



SUSTAINING INNOVATION SINCE 1960



## ABOUT HT-SAAE

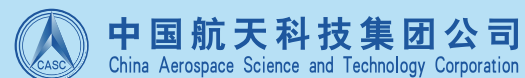
HT-SAAE is owned and operated by China Aerospace Science Technology Corporation (CASC), a government owned enterprise established in 1956.

Engaged to research, design and manufacture commercially viable space launch systems for domestic and international satellite services.

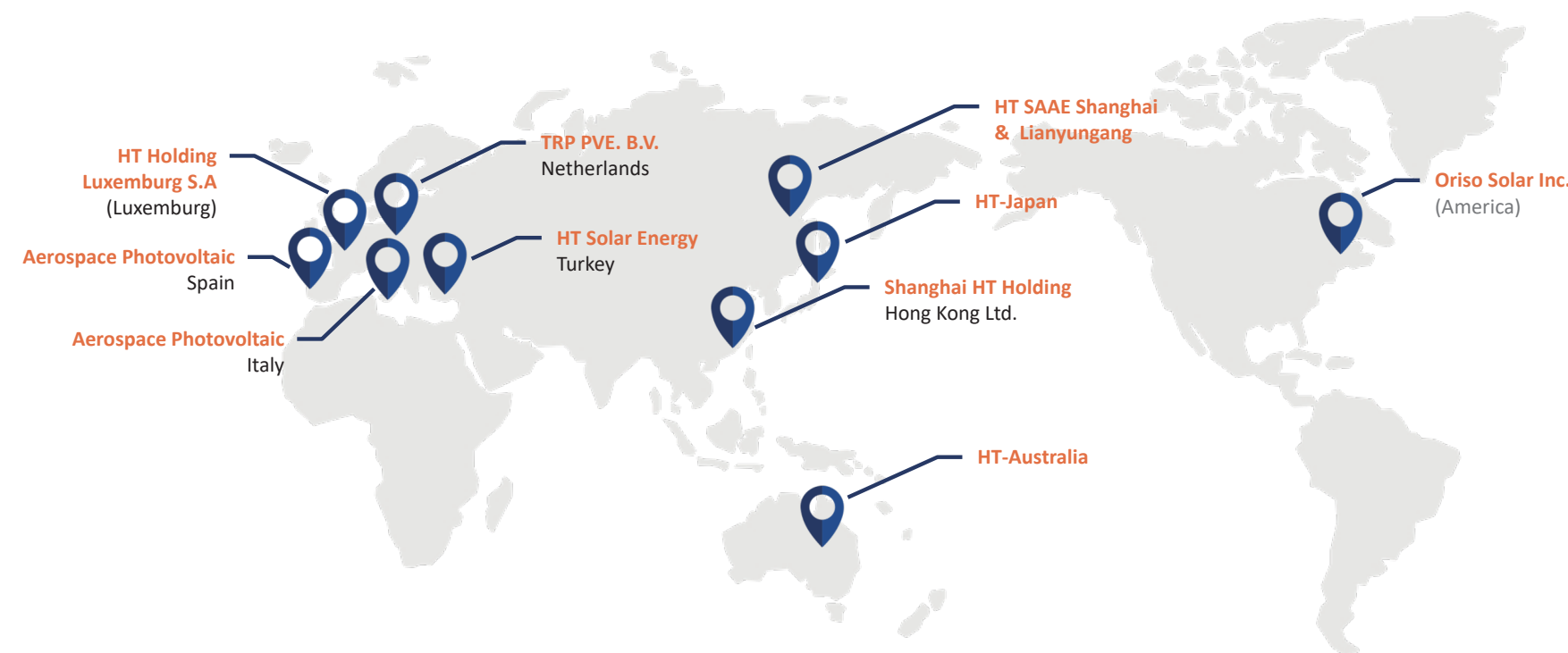
HT-SAAE established in 1960 to develop solar technology for Satellite program.

At the beginning of the 21st century in 2000, HT-SAAE began to transfer Aerospace PV technology to commercial applications.

CASC ranked No.307 of 2021 Fortune Global.



## GLOBAL DISTRIBUTION



4	factories around world
12	world sales offices

## 1960s

Start of Solar Technology R&D

Sustaining Innovation Since 1960.



