

Press release – December 7<sup>th</sup>, 2018

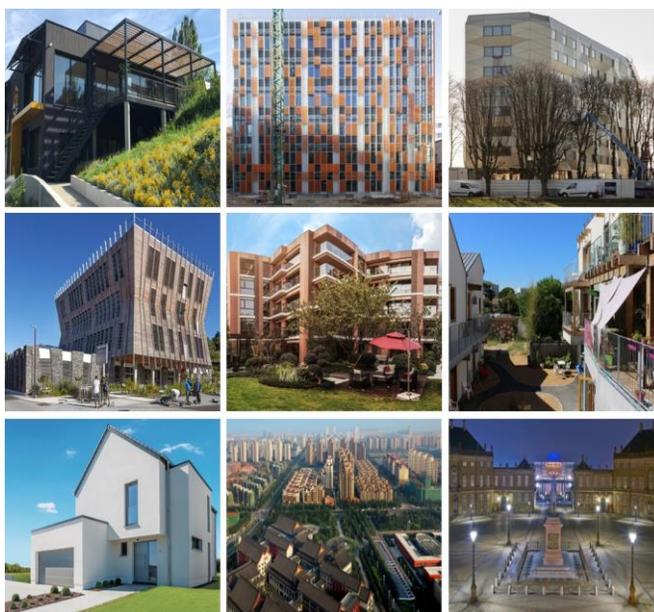


# GREEN SOLUTIONS AWARDS

## Green Solutions Awards 2018: Discover these winners whose solutions already shape the zero carbon city

The Green Solutions Awards 2018 winners were revealed in Katowice, a Polish mining town that made the shift to commit to the energy transition and COP24 theatre. The Construction21 network, organiser of the contest, rewarded the winning teams during a ceremony that gathered nearly 200 industry professionals from all around the world.

Beyond their prize, the awarded teams gain an exceptional visibility that allows them to show the market they are able to provide with relevant solutions, already used in real buildings, districts and infrastructures, and that should be adopted by the largest number to achieve the goal of limiting global warming. Discover them!



Contest organised with the support of



 #GreenSolutions Awards

## A contest connected to the COP

Since the Paris Agreement signature in 2015, the Green Solutions Awards, **directly connected to the COP**, are a **concrete illustration** of it. By highlighting pioneering projects, by disseminating them to professionals of the industry committed to sustainable development, the contest contributes to **changing behaviours both at national and international level**. With the aim of **radically transforming how we design, build and manage cities** to limit global temperature rise below 2°C.



The grand final of the 2018 edition took place in Katowice, Poland, where the COP24 takes place. The Silesian University of Katowice hosted the ceremony organised by Construction21 and its almost 200 guests. Among them, some **leading figures of the environment and construction world**, like: Majida El Ouardirhi, General Secretary of the Housing and City Policy of the Moroccan Ministry of National Planning; Alijca Kuczera, Polish Green Building Council; Oliver Rapf, Executive Director of the Buildings Performance Institute Europe (BPIE); Wang Qingqin, Vice-President of the China Academy of Building Research (CABR), and some representatives of the Solar Impulse Foundation.

This event was held as a follow-up to the **Building Action Symposium** co-organised with the Global Alliance for Buildings & Construction.

## Innovative climate solutions and market trends

Following the preliminary stage of qualifications at national level, **52 finalists**, successful among 143 candidates from 16 different countries, were analysed by internationally selected jurors. **Divided into 5 juries, 31 experts** individually reviewed these buildings, districts and infrastructures before debating. The **decision, collective, reports for each winner the message the jurors wish to address to the market**.

Through the analysis of all the candidates, **real trends** are revealed. In 2018, we observed for instance the growing awareness of the **need for resilience**, the **care given to well-being and health of users**, even the **participation of future inhabitants from the design phase of the project**. We also noted that **builders use more and more often biobased materials**.



[Read more about the trends of the Green Solutions Awards 2018](#)

## Broad visibility and opening to new opportunities

The Green Solutions Awards, more than a competition, are the **guarantee of exceptional and free visibility**. To meet its objective of disseminating best practices and virtuous solutions, Construction21 activates a **wide web communication plan on all platforms of the network and on social media**. This plan is relayed by more than **90 media partners**.



Each international winner is offered a **video showcasing their project**. Easily shared, the videos are broadly disseminated on the web and on social media. [Watch all videos](#)

A **brochure was also published in English, French, Spanish and Chinese** to highlight the winners. [Download the brochure](#)

In addition, many candidates benefit from **reserved speaking time** (conferences, pitch-ring, TV sets) on partner fairs: Passi'bat, [Intermat](#), [Pollutec](#), [BEPOSitive](#)... Or who participate in webinars we organise with our **partner** Webikeo.



New in 2018: interviews with our partner [Batiradio](#) during a **weekly radio show** named **Green Solutions** which started in December.

