

# GLOW2.0 - Green energy technologies for tourism growth



Minutes of workshops with list of agreed actions

(Deliverable D.2.5.2)

February 2025

**Interreg**



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Northern Periphery and Arctic

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## **NORWAY**

### **GLOW 2.0 Dark Sky Tourism workshop Narvik**

UiT-team together with Visit Narvik AS arranged an event for Norwegian stakeholders on the following topics: Dark Sky tourism and Flight route development for year-round tourism. The event was held on 26th September 2024 at the UiT Campus Narvik, during the 4<sup>th</sup> project period. The main purpose of the event was to make the tourism industry in Northern Norway understand the scope of opportunities surrounding Dark Sky Tourism: (a) what it entails, (b) how SMEs can use it to improve existing products or develop new ones and thus increase their income, (c) Dark Sky tourism is one of the most important drivers for tourists wanting to travel to Northern Norway.

#### Agenda

##### **11:00 – 11:30** Lunch

- Welcome to UiT Narvik by Wei Deng Solvang, UiT Narvik
- Intro by June Sollund, Visit Narvik

##### **11:30-11:45** Dark Sky tourism and Light Pollution by GLOW2.0-team

##### **11.45-12:00** Results and findings of GLOW2.0 Survey by GLOW2.0-team Udaras and Karelia UAS

##### **12:00-12:45** The most important driver(s) for attracting guests to Narvik region by Visit Narvik, and the market potential in Narvik region by Nord Norsk Reiseliv

##### **12:45-13:00** Coffee break

##### **13:00-14:00** XR-Lab session by Marius Wang, UiT GLOW2.0-team

- Immersive technologies accessible on the market
- Demo- and testing session of the Virtual Planetarium

##### **14:00-15:00** Service design and development workshop – work in groups

##### **15:00-15:30** Defining the future actions

During the Service design and development workshop (14:00 – 15:00) the participants were divided into 3 groups, each group included one GLOW2.0 UiT-team member. Each group discussed on how UiT Narvik can contribute to the development of the local tourism specifically in terms of product development, examples, technologies and techniques. The following questions were discussed:

1. How/why is the Narvik region perfect for Dark Sky Tourism (northern lights and stargazing, the night sky).
2. What is the situation with light pollution in our region? How can we reduce light pollution in our region?
3. Which new products related to Dark Sky tourism could be developed (included in the touristic packages) in the Narvik region?

4. How can Dark Sky Tourism create added value to existing products in our region?

5. Which existing products do the presented companies have that can be further developed with a view to digitalization AR/VR – aimed at Dark Sky Tourism?

Each group presented their findings.

The following future actions were discussed:

- Need for more workshops of this type in the future. Visit Narvik will work on it together with UiT GLOW2.0-team.
- Hands-on products and technology. How can SMEs further collaborate with UiT Narvik/GLOW2.0? Is there anything that can be further developed? – GLOW will cooperate with the presented SMEs in the Period 5 within testing of the Virtual Planetarium.



A total of 22 participants attended the event, among them 3 online and 19 onsite: SMEs, regional public authority, interests groups/NGOs, and sectoral agencies from Northern Norway. The hope was that the event made participants understand the scope of opportunities surrounding Dark Sky Tourism, and their potential role in this. Visit Narvik AS sponsored the lunch and coffee-breaks, and significantly contributed to the workshop marketing/promoting.



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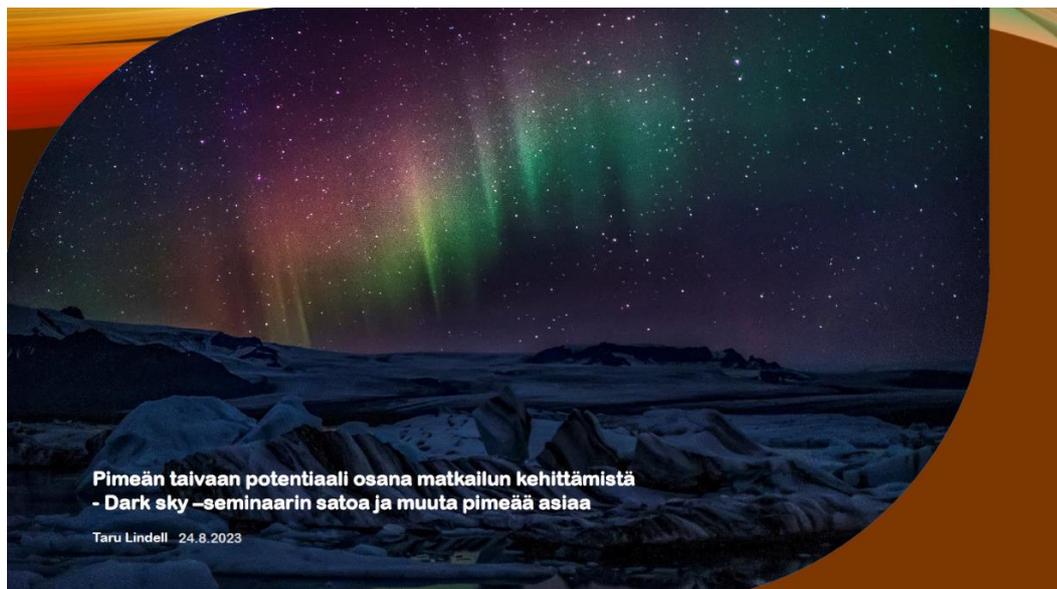
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## FINLAND

### Dark sky seminar in Utsjoki

Dark Sky Travel seminar was held in Aurora Holidays, Utsjoki in August 3<sup>rd</sup> 2023 by Lapland Partner PLAKY. This was during the projects 2<sup>nd</sup> period. The event was open to all businesses and organisations in the Utsjoki area and Northern Norway – in hopes of building a common profitable and sustainable vision & collaboration for nature-based travel in the area. The seminar session was open for members of the public interested in learning about the health and environmental benefits of the natural night.



The first part of the day, the seminar session, was kick-started by a Dark Breakfast concept. 9:00 am to 13:00 pm Presentation and information about the benefits, profitability, science and travel application of dark skies.



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13:00-14:00 Break for dark lunch

14:00- 18:00 Workshop and hands on dark sky travel and destination development for businesses and organisations.

