dark sky
ecotourism

YOUR GUIDE TO
DARK SKY ECO TOURISM

OFFERING RURAL COMMUNITIES SUSTAINABLE TOURISM OPPORTUNITIES

www.**darkskytourism**.eu

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**Co-funded by
the European Union**

dark sky eco tourism

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Welcome

About Our Project

Observing the night skies has inspired people since the time of antiquity. Today, the interest in the night sky, such as dark sky observation, astronomy, and astrophotography is seeing increasing popularity.

The Dark Sky Project aims to empower training bodies and businesses in remote and rural European tourism to seize a more equitable share of Europe's future post-pandemic tourism opportunities. It will play a key role in rebuilding and refocusing European tourism to be more sustainable, resilient, and future orientated.future-orientated

1.1 Preface – What motivates the Dark Skies project and who will benefit

The travel and tourism industry, it's just a huge part of our economy. - KAREN HUGHES

The ability to gaze up to the stars and ponder their meaning has been the privilege of travellers and locals for millennia. Many stargazers seek out Dark Sky Preserves simply for unobstructed views of the Milky Way. But dark skies are more than just a tourist attraction; they're a crucial part of wildlife protection and conservation efforts. As traveller confidence builds post Covid, consumers are seeking out opportunities to travel in a more immersive way, away from typical crowded tourist attractions to more nature based. Dark Sky Ecotourism offers a form of frugal innovation as it taps into two free resources – the night sky and nature.

Dark Sky Ecotourism is part of the Erasmus programme lead by the Department of Tourism at the University of Hólar. The project is working on a handbook and educational material for use by tourism companies. The objectives of this project are:

To enable businesses to take advantage of dark skies opportunities based on ecotourism criteria.
To promote sustainable tourism in rural areas.
To educating communities and destinations about opportunities in dark areas.

Our project is an innovative vocational education project which will produce a rise in the number of remote, rural European tourism businesses which develop innovative products and services based on the opportunities afforded by Dark Sky Ecotourism. With its commitment to sustainability – economic, social, and environmental, we aim to refocus European tourism to be more sustainable and resilient.

Our project strives to achieve greater socio-economic and labour market inclusion in regions which continue to be typified by brain drain and the resulting social and economic destabilization that brings.
Who will benefit?

TOURISM EDUCATION PROVIDERS
Dark Sky Ecotourism equips them to adapt vocational education and training to labour market needs of a sector has been crippled by Covid19 and new, innovative approaches are needed to rebuild, reboot and refocus for the future. The project provides open access to the first systematic dark sky ecotourism training programme of its kind for use with rural/remote tourism enterprises.

REMOTE/RURAL
TOURISM BUSINESS OWNERS
Dark Sky Ecotourism will help remote/rural market-responsive businesses and regions reemerge on the footing of Dark Sky Ecotourism. They are time and resource poor so our innovative PRs will fast track them to innovation through product development of dark Sky tourism experiences.

TOURISM ECOSYSTEMS As INDSKY
For chambers of tourism, tourism development and policy stakeholders from the public, private, NGO sector, i.e. Destination Marketing Organisations (DMOs), tourism boards, tourism networks and government bodies who need high impact and scalable initiative which contributes to a more educated and sustainable national and international tourism sector.

WIDER COMMUNITIES, INDIVIDUALS, EUROPEAN TOURISTS, ASTRONOMY ENTHUSIASTS
For the wider public, Dark Sky Ecotourism will lead to new, alternative, sustainable domestic and European tourism experiences now and in the future.

1.2 Meet the Team – Who is involved

Momentum - Ireland

Is an award-winning Irish educator focused on developing progressive learning programmes (course curriculum and content development) and platforms for education, with a special focus on sustainability, community regeneration, innovation, and marketing.

Holar - Iceland

A sustainable tourism and environmental education institution in northern Iceland. Specialising in tourism, equine science, and aquatic biology, they prioritise nature tourism, ecotourism, and sustainability. Collaborating with local businesses and the Icelandic Tourism Research Centre, HU conducts impactful research, fosters industry innovation, and promotes Dark Sky tourism in Bifrost, Western Iceland.

