9 Percier - Paris

by Eva Biguères / 2023-03-21 00:00:00 / France / 1531 / FR

Primary energy need :

162.84 kWhep/m².an

(Calculation method : Other)

ENERGY CONSUMPTION

Economical building *Building*

< 50	A	
51 à 90	B	
91 à 150	C	
151 à 230	D	D
231 à 330	E	
331 à 450	F	
> 450	G	

Energy-intensive building

Building Type : Office building < 28m
Construction Year : 1928
Delivery year : 2022
Address 1 - street : 9 avenue Percier, 1er étage 75008 PARIS, France
Climate zone : [Cfb] Marine Mild Winter, warm summer, no dry season.

Net Floor Area : 750 m²
Construction/refurbishment cost : 280 000 €
Number of Work station : 100 Work station
Cost/m2 : 373.33 €/m²

Certifications :

Osmoz Osmoz

General information

Our project is a responsible and biophilic showcase at the service of employees, which responds to the challenges of circular economy, reuse, quality of life, transversality and conviviality.

Several elements have led us to reorganize our workspaces:

1. Changes in our working methods, due to:

- Developing an internal **hybrid working methods** and with our customers and partners, post-COVID accelerating and developing teleworking.
- The ever-increasing added value of the **transversality** of our businesses in terms **of business interest for ARP Astrance employees** and in the context of carrying out our missions.

Our actions have made it possible to find a balance between spaces that is promoting the operational cross-functionality of ARP Astrance's businesses, collective intelligence, exchanges and which make it possible to accentuate synergies, while respecting everyone's needs.

2. Our desire for a redevelopment with the smallest possible carbon and material footprint, and exemplary in terms of the circular economy, within a controlled budget

This resulted in the reuse of a maximum of existing elements in situ and the choice of materials resulting from reuse

Our actions have reduced the carbon footprint of our refurbishments by 80%.

3. Our desire to strengthen the quality of life at work through workspaces: social ties, biophilia, sanitary quality of spaces

This resulted in:

- Spaces that promoting social ties;
- A nap area equipped with a rest bench associated with relaxation software;
- Choice of materials with low health impact such as the new carpet used with the Declare label and low VOC emissions (MILLIKEN Partner).

Our pilot project reflects our know-how and business expertise. It allows us to highlight our skills and our vision in order to replicate this project for and with our customers.

See more details about this project

https://arp-astrance.com/references.html?view=project&id=109:arp-astrance-design-circulaire-et-space-planning-paris&catid=119:amenagement-design
https://www.linkedin.com/feed/update/urn:li:activity:7029461178376409089

Photo credit

Olivier Martin Gambier

Stakeholders

Contractor

Name : ARP Astrance
Contact : Gwennaële CHABROULLET
https://arp-astrance.com/

Construction Manager

Name : ARP Astrance
Contact : Julie VINAY
https://arp-astrance.com/

Stakeholders

Function : Company

Bouygues Energie Services

Alain CASULE - a.casule[a]bouygues-es.com

https://www.bouygues-es.fr/
General contractor for the interior refurbishment of our offices

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Function : Manufacturer

KATABA

Florent SEDENO - f.sedeno[a]kataba.fr

https://kataba.fr/pages/notre-histoire

Contracting method

Other methods

Type of market

Not applicable

Other type of market

Private

Allocation of works contracts

Build and sell construction

Energy

Energy consumption

Primary energy need : 162,84 kWhep/m^2.an

Calculation method : Other

Initial consumption : 162,84 kWhep/m^2.an

Real final energy consumption

Final Energy : 70,80 kWhef/m^2.an

Renewables & systems

Systems

Heating system :

- Urban network
- Fan coil

Hot water system :

- Urban network

Cooling system :

- Fan coil

Ventilation system :

- Double flow heat exchanger

Renewable systems :

- No renewable energy systems

Environment

Risks

Hazards to which the building is exposed :

- Urban heat island

Risks measures put in place :

The choice of this building was made according to several criteria, including that of a significant transversality of the floors providing not only significant natural light but also a natural ventilation capacity in the event of unavailability of cooling equipment.

For the record, the proposed project is the redevelopment of a set in an G+6 building.