## PIMEÄN TAIVAAN SÄILYTTÄMINEN

- Valosaasteen vähentäminen → **VASTUULLISET VALAISTUSRATKAISUT!**
- Sisä- ja ulkovalaistusta suunniteltaessa tulisi kiinnittää huomiota siihen, että valaistus:
  - ✓ valaisee tarvittavan alueen
  - ✓ on siellä, missä sitä tarvitaan
  - ✓ spektrissä on pidempää, punaista aallonpituutta (LED lamput, värielämpötila max 3000 K)
  - ✓ on vain niin kirkas kuin vaaditaan
  - ✓ on oikein suunnattu
- Ympäri Suomea on jo tehty kokeiluja älykkäillä valoilla:
  - Puistoissa ja parkkipaikoilla valoja himmennetään yöksi
  - Suojateillä katuvalot reagoivat liikkeeseen ja kirkastuvat ylittäjän lähestyessä
  - Valtateillä valaistuksen määrä riippuu liikenteestä

24.8.2023

## PIMEÄN TAIVAAN SÄILYTTÄMINEN

- International dark sky places (IDSP) – ohjelma, perustettu 2001:
  - Sertifioi kohteita jotka suojelevat pimeitä alueita mm. vastuullisen valaistuksen keinoin ja tarjoamalla koulutusta aiheesta
  - Alueen täytettävä tietyt kriteerit saadakseen sertifikaatin
  - Yli 200 sertifioitua kohdetta 22 eri maassa
  - [International Dark Sky Places | DarkSky International](#)
- URSA:n keräämiä pimeitä paikkoja kartalla: Taivaanvahti [Taivaanvahti - Ursan havaintojärjestelmä: /locations/browse/map/0/#Havaintopaikat kartalla](#)
- [21 amazing dark sky reserves around the world | Space](#)

24.8.2023

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After lunch, the workshop continued with businesses and organisations, ending the day in a networking dinner (Dark dinner to wrap up, discuss and network).

# PIMEÄN TAIVAAN HANKKEITA

## JUUKA, KAAVI & TUUSNIEMI

- Pimeän taivaan hyödyntäminen osana vastuullisen matkailun kehittämistä –hanke
- Hankeaika: 1.12.2022 – 30.9.2023
- Rahoittaja: Lapin ELY (HAMA, 82 800 €)
- Hankkeen lopputapahtuma: PIMEÄ KUJU –FESTIVAALI 15.-17.9.2023 Tuusniemi

## JOENSUU, POHJOIS-LAPPI, IS, IR, NO

- GLOW 2.0: Valaisemattoman taivaan mahdollisuudet pohjoisen matkailun edistämiseksi –hanke
- Käynnissä
- Rahoittaja: Interreg Northern Periphery and Arctic -rahoitusohjelma
- [GLOW 2.0 - GLOW2.0 \(karelia.fi\)](#)

## SYRJÄVAARA

- Pimeänsuojelualue Pohjois-Savossa: fähjipuisto, pimeätaivaskeskus, observatorio, galleria ja kahvila
- Vierailupaikka, retkiä ja kursseja
- [Syrjävaara Goodnight Oy - Syrjävaara \(syrjjavaara.fi\)](#)

## TEKAPO, NZ

- Dark sky project - pimeänsuojelualue ja teemapuisto
- Opastettuja elämyksiä ja tietoa
- <https://www.darkskyproject.co.nz/>

## HELSINKI

- Helsingin häiriövaloselvitys 2021
- <https://www.hel.fi/static/litteet/kaupunkiymparisto/julkaisut/julkaisut/julkaisu-07-21.pdf>

## SUOMEN YMPÄRISTÖKESKUS

- Valosaaste – vakava ympäristöongelma? (VALO) –hanke
- Hankeaika: 2011– 2013
- [Suomen ympäristökeskus > Valosaaste – vakava ympäristöongelma? \(VALO\) \(syke.fi\)](#)

24.8.2023

### List of actions:

- Consider values of darkness when lighting: consider responsible lighting practices when renovating or taking up new lighting projects.
- Darkness heritage for tourism: think how darkness could be integrated in your activities. Read about available case study examples and business model examples. These can be sourced and activities developed with help from ongoing Finnish projects GLOW2.0, HAMA, e.t.c (list provided).

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## Utilizing darkness in tourism offerings & storytelling in service design

Karelia UAS partner organised as part of its series of workshops in Joensuu, a Storytelling event (workshop 3 in the series), that took place on May 24<sup>th</sup> 2024.



**Karelia** Tervetuloa Koulutus 1, 16.2. Koulutus 2, 4.4. [Vaihda uuteen Howspaceen](#) DS

### Koulutus 3

Kevään viimeisessä koulutuksessa teemana on tarinoiden hyödyntäminen matkailupalveluissa ja -tuotteissa, sekä markkinointiviestinnässä. Esitellään kevään aikana kehitetyt pimeän taivaan matkailupalvelut/tuotteet ja pohditaan keinoja jatkuvaan asiakasymmärryksen hankintaan.

Tuttuun tapaan osallistuminen työpajaan on mahdollista myös Teamsin välityksellä, mutta toivomme mahdollisimman monen saapuvan paikan päälle Tikkarinne-kampukselle, (Tikkarinne 9, 80200 Joensuu). Tikkarinteellä pääset testaamaan nk. virallisen osuuden päätyttyä VR-laseja.