EUEI - Denmark

Are specialists in online learning who are committed to providing high-quality learning experiences and innovative educational programmes which engage learners from a range of sectors and socio-economic backgrounds. EUEI is committed to promoting social cohesion, inclusion, and sustainability across Europe.

Meet the Team – Who is involved

ADC Moura – Portugal

Is dedicated to supporting and promoting the sustainable development of the municipality of Moura and other areas within the Alentejo region. With a focus on various priority areas including Training and Qualification, Environmental Education, Community Animation and Citizenship, ADC Moura works towards fostering positive change and growth in the region.

Meridaunia LAG - Italy

A Local Action Group, they implement the Monti Dauni region's Strategic Plan, focusing on LEADER Rural Development and agri-diversification. Their aim is economic growth, social cohesion, and environmental protection. Engaging stakeholders and the community, they enhance life quality, contribute to regional rebuilding, and promote youth involvement. Expertise in sustainability education and social capital building is showcased through initiatives like the INDSKY project, aligning with their mission.

TUS - Ireland

At Technological University of the Shannon (TUS) we have a clear focus on meeting the evolving needs of society and industry through applied learning and innovative thinking. By putting the individual needs of our students front-and-centre, we prioritise accessibility and opportunity for all. When we combine this student-first philosophy with next-generation thinking, we can help drive our region forward through education, research, and commercial collaboration.

SECTION
2.0

ABOUT THE CURRICULUM

2.0 About the Project Curriculum and Open Educational Resources (OERs)

The Dark Sky Ecotourism Open Education Resources, have been developed in recognition of the EntreComp framework, which stands for the Entrepreneurship Competence Framework.
Designed to educate people and tourism businesses to utilise Dark Skies in their programmes.

Dark Sky Ecotourism Open Educational Resources (OERs) are created for teachers, trainers, and local communities, in open access format, and are free to download.

HOW WILL YOU BENEFIT?
Dark Sky Ecotourism will contribute to your professional development as an Adult educator/Trainer, by increasing your knowledge and skills concerning Dark Skies and utilising them to enhance your business and tourism in the area.

As educators, we respond to the needs of communities and tourism businesses interested in promoting Dark Skies. Across Europe, there is a lack of awareness, understanding and practical information available for adult educators. Our course responds to these needs through our free, open-access materials, created in a user-friendly manner that will help you to teach key subjects compellingly.

WHAT THEY COMPRISE?
The OERs are presented as a set of multimedia resources (PowerPoint, documents, worksheets, videos interactive challenges etc.. They are organised into 5 modules.

IMPACT
The Dark Sky Ecotourism partners are very grateful for ERASMUS+ funding to allow us to make an impact. We must share that ambition with you. We are striving for..

Short Term Impact
Provide 240+ Adult Learners with the proper learning environments and materials to empower them on their journey to becoming 'Design Thinking Community Change Makers' uniquely positioned in their communities to promote positive change, motivate others and create immediate social impact.

Long Term Impact
To increase knowledge of Design Thinking and Social Change, gain an understanding of the Design Thinking Process and what benefits it can have at many levels of communities. Enabling Adult learners, who may not be involved in the community to be motivated and empowered to increase their civic, personal & interpersonal, and digital know-how concerning Design Thinking.

Entrecomp

By incorporating EntreComp into the program on Dark Sky Ecotourism, we are not only equipping students with valuable entrepreneurial skills but also preparing them to be innovative and proactive in contributing to the ecotourism industry, which aligns with the principles of sustainability and responsible tourism.

The curriculum is crafted to immerse participants in practical entrepreneurial experiences within non-formal learning contexts. Furthermore, it goes a step further by including the creation of tools that allow businesses in the tourism sector to assess the quality of their Dark Skies as well as assess whether their business could be a ecotourism business being able to develop Dark Sky Ecotourism activities.

In particular, the DARK SKY ECOTOURISM curriculum is structured to mirror the three essential competence areas defined by EntreComp, which are: *Ideas and opportunities*; *Resources*; and *Into action*. These competence areas serve as the foundational building blocks of entrepreneurship as a critical competency.

