

OUTPUT T2.2

Pilot Action (P13)

Report

Title Output T. 2.2
Pilot Actions for preserving and management of natural and cultural heritage and resources developed and/or implemented

Date 24th June 2022

Venue Club Sirály - Százhalombatta,
Matrica Museum and Archaeological Park -
Százhalombatta

Implementing partner(s) PP6 BME
Budapest University of Technology and Economics

PP17 KÖME
Association of Cultural Heritage Managers

Name of Pilot site Matrica – Százhalombatta (Hungary)

Project ID DTP3-1-359-2.2

General description:

The historical site of the auxiliary castellum of Matrica in Százhalombatta has several unique features.

Firstly, the site has complex features: it is the 3rd auxiliary castellum from Aquincum – a Roman site that had direct access to the Danube, and the Pannonian limes near the river, the so-called Ripa Pannonica.

Secondly, in the surroundings of the castrum, a military vicus, a Roman cemetery and a Bath was also erected. The castellum had celtic predecessors (even the name Matrica is derived from the celtic inhabitants), it was firstly a soil-timber palisade that was rebuilt of stone after the Macromannic wars, and has several architectural features that is unique within the remains of Pannonia (e.g. the shape of turrets), therefore even from the Roman period, the site has complex and unique features that worth to be preserved and presented.

Besides, the use of the site itself had not finished after the Roman era. The Medieval village of Báté was situated at the site, and the Medieval church is located within the territory of the castellum. Afterwards, during the Napoleonic wars, a rampart system was built over the traces of the castellum. Consequently, the site is not only a source of the Roman path, but also different historical layers.

On the site, several archaeological excavations were fulfilled, however, after the excavations the architectural findings were covered with soil and from this reason, the historical constructions of the site are not visible. Only the traces of the Roman bath is visible, in the 1970's the founding walls was covered with an app. 0,5m protecting stone wall separated a didactical line (where several Roman bricks were also placed in situ) covered with a roof. However, both its protecting roof, both the traces and its surroundings are in bad conditions, and there is no any information on the site (name of the monument, historical description, etc.).

The site is located on the southern part of Százhalombatta, near the garden village area called Dunafüred. A dam system separates the site and the city, therefore the historical site is not protected from flood. On the site there is no any fence, visitor center or any protection system, and many of its territory is used for agriculture. Moreover, an app. 10-15% of the site of the castellum is located on private plots covered with substructures (village houses). On the southern environment of the site, an oil refinery is located that can be both a potential (in point of sponsorship) but source of problems.

Between the historical site of the castellum and the bath, a sport centre is located. In the sport centre, a restaurant, camping area, small, rentable houses, sport fields and a boat camp is located, which is used not only for the locals for boat camps, but also, it is a preferred stop for national and international boat tours.

The site of the castellum is nowadays used for agriculture. Its manager has active interest with horse tourism in national level that can also be a potential to involve different target groups to the improvement of the site.

In the city centre, the town museum is located. In the denomination of the museum, the term of 'Matrica' is preserved ('Matrica' Museum and Archaeological Park), at its exhibition the Roman past is represented, and several, still not exhibited, valuable findings can be found at its archives that provides potential. Moreover, the existence of the Archeological Park is also an important potential. The park carries back the visitors to the earliest era of the city since the plateau stretching over the River Danube was inhabited since the Early Bronze Age. In the 7th-6th centuries BC it was the eastern branch of the Hallstatt culture that appeared in the region. Significant noblemen are buried in the tumulus graveyard. The 3,5-hectare territory presently functions as an Archaeological Park that is part of the Matrica Museum. It is in this prehistoric open-air museum that a 2,700-year-old tumulus was excavated, reconstructed and opened for the visitors. The Archaeological Park of Százhalombatta was the first interactive display site presenting prehistoric monuments in Hungary established with a two-fold purpose. First, to offer visitors a personal experience of prehistoric life offering family days, craft activities and workshops. Second, the Park is simultaneously a setting for archaeological experiments where, in addition to the authentic reconstructions of prehistoric buildings, experiments are conducted using prehistoric techniques and copies of prehistoric tools and implements. However, there is not any physical connection between the museum and the site. The distance is app. 1 km, and only one information board can be on the way to the historical site that shows the direction to the 'Roman Bath' (not to Matrica castellum).