Urban environment

The choice of these offices met one of the criteria of high availability of local amenities:

To get to 9 avenue Percier, there are a variety of ways to get around:

- buses: 22, 28, 32, 80, 84, 93
- metro: 9, 13
- bike
- scooter
- cityscoot
- car sharing
- etc

We have parks to get some fresh air during lunch breaks and to practice sports activities (Parc Monceau). A multitude of restaurants, shops, wellness services, shops, health/medical services and also local and administrative services.

Built-up area : 100,00 %

Products

Product

ARP Astrance

Julie VINAY

https://arp-astrance.com/

Product category : Management / Others

Circular interior designer

KATABA

f.sedeno[a]kataba.fr

https://kataba.fr/

Product category : Finishing work / Indoor facilities

MILLIKEN

sabrina.beauvois[a]milliken.com

https://www.milliken.com/fr-fr/businesses/floor-covering

Product category : Finishing work / flooring

Carpet / resilient flooring

BOUYGUES Energy

a.casule[a]bouygues-es.com

https://www.bouygues-es.fr/

General contractor 2nd work

CultureIn

emma.derbre[a]culturein.eu

https://varian.culturein.eu/

Varian acoustics

Algo

jacquy.binnet[a]algopaint.com

https://www.peinture-algo.fr/?gclid=EAIaIQobChMI6tn0uN7O_QIVzhAGAB06PgAlEAAYASAAEgLbE_D_BwE

Product category : Finishing work / paints, mural, wallcoverings

Biobased paint. Recycled and recyclable container.

Costs

Construction and exploitation costs

Cost of studies : 60 000 €

Total cost of the building : 280 000 €

Circular Economy

Circular economy strategy

Phase in which reuse has been integrated : Programming

Type of circular economy strategy implemented :

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

Type of circular economy strategy implemented :
Reuse of a maximum of existing elements in situ

Quantified targets for reuse? :
Our desire for a redevelopment with the smallest possible carbon and material footprint, and exemplary in terms of the circular economy.

This resulted in the reuse of a maximum of existing elements in situ (carpets, partitions, etc.) and the choice of materials from re-use + new materials from re-use or biosourced.

Our approach is a pilot project which has been the subject of specific support through our various divisions (in particular Planning & Design, Biodiversity & Biophilia and Responsible Real Estate) and our partners.

ARP Astrance is a company on the move, which questions the issues of tomorrow, which wonders about what is happening around us. Our interior fittings must embody these ambitions!

Change of use: we have gone from team territories to user territories: according to our needs (concentration, silence, collaboration, etc.) and not our poles.

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 :
Companies with traceability.

Deposit validation form : No

Reuse : same function or different function

Batches concerned by reuse :

- Locksmithing-Metalwork
- Indoor joineries
- Floorings
- Partitions
- Suspended ceilings
- Raised floors
- Electricity
- Heating ventilation air conditioning
- Plumbing

For each batch : Reused Materials / Products / Equipments :

- Reception desk: 1 U
- Lamp - Led strip: 2 U
- Metal cabinet: 6 U
- Office: 19 U
- Bookcase / wooden shelf: 1 U
- Chairs: 136 U
- Worktop: 1 U
- Coffee tables: 4 U
- Stools: 40 U
- Removable partition - glazed door block: 2 lm
- Removable partition - full filling: 24 ml
- Removable partition - glazed: 12 ml
- Carpet: 21m²
- Office (locker, non-existent category): 125 U

Besides :

Existing furniture :

- 65% of furniture in situ (mainly tables and seats) reused
- For non-reused furniture: 15% recovered by employees, 15% given to firefighters, 5% sent to a recycling/reuse channel

Partitioning : re-partitioning from the existing one, only 3 doors and 1 new partition

Carpet :

- Retention of 80% of the existing carpet
- Reuse of a carpet removed from another site (ORAK Partner)
- The new carpet is made from recycled nylon; it is Declare labeled and has low VOC emissions (MILLIKEN Partner)

Carpentry furniture : work with an integration company and reuse manufacturing - around 70% of the material comes from reuse (KATABA partner)

- Reception desk: pine ribbon designed with the wood of the old platform
- Employee lockers: reuse of the old library, change of doors only
- Kitchen and bar: oak and bakelite + “LE PAVE” worktop (made from plastic waste)
- Library / Material library: only the white tops are new, the rest is reused, door made with floor elements from the Grand Palais
- Acoustic elements made of natural fibers and biosourced materials (Partners: CultureIn and PierrePlume)
- Colored paint: 84% biosourced (ALGO partner), packaging 75% recycled and 100% recyclable

