SOLAR DECATHLON MIDDLE EAST
DUBAI 2018

The Solar Decathlon Middle East's Organising Partners

GOVERNMENT OF DUBAI

هيئة كهرباء ومياه دبي
Dubai Electricity & Water Authority

المجلس الأعلى للطاقة
Supreme Council of Energy

UNITED ARAB EMIRATES
MINISTRY OF CABINET AFFAIRS

UNITED ARAB EMIRATES
MINISTRY OF ENERGY

مؤسسة دبي للمستقبل
Dubai Future Foundation

SOLAR
DECATHLON MIDDLE EAST

www.solardecathlonme.com

What is the **Solar Decathlon?**

Solar Decathlon is an international competition in which universities from all over the world meet to design, build and operate sustainable solar houses.

The houses use renewable energy as the only energy source and are equipped with innovative technologies that permit maximum energy efficiency. During the final phase of the competition, teams will assemble their houses in the Dubai Solar 'Hai' ('district'). The houses will be open to the general public, while undergoing the ten contests of the competition.

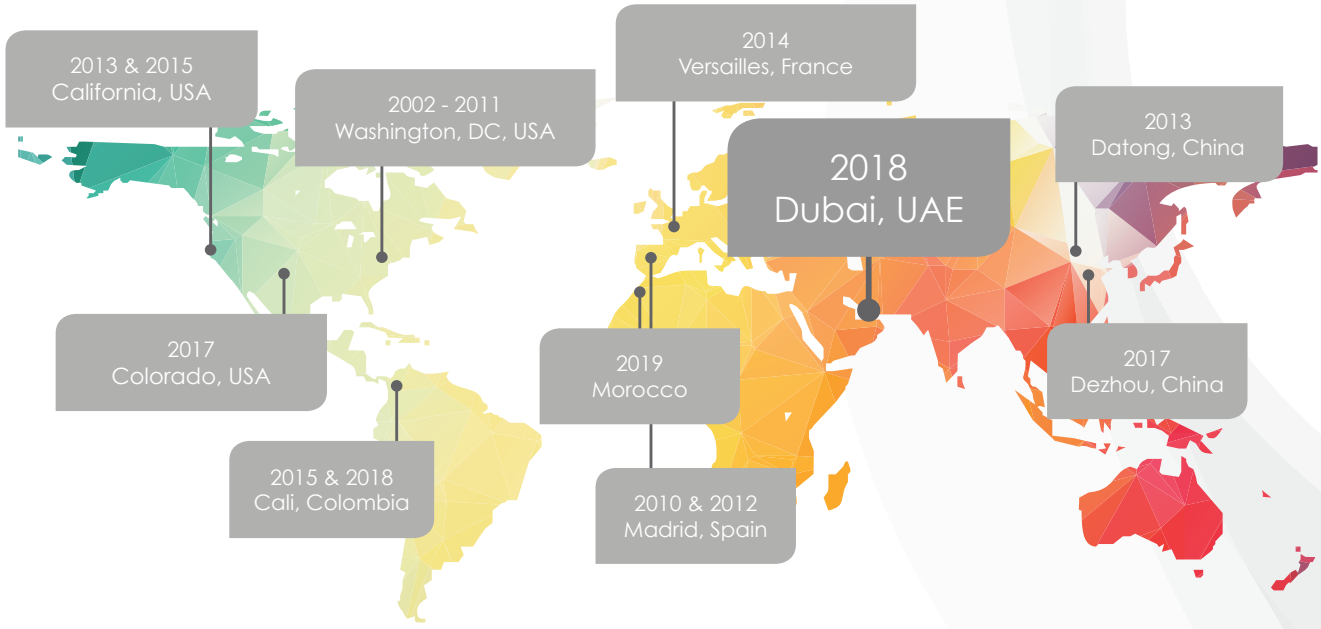
The first Solar Decathlon Middle East will take place in Dubai in 2018 and then also in 2020, reflecting the rising global position of the UAE, and its key role regionally. The competition was launched during the Final Awards Ceremony of the US Department of Energy Solar Decathlon 2015 held in the USA.

