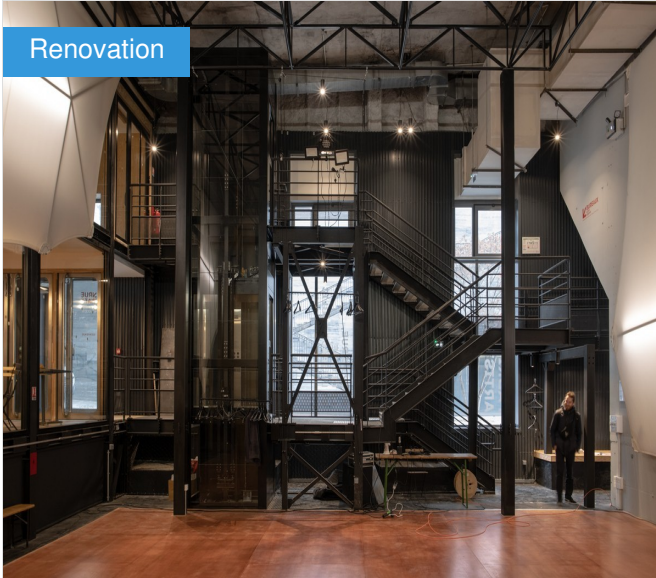


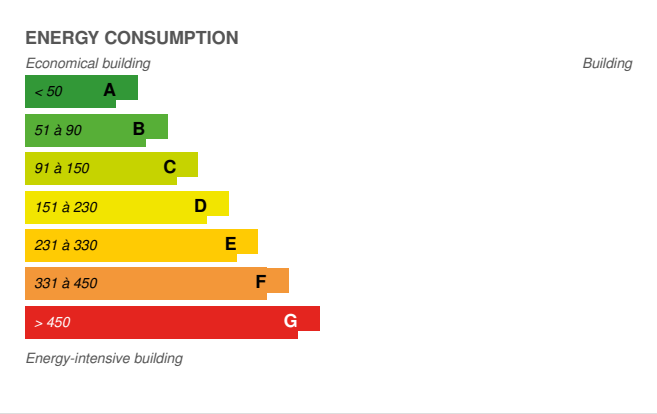
Circus and street arts venue

by Ingrid Petit / © 2023-05-12 13:16:58 / France / 402 / FR



Renovation

Primary energy need :
145 kWhep/m².an
 (Calculation method : RT existant)



Building Type : Concert or conference hall, theater
Construction Year : 1995
Delivery year : 2022
Address 1 - street : Rue Watt 75013 PARIS, France
Climate zone : [Cfb] Marine Mild Winter, warm summer, no dry season.

Net Floor Area : 607 m² SHAB
Construction/refurbishment cost : 1 310 000 €
Number of Seat : 90 Seat
Cost/m2 : 2158.15 €/m²

General information

At the heart of the Masséna Chevaleret district and the student life of Paris Diderot University, the project is a place dedicated to the practice of circus and street arts, for use by the general public and professional companies. The project was commissioned by the City of Paris, the developer SEMAPA had the delegated project management and 2R2C (cooperative of circus and street arts), future user, represented the management of use. Thus, as an architect we were in dialogue with a plural project management, working as closely as possible to the constraints, expectations and needs of each one!

The site is an existing volume, closed covered, called "alveoli", located under the rue Domon Duquet and presenting a single facade on the street, rue Watt. The City of Paris asked us to register the project independently of the volumes made available. The project then responded to this with an independent, careful, and removable architecture. The construction method is a metallo-textile structure: effective, removable and aesthetic response; promising magic and refinement to match the creations offered by circus and street companies and artists.

In response to user needs, two activity rooms have been created: the creation room and the transmission room. Equipped with technical grills supporting apparatus, dual-flow air treatment, these rooms are also equipped with large multi-role stretched fabrics: backlit - in a naturally dimly lit place - and sound absorbent.

The rooms are bordered by the public reception areas (entrance, circulation, foyer, toilets), by the company areas (foyer / conviviality room, changing rooms, dressing rooms, showers), and by the staff areas with the administration and logistics (offices, workshops, storage, technical rooms). On the rue Watt facade, natural light and views of the city are given to the office spaces. But views from the street towards the 2 activity rooms are also preserved, giving passers-by an active and lively urban ground floor!

