| EUSDR | EU Strategy for the Danube Region |
| ICOM | International Council of Museums |
| ITI | Integrated Tourists Interaction |
| LDL | Living Danube Limes |
| MoU | Memorandum of Understanding |
| NEMO | Network of European Museum Organizations |
| QR | Quick Response |
| SMEs | Small and Medium Enterprises |
| TIC | Tourist Information Centers |
| VCs | Visitor Centers |
| VR | Virtual Reality |
| WPT | Thematic work packages |

Introduction

The cluster-based approach is a tool that supports museums to identify new potential market opportunities, to become aware of best practices and be more competitive, as well as to be more innovative. A single museum or visitor center can achieve greater levels of competitiveness when it steps out of the box and go beyond its limited capability to meet the challenges and solve problems. Regardless of their size, by working together or being part of a network or a cluster, museums and/or visitor centers can boost the local economy or become superstar museums.¹

These guidelines are developed under the funded by the TCP Danube 2014-2020 project „*Living Danube Limes - Valorising cultural heritage and fostering sustainable tourism by LIVING the common heritage on the DANUBE LIMES as basis for a Cultural Route*” to outline the recommendations for the identification and establishment of a strong and interconnected Living Danube Limes (LDL) Museum Cluster.

The Danube Museum cluster will be operating under a transnational scale, connecting, and joining efforts of diverse cultural heritage entities with its related stakeholders and target groups along the Danube and paving the way for a Danube cultural route. As complex and unique as it may sound, the Danube Museum cluster will be the basis for a transnational network of living history on heritage sites, representing a local unique advantage of the Danube region and can become a powerful instrument for change and development. Therefore, these guidelines will support the potential members of the museum cluster to better identify the recommended legal form, structure, and operational system of the transnational LDL museum cluster, as well as the responsibilities of each member in the achievement of the cluster’s goals. The scope of the analysis of the museums and visitors’ centers in these guidelines covered 8 partner countries, including Austria, Bulgaria, Croatia, Slovakia, Hungary, Serbia, Moldova, and Romania.

¹ According to Bruno S. Frey “Superstar museums are a “must-see” for tourists and have achieved cult status. They attract large and increasing numbers of visitors and have a major impact on the local economy”, Superstar Museums and Special Exhibitions, Bruno S. Frey, 2019

1. General Scope of the Living Danube Limes Project

The Living Danube Limes partnership consists of 46 partners (19 project partners and 27 associated strategic partners) from 10 Danube region countries: Austria, Germany, Czech Republic, Slovakia, Hungary, Croatia, Serbia, Bulgaria, Romania, and Moldova.

1.1. Key objectives

The main aim of the Danube Transnational Programme project “Living Danube Limes” is to encourage a common connection between all countries along the Danube Region, using the shared Roman Danube Limes heritage. This union will further be strengthened by:

- Fostering a common Roman brand for the Danube countries, paving the ground for a Cultural Route spanning the whole Danube Region
- Developing strategies for preservation and management of cultural and natural heritage and
- Fostering green and sustainable tourism development.

The aspects of the Living Danube Limes Project are presented on the graphic below. They are equally essential, interconnected and directly supported by each other:

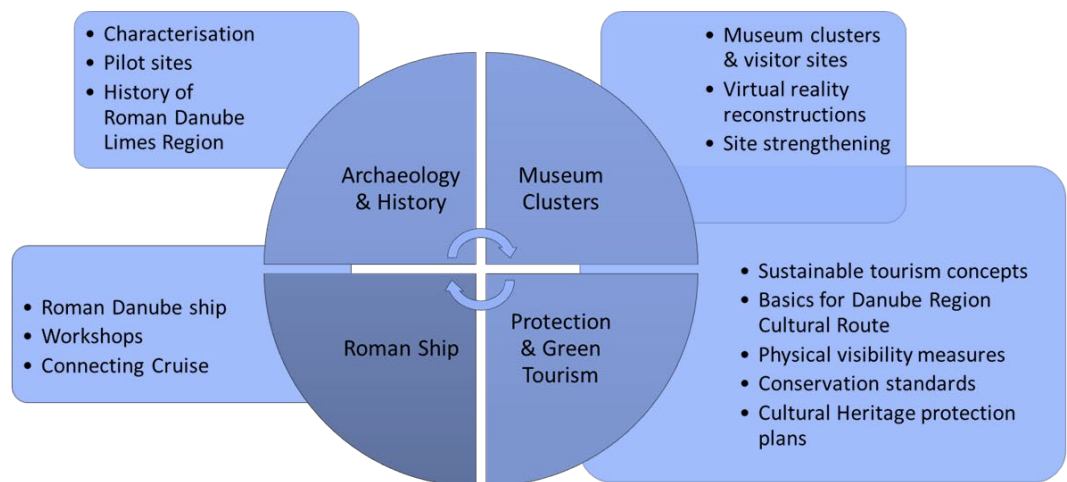


Figure 1: Aspects of the LDL Project

The four sections on the graphic are matching the 4 main thematic work packages (WPTs) in the project:

- WPT1 - “Characterizing the Danube Limes Region” deals with archaeology and history of the Roman era along the Danube;
- WPT2 - “Placement and strengthening of museum cluster and visitor centers in the Danube Limes region” through the creation of museum cluster is the equivalent to the museum cluster part in the graph;

- WPT3 - “Transnational protection concept of cultural heritage items along the Danube including green tourism solutions” deals with protection of the Roman heritage as well as green tourism;
- WPI1 - “Reconstruction of a fully functional Roman Danube Ship for connecting the Danube Region and fostering sustainable tourism” is the part of Living Danube Limes in which the 4th century CE Lusoria is reconstructed.

1.2. Placement and strengthening of museum cluster and visitor centers in the Danube Limes region

Once museums, visitor centers, etc. along the Danube River are identified and connected through the establishment and/or strengthening of a museum cluster, the region will acquire a new destination image by the appearance of a network of the Limes sites. This would increase the economic and social impact on the region’s value and potentials.

Therefore, the objectives of establishing museum clusters are:

- Creating and Maintaining a Danube Museum destination by sharing of common vision and values (coherent museum brand)
- Implementation of Good practices and new technologies
- Integration and supporting of local communities needs and expectations in Cultural heritage management and policies and strategies.

1.3. Strategy for a successful Living Danube Limes Museum Cluster

The main output of the museum clustering approach is the setup of a central Strategy for a successful implementation of strong and interconnected museum cluster along the Danube which will integrate and link all identified museums along the river and will enable a coordinated approach to knowledge dissemination, physical and virtual reconstruction, visibility measures of original Roman infrastructure and the organization of transnational living-history events. The museum cluster will develop common standards for communication and public relations to increase the museums’ value, attractiveness and visibility in the international sustainable tourism sector. The common standards will further enhance the presentation and understanding of the Danube Limes region as one joint cultural and natural landscape in all the Danube Region countries.

2. What is a Museum Cluster ?

2.1. Cluster concept

Michael Porter was the first one to propose the cluster concept in 1990. Ever since, it draws much attention from the scientific world and from politics. It is a concept that is seen as an opportunity for strategic regional economic progress. *“Clusters are geographic concentrations of interconnected companies and institutions in a particular field. Clusters encompass an array*

of linked industries and other entities important to competition. They include, for example, suppliers of specialized inputs such as components, machinery, and services, and providers of specialized infrastructure. Clusters also often extend downstream to channels and customers and laterally to manufacturers of complementary products and to companies in industries related by skills, technologies, or common inputs. Finally, many clusters include governmental and other institutions—such as universities, standards-setting agencies, think tanks, vocational training providers, and trade associations—that provide specialized training, education, information, research, and technical support” (Michael E. Porter, Harvard Business Review Press, November-December 1998).²

Clusters identification can be categorized based on their geographical position (local, regional, national), based on their activity sector (Agricultural, Finance, Manufacturing, IT, Culture, Fashion, Training, etc), or based on their economic drivers (proximity to markets, supplies of specialized labor, presence of input and equipment suppliers, availability of natural resources and infrastructure, low transaction costs).³

Corporation and networking under a Cluster umbrella need to be formally organized and structured to ensure equal access to information and technologies, mobilization of resources, transparency, and flat management. A cluster need to be identified under 3 forms⁴:

- **Legal form:** It could be formal under an association, a foundation, a private limited company, a hybrid organization, or informal as a joint network. It is based on the vision and objectives set by the members for reaching the results of their collaboration.
- **Structure’s form:** it is identified based on competences, role and responsibilities set by the members to implement the agreed strategy.
Examples of cluster structures:
 - Advisory board • steering committee • managing office (cluster manager) • working groups
 - General assembly • Executive board • Secretary-general • Auditors • Arbitration tribunal.
- **System’s form:** decided based on how operations, activities and communication channels are formally organized and carried out in the cluster (virtually, physically, through a one stop shop).

A general typology of Cluster membership can be categorized as follow:

- **Core business:** they are the leading members in the cluster, implementing and participating in its activities and are the direct beneficiaries.

² <https://hbr.org/1998/11/clusters-and-the-new-economics-of-competition>

³ <https://www.oecd.org/cfe/leed/17942708.pdf>

⁴ https://clustercollaboration.eu/sites/default/files/document-store/Cluster_Management_-_A_Practical_Guide_Part_A_Overview.pdf

- Support business: these are highly specialized entities in their respective field located near the core business and their role is to support indirectly the core business through supplying of different resources (equipment, training, knowledge, raw materials, etc).
- Soft support infrastructure: these are the public or private stakeholders who are directly involved in the decision making, policies, promotion and support of the respective cluster sector such as local schools, universities, municipalities, governmental entities, NGOs, etc.
- Hard support infrastructure: these are the entities which enable the provision of a macro environment to the clusters through mandatory facilities like road, ports, communications links, waste treatments, etc.