"Organising Solar Decathlon ME is part of our ongoing efforts to achieve the vision of HH Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, to establish Dubai as a global hub for sustainability and innovation and to support the UAE Vision 2021, to make the UAE among the best countries in the world, and the Dubai Plan 2021, to further Dubai's pioneering position as one of the world's greatest cities. The Solar Decathlon is a unique opportunity for university students to gain important experience, implement the theories they learn, and demonstrate their skills and capabilities."

HE Saeed Mohammed Al Tayer,
Vice Chairman of the Dubai Supreme Council of Energy and Managing Director & CEO of Dubai Electricity and Water Authority.

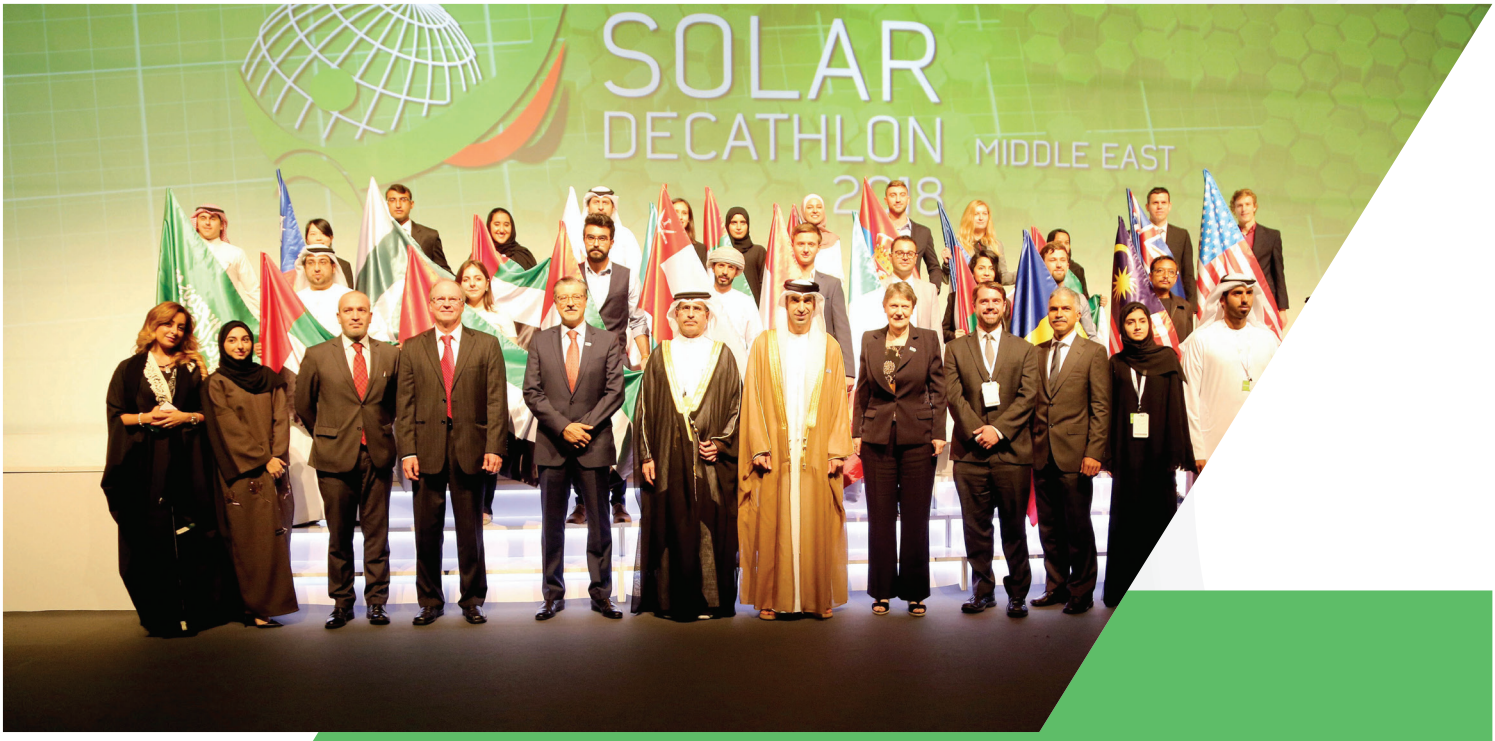
International **Solar Decathlon** Competitions

The Solar Decathlon was first established in 2002 in Washington DC, and since then occurs biennially in the United States. Since then, more international Solar Decathlon competitions have been established as shown in the map.