The flows between the spaces are simple. Because it is also the comfort and the safety of the users which must be ensured in an essential way since it is about a place-tools of work.

This project, by its very location - reusing vacant urban spaces - is a strong response to the challenges of the circular economy supported by the City of Paris (White Paper and Climate Plan City of Paris). This ambition was pursued throughout the design and execution of the work by our project management group, in order to offer an innovative and responsible place!

Design in circular economy: in the technical program, we were asked to propose solutions in the design phases, to plan works contracts by integrating the circular economy, to ultimately measure the quantitative and financial benefit.

We had already worked in the circular economy for the Fructose project, a base for artistic creation in Dunkirk in Hauts de France, with artists between 2011 and 2014, but in a dedicated, spontaneous, empirical way...! This time, we have structured our thinking, our methods and we have from the ESQ phase integrated reuse, recycling, but also biosourced materials and the potential for dismantling of structures.

On the one hand, we have chosen commercial materials from recycling (cellulose wadding insulation, and recycled cotton insulation), commercial materials that are part of recycling loops (polyester fabric) and biosourced materials (wooden partitions and facings, natural paints).

On the other hand, concerning reuse, from the draft phase we looked for potential sources of reuse, identified the materials available and pointed them finely in plan. During the design period (AVP, PRO), SEMAPA collected the reused elements that we identified, mainly from its own worksites, and stored them near the site. During the consultation phase, with our design offices, we made sure that the circular economy was present in the graphic documents as well as in the written documents (DPGF, CCTP, RC) inviting candidate companies to take note of it! During the site preparation phase (EXE), the re-use gave rise to many exchanges (plans, calculation notes, mutual agreements on adaptation details)!

Resulting today in a place full of soul, where the circular economy and reuse are arranged with pointillism, playing with our gaze between visible and invisible!

Building users opinion

Mail from 2R2C for Citymix following the inauguration of 04/13/23: "It was a very nice inauguration and the feedback on the building is unanimous, the artists are happy to work there. Yesterday was a very nice evening, I think you've already had some feedback. Again, on behalf of the whole team, I want to thank you."

If you had to do it again?

- We would keep the architectural bias! That is to say the distribution of uses and flows in such a constrained place, as well as the choice of metallo-textile architecture, which provides a technical and aesthetic response.
- Reuse: we were unable to recover all of the materials that we had listed and integrated following site visits. This is linked to the temporality of the City of Paris construction sites and to the management of the service which put us in contact with the construction sites. With SEMAPA, we were able to collect many other materials and equipment on the sites over which SEMAPA had control. This allowed us to bring together before the consultation all the re-use to be posed.

Our expertise indicates that it is necessary to collect, upstream, list and carefully store all reuse. The materials may thus, during the consultation phase of the companies, be presented to the candidate companies; then from the start of the preparation of the site to be received in the state and with our presence, before being transported to the workshop for adaptation according to the needs. It is important to avoid asking the contractors to buy reused materials, risking a great loss of time, numerous misunderstandings and the impossibility for the Moa and the Moe to check the condition of the elements received before adaptation or installation, which which may be subject to request for additional value for loss, breakage or non-adaptability of the material.

See more details about this project

<https://www.2r2c.coop/2r2cms/gallery/galleries-accueil/galerie-acceuil-1/50>

<http://www.semapa.fr/Actualites/Rue-Watt-un-bel-exemple-d-economie-circulaire>

Photo credit

Charles Delcourt Photographe and Citymix Architecture

Stakeholders

Contractor

Name : SEMAPA Maitrise d'ouvrage déléguée // Ville de Paris, Direction des Affaires Culturelles : Maitrise d'ouvrage gestionnaire et propriétaire

