

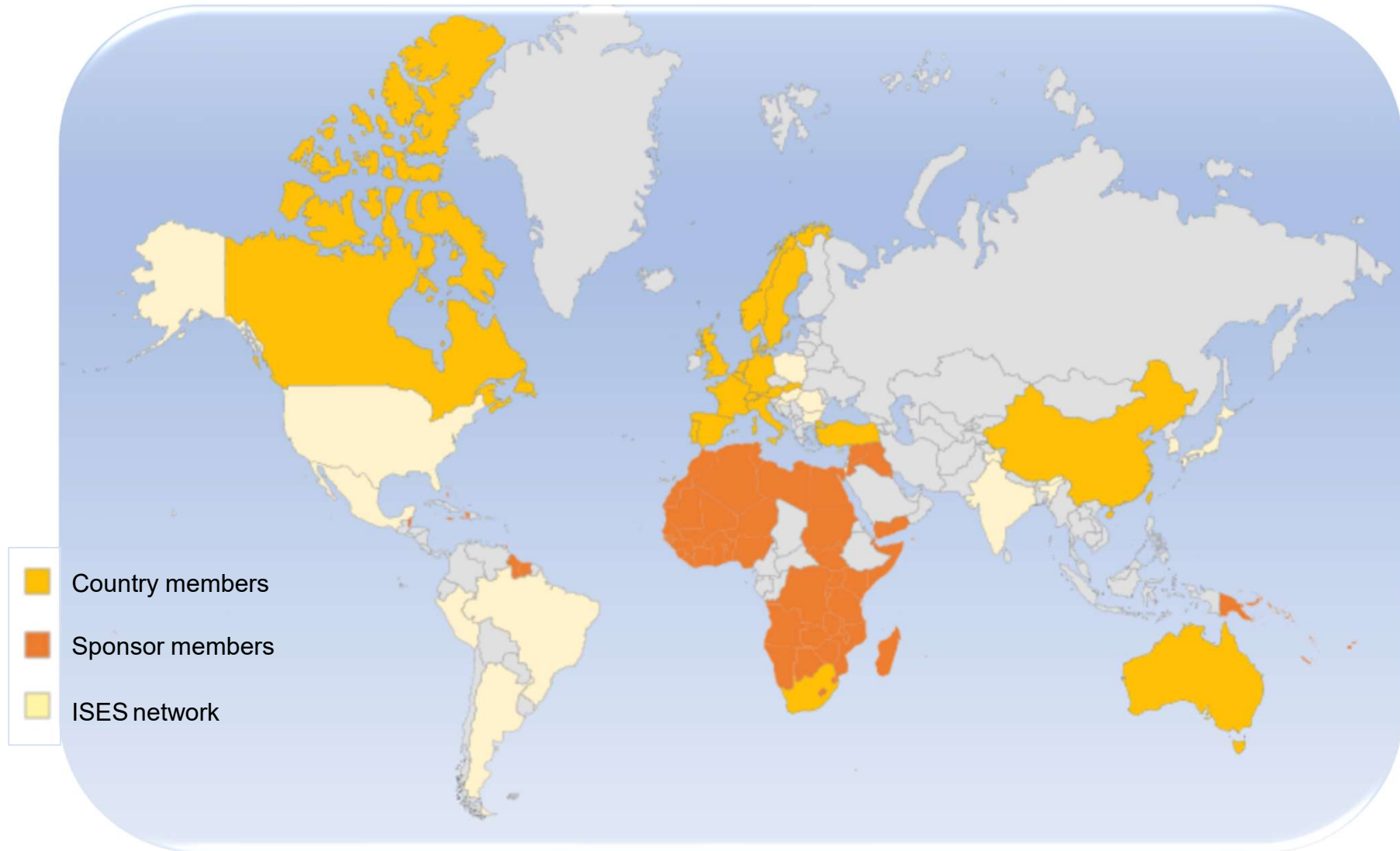


Perspectives from IEA TCPs :

