



PORTABLE LAMPS SERVICE



CHRYSALIS



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CHRYSALIS



Since its creation in 2016, **CHRYSLIS** has focused its product development primarily on **SOFT MOBILITIES**.

However, there are areas where users go beyond this framework to make the available space their own. This is particularly true of cities centers, urban parks, riverbanks and natural areas where people can take a rest.

That's what **SELENE** this **NEW PORTABLE LIGHTING SERVICE** is all about:

- **Accompany** users as they wish
- **Eliminating** the impact of lighting infrastructure
- **Limiting** lighting pollution
- **Creating** a friendly atmosphere

In short, **WE NEED TO RETHINK THE WAY IN WHICH WE MARK OUT PATHS IN CERTAIN SOFT TRAFFIC AREAS AND, ABOVE ALL, THE WAY IN WHICH WE CREATE MODULAR CONVIVIAL SPACES, ACCORDING TO THE DESIRES AND NEEDS OF THE MOMENT.**

THE **MUTATION** OF TOWN AND COUNTRY

TOWNS AND VILLAGES ARE CHANGING AND EVOLVING.



The dominant position of the car, particularly in the city, is being challenged in favour of public transport, soft modes and pedestrians, so as to **make public space more peaceful and allow new uses.**

Road infrastructure in the city is being downgraded and redesigned as urban boulevards.

At the same time, **large-scale greening and renaturation of public spaces** is being undertaken to combat the effects of global warming and improve biodiversity.

Towns of all sizes are trying to **control urban sprawl** in order to reduce infrastructure costs and their impact on the surrounding countryside.

The **countryside** is also evolving to **organise new forms of mobility** that are more virtuous and more respectful of the environment.

Villages want to regain their **social links, including at night.**

Street lighting can therefore no longer be conceived in purely functional terms, as it has been for decades.

The presence of lampposts, regularly placed on pavements and at the edge of the road, needs to be reconsidered in favour of other approaches, more in tune with the times and more respectful of the environment.

THE GROWING IMPACT OF LIGHT POLLUTION



Light pollution, caused by excessive public and private artificial lighting, is now recognised worldwide. It threatens the world of insects, animals, humans and the entire ecological system associated with them.

It contributes to **the loss of biodiversity** and mass extinctions of nocturnal species.

The emergence of dark infrastructure studies over the last ten years or so is now recognised as **essential** by the European Commission as a necessary nocturnal complement to green and blue infrastructures.

They have made it possible to achieve a **better balance between light and darkness** in order to control light pollution and help preserve biodiversity.

Their objectives today are to establish light/dark gradients and to plan geographical and/or temporal dark preservation zones in urban or natural areas of all sizes, in order to **maintain a virtuous balance between human activities at night and the preservation of living species.**

Although they consume less energy, current lighting solutions are still too conventional, regular and uniform, and are still mainly dedicated to vehicles, whereas **the challenges we face today require us to rethink to respond in a more innovative way to new urban changes.**

NIGHT-TIME CHALLENGES, ENERGETIC, ENVIRONMENTAL SOCIETAL AND SOCIAL

The energy crisis and the ever-increasing cost of energy are forcing us to **experiment with other ways of lighting our cities.**

The permanent or temporary **switching off** of public lighting in the middle of the night helps to reduce energy consumption in towns and villages where this is practised.

However, it in **no way resolves the impact on nocturnal biodiversity.** It contributes to the destruction of nocturnal life and social links.

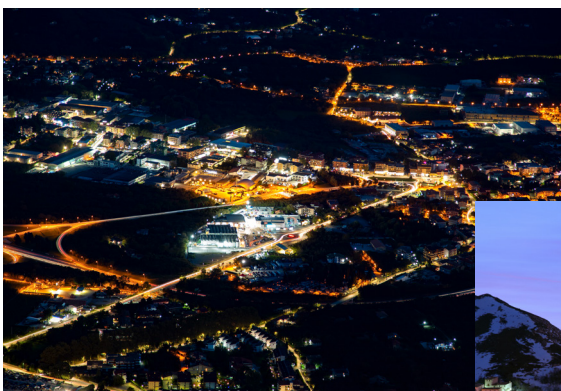
The regularity and density of lampposts in towns, suburban areas and the countryside generate light halos. The strong luminosity thus created everywhere, with no differentiation of uses and no light/dark gradients, can be seen over built-up areas dozens of kilometres away.

