

Danube Geo Tour

Valorisation of geo-heritage for sustainable and innovative tourism development of
Danube Geoparks

Pilot innovative geoInterpretation methods tested:

Geological interpretation point Tekija/geomorphology

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List of Abbreviations

DTP	Danube Transnational Programme
JS	Joint Secretariat
LP	Lead Partner
PP	Project Partner
WP	Work Package
EGN	European Geoparks Network
GGN	Global Geoparks Network
UGG	UNESCO Global Geopark
TIC	Tourism Information Centre
ICOMOS	International council on monuments and sites
IUCN	International Union for Conservation of Nature
MLA	The Museums, Libraries and Archives Council
GLO	Generic learning Outcomes



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1. Introduction

1.1. Background information

Danube GeoTour project aims to “improve management capacities and strategies and to develop practical solutions for the activation of geodiversity/geoheritage as well as to seize positive market trends for sustainable tourism development in 8 Geoparks of the Danube region”¹. One of the specific objectives is to develop, demonstrate and evaluate joint Danube GeoTour comprising innovative interpretation of the geosites of 8 participating Geoparks. Acting in close collaboration with partners, visitors and local inhabitants the project shall create, test and implement a set of modern interpretation methods and techniques.²

Objective of the WP5 “Geointerpretation” is to improve the skills and quality of heritage interpretation in participating Geoparks so as to complement the uniqueness and character of the overall Danube GeoTour product. The history of Earth, geology over time, its processes, etc. are difficult to understand and interpret. For Geoparks and Danube GeoTour, it is critical that visitor centres and guides are able to present a true geological story and the value of its geoheritage. Although there is ample of scientific information available, the quality of interpretation among participating Danube Geoparks still lags behind more advanced Geoparks. A screening of the most recent developments, technologies and best practices of interpretative methods applicable to Danube Geoparks was already carried out and shared as part of the geointerpretation training for Geopark staff. This screening and geointerpretation training enabled an exchange of interpretative practices among parks (learning from each other) and allowed them to apply and test different pilot interpretative actions in individual Geoparks. Each Geopark has addressed a different interpretation challenge (problem) so that each pilot interpretation site serves as a reference point for other parks. The process of piloting was documented, continuously discussed and exchanged among partners and evaluated and presented as lessons for others.

Output document represents the evaluation of one of eight implemented pilot actions in the field of interpretation points or centres implemented in our Geopark. This document illustrates how the pilot action was tested and what results were reached from aspect of different geointerpretation methods used, both qualitative and quantitative. In this way, the newly introduced interpretation will contribute to a smarter presentation and preservation of geoheritage and geodiversity in our Geopark as well as to the quality, visibility and uniqueness of the Danube GeoTour product as a whole. Pilot interpretation actions also add value to or are a part of the innovative geoprodukt developed in WP4. Furthermore, they are also in line with the Strategy on Management of Tourism Pressures in Geoparks developed in WP3.

Implemented pilot interpretation sites as a part of Danube GeoTour visitor infrastructure network will serve as a reference and learning points for demonstrations of different interpretation methods for 8 most common geological phenomena and processes in the Danube geological area (tectonics, metamorphic processes and rocks, geology over time, water in time, geomorphology, volcanology, dialogue between earth & humans, geological

¹ Danube GeoTour Application Form

² Danube GeoTour Application Form



hazards). This ensures transnational learning and transfer of practices from participating to other geoparks and organisation dealing with heritage interpretation.

1.2. Methodology

Different methodologies (qualitative and quantitative assessment) concerning Output 5.2 „Pilot innovative geoInterpretation methods tested” were use in order to find out a smarter presentation and preservation of geoheritage as well as to the quality, visibility and uniqueness of the Danube GeoTour product.

For the qualitative assessment of pilot actions a formative evaluation of interpretation methods during the implementation phase was conducted by project partners with geoparks. Within this evaluation each project partner tested reactions within a focus group of potential visitors to the interpretation methods, such as their attention, attitude etc. and collected their opinions.

In the frame of quantitative assessment a self-evaluation questionnaire was developed which helps project partners to assess their pilot actions and interpretation methods. In quantitative assessment also summative evaluation is included, which will be implemented in a form of visitor satisfaction questionnaire. The results are a part of Deliverable 5.3. “Evaluation report on pilot actions with lessons learnt” while findings are integrated in this document as well.

1.3. Summary

In the frame of WP 5 “Geointerpretation” each Geopark introduced and tested different geointerpretation methods within their pilot action that can be applied in other parks. The geointerpretation methods can be transferred not only to other Geoparks in the region or in the EU but also to other similar territories such as national parks, cultural heritage sites, rural areas or tourism destinations.

Newly developed and demonstrated geointerpretations sites are open to the public and serve as a reference and learning points for demonstrations of different interpretation methods for 8 most common geological phenomena and processes in the Danube geological area. This ensures transnational learning and transfer of practices from participating to other geoparks and organisation dealing with the heritage interpretation. Interpretation methods were carefully and strategically planned, while planning is very important starting phase in developing new interpretation site.

