



Officity | Value

A positive economy for your building



Shared innovation

Buildings are a major cost centre

AVERAGE COST OF A WORKSTATION IN FRANCE:

13,593 €/year

— ARSEG Buzzy Ratios 2020

60%

OCCUPANCY RATE OF OFFICES BY EMPLOYEES IN THE PARIS REGION

— MEDEF June 2019



✘ Photo: © alice-photo/Shutterstock

Office buildings used to be monofunctional, isolated and frozen in time, largely unconcerned with environmental issues, to all intents and purposes a cost centre. But this is now beginning to change.

Living through the public health crisis has meant more rapid changes are occurring in the workplace. The new, more flexible way of life has contributed to some buildings becoming obsolete. To reduce energy consumption, regulatory changes (such as the Tertiary Decree, the RE 2020 regulations, etc.) are forcing owners to invest in expensive renovations, often requiring tenants to change their practices... So what is the future for offices?

How can we adapt our thinking to:

- ✘ Future generations?
- ✘ The demands of the green transition?
- ✘ The need for profitability?
- ✘ Situations needing a fast and agile response?
- ✘ Multimodality?

Whether renovated or a new build, office buildings are moving towards a sustainable, open and hybrid future for the benefit of investors, occupants, operators and local residents alike!

The office as a source of value

TO MEET THESE CHALLENGES, Bouygues Construction has identified **solutions, tools and best practices**, working with **in-house teams** and an **ecosystem of start-ups and partners** to devise the **Officity Value** concept.

Officity

To help our clients achieve and enhance their own projects, we have based our approach on **three themes: attractiveness, value and the adaptability of the office building.**



greener
more shared use
more hybrid use

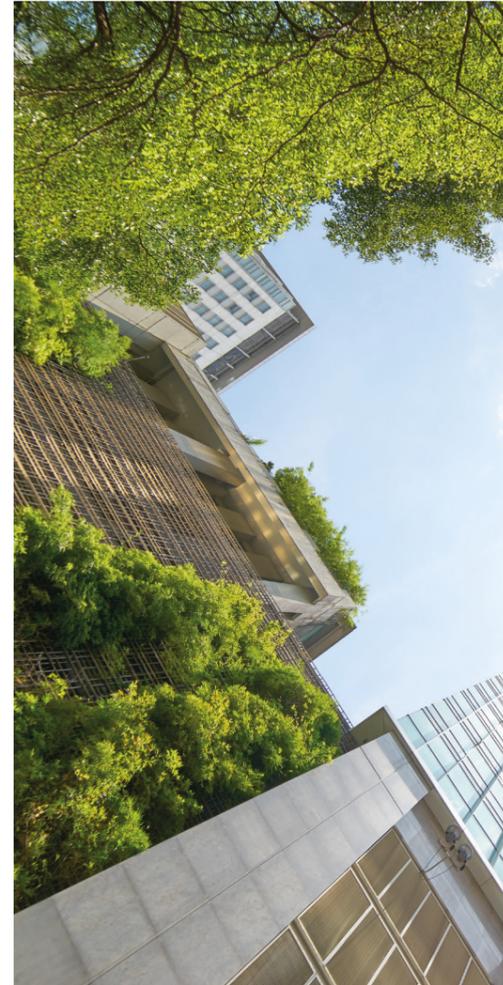
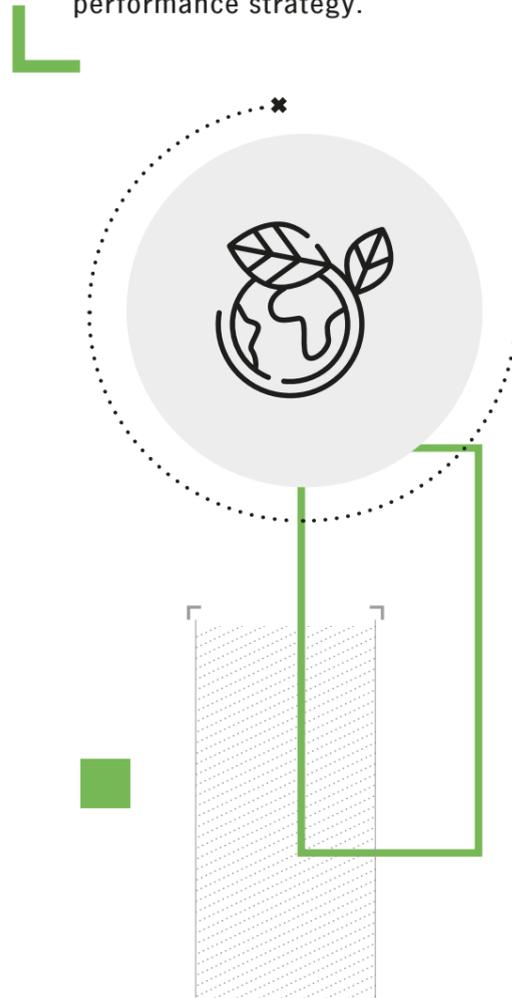
Officity Value is an application of the hybrid positive-economy building concept. In an innovative way, this approach combines solutions that reduce environmental impacts while maximising the use of the building's resources over its lifetime.