**1970**

1st Satellite launched



**1999**

Commercial application of PV technology



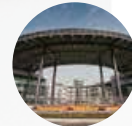
**2002**

Undertook the national "Bright Project" and built 42 power stations in Tibet, totaling 1.2MW



**2004**

HT-SAAE branch launched in Japan



**2005**

Shanghai Solar Energy Research Center established



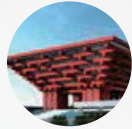
**2008**

First MW power station developed by HT-SAAE in Italy



**2009**

HT-SAAE launched in Australia



**2010**

Shanghai World Expo Center 1MW Project completed



**2012**

Establish vertical integrated production capacity



**2013**

No.2 EPC in China  
No.4 EPC Worldwide



**2014**

Top 10 Chinese PV module supplier; Certified by TUV Rheinland.



**2015**

PV vertical capacity reaches GW level. Awarded "Bloomberg TIER 1 Module Maker"



**2016**

HT Solar Energy A.Ş established in Turkey



**2019**

Meets stringent PICC and Lloyd's Insurance Partner criteria



**2020**

Passed UL 790 & IEC 61730 Class A fire prevention test.



**2021-2022**

Top Performer in PVEL "2020-2022 PV Module Reliability Scorecard".



## HT-SAAE GROUP COMPLETELY INTERGRATED PV SUPPLY CHAIN

### ORISI Silicon Co., Ltd.

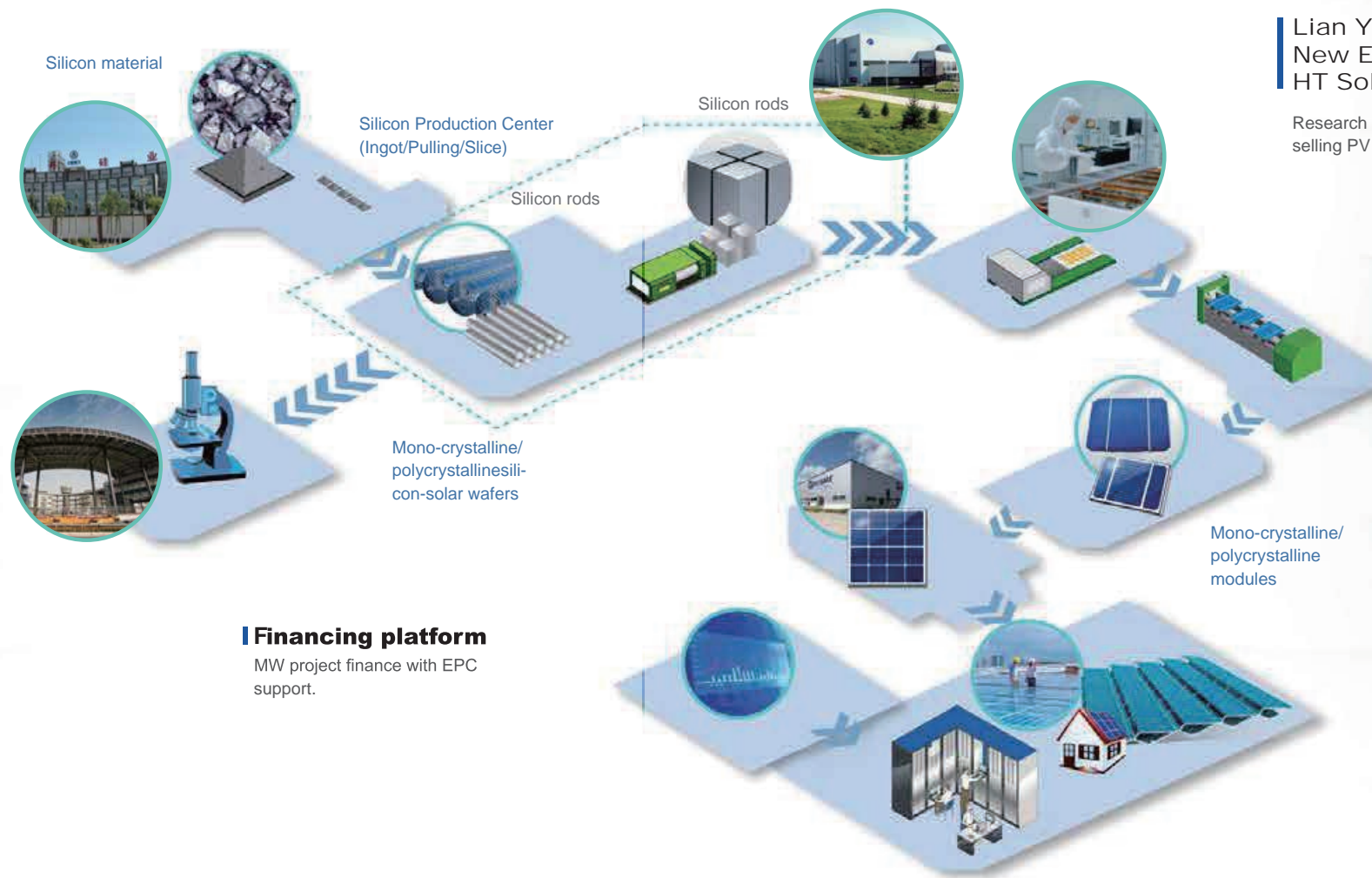
HT-SAAE created PV Industry  
Manufacturing Base in Inner  
Mongolia.

