Solutions for a sustainable world

GREEN SOLUTIONS AWARDS 2019

DISCOVER THE WINNERS!

BUILDINGS

DISTRICTS

INFRASTRUCTURES

Contest powered by

With the support of
Announced for decades by the scientists, the consequences of climate change are here, and time is running out to complete our transition towards zero carbon. To move forward on this path, let us start by making the multiple solutions implemented all over the world by pioneers a standard. They are within reach, as long as we know how to identify them!

By bringing innovative and tried and tested solutions to the attention of a wide audience, we seek to contribute to this transition through the Green Solutions Awards. Inspiring, showing that it is possible to build differently and explaining in a concrete way how, with whom and at what cost: all this information can lead professionals to concretely change their practices.

Bio-based or recycled building materials, local supply chains, reuse, renovated buildings, bioclimatism, natural ventilation for summer comfort free from air conditioning, renewable energy networks, and natural sanitation of water: our juries have selected inspiring, effective and highly replicable projects among nearly 200 candidates. Discover them!
**Green Solutions Awards**

**Bringing Out Innovative Climate Solutions**

Around the world, solutions to build resource-efficient and resilient cities already exist. Let’s make them known!

In 2019, 192 projects, all delivered, were entered in one of the 8 categories of the competition. No less than 37 countries from all five continents are represented.

**Categories:**
- Sustainable Renovation Grand Prize
- Sustainable Construction Grand Prize
- Sustainable District Grand Prize
- Sustainable Infrastructure Grand Prize
- Energy & Temperate Climates
- Energy & Hot Climates
- Low Carbon
- Health & Comfort

**Share Your Projects with an International Audience!**

The Green Solutions Awards provide additional legitimacy to innovative and replicable projects so that they can be noticed by potential customers and partners. Generating more than 4 million views on the Web and social media, they offer candidates exceptional visibility that helps them develop their business.

This digital presence strategy is strengthened by the relay of 100 partners directly addressing their network and by events (TV sets, conferences, podcasts, webinars...).

**Thanks to the Green Solutions Awards, my clients were provided with the assurance they can trust me; they now give me more flexibility. This allowed me to share our multidisciplinary approach when designing buildings.**

Marc Campesi, Manager of Diagonale Concept, international winner of the 2018 Sustainable Renovation Grand Prize with the eco-renovation of KTR France’s head office.

**We have already been contacted by other cities which draw inspiration from our concrete project, highlighted by the contest. Working with the city of Copenhagen, we had an ambitious partner. The Green Solutions Awards were an opportunity to showcase the project in detail.**

Carmen Muñoz-Dormoy, CEO of Citelum, international winner of the 2018 Sustainable Infrastructure Grand Prize with the Smart Lighting System in Copenhagen.

**In 2020, Join the Green Solutions Awards**

**Become a Candidate**

**You Are:** A contractor, a designer, a consultancy agency, an investor, a building company, an industrial...

**How:** Publish a case study of your most innovative projects.

**Become a Sponsor**

**You Are:** A company committed to developing more sustainable buildings and cities.

**How:** Your company highlighted at each step of the contest’s communication plan (print, web, events).

**Become a Partner**

**You Are:** A media, a fair, a professional association or a university

**How:** Your logo displayed on each communication material of the contest.

**Our International Media Partners**

... and many more in each construction21 country.

Join us!
How is your company committed to fighting climate change?

The climate change topic and its impact on the real estate business is part of our Corporate Social Responsibility (CSR) strategy. In fact, in our operations and service offers, we are committed to taking into account the climate change challenges, optimising the environmental footprint of our activities, promoting circular economy and making the environmental quality of our products and services a lever to increase performance both in finance and in use.

Whether in construction, operation or renovation, we offer our customers energy-efficient and environmentally friendly solutions, respectful of the health and well-being of corporate as well as residential real estate users.

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

In our different businesses, we develop solutions to meet the new requirements and uses of our clients (investors, companies, individuals, or local communities), and thus to positively contribute to the challenges of climate change and urban transformation.

