

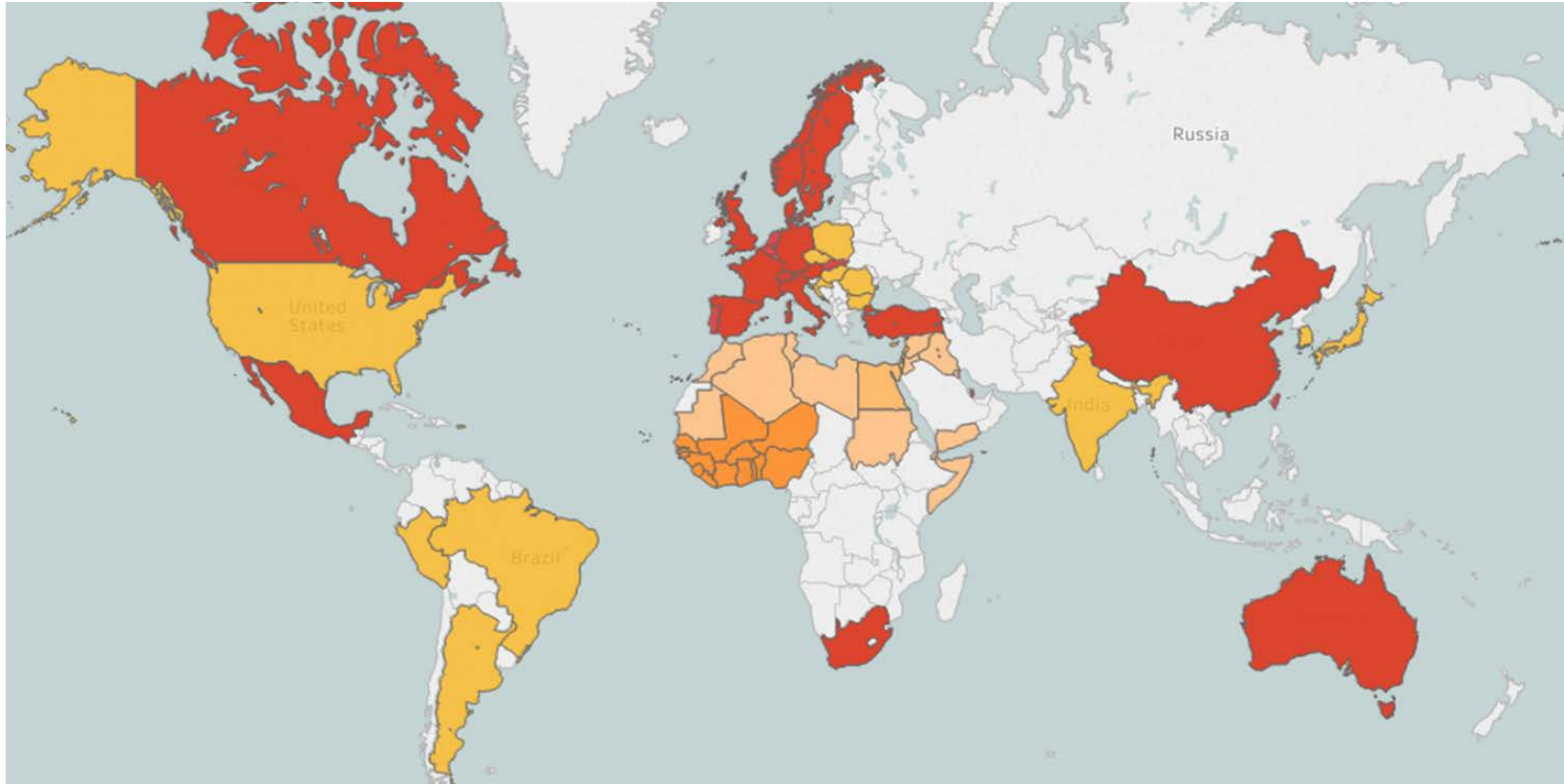
# Praxisrelevante Ergebnisse und Auswirkungen des SHC TCP