2.2. Why a Museum Cluster

A museum cluster is the material accumulation of museums in a common area working together with local providers, tourist sites and public sector units. There have been discussions in literature about its different characteristics, as the massive expansion in number, size, and importance of the museums in not-so-distant time has also boosted the number, size, and most of all visibility and impact of the established clusters.⁵

A museum can achieve better levels of competitiveness when it transcends the limits of its own capability to tackle challenges and solve problems. This approach is helping them distinguish innovative market possibilities, understand about good practices and be more inventive.⁶

The vision for museum cluster includes the following aspects: cooperation (the need to work together to achieve results), linking and aligning various elements (finding common grounds and stimulating similar qualities and characteristics), museum networking (connecting together, exchanging good practices, sharing information and knowledge), innovations (a new idea or method, or the use/development of new ideas and methods), gamification (transforming routine activities into games in order to make them more interesting or enjoyable, especially for children and young people), labelling/networking (to support a network through a label/name which give certain characteristics, qualities, etc.).

Regarding all these aspects, the main outputs of creating museum cluster are sharing of common vision and values, coherent museum brand/quality label, implementation of good practices and new technologies, involvement of local communities.

The main benefits of a museum cluster could be stated as follows:

- **Developing synergies:** Even if the museum will still depend on its available and internal operational system, yet it will use the synergies, resources, opportunities developed through the cluster to better achieve results. It will receive tailored support through

⁵https://upcommons.upc.edu/bitstream/handle/2099/12564/C_109_2.pdf?sequence=1&isAllowed=y#:~:text=According%20to%20the%20basic%20definition,of%20museums%20in%20one%20place

⁶ <https://www.tandfonline.com/doi/abs/10.1080/09647770903529434>

sharing of information, upskilling and reskilling programs, sense of belonging, risk and crisis management etc.⁷

- **Building a label:** A high-quality label has the power to grow a business and build a brand. It can passively promote what the offered products and services and can help people distinguish the good and proven quality. Some of the benefits of having a quality label is to refer to certain standards or accreditations, subsequently this has the power to grow business, provides information, meets legal requirements, offers quality of service, etc.⁸
- **Creation of a positive spillover effect on the development of the local communities:** synergies boosting, and brand positioning will help to foster the public and private dialogue and catalyze the funding opportunities and private sector initiatives for the development of the socio and economic environment of the surrounded communities of the cluster.

3. Identification of the LDL Museum Cluster

The approach to identification and establishment of the museum structure in the Danube Limes Region includes a concept outline, preparation of datasheets, and establishment of data catalogue. For this purpose, a thorough research of the museums and sites related to the Danube Roman Limes has been conducted by the LDL Project Partners.

3.1. Methodology

The methodology was applied by datasheets based on publicly available information and a conducted survey.

The mapped and identified museums and visitor centers are from the partner countries Austria, Bulgaria, Croatia, Slovakia, Hungary, Serbia, Moldova, Romania listed according to its category/type, name, location, territorial scope, thematic scope, ownership, brief description, main type of exhibition, part of a network/quality label, level of integrated tourists' interaction, contacts, recommendation of involvement, etc.

The survey with participants from different sites in all LDL partner countries, namely Germany, Austria, Hungary, Czech Republic, Slovakia, Croatia, Serbia, Romania, Bulgaria helped to draw up answers on the type of the existing organizations, its relation to the roman history, its level of importance to the visitor experience, the size of its premises, the number and profile of local and foreigner visitors, the seasonality, and the entrance fees.

3.2. Analysis of the targeted cluster participants along the Danube

3.2.1. Types of analyzed sites

There are 4 types of analyzed sites that are identified for the purposes of the research:

⁷ https://clustercollaboration.eu/sites/default/files/news_attachment/European%20Expert%20Group%20on%20Clusters%20-%20Recommendation%20Report.pdf

⁸ <https://www.gblabels.co.uk/importance-of-quality-labels/>

- **Museums** - institution that cares for a collection of artifacts and other objects of artistic, cultural, historical, or scientific importance;
- **Visitor Centers (VC)** - placed at a specific attraction or place of interest (landmark, fortress, etc.) providing information and educational exhibits and artifact displays;
- **Tourist Information Centers (TIC)** - concern larger areas, e.g., cities, and provide visitors to a location with general information on the area's attractions, lodgings, maps, and other tourism relevant items;
- **Other** – sites/monuments related to the Roman history.

The different percentage of all categories is identified in on the graphic below. It highlights the fact that the main participants in an LDL Museum Cluster will be the Museums.

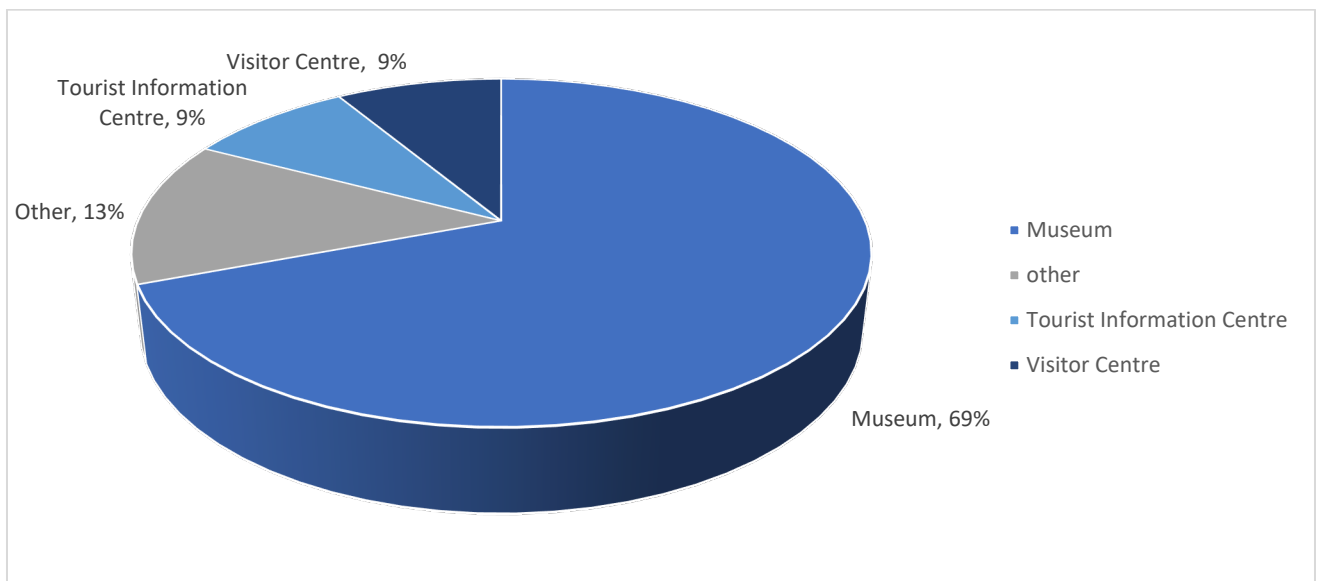


Figure 2: Categories of sites, own graphic, NTC BG Guide

3.2.2. Geographical allocation

Austria, followed by Hungary, have more sites than the other participating countries. Museums hold the main percentage of the existing structures.

The number of shared different categories for each country are on the graphic below:

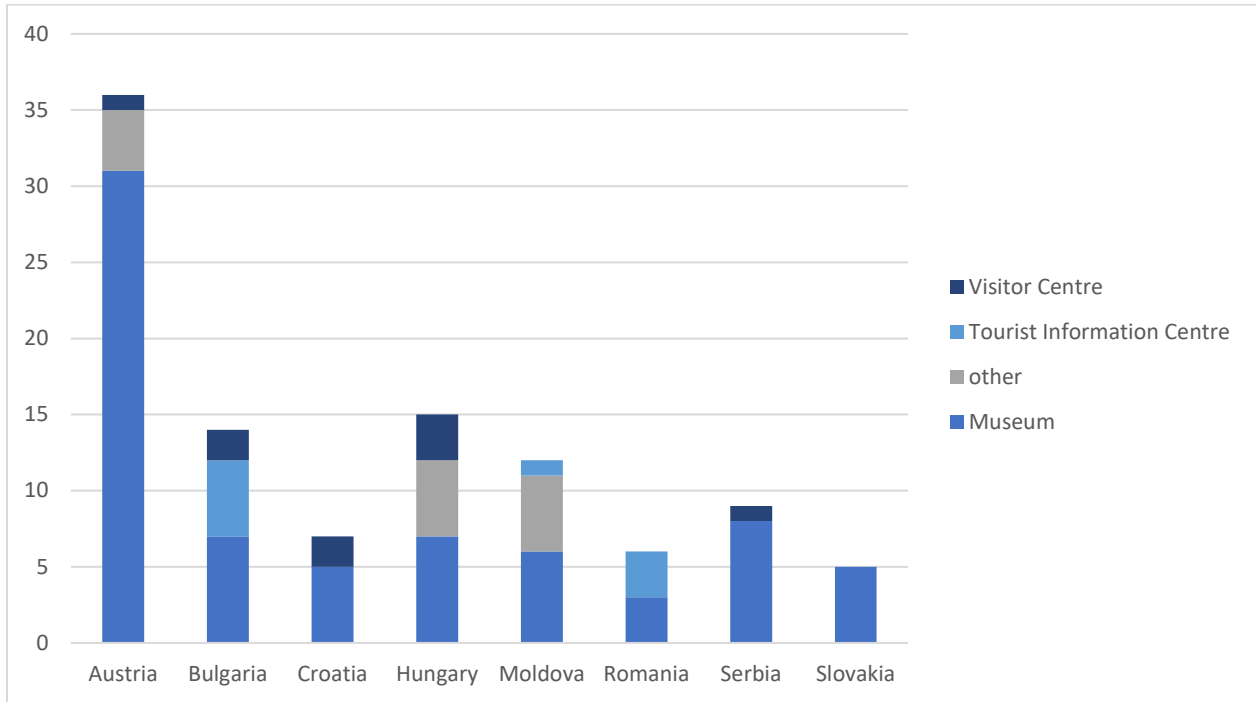


Figure 3: Geographical allocation of targeted sites, own graphic, NTC BG Guide

The geographical allocation of the mapped and identified museums and visitor centers in all partner countries is presented on *Google Maps graphic below*.