A greener building

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Officity Value gives you the opportunity of participating in a global long-term green performance strategy.



* Photo: © jamesteohart/Shutterstock

A LOWER CARBON FOOTPRINT

The **construction methods, materials and technical solutions** that we offer not only limit the environmental impact, but also improve the overall efficiency of your buildings while future proofing them, too.

Using new **digital tools** from industry to design buildings makes it possible to **optimise equipment** and materials but also to automate certain stages, thus reducing the time, costs and carbon footprint of a project.

This approach is both ecological and industrial, taking into account both the construction of buildings and the subsequent use of the offices. This then allows **the reduction of CO₂ emissions to be valued** by financial rating agencies and thus limits the pressure of any future tax on the carbon emissions produced by the property.

Over 50 years, a building generates approximately

1 to 1.5
tonnes of CO₂/m²

OF WHICH **40% RELATES TO ENERGY CONSUMPTION** WHILE IT IS IN OPERATION AND **60% RELATES TO CONSTRUCTION MATERIALS**

— IFPEB Low Carbon Hub

GENERATING, STORING AND RECOVERING FLUIDS

Officity Value contributes to the development of buildings capable of a degree of self-sufficiency through **rainwater collection, energy production** (photovoltaic, geothermal, etc.), and so on. By taking into account the environment (sunshine, wind, etc.) we also make the most of **the site's natural resources** and design low energy buildings that are still comfortable.

Storage of locally generated energy is provided by **second-life electric vehicle batteries or hydrogen batteries** to provide uninterrupted power and electrical backup.

Surplus fluids can be redistributed and recovered from an entire neighbourhood, for use by both residential and office buildings.

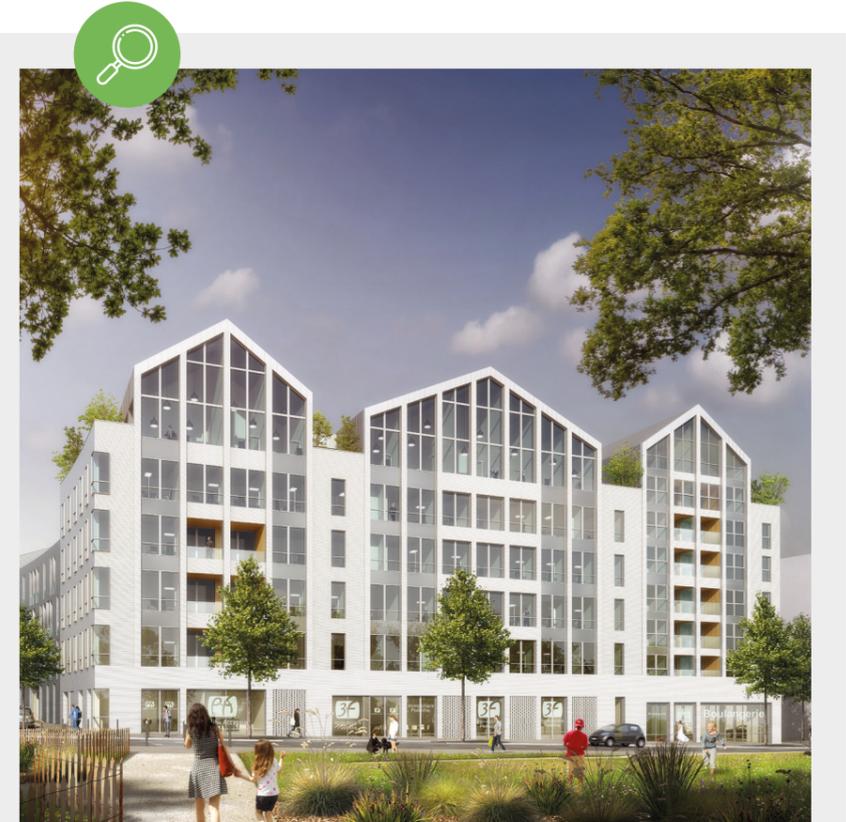
The building sector accounts for

43%

OF FOSSIL ENERGY CONSUMPTION

— ADEME / Ministry of the Environment

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* Owner: Podeliha / Architecte : Cabinet Rolland & Associés

Podeliha head office

| Angers, France

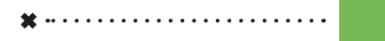
- * A new-build project that achieved an Excellent **BBCA low-carbon label** in the design phase.
- * **Mixed timber-concrete construction** combining a timber superstructure (CLT floors and timber posts/beams) around reinforced concrete cores (stairwells and lift shafts).
- * **Local partners** specialised in timber construction.

BIO-SOURCED AND/OR REUSABLE MATERIALS

Achieving lower greenhouse gas emissions throughout the life cycle of a building is one of the main objectives of the RE 2020. Officity Value promotes the use of **bio-sourced materials** (timber, hemp, cork, etc.), which contribute significantly to carbon storage and are obtained from short supply chains, in order to limit transport.

To protect natural resources and promote sustainability, Officity Value is moving towards a more virtuous **circular economy** model. Construction products are considered to form part of material flows (reduce, reuse, recycle).

A building can thus be seen as a **bank of heavy materials** (concrete, steel, timber, etc.) or architectural materials (marble, wenge, etc.) which can be **redistributed locally, recovered for use on another site or recycled to be given new uses**, in partnership with specialised local players. Even waste can be considered as a reusable resource.



