

## **THE IRON MOUNTAINS GEOPARK**

### **Annex no. 1: Self Evaluation**



### **HISTORY OF THE EARTH IN TWO DAYS**

**November 2015**



# Global Geoparks Network 2015

## Evaluation Document - A

### Self Evaluation

#### Identity

##### 1. Name and Country of the territory.

Národní geopark Železné hory, Česká republika

##### 2. Name of the Management Body

Vodní zdroje Chrudim, spol. s r. o.

Region:	Pardubický kraj a Kraj Vysočina
Country:	Česká republika
Telephone:	469 637 101
Fax:	469 630 401
Email:	vz@vz.cz

##### 3. Address of the Management Body

U Vodárny 137, 537 01 Chrudim

##### 4. Size of Territory and Geographical Coordinates

Size in km <sup>2</sup>	777
Coordinates	N 49.949436; E 15.795934

##### 5. Contact Person

Management Body Director	RNDr. Daniel Smutek
Geoscientist	RNDr. Daniel Smutek
Specialist on Regional Development	Mgr. Jan Doucek

##### Statement of acceptance of the Geoparks Network Charter Requirements:

*The Management Body of the Territory read the GGN / EGN charter and accepts all of its provisions.*

Name	Position	Date
RNDr. Daniel Smutek	Geologist	24.11.2015
Signature		
Name	Position	Date
Mgr. Jan Doucek	Regional Development	24.11.2015
Signature		

Overview				
	Category	Weighting	Self-assessment	Evaluators
		(%)		Estimate
<b>I</b>	Geology and Landscape			
<b>1.1</b>	Territory	5	50	0
<b>1.2</b>	Geoconservation	20	178	0
<b>1.3</b>	Natural and Cultural Heritage	10	75	0
<b>II.</b>	Management Structure	25	178	0
<b>III</b>	Interpretation and Environmental Education	15	114	0
<b>IV</b>	Geotourism	15	92,25	0
<b>V</b>	Sustainable Regional Economic Development	10	54	0
<b>Total</b>		100	741,25	0

EVALUATORS VERIFICATION		
Name	Position	Date
Signature		

Name	Position	Date
Signature		

I. Geology and Landscape 1.1 Territory		Marks available	Self Assessment
1. TERRITORY			
1.1 Geosite list			
List of "Geosites" located within the territory identified for use (Please provide a geosite list)			
		20 "Geosites" or more	100
		40 "Geosites" or more	200
		Maximum Total	200
2 Geodiversity			
2.1	How many geological periods are represented in your area? (10 points each, maximum 100 points). (Please provide a list)	100	100
2.2	How many clearly defined rock types are represented in your area? (10 points each, maximum 100 points). (Please provide a list)	100	100
2.3	How many distinct geological or geomorphological features are present within your area? (Please provide a list) (10 points each, maximum 100 points).	100	100
		Maximum Total	300
3 Public Interpretation of the Geopark's sites of interest			
3.1 Number of sites with public Interpretation (trails, interpretation panels or leaflets) (Please provide a list)			
		5-10	40
		10-20	80
		20 or more	120
3.2	Geosites of Scientific Importance (Please provide a list)	> 25 %	40
3.3	Geosites used for Education (Please provide a list)	> 25 %	40
3.4	Geosites used for Geotourism (Please provide a list)	> 25 %	40
3.5	Non-Geological Sites used by the Geopark (intergraded in Geoparks)		40
		Maximum Total	200
4 Relationship to existing Geoparks (select one from the following options)			
4.1	There is no comparison with any other existing Geopark within GGN	300	
4.2	There is another Geopark within GGN with comparable geology.	200	200
4.3	There is another Geopark within GGN with comparable geology or infrastructure in the same country.	100	100
4.4	There is another Geopark within GGN with comparable geology or infrastructure in the same country's geographical Region (Clarification in time and distance)	50	
		Maximum Total	300
Territory Subtotal		Maximum points	Self Assessment
		1000	1000



	<b>II. Geology and Landscape 1.2 GEOLOGICAL CONSERVATION</b>	<b>Marks available</b>	<b>Self Assessment</b>	<b>Evaluators' Estimate</b>
<b>1</b>	<b>Inventory and significance of Geosites can be found in your area (SELF AWARDED total cannot exceed 300).</b>			
1.1	At least one geosite of international significance geology and geomorphology. (100 for each). (Give a list and justification)	160	0	
1.2	At least five geosites of national significance (Give a list and justification)	100	100	
1.3	At least 20 geosites of educational interest and used by schools and universities. (Give a list and justification)	100	100	
1.4	Do you have a geosites database for the Geopark? (Give a list and justification)	50	50	
1.5	Do you have a geosites map for the Geopark? (Give a list and justification)	50	50	
	<b>Maximum Total</b>	<b>300</b>	<b>300</b>	<b>0</b>
<b>2</b>	<b>Strategy and legislation to protect against damage of geological sites and features (one answer only)</b>			
2.1	The entire territory has legal protection because of it's geological values.	300	0	
2.2	Part of the area is protected by law for its geological interest. (please refer to which part and why)	150	150	
2.3	Prohibition of destroying and removing parts of the geological heritage.	150	150	
	<b>Maximum Total</b>	<b>300</b>	<b>300</b>	<b>0</b>
<b>3</b>	<b>How are the geosites protected against misuse and damage?</b>			
3.1	General announcement of regulations against misuse and damage for the entire Geopark area	100	20	
3.2	Announcement of regulations against misuse and damage at individual sites of the Geopark	50	0	
3.3	Use of observation posts, guarding and patrolling by wardens	60	60	
3.4	Provision for enforcement of regulations (no digging and collection) in website, flyers, etc.	40	40	
3.5	Offering collecting of geological specimens under supervision at selected sites (clarification)	40	40	
	<b>Maximum Total</b>	<b>200</b>	<b>160</b>	<b>0</b>
<b>4</b>	<b>What measures are carried out to protect geosites and infrastructure against damage and natural degradation?</b>			
4.1	Regular maintenance and cleaning. (Please give details. How often are they checked?)	60	60	
4.2	Conservation measures (Please give details)	70	70	
4.3	Protective measures (preparation, sealing to avoid natural degradation) (Please give details)	70	0	
	<b>Maximum Total</b>	<b>200</b>	<b>130</b>	<b>0</b>
	<b>Geoconservation Subtotal</b>	<b>Maximum points</b>	<b>Self Assessment</b>	<b>Evaluators' Estimate</b>
		<b>1000</b>	<b>890</b>	<b>0</b>

III. Geology and Landscape 1.3 Natural and Cultural Heritage		Marks available	Self Assessment	Evaluators' Estimate
1 Natural Rank (SELF AWARDED total cannot exceed 300).				
1.2	International Designation in part of the Geopark territory (Please give a list and justification)	250	100	
1.3	National designation in part of the Geopark territory (Please give a list and justification)	150	50	
1.4	Regional designation in part of the Geopark territory (Please give a list and justification)	75	100	
1.5	Local designation in part of the Geopark territory (Please give a list and justification)	50	50	
Maximum Total		300	300	0
2 Cultural Rank (SELF AWARDED total cannot exceed 300).				
2.2	International Designation in part of the Geopark territory (Please give a list and justification)	250	50	
2.3	National designation in part of the Geopark territory (Please give a list and justification)	150	100	
2.4	Regional designation in part of the Geopark territory (Please give a list and justification)	75	0	
2.5	Local designation in part of the Geopark territory (Please give a list and justification)	50	0	
Maximum Total		300	150	0
3 Promotion and maintenance of Natural and Cultural Heritage				
3.1	Promotion of the links between Geological Heritage sites and the existing Natural and cultural sites within the Geopark (Prove with examples) (Please give details)	100	50	
3.2	Interpretation (Please give details)	100	100	
3.3	Communication (Please give details)	100	100	
3.4	Education programmes (Please give details)	100	50	
Maximum Total		400	300	0
Natural and Cultural Heritage Subtotal		Maximum points	Self Assessment	Evaluators' Estimate
		1000	750	0
Total Points Awarded For Section I: Geology and Landscape		Maximum points	Self Assessment	Evaluators' Estimate
		3000	2640	0