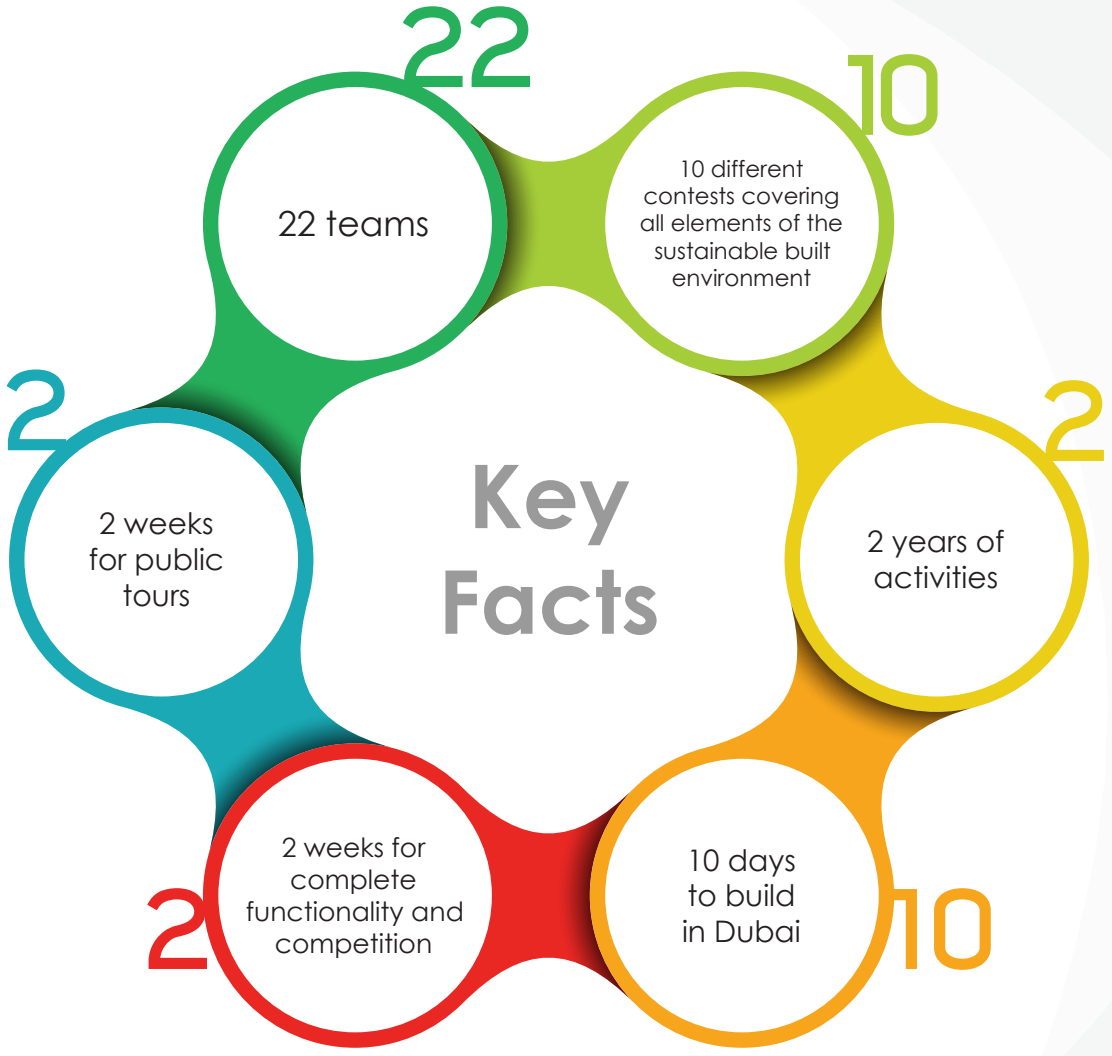


> The Solar Decathlon is usually about five years ahead of what you see in the commercial building. So one of the objectives of the Solar Decathlon is to bring these new ideas to today's world.
>
> **Richard King,**
> Creator of Solar Decathlon

