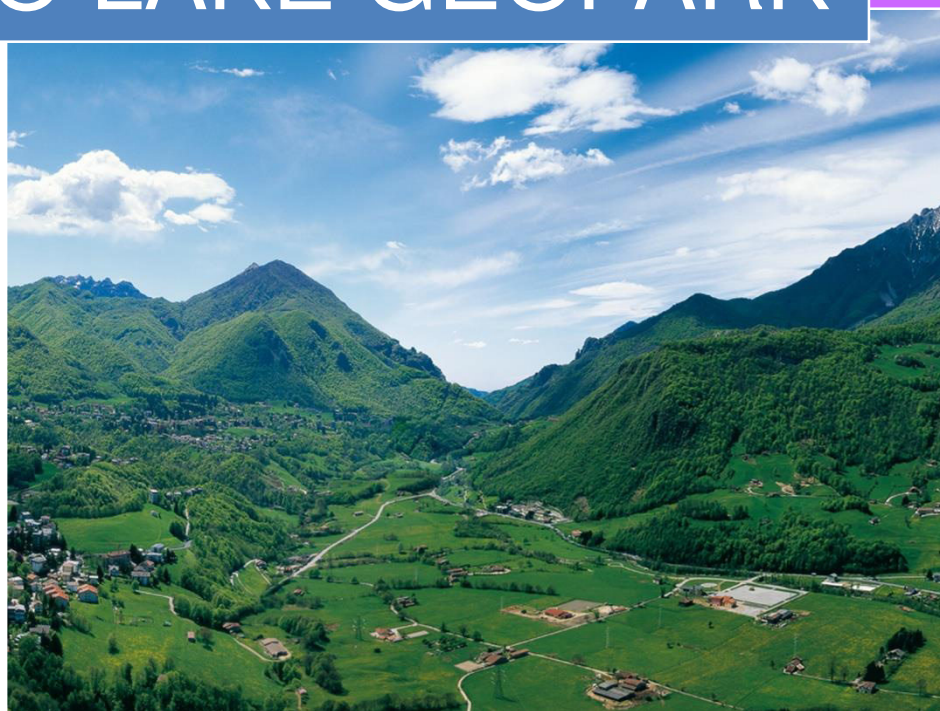




# GRIGNA VALSASSINA and COMO LAKE GEOPARK



*Comunità Montana Valsassina  
Valvarrone Val d'Esino e Riviera*

*Parco Regionale della Grigna  
Settentrionale*



COMUNITA' MONTANA  
VALSASSINA, VALVARRONE,  
VAL D'ESINO E RIVIERA



ANNEX 1  
Self evaluation  
document  
(Document A)

November 2013

REALISED BY



COMUNITA' MONTANA  
VALSASSINA, VALVARRONE,  
VAL D'ESINO E RIVIERA

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**The complete Application dossier is available at:**

*www.valsassina.it*

front cover by Locatelli



**Global Geoparks Network**  
 Applicant's Evaluation Document  
 Document A

**Applicants Identity**

**1. Name and Country of Applicant territory.**

Grigna Valsassina and Como Lake Geopark - Italy

**2. Name of the Applicant's Management Body**

Comunità Montana Valsassina Valvarrone Val d'Esino e Riviera - Parco Regionale della Grigna Settentrionale

Region:	Lombardia
Country:	Italy
Telephone:	0039 (0) 341 910144
Fax:	0039 (0) 341 910154
Email:	comunlta.montana@valsassina.it

**3. Address of Applicant Management Body**

Via Fornace Merlo, 2 I-23816 Barzio (LC) - Italy

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

Size in km <sup>2</sup>	492
Coordinates	(center) WGS84 45°59'13"N - 9°23'56"E

**5. Contact Person**

Management Body Director	Giacomo Camozzini
Geoscientist	Stefano Turri
Specialist on Regional Development	Giacomo Camozzini

**Statement of acceptance of European Geoparks Network Charter Requirements:**  
*The Management Body of the Applicant Territory ready the GGN / EGN charter and accepts all of its provisions.*

Name	Position	Date
Giacomo Camozzini	Director	15/11/2013
Signature		
Name	Position	Date
Alberto Denti	President	15/11/2013
Signature		



## Application 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	182	0
<b>1.3</b>	Natural and Cultural Heritage	10	100	0
<b>II.</b>	Management Structure	25	196,25	0
<b>III</b>	Interpretation and Environmental Education	15	138,75	0
<b>IV</b>	Geotourism	15	113,25	0
<b>V</b>	Sustainable Regional Economic Development	10	67,5	0
<b>Total</b>		100	847,75	0

### EVALUATORS VERIFICATION

Name	Position	Date
Signature		
Name	Position	Date
Signature		

I. Geology and Landscape 1.1 Territory		Marks available	Self Assessment
<b>1. TERRITORY</b>			
1.1	<b>Geosite list</b>		
	List of "Geosites" located within territory identified for use (Please provide a geosite list)		
	20 "Geosites" or more	100	
	40 "Geosites" or more	200	200
	<b>Maximum Total</b>	<b>200</b>	<b>200</b>
<b>2 Geodiversity</b>			
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
	<b>Maximum Total</b>	<b>300</b>	<b>300</b>
<b>3 Public Interpretation of the Geopark's sites of interest</b>			
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	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 activities) (Please provide a list)		40
	<b>Maximum Total</b>	<b>200</b>	<b>200</b>
<b>4 Relationship to existing Geoparks (select one from the following options)</b>			
4.1	There is no comparison with any other existing Geopark within GGN	300	300
4.2	There is another Geopark within GGN with comparable geology.	200	
4.3	There is another Geopark within GGN with comparable geology or infrastructure in the same country.	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	
	<b>Maximum Total</b>	<b>300</b>	<b>300</b>
<b>Territory Subtotal</b>		<b>Maximum points</b>	<b>Self Assessment</b>
		<b>1000</b>	<b>1000</b>

<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	160	
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 its geological values.	300		
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		
3.2	Announcement of regulations against misuse and damage at individual sites of the Geopark	50	50	
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		
<b>Maximum Total</b>		<b>200</b>	<b>150</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	30	
<b>Maximum Total</b>		<b>200</b>	<b>160</b>	<b>0</b>
<b>Geoconservation Subtotal</b>		<b>1000</b>	<b>910</b>	<b>0</b>