AN ESTIMATED **5,000 M² OF REUSED
RAISED FLOOR SLABS CAN AVOID**

392.5 t
equivalent of CO₂

OR APPROXIMATELY **375 RETURN FLIGHTS FROM
PARIS TO NEW YORK** FOR ONE PASSENGER!

By 2030, Bouygues Construction's
target is a **RÉEDUCTION OF**

30% of greenhouse
gas emissions

ACROSS ALL ITS OPERATIONS

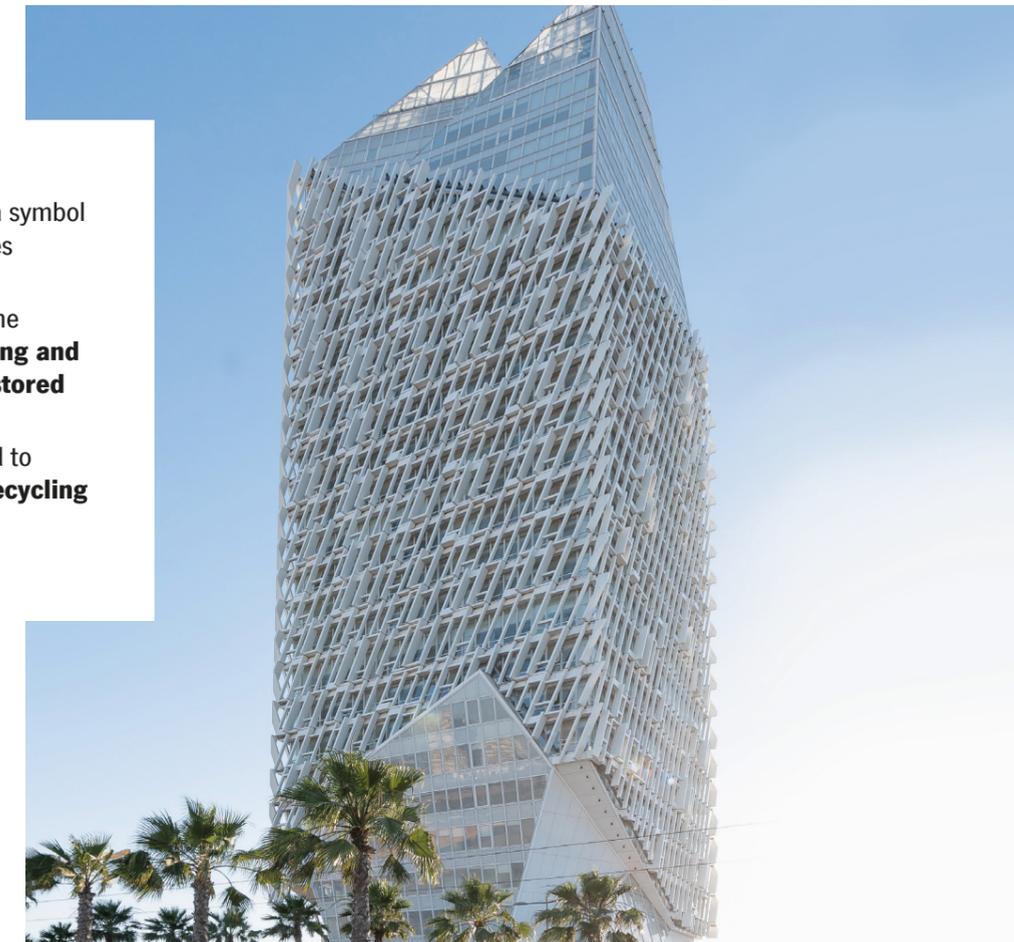


✘ Photo: © ESstock/Shutterstock

Casablanca Finance City (CFC) Tower - Morocco

A green office building

- ✘ Designed by the American architect, Thom Mayne, following an international architecture competition, the CFC FIRST Tower is a symbol of the new Casa-Anfa zone. The 122-metre-tall building combines elegance with technical and environmental performance.
- ✘ The facade of the building, featuring a double skin inspired by the Moroccan mashrabiya, is something of a technical feat: **breathing and acting as a sunscreen, it allows both heat and cold to be stored and released as needed.**
- ✘ During the construction phase, great care was taken with regard to rainwater recovery, the use of **renewable energies and the recycling of worksite waste**, with 65% of waste being short-cycled.
- ✘ The project was awarded **LEED Gold** certification.



✘ Owner: Artelia / Architects: Omar Alaoui Architectes / ©Hakim Joundy Wiseman Shooting

A more flexible building



✘ Photo: © Ksenia Chernaya/Pexels

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Officity Value gives you the opportunity to **generate additional income** from office buildings **by making the most of shared spaces, offering innovative services.**



OPEN THE DOORS

Opening up and sharing the secure resources of your building to **new users, whether during or outside of office hours**, will inject life into the neighbourhood and make the building far more appealing! **Underused spaces are chiefly concerned** because they have the **greatest potential to increase their usage rate**: auditorium, car park, cafeteria, meeting rooms, gym, roof terraces, etc. But the **creation of spaces dedicated to shared use from the very beginning** of the project is a real asset, and makes it possible to take regulatory requirements into account.