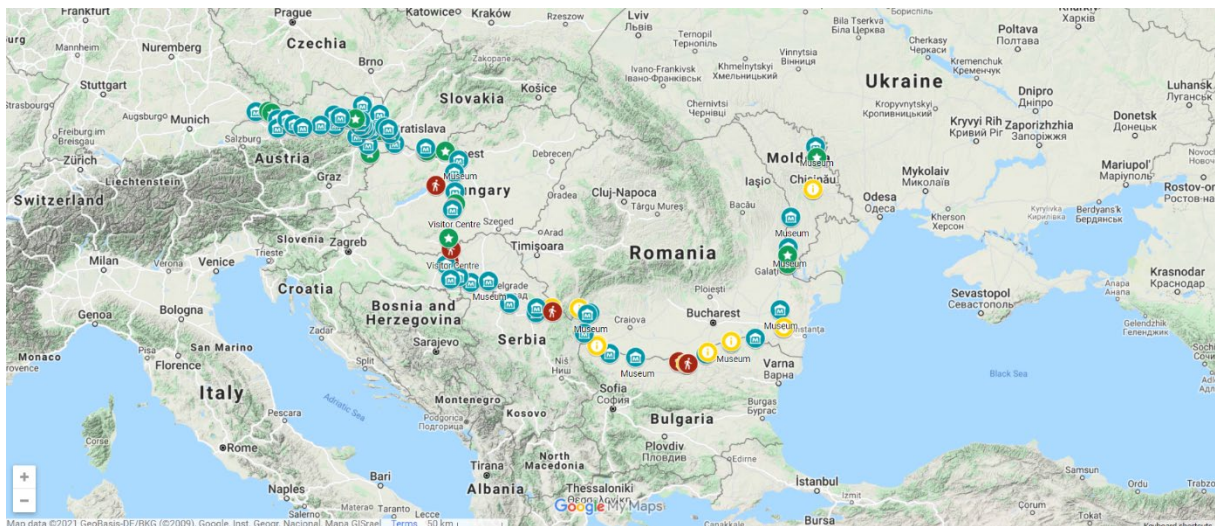


Figure 4: Danube location of museums, tourist centers, visitor centers, and others on Google Maps, own graphic, NTC BG Guide

3.2.3. Ownership, importance, and focus

Most of the museums/sites have local or regional importance, and they are owned by municipalities (state-owned are the next largest group) (graphics 4 and 5). Most of the sites have archeological and/or historical focus (graphic 6). A future Danube Limes Museum Cluster will help the distinguished sites to increase their international importance, helping their

visibility, promotion, and development. The private ownership is insignificant, which brings some security for the sites (the state is taking care of them, although it cannot deal with the enormous problem of treasure hunters most of the time), but on the other hand makes them confined on the possibility of growth funding. The Roman sites along the Danube focus on history, archaeology, architecture, culture, ethnography, military history, with the use of modern technology and science, etc.