In essence, the curriculum embodies a sustainability ethos, focusing on real-world entrepreneurial experiences and providing tools for individuals to gauge and enhance their entrepreneurial skills. It is underpinned by the EntreComp framework, offering a holistic and practical approach to fostering entrepreneurship competencies.

4.0 Course Delivery Options

Classroom Training & Tools Required

Classroom training remains one of the most popular training techniques for building skills capacity. Typically, it is instructor-centred face-to-face training that takes place in a fixed time and place. We would really encourage that this training is rooted in community-based learning. Impact can be achieved by communities joining together to progress this training – it can augment environmental improvement actions. For such training, we provide …

Classroom Tool	Suggested Use in the Classroom	Additional Resources Required
PowerPoint © presentation	Training materials are developed in PowerPoint. We provide 4 'ready-made' PowerPoint decks that you can adapt to your priorities and circumstances. We suggest that these will be displayed on a large screen for classroom delivery	Laptop/ Computer Projector Large screen / wall
Videos	Videos are used to explain certain sections of the training content and to present case studies for discussion.	Audio / sound system
Whiteboard or Flip Chart	Invite learners to write on the board or ask them for feedback that you write on the board	Pens / markers
Assistive Technology	To increase Accessibility and Inclusivity	Screen readers, hearing aids, or voice recognition tools can aid differently-abled learners. *
Evaluation Surveys	Regularly assess the effectiveness of the training modules and gather feedback for continuous improvement	

4.0 Course Delivery Options (continued)

Suggested delivery mechanisms:

Small group discussions: Break the participants down into small groups and give them case studies or work situations to discuss or solve. This allows for knowledge transfer between learners.

Q & A Sessions: Informal question-and-answer sessions are most effective in small groups and for updating skills rather than teaching new skills. These should be used frequently across course delivery.

Multimedia: Multimedia training materials tend to be more proactive and challenging and therefore, more stimulating to the adult mind. Trainers should ensure that all embedded tools are used to their full potential.

Interactive Tools: The engagement of learners can be easily achieved by using interactive tools. An example of a free tool is Kahoot! Which is a game-based learning and trivia platform used in classrooms, offices, and social settings. You can compline a quiz, which can be answered by the students on their phones/tablets/computers. It is possible to get immediate feedback and results.

Other teaching formats suitable for this course

Flipped Classroom: In a flipped classroom learners study the module content before the class with a focus on exercises and assignments in class. The classroom transfer of knowledge makes way for online instruction outside the classroom. This creates more room for practising in class, for extra explanation when needed, and offers the possibility to dive deeper into the materials during class.

Blended Learning: Combines online digital media with traditional classroom methods. It requires the physical presence of both teacher and learner, with some element of learner control over time, place, path, or pace. Learners attend a classroom setting with a trainer present, face-to-face classroom practices combined with computer-mediated activities regarding content and delivery.

Collaborative/Peer-to-Peer Learning: Is an educational approach to teaching and learning that involves groups of learners working together. An example for boosting collaborative and peer-to-peer learning is Peer review: Peers in the classroom are brought together to jointly evaluate the work by one or more people of similar competence to the producers of the work. Peers not only assess the performance of each other but also share their experiences and know-how.

6.0 What the Modules cover

Five modules combined give businesses and communities' good practical insights into how dark sky ecotourism activities can be developed and put into action. The sixth module is the trainer´s guide that gives and insights into how they modules can be taught.

Module 1
What is Dark Sky Ecotourism?

Within this module, we define and discuss the importance of Dark Sky Ecotourism, set the stage and introduce the upcoming modules.

Module 2
Setting the Scene

This module sets the scene and helps the user to see the value in dark sky ecotourism. Whether you are a newcomer to dark sky ecotourism, or established, this module aims to help you discover the possibilities.

Module 3
Reaching your Audience

Here you learn about engaging your audience. It is important to understand the needs and wants of your customer base, here we help you brand and market your business towards your consumers and overall end goal.

