

## Matrioshka - autonomous and connected street furniture

by [Najoua Mounib](#) / ⌚ 2021-03-25 17:54:48 / France / 👁 2835 / 🇫🇷 FR



**Year of commitment** : 2014

**CO2 Impact** : No

**Sustainable mobility** : Urban furniture



**10 000 €**

### **Builder**

LAB14, Workshop within the premises of the association Quatorze

### **Manager / Dealer**

Association Fourteen

## GENERAL INFORMATION

Matrioshka is an autonomous and connected street furniture. It is sized to supply simultaneously, from renewable and free energy, 4 computers and 6 mobile phones. This object also has an access point, a WiFi router, USB sockets and ports. The Matrioshka ensures long-term profitability, and promises energy independence for a better living environment in urban areas.

### Progress Status

Delivered

## Data Reliability

3rd part certified

## Funding Type

Public/Private Partnership

## Website Enterprise / Infrastructure

<https://urbanlab.parisandco.paris/A-la-une/Actualites/Le-quartier-d-innovation-urbaine-un-concentre-de-solutions>

[http://quatorze.cc/wp-content/uploads/2020/10/Quatorze\\_Rapport2017\\_Web.pdf](http://quatorze.cc/wp-content/uploads/2020/10/Quatorze_Rapport2017_Web.pdf)

## Sustainable Development

### Attractiveness :

Attractiveness was measured in the field with Matrioshka users. People sit around Matrioshka for an average of 30 minutes, which is much more than on a typical Parisian bench (usual sitting time of 3 minutes on average). There are many reasons: its design, its services are all positive attractions of the project that we thought from the start.

### Well Being :

Through its comfortable seats, its free Wifi terminal, its free and clean energy outlets, its shade which helps refresh the Matrioshka - and if we believe the feedback, we can say that it contributes to the well-being of users and stakeholders who see their site valued in more than one way.

### Social Cohesion :

The Matrioshka was thought by its Design, a meeting place. Links are created around the Matrioshka: we talk to each other, we exchange, we share ... But another social cohesion is built at the time of production because our association integrates a good number of workers from fragile communities ( refugees, hutters, etc.) thus participating in their social reintegration.

### Preservation / Environmental Improvement :

The Matrioshka is a space of communication. We clearly display our commitments to users because at each stage of the manufacturing process we have made the choice to work with certified environmentally friendly insdutrials.

### Resilience :

All the components of the Matrioshka are recyclable or come from recycled materials. It can be assembled and disassembled in about fifteen minutes. The resilience of the Matrioshka comes from its value chain. The only risk to which the Matrioshka is exposed is that of vandalism when it is unattended.

### Responsible use of resources :

The Matrioshka is autonomous thanks to new innovative energy production systems that provide clean and free French-made energy.

## Testimony / Feedback

### Feedback

#### Affluence

*An average of 4,500 people used Matrioshka this summer, with an average of 52 people per day using the device.*

*People sit around Matrioshka for an average of 30 minutes, which is much more than on a typical Parisian bench (usual sitting time of 3 minutes on average).*

*Computer work - coworking 59%*

*Phone recharge: 23%*

*Relaxation - 18%*

*Target audience: digital nomads*

*Induced use: the encounter*

*65% of people settle in groups*

*48% of the people questioned spoke with the people living around Matrioshka.*

*The MATRIOSHKA attracts mainly inhabitants of the Paris region (57%) and only 39% of traveling workers.*

*From a technical point of view, the new foundations tested (bench instead of seats) were appreciated by the public.*

*In addition, the shade, specially added for this prototype, made it possible to provide an effective shadow area. A waterproof version could be considered in order to allow the use of the Matrioshka in the event of rain.*

*Contribution (s):*

*The street furniture tested contributes to:*

- the mobilization of territories on a long-term vision of post-carbon society, finding in Matrioshka an agile, educational and benevolent response to climate change,
- bridging the energy and digital divide
- reducing energy costs: clean, the furniture runs on solar energy providing a cool zone
- raising public awareness of new models of micro-energy production reclaiming public space

The experiment was also an opportunity to ask the following questions:

Are cities ready to accept the use of public space as a meeting place, workplace, place of rest?

Why are there no tables with their chairs, apart from the café terraces privatizing the public space?

Why aren't there affordable electrical outlets on our sidewalks, in our squares, in our parks?

## Governance

Association Fourteen

**Holder Type :** Regional Authority

LAB14, Workshop within the premises of the association Quatorze

**Builder Type :** Other

Association Fourteen

**Manager / Dealer Type :** Private

The LAB14 initiated by our association has acquired both material and human resources to be able to honor its contract from design to delivery. Always positioned as architects working for a social and solidarity architecture approach for agile and resilient territories, LAB14 (<https://arcinnovation.fr/acteur/lab14>) intends to be a lever to work hand in hand with the authorities that focus on the economic and social integration of the most precarious and to build values together

**Business Model :**

The Matrioshkas were able to experiment with several economic models, including:

- turnkey sales,
- sponsorship (private companies that finance furniture against visibility, projects under development, particularly with the advent of the Olympic Games2024),
- Rental: made available for a fixed period in return for monthly rents,

Other models can also be used to finance such furniture, such as Crowdfunding.

Our association is non-profit. The profits made are used to finance housing projects for the poorly housed, a major issue of our time.

Association Fourteen

**Holder Type :** Regional Authority

LAB14

## Photo credit

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## Contest

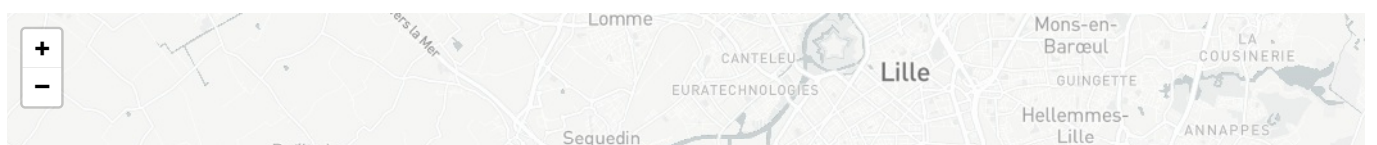
### Reasons for participating in the competition(s)

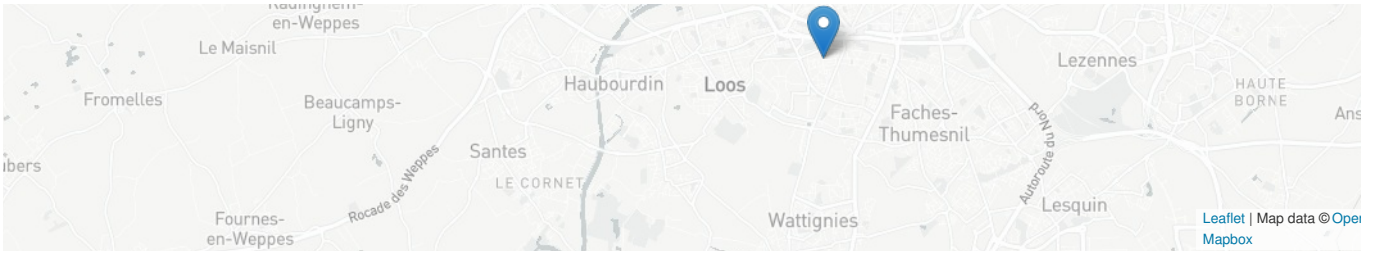
Matrioshka est un mobilier urbain résilient et modulable car zéro rejet carbone et offrant des services d'énergie gratuite pour les usagers.

### Building candidate in the category



Grand Prix Infrastructure Durable





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