### 3.6 million views worldwide

In 2017, the competition generated **1.5 million views**, a sharp increase over the previous year. But the 2018 edition breaks all records with **already 3.6 million views in mid-November!**

Number of views of the case studies on the 12 Construction21 platforms, Twitter, LinkedIn and Facebook impressions, clicks on WeChat for the Chinese market: a **multichannel communication** guarantees candidates as well as partners **first-class visibility** with a **particularly qualified target**.



Through this increase in visibility, some candidates – even those who did not win – said they had been asked for **press or television interviews**, or **had signed contracts with new customers or partners!**

**Discover the international winners below!**



# Discover the “Sustainable City Grand Prize” Winner



## Sino-Singapore Tianjin Eco-city South District



[Watch the video of the project](#)

Tianjin / China      *Urban Sprawl*

Project holder: **Construction Bureau China-Singapore Tianjin Eco-City**  
Technical consultancy agency: **Tianjin Eco-city Green Building Research Institute**

The Tianjin eco-city stands in the new Tianjin Binhai area and covers a 30km<sup>2</sup> total area. In 2007, the Sino-Singaporean framework agreement included the integration of the eco-city into a "**conservation of resources, environmental protection and social harmony**" approach, to "**become the model of sustainable development**". Since its launch in 2008, and after 10 years of construction, 95% of the southern district has been built to accommodate 110,000 inhabitants.

In terms of quality of life, **all residential areas have free sports and recreational facilities** within a 500m range. Customized systems and services are also available to serve the maximum number of people in the same 500m radius: for example, **hospitals, health centers, sports fields, popular arts** with the **preservation of regional culture** and local services.

To favor economic development, the district will establish a platform for technological innovations and their applications in the areas of environmental protection, energy conservation and emissions reduction, green buildings and circular economy.

The Tianjin Eco-city is a **demonstrator of ecological restoration** and **construction on saline-alkaline soil** through its water resources management plan and advanced technologies for remediation of contaminated soil.

Biodiversity is a very important focus of the Tianjin Eco-city project: favoring local plant species, restoration and construction of bird habitats in the ecological succession areas of Parrot and Egret Islands and Yongding. The biodiversity plan allows the Tianjin Eco-city to foster **469 animal and plant varieties** as of 2013, including 332 animals and 137 plants.



#GreenSolutions Awards



## Discover the “Sustainable City Grand Prize” Mentions

These projects were also distinguished by the jury:

### **Eco-District Cœur de ville – La Possession**



**La Possession, Reunion Island / France**

*Urban Sprawl*

Project holder: **City of la Possession**

Construction manager: **Leu Réunion**

Developer: **Semader**

Investor: **Real Estate Cœur de Ville**



### **PASAPAS**



Fotó: Andres Flajszer

**Barcelona / Spain**

*Urban Reconversion*

Project holder: **Sant Cugat City Council**

Association of residents: **Asociación espacio eco Les Planes**



#GreenSolutions Awards



# Discover the “Sustainable Infrastructure Grand Prize” Winner



## Smart, sustainable and economical lighting in Copenhagen



[Watch the video of the project](#)

**Copenhagen / Denmark**

*Energy Management / Smart City*

Project holder: **City of Copenhagen (Københavns Kommune)**

Builder: **Citelum**

Beyond representing up to 40% of a city’s energy budget, lighting is also a way to improve its safety and aesthetics. Produced by Citelum, the EDF Group’s intelligent lighting subsidiary and related connected service, **the renovation of the Copenhagen public lighting** is the largest public lighting project in the capital.

The work carried out is in line with the city’s **goals of achieving carbon neutrality by 2025** by reducing energy expenditure, improving the safety of residents, improving mobility, increasing local identity and its attractiveness.

In 3 years, **18,800 light points**, half of Copenhagen’s lighting park, have been replaced by **LED luminaires**. Consumption monitoring, maintenance and interventions planning over the next 9 years and communication with the city services are based on the **MUSE® digital platform**.

The project also helped to establish a **city-wide communication network** to adjust lighting levels according to Copenhagen areas, traffic and identified needs. For example, the intensity of lighting has been increased on the roads to make users, especially pedestrians and cyclists, more visible.

In addition, the new lighting network offers many opportunities **to connect new services in the future**: video protection cameras, noise and air quality sensors can further improve the safety and quality of life of citizens and **transform Copenhagen into a real "Smart City"**.



#GreenSolutions Awards



# Discover the “Sustainable Infrastructure Grand Prize” Mentions

These projects were also distinguished by the jury:



## Hydrogen charging station for buildings Smart Grid



Vannes / France *Green Energy*

Project holder: **Morbihan Energies**

Builder: **Ataway**

Manager/Dealer: **Engie Cofely**



## Abattoir BIGH Farm



Brussels / Belgium *Urban Agriculture*

Project holder: **Building Integrated Greenhouses SCA**

Manager/Dealer: **BIGH Anderlecht SA**



#GreenSolutions Awards



# Discover the “Building” Winner Sustainable Renovation Grand Prize



## Eco-Renovation headquarters of KTR France



[Watch the video of the project](#)

Dardilly / France

*Office Building*

Contractor: **KTR France**

Building engineering and interior designer: **Ressources Green Building**

Construction manager: **Diagonale Concept**

Consultancy agency: **Amstein & Walthert**

Company: **Terre et Lac**

Manufacturers: **Dualsun, Biofib, Mapei, Sonepar**

KTR, a German industrial group specialized in mechanical transmissions, wanted a building reflecting the image and the values of the company for its French headquarters: **innovative** and **offering excellent work conditions** for its employees, **autonomous** especially energy wise. The KTR group has already built very efficient buildings, but for the site of Dardilly, the **refurbishment** option was chosen. The construction manager oriented the project to aim for even more ambitious goals, with a more comprehensive eco-responsibility involving all employees.