Material library:

2.2 m3 of solid wood --> 80% reuse

- Traverse: old parquet
- Cleat: old beam

2.1 m3 of chipboard --> 50% reuse

- Chipboard: old desk top

New locker:

- 2.8 m3 chipboard --> 100% reuse
- Chipboard: old desk top
- 0.2 m3 plywood (door) --> 0% reuse

Existing locker:

- 0.2 m3 chipboard + solid undersheet (door) --> 100% reuse

Kitchen and Bar:

- 0.2 m3 chipboard --> 0% reuse
- 0.1m3 black compact strat panel --> 100% reuse
- 0.2 m3 solid wood --> 70% reuse

Reception desk + lower cupboard:

- 0.4 m3 medium --> 0% reuse
- 0.7 m3 chipboard --> 20% reuse
- 0.15 m3 3ply spruce --> 50% reuse

Recap:

- Solid wood: 2.5 m3 including 2 m3 reused (i.e. 80%)
- Agglomerated: 5.95 m3 --> including 4.28 m3 reused (i.e. 70%)
- Plywood: 0.2 m3 --> new
- Compact laminate: 0.1 m3 --> 100% reuse
- Medium: 0.4 m3 --> new
- 3 ply spruce: 0.15 m3 --> of which 0.7 m3 is reused (i.e. 50%)

=> Our actions have reduced the carbon footprint of our refurbishments by 80%.

Reused materials rate :

Carpet

- **Origin**: carpet reused from BNP offices for the management office and green curtain space. It was provided to us by Milliken who works with ORAK to recondition the carpets.
- **Mode of transformation**: no transformation, carpet reused, but reconditioning with the partner ORAK.
- **Installation**: identical to new carpet, installation carried out by Bouygues.
- **Difference compared to a classic material**: no difference, identical use, but the LCA is improved as well as the carbon footprint.
- **Critical analysis**: easily achievable for small surfaces, very high environmental gain, but if we had to deploy the reused carpet on larger volumes, question of supply depending on the deposits available to have a unit on the whole.

Bespoke carpentry: work with Kataba

All reused materials are recovered in Île-de-France by truck, centralized in Aubervilliers at Since 1920 and then transported by truck to the site. The bar top and the reception banner have been varnished. All the rest of the wood is oiled. No additional treatment on the white melamine.

- **Provenance**: parquet floor of the Grand Palais for the library, doors for the fronts of the lockers, up cycling of our former platform.
- **Cooked worktop - recycled materials**: paver made from agglomerated plastic particles
- **Mode of transformation**: carpentry - work in the workshop and assembly on site.
- **Installation**: Kataba via their partner who employs people in integration - workshop 1920.

- **Difference from classic material**: search for deposit, final rendering according to the deposit found.
- **Analysis**: difficulty of working on large volumes with a company that is not used to it, sector in structuring, takes a lot of time to search for the deposit and support for design and production, but gratifying to have furniture arranged in up cycling because the carbon footprint is greatly improved, no extraction of raw materials, participation in the ESS (social and solidarity economy).

Partitioning

Re partitioning from the existing one, only 3 doors and 1 new partition. Reuse of existing partitions in situ.

- **Installation**: logistics on site to disassemble, store on site then reassemble in the right place
- **Analysis**: very advantageous in terms of cost and carbon footprint, no transport, no extraction of raw materials.

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) :

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

Storage of materials from external supply :

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

Insurance

Consultation of the technical controller : Yes

Specific mission given to the technical controller :

Qualiconsult for the verification of the finished works: solidity of the works, safety of people, accessibility for the disabled, solidity of the existing ones, electrical installation.

Insurance broker on the project : No

Consultation of the broker : No

Environmental assessment

Impacts avoided : water, waste, CO2 :

Calculation method developed by ARP Astrance

-> ARP Astrance has extended the existing carbon footprint method to its interior fittings. The calculation is made over a period of 10 years.

The posters of this calculation method are attached to our file.

