



01.- CURRICULUM

GUIDE- INTERPRETER OF GEOTURISM

COORDINATOR



PARTNERS



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GEOTUR: VALIDATION AND RECOGNITION OF TWO COMPETENCE UNITS IN GEOLOGICAL TOURISM



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CURRICULUM “GUIDE-INTERPRETER OF GEOTURISM”

PROFESSIONAL QUALIFICATIONS

1. Guide of itineraries of low and medium mountain.
2. Speleology guide.
3. Guide for tourists and visitors.
4. Interpretation and environmental education

COMPETENCE UNITS

1. Interpret the geological heritage and its values to geotourists and visitors of European Geoparks.
2. Provide accompaniment and assistance services to geotourists and visitors and design geotouristic itineraries through places of geological interest.

OBJECTIVE

Inform and interpret the geological heritage, the geological and natural interest assets and other touristic resources of the specific area of the Geoparks and places of geological interest to tourists and visitors, in an attractive way, interacting with them and awakening their interest, as well as providing services of accompaniment and assistance, so that they feel cared for at all times, their expectations of information and playful enjoyment are satisfied and the objectives of the entity organizing the service are met.

PROFESSIONAL ENVIRONMENT

Professional field

The guide-interpreter of geotourism, basically, as an independent professional, although he can also participate in touristic services companies as a partner or salaried employee. This professional provides services to tourism companies of nature, ecotourism and active tourism, travel agencies, local promotion agencies or service companies in general, although it can also be hired directly by the people or groups to which he/she reports, interprets, attend and accompany. He/she scope of action, due to the intrinsic nature of the activity, is limited by a territorial area of an autonomous, provincial or local level, for which each professional has a certain accreditation.

Productive sectors

These transversal competences are located in the tourism sector, especially in the subsector of information services, accompaniment and assistance to touristic users in the natural environment.

Occupations and relevant jobs

- Geotourism guide.
- Guide interpreter of the geological heritage.

ASSOCIATED TRAINING

Training modules

- I. Introduction to geology.
- II. European geological heritage.
- III. Underground heritage and European tourist caves.
- IV. Geoparks and European Geosites.
- V. Entrepreneurship in European geotourism.



1.- COMPETITION UNIT 1

Interpret the geological heritage and its values to tourists and visitors of European Geoparks.

Professional realizations and performance criteria.

1. Search and select touristic information about geological heritage and its values, interpreting and processing it, with the aim of adapting it to the different types of receptors and contexts within the European Geoparks.

- ♣ CR1.1 The primary and secondary sources of information are identified, discriminated, contrasted and selected for use in obtaining current, accurate and truthful information.
- ♣ CR1.2 The media and the different types of access to information, including the information existing in the equipment for public use, such as visitor centers or thematic museums, are used efficiently in order to determine the available options.
- ♣ CR1.3 The information of interest about the scope of action or itinerary is selected and contrasted, especially about those related to geology, physical geography, legislation and figures of environmental protection, management of protected areas.
- ♣ CR1.4 The information identified and interpreted is object to synthesis and preliminary verification, updating it and adapting it to the types of groups or visitors, the natural spaces visited and the routes pre-established by the policy of environmental preservation of the managing body, in case of being protected areas.

2. Integrate information on places of geological interest, so that it can be adapted and transferred, later in an attractive way to geotourists and visitors, satisfying their requirements and expectations.

- ♣ CR2.1 Information about Geoparks and other resources of the geological heritage, corresponding to the itinerary or visit that is going to be carried out and that has been object to selection and contrast, is analyzed in depth and interpreted objectively.
- ♣ CR2.2 The geological itinerary and activities to be carried out are communicated to the environmental manager and it is verified that the corresponding authorization has been received.
- ♣ CR2.3 The data and essential aspects, corresponding to the information with has been analyzed and interpreted previously, are memorized and interrelated.

3. Interpret the geological heritage in the European Geoparks, by satisfying the requirements and expectations of tourists and visitors.

- ♣ CR3.1 The information is provided in a clear, sequenced, entertaining, contextualized and rigorous manner, avoiding overwhelms, selecting the both language and average level of understanding of the participants and stimulating interaction, curiosity and interest.
- ♣ CR3.2 The communication techniques and group dynamics are applied to stimulate in the visitors their curiosity, interest and participation, fostering the respect and valuation of the geological heritage and the environment they travel.
- ♣ CR3.3 The voice as a tool to transmit information is adapted to the specific site where it is located.
- ♣ CR3.4 Body language as a complementary tool for the voice is mastered and used to reinforce verbal information and motivate geotourists and visitors.
- ♣ CR3.5 The information is transmitted by adapting it to the demands of the group, tourist or visitor, their diversity or cultural identity, their foreseeable life experiences and geographical origins and the cognitive resources of their age and formation.
- ♣ CR3.6 The questions asked are answered with clarity and correction, by expanding the information when required.
- ♣ CR3.7 The places of geological interest and geosites in which the information is interpreted are exhaustively known, so that there is a full capacity for improvisation and reaction to any circumstance.
- ♣ CR3.8 The times used to transmit the information are adapted to the program, to the temporary limitation planned for the established route, to the characteristics of the visitors, to their availability of time and, where appropriate, to the need to combine times of explanation and leisure times to guarantee that the geotourist is in optimal conditions to receive, assimilate and enjoy the information.

