

ODAK2023

Kick-Off Event

Sunrise for
Concentrating Solar Thermal (CST)
in Turkey

Introduction to ODAK2023

Derek Baker

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SolarTwins H2020 Project Coordinator



February 26th
2020

İkizler Building Conference Room
ODTÜ TeknoKent
Ankara, Turkey



About ODAK2023

ODAK2023 is a new initiative by METU-GÜNAM to create a common national vision for Concentrating Solar Thermal (CST) in Turkey in 2023 and an associated Strategic Research and Innovation Agenda to reach this vision.



Goal of ODAK2023 Kick-Off Event

To provide an open forum to begin to define ODAK2023 and promote collaboration among Key National Stakeholders to achieve ODAK2023. A specific emphasis for the ODAK2023 Kick-Off Event is to showcase opportunities created by

1. METU-GÜNAM's involvement in

1.1 The European Research Infrastructure Consortium (ERIC) for CST: **EU-SOLARIS ERIC.**

1.1 Five EU Horizon 2020 Projects

1. SolarTwins

2. HORIZON-STE

3. INSHIP

4. SFERA-III

5. GeoSmart

1.3 A bi-lateral project on industrial solar drying with The Research and Technology Center of Energy (CRTE) of Tunisia.

2. Turkish government's large investments in METU-GÜNAM

3. Additional CST activities and capacities in Turkey.

EU SOLARIS

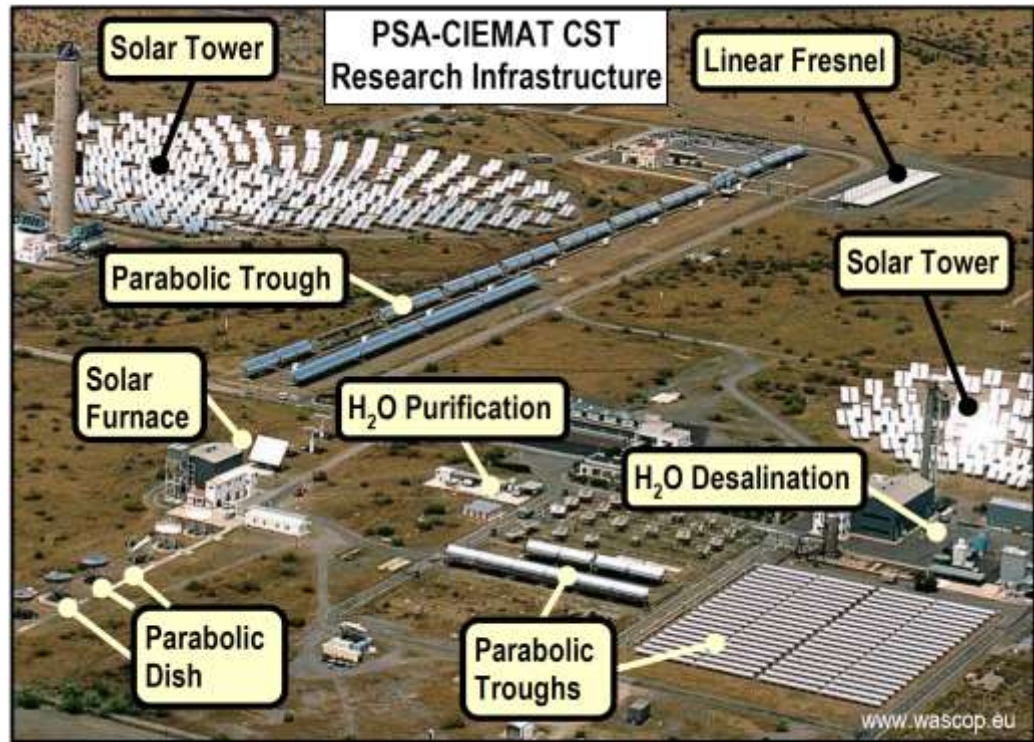
The European Research Infrastructure for Concentrated Solar Power