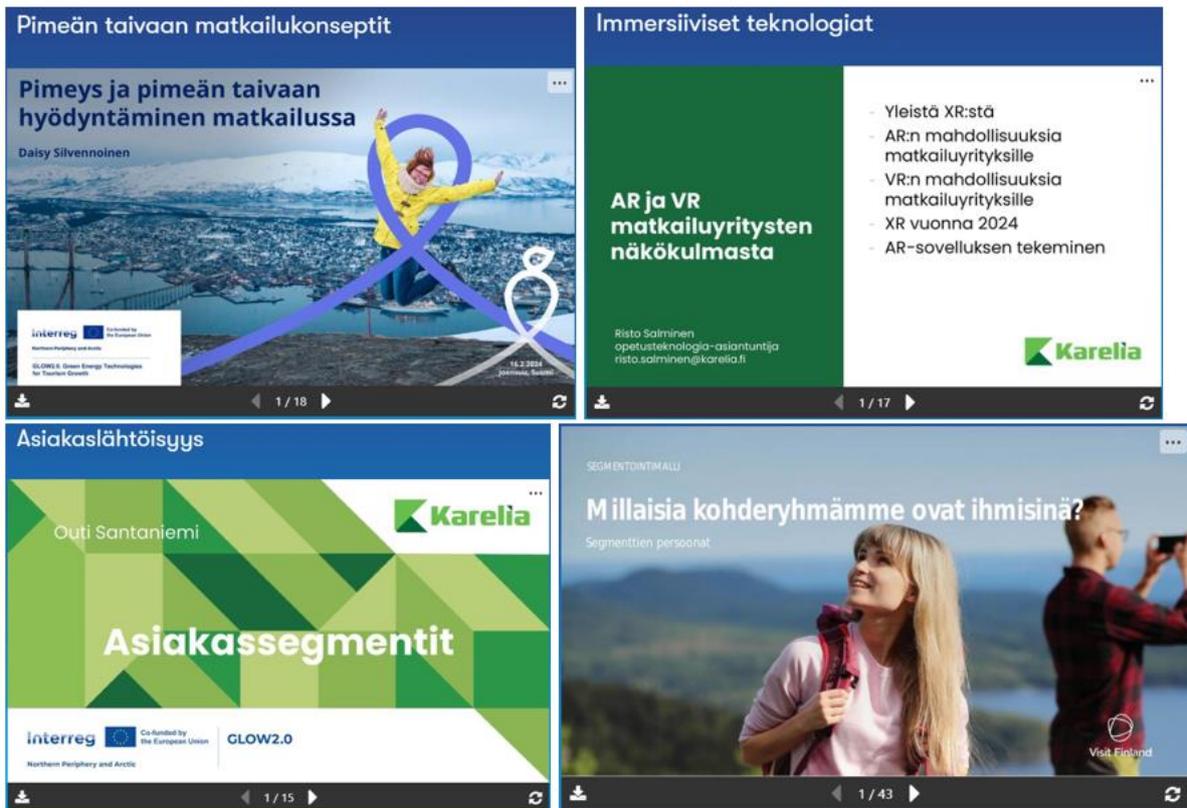
**Aikataulu:**

- 13.00 Tarinoiden hyödyntäminen matkailupalveluissa, tuotteissa ja markkinointiviestinnässä - Tarja Kupiainen
- 13.20 Tehtävä: tarinoiden hyödyntäminen sinun matkailupalvelussasi
- 13.45 Asiakasymmärryksen kasvattaminen
- 14.00 Matkailupalveluiden ja palvelupolkujen esittelyt
- 14.40 Yhteenveto, keskustelu ja toiveet syksyn koulutusten sisällöistä
- 15.00 Teams loppuu, VR-lasikokeilut
- 15.30 Tilaisuus päättyy

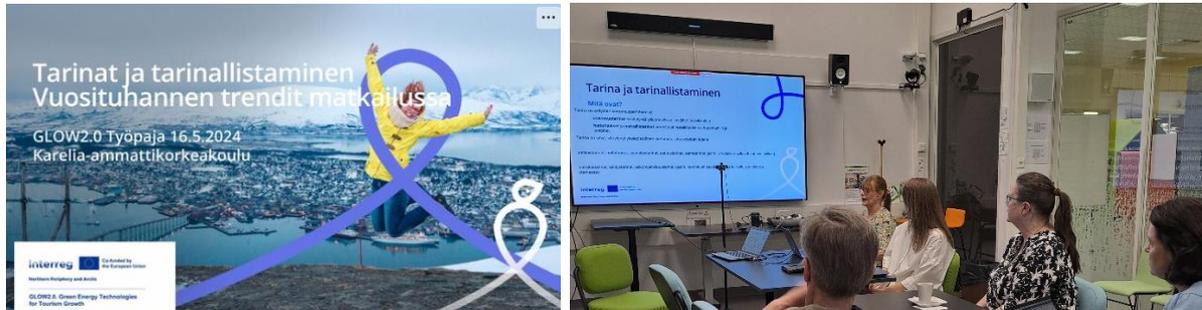
Marketing Darkness was the third workshop's theme of focus. The aim was to engage enterprises on ways dark skies tourism can be stimulated using storytelling as part of service design, including integration of storytelling in technologies to enhancing already existing experiences, enable joint marketing such as at Trade Fairs, or for use as plan B experience offer in instances where bad weather affects visibility, or during instances that light pollution obscures visibility of promised offers to visitors (e.g. viewing of phenomenon such as aurora borealis, stargazing, etc).



Before this workshop, i.e. during the workshop 2 in the series of workshops, the SMEs were given an assignment to help their design process: The Dark sky product card. The purpose of the Dark Sky Product Card was to bring together the input from the previous workshops 1 (A2.5 - Dark Sky themes, Case Study examples, Brainstorming and ideation) and workshop 2 (A2.6 - Adopting and adapting Dark Sky themes in own tourism offers), into the content of Dark Sky as part of a tourism service, customer insights and the content of the service (below materials for workshop 1).



In the third workshop, the use of storytelling in designing services and products, marketing, and creating unique experiences for customers was presented and discussed as first phase of the event. After that, the second part of the workshop focused on a talk about the significance of knowing one's customers. Participants were given insights how to collect and analyse data continuously, and how to engage customers in the development process.



Immersive technology testing was also included in the event programme to allow SMEs consider possibilities of these for own businesses storytelling of regionspecific phenomenon and marketing darkness elements that are usually very abstract and difficult to explain without visuals to for example, international visitors or tourism agencies. Also, technologies as plan B in instances of bad weather when promised phenomenon cannot be assured to meet visitor satisfaction.

#### List of actions:

- Leverage local heritage: utilise local narratives, stories, folklore, legends, and even own stories to enhance the tourist experience, creating a unique and authentic offering for visitors.
- The power of authentic storytelling: sharing narratives about own destinations or own culture, history, and people, can enriches the tourist experience and foster deeper respect for the local culture, its people and the environment. If you are not a good storyteller yourself, you can develop over time, access if someone in the business has that competence, or work with other locals who may offer such service in partnership.
- Utilise tools for gathering customer understanding: include surveys, feedback, customer surveys, interviews, and tools for interpreting customer understanding such as customer profiles and empathy maps.
- Customer understanding as part of service development: understanding customers can help create services and products that better suit the customer's needs and wishes. There are available tools such as a value proposition canvas, describing the customer's service path, etc that can be used as baselines.

## Dark Sky productisation seminar and workshop

Karelia in synergy with other regional organisations and projects, organised a workshop event in Koli on 27.8.2024, during the 4<sup>th</sup> project period. The event focused on companies upskilling and reskilling on productization, marketing and networking. The event was marketed widely across various channels and directly to enterprises that had engaged directly with the project during series of webinars (Period 1 – Period 3).