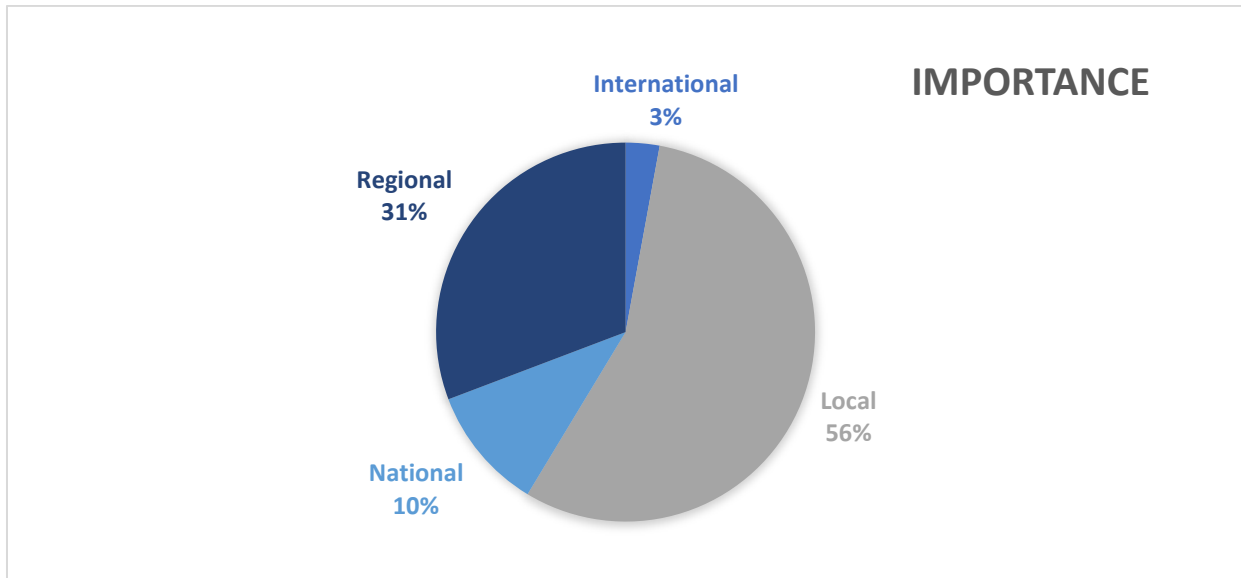


Figure 5: Importance of the identified museums/sites, own graphic, NTC BG Guide

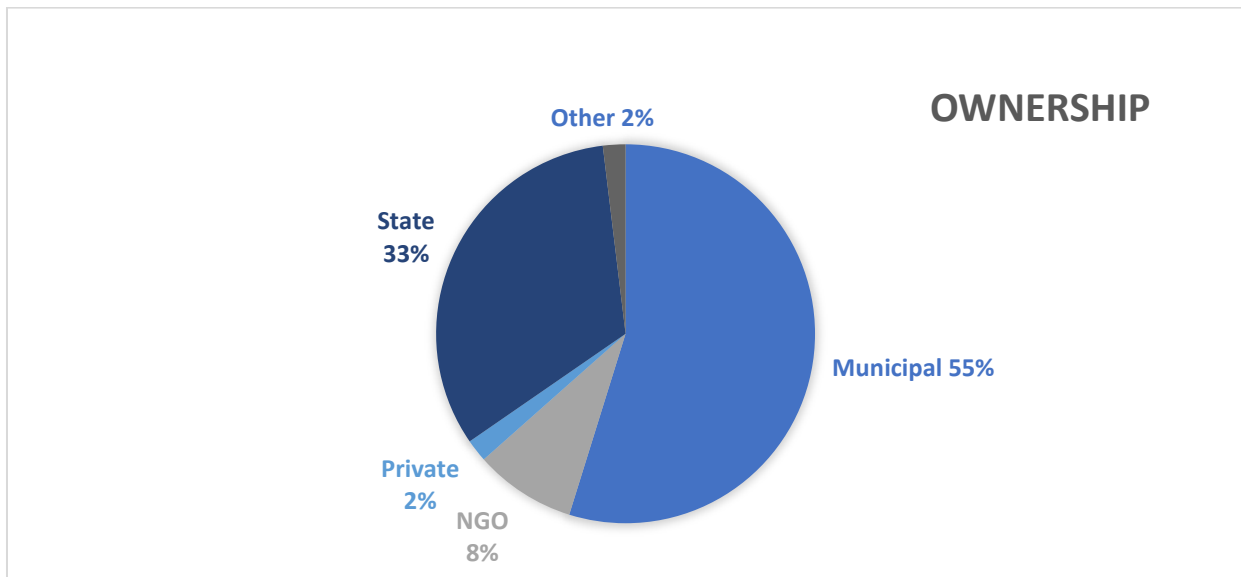


Figure 6: Ownership of the museums/sites, own graphic, NTC BG Guide

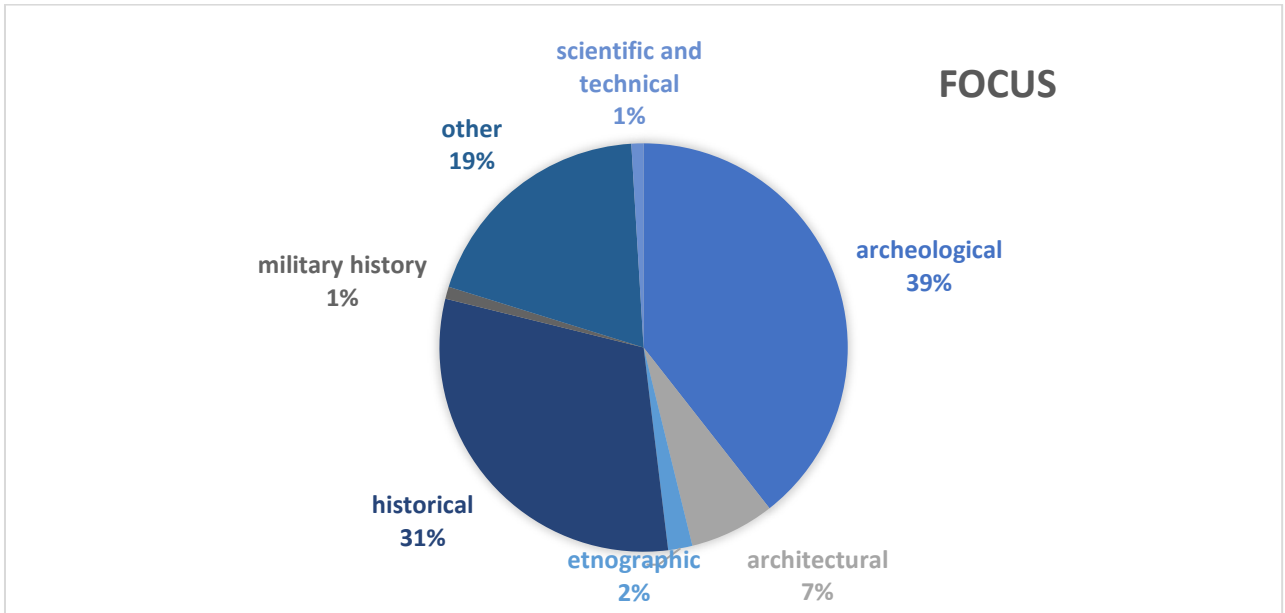


Figure 7: Focus of the museums/sites, own graphic, NTC BG Guide

3.2.4. Level of innovation

The level of integrated tourists' interaction (ITI) is measured on a scale from 1-5 (from none to strong and integrated approach towards comprehensive tourist's experience, including via mobile app, AR/VR, quests, etc. In general, very few of the identified museums/sites provide elevated level of integrated tourists' integration. Hungary and Slovakia have not marked anything (blank), which is considered a lack of information on what the sites are offering and further research in this direction is needed. More than half of the participants mainly from Bulgaria, Romania, Croatia, and Moldova indicate a scale of level 2 and 3, which includes basic informational materials, e.g., information boards, printouts, maps or average ITI, e.g., reconstructions, audio guides, QR scanning, etc. 30% of the places in Austria show a scale of 4 and 5 level (level 4 includes implementation of some innovative tools, e.g., mobile app, gamification, etc., but limited, level 5 is a strong and integrated approach towards comprehensive tourists' experience, incl. via mobile app, AR/VR, etc.).

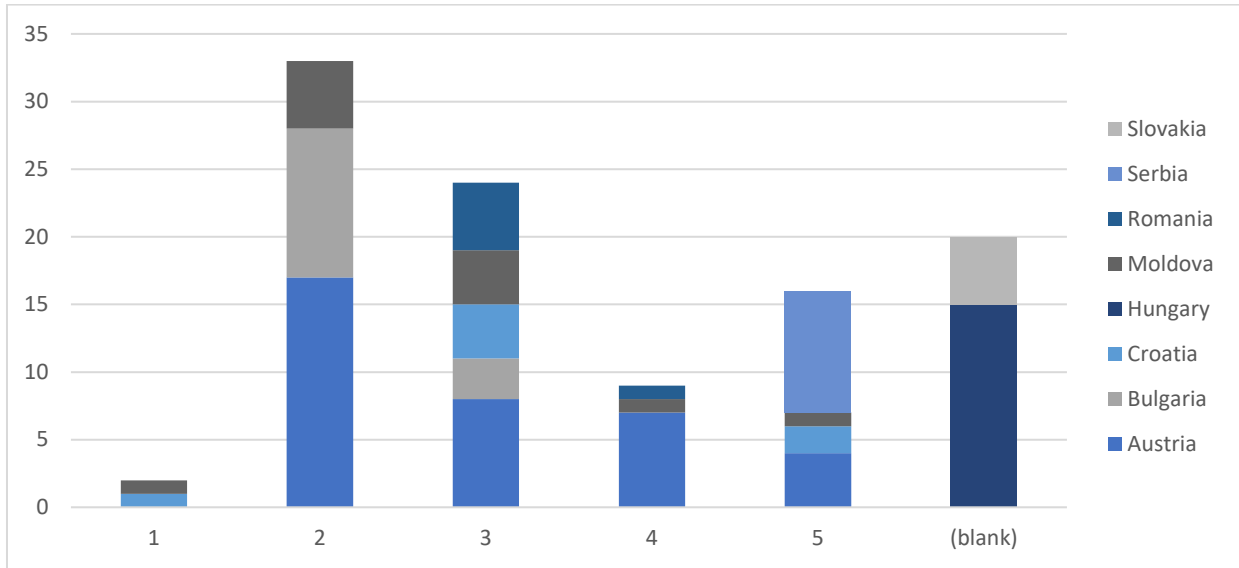


Figure 8: Level of innovations by countries, own graphic, NTC BG Guide

3.2.5. Labeling and networking

Austria again is the country with more heritage organizations identified under a label or a network. Serbia and Slovakia however do not have a single network, or label, at least not indicated in the research.

Most of the identified museums/cites are part of a network and or/labeling system:

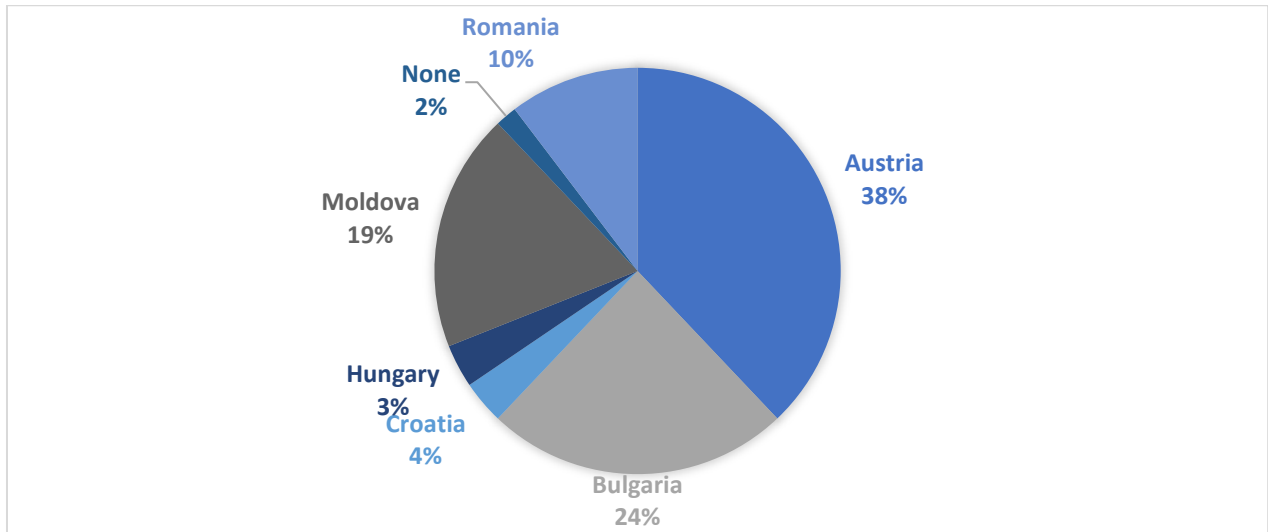


Figure 9: Percentage of the identified sites/museums, being part of a network by countries; own graphic, NTC BG Guide

There are two main networks in Austria with many representatives.

- The “Museums on the Danube Limes” indicates 12 members. Some of the main goals of the non-profit association are to support protection, research and presentation of the moveable material remains of the Austrian Danube Limes, to support and release

improvements of the museums' exhibitions, to advance the collaboration with research institutions and the national heritage board, to encourage the members to collaborate in projects, to stimulate the cooperation with foreign museums with similar orientation, to intensify the cooperation with schools. Several festivals are held to expose the devices/tools used by the Romans with presentations about the making of weapons, clothes were made, to do experimental archaeology with many reenactment groups thus bringing history into present through experiment and experience.

- The “Association of Upper Austrian Museums” unites 9 members. It is a non-profit association which offers advice and services for all around 300 museums, collections and museum-like institutions throughout the state and support them in public relations. Its main goals are qualitative further development of the museums, promotion of the conservation and safeguarding of the collections, scientific support and so on. The association is participating in digitalization projects – for training, intercultural exchange, and modern app presentation of its members with basic and relevant information.

On the graphic below, there are all the various categories of networks/labels that are summarized, based on the conducted research:

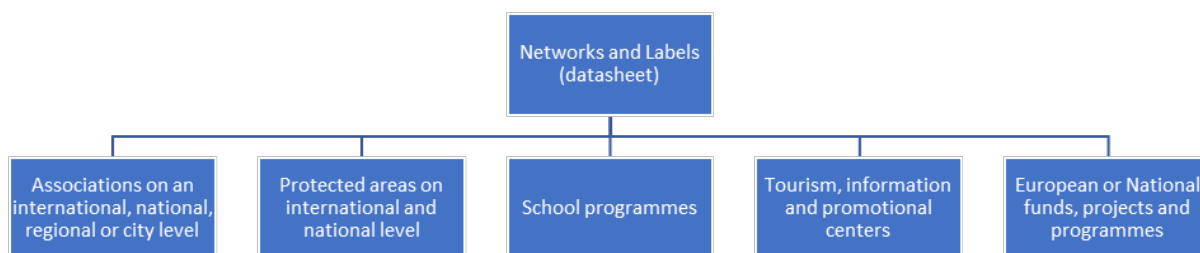


Figure 10: Categories of networks/labels; own graphic, NTC BG Guide

These categories are generalizing all the networks/labels that are collected and they show the various approaches and characteristics of the further formed cluster. They include common initiatives and unified organizations, based on interests on city, regional, national, and international level, based on environmental issues, nature territories/parks, or protected areas, on national and international level. Common school programs are the first ground to share any knowledge and reach potential target groups. Common funds and initiatives under European programs are the main resource to make progress, especially in a lot of the shrinking cities and areas on the Danube Region. The categories show the best practices (value of collections, social value, educational value, economic value) in networking and labelling that can also be seen in some of the best examples worldwide - as NEMO (Network of European Museum Organizations), Europa Nostra, ICOM (International Council of Museums), etc.