Therefore, it can be declared that despite the complex and rich Roman past and source of different layers of history, there is just one visible monument on the area: the Bath, that is also in bad condition, without any information for visitors.

Consequently, for the preservation and management of natural and cultural heritage the site's visibility shall be improved in both local and global level.

The main tasks:

1. after the survey and benchmark of the site with different target groups
2. to make it visible, understandable, functionally useable using its
 - a. historical complexity (castellum, vicus, bath, cemetery),
 - b. the different layers of historical eras (Roman times, Medieval times, Napoleonic times)
 - c. and its present conditions (access to Danube, sport facilities, horse tourism)
3. by generating synergies, cooperations of different local, regional, national and international stakeholders.

For the local level the following steps shall be fulfilled:

- information on the site for visitors shall be placed.
- connections between the Museum and Archaeological Park shall be created, to increase the understandability of the site and also to make synergy between the managing institution and the historical site.
- increasing the different local stakeholders' (Municipality, Museum, Civil Associations and the managers of the touristic institutions of the site) cooperation and involvement to the development of the site.

- increase the synergy of the different use of the site (sport, leisure, historical management).

For the global level, the following steps shall be fulfilled:

- the site shall be connected to thematic clusters (since it is the 3rd auxiliary castellum from Aquincum, cooperation between the further auxiliary castellums: Nagytétény/Campona and Érde can be improved)
- the different touristic sectors' synergy shall be increased (boat tourism, bicycle tourism, horse tourism and the potential of the site)

Agenda

Based on the aforementioned necessary objectives, the following activities were implemented in relation with the Hungarian Pilot Site of Matrica / Százhalombatta with the following partners and stakeholders:

	Objectives - phases	Activity	Deliverable
PREPARATORY PHASE	1. survey and benchmark of the historical features of the site and its present urban and touristic conditions	Learning interaction no. 1	DT.1.2.
		Learning interaction no. 2.	DT.1.2.
		GPR Survey of the Site	
		Creating the 3D Point Cloud of the site	Within D.T.1.2.
		Preparation of VR of the site	D.T.2.3.1.
DISSEMINATION PHASE	2. improvement of the visibility of the site	Implementation of virtual reality reconstruction on the pilot site	D.T.2.3.2.
		External events	D.C.3.3.
	3. creating synergies and cooperations prior to the improvement of the visibility, the preservation and management of natural and cultural heritage	LFG Event 1	D.C.3.5.
		LFG Event 2	D.C.3.5.
		Roman Danube Limes Day	
		Visibility Workshop	D.T.3.4.2.
		Museum Cluster	
Preparatory meetings for the Connecting Cruise			

Participating Partners and Stakeholders:

During the aforementioned activities the following different partners and stakeholders were involved:

Objectives phases	Activity	Description
1. survey and benchmark of the historical features of the site and its present urban and touristic conditions	Learning interaction no. 1	PP BME (lecturers and graduate students) ASP János Banner Foundation of Archaeology (Expert of Archaeology and Museology) Municipality of Százhalombatta (Chief Architect) Matrica Museum and Archaeological Park (Százhalombatta) Katalin Wollák (heritage expert)
	Learning interaction no. 2.	PP BME (lecturers and postgraduate students from different fields) PP KÖME (survey of stakeholders) PP LBI Arch Pro ASP János Banner Foundation of Archaeology (Expert of Archaeology and Museology) Municipality of Százhalombatta (Chief Architect) Matrica Museum and Archaeological Park (Százhalombatta) Katalin Wollák (heritage expert)
	GPR Survey of the Site	PP LBI Arch Pro ASP János Banner Foundation of Archaeology (Expert of Archaeology and Museology) Matrica Museum and Archaeological Park (Százhalombatta)
	Creating the 3D Point Cloud of the site	PP BME (lecturers and graduate students)
2. improvement of the visibility of the site	Preparation of VR of the site	7 reasons in cooperation with PP LBI Arch Pro PP STUBA PP BME
	Implementation of virtual reality reconstruction on the pilot site	PP BME PP KÖME ASP János Banner Foundation of Archaeology ASP Hungarian Society for Urban Planning External Expert Spatialist Ltd Municipality of Százhalombatta (Deputy Mayor, Chief Architect, PR and Communication Manager) Matrica Museum and Archaeological Park with the participation of the representatives of Municipality of Ercsi (Mayor) Municipality of Baja (Deputy Mayor) Municipality of Dunaújváros (Chief Architect) Municipality of Óbuda Director of Club Sirály (Sport centre at the pilot site) Headmaster of the Arany János Secondary School of Százhalombatta Civils of Százhalombatta
	External events	PP BME PP KÖME ASP Hungarian Society for Urban Planning ASP János Banner Foundation of Archaeology Danube-Ipoly Natural Park Hungarian National Museum ICOMOS Hungary European Association of Archaeologists Hungarian Society of Archaeologists and Art Historians
3. creating synergies and cooperations prior to the improvement of the visibility, the	LFG Event 1	PP BME ASP Hungarian Society for Urban Planning Archaeological Park of Százhalombatta Civils of Százhalombatta
	LFG Event 2	PP BME PP KÖME

preservation and management of natural and cultural heritage		External Expert Spatialist Ltd Municipality of Százhalombatta (Deputy Mayor and Chief Architect), Matrica Museum and Archaeological Park (Director and Colleagues), experts from different professions (Architects, Archaeologists, Restorators)
	Roman Danube Limes Day	PP BME PP KÖME External Expert Spatialist Ltd Municipality of Százhalombatta (Deputy Mayor and Chief Architect), Matrica Museum and Archaeological Park (Director and Colleagues), experts from different professions (Architects, Archaeologists, Restorators) Civils Reenactors
	Visibility Workshop	PP BME PP KÖME ASP János Banner Foundation of Archaeology ASP Hungarian Society for Urban Planning External Expert Spatialist Ltd Matrica Museum and Archaeological Park with the participation of the representatives of Municipality of Baja (Deputy Mayor) Municipality of Dunaújváros (Chief Architect) Municipality of Óbuda Director of Club Sirály (Sport centre at the pilot site) Headmaster of the Arany János Secondary School of Százhalombatta Civils of Százhalombatta
	Museum Cluster	The Museums and Visitor Centres that has already joined to the Museum Cluster, therefore the formation of synergy has begun: Matrica Múzeum (Matrica Museum and Archaeological Park, Százhalombatta) BTM Aquincumi Múzeum (Budapest History Museum Aquincum Museum and Archaeological Park, Budapest) Paksi Városi Múzeum (Town Museum of Paks), Paks Hansági Múzeum (Hanság Museum), Mosonmagyaróvár Római Kőtár/Lapidarium Brigetionensia, Komárom Balassa Museum, Esztergom Intercisa Múzeum, Dunaújváros Gorsium Régészeti Park (Gorsium Archaeological Park and Open Air Museum), Tác Lussonium, Paks-Dunakömlőd, Paks
	Preparatory meetings for the Connecting Cruise	Ministry for Internal Affairs – Deputy State Secretary of Water Management Hungarian Tourism Agency PP BME Municipality of Dunaújváros Municipality of Baja Municipality of Mohács Territorial Directorates of Water Affairs

Preparatory phase:

For the related objectives the following preparations were fulfilled

Objectives phases	Activity	Description
1. survey and benchmark of the historical features of the site and its present urban and touristic conditions	Learning interaction no. 1	Graduate students of BME made survey and research on the history of the site and its present urban and touristic conditions with the involvement of the Municipality (Chief Architect), Museum (Matrica Museum and Archaeology Park), heritage expert, archaeologist (ASP János Banner Foundation of Archaeology). The result: research summaries and development plans exhibited during the 'Implementation of VR of pilot site (D.T.2.3.2.).
	Learning interaction no. 2.	Postgraduate students of BME made survey and research on the history of the site and its present urban and touristic conditions with the involvement of the Municipality (Chief Architect), Museum (Matrica Museum and Archaeology Park), heritage expert, archaeologist/museologist (ASP János Banner Foundation of Archaeology), civil stakeholders (PP KÖME) and survey specialists (PP LBI Arch Pro). The result: research summaries and development plans exhibited during the 'Implementation of VR of pilot site (D.T.2.3.2.).
	GPR Survey of the Site	PP LBI Arch Pro implemented GPR survey of the site, previously unknown Roman structures were found. The survey was used for VR (D.T.2.3.1.) and presented at VR Implementation (D.T.2.3.2.).
	Creating the 3D Point Cloud of the site	Graduate students of BME prepared true-to-form survey and 3D Point cloud of the Roman Bath with TLS scanner. The survey was used for VR (D.T.2.3.1.) and presented at VR Implementation (D.T.2.3.2.).
	Preparation of VR of the site	The VR of the Roman Bath of Matrica was created by 7reasons with cooperation with Ludwig Boltzmann Institut für Archäologische Prospektion und Virtuelle Archäologie (LBI ArchPro), based on the field survey of LBI Arch Pro and 3D Point Cloud prepared by the graduate students of PP BME during the Learning Interaction.





Fig 1-4: The presentation of the principles and aims of the project during the visit of the Matrica Museum and Archaeological Park with different experts (architects, archaeologists, restorators, etc.) who were attended to the postgraduate studies of Specialised Engineers of Monument Preservation, Budapest University of Technology and Economics [23rd March 2022]





Fig 6-9: Inspection of the Roman findings of the Matrica Museum of Százhalombatta during the meeting where the principles, aims of the project were presented, the museum pedagogy and exhibition methods of the Museum was discussed as well as the future programmes related to the pilot site was discussed.
[18th May 2022]





Fig 10-15: Findings of the Matrica castrum from the archives of the Museum that have never been visible for the public and has been selected during the LFG Meeting in prior to exhibit in the future programmes (Visibility Workshop)
 [18th May 2022]



Fig. 16: The Sensors & Software SPIDAR system at Százhalombatta (LBI Arch Pro)



Fig 17-18: TLS scanning of the Roman Bath at Százhalombatta by the students of PP BME, and its result: the 3D Point Cloud that was used as basis for the VR. (BME)

Implementation and Testing approach:

The Virtual Reality Implementation has been realized in two forms.

Firstly, on a VR board on a site, secondly, within a complex exhibition at Matrica Museum and Arcaheological Park.

1: The installation of the VR board on the site.

24th June 2022, 13:30 (see: D.T.2.3.2)

Target group: general public.

Way of implementation: online and offline material with the methodology of gamification.

Environment of installation: as the part of the visibility workshop **(see: D.T. 3.4.2.)**

Description **(see: D.T.2.3.2):**

A newly designed VR Board was created for the project. The Board is prepared with 3D printer, therefore it is a product that can use for other buildings both in Százhalombatta and further sites.

The board contains:

- the engraved image of the VR
- the name of the site in English – Hungarian – Latin
- brief information about the history of the building
- the Virtual Reconstruction of the monument can be reached by a QR code
- the website of the Living Danube Limes project can be reached by a QR code
- if the visitors place a piece of paper on the 3D printed board, and colour it, the drawing of the bath can be copied and taken to home.

The participants of the placement of the VR Board:

- PP's of Living Danube Limes Project (PP6 BME Budapest University of Technology and Economics and PP17 KÖME Association of Cultural Heritage Managers)
- external expert Spatialist Ltd.
- local stakeholders and civils of Százhalombatta
- invited guests from cities amongst the Danube (Vice-Major of Baja, Chief Architect of Dunaújváros).

The reason for the choice: the board provides offline and online visibility for the VR on the Pilot Site for the public.

This way of implementation provides an easy way to give information on site with long durability for the widest spectrum of target groups (different generations : the children with colouring, the adults with online material via the QR code). The material can be developed in a flexible way (other QR codes can be placed on it. The size of the board let it work in a harmonious way with its environment. Therefore this VR tool is completing

the understanding and visibility of the pilot site in a complex form, with the tool of gamification.

