

CONTENTS

1. THE 2015 WINNERS

- A. Innovation Award winners
- B. Smart Home & Building Grand Prix winners
- C. Energy Performance + Architecture Award winner

2. MONDIAL DU BÂTIMENT AWARDS 2015 JUDGES

- A. Innovation Awards – Panels of experts
- B. Innovation Awards – Grand Jury
- C. Smart Home & Building Grand Prix – Grand Jury
- D. Energy Performance + Architecture Award – Grand Jury

1. THE 2015 WINNERS

A. Innovation Award winners



A benchmark competition promoting tomorrow's solutions

Since 1981, the Innovation Awards have provided professionals with a valuable launch pad for their products, acting as an excellent showcase for their drive and creativity. In this year's competition, **29 winners** and **8 special awards** were decided by an international **Grand Jury** which met at the premises of the Atelier International du Grand Paris (AIGP).

The Innovation Awards take place every two years and the **shortlisted and winning solutions offer a preview of the buildings of the future**. The 2015 Awards are no exception: this year once again, the innovations presented offer **concrete solutions**, the product of either corporate R&D departments or the imagination and ingenuity of SMEs and artisans.

The winning products and services are both **disruptive innovations** and **solutions** enabling professionals to meet the challenges of cheaper, more efficient, sustainable, attractive and comfortable buildings.

The main building trends revealed by the 2015 Awards

- **Cheaper buildings thanks to significantly lower construction costs and lead times:**
 - >> More integrated digital technologies are being developed, enabling us to share skills and **design better buildings more quickly**.
 - >> Ingenious products and prefabricated solutions combining several tasks in one are emerging, **reducing on-site labour time**.
 - >> Quality and reliability remain core considerations in construction but are improving thanks to **high-performance materials** and the **software applications** now being integrated into new-build projects from the design phase and allowing better diagnostics in renovation projects.

- **More eco-friendly buildings which will consume less and even generate their own energy:**
 - >> **Solutions to optimise** energy use or recover maximum heat are being widely developed.
 - >> Buildings are starting to generate, store and manage their own energy.
 - >> Water consumption is being reduced thanks to ingenious systems incorporated into the bathroom itself and stormwater management systems.
- **Even more comfortable and ergonomically designed buildings:**
 - >> **Technology enhancing both appearance and comfort.** State-of-the-art windows and doors for greater privacy and soundproofing.
 - >> **The all-digital/connected home** is becoming a reality with the development of remote control applications. Accessibility also remains an important avenue of development for manufacturers.

2015 winners

Category 1: Structure

GOLD AWARD WINNER & “AFRICA IN THE SPOTLIGHT” SPECIAL AWARD

EasyOne micro-purification plant by Graf



The **easyOne** micro-purification plant is a development of the SBR system designed by Graf, a family business specialising in stormwater management and individual sanitation solutions. The innovation lies in the extreme simplification of the mechanism. The wastewater is purified in a treatment chamber and a single tank. By eliminating the steps of feeding in wastewater and feeding out the sludge, energy consumption is significantly reduced and the life of the system extended. Thanks to this new technology, the wastewater is immediately oxygenated, no fermentation is possible and no foul-smelling gases are released.

See this product at BATIMAT Hall 5A – Aisle E – Stand 86

SILVER AWARD WINNER

X-RAD – Innovative assembly system by Rotho Blaas France SARL



The X-RAD assembly system is a revolution in cross-laminated timber construction (XLAM). It replaces all existing types of connectors (perforated angle brackets, screws, etc.) and provides a unique standard assembly solution suitable for various types of building. When assembling without interposed floors, X-RAD transfers the very high tensile and shear stresses to the angles of the wall and floor panels. This simple and effective solution opens up new possibilities for multi-storey timber frame buildings.



See this product at BATIMAT Hall 5A – Aisle J – Stand 164

BRONZE AWARD WINNER

Bloc Isostal by Innomur



The product of research prompted by the new thermal regulations, Bloc Isostal, patented in January 2015, is a new construction system developed by a family business called Innomur. These moulded wood-fibre forms perform three functions in one: load-bearing wall, polystyrene external wall insulation and interior cladding frame.