Contact : M. Benoit Ernek, bernek[a]semapa.fr

<http://www.semapa.fr/>

Construction Manager

Name : Citymix Architecture

Contact : Ingrid Petit, ingridpetit[a]citymix.fr

<http://www.citymix.fr>

Stakeholders

Function : Other consultancy agency

PROJEX

Corentin Chandelier, c.chandelier[a]projex.fr

<https://www.groupe-projex.fr/metiers/ingenierie/>

Structure, acoustics, HVAC fluids study mission

Function : Other consultancy agency

ASTEО

Yves Jacquet, y-jacquet[a]asteo.fr

<https://www.asteo.fr/>

Metallo-textile structures mission

Function : Thermal consultancy agency

Diagobat

Corentin Chandelier, c.chandelier[a]projex.fr

<https://www.groupe-projex.fr/metiers/environnement/>

Mission of thermal and environmental studies

Contracting method

Other methods

Type of market

Other

Other type of market

Market with Adapted Procedure

Allocation of works contracts

Separate batches

Energy

Energy consumption

Primary energy need : 145,00 kWh_{ep}/m².an

Calculation method : RT existant

Breakdown for energy consumption :

Although the building was delivered in May 2023, the dual-flow CTA is in the process of acceptance. Energy consumption has not been finalized to date. The final DPE is being drafted.

Initial consumption : 450,00 kWh_{ep}/m².an

Real final energy consumption

Final Energy : 145,00 kWh_{ep}/m².an

Envelope performance

More information :

Walls:

- Large rooms: facade on rue Watt: projected cellulose wadding insulation. $R = 3.7\text{m}^2\cdot\text{K}/\text{W}$
- Small serving areas (foyer, dressing rooms, offices): 12mm wooden wall with 2-layer insulation and membrane positioned in 2/3-1/3: 145mm recycled cotton insulation $R = 3, 7\text{m}^2\cdot\text{K}/\text{W} + 50\text{ mm recycled cotton insulation } R = 1.25\text{m}^2\cdot\text{K}/\text{W}$

Windows:

- Exterior joinery: $< 1.40\text{ W}/\text{m}^2\cdot\text{k}$

Low floor:

- Large rooms: insulation under paving on solid ground in expanded polystyrene 120mm R> 3.9m².K/W
- Small serving areas (foyer, dressing rooms, offices): insulation on the underside of low wooden floors: recycled cotton insulation 145mm R = 3.7m².K/W

Floor top:

- Large rooms: existing reinforced concrete deck, preserved
 - Small servant areas (foyer, dressing rooms, offices): textile double skin type cover
- Interior face: 502 Ferrari prestressed fabric
Exterior face: Stam DB 4800 Ferrari fabric

Renewables & systems

Systems

Heating system :

- Others

Hot water system :

- Individual electric boiler

Cooling system :

- No cooling system

Ventilation system :

- Double flow heat exchanger

Renewable systems :

- No renewable energy systems

Other information on HVAC :

The double flow unit regulates the heat input in the 2 main rooms (ceiling height 8m). The double flow is equipped with thermal batteries to replace a boiler-type system. Auxiliary radiators, resulting from re-use, are located in the serving areas, which are closed and highly insulated (foyer, dressing rooms, offices).

Reusing an urban wasteland, a volume under roads, the production of renewable energy was not possible (solar panels for example). Nevertheless, the City of Paris has a preferential framework agreement with Enercoop, a renewable energy production cooperative, contract that is used here, in the case of the rue Watt project.

Costs

Construction and exploitation costs

Total cost of the building : 1 310 000 €

Circular Economy

Circular economy strategy

Phase in which reuse has been integrated : Sketch study

Type of circular economy strategy implemented :

- Maximization of the number of impacted batches
- Maximization of quantities on targeted products
- Maximization of the carbon gain

Integration of reuse into the written contract documents : Integration of the reuse specifically in the special technical specifications of the concerned batches

Validation protocol for reused materials : Yes

Validation protocol for reused materials :

At the time of consultation:

- Compulsory inspection of stored items;
- Circular economy methodological note;
- Specific weighting criterion.

In the Works / DET phase:

- Statement of acceptance of supports between company, Moe, Moe;

- In the preparatory phase: the companies provided EXE plans and calculation notes;
- In OPR phase: meticulous follow-up of structures resulting from reuse.

Deposit validation form : Yes

Reuse : same function or different function

Batches concerned by reuse :

- o Structural framework
- o Facades
- o Locksmithing-Metalwork
- o Indoor joineries
- o Partitions
- o Isulation
- o Electricity
- o Plumbing

For each batch : Reused Materials / Products / Equipments :

See the enclosed items.