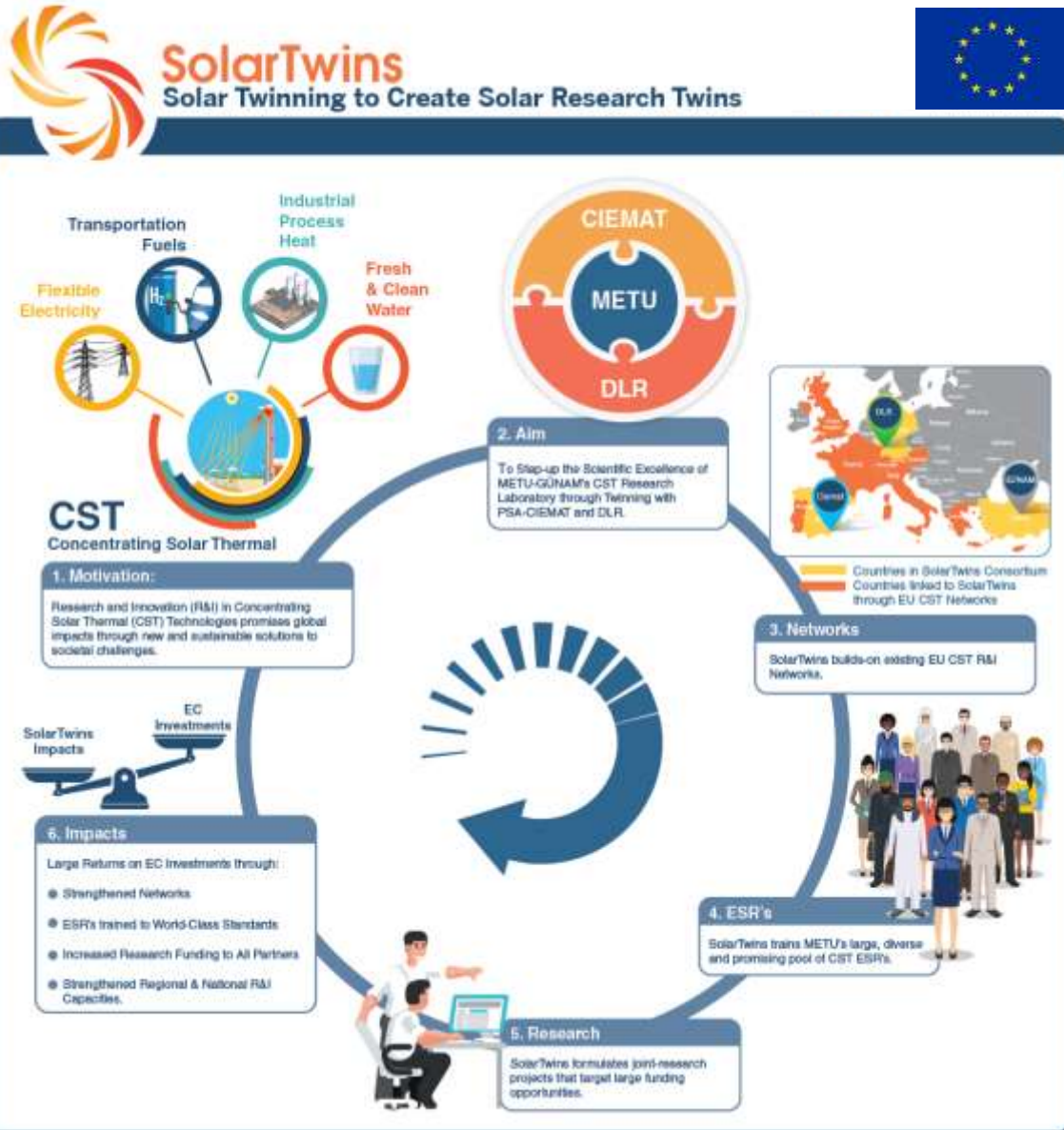


EU-SOLARIS: EU-SOLARIS is on the European Strategy Forum on Research Infrastructures (ESFRI) 2018 Roadmap and will become an ESFRI Landmark in 2020 when it is constituted as a European Research Infrastructure Consortium (ERIC).

METU-GÜNAM represents Turkey scientifically to EU-SOLARIS and most of METU-GÜNAM's CST Activities are aligned with EU-SOLARIS.

EU-SOLARIS is the **1st** ERIC Turkey has agreed to join (membership still under negotiation).