Module 4
How to create a Dark Sky Ecotourism Experience

Within this module, you learn how to create your own dark sky ecotourism experience and how to manage the expectations of your audience

Module 5
After Dark – A Dark Sky Ecotourism Message

Focuses on the 'Message' you want to come from your dark sky experience and the feeling you want to leave your audience with.

Trainer´s Guide
An overview of all modules, competencies and instructions for teaching.

The guide will help instructors in the use of the material.

Content Overview

Module 1 – Introduction to Dark Sky Ecotourism

MODULE 1	Introduction to Dark Sky Ecotourism
Overview	Within this module, we define and discuss the importance of Dark Sky Ecotourism, set the stage and introduce the upcoming modules.
Table of contents	• Introduction • Learning Objectives • What is Dark Sky Ecotourism? • Importance of Dark Sky Ecotourism • Understanding Light Pollution • Become Ecotourism Aware • Examples of Successful Dark Sky Ecotourism Reserves
Learning Objectives	• To define Dark Sky Ecotourism and explain its key principles and values. • To develop a holistic understanding of the benefits, challenges, and potential of Dark Sky Ecotourism. • To recognise the impact of light pollution on ecosystems, wildlife, and health. • To explore strategies to raise awareness and become ecotourism conscious in the context of Dark Sky preservation. • To analyse successful Dark Sky Ecotourism reserves and identify best practices for implementation.
Learning activity	Take the ecotourism quiz: https://darkskytourism.eu/self-assessment-and-toolkit/

Content Overview

Module 2 – Setting the Scene

MODULE 2	Setting the Scene
Overview	This module sets the scene and helps the user see the value in dark sky ecotourism. Whether you are a newcomer to dark sky ecotourism, or established, this module aims to help you discover the possibilities.
Table of Contents	• Mapping the dark sky conditions in your region • Learning and sharing info about your local natural ecosystem • Finding the stars • Useful equipment for dark sky ecotourism experiences • Risk assessment
Learning Objectives	• This module sets the scene and helps the user see the value in dark sky ecotourism. Whether you are a newcomer to dark sky ecotourism, or established, this module aims to help you discover the possibilities.
Learning activity	1. Find out if you are already close to a dark sky recognized destination, check the links, see slide 6: 2. Find out about your region regarding light pollution and the quality of the dark sky, see slide 7-9. Use the light pollution map, dark sky meter and/or the Bortle scale websites, see useful links. 3. An exercise in creating an ecotourism message, see slide 19. 4. Finding the stars – find the big dipper, watch a video and go outside, see slide 21. 5. Use a laser pointer effectively, see slide 25-26 6. Choose a dark sky ecotourism experience, e.g. from module 4, and think about possible risks based on the risk categories table on slide 44
Useful Links	• **Light Pollution Map** https://play.google.com/store/apps/details?id=com.pa.lightpollution map&hl=en&gl=US • **Dark Sky Meter** https://www.darkskymeter.com/ • **Loss of the Night citizen science project** https://lossofthenight.blogspot.com/ • **The Bortle Scale** https://astrobackyard.com/the-bortle-scale/

Content Overview

Module 3 – Reaching your audience

MODULE 3	Reaching your audience
Overview	This module will take you through the fundamental concepts of feedback data management, providing you with the tools and knowledge you need to take full advantage of this valuable resource.
Table of contents	• Introduction • Reaching out to your market • Funnel Marketing Strategy • Data management of feedbacks
Learning Objectives	• This module will help you learn about engaging your audience. It is important to understand the needs and wants of your customer base, here we will help you brand and market your business towards your consumers and the overall end goal of creating a dark sky ecotourism experience.
Learning activity	1. Take the five stages of travel model (on slide 7) and apply it to how you reach out to your guests. Find out whether you are reaching out to all five stages. 2. Find a travel influencer that you think would be a good fit for your tourism business. Ask yourself what would be the benefits and what would be the costs, see item 3 on the checklist on slide 8. 3. Customer feedback, consider how and where you gather feedback from your guests. Is it during the experience, just after it or perhaps through email some weeks or months after? See slide 22.