Following pilot interpretation action testing one of the 8 most common geological challenges for interpretation was established by project partners (Table 1):

Table 1: Pilot interpretation action established in the frame of the Danube GeoTour project

	Project partner	Interpretation action	Geological challenge tested	
1	LP IHC	Visitor Centre	tectonics	
2	ERDF PP1 Balaton Geopark	Visitor Centre with outdoor sites and interpretation trails	volcanology	
3	ERDF PP2	Village interpretation points	water	

	Eisenwurzen Geopark			
4	ERDF PP3 GeoPapuk	In-situ interpretation of geological site Zvecevo	metamorphic rocks	
5	ERDF PP4 GeoKaravanks	Digital interpretation tool	geotime	
6	ERDF PP10 Železné Hory Geopark	Digital interpretation tool	geo hazards	
7	ERDF PP8 UNIB	Digital interpretation tool	dialogue Earth & Man	
8	IPA PP1 DNP	Geological interpretation point Tekija	geomorphology	✓

IPA PP1 DNP piloted 1 interpretation action “Geological interpretation point Tekija/geomorphology”, including different interpretation types. In Serbian pilot action geological challenge “geomorphology” was tested. Geological challenge is presented with modern and innovative technologies. National park Djerdap has renovated building in the village of Tekija, where it is established geo-interpretative center. Comprehensive information about geopark visitation possibilities and hiking trails are at disposal to the visitors. Various settings about heritage of the geopark are placed in brand-new space, ready for tourism usage. This spot on the tourist’s map of the Iron Gates is promoting heritage interpretation focusing on geomorphology and its relations with surroundings. As an added value, Tekija geo interpretative center combines other remarkable values of the area.



2. Interpretative planning process

Heritage interpretation is about connecting people to places, objects and events. It's about explaining the significance of tangible and intangible heritage and helping visitors – tourists and local people – to engage with and to value heritage site – and to find what it means to them. Interpretation is non-formal education that contributes to lifelong learning. It uses creativity and inspiration while maintaining the integrity and authenticity of the story you have to tell.

Good interpretation widens people's horizons and increases their satisfaction and enjoyment. It can also help to change visitors' behaviour and attitudes. For this reason, it's an important tool in managing sites and encouraging both greater awareness of their significance and support for their protection from local people and tourists. However, it must aim for high levels of planning, implementation, operation and maintenance.³

For a successful interpretation it is necessary to be carefully and strategically planned. Only if the themes and objectives of the interpretation are clearly defined, if we know exactly what we want to interpret and to whom, and why, if we carefully choose methods and means of interpretation, we will be able to monitor how successful and effective the interpretation is and, and if necessary, improve the imperfections. In the frame of activity 5.3 "pilot actions: demonstration of innovative methods and technologies of Geointerpretation" "Preliminary concepts and plans of pilot action" was developed following a joint template by project partners with pilot actions.

Planning of the interpretation site is very important starting phase in developing new interpretation site. In the first place an interpretation project should identify and present the most significant themes and stories and set the objectives (what you hope to achieve through interpretation: learning objectives, behavioural, influencing visitor actions; emotional objectives e.g. enjoyment, empathy etc.). Furthermore it is also important to decide how we will interpret heritage by choosing appropriate interpretation methods and outlining the most suitable way of presenting themes and stories so that visitors have stimulating experiences. Each interpretative planning process also define to who will we interpret by identifying future target groups (potential visitors, families, groups, organizations, residents, stakeholders, etc.). In the frame of Interreg Danube GeoTour project the Strategy on Management of Tourism Pressures in Geoparks was developed within WP3 and was considered in planning of pilot actions in order to better understand different impacts on nature and to avoid or reduce negative impacts on nature. It also helped clarified the aspect of nature protection to contribute to the holistic concept of protection, education, public awareness and socio-economic benefits for sustainable local development.

To sum up the following section was included in the interpretative planning process of **Geological interpretation point Tekija** pilot action in the frame of Danube GeoTour project:

- ✓ Why interpret this topic or site to visitors?

Geological interpretation point Tekija is the pilot action contributing to the presentation of rich geodiversity of the area with, in the same time, spreading information on newly developed geoproduct GeoHiking to the visitors.

³ Interpret Europe (2016): Engaging your visitors: Guidelines for achieving excellence in heritage interpretation, Witzhausen.



✓ What are you interpreting?

We are interpreting geological and other natural values of Geopark area. There are sections about geology, but also about e.g. Danube River or local/regional biodiversity.

✓ Who are your visitors?

Visitors are tourists who want to be informed about geological values of the area, hiking trails, points of interest and about guided tours in geopark Djerdap.

✓ Who is involved in the planning process?

Involved parties in the planning process are representatives of geopark/National park Djerdap, representatives from Ministry of Environment and external consultants.

✓ What are the objectives (management, learning, behavioural, emotional objectives)?

Main objective is to present natural values of Djerdap/Iron Gates area in order to support better visibility and accessibility of newly established sustainable tourism product geoHiking. This point provides geological interpretation of the area by combining information on natural and cultural heritage.

✓ How are you interpreting?

All information on geomorphology, geo heritage, guided tours and important sites are interpreted by printed materials like flyers, leaflets, guide books, by placing info boards and panels. Also, information on geological assets are told by guides. In the shelves, exhibits are providing real insight into the topic.

✓ How are you including aspects of nature conservation and sustainable tourism?

All materials about geopark Djerdap are exposed in order to inform people about the beauty of the nature in the area, and about possibilities which experience they can enjoy. With the interpretation provided, nature conservation has its permanent visibility as manager of protected area (National park) always include. Within the principles of nature conservation, tourism development is planned, now from many years ago, in sustainable way, following certain guidelines and strategies. Thus, geointerpretative point Tekija is a part of wider efforts towards development of sustainable tourism in the entire region. Also, tourist guides are making people aware of importance of nature conservation by telling stories about bad behaviour in nature and about how it can affect the environment.

2.1. Description of pilot action and interpretation methods



In the frame of Interreg Danube GeoTour project 8 pilot interpretation sites as part of Danube GeoTour visitor infrastructure network were tested and implemented. They serve as reference and learning points for demonstrations of different interpretation methods for 8 most common geological phenomena and processes in the Danube geological area.