50%
OF THE TIME (ON AVERAGE), ASSIGNED OFFICES ARE UNOCCUPIED

40%
OF MEETING ROOM RESERVATIONS ARE NOT HONOURED
— ARSEG 2018

48%
OF COMPANIES WOULD LIKE TO IMPLEMENT CO-WORKING OR CORPO-WORKING
— Study by JLL, November 2020

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Examples of what you could do:

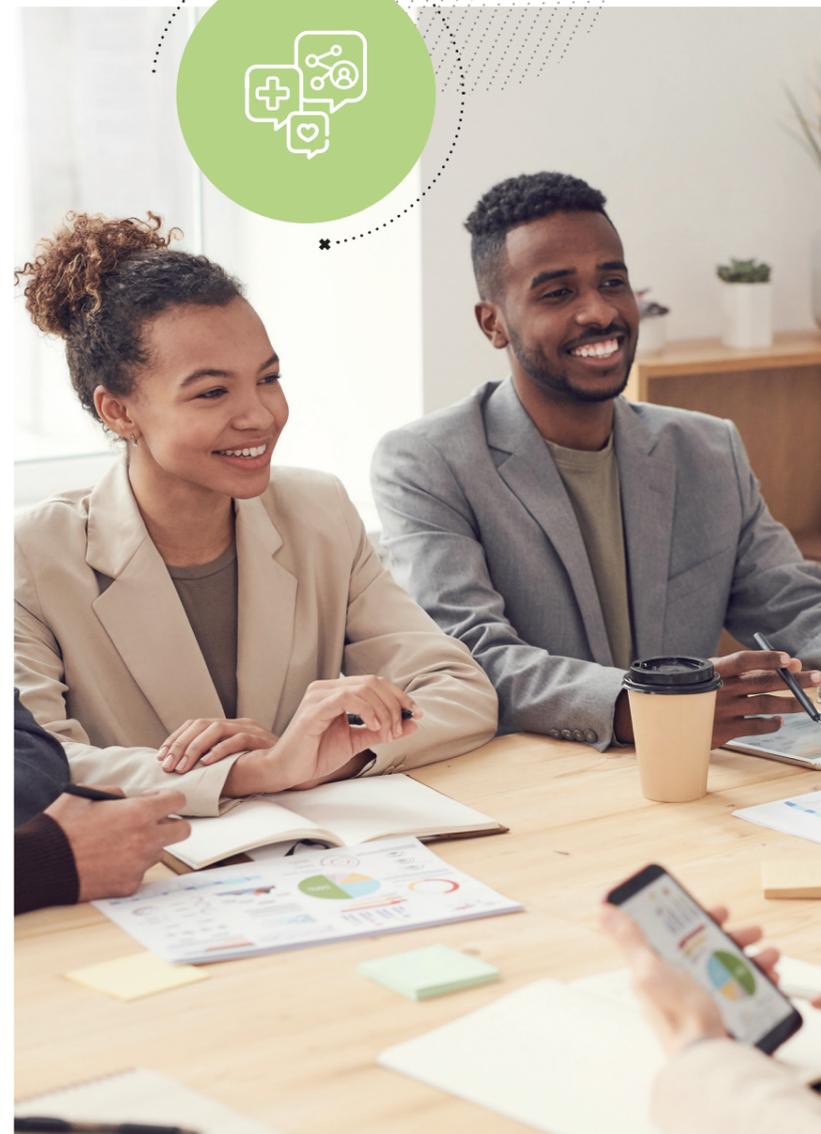
- ✘ Open up some of the building's services to local residents: concierge service, sports facilities, medical services.
- ✘ Interact more with the city: in the design phase, add shops, an auditorium, a conference centre, green spaces and restaurants to the amenities already available to the general public.
- ✘ Offer, perhaps even commercialise, shared workspaces: third places, start-up incubators, co-working and corpo-working spaces.



✘ Investors: Allianz Real Estate, Immovalor Gestion/Owner: Linkcity Nord-Est / Architect: Agence Avant-Propos Architectes

Work Lab City | Marcq-en-Barœul, France

- ✘ This new 17,000 m² project will **revitalise the service sector zone** in which it is located, with new facilities open to all users, including a restaurant area and a 1,000 m² co-working space.
- ✘ Awarded BREEAM Very Good certification



MANAGING AND RUNNING SERVICES

Officity Value provides inclusive solutions for **managing and running your range of services and spaces**. A specialised operator can also **generate traffic** in order to maximise use, along the lines of what airlines and rail companies do. Responsible for coordinating the user experience in the building, the operator can also contribute to the creation of specific ambiances for different types of shared spaces.

MONITORING AND CREATING VALUE

To create financial value from these spaces and services, it is necessary to closely monitor their use. The use of **digital infrastructures and tools** is a key facilitator. Interoperable technologies are now mature and accessible; these include sensors, interactive terminals, mobile applications, online payments or connected locks.

Backed up by smart and flexible access control solutions, they make it possible to **open up these shared spaces and services to an external public, in complete security**. Only the occupants of the building are authorised to access the private areas, of course.

