

## Danube Geo Tour

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

### **Pilot innovative GeoInterpretation methods tested: Digital interpretation tool GeoHazard: Floods Output Code: 5.2**

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[www.interreg-danube.eu/danube-geotour](http://www.interreg-danube.eu/danube-geotour)

## 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”<sup>1</sup>. 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.<sup>2</sup>

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

<sup>1</sup> Danube GeoTour Application Form

<sup>2</sup> Danube GeoTour Application Form



## 1.2. Methodology

Different methodologies (qualitative and quantitative assessment) concerning Output 5.2 „Pilot innovative geoInterpretation methods tested” were used 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 Eisenwurzen Geopark	Village interpretation points	water	
4	ERDF PP3 GeoPapuk	In-situ interpretation of geological site Zvecevo	metamorphic rocks	
5	ERDF PP4 GeoKaravanks	Digital interpretation tool	geotime	
6	<b>ERDF PP10 Železné Hory Geopark</b>	<b>Digital interpretation tool</b>	<b>GeoHazard: Floods</b>	✓
7	ERDF PP8 UNIB	Digital interpretation tool	dialogue Earth & Man	
8	IPA PP1 DNP	Geological interpretation point Tekija	geomorphology	

ERDF PP10 Iron Mountains Geopark piloted 1 interpretation action “digital interpretation tool” GeoHazard: Floods. The geological interpretation is presented in a very simple way with modern and innovative technologies (augmented reality). We established three info points in Chrudim (one is placed on the U Vodárny square, second near hotel Alfa and the third is situated on the Tylovo nábreží). All of them are situated near to the river or stream which can influence the appearance of the surroundings in case of floods. There are rocks with QR codes so visitor can scan the code and download the app which helps them to start augmented reality. By its help visitors can imagine how the places would look like after hitting by floods. In addition there is a “secret” usb port (so called USB dead drop) installed in the building so people can connect it with their cell phones or laptops and download interesting information about floods (texts, images, videos, etc.) directly to their devices. All mentioned spots are supplemented by information thematic signs which help visitors to easily understand the process of AR.



## 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.<sup>3</sup>

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 **GeoHazard: Floods** pilot action in the frame of Danube GeoTour project:

### ✓ Why interpret this topic or site to visitors?

Chrudim was hit by floods couple of times in the past. It is very interesting theme for people living in the town. For those who remember the floods so for everyone who has never experienced it. People can see how it would like in Chrudim streets if a 100-year flood came or how it looked like in years 1881 – 1897.

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





✓ **What are you interpreting?**

Floods – demonstration of the three historic situations: 1881 – 1897, 100-year flood, catastrophic situation.

✓ **Who are your visitors?**

The concept is for everybody who has an android cell phone. Even for those who doesn't have it there is brief information about floods.

✓ **Who is involved in the planning process?**

Geopark, ČGS (Czech Geological Survey), Chrudim town municipality

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

Emotional objective is to learn and feel the power of floods.

✓ **How are you interpreting?**

QR codes – AR (augmented reality), information boards

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

None.

## 1.4. 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.

ERDF PP10 Iron Mountains Geopark piloted 1 interpretation action “digital interpretation tool” GeoHazard: Floods. The geological interpretation is presented in a very simple way (Geo for Dummies) with modern and innovative technologies (QR code, augmented reality). We established three info points in Chrudim (one is placed on the U Vodárny square, second near hotel Alfa and the third is situated on the Tylovo nábřeží). All of them are situated near to the river or stream which can influence the appearance of the surroundings in case of floods. There are rocks with QR codes so visitor can scan the code and download the app which helps them to start augmented reality. By its help visitors can imagine how the places would look like after hitting by floods. In addition there is a “secret” usb port (so called USB dead drop) installed in the building so people can connect it with their cell phones or laptops and download interesting information about floods (texts, images, videos, etc.) directly to their devices. All mentioned spots are supplemented by information thematic signs which help visitors to easily understand the process of AR.