As a result:

- The first positive **energy renovation of a tertiary building, including all uses**, with thermal energy and electricity storage;
- A reduced carbon footprint by **using bio-based** (hemp and cork) and **recycled materials**, but also by teaching the importance of **life cycle analysis** to the construction workers and artisans on the building site;
- Solar photovoltaic energy production allowing the building to absorb more CO<sub>2</sub> than its own emissions (consumptions in all uses, regulatory and office automation);
- Working comfort is very appreciated as a result of an **ergonomics study**, the implementation of **internal mobility** for desks, **controlled indoor air quality** and the creation of recreation spaces (gym, break room, gardens).



#GreenSolutions Awards

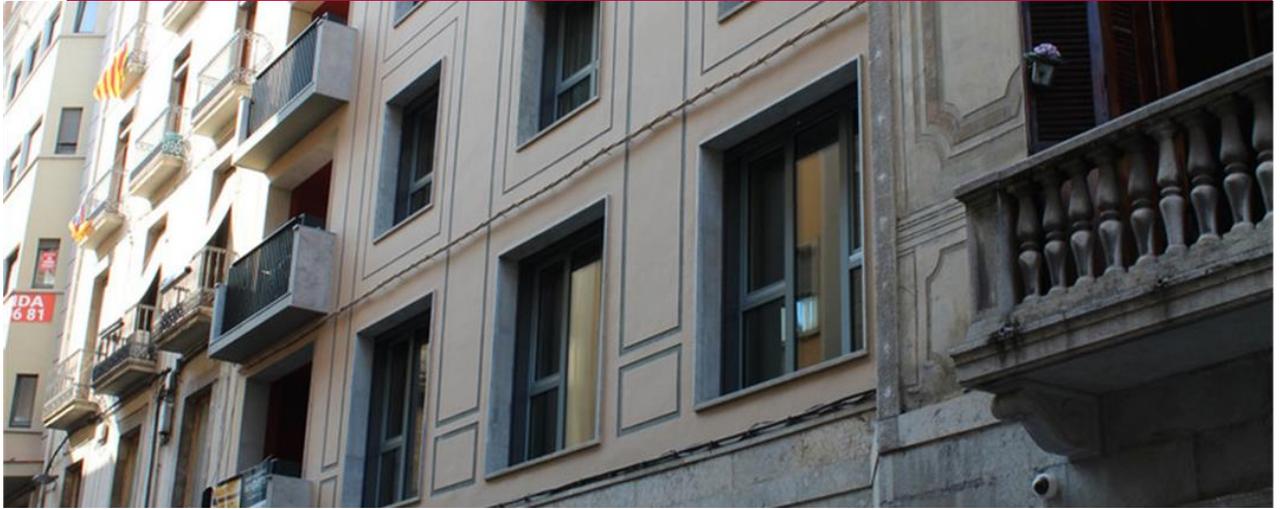


# Discover the “Building” Mentions Sustainable Renovation Grand Prize

These projects were also distinguished by the jury:



## Carrer Nou



Girona / Spain

*Collective Housing*

Contractor: **Construccions Busquets Vilobí**

Designer: **Jordi Rodríguez-Roda – López-Pedrero-Roda Arquitectes SLP**

Construction manager: **Construccions Busquets Vilobí**

Investor: **MBD Real Estate Group**

Consultancy agency: **PROGETIC Projectes Sostenibles SL**

Manufacturer: **PGI Engineering**

Certification company: **Energiehaus Arquitectos SLP**



## Belliard 65



Brussels / Belgium

*Office Building*

Contractor: **AXA REIM Belgium**

Construction manager: **Archi 2000**

Assistance to the contracting authority: **Advisers**

Certification company: **B4F**

Consultancy agencies: **Matriciel SA, Pirnay Engineering, Venac**

Manufacturers: **Herpain Entreprise, SPIE, ITB, Kone, Nizet**



#GreenSolutions Awards



## Discover the “Building” Winner Sustainable Construction Grand Prize



### Aulario IndUVA



[Watch the video of the project](#)

Valladolid / Spain

Education Building

Contractor: **Constructora San-José S.A.**

Designer: **Francisco Valbuena García**

Construction manager: **Constructora San-José S.A.**

Developer: **Universidad de Valladolid - Vicerrectorado de Patrimonio e Infraestructuras**

Consultancy agencies: **Torre de Comares Arquitectos S.L.P, Ana Jiménez / María de la O García, Cristina Gutiérrez Cid, Vega Ingeniería, José Emilio Nogués / Diego Tamayo, Cristina Cano Herreras**