US Department of Energy Solar Decathlon 2011 in Washington, DC



5 October, 2016 – Official SDME 2018 teams representatives in a group photo with HE Dr Thani Al Zeyoudi, Minister of Climate Change and Environment in the UAE, HE Saeed Mohammed Al Tayer, MD & CEO of DEWA, Helen Clark, Administrator of the UNDP, Adnan Amin, Director General of IRENA, Andrew Graves, US DoE Policy Advisor and SDME delegates.



To know more about the SDME 2018 shortlisted university teams, visit:
www.solardecathlonme.com/teams

SOLAR DECATHLON **IN NUMBERS**

Previous Events

225 unique sustainable houses

Involvement from **38** countries

Worldwide **media** interest

More than **1 million** house tours for general public

An average of **180,000** visitors for each Solar Decathlon event

An average of **700,000** website visitors for each Solar Decathlon

An average of **3 million** page views for each edition of Solar Decathlon

Solar Decathlon has established a worldwide reputation as a successful educational programme and workforce development opportunity.

Solar Decathlon Middle East

37 International Universities

22 international teams

11 teams from the Middle East

16 countries

200,000 estimated visitors

Our main objectives of the Solar Decathlon

a] To raise awareness among participating students on the benefits and opportunities offered by the use of renewable energy technologies, energy management, and sustainable buildings

b] To encourage professionals from different industries to select materials and systems that reduce the environmental impact of buildings, optimising its economic viability and providing comfort and safety of occupants

c] To educate the general public about responsible energy use, renewable energy, energy efficiency, and the technologies available to help them to reduce their energy consumption

d] To encourage the use of solar technologies

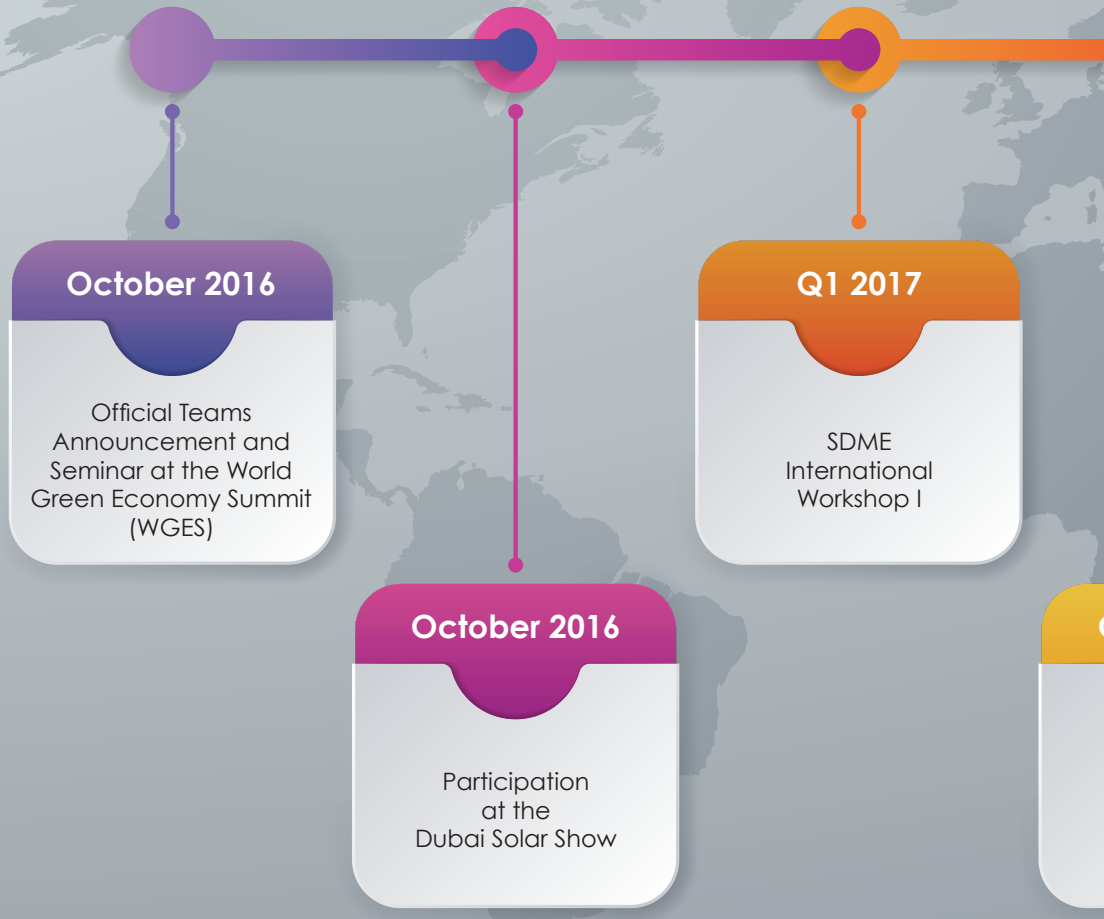
e] To promote architecturally attractive solar systems, and the integration of solar technologies such as the roof, skylights or facades.