- 65% of furniture preserved
- 95% of partitioning re-used in situ
- 80% of carpet preserved
- 95% of technical equipment retained / overhauled
- 84% biobased paint
- Biosourced acoustics and reuse

Furnishings and storage: – 12 kgCO2e / m² SDP

Custom wooden furniture from reuse:

- Reuse reception desk from the former "workcafé" platform.
- Employee lockers reused from the old library, only the doors changed.
- Kitchen and bar: reused oak and bakelite + “LE PAVÉ” worktop (made from plastic waste).
- Library / Material library: mostly reused, door made with floor elements from the Grand Palais.
- Reuse of the existing for shelves, cabinets, coat racks, etc.

Partitioning: – 5 kgCO 2e /m² SDP

Re-partitioning from the existing one, only 3 new doors and 1 new partition.

Appliances: – 1 kgCO 2e /m² SDP

Reuse of refrigerators, microwaves, coffee machines, kettles.

Flexible floor coverings: – 18 kgCO 2e /m² SDP

- 80%: reuse of existing carpet.
- 7%: reuse of carpet from another site (16 m²).
- 13%: brand new carpet, with low VOC emissions and low carbon impact.

Raised floor: – 40 kgCO 2e /m² SDP

- 40%: Reuse of the existing false floor
- 60%: Out of scope because kept in the reference scenario

Wall coverings: 84% biosourced paints.

IT equipment: – 29 kgCO 2e /m² SDP

Reuse of double screens and printers.

Work furniture: – 11 kgCO 2e /m² SDP

- Reuse of the majority of office chairs, existing workstations and meeting tables.
- Some new chairs and tables.

Common area: – 4 kgCO 2e /m² SDP

Reuse of existing sofas, armchairs, poufs.

=> Gain of 120 kgCO 2e /m² SDP between the reference and the ARP Astrance project

The reuse operation saved the equivalent of 230,653 kilometers traveled by a small car, or 262 Paris-Nice journeys, 62,301 rectangular bathtubs filled with water and 33 years of household waste for a Frenchman.

Circular Buildings Trophies Excel document:

reception desk	Furniture	
Lighting - Led strip / light throat	Lightings	2
Metal cabinet	Furniture	6
Desk	Furniture	19
Bookcase / wooden shelf	Furniture	1
Chairs	Furniture	136
Workplan	Furniture	1
Coffee tables	Furniture	4
Stools	Furniture	
Removable partition - glazed door block	Partitions	2
Removable partition - full filling	Partitions	24
Removable partition - glazed	Partitions	12
Carpet	floor coverings	21
Desk	Furniture	125

More details on the avoided impacts :

How do we act?

Upstream phase of the project – framing, programming:

- Tertiary optimization: we can have a circularity of materials and fittings, but the first resource on which we must ask questions is that of the use of m², the optimization of uses, reversibility.
- The circular layout is also part of responding to the fair use of m² and ways of doing things. The reversibility of the developments is anticipated from the design stage.
- Thinking about the use of the m² goes hand in hand with responsible development.

Environmental issues :

- Following the observation of the climate emergency, it seems essential to us to engage in a paradigm shift and to bring a new vision for the design of interior design projects.
- Interior fittings have a significant impact on a building's carbon footprint.
- At ARP Astrance, we are committed to the protection of living things, with the Gondwana division which works in its own right on biodiversity issues.

Operational phase of the project: design, drafting DCE, AO
Materials ; sourcing of reuse materials – working with reuse platforms.

Societal issues:

- Making circular arrangements also means getting closer to the company's CSR challenges, giving meaning for employees, and a value of commitment.
- The circular economy is driven by SSE actors (reconditioning platforms, carpentry, materials handling, etc.), and generates job creation at the local level. The whole economy is being challenged by a new way of approaching the project and construction. Today, large companies must also take up the subject to structure the sector, this is the case of Bouygues Energies & Services who have done everything possible for the success of our project.

Economic issues :

- Do with existing buildings. The future of real estate will develop in the rehabilitation and transformation of use of assets.
- Making circular layouts means optimizing existing resources, but it also means preparing for the redevelopments of the next few years by thinking about the

reversibility of the project and the dismantling of the materials.

Today, the sector is in the process of being structured, and there are already financial advantages to working in a circular development approach: selective cleaning for resale of materials to reuse platforms (Tricycle) VS the cost of a classic demolition, In situ reuse which is both virtuous for the carbon footprint and the financial balance sheet.