Construction company: **REUQAV Ingenieros**

Architecture photography: **Antonio Vázquez Photo**

The construction of the Aulario building for University of Valladolid’s School of Industrial Engineering represents a great opportunity for research and improvement of technics already applied on net zero energy buildings of the campus. The building, while completely new, is already connected to the other buildings and installations of the campus, where a global refurbishment and sustainability intervention is being carried out. **Aulario IndUVA aims for the GREEN GBCe, LEED and Well certifications.**

The building hosts up to 2,500 students in 34 classrooms, for a total built surface of 5,845 m2. It is located on a university campus with workshops, labs, residences, but also gardens, playgrounds and a parking lot.

The Aulario project was designed to be fully comprehensive, basing its approach on a **thorough analysis of preexisting conditions**. In order to reach their zero energy goal, the design team was guided by two strong passive principles: **compactness in a simple volume and optimization of natural lighting**. Coordinated renewable energy production systems come in addition: **urban biomass heating network, geothermal and photovoltaic energies**.

Aulario IndUVA is also a field of experimentation: on natural lighting by using optic fiber, on **phase changing materials** implemented in strategic spots of the building, and on **circular economy** by using recycled construction materials.

Lastly, the project pays real attention to local **biodiversity** to preserve the gardens and facilitate the development of local species.



#GreenSolutions Awards



## Discover the “Building” Mentions Sustainable Construction Grand Prize

These projects were also distinguished by the jury:



### Bei de Kueben House



Angelsberg / Luxembourg

*Education Building*

Contractor: **Administration Communale de Fischbach**

Designers: **Coeba, Dave Lefèvre et associés, Schroeder & Associés Ingénieurs-Conseils**

Consultancy Agencies: **Betic Ingénieurs-Conseils, Luxcontrol**



### Deltagreen



Saint-Herblain / France

*Office Building*

Contractor: **Galeo**

Construction manager: **Essor**

Facility manager: **Solaris Gestion**

Designer: **CR&ON Architectes**

Consultancy agencies: **ITF, Serba**

Manufacturer: **Powidian**



#GreenSolutions Awards



## Discover the “Building” Winner Energy & Temperate Climates



### House of Île-de-France



[Watch the video of the project](#)

Paris / France

*Student Residence*

Contractor: **Region of Île-de-France**

Designer: **Agence Nicolas Michelin & associés (Anma)**

Construction managers: **Anma, Deerns France**

Consultancy agencies: **Deerns France, Batiserf**

Zero Energy! Zero Carbon! Zero Nuclear Waste! Located in the International University Campus in Paris, the 5,000m<sup>2</sup> House of Ile-de-France is unprecedented in France. With its **100% solar energy strategy**, this student residence features **two giant tanks (150,000 liters of water)** heated by solar panels, providing the whole building with hot water and heating all year long (through **seasonal thermal storage**). Photovoltaic panels on the roof produce electricity for all uses in the building (included in the regulation and non-included uses). **The House of Ile-de-France already tackles the issues to be covered by the 2020 French building regulation.**

With its 142 rooms and its triangular shape, the residence forms a large face to collect solar energy. The facade on the Parisian ring road is composed of **563m<sup>2</sup> of photovoltaic cells** and **260m<sup>2</sup> of vacuum thermal solar panels** associated with **156m<sup>3</sup> seasonal storage system**. This constitutes the signature of the House.

The storage tanks cover 80% of the thermal needs in winter, heating and hot water using the surplus of energy stored during the summer.

The House of Ile-de-France was born from a collaborative design between ANMA and DEERNS for the Region Ile-de-France, implementing such an innovative solar strategy for the first time in France.



#GreenSolutions Awards



## Discover the “Building” Mentions Energy & Temperate Climates

These projects were also distinguished by the jury:



### CLT Multi comfort office building



**Covasna / Romania**

*Office Building*

Contractors: **Nizar Construction, Bavaria Ecosystem**

Designer: **Tecto Architectura**

Construction manager: **Tecto Architectura**



### The Towers of Bolueta



**Bilbao / Spain**

*Collective Housing*

Contractor: **Visesa**

Designer: **VARquitectos**

Construction manager: **Construcciones Sukia**



#GreenSolutions Awards



## Discover the “Building” Winner Energy & Hot Climates



### Wild South Media Library



[Watch the video of the project](#)

Saint-Joseph de la Réunion / France

Public Building

Contractor: **City of Saint-Joseph**

Construction manager: **Co-Architectes**

Consultancy agencies: **Tribu, Gui Jourdan, Héliotropic + Efitec, Intégrale ingénierie**

Economist: **Abtec**

Landscaper: **Adhoc**

The Wild South Media Library, on the Reunion Island, is based on a specific sustainability approach to the tropical and subtropical climates and interrogates contemporary architecture of the Reunion Island. The library creates a progression from public space to the intimacy, providing a true connection to the outside and blurring the limits with the inside of the building.