See this product at BATIMAT Hall 5A – Aisle E – Stand 23

Category 2: Joinery & Fenestration

GOLD AWARD WINNER

IzzyDoor by Etna France



IzzyDoor is the first non-mains powered door opener that can be fitted to an existing manual swing door to make it accessible to people with restricted mobility, someone wheeling a pushchair or carrying a parcel for example. IzzyDoor is battery-powered with a reversible motor and can also be operated manually with no resistance. The rotary movement of the door when opened manually generates the current necessary to charge the battery (via the coil which replaces the motor). Each time the door is opened or closed by a person with their hands free, the system is charged.

See this product at BATIMAT Hall 6 – Aisle J – Stand 202

SILVER AWARD WINNER

Active noise control concept by Technal



This patented sliding window system provides insulation from airborne noise even when the window is open. It relies on a combination of passive and active technologies which reduces noise by up to 25 dB. Two parallel acoustic insulation strips, one mounted on the outer edge of the opening frame and the other on the window jamb, act as a silencer. Microphones positioned on the inside of the window jamb and speakers built into the sound-absorbing material mounted on the outer jamb pick up and analyse noise pollution and generate an inverted sound wave which cancels it out.

See this product at BATIMAT Hall 6 – Aisle G – Stand 58

BRONZE AWARD JOINT WINNER

Forster Unico XS by Forster Systèmes de Profiles SA

Forster's new Unico XS solution offers thermally insulated windows and frames with ultra-slim facings. It allows for a wide variety of opening types and can take fillers up to 60 mm thick. Very low U-factors and exceptional acoustic insulation are also achieved. The uniquely designed all-steel profiles are ideally suited to renovating old buildings, offering numerous aesthetic benefits, including elegant flush windows, concealed hardware, no window frame visible from inside and arched windows.



See this product at BATIMAT Hall 6 – Aisle L – Stand 100

BRONZE AWARD JOINT WINNER

Schüco parametric façade by Schüco



The Schüco parametric system enables thermally insulated 3D architectural façades with complex geometries to be realised simply and safely thanks to the specially designed digital processing chain.

See this product at BATIMAT Hall 6 – Aisle L – Stand 127

“COST CONTROL” SPECIAL AWARD

AM-X by Atlantem



AM-X is a generation of hybrid concealed-opening windows characterised by uniform external appearance and internal finish in aluminium, PVC or wood, offering identical performance, appearance and installation requirements across all types.

See this product at BATIMAT Hall 6 – Aisle L – Stand 124

“ACCESSIBILITY” SPECIAL AWARD

Heroal DS by Heroal - Johann Henkenjohann GmbH & Co. KG



The new drainage system from Heroal provides a flat-sill solution making large openings like entrance doors, French windows and lifting/sliding doors accessible to people with disabilities.

See this product at BATIMAT Hall 6 – Aisle G – Stand 115

Category 3: Interior Fittings

GOLD AWARD WINNER

Smart [4] – HB/GWL 2442 – Industrial LED high-bay luminaire by Gewiss



The Gewiss LED high-bay luminaire for industrial environments is a lighting solution combining energy efficiency and high photometric performance over time (80,000 hours with luminous flux maintained at 80% or 100,000 hours with luminous flux maintained at 70%). It has a powerful lens for high-precision light direction.

See this product at INTERCLIMA+ELEC Hall 3 – Aisle G – Stand 20

Category 4: Outdoor Fittings

GOLD AWARD WINNER

EXTENS'K Terrasse by Kawneer France



EXTENS'K Terrasse is a modern, aluminium-frame home extension solution which can extend the living space by up to 40 m² without the need for planning permission. This innovative concept enables homeowners to add on new bioclimatic, thermally insulated living spaces so they can move freely between inside and outside.

EXTENS'K Terrasse requires no major structural building work or costly maintenance due to the innovative possibilities arising from the long life and strength of aluminium.

See this product at BATIMAT Hall 6 – Aisle L – Stand 70

SILVER AWARD WINNER

Ninfa 90 by Faraone Architecture en Verre



Ninfa 90 is an adjustable all-glass balustrade which offers not only greater aesthetic appeal compared to products already on the market, but is also safety certified and extremely easy to install. It consists of an anodised or lacquered extruded 6060 aluminium alloy profile with an embedded toughened, 8+8 laminated glass panel. The overall height of the balustrade is 110 cm. Base dimensions: L 120 mm X H 90 mm.