✉ info@lieksankehitys.fi

☎ 040 480 3708



#lieksa ▶ #Koli ▶ #vastuullisuus ▶ #kehittäminen ▶ #matkailu ▶ Maksuton

🌐 Virtuaali

Ajankohtaisissa asiantuntijapuheenvuoroissa teemoina STF-merkin edut, pimeys matkailun voimavarana ja matkailupalveluiden tehokas paketointi. Toiminnallisissa työpajoissa opit lisää oppilaitosyhteistyön hyödyntämisestä vastuullisuustyössä, 360-kuvaamisesta ammattilaisten ohjauksessa ja hiot tuotteidesi esittelytekstit myynti kuntoon. Pohjoinen Lakeland ja GLOW2.0-hankkeet tarjoavat kahvit, lounas omakustanteisesti.

Paikka: KoliFreetime, Ahmovaara  
Aika: ti 27.8..2024 klo 9-15

Ohjelma:  
9-9.10 Tervetuloa, linjat auki etäyhteyksiin  
9.10-9.40 Anu Ruusila, Cordial Communications: STF-polulla näkyvyyttä valtakunnallisissa medioissa  
9.45-10.15 Minna Murtonen, Äksyt Ämmät: Matkailutuotteiden paketointi  
10.20-10.50 Emma Bruus, Sodankylä observatorio: Pimeän taivaan matkailu vetovoimatekijänä  
11.00-12.00 Lounas, omakustanteinen  
12.00-15.00 Toiminnalliset työpajat:

1. STF-polun edistäminen oppilaitosyhteistyön avulla (Karelia-amk)
2. 360-kuvaus: videot ja valokuvat matkailupalveluiden myynnissä
3. Tuotetekstien kirjoittamistyöpaja - näin hyödynnät tarinoita

📅 ti 27. elokuuta 2024 klo 09:00 - 15:00

👤 JÄRJESTÄJÄ

🏢 Lieksan Kehitys Oy LieKe

📌 ILMOITTAUDU

📘 FACEBOOK-SIVU

📷 INSTAGRAM-TILI

📧 Jaa:   

✍️ Anna palautetta järjestäjälle

The whole day workshop focused on ways dark skies tourism offers can be stimulated and season extended for example using storytelling as part of service design, integrating technologies to enhance experiences and as plan B during bad weather, and networking for tourism. Associated partner ELY-Centre/NKBR was engaged with disseminating information about the event, Sodankylä Geophysical Observatory presented at the event, and PLAKY partner joined the event. PLAKY also organized own regional workshop in Lapland 27.9.2024.



## Matkailuyrittäjien sparrauspäivä Kolilla ti 27.8.2024

klo 9-15, etäosallistuminen mahdollista klo 9-11

Koli Freetime, Kopravaarantie 27, 83950 Ahmovaara

Tule mukaan vahvistamaan kestävä matkailun osaamistasi ja saa uusia näkökulmia toimintaasi! Ajankohtaisissa asiantuntijapuheenvuoroissa teemoina STF-merkin edut, pimeys matkailun voimavarana ja matkailupalveluiden tehokas paketointi. Toiminnallisissa työpajoissa opit lisää oppilaitosyhteistyön hyödyntämisestä vastuullisuustyössä, 360-kuvaamisesta ammattilaisten ohjauksessa ja hiot tuotteidesi esittelytekstit myyntikuntoon. Pohjoinen Lakeland ja GLOW2.0-hankkeet tarjoavat kahvit, lounas omakustanteisesti. **Ilmoittaudu mukaan 20.8. mennessä!**

### Ohjelma:

9-9.10 Tervetuloa, linjat auki etäyhteyksiin

9.10-9.40 Anu Ruusila, Cordial Communications: STF-polulla näkyvyyttä valtakunnallisissa medioissa

9.45-10.15 Minna Murtonen, Äksyt Ämmät: Matkailutuotteiden paketointi

10.20-10.50 Emma Bruus, Sodankylä observatorio: Pimeään taivaan matkailu vetovoimatekijänä

11.00-12.00 Lounas, omakustanteinen

12.00-15.00 Toiminnalliset työpajat:

1. STF-polun edistäminen oppilaitosyhteistyön avulla (Karelia-amk)
2. 360-kuvaus: videot ja valokuvat matkailupalveluiden myynnissä
3. Tuotetekstien kirjoittamistyöpaja – näin hyödynnät tarinoita

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### Ilmoittautuminen:

<https://forms.office.com/e/7eYncAZLeh>



Euroopan unionin  
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LieKe  
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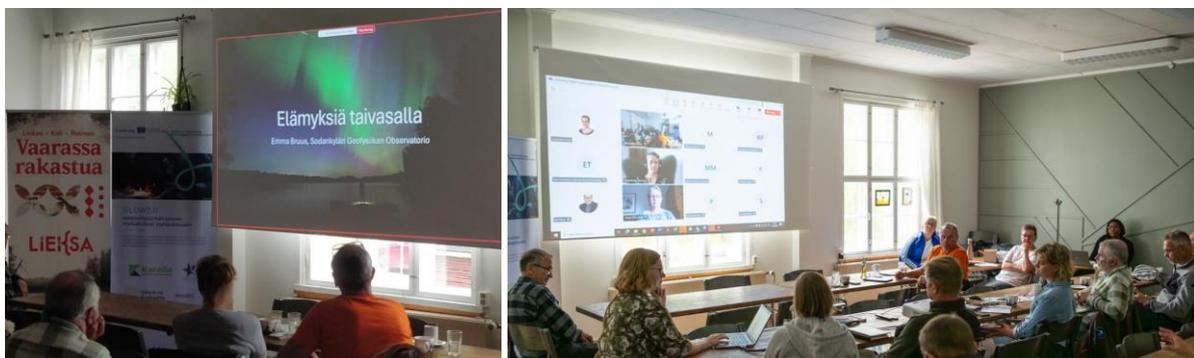
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During the event, Anu from Business Finland/Visit Finland presented the Sustainable Travel Finland (STF) path to visibility of SMEs. Minna from Äksyt Ämmät followed with the topic “Packaging of tourism products” giving case examples how products have been packaged for sale, their work with productization, including things to consider for different visitor segments.



Associated partner Sodankylä Observatory then delved into Dark sky tourism examples as attraction factors and ways to integrate these in already existing services, considering also place-based infrastructure and available support e.g., network of actors. The morning session was offered as a hybrid event so that those that could not make it to Koli on that day had the chance to take part too.



In the afternoon, only onsite participation was possible as rotational workshop sessions were intended for SMEs to go more into detail with issues from morning session, and have an opportunity to engage with experts onsite on ways to develop own products with discussed themes in mind.

The STF session focused on how to join the network (Sustainable Travel Finland network), ways to tackle sustainability communication, and get other support. Immersive and other technologies sessions focused on learning from successful case studies and other business models using immersive technologies to support and or enhance own offers e.g. dark sky possibilities, varied technologies costs, and required competences for various technologies. The session also offered possibility to test technologies and get one-on-one Q & A for aspects that interest SMEs.



