

Talesun Solar Company Presentation





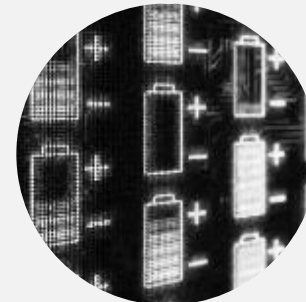
Briefing Intro.

ABOUT ZHONGLI TALESUN

ZHONGLI GROUP
Six Segments



Photovoltaic



Energy Storage



Rack System

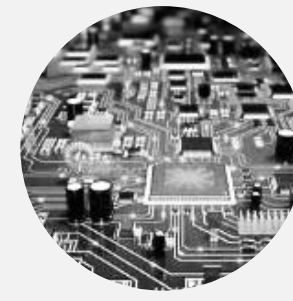
Founded in 1988

30

Y E A R



Optical Fiber



Auto Parts

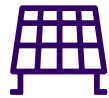


Real State

TALESUN SOLAR Four Segments



Solar
Cell



Solar
Module



Project
Development



EPC
Service

Established in

2010

Registered Capital

850 Million USD

Global Renewable Enterprise

TOP 50

Key Milestones

- Zhongli Group listed on stock exchange
- Project development & EPC activities
- China **TOP10** Solar EPC Enterprise
- Completed **100 MW** PV power plant
- **Tier1** PV module supplier by BNEF
- China **TOP50** Most Innovative Solar Enterprise
- **3rd ranking** in **TOP20** China PV Power Plant Investment Enterprise
- **TOP10** shipment module supplier by PVTECH and PV Info link

