



DIPUTACIÓN
DE **ÁVILA**



ACTION PLAN AVILA COUNTY COUNCIL



NIGHT LIGHT PROJECT

“Improving regional policies to reduce light pollution and protect and valorise dark night skies”

ACTION PLAN OF AVILA COUNTY COUNCIL

Avila
December 2019

Cover photo: RRP

Part I - GENERAL INFORMATION

Project: NIGHT LIGHT - Improving regional policies to reduce light pollution and protect and valorise dark night skies

Partner organisation concerned: AVILA COUNTY COUNCIL

Other partner organisations involved (if relevant): -

Country: SPAIN

NUTS2 region: CASTILLA Y LEON

NUTS3 county: AVILA

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Part II - POLICY CONTEXT

The Action Plan aims to impact:

ERDF Regional Operational Programme Castilla - León
Other regional development policy instrument (General Strategy on Tourism)

Name of the policy instrument addressed:

ERDF Regional Operational Programme Castilla - León 2014-2020 (FEDER
Programa Operativo Regional Castilla - León 2014-2020)

Further details on the policy context and the way the action plan should contribute to improve the policy instrument:

The general background of Avila province is based in the natural resources the territory has, since due to its altitude, over 1.000 metres over sea level on average, what makes to have extraordinary conditions in terms of pristine dark skies at night because of the lack of air turbulences as wells as non-cloudy nights, jointly with the fact it is a big size province with only 100.000 inhabitants in the rural areas, make the mountains range area located in the southern part of the province, Gredos mountains, a place where population density is low and decreasing, this make the light pollution has been kept in lower rates than other locations at national level

Since 2013 that southern part started to consider how to keep those dark sky nights and how to develop the sector of tourism complemented by activities of stargazing and some other linked to them as a way to contribute to set rural population, that unfortunately is elderly and is decreasing so fast, because the lack of industry and having the rural tourism as main resource. The natural market for this tourism is Madrid, the country capital with around 6 M people, in a polluted environment and looking for some quiet and healthy places nearby to spend weekends and short period of vacation.

Nevertheless, the Madrilians and some other tourist coming from a radio over 120 km to Avila province, usually spend just one day to visit some heritage, enjoy a tasty meal and walking around the paths, but when the night comes they return to their respective living cities, consequently the overnight ratio is low comparing with other regions. This was one of the main reasons to start considering in 2014 a suitable European call to overcome this challenging situation, in an European Congress held in Bologna, Italy in December 2014, partners from Avila (Spain), Hadju-Bihar (Hungary) and Kranj (Slovenia) jointly with a dutch consultant started the process to submit a proposal, what after a first attempt failed, was successful in 2016. That was the origin of Night Light project we are developing nowadays.

Once the project was approved and started, it was clear two priorities were identified and combined to address the goal:

- o Priority 1: Reduce **Light Pollution** in Avila province (dealing with public lighting at level of municipalities, Light Companies, Engineering

Chamber, Natural protected areas like Gredos Mountains Regional park....etc)

- o Priority 2: **Sustainable astro-tourism development**, or named also Tourism of the stars, (dealing with tourism sector, hostelry, guides,....etc)

The methodology used was the Peer Review Weeks, allowing the partners to deeply know the hosting region in order to offer them an Assessment report. Avila province had a wide experience on this methodology thanks to previous Interreg projects in which took part like PRESERVE and SMART EUROPE

The interregional learning process allowed stakeholders in Avila County to identify tested good practices from other EU regions to reduce light pollution at local communities and design an action plan for the improvement of astrotourism around Gredos Regional Park

Peer review held in Avila, took place from 1st to 5th April 2019, the structure was set according to those both priorities, as wells as the Regional Stakeholders Group was organized: Light Pollution + Astrotourism, as a result it was provided a significant contribution through its main findings and recommendations.