Morland Mixité Capitale - Paris, France

Diversity in all its dimensions

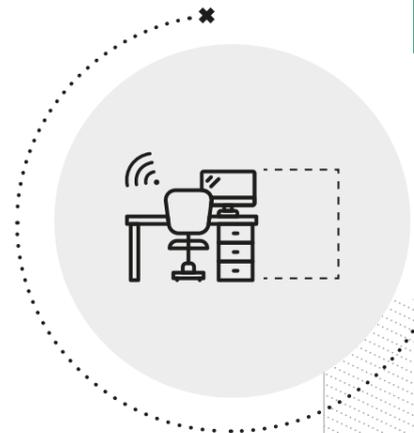


- ✘ This urban redevelopment project has been designed as a multifaceted place of passage, of encounters with **11 different forms of use**: retail units, market, youth hostel, hotel, apartments, day nursery, urban agriculture, etc., **some of which**, such as the swimming pool and the gym, **are shared and open to a number of populations**, giving the development an opening onto the city. Workspaces will be created in the heart of this restored site, crossed by **connecting roads that open onto community squares**.
- ✘ A model of how behaviours can save energy: from the renovation phase, the site has focused on **reusing materials**. Teams will receive coaching in the incorporation of good practices, which will play a part in reducing the building's carbon footprint. When the site opens, it will be equipped with **innovative technical systems for energy, recycling and the local recovery of bio-waste**.
- ✘ **Smart buildings**: a tailored smartphone app will provide interaction and access to a number of services. This will give future users the possibility of **managing their buildings according to the use** they make of them.

✘ Client: Emerige / Architects: David Chipperfield Architects and CALQ Architecture / © Nicolas Grosmond

A more hybrid building

The use of new working methods with more collaboration, roaming and connection has been reinforced by the public health crisis and is profoundly changing the way offices are used. The office is becoming just another work space among others, and the fixed building has given way to a more hybrid building, entailing a **physical and virtual transformation of the professional environment**, promoting a mix of on-site activity and remote production (home or third places).



AN AGILE PROFESSIONAL ENVIRONMENT

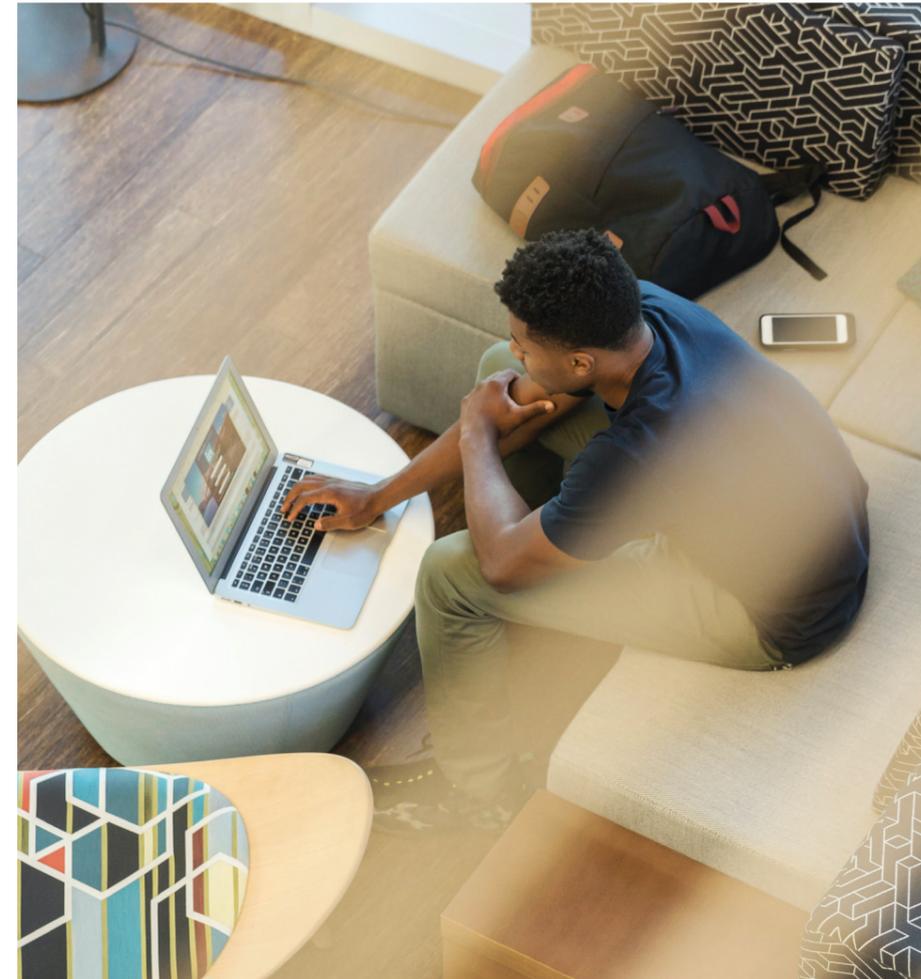
Officity Value has the expertise and solutions to support you in your transition to a hybrid organisation, flexible and uncompromising in terms of safety.

Thanks to well-designed digital tools and equipment such as cloud video conferencing and secure VPN boxes, the employee is no longer forced to systematically travel to the site to work in project mode. Remote working conditions are also more comfortable, with immediate access to all the company's internal resources without the risk of them being intercepted or corrupted.