That said, these days, on the one hand, human activities extend into the night and, on the other hand, there is a need and a desire for social interaction, meetings and moments of reflection in public spaces.

The essential search for night-time cool spots to recharge our batteries in the face of climate change and global warming is growing.

The recent health crisis linked to Covid19 and its curfew have highlighted the importance of public space at night.

The night-time disparity between districts and between territories, and the difference in the quality of public lighting on the outskirts of towns, therefore also need to be reconsidered.



NEW NIGHT-TIME USES AND MULTIPLE NEEDS

It is clear today that public pedestrian spaces are occupied differently in terms of :

- **Nocturnal temporality**
- **Occupation of space** (grouping or dispersal of users)
- **Crowds** (one person, 2, 3 or 4...).

SIMPLE PATH LIGHTING, WITH ITS FIXED PHOTOMETRY, IS NOT SUITABLE FOR THIS SPATIAL AND TEMPORAL OCCUPATION OF URBAN SPACE.

Squares and pedestrian boulevards are treated as a whole, whatever the random spatial occupation of the space. Only temporality is treated without differentiation of use.

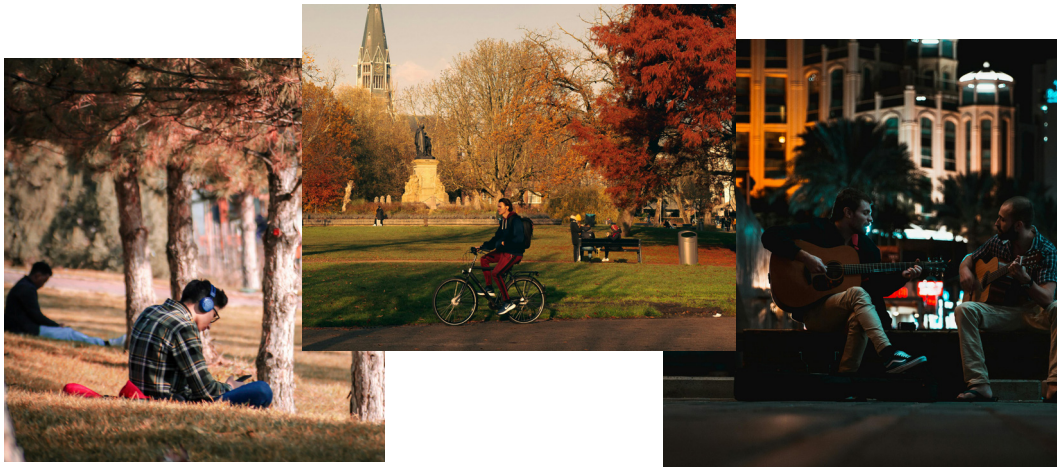
These types of lighting create a feeling of insecurity when they are switched off, and a form of exclusion.

The concept of a portable, autonomous, rechargeable lamp is a must.

It gives **walkers, city dwellers and users the freedom** to enjoy their nights out in complete sobriety.

It was born of a combination of ideas:

- **Offsetting the increasing extinction** of public lighting.
- **Contributing to social cohesion** at night.
- **Supporting diversified uses.**
- **Respecting biodiversity.**
- **Limiting energy consumption.**
- **Making** travel more **flexible.**