See this product at BATIMAT Hall 6 – Aisle F – Stand 36

“DESIGN” SPECIAL AWARD

Lumistone by Luminéo



Lumistone by Luminéo is an interactive translucent concrete screen. This new designer material consists of ultra high-performance Stonelite concrete with optical fibres running through it. It works with either natural or artificial light using Lumineo products.

See this product at BATIMAT Hall 5B – Aisle U – Stand 32

Category 5: Worksite Equipment

GOLD AWARD WINNER

BIBI 630 BL, all-terrain scissor lift with automatic level adjustment by Axéo

This two-man tracked platform can move over any terrain, even uneven and sloping ground, without the need for a stabiliser. The entire structure (base/tower/platform) positions itself in relation to the track system to ensure a perfectly horizontal position for working at height. The dual-tilt track system can compensate for a 35% slope both laterally and longitudinally. Electro-hydraulic lift operation, dual powered (Honda petrol/230 volts electric). It comes in two versions, offering a working height of 6.4 m or 8 m.



See this product at BATIMAT Hall 7 – Aisle H – Stand 99

SILVER AWARD WINNER

Open Close by Sateco SAS

Open Close was designed as an improvement to the most widely used piece of equipment in the construction industry: the form panel. More broadly it covers all equipment for working at height accessed via a hatch. With the Open Close system, the automatic opening and closing of the hatch is activated by the vertical movement of the access ladder. The hatch opening is triggered by the weight of the worker on the ladder. A mechanism consisting of a joint and springs opens and closes the hatch automatically.



See this product at BATIMAT Hall 7 – Aisle K – Stand 69

BRONZE AWARD JOINT WINNER

FLIR C2 by Flir Systems



The FLIR C2 is the world's first pocket-sized thermal imaging camera designed to help surveyors and building contractors detect heat loss, which can signal a range of problems such as energy loss, structural defects or plumbing leaks. The C2 features MSX® real-time image enhancement, high sensitivity, wide field of view and fully radiometric imaging clearly showing where the problems are and checking that repairs have been completed.

See this product at BATIMAT Hall 5A – Aisle G – Stand 51

BRONZE AWARD JOINT WINNER

CP10 Changepac by Lapro Environment



Unlike other absolute filtration vacuum cleaners which have the motor and electrics housed in the top section, the CP10 has it in the bottom section. The HEPA absolute filter and the dust bag are enclosed in a removable, 100% airtight cartridge located in the top section, which when full is simply replaced with a new one and thrown away with other contaminated waste. With this clever airtight cartridge, the CP10 Changepac is the first industrial vacuum cleaner to reduce human exposure to asbestos dust to zero.

See this product at BATIMAT Hall 7 – Aisle F – Stand 93

“SAFETY & PREVENTION” SPECIAL AWARD

AlphiSafe by Alphi SAS



AlphiSafe is a barrier system erected along the edges of slabs/formworks to prevent falls from

height. Its uniqueness lies in its height (1.30 metres) which exceeds the minimum height of 1 m required by the standard EN 13374, providing protection for a typical slab formwork of up to 30 cm thick. The technical innovations relating to the associated accessories enable the system to be safely installed from underneath and with automatic anti-lift mechanism.

See this product at BATIMAT Hall 7 – Aisle K – Stand 69

Category 6: IT

GOLD AWARD WINNER

KSB Sonolyzer by KSB SAS



KSB has developed a tablet and Smartphone app that analyses the performance of a non-regulated pump with asynchronous motor in 20 seconds. After entering the data shown on the pump's nameplate (motor power rating and rotation speed, total head and flow rate of the pump), the microphone in the Smartphone or tablet records the sound spectrum and the app tells the user if there are energy savings to be made by optimising the hydraulics or the drive method.