auf langfristige Forschungsk Kooperationen

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 20 Mitgliedsländer + EK

Institutionelle Mitglieder – 47 Länder

|  |  |  |
|--|--|--|
|  RCREEE |  ECREEE |  ISES |
|--|--|--|

- Task 52 - Solar Heat and Energy Economics in Urban Environments
- Task 53 – New Generation of Cooling and Heating Systems
- Task 54 – Price Reduction of Solar Thermal Systems
- Task 55 - Towards the Integration of Large SHC Systems into District Heating and Cooling Networks
- Task 56 - Building Integrated Solar Envelope Systems for HVAC and Lighting
- Task 57 - Solar Standards and Certification
- Task 58 – Material and Component Development for Thermal Energy Storage
- Task 59 - Deep Renovation of Historic and Listed Buildings Towards Lowest Possible Energy Demand and CO<sub>2</sub> Emission
- Task 60 - Application of PVT collectors and new solutions with PVT
- Task 61 - Integrated Solutions for Daylight and Electric Lighting: From Component to User Centered System Efficiency
- Task 62 - Solar energy in industrial water management

## 34 österreichische ExpertInnen von:

- **4 Universitäten** (JKU, TUG, TUW, UIBK)
- **einer Fachhochschule** (FH Oberösterreich)
- **3 außeruniversitären Forschungseinrichtungen**  
AEE INTEC, AIT, Bioenergy 2010+
- **7 Unternehmen**  
e7, SOLID, GREENoneTEC, Bartenbach, HELLA,  
Sunlumo, 3F Solar Technologies GmbH

**arbeiten derzeit an den 11 Projekten mit.**

# Tasks mit österreichischen Expertinnen und Experten in Leitungsfunktionen

|         | Operating Agent                 | Sub Task Leitung  |
|---------|---------------------------------|---|
| Task 52 |                                 | DI Franz Mauthner, AEE INTEC                                |
| Task 54 |                                 | a.o. Univ.-Prof. Dr. Gernot Wallner, JKU                    |
| Task 55 | Ing. Sabine Putz, SOLID         | DI Ralf Roman Schmidt, AIT                                  |
| Task 56 |                                 | Dr. Fabian Ochs, UIBK                                       |
| Task 58 | Dr. Wim van Helden, AEE INTEC   | Daniel Lager, MSc, AIT                                      |
| Task 59 |                                 | DI Walter Hüttler, e7 consulting<br>DI Rainer Pfluger, UIBK |
| Task 60 |                                 | DI Thomas Ramschak, AEE INTEC                               |
| Task 61 |                                 | Dr. Geissler-Moroder, Bartenbach                            |
| Task 62 | DI Christoph Brunner, AEE INTEC |   |

# Praxisrelevante Ergebnisse – Task 38 & 48

6 der 13 größten solaren Kühlanlagen stammen aus Österreich

| Country                           | Site   | Commissioned | Installed capacity [kW <sub>th</sub> ] | Collector size [m <sup>2</sup> ] | Collector type | Cooling capacity [kW <sub>cold</sub> ] |
|-----------------------------------|--|--------------|--|----------------------------------|----------------|--|
| <b>Singapore</b>                  | IKEA Alexandra   | 2017         | 1,730                                  | 2,472                            | Flat plate     | 880                                    |
| <b>Nicaragua</b>                  | Hospital Militar Escuela, Dr. Alejandro Dávila Bolaños | 2017         | 3,115                                  | 4,450                            | Flat plate     | 1,023                                  |
| <b>India</b>                      | Office, Gujarat State Electricity Corporation          | 2017         | 1,102                                  | 1,575                            | Evacuated tube | 528                                    |
| <b>Arizona, USA</b>               | Desert Mountain High School Scottsdale,                | 2014         | 3,407                                  | 4,865                            | Flat plate     | 1,750                                  |
| <b>Johannesburg, South Africa</b> | MTN Headquarter  | 2014         | 272                                    | 484                              | Fresnel        | 330                                    |
| <b>Unitad Arab Emirates</b>       | Sheikh Zayed Desert Learning Center                    | 2012         | 794                                    | 1,134                            | Flat plate     | 352                                    |
| <b>Jamaika</b>                    | Digicel, Kingston                                      |              | 687                                    | 982                              | Flat plate     | 600                                    |
| <b>Singapore</b>                  | United World College                                   | 2011         | 2,710                                  | 3,872                            | Flat plate     | 1,500                                  |
| <b>Qatar, Doha</b>                | Showcase football stadium                              | 2010         | 700                                    | 1,408                            | Fresnel        | n.a                                    |
| <b>Istanbul, Turkey</b>           | Metro shopping center                                  | 2009         | 840                                    | 1,200                            | Evacuated tube | n.a.                                   |
| <b>Spain, Sevilla</b>             | Sevilla University, Escuela Superior de Ingenieros     | 2009         |  | 352                              | Fresnel        | n.a.                                   |
| <b>Lisbon, Portugal</b>           | CGD Lisbon   | 2008         | 1,105                                  | 1,579                            | Flat plate     | 585                                    |
| <b>Rome, Italy</b>                | Metro Cash&Carry                                       | 2008         | 2,100                                  | 3,000                            | Flat plate     | 700                                    |