2009

2011

2012

2016 & 2017

2019

2010

- Talesun Solar established



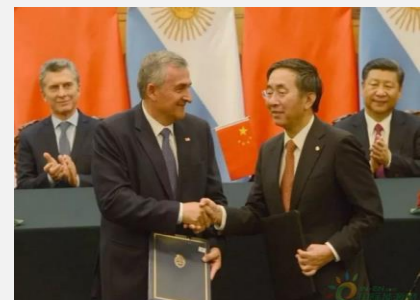
2015

- Thailand factory in operation
- China **TOP10** Solar Cell / Module Enterprise

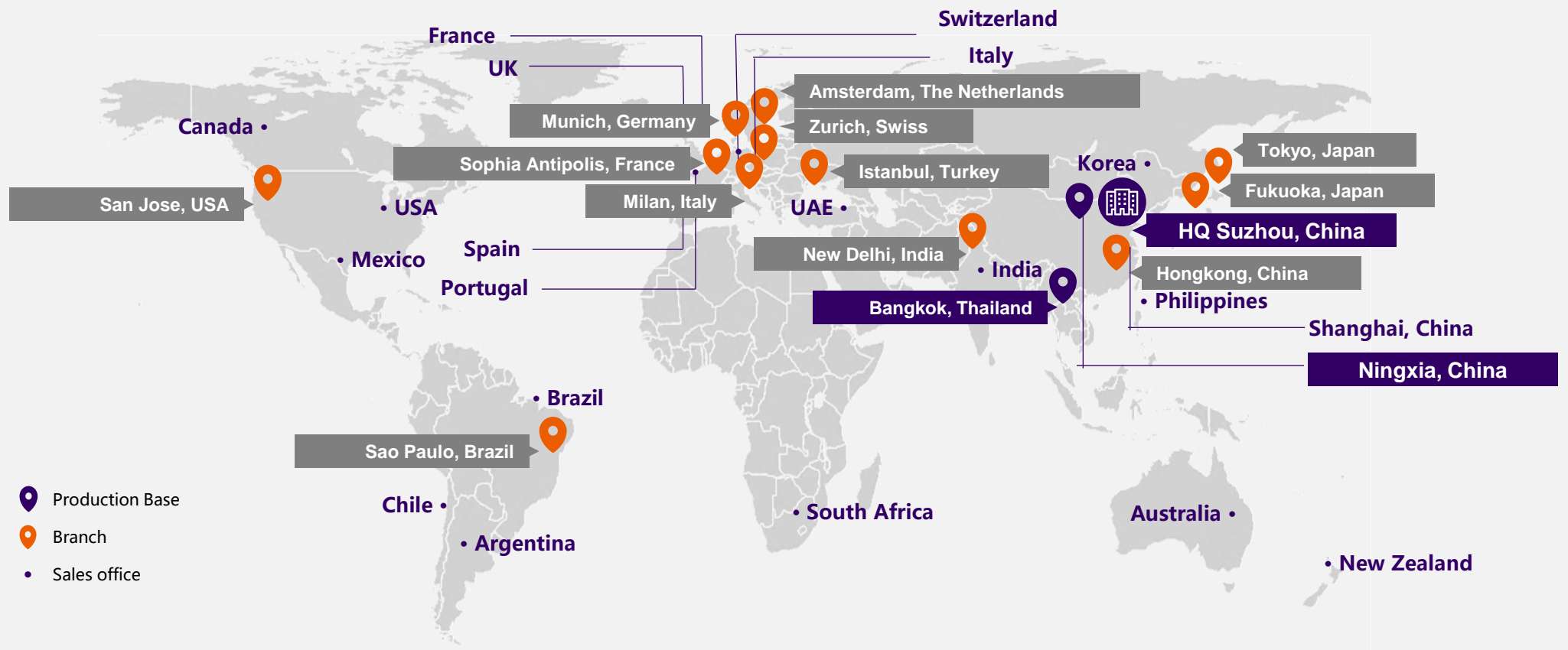



2018

- Cooperate with Argentina Government on **315 MW** ONE BELT ONE ROAD project
- **TOP10** Innovation Role Module For China three rural issues




Global Footprint, Globalized Operation



 **Module**
12+ GW

 **Employee**
10000+

 **Grid-tied**
6 GW

 **Client**
50+ Countries

TALESUN PRODUCTION

Flexible Module Production Capacity

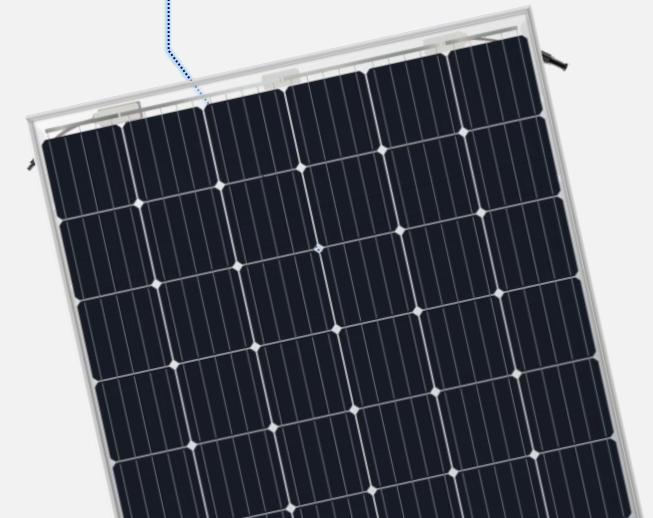
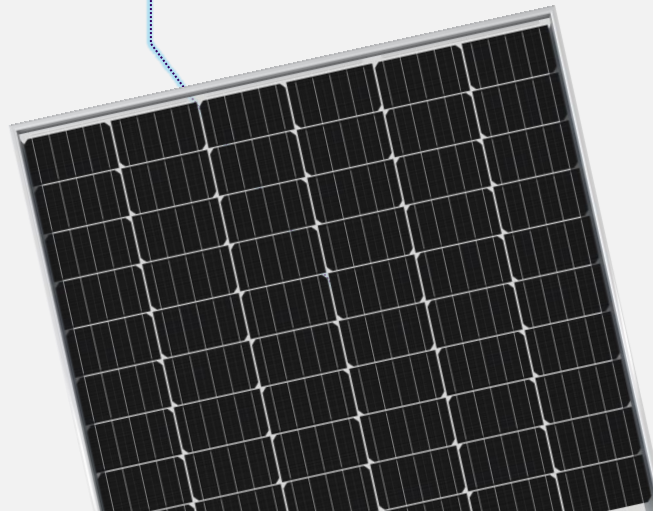
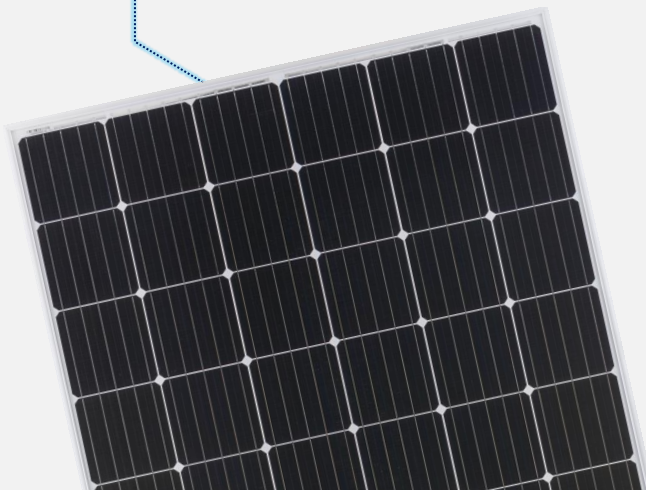
8 GW module