<b>III. Geology and Landscape</b>		<b>Marks available</b>	<b>Self Assessment</b>	<b>Evaluators' Estimate</b>
<b>1.3 Natural and Cultural Heritage</b>				
<b>1 Natural Rank (SELF AWARDED total cannot exceed 300).</b>				
1.1	World Heritage Site (Natural or Mixed) <i>(Please give a list and justification)</i>	300		
1.2	Other International Designation in part of the Geopark territory (MAB = 200, Ramsar wetland = 200, Other = 100) <i>(Please give a list and justification)</i>	200	200	
1.3	National designation in part of the Geopark territory <i>(Please give a list and justification)</i>	200		
1.4	Regional designation in part of the Geopark territory <i>(Please give a list and justification)</i>	100	100	
1.5	Local designation in part of the Geopark territory <i>(Please give a list and justification)</i>	50	50	
<b>Maximum Total</b>		<b>300</b>	<b>300</b>	<b>0</b>
<b>2 Cultural Rank (SELF AWARDED total cannot exceed 300).</b>				
2.1	World Heritage Site in part of the Geopark territory (Cultural or Mixed) <i>(Please give a list and justification)</i>	300		
2.2	Other International Designation in part of the Geopark territory <i>(Please give a list and justification)</i>	200		
2.3	National designation in part of the Geopark territory <i>(Please give a list and justification)</i>	200	200	
2.4	Regional designation in part of the Geopark territory <i>(Please give a list and justification)</i>	100	100	
2.5	Local designation in part of the Geopark territory <i>(Please give a list and justification)</i>	50		
<b>Maximum Total</b>		<b>300</b>	<b>300</b>	<b>0</b>
<b>3 Promotion and maintenance of Natural and Cultural Heritage</b>				
3.1	Interpretation <i>(Please give details)</i>	100	100	
3.2	Education programmes <i>(Please give details)</i>	100	100	
3.3	Communication <i>(Please give details)</i>	100	100	
3.4	Promotion of the links between Geological Heritage sites and the existing Natural and cultural sites within the Geopark (Prove with examples) <i>(Please give details)</i>	100	100	
<b>Maximum Total</b>		<b>400</b>	<b>400</b>	<b>0</b>
<b>Natural and Cultural Heritage Subtotal</b>		<b>1000</b>	<b>1000</b>	<b>0</b>
<b>Total Points Awarded For Section I: Geology and Landscape</b>		<b>3000</b>	<b>2910</b>	<b>0</b>

II. MANAGEMENT STRUCTURE		Marks available	Self Assessment	Evaluators' Estimate
<b>1</b>	<b>How is the Applicants management structure organised?</b>			
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	50	
1.4	An independently administered budget(Please give details)	50	50	
		<b>Maximum Total</b>	<b>200</b>	<b>200</b>
<b>2</b>	<b>Does a management or Master Plan exist?</b>			
2.1	Management or Master Plan exists (not older than 10 years)(You should refer to the main components in accompanying documentation)	40	40	
<b>3</b>	<b>Master Plan Components - What components does it include?</b>			
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	5	
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	10	
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	10	
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	5	
3.14	Analysis of local/regional development potentials	10	10	
		<b>Maximum Total</b>	<b>200</b>	<b>195</b>
<b>4</b>	<b>Does your Application have a Marketing Strategy</b>			
	Strategy exists (not older than 10 years)(You should refer to the main components in accompanying documentation)	50	30	
		<b>Maximum Total</b>	<b>50</b>	<b>30</b>
<b>5</b>	<b>Geopark should protect its geological heritage and create sustainable geotourism. What has been done to fulfil this duty?</b>			
5.1	Definition of areas which will be the focus of tourism development	25	25	
5.2	Definition of areas where no tourism is allowed, (with focus on protection and research)	20	10	
5.3	Measures taken to regulate and reduce traffic (restricted access, central parking lots, traffic guiding system, signposting etc.)	15		
5.4	Environmental friendly hiking path system	10	10	
5.5	Clearly defined cycle or other trails such as bridleways or river trails.	10	10	
		<b>Maximum Total</b>	<b>80</b>	<b>55</b>
<b>6</b>	<b>Are there any initiatives or working groups who discuss promotion of natural and cultural heritage</b>			
6.1	Regular "Working Group" meetings on specific topics	20	20	
6.2	Individual cooperation and contracts between Applicant, tourist organisations and other interest groups	10	10	
6.3	Other regular activities, not described by the answers above.	10		
		<b>Maximum Total</b>	<b>20</b>	<b>20</b>
<b>7</b>	<b>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)</b>			
7.1	International awards (name and date of award)	100		
7.2	National awards (name and date of award)	50		
7.3	Other (e.g. from industry) (name and date of award)	20		
		<b>Maximum Total</b>	<b>100</b>	<b>0</b>
<b>8</b>	<b>Are competent geological and scientific experts available to promote further research work on a scientific basis? (SELF AWARDED total cannot exceed 150)</b>			



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		
8.2	At least five people with a degree in geosciences or other related discipline on the staff of the Applicant (employed by partner)	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		
	> 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>85</b>	<b>0</b>

<b>9 Does your Applicant area have the following Infrastructure</b>				
9.1	Museum within the area of Application managed by yourself or a partner in your organization	100	100	
9.2	Information Centre within the area of Application	80	80	
9.3	'Info-kiosks' or other 'local information points' within the area carry information about the Applicant and its aims and work	40	30	
9.4	Information panels within the area	40	20	
9.5	Geological Trails within the area of Applicant, which the Applicant 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>785</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 Applicant's area.	50	50	
1.2	At least one student final report (mapping etc.) in the Applicant's area per year	40	40	
1.3	At least one of PhD thesis on Applicant'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 Applicant'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 Applicant 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	50	
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 Applicant's area	20	20	
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	20	
2.8	Are there any university camps/education centres in the Applicant's area	20	20	
<b>Maximum Total</b>		<b>200</b>	<b>200</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	20	
3.6	Do you produce other material for children below 8 years?	20	20	
<b>Maximum Total</b>		<b>120</b>	<b>120</b>	<b>0</b>
<b>4</b>	<b>What kind of published information is available in your Applicant area?</b>			
4.1	Protection of geological heritage	20	10	
4.2	Geology of the area	15	15	
4.3	Publication linking geology, nature and culture of the area	20	10	
4.4	Environmentally friendly behaviour in the area	15	5	
4.5	Other aspects of natural history which can be found within the area	15	15	
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 Applicant's staff (explain and justify)	30	30	
5.2	Guided tours through a member organisation (explain and justify)	15	15	
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	5	
5.6	Do programs exist for different ages? (explain and justify)	20	20	
5.7	Do special, scientific programs exist? (explain and justify)	20	20	
5.8	Is teacher training offered in matters relating to the Applicant?(explain and justify)	20		
<b>Maximum Total</b>		<b>100</b>	<b>100</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		
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	15	
6.3	Personal guides in Geopark permanent staff(explain and justify)	20	15	
6.4	Personal guides by partner organisation(explain and justify)	15	15	
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>85</b>	<b>0</b>