II. MANAGEMENT STRUCTURE		Marks available	Self Assessment	Evaluators' Estimate
1	How is the Geopark's management structure organised?			
1.1	Does the Geopark has a clear and well defined boundary? (Please give details)	50	50	
1.2	Does the Geopark have well defined and effective management structure able to take and implement decisions to enhance protection of Geological Heritage and promote sustainable regional development for the Geopark area? (Please give details)	50	50	
1.3	Is the Geopark staff employed directly or indirectly by Geopark partners? (Please elaborate)	50	0	
1.4	An independently administered budget (Please give details)	50	50	
Maximum Total		200	150	0
2	Does a management or Master Plan exist?			
2.1	Management or Master Plan exists (not older than 10 years) (You should refer to the main components in accompanying documentation)	40	10	
3	Master Plan Components - What components does it include?			
3.1	Earth Heritage (Geosite and Landscape).	10	10	
3.2	Other Natural and Cultural Heritage	10	10	
3.3	Links between Natural and Cultural Heritage	10	10	
3.4	Tourism development (infrastructure and activities)	10	10	
3.5	Education activities	10	10	
3.6	Local development	10	10	
3.7	Regional products (agrotourism)	10	0	
3.8	Community links	10	10	
3.9	Funding	10	10	
3.10	Marketing strategy	10	10	
3.11	Strength and Weakness Analysis of Management and administration	20	20	
3.12	An audit of the geological and other resources	20	20	
3.13	Do you have targets for the following goals? (Identify specific goals)			
	Geology	5	5	
	Landscape protection	5	5	
	Tourism "geotourism"	5	5	
	Agriculture and forestry	5	0	
3.14	Analysis of local/regional development potentials	10	0	
Maximum Total		200	155	0
4	Does your Geopark have a Marketing Strategy			
	Strategy exists (not older than 10 years) (You should refer to the main components in accompanying documentation)	50	50	
Maximum Total		50	50	0
5	Geopark should protect its geological heritage and create sustainable geotourism. What has been done to fulfil this duty?			
5.1	Definition of areas which will be the focus of tourism development	25	10	
5.2	Definition of areas where no tourism is allowed, (with focus on protection and research)	20	5	
5.3	Measures taken to regulate and reduce traffic (restricted access, central parking lots, traffic guiding system, signposting etc.)	15	0	
5.4	Environmental friendly hiking path system	10	5	
5.5	Clearly defined cycle or other trails such as bridleways or river trails.	10	10	
Maximum Total		80	30	0
6	Are there any initiatives or working groups who discuss promotion of natural and cultural heritage			
6.1	Regular "Working Group" meetings on specific topics	20	0	
6.2	Individual cooperation and contracts between the Geopark, tourist organisations and other interest groups	10	6	
6.3	Other regular activities, not described by the answers above.	10	6	
Maximum Total		20	12	0
7	Has your Geopark area received any awards or other formal recognition for its activities in the fields of geodiversity, conservation or sustainable geo-tourism during the last five years? (SELF AWARDED total cannot exceed 100)			
7.1	International awards (name and date of award)	100	0	
7.2	National awards (name and date of award)	50	0	
7.3	Other (e.g. from industry) (name and date of award)	20	0	
Maximum Total		100	0	0
8	Are competent geological and scientific experts available to promote further research work on a scientific basis? (SELF AWARDED total cannot exceed 150)			



8.1	At least one person with a degree in geosciences or other related discipline in the permanent staff (employed directly) (Add 10 points for each geoscientist).	40	10	
8.2	At least five people with a degree in geosciences or other related discipline on the staff of the Geopark (employed by partner)	20	20	
8.3	Do additional experts exist in the permanent staff (e.g. biologists)	10	10	
8.4	Regular and formal joint activity with at least one scientific institution (University, National Geological Survey)	20	20	
8.5	Regular consulting is maintained by:			
	Persons with scientific background in geosciences	15	15	
	Persons with experience in geosciences	10	10	
	Amateurs available from local community	5	5	
8.6	How many different scientific disciplines are in the expert network			
	< 5	5	0	
	> 5	10	10	
8.7	Does a marketing expert exist? If not who does the work?	5	5	
8.8	Does a press office exist? If not who does the work?	5	5	
8.9	Are staff members available to run field trips/guided walks?	5	5	
<b>Maximum Total</b>		<b>150</b>	<b>115</b>	<b>0</b>

<b>9</b>	<b>Does your Geopark area have the following Infrastructure</b>			
9.1	Museum within the area of the Geopark managed by yourself or a partner in your organization	100	80	
9.2	Information Centre within the area of the Geopark	80	80	
9.3	'Info-kiosks' or other 'local information points' within the area carry information about the Geopark and its aims and work	40	0	
9.4	Information panels within the area	40	40	
9.5	Geological Trails within the area of the Geopark which the Geopark has developed or been involved in developing	40	40	
<b>Maximum Total</b>		<b>200</b>	<b>200</b>	<b>0</b>

<b>Total Points Awarded For Section II: Management Structure</b>	<b>Maximum points</b>	<b>Self Assessment</b>	<b>Evaluators' Estimate</b>
	<b>1000</b>	<b>712</b>	<b>0</b>

III. Information and Environmental Education		Marks available	Self Assessment	Evaluators' Estimate
<b>1</b>	<b>Research, information and education scientific activity in Earth sciences within the territory</b>			
1.1	At least one scientific/academic institution working in the Geopark's area.	50	50	
1.2	At least one student final report (mapping etc.) in the Geopark's area per year	40	40	
1.3	At least one of PhD thesis on Geopark's area within the past three years	50	50	
1.4	At least five scientific or tourism focused academic papers from the work within the Geopark's area during last 5 years	40	40	
<b>Maximum Total</b>		<b>180</b>	<b>180</b>	<b>0</b>
<b>2</b>	<b>Do you operate programs of environmental education in your Geopark area?</b>			
2.1	Does your permanent staff include specialists in environmental education, who undertake such work as their main role within your team.	50	0	
2.2	Do you operate at least one formal education programme (please outline the nature of the programme(s)	30	30	
2.3	Do you contribute towards at least one formal education programme developed by other organisations. (museums etc.)	20	20	
2.4	Personal and individual program offered to children visiting the Geopark's area	20	0	
2.5	Do you operate a special program for primary/elementary school classes?	20	20	
2.6	Do you operate a special program for secondary/high school classes?	20	20	
2.7	Do you operate a special program for university students?	20	0	
2.8	Are there any university camps/education centres in the Geopark's area	20	10	
<b>Maximum Total</b>		<b>200</b>	<b>100</b>	<b>0</b>
<b>3</b>	<b>What kind of educational materials exist? (The SELF AWARDED total cannot exceed 120)</b>			
3.1	Have you developed new educational material for school classes?	20	20	
3.2	Films, video, slideshow etc.	20	20	
3.3	Interactive elements/ internet	20	20	
3.4	Different special exhibitions changing on a regular basis	20	20	
3.5	Special education equipment (puzzles, special constructions, etc)	20	10	
3.6	Do you produce other material for children below 8 years?	20	10	
<b>Maximum Total</b>		<b>120</b>	<b>100</b>	<b>0</b>
<b>4</b>	<b>What kind of published information is available in your Geopark area?</b>			
4.1	Protection of geological heritage	20	20	
4.2	Geology of the area	15	15	
4.3	Publication linking geology, nature and culture of the area	20	20	
4.4	Environmentally friendly behaviour in the area	15	0	
4.5	Other aspects of natural history which can be found within the area	15	0	
4.6	Historical elements	15	15	
<b>Maximum Total</b>		<b>100</b>	<b>70</b>	<b>0</b>
<b>5</b>	<b>Geology provision for school groups. For example, organized visits etc. (The SELF AWARDED total cannot exceed 100)</b>			
5.1	Guided tours by Geopark's staff (explain and justify)	30	30	
5.2	Guided tours through a member organisation (explain and justify)	15	0	
5.3	Standard programs, regularly offered for all park visitors (explain and justify)	10	10	
5.4	Limited group size (max. 30 persons per guide) (explain and justify)	10	10	
5.5	Are alternatives available if tour impossible due to bad weather conditions? (explain and justify)	10	10	
5.6	Do programs exist for different ages? (explain and justify)	20	10	
5.7	Do special, scientific programs exist? (explain and justify)	20	0	
5.8	Is teacher training offered in matters relating to the Geopark (explain and justify)	20	20	
<b>Maximum Total</b>		<b>100</b>	<b>90</b>	<b>0</b>
<b>6</b>	<b>Education – Guides</b>			
6.1	Do you have at least one qualified expert in Geopark permanent staff providing guided visit that your organization has a role in developing? (explain and justify)	20	10	
6.2	Do you have at least one qualified expert in partner organization providing guided visit that your organization has a role in developing? (explain and justify)	15	0	
6.3	Personal guides in Geopark permanent staff(explain and justify)	20	0	
6.4	Personal guides by partner organisation(explain and justify)	15	0	
6.5	Freelance guides whose training and / or program is supported by your organization (explain and justify)	20	20	
6.6	Training courses for guides (explain and justify)	20	20	
<b>Maximum Total</b>		<b>100</b>	<b>50</b>	<b>0</b>