Officity Value ensures that the layout of workspaces is designed to meet the need for flexibility, with open spaces, creativity rooms, a VPN box, spaces for co-working or informal meetings whether face-to-face or by video, etc.

91%
OF EMPLOYEES WHO HAVE EXPERIENCED WORKING REMOTELY WANT **TO CONTINUE TO ALTERNATE BETWEEN WORKING FROM HOME AND WORKING IN THEIR OFFICES**

— Le Monde, December 2020



✖ Photo: © LinkedIn Sales Navigator/Unsplash

CONVERTIBLE SPACES

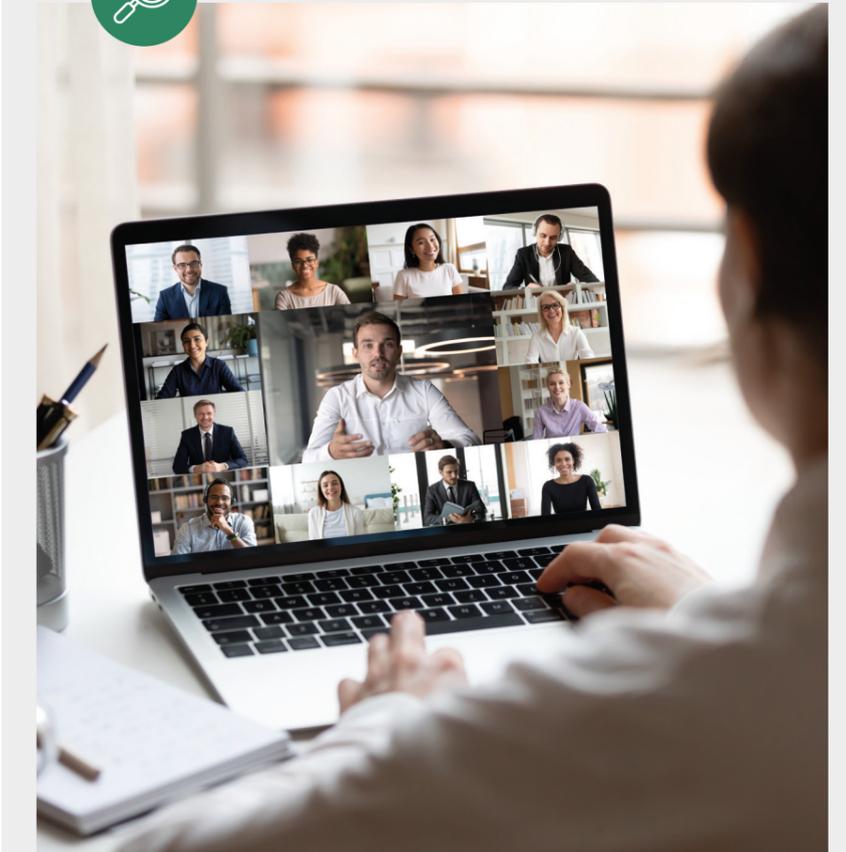
Some spaces are ideal for **accommodating multiple forms of use** and offering a wider range of services. Officity Value offers solutions that will **maximise the occupancy rate** of your spaces and thus ensure **better profitability per square metre**.

Prior installation of appropriate fittings and equipment makes it easier to rapidly transform spaces with a slight reconfiguration: removable or sliding partitions, well-anticipated acoustics, rearrangeable furniture, etc.

Some examples:

- ✖ The open space becomes a multi-purpose room,
- ✖ The cafeteria is converted into a workspace,
- ✖ A terrace is a venue for outdoor meetings,
- ✖ The sports hall is transformed into a reception room,
- ✖ The auditorium turns into a performance space.

The frequency of changes of use should correspond to the difficulty of the changes that have to be made to the room: the more frequent the changes, the simpler and quicker they should be to implement.



✖ Photo: © fizkes/Shutterstock

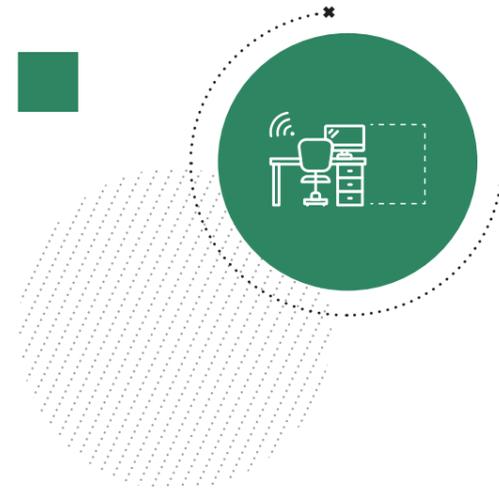
Sergic Group / Collaborative cloud video

- ✖ Installation and operation of the Lifesize cloud solution to address a number of issues, including facilitating the management of staff dispersed geographically in 35 locations. This flexible and completely secure multi-channel tool can be upgraded according to usage.

COMBINING HYBRID USE AND SHARED USE

The modularity of spaces makes them more easily shared with an external public to **create new sources of revenue**. This can help to revitalise a neighbourhood or meet more occasional needs of companies and associations.

