

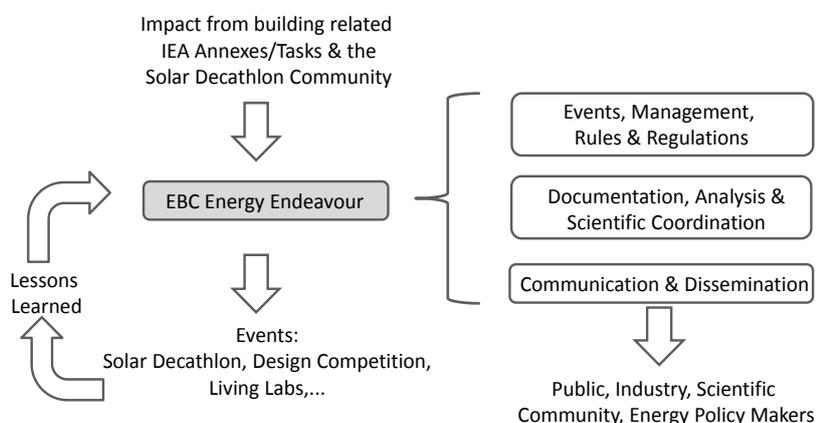
Competition and Living Lab Platform

EBC ANNEX 74

The Solar Decathlon is a series of international competitions for student teams based on an initiative of the U.S. Department of Energy (DOE) in 2000. In these competitions, universities from all over the world are challenged to design, build and operate solar-powered houses. In each competition, the final includes 10 contestants, as a 'Decathlon'. Twelve competitions have been conducted worldwide up to 2016 gaining a great deal of experience, with new ones already being planned. However in contrast to the competitions in the US, which are centrally managed by DOE, the events in other places in the world required a new organization established for each competition. In many ways, in form, content and financially, the evolution of the existing competition formats benefits from knowledge exchange and a platform to ensure continuity of know-how, as does the creation of new competitions.

PROJECT OBJECTIVES

- 1** establishing an international collaboration platform for competitions in the buildings sector
- 2** strengthening the dissemination activities of the IEA Technology Collaboration Programmes concerning buildings-related R&D
- 3** expanding the role of competitions as testing grounds for innovative methods, tools and systems, with strong links to the scientific community and academia
- 4** raising public visibility of energy R&D policy working towards climate neutral habitation
- 5** providing case studies on the building and district levels



*Proposed structure of the project and its general workflow.
Source: University Wuppertal*

INTERNATIONAL ENERGY AGENCY

The International Energy Agency (IEA) was established as an autonomous body within the Organisation for Economic Co-operation and Development (OECD) in 1974, with the purpose of strengthening co-operation in the vital area of energy policy. As one element of this programme, member countries take part in various energy research, development and demonstration activities. The Energy in Buildings and Communities Programme has co-ordinated various research projects associated with energy prediction, monitoring and energy efficiency measures in both new and existing buildings. The results have provided much valuable information about the state of the art of building analysis and have led to further IEA co-ordinated research.

EBC VISION

By 2030, near-zero primary energy use and carbon dioxide emissions solutions have been adopted in new buildings and communities, and a wide range of reliable technical solutions have been made available for the existing building stock.

EBC MISSION

To accelerate the transformation of the built environment towards more energy efficient and sustainable buildings and communities, by the development and dissemination of knowledge and technologies through international collaborative research and innovation.

ACHIEVEMENTS

EBC Annex 74 has used the scientific lessons learned from the Solar Decathlon events worldwide to strengthen their continuous, professional evolution, as well as extending the format with new competitions and a series of networking events under a common umbrella. The project has provided the institutional and organizational framework for the Energy Endeavour Foundation to continue this in the future.

The following reports have been published as the official project deliverables:

- Technology and Innovation Report
- Outline of Test Protocols
- Monitoring Protocols and Documentation Templates for Different Research Questions and for Different Test Periods

Project duration

Completed (2018 - 2022)

Operating Agents

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Further information

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