



# **INDTECH2018**

## **Innovative industries for smart growth**

29-31 October, 2018  
Vienna, Austria

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**PILLAR 3**

**Session 3.2**

**How to accelerate disruptive innovation in SMEs supporting them to promote consistent innovation and international growth**

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**Heliovis**

**30 October 2018**

# HELIOVIS

Inflatable Solar Collectors



Co-funded by the Horizon 2020 program of the European Union

**HELIOVIS AG**

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Austria | European Union

[www.heliovis.com](http://www.heliovis.com)



MARRAKECH COP22 | CMP12  
UN CLIMATE CHANGE CONFERENCE 2016  
مؤتمر الأمم المتحدة لتغير المناخ  
MARRAKECH COP22 | CMP12

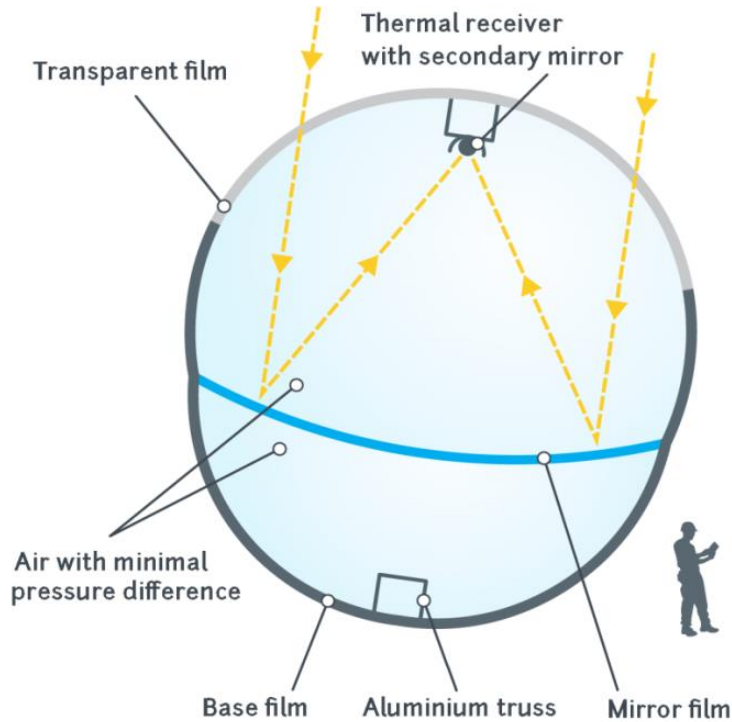


EXPO 2017  
Future Energy  
Astana Kazakhstan



Energy Globe  
The world award for sustainability

# What is the HELIOtube?



- An **inflatable solar thermal collector** made from 3 types of plastics
- The sun collector is **formed through air pressure** differences in two airtight chambers
- Works same as glass-mirror based parabolic trough technologies by **concentrating sunlight on a thermal receiver and produces heat**
- **Dimensions:**
  - Length: 220 meters
  - Diameter: 9 meters
  - Mirror width: 7.8 meters
- **Unique advantages:**
  - Material & structure
  - Enclosed Thermal Receiver
  - Production line & production process
  - Transport & logistics
  - Installation & on-site activities
  - Adaptive wind & sand storm protection
  - O&M activities



# From prototype over pilot to commercial readiness

Constant R&D, improvements and fine-tuning since 2009

**Prototype in Austria (2011)**



**Pilot system in Spain (2013)**



**Demonstration plant in Austria (2016)**



**Industrial application in Spain (2016)**



# First industrial application in Spain







# 8 Weeks

**Construction Period**  
with only 10 to 20 engineers  
simultaneously onsite



# 1 MW

**Peak power thermal**  
is the output of the  
HELIOTube plant



# 44 kWp

**Photovoltaic tracker**  
used as an adaptive wind  
protection system

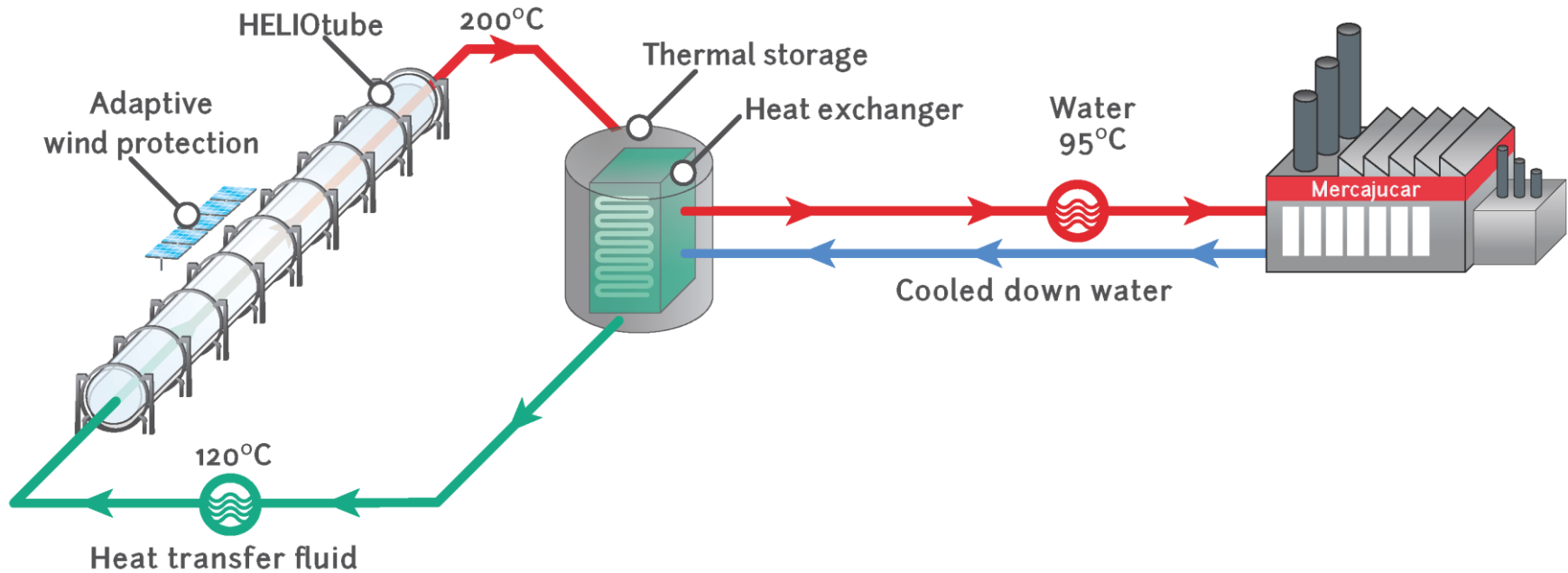


# 1.900 DNI

**Agricultural landscape**  
in Villalgordo del Júcar close to  
Albacete in Southern Spain



# How does the plant work



October 2015

November 2017

2 years

**Project period**  
Construction and Commissioning



€ 2.6 M Total project cost

€ 1.8 M EU grant

€ 1.3 M Construction cost

€ 1.3 M Personnel cost

20,320 Man hours