Content Overview

Module 4 – Designing a dark sky ecotourism experience

MODULE 4	Designing a dark sky ecotourism experience
Overview	Focus on how to create a dark sky ecotourism experience by providing a framework and a variety of different type of experiences to learn from.
Table of contents	**Introduction module**: Creating and managing expectations, creating experiences, developing the story and "so what can you do"- examples of activities **Experience examples modules –** a variety of dark sky ecotourism experiences
Learning Objectives	Within module 4, you will learn how to create your own dark sky ecotourism experience and how to manage the expectations of your audience.
Topics Covered	Creating and managing expectations, Creating experiences. Describing type of activities – see experiences example modules.
Learning activity	1. Go for a dark sky walk and listen to the sounds in nature. If you can, try to record them. See slide 5. 2. Think of evocative and creative words for the darkness that you can use. Look for words in e.g. folklore, stories about the mythology of the dark sky and more. See slide 6. 3. Choose an experience example module and consider what if the weather is bad (too windy, too cold etc.). What can you do to make your tour less dependent on the weather conditions? See slide 8. 4. Read through all or a chosen few experience sample and identify an area in your region where you could do the same or similar dark sky ecotourism activity. Here you can use slide 18 and 19 to give you ideas 5. Create a short story (3-5 lines) that you feel can describe your activity in a way that would attract guests.
Case studies	**Experience examples modules**: • A coastal dark sky ecotourism walk - from Iceland • Northern lights sightseeing boat trip - from Iceland • Dark sky boat trip - from Ireland • Moonwalking in Ireland – from Ireland • A dark sky ecotourism walk at lake Pescara – from Italy • A night walk on biodiversity – from Portugal

Content Overview

Module 5 – After the experience – A Dark Sky Ecotourism Message

MODULE 5	After the experience – a Dark Sky Ecotourism Message
Overview	Focuses on the 'Message' you want to come from your dark sky experience and the feeling you want to leave your audience with.
Learning Objectives	This module focuses on the 'message' you want your guests to take away from your dark sky experience and the feeling you want to leave your audience with.
Topics covered	How to create an interesting ecotourism message Using nature interpretation Examples of dark sky ecotourism message
Table of contents	• Creating an interesting dark sky ecotourism message • Use nature interpretation • Examples for a dark sky ecotourism message
Learning activity	1. Take one experience module and create one small dark sky experience based on each of your senses: Listen, smell, touch, taste and look. See slide 5 2. Take the information on slide 8 and try to create one paragraph that can convey to your guest the importance of the dark sky to human health. Can you use other senses to enhance what you are saying? Keep here in mind the aims of nature interpretation, see slides 12 and 13. 3. Read the examples on slides 15 to 17 and create a ecotourism message for your tourism business similar in length and form.

Useful Links

Project Website
https://darkskytourism.eu/

Dark Skies Assessment Toolkit & Quiz
https://darkskytourism.eu/self-assessment-and-toolkit/

Dark Skies Ecotourism Guide
https://darkskytourism.eu/dark-sky-ecotourism-guide/

Project Facebook
https://www.facebook.com/darkskyecotourism

7.0 Sample Timetable

It is recommended to keep workshops to a maximum length of 2.5 – 3 hours. Since the learning materials are quite intense and new to the teachers and learners, it is recommended to spread the information across multiple days.

For the optimal teaching success, you can choose to spread the workshops across weeks, so for example one evening per week over 5 weeks. This can help those that attend to try out many different dark sky ecotourism activities in between the teaching.

Depending on the background of those attending the modules you can focus less or more on certain aspects so as to focus on the interests of those attending. Some activities are clearly best done when it is dark so schedule your workshop accordingly. It can also be a good idea to ask those that attend to read something or prepare something before you start the workshop, e.g. think of a dark sky ecotourism activity in their tourism company or region.

Make sure to include field trips, bring in guest speakers and conclude the programme with a celebration.