In order to achieve the objectives defined within the project and utilize the lessons learnt through the interregional learning process including the discussions with regional stakeholders, actions have been defined to adapt the peer review recommendations and good practices

The actions will contribute to influence the ERDF Regional Operational Programme Castilla – León, in terms of Astrotourism promotion based on the exceptional pristine skies in Avila province

- ✓ raising awareness concerning light pollution issue among young students and stakeholders
- ✓ Demonstrative pilot experience to show how to decrease light pollution.
- ✓ Measures of the dark skies
- ✓ Protecting biodiversity and habitats (Gredos Regional park mainly but also the whole p province since thousands of migrating birds are received yearly)
- ✓ Preserving cultural heritage and local identity (celtic vettones culture: astronomy castros)
- ✓ Capacity building for proffessionals on Astrotourism
- ✓ Certification of Gredos Mountains Range as Starlight Reserve
- ✓ Astrotourism promotion in certified locations





Part III - DETAILS OF THE ACTIONS

ACTION A1. EDUCATIVE and DIVULGATIVE ACTIVITIES

The goal of this action is to set the basement to reduce light pollution as a way to get dark skies according to Priority 1, in order to make stakeholders and general public understand how important and how affect light pollution in their lives, how affects biodiversity preservation, human health, link with cultural heritage and innovative equipment to decrease light pollution

Thanks to an agreement with General Directorate on Education the presentations are offered and given to the Educative Centres in the whole province, over 90 educative centres, most of the times joined to science week in the centre.

On the other hand Divulgative activities will be given to general public in municipalities followed by a stargazing activity in cooperation with GOAA Group of Astronomers of Avila, to show people the basic knowledge about light pollution and how a pristine dark sky could offer them the main celestial bodies at naked eye or some other remote items with a telescope help

Also the professionals in terms of lighting installations are addressed by specific presentations and explanations, jointly with the Companies representatives and the Engineering official chamber.

1. Relevance to the project

The action has been generated on the basis of good practices identified within the project peer reviews and recommendations of the peer review held in Avila in April 2019:

- Good Practice “Astrotourism in Basilicata region” (performance about lighting and constellations)
- Good Practice “Samsøe Renewable Island”
- Recommendation of peers for the awareness of the public and lighting enterprises

Good practice “Astrotourism in the Basilicata region”
Lessons learnt from Basilicata Region, based on good practice defined in GP Directory and the interregional policy learning event in 2019

In Basilicate, sky observation on winter and summer solstice have been organized: in cooperation with the National Research Group “Pedagogy of the sky”, they organize a night tour of the park along with *theatrical performances*, both for adults and children, aimed at mapping the stars and revive either the *ancient mythologies* and the *popular traditions* connected to the position of the stars.



Good practice “Renewable Island”

Lessons learnt from Samsøe Island (Denamrk), based on good practice defined in the peer review week held in May 2019

Samsøe island has a wide experience in the educative actions with stakeholders in their facilities, where to show how renewable energies work, as well as bioclimatic architecture, a similar action could be replicated offering educative centres a visit to a place where to better explain and show the potential of smart public lighting

2. Nature of the action

All the activities are focused on Public Engagement of local communities and lighting professionals:

- ✓ A1.1 Educative Activities with secondary schools and Training Teachers programme
- ✓ A1.2 Divulgative Activities with local communities (presentation + stargazing in municipalities) and presentation at University students
- ✓ A1.3 Five Technical sessions for Public Lighting in municipalities (jointly with regional authority, lighting installation companies and engineering)

3. Stakeholders involved

- ✓ General Directorate on Education
- ✓ Group of Astronomers of Avila GOAA
- ✓ Municipalities of Avila province
- ✓ Industry regional authority (Junta CyL)
- ✓ Lighting Installer Companies Association
- ✓ Engineering Chamber
- ✓ University of Salamanca, Catholic University of Avila

4. Timeframe

- ✓ June 2019 - December 2021

5. Indicative costs

- ✓ A1.1 Educative Activity: 3.000 €
- ✓ A1.2 Divulgative activity: 1.500 €
- ✓ A1.3 Technical sessions: 5.000 €

6. Indicative funding sources

- ✓ Avila County Council own budget
- ✓ Engineering Agreement with Avila County Council
- ✓ Staff cost of Night Light project particularly in the design and monitoring of Action 1 (A1.1 and A1.2)



ACTION A2. GUIDELINES FOR MUNICIPALITIES and PILOT EXPERIENCE + TESS measures

The goal of this A2 action is to provide a tool to the majors to make the right decision in terms of public lighting, consequently a contribution to decrease light pollution. The way is through the elaboration of a basic Guidance for Municipalities about the legislation, the right lighting practices and the set of a pilot experience presented to municipalities as a show room where they can experience by themselves the different technologies for lighting: shields lamps, optics, temperature spectrum, remote management,etc in order to get as much updated information as possible before making a decision in their own municipalities, the place will be located nearby the capital to have an easy access to “experience” the potential of light pollution reduction in a tangible installation. The place will be Naturavila, where a micro-scale municipality conditions will be replicated