=> The design is not however set aside in a circular layout, on the contrary, it will allow the project to be supported – how to create beauty and with meaning.

We are working on an **internal material library** that makes sense and that we are developing according to criteria that we have defined (origin of materials, % of recycled materials, dismantling, reflection on the treatment of end-of-life materials, etc.)

- **Reused materials** : floor and wall coverings, partitions, doors, raised floors
- Integration of healthy, biosourced or geosourced materials
- **Materials easily separable for recycling or removable for reuse** -> Ex Milliken with its Traction Back 2.0 carpet (tack-free installation)
- Cradle to Cradle label
- Reused or second-hand furniture (Bluedigo, Tricycle, etc.): chairs, desks, sofas, tables

Methodology implemented by ARP Astrance

1. Definition of the scope, objectives and lifespan of the project
2. Realization of the list of materials, products and equipment
3. Search for emission factors
4. Identification of the most emitting stations and proposal of variants
5. Rule for taking reuse into account
6. Comparison to the reference scenario and valuation

This voluntary approach is enhanced by:

- Valuation as part of the company's scope 3 carbon footprint for the current year
- Reduction axis by the ACT method
- Respond to public procurement obligations on reuse
- Promote environmental commitment and a sense of belonging among employees
- Make its premises or projects a showcase of its commitment
- Valuation within the framework of a certification or a label (Zero Carbon Certification, the BBCA Exploitation label, the Circolab label)
- External communication on the % reduction in the carbon footprint of the interior design operation
- Extra-financial report and external communication

Economic assessment

Total cost of reuse : 200 000 €

Reuse quantified in the companies' offers? : Yes

Purchasing process for reused materials :

- Purchase by the contracting authority from a reuse platform
- Purchase by the company from a reuse platform

Communication

Communication on the process : Yes

If so, please specify :

We held a conference on January 26, 2023 to present our project and introduce our new premises to our customers / prospects on the theme **"Circular economy and interior design, don't wait any longer! New offer and feedback from ARP Astrance ".**
https://www.linkedin.com/feed/update/urn:li:activity:7024424384119377920
https://www.linkedin.com/feed/update/urn:li:activity:7023208468144607233

A 2nd event to explain our approach **"ARP ASTRANCE supports you in carrying out the carbon footprint of your interior design projects"** :
https://www.linkedin.com/feed/update/urn:li:activity:7033753719489863680

ARP Astrance was in the ARCHISTORM agency portrait for the months of January and February.
https://arp-astrance.com/component/content/article/123-actualite/article-s-de-blog/757-portrait-d-agence-arp-astrance.html?Itemid=435
https://www.linkedin.com/feed/update/urn:li:activity:7031610491483353088

With our partner KATABA we made a video about our project:
https://www.linkedin.com/feed/update/urn:li:activity:7029461178376409089

We also organized an evening with our customers to present our new premises on Thursday, October 20 (attached file)

We have thus communicated to our database, on our various social networks (LinkedIn, Twitter, Instagram, YouTube), on our website and in magazines.

Project visit : Yes

Social economy

Social economy and professional integration :

We have worked with social and solidarity enterprises:

- Kataba
- Tricycle

Circular design

Responsible consumption :

- Choice to reorganize our spaces rather than move.
- Use of in situ resources

Functionality economy :

The implementation of the flex office and the chronotopia of the places.

Sustainable supply :

Local or biosourced materials.

Recycling :

- Maximization of construction waste: use of what we had at home.
- Biosourced materials: paint, acoustics.

Health and comfort

Comfort

Acoustic comfort :

- Addition of wall and suspended acoustic panels in meeting spaces;
- Carpet with acoustic underlay;
- Enveloping office furniture with acoustic material.

Visual comfort :

- Eye-soothing biophilic design and reminder of nature: disconnect;
- The finish of the new desk tops has been chosen to limit reflection.

Ergonomic design :

Ergonomic furniture and quiet room: to relieve physical and mental stress, as well as to improve recovery.

At ARP Astrance, there are many possibilities for adjusting furniture, in order to have a good posture on your health: adjustment of seats, armrests, backrest, etc.