**Week 1: Module 1 – Introduction to dark sky ecotourism**

Week 2: Module 2 – Setting the scene

Week 3: Module 3 – Reaching your audience

Week 4: Module 4 – Designing a dark sky ecotourism experience

Week 5: Module 5 – After the experience – a dark sky ecotourism message

This timetable spans five weeks, dedicating each week to a module. The modules encourage students to apply their knowledge of Dark Sky Ecotourism concepts into real-world situations, fostering practical skills. Please adjust timings and activities as needed to suit your teaching environment.
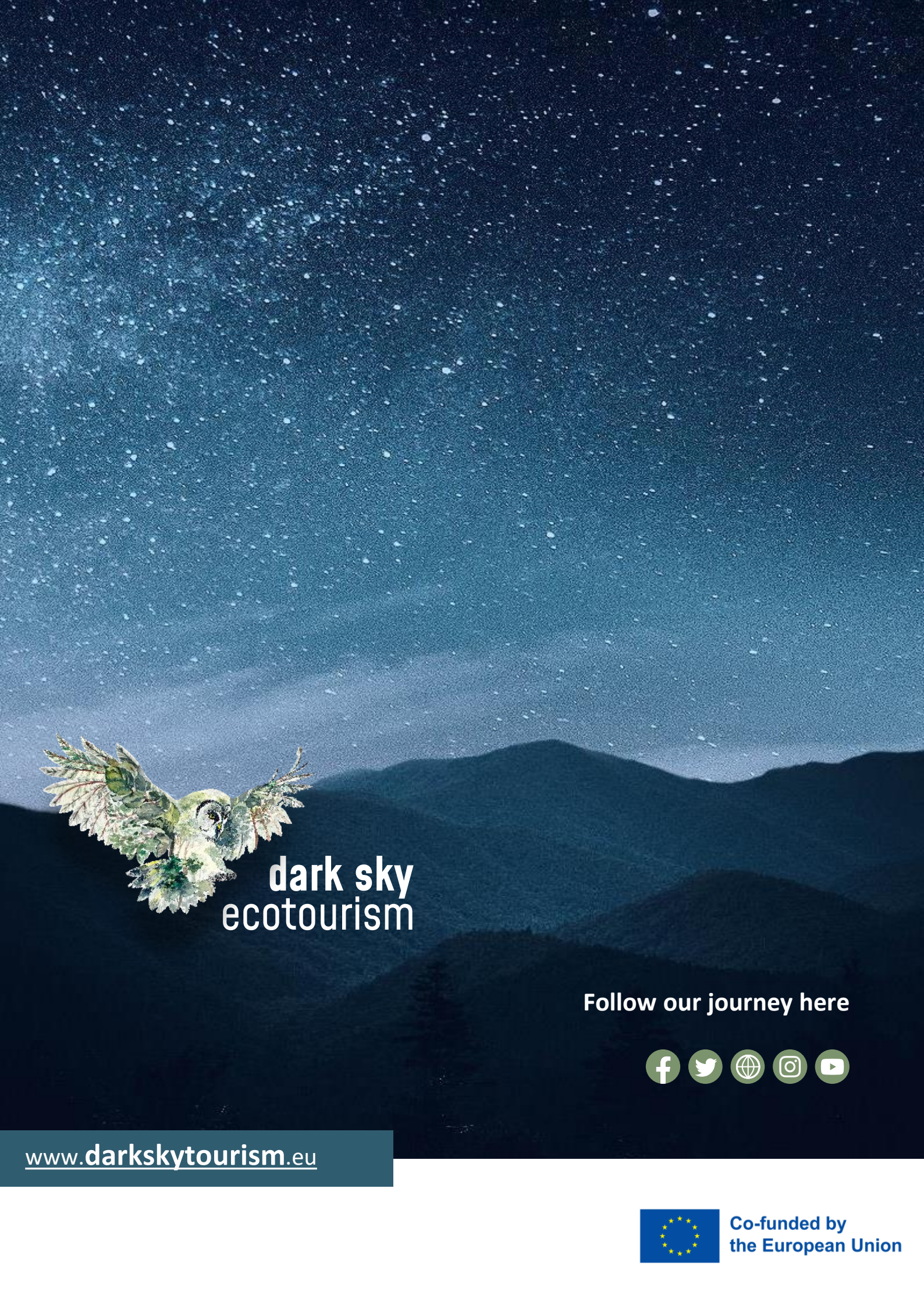
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