



800 COMPETITORS  
16 COUNTRIES  
20 SUSTAINABLE HOUSES

VISIT LA CITÉ DU SOLEIL®

SOLAR DECATHLON EUROPE 2014

[www.solardecathlon2014.fr](http://www.solardecathlon2014.fr)



Digital rendering of La Cité du Soleil® made with Allplan and Cinema 4D – Nemetscheck and Maxon, official software partners.

# SOLAR DECATHLON

## THE BENCHMARK COMPETITION

Hosted every two years in the United States by the Department of Energy (DOE), the Solar Decathlon is **an international academic architectural competition.**

**Purpose:** improve education and research in the fields of sustainable architecture and solar energy.

The challenge given to schools and universities worldwide is **to conceive and build a full-scale fully functional house, using only the sun as its power source.**

**T**he decathlon is derived from a careful evaluation based on 10 contests with a total of 1000 points. The prototypes are open to the public.

- 01 Architecture
- 02 Engineering & construction
- 03 Energy efficiency
- 04 Electrical energy balance
- 05 Comfort conditions
- 06 House functioning
- 07 Communication and social awareness
- 08 Urban design, transportation & affordability
- 09 Innovation
- 10 Sustainability

The prototypes are continuously monitored and each team is adjudicated by 5 international juries of experts in each field.

The team with most points wins the contest! Since 2010, Solar Decathlon is hosted in Europe alternately with the American competition.

The two first happenings took place in Madrid. The third one will be hosted in Versailles, France, in June and July 2014.

## SPECIFIC FRENCH FEATURES

With this upcoming SDE French edition in 2014, a development of the Rules allows for an evolved set of requirements to be met by Teams. The 2014 Solar Decathlon Europe Organization in France has decided to focus on six items related to ecological transition:

### 01 Density

Projects of collective housing are encouraged rather than individual houses.

### 02 Mobility

The housing will include features such as transportation systems for its inhabitants.

### 03 Sobriety

While it is important to ensure the renewable energy supply, it is even more important to limit demand and thus energy consumption.

### 04 Innovation

Innovation remains at the heart of the competition covering fundamentals from architecture to house appliances.

### 05 Affordability

Moderate cost remains a key issue for applicable sustainable architectural and urban solutions.

### 06 Contextualization

The challenge is to design a prototype adapted to its region of origin while being efficient on the site of the competition in Versailles.

**New Solar Decathlon Europe 2014 is being innovative with dwellings and living spaces for 800 people in La Cité du Soleil®: it is a completely autonomous living base in terms of resources and energy to host decathletes and their crew during 34 days of competition.**

Download the rules on our website: [www.solardecathlon2014.fr](http://www.solardecathlon2014.fr)

## A FRENCH FIRST

Hosting the Solar Decathlon for the very first time, **France is revealed as major player in renewable energies and**

**sustainable housing.** At the very heart of this international cultural event, La Cité du Soleil® is an absolutely unique place for the encounters and exchange between researchers, academics, professionals

in the fields of construction and energy, industrials, and the general public.

## COMPETING TEAMS

The organization crew has selected the 20 best projects issued from 16 countries and 3 continents.

The teams have 18 months to conceive, build and transport their prototype to La Cité du Soleil® in Versailles.



**Atlantic Challenge [ATC]**  
Nantes, France



**Barcelona Tech 2014 [BAR]**  
Barcelona, Spain



**Bucharest 2014 [BUC]**  
Bucharest, Romania



**Chiba University Japan [CUJ]**  
Chiba, Japan



**TU Delft [DEL]**  
Delft, Netherlands



**DTU [DTU]**  
Copenhagen, Denmark



**Fenix [FNX]**  
Valparaiso, Chile /  
La Rochelle, France



**Inside Out [INS]**  
Rhode Island, Etats-Unis /  
Erfurt, Germany



**KMUTT Team [KMU]**  
Bangkok, Thailand



**Lucerne [LUC]**  
Lucerne, Switzerland



**Mexico UNAM [MEX]**  
Mexico city, Mexico



**Frankfurt [OTP]**  
Frankfurt, Germany



**Paris [PAR]**  
Paris, France



**Plateau team [PLT]**  
Alcala & La Mancha, Spain



**Réciprocité [REC]**  
Boone, Etats-Unis /  
Angers, France



**RhOME [ROME]**  
Rome, Italy



**Rooftop [ROF]**  
Berlin, Germany



**Shunya [SHU]**  
Mumbai, India



**TEC Team [TEC]**  
Cartago, Costa Rica



**NCTU Unicode [UNI]**  
Hsinchu, Taiwan

**Seven substitute teams**  
are ready to join in  
should another opt out :

**Polito [SUN]**  
Turin, Italy

**Equipe Via - Uji [EVU]**  
Aarhus, Denmark /  
Castellón de la Plana, Espagne

**upTIM [TIM]**  
Timisoara, Romania

**Team Sweden [SWE]**  
Göteborg, Sweden

**Team UNIZG [UZG]**  
Zagreb, Croatia

**Turkey Team [TUR]**  
Istanbul, Turkey

**UAE Team [UAE]**  
Dubai, United Arab Emirates

The substitute teams  
are welcomed on site to exhibit  
their prototypes  
in La Cité du Soleil®.

## A great opportunity for all stakeholders

In France, construction industry energy issues have been discussed in important training and research programs, through experiments with innovative buildings and eco-quarters, and through a new and audacious legislation. With the new 2012 and 2020 thermal regulations for buildings, the whole construction industry

will have to do its own update to keep on track. A vast national analysis of the energetic transition has started in France and an ambitious program for the development of renewable energies has been launched according to France's European commitments: the goal is to reach 23% of renewable energies out of global energy

consumption by 2020. The Solar Decathlon competition is an important opportunity to supervise this energetic revolution, to educate political and economic stakeholders and to act as a showcase of French expertise in sustainable housing.