In order to achieve that result, the project was oriented **toward passive, but open building** requiring **no air conditioning** thanks to complementary solutions:

- Over-insulation and protection against solar rays;
- Light wood façades to reduce the inertia of the walls;
- Natural ventilation with the addition of a **low-pressure chimney**;
- **Greenroofs and planted** exteriors to create a **cool island effect**;
- Maximal permeability for water management;
- Reused rainwater in bathrooms;
- Focus on the **acoustic comfort** of users, by multiplying sound absorption systems on walls and ceilings;
- **Healthy materials** and important natural ventilation air flow to ensure optimal indoor air quality.



#GreenSolutions Awards



## Discover the “Building” Winner Health & Comfort



### Landsea New Mansion Project



[Watch the video of the project](#)

Shanghai / China

*Collective Housing*

Contractor: **Landsea Green Group Co., Ltd.**

The Landsea New Mansion project is located in the west suburbs of Shanghai and covers a 13,433m<sup>2</sup> area, with three 5-storey residential buildings. This project capitalizes on the construction manager’s years of experience in healthy and comfortable buildings, notably by following the approach of international standards.

In order to offer optimal living standards to the inhabitants, the Landsea New Mansion has been refurbished to find **balance between health, comfort, energy savings, preservation of the environment and smart building.**

Comfort and health in these three buildings are provided through innovative technologies: **intelligent furniture, “Landleaf” formaldehyde control technology & “Ultra-Clean Fresh” air renewal technology.**

For thermal comfort, the buildings fully use **passive construction principles** with **envelope heat preservation system, super seal doors and windows, louver shadings, heat pump and a capillary radiation system.**

Acoustic comfort was thoroughly worked on, by using **vegetal screens** and creating a **ceramic facade** absorbing noise pollution, and with solid sound insulation and seal doors for indoor acoustics.

With this **comprehensive refurbishment**, the Landsea New Mansion project becomes a revitalized low carbon residence meeting the current higher customer demand and leading the green residential model.



#GreenSolutions Awards



## Discover the “Building” Mention Health & Comfort

This project was also distinguished by the jury:

### ★ **Sindibad Beach Resort – T1A et T1B**



**Casablanca / Morocco**

*Collective Housing*

Contractor: **Sindibad Beach Resort**

Assistance to the contracting authority: **ALTO EKO**

Construction manager: **JLA Studio**

Sustainable urbanism: **Philippe Madec Architect Workshop**



#GreenSolutions Awards



## Discover the “Building” Winner Low Carbon



### The Beehive



[Watch the video of the project](#)

Bègles / France

*Collective Housing*

Contractor: **Axanis**

Construction manager: **Dauphins Architecture**

Consultancy agencies: **180 degrés ingénierie, Eco Etudes**

The Beehive is a **social experiment** born from the will of the city of Bègles to have an **exemplary participative project** on its territory. After a 4-year human adventure, 11 families enjoy a collective residence with 7 housings and 4 contiguous houses built on the parcel of an old single house.

This first **participative housing** owes its success to the project team – who followed the project from the origin – and its very **committed inhabitants, who participated also from the very beginning**. Biweekly meetings and participative sessions on the construction site helped making the project grow and brought the group together around sharing values and knowledge.

The structure of the building, in concrete on the ground floor, supports the timber frame higher floors and attic. The timber frame is insulated with **straw, wood fibers and cob** (straw and raw earth), favoring **bio-based materials**. The calculated carbon footprint of this participative project demonstrates a **lower environmental impact than a classical collective housing built under the current French thermal regulation**: 22 tons of CO<sub>2</sub> per housing in construction phase and 3 tons of CO<sub>2</sub> per housing and per year of use. This low carbon performance and the high-level energy efficiency allows the Beehive to reach the **Effinergie+ standard** and the **French experimental E+C- label** for low carbon buildings.

The Beehive participative habitat carries the wish for transformed cities, for a human-sized urban village, to create **differently and together housings of tomorrow**.



#GreenSolutions Awards



## Discover the “Building” Mentions Low Carbon

These projects were also distinguished by the jury:



### The Towers of Bolueta



**Bilbao / Spain**

*Collective Housing*

Contractor: **Visesa**

Designer: **VARQUITECTOS**

Construction manager: **Construcciones Sukia**



### Waste House



**Brighton / United Kingdom**

*Education Building*

Contractor: **The mears group**

Construction manager: **The mears group**



#GreenSolutions Awards



## Discover the “Building” Winner Smart Building

### Passive Witness House CLK



[Watch the video of the project](#)

**Grevels / Luxembourg**

*Single House*

Contractor: **CLK Constructions**  
Construction manager: **CLK Constructions**

Designer: **Bureau d'Architecture Urbaine SARL**  
Manufacturer: **rms.lu**

This passive house demonstrates that connected building can go hand in hand with sustainable housing. Beyond the work for a very efficient and eco-responsible envelope, the contractor wanted to install the **EnOcean technology** for its ecological values. The CLK witness house thus becomes an **intelligent connected home**.