Professional context

Produccion resources

- Office equipment.
- Office supplies.
- Transport.
- Natural spaces and their facilities.

- Equipment for public use.
- Sound and audiovisual equipment.
- Interpretive materials.

Products and results

- Information corresponding to the scope of action, selected, processed, interpreted, integrated and provided on Geoparks and their geological resources.

Information used or generated

- All types of information and printed documentation, magnetic media, etc.
- General and specific bibliography.
- Plans and maps.
- Touristic legislation.
- Legislation about spaces and natural resources.

2.- COMPETITION UNIT 2

Provide accompaniment and assistance services to tourists and visitors and design geotouristic itineraries throughout places of geological interest.

Professional realizations and performance criteria.

1. Analyze the service of guidance, support and assistance to geotourists that will be the object of benefit, suggesting, when applicable the appropriate changes and managing the necessary means for its realization, so as to ensure compliance with the objectives of the organizing entity and the expectations of the participants are met.

- ♣ CR1.1 The information about the profile of the group or tourist, georoute or geological itinerary, transportation, accommodations, visits, activities and expected providers, as well as travel documentation, is interpreted.

♣ CR1.2 The information that must be supplied to the group or to the tourist in particular is adapted according to their peculiarities.

♣ CR1.3 The degree of adaptation of the services provided to the requirements of the participants and the cultural characteristics of the environment, is evaluated and if necessary, proposed alternatives that can improve the geo-itinerary or georoute designed by the organizing entity.

♣ CR1.4 The means necessary to provide the service are determined taking into account the economic conditions established, relating to:

- o Information on the characteristics of the group or tourist.

- o Information about the visits.

- o Information that is expected to be used during the trip.

- o Predicted means of dissemination.

- o Means of transport and other service providers, such as restaurants, museums and others.

- o Others

♣ CR1.5 The service providers are contacted, making sure that the conditions, prices and expected terms are met, checking their suitability and relevance according to the determined route, foreseeing the necessary substitutions and collecting information about the contact and reception persons of the group in destination.

♣ CR1.6 The possible conflicting situations are foreseen, by establishing in common agreement with the organizing entity the necessary mechanisms for their solution, so that solid alternatives are assured for each one of the programmed activities and services.

2. Accompany and assist the geotourist or group, ensuring that at all times they feel conveniently attended and entertained when necessary.

♣ CR2.1 The information and documentation provided to the participant describe:

- o Program of the route.

- o Place and time of meeting.

- o Means of identification, both of the tourist or group of tourists and of the companion.

- o Information of general interest.

- o Tickets and bonuses for excursions, visits, shows and other scheduled events.
 - o Documents that must be available.
 - o Means to spread complaints about the organization of the trip or visit.
- ♣ CR2.2 Its presence in the right places and times is ensured by solving the contingencies promptly and effectively.
 - ♣ CR2.3 The presence of the participants is checked by reviewing and updating the list provided by the organizing entity, emphasizing the importance of punctuality and compliance with schedules.
 - ♣ CR2.4 The allocation of seats, where appropriate, to the participants is established or coordinated, by trying to avoid the separation of people traveling together and ensuring fair distribution.
 - ♣ CR2.5 The arrival and departure procedures are coordinated by checking that the offered services are in accordance with the agreement it trip organizer and by trying to satisfy, as far as possible, the demands of the participants.
 - ♣ CR2.6 The bonds and other documents are handled and filled out exactly, by ensuring that they are if it to the contracted services for a later billing by the organizing entity.
 - ♣ CR2.7 Assistance is provided to the individual tourist or group by trying to feel them accompanied, safe and conveniently cared by responding to all types of unforeseen events.
 - ♣ CR2.8 The animation activities that are appropriate are proposed, energized and conducted by taking into account the profile of the participants, the place and time of the day.
 - ♣ CR2.9 The communication with the participants is fluid by using the most effective means to get a good interaction and understanding in the communication.
 - ♣ CR2.10 The basic rules of protocol, customer service and coexistence are applied to maintain an adequate level of behavior in the development of the activity.
3. *Provide the geotourist or group in route general information of interest about the geodestination or immediate environment, so that their requirements and expectations are met.*
- ♣ CR3.1 The information of general interest is provided in a sequenced, serene manner by selecting the language and average level of understanding of the participants.
 - ♣ CR3.2 The information of general interest is provided by adapting to the individual and, where appropriate, collective requirements, to give a global and synthetic view of the resource object of the visit, trying to establish the suitable framework for the other information services in destination that the participants will receive.