2: Implementation of the VR within the exhibition at Matrica Museum and Archaeological Park with the title: “Making the Matrica Camp Visible - Possibilities for re/exploring a Roman historical site”

24th June 2022, 17:00

Target group: experts, local public authorities, general public.

Way of implementation: online and offline material with complex supporting material.

The VR of the Roman bath was also disseminated within a complex exhibition at the 'Matrica' Museum of Százhalombatta. The exhibition provided an insight into the history of the "Matrica" Roman auxiliary camp with

- archaeological findings excavated on the Pilot Site that have never been exhibited,
- the survey fulfilled by LBI Arch Pro (Output T2.2)
- virtual reconstruction of the Roman baths created in the Living Danube Limes project
- survey drawings and conceptual designs for the development of the heritage site by students of architecture and specialised engineers of monument preservation of Budapest University of Technology and Economics (Output T1.2 Learning Interaction).

The opening ceremony was organized with the participants of LFG Meeting 2:

- with the opening speech of the Vice Major of Százhalombatta, Mr. Sándor Török, the Director of Matrica Museum and Archaeological Park Ms. Gabriella T. Németh and the Head of Department of History of Architecture and Monument Preservation of PP BME, Dr. János Krähling.
- PP's of Living Danube Limes Project (PP6 BME Budapest University of Technology and Economics and PP17 KÖME Association of Cultural Heritage Managers)
- external expert Spatialist Ltd.
- local stakeholders and civils of Százhalombatta
- invited guests from cities alongst the Danube (Major of Ercsi, Vice-Major of Baja, Chief Architect of Dunaújváros).

The exhibition is opened until the end of September.

Within the exhibition, the VR is visible:

- offline, on printed pictures with survey drawings
- offline, with the multifunctioning VR board

- offline with a game prepared for children
- online, presented via projector with silicon statue installations

The reason for the choice: the board provides offline and online visibility for the VR on the professional institution related to the Hungarian Pilot Site (Matrica Museum), that can reach the attention of both experts and both the public.

This way of implementation within an exhibition contains

- historical descriptions
- original, archaeological findings
- historical photos of the site
- survey of the site

provide a more informative and complex way to make understandable the context of the VR. Besides, the exhibition gives an insight of its preparation process – from the survey and archaeological excavation to the prepared reconstruction.

1: The installation of the VR board on the site:



Fig 1.1: the traces of the Roman Bath on the Hungarian Pilot Site of the Living Danube Limes Project in Matrica – Százhalombatta.



Fig 1.2.: Installation of the VR Board



Fig 1.3.: The VR Board



Fig 1.4.: The VR Board



Fig 1.5.: By colouring the VR Board, the picture of the Bath can be copied on paper.



Fig 1.6.: The VR Board on site – containing the name of the building in Hungarian, English and Latin, a brief description and QR for the VR and the Living Danube Limes project.

2: Implementation of the VR within the exhibition at Matrica Museum and Archaeological Park with the title: “Making the Matrica Camp Visible - Possibilities for re/exploring a Roman historical site”



Fig. 2.1: The overview of the exhibition.



Fig. 2.2: The overview of the exhibition.



Fig 2.3: The corner of the VR with the phases of its preparation from excavation and survey to the realisation, and the projected interior where the visitors can explore themselves the Bath. It is framed with two silicon statues with reconstructed clothes.



Fig 2.4: The corner of the VR with the phases of its preparation from excavation and survey to the realisation, and the projected interior where the visitors can explore themselves the Bath. It is framed with two silicon statues with reconstructed clothes.



Fig 2.5: The corner of the VR with the phases of its preparation from excavation and survey to the realisation.