The more exceptional a space, the more attractive it will be for hybrid use and for opening onto the city. A well-designed rooftop and atrium can easily be transformed in the evening and at weekends into a lounge bar or event venue enjoyed by a very different community from the usual occupants!



✘ Client : Générale Continentale Investissements / Architect : Studios Architecture

Latitude | Paris La Défense

✘ The Berkeley has become Latitude. It is now characterised, among other things, by a deliberately user-oriented positioning. Its **services centre** is an extension of the lobby, **designed as an indoor Parisian-style street** with a brasserie, a pizzeria, a food store and a coffee bar, **which can be transformed into workspaces, multi-purpose rooms and reception areas**. Its purpose is to create a welcoming and attractive living space within the building.

Chapelle International - Paris, France

A flexible office



- ✘ Tribeca and Kara: two buildings comprising 35,000 m² of office space that associates performance and flexibility. The urban design of Chapelle International combines living and working with service and commercial functions, creating a pleasant town centre atmosphere that belies the area's previous incarnation as a disused railway site.
- ✘ Offices that encourage well-being are adapted to new collaborative and nomadic working methods:
 - Extensive work areas and landscaped outdoor spaces, including a large terrace with a spectacular view of the Sacré-Coeur basilica
 - A varied range of restaurants, in line with new modes of consumption and mobility
 - Alternative spaces dedicated to services and social gatherings
 - A 1,200 m² gymnasium for the city.
- ✘ The buildings offer high environmental performance, and have garnered a raft of labels and certifications, including: NF Tertiary Buildings HQE[®] – Excellent, BREEAM –Very Good, WELL Building Standard – Silver, Effinergie+, BiodiverCity, Habitat & Environment (H&E) profile A performance option, Paris Climate Action Plan, WiredScore – Silver.

✘ Owner: Linkcity Ile-de-France / Funds managed by Blackstone /Architect for Tribeca: Arte Charpentier / © A. Da Silva/Graphix-images

Bouygues Construction's Innovation and R&D departments, operational teams and the Group's ecosystem of partners have all helped to identify solutions and best practices that enable an office to create value: **greener, more shared use and more hybrid use.**

Internal solutions

- ✖ **1** All the services offered within the building are designed with a sustainable "zero waste" philosophy to ensure the smallest possible environmental footprint.
- ✖ **2** Materials from the circular economy (paint, floor tiles, carpets, etc.) help to reduce the environmental impact of the building. Some materials can be recovered if the building is redeveloped or reaches the end of its life.
- ✖ **3** A remote medicine booth provides medical consultations and examinations at the workplace. This provision can be shared and opened up to residents and service users in the neighbourhood.
- ✖ **4** The structure of the office building is designed so that it can be converted into housing at a low cost.
- ✖ **5** A service operator will maximise space occupancy. Through flexible organisation, certain parts of the building will make it possible to derive value from them by giving them new forms of use, such as co-working/corpo-working or themed activities.
- ✖ **6** A well-designed layout, along with digital tools, allows certain spaces and services within the building to be shared with external people and thus to generate revenue.
- ✖ **7** The canteen is a shared hybrid space that is open to neighbourhood residents in the evening and at weekends. It can be a place to have an ethically-sourced lunch or to work, but also to spend quality time with friends, with services and activities.
- ✖ **8** The cafeteria offers a range of high quality fair trade coffees, directly sourced from producers. By welcoming external users, it can generate additional revenue.

Exterior solutions

- ✖ **1** The resilience of the building is factored in from the design stage to ensure it can adapt to adverse weather conditions.
- ✖ **2** Solar panels on the roof and the walls of the building contribute to its energy self-sufficiency.
- ✖ **3** A highly reflective membrane optimises roof insulation and helps maintain a constant temperature inside the building.
- ✖ **4** Timber structure and cladding means that the office buildings have a low carbon footprint, are cost effective and aim to be environmentally responsible.
- ✖ **5** Transparent solar glass is used for canopies and facades, giving access to daylight and producing additional energy.
- ✖ **6** Vegetation on roofs and walls improves insulation and helps to create ecosystems that foster biodiversity.
- ✖ **7** The optimisation of energy management through a global supervision reduces energy bills. It also allows the sale of surplus energy, for instance by participating in balancing the external electricity network.
- ✖ **8** Hydrogen batteries enable a significant and limitless amount of energy produced by the building to be stored.
- ✖ **9** Shared car parks with external users improves the occupancy rate and generates additional revenue.
- ✖ **10** Furniture at the end of its life is collected for recycling or to be restored and reused.