1. Relevance to the project

The action has been generated on the basis of good practices identified within the project peer reviews and recommendations of the peer review held in Avila in April 2019:

- Good Practice “Good Lighting” (Luxembourg peer review)
- Good Practice “Samsoe Renewable Island”
- Recommendation of peers for the provincial guideline on light pollution
- Stars4All European project

Good practice “The Good Lighting” (Luxembourg) *Lessons learnt from Eislek region (Luxembourg), based on good practice defined in the peer review week held in June 2018*

During the peer review, the experts have the opportunity to learn about how a guidance on good lighting was developed in Luxembourg, this information was used by municipalities, majors and technician, to make decisions about what kind of public lighting install, as well as considering some measures taken during the Night Light project by Dr. Schuler thanks to drone technology, showing over exposed zones in the Clervaux municipality among others.

Good practice “Renewable Island” *Lessons learnt from Samsoe Island (Denmark), based on good practice defined in the peer review week held in May 2019*

Samsoe island has set a pool of measurement equipment in their facilities in order to gather data to show historical series for analysis. Something similar will be done with the TESS measurement on dark sky equipment, in order to gather continuously information over the quality of the dark sky

Stars 4 All European project

Lessons learnt from an specialized speaker within Avila Peer Review, belonging to Complutense University, and developed thanks to Stars4All project, an measures equipment developed by the lab at the university to



take continuous measures of dark sky and offer in open-field data to the world.

2. Nature of the action

The actions to be developed within the action plan are as follows:

- ✓ A2.1 Guidelines for Municipalities
- ✓ A2.2 Pilot Experience -show room/living lab- in Naturavila
- ✓ A2.3 TESS measurement equipment for dark sky quality installation

3. Stakeholders involved

- ✓ Signify Lighting Company
- ✓ Naturavila
- ✓ Municipalities of Avila province
- ✓ Industry regional authority (Junta CyL)
- ✓ Gredos Regional Park
- ✓ Stars4All Foundation

4. Timeframe

- ✓ December 2019 – December 2021

5. Indicative costs

- ✓ A2.1 Guidelines for Municipalities
2.500 €
- ✓ A2.2 Pilot Experience -show room/living lab- in Naturavila
40.000 €
- ✓ A2.3 TESS measurement equipment for dark sky quality installation
3.000 €

6. Indicative funding sources

- ✓ Avila County Council own budget
- ✓ Signify Lighting Research and Development
- ✓ ERDF Regional Operational Programme Castilla – León (pilot action)

These actions will be carried out using other internal sources of funding within the Avila County Council own budget already allocated

ACTION B.1 STRATEGY ON ASTROTOURISM DEVELOPMENT and PLATFORM

The development of the Astrotourism must be set according to an strategic plan that allows to follow a road map with clear goal in the long term, actions to be taken, and a proper devoted resources, staff and budget focused on providing a platform where to gather information, coordinate all the actions according to a previously set strategy.

1. Relevance to the project

The action has been generated on the basis of good practices identified within the project peer reviews and recommendations of the peer review held in Avila in April 2019, and interim conference held in La Palma in November 2019

- Good Practice “La Palma Starlight Tourist Destination”
- Recommendation of peers about Strategic Tourism plan, branding culture, astrotourism trend, challenges promoting astrotourism

Good practice “La Palma Starlight Tourist Destination”

Lessons learnt through the good practice defined by La Palma in the GP Directory and experienced in la Palma during the Peer Review event in 2018 and the interim conference held in November 2019

There are several good practices implemented in La Palma in connection with astrotourism such as different strategic and touristic marketing plans, thematic business in g-astronomy at restaurants, jewellery around stars, the brand “Stars Island” and some other infrastructure as the Universe view point

2. Nature of the action

The actions to be developed within the action plan are as follows:

- ✓ B1.1 Strategy on Astrotourism: Roadmap to develop Tourism of the stars
- ✓ B1.2 Raising Awareness on Hostelry sector (rural lodging)
- ✓ B1.3 Raising Awareness on Tourism sector INTUR and FITUR fairs (tourist)
- ✓ B1.4 Astrophotography located in Avila province