- o <https://www.construction21.org/france/data/sources/users/20424/20230602172431-watt-dce-180119-ec-lot-charpente-metallique-serrurerie-toile-tenduetrophees.pdf>
- o <https://www.construction21.org/france/data/sources/users/20424/20230602172513-watt-dce-180119-ec-lot-chauffage-plomberie-electricitetrophees.pdf>
- o <https://www.construction21.org/france/data/sources/users/20424/20230602172541-watt-dce-180119-ec-lot-menuiseries-aluminium-interieures-et-exterieures-trophees.pdf>
- o <https://www.construction21.org/france/data/sources/users/20424/20230602172611-watt-dce-180119-ec-lot-platerie-menuiseries-interieures-bois-faux-plafonds-trophees.pdf>

Reused materials rate :

Stairs and corridors

Come from several staircases from the Bédier shipyard. Our design office (ASTEIO) had in the PRO DCE phase designed the plan for reattachment and adaptation of these structures. Then in the EXE phase, the company (Ingestar company) provided EXE plans and calculation notes. A lot of back and forth was necessary to develop these metal structures, adapt them to the places, to the surrounding uses and to PMR requirements. Thanks to the calculation note and the EXE phase, these stairs have entered into the ten-year insurance policies of the company and of each stakeholder.

Doors to the foyer, dressing rooms and toilets

Come from the emblematic stainless steel entrance doors of the Théâtre de la Ville. In the foyer, they were adapted on a wooden frame, and with new locks allowing the secure closure of the place, a new floor pivot had to be provided. For the toilets, it was necessary to adapt the passage width to PRM requirements by supplementing them with a vertical wooden upright. A locksmith and a window sticker ensuring privacy have also been added. The company (Le Bihan company) played the game in the EXE phase by planning all of these adaptations, in dialogue with us! All accepted by the control office! To do again! Because these stainless steel joineries give a chic to the place!

The kitchenette

Comes from the bar in the foyer of the Théâtre de la Ville, but also from the fridges and other storage elements of this emblematic site in Paris! In the EXE phase, we exchanged many drawings with the company (Richard company) but also with the lessee 2R2C, who had specific requests (number of fridges, household equipment, storage). A stainless steel was called in by the Richard company to complete certain stainless steel surfaces and create the credenza.

The racks

We wanted to make a nod to mines and miners, to the Hauts de France region, where we come from, with removable clothes racks in the approved area - transmission room - allowing children and the public to deposit their coats, operated by the staff on site, they are hoisted up, like the miners' uniforms and meals, in the so-called "hanged" rooms. For this we reused market rods, which were proposed and adapted by the Richard company.

Logistics

Rehabilitation and reconditioning operations (if project concerned by a cleaning/demolition stage) : No

Storage of materials for reuse in situ (if project concerned by a cleaning/demolition stage) :

- o On site, on a dedicated area in a covered location

Storage of materials from external supply :

- o On site, on a dedicated area in a covered location

Insurance

Consultation of the technical controller : Yes

Specific mission given to the technical controller :

No specific mission. The reuse elements were analyzed as part of its L + LP + SEI + TH + HAND + F + LE + AV + ATTHAND-2HAND, STI missions.

Insurance broker on the project : No

Insurer : Assureur de l'architecte : MAF, Assureur du Moa : MMA

Consultation insurer : No

Environmental assessment

Impacts avoided : water, waste, CO2 :

<https://www.construction21.org/france/data/sources/users/20424/20230605094523-2022tropheesbatimentscirculairesoutil-calcul-dimpacts-diffuse-projet-watt.xls>

The reuse operation saved the equivalent of:

- o 204,187 kilometers traveled by a small car, i.e. 232 Paris-Nice journeys
- o 4154 rectangular bathtubs filled with water
- o 66 years of household waste from a Frenchman