- ♣ CR3.3 The questions asked by the geotourists are intended to respond with clarity and correctness by solving their doubts and expanding the general information when required.
- ♣ CR3.4 The communication with the participants is fluid by using the most effective means to achieve a good interaction and understanding in the communication.

4. Supervise and direct the development of the geological itinerary, georoute, visit or service in which he/she acts as a guide, companion or assistant to ensure compliance with the program or the management guidelines of the Geoparks and other natural areas of geological interest by solving incidents and avoiding difficulties.

- ♣ CR4.1 They are subject to constant verification by verifying that they fit the intended program:

- o The geological or georoute itinerary that is being carried out.
- o Transportation services, geotourism guide and other contracted services.
- o Visits and other scheduled activities.
- o The schedules that affect the opening / closing of the centers of geotourism interest.

- ♣ CR4.2 The contracted programming is fulfilled, by adopting with flexibility, in case of unforeseen situations, the opportune measures that seek the satisfaction of the participants, and informing as soon as possible the person in charge of the organizing entity.

- ♣ CR4.3 Decisions and solutions adopted by the organizing entity or the entity managing of the protected space, in the event that unforeseen events arise or significant deviations occur with respect to what is scheduled or expected by the visitors, are put into practice in a effective way as soon as possible, minimizing their effect on their expectations.

- ♣ CR4.4 The behavior patterns in Geoparks and protected natural spaces and the reasons for their preservation are explained clearly and simply by seeking the involvement of visitors and raising awareness about their fragility.

- ♣ CR4.5 The geotourism guide, during the tour of Geoparks and protected natural spaces, behaves in such a way that her/him attitude reinforces the transmission of respect for the geological heritage.

- ♣ CR4.6 Punctuality, the use of available time, compliance with established rules and adaptability to unforeseen circumstances are controlled at all times, in order to achieve the established objectives.

- ♣ CR4.7 The georoute or geological itinerary through which the visitors are conducted is followed in order to minimize the impact on the natural environment and ensure its preservation and sustainability, including geodiversity.

- ♣ CR4.8 The group security is tried to be maintained at all times when necessary.
- ♣ CR4.9 The interpersonal incidents that may arise along the route, itinerary or visit are solved efficiently and professionally by adopting a mediating and conciliatory attitude between the parties, where appropriate
- ♣ CR4.10 The communication with the participants is fluid by using the most effective means to achieve a good interaction and understanding in the communication.

5. *Design geological and geological itineraries, visits or tourist products of geological interest, for companies, agencies or other operators or their own clients, so that they are attractive and susceptible to commercialization.*

- ♣ CR5.1 The design of geological itineraries is done through:
 - o The concretion of the territorial and temporal scope of the itinerary.
 - o Identification and consultation of touristic information sources.
 - o The synthesis and organization of the collected information.
 - o The programming of services and activities.
 - o The justification of the viability of the itinerary.
- ♣ CR5.2 The components of the geotourist offer and the framework for action are identified and considered, especially as regards:
 - o The geological, natural, cultural, historical resources and tourist resources in general.
 - o The geological and natural resources, their characteristics, the environmental policy of the Geoparks and the natural spaces of geological interest and their environment and the fragility of the environment.
 - o The potential impacts of visitors on the environment and the capacity for ecological and psychosocial reception.
 - o The new demands of the geotourists.
 - o The basic infrastructure, such as accesses, supplies, transportation, signage, interpretation rooms, and others.
 - o The tourist infrastructure in the surroundings, such as accommodation, catering services, recreational offer and others.

♣ CR5.3 The collected information is analyzed to evaluate the possibilities of designing new itineraries, georoutes, visits or geotouristic products, according to the tourist offer, demand of the organizing entity, market trends or management policy of the Geoparks and natural areas of geological interest, by estimating their commercial, technical, financial and environmental viability, where appropriate.

♣ CR5.4 The new geological itineraries, georoutes, visits or geotouristic products are designed based on an in-depth analysis of the area or natural space, by adapting them to the environment visited and maximizing the use of their geological resources.

♣ CR5.5 The design of geo-itineraries, georoutes or geotouristic products within the framework of Geoparks and other natural spaces of geological interest is adapted to the informative and playful objectives of the visit, by maximizing the interpretative use of the geological and natural resources that ensures and contributes to its sustainability in a best way and it is carried out by considering its effectiveness for the disclosure of the values of said spaces and of their environmental protection policies.