It is in this context that we support some initiatives in the real estate industry such as the Low Carbon Building Label (BBCA), the French Institute for Building Efficiency (IFPEB), the HQE-French GBC Alliance, or Biodiversity and Circolab, and of course Construction21 and its Green Solutions Awards.

We have also set ambitious goals to reduce CO2 emissions and to increase environmental quality:

• 100% of the operations we deliver in corporate property are certified.
• In residential, 100% of housing delivered in 2020 will be certified.
• 100% of the operations we deliver in corporate property are certified.

BNP Paribas Real Estate, a BNP Paribas Group company, generated €968 million in 2018.

In 2019, we will build, with our different businesses and countries, 3 roadmaps: one on reducing greenhouse gas emissions from our activities, the second on biodiversity and the third on circular economy.

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Why is your Group committed to fighting climate change?
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?
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.

To go further in our commitment to fight climate change, we have deployed for our sites in their territory.

• anchoring our sites in their territory.

challenges we face:

• 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.

At the end of 2018, we achieved the first part of our goals: measurement of greenhouse gas emissions in all the countries where we operate; pursuit of action plans set up with our suppliers within our industrial units to reduce CO2 emissions; planting of 58,000 trees for 2 years to mitigate 100% of emissions related to business trips as part of 10 agroforestry projects supported by PUR Project in the main countries where we operate.

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

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 23 countries with 74 production sites and bring together 4,500 employees worldwide. Our ambition is to be the preferred partner on our markets and in the local economic and social structure around our sites. Since May 23rd, 2019, PAREX has been part of the SIKA Group.
ADEME, the French Environment and Energy Management Agency, cooperates and develops partnerships at European and international levels, in order to share knowledge and best practices, and to support the ecological transition on the global scale.

In the building sector, the Agency collaborates with its counterparts from Mediterranean countries, West Africa and South-East Asia to disseminate best practices: development of public policies and regulations, training plans, deployment of exemplary projects. Technical expertise and project funding mechanisms are combined thanks to ADEME’s involvement in the Building Energy Efficiency Programme (PEEB), conducted jointly with the French Development Agency (AFD) and Giz.

ADEME relies in particular on the experience of the French overseas territories, which have developed approaches and tools specific to tropical climates, in order to share them with its partners located in the intertropical area. Thus, for its first edition in 2018, the MOOC (Massive Open Online Course) “Sustainable construction in humid tropical zones” was attended by 500 learners, one third of whom were located outside France, and particularly from French-speaking Africa. Translating the MOOC into English will further broaden its dissemination.

ADEME is particularly committed to this topic, while air conditioning demand is exploding in emerging countries, often located in the world’s warmest climate zones: the scenario trend of the International Energy Agency shows that the energy for air conditioning demand could triple by 2050. 70% would correspond to the residential sector. Promoting bioclimatic approaches seems particularly crucial to reduce the building energy demand, by combining performing and non-polluting systems when these are unavoidable, as in climates with high humidity levels.

ABOUT

ADEME participates in the implementation of public policies in the environment, energy and sustainable development fields. In order to enable progress in environment-friendly approaches, the Agency provides companies, local authorities, public agencies and the general public with expertise and advice. ADEME also funds projects – from research to implementation – in all its areas of intervention.

UNIVERSITY OF ENVIRONMENT

Education building
Valle de Bravo, Mexico

A minimal carbon footprint was the main objective behind the construction of this building. To achieve this, stakeholders drew inspiration from traditional constructions and uses of buildings in the region, while providing innovative solutions.

This complex of buildings has thus been conceived to allow the university’s courses to be held indoors as well as outdoors. This has led to a deliberate greening of spaces and a reduction in built spaces. Plants are also present on the roofs of buildings, functioning as a natural insulator. The construction is made of compressed earth blocks for the walls and the window frames are made of wood, reducing the carbon footprint by 70% compared to a standard building.