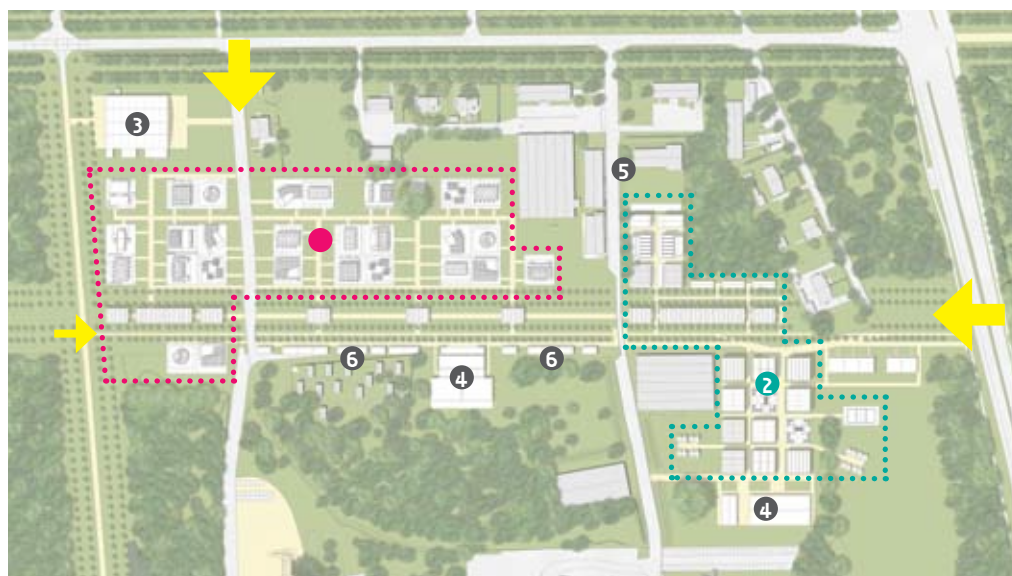




## La Cité du Soleil® simultaneously transitory and sustainable

Built within new alleys which were originally designed by Le Nôtre, La Cité du Soleil® is a transitory yet sustainable site which represents the city of tomorrow. It fits in seamlessly with the extraordinary landscape of the Estate of Château de Versailles. An eco-responsible study is being conducted and will allow for maximum control of the carbon footprint issues of transportation, waste, energy consumption and water. This is the eco-responsible approach of La Cité du Soleil®.

At the end of the competition, the site of Mortemets will be returned to its original green field. The housing and equipment of La Cité du Soleil® will be incorporated in other sites and will find a second life within social integration and student life programs.



### At the heart of La Cité du Soleil®

Map made with Allplan – Nemetscheck and Maxon, official software partners.

#### 1 Decathletes' quarters

This section of the site will host 20 energy-efficient prototypes, each featuring new housing concepts, with innovative technologies and materials.

#### 2 Competition quarters

For the first time at Solar Decathlon, 800 decathletes will live autonomously (water, energy) during one month with particular concern for the environment (waste, nature). The partner's quarters, a 1000 seat Agora arena for important meetings and conferences will host several special events.

#### 3 Agora

#### 4 Conference quarters

#### 5 Organization quarters

#### 6 Partners' quarters

## Versailles, more than ever a place for discovery and innovation

The world renowned Château de Versailles and its domain attract 7 million visitors every year. Its history goes back to Louis XIV, the sun-king who had chosen the sun as his inspiration and took residence in a palace ahead of its time, heralded by the work of great artists, inventors and genius builders. In the 17th and 18th centuries, Versailles was at the very heart of European scientific research, with the development of new technologies such as water control and botanical inventions, thus enhancing lands fertilization.

Versailles is an historical place where the peace treaty for the end of the War of Independence was signed in 1783 and where the Declaration of the Rights of Man and of Citizens was adopted six years later.

Around the castle spans a beaming large territory ranging from Paris to Versailles and Saclay : universities and renowned laboratories have made it the spearhead of training and research in the fields of environment, landscape and architecture.

The Competition, held in the prestigious park of the castle, follows a rich history of more than four centuries.



In the 17<sup>th</sup> and 18<sup>th</sup> centuries, Versailles was at the very heart of European scientific research

## Operational committee

**Alain LECOMTE**

chairman

**Nadine BELLUROT**

vice-chairman

**Bruno MESUREUR**

CSTB Solar chairman

**Jérôme MAT**

CSTB Solar executive director

**Denis BRUNEAU**

monitoring & scoring

**Vincent JACQUES le SEIGNEUR**

events & communication

**Philippe LAGIERE**

monitoring & scoring

**Pascal ROLLET**

competition director

**Colas DURRLEMAN**

ministry of Equality of territories  
and Housing representative

**Bertrand-Pierre GALEY**

ministry of Culture and Communication  
representative

**Valérie WATHIER**

ministry of Ecology, Sustainable Development  
and Energy representative

## Scientific committee

**Alain MAUGARD**

chairman

**Marie-Hélène CONTAL**

deputy director of L'Institut Français  
de l'Architecture

**Dominique GAUZIN-MULLER**

architect-professor at Stuttgart University and  
ENSA Strasbourg

**Manfred HEGGER**

professor at Darmstadt university

**Carole LE GALL**

CSTB executive director

**Vincent MICHEL**

director of ENSA Versailles

**Thierry SALOMON**

engineer, independent expert

**Sergio VEGA**

director of Solar Decathlon Europe 2010 and 2012  
in Spain

**Etienne WURTZ**

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Solar Decathlon  
Europe



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