♣ CR5.6 It contributes with the design of the new geological itineraries, georoutes or geotouristic products in Geoparks and natural spaces of geological interest to their preservation and to the generation of economic resources for them and for the organizing entity.

♣ CR5.7 The quality parameters established by the organizing entity, or the manager of the natural space, are assumed as minimum in the design of new geological itineraries, georoutes, visits or geotouristic products.

6. Participate in the improvement of the quality of the process of providing the geotourism guide service, support or assistance to geotourists and visitors in which it takes part by evaluating the provision of own and external services, to raise the established standards and the level of satisfaction of the participants.

♣ CR6.1 The work is carried out by meeting or exceeding quality standards, in accordance with the established procedures and achieving the satisfaction of the participants' expectations.

♣ CR6.2 The direct information about the geotourists and their expectations, as well as about the potentially adverse conditions to the quality, is provided to the organizing entity of the service or manager of the Geopark or natural area of geological interest, making suggestions for improvement with regard to future programs.

♣ CR6.3 The information obtained from surveys, quality questionnaires and others, to assess the degree of satisfaction of the participants and the level of compliance with the planned objectives, is collected and saved for further processing.

♣ CR6.4 The degree of adequacy of the provision of the services to the established conditions or communicated to the visitors and agreed with the client is object to evaluation.

♣ CR6.5 The information generated during the provision of the service is organized in order to:

o Provide the contracting entity with a report on the results of the service.

o Enrich your knowledge and georesources to improve your services in future provisions.

♣ CR6.6 The complaints or claims of the participants are treated with kindness, efficiency and maximum discretion by following the established procedure, complying with current regulations and taking the appropriate measures to facilitate their resolution.

♣ CR6.7 The communication with the participants is fluid by using the most effective means to achieve good interaction and understanding.

Professional context

Produccion Resources

- Transport.
- Facilities of the geotouristic service providers.
- Office equipment.
- Sound and audiovisual equipment.
- Recreational material.
- First aid kit.
- Individual protection equipment.
- Communication system.
- Signalling and beaconing material.

Products and results

- Guidance, assistance and accompaniment service analyzed.
- Information and other documents derived from the management of the geo-itinerary searched, understood or formalized. The means necessary for the realization of the managed service.
- Development of the itinerary, georoute, visit or supervised service.
- Collection, reception, accompaniment, assistance and guide for individual and group of tourists.
- Evaluation report on the provided service.

- Georout itineraries, visits or tourist products of geological or natural interest, designed.
- Participation in the quality improvement process carried out.

Information used or generated

- Information and printed documentation, on magnetic support and web pages, of a general nature, on destinations, products, resources and geotouristic services.
- Plans and maps.
- Specific travel information and documentation, such as type of group or tourist subject of accompaniment, georoute or geoitinerary program, visits, transportation to be used, means of identification, documents to extend complaints or claims for loss, information for activities of animation, accommodations, scheduled activities, planned providers or other interesting ones.
- Information about contact people and reception of the group in destination.
- Information on the promotion of the company or entity that organizes the geotourism service.
- Required requirements and regulations applicable to national and international geotourists, professionals in the geotourism guide activity, assistance and accompaniment of visitors, tourists and groups, and other related professionals.
- Information about service providers, prices and rates.
- Internal regulations of the organizing entity.
- Specific information adapted and synthesized for the geotourist or group.
- Reports of evaluation of the provided service.
- Legislation on formulas of assets protection of geological interest or natural areas.
- Deontological code of the profession.

MODULE 1: Basic concepts and definitions

1.1. Basic Geologic Processes: Planet Earth; Earth materials (minerals, magmatic, metamorphic and sedimentary rocks); rock cycle;

1.2. Plate tectonics: Earth structure; internal heat; plate movements; continental drift; magmatism and volcanism; earthquakes; modification of rocks by folding and fracturing; orogens and cratons;

1.3. Geologic Time (Deep Time): Time scale; life evolution and fossil evidences; Earth through time (the lost worlds); how to measure the age of rocks; how to reconstruct past environments;

1.4. Geologic techniques; laboratory and field equipment and safety, recording paleontological information, recording features of different types of rocks, geological maps and diagrams.