7.5 GW cell

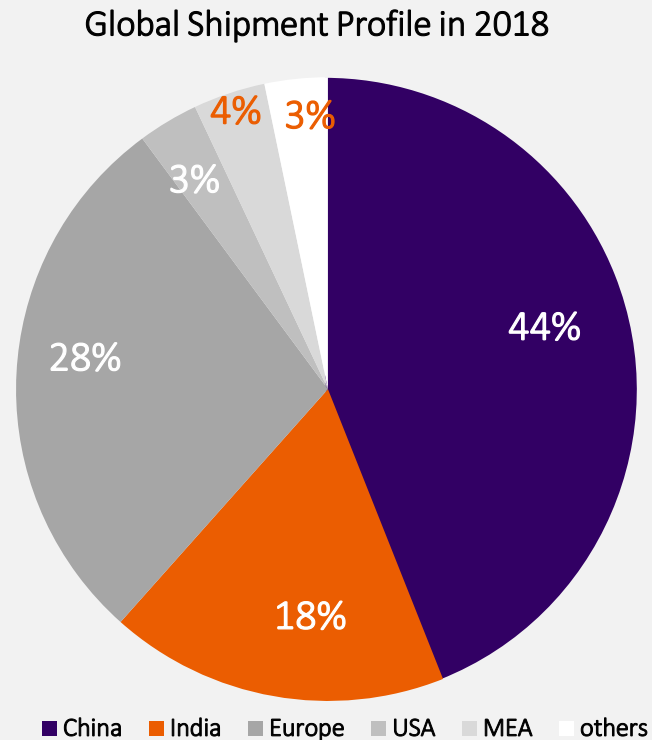
PERC Mono
2 GW

Half-cut
3 GW

Flexible Capacity (bifacial)
3 GW



TALESUN GLOBAL MARKET Supply of Modules Tracking



Talesun has been a top-10 supplier to the largest utility market globally in recent years (China)