See this product at INTERCLIMA+ELEC Hall 3 – Aisle E – Stand 115

SILVER AWARD WINNER

Twinmotion by Abvent



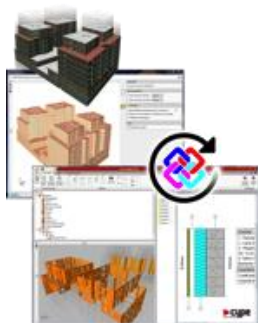
Twinmotion is a real-time visualisation and 3D immersion application enabling architects, urban planners and developers to integrate a project of any size into a dynamic ecosystem of their choosing and animate it. Its extraordinary responsiveness makes Twinmotion the ideal interactive software for exploring, sharing and describing the environment, ambiance, spaces and life of the site... to project oneself into the scheme so as to make decisions, convince and pre-sell, and also make strategic

choices before breaking ground.

See this product at BATIMAT Hall 5B – Aisle R – Stand 50

BRONZE AWARD WINNER

Cypetherm: Open BIM synchronisation by Cype Software



A leading developer of architectural and construction engineering software, Cype Software has designed an application called IFCBuilder and a new synchronous Open BIM working methodology for simulating buildings' thermal and energy efficiency. This application offers engineering consultancies, architects and contractors high productivity and quality gains in measuring thermal

efficiency.

See this product at BATIMAT Hall 5B – Aisle R – Stand 60

“ENVIRONMENTAL QUALITY” SPECIAL AWARD

F-GAS Solutions by Climalife – Dehon



F-Gas Solutions is a free, simple and educational Smartphone app for refrigeration, air conditioning, heating and renewable energy professionals, bringing them up to speed with the changes in the European regulation (EU) No. 517/2014 intended to control the use of fluorinated greenhouse gases (F-gases). The app allows users to determine the correct GWP of refrigerants, calculate the value in tonnes of CO² equivalent for refrigerants in the system, keep up-to-date with F-gas regulations, etc.

See this product at INTERCLIMA+ELEC Hall 2 – Aisle A – Stand 30

Category 7: HVAC

GOLD AWARD WINNER

Mez-Aeroseal, the new air duct sealing technology by MEZ-Technik Air System Products



Mez-Aeroseal is a revolutionary technology that seals existing or recently installed ventilation systems from the inside. The sealant is vaporised in the air duct system, and adhesive particles attach themselves only to the holes, effectively sealing the leaks without coating the inside of the ductwork. The seal is strong and will remain stable for several years. As well as delivering unprecedented airtightness, Mez-Aeroseal also contributes to a substantial improvement in building comfort by reducing heat loss caused by leaky systems.

See this product at INTERCLIMA+ELEC Hall 3 – Aisle D – Stand 31

SILVER AWARD WINNER

SRC by Lennox



The SRC combined recovery system developed by Lennox and Heatcraft HK Refrigeration is an innovative “plug-and-play” single-unit solution for heating and air-conditioning supermarket sales areas. It is designed to suit new thermal loads in an existing building, for example the installation of doors on refrigerated display cabinets. The SRC with multi-tubular dual-circuit heat exchanger

recovers the heat discharged by the refrigerators and freezers and uses it to heat the retail area, significantly reducing the amount of energy used for heating.

See this product at INTERCLIMA+ELEC Hall 2 – BUSINESS LOUNGE – VIP

BRONZE AWARD WINNER

Quartz by Titanair



Quartz is a reusable fine filter for air treatment systems which is a vast improvement on soft and rigid pocket bag filters. The Quartz filter is made up of six reusable filtration cells and offers grade F7 efficiency combined with very low pressure drop.

Quartz is made from polypropylene fibre giving it unrivalled mechanical strength and pressure drop lower than any other filter on the market. Quartz makes a major contribution to reducing a building's environmental footprint, achieving significant energy savings and cutting waste by three-quarters.

See this product at INTERCLIMA+ELEC Hall 3 – Aisle F – Stand 25

Category 8: Systems using renewable energy

GOLD AWARD JOINT WINNER

BoostHEAT, the new-generation boiler by GRDF



A new generation of thermodynamic boilers to heat, cool and provide domestic hot water for houses, apartment buildings and the service sector, boostHEAT combines two mature heating technologies (boiler + heat pump) with innovative thermal compression technology. Using the heat produced by burning gas to activate a thermal compression cycle, it doubles the energy efficiency of the gas and halves the amount of gas consumed.

See this product at INTERCLIMA+ELEC Hall 1 – Aisle D – Stand 133

GOLD AWARD JOINT WINNER

MyReserve by Solarwatt



MyReserve is a new-generation energy storage system. The product's technical configuration, innovative DC concept and 93% overall efficiency offer the end user real financial benefits for the first time.