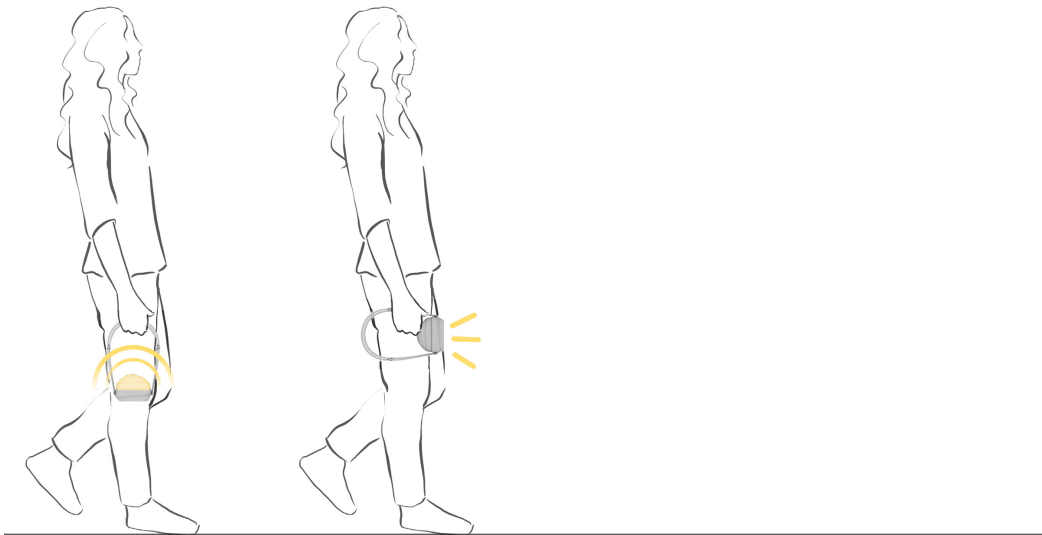






THE SYSTEM OF PORTABLE LAMPS

MOBILE ELEMENT PORTABLE AUTONOMOUS LAMPS



Portable autonomous lamps are available in public spaces. When turned through 90°, they can be used to light the way ahead or to see the ground for orientation.

In total or partial darkness, it is **then possible to discern the presence of other users**, and be able to assess the night-time environment in complete safety.

This reading of the environment encourages people to wander, stroll and meet, walks, encounters...

The organic, friendly design of these small, lumious objects creates empathy and encourages their use. They signal the presence of users on **night-time** walks.



**THIS READING OF THE ENVIRONMENT
ENCOURAGES WANDERING,
WALKS, ENCOUNTERS...**



FIXED BASE FOR RECHARGING AND MARKING-UP



The lamps are suspended from a base installed on existing lighting columns, structures, passenger shelters, walls or docking stations.

The base recharges the lamp. It signals the presence of the lamp from a distance.

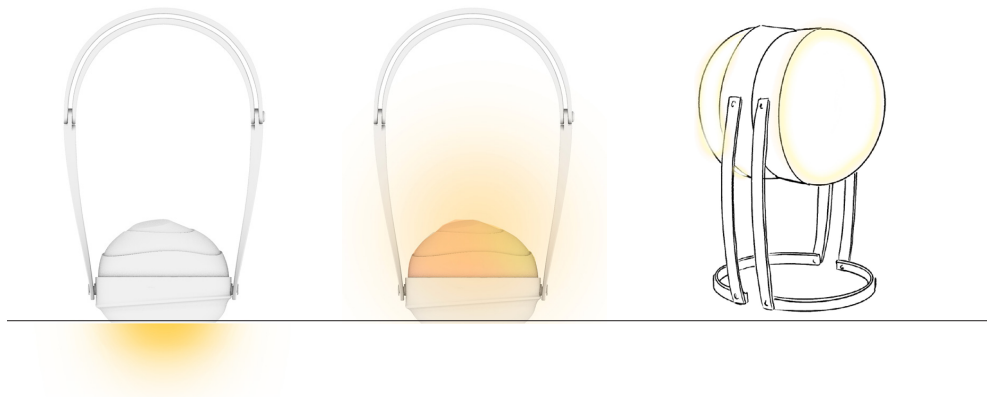
The base also emits a **beacon of light**, directed towards the ground.

THIS NIGHT-LIGHT MARKS OUT THE PUBLIC SPACE, HIGHLIGHTS NOCTURNAL PERSPECTIVES, AND COUNTERBALANCES THE NIGHT-TIME BLACKOUT.