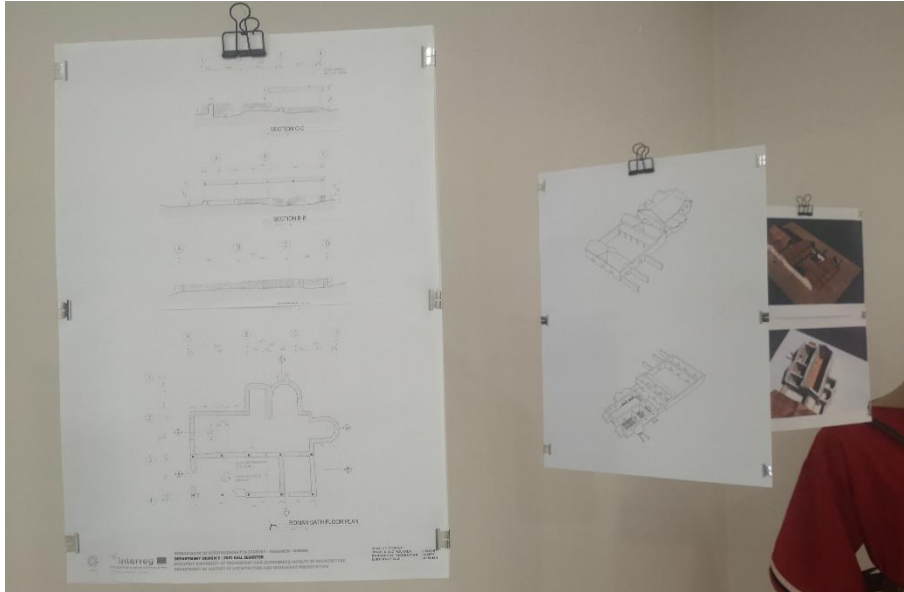


Fig 2.6: The corner of the VR with the phases of its preparation from excavation and survey to the realisation.



2.7: The corner where the survey method of LBI Arch Pro is explained to make understandable the scientific input of the VR.



2.8: Archaeological findings from the site that have been never exhibited. The original evidences makes the VR more understandable.



2.9: Game for children: on the left: explore the site as an archaeologists. By opening the different places, children can see VR photos of the buildings and descriptions. Among them the VR of the bath is visible. On the right: the VR board – the same that has been placed on the site.



2.10: Opening speech of of the Vice Major of Százhalombatta, Mr. Sándor Török, the Director of Matrica Museum and Archaeological Park Ms. Gabriella T. Németh and the Head of Department of History of Architecture and Monument Preservation of PP BME, Dr. János Krähling with the participation of experts, local stakeholders (members of LFG Meeting 2).

Dissemination

For the related objectives the following disseminations were fulfilled:

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2. improvement of the visibility of the site	Implementation of virtual reality reconstruction on the pilot site	<p>1: A newly designed VR Board was created for the project by PP BME. The Board is prepared with 3D printer, therefore it is a product that can use for other buildings both in Százhalombatta and further sites. It contains online and offline content about the monument for children and adults as well.</p> <p>2: The VR of the Roman bath was also disseminated within a complex exhibition at the 'Matrica' Museum of Százhalombatta. The exhibition provided an insight into the history of the "Matrica" Roman auxiliary camp with</p> <ul style="list-style-type: none"> -archaeological findings excavated on the Pilot Site that have never been exhibited, -the survey fulfilled by LBI Arch Pro (Output T2.2) -virtual reconstruction of the Roman baths created in the Living Danube Limes project -survey drawings and conceptual designs for the development of the heritage site by students of architecture and specialised engineers of monument preservation of Budapest University of Technology and Economics (Output T1.2 Learning Interaction).
	External events	<p>The principles of the project and the Pilot Site was disseminated within several external events for different stakeholders:</p> <ol style="list-style-type: none"> 1: Dömös – for public 2: Scientific Conference of Students – for university 3: Hungarian National Museum – for the experts – archaeologist – researchers (in cooperation with the Interreg DTP Project Danube's Archaeological eLandscapes) see: https://www.interreg-danube.eu/approved-projects/danube-s-archaeological-elandscapes 4: Síkfőkút – for ICOMOS 5: EAA conference – for international archaeologist community 6: Esztergom (in cooperation with the Interreg DTP Project DANUrB+) see: https://www.interreg-danube.eu/approved-projects/danurb_plus
3. creating synergies and cooperations prior to the improvement of the visibility, the preservation and management of natural and cultural heritage	LFG Event 1	The activities related to the Hungarian Pilot Site was disseminated within the 25 th Anniversary of the Archaeological Park of Százhalombatta for the local experts and public.
	LFG Event 2	The activities related to the Hungarian Pilot Site was disseminated for the Municipality of Százhalombatta (Deputy Mayor and Chief Architect), Matrica Museum and Archaeological Park (Director and Colleagues) with the involvement of experts from different professions (Architects, Archaeologists, Restorators).
	Roman Danube Limes Day	The archaeological / architectural features and the activities related to the Hungarian Pilot Site was disseminated during the Roman Danube Limes Day for the public. Since the program was the official part of the Night of the Museums, that is a global program in Hungary, it received more publicity on national level.
	Visibility Workshop	The archaeological / architectural features and the activities and the development potential related to the Hungarian Pilot Site was disseminated for local landowners, stakeholders, experts as well as stakeholders from other cities alongst the Danube (Óbuda, Dunaújváros, Baja). During the workshop, after the site visit and the presentations, common brainstorming was organised, where the participants could create ideas for the improvement of visibility.
	Museum Cluster	In parallel with the formation of the Museum cluster, the synergy and the visibility of the museums were strengthened.