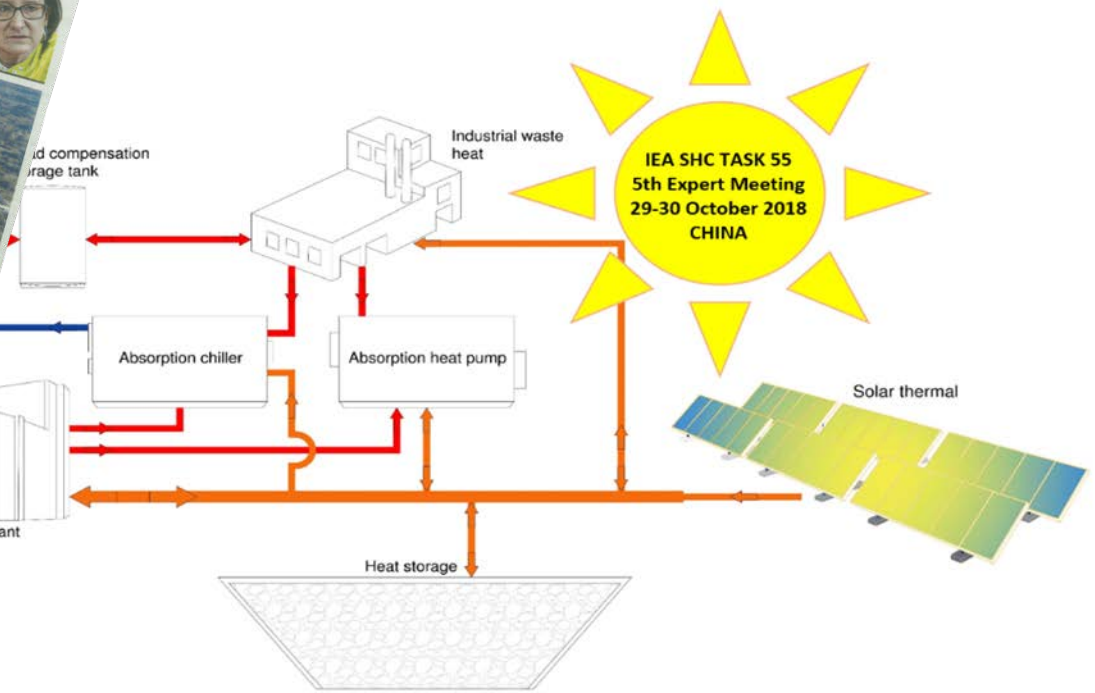
# 2,472 m<sup>2</sup> Solar Cooling System IKEA Singapur