f] To demonstrate that high-performance solar homes can be comfortable, attractive and affordable.

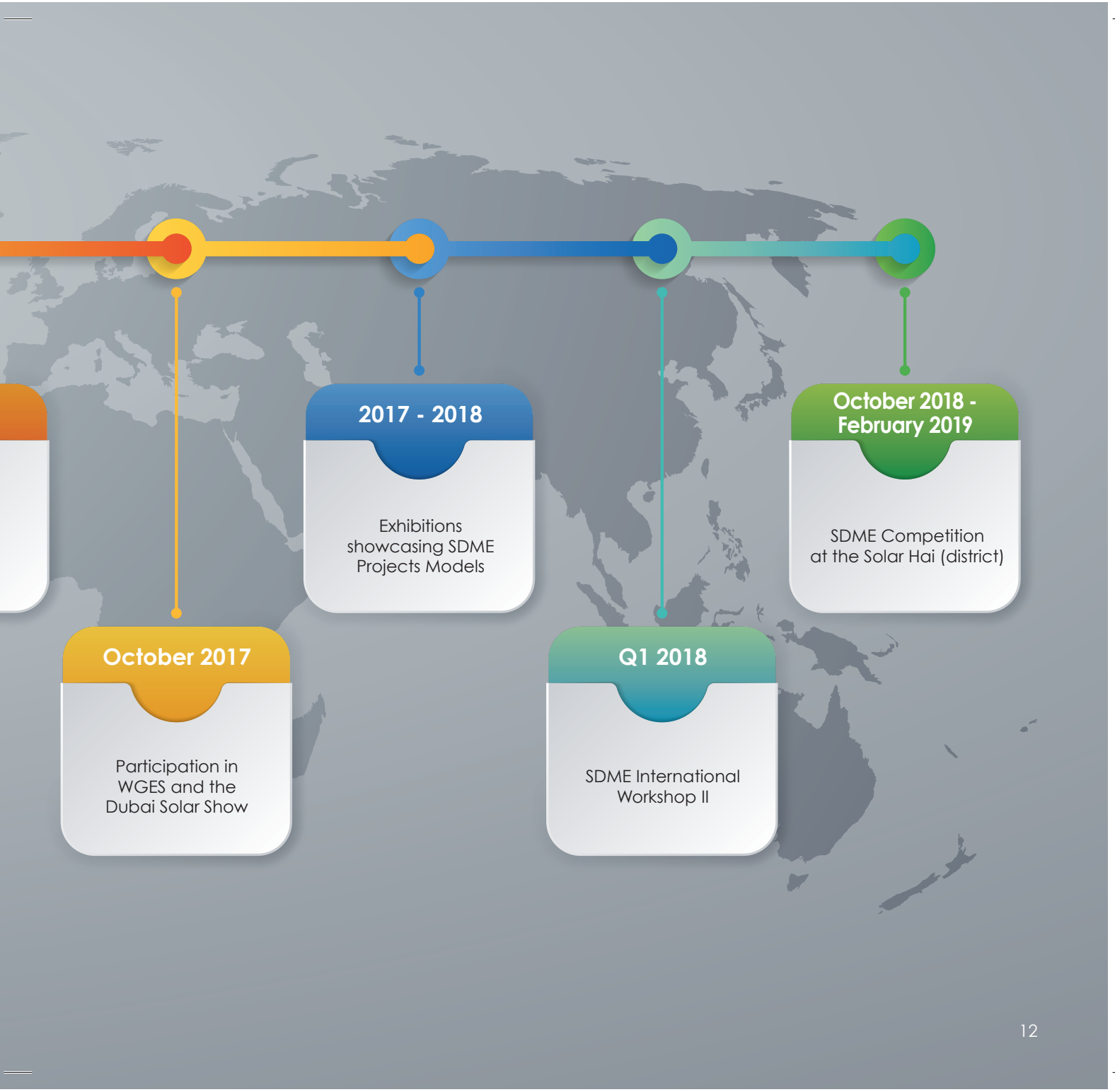
Solar Decathlon Europe 2010 in Madrid, Spain.