7	What kind of information do you provide to educational groups, which encourage them to visit your area?			
7.1	Letters to schools and universities	20	20	
7.2	Brochure	20	20	
7.3	Press announcements (Newspapers, Radio, TV)	20	20	
7.4	Newspaper or newsletter	20	20	
Maximum Total		80	80	0

8	Do you use the internet for school programmes? What kind of service do you provide?			
8.1	Own website with general information about environmental education within the area	50	50	
8.2	Those responsible for the education programme may be reached by E-Mail	30	30	
8.3	Regular electronic newsletter	20	0	
8.4	Up to date calendar of activities	20	10	
Maximum Total		120	90	0

Total Points Awarded For Section III: Education	Maximum points	Self Assessment	Evaluators' Estimate
	1000	760	0



	IV. Geotourism	Marks available	Self Assessment	Evaluators' Estimate
1	What kind of promotional material of the area takes place?			
1.1	Printed material (e.g. leaflets, magazines)	25	25	
1.2	Popular literature for public (e.g. books, guide books)	15	0	
1.3	CD or video material	15	15	
1.4	Other promotional material or merchandise	15	15	
	Maximum Total	70	55	0
2	In how many languages is the marketing material produced? (The SELF AWARDED total cannot exceed 80)			
2.1	English	10	5	
2.2	French	10	0	
2.3	Spanish	10	0	
2.4	Russian	10	0	
2.5	Chinese	10	0	
2.6	Arabic	10	0	
2.7	Add 10 points for each other language. (explain and justify)		0	
2.8	Multi-languages in one publication	10	0	
	Maximum Total	80	5	0
3	Do information centres or exhibitions concerning the area exist in the Geopark's area? (SELF AWARDED total cannot exceed 100)			
3.1	At least one information centre centre, managed directly by the Geopark or one of the partner members of your organization	30	0	
3.2	Existing 'info points' or similar facilities throughout the area managed by directly by the Geopark or one of the partner members of your organization	20	0	
3.3	Information centre "meeting and starting" point for excursions	10	0	
3.4	Is the Information centre accessible for wheelchair users and does it cater for individuals with other disabilities?	10	10	
3.5	Personal and individual information offered to visitors about possible activities in the area.	10	0	
3.6	Centre open to the public at least 6 days a week, all year round weather permitting	20	0	
	Maximum Total	100	10	0
4	How is information and interpretation about the area presented in info centres, information points etc?			
4.1	Static display material	10	10	
4.2	Films, video, slideshow etc.	10	10	
4.3	Interactive displays	10	0	
4.4	Different special exhibitions changing on a regular basis	40	40	
	Maximum Total	70	60	0
5	Public Access and facilities(SELF AWARDED total cannot exceed 100)			
5.1	Is it possible to reach the geopark area by public transport	50	50	
5.2	Do you provide your own tourist transport	20	20	
5.3	Is public transport integrated with walking, cycling trails	20	20	
5.4	Do you have car park facilities connected to the trails which you have developed	20	0	
5.5	Are there toilets available in the parking areas	20	5	
	Maximum Total	100	95	0
6	Are visitors informed about public transport in the area and encouraged to use it before they come?			
6.1	Promotional material about the area (leaflets, brochures, internet) contains information about public transport	20	20	
6.2	Websites of the Geopark and/or local tourism organizations are linked to web-based timetables and transport information held by others.	20	20	
6.3	Special offers for tourists using public transport, bicycle or other forms of sustainable transport	10	10	
	Maximum Total	50	50	0
7	What kind of guided tours have been developed by your management body or your partners?			
7.1	Groups with special interests in geology and geomorphology	10	10	
7.2	Tours take place regularly during the season	10	0	
7.3	Tours for a broad audience	20	20	
7.4	Do you offer tours for disabled visitors	10	0	
7.5	Alternatives available if tour impossible due to bad weather conditions	10	10	
7.6	Flexible registration system (day to day basis) for participants or no registration necessary	10	0	
	Maximum Total	70	40	0
8	What else do you use to inform visitors about your area			
8.1	Easy to read interpretation panels in entrance areas or at Tourist locations	20	20	
8.2	There is at least one promoted trail dealing with geological subjects, developed by your team, alongside any developed by partners.	20	20	

		Maximum Total	40	40	0
9	How are information or activities of different organisations co-ordinated				
9.1	Joint information or promotional material		20	20	
		Maximum Total	20	20	0
10	Do you use the internet and what kind of service do you provide?				
10.1	Own website with general information about the area		40	40	
10.2	Links to other websites of tourist board, communities, local government, which provide a broad range of information on the Geopark's area.		10	10	
10.3	Geopark management may be reached by email		5	5	
10.4	Regular electronic newsletter		10	0	
10.5	Facility to order publications on-line		10	0	
10.6	Up to date calendar of activities		15	15	
10.7	Guidance for visitors on potential excursions		10	0	
		Maximum Total	80	70	0
11	What kind of infrastructure is available for activities such as horse riding, canoeing and cycling ? (SELF AWARDED total cannot exceed 100)				
11.1	Network of footpaths which include the main touristic and scientific points of interest		10	10	
11.2	Uniform/standard signposting of paths		10	10	
11.3	Regular checks of infrastructure and immediate repair guaranteed		10	10	
11.4	Special maps and information sheets for hikers, cyclists, etc.		10	10	
11.5	At least one path concerning a special subject (mining, archaeology, architecture not previously counted in your score under another heading		10	10	
11.6	Guided cycling, walking, etc. tours, provided or actively supported by a member organization		10	5	
11.7	Such tours include several days all inclusive offer (hotel, half or full board) for hiking and cycling tours provided or actively supported by a member organization		10	0	
11.8	Such tours include several days all inclusive package with luggage transport provided or actively supported by a member organization		10	0	
11.9	There is a network of hiking/biking friendly hotels/pensions, defined by a catalogue of criteria who work in partnership with your organisation.		20	0	
		Maximum Total	100	55	0
12	How do you communicate the goals of Geotourism, especially with those responsible for tourism.				
12.1	Direct personal meetings or through their involvement in your organization.		10	10	
12.2	A regular award scheme to promote good practice.		20	0	
12.3	The selection and nomination of official partners/mentors/sponsors		20	10	
		Maximum Total	50	20	0
13	Do you have the following sustainable (e.g. non car based) trails?				
13.1	Geo-trails		20	20	
13.2	Cultural trails		10	0	
13.3	Forest trails		10	10	
13.4	Other trails		10	10	
13.5	Other out-door activities not mentioned elsewhere.		10	0	
		Maximum Total	60	40	0
14	Visitor evaluation				
14.1	Do you count visitors?		20	20	
	By entrance tickets / trail counters			5	
	By field trip participants?			5	
	By estimation?			5	
	By visitor survey?			0	
14.2	Do you evaluate where your visitors come from?		20	20	
	By booking addresses?			0	
	By market analysis?			0	
	By university study?			0	
14.3	Do you use visitor evaluation for your forward planning?		20	0	
14.4	Do you have analysis of the socio-economic profile of your visitors (families, school classes, pension groups, tourist groups, etc)?		10	0	
14.5	Questionnaire on visitors' satisfaction levels?		10	0	
		Maximum Total	80	55	0

Total Points Awarded For Section IV: Geotourism	Maximum points	Self Assessment	Evaluators' Estimate
	1000	615	0



	V. Sustainable Regional Economy	Marks available	Self Assessment	Evaluators' Estimate
<b>1</b>	<b>What efforts are undertaken to promote regional food and craft products, integrating the catering trade?</b>			
1.1	Initiatives promoting food from regional and/or ecological production, which your organisation develops or actively supports.	50	0	
1.2	Meals from regional and/or ecological production are available in restaurants	30	30	
1.3	The Geopark organizes markets, where mainly regional agricultural products are sold	50	30	
1.4	A label for regional food products or local gastronomy exists	30	30	
1.5	Direct marketing of regional agricultural products is promoted	40	20	
	<b>Maximum Total</b>	<b>200</b>	<b>110</b>	<b>0</b>
<b>2</b>	<b>Which efforts are undertaken to create and promote regional geotourism products? (The SELF-AWARDED total cannot exceed 100)</b>			
2.1	Initiatives promoting geological replicas production exist	50	30	
2.2	Casts and souvenirs from local production are available	100	30	
2.3	The organization or its active partners has a retail outlet or outlets where mainly regional products are sold.	50	20	
	<b>Maximum Total</b>	<b>200</b>	<b>80</b>	<b>0</b>
<b>3</b>	<b>How are regional crafts promoted?</b>			
3.1	The marketing of local craft products is actively supported	50	20	
3.2	Local craft products are showcased	100	50	
	<b>Maximum Total</b>	<b>150</b>	<b>70</b>	<b>0</b>
<b>4</b>	<b>What efforts are undertaken to promote links between the Geopark and local businesses? (SELF AWARDED total cannot exceed 100)</b>			
4.1	A label for regional services/products has been developed the Geopark or in partnership with others	50	0	
4.2	Direct marketing of regional products is undertaken by your organization	50	20	
4.3	Tourism offers include tours of collaboration with local businesses	20	20	
	<b>Maximum Total</b>	<b>100</b>	<b>40</b>	<b>0</b>
<b>5</b>	<b>What kind of contracts are regularly offered to businesses in your area?</b>			
5.1	Services (repair, management)	50	50	
5.2	Design, Print	50	20	
5.3	Other equipment and services to support geotourism and interpretation, e.g. transport, display cabinets etc. (give details)	80	40	
	<b>Maximum Total</b>	<b>150</b>	<b>110</b>	<b>0</b>
<b>6</b>	<b>Networking (SELF AWARDED total cannot exceed 200)</b>			
6.1	A network of co-operating enterprises exists, fostered by the Geopark.	100	30	
6.2	There is a formal contract between the Geopark and its partners	100	50	
6.3	There are joint projects, financed, between the Geopark private businesses and local authorities.	50	50	
	<b>Maximum Total</b>	<b>200</b>	<b>130</b>	<b>0</b>