Solar Heating and Cooling (SHC)

Joint Programming Conference Smart Energy Systems 2020 Webinar, 16 October 2020
Daniel Mugnier, SHC TCP Chairman

IEA SHC Members



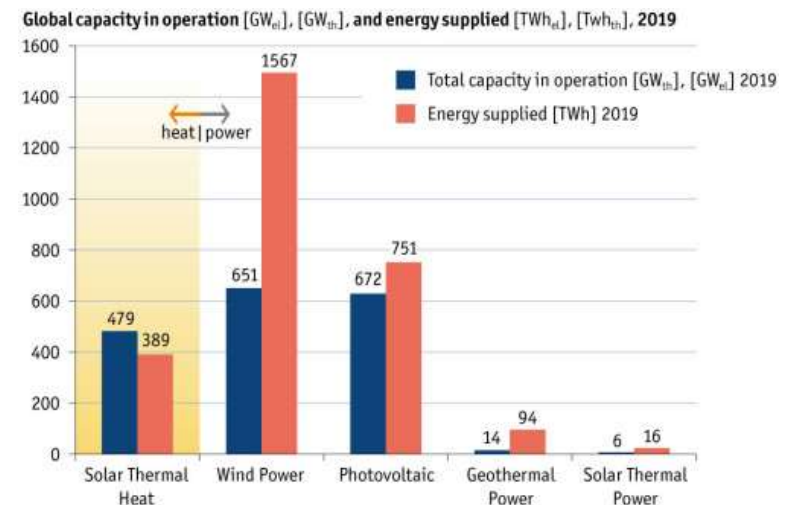
19 Countries + EC

8 Sponsors

European Copper Institute, ISES & UNIDO GN-SECs: EACREEE, ECREEE, RCREEE & SACREEE (CCREEE & PCREEE in process of joining)

Solar Thermal Global Context

- **SHC Market** – From 2000 to 2019 capacity grew by a **factor of 8**. Slow, steady long-term growth. Declines in largest markets – China and Europe. Positive market growth – India, Mexico and Turkey.
- **Climate Change** – **Energy yield 479 TWh** → 138 million tons of **CO₂ avoided** / 43 million tons of **oil saved**.
- **Employment and Turnover** – Estimated **650,000 jobs** worldwide. Worldwide turnover approx. US\$ 15.4 billion.
- **Technologies**
 - **Large-scale Solar District Heating and Cooling** Steady growth. Proving to be most cost effective means to decarbonize heat sector.
 - **Solar Heat for Industrial Processes**
Very dynamic market, especially out of Europe (India and Mexico leaders).
 - **Solar Air Conditioning and Cooling**
Growing market - 1,350 solar thermal cooling systems end of 2015 (latest available data).
 - **Compact Thermal Energy Storage**
Innovations under development in Phase Change Materials (PCMs) and Thermochemical Materials (TCMs).



IEA SHC Current R&D Work..

Task 55: **Towards the Integration of Large SHC Systems into DHC Networks**

Task 59: **Renovating Historic Buildings To Zero Energy**

Task 60: **Application of PVT Collectors and New Solutions with PVT Systems**

Task 61: **Integrated Solutions for Daylight and Electric Lighting**

Task 62: **Solar Energy in Industrial Water and Wastewater Management**

Task 63: **Solar Neighborhood Planning**

Task 64: **Solar Process Heat**

Task 65 : **Solar Cooling in the Sunbelt Region**

Our central access point : IEA SHC Website

<https://www.iea-shc.org/>

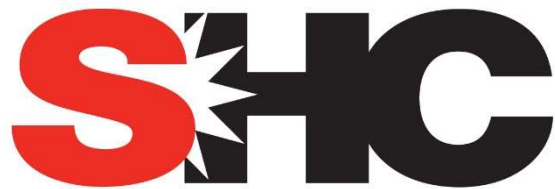
Thanks for your attention !

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SOLAR HEATING & COOLING PROGRAMME
INTERNATIONAL ENERGY AGENCY