IPA PP1 DNP piloted 1 interpretation action “geological interpretation point Tekija/geomorphology”. In this pilot action geological challenge “geomorphology” was interpreted. Newly designed geoproduct GeoHiking allows visitors to explore geomorphology in geopark Djerdap area by visiting different attractions. Geomorphology of Geopark is characterized by remarkable cliffs, canyons and, in wider setting, beautiful karst formations, shingles and sandstone. Geoproduct GeoHiking links landscape with geologically important sites.

National park/geopark Djerdap has prepared a building in village Tekija as a geo-interpretive center. In this geo-interpretive center materials and other information about hiking trails, guided tours and about new geoproduct GeoHiking are at disposal to the visitors. Furthermore, at this info point the joint Danube Geotour project is presented.

Geo-interpretive center in Tekija is also a part of our innovative geoproduct GeoHiking and also adds value to the geoproduct.

GeoTekija center consist of the following departments:

- **Fossil department**, where samples are exhibited in accordance with the topic of this department.
- **Fish and plant** department equipped with appropriate samples.
- **Lepenski Vir/archeological site** represents some of the specimens that can be seen in the archaeological site of the same name.
- **Animals and insects** of the area, which are presented by samples in convenient departments.
- **Video projections** equipped with appropriate technical equipment.

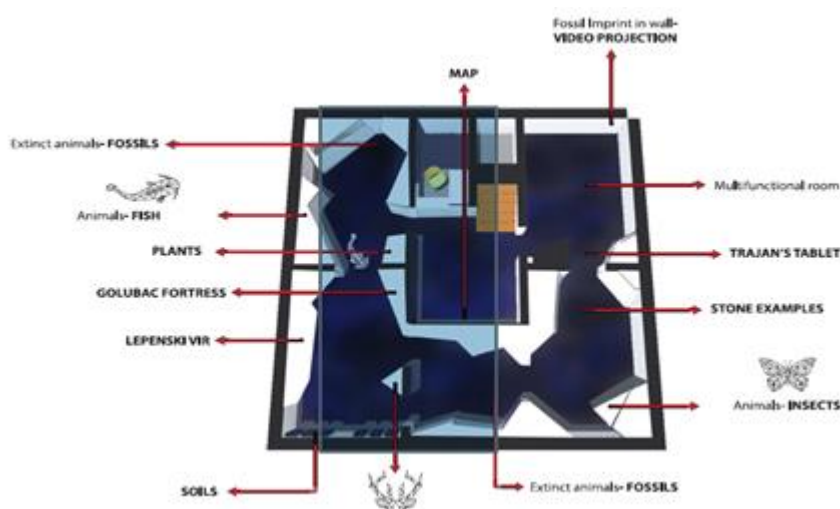


Figure 1. Conceptual design of GeoTekija center in Tekija, Serbia



Figure 2. Conceptual design of equipped GeoTekija center



Figure 3. Equipped GeoTekija center



Figure 4. Equipped GeoTekija center-exposed specimens of different kinds of rocks



Figure 5. Equipped GeoTekija center-exposed specimens of rocks

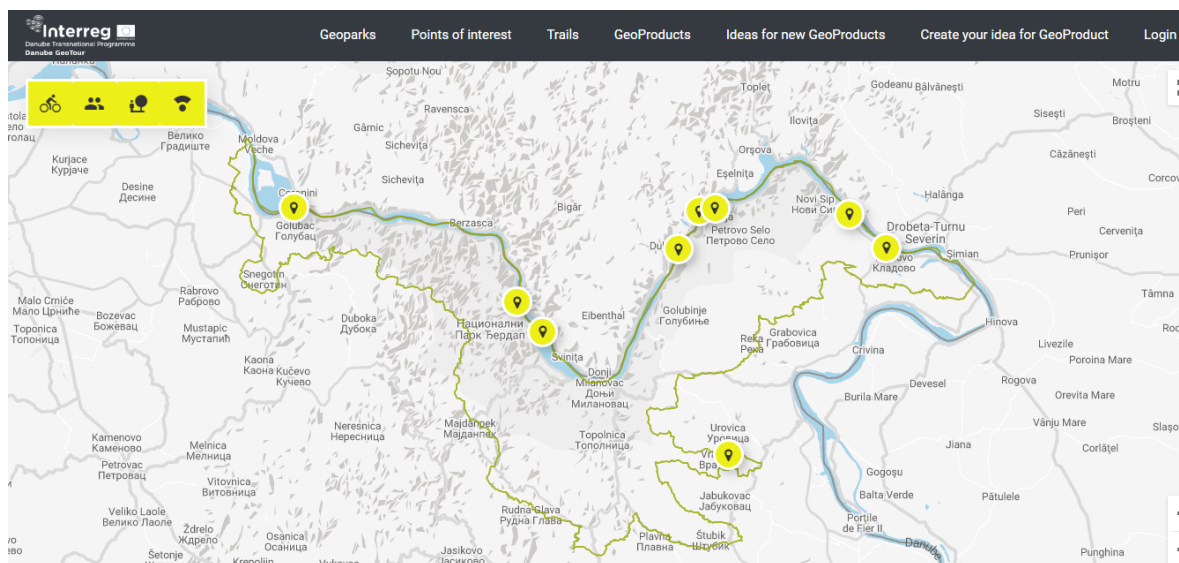


Figure 6. Interactive map of geopark Djerdap

3. Evaluation process of pilot action

Evaluation is a critical quality assurance measure in interpretation management and should be undertaken throughout the project, not just at the end. Evaluation is also a systematic process of determining ‘somethings’ value, worth or merit. When you evaluate your interpretation programme or project, it will help you develop your interpretation and to understand whether it is meeting its objectives or not.⁴

Evaluation should be an on-going process and thus it should be an integral part of the regular review of your on-site interpretation. There are a number of ways to divide the stages in the evaluation process, typically however there are five forms of evaluation which can be used to support your interpretation and these are; front-end, formative, remedial (process), summative (outcome) and impact evaluation.⁵

For evaluating pilot actions / interpretative methods in the frame of the Danube GeoTour project ERDF PP4 Geopark Karavanks proposed a qualitative assessment (formative evaluation) as well as quantitative assessment (self-evaluation questionnaire and summative evaluation) of developed pilot actions which was applied as a common approach in all pilot sites.