MODULE 2: Origin and geological evolution of Europe

2.1. Overview of the Geological and Tectonic Structure of Europe

2.3. Europe through time: Precambrian Europe, Paleozoic Europe, Mesozoic and Neozoic Europe (events, paleo-geography, records of life history);

2.2. Europe main mineral resource: types, exploitation, socio-economic impact.

MODULE 3: Europe geomorphology

3.1. Introducing landforms and landscapes;

3.2. Shaping the Earth surface - processes and forms;

3.2.1. Geologic structures and landforms (plate tectonics, volcanoes, faults and folds, impact forms) in Europe;

3.2.2. Weathering: physical, chemical and biological processes;

3.2.3. Denudation and deposition: hill-slopes, fluvial landscape, glacial landscape, eolian landscape, coastal landscape, karst landscape. Examples from Europe and especially from project partner countries;

3.3. Ice Age in Europe and related landforms.

MODULE 4: Other European geological elements

4.1. Geology and culture in Europe: key persons, key areas, type localities, Lagerstätten (sites with abundant and/or very well preserved fossils), important moments in history of geology (as a contribution to intangible geological heritage);

4.2. Stone made objects - intangible heritage of European Geoparks (a way to express local geodiversity and its role in shaping local identity is to uncover and tell the stories of objects made from materials from the Earth's crust. Each object has a geological story, about how natural processes have generated specific rocks and an anthropological story, when people turned it into an object). Stone made objects from different geoparks could express the geological diversity of Europe and different local techniques in using Earth materials.

4.3. Vocabulary of geology.

CAPACITIES AND EVALUATION CRITERIA

1. Capacity to understand the Earth components and processes, their spatial and temporal relations and dynamic.

CE 1.1. Capacity to understand and use of specific terms, concepts, models;

CE 1.2. Capacity to understand the meaning of geologic time, significance and characteristics of different subdivisions;

CE 1.3. Acquire specific knowledge and techniques to recognise minerals, rocks, fossils, body of rocks, processes and patterns generating them;

CE 1.4. Develop visual representation of natural bodies and process, mental capacity for 2D and 3D models, capacity to understand maps and diagrams;

CE 1.5. Capacity to analyze the quality of observational data supporting earth science concepts;

2. Acquire knowledge about the origin and geologic evolution of Europe

CE 2.1. Capacity to identify the main geological and structural characteristics of Europe;

CE 2.2. Capacity to understand and describe the key events that led to present geological structure of Europe;

CE 2.3. Capacity to understand the role mineral resources (Europe geodiversity) have played in economic and social development of Europe.

3. Capacity to understand the landform and landscape of Europe and their spatial and temporal connections and dynamic

CE 3.1. Capacity to identify and analyze geomorphological processes and forms;

CE.3.2. Capacity to search, identify and relate geological structures and landforms;

CE. 3.3. Acquire specific techniques to recognize and describe weathering processes, denudation and depositional materials and different types of landscapes;

CE. 3.4. Capacity to understand the Europe evolution after Ice Age;

4. Acquire knowledge to understand the intrinsic link between Earth and human civilization

CE. 4.1. Capacity to understand geology as part of human culture;

CE. 4.2. Acquire specific knowledge and techniques to recognize and present the intangible heritage of different stone made objects;

CE. 4.2. Capacity to understand and present the reasons specific geologic materials, events, phenomena, products are classified as geologic heritage.

TRAINING CONTEXT PARAMETERS

Facilities and Spaces

- *Multi-purpose classroom with a minimum of 2m² per student, specific toolkit (rocks, fossils, diagrams, lenses), equipment, applications;*
- *Different outdoor environments: museums (geology, history, folk, mining); parks; old city centres or rural areas (or other places) where is possible to observe raw materials and building techniques, stone made objects; natural areas where rocks, fossils, landforms, geological / geomorphological processes could be observed; geological sites with outstanding geological features classified as geosites; geoparks; geological monuments.*

Trainer professional profile

- *Mastery of knowledge and techniques related to identification of Earth materials and processes, which will be accredited by one of the following forms:*
 - Geologist or academically qualified professionals with solid basis on Earth Sciences, interpretation of geological and geomorphological processes and field techniques;
 - Professional experience of at least 5 years in the field of competences related to this training module.
- *Accredited pedagogical competence or proved solid experience in accordance with what the training module requires.*

DIDACTIC UNIT II. EUROPEAN GEOLOGICAL HERITAGE

MODULE 1: Basic concepts of Geological Heritage

- 1.1. Introduction and Definitions*
- 1.2. Legal bases concerning Geological Heritage*
- 1.3. Organization and policies*
- 1.4. Site selection and Registration of Geosites*
- 1.5. Introduction to Management, Conservation and Exploitation*

MODULE 2: Management and conservation of Geological Heritage in Europe

- 2.1. Management and governance*
- 2.2. Conservation policies and strategies in Europe*
- 2.3. Educational, interpretational/scientific activities*
- 2.4. Facilities for tourism*

MODULE 3: Particularities and Situation of the European Geological Heritage

- 3.1. Geological contextualization of Geosites in European countries.*
- 3.2. European Geosites and Geoparks*

CAPACITIES AND EVALUATION CRITERIA

- 1. Capacity to comprehensively recognize the significance, limitation and necessity of enhancement of the European Geological Heritage.**

CE1.1. Capacity to identify the intrinsic characteristics that define a Geosite.