Total Points Awarded For Section V: Sustainable Regional Economy	Maximum points	Self Assessment	Evaluators' Estimate
	<b>1000</b>	<b>540</b>	<b>0</b>



## **ANNEX TO SELF EVALUATION**

# I. GEOLOGY AND LANDSCAPE

## 1.1 Territory

### 1. Territory

#### 1.1 Geosite list

The list of geosites is provided on webpage [www.geoparkzh.cz](http://www.geoparkzh.cz), totalling 105 geosites.

### 2. Geodiversity

#### 2.1 Proterozoic

- Paleozoic
  - Cambrian
  - Ordovician
  - Silurian
  - Devonian
  - Carboniferous
  - Permian (plutonites)

- Mesozoic
  - Cretaceous

- Tertiary
  - Paleogene – volcanic activity
  - Pleistocene – fluvial terraces
  - Holocene – fluvial terraces.

- 2.2** See the preliminary working list in Explanations to the map 1 : 25 000 to be published by the Czech Geological Survey; the first preliminary version listed and defined 153 rock types in collaboration with the Czech Geological Survey.

- 2.3**
- Proterozoic
    - glaciogenic or turbidite deposits
    - volcanosedimentary succession of the Chvaletice Group.
  - Paleozoic
    - volcanic area around Sovolusky with submarine and subaerial products
    - Vápenný Podol Syncline (analogue of the Barrandian area with special reference to the Silurian/Devonian boundary, “Prachovice Formation”)
    - bottom of the Ordovician sea, exceptional set of ichnofossils “*in situ*”
    - contact zone of the Paleozoic Hlinsko Complex in the Železné hory pluton
    - fossiliferous beds near Brloh (Ordovician).
  - Cretaceous
    - transgression in beach and surf facies – flooding by Cretaceous sea with evidence of fossil arid-climate weathering of the basement rocks (kaolinization and lateritization of granites) – Brloh, Rabštejnská Lhota, Doly, Zaječice – Bítovany
    - an outcrop of bituminous claystones with Cretaceous coal and plant fossils – Doly near Luže .
    - type boundary between the Cenomanian and Lower Turonian in the Zderaz outcrop series

- “rock cities” – areas of ruiniform relief – in sandstones of Cenomanian age (Toulovcovy Maštale).
- Tectonics – effects related with the Železné hory Fault with a vertical displacement of up to 1 km and alongstrike length of 40 km.
- Geomorphology – typical development of cuesta-like morphology on Cretaceous sediments
  - geomorphological phenomena: (see special guidebook on geology of the Iron Mountains).
- Volcanic activity – basaltic necks – exhumed lava conduits at Luže and Košumberk.
- Hydrology – documented “piracy” of the Chrudimka River.

### **3. Public interpretation of the Geopark’s sites of interest**

#### **3.1**

Geosite	Name of geosite	Classification
1	CHVALETICE	Proterozoic
2	PODHOŘANY	Proterozoic
3	BĚSTVINA	Proterozoic
4	LICOMĚŘICE	Proterozoic
5	OHEB	Proterozoic
6	SKALKA U SOVOLUSK	Proterozoic
7	LITOŠICE	Proterozoic
8	LICHNICE – KAŇKOVY HORY	Proterozoic
9	BRLOH	Palaeozoic
10	LIPOLTICE	Palaeozoic
11	CHRTNÍKY	Palaeozoic
12	ŽUMBERK	Igneous plutons
13	DEBLOV	Palaeozoic
14	RABŠTEJNEK	Palaeozoic
15	RAŠKOVICE	Palaeozoic
16	NA SKALÁCH	Mesozoic
17	PRACHOVICE	Palaeozoic
18	VÁPENNÝ PODOL	Palaeozoic
19	MRÁKOTÍN	Palaeozoic
20	CTĚTÍNEK	Igneous plutons
21	PROSETÍN	Igneous plutons
22	SRNÍ	Igneous plutons
23	LUKAVICE	Palaeozoic
24	NASAVRKY	Igneous plutons
25	KRASKOV	Palaeozoic
26	ŠKROVÁD	Mesozoic
27	BÍTOVANY	Mesozoic
28	SKUTIČKO	Mesozoic
29	SKÁLA A PODSKÁLA	Mesozoic
30	PŘIBYLOV	Mesozoic

Geosite	Name of geosite	Classification
58	KOUKALKY	Proterozoic
59	CHOTĚBOŘ B82	Proterozoic
60	LIBICE NAD DOUBRAVOU – SKARN	Proterozoic
61	HRADIŠTĚ – PÍSKOVNA	Mesozoic
62	PODOLSKÁ JESKYNĚ	Palaeozoic
63	PÁTEROVA JESKYNĚ	Palaeozoic
64	HAVÍŘSKÉ JÁMY	Proterozoic
65	ŽDÁREC U SEČE	Igneous plutons
66	SEMTĚŠ – VLČÍ SKÁLA	Proterozoic
67	SEMTĚŠ – VÁPENKA	Proterozoic
68	BOŠOV	Igneous plutons
69	HLÍNA	Mesozoic
70	MEZIOHŘÍ	Mesozoic
71	OBŘÍ POSTELE	Proterozoic
72	MORAŠICE – LOM	Proterozoic
73	MORAŠICE – HALDA	Proterozoic
74	HUDEČ	Hydrogeology
75	OBORA – ERLAN	Proterozoic
76	STUDENÁ VODA – LOM	Mesozoic
77	KAMENNÉ STÁDO	Igneous plutons
78	LIBKOV – LOM	Igneous plutons
79	POLÁNKA – VÁPENEC	Igneous plutons
80	MALHOŠŤ	Mesozoic
81	JESKYNĚ U TYROLSKÉHO DOMKU	Palaeozoic
82	LOM PODHŮRA	Palaeozoic
83	ÚDOLÍ NOVOHRADKY POD KOŠUMBERKEM	Mesozoic
84	AREÁL GEOFONDU	Proterozoic
85	HUMPERKY	Palaeozoic
86	HORNÍ SOKOLOVEC – PÍSNÍK	Mesozoic
87	JENIŠOVICE	Hydrogeology



Geosite	Name of geosite	Classification
31	ŠTĚPÁNOV U SKUTČE	Mesozoic
32	LUŽE – KOŠUMBERK	Mesozoic
33	PODLAŽICE	Hydrogeology
34	VESTEC	Proterozoic
35	HORNÍ STUDENEC	Hydrogeology
36	BLATNICE	Hydrogeology
37	KLADRUBY U LIBICE NAD DOUBRAVOU	Hydrogeology
38	SLOUPNO	Proterozoic
39	ÚDOLÍ DOUBRAVY	Proterozoic
41	LEŠTINKA	Igneous plutons
42	RYCHMBURK – ŠILINKŮV DŮL	Palaeozoic
43	DOLY U LUŽE	Mesozoic
44	MAŠTALE, PIVNICKÁ ROKLE	Mesozoic
45	NOVÉ HRADY	Hydrogeology
46	NÁKLE	Mesozoic
47	ROUDNÁ	Proterozoic
48	LOM POD NASAVRKY	Igneous plutons
49	HROBKA	Mesozoic
50	STRÁDOVSKÉ PEKLO	Igneous plutons
51	KRKANKA	Igneous plutons
52	MRÁKOTÍN U SKUTČE	Igneous plutons
53	OTRADOV	Proterozoic
54	HORNÍ LHOTKA	Proterozoic
55	NEHODOVKA	Proterozoic
56	KŘEMENICE	Proterozoic
57	ŠEVCOVA SKALKA U OBORY	Proterozoic

