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Interreg
North Sea



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GOOD PRACTICE
STORY 3
SUMMARY



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BREST

FRANCE

SETTING

- **Timeframe:** as of December 2024
- Large coastal city (Brest Métropole) in western France with over 200,000 residents.
- Development and implementation of the **Nocturnal Ambience Coherence Scheme (NACS)** to create adaptable, ecologically responsible and citizen-informed public lighting.



MAIN STAKEHOLDERS

- Brest Métropole municipal administration and elected officials
- Urban planners, engineers, ecologists and researchers
- Residents and local communities
- Université de Bretagne Occidentale
- Specialists involved in public lighting and biodiversity management

KEY TOPICS

- Light sobriety and sustainable public lighting
- **Balancing safety, energy use, and ecological protection**
- Participatory and interdisciplinary planning
- Understanding nighttime rhythms of people and wildlife
- **Integration of environmental frameworks (black frame, blue/green frames)**

KEY APPROACH

- Establishment of the Nocturnal Ambience Coherence Scheme (NACS)
- **Three-phase process: diagnosing the lighting system, territorializing issues, strategic planning and experimentation**
- Collaborative workshops and interdisciplinary coordination
- Citizen input via questionnaires, night walks, online platforms, public events
- **Integration of the “black frame” to protect biodiversity from artificial light**
- Use of digital mapping and simulation tools to guide decisions

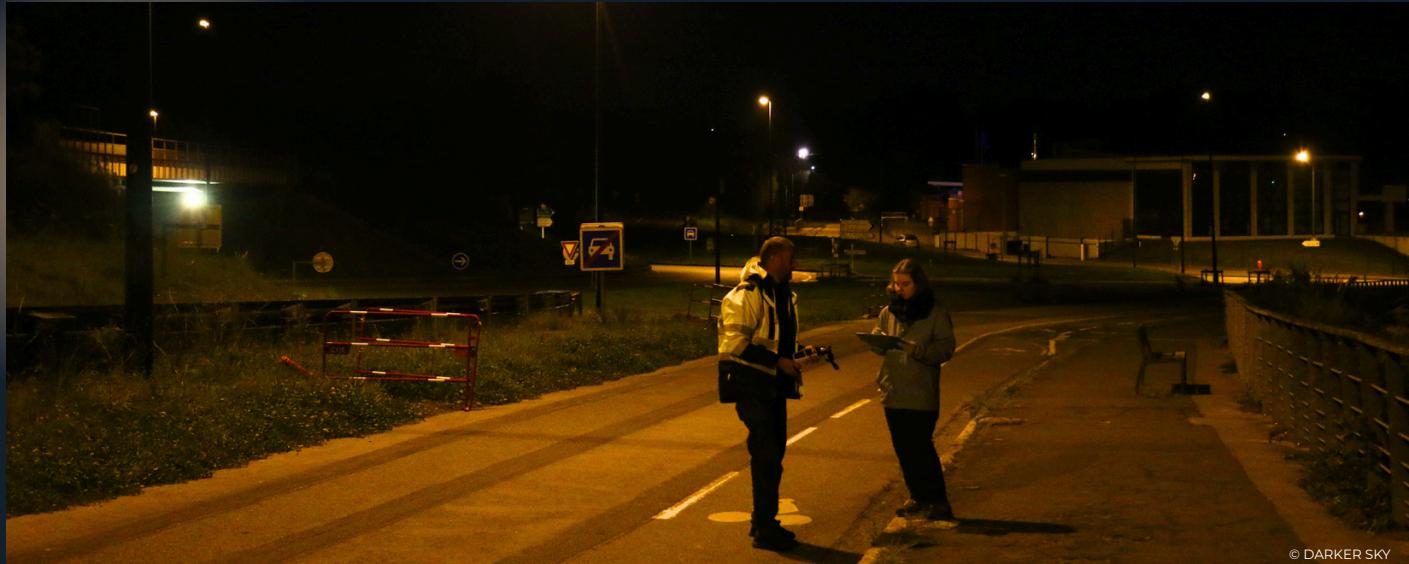
IMPACT

- **Transition from static, energy-focused lighting policies to adaptive, needs-based lighting**
- Stronger alignment between lighting practices, ecological considerations and social use of nighttime spaces
- Improved coordination across municipal departments
- Growing citizen awareness, though engagement still remains a challenge
- **NACS serves as a scalable model for other cities seeking sustainable lighting strategies**

*“THE FUTURE OF PUBLIC LIGHTING IN BREST
ISN'T ABOUT ELIMINATING LIGHT,
BUT USING IT WISELY — IN RHYTHM WITH BOTH PEOPLE AND NATURE.”*



Meeting Nighttime Needs with Brest's Dynamic NACS Approach



In Brest, a new way of thinking about public lighting is taking shape. A new decision-making process for public lighting aims to create a nighttime atmosphere that balances safety, usability and environmental responsibility. The **Nocturnal Ambience Coherence Scheme (NACS)** was developed for integrating expert knowledge, citizen participation and flexible decision-making to adapt lighting to the city's evolving needs.

A Call for Light Sobriety

Until the 1990s, the primary goal was to illuminate motorized traffic lanes, often with high brightness levels. Concerns about reducing energy consumption began to emerge in the 2000s, followed by growing awareness of biodiversity issues in the early 2010s. Later, sociological considerations regarding the use of nighttime spaces and their evolution throughout the night came into focus.

In France, the need to rethink public lighting became unavoidable in 2018 when new national regulations set new standards for more sustainable lighting practices.