This house's intelligence is invisible, it warns and allows also to control the data, **without spending any energy** and **with the least possible wave emissions**. This technology requires less raw materials (no batteries, less cables) and facilitates **great modularity**: the house evolves with the needs of its inhabitants.

EnOcean technology enables energy savings by **managing overheating** and room temperatures. The data collected by the system allows **a better understanding of the inhabitants' lifestyle**.

Among the implemented features in the CLK passive witness house:

- **Energy savings**: temperature management, energy consumptions and production monitoring, smart shading, consistent lowering of blinds, systematic extinction of lights;
- **Security**: control of window and doors openings, simulation of presence, alarm;
- **Comfort**: central visualization and control of the entire electrical installation, timed lighting control, automatic shading, scene control, programmable positions for blinds and shutters;
- **Operability**: on PC with or without touch screen, on tablet and smartphone apps, remote control, voice commands.



#GreenSolutions Awards



## Discover the “Building” Mention Smart Building

This project was also distinguished by the jury:



**Technopole**



© Jérôme Deduytsche Utopik photo

**Grenoble / France**

*Office Building*

Contractor: **Schneider Electric**  
Designer: **Arche 5**  
Construction manager: **Arche 5**  
Developer: **GA Promotion**  
Consultancy agency: **Artelia**



#GreenSolutions Awards



## Two questions for Valérie David

### Innovation & Sustainable Development Director, Eiffage



#### Why is your company committed to fighting climate change?

It is clear that, so far, buildings, public works and transports have been heavy consumers of materials, energy and fossil fuels, and emit greenhouse gases. In parallel, a scientific consensus has now been established on climate change and the serious economic and social difficulties it causes.

It is now and today that these issues are emerging. And **it is now and today that Eiffage is mobilising its know-how and expertise to offer concrete solutions at the junction of ecological transition and innovation:** low carbon construction, use and reuse of bio-sourced materials, modular and mutable buildings, recycled and connected sustainable road, bouquet of renewable energies, ecomobility offer in the heart of the city.

Our Construction division has **major references in low-carbon buildings**, such as the largest solid wood residential complex in Ris-Orangis (France) and Hypérion, a timber frame housing tower project in Bordeaux (France).

Regarding infrastructures, Eiffage Route is conducting **many research and development projects focused on energy savings, management of greenhouse gas emissions and minimising the use of non-renewable raw materials.**

While the **European plan on climate change pushes to increase in the share of renewable energies in the European Union's energy consumption to 20%**, the Group's companies which are specialised in energy production and maintenance – Eiffage Énergie Systèmes and Clemessy, but also Eiffage civil engineering, Smulders and our Spanish subsidiary Eiffage Energía – **design and manufacture many cutting-edge technical solutions** in this field, both at a national and international level.

Regarding APRR and AREA, they **promote ecomobility.** As an example, they have launched several carpooling lines, with predefined stops based on the model of public transport lines, on six French motorways – A41, A42, A43, A48, A49 and A51 – while increasing the number of recharging stations on their network. AREA is a subsidiary of the APRR group. APRR, the 4<sup>th</sup> motorway group in Europe, is owned by Eiffarie (consortium associating Eiffage and Macquarie Autoroutes de France).



Eco-district of Smartseille – Eiffage Immobilier Méditerranée ©Roger Lomini



Reforestation in the wood in Orcan © Gaël Arnaud



Hyperion Tower in Bordeaux ©Jean Paul Viguier et associés

#### What actions did you put in place regarding sustainable development/CSR?

For many years, Eiffage has taken into account the **strong interaction of its activities with the environment:** measuring and reducing the carbon footprint, protecting biodiversity and natural environments, and optimising the use of natural resources. These are the priority areas of the environmental policies adopted within the Group as part of an eco-design and circular economy approach.

We have developed our **own sustainable construction standard, HQvie®** (High Quality of Life®), and created a **carbon-energy arbitrage fund** to stimulate the use of low carbon solutions.

In a context of sociological mutations, Eiffage strives to **improve its human capital** through four key areas: **protecting, training, innovating, inserting.**

Last but not least, the Group works on **contributing to the economic and territorial development of the regions**, in France and internationally, **boosting the local fabric through employment and integration policies, fostering dialogue and consultation with local residents, developing philanthropic actions** aimed at fragile or excluded people, and improving its purchasing policy to better integrate sustainable development and environment into the selection criteria.

#### About

Eiffage, one of Europe's leading construction and concession companies, operates in the fields of planning, construction and real estate, civil engineering, metal and road, energy and concessions.

The Group draws on the experience of more than 65,000 employees and achieved a turnover of 15 billion euros in 2017.



## Two questions for Jean-Marc Scherrer

President, Barrisol® Normalu® Ltd Group



### Why is your company committed to fighting climate change?

Since the foundation of the company, 50 years ago, we became **aware of the conservation and respect of the environment**. In the heart of the Hardt forest, in Alsace (France), our head office is surrounded by green areas that we strive to preserve.

Respect for the environment is **one of Barrisol's priorities**. Today, it is **one of our main vectors to convey our company policy**. Participating in the Green Solutions Awards enables us to assert that **it is possible to combine tradition with innovation, technology and protection of our natural resources**.