3.1. Criteria for effective heritage interpretation

For evaluation purpose, especially for quantitative assessment in form of self-evaluation questionnaire we defined different criteria which we find important in evaluating of the effectiveness of the interpretation methods used in pilot actions of the Danube GeoTour project.

⁴ Colquhoun, F. (2005): Interpretation Handbook and Standard - Distilling the essence.

⁵ Dr. Ryland P, Dr. Welch S. (2016): Demystifying evaluation: a brief guide to the evaluation of interpretive media, activities and programmes, AHI Best Practice Guidelines 12.



Firstly, we researched already existed criteria/indicators for assessing the quality and efficiency of different interpretative methods. The ICOMOS, International Council On Monuments and Sites established seven recommendations for effective cultural heritage interpretation: access & understanding, information sources, context & setting, authenticity, sustainability, inclusiveness, research training & evaluation. For example, the IUCN - International Union for Conservation of Nature also developed Criteria for quality assessment of natural heritage interpretation. Furthermore The Museums, Libraries and Archives Council (MLA) came up with a framework called “Generic learning Outcomes” or GLOs to help museums think about the objectives and effectiveness of interpretation projects.⁶

With the respect to all researched criteria, indicators and aspects, and according to the Danube GeoTour project application, we defined our own criteria which we find important in evaluating of the effectiveness of the interpretation methods used in pilot actions of the Danube GeoTour project (Figure 3). When selected the criteria we also took into account objectives of the European and Global Geopark Network (sustainable socio-economic development, education and teaching, preservation of the Earth heritage for present and future generations, ...). Defined criteria for effective heritage interpretation by ERDF PP4 Geopark Karavanks are following:

A. INTERPRETATION METHODS

For effective heritage interpretation it is important which interpretation method is used (personal, non-personal interpretation), and if some innovative audio-visual solutions are available. In the case of personal interpretation story telling is an important component of effective interpretation and it is a powerful technique used to conjure up the spirit of place for visitors. Stories should be directly related to the site and linked to what people are likely to know already.

B. ACCESSIBILITY / DISABILITY

According to application form of the Danube GeoTour project interpretation should be adapt to the needs of people with disabilities (toilets, wheelchair access, etc.) whenever it is possible. Text, height of the displays, good connection to the public transport network, available parking facilities etc., should be accessible to everyone.

C. KNOWLEDGE & UNDERSTANDING

Interpretation should be planned and delivered as a comprehensive programme to explain the site and its heritage to visitors with a range of interests, experiences and educational levels. People of all ages should be treated as equals – do not assume lack of knowledge, but also do not assume a high level of knowledge. Interpretation should give visitors an option to find out more detail, both on-site and through publications and websites, while some visitors like to explore topics in detail and appreciate being provided with appropriate informations. Furthermore multi-lingual interpretation will attract a wider range of visitors. It is recommended to research key languages used in the area and provide some translated material.

D. ENJOYMENT, INSPIRATION, CREATIVITY, SKILLS

By defining indicators for effective heritage interpretation we also consider that interpretation methods within pilot actions should encourage enjoyment, inspiration, creativity by trying to do new things with involvement of visitors to stimulate their

⁶ Rowe H. J., Vigurs K. (2011): 10 Top Tips for Museum Interpretation, MLA.



interest (asking your visitors questions, using their experiences and encourage them to think with, design of panels, audio visual solutions in way which encourage thinking, discovering etc.). For successful interpretation is also important that visitors can gain new skills, change attitudes and future behaviour in way of developing more responsibility towards geological, cultural and natural sites, adoption of positive attitudes to the geology and other heritage through interpretation. Furthermore techniques which use different senses should be included in the interpretation which encourage visitors to look at, touch, listen to, smell or taste things around them. The senses trigger different parts of the brain and elicit different responses, smell for example is strongly connected with memory.

E. IMPACT ON NATURE

When planning an interpretative project aspects of nature conservation/preservation should be also consider. In case of Danube GeoTour project the developed Strategy on Management of Tourism Pressures in Geoparks in the frame of WP3 was included in the process of interpretative pilot actions developement. The interpretative site has to comply with the principles and standards of conservation of the geological and other heritage and its promotion in order to increase the visibility of the importance of protecting the heritage. The infrastructure and the activities connected to the interpretative places should not have any negative impact on the environment and interpretation should point out the environmental problems related to different activities in nature and suggest to visitors how to behave in nature to avoid or at least to reduce pressures. On the interpretative site there is also important that informations about the nature conservation (statuses, protection regimes) are presented. As the result such way of interpretation can contribute to the promotion of the nature conservation among the visitors.