Categories	CO2 avoided (kg)	Water consumption avoided (m3)	Waste avoided (kg)
Outdoor Facilities	0	0	0
Landscaping / Locksmithing - Metalwork	0	0	0
framework	4709.835	24.778165	105.092031
Partitions	0	0	
Blanket	0	0	0
Roofing / Outdoor facilities	0	0	0
Lightings	6083.576201	49.77611538	7541.885795
Security lights	0	0	0
HVAC equipment	0	0	0
Electrical equipment	48.2938	1384.56	
facades	2258.654964	300.5826654	574.0938399
False ceilings	0	0	0
Raised floors	0	0	0
False ceilings	0	0	0
Big work	0	0	0
Sanitation facilities	6.060476464	442.6867998	
Insulation	-2968.076307	38.67397474	10481.77255
Exterior carpentry	6816.6	67.3848	5054.954478
Interior joinery	582.8227728	7.051598074	303.5411428
Furniture	2738.330174	50.43304257	4584.041199
Paint	0	0	0
Plumbing	2.0361	399.9327276	
floor coverings	0	0	0
Floor or wall coverings	0	0	0
Wall coverings	0	0	0
building security	0	0	0
Locksmithing - metalwork	4021.506988	28.09145565	1981.453799
VRD	0	0	

	CO2 avoided (kg)	Water consumption avoided (m3)	Waste avoided (kg)
TOTAL	25523,34364	623.1621933	32854.01436

[More details on the avoided impacts :](#)

The Watt project, a circular economy laboratory

Article 70 of the energy transition law specifies that the transition to a circular economy aims to:

- o Go beyond the linear economic model of extracting, manufacturing, consuming and throwing away by calling for sober and responsible consumption of natural resources and primary raw materials
- o To the prevention of waste production, in particular by the reuse of products, and, according to the hierarchy of waste treatment methods,
- o To reuse, recycling or, failing that, recovery of waste.

In the Rue Watt project, the global circular economy approach implemented allows an overall saving in greenhouse gas emissions of 33%, or approximately 63 Teq CO2 over a lifespan of 50 years. Because here, the circular economy is:

1. Reuse:

Benefit provided by reused materials and products:

- o Emissions Teq CO2 "Conventional" project 183 Teq CO2
- o Emissions Teq CO2 avoided 55 Teq CO2
- o Percentage of greenhouse gas reduction: 30.00% excluding recovered "hull".

2. The valorization of an urban neglect:

Gain brought by the valuation of an urban neglected:

The total wall surface is estimated at approximately 1050 m². Considering an equivalent concrete block construction, the gain on greenhouse gas emissions is 6.93 Teq CO₂ (CO₂ emission of 13.2 kg eq CO₂/m² of wall over a period of 100 years according to the FDES concrete - laying with a thick joint - from CERIB).

3. Recycling:

Benefit provided by recycling:

Among the materials from circular economy sectors, the project uses a large quantity of recycled textile-type insulation (Relais Metisse® insulation). In comparison with mineral wool* type insulation, the gain in CO₂ emissions is 1.51 kg eqCO₂/m². The saving on greenhouse gas emissions thanks to the use of Metisse® type insulation is approximately 1.7 Teq Co₂. It is also necessary to plan for the future recycling of the elements implemented in the project: thus, we have favored a metal structure and composite architectural fabrics that can be recycled with the Texyloop sector.

Economic assessment

Total cost of reuse : 177 000 €

Reuse quantified in the companies' offers? : Yes

Purchasing process for reused materials :

- o Others

Purchasing process for reused materials :

Deposited on the 2 contractor's own construction sites: City of Paris and SEMAPA. Logistics, via purchase order companies.

More details on the economic balance :

- o No project management assistance (see previous question). We carried out all the re-employment services by ourselves on the fees of project management.
- o Total amount of work: **€1,312,000 excluding tax.**
- o In addition to reuse, we have also worked with recycled materials (recycled cellulose wadding insulation, and recycled cotton for acoustic insulating surfaces), with easily removable materials (wooden partitions with wooden frames and panels) and as part of recyclability loops (stretched fabrics/texyloop). This represents an additional amount for reuse of: **€135,648 excluding VAT.**
- o In addition, the metal structures used to create the floors are designed as removable, reversible, as well as their covers and certain canvas facades which are removable. This set is to be considered in the circular economy of the project for an additional amount of removable cover is **€245,000 excluding tax.**
- o Please note, however, the amounts do not include the logistics amounts of companies with purchase orders that have dismantled on SEMAPA sites.