In addition, in the absence of heating and thanks to exclusively natural ventilation, the only environmental impact factor, water consumption, has been the subject of particular attention. A rainwater harvesting and black waters treatment system allow the university to be almost autonomous, while solar water heaters cover domestic hot water needs.

Contractor: Miguel Campero Cuenca
Designer: Oscar Hagerman
Investor: Federico Llamas

This prize is supported by

www.construction21.org
A factory does not necessarily mean a giant carbon footprint, whether in the construction or operating phase. This is proven by this 3,800 m² positive energy factory. Heating and cooling are generated by a geothermal heat pump. Electricity is obtained through a photovoltaic generator and waste recovery. The carbon footprint during the construction phase has been reduced by using locally produced straw-filled wooden walls less than 30 km away. The buildings are also completely dismountable and designed to be extended.

The design approach is also innovative. AEREM being a SCOP (Cooperative and Participatory Society), the eco-design of the project was done in collaboration with its occupants. This results in significant attention to comfort (acoustics, indoor air quality, lighting, etc.). The original central position of the offices facilitates exchanges between the various departments.

Finally, the choice to build the factory in a peri-urban area near the homes of a majority of employees, reduces the carbon impact of daily travel.
For its headquarters, Greenpeace Spain was looking for a building corresponding to the values defended by the NGO. It was therefore essential to work on the materials used, energy efficiency, but also the comfort of the occupants. Costs also had to be kept under control.

The result is an innovative renovation, whose design has focused on initiatives that can be easily replicated. Air conditioning is thus entrusted to an air/water exchanger system free from chlorofluorinated liquid. This solution also reduces the equipment’s power consumption to air pressure boosters alone.

It is a passive building, whose electricity is produced by a nearby wind turbine. All heating production is therefore based on electrified solutions. The materials were subjected to a life cycle analysis and to an indoor air quality impact-assessment. The floor is made of cork, while the insulation is made of recycled textile and the paints are organic. Posters announcing the construction of the project have been recycled into lamp shades.

Finally, the carbon footprint of this renovation was compensated by reforestation in Nicaragua.
Why is your company committed to fighting climate change?

As players committed in a sustainable and concrete way in the fight against climate change, EDF and its specialised subsidiaries offer numerous energy services and expert solutions that are increasingly adapting to the needs of local authorities, as well as to the energy transition challenges. Our ambition is to contribute to strengthening the economic activity and innovation of territories, to improve the life quality of the inhabitants, to build sustainable cities, while respecting low carbon requirements of the 21st century.

Through our adaptability, our technological expertise and our wide range of skills and solutions, EDF asserts the reliability of its advice and the relevance of its technological choices, in the service of energy transition and green growth.

This allows our customers to have a forward-looking view, to benefit from expert solutions and relevant advice. They thus have access to efficient energy services that are adapted to many different situations and needs, in the service of a carbon-free performance.

What actions did you put in place regarding sustainable development?

The world of energy is changing. Energy is becoming more and more decentralised, carbon-free, digital. The customer is becoming more and more involved in his consumption and energy savings. Wind, sun, sea, we try to make the best use of natural resources. All these innovations also make us change and evolve. This desire for transformation, this will to remain close to customers and territories, at the heart of energy transition and climate issues, is our new strategic horizon CAP2030: being a responsible electricity provider, champion of low carbon growth.

We have committed to reduce by at least 40% our already low CO2 emissions between 2017 and 2030, to become carbon neutral by 2050, and to develop 30 GW of solar energy by 2035.

In addition, we have selected six Corporate Responsibility Goals, in line with the UN’s 17 Sustainable Development Goals:

- Climate and carbon
- Human development of Group employees
- Offers to customers, in particular to vulnerable customers
- Energy efficiency
- Dialogue and consultation
- Biodiversity conservation

ABOUT

As a major player in the energy transition, the EDF Group is an energy provider that is increasingly present in the field of renewable energies and energy services. EDF and its subsidiaries, through the EDF Energy Solutions, offer performance and energy efficiency solutions to serve their customers in France. EDF and its subsidiaries are already offering new energy solutions for connected urban lighting, residential heating, charging electric vehicles, local electricity production, energy storage, thermal smart grids and smart electricity grids, etc.
INTERNATIONAL JURIES