F. IMPACT ON SUSTAINABLE TOURISM

The interpretation should have potentially positive effects on sustainable tourism. Gradually, the linkages between interpretation and sustainable tourism have grown and they have begun to be turned from being theoretical ideals into practical reality. Interpretative sites shall support the cooperation and networking of various groups, as well as maintaining traditions of various cultures of the region. They shall help to develop especially local economy and strengthen competitiveness of SME operating in the region and country as the whole. Skilled interpretation can be used to direct visitors and their spending to those local businesses and services which are economically marginal but which are important elements of the local economy and community. These may be local post offices, restaurants, accommodation facilities, local transport services.⁷

Interpretation for visitors can be much more beneficial and sustainable if the local community is actively involved. Wherever possible local people should be involved in helping to decide whether or not to interpret, what to interpret, who to interpret to, as well as how to interpret. Local residents can take an active part in all the processes of interpretation, including the research and the presentation and celebration of place and people. Such participation can encourage communities to understand, to value and then to sustain their own environment, cultural resources and heritage.

⁷ Bramwell B., Lane B. (1993): Interpretation and sustainable tourism: The Potential and the Pitfalls, Journal of Sustainable Tourism, Volume 1, No. 2.



Sustainable tourism should provide a quality experience for visitors, while improving the quality of life of the host community and protecting the quality of the environment. Respect the socio-cultural authenticity of the region, conserve their built and living cultural heritage and traditional values, and contribute to inter-cultural understanding and tolerance.



Figure 1: Criteria for effective heritage interpretation, Source: Karawanken-Karavanke UNESCO Global Geopark

3.2 Qualitative assessment

3.2.1 Formative evaluation of interpretation methods

This type of evaluation typically occurs during the implementation phase to test interpretation project being developed. In the frame of this evaluation each project partner tested visitor reaction to the interpretation methods, for example - their attention or understanding of messages it is trying to communicate, feedbacks, ... Project partners invited small focus group of visitors (approx. 10 potential future visitors). Participants were asked several questions, for example what works and what might need to be changed and gave opinions.

We have organized pilot visitation in our new geo-interpretive center in Tekija. After pilot visitation, we got first positive impression about our geo-interpretive center. We got positive feedback on appearance of the exhibition, about good location of the center. Visitors were impressed by interior design of the info point and they were happy to introduce themselves with many information on what can be seen in geopark Djerdap. There are rock samples exposed in the geo-interpretive center, so participants could learn about geomorphology of the area. During the testing tour there was presentation on geology and geomorphology of the area held in order to present natural heritage. This was a very good opportunity to raise awareness and knowledge about geological and other natural connected features of the geopark Djerdap, and above all, about how good the new visitor center is interpreting those features.

As for negative remarks, some of the visitors complained on how the geo interpretive center is marked on the signboards along the nearby roads.

3.3 Quantitative assessment

For quantitative assessment of pilot actions we developed self-evaluation questionnaire through which each project partner assessed the newly developed interpretation methods. The self-evaluation questionnaire consists of defined indicators and parameters which we find important in the evaluating the effectiveness of the interpretation methods used in pilot actions of the Danube GeoTour project.

In quantitative assessment also summative evaluation is included, which was implemented in the form of visitor satisfaction questionnaire. The results are part of Deliverable 5.3. "Evaluation report on pilot actions with lessons learnt."

3.3.1 Self-evaluation questionnaire

Self-evaluation questionnaire (Table 2) consists of defined indicators and parameters which we find important in evaluating the effectiveness of the interpretation methods used in pilot actions of the Danube GeoTour project.

The questionnaire has six (6) sections from A to F, each section with a set of statement has to be self-evaluated on a scale from 1 to 5. Please select / underline the relevant value for your pilot action. The values are: 1 – low degree; 2 – quite low; 3 – medium; 4 – quite high; 5 very high degree. Under the questionnaire more specific description of each set of



statements from section A to F are given and in two sentences the result of the quantitative assessment for each statement (A1, A2,... to F4) should be discussed.

Table 2: Self-evaluation questionnaire

A. INTERPRETATION METHODS					
A1. Using the combination of personal and non-personal interpretation	1	2	3	4	5
A2. Using of innovative audio-visual solutions (very simple, digital)	1	2	3	4	5
A3. Using of story telling	1	2	3	4	5
B. ACCESSIBILITY / DISABILITY					
B1. Interpretation (text, graphic stylelighting, height of the displays, etc.) is accessible to everyone, so all visitors can experience the whole point of view	1	2	3	4	5
B2. Some aspects of the interpretation are designed for people with disabilities	1	2	3	4	5
B3. Places to have a rest, toilets and wheelchair access for people with disabilities are available	1	2	3	4	5
C. KNOWLEDGE & UNDERSTANDING					
C1. Informations are given in easy to understandable language	1	2	3	4	5
C2. Informations are prepared and given in different languages	1	2	3	4	5
C3. More detailed interpretation for those who want to find out more is available and offer or suggest ways to explore the subject further (hyperlinks in websites, QR codes, etc.)	1	2	3	4	5
D. ENJOYMENT, INSPIRATION, CREATIVITY, SKILLS					
D1. Interpretation encourage visitors to try and do new things and it is stimulating	1	2	3	4	5
D2. Gaining new skills and changing attitudes and future behaviour of visitors	1	2	3	4	5
D3. Different senses are included in interpretation – encourage visitors to look at, touch, listen to, smell or taste the things around them	1	2	3	4	5
E. IMPACT ON NATURE (NATURE CONSERVATION)					
E1. Incourage the individual and to decrease the massive tourism.	1	2	3	4	5
E2. Interpretative places (pilot actions) do not have negative impact on the nature.	1	2	3	4	5
E3. Interpretation explain the impacts of various actions – encouraging visitors to take care about the geosites and to behave responsibly (raising awarness).	1	2	3	4	5
E4. Interpretation include various nature conservation aspects, which are displayed in different ways.	1	2	3	4	5
F. IMPACT ON SUSTAINABLE TOURISM					
F1. Possitive impact on the environment, society and economy	1	2	3	4	5
F2. Support local economy, especially use of local transport and accommodation infrastructure	1	2	3	4	5
F3. Reflecting the needs and requirements of tourists and local inhabitants	1	2	3	4	5
F4. Respect and enhance the historic heritage, authentic culture, traditions and distinctiveness of host communities	1	2	3	4	5

TOTAL SCORE (max. 100 points):

A1. Personal interpretation means something presented to people by other people. It includes the following: guided tours, storytelling, workshops, etc. Non-personal interpretation means visitors do not have to rely on someone else to present it. It includes some of the most common forms of interpretation such as: leaflets; self-guided trails; taped audio trails; interpretive boards; and information centre exhibits etc.