### Shanghai Solar Energy Research Center (R&D)

The research center focuses  
on research, development  
and application for solar PV  
technology.

### Financing platform

MW project finance with EPC  
support.



### Lian Yungang (Modules) Shenzhou New Energy Co., Ltd. HT Solar Energy A.S.

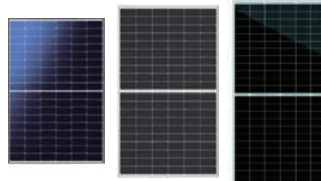
Research & development, producing and  
selling PV modules worldwide.

### Shanghai Solar Energy S&T Co., Ltd.

- Constructed over 600 PV power stations around the globe.
- The installed capacity of EPC projects is above 1GW.
- Operation and maintenance management capacity exceeds GW level

# PRODUCT LINE

HT-SAAE is a vertically integrated manufacturer with quality control over every step of the manufacturing process, from silicon crystallisation to module deployment.



Triple EL Tested  
PICC and Lloyd's Insurance Covered

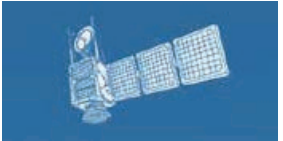


HT-SAAE has advanced production lines with fully automated equipment and standard operating procedures to guarantee quality.

To meet demand, the company offers an extensive product portfolio, delivering broader prospects for clients.

# RESEARCH & DEVELOPMENT

HT-SAAE with expert engineering and research facilities dedicated to satellite system.



HT-SAAE owns 50 independent intellectual property for cell & module.



HT-SAAE with 19 R&D centers and over 500 R&D engineer

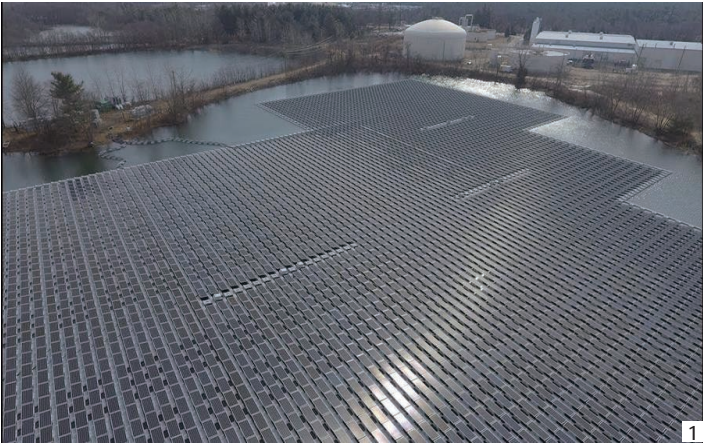


Over 200 solar cell and module patents





# PROJECT REFERENCES



- 1. 4.4MWp New Jersey, USA
- 2. 26.78MWp Maryland, USA
- 3. 37MWp Bingöl, Turkey
- 4. 6MWp Kırşehir, Turkey

- 1. 7.0MWp Angri, Turkey
- 2. 5.7MWp Osmaniye, Turkey
- 3. 11MWp Italy
- 4. 12.7MWp Afyon, Turkey

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VALUE AND HIGH PERFORMANCE PANELS.