3.3. Identified characteristics of the museum structure

Based on the conducted online survey among the LDL partner countries, some key characteristics for the LDL Museum Cluster structure were identified.

3.3.1. Profile of participants, visitors, and existing structures

- Type of organizations are mainly museums – 69%;
- Their relation to the Roman history is mainly as archaeological site and exhibition – 62,1%;
- The importance of this relation to the visitors’ experience is rated as important and very important by 93,1%;
- The size of the premises is over 500 m2 for 79,3%;
- The foreign visitors are less than 40% of all visitors for 96,2% of the participants;
- There is seasonality in 51,7% (they are not working during wintertime or just by pre-booked groups);
- There is no entrance fee, or it is up to 10 EUR in 93,1%.

The typical profile of the visitors to the identified museums/sites are families with children, followed by tourists and student groups.

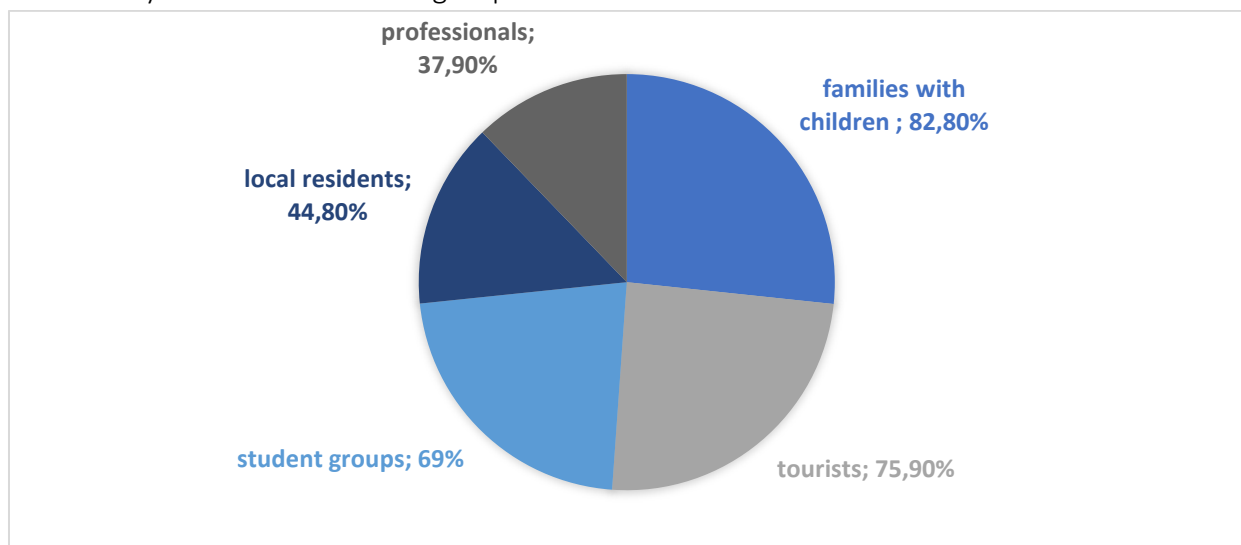


Figure 11: Typical profile of visitors; own graphic, NTC BG Guide

The annual number of visitors is less than 5 000 for ar. 48% and between 5 000 – 30 000 for 21% of the identified museums/sites. The LDL Museum Cluster structure shall take this into account and work towards attracting more visitors annually in all LDL museum members.

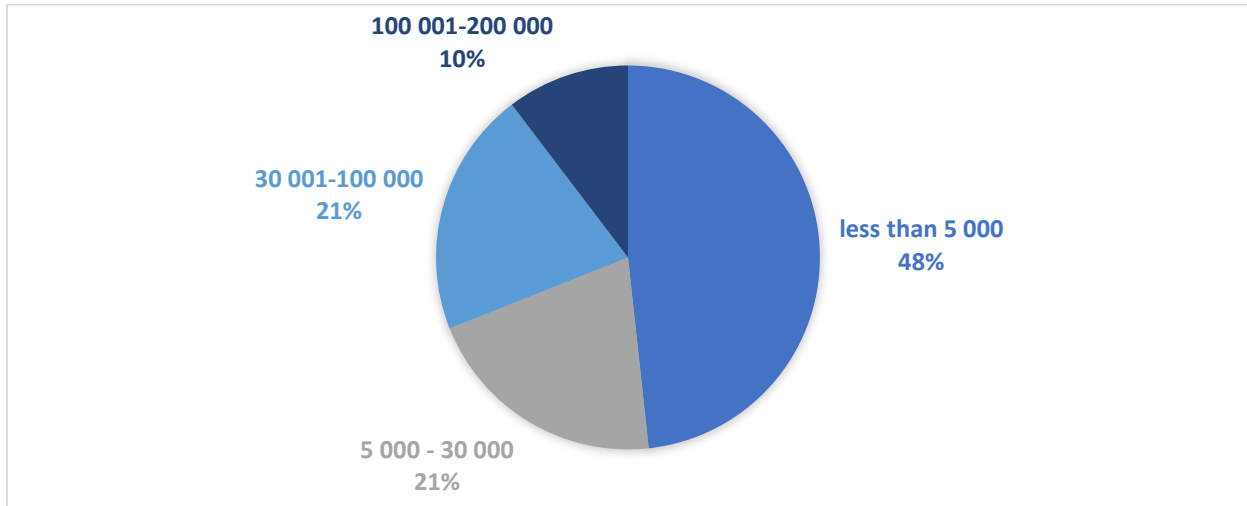


Figure 12: Annual number of visitors; own graphic, NTC BG Guide

The museums are the biggest number of participants, so it is normal to have relation to the Roman history as archaeological site or exhibition. The importance of the visitors' experience to the Roman heritage is rated as important and very important, which is essential for future development initiatives. The places are not small, so they predispose a longer stay for the guests and possibility for additional activities. The number of visitors is not very high for most of the places, so there should be further measures to attract more locals and foreigners through promotion and arrangements. The smaller number of visitors, plus the no entrance fee for the majority are not providing any significant income for the sites. One of the best potential target groups are families with children and additional methods should be taken to attract them (e.g., gamification).

3.3.2. Benefits for the participants

The willingness of the organizations to take part in the Living Danube Limes Museum Cluster is declared as interested and highly interested. This is the first and most significant positive sign for future activation of the cluster. The main benefits of such joint participation are the development of the tourism sector through visitors' mobility between different sites and places, the transfer of knowledge, the promotion of the places, the implementation of innovations, etc. As the statistics are showing below, the need for more visitors and promotion is essential for most of the participants. Innovations are recognized as a valuable tool, too, which is one of the main outputs of the project's implementation.



17. What do you expect as main benefits for your organization by participating in the Danube Limes Museum Cluster?

27 responses

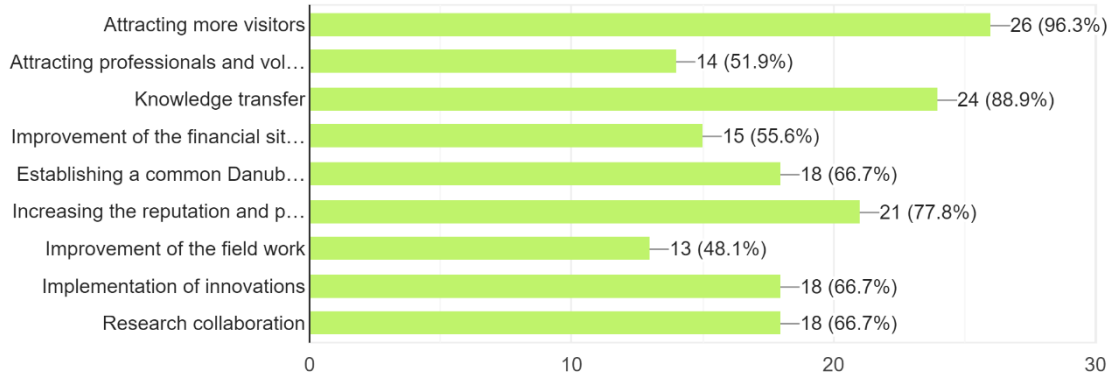


Figure 13: Museums/Sites' expectations, own graphic, NTC BG Guide

The common initiatives to which the organizations are interested to take part in are common route and common event, to be part of an online app, placing of advertising materials of other member-organizations, incl. information boards, etc. It is all based on shared knowledge, activities, promotion, and innovation.