See this product at INTERCLIMA+ELEC Hall 3 – Aisle G – Stand 78

BRONZE AWARD WINNER

Habitat Thermogène® by Cardonnel Ingenierie



Habitat Thermogène® paves the way for sustainable comfort by optimising systems to make maximum use of renewable energy and energy that would otherwise be wasted. The system consists of a technical box linked to hybrid PV sensors, a thermodynamic hot water tank, ECS, an additional energy source (gas, electric, etc.) and a smart control panel for managing electricity usage. The box and components come ready to install, tested and optimised to ensure efficient operation and fast implementation. This is an open solution geared to the low energy/positive energy residential building sector. With a footprint of less than 1 m², the system incorporates the various functions involved in home comfort, manages the different requirements and energy sources and communicates with users and the building manager via the cloud.

See this product at INTERCLIMA+ELEC Hall 1 – Aisle E – Stand 104

“ENERGY EFFICIENCY” SPECIAL AWARD

Aquanext Opti by GRDF



CETI Hybride is a solution combining a standalone thermodynamic water heater and a gas condensing combi boiler with micro-accumulation facility. CETI Hybride preheats the water by capturing the energy from the outside air (renewable energy) and brings it up to the setpoint temperature using the additional boiler. The condensing boiler mounted in series with the thermodynamic water heater, provides the additional energy needed by adjusting its power according to the flow rate and temperature of the water passing through it. The heater and boiler work in synergy and are regulated to achieve optimum performance.

See this product at INTERCLIMA+ELEC Hall 1 – Aisle D – Stand 133

Category 9: Smart home/building/grid solutions

GOLD AWARD WINNER

Connected hydroactive green roof by Le Prieuré - Végétal ID



Four years of research with INSA in Lyon culminated in this software application for modelling the hydric behaviour of the connected hydroactive green roof, which can be configured with project-specific parameters. This smart system for optimising control of the rainwater that falls on the roof monitors performance in real time and can be controlled remotely to optimise water resources with a view to reducing water loss down to zero. It cancels out peak rainfall, reduces the amount of water wasted and re-uses water for the plants.

See this product at BATIMAT Hall 5A – Aisle B – Stand 85

SILVER AWARD WINNER

Qivivo Smart Thermostat by Qivivo



With Qivivo Smart Thermostat, the heating runs itself. Simple to program and use, Qivivo Smart Thermostat automatically learns the household's everyday habits and uses geolocation to anticipate when the occupants are going to return home; it adapts to the thermal characteristics of the home and the heating system, and anticipates weather conditions (temperature, wind and sunshine). The thermostat collects the data and Qivivo turns it into energy savings, reducing the energy bill by 40%.

See this product at INTERCLIMA+ELEC Hall 3 – Aisle G – Stand 66

BRONZE AWARD WINNER

elm touch, the new smart thermostat from E.L.M Leblanc



elm touch is an intuitive, modern design touch screen smart thermostat. It can be connected to the Internet, enabling the user to monitor and control the temperature at home remotely from a Smartphone or tablet in real time. The ability to control heating and domestic hot water systems remotely at any time ensures they run more efficiently and optimises energy consumption. elm touch memorises the household's habits, displays energy usage, detects when someone is in the house and changes the programme if necessary, and takes the outside temperature into account to optimise comfort and reduce the energy bill.

See this product at INTERCLIMA+ELEC Hall 1 – Aisle D – Stand 11

Category 10: Bathroom

GOLD AWARD WINNER

Axor Starck V washbasin mixer tap by Hansgrohe



This transparent mixer tap, which is both sculptural and organic, was designed by Axor in collaboration with Philippe Starck. It creates a revolutionary vortex inside a removable glass spout which swivels through 360° from which the water flows out at just 4 litres per minute. The Axor Starck V is available in high and two-hole versions.

See this product at IDEOBAIN Hall 4 – Aisle F – Stand 118

SILVER AWARD WINNER

Presto Neo by Presto



Presto Neo is a new dual-timed tap with a sturdy, ergonomically-designed bi-injection technopolymer lever suitable for all markets. When the lever is lifted, the water runs for 7 seconds, enough to wet the hands before applying soap, and when pushed down it runs for 11 seconds, ideal for rinsing.