The service design session focused on how to create and curtail own products. SMEs were provided templates to use in ideation of own product(s) in line with darkness as added value. These were taken home with them to continue developing own offers/ use in ideation.



The event, spanning across activities A1.3, A2.5, A2.6, A3.3 of GLOW2.0, prompted the participants to reflect on how to integrate darkness as a value-adding element in their own tourism products or services, and what kind of networking and collaboration opportunities they could pursue with other actors in the region. The venue also offered valuable information on locally available actors with varied support for dark sky tourism development e.g. STC Tuotanto Oy with immersive technology assistance for tourism companies, Syrjävaara Oy with light pollution aspects or if need for example understanding night lighting in own premises, STF certification if SME is working on green business model development such as integration of Dark Sky values and awareness about benefits from Darkness, GLOW2.0 support for those needing further ideation and curtailing of

service offers, and Äksyt Ämmät for those who have ideas clearer/ product templates, and in need of packaging and platform for sale. There were 44 participants at the event.

#### List of actions:

- Adopt responsible practices: work towards integrating responsible practices as part of own service design, focusing on reducing light pollution and energy consumption for example.
- Be open to continuous learning and development: learn from successful case studies and other business models using immersive technologies to gain leverage how you could and what (technologies, own competence, expertise) could support your own business.
- Choose equipment purchases and investment wisely: test existing technologies to gauge competence and consider what could best for your business.
- Engage with similar SMEs in Dark Skies Tourism: explore and network with other dark skies tourism SMEs to learn, share experiences or find potential areas of BtoB networking
- Leverage local heritage: utilise local heritage and natural assets to enhance the tourist experience, creating a unique and authentic offering for visitors.
- Collaborate for impact: collaborate with SMEs providing other related activities that can attract tourists and provide added value for small companies with limited resources.
- Technologies as plan B in light of weather changes: Consider digital tools and technologies to support own businesses, enhancing reach, stability and satisfaction of offering.
- Share knowledge and best practices, and use avenues such as project events for creating networks: continue the dialogue and exchange best practices through networking events and collaboration platforms.
- Do not overthink ideation: Make use of available templates, e.g. provided GLOW template by Karelia UAS for first draft ideation of own product(s) in line with darkness as added value, and in streamlining own idea in line with own competence and business strengths. Templates were taken home with SMEs to develop own offering ideas and contact in case of need with further development/ mentoring. Use available templates (Visit Finland templates) to map what customer segments could best suit your services, business model or intended services.
- Expand promotional efforts: Develop and implement marketing strategies to promote intended dark skies tourism offerings particularly targeting the low season (autumn – winter) to encourage longer stays and year-round tourism.
- Consider specialists for productisation and packaging your ideas into products and services. Also consider responsible company offering those as they may better align your offers considering responsible, regenerative and sustainable practices in mind. Äkyst Ämmät is one example in the region.

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## Look-up the Sky! workshop

Lapland partners PLAKY organised a workshop "Katse taivaalle!" in English "Look-up the Sky!" in own region during the 4<sup>th</sup> project period on 27.9.2024. The opening speech was made by the partner/ associated partner Sodankylä Geophysical Observatory (Emma Bruus), followed by Elina Seppälä who shared the Science Centre Aurora project plans for Lapland region.



Katse taivaalle! – työpaja Sodankylän Tähtelässä 27.9. klo 14-18



Miten otetaan tähtitaivaan hyödyntäminen osaksi liiketoimintaa? Mistä ja miten pitäisi aloittaa, entäpä riittääkö osaamiseni? Näihin kysymyksiin saat vastauksen kokoneiden toimijoiden opastuksella.

**GLOW 2.0 -hanke järjestää Katse taivaalle! - tähtitaivaan ilmiöiden tuotteistamisen työpajan**

**Aika:** perjantai 27.9.2024 klo 14-18:00.

**Paikka:** Polaria-Sali, Sodankylän geofysiikan observatorio ja verkossa.  
Ilmoittaudu tilaisuuteen 26.9.2024 mennessä [reija.viinanen@sodankyla.fi](mailto:reija.viinanen@sodankyla.fi)

This was followed by workshop for local companies and entrepreneurs to enhance their competence about dark sky tourism and possible stargazing services. The workshop was steered by regional enterprises from Eastern Finland and Northern Finland, who are forerunners in the field of Dark Sky tourism, identified and brought together for cooperation by GLOW2.0 project.

Workshop session agenda:

### Arctic Stargazing Tours – Considerations for outdoor stargazing business

- How to commercialize the starry sky visible at night?
- What should you consider as a strategy for the first few years?
- What is required from an entrepreneur?

### **Taivo Productions Oy – guided immersive experiences as part of service design**

- Introducing the starry sky and cosmos indoors
- Planetarium: exploring the night sky with the help of a planetarium
- Immersive equipment considerations for demonstrations

### **Syrjävaara Good Night Oy – Establishing a Dark Sky Park or Centre for science and tourism**

- What is darkness?
- What is required to establish a dark sky area and what does the concept mean?
- Dark sky area as a tourist attraction and the infrastructure built around it
- Monitoring the quality of the night sky and observing and recording its phenomena

### **Aurora Village Oy – Hints for successful business in weather dependent sector**

- Managing a successful tourism offering and acquiring and measuring satisfaction with international customers
- Product design for the dark season: location, accessibility, light pollution, provision of equipment, weather conditions
- Guidance and expert guides: what is required of an expert guide?
- Contingency plans that can fix the starry sky experience in poor weather conditions.
- Expectation management
- Interactive learning moments: moments where tourists can learn about the basics of astronomy, the creation of the northern lights or local history.

The workshop and discussions help answer to how to make the night sky part of one's business, where and how to set-up or integrate actions, and what skills and competences, and flexibilities of uncertainties to keep in mind when considering various approaches in the utilisation of astrophenomena and the commercialisation of dark sky tourism.

#### **List of actions:**

- Adopt responsible practices: work towards integrating responsible practices as part of own service design, focusing on reducing light pollution and energy consumption for example.
- Choose equipment purchases and investment wisely: test existing technologies such as via projects to gauge competence and consider what could best for your business.
- Engage with similar SMEs in Dark Skies Tourism: explore and network with other dark skies tourism SMEs to learn, share experiences or find potential areas of BtoB networking
- Leverage local heritage: utilise local heritage and natural assets to enhance the tourist experience, creating a unique and authentic offering for visitors.
- Collaborate for impact: collaborate with SMEs providing other related activities that can attract tourists and provide added value for small companies with limited resources.
- Technologies as plan B in light of weather changes: Consider digital tools and technologies to support own businesses, enhancing reach, stability and satisfaction of offering.