Combination of personal and non-personal interpretation is on very high level. On one hand, tourist guides give information to the visitors on what can be seen in geopark Djerdap. On guided tours, tourists are informed on how to act in accordance with environmental regulations and there are information on geological assets of a place given.

On the other hand, there is a variety of material in this geo-interpretive center. Flyers, guide books, leaflets, interpretive boards and panels are at disposal to visitors.

A2. QR codes are link to further information that people can access using their mobile phone, using of interactive touchscreen technology, tablets, augmented reality, etc.

There is an interactive map created in order to present hiking trails and points of interest in geopark Djerdap. Access to the map is available on tablets, mobile phones and on PC in the visitors center.

A3. Storytelling is a powerful technique used to conjure up the spirit of the place for visitors. Stories should be directly related to the site and linked to what people are likely to know already. With storytelling you can also encourage people to take part as characters in the story.

Sertified tourist guides inform visitors about geological assets of a place. There are stories told about how geomorphology was created by influence of wind, sun and water over time. Tourist guides are also making people aware of importance of nature conservation by telling stories about bad behaviour in nature and how it can effect on environment.

B1. The text is clearly printed and legible; is complemented by headings and / or subheadings; is divided into paragraphs and uses correct spelling, grammar and syntax. The text is in a height and angle in which it can be read easily, and do not block views or features of interest.

The text is clearly printed and divided into paragraphs so it can be read easily. All information are written in intelligible language so it is accessible to anyone interested.

B2. Offering special programmes and guided tours for people with different disabilities (individuals with mobility limitations; individuals who are blind or partially sighted; individuals who are deaf or hard of hearing; individuals with developmental and/or learning disabilities); large print labels, Braille labels and maps, audio guides, audio descriptions, sign language interpretation, etc.

There will be tactile exhibitions organized. Presenting originals and replicas of archaeological finds gives a possibility of getting to know heritage from this area also for blind or partly sighted individuals by providing tactile stripes with Braille.

B3. Places to sit down, special toilets for people with disabilities and wheelchair access are available. It helps people with walking difficulties and other mobility problems as well as anyone with tired legs and feet.



There is no suitable access for people in wheelchairs. We have an idea to improve this situation in next period by forming special entrance for wheelchair access.

C1. Very simple descriptions. Visitors require well structured and easy-to-digest language. An average visitor might spend as little as 3 seconds looking at a graphic panel before browsing to the next area.

Text is written in intelligible language so it is understandable to wider public. It is clearly printed and divided into small parts so it is very convenient for reading.

C2. Providing personal (guided tours, etc.) and non-personal heritage interpretation in native and other foreign languages.

All information that are presented in the center are written in native language and also in English.

C3. Interpretation should be planned and delivered as a comprehensive programme to explain the site and different heritage to visitors with a range of interests, experiences and educational levels. There is an option to find out more detail, for example on the homepage and through other publications.

More detailed interpretation for those who want to find out more about the new geoHiking product is given on website <http://www.geohikingdjerdap.rs/>, on Facebook page GeoHikingDjerdap, on Instagram page _geohiking_djerdap and all the other information could be found on National park Djerdap web site www.npdjerdap.rs and geopark.npdjerdap.rs

D1. Involvement of visitors and encouragement of interaction to stimulate their interest (asking your visitors questions, using their experiences and encourage them to think for themselves, design of panels, audio visual solutions in way which encourage thinking, discovering etc.).

Interpretation encourage visitors to try and do new things. All information are written in an attractive way so tourists are interested to explore site.

D2. Interpretation which can encourage visitors to develop more responsibility towards geological, cultural and natural sites, adoption of positive attitudes to the geology and other heritage through interpretation.

The new geoproduct of geopark Djerdap which is presented in center in Tekija is something new in this area. Although hiking itself is not new discipline, in this area is still very attractive for potential visitors. Visitors are encouraged to learn something new about geological assets, to become aware of environment protection importance, to be active and to explore the nature.

D3. Techniques which use several senses (sight, sound, touch, smell and taste). We experience everything through our senses. We use our intellect, memories and assumptions to process the information, but it all starts from the raw materials we receive from looking, touching, smelling, listening, tasting and a whole range of lesser headlined senses. They trigger different parts of the brain and elicit different responses, smell for example is strongly connected with memory.

Interpretation of geological assets is set in a way that encourages visitors to look at them, touch them and to listen to the stories about geomorphology and about importance of environment protection. In printed materials there are detailed information on geological assets of the area. As well, stories told by certified tourist guides give visitors an idea of what



this landscape once looked like and how it was formed as it is by the influence of external factors over time.

E1. The infrastructure of pilot action is built for smaller groups and individual visitors.

Our pilot action is conducted for smaller groups or individuals in order to provide better understanding for visitors. Smaller groups pay more attention and it is much easier to involve them in the tourist offer, to direct them how to behave and how to treat nature.

E2. The infrastructure and the activities connected to the interpretative places does not have any negative impact on the environment.