SOLAR DECATHLON MIDDLE EAST

TIMELINE



Check out the Solar Decathlon Europe 2014 Video Here


October 2017
Participation in WGES and the Dubai Solar Show
2017 - 2018
Exhibitions showcasing SDME Projects Models
Q1 2018
SDME International Workshop II
October 2018 - February 2019
SDME Competition at the Solar Hai (district)

Scope of the **Contests**

1: Architecture

Teams are required to design and build attractive, high-performance houses that integrate solar and energy-efficiency technology seamlessly into the design. This contest will assess the coherence of the design, space and the integration of technologies.

2: Engineering & Construction

Teams will be required to demonstrate the level of functionality of the house structure, envelope, electricity, plumbing, HVAC and solar system design and construction, including its safety, viability and adequate integration of them in the project.

3: Energy Management

Teams must demonstrate to what degree the house design, including its systems definition, contributes to enhance the energy efficiency of the house.

4: Energy Efficiency

To encourage excellence in the house design and its systems, to deliver a high level of functionality and comfort, with minimum energy consumption.

5: Comfort Conditions

Teams must demonstrate the ability to provide a comfortable interior, with the control of temperature, humidity, acoustics and lighting.

The Solar Decathlon ME has the following ten contests, each worth an average of 100 points, for a possible total of 1,000 points. Teams earn points through task completion, performance monitoring and jury evaluation.

6: House Functioning

Teams need to try and reproduce the average energy use in a modern home, but through innovative solutions which meet all the required performances appliances.

7: Sustainable Transportation

Teams should drive an electric vehicle charged from their house electric system several times during the competition.

8: Sustainability

Teams need to showcase the skill and environmental sensibility of the house design, techniques and systems to ensure maximum reduction of negative environmental impact during all phases of the house constructed.

9: Communications

Teams must showcase the ability to communicate creatively, effectively and efficiently through transmitting the relevant competition topics (sustainability, innovation and energy efficiency), as well as those ideas that define the team's and project's own identity.

10: Innovation

Teams will be evaluated on the degree of innovation implemented throughout the house as part of the preceding contests. Focus will be on emergent or radical and revolutionary changes in the house, its system or its components.

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Visit our website and social media platforms for more information:

www.solardecathlonme.com

https://twitter.com/SDME2018

https://www.instagram.com/SDME2018/

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