18. In which common initiatives would your organization be interested to participate?

27 responses

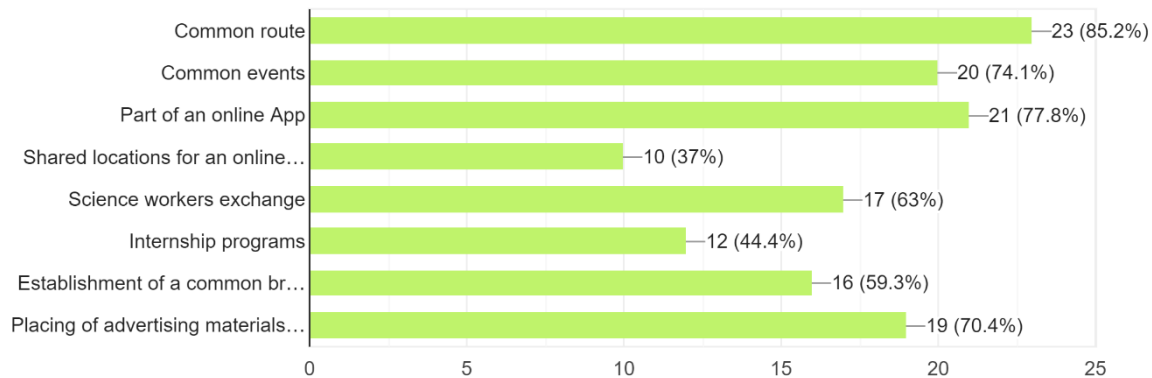


Figure 14: Common initiatives, own graphic, NTC BG Guide

3.3.3. Benefits for the visitors

The main interactions for visitors are guided tours, workshops & knowledge transfer, and reenactment groups, etc. Except for the reenactment groups, these are the main activities that should be offered to the guests. Gamification is almost not indicated, and it is one of the

modern trends in interaction. Its development is essential, so it can attract the indicated important target group of children. The innovations should also be improved (in a way of online app presence, AR/VR, etc.).

9. Interactions with visitors:

29 responses

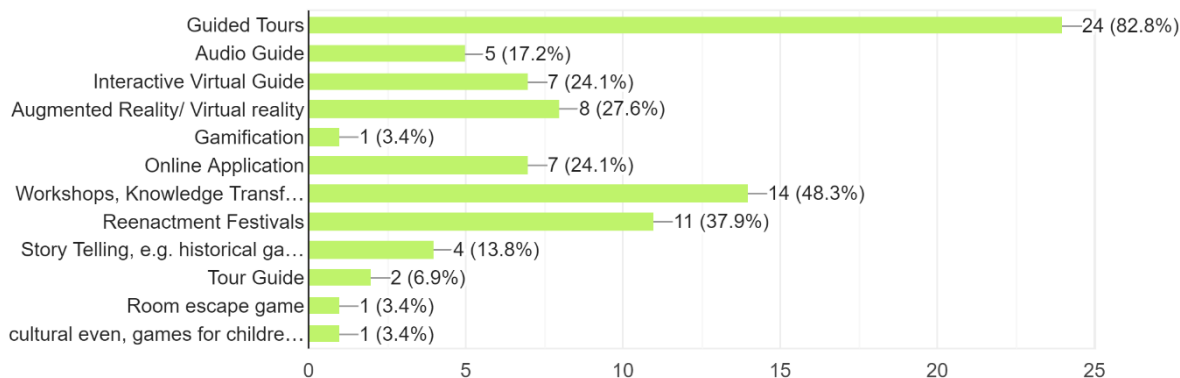


Figure 15: Interactions with visitors, own graphic, NTC BG Guide

Most of the sites offer guided tours mainly in English and German languages. If there is a specific nation that represents a substantial number of visitors for a specific country, then it should be considered a good option to offer tours in their language (e.g., Bulgaria is visited by a lot of Russians, so Russian is a language to be recognized as important).

The implementation of the cluster along the Danube should consider offering its products and services in more languages to reach a wider audience.

The main advantages for the visitors are indicated as pleasant atmosphere, quality of the exhibition, child-friendly, no (or cheap) entrance, etc. The exhibition/site is the main point to attract the visitors, so it is very important to be one of a high quality, every other advantage comes as an addition. New ways of Heritage interpretation should be used in guided tours and exhibitions with a focus on the meaning and value that the heritage brings to its local community.

The pleasant atmosphere and no (or cheap) entrance predisposes to longer stay and spending money on supplementary activities, involving local communities in implementing initiatives promoting local production, knowledge, and value. The advantage of child-friendly is something that needs to be examined more, as e.g., there is almost no gamification indicated.



11. Main advantages for the visitors:

29 responses

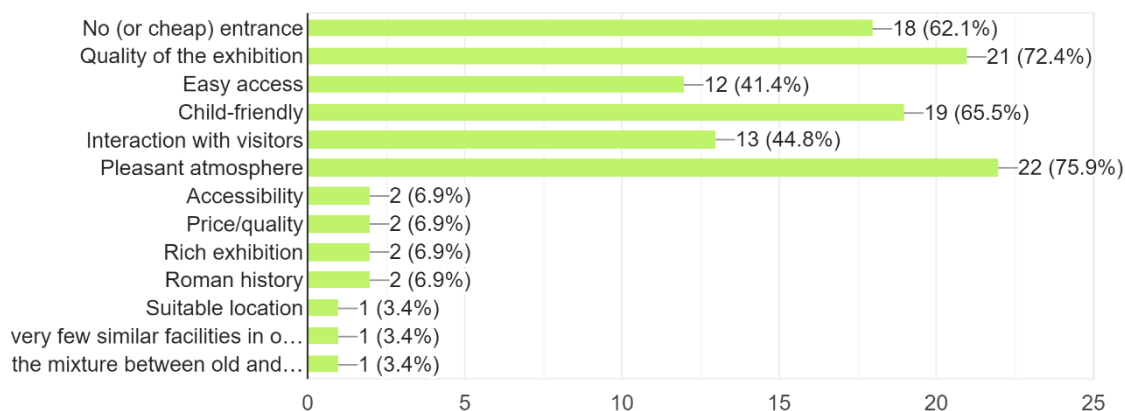


Figure 16: Advantages for visitors, own graphic, NTC BG Guide

3.3.4. Collaboration and cooperation

The existing collaboration of the participants with local stakeholders is mainly with local authorities/municipalities, national authorities, and local communities (e.g., reenactment group, craftsmen, etc.), etc. The collaboration with local authorities is not surprising, as the ownership of the sites is generally on municipal and state level. Further cooperation is needed with local businesses/SMEs, given that everyone works in a common environment, can help each other, and progress together.

10. Collaboration with local stakeholders:

29 responses

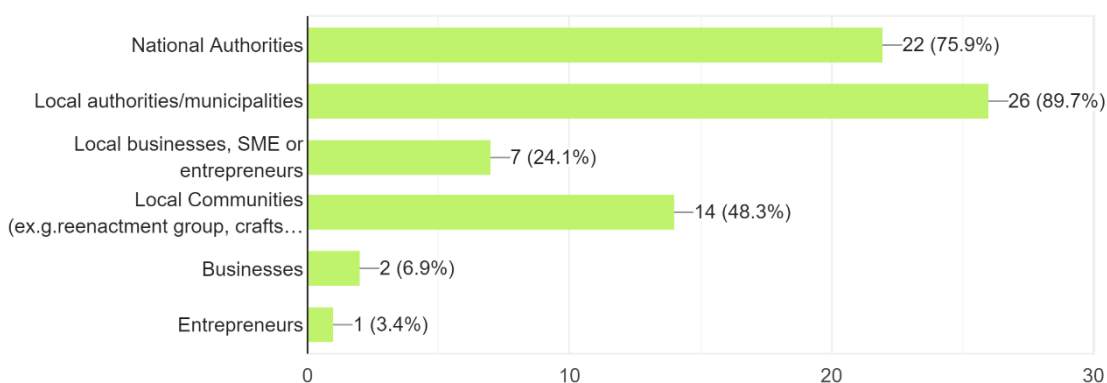


Figure 17: Collaboration with stakeholders, own graphic, NTC BG Guide

Below are presented some examples for successful collaboration according to the participants in the conducted survey:

- Had historical lessons with scholars/ gave tourist materials at local hotels/restaurants;
- The municipality takes care of the archeological site (sanitary, toilet, etc.);
- Financing non-reimbursable funds project, rehabilitation of the historical monument;
- Museum pedagogy;

- Cooperation between Tourist Center and Cultural Institutions in order to organize events that promote local values, as history, culture, spirituality and ethnography;
- Collaboration with primary and secondary schools;
- Participation in projects, archaeological excavation, lectures, etc.;
- Communication activities with local Tourist Board Office;
- Organization of Roman days in cooperation with local Tourist Board and Town Council, that includes local manufacturers, businesses, and craftsmen;
- Cooperation with several reenactment groups, resulting not only in their active participation in festivals and other events, but also organizing joint workshops;
- Cooperation with local businesses for setting up exhibition.
- Digital map of a site with national department of monuments.

Participants also shared their experience on the implementation of good practices from other organizations:

- Interpretation of cultural heritage via theatrical methods - puppet show;
- International exhibition, which is realized in cooperation with different museums;
- Reconstruction of traditions, reconstruction of battle scenes, creation of a web site, online advertising;
- Museum pedagogical presentations, activities;
- Thematic guides;
- Experience exchange with Danube Guides;
- Museum pet friendly, allowing visitors to enter with their pets;
- Museum activities for children;
- Inspiration for exhibitions, educational lines.

The cooperation with other organizations is based on the subsequent networks and connections – part of museum or other network, bilateral cooperation with similar organizations, cooperation with business entities, e.g., travel and event agencies, etc. The participants seem to be aware of the importance of being part of a network, so they can contribute with knowledge, good practices, propositions, problems, etc. As stated above, cooperation with local businesses should be developed more.