CE1.2. Acquire the essential knowledge about Site selection and Registration processes commonly adopted in European countries.

CE1.3. Capacity to identify and analyse the regional, national and European legislation applied to the Geological Heritage.

CE1.4. Capacity to recognize and evaluate the different organizations, policies and programs linked with the conservation and maintenance of Geosites in Europe.

2. Acquire knowledge about the state of the art of Geological Heritage Management in Europe.

CE2.1 Capacity to search, identify and analyse the most relevant promotional policies and strategies adopted in European countries in relation with the Geological Heritage.

CE2.2. Capacity to search, identify and analyse the major educational, interpretative, scientific and touristic programs about Geological Heritage developed in European countries.

3. Capacity to search, analyse and evaluate information about Geosite inventories, Geoparks and Geological Heritage in Europe.

CE3.1. Capacity to identify the major sources of information related to the European Geological Heritage.

CE3.2. Capacity to analyse the connection of Geosites, Geoparks and geological heritage with the regional geological context.

TRAINING CONTEXT PARAMETERS

Facilities and Spaces

- *Multi-purpose classroom with a minimum of 2m² per student. Natural environment of geotouristic interest (singular space not necessarily located in the training centre).*

Trainer professional profile

- *Mastery of knowledge and techniques related to the interpretation of geological heritage, which will be accredited by one of the following forms:*

- Geologist or academically qualified professionals with solid basis on Earth Sciences.
- Professional experience of at least 3 years in the field of competences related to this training module.
- *Accredited pedagogical competence in accordance with what the competent Administrations establish.*

DIDACTIC UNIT III. UNDERGROUND HERITAGE AND EUROPEAN TOURIST CAVES

MODULE 1. The caves formation.

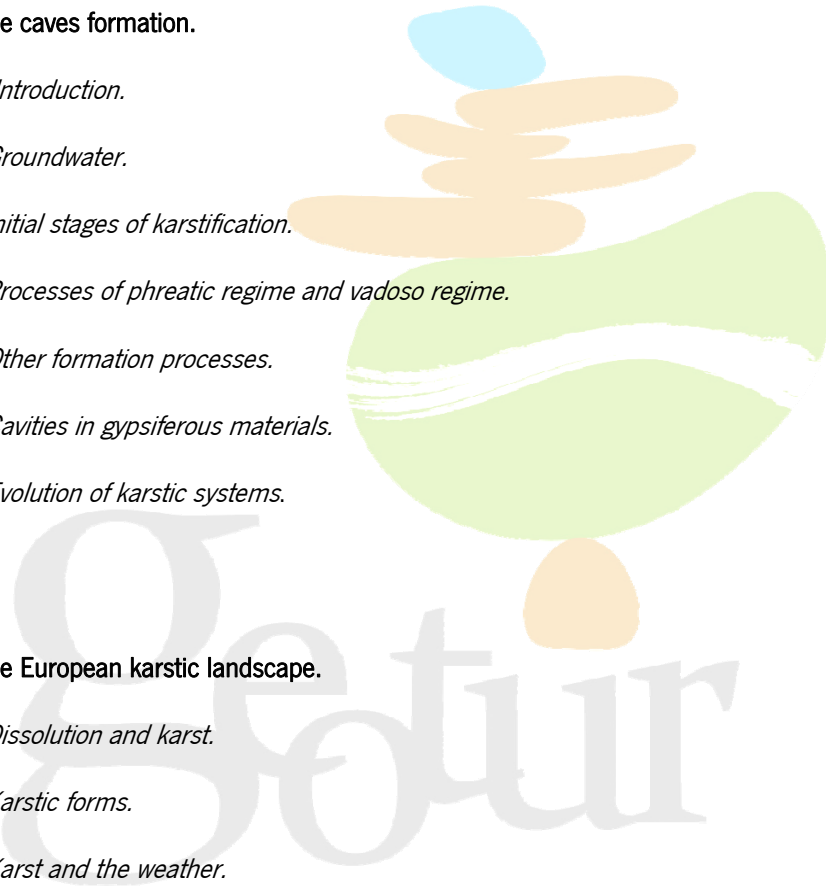
- 1.1. Introduction.*
- 1.2. Groundwater.*
- 1.3. Initial stages of karstification.*
- 1.4. Processes of phreatic regime and vadoso regime.*
- 1.5. Other formation processes.*
- 1.6. Cavities in gypsiferous materials.*
- 1.7. Evolution of karstic systems.*

MODULE 2. The European karstic landscape.

- 2.1. Dissolution and karst.*
- 2.2. Karstic forms.*
- 2.3. Karst and the weather.*
- 2.4. Karstic panorama in Europe.*

MODULE 3. The interior of the karst.

- 3.1. Absorption zone.*
- 3.2. Vadosa traffic zone.*
- 3.3. Phreatic area.*
- 3.4. Speleothems.*



Module 4. Cavities in materials of volcanic origin.