<b>7</b>	<b>What kind of information do you provide to educational groups, which encourage them to visit your area?</b>			
7.1	Letters to schools and universities	20	20	
7.2	Brochure	20	20	
7.3	Press announcements (Newspapers, Radio, TV)	20	10	
7.4	Newspaper or newsletter	20	15	
<b>Maximum Total</b>		<b>80</b>	<b>65</b>	<b>0</b>

<b>8</b>	<b>Do you use the internet for school programmes? What kind of service do you provide?</b>			
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	10	
8.4	Up to date calendar of activities	20	15	
<b>Maximum Total</b>		<b>120</b>	<b>105</b>	<b>0</b>

<b>Total Points Awarded For Section III: Education</b>	<b>Maximum points</b>	<b>Self Assessment</b>	<b>Evaluators' Estimate</b>
	<b>1000</b>	<b>925</b>	<b>0</b>

IV. Geotourism		Marks available	Self Assessment	Evaluators' Estimate
<b>1</b>	<b>What kind of promotional material of the area takes place?</b>			
1.1	Printed material (e.g. leaflets, magazines)	25	25	
1.2	Popular literature for public (e.g. books, guide books)	15	15	
1.3	CD or video material	15	15	
1.4	Other promotional material or merchandise	15	5	
		<b>Maximum Total</b>	<b>70</b>	<b>60</b>
<b>2</b>	<b>In how many languages is the marketing material produced? (The SELF AWARDED total cannot exceed 80)</b>			
2.1	English	10	10	
2.2	French	10	10	
2.3	Spanish	10		
2.4	Russian	10		
2.5	Chinese	10		
2.6	Arabic	10		
2.7	Add 10 points for each other language. (explain and justify)		10	
2.8	Multi-languages in one publication	10	10	
		<b>Maximum Total</b>	<b>80</b>	<b>40</b>
<b>3</b>	<b>Do information centres or exhibitions concerning the area exist in the Applicant's area? (SELF AWARDED total cannot exceed 100)</b>			
3.1	At least one information centre centre, managed directly by the Geopark or one of the partner members of your organization	30	30	
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	20	
3.3	Information centre "meeting and starting" point for excursions	10	10	
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	10	
3.6	Centre open to the public at least 6 days a week, all year round weather permitting	20	20	
		<b>Maximum Total</b>	<b>100</b>	<b>100</b>
<b>4</b>	<b>How is information and interpretation about the area presented in info centres, information points etc?</b>			
4.1	Static display material	10	10	
4.2	Films, video, slideshow etc.	10	5	
4.3	Interactive displays	10	5	
4.4	Different special exhibitions changing on a regular basis	40	10	
		<b>Maximum Total</b>	<b>70</b>	<b>30</b>
<b>5</b>	<b>Public Access and facilities(SELF AWARDED total cannot exceed 100)</b>			
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	20	
5.5	Are there toilets available in the parking areas	20	10	
		<b>Maximum Total</b>	<b>100</b>	<b>100</b>
<b>6</b>	<b>Are visitors informed about public transport in the area and encouraged to use it before they come?</b>			
6.1	Promotional material about the area (leaflets, brochures, internet) contains information about public transport	20	20	
6.2	Websites of the Applicant and/or local tourism organizations are linked to web-based timetables and transport information held by others.	20		
6.3	Special offers for tourists using public transport, bicycle or other forms of sustainable transport	10		
		<b>Maximum Total</b>	<b>50</b>	<b>20</b>
<b>7</b>	<b>What kind of guided tours have been developed by your management body or your partners?</b>			
7.1	Groups with special interests in geology and geomorphology	10	10	
7.2	Tours take place regularly during the season	10	10	
7.3	Tours for a broad audience	20	20	
7.4	Do you offer tours for disabled visitors	10	10	
7.5	Alternatives available if tour impossible due to bad weather conditions	10	5	
7.6	Flexible registration system (day to day basis) for participants or no registration necessary	10	10	
		<b>Maximum Total</b>	<b>70</b>	<b>65</b>
<b>8</b>	<b>What else do you use to inform visitors about your area</b>			
8.1	Easy to read interpretation panels in entrance areas or at Tourist locations	20	15	
8.2	There is at least one promoted trail dealing with geological subjects, developed by your team, alongside any developed by partners.	20	20	
		<b>Maximum Total</b>	<b>40</b>	<b>35</b>

<b>9</b>	<b>How are information or activities of different organisations co-ordinated</b>					
9.1	Joint information or promotional material		20	20		
	<b>Maximum Total</b>		<b>20</b>	<b>20</b>	<b>0</b>	
<b>10</b>	<b>Do you use the internet and what kind of service do you provide?</b>					
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 Applicants area.		10	5		
10.3	Geopark management may be reached by email		5	5		
10.4	Regular electronic newsletter		10	5		
10.5	Facility to order publications on-line		10	5		
10.6	Up to date calendar of activities		15	15		
10.7	Guidance for visitors on potential excursions		10	5		
	<b>Maximum Total</b>		<b>80</b>	<b>80</b>	<b>0</b>	
<b>11</b>	<b>What kind of infrastructure is available for activities such as horse riding, canoeing and cycling ? (SELF AWARDED total cannot exceed 100)</b>					
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			
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			
11.8	Such tours include several days all inclusive package with luggage transport provided or actively supported by a member organization		10			
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			
	<b>Maximum Total</b>		<b>100</b>	<b>50</b>	<b>0</b>	
<b>12</b>	<b>How do you communicate the goals of Geotourism, especially with those responsible for tourism.</b>					
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			
12.3	The selection and nomination of official partners/mentors/sponsors		20	10		
	<b>Maximum Total</b>		<b>50</b>	<b>20</b>	<b>0</b>	
<b>13</b>	<b>Do you have the following sustainable (e.g. non car based) trails?</b>					
13.1	Geo-trails		20	20		
13.2	Cultural trails		10	10		
13.3	Forest trails		10	10		
13.4	Other trails		10	10		
13.5	Other out-door activities not mentioned elsewhere.		10	10		
	<b>Maximum Total</b>		<b>60</b>	<b>60</b>	<b>0</b>	
<b>14</b>	<b>Visitor evaluation</b>					
14.1	Do you count visitors?		20			
	By entrance tickets / trail counters			5		
	By field trip participants?			5		
	By estimation?			5		
	By visitor survey?			5		
14.2	Do you evaluate where your visitors come from?		20			
	By booking addresses?			20		
	By market analysis?					
	By university study?					
14.3	Do you use visitor evaluation for your forward planning?		20	20		
14.4	Do you have analysis of the socio-economic profile of your visitors (families, school classes, pension groups, tourist groups, etc)?		10	10		
14.5	Questionnaire on visitors' satisfaction levels?		10	5		
	<b>Maximum Total</b>		<b>80</b>	<b>75</b>	<b>0</b>	
			<b>Total Points Awarded For Section IV: Geotourism</b>	<b>Maximum points</b>	<b>Self Assessment</b>	<b>Evaluators' Estimate</b>
				<b>1000</b>	<b>755</b>	<b>0</b>