Geosite	Name of geosite	Classification
88	STŘEMOŠICKÁ STRÁN	Mesozoic
89	ŠVIHŮVEK	Igneous plutons
90	LEŽÁKY	Igneous plutons
91	PROSEČ – LOM	Proterozoic
92	KAPALICE	Hydrogeology
93	BÍLÝ KŮŇ – PRAMEN	Hydrogeology
94	KŘÍŽANOVICE	Igneous plutons
95	KOSTELEČ U HEŘMANOVA MĚSTCE – LOM	Mesozoic
96	SKALKY U LHOTKY	Proterozoic
97	BŘEZINKA	Proterozoic
98	SENÍK	Palaeozoic
99	HORNÍ STUDENEC – LOM	Mesozoic
100	VODNÍ ZDROJE CHRUDIM. SPOL. S R.O.	-
101	BERLOVA VÁPENKA	-
102	MUZEUM OBUVI A KAMENE SKUTEČ	-
103	GYMNÁZIUM CHOTĚBOŘ - GEOPARK POD PLATANEM	-
104	BEZLEJOV	Proterozoic
105	STUDENÁ VODA – POLE	Mesozoic
106	HRANICE U MALČE	Mesozoic
107	KŘÍŽOVKA	Proterozoic
108	TÝNEC NAD LABEM	Proterozoic
109	BLANSKO	Hydrogeology
110	ČEČKOVICE	Hydrogeology
111	SKUTEČ – SV. ANNA	Hydrogeology
112	CHVALETICE – ŽULOVÝ LOM	Igneous plutons

- 3.2 – Prachovice Quarry** – newly defined Prachovice Formation, see Chlupáč: Geology of the Bohemian Massif
- fossiliferous beds at Brloh, Lipoltice – research at the site has been started
  - graptolite fauna at Mrákotín (see Kraft: Explanatory text to the geological map, sheet Hlinsko)
  - Bošov (mixing of two types of magma)
  - pillow lavas near Sovolusky
  - the first confirmed occurrence of sediments of Carboniferous age (Kraskov, in print)
  - Heřmanův Městec – Palác – occurrence of ichnofossils of *Zoophycos* type – third oldest trace fossils of this type in the world (Doucek and Mikuláš, 2015)
  - Lipoltice – a new look on the lithology, sedimentology and facies interpretation of Ordovician (“turbidite”?) sediments
  - groundwater issues in the Nadymač system of springs near Nové Hradky (60 l/s to 100 l/s).

- 3.3** – Rabštejnská Lhota – an example of flooding by Cretaceous sea – status of a nature monument; a phenomenon of a recharge area for groundwater resources
- Brloh – a quarry of two seas
  - Ctětín – an example of weathering of granites – granodiorites; traditional stonemason production
  - Nové Hradky – a system of spring issues of different types and different origin
  - Zderaz – the Cenomanian/Lower Turonian boundary, an example of two formations for hydrogeological and environmental interpretations.
- The above mentioned sites are included within the following pilot projects of the Geopark: “History of the Earth in two days”, “Journey in quest of water” and “Origin of a paving stone”.

- 3.4** See webpage [www.geoparkzh.cz](http://www.geoparkzh.cz) – project “The Iron Mountains – a geologically significant region” including 40 sites.

- 3.5** Five sites are in operation – no-service information stands (also referred to as BIS objects) constructed within the project “The Iron Mountains – a geologically significant region”
- Lichnice
  - Vápenný Podol
  - Nasavrky
  - Zbožnov
  - Podlažice
- Other objects to be added to the list include the Berla lime kiln near Třemošnice and the Pasíčka Centre to be finished this year. Projects for the Podhůra Educational and Visitor Centre and the future Chvaletice Infocentre are in progress.

## II. GEOLOGY AND LANDSCAPE

### 1.2 Geological Conservation

#### 1. Inventory and significance of geosites which can be found in your area

- 1.1 Present but their inclusion in the “Applicant’s Self Evaluation Document” would result in exceeding the maximum total of 300 marks. We mean 1. the Palác elevation and 2. the Na Skalách Nature Monument.
- 1.2 – Rabštejnská Lhota – Nature Monument – flooding by Cretaceous sea  
– Sovoluská Lhota – Nature Monument – pillow lavas  
– Prachovice – the Prachovice Formation – Silurian/Devonian  
– Nadymač spring near Nové Hradky – hydrogeology  
– Mrákotín – Silurian graptolite fauna  
– re-interpretation of the spatial occurrence of the Prague realm in the Paleozoic complex of the Iron Mountains  
– Luže – Tertiary volcanic activity – a new look on the differentiation of basaltic volcanism outside the main volcanic centres in the Bohemian Massif (Rapprich, Czech Geological Survey).
- 1.3 After the completion of the “Project” – for reference to the project “The Iron Mountains – a geologically significant region” see [www.geovedy.cz](http://www.geovedy.cz), [www.geoparkzh.cz](http://www.geoparkzh.cz) – information on the geosites is actively used in a network of over 30 schools (elementary or secondary) in the Pardubice Region and the Vysočina Region.
- 1.4 See webpage [www.geoparkzh.cz](http://www.geoparkzh.cz) + internet database.
- 1.5 See webpage [www.geoparkzh.cz](http://www.geoparkzh.cz) + internet database.

#### 2. Strategy and legislation to protect against damage of geological sites and features

##### 2.1 0

##### 2.2 Three sites have the status of nature monuments:

- Rabštejnská Lhota – Na Skalách
- Sovolusky – Skalka u Sovolusk
- Zaječice – Bítovany – v Syslích.

Seven geosites have been declared as under special protective regime, in which geological and geomorphological values were considered as one of the relevant criteria. These geosites include:

- Touloucovy Maštale
- Šilinkův důl
- Údolí Novohradky
- Lichnice – Kaňkovy hory (a part of the Iron Mountains PLA)
- Údolí Krkanky (a part of the Iron Mountains PLA)
- Údolí Doubravy
- Oheb.



- 2.3 The status of a nature monument at three sites sufficiently covers and effectively prevents any activities related to the destruction and/or removal of components of geological heritage. Further, more than one-third of the Iron Mountains Geopark territory lies within the Iron Mountains Protected Landscape Area (PLA), in which different regimes of nature conservation has been promulgated by law at various levels.

### **3. How are the geosites protected against misuse and damage?**

- 3.1 See webpage [www.geovedy.cz](http://www.geovedy.cz), with downloadable materials including safety rules and general rules for the movement of geotourists at geosites.
- 3.2 0
- 3.3 Geosites related to active quarries where monitoring and professional supervision are conducted by the founder of the Geopark, are protected under the legislation of the State Mining Administration (Prachovice, Chrtínky, Ctětín, Švihov), a camera system has been installed in the seat of the project holder (Vodní zdroje Chrudim): the buildings host extensive collections of minerals, rocks and fossils including archival documentation of the Geopark. A camera system has been also installed at Chotěboř, Skuteč, at the Berla lime kiln and the Pasíčka Centre where the Geopark has been involved in the installation of indoor and outdoor expositions.
- 3.4 After completion of the website, this rule will be applied to ca. 40 geosites.
- 3.5 In its philosophy, the Iron Mountains Geopark does not refuse the possibility of collection of geological samples. We see two possibilities of sample collection:
- I. Sample collection in active quarries is permitted based on an agreement with the quarry operator.
  - II. Sample collection at selected parts of geosites is regulated by geo-guides and permitted only within educational programmes (primary and secondary schools).

### **4. What measures are carried out to protect geosites and infrastructure against damage and natural degradation?**

- 4.1 Remediation has been carried out at 10 sites – geosites (cleaning of quarries, cliff faces, removal of arborescent plants and bushes). Maintenance of the sites lies within the responsibility of the communities at the cadastre of which the respective geosites are located (Lipoltice, Brloh). Some of the geosites are maintained by the regional governments and the Nature Conservation Agency of the Czech Republic (Sovolusky, Rabštejnská Lhota). Another level of maintenance entails checkups during visits of geosites within excursions, currently performed geological survey of the area or within regular inspections by the guards in quarries and their vicinity (Prachovice). Regular regime of maintenance and conservational checkups of geosites is being conducted at three sites having the status of a nature monument.
- 4.2 40 geosites fall within the regime of 10-years sustainability within the project “The Iron Mountains – a geologically significant region”.
- 4.3 0

### **III. GEOLOGY AND LANDSCAPE**

#### **1.3 Natural and Cultural Heritage**

##### **1. Natural rank**

**1.2** This is a list of European Sites of Community Importance (SCI) in the Geopark territory:

- SCI Anenské údolí
- SCI Choltická obora
- SCI Údolí Chrudimky
- SCI Heřmanův Městec
- SCI Boušovka
- SCI Slavická obora
- SCI Lichnice – Kaňkovy hory
- SCI Chrudimka
- SCI Hubský – Strádov
- SCI Malá Straka
- SCI Hluboký rybník
- SCI Podolská a Páterova jeskyně
- SCI Krkanka – Strádovské peklo.