3. Stakeholders involved

- ✓ Managing Authority on Tourism at regional level
- ✓ Avila County Council
- ✓ Hostelry Association entrepreneurs (CONFAE)
- ✓ Municipalities of Avila province
- ✓ Gredos Regional Park

4. Timeframe

- ✓ June 2019 - December 2021

5. Indicative costs

- ✓ B1.1 Strategy on Astrotourism: Roadmap 15.000 €
- ✓ B1.2 Raising Awareness on Hostelry sector (rural lodging) 1.500 €
- ✓ B1.3 Raising Awareness on Tourism sector (tourist) 50.000 €

- ✓ B1.4 Astrophotography located in Avila province

3.000 €

6. Indicative funding sources

- ✓ Avila County Council own budget
- ✓ DG Tourism Managing Authority (INTUR/FITUR international tourism fairs)

ACTION B.2 STARLIGHT CERTIFICATION ON ASTROTOURISM and PROFESSIONAL TRAINING

In the current astrotourism trend is highly important to promote those certified locations by the main two organizations at World level: Starlight Foundation and International Dark Sky Association -IDA- as a guarantee for the visitors that they will enjoy the best conditions for stargazing as well as the place have the needed infrastructure such as touristic infrastructure, view points, signposting, and of course, the core business is the pool of professional guides to drive visitors and provide the explanations.

To obtain the Starlight Reserve Certification means so much for the whole region, since that will be the first Reserve in the whole Castilla y Leon Region, therefore, is the best way to influence in getting funds from ERDF Operational Programme to develop the astrotourism by the Managing Authority on Tourism at regional level, also according to the Tourism Strategic Plan 2019-2023 in which is stated at 4.37 Cooperation with Starlight Foundation to promote certifications and promote certified locations.

Avila province has since 2013 a Starlight Touristic Destination, but the goal is to get the highest status: Starlight Reserve for the Gredos Mountains Regional Park

The training course foreseen in phase 2, will be financed by our own regional funds, that training activity developed within phase 1 (Training Course 1) enabled us to define a more elaborated and customized version in phase 2, (Training Course 2) since we learnt the following key aspect to be taken into account:

- The target group in the 2nd course should be mainly tourism guides profile, since this is the people allowed by law to drive tourist in nature, otherwise, the touristic experience must start just at the stargazing location
- The practice of 2nd course must take place in a certified location or emblematic stargazing points to take advantage of the low light pollution
- The 2nd course will be addressed to touristic guides from Avila province
- The 2nd training course will be held in November 2020 (foreseen but now depending on Sanitary restrictions COVID19 evolves). Furthermore, once we obtain the Starlight Reserve Certification, the course will be focused on the fact Avila will get the first Starlight Reserve and its advantage over other destinations, since it will be the 1st of this kind in the whole region.

1. Relevance to the project

The action has been generated on the basis of good practices identified within the project peer reviews and recommendations of the peer review held in Avila in April 2019

During the phase 1, the training course was organized based on content learned from the Night Light, partners: first time we learnt from this Starlight Training Courses it was at the kick-off meeting held in Luxembourg thanks to the presentation given by Mrs Antonia Varela, director of Starlight Foundation, and secondly during the peer review weeks, starting by the one held in Hajdu-Bihar we learnt from the experience provided in the frame of the daily discussions by our colleagues of La Palma and the stakeholders they brought, also by the stakeholders we brought to Luxembourg (Mrs Miriam Gil) and to La Palma (Mr Francisco Sanchez) since both of them are certified Starlight Monitors though the courses held in the past by Starlight Foundation, so thanks to NIGHT LIGHT project we learnt during phase 1 the lessons provided by other partners.

- Good Practice “La Palma Starlight Tourist Destination” (Spain)
- Good Practice “Hajdu-Bihar Hortobagy National Park” (Hungary)
- Good Practice “Lauwersmeer Dark Sky Park” (Fryslan peer review, Netherlands)
- Recommendation of peers about Certifications for Dark Sky places

Good practice “La Palma Starlight Tourist Destination”

Lessons learnt through the good practice defined by La Palma in the GP Directory and experienced in La Palma during the Peer Review event in 2018 and the interim conference held in November 2019

La Palma was the first Starlight Reserve, a core location surrounded by a Starlight Touristic Destination, nowadays is an example on how the entrepreneurs devoted to astrotourism work on the territory, and how is the signposting located, as well as branding and brochures designed for promoting the location.