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	50	
1.2	Meals from regional and/or ecological production are available in restaurants	30	30	
1.3	The Applicant organizes markets, where mainly regional agricultural products are sold	50	25	
1.4	A label for regional food products or local gastronomy exists	30	15	
1.5	Direct marketing of regional agricultural products is promoted	40	40	
<b>Maximum Total</b>		<b>200</b>	<b>160</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		
2.2	Casts and souvenirs from local production are available	100		
2.3	The organization or its active partners has a retail outlet or outlets where mainly regional products are sold.	50		
<b>Maximum Total</b>		<b>200</b>	<b>0</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	50	
3.2	Local craft products are showcased	100	100	
<b>Maximum Total</b>		<b>150</b>	<b>150</b>	<b>0</b>
<b>4</b>	<b>What efforts are undertaken to promote links between the Applicant and local businesses? (SELF AWARDED total cannot exceed 100)</b>			
4.1	A label for regional services/products has been developed the Applicant or in partnership with others	50	50	
4.2	Direct marketing of regional products is undertaken by your organization	50		
4.3	Tourism offers include tours of collaboration with local businesses	20	15	
<b>Maximum Total</b>		<b>100</b>	<b>65</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	50	
5.3	Other equipment and services to support geotourism and interpretation, e.g. transport, display cabinets etc. (give details)	80	80	
<b>Maximum Total</b>		<b>150</b>	<b>150</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 Applicant.	100	100	
6.2	There is a formal contract between the Applicant and its partners	100		
6.3	There are joint projects, financed, between the Applicant, private businesses and local authorities.	50	50	
<b>Maximum Total</b>		<b>200</b>	<b>150</b>	<b>0</b>

Total Points Awarded For Section V: Sustainable Regional Economy	Maximum points	Self Assessment	Evaluators' Estimate
	<b>1000</b>	<b>675</b>	<b>0</b>

## I. Geology and Landscape

### 1 TERRITORY

#### 1.1 Geosites list

List of "Geosites" located within territory identified for use

GEOSITE n°	GEOSITE NAME
1	MONCODENO ICE CAVE
2	FIUMELATTE
3	PORTA DI PRADA
4	GRIGNETTA PINNACLES
5	SASSO CAVALLO
6	CALCARE DI PERLEDO VARENNA - TYPE SECTION
7	FORMAZIONE DI BELLANO - TYPE SECTION
8	SCUDO DELLA GRIGNA SETTENTRIONALE
9	"NERO DI VARENNA" QUARRIES
10	BELLANO CANYON
11	PONTE DI CHIUSO - ROCCA DI BAIEDO
12	PIONA AND OLGIASCA
13	PIANI RESINELLI MINING MUSEUM PARK
14	BARITE MINES
15	BOCCA DI BIANDINO
16	LIASSIC PALEO RIDGE
17	VAL FRAINA KAME TERRACES
18	ZUCCO DI MAESIMO
19	CONGLOMERATO DI PONTE DELLA FOLLA
20	BINDO LANDSLIDE
21	TROGGIA WATERFALL
22	ABANDONED IRON MINE
23	COSTA DEL PALIO CAVES
24	VALBONA MINE
25	PIZZO VARRONE
26	MINE AND FURNACE
27	VAL BIANDINO PLUTON
28	LACCA DELLA BOBBIA KARST SPRING
29	PIANI DI BOBBIO
30	LAGO DI SASSO MINE
31	CALEOTTO'S MINE
32	CANALE DEL PELOSO MINE
33	FERRERA CAVE
34	LAORCA CAVE
35	BALISIO CANYON
36	RIALBA TOWERS
37	CAINALLO MORAINES AND LACUSTRINE DEPOSITS
38	MUD VULCANOES
39	TARTAVALLE THERMAE
40	PIAN DELLE BETULLE DEEP SEATED GRAVITATIONAL SLOPE DEFORMATION (DSGSD)
41	CASARGO SADDLE
42	PIANI DI ARTAVAGGIO
43	MAGGIO MORAINES
44	CONGLOMERATO DEL PIALERAL
45	MOGAFIENO KARSTIC AREA
46	PRATO DELLA NAVE
47	TRAVERTINO DI NECREBBIO
48	FANS
49	NAVA HANGING VALLEY
50	VALLE DEL GERON LANDSLIDE

## 2 GEODIVERSITY

### 2.1 How many geological periods are represented in your area?

Cambrian  
Ordovician  
Carboniferous  
Permian  
Triassic  
Jurassic  
Cretaceous  
Paleogene  
Neogene  
Quaternary

### 2.2 How many clearly defined rock types are represented in your area?

	LITHOLOGY	NAME OF THE FORMATIONS IN WHICH LITHOLOGIES OCCUR
1	Sandstone	Formazione del Pizzo del Diavolo Servino Carniola di Bovegno Formazione di Bellano Formazione di Wengen Arenaria di Val Sabbia Formazione di Gorno Formazione di San Giovanni Bianco
2	Pelite and siltite	Formazione del Pizzo del Diavolo Servino Carniola di Bovegno Arenaria di Val Sabbia Formazione di Gorno Formazione di San Giovanni Bianco Argillite di Riva di Solto
3	Conglomerate (Permian)	Verrucano Lombardo Formazione del Pizzo del Diavolo
4	Dolomitic marl	Servino
5	Vacuolar dolomite	Carniola di Bovegno Formazione di San Giovanni Bianco
6	Limestone*	Calccare di Angolo Calccare di Prezzo Formazione di Esino Formazione di Wengen Calccare di Perledo-Varenna Calccare Rosso Formazione di Breno Calccare metallifero bergamasco Formazione di Gorno Calccare di Zorzino Calccare di Zu Formazione dell'Albenza Calccare di Moltrasio
7	Marly limestone	Calccare di Angolo Calccare di Zu