The theme is chosen in a potential controversy over the drought that the Železné hory Geopark suffer from. We wanted people to realize that despite the fact that there are three waterworks on the Chrudimka river, if there was a rupture of the Seč dam, there would be an interesting situation in the town of Chrudim. As well as a reminder of the floods that took place in Chrudim in the past centuries.







**Figure 1:** Flood stone in the pavement in front of the Železná hora Geopark office



**Figure 2:** Installation of the stone with presence of media (radio)





**Figure 3:** Information board about floods **Figure 4:** Flood stone near the river bank



**Figure 5:** Flood stone near the Alfa restaurant



## 2. 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.<sup>4</sup>

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.<sup>5</sup>

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.

### 2.1. 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.

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.<sup>6</sup>

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

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

<sup>5</sup> 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.

<sup>6</sup> Rowehl J., Vigurs K. (2011): 10 Top Tips for Museum Interpretation, MLA.



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 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 development. 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.<sup>7</sup>

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.

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.

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





**Figure 6:** Criteria for effective heritage interpretation, Source: Karawanken-Karavanke UNESCO Global Geopark

## 2.2. 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 invited 8 potential future visitors to talk about the new interpretation project. These were mainly employers of our subsidiary company. We asked about simple questions as: Do you think the theme of interpretation project is attractive? Do you find the interpretation interesting? Do you like the graphics? Is the information contained on the board and in application clear? Is the impress positive? When the site is ready will you come to try the application? Is product so attractive that you will recommend it to your friends?

There was a scale of answers: YES – MORE LIKELY YES – MORE LIKELY NO – NO.



People found the theme attractive. Interpretation of the site is interesting or more likely interesting for them. They liked the graphics. Information contained was a problem – one person had troubles with understanding the App. This could be a problem for older people or people who don't use the cell phone and don't know how to download the App and how it works.

Product impress was positive or more likely positive. The same questions occurred when asking about future visit. When it came to the recommendation to friends there was a majority of answers MORE LIKELY YES.

## 2.3. 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

<b>A. INTERPRETATION METHODS</b>					
<b>A1.</b> Using the combination of personal and non-personal interpretation	1	2	3	4	5
<b>A2.</b> Using of innovative audio-visual solutions (very simple, digital)	1	2	3	4	<b>5</b>
<b>A3.</b> Using of story telling	1	<b>2</b>	3	4	5
<b>B. ACCESSIBILITY / DISABILITY</b>					
<b>B1.</b> 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	<b>5</b>
<b>B2.</b> Some aspects of the interpretation are designed for people with disabilities	1	2	3	4	<b>5</b>



<b>B3.</b> Places to have a rest, toilets and wheelchair access for people with disabilities are available	1	2	3	4	5
<b>C. KNOWLEDGE &amp; UNDERSTANDING</b>					
<b>C1.</b> Informations are given in easy to understandable language	1	2	3	4	5
<b>C2.</b> Informations are prepared and given in different languages	1	2	3	4	5
<b>C3.</b> 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
<b>D. ENJOYMENT, INSPIRATION, CREATIVITY, SKILLS</b>					
<b>D1.</b> Interpretation encourage visitors to try and do new things and it is stimulating	1	2	3	4	5
<b>D2.</b> Gaining new skills and changing attitudes and future behaviour of visitors	1	2	3	4	5
<b>D3.</b> 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
<b>E. IMPACT ON NATURE (NATURE CONSERVATION)</b>					
<b>E1.</b> Encourage the individual and to decrease the massive tourism.	1	2	3	4	5
<b>E2.</b> Interpretative places (pilot actions) do not have negative impact on the nature.	1	2	3	4	5
<b>E3.</b> Interpretation explain the impacts of various actions – encouraging visitors to take care about the geosites and to behave responsibly (raising awareness).	1	2	3	4	5
<b>E4.</b> Interpretation include various nature conservation aspects, which are displayed in different ways.	1	2	3	4	5
<b>F. IMPACT ON SUSTAINABLE TOURISM</b>					
<b>F1.</b> Positive impact on the environment, society and economy	1	2	3	4	5
<b>F2.</b> Support local economy, especially use of local transport and accommodation infrastructure	1	2	3	4	5
<b>F3.</b> Reflecting the needs and requirements of tourists and local inhabitants	1	2	3	4	5
<b>F4.</b> Respect and enhance the historic heritage, authentic culture, traditions and distinctiveness of host communities	1	2	3	4	5