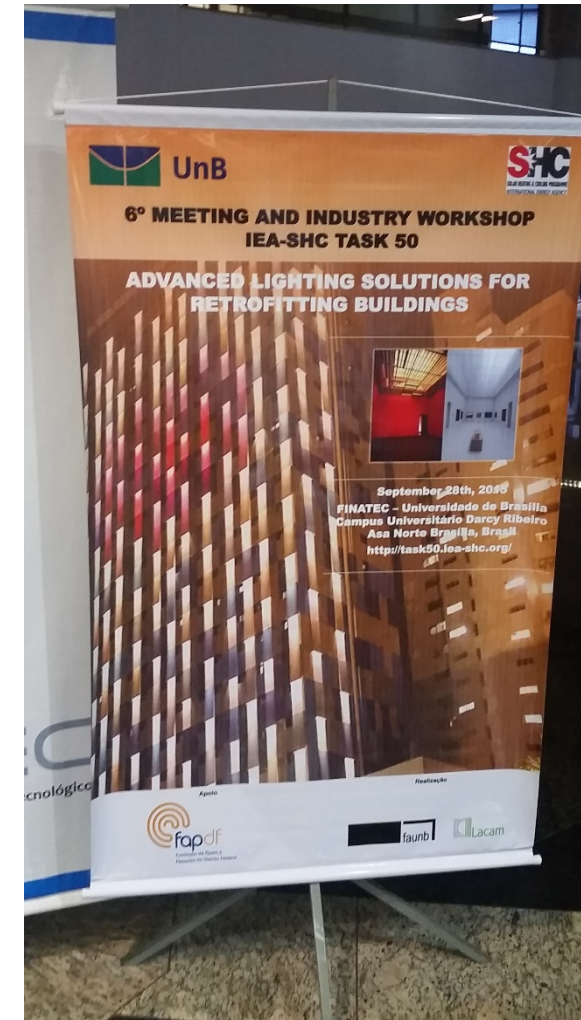
Brauerei Göss, Foto: Brauunion





## Direkter Informationsaustausch mit Industrie & Praxis

- 6 Industrieworkshops im Rahmen der Experten-Meetings
- Bis zu 190 Teilnehmer





The screenshot shows the homepage of the Lighting Retrofit Adviser website. The background is a photograph of a modern interior hallway with recessed ceiling lights. A large red banner at the top contains the text "Lighting Retrofit Adviser". Below this, a white box with a red border contains the text "Lighting Retrofit Adviser" in a large font, followed by "Harvest low hanging fruits" and "Develop sustainable relighting concepts". Two large, semi-transparent buttons are visible: a purple one labeled "Start Adviser" and a white one labeled "Direct component access". On the right side, there is a SHC logo and a "GET IT ON Google Play" badge. At the bottom, a red banner lists participating countries: AUSTRIA • BELGIUM • BRAZIL • CHINA • DENMARK • FINLAND • GERMANY • JAPAN • NETHERLANDS • NORWAY • SLOVAKIA • SWEDEN • SWITZERLAND.

## Lighting Retrofit Advisor ([www.lightingretrofitadviser.com](http://www.lightingretrofitadviser.com))

- Entscheidungshilfe für die Sanierung von Beleuchtungsanlagen
- Online Nachschlagewerk zu Technologien, Fallstudien, Tools, uvm.

# Know-how Transfer Formate Onsite Trainings





Task 42 (ECES Annex 29)

**Compact Thermal Energy Storage:  
Material Development for System  
Integration**

Compact Thermal Energy Storage  
IEA SHC Position Paper

August 2015



Task 47

**Solar Renovation of  
Non-Residential Buildings**

Energy Upgrade of  
Non-Residential Buildings  
IEA SHC Position Paper

September 2015



Task 48

Task 48 

**Quality Assurance and Support  
Measures for Solar Cooling**

Solar Cooling  
Position Paper

September 2015

# Know-how Transfer Formate 4 x Solar Update / Jahresbericht / 4x Webinar



## SOLARUPDATE

Newsletter of the International Energy Agency Solar Heating and Cooling Programme

#SolarThermal  
#SolarProcessHeat  
#SolarCooling  
#SolarDistrictHeating

**In This Issue**

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[www.iea-shc.org](http://www.iea-shc.org)

## Solar Heating and Cooling Technology Collaboration Programme

### 2017 Annual Report

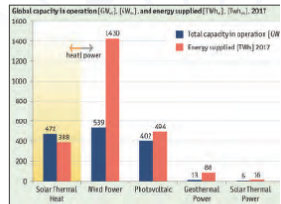
with feature article on solar in urban planning

### Solar Heat Worldwide

Rising demand for megawatt systems and industrial processes

Based on data collected from 66 countries, representing 95% of the global thermal market, means that the IEA SHC Programme's Solar Heat Worldwide is the most comprehensive publication on the global solar heating and cooling. New to this year's report is an overview of concentrating solar collector district heating and industrial processes.