14. Cooperation with other organizations:

29 responses

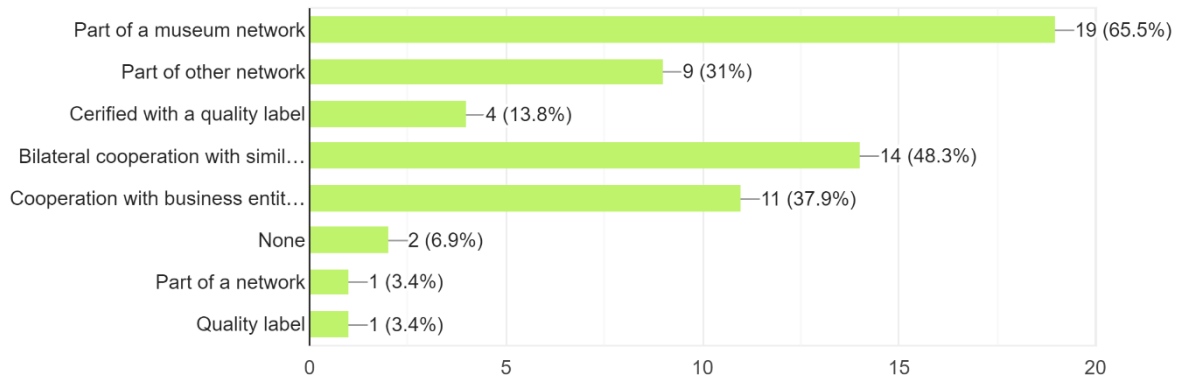


Figure 18: Cooperation with other organisations, own graphic, NTC BG Guide

The identified museums and/or visitor centers also showed their interest to contribute to the establishment of the LDL museum cluster mainly through knowledge, advertising, workforce, etc. This can eventually mark the first stage towards the promotion of a common LDL museum cluster. Through the involvement of volunteers and local communities, the members already predispose with the necessary knowledge, premises, advertising tools and experience to collaborate under one common vision.

20. Would your organization contribute to the establishment of Danube Limes Museum Cluster?
How?

27 responses

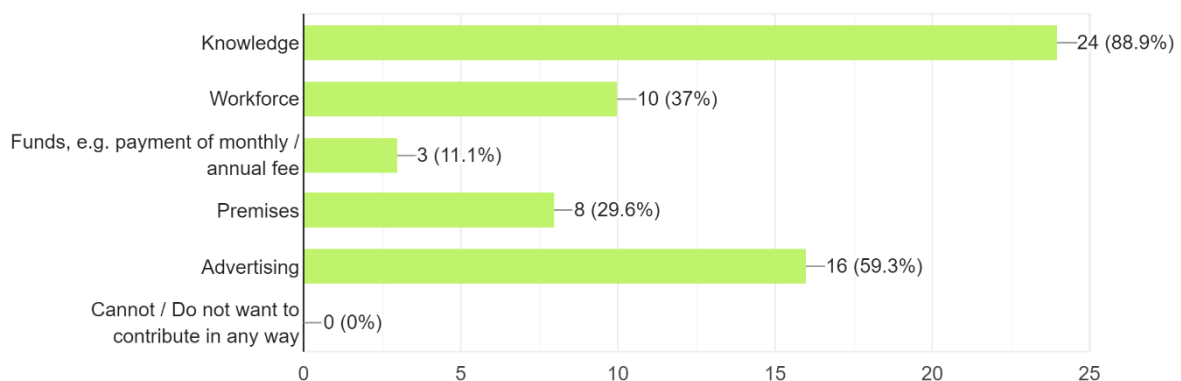


Figure 19: Interest to contribute to LDL Museum Cluster, own graphic, NTC BG Guide

3.3.5. Challenges and obstacles

The main challenge for the organizations, without hesitation, is connected to the COVID-19 pandemic (less visitors, less skill force, less funds). It is an on-going situation, so the participants should consider finding alternative strategies to adapt to the situation (implementing innovations and modern technologies). Being part of the public sector is another obstacle for these organizations as they generally suffer from the lack of sufficient funding and the availability of HR in comparison to the private sector entities where the possibilities for funding and recruitment are more available and accessible. European and national programs are hence a chance to find additional funding for development.

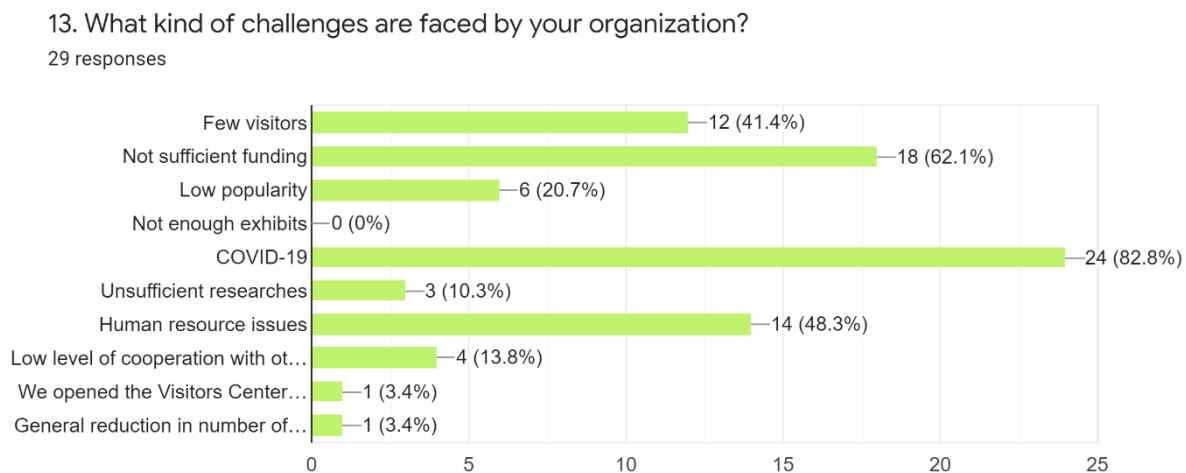


Figure 20: Challenges faced by the museums/sites, own graphic, NTC BG Guide

The main obstacles for all the participants not to join an LDL museum cluster are associated with not enough information and knowledge on the goals and benefits of such formation. The need for further approvals (e.g., from the principal of the organization) and not enough available resources (human, funds, premises, etc.) are the other difficulties. Joining a cluster is not something that can happen without any trust, and trust is something that needs to be obtained with correct information, described benefits, and strategic plan for development. These are the main steps for implementation, which will help further approvals and finding available resources.

3.4. SWOT Analysis of LDL Museum Cluster

The SWOT analysis is used to assess a competitive position and to develop strategic planning. It evaluates internal and external factors, as well as current and future potential. Based on the results of the conducted research and survey, we had identified below the realistic strengths, weaknesses, opportunities, and threats for the development of the LDL museum cluster, thus making the positives and negatives of the whole idea and process clearer to its future members.

Table 1: Challenges faced by the museums/sites, own graphic, NTC

BG

| Strengths | Weaknesses | Opportunities | Threats |
|---|---|---|--|
| <ul style="list-style-type: none"> • Strategical position of the museums on the banks of the Danube. • Danube limes classified as World Heritage Sites. • Communicating common visions and values; • Having a quality label with certain characteristics; • Telling the right story of the Danube Limes Region; • A rich and diversified history, heritage and landscape. • Raising awareness about the connected heritage sites; • Volunteering network ; • Existing Knowledge, Experience, and Technologies. • Engaging the community/society; • Common promotion and marketing. | <ul style="list-style-type: none"> • Large disproportions in missions, structure, industries of the members and partners (size, number of exhibits, economic strength, visitors' attendance); <ul style="list-style-type: none"> • Different level of innovation; • Considerable geographical distance; • Language barrier; • Different motivation factors; • Lack of financial substantiality. • Dependence on public Authorities. • Lack of information on the cluster vision, missions, structure and strategy. • Seasonality of visits and events. • No common platforms to communicate information on history, prices, events, monuments. | <ul style="list-style-type: none"> • Unifying the diversity under a common brand; • Existing of Transnational Clustering structures and policies in other sectors. • Mediatize all in one Danube Destination. • Creating of LDL museum cluster network by sharing of common vision and values; • Establishment of a coherent museum brand / quality label; • Support from International Institutions to follow a common strategy for managing a World Heritage Site. • Exchange of best practices in communication and history interpretation; • Introducing of new technologies in order to increase the integrated tourists' interaction; • Involvement of local communities and reenactment groups. | <ul style="list-style-type: none"> • A museum might lose its individuality; Some members may become dependent on the cluster ideas for development. • The complexity of the Danube Museum clustering approach as it will be the first on its own. • The level of closeness and trust between members and partners. • Not all participants will promote each other in the same way; • Differences in needs and expectations – members, partners. During the project everyone is enthusiastic, after it ends – who is going to lead the way • The instability and disproportion of the performance of the cultural heritage and tourism sector in the region. |

4. Recommendations for the establishment of LDL museum cluster

The previously outlined results had shown the complexity of the clustering approach for the LDL museum cluster, therefore certain key topics should be clearly outlined to the potential members and partners for the identification and the establishment of a strong and interconnected Danube Museum cluster.

Key Topics:

➤ **T1: What is the vision, mission, and strategy of the LDL museum cluster?**

The LDL Museum cluster will exist to ensure the visibility of the Common Roman Heritage through its unique value. It will therefore create synergies between all museums located along the Danube, to project and promote its image and value toward the local and international communities and to ultimately increase and develop the socio and economic potential of the region. This will be achieved via the connection of the identified cultural heritage sites (pilot sites) under one common label/brand and one common cultural route in order to compete together and support each other, via the use of innovative and upgraded services and products, and via the involvement of all concerned stakeholders, parties and local communities in the process.