**1.3** We believe that the legal definition of the boundaries of the Iron Mountains Protected Landscape Area can be accepted; the Lichnice – Kaňkovy hory National Nature Reserve has been proclaimed here.

**1.4** Regional designation under other protective measures can be accepted – see 1.2.2. b) – Status legal norm and decrees of the Regional Office or the Nature Conservation Agency of the Czech Republic. Areal limits of sites having the status of Nature monuments were defined in years 2014 and 2015; these designations can be accepted for the needs of the Geopark.

**1.5** Local designation within the information system of the project “The Iron Mountains – a geologically significant region” (40 sites).

##### **2. Cultural rank**

**2.2** Czek easter – Masopust (“Carnevale”) tradition in UNESCO.

**2.3** There are two national cultural monuments in the Geopark territory:

- Ležáky village
- Slatiňany chateau

There are ca. 40 cultural monuments in the Chrudim County (source: WIKIPEDIA), 19 cultural monuments in the Chotěboř area and one cultural monument in the Pardubice County. All these monuments are located within the limits of the Iron Mountains Geopark.

**2.4** 0

**2.5** 0

### **3. Promotion and maintenance of natural and cultural heritage**

- 3.1** Support benefiting from financial participation of the Geopark in the initiation of projects at the following sites:
- CHVALETICE  
a feasibility study of the use of a cultural monument of the Czech Republic – a school – for the construction of an interpretive centre “Mining history and utilization of mineral riches of the Iron Mountains”
  - TÝNEC NAD LABEM  
construction of geosites and their implementation in the trail along the Elbe River (history, geology, living nature)
  - STOLANY  
use of the area of former sandstone quarries for the local community and for geotourists
  - PODLAŽICE  
construction of an interpretive centre (extension of the no-service information stand and the project “The Iron Mountains – a geologically significant region”) focused on history of water supply management and a construction of a withdrawal centre in collaboration with the Water Supply Society Chrudim and the Water-line and Sewerage Company (VaK) Chrudim
  - HOROSTUDENECKO – MALEČSKO (“Long Furrow”)  
history of groundwater withdrawal in the Long Furrow area and its present state in collaboration with the Water-line and Sewerage Company (VaK) Havlíčkův Brod
  - CHVALETICE – PŘELOUČ  
MAGEO – a bicycle trail, realized by the “Společnost přátel Železných hor” society, was completed in 2015.
- 3.2** Interpretation at full extent is provided along the Doubrava River Valley Educational Trail and within the Geopark information system (interpretive plates).
- 3.3** Communication with municipalities within the implementation of cities and towns in projects such as:
- “Eastern gate to the Iron Mountains” in the Pasíčka Rescue Station, which aims at the combination of themes of living and inanimate nature in promotion of the education of elementary and secondary school students.
  - Podhůra Educational and Visitor Centre – integration of activities of the Town of Chrudim, Municipal Forests Chrudim, Iron Mountains Protected Landscape Area and the Iron Mountains Geopark.
  - Construction of the Paleta–Pardubice House of Nature, completed in 2015, with the exposition referring to the Iron Mountains Geopark.
- 3.4** Educational programmes for elementary schools and secondary schools, excursions, training courses, grant projects (see [www.geovedy.cz](http://www.geovedy.cz)).



## **II. MANAGEMENT STRUCTURE**

### **1. How is the Applicant's management structure organised?**

- 1.1** Yes – see the nomination documentation and attached maps.
- 1.2** Yes, the defined and effective management structure is based on the structure of the steering subject Vodní zdroje Chrudim, spol. s r.o. (Water Resources Chrudim, limited liability company), which is run by applying a certified system of quality and management under Standard ISO 9001 and environmental management under Standard 14100.
- 1.3** 0
- 1.4** Financial budget is an integral part of the economics of the steering subject. It includes all remuneration costs, social and health security payments, overhead costs and – in selected cases – also financial participation in project and realization activities. Financial resources to cover the above mentioned costs are mostly (over 90 % of them) provided from grant projects or from advisory, educational and promotional activities of the steering subject. The company is accredited with the Ministry of Education, Youth and Sports CR for education and research in geosciences.

### **2. Does a management or Master Plan exist?**

- 2.1** A proposal has been elaborated within the nomination documentation in 2012, its accreditation is pending due to the process of submission of an application to the GGN.

### **3. Master Plan components**

- 3.1** Extension of the geosite system with a target number of ca. 150 sites.
- 3.2** Interconnection of new geological information (within the current geological survey to scale 1:25,000) with natural and cultural heritage (mining history, history of mineral utilization, environmental aspects etc.).
- 3.3** see under c).
- 3.4** Participation in projects of new bicycle trails, conception of tourist packages – leaflets and information materials.
- 3.5** – To comply with the rising demands for excursion and educational activities  
– Selection of suitable themes for new deliverables from grant financial resources (continuation of programmes *Geosciences* and *Stone and water*) with an emphasis on applicational overlaps to technical disciplines and related scientific disciplines (chemistry, geography, physics etc.).
- 3.6** Implementation of the steering subject to the LAG Chrudimsko – submission of proposals and projects having impacts on local development – the project “Step by step through the Geopark”.

- 3.7 Initiation of regional producers in their orientation to “products” related to geological and cultural heritage (e.g., Confectioner’s at Skuteč – granite cubes, or possibly bottled potable water but also tap water pointing out the philosophy of live water from the mountains... etc.), promotion of the producers at public events such as “Kamenický jarmark” (Stonemason’s Crafts Fair).
- 3.8 Social links – preparation of the 1st Paleoart Festival at Chrudim.
- 3.9 Financing – entering the process of preparation and approval of budgets, with a defence of integrated projects, at different levels of self-government (community, town, region) and in the commercial sphere (joint-stock companies); both these components are ranked among key partners of the Iron Mountains National Geopark.
- 3.10 Preparation of strategy in seeking projects, contracts, continuation of current partnerships.
- 3.11 Under preparation.
- 3.12 An audit of resources is regularly conducted within the inspections of the re-certification processes of the steering subject (Swiss accreditation body SGS; process of management quality control and environmental management), on annual basis.
- 3.13.1 Yes, within the current geological survey, 6 map sheets 1:25,000 in the territory of the Iron Mountains Geopark.
- 3.13.2 This lies within the responsibility of, among others, the Protected Landscape Area and other segments of state administration. At sites where basically new geoscientific data are obtained and consequently new incentives are to be formulated for conservational regimes of different degrees, the Iron Mountains National Geopark will provide consultation and advisory activities.
- 3.13.3 Geotourism – its development is directly linked with the development of infrastructure in the Geopark. Acceleration of geotourism can be expected after the installation of interpretive, educational and visitor centres.

#### **4. Does your application have a marketing strategy?**

Yes – the marketing strategy is continuously updated depending on the development and the outcome of the submitted grant applications and applications for long-term governmental projects.

#### **5. Geopark should protect its geological heritage and create sustainable geotourism. What has been done to fulfil this duty?**

- 5.1 The whole of the Geopark.
- 5.2 This lies within the responsibility of the Nature Conservation Agency of the Czech Republic.
- 5.3 0

5.4 Collaboration with the Czech Tourist Club (KČT) in the optimization of marked tourist trails.

5.5 Yes – see the nomination documentation.

**6. Are there any initiatives or working groups who discuss promotion of natural and cultural heritage?**

6.1 0

6.2 LAG Železnohorský region (Iron Mountains region), LAG Chrudimsko (Chrudim area).

6.3 Pětilístek (Pentifoil) – meeting of information centres, Days of the Iron Mountains Region.

**7. Has your geopark area received any awards or other formal recognition for its activities in the fields of geodiversity, conservation or sustainable geo-tourism during the last five years?**

7.1 0

7.2 0

7.3 0

**8. Are competent geological and scientific experts available to promote further research work on a scientific basis?**

8.1 Yes – Daniel Smutek.

8.2 Daniel Smutek, Jan Doucek, Vítězslava Smutková, Lucie Kovářová, Marek Joska.

8.3 Blahoslav Tefr – hydrochemist  
Daniel Smutek – certification issued by the Ministry of the Environment CR in environmental geology, geological works – remediation works, engineering geology and hydrogeology.

8.4 Regional Museum at Chrudim, Czech Geological Survey in Prague, Czech Geological Survey in Brno, University of Hradec Králové.