Europe, India & the US remain strong markets for Talesun modules



Growth is now also coming from Southeast Asia, MEA, and LATAM countries



Diversified Products

PV WHOLE INDUSTRY CHAIN

TALESUN INNOVATIVE PRODUCT For Diversified Needs

**MONO
PERC**



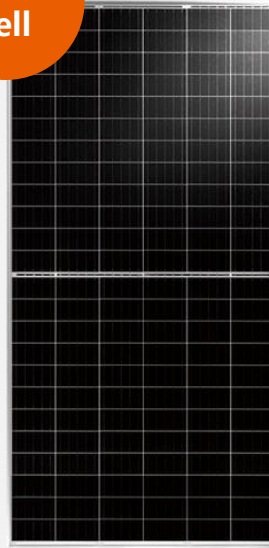
**Hipro
Series**

**Light
Weight**



**Feather
Series**

**Half-cut
Cell**



**Bistar
Series**

POLY



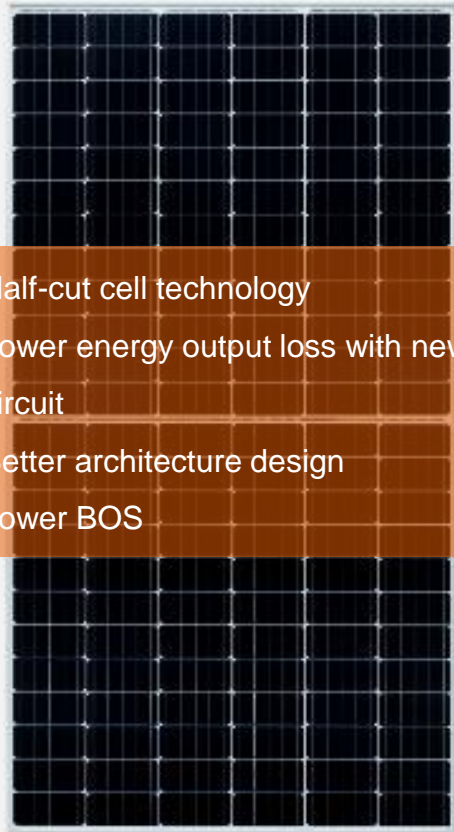
**Pipro
Series**

**Bifacial
Cell**



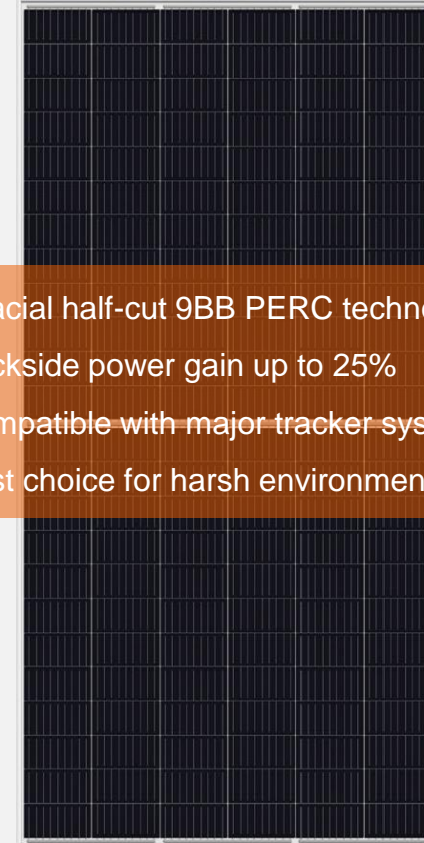
**Bipro
Series**

Bistar



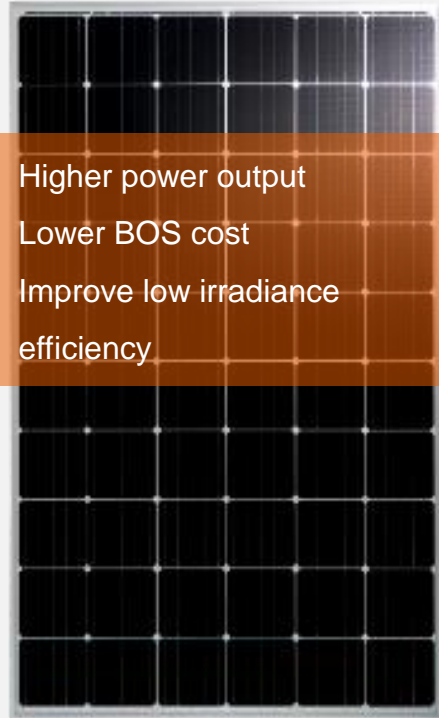
- Half-cut cell technology
- Lower energy output loss with new circuit
- Better architecture design
- Lower BOS

Bipro (9BB half-cut)