- 4.1. Introduction.*
- 4.2. Basic concepts about volcanic rocks.*
- 4.3. Description and origin of the lava tubes.*
- 4.4. Other types of cavities.*
- 4.5. Volcanic cavities in Europe.*

Module 5. European tourist caves.

- 5.1. Spain*
- 5.2. France*
- 5.3. Italy*
- 5.4. Slovenia*
- 5.5. Croatia*
- 5.6. Romania*
- 5.7. Hungary*
- 5.8. Slovakia*
- 5.9. Etc.*



CAPACITIES AND EVALUATION CRITERIA

1. Describe and apply the processes of search and selection of information about underground heritage and European tourist caves, interpreting and processing it.

CE1.1 Identify the most common primary and secondary information sources about underground heritage and tourist caves.

CE1.2 Explain the use of information media and the different types of accessing information.

CE1.3 In a practical case of analysis and treatment of information of interest, select and contrast the information of interest related to this training module.

2. Integrate information on tourist caves and other underground resources of the Geoparks, so

that later it can be adapted and transferred in an attractive way to tourists and visitors, satisfying their requirements and expectations.

CE2.1 Analyze in depth and interpret objectively information about underground heritage and tourist caves in European Geoparks, so that later it can be adapted and transferred in an attractive way to geotourists and visitors, satisfying their requirements.
CE2.2 Memorize and interrelate data and essential aspects, corresponding to previously analyzed and interpreted information about underground heritage and tourist caves, corresponding to geo-itinerary assumptions or visits in the area.

3. Interpret the underground heritage and European tourist caves, in supposed itineraries, routes or visits, adapting itself to different contexts, profiles and behaviors of types of groups or individual geotouristic users.

CE3.1 Interpret the underground heritage and tourist caves with a fluid, entertaining, spontaneous discourse by varying the approach depending on the potential receivers.
CE3.2 Respond with kindness and efficiency to the supposed questions, doubts and needs of the information demanded.

CE3.3 Control the available time and adapt the message to the temporal limitations of the supposed geological itinerary, georuta or scheduled visit.

4. Relate the general knowledge about geology and speleology with the natural reality of the Geopark in order to contextualize the corresponding information object of provision.

CE4.1 Describe the most characteristic concepts, facts and phenomena of the underground heritage.

CE4.2 Identify and explain in situ the different phenomena and physical and biological facts analyzed.

CE4.3 Deduct the consequences that the conditions of the natural environment can exert on the geotourism guide activity.

CE4.4 Justify the need for knowledge of geology and speleology to practise of the geotourism guide activity.

5. Estimate the main forms and means of protecting the underground heritage at the local, regional, state and European levels.

CE5.1 Distinguish the different types of underground heritage and describe their main forms, figures and means of environmental protection at local, regional, state and European level.

CE5.2 Identify the bodies responsible for the policies of protection of the underground heritage.
CE5.3 Identify and explain the characteristics and physical peculiarities of the tourist caves in Europe.

TRAINING CONTEXT PARAMETERS

Facilities and Spaces:

- *Multi-purpose classroom with a minimum of 2m² per student.*
- *Natural environment of geotouristic interest (singular space not necessarily located in the training center).*

Trainer professional profile

- *Mastery of knowledge and techniques related to the interpretation of underground heritage and tourist caves, which will be accredited by one of the following forms:*
 - Academic training of Bachelor, Diploma or Technical level related to this professional field.
 - Professional experience of at least 3 years in the field of competences related to this training module.
- *Accredited pedagogical competence in accordance with what the competent Administrations establish.*

DIDACTIC UNIT IV. GEOPARKS AND EUROPEAN GEOSITES

MODULE 1. Sites of geological interest in Europe

1.1. Overview of the geological heritage on the spot, geological sites and landscapes with scientific, educational, tourist and cultural relevance in Europe;

1.2. Geosites as geotourism destinations with examples from Spain, Italy, Romania, Hungary and Slovakia;

1.3. Managing geosites within geoparks, short case studies from Spain, Italy, Romania, Hungary and Slovakia;

1.1. Potential for linking geosites thematically as continental geoheritage routes within a united Europe;

MODULE. 2. UNESCO Global Geopark program in Europe, the European Geoparks Network

2.1. The brief history and evolution of the Global Geoparks Network (GGN);

2.2. UNESCO Global Geoparks in Europe;

2.3 Past and Present Members of the European Geoparks Network (EGN) and potential, aspiring geoparks from Spain, Italy, Romania, Hungary and Slovakia;

2.4. Life beyond the GGN, categories of Geoparks with examples from Spain, Italy, Romania, Hungary and Slovakia;

MODULE 3. Good environmental practices in geotourism

3.1. The tradition of the European Geoparks Week;

3.2. Best practices reward of the GGN with examples;

3.3. Geopark products, GeoFood and other initiatives;

3.4. Good environmental practices from EGN members of Spain, Italy, Romania, Hungary and Slovakia;

CAPACITIES AND EVALUATION CRITERIA

1. Capacity to comprehensively recognise different types of geological sites and their potential for local developments.

CE1.1 Capacity to identify the decisive factors and elements of optimal interpretation methods used in tourism of protected geological localities.