New business model and financial balance :

We believe that the amounts linked to the circular economy do not represent economic advantages for the contracting authority. They rather represent a partnership approach (between the project owner, the architect, the company, the future user of the premises) conscientious and neat of consumption. An alternative.

Communication

Communication on the process : Yes

If so, please specify :

Nowadays :

- o Communication in the form of a conference with the CD2E (Eco-materials Development Center, in the Hauts de France Region) and the MEL (European Metropolis of Lille) as part of the "Club Réemploi MEL-CD2" workshops in April 2023. see attached ppt which now allows us to introduce ourselves to all: <https://www.construction21.org/france/data/sources/users/20424/20230603103118-presentation-cd2e-reemploi-230406-2k.pdf> *
- o Publication in preparation on the Opalis platform, following authorization received by Rotor and Bellastok. A complete platform aimed at Moa, architects, companies, individuals and presenting very beautiful projects for reuse.
- o Social networks and story on the Instagram page of Citymix Architecture.

We now wish to make this project better known, our history in the field of reuse and our feedback which can certainly contribute to the development of a common expertise.

Project visit : Yes

Social economy

Social economy and professional integration :

The project did not mobilize a social and solidarity economy structure. Nevertheless, hours of insertion were requested by the Client. Here is the breakdown: 831 hours for all the lots, corresponding to 5% of the total amount of the contracts.

Details of hours:

- o LOT 01: Structural work, tiling, projected insulation: 194h
- o LOT02: Metal frame - Locksmithing - Stretched canvas: 238h
- o LOT 03A: Plastering: 26h
- o LOT 03B: Wooden frames - Wooden interior joinery - Furniture: 131h
- o LOT 04: Exterior joinery in steel and interior in aluminum: 32 hours
- o LOT 5: Paintings: 9 p.m.
- o Batch 6: Elevators: 24h
- o LOT 07: Heating Ventilation: 97h
- o LOT 08: Electricity: 68h

Circular design

Responsible consumption :

Valorization of an urban neglect:

The project is part of an existing volume, closed covered, under the rue Alice Domont and Léonie Duquet. In Paris, each void, each abandoned, each "alveolus" can become an opportunity to house uses and initiatives. Here it is the project of 2R2C (Coopérative De Rue et de Cirque), which could be fitted out, and what is more, in the heart of a student and lively district: that of the University of Paris Diderot!

Gain brought by the valuation of an urban neglected:

The total wall surface is estimated at approximately 1050 m². Considering an equivalent concrete block construction, the gain on greenhouse gas emissions is 6.93 Teq CO₂ (CO₂ emission of 13.2 kg eq CO₂/m² of wall over a period of 100 years according to the FDES concrete – laying with a thick joint - from CERIB).

Functionality economy :

Change of uses

In dialogue with the City of Paris, owner and manager, the spaces created should be able to evolve easily in their function in the future. If the volumes and heights under ceiling now lend themselves perfectly to the creation and teaching of the circus, the ERP has been classified category R, allowing it, easily, in the future, to put itself at the service of any field of education or training.

Intensification of uses:

The occupant 2R2C plans to rent the transmission room, which is planned to be made independent of the creation room and the rest of the premises, while having its entrance and service areas (foyer, kitchen, bathrooms, storage).

Industrial and territorial economy :

Energy exchange :

Electricity subscription at Enercoop. 2R2C makes a point of smiling a subscription to ENERCOOP; green electricity supplier and local electricity producer

"In addition to buying renewable electricity from more than 400 French producers, the Enercoop cooperatives are moving towards a model in which they develop, hold and operate their own production parks in order to strengthen their action in favor of a civic and local energy transition " <https://www.enercoop.fr/>

Ecosystem and pooling of neighboring equipment:

The neighborhood and the adjacent streets are home to many sports facilities. An agreement is being drafted between the place of circus arts and the neighboring gymnasiums for the pooling of spaces and sports equipment.

Eco-design :

Removable building:

The project is organized around two high rooms (8m under ceiling) allowing the practice of circus arts and shows. The facings of these rooms are deliberately kept in raw concrete facing, only the technical devices complete these volumes (technical grill, backlit acoustic fabrics, ventilation ducts). A saving of materials.