Good practice “Hajdu-Bihar Hortobagy National Park” (Hungary)

Lessons learnt through the Peer Review week held in 2017 in Hungary

Hortobagy national park belongs to a net of dark sky parks in central Europe, certified by the International Dark Sky association, this means the place gathers good conditions for stargazing for the tourist and has the basic infrastructure. All of them share common information, same logos, and takes part of an international net of dark skies.

Good practice “Lauwersmeer Dark Sky Park”

Lessons learnt in the Fryslan peer review, Netherlands, held during June 2018

The local stakeholders of this park provided to the peers highly interesting presentations and information on the process and requirements to get the IDA certification, as well as the benefits in terms of biodiversity protection for migrating birds, and other kind of nocturnal fauna. It was also useful to understand how apart from stargazing a stroll in the nature listening the nocturnal fauna is also a complementary offer for the visitors of the park.

2. Nature of the action

The actions to be developed within the action plan are as follows:

- ✓ B2.1 Starlight Reserve Certification in Gredos Regional Park
- ✓ B2.2 Training Course on Astronomic Starlight Guides

3. Stakeholders involved

- ✓ Starlight Foundation
- ✓ Gredos Regional Park
- ✓ Avila County Council
- ✓ 28 municipalities taking part in Gredos Regional Park
- ✓ Managing Authority on Tourism at regional level
- ✓ Hostelry Association entrepreneurs (CONFAE)

4. Timeframe

- ✓ April 2019 - December 2021

5. Indicative costs

- ✓ B2.1 Starlight Reserve Certification in Gredos Regional Park
25.000 €
- ✓ B2.2 Training Course on Astronomic Starlight Guides
15.000 €

6. Indicative funding sources

- ✓ Avila County Council own budget
- ✓ ERDF Regional Operational Programme Castilla - León / DG Tourism Managing Authority

These actions will be carried out thanks to own budget lines of Avila County Council already allocated in their own budget, and if possible, from funds coming from ERDF Regional Operative Programme Castilla-León

Part IV - MONITORING PROCESS

Monitoring activities

Avila County Council will monitor the implementation of the actions defined in this Action Plan to double check the progress and impact of the cooperation, analysing the implementation and the obtained result.



Partners will continue the mutual learning process during the implementation phase of the action plan. “Exporting” and “importing” regions will be in continuous contact in order to successfully implement the defined actions and adapt the selected lesson learnt to other regions’ context.

Avila County Council will stay proactive during the monitoring phase as follows:

- ✓ regular check of the different actions will take place in every 3 months
- ✓ relevant events organized within an action will be documented
- ✓ contact and common work will be ensured with involved regional stakeholders group
- ✓ short evaluation report (max. 2 pages) will be compiled including the efforts done and the results achieved when an action is completed
- ✓ structured informal interviews will be applied with relevant actors (responsible policy makers, municipalities, nature park, enterprise associations, etc.)
- ✓ final monitoring report will be compiled by the end of Phase 2 including all actions completed, results achieved and impact on policy addressed
- ✓ at the end of each year Avila County Council will take part in interregional project meeting to discuss all regions’ achievements.

NIGHT LIGHT (Improving regional policies to reduce light pollution and protect and valorise dark night skies) project (2017-2021) brings together two significant challenges: the need to preserve dark skies and to utilize the potential they have in a sustainable way.

The project was planned to introduce packages of regional policy measures for each of the partner regions that will result in a lasting reduction of light pollution, the designation of nature areas where dark skies are protected and the introduction of new services and facilities to attract eco-tourism to these dark sky areas.

Partners:

- Province of Fryslân- Lead Partner
- Hajdú-Bihar County Government (HU)
- Avila County Council (ES)
- Nature Park Our (LU)
- Samsø Energy Academy (DK)
- BSC, Business support centre Ltd. (SI)
- Basilicata Region (IT)



- Matera-Basilicata 2019
Foundation (IT)
- Island Government of La
Palma (ES)

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For further information about the NIGHT LIGHT project please visit:
<http://www.interregeurope.eu/nightlight>