Interpretative place does not have any negative impact on the nature and even encourage visitors to engage in active nature conservation. Pilot action is carefully designed in a way that represents the importance of maintaining nature as it is.

E3. The interpretation (in visitor centre or info point) point out the environmental problems related to different activities in nature and suggest visitors how to behave in nature to avoid or at least to reduce pressures.

All written material directs visitors to understand the importance of maintaining nature as it is and to decrease human influence on it. Furthermore, guided tours are designed to fulfil need of visitors for hiking, but also to inform them on how to act in accordance with environmental regulations. Tourist guides are making people aware of importance of nature conservation by telling the stories about bad behaviour in nature and how it can effect on environment.

E4. The information about the nature conservation (statutes, protection regimes) are presented. Interpretation contribute to the promotion of the nature conservation among the visitors.

Interpretation includes various nature conservation aspects and they are very well presented to wider public through stories and on printed material. Whole pilot action is designed in a way that encourages visitors to have in mind how nature conservation is important so the nature can be maintained in the way it already exists.

F1. Is your pilot action based on the rules of sustainable development and has no negative effect on our environment, as well as on society and economy? All pilot activities should not lead to pollution of the environment, whether directly or indirectly, and their implementation should be energy-saving, based primarily on renewable energy sources. Pilot action shall support the cooperation and networking of various groups, as well as maintaining traditions of various cultures of the region. And last but not least, it shall help to develop especially local economy and strengthen competitiveness of SME operating in the region and country as the whole.

There is a positive impact of this pilot action on environment, because all stories and also printed materials encourage people to be aware of environment protection importance and they inform visitors about the code of conduct. There is also positive impact on society and economy because it includes engagement of a local community (potentially new jobs) and it also provides revenue from tourist tours.

F2. Ensure viable, long-term economic operations, providing socio-economic benefits to all stakeholders that are fairly distributed, including stable employment and income-earning opportunities and social services to host communities, and contributing to poverty alleviation.



This pilot action supports local economy, in a way that provides people engagement and generating incomes from tourists. It also encourages use of local transport and accommodation infrastructure.

F3. Provide a safe, satisfying and fulfilling experience for visitors, available to all without discrimination by gender, race, disability or in the way not negatively affects the day-to-day routine of local inhabitants, respecting their needs, habits and culture.

It reflects need of local inhabitants to engage themselves in order to create sustainable tourism offer and to make the most of already given and well preserved geological assets. There is also fulfilling experience for visitors who are waiting to enjoy in whole-planned touristic offer in this area for a long time.

F4: Respect the socio-cultural authenticity of the region, conserve their built and living cultural heritage and traditional values, and contribute to inter-cultural understanding and tolerance.

This pilot action not only respects the socio-cultural authenticity of the region, but also presents traditional values and cultural heritage (tangible and intangible) in best way in order to make visitors aware of value of this place and also to represent them the benefits of spending time in this area.

3.3.2 Visitor satisfaction summative evaluation

In the frame of quantitative assessment we decided to do as well summative (outcome) evaluation of interpretation methods in developed pilot actions to make sure that visitors are enjoying and learning from interpretation, and to check whether interpretive objectives have been met. This summative evaluation will be implemented in a form of visitor satisfaction questionnaire.

The summative (outcome) evaluation is generally the most widely and regularly used form, it is carried out after the interpretive project has been completed and is most often used to assess its success in relation to its objectives. In this type of evaluation, visitors are typically encouraged to tell staff what they think about their experience often through a questionnaire, interview or focus group.⁸

In the frame of the Danube GeoTour pilot action developed, visitor satisfaction questionnaire was prepared (Annexes 7.2) and each project partner gave this questionnaire to visitors of their interpretative site. The results of visitor satisfaction questionnaire of each project partner will be a part of Deliverable 5.3.1 “Evaluation report on pilot actions with lessons learnt”.

⁸ Dr. Ryland P, Dr. Welch S. (2016): Demystifying evaluation: a brief guide to the evaluation of interpretive media, activities and programmes, AHI Best Practice Guidelines 12.



4. Recommendations

- Integrate the developed geo-interpretive center in all promotion tools and materials of the Geopark
- Evaluation of geo-interpretive center impact
- Permanent cooperation between Geopark management team, external experts and partners on this pilot action
- Update the promotion of the geo-interpretive center every once in a while

5. Conclusion

On the basis of the guidelines developed through the project Danube GeoTour, we conducted a pilot action for geological interpretive center Tekija. This geo-interpretive center will contribute to the further development of tourist offer, and also economic development of the area. Whole concept is attractive because it promotes geological, cultural and natural heritage.

The geo interpretive center Tekija fulfils basic requirements for sustainable tourism offer establishing strong and direct connection with local geodiversity and local natural and cultural heritage. This info point was constructed because it was not only needed, but also requested by tourists who are nature lovers and who want to inform themselves about touristic offer and want to have full tour with guides. Guides are willing to share information about specific places and to explain interesting facts of development and changing relief through the history.

Geo interpretive center Tekija presents local culture and cultural heritage. This pilot action was tested and got positive feedback, with very fewer negative comments.

Entering in this adventure of diversifying regional tourism offer by including geomorphology component to it, made positive impressions to wider group of tourism stakeholders and thus geology items are better positioned in local tourism offices with an idea for development of a new project proposals.

6. Literature

- Bramwell B., Lane B. (1993): Interpretation and sustainable tourism: The Potential and the Pitfalls, Journal of Sustainable Tourism, Volume 1, No. 2.
- Colquhoun, F. (2005): Interpretation Handbook and Standard - Distilling the essence.
- Danube GeoTour project application form
- Dr. Ryland P, Dr. Welch S. (2016): Demystifying evaluation: a brief guide to the evaluation of interpretive media, activities and programmes, AHI Best Practice Guidelines 12.