8.5.1 Czech Geological Survey, Regional Museum at Chrudim.

8.5.2 Faculty of Science of Charles University in Prague, Geofyzika Praha, G-Impuls, Institute of Geophysics AS CR, Mining Union.

8.5.3 Mr. Zelený at Třemošnice; Pleskot stonemason family at Heřmanův Městec; mining companies – CEMEX, EUROVIA, Sklopísek.



8.6 Over 5.

8.7 Marketing is one of the aspects of geopark activities: it is most notably contributed by Daniel Smutek and Jan Doucek, our experience in this respect is also based on the collaboration with the Tourist region of Chrudimsko – Hlinecko.

8.8 Staff members of the project holder, who collaborate – among others – with the destination management.

8.9 Yes, such activities are listed in their job description.

*P.S.: Job descriptions of the staff members of the project holder are stipulated by the standard “System of quality management ISO 9001”.*

**9. Does your Applicant area have the following infrastructure?**

9.1 Extensive collections of mineralogical, petrographic and paleontological character are displayed in the buildings of the steering subject. They were created with the use of the subject’s own material and the exposition of Stonemasonry Museum at Skuteč and in the Berla Lime Kiln.

9.2 The territory of the Geopark hosts 13 information centres. These centres actively collaborate with the Geopark and take share in the promotion of the Geopark.

9.3 0

9.4 See the list at [www.geoparkzh.cz](http://www.geoparkzh.cz), which includes over 75 information panels. The exact number will be given in the nomination application together with their list and locations in the map.

9.5 Yes – bicycle trail MAGMA (2005–2015)  
– a trail around the Prachovice Quarry  
– Heřmanův Městec – the town of two seas  
– a granite trail at Horky.

### **III. INFORMATION AND ENVIRONMENTAL EDUCATION**

#### **1. Research, information and education scientific activity in Earth sciences within the territory**

- 1.1** – The project REBILANCE – Recalculation of groundwater reserves (2013–2015) is being realized together with the Czech Geological Survey Prague.  
– Geological survey to scale 1:25,000 of the Iron Mountains was started in collaboration with the Czech Geological Survey Prague, West Bohemian University in Plzeň, and the Czech Academy of Sciences in Prague in 2014, after more than 50 years. The end of the project is scheduled for 2018.
- 1.2** PhD Thesis “Tectonics of the Iron Mountains” was started at the Faculty of Science, Masaryk University in Brno in 2014.
- 1.3** – Four textbooks were published in collaboration with University of Hradec Králové – see Annual Report for 2014.  
– A book was published in collaboration with Mendel University in Brno – see Annual Report for 2014.
- 1.4** Bachelor and Diploma theses in the area of tourism management have been completed in the territory of the Geopark. Their titles are contained in the database kept in the Archive of the Geopark.

#### **2. Do you operate programs of environmental education in your Applicant area?**

- 2.1** 0
- 2.2** – History of the Earth in two days (see [www.geoparkzh.cz](http://www.geoparkzh.cz))  
– Journey in quest of water (see [www.geoparkzh.cz](http://www.geoparkzh.cz))  
– Origin of a paving stone
- 2.3** – Granite programme Skuteč  
– Tracking of lime production  
– Stone world at a glance
- 2.4** 0
- 2.5** Internal lectures on inanimate nature with a geoscientific application have been organized for elementary school pupils for over 15 years. These lectures are accompanied with whole-day field practice – collaboration with the Malíka School at Chrudim.
- 2.6** A series of specialized exclusive excursions for the Gymnázium J. Ressla secondary grammar school at Chrudim, lasting for over 15 years. A 2-years’ collaboration (2013–2015) with the Gymnázium Dašická secondary grammar school at Pardubice with geoscientific topics.
- 2.7** 0

- 2.8 A temporary base has been established at Heřmanův Městec for field mapping courses for geology students (Faculty of Science, Charles University Prague – 3 terms, Mendel University Brno – 1 term). It was operated in years 2011–2014.

### **3. What kind of educational materials exist?**

- 3.1 Yes – more than 10 handbooks with educational materials have been created within programmes *Geosciences* and *Stone and water* for elementary and secondary schools. These programmes also included the creation of extensive sets of working leaflets of geoscientific character.
- 3.2 A film on the Iron Mountains Geopark was created in 2015. It was produced and broadcasted by the Czech TV in the “Nedej se” series in January 2015. Furthermore, video-presentations have been produced on topics related to geoscientific, general scientific and local scientific themes.
- 3.3 See [www.geoparkzh.cz](http://www.geoparkzh.cz), [www.geovedy.cz](http://www.geovedy.cz), [www.zeleznehory.net](http://www.zeleznehory.net).
- 3.4 – specialized geoscientific expositions 1 to 2 times a year.  
– two mobile expositions on the Geopark.
- 3.5 Panning for gold, preparation of casts of fossil imprints.
- 3.6 Educational activities within the regularly given Open Days also include the preparation of casts of typical paleofauna related to the Paleozoic and Mesozoic of the Iron Mountains. Colouring books especially promoting ancient life forms aim at the smallest visitors.

### **4. What kind of published information is available in your Applicant area?**

- 4.1 Protection of geological heritage is realized at three sites which have the status of nature monuments:  
– Rabštejnská Lhota – Na Skalách  
– Sovolusky – Skalka u Sovolusk  
– Bítovany – Farář – V Syslích.
- 4.2 Geology of the region – information system within the project “The Iron Mountains – a geologically significant region” and information system at other sites providing public information in the form of panels (around the Prachovice Quarry, around the quarries in the Skuteč area, in outdoor geo-expositions at Heřmanův Městec, Maleč and Chotěboř) – see [www.geoparkzh.cz](http://www.geoparkzh.cz). Additional segments having the character of public information will be completed in November 2015: Eastern Gate to the Iron Mountains, Pasíčka near Proseč.
- 4.3 J. Vodička – Geology of the Iron Mountains – a monograph of the Iron Mountains PLA. Besides, guidebooks to geosites in the Geopark territory have been published. Materials on this topic are freely available at website [www.geoparkzh.cz](http://www.geoparkzh.cz).
- 4.4 0
- 4.5 0



- 4.6** – [www.geoparkzh.cz](http://www.geoparkzh.cz) – Castles in the Iron Mountains  
– Geosciences – history of education in geosciences  
– Chrudim – Nasavrky area – [www.geovedy.cz](http://www.geovedy.cz)  
– Mining of iron ores, gold and base metals from Celtic times to the 20th century is, among others, presented and promoted at the site of Hradiště near Nasavrky.

**5. Geology provision for school groups. For example, organized visits etc.**

- 5.1** Currently the dominant mode of use of the potential of visitor infrastructure in the Geopark. At the presence of geo-guides (6 staff members of the Applicant hold certificates from the University of Hradec Králové), visits of public-access sites and sites restricted in different ways (quarries etc.) are regularly organized.
- 5.2** 0
- 5.3** Four separate programmes are being realized: I. Pilgrimage in quest of water, II. History of the Earth in two days, III. Origin of a paving stone, IV. Tracking of lime production, which were tuned up using grant projects and presented to pedagogical public and students of elementary and secondary schools in the Pardubice Region and Vysočina Region via websites and publications, in individual cases also to subjects from other regions of the Czech Republic.
- 5.4** Limitations of the group size are usually due to two factors – capacity of the bus and the number of students in a class. Moreover, in other types of visitors, the group size is primarily limited by the agreement between the applicant and the Geopark.
- 5.5** The so-called “wet” alternative benefits from the geopark premises of the Vodní zdroje Chrudim (Water Resources Chrudim), limited liability company. These premises offer a lecture hall for max. 60 visitors, which is equipped with interactive devices and sanitary facilities. In addition, a large set of aids and documentation samples is available (minerals, rocks, fossils, borehole cores etc.) including the Geopark database.
- 5.6** All the above mentioned programmes are focused on all age groups.
- 5.7** 0
- 5.8** See [www.geovedy.cz](http://www.geovedy.cz).

**6. Education – Guides**

- 6.1** Organization has three georangers with certificates.
- 6.2** 0
- 6.3** 0
- 6.4** 0

**6.5** The potential of freelance guides lies in the structure of the geopark educational programmes itself. The freelance guides mostly include trained teachers. They are able to, progressively – using the installed information system in the Geopark – give qualified information on a given theme related to geoscientific aspects of the Iron Mountains.

**6.6** Two stages of full training of geo-guides were realized by the Iron Mountains Geopark within the UHK CESKLAPES project (complex support of geotourism). Following the excursions, lectures and e-learning, altogether 16 geo-guides have been certified to date.

**7. What kind of information do you provide to educational groups, which encourage them to visit your area?**

**7.1** Available in the archives of the Geopark.

**7.2** Approximately 15 brochures, which were compiled, peer-reviewed and printed within grant projects. Available from [www.geovedy.cz](http://www.geovedy.cz) and [www.geoprakzh.cz](http://www.geoprakzh.cz).

