



PRESS
release

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**The French Atlantic Challenge team won second grand prize in the
Solar Decathlon Europe competition
In all, the teams sponsored by Saint-Gobain won ten prizes in six categories**

At the Solar Decathlon Europe international university architecture competition in Versailles (France), the French Atlantic Challenge team won the second grand prize for its Philéas project. In all, the teams sponsored by Saint-Gobain won ten awards in six categories: the French Atlantic Challenge team won the first prize in the “Energy Efficiency” category and the third prize in the “Sustainability” and “House Functioning” categories. The US-German Inside Out team won the third prize in the “Comfort Conditions” category for its Techstyle House project. The Mexican UNAM team won the first prize in the “Engineering & Construction” category, the second prize in the “Urban Design, Transportation and Affordability” category and the third prize in the “Sustainability” category for its CASA project. The Spanish team Plateau Team won the third prize in the “Energy Efficiency” category for its Symbcity project. The Romanian BUC team and the Indian Shunya team received a special award in the “Sustainability” category for their EFdeN and H Naught projects respectively.

FRANCE

The French Atlantic Challenge team’s Philéas project involves renovating CAP 44, an abandoned industrial building from 1895 located in the Nantes area of France, by inserting prefab wooden modules into the existing structure. The idea is to transform the building into a multiple use building with housing, offices, a day care center, a restaurant and a vegetable garden on the roof.

1st prize – “Energy Efficiency” challenge

The Philéas project won the first prize for “Energy Efficiency” which assessed the energy consumption of houses and the solutions implemented to reduce it.

To help the team with its project, Saint-Gobain and its brands supplied high-value added building materials to enable the prototype to achieve optimum thermal performance.

Saint-Gobain researchers and engineers, specializing in building physics, helped the students make their choices in two strategic areas: utilization of the thermal inertia of reinforced concrete and recovery of solar and light inputs.

3rd prize – “Sustainability” challenge

The Philéas project was also awarded the third prize in the “Sustainability” challenge, which assessed the solutions implemented to reduce the building’s environmental impact throughout its entire life cycle.

Saint-Gobain organized five workshops to address technical issues and provide practical answers to the students’ questions prior to the start of the competition. One of these workshops specifically looked at optimizing the building’s environmental quality using as an example the Saint-Gobain Multi-Comfort House in Beaucozé (France), recognized as an “HQE PERFORMANCE PILOT OPERATION” in 2012.

Most of the Saint-Gobain brand materials used to build the prototype are covered by an FDES (French environmental and sanitary declaration), which provides detailed environmental results for a product based on its life-cycle analysis and certifies the product’s very low pollution emissions under laboratory testing.

3rd prize – “House Functioning” category

The team also won the third prize for the “House Functioning” category, which assessed the functioning and efficiency of equipment installed in the prototype.

The prototype used, for example, loud speakers integrated into the plasterboard, transforming the linings into an acoustic system while ensuring very low energy consumption.

UNITED STATES / GERMANY

The American-German Inside Out team’s Techstyle House project uses the sun as the sole source of energy. The house consists of a lightweight steel structure supporting a pre-stressed architectural membrane insulated by several flexible layers to create a “textile” house meeting the PassivHaus standard, the highest international standard for energy efficiency. It is the first time that a Solar Decathlon team has built a house with an enclosure entirely made of textiles which allow for a modular design and adaptive spaces that can meet the increasingly diverse needs of the modern family.

3rd prize – “Comfort Conditions” category

The American-German team was awarded the third prize for the “Comfort Conditions” category which assessed the house’s acoustics, visual comfort, temperature, air quality and humidity throughout the competition.

Saint-Gobain provided the team with specific, highly attractive triple glazing that complies with the latest solar control standards and allows maximum light transmission for optimum visual comfort. The assembly of the different layers of the house envelope, comprising in particular the architectural membrane Sheerfill and 30 cm of ISOVER glass wool, resulted in a remarkable acoustic insulation from exterior noise and a significant reduction of interior acoustic reverberation creating a very comfortable acoustic atmosphere.

MEXICO

The Mexican UNAM team developed its CASA project for the Metropolitan Area of Mexico’s Valley, the third most populated metropolitan area in the world. Focusing on issues like water management, pollution and the acute risk of poverty, the students’ aim was to design a sustainable housing proposal to face urban sprawl and adapt to environmental changes.

1st prize – “Engineering & Construction” category

The project submitted by the Mexican team won the first prize in the “Engineering & Construction” category which assessed the overall functionality of the housing units, structures, envelopes, electric systems, plumbing and photovoltaic panels.

Once Saint-Gobain teams had selected the glazing units best adapted to the type of PVC structures used in this project, they helped the Mexican team to fit them during the assembly of the prototype in Versailles.

2nd prize – “Urban Design, Transportation and Affordability” category

The UNAM team were awarded the second prize by the “Urban Design, Transportation and Affordability” panel, who particularly appreciated the pertinence of their solutions with regard to the local environment, transport and housing cost.

3rd prize – “Sustainability” category

The Mexican team also won the third prize in the “Sustainability” category which assessed solutions implemented to reduce the building’s environmental impact throughout its entire life cycle.

All glazing products provided by Saint-Gobain may be entirely recycled. They have been manufactured locally and do not contain volatile organic compounds. They help to reduce air-conditioning costs and optimize daylight.

Saint-Gobain coverings for walls and ceilings were manufactured using recyclable materials and are free from any substances that are harmful to health or the environment.

By filtering the light, Saint-Gobain’s solar screen reduces heat and glare, increases energy conservation and lowers air conditioning costs.

SPAIN

The idea of the Symbcity project is to take advantage of unused space on buildings – roofs, terraces and other elevated urban areas – to optimize the urban infrastructure and create a real symbiosis between existing buildings and the construction added on their roofs.

3rd prize – “Energy Efficiency” category

The Spanish team Plateau Team was awarded the third prize in the “Energy Efficiency” category which assessed the energy consumption of houses and the solutions implemented to reduce it.

The prototype’s multi-functional buffer space was built using high-performance Saint-Gobain glazing. Designed as an unheated, modular space, this area contributes to the passive, bioclimatic properties of the prototype by acting as a warm winter garden or a cool shaded patio in the summer.

“The many awards won by the teams sponsored by Saint-Gobain for this competition highlight the tremendous work achieved,” says Didier Roux, Vice-President, Research and Development and Innovation for the Saint-Gobain group. “It also demonstrates that Saint-Gobain’s solutions are absolutely essential in terms of energy efficiency, sustainable development and comfort. “I’m particularly proud of the second place awarded to the Atlantic Challenge team in the competition finals and the awards won in the areas of energy efficiency, comfort and sustainability, which are major facets of our sustainable habitat strategy.”

About Saint-Gobain

Saint-Gobain, the world leader in the habitat and construction markets, designs, manufactures and distributes building and high-performance materials, providing innovative solutions to the challenges of growth, energy efficiency and environmental protection. With 2013 sales of €42 billion, Saint-Gobain operates in 64 countries and has nearly 190,000 employees. For more information about Saint-Gobain, please visit www.saint-gobain.com.

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