**TOTAL SCORE (max. 100 points): 68**

**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.

*Interpretation site is offering non personal interpretation only. By the help of interpretive board and QR code with access to the app to be downloaded by 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.



*The content of the interpretation site is »hidden« in AR (augmented reality) app which visitors can download by the help of QR code.*

**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.

*Site tells story about floods in Chrudim with AR to imagine the water level in the past or to imagine what happens if the Seč dam ruptures.*

**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.

*Information board and application is made by special professional organizations. Graphic designers made good job, everything is clear and attractive.*

**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.

*All three interpretative stops are wheel-chair accessible. Even disabled people can scan the QR code from the ground from the wheelchair. No audio guides or Braille labels though.*

**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 pretty nice relaxing place on the yard of the Geopark office near the first interpretative stop. People can use the toilets in the buildings as well.*

**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.

*Information board is very simple made. All is very attractive with nice graphics.*

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

*Information boards contain English text translated from Czech language.*

**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.

*There is a QR code for those who want to find out more information or even to download the app.*

**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.).

*Interpretive stops encourage visitors to work with application, to use their cell phone to discover more about floods in Chrudim.*

**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.

*Visitors can think about drought which Chrudim and surroundings suffer from. They can find out how important is water for us and the need of water reservoir.*

**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.

*Visitors need to look to the information board and then touch their phones to scan QR code and download the app (AR).*

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

*Yes, stops are built rather for smaller groups or individuals.*

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

*The infrastructure nor the activities connected to the interpretative stops don't have any negative impact on the environment.*

**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.

*Visitors can think about need of the water in every way of meaning. Drought is very big problem in Železné hory region. People should think environmentally not to waste the water.*

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

*Not really.*

**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.

*No negative effect on our environment, society and economy.*



**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.

*Not really.*

**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 the needs of visitors and local inhabitants. No negative affect to daily routines of local inhabitants.*

**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.

*All thre interpretative stops are very close to the historic area of the town. All of them set to the pavement made of cobblestones with nice views of the historic area and surroundings.*

### 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.<sup>8</sup>

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".

## 3. Recommendations

There might be a problem with interpretation by the help of QR code and with downloading the special app for older people or people who are not very friendly with new communication canals such as cell phones and mobile apps. For those there is lack of information and experience on interpretative stops though. We should concentrate to promote this interpretative stops in a suitable way to the selected target.

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<sup>8</sup> 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. Conclusion

The theme is very attractive and it is something new in our town. Visitors and even local inhabitants would like to know how these familiar places looked like when high water level came. Handy application could be attractive for children though.

## 5. 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.



## 6. Annexes

### 6.1. Output Factsheet



## 6.2. Visitor satisfaction questionnaire in English and local language

### 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.) importance 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 rank 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 accessible, 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					

**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!**

## **DOTAZNÍK O SPOKOJENOSTI NÁVŠTĚVNÍKA**

### **POTŘEBUJETE ZNÁT VÁŠ NÁZOR!**

O tom, jak jste si užili návštěvu tohoto místa a jaký zážitek ve Vás vyvolal.

Drazí návštěvníci,

Rádi bychom Vám poděkoval, že jste nám dali možnost vytvořit a prezentovat Vám náš nový produkt. Účelem tohoto krátkého dotazníku je zjistit, jak se vám líbí jeho celková prezentace, jaký zážitek si z něj odnášíte a zda cítíte, že by bylo ještě co zlepšovat. Berte na vědomí, prosím, že v tomto dotazníku nejsou žádné špatné a dobré odpovědi. Chceme jen znát Váš upřímný názor o Vaší dnešní návštěvě.