Goal: To **Step-Up the Scientific Excellence and Innovation Capacity** of the **Promising Institution METU** in the area of CST by Twinning METU-GÜNAM's CST unit to the **Leading Institutions CIEMAT-PSA** (Spain) and **DLR** (Germany).

SolarTwins' Objectives

- 1. Strengthen** METU-GÜNAM's synergistic integration into EU CST **Networks** containing DLR and CIEMAT-PSA, and METU-GÜNAM's research **Profiles**.
- 2. Train** a large and diverse pool of promising **ESRs** through joint summer schools at METU taught by experts from CIEMAT-PSA and DLR.
- 3. Exchange Personnel** for knowledge transfer, training, mentoring, & networking.
- 4. To Formulate Joint Lines of Research** that increase competitive research funds to all partners.
- 5. To Strengthen** GÜNAM, METU, and National **R&I Capacities**.

SolarTwins is

- **Top 8% of proposals at European level:** 37 / 459 proposals funded;
- **Only accepted Twinning proposal from Turkey** for 2018 Call.
- **First** accepted multi-national H2020 proposal with METU as coordinator;

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 856619.

METU-GÜNAM's Cluster of EU Activities

2. HORIZON-STE: Implementation of the Initiative for Global Leadership in Solar Thermal Electricity



Goal: To provide scientific and industrial support to the Implementation of the Initiative for Global Leadership in Solar Thermal Electricity (STE)¹.

METU-GÜNAM's Primary Contributions: METU-GÜNAM is supporting the Work Package to Maximize the Research and Innovation Impact, is Leading the Task to Evaluate the Implementation of this Initiative, and supporting an analysis of Turkish CST Stakeholders.

Duration:	1 Apr. 2019 – 31 Mar. 2022	Overall Budget:	€ 999 656
Coordinator:	ESTELA (Belgium)	METU-GÜNAM Budget:	€ 64 581
Partners:	DLR (Germany), CIEMAT-PSA (Spain), ENEA (Italy) & METU-GÜNAM (Turkey)	Grant No.:	838514
METU-GÜNAM PI:	Derek Baker	Project Webpage:	www.horizon-ste.eu
		Cordis Webpage:	cordis.europa.eu/project/rcn/221240

3. INSHIP: Integrating National Research Agendas on Solar Heat for Industrial Processes



Goal: To create a European Common Research and Innovation Agenda (ECRIA) on Solar Heat for Industrial Processes (SHIP).

METU-GÜNAM's Primary Contributions: METU is leading Tasks to develop solar thermal technologies for drying and for the metallurgical and cement industries.

Duration:	1 Jan. 2017 – 31 Dec. 2020	Overall Budget:	€ 2.86M
Coordinator:	Fraunhofer-ISE (Germany)	METU-GÜNAM Budget:	€ 195 482
Partners:	28 partners from 10 countries	Grant No.:	731287
METU-GÜNAM PI:	İlker Tanı	Project Webpage:	http://inship.eu/
		Cordis Webpage:	cordis.europa.eu/project/rcn/207022

METU-GÜNAM's Cluster of EU Activities						
	2019	2020	2021	2022	ODAK 2023	2024
EU-SOLARIS: 4 Years						
SolarTwins: 3 Years						
HORIZON-STE: 3 Years						
INSHIP: 3 Years						
SFERA-III: 4 Years						
GeoSmart: 4 Years						

METU-GÜNAM's Cluster of EU Activities

4. SFERA-III: Solar Facilities for the European Research Area - Third Phase



Goals: 1) To strengthen scientific collaboration among the leading European CST research institutions; 2) To provide outside researchers access to European CST Research Infrastructures.

METU-GÜNAM's Primary Contributions: METU is contributing to a Task to develop protocols to test prototypes for storage systems. In 2019 through SFERA III METU-GÜNAM provided Romanian researchers access to its High-Flux Solar Simulator.

Duration:	1 Jan. 2019 – 31 Dec. 2022	Overall Budget:	€ 9.1M
Coordinator:	CIEMAT-PSA (Spain)	METU-GÜNAM Budget:	€ 84 688
Partners:	15 partners from 8 countries	Grant No.:	823802
METU-GÜNAM PI:	Derek Baker	Project Webpage:	https://sfera3.sollab.eu
		Cordis Webpage:	cordis.europa.eu/project/rcn/219170

5. GeoSmart: Technologies for geothermal to enhance competitiveness in smart and flexible operation



Goals: To optimize and demonstrate innovations to improve the flexibility and efficiency of geothermal heat and power systems.