See this product at IDEOBAIN Hall 4 – Aisle D – Stand 41

BRONZE AWARD WINNER

Shower tray with heat exchanger by Laufen



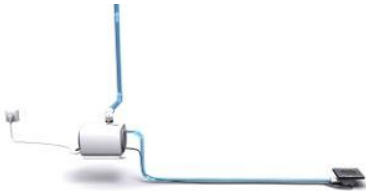
Kartell shower tray by Laufen with invisible integrated heat exchanger. The wastewater drains out through a concealed outlet housing the heat exchanger, which reuses the warm wastewater to heat the cold water.

See this product at IDEOBAIN Hall 4 – Aisle E – Stand 117

“COMBINED CAPABILITIES” SPECIAL AWARD

Sanifloor® 4 Wedi by SFA Wedi

Sanifloor® 4 by SFA Wedi is a drainage solution for walk-in showers which works even when gravity drainage is not possible. The system consists of a lift pump and a U-bend compatible with 30 WEDI® wet room shower trays. It is quick to install and requires no structural work. It can be located on either the left or right side of the shower and is easy to clean.



See this product at IDEOBAIN Hall 4 – Aisle C – Stand 41

B. Smart Home & Building Grand Prix award winners



The smart technology award

The **Smart Home & Building Grand Prix**, originally the INTERCLIMA+ELEC Smarthome Awards, is being incorporated this year in the Mondial du Bâtiment Awards. This award recognises innovative companies that are able to adapt to the changes brought about by the arrival of digital technology in all stages of building design, implementation and maintenance.

François-Xavier Jeuland, Chairman of the French home automation association (FFD) and member of the Grand Jury: “The quality of the solutions presented and the capabilities of the companies competing this year were most impressive, showing the entire industry that it is possible to embrace innovation by drawing on sound technical capabilities, resolute determination throughout the project and an articulately communicated passion for innovation shared with all those involved”.

The Smart Home & Building Grand Prix is organised in partnership with:



2015 winners

“Smart Home” category

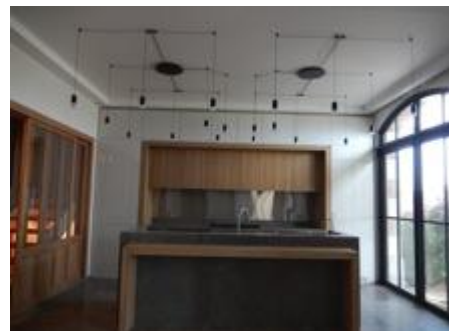
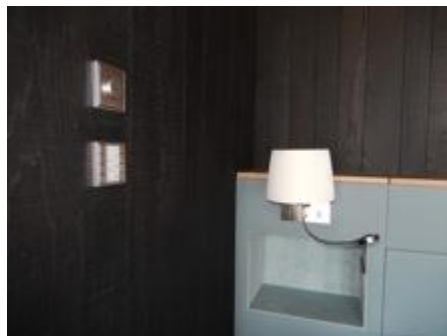
The home automation market is becoming a consumer market with the arrival of major players like Apple, Google, Orange and Samsung and the increase in big French retail chains like FNAC and Darty selling connected objects for the home. The 2015 award-winners clearly reflect this trend, with an inexpensive complete system based on connected objects featuring among the shortlisted solutions for the first time. Traditional home automation markets are also widely represented with a luxury holiday home project and a system to improve accessibility for the disabled.¹

SMART HOME AWARD WINNER

Project: **Plage Benoit**

Integration: **EDI Barbé**

A project involving the renovation and extension of a holiday home with stringent integration and simplicity requirements imposed by the architect and the owner. The system's success lies in the way it is integrated into the building (1100 m² of living space, multimedia, automatic control equipment, etc.) without detracting from the original style of the house, with the result that the solutions used are virtually invisible.