## IRELAND

### Building a Sustainable Tourism Business workshop



Údarás na  
Gaeltachta



South West Mayo  
DEVELOPMENT COMPANY CLG  
Comhlacht Forbartha  
Iardheisceart Mhaigh Eo CTR

## AG FORBAIRT GNÓ TURASÓIREACHTA INMHARTHANA BUILDING A SUSTAINABLE TOURISM BUSINESS

Áit/Location: Halla Thuar Mhic Éadaigh  
Dáta: 20 Deireadh Fómhair / 20th October  
Am/Time: 10am - 1pm



### 10.00 -11.45am - Cur i Láthair Presentations / Talks:

Fáilte / Welcome Sabina Trench

10.00 Turasóireacht Ghlas /Green Tourism,  
Funding for SMEs Derek Hannick

10.15 Spéartha Dorcha / Astro Tourism,  
Mayo Dark Sky & GLOW 2.0 - Martina Ní Dhóláin

10.30 Turasóireacht Phobail/Developing Community  
Led Sustainable Tourism  
Dominic Ó Móráin / Michael Hegarty

10.45 Turasóireacht Ghlas / Green Initiatives in a  
Tourism Business  
Óstán Westport Woods - Case Study Michael Lennon

11.00 Comhshaol / Sustaining Habitats,  
The Lough Carra Life Project -Kieran Flynn

11.15 Turasóireacht Chósta / Coastal Zone Tourism  
Developing Tourism in the Coastal Zone & EmpowerUS  
Micheál Mac Donnacha

11.30 Digiú Turasóireachta/ Digitalisation of Tourism  
Creating Social Media Content Using AI  
Alastair McDermott

### 12.00 - 1 pm Ceardlann / Speed dating (15 min sessions)

An tAistríú Glas/Finding opportunities in  
Green Transition

(Derek Hannick / Mayo LEO)

Forbairt Turasóireachta Chósta/Developing  
Tourism in The Coastal Zone

(Micheál Mac Donnacha - Empower Us)

Spéartha Dorcha/Dark Sky & Astro Tourism  
(Martina Ní Dhóláin - GLOW 2.0)

AI generated content for Social Platforms  
(Alastair McDermott)

Turasóireacht Réigiúnda/Developing Regional  
Tourism Offering (Dominic Ó Móráin)

Tacaíocht & Maoiniú/Funding Supports for  
Digital and Green Transition (Mayo LEO)

Na deiseanna/Broad opportunities within the  
emerging landscape of the tourism industry.  
(Fionnan Nestor)

### 1-2.00pm Lón Lunch provided Ceapairí Tae & Caife

11.45- 12.00 Tae & Caife

Clárú / Registration : [orla@udaras.ie](mailto:orla@udaras.ie)

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During Mayo Ideas Month, Glow 2.0 (Údarás na Gaeltachta & WestBIC), in collaboration with South West Mayo Development Company, hosted an event focused on building a sustainable tourism business during the 3<sup>rd</sup> project period, on 20.10.2023.

The event brought together local businesses, tourism professionals, and community groups to explore ways to reduce light pollution, extend the tourism season, and implement innovative business practices. Key speakers included Derek Hannick on green funding opportunities, Georgia McMillan from Mayo Dark Sky Park on light pollution reduction, and Martina Uí Dholáin, who presented GLOW2.0's Dark Sky Tourism initiatives, showcasing Northumberland's success in generating over €25 million from Dark Sky Tourism.



Derek Hannick, Lean Green Management Solutions, set the scene for the importance of protecting our local environment from an environmental and economic perspective. He went on to provide details of several funding programmes available to businesses to improve their sustainability and reduce costs.

County Mayo is home to two Dark Skies initiatives, Mayo Dark Sky Park (Wild Nephin National Park) and Glow 2.0. (Údarás na Gaeltachta and WestBic). Georgia McMillian, Mayo Dark Sky Park Development Officer, and Martina Uí Dholáin from GLOW 2.0 explained the concepts of dark skies tourism and the impact of light pollution on our precious dark sky asset.

Michael Lennon, Managing Director of the Westport Woods Hotel, and a lifelong champion of sustainability in tourism, highlighted the need for baseline metrics to assess the benefits of investment in key departments such as energy, waste and water.

Kieran Flynn, Project Manager of the Lough Carra LIFE project, showcased the importance of Lough Carra and its flora and fauna, some of which are best in class from a national and European perspective.

EmpowerUs Project Officer with Údarás na Gealtachta, Mícheál Mac Donnchadha, introduced this highly innovative EU project, which aims to encourage economic and social entrepreneurship in coastal communities along the west coast of Ireland.

The morning also included a presentation by Alastair McDermott, marketing coach and consultant, on the digitalisation of tourism using artificial intelligence (AI). Those in attendance were hugely impressed by the potential for AI to support tourism businesses and social enterprises, a tool for the future.

The sessions and workshops explored into various significant topics including business grants, sustainable practices, and innovative strategies to extend the tourism season. A significant emphasis was placed on dark skies tourism and the essential knowledge around light pollution. Participants explored ideas such as stargazing events, space-themed menus, and night photography workshops to attract visitors during off-peak seasons. The workshop concluded with a call to action for businesses to adopt sustainable practices and collaborate on Dark Sky initiatives, highlighting the dual benefits of boosting tourism and preserving the environment.



Participants gained insights from key local business speakers and were enlightened by presentations from various organisations. Advantages of incorporating Chat GPT and AI in business marketing were offered and ways to aid smaller businesses in their sustainable ventures discussed. Discussions additionally emphasized technology in tourism, tracing from Alastair McDermott presentation on using AI tools for digital marketing and personalized visitor experiences.

The large crowd in attendance (45 participants) gained valuable insights around funding for green investments through Local Enterprise Office (LEO) Mayo and SEAI, Dark Sky tourism opportunities, and the ambitious plans for the Joyce Country and Western Lakes Geopark to become the fourth UNESCO Global Geopark in Ireland. The event was very well received with networking and information sharing happening throughout the day. As one attendee commented, "This event isn't just about understanding sustainable tourism: it's about taking actionable steps towards implementing these practices," reflecting the general readiness for change among the attendees.



The last word of the day came from Fionnán Nestor, Fáilte Ireland Projects Officer who highlighted some excellent supports available to business on the Fáilte Ireland website such as the carbon calculator and encouraged interested businesses and social enterprises involved in tourism to use these valuable tools as they start their sustainability journey.