ATG Tower Two - Manila, Philippines

An office open to the city

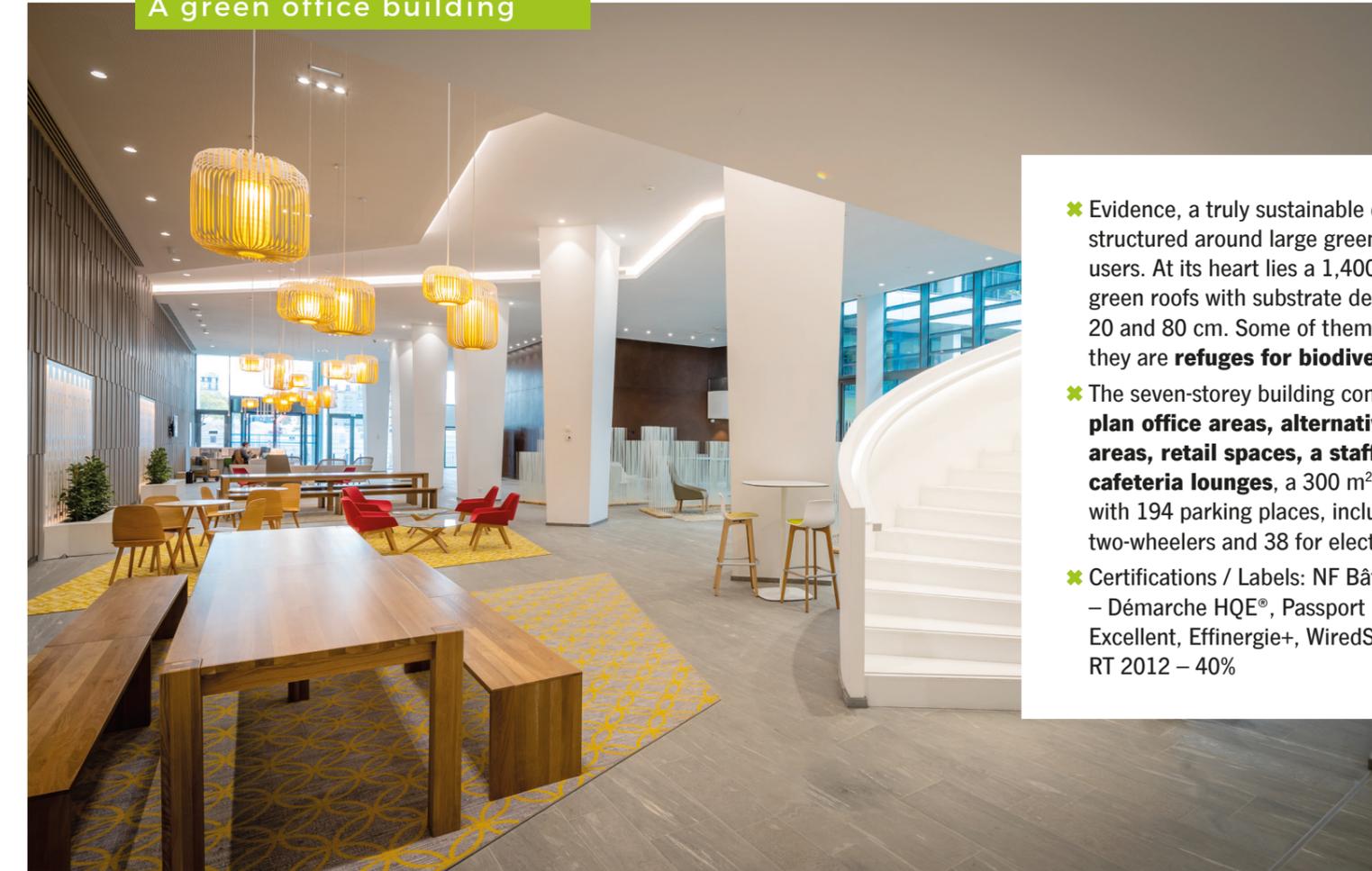


- ✦ The 205,000 m² development consists of a 40-storey office tower and a 23-storey luxury hotel overlooking a **four-storey mixed-use podium** (retail, hospitality, leisure, offices, etc.) and a five-level underground car park.
- ✦ Numerous entry points are provided on different levels so that **the various populations can circulate easily**.
- ✦ The external part of the project has been designed to **integrate harmoniously into a contrasting environment**. On Paseo de Roxas and Makati Avenue, the glass and metal facade fits into the existing urban landscape. On the other side, the façade, partially covered with vegetation, slopes gently down to the ground to **provide a large public space** with water, trees, a sunken amphitheatre and large stairways **that connects with Ayala Triangle Gardens and the Makati Central Business District**.
- ✦ The high environmental performance project is aiming for LEED® Gold certification.

✦ Owner: Makati Development Corporation / Architects: Leandro V. Locsin Partners, Skidmore Owings & Merrill

Evidence N8B, Docks Mixed-Use - Saint Ouen, France

A green office building



- ✦ Evidence, a truly sustainable development, is structured around large green spaces accessible to users. At its heart lies a 1,400 m² garden and several green roofs with substrate depths varying between 20 and 80 cm. Some of them cannot be accessed as they are **refuges for biodiversity conservation**.
- ✦ The seven-storey building consists of **well-lit open-plan office areas, alternative and co-working areas, retail spaces, a staff restaurant and cafeteria lounges**, a 300 m² garden and a car park with 194 parking places, including 45 spaces for two-wheelers and 38 for electric vehicles.
- ✦ Certifications / Labels: NF Bâtiments Tertiaires – Démarche HQE®, Passport Excellent, BREEAM Excellent, Effinergie+, WiredScore, BiodiverCity, RT 2012 – 40%

✦ Owner: Nexity / Architect: DGM&Associés / © Nicolas Grosmond



Officity | Value

A positive economy for your building