With 472 gigawatt thermal (GWth) installed at the end of 2017, solar heating and cooling was again the largest solar sector worldwide followed by Photo Voltaic (PV) and Concentrating Solar Power (CSP). The two key areas were solar heat for industrial processes (SHIP) and solar district heating (SDH).



Global capacity in operation (GWth) and energy supplied (TWh) 2017. Source: AEE-INTEC, Global Wind Energy Council (GWEC), SolarPower1000 - Global Solar Report 2018

**Solar Heat in Industry**  
2017 was a record year for solar heat in industrial processes (SHIP), with driven by economic competitiveness, a strong supply chain and policies. The year ended with 124 new SHIP plants installed worldwide and Mexico topping the list for number of new plants.

SHIP is a global business – the largest plants that came online last year were in Oman, China and Afghanistan. The 114th solar plant in Oman is a 100 MWh.

continued on page 2

## WEBINAR

### Solar Heating and Cooling - Market and Industry Trends 2017

12 JUNE 18  
13:00-14:30 GMT/UTC



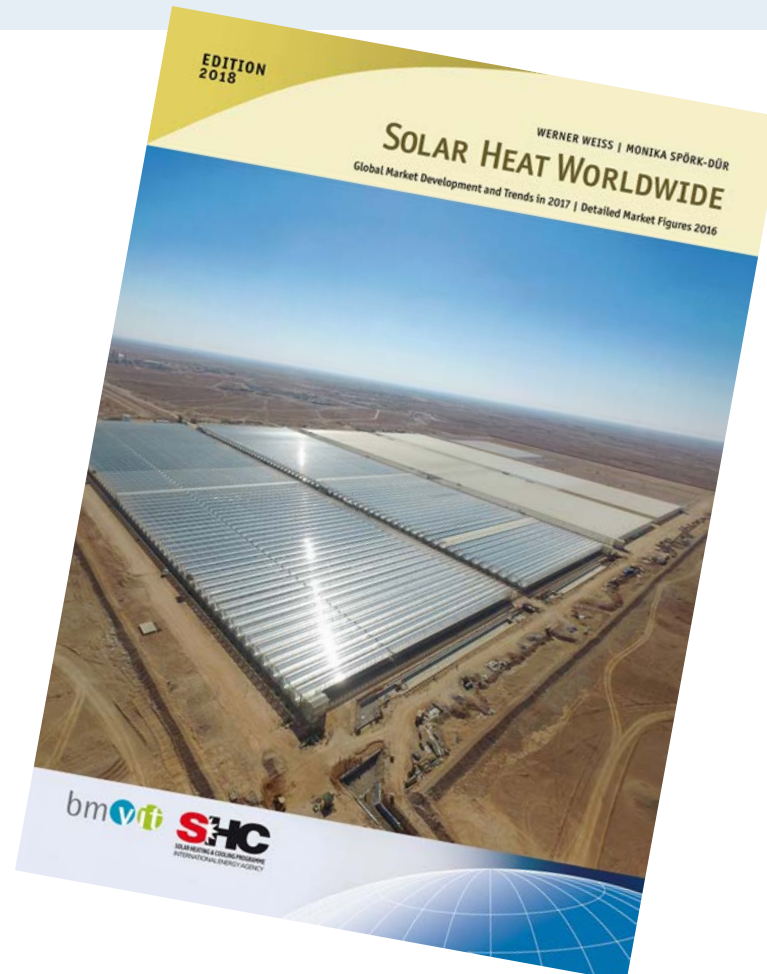
## WEBINAR

### Price Reduction in Solar Thermal Systems

14 MAR 18  
14.00-15:30 GMT



# Weltweiter Marktbericht über Solarthermie



<http://www.iea-shc.org/publications-new>

An aerial photograph of a modern building complex. The buildings feature large glass facades and are surrounded by a paved courtyard and greenery. A prominent feature is a large array of solar panels mounted on a structure in the foreground. The sky is clear and blue. In the background, there are trees and other buildings on a hillside.

**AEE INTEC**

**IDEA TO ACTION**

**Danke für Ihre  
Aufmerksamkeit**