The event was praised for its practical insights and networking opportunities, with attendees committed to taking concrete steps toward sustainable tourism development. The event proved to be greatly successful, advancing a wealth of shared knowledge and insights. As the event concluded, the message was clear: sustainable tourism is not an abstract idea, but the future of tourism in Ireland.

#### List of actions:

- Adopt Sustainable Practices: Businesses should work towards integrating sustainable practices into their operations, focusing on reducing light pollution, energy, waste, & water.
- Use Available Tools: Encourage the use of existing tools such as Fáilte Ireland's carbon calculator.
- Seek Funding and Support: Businesses are to actively seek out funding opportunities for green investments from Local Enterprise Office (LEO) Mayo, SEAI, and other available programs as detailed by Derek Hannick.
- Engage in Dark Skies Tourism: Explore and invest in dark skies tourism by reducing light pollution and carrying out their own light pollution assessment using app.

- Expand Promotional Efforts: Develop and implement marketing strategies to promote dark skies tourism and other sustainable tourism initiatives, particularly targeting the winter season to encourage year-round tourism.
- Leverage Local Heritage: Businesses should utilise local heritage and natural assets to enhance the tourist experience, creating a unique and authentic offering for visitors.
- Collaborate on Events: Organise and collaborate on stargazing events, nighttime photography courses, and other related activities that can attract tourists and provide educational value.
- Digitalisation of Tourism: Embrace digital tools and AI to support tourism businesses and social enterprises, enhancing their efficiency and reach.
- Share Knowledge and Best Practices: Continue the dialogue and exchange best practices through networking events and collaboration platforms established during the workshop.
- Training and Development: Provide ongoing training and development opportunities for businesses and local communities in sustainable practices and innovations in tourism.

These actions are designed to create a roadmap for implementing the insights gained from the workshop, ensuring that sustainable tourism becomes deeply ingrained in the region's economic development plans.

### Light pollution workshop



Udaras partner took part a workshop on light pollution at Trinity College, hosted by Dark Sky Ireland on 26th April 2024, during the 3<sup>rd</sup> project period. Various government agencies were invited, including Failte Ireland, the Irish Research Council, the All-Ireland Pollinator Plan, The Heritage Council, Leave No Trace, and Mayo Dark Sky Park. The main purpose was to discuss how Ireland's dark skies heritage and light pollution impacts on it. The day's agenda also highlighted the aims of GLOW2.0 project.

## Light Pollution Workshop

**Purpose:** Our dark skies are a valuable heritage that is being continuously eroded. Most lighting developments in recent years have been driven by cost and carbon budgets, but without consideration for the amount and type of light required, though guidance is provided in SEAI information and in some local authority plans. The importance of dark skies nationally is recognised by Fáilte Ireland, Irish Research Council, All-Ireland Pollinator Plan, The Heritage Council, and Leave No Trace and is fundamental to the NPWS-managed Mayo Dark Sky Park. It is also the focus of two EU Funded Projects in Ireland; GLOW2.0 and Dark Sky Ecotourism. However, despite being on the EU agenda, the complementary topic of light pollution has not been addressed in national legislation, nor in the National Biodiversity Action Plan or Green Public Procurement plans.

This workshop is aimed at bringing together various stakeholders including local and national authorities to discuss the need for legislative action on light pollution.

**Background Material:** M. Morgan-Taylor 2023 Regulating light pollution: More than just the night sky

<https://www.science.org/doi/abs/10.1126/science.adh7723>

**Date and Time:** Friday 26th April 2024, 10:00 am

**Location:** Fitzgerald Library, 1<sup>st</sup> floor, Fitzgerald Building, School of Physics, Trinity College Dublin

**For Maps & Directions See:** <https://www.tcd.ie/Maps/map.php?b=253>

*Please note that there is no parking access on campus.*

### Provisional Programme:

10:00 Welcome from Jane Stout, TCD VP for Biodiversity & Climate Action

10:15 Prof. Brian Espey - Irish Dark Skies and Light Pollution Situation

10:45 Prof. Kevin Gaston (University of Exeter) - Impact of Light Pollution on Nature

11:15 Coffee & discussion

11:30 Dr Yana Yakushina (University of Ghent) - Light pollution, the Law, and the EU

12:00 Dr Hanna Dalglish (University of Southampton) - Light Pollution Action in the UK Parliament

12:35 Panel Discussion

12:55 Summary of Meeting & Necessary Actions

13:00 Light Lunch in situ & Discussion

We look forward to seeing you at the meeting. Please inform us if there are other people who you think should be invited.

Brian Espey, Chairperson, Dark Sky Ireland

**Queries & RSVP emails should be addressed to:** [info@darksky.ie](mailto:info@darksky.ie)

**For information on Dark Sky Ireland see:** <https://www.darksky.ie/>

A recording of the event, including the full agenda, is available online ([link](#)). An Environmentally Friendly Lighting Guide was launched by Dark Sky Ireland during the event ([link](#)). The lighting guide consists also case studies and good lighting practices shared with GLOW2.0 stakeholders by Dark Source/ Mayo Dark Sky Park earlier during learning journey session in Ireland (Belmullet, Mayo, September 2023).

### List of actions:

- Advocating for responsible tourism and lighting: Continue advocating for Light pollution policy in Ireland, and about values from darkness and dark skies
- Awareness actions: share Environmentally Friendly Lighting Guide with those who might benefit of it.
- Networking and Collaboration: Continue collaboration efforts to advance responsible lighting and tourism mindset and actions.

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## ICELAND

### Regional workshops in three different regions

Iceland partner SSNV organised three regional workshops between the end of March and begin of April, in three different places of the area. Here the dark sky philosophy and the GLOW project was presented to regional stakeholders. Number of participants happened to be behind partner expectations, as (due to sickness) they had to postpone them in the two weeks around easter. Nevertheless, good discussions and ideas were sought. Issues discussed were among other:

- What entertainment or services participants envision that could be offered in combination with darkness themes?
- Who is the customer? What personality traits do they hold?
- What places could be dark-friendly?
- Where could lighting be improved?
- The to do list was to contemplate upon issues discussed during the workshops.

### Iceland Dark Sky tourism seminar – workshop in Blönduós

Iceland partner held own regional seminar-workshop on 8.10.2024, the 4<sup>th</sup> project reporting period, combined with the learning journey. The enriching day of insights and collaboration kicking off at Krúttið, Hótel Blönduós, Mayor Pétur Arason welcomed participants, emphasizing the importance of sustainable and regenerative tourism in Iceland. His insights highlighted the unique challenges local communities face in balancing development and preservation.