8	Marl	Calcare di Prezzo Formazione di Wengen Formazione di Gorno Argillite di Riva di Solto Calcare di Zu
9	Dolomite	Servino Formazione di Esino Formazione di San Giovanni Bianco Dolomia Principale Dolomie zonate Formazione dell'Albenza
10	Dolomitic limestone	Formazione di Esino Formazione dell'Albenza
11	Siliceous limestone	Formazione di Buchenstein Calcare di Sedrina
12	Travertine	Travertino di Necrebbio
13	Conglomerate (Neogene and Quaternary)	Conglomerato del Pialeral Conglomerato di Ponte della Folla Conglomerato di Rialba Conglomerato di Laorca
14	Pleistocenic and Holocenic deposits (glacial, fluvial, slope, lacustrine deposits)	Many stratigraphic and allostratigraphic units
15	Marble	Marmi
16	Amphibolite	Anfiboliti
17	Micasist	Gneiss di Morbegno
18	Pegmatite	Filoni e masse acide
19	Amphibolic paragneiss	Gneiss di Morbegno
20	Phyllade	Gneiss di Morbegno
21	Augen Gneiss and rodding Gneiss	Gneiss chiari del Corno Stella
22	Diorite, quartzdiorite	Quarzodiorite di Val Biandino
23	Granodiorite with aplite dick	Quarzodiorite di Val Biandino
24	Granite	Granito della Valle San Biagio
25	Volcanic rocks (tuff, ignimbrite, breccie volcanic breccia, volcanoclastic rocks)	Vulcanite del Monte Cabianca Formazione del Pizzo del Diavolo Formazione di Buchenstein Formazione di Wengen Calcare di Perledo-Varenna

\*these rocks occur in very different facies in the mentioned formations (e.g. carbonate platform massive limestone in Formazione di Esino and dark, well layered limestone in Calcare di Perledo Varenna etc).

## 2.3 How many distinct geological or geomorphological features are present within your area?

- 1: Thrust sheet and klippe
- 2: Regional faults and thrusts
- 3: Relationship between structure and morphology
- 4: Epikarst geomorphology
- 5: Endokarst geomorphology
- 6: Karst hydrogeology
- 7: Ice caves and paleoenvironmental reconstruction
- 8: Glaciolacustrine deposits
- 9: Glacial morphologies (moraines, kame terraces)
- 10: Slope stability, lateral spread, landslides
- 11: Paleogeography
- 12: Invertebrate paleontology
- 13: Vertebrate paleontology
- 14: Iron, sulphides and baritine mining
- 15: Intrusion with metamorphic contact areola
- 16: Applied geology
- 17: Thermalism
- 18: Triassic carbonatic platform and surrounding basins environment
- 19: Messinian salinity crisis induced morphology
- 20: Fan morphology
- 21: Fluvial features
- 22: Mineralogy
- 23: Civil defence
- 24: Medical geology
- 25: Quaternary geology
- 26: Science history

## 3 Public Interpretation of the Geopark's sites of interest

### 3.1 List of Geosites with public interpretation (trails, interpretation panel, leaflet)

GEOSITE n°	GEOSITE NAME	Trail	Interpretation panel	Leaflet	Geo guide book
1	MONCODENO ICE CAVE	X	X	X	X
2	FIUMELATTE	X		X	X
3	PORTA DI PRADA	X			X
4	GRIGNETTA PINNACLES	X			X
8	SCUDO DELLA GRIGNA SETTENTRIONALE	X	X	X	X
10	BELLANO CANYON	X	X	X	
11	PONTE DI CHIUSO - ROCCA DI BAIEDO	X			X
13	PIANI RESINELLI MINING MUSEUM PARK	X	X	X	X
19	CONGLOMERATO DI PONTE DELLA FOLLA	X			X
20	BINDO LANDSLIDE	X			
21	TROGGIA WATERFALL	X			X
26	MINE AND FURNACE	X	X	X	X
29	PIANI DI BOBBIO	X			X

30	LAGO DI SASSO MINE	X	X	X	X
31	CALEOTTO'S MINE	X	X	X	X
35	BALISIO CANYON	X			X
37	CAINALLO MORaine AND LACUSTRINE DEPOSITS	X	X		X
38	MUD VULCANOES	X			
39	TARTAVALLE THERMAE	X			
42	PIANI DI ARTAVAGGIO	X			X
44	CONGLOMERATO DEL PIALERAL	X	X	X	X
45	MOGAFIENO KARSTIC AREA	X	X	X	X

### 3.2 List of Geosites of scientific importance

GEOSITE n°	GEOSITE NAME
1	MONCODENO ICE CAVE
2	FIUMELATTE
3	PORTA DI PRADA
4	GRIGNETTA PINNACLES
5	SASSO CAVALLO
6	CALCARE DI PERLEDO VARENNA - TYPE SECTION
7	FORMAZIONE DI BELLANO - TYPE SECTION
8	SCUDO DELLA GRIGNA SETTENTRIONALE
9	"NERO DI VARENNA" QUARRIES
10	BELLANO CANYON
11	PONTE DI CHIUSO - ROCCA DI BAIEDO
12	PIONA AND OLGIASCA
14	BARITE MINES
15	BOCCA DI BIANDINO
16	LIASSIC PALEO RIDGE
17	VAL FRAINA KAME TERRACES
18	ZUCCO DI MAESIMO
19	CONGLOMERATO DI PONTE DELLA FOLLA
20	BINDO LANDSLIDE
23	COSTA DEL PALIO CAVES
27	VAL BIANDINO PLUTON
28	LACCA DELLA BOBBIA KARST SPRING
29	PIANI DI BOBBIO
33	FERRERA CAVE
34	LAORCA CAVE
35	BALISIO CANYON
36	RIALBA TOWERS
37	CAINALLO MORaine AND LACUSTRINE DEPOSITS
38	MUD VULCANOES
39	TARTAVALLE THERMAE
40	PIAN DELLE BETULLE DEEP SEATED GRAVITATIONAL SLOPE DEFORMATION (DSGSD)
41	CASARGO SADDLE
42	PIANI DI ARTAVAGGIO
43	MAGGIO MORaine
44	CONGLOMERATO DEL PIALERAL
45	MOGAFIENO KARSTIC AREA
46	PRATO DELLA NAVE
47	TRAVERTINO DI NECREBBIO
48	FANS
49	NAVA HANGING VALLEY
50	VALLE DEL GERON LANDSLIDE

### 3.3 List of Geosites used for Education

GEOSITE n°	GEOSITE NAME
1	MONCODENO ICE CAVE
2	FIUMELATTE
3	PORTA DI PRADA
6	CALCARE DI PERLEDO VARENNA - TYPE SECTION
8	SCUDO DELLA GRIGNA SETTENTRIONALE
10	BELLANO CANYON
11	PONTE DI CHIUSO - ROCCA DI BAIEDO
12	PIONA AND OLGIASCA
13	PIANI RESINELLI MINING MUSEUM PARK
20	BINDO LANDSLIDE
21	TROGGIA WATERFALL
33	FERRERA CAVE
35	BALISIO CANYON
37	CAINALLO MORaine AND LACUSTRINE DEPOSITS
40	PIAN DELLE BETULLE DEEP SEATED GRAVITATIONAL SLOPE DEFORMATION (DSGSD)
41	CASARGO SADDLE
44	CONGLOMERATO DEL PIALERAL
48	FANS