Quality of life and services

Desire to strengthen the quality of life at work through workspaces: social ties, biophilia, sanitary quality of spaces

This resulted in the presence of biophilic elements:

- A natural green wall
- Natural materials present on the entire board: cork, wood
- Naturally inspired lights
- The color palette of the wall coverings has been selected to recall natural materials or presents patterns of natural inspiration (wallpaper, window sticker, cork panel)
- “Refuge” alcoves in the silence space
- In addition, the plateau that we occupy has important qualities in terms of natural light thanks to large glazed surfaces and a double exposure in a large part of the spaces.

Carbon

General infos

ARP Astrance has developed a specific carbon footprint methodology for interior fittings operations (scope of intervention currently very little covered by existing tools and methods on the market).

GHG emissions

GHG in use : 31,00 $KgCO_2/m^2/an$

Life Cycle Analysis

The life cycle analysis was carried out as part of our interior refitting operation.

Our ARP Astrance teams have developed our own methodology:

1. Definition of the scope, objectives and lifespan of the project
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Contest

Reasons for participating in the competition(s)

Nous souhaitons que ce projet démontre la faisabilité technique et économique d'aménagement intérieur à faible impact environnemental et à haut taux de réemploi, tout en maintenant les objectifs esthétiques et de qualité de vie.

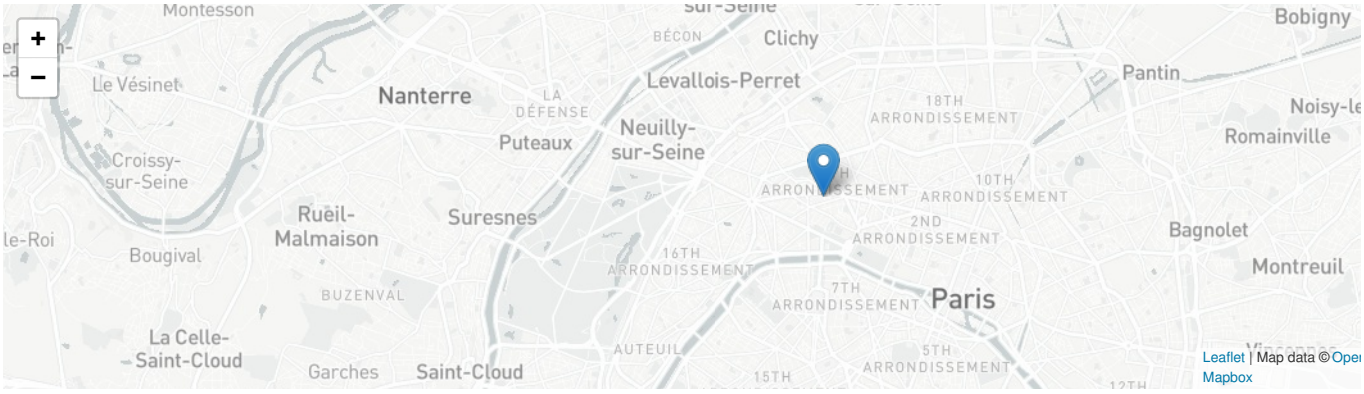
L'obtention d'un Trophée permettrait d'ajouter du poids à nos communications sur le projet pour engager le plus grand nombre.

Nos actions en synthèse :

- La mise en œuvre de solutions économes en ressources et développées par des sociétés partageant nos valeurs et issues pour certaines de l'ESS
- Un réemploi maximum de tous les éléments de 2nd oeuvre et des agencements présents avant le réaménagement.
- Un objectif fort d'un bilan carbone le plus faible possible pour l'opération, validé à la livraison.
- Le choix de solutions favorables à la santé et au bien-être des collaborateurs : design biophilique, choix des matériaux à faibles émissions, couleurs, postures variées, etc.
- Une démarche collaborative pour répondre aux réels besoins des utilisateurs et pour faciliter la prise en main des nouveaux espaces.
- La conception d'un écosystème d'espaces propices à la transversalité et la collaboration et permettant une optimisation des surfaces.

Notre projet est une **réponse aux modes de travail hybride et aux défis environnementaux**, et besoin d'allier espaces et valeurs de l'entreprise : nos nouveaux espaces de travail proposent des espaces inspirants car guidés par le vivant, respectueux de chacun, et à faible empreinte carbone.

Projet possible par l'implication de tous : direction, collaborateurs, partenaires. Une double réussite : la réduction de l'impact négatif du projet et des impacts positifs pour nous et notre éco-système.



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