The portable lamp switches off automatically when it returns to its base, so as not to disturb the ambient darkness.

Each portable lamp is secure, identifiable and geolocalizable.

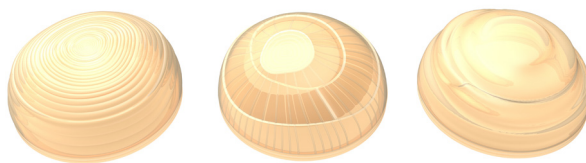
LIGHTING EFFECTS DIVERSIFIED AND ADAPTED



Whether you're on the move or taking a break, the portable lamp diffuses a soft light in light spectrums that are least harmful to biodiversity.

The lamp's light dome is not homogeneous. The light emitted is distributed differently in terms of intensity and the colours present. This subtle glow, which can be dimmed to suit users' needs, creates an intimate and reassuring halo.

Different shapes are available



The design of the lamp also includes a more directional beam, useful for better visualising the ground or pointing at an obstacle or object.

When you're taking a break, you can create a friendly, welcoming lighting atmosphere:

- **Briefly modulate the luminous effect and its colouring.**
- **Assemble two lamps** to create a new luminous object, adding their halo to create another luminous space.
- **Group together several lamps**, single or combined, to create an even larger space.
- **Blank out part of the light dome** to transform its night-time image and the space around it.

DIVERSE AMBIANCES AND DIVERSE TONES

The Selenes are available in two versions:

- dimmable **2200K** white light or
- **coloured** light with 3 pre-programmed, dimmable ambiances.

Each ambiances is designed to suit different uses and rhythms.



THE WALKING ATMOSPHERE

in warm apricot-orange colours, minimises the impact on biodiversity and is more suitable for walking.

THE "POETIC NIGHT" ATMOSPHERE

Blue-green in colour, is ideal for taking a break from contemplating the starry sky or the night landscape.

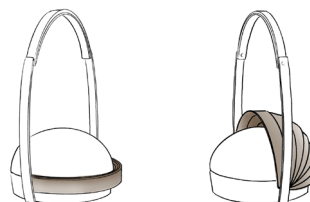
A FRIENDLY ATMOSPHERE

of more playful colours, helping to bring the Selenes together for moments of sharing.

In the white light version, dimming allows you to manage contrasts and adapt to different lighting environments.

Each Selene has 2700K lighting, directed towards the ground, which can be activated as required.

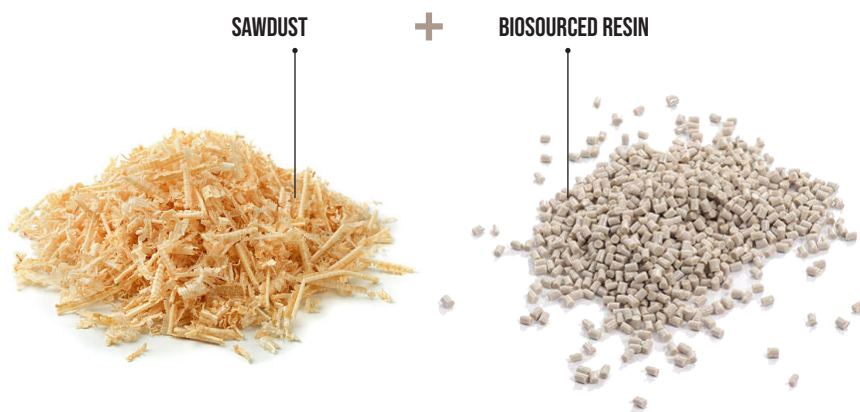
An eyelid, an optional accessory that is easy to attach, can be used to modify the distribution of luminous flux by partially masking the light emitted. This reduces glare when you're sitting down.



*Combining Selenes to create the
right atmosphere*



A VIRTUOUS PROCESS THAT RESPECTS THE ENVIRONMENT



The use of **bio-sourced materials** was an obvious choice from the outset of the project, in line with the BioDiv system, the first LED equipment concept to have **less impact on biodiversity**.