VYPLNĚNÍ DOTAZNÍKU VÁM NEZABERE VÍCE NEŽ 5 MINUT VAŠEHO ČASU. DĚKUJEME.

**1. Kde jste se dozvěděli o tomto produktu? (můžete zaškrtnout i více odpovědí)**

- a.) noviny, časopisy, rádio
- b.) brožura, internet
- c.) na doporučení
- d.) jinak (specifikujte, prosím): \_\_\_\_\_

**2. Věděli jste něco o prezentovaném tématu předtím, než jste toto místo navštívili?**

- a.) ano
- b.) ne

**3. Jaké nové informace si odnášíte po návštěvě tohoto místa? (můžete označit více než jednu odpověď)**

- a.) o geoparku
- b.) geologické, přírodní a kulturní dědictví
- c.) důležitost zachování kulturního dědictví



d.) udržitelný geoturismus

e.) jiné: \_\_\_\_\_

**4. Jak byste oznámkovali váš zážitek/spokojenost u následujících aspektů produktu?**

	nespokojen(a) <-----> spokojen(a)				
Kvalita prezentace	1	2	3	4	5
Množství poskytnutých informací	1	2	3	4	5
Schopnost udržet pozornost	1	2	3	4	5
Udržitelnost místa	1	2	3	4	5

**5. Přečtěte si prosím následující věty a ohodnoťte je na škále od 1 do 5, přičemž 1 – velice nespokojen(a) 2 – nespokojen(a); 3 – neutral; 4 – spokojen(a); 5 – velmi spokojen(a).**

Místo je dobře dostupné, je zde místo k odpočinku, toalety aj.	1	2	3	4	5
Informace jsou podány jednoduchou formou k porozumění a jsou ve více jazycích	1	2	3	4	5
Prezentace mě zaujala a dodala mi sílu zkusit a dělat nové věci	1	2	3	4	5
Prezentace mě donutila přemýšlet a mluvit o zmíněném tématu	1	2	3	4	5
Prezentaci jsem si užil(a) a je zajímavá	1	2	3	4	5
Obsahuje inovativní audio-vizuální řešení (jednoduché, digitální)	1	2	3	4	5
Prezentace udělala ochranu dědictví více důležitou	1	2	3	4	5
Díky této prezentaci si budu více vážit hodnoty ochrany dědictví	1	2	3	4	5

**6. Na škále 7 – 1 zaznamenejte, prosím, jak moc inklinujete k tomu říci ostatním osobám o tomto místě následující věci:**

- a.) Měl(a) bys navštívit (7) \_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_ (1) Neměl(a) bys navštívit  
b.) Místo je zajímavé (7) \_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_ (1) Místo je nudné  
c.) Užil(a) jsem si to (7) \_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_ (1) Neužil(a) jsem si to tu  
d.) Stojí za to sem přijít (7) \_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_ (1) Nestojí za to sem přijít

## 7. Jak byste ohodnotili celkovou prezentaci produktu?

Nízká kvalita <-----> Vysoká kvalita				
1	2	3	4	5

## 8. Jak spokojeni jste s naším novým produktem celkově (prosím zakroužkujte)?

1	2	3	4	5	6	7	8	9	10
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## 9. Co bychom mohli udělat ke zlepšení Vaší spokojenosti?

## Demografické údaje osoby, která vyplnila dotazník:

10. Věk: \_\_\_\_\_

11. Pohlaví (zakroužkujte): ŽENA MUŽ

12. Vzdělání (Nejvyšší dosažené vzdělání/titul. Pokud stále studujete, prosím, zvolte nejvyšší dosažené vzdělání doposud):

- a. základní škola
- b. výuční list
- c. střední škola s maturitou a VOŠ
- d. Bakalářský titul
- e. Magisterský či inženýrský titul
- f. Doktorantský titul
- g. Jiný (prosím specifikujte): \_\_\_\_\_

**Děkujeme za Váš čas!**