¹Text by François Xavier Jeuland

“Smart Building” category

With just a few weeks to go before COP21, it is interesting to note that the construction industry is leading the way, having already made moves to adapt to the new energy efficiency requirements in both the new-build and renovation sectors. An increasing number of buildings incorporate smart solutions, like the three shortlisted, reflecting the range of buildings involved, from public office buildings and holiday centres to communal housing.²

SMART BUILDING AWARD WINNER

Project: **Auvergne Regional Council Offices**

Integration: **Dom6**



This project, designed by architect Bruno Mader, presents some **unique architectural features harmoniously combining different materials**, incorporating several systems designed to **reduce the energy bill and provide a pleasant environment for users**. The double-skin façade, planted atriums, green roofs, earth tube and photovoltaic cells help create an eco-friendly, energy-efficient building.

The project has also been awarded High Environmental Quality certification and the Low Energy Building label.



The two winning projects in the SMART HOME and SMART BUILDING categories will be presented at INTERCLIMA+ELEC on 4 November 2015 at 17.00 (Hall 3 Forum).

² Text by François Xavier Jeuland

Energy Performance + Architecture Award³



Now in its 6th edition, the Energy Performance + Architecture Award rewards a French or international architect for a new-build or retrofit project that achieves high energy efficiency and cost-effectiveness in the tertiary or communal housing sector. The winner must be able to demonstrate an overarching commitment to sustainability in all their work. Projects are judged on five specific criteria: energy performance, cost effectiveness, added value, design innovation and the architect's overall environmental commitment.

The projects entered for the Energy Performance + Architecture Award (EPAA) come from three continents: Africa, South America and Europe. The design concepts go beyond simple energy performance, demonstrating a holistic commitment to sustainable development. In considering the fourteen projects, a number of **strong architectural design trends** emerged:

- **A high level of energy efficiency in both the new-build and renovation sectors**, with different approaches determined by the building's location. The technologies employed are very diverse, but three constantly reappear: the building envelope is always designed to keep heating and cooling requirements to a minimum, there is a preference for natural lighting, and natural ventilation with night-time free cooling is routinely applied, even in office buildings.
- **An approach that goes beyond simple energy performance**: the designers of the projects entered for EPAA 2015 demonstrate a holistic commitment to sustainable development which takes into account much more varied parameters such as the lifecycle of the building, its evolution and impact on the ecosystem. All pay great attention to interior air quality and hence the choice of floor, ceiling and wall covering materials. All the projects promote rainwater collection, storage and re-use. Green roofs and outer walls are being used more and more to avoid the formation of urban heat islands, preserve local biodiversity and cool the fresh air taken into the building in summer by natural ventilation.
- **Projects designed with greater collaboration between different trades**. In order to achieve these levels of environmental and energy efficiency, there has to be close cooperation between the owner/contracting authority, architects, technical and environmental engineers and ultimately the building contractor. Consultation and collaboration become systematic during the design phase, during construction and afterwards during the building's lifecycle, to ensure that performance is maintained over time.

³ This page is based on a text by Pascal Poggi

ENERGY PERFORMANCE + ARCHITECTURE AWARD WINNER

Project: **MC2**

Agency: **Magnum Architectes et Urbanistes (France)**

A century-old building in Nantes was renovated to bring it up to BEPOS standard (the French energy-plus-building label) at a cost of just €1,400 excl. VAT per m².

Three building firms converted an 800-m² former council records office in Nantes into their new premises, with a strong commitment to energy efficiency, environmental protection and working environment quality.



After remodelling the building, adding a new timber-framed space on the flat roof, insulating all the walls, installing an energy recovery ventilation system, changing all the windows, installing a PV system on the roof and adopting a strategy of night-time free cooling and natural ventilation in summer, the

complete renovation of the MC2 building cost €1,400 excl. VAT per m² of usable area, of which €1,150 on labour costs. This compares to €3,500–4,000 in tertiary new-builds on the Île de Nantes. According to RT2012 thermal regulation rules, conventional primary energy consumption across the five defined uses is calculated at 47.8 kWh/m²/year. The 80 m² of photovoltaic panels installed on the roof in late 2014 should generate sufficient energy for the building to be considered BEPOS-compliant.



Réseau de chaleur



Centrale double flux



Radiateur garde-corps



Luminaire sur mât



L. to R.: Heat network; Energy recovery ventilation system; Balustrade radiator; Pole light.

This project will be presented at INTERCLIMA+ELEC on 4 November 2015 at 17.00 (Hall 2 Forum)