### 3.4 List of Geosites used for geotourism

GEOSITE n°	GEOSITE NAME
1	MONCODENO ICE CAVE
2	FIUMELATTE
3	PORTA DI PRADA
4	GRIGNETTA PINNACLES
6	CALCARE DI PERLEDO VARENNA - TYPE SECTION
7	FORMAZIONE DI BELLANO - TYPE SECTION
8	SCUDO DELLA GRIGNA SETTENTRIONALE
9	"NERO DI VARENNA" QUARRIES
10	BELLANO CANYON
11	PONTE DI CHIUSO - ROCCA DI BAIEDO
12	PIONA AND OLGIASCA
13	PIANI RESINELLI MINING MUSEUM PARK
14	BARITE MINES (in project)
15	BOCCA DI BIANDINO
19	CONGLOMERATO DI PONTE DELLA FOLLA
20	BINDO LANDSLIDE
21	TROGGIA WATERFALL
25	PIZZO VARRONE
26	MINE AND FURNACE
27	VAL BIANDINO PLUTON
29	PIANI DI BOBBIO
30	LAGO DI SASSO MINE
31	CALEOTTO'S MINE
33	FERRERA CAVE
34	LAORCA CAVE
35	BALISIO CANYON
37	CAINALLO MORaine AND LACUSTRINE DEPOSITS
39	TARTAVALLE THERMAE
40	PIAN DELLE BETULLE DEEP SEATED GRAVITATIONAL SLOPE DEFORMATION (DSGSD)
41	CASARGO SADDLE

42	PIANI DI ARTAVAGGIO
44	CONGLOMERATO DEL PIALERAL
45	MOGAFIENO KARSTIC AREA

### 3.5 List of Non-Geological Sites used by the Geopark

- Rocca di Baiedo archaeological site
- Vezio Castle
- Forte di Fuentes
- Cadorna Line
- Montecchio Nord
- Piona Abbey
- Lecco Cathedral
- Villa Monastero
- Villa Cipressi
- Civici Musei di Lecco
- Museum of Ornithology and Natural Sciences L. Scanagatta (Varenna)
- Caves used for cheese aging
- Climbing routes
- Bronze age cemetery in Prato della Chiesa (Ballabio)
- Archaeological collection in the Grigne Museum

## II. Geology and Landscape

### 1.2 GEOLOGICAL CONSERVATION

#### 1 INVENTORY AND SIGNIFICANCE OF GEOSITES CAN BE FOUND IN YOUR AREA

##### 1.1 List of Geosites of international significance geology and geomorphology

#### 1 MONCODENO ICE CAVE

The Moncodeno ice cave is the most famous cave with glacial deposits in the Lombardia (visited and described by Nicolas Steno, and probably also described by Leonardo da Vinci). It is the symbol of the whole plateau of Moncodeno. This has a high density of karst on the surface and subsurface, that have developed in many phases starting from the emergence of the Carbonatic platform that is known as Formazione di Esino. The Mocondeno area was a two days field excursion destination of IWIC-V (International Workshop on Ice Cave) in 2012.

#### 2 FIUMELATTE

The Fiumelatte cave is also an important karstic spring that is productive between the end of March and November. During this period, a big flow of water comes out of the cave and flows into Como Lake following a steep slope and is usually covered with foam.

Most of the water comes from Moncodeno. The cave is over 750m long and it is situated along faults and/or fracture zones, where the morphology is dominated by structural aspects. Fiumelatte was described also by Leonardo da Vinci.

#### 8 SCUDO DELLA GRIGNA SETTENTRIONALE

It is the best site where the basal succession of Grigna could be observed together with the lithology and morphology. The paleontological material is also very interesting with a stratum rich in Brachiopods "Banco a Brachiopodi" and a site where new species of fishes were identified. There were Saurichtys and there are analogies to the fauna of Monte S.Giorgio (world heritage of UNESCO) and Southern China. More, this is the second site in the Alps in which a Triassic starfish has been discovered.

The international interest of these three sites is certified also by their introduction to represent the Geopark area in an international network realised by INTERREG program III A Italy-Swiss "A 350 million years long journey, the Geosites of Insubria; new opportunity for tourism". The choice of these sites was performed by an international commission of geoscientist involved in the scientific committee of a UNESCO world heritage site.

## **1.2 List of Geosites of national significance**

### **6 CALCARE DI PERLEDO VARENNA - TYPE SECTION**

### **7 FORMAZIONE DI BELLANO - TYPE SECTION**

The sites 6 and 7 are the type sections of these formations and they are indicated as national level by the inventory of Geosites of Lombardia Region because they are type sections of the national geological map of Italy

### **3 PORTA DI PRADA**

A prominent natural arch in Formazione di Esino uniquely opened on a hill side. It is a relict of a previous large karst systems in the area. The panoramic view increases the attractive value, and this makes it unique as compared to other natural arches present in the Grigna.

It represents many natural arches in Moncodeno area and it is an integral part of Moncodeno karstic system that has international interest.

### **4 GRIGNETTA PINNACLES**

Pinnacles and gullies are imposed on the Dolomia Principale, the characteristic morphology is caused by gravity action and large portion of mountain flanks. Some of them are famous due to known climbing routes.

Number, density and size of the Grignetta pinnacles make this area a unique example of this kind of morphologies in Italy.

### **5 SASSO CAVALLO**

It is a prominent evidence of over thrusting front of the slice of the Northern Grigna that has formed very high walls of Formazione di Esino. The clinostratification of carbonate platform is also very clear and interesting at national level.

### **27 VAL BIANDINO PLUTON**

It is an intrusive body of Permian age, composed of mainly diorite and granodiorite, subdivided in many blocks. The aureole contact, partly highly developed, is the most interesting aspect. Textural variations of the host rock are clearly visible and presence of xenoliths makes it more attractive.

This formation has a national level because it is a formation (Quarzodiorite della Val Biandino) included in the national geological map of Italy.

### **37 CAINALLO MORAINES AND LACUSTRINE DEPOSITS**

An excellent glaciolacustrine deposit of over 40 m thick, containing dropstones and laminations. The lake was formed during the last glaciation occupying the space between the mountain side and the end moraine of the glacial tongue that stopped after penetrating the valley. The glacial deposit is still visible where the shelter of Cainallo has been constructed.

This is a very good example of ice-marginal lacustrine deposits and related morphology that testifies a common environment around pre-alpine lakes during glaciations.