➤ **T2: Who will be the members, partners in the LDL museum cluster:**

The cluster will be operating under two different sectorial industries: the tourism industry and the cultural and creative industry. The Core members of the cluster should be the direct representatives and beneficiaries of the cluster such as Museums, Tourist information centers, Visitor Centers located along the Danube. The Support members are all the private entities supplying the Core members with the needed resources for their final outcomes (SMEs or Startups specialized in exhibition materials and design, printing and editing, renovation tools, renovation expertise, advertisement and events, tour guides, artefacts and crafts, music and theatre performances, Innovation and Technology, etc.). The Soft support infrastructure partners are the public and private stakeholders who will be facilitating the administration, implementation, and performance of the work of the Core and Support members (municipalities, representative authorities, NGOs, schools, universities). The Hard support infrastructure partners are the private and public stakeholders who provide the mandatory infrastructure facilities such as roads and ports installation and maintenance, creation of bike paths, internet and mobile linkage, water treatment.

➤ **T3: What is the Legal form of the LDL museum cluster:**

The legal form of the LDL Museum cluster could be institutional or non-institutional. The agreement between members on the legal form should consider the geographical scale on which the cluster will operate, and the required legislation under which the proposal of

such collaboration will be submitted. A non-institutional form could first be established under a Memorandum of Understanding signed by all core members to first consider the level of closeness above which they are ready to cooperate, to follow the mission and strategy of their unification and to integrate new members and partners.

➤ **T4: Under which structure the LDL Museum cluster should operate:**

The answer is strictly connected to the previous topic. But following the predefined LDL museum cluster strategy (to ensure socio-economic development of the region through horizontal competitiveness and branding of the cultural heritage products and services) the structure of the LDL museum cluster would be under different two forms:

- A physical structure regulated under an Association form: such kind of a structure might be in Austria and lead by its respective pilot site. The association will follow the Austrian law and structured as follow: a general assembly (all founding members and partners agree to operate under the proposed statute, general terms and bylaws), an executive board (composed of the chair, vice chair and associate chairs voted and elected by the general assembly and representing solely the Core members), the secretary-general (assigned by the executive board), the management and coordination team (set up by the secretary general). The secretary general and its team will be contracted following the association regulation. Soft and Hard infrastructure Support partners may also join the association as observers, external experts, and advisors. Such structure has already shown its success on an international scale in other industries. Austria has been identified in the survey as the most developed and experienced country in the region, better allocating funds for the creation, maintenance, and development of its cultural and historical sites and has more experience in establishing cultural heritage entities under a label or network. In this regard, the secretary general and management team will have a hand on experience on museum cluster operational system. This type of structure however presents some disadvantages for the LDL museum cluster organization: this is a member focused structure and not a mission focus structure. The management and coordination of the members' activities to follow the cluster's strategy under such structure may cost excessive time and budget and may presents negative consequences on the cluster connection, coherence, and durability. The structure can present unnecessary bureaucracy and work heaviness to adapt the strategy to the needs and situation of the members. Some Core and Support members in the participant countries may not be able to be as active and proactive as they should in order to follow the strategy of the museum cluster, as this will require a horizontal and equal collaboration between all involved actors.
- A virtual online structure based on a written internal agreement (Memorandum of Understanding) between all members, clearly defining the articles regulating the implementation and success of the cluster strategy and the responsibilities of the management team, the members, and partners. All members and partners can join the

cluster online. The platform will regularly update and make available all information, resources and news required for the implementation of the cluster strategy in the respective language of the participant countries. All virtual content and tools (the LDL App and QR codes) will also be available for use and upgrade by members and partners. The management team might be composed of 8 experts proposed and represented by the 8 PoCs in their respective physical location (according to the profile set in the MOE) and a team manager will be assigned in a rotation following the yearly travel of the Roman cruise ship. In a further step to ensure more visibility of the cluster strategy, a cluster contact point in every participant country can be created in every pilot site. The advantage of such form is that is centered on the vision and mission of the cluster. It is a cost-effective way to establish the cluster. In a first step, the pilot sites may agree to offer the needed support to its experts and to the team manager for the establishment of the cluster. The most important cost for the establishment of the cluster is the setup and maintenance of the online platform. To lower expenditures for this service, members can submit a call for tender inviting bids from the participant countries. The other most important advantage of such structure is that it fulfills the requirements of corporation and networking under a Cluster umbrella (as to ensure equal access to information and technologies, mobilization of resources, transparency, and flat management).

- **T5: What is the level of closeness for the members and partners of the LDL cluster museum to boost their cooperation and connection in order to achieve the mission of the LDL cluster and to follow its strategy?**

Despite being geographically distant from each other and operating under different internal structures, industries and authorities, Museums, TIC and Visitor Centers with their respective partners constitute the components of a tourist circuit and complement each other. They bring benefits to the same target groups: the local communities and visitors and the international communities and tourists. In the LDL museum cluster case, visitors will move between the port to discover the heritage sites, scan QR codes, follow suggestions from the App, pass to TIC for specific information on facilities, enter museums, go on a ship cruise, buy souvenirs from local craft, go to local restaurant and hotels. All members are already connected by the final products and services they offer to its target group; thus it is essential to create synergies and combine efforts to work more closely and efficiently. As a result, members and partners need to agree on the vision of the LDL cluster as this will be their common denominator to decide on their participation in such alliance. Another common feature is the nomination of the Living Danube Limes as World Heritage Site under UNESCO. All members need to comply with the rules and instructions of the UNESCO agreement to ensure durability of the universal value of the listed heritage sites and their protection and promotion.

- **T6: Which existing strong and successful cluster organizations can the LDL museum cluster be build upon?**

The participant countries along the Danube are no strangers to the clustering approach. SMEs clusters in the region exist already, under different legislation and forms⁹ and transnational cluster initiatives around the Danube are already active (the *Danube S3 cluster* in Agrifood sector, the *DanuBioValNet* in Eco-innovation and Bio-based industry) thanks to the support of the EU Strategy for the Danube Region (EUSDR)'s action plan. The region has also the EU support for designing and developing cluster policies and cluster organizations through the European Observatory for Clusters and Industrial Change (EOCIC) and the European Cluster Collaboration Platform (ECCP)¹⁰.

The LDL Museum cluster will be the first and unique of its own in the Danube region and in Europe to operate under such a transnational scale and to build a network of both private and public members with different missions and structures. The European Cluster Collaboration Platform (ECCP) is an online European hub designed to supply clusters organizations with the needed data, tools, and services. It provides a comparative cluster and partners mapping with a statistical analysis of each cluster mission, sector, services, geographical cooperation scale, news, and events, etc. Few regional cluster organizations have been identified in the ECCP mapping tool with a connection to museums, tourism and cultural heritage development in the Danube countries, for example the Discover Transylvania's Reaches Cluster in Romania (its mission is to promote and encourage people to visit Transylvania and to support partners ability, offering the best tourism facilities), the Cultural Creative Industry Cluster in Hungary (former name: South Transdanubian Cultural Industry Cluster, it acts as an umbrella organization for the creative industry of the region to enhance the competencies of the cluster members in their respective missions), the Cluster of Cultural Routes in Serbia (founded as a new destination marketing and management organization, with the aim of creating and developing cultural routes helping to tie attractions and destinations to each other and to set up with the specific aim of generating SMEs)¹¹.

⁹ <https://www.upet.ro/annals/economics/pdf/2014/part1/Maticiu.pdf>

¹⁰ [https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/635587/EPRS_BRI\(2019\)635587_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/635587/EPRS_BRI(2019)635587_EN.pdf)

¹¹ <https://clustercollaboration.eu>

Conclusion

Despite all weaknesses and threats that could face the existence of a future DLMC, establishing such an umbrella network is the stepping-stone to build resilience for the tourism and cultural sectors and to cope with the changes and challenges due to the Covid situation.

These guidelines outlined the different factors and opportunities for creating a strong and interconnected DLMC. It is a useful tool for all potential members and partners to have a clear and mutual understanding and agreement on the utility and significance of such collaboration.

Based on it, a strategy paper for a successful implementation of strong and connected DLMC will be elaborated between all potential members of the cluster (museums, TICs, VCs) which will enable them to identify the needed synergies, tools, resources, trends, and activities for their industrial transition.

The strategy paper will further outline the elements of continuous fruitful coordination and describe the positive impact of such network on the heritage and tourism industries, the local communities, and the economy. It will also identify the communication standards for a successful promotion of the Danube Roman Limes through the development of new and upgraded knowledge, innovative technologies, and a new image.

References

Bruno S. Frey, Superstar Museums and Special Exhibitions, 2019

What are clusters, Dina Ionescu, CEI WORKSHOP ON CLUSTERS, OECD LEED Programme, 2003.

Cluster Management – A Practical guide, Technische Zusammenarbeit (GTZ) GmbH, 2007.

City of Museums: Museum Cluster as a Manifesto of the Paradigm Shift, Mila Nikolić, Universitat Politècnica de Catalunya, 2012

European Expert Group on Clusters Recommendation Report, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, 2020.

Top-down and bottom-up cluster initiatives in Europe, Mădălina Maticiuc, Faculty of Economics and Business Administration, Romania, 2014.

Transnational clusters and the Danube macro-regional strategy, European Parliamentary Research Service, 2019.

Priority Sector Report: Creative and Cultural Industries, Dominic Power, Uppsala University, The European Cluster Observatory, 2011.

Support to Cluster Development in Croatia: Cluster Development Handbook, Maxwell Stamp PLC, Croatia, 2013

www.clustercollaboration.eu

www.qblabels.co.uk/importance-of-quality-labels/

www.hbr.org/1998/11/clusters-and-the-new-economics-of-competition