	Preparatory meetings for the Connecting Cruise	PP BME, PP KÖME and external expert Spatialist Ltd. fulfilled meetings with local municipalities, museums and touristic institutions alongst the Danube who might be involved in the Connecting cruise as venues for stop as well as institutions on national level (Hungarian Tourism Agency, Ministry of Interior Affairs). Within the meetings the principles of the project was presented, the importance of the roman heritage was highlighted as well as its touristic potential, and the Pilot Site was mentioned – therefore the visibility of the different, related sites were improved.
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Target groups:

Integration and use of the Output by the target group:

Number and profile of participants in total: 33

Target groups reached through the pilot action:

Target groups (in accordance to AF section C.2.2)	Target value	Institutions/interest groups/key persons present at the event
local public authorities	7	Municipality of Százhalombatta (Deputy Mayor, Chief Architect, PR- and Communication Representative) Municipality of Ercsi (Mayor) Municipality of Baja (Deputy Mayor) Municipality of Dunaújváros (Chief Architect) Municipality of Óbuda (Chief Architect) Municipality of Adony Municipality of Mohács
regional public authorities	1	Danube-Ipoly National Park
national public authorities	1	Ministry for Internal Affairs – Deputy State Secretary of Water Management (Deputy State Secretary)
higher education and research	13	Budapest University of Technology and Economics Eötvös Loránd Univeristy, Budapest Matrica Museum and Archaeological Park (Százhalombatta) Hungarian National Museum BTM Aquincumi Múzeum (Budapest History Museum Aquincum Museum and Archaeological Park, Budapest Paksi Városi Múzeum (Town Museum of Paks), Paks Hansági Múzeum (Hanság Museum), Mosonmagyaróvár Római Kőtár/Lapidarium Brigetionensia, Komárom Balassa Museum, Esztergom Intercisa Múzeum, Dunaújváros Gorsium Régészeti Park (Gorsium Archaeological Park and Open Air Museum), Tác Lussonium, Paks-Dunakömlőd, Paks
education/training centres and schools	1	Arany János Secondary School, Százhalombatta (Headmaster)
SME (small and medium enterprises)	1	Club Sirály (Sport centre at the pilot site), Százhalombatta (Director)
general public	2	Civils of Százhalombatta



		Civils of Dömös
interest groups including NGOs	3	Hungarian Society of Archaeologists and Art Historians (Director) ASP János Banner Foundation of Archaeology (Expert of Archaeology and Museology) (Head) ASP Hungarian Society for Urban Planning (Director)
international organisations under national law	1	ICOMOS Hungary (President)
international organisations under international law	1	European Association of Archaeologists (Membership)
sectoral agencies	1	Hungarian Tourism Agency (International Referee)
infrastructure and (public) service providers	1	Territorial Directorates of Water Affairs