### 1.3 List of sites of educational interest and used by school and university

GEOSITE n°	GEOSITE NAME	School	University
1	MONCODENO ICE CAVE	all grades	X
2	FIUMELATTE	all grades	
3	PORTA DI PRADA	all grades	
6	CALCARE DI PERLEDO VARENNA - TYPE SECTION	all grades	
8	SCUDO DELLA GRIGNA SETTENTRIONALE	all grades	X
10	BELLANO CANYON	all grades	
11	PONTE DI CHIUSO - ROCCA DI BAIEDO	all grades	
12	PIONA AND OLGIASCA	all grades	X
13	PIANI RESINELLI MINING MUSEUM PARK	all grades	X
20	BINDO LANDSLIDE	all grades	X
21	TROGGIA WATERFALL	all grades	
26	MINE AND FURNACE	all grades	
30	LAGO DI SASSO MINE	all grades	
31	CALEOTTO'S MINE	all grades	
32	CANALE DEL PELOSO MINE	all grades	
33	FERRERA CAVE	all grades	
35	BALISIO CANYON	all grades	
36	RIALBA TOWERS		X
37	CAINALLO MORAINES AND LACUSTRINE DEPOSITS	all grades	X
40	PIAN DELLE BETULLE DEEP SEATED GRAVITATIONAL SLOPE DEFORMATION (DSGSD)	all grades	
44	CONGLOMERATO DEL PIALERAL	all grades	X
45	MOGAFIENO KARSTIC AREA	all grades	X

### 1.4 Do you have a Geosites database for the Geopark?

The Lombardia Region provides the area with a Geosites database in the regional law D.G.R. IX-2616 November 30 2011, annex 14.

### 1.5 Do you have a Geosites map for the Geopark?

The Comunità Montana Valsassina Valvarrone Val d'Esino e Riviera has a Geosites map included in the Application Dossier.

## 2 STRATEGY AND LEGISLATION TO PROTECT AGAINST DAMAGE OF GEOLOGICAL SITES AND FEATURES

### 2.2 Part of the area is protected by law for its geological interest.

All the laws regarding the protection of the area are illustrated in the paragraph C2 of the dossier. The area comprised in the Grigna Settentrionale Regional Park has a specific law (Regional Law n°16 July 16 2007 - foundation of the "Grigna Settentrionale Regional Park"); more in all the national territory the fossil collection is forbidden.

## 4 WHAT MEASURES ARE CARRIED OUT TO PROTECT GEOSITES AND INFRASTRUCTURE AGAINST DAMAGE AND NATURAL DEGRADATION?

### 4.1 Regular maintenance and cleaning.

The Comunità Montana Valsassina Valvarrone Val d'Esino e Riviera, the Grigna Settentrionale Regional Park, the Italian Alpine Club (CAI), each municipality and voluntary associations provide the regular maintenance and cleaning of the paths and infrastructures.

#### 4.2 Conservation measures

Many regional and national laws (as specified in cap. C2) regard the conservation of the geological heritage. More specific plans at different institutional levels have norms related to conservation (see chapter C3). These are listed below:

Territory Management Plan of each Municipality;  
 Coordination Territorial Plan of Grigna Settentrionale Regional Park;  
 Nature 2000 Network sites (SCIs and SPAs) management plan implemented by Province of Lecco and Comunità Montana Valsassina, Valvarrone Val d'Esino e Riviera;  
 Socio-Economic Development Plan of Comunità Montana Valsassina, Valvarrone Val d'Esino e Riviera;  
 Forest Management Plan of Comunità Montana Valsassina, Valvarrone Val d'Esino e Riviera  
 Provincial Coordination Territorial Plan of Province of Lecco Territorial Plan of Regione Lombardia.

#### 4.3 Details of Protective measures

The access of some karstic springs (e.g. Fiumelatte Geosite n° 2) is regulated by a gate in order to preserve the cavity and the possibly water resource.

## III. Geology and Landscape

### 1.3 Natural and Cultural Heritage

#### 1 NATURAL RANK

##### 1.2 Other International Designation in part of the Geopark territory

In the Geopark area, five protected areas by the Nature 2000 Network are present (Habitats Directive 92/43/CEE May 21 1992 and Birds Directive 2009/147/CE (ex 79/409/CEE)): three of them are totally included in the Geopark territory and two of them are partially included.

Type of the protected area	Name of the protected area	Code	Relationship with the Geopark
SCI	Grigna Settentrionale	IT2030001	Totally included
SCI	Grigna Meridionale	IT2030002	Totally included
SPA	Grigne	IT2030601	Totally included
SPA	Monte Resegone	IT2060301	Partially included
SPA	Costa del Palio	IT2060302	Partially included

##### 1.4 Regional designation in part of the Geopark territory

In the Geopark area there are three Regional parks

Regional Park	Parco della Grigna Settentrionale	-	Totally included
Regional Park	Parco dell'Adda Nord	-	Partially included
Natural Park	Parco naturale dell'Adda Nord	-	Partially included

##### 1.5 Local designation in part of the Geopark territory

In the Geopark area there is one local park, the Parco del Valentino.



## **2 CULTURAL RANK**

### **2.3 National designation in part of the Geopark territory**

In the Geopark area two "National Monuments" are present:

- " Cappuccini Monastery (Convento dei Cappuccini) of Lecco (Royal Decree 1354, February 29 1940)
- "Villa del Caleotto" (or Villa Manzoni) of Lecco (Royal Decree 1354, February 29 1940)

### **2.4 Regional designation in part of the Geopark territory**

Many sites are included in the inventory of Sirbec (Regional Informatic System of Cultural Heritage)

- SS. Nazaro and Celso Church (Bellano)
- Piona Abbey (Colico)
- S. Tommaso Beckett Church (Dervio)
- Villa Cipressi (Varenna)
- Villa Monastero (Varenna)
- Casa Bigoni Manzoni (Lecco)
- Torre Viscontea (Lecco)
- Villa Fiocchi (Lecco)
- Villa Gomes (Lecco)
- Villa Locatelli (Lecco)
- Villa Manzoni (Lecco)

## **3 PROMOTION AND MAINTENANCE OF NATURAL AND CULTURAL HERITAGE**

### **3.1 Interpretation**

Interpretation is performed by several "touristic and geological panels", plaques on historical buildings and monuments and many touristic guide book. More, the touristic guides involved in cultural heritage in the Geopark territory have to take a qualifying examination. This examination is requested by the Province of Lecco.

### **3.2 Education programmes**

Many educational programmes are provided by different organizations. In example, the "Itinerario manzoniano", the guided visits to Cadorna Line and world wars fortresses; more some eco-museums provided specific educational programmes.