**7.3** Press announcements, radio, TV – they are mentioned in Annual Reports for years 2012–2014.

These can be exemplified by a regular series of articles in the Chrudim daily newspaper – Where to go in the Geopark, published every week, 40 articles in total are scheduled for 2015. The hitherto published articles are:

- Brloh
- Příbylov
- Vrbatův Kostelec
- Litošice
- Luže
- Sovolusky
- Nasavrky
- Mrákotín
- Bítovany
- Lukavice
- Žumberk
- Deblův
- Jenišovice.

**7.4** Electronic and printed leaflets on educational programmes for schools.

**8. Do you use the internet for school programmes? What kind of service do you provide?**

**8.1** See [www.geoparkzh.cz](http://www.geoparkzh.cz), [www.geovedy.cz](http://www.geovedy.cz).

**8.2** Individuals responsible for the educational programme – see [www.vz.cz](http://www.vz.cz) (Smutek, Doucek).

**8.3** 0

**8.4** See [www.zeleznehory.net](http://www.zeleznehory.net), [www.geoparkzh.cz](http://www.geoparkzh.cz), [www.navstevnik.cz](http://www.navstevnik.cz).

## **IV. GEOTOURISM**

### **1. What kind of promotional material of the area takes place?**

- 1.1 See the scanned materials.
- 1.2 0
- 1.3 A DVD from the Geopark issued in ca. 200 copies, additional recordings are kept in the Geopark archive and the PR web [www.zelezhohory.net](http://www.zelezhohory.net).
- 1.4 Leaflets, a puzzle, post-cards and other materials have been published.

### **2. In how many languages is the marketing material produced?**

### **3. Do information centres or exhibitions concerning the area exist in the Applicant's area?**

- 3.1 0
- 3.2 0
- 3.3 0
- 3.4 Most of the 14 information centres are wheelchair-accessible.
- 3.5 0
- 3.6 0

### **4. How is information and interpretation about the area presented in info centres, information points etc.?**

- 4.1 Static presentation – display of brochures, leaflets and other materials in show boxes and on counters.
- 4.2 Video presentations are under preparation now, a set of items of this type will be available during 2015.
- 4.3 0
- 4.4 Special exhibitions: In 2012–2015, 10 special exhibitions on the Iron Mountains and the Geopark were realized at Chrudim and about five locations in the Czech Republic. More than 30 exhibitions on geoscientific topics have been realized at the Geopark information centre at the Vodní zdroje Chrudim, limited liability company, since 1996; a part of them were related to the Iron Mountains.  
The currently installed exhibition is called “The Iron Mountains – changes over time”. Its vernissage and opening was attended by over 50 visitors. Another exhibition has



been installed at Kutná Hora, and the theme of the Iron Mountains Geopark has been accented in all expositions of the Regional Museum at Chrudim since May 22, 2015.

**5. Public access and facilities**

- 5.1 No closer specification in the form of explanation and justification is required.
- 5.2 No closer specification in the form of explanation and justification is required.
- 5.3 No closer specification in the form of explanation and justification is required.
- 5.4 No closer specification in the form of explanation and justification is required.
- 5.5 No closer specification in the form of explanation and justification is required.

**6. Are visitors informed about public transport in the area and encouraged to use it before they come?**

- 6.1 Information on the requested categories is provided to the Geopark visitors in collaboration with destination management.
- 6.2 Yes, the websites are interconnected.
- 6.3 0

**7. What kind of guided tours have been developed by your management body or your partners?**

- 7.1 No closer specification in the form of explanation and justification is required.
- 7.2 No closer specification in the form of explanation and justification is required.
- 7.3 No closer specification in the form of explanation and justification is required.
- 7.4 No closer specification in the form of explanation and justification is required.
- 7.5 No closer specification in the form of explanation and justification is required.
- 7.6 No closer specification in the form of explanation and justification is required.

**8. What else do you use to inform visitors about your area**

- 8.1 No closer specification in the form of explanation and justification is required.
- 8.2 No closer specification in the form of explanation and justification is required.

**9. How are information or activities of different organisations co-ordinated**

- 9.1 The flow and spread of information are co-ordinated within collaboration with key Geopark partners and have the form of numerous jointly created materials. Most of this information can be reached at [www.navstevnik.cz](http://www.navstevnik.cz).

**10. Do you use the internet and what kind of service do you provide?**

- 10.1 No closer specification in the form of explanation and justification is required.
- 10.2 No closer specification in the form of explanation and justification is required.
- 10.3 No closer specification in the form of explanation and justification is required.
- 10.4 No closer specification in the form of explanation and justification is required.
- 10.5 No closer specification in the form of explanation and justification is required.
- 10.6 No closer specification in the form of explanation and justification is required.
- 10.7 No closer specification in the form of explanation and justification is required.

**11. What kind of infrastructure is available for activities such as horse riding, canoeing and cycling?**

- 11.1 No closer specification – see external information system in the Geopark area.
- 11.2 Competence in standard trail marking lies within the Czech Tourist Club (KČT).
- 11.3 Check-up and repair of trail markings is undertaken once in three years. These activities lie within the competence of the Czech Tourist Club (KČT).
- 11.4 This is a standard duty of the information centres.
- 11.5 Paths concerning a special subject are marked and appropriately equipped at the site of Raškovice Quarries and also on the trail of “Blue axis” – a path around the Chrudim raceway.
- 11.6 0
- 11.7 0
- 11.8 0
- 11.9 0

**12. How do you communicate the goals of Geotourism, especially with those responsible for tourism**

- 12.1 This is an aspect of regular Geopark agenda
- 12.2 0
- 12.3 An official mentor for the Iron Mountains Geopark has been nominated by the National Geoparks Council of the Czech Republic.

**13. Do you have the following sustainable (e.g. non car based) trails?**

**13.1** Geo-trails are among the suggested routes in the Geopark, such as the MAGMA bicycle trail, Heřmanův Městec – the town of two seas and others.

**13.2** 0

**13.3** Forest trails have been installed, among others, in the Municipal Forests at Chrudim, which make the foreland to the North Gate of the Iron Mountains.

**13.4** Other trails are, among others, included in sites subject to protective regime, or in no-interference zones (e.g., Novohradka River valley).

**13.5** 0

**14. Visitor evaluation**

**14.1** Statistical markers on participants of excursion and organized scientific events and seminars are being processed.

**14.2** No closer specification in the form of explanation and justification is required.

**14.3** 0

**14.4** 0

**14.5** 0

## **V. SUSTAINABLE REGIONAL ECONOMY**

### **1. What efforts are undertaken to promote regional food and craft products, integrating the catering trade?**

- 1.1 0
- 1.2 No closer specification in the form of explanation and justification is required.
- 1.3 No closer specification in the form of explanation and justification is required.
- 1.4 No closer specification in the form of explanation and justification is required.
- 1.5 No closer specification in the form of explanation and justification is required.  
(Eco-boxes)

### **2. Which efforts are undertaken to create and promote regional geotourism products?**

- 2.1 No closer specification in the form of explanation and justification is required.
- 2.2 No closer specification in the form of explanation and justification is required.
- 2.3 0

### **3. How are regional crafts promoted?**

- 3.1 No closer specification in the form of explanation and justification is required.  
(Marketing of exploited granite and spiculitic marlstone and products thereof.)
- 3.2 No closer specification in the form of explanation and justification is required.

### **4. What efforts are undertaken to promote links between the Applicant and local businesses?**

- 4.1 0
- 4.2 0
- 4.3 No closer specification in the form of explanation and justification is required.  
(For example, mediation of entrance permits to quarries, or cooperation with the Dog-Breeding Club at Košumberk in organization of events.)

### **5. What kind of contracts are regularly offered to businesses in your area?**

- 5.1 0
- 5.2 0
- 5.3 No closer specification in the form of explanation and justification is required.



(Private and legal entities were – and still are – involved in the geosites management and in the construction of objects and facilities linked with the geopark infrastructure – mounts, panels, wooden houses etc.)

## **6. Networking**

### **6.1 0**

**6.2** Formal contracts have been signed with the LAG Železnohorský region (Iron Mountains region) and LAG Chrudimsko (Chrudim Area).

**6.3** Joint projects financially contributed by the Applicant have been launched in the last two years. These include, among others, the “Step by step through the Geopark” project (collaboration with LAG Chrudimsko), the elaboration of project documentation for the Podhůra Educational and Visitor Centre – “Gate to the Iron Mountains”, and a feasibility study for the construction of the Interpretive Centre at Chvaletice – “Mining history and present mineral utilization in the Iron Mountains”.