The pole- or wall-mounted support and the entire shell of Selene are made from **recycled sawdust and a biosourced resin**. Both materials are **biodegradable**.

The design of the product makes it easy to repair, replace and recycle all or part of its components: wearing parts, screws and bolts, batteries, PCBs, transformers, induction system...

The Selene is automatically switched off when it is on its base. The charging system is switched off when the lamp is not in use or when it is being recharged. The night light on the base is controlled by a time delay that can be set according to requirements.

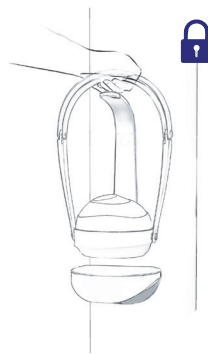
MANAGEMENT PRINCIPLE



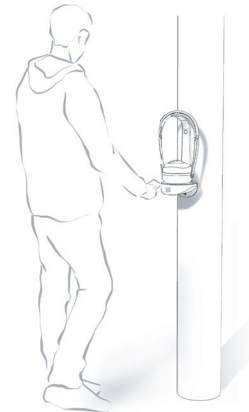
**SIMPLE, INTUITIVE MANAGEMENT FOR THE USER,
VIA SMARTPHONE CONTROL**



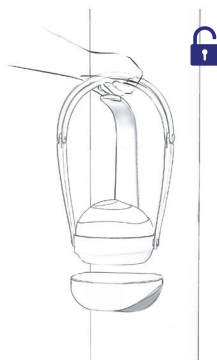
1. Each Selene is geolocatable



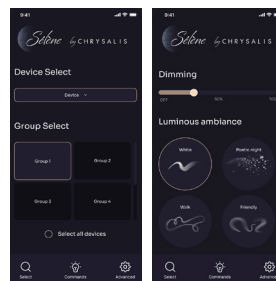
2. It is **locked in place on its support.**



3. A **QR code on the stand allows you to load a free application onto your smartphone.**



4. Activating the **application with a bank fingerprint unlocks the Selene.**



5. The application allows you to **manage the lighting scenes and visualise the operating autonomy of the Selene**



6. The luminaire can be **returned to any available base, in which case the deposit will be released upon transmission of a photo proving that the luminaire has been returned.**

THE VARIOUS AREAS OF APPLICATION

- Public spaces in the city, on the outskirts and in the countryside
- Eco-districts
- Condominiums
- National and regional nature parks
- Public or private historic and natural areas
- Campuses
- Leisure parks and zoos
- Major event sites (festivals, sports competitions)



Campuses



Zoo and Leisure Park



Quays



Nature park



Historical domains



Festival



Eco-district



Condominium

A VIRTUOUS TRAJECTORY

The development of the Sélène system did not happen by chance. It is the result of a long process of reflection on:

- **SOFT MOBILITY**
- The impact of lighting on neighbouring fauna.
- The environmental impact of our products
- The impact of lighting installations
- Switching off and its consequences in terms of exclusion
- The reduction in lighting levels
- The evolution of uses
- ...

In response to these issues, we have previously enhanced our proposals with:

- **THE BIODIV SYSTEM**
- **THE EKO CONCEPT**
- **MINIMAL AND ULTRA-MINIMAL SOLUTIONS**

To keep pace with changing uses, these solutions have all included the option of :

- To detect
- And/or dimming
- And/or switching off the lighting
- Modify on site low ranges of lighting

We have always been convinced that there is no one-size-fits-all solution. We simply want to take our environment into consideration and offer a range of solutions, centred around pedestrians, cyclists and other soft mobility users. The Selene system is a demonstration of this.

THIS PROJECT IS THE FRUIT OF A **RICH COLLABORATION:**

LIGHTING DESIGN : ROGER NARBONI

DESIGN : GAÏA LEMMENS

PRODUCT DEVELOPMENT: CHRYSALIS, ODELI, INOCOM3D, MAXIME LYON