### **3.3 Communication**

Communication regarding natural and cultural heritage is made not only by the several guide-books about this territory but also by website of the public and private administration. For example the site [www.valsassinacultura.it](http://www.valsassinacultura.it) shows all the aspects of this territory (geology, environment, archaeology, history, literature, and so on). The institutional web site of the Province of Lecco has a section regarding cultural heritage and cultural events. Many museums and organizations have a dedicated website section.

### **3.4 Promotion of the links between Geological Heritage sites and the existing Natural and cultural sites within the Geopark**

Different excursions underline this theme of the territory; for example the trips to Forte di Fuentes and Montecchi fortresses that are located here due to geologic characteristics of the territory, or the guided visits in several churches in which "Nero di Varenna" elements are links to the "Nero di Varenna cave" history.

## II. Management Structure

### 1 HOW IS THE APPLICANTS MANAGEMENT STRUCTURE ORGANISED?

#### 1.1 Does the Geopark has a clear and well defined boundary?

See dossier paragraph B1 and figure 2

#### 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?

The Geopark has the same management structure of the Comunità Montana Valsassina Valvarrone Val d'Esino e Riviera and of the Grigna Settentrionale Regional Park (see cap. A3).

#### 1.3 Is the Geopark staff employed directly or indirectly by Geopark partners?

Partially: the administrative staff is directly employed by Comunità Montana Valsassina Valvarrone Val d'Esino e Riviera; on the contrary the scientific committee is external.

#### 1.4 An independently administered budget

The budget is illustrated in chapter D of the application dossier.

### 2 DOES A MANAGEMENT OR MASTER PLAN EXIST?

#### 2.1 Management or Master Plan exists

There are management plans at different institutional level as illustrated in paragraph C3 of the application dossier.

Territory management master plan (Municipality level)

Coordination Territorial Plan (Grigna Settentrionale Regional Park level)

Nature 2000 Network sites (SCIs and SPAs) management plan (Comunità Montana Valsassina Valvarrone Val d'Esino e Riviera and Province of Lecco level)

Social-Economic Plan (Comunità Montana Valsassina Valvarrone Val d'Esino e Riviera level)

Forest management plan (Comunità Montana Valsassina Valvarrone Val d'Esino e Riviera level)

Provincial Coordination Territory Plan (Province of Lecco level)

Regional Landscape Plan (Lombardia Region level)

### 4 DOES YOUR APPLICATION HAVE A MARKETING STRATEGY

The marketing strategy is illustrated in chapters D4, D5, and D6 of the application dossier.

## III. Information and Environmental Education

### 2.2 Do you operate at least one formal education programme

The Grigna Settentrionale Regional Park offers several didactic programs regarding geology, biology and rural activities. More, small ponds have been created to ensure a reproduction habitat for amphibians and local fluvial crayfish; they have also facilities for didactic excursions.

### 2.3 Do you contribute towards at least one formal education programme developed by other organisations

Since 2006 Lombardia Region have organised the "Di parco in parco" event that is a "collection" of different educational activities in the park of Lombardia Region. The Grigna Settentrionale Regional Park takes up this initiative.

## **5 GEOLOGY PROVISION FOR SCHOOL GROUPS. FOR EXAMPLE, ORGANIZED VISITS ETC.**

### **5.1 Guided tours by Applicant's staff**

Many guided tours are provided directly by the applicant's staff, as "Geobus della Valsassina", Geological itineraries at Moncodeno (Itinerari geologici in Moncodeno), Pialeral geological path (Sentiero geologico del Pialeral) and excursions at Fiumelatte cave.

### **5.2 Guided tours through a member organisation**

Several excursions are provided, for example: excursions to "Orrido di Bellano" - Varenna and Fiumelatte; Military fortress of Colico; excursion to Piani Resinelli Mining Museum Park and the geology of Grignetta; a bike geotour; excursion in the Parco del Valentino and an excursion along the geological itinerary of the Scudo della Grigna Settentrionale.

### **5.3 Standard programs, regularly offered for all park visitors**

Every summer many excursions are scheduled in the Geopark territory, regarding geological and non geological themes. Excursions have different level of difficulty. Every year, some of these are repeated (e.g. excursion to Moncondeno Ice Cave) while other changes.

### **5.4 Limited group size (max. 30 persons per guide)**

Some excursions has a limited group size. For example the Fiumelatte cave visit is 15 persons limited, the Moncondeno Ice Cave visit is 20 persons limited.

### **5.5 Are alternatives available if tour impossible due to bad weather conditions?**

In case of bad weather different programs are available. The excursion in Moncondeno is relocated to the visit of Museum of Grigne of Esino Lario. The excursions at the Geosites in the bottom of the valley are not strictly dependent by the weather conditions, because many sites are visitable also with bad conditions. The excursion can be partially relocated to the permanent exhibition at Comunità Montana Valsassina, Valvarone, Val d'Esino e Riviera centre.

### **5.6 Do programs exist for different ages?**

Yes, they are illustrated in the institutional site of the Grigna Settentrionale Regional Park.

### **5.7 Do special, scientific programs exist?**

There is an annual scientific program (weeks of naturalistic field excursions) at "Scudo della Grigna Settentrionale" for students of Università degli Studi di Milano, named "Settimane naturalistiche al Pialeral".

Every year a speleological exploration expedition is performed by international workgroup. An important paleontological site is constantly studied by the Università degli Studi di Milano.

## **6 EDUCATION – GUIDES**

### **6.2 Do you have at least one qualified expert in partner organization providing guided visit that your organization has a role in developing?**

The Association "Casa delle Guide" that is partner of Comunità Montana provide alpine guides for the excursions; they are regularly supported by geologists, agronomists and biologists. More the Piani Resinelli Mining Museum Park provides qualified expert in mining themes.

### **6.3 Personal guides in Geopark permanent staff**

The Voluntary Ecological Guards can accompany single persons.

### **6.4 Personal guides by partner organisation**

It is possible to book a personal guide by partner organisation (Casa delle Guide).

### **6.5 Freelance guides whose training and / or program is supported by your organization**

There are many associations involved in it, both for geologic-naturalistic and for historical and cultural heritage.

### **6.6 Training courses for guides**

Specific training courses are provided by Grigna Settentrionale Regional Park, both to GEV (Voluntary Ecological Guards) and to persons want to be a park guide.

## **IV. Geotourism**

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

### **2.7 Other language**

German.

## **V. Sustainable Regional Economy**

**5 WHAT KIND OF CONTRACTS ARE REGULARLY OFFERED TO BUSINESSES IN YOUR AREA?**

### **5.3 Other equipment and services to support geotourism and interpretation, e.g. transport, display cabinets etc.**

Many kinds of contracts are offered. They regards services to persons (transports, restoration during specific events), structures (e.g. showcases) and digital services (e.g. web masters).