The Barrisol® system was imagined to use 20 times less raw materials than a standard product. All the Barrisol® sheets and profiles made of aluminium are 100% recyclable.

As a **member of the English, Canadian and American Green Building Councils**, Barrisol® started to commercialise the Barrisol Recycled® line in 2007. We combined innovation and respect for the environment: Recycled® sheets are manufactured from old Barrisol® sheets.

We use recyclable materials and **encourage our partners and customers to join us in this endeavour**.



*©COPYRIGHT 2009-2017  
BARRISOL NORMALU Ltd/ Oslo  
Opera House Architect: Snohetta  
Architects/ Federation Square  
Australia Architects: Lab  
Architecture & Bates Smart*

### What actions did you put in place regarding sustainable development/CSR?

We take different actions to preserve the planet, like:

- **setting up a process to recycle old sheets,**
- **recycling waste** of sheets and aluminium profiles,
- **providing** employees with **carpool vehicles and shuttles,**
- **setting up a waste collection system** for recycling,
- **installing time switches and presence detectors** to ensure **proper management of our power consumption.**

### About

The Barrisol® Normalu® company, founded in 1967, is the world leader of stretch ceiling. It combines tradition, innovation, respect for the environment and technology to offer you the best walls and stretch ceilings. Our products are rated A+ (very low pollutant emissions), guaranteed phthalate free, arsenic free, cadmium free and mercury free, and conform to the highest European and international standards. They are also certified "French Origin Guarantee". Barrisol® products are 100% recyclable. Our know-how was recognised in 2015 by the label "Living Heritage Company" (Entreprise du patrimoine vivant – a French government label), in 2014 by the Décibel d'Or, a prize received for our "Acoustic Light®" and in 2017 by the Janus prize in industry for our "Barrisol® Clim" line of products.



## Two questions for Catherine Papillon

Global Head of Sustainable Development/CSR, BNP Paribas Real Estate



### Why is your company committed to fighting climate change?

We, BNP Paribas Real Estate, consider it is our responsibility to **bring to actors of the real estate sector our vision for the future sustainable city**. That is the reason why we support Construction21 and the Green Solutions Awards for the third year in a row.

The building sector is responsible for 40% of worldwide greenhouse gas emissions.

For this reason, BNP Paribas Real Estate is **committed to its stakeholders** to integrate climate change issues **into its own processes and activities**.

Our ambition is to contribute to the development of sustainable cities, by **offering products and services that are environmentally friendly, energy efficient and respectful of the health and well-being of its occupants**.



©Jacques Ferrier Architectures /  
Chartier Dalix Architectes / SLA  
Paysagistes

### What actions did you put in place regarding sustainable development/CSR?

We develop solutions in our different business areas to anticipate and face environmental challenges, but also to **respond to the new demands and habits of our clients** (whether they are investors, companies, individuals or local authorities). It allows us to **play a key role in the urban transition**.

As an example, the BNP Paribas Real Estate global business real estate production is environmentally certified. Beyond certifications, BNP Paribas Real Estate provides for the implementation, as part of the Call for innovative urban projects "Réinventons Paris", with its winning project Ternes, of a connected energy system between offices and housings (smart grids), of a car sharing solution allowing electric vehicle pooling, and of urban garden terraces, among other solutions. The Arboretum programme was also unveiled: this new concept of ecological offices, located in Nanterre, will be the largest campus ever built in solid wood in the world.

## About

European leader in real estate services, BNP Paribas Real Estate covers the entire life cycle of a property: Promotion, Investment Management, Property Management, Transaction, Consulting and Expertise. With more than 5,100 employees, BNP Paribas Real Estate locally advises owners, tenants, investors and local authorities in 36 countries (15 via its locations and 21 through its network of alliances) in Europe, the Middle East and Asia. In 2017, BNP Paribas Real Estate generated €811 million in revenue, and, continuing its growth, acquired Strutt & Parker, one of the UK's leading independent real estate players. BNP Paribas Real Estate is a BNP Paribas Group company.



## Two questions for Louis Engel

Safety & Sustainable Development Director, PAREX



### Why is your company committed to fighting climate change?

Energy consumption of buildings represents more than a third of the total consumption worldwide and is responsible for almost a quarter of the greenhouse gas emissions.

We believe that **all players in the construction chain must be mobilised to fight against climate change** and we decided to play our part. For several years, we have **taken an active role in improving the thermal efficiency of buildings** by developing our External Insulation Finishing System (EIFS) offer.



### What actions did you put in place regarding sustainable development/CSR?

Our “**BUILDING RESPONSIBLY**” sustainable development programme is based on 4 commitments, to meet the environmental, social and societal challenges we face:

- **innovating**, continuously, to contribute to sustainable construction;
- **reducing** our environmental footprint throughout the life cycle of our products;
- **acting** for and with our employees;
- **anchoring our sites in their territory.**

We deploy **voluntary certification processes** in the field of Safety, Quality and Environment on the major part of our sites, and, to go further in our commitment to fight climate change, we initiated in 2016, in partnership with PUR Projet, our Climate Program, a 3-step approach which consists of:

- **measuring** the greenhouse gas emissions related to our activities in all countries where we operate,
- **reducing** these emissions,
- **adapting** and **mitigating** impacts of some residual emissions by financing ecosystem restoration projects through reforestation and agroforestry.