METU-GÜNAM's Primary Contributions: To develop and assess novel methods to hybridize geothermal with CST and biomass to increase flexibility..

Duration:	1 Jun. 2019 – 31 May. 2023	Overall Budget:	€ 19.7M
Coordinator:	TWI Limited (UK)	METU-GÜNAM Budget:	€ 193 334
Partners:	19 partners from 8 countries, including Zorlu Energy and Kadir Has University from Turkey	Grant No.:	818576
METU-GÜNAM PI:	Derek Baker	Project Webpage:	https://sfera3.sollab.eu
		Cordis Webpage:	cordis.europa.eu/project/rcn/219170

METU-GÜNAM's Cluster of EU Activities							
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		SolarTwins: 3 Years					
		HORIZON-STE: 3 Years					
		INSHIP: 3 Years					
		SFERA-III: 4 Years					
		GeoSmart: 4 Years					



ODAK2023: Scientific Excellence through Open Science

Open Workshop to Strengthen Institutions

Open competition for TÜBİTAK H2020 Awards based on Scientific Excellence.

TÜBİTAK Support for EU H2020 Activities

Level of Science	Metric	TÜBİTAK Award	Open to	
			Private U. (e.g. Sabancı)	Public U. (e.g. METU)
Good	H2020 Proposal passed all funding thresholds but not funded due to insufficient budget.	Above Threshold (Eşik Üstü)	Yes	Yes
Excellent	H2020 Proposal Funded.	Success (Başarı)		

Open Workshop to Strengthen Human Capacities

H2020 Proposal Writing: Behind the reviewing curtain

Summer Classes Taught by CIEMAT & DLR Experts to Strengthen Human Capacities

Summer 2020 and 2021

Open Workshop to Strengthen Industry & Grow Markets

Pathway to the deployment of concentrated solar technologies in Turkey

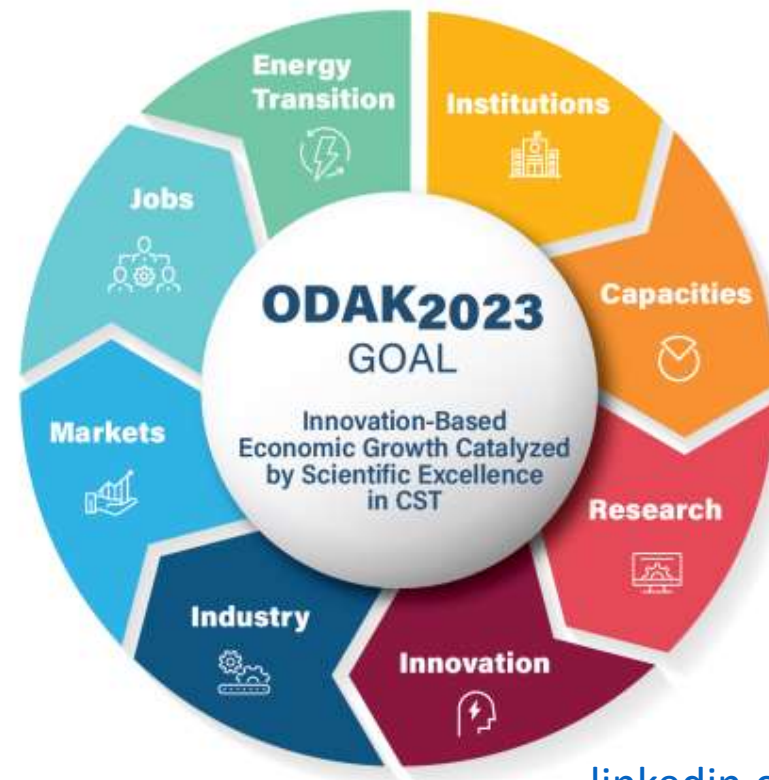
SOLAREX
ISTANBUL

Thursday, 2 April 2020
13:00 – 18:00
Efes Seminar Room
Istanbul Expo Center

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Web



solartwins.metu.edu.tr

Linked-In



linkedin.com/company/solartwins