CE1.2. Capacity to analyse correlations among natural, historical and cultural heritage within a given territory to promote holistic approach in geotourism and use this knowledge in guiding practices.

CE1.3. Recognition of management similarities and differences among geosites of different countries.

2. Capacity to understand the geopark movement and its role in regional development.

CE2.1 Capacity to identify the benefits of geotourism for the purposes of both the protection and regional development.

CE2.2. Knowledge about the structure and connections of the geoparks in different European countries.

CE2.3. Learn to develop minor geological tourism offer in his/her relevant geopark and present it as a project.

3. Capability to contribute to the good environmental practices of geoparks.

CE3.1 Capacity to have knowledge about good environmental practices and intentions of the GGN, and how at least one the best ideas could be introduced in the relevant geopark, which would be beneficial to the local community.

CE3.2. Be able to develop an own good geotourism practice idea and capable to present its implementation and benefits for the relevant geopark.

TRAINING CONTEXT PARAMETERS

Facilities and Spaces

- *Multi-purpose classroom with a minimum of 2m² per student, , internet access with multimedia on geoparks.*

Natural environment of geotouristic interest (singular space not necessarily located in the training centre).

Trainer professional profile

- *Mastery of knowledge and techniques related to the interpretation of geological heritage, which will be accredited by one of the following forms:*

- Geologist or academically qualified professionals with solid basis on Earth Sciences.

- Professional experience of at least 3 years in the field of competences related to this training module.
- *Accredited pedagogical competence in accordance with what the competent Administrations establish.*

DIDACTIC UNIT V. ENTREPRENEURSHIP IN GEOTOURISM

MODULE 1. Traits of geological tourism as a factor of territorial development

- 1.1. *How can Geotourism help territorial development?*
- 1.2. *Description of Geotourism business ecosystem (market, stakeholders, relations, private-public sector etc.)*

MODULE 2. Geotourism as a business opportunity

- 2.1. *How can Geotourism boost existing businesses and create new ones?*
- 2.2. *Main business initiatives (3-5?) related to Geotourism: what they are, how they work and how they add value to the territory.*
 - i. Activity 1: _____
 - ii. Activity 2: _____
 - iii. Activity 3: _____

MODULE 3. The business plan: from an idea to a real business.

- 3.1. *Finding the right idea: market research and competitor analysis.*
- 3.2. *Bring the idea to life: development of the business plan.*

MODULE 4. Case studies

- 4.1. *Case study 1: _____ (Europe)*
- 4.2. *Case study 2: _____ (World). This point is optional. It will depends on the length of the document.*

CAPACITIES AND EVALUATION CRITERIA

1. Recognise geotourism as a key factor for the economical development of the territory.

CE1.1 Identify the main factors and elements which may actively contribute to the economical development of the territory.

CE1. Analyze the main characteristics of the different elements that make up the economic ecosystem of reference.

2. Use geological tourism as an opportunity to develop new business activities.

CE2.1 Recognize geological tourism as an element capable of developing the economic activities already existing in the area and creating new opportunities for entrepreneurial development.

CE2.2 Analyze the new opportunities that geological tourism can offer in relation to the creation and development of new business activities.

CE2.3 Identify new business development opportunities related to geological tourism.

3. Be able to create and develop a business plan for the creation of new enterprises operating in the field of geological tourism.

CE3.1 Learn about the main techniques and methods that can be used to perform a market and competitor analysis.

CE3.2 Be able to develop a business plan, from the birth of the business idea to the creation and implementation of the plan.

4. Analyze some examples of best practices at European level regarding the creation and development of new entrepreneurial activities linked to geological tourism.

CE4.1 Best practices analysis at European level

CE4.2 Best practices analysis at worldwide level.

TRAINING CONTEXT PARAMETERS

Spaces and facilities:

- *Multi-purpose classroom with a minimum of 2m² per student.*
- *atural environment of geotouristic interest (singular space not necessarily located in the training center).*

Trainer professional profile

- *Mastery of knowledge and techniques related to the interpretation of geological heritage, which will be accredited by one of the following forms:*
 - Academic training of Bachelor, Diploma or Technical level related to this professional field.
 - Professional experience of at least 3 years in the field of competences related to this training module.
- *Accredited pedagogical competence in accordance with what the competent Administrations establish.*

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