This positive momentum encourages us to continue to reduce our emissions while **contributing to the development of local communities.**

At the end of 2017, we achieved the first part of our goals: measurement of greenhouse gas emissions in 85 % of the countries where we operate; development of action plans with our suppliers for sustainable supplies, with lower CO<sub>2</sub> emissions; actions to optimise the operation of our sand driers in order to reduce emissions by 20 % by 2020; planting of 24,330 trees as part of 10 agroforestry projects in the main countries where we are present.

Our ambition is to **integrate these sustainable development actions into all our activities** in order to contribute to the growth of sustainable construction.

### About

Major player in construction chemicals, PAREX is a world leader, specialist of dry mix, providing solutions for the building community and acting in 3 fields: facade protection and decoration, tile setting and flooring systems, waterproofing systems and technical solutions for concrete and civil engineering.

We operate in 22 countries with 72 production sites and bring together 4,400 employees worldwide. Our ambition is to be the preferred partner on our markets and in the local economic and social structure around our sites.



## Two questions for Rodolphe Deborre

Innovation & Sustainable Development Director, Rabot Dutilleul



### Why is your company committed to fighting climate change?

The Rabot Dutilleul Group places sustainable development **at the core of its strategy, “for real”**. We want to provide construction and renovation projects that **make territories more environmental friendly through specific know-how and techniques**. Following that spirit, Rabot Dutilleul chose to support the Green Solutions Awards and in particular the sustainable renovation category.

Construction does have impacts: energy consumption, greenhouse gas emissions, decline of biodiversity, increase of toxic elements, etc. However, unlike in other sectors like fishery and air transport, **solutions exist for most of the issues**. We consider it would be a crime not to implement them.



Rehabilitation of a building for WWF France headquarters, Pré Saint-Gervais, by Rabot Dutilleul Construction



Le Doge, Lille Euratechnologies by Nacarat/Rabot Dutilleul Construction © Sergio Grazia

### What actions did you put in place regarding sustainable development/CSR?

Rabot Dutilleul structures its development on a **strong environmental approach**: design and construction of low carbon buildings (BCC), HQE certified projects, CO<sub>2</sub> assessment of its activities and CSR action plans. This approach allows the Group to **renew its offer, while always watching its markets and environment**.

Sustainable construction requires to **manage energy efficiency in buildings**. Rabot Dutilleul didn't wait to follow this approach, as many projects can testify. Its mission is to dare committing with benevolence and consistence, uniting, inspiring for all projects to be achieved and to flourish.

The Group deploys many processes, for example (but there are many others!) to **push forward the eco-design in the energy industry**, without ever losing sight that the **best building is the one in which the occupants feel the best**.

## About

As an independent international family group in development and construction (France, Belgium, Germany, Poland), Rabot Dutilleul currently counts among the 10 biggest French actors in construction. Founded in 1920, the company developed skills in complementary sectors related to the construction world, hence gaining almost full control over the real estate chain of value. Rabot Dutilleul cultivates values based on collective performance with nearly 1,500 employees and on long-term relationships with its partners.

## About Construction21.org



As the social media for sustainable buildings and cities, [Construction21](#) disseminates free information and best practices for sustainable development among actors of the building and city sectors, especially through its three databases dedicated to exemplary [buildings](#), [districts](#) and [infrastructures](#).

The Construction21 network counts 11 national platforms in Europe, China and North Africa, managed by local non-profit organisations, along with an 12th international platform in English. In 2017, the network generated 700,000 visits and 7 million views.



Every year, Construction21 organises the [Green Solutions Awards](#), an international contest aiming to promote pioneers' best practices and inspire professionals around the world. The 2017 awards generated 1.5 million views.

## The Construction21 network

Members of the international Construction21 association, the chapters manage the Construction21 platform at a national level and organise the Green Solutions Awards in their country.



## Partners

The competition is organised with the support of [ADEME](#) and the [Global Alliance for Buildings & Construction](#).

Also, companies committed to fighting against climate change, have joined the competition, supporting category echoing their own action against climate change: [Eiffage](#), [Barrisol](#), [BNP Paribas Real Estate](#), [Parex](#), [Rabot Dutilleul](#). They are presented in the previous pages.



ADEME



Agence de l'Environnement  
et de la Maîtrise de l'Énergie

 **BARRISOL**  
WORLD N°1 MONDIAL



 **BNP PARIBAS  
REAL ESTATE**

**PAREX**  
Building expertise, together

## 90 media partners

More than 90 media partners, national and international, are also promoting the Green Solutions Awards competition with their own networks.



Press contact:

Alexia Robin

info@construction21.org

+33 (0)1 56 26 90 04



#GreenSolutions Awards