### Stories to be told!

- Folk stories and tales
- Elfs
- Hidden people
- Ghosts
- Creatures

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This was followed by Mrs. Ólöf Ýrr Atladóttir, a former Director of the Iceland Tourism Board, who discussed how regenerative tourism can promote economic growth alongside cultural and environmental sustainability.

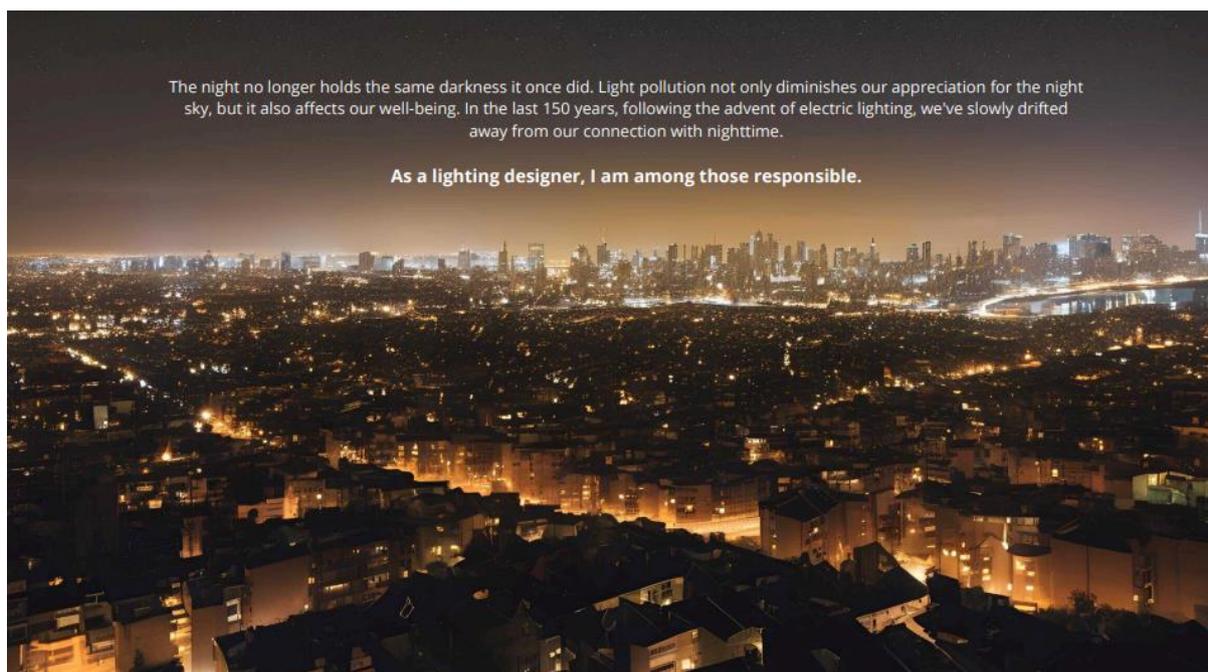
Mrs. Arnheiður Johannsdóttir, Director of Visit North Iceland, thereafter outlined how NPA tourism projects can align with local Destination Management Plans, offering a roadmap for collaboration.



After a coffee break, themes dived into presentations about citizen science and lighting design. Dr. Jessica Aquino from Hólar University shared a compelling example of citizen science through seal watching, while Mrs. Georgia McMillan, Director of Mayo Dark Sky Park, discussed the interconnectedness of ecosystems.

- PDF**  
**Ólöf Ýrr Atladóttir Regenerative Tourism Perspectives Iceland**  
Dark Sky and Darkness values in regenerative tourism
- PDF**  
**Arnheiður North Iceland The Role Of DMMO In Tourism Development**  
What role DMMO can play in creating pathways and enabling inclusive tourism development
- PDF**  
**Jessica Aquino Intergrating Citizen Science Research In Tourism**  
Community development regenerative tourism approach based on Snaefellsnes Iceland case study, a practice example from the seal watching and reflecting it to the astronomy
- PDF**  
**Georgia Macmillan Citizen Science In Responsible Dark Sky Tourism**  
Wild Nephin National Park - Mayo Dark Sky Park citizen science intergration for responsible and sustainable tourism development.
- PDF**  
**Kristján Kristjánsson Embracing Darkness In Lighting Design**  
What role can a lighting planner or designer play in protecting Darkness and Dark Sky values for science, heritage, environment and economy? Light is necessary but light pollution (unnecessary or excessive lighting) is not. Responsible nighttime lighting should consider the values and benefits of the night/ Darkness and Dark Skies. To become a good lighting designer, one must understand where not to add the light.
- PDF**  
**Sævar Helgi Iceland At Night With Northern Lights And Stargazing**  
Without Dark Sky and Darkness, we would not enjoy stargazing nor the northern lights. Our nighttime (Darkness of nature and Dark Skies) is also an economic resource. Example from Iceland.

Mr. Kristján Kristjánsson, a lighting designer, emphasized the importance of preserving Iceland's dark skies for wildlife and astrotourism. Mr. Sævar Helgi Bragason, a science educator, captivated us with insights on astrotourism's potential in Iceland.



The day concluded with a Q&A session led by Mr. Kjartan Bollason from associated partner organisation, fostering further discussion.

#### List of actions:

- Adopt responsible and sustainable practices: Businesses should work towards integrating responsible and sustainable practices into their operations, focusing on reducing light pollution, energy waste prevention, biodiversity and water protection. Thinking what own role one can play in developing good practices.
- Favor best practices: Explore and invest in dark skies tourism by reducing light pollution and carrying out their own light pollution assessments for renovations or new projects/fittings.
- Expand Promotional Efforts: Develop and implement marketing strategies to promote dark skies tourism and other sustainable tourism initiatives, particularly targeting the the low season to encourage year-round tourism.
- Leverage Local Heritage: Businesses should utilise local heritage and natural assets to enhance the tourist experience, creating a unique and authentic offering for visitors. Storytelling and Dark Sky offering can also be provided during daytime, not only during nighttimes.
- Collaborate on Events: Organise and collaborate to attract longer stays for visitors and tourists, and provide educational value that enhance appreciation of Darkness.
- Technologies for Tourism: Embrace technologies to support tourism businesses and social enterprises, enhancing their efficiency and reach.
- Share Knowledge and Best Practices: Continue the dialogue and exchange best practices through networking events and collaboration platforms established during the workshop.

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## FURTHER INFORMATION

GLOW2.0 - Green Energy Technologies for Tourism Project has been funded by Interreg Northern Periphery and Arctic Programme.

Link to project website: [NPA GLOW](#)

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