President of the jury
GRAND PRIZES (DISTRICTS / INFRASTRUCTURES)
DAVID ALBERTANI
R2G - Regions of Climate Action

Jurors
TALA ABU SINGH
Ministry of Infrastructure Development
JEAN-FRANCOIS DANON
Paris Métropole Aménagement (PMA)
KUN LI
China Academy of Urban Planning and Design (CAUPD)
CARLO RATTI
Carlo Ratti Associato / Massachusetts Institute of Technology (MIT)
NANCY THOMAS
Inspiring more Sustainability Luxembourg (IMsLux)

President of the jury
BUILDINGS GRAND PRIZES (CONSTRUCTION / RENOVATION)
MIRJAM MACCHI HOWELL
Swiss Agency for Development & Cooperation / Global Alliance for Buildings & Construction (GABC)

Jurors
RAQUEL DIEZ
Spanish Green Building Council (GBCe)
RÉGIS LE CORRE
ESGI Group
PASCAL SIMOENS
University of Mons
JUN WANG
China Academy of Building Research (CABR)

President of the jury
ENERGY & CLIMATES (TEMPERATE / HOT)
JEAN-MARIE HAUGLUSTAINE
University of Liège

Jurors
LÉO ATTIAS
FIABCi
CÉDRIK RACHER
NomaDiK
MARCO D’EGIDIO
Independent Engineer
DAVID DÖRNBUSCH
Clean Tuesday
ZHIBING MAO
China Construction Group Co., Ltd
PILAR MERCADER
University of Sevilla
BRAHMANAND MOHANTY
Asian Institute of Technology / ADENE
ANG KUAN SENG
Buildings & Construction Authority (BCA)

President of the jury
LOW CARBON HEALTH & COMFORT
CHRISTINE LEMAÎTRE
DGNB / German Sustainable Building Council

Jurors
CÉDRIK ANBERGEN
&8solutions
MUSTAPHA CHAPK
Al Omrane Holding
MARIA PERALTA
La Salle
ANTOINE PERRAU
Lab Réunion
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University of Liège
STEPHANIE NOURRIER
Passive House Platform (PMP)

President of the jury
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CÉDREIA ABOUT
City of Paris
ERIC AUBSPIN
Prophorix
NATHALIE AUBSTMN
Cedre de Ville
FLORE BIENFAIT
Solution 6RA
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Aérodynamique Epiffl
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Syndicat national des architectes contractors (SNACo)
BERNARD BOYEU
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THIERRY BRAINE-BONNAIRE
Environnement
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Cercle Promoteur / INEF4
MARC CAMPES
Espaces / Diagonale Concept
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FRANCOISE COLATIIS
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STEPHANIE DOURDOUR 
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JULIE FERNANDEZ
National Council of Architects (CNA)
JEAN-CHRISTOPHE VISIER
Scientific and Technical Centre for Building (CSTB)

President of the jury
GERMANY
CHRISETINE LEMAÎTRE
German Sustainable Construction Association (DGBN)

President of the jury
ITALY
MARCO D’EGIDIO
Independent Engineer

President of the jury
LUXEMBOURG
RÉGIS BIGOT
Neobuild
JÉRÔME PETRY
Ministry of Economy of Luxembourg
FRANCIS SCHWALL
Neobuild

President of the jury
MOROCCO
MOHAMMED AABDACH
Faculty of Sciences and Technics of Tangier / Cluster EMC
ASSIA SOUDA
Cluster EMC

President of the jury
NATIONAL JURIES

Belgium
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Faculty of Architecture and Urban Planning
NICOLAS SPIES
Construction Confederation in Wallonia (CCW)

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As the social media for sustainable buildings and cities, Construction21 disseminates information and best practices for free through 11 national platforms in Europe, in China and in North Africa, and via one international platform in English. Visited by 500,000 professionals, the Construction21 network generates 7,000,000 views a year.