- Interpret Europe (2016): Engaging your visitors: Guidelines for achieving excellence in heritage interpretation, Witzenhausen.
- Rowehl J., Vigurs K. (2011): 10 Top Tips for Museum Interpretation, MLA.

7. Annexes

7.1. Output Factsheet



7.2. Visitor satisfaction questionnaire

VISITOR SATISFACTION QUESTIONNAIRE

WE NEED YOUR OPINION!

About the presentations & experience on your visit

Dear visitor,

We would like to thank you to give us the opportunity to serve you with our product/services. The purpose of this short questionnaire is to find out how you feel about the presentations or experience with our product/services and if there is something to be improved. Please know that there are no right or wrong answers to the questions, nor are some responses better or worse than others. We simply want to know your honest opinion about your experience today.

THE QUESTIONNAIRE WILL TAKE LESS THAN 5 MINUTES OF YOUR TIME.

THANK YOU!

1. Where did you hear about our product/offer? (You can pick more than one answer.)

- a.) Newspaper, magazine, radio
- b.) Brochure, internet
- c.) On someone's recommendation
- d.) Other (specify where): _____

2. Did you know something about the presented topic before the visit?

- a.) Yes
- b.) No



**3. Which new informations have you gained or learned during your visit ?
(You can pick more than one answer.)**

- a.) more about our Geopark
- b.) more about Geoparks in wider area
- c.) geological, natural and cultural heritage
- d.) importants of heritage preservation
- e.) sustainable geotourism
- f.) Other: _____

4. How would you rate your experience/satisfaction with following aspects of the offer/product? The values are: 1 – very dissatisfied; 2 – dissatisfied; 3 – neutral; 4 – satisfied; 5 – very satisfied.

	dissatisfied <-----> satisfied				
Quality of the presentation	1	2	3	4	5
Amount of the information provided	1	2	3	4	5
Ability to hold your interest	1	2	3	4	5

5. Please read carefully following sentences and rang them in a scale from 1 to 5. The values are: 1 – very dissatisfied; 2 – dissatisfied; 3 – neutral; 4 – satisfied; 5 – very satisfied.

	1	2	3	4	5
Place is acessible, places to have a rest, toilets, etc. are available					
Information is understandable and in different languages					
The presentation made me curious and encouraged me to try and do new things					
The presentation made me think and to talk about the topic					
The presentation was enjoyable and interesting					
Innovative audio-visual solutions (very simple, digital) were					

available					
The presentation made me understand the importance of the protecting heritage	1	2	3	4	5

6. Please indicate how much you are inclined to tell another person each of the following things about this place. In this 7-point scale, please tick the choice of your preference:

a.) You should visit (7) _____ (1) You should not visit

b.) The place is interesting (7) _____ (1) The place is boring

c.) Coming here is enjoyable (7) _____ (1) Coming here is *not* enjoyable

d.) Coming here is worth the time (7) _____ (1) Coming here is *not* worth the time

7. How would you rate the presentation overall?

The values are: 1 – very low quality; 2 – low quality; 3 – medium quality; 4 – high quality; 5 – very high quality.

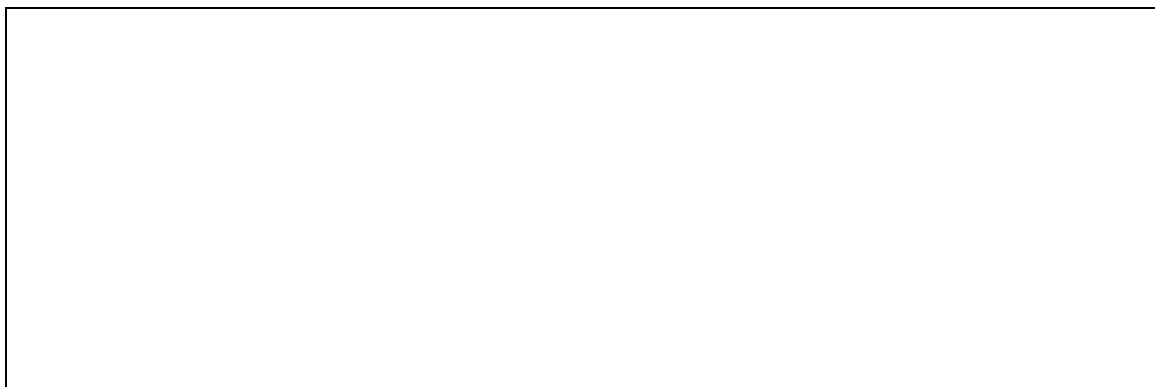
Low quality <-----> High Quality				
1	2	3	4	5

8. How satisfied are you (please circle)? The values are: 1 – very dissatisfied; 2 – dissatisfied; 3 – neutral; 4 – satisfied; 5 – very satisfied.

dissatisfied <-----> satisfied				
1	2	3	4	5

9. What can we do to improve your experience?





Demographics of the person who completed the questionnaire:

10. Age: _____ years old

11. Gender (*circle*): MALE FEMALE

12. Country of origin: _____

12. Education (What is the highest degree you have completed? If you are currently enrolled in the school, please indicate the highest degree you already received.):

- a. Less than a high school diploma
- b. High school degree or equivalent
- c. Bachelor's degree (e.g. BA, BS)
- d. Master's degree (e.g. MA, MS, Med)
- e. Doctorate (e.g. PhD, EdD)
- f. Other (please specify): _____

Thank you for taking your time!