The push for "light sobriety" aims to reduce energy use, limit light pollution and protect the night environment. Brest Métropole has long prioritized a measured approach to street lighting management rooted in sobriety. However, decisions regarding lighting adjustments were historically made on a case-by-case basis at the local level.

Over time, the original purpose of lighting - to support nighttime activity in line with people's needs - was often overlooked. With over 36,000 light points serving more than 208,500 residents, Brest recognized the need for a comprehensive lighting strategy. City officials understood that this required more than technical fixes. **It meant studying how people use public spaces at night, how artificial light affects different species and how urban life is changing.**

Understanding the rhythms of the night, Brest Métropole had already taken steps by dimming and switching off lights at certain hours, initially based on empirical knowledge. However, nighttime activities are evolving, shaped by a variety of factors. The city at



night consists of different rhythms: the activities of people, the habits of wildlife and the changing needs of urban life. Traditional lighting plans were static, leaving little room for flexibility and a long-term vision.

Brest wanted a smarter approach, one that used real-time observations and citizen feedback to adapt lighting to actual use. In 2021, that vision led to the creation of the NACS, a strategy designed to make public lighting more sustainable and responsive.

The Nocturnal Ambience Coherence Scheme

Brest Métropole developed the Nocturnal Ambience Coherence Scheme (NACS) to go beyond standard energy-saving measures. This strategy integrates environmental protection with sociological and participatory research, evolving from top-down lighting policies to a more collaborative model.

The NACS follows three key phases:

1. Diagnosing the lighting system – Evaluating the existing lighting network, including political, technical and social factors. This involves collaborative workshops bringing together officials, planners and engineers to align political and technical decisions with nighttime needs.

2. Territorialization of lighting issues – Engaging experts and residents through workshops to understand lighting's impact on daily life and to identify nocturnal activities. This process adapts lighting to local habits, creating a more tailored strategy.

3. Strategic planning and experimentation – Using digital mapping and simulations to test future lighting scenarios, ensuring they meet both human and environmental needs. The coordination committee of elected officials oversees this process, evaluating the effects of policies on lighting and prioritizing adjustments.





A Collaborative Approach

Traditionally, public lighting has been managed in separate administrations, with little interdisciplinary coordination. **The NACS seeks to change that by promoting collaboration across departments. By bringing together urban planners, ecologists, policymakers and residents through collaborative workshops**, Brest Métropole ensures that decisions are based not just on technical expertise but also on the real experiences of those who navigate the city at night.

A coordination committee of elected officials, representing areas like urban tranquility, active mobility and citizen participation, oversees the NACS. Using a digital mapping tool, they evaluate how policies affect lighting and prioritize adjustments. Each lighting project follows the NACS guidelines, considering factors like brightness levels, colour temperature and night-time dimming.

To gather citizen input, Brest employs various methods, though engaging the public remains a challenge. Questionnaires are conducted both online and on the streets. The Université de Bretagne Occidentale also contributes by conducting surveys. Additionally, Brest offers a dedicated online tool for citizens to provide feedback, express opinions and report issues related to public spaces. Public night walks, organized by invitation, provide another opportunity for direct engagement. To ensure the public stays informed about new lighting initiatives, Brest Métropole distributes information through district representatives, press conferences, local media and integrates lighting discussions into existing local fairs and conferences.





Integrating the Black Frame

One of the most innovative aspects of NACS is its connection to wider environmental frameworks. **Brest is incorporating the "black frame" - a regulation designed to protect biodiversity from artificial light - into its urban planning. This builds on the existing "blue and green frames", which focus on water and vegetation networks. Together, these approaches create a more holistic urban strategy that considers both human and ecological needs.**

Implementing black frames requires understanding nighttime rhythms, from the routines of night workers and leisure seekers to the natural cycles of plants and animals. By considering these factors, Brest aims to create a dynamic lighting strategy that adapts to seasonal and daily changes.

Though the black frame regulations are still in development, Brest Métropole is already aligning new lighting projects with future environmental standards. The city is working closely with ecologists, urban planners and technical experts to gather data and refine its approach. Data is central to the NACS, including information on lighting infrastructure, roads, historic monuments, natural areas and schools. This data comes from Brest's internal systems and public platforms, ensuring that lighting strategies are synchronized with environmental, social and economic needs.

ABOUT

Interview took place in **December 2024** with Saïg Potard (Brest Métropol)

Main project partners

- Brest Métropol municipality, Saïg Potard
- Université de Bretagne Occidentale, i.a. Sébastien Gallet, Enora Morin

Future of Public Lighting in Brest

The NACS is an evolving strategy that emphasizes participation through regular reviews, district consultations and citizen input. Activities like night walks and professional surveys help integrate local needs into lighting policies.

The future of public lighting in Brest isn't about eliminating artificial light but using it wisely, ensuring it serves residents while respecting nature's rhythms. By involving experts, administrators and citizens in decision-making, Brest is setting an example for municipalities looking to create more sustainable and responsive lighting strategies.



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GOOD PRACTICE STORY COLLECTION

This story is part of the Good Practice Story Collection of the Interreg North Sea DARKER SKY Project. The stories are gathered by our project partners and connected stakeholders, based on their work and experiences in different regions. They were collected during the first two years of the project (2024–2025). **Some reflect earlier stages and in many places further progress has been made since then.** For updates, please visit the project website and LinkedIn.

The collection aims to inspire and share practical insights into how different places reduce light pollution. **The stories come from diverse settings but are connected by a common approach:** bringing people together, balancing safety, everyday use and nature and learning through practice.

Enjoy reading! We hope the stories offer ideas and perspectives you can take with you.

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