The other, smaller functions (foyer, dressing rooms, toilets, offices, storage, workshops) are arranged on the outskirts of these rooms, in shelving structures made of metal frames and stretched canvas. The metal structures can be unbolted, ensuring easy dismantling. The stretched fabrics are removable, allowing constant visual access for the control of the works under the road, and there also an easy dismantling.

Mutable building:

As said above, the conservation of large volumes and the organization of the spaces used on the periphery will make it easy to envisage new future functions.

Sustainable supply :

Biobased materials:

Wood: Wood is deliberately widely present in the Watt project and in particular in the small serving spaces (foyer, dressing rooms, offices, toilets): in partitions (wooden frame and maritime pine plywood facing), in floors (wooden parquet, also maritime pine plywood, Tebopin) for shelving and furnishings. It's a material we use in every one of our architectural projects, whether it's lumber or finish wood. Beyond its environmental balance, wood also has 2 appreciable advantages: visual comfort and ease of appropriation for the occupant (hangings, additions or dismantling over time).

All paints used: **mineral paints** . Mineral paints make a very important contribution to the quality of indoor air in premises. Their exceptional permeability to water vapor allows the walls to breathe freely without the formation of condensation water. The absence of synthetic resins and their alkaline pH prevents the development of fungi and mold in damp rooms. The raw materials used for the manufacture of mineral paints are completely natural. Mineral silicate paints are formulated in aqueous phase; no solvent or co-solvent is used in the composition of the products. Mineral paint is anti-allergenic; it does not emit VOCs (volatile organic compounds) harmful to health, neither during application nor after drying. Thanks to their natural incombustibility properties (M0 on M0 support), mineral paints do not burn and do not give off toxic fumes in the event of a fire.

Natural oils for the protection of wood and soil: vegetable oils, based on linseed oil, VOC-free. Not harmful to installation and use.

Recycling :

Recycled materials :

- **Métisse insulation:** used in the wooden partitions and as sound absorber behind the stretched canvases, in the two large rooms. Le Métisse is an insulation made from recycled cotton (clothing, household linen), collected and reconditioned by Emmaüs Le Relais, a cooperative integration company, in the Hauts de France.
- **Cellulose wadding insulation:** used on the interior facade along Watt Street, which we have treated with recycled insulation and projected to reach great heights (8m). Here it is recycled paper and cardboard that lend themselves to the projection.
- **Fabrics in the Texyloop cycle:** the stretched fabrics, from the imagination of the circus and the capitals, were chosen from Ferrari textiles, fabrics with which our ASTEO design office has designed, in reverse double curvature, many circuses and schools of circuses (Cirque du Soleil, Fratellini Academy, etc.). While it is true that these fabrics are made of polyester, here the supplier company makes a real effort to recycle its products, at the end of their life,

with the Taxyloop circuit.

Additional information (PDF documents)

Health and comfort

Quality of life and services

- <https://www.construction21.org/france/data/sources/users/20424/20230605111913-2r2cavril2023.jpg>
- <https://www.construction21.org/france/data/sources/users/20424/20230605111944-2r2cavril2023-04.jpg>
- <https://www.construction21.org/france/data/sources/users/20424/20230605112005-2r2c.jpg>
- <https://www.construction21.org/france/data/sources/users/20424/20230605112112-2r2cavril2023-02.jpg>
- <https://www.construction21.org/france/data/sources/users/20424/20230605112138-2r2cavril2023-03.jpg>
- <https://www.construction21.org/france/data/sources/users/20424/20230605112201-2r2cavril2023-01.jpg>

Contest

Reasons for participating in the competition(s)

We present the Place of circus and street arts, in Paris, a small cultural facility (600m²), recently delivered and already rich in meaning and attention! Because there we find:

- The circular economy: materials from reuse, recycling and biosourced materials.
- An architecture workshop approach, already underway for several years and which has been structured over time and over the projects.
- A team approach! Architects, design offices, project management but also companies!
- A set of pillars of the circular economy achieved, including the strongest: responsible consumption of space and soil, extending the life of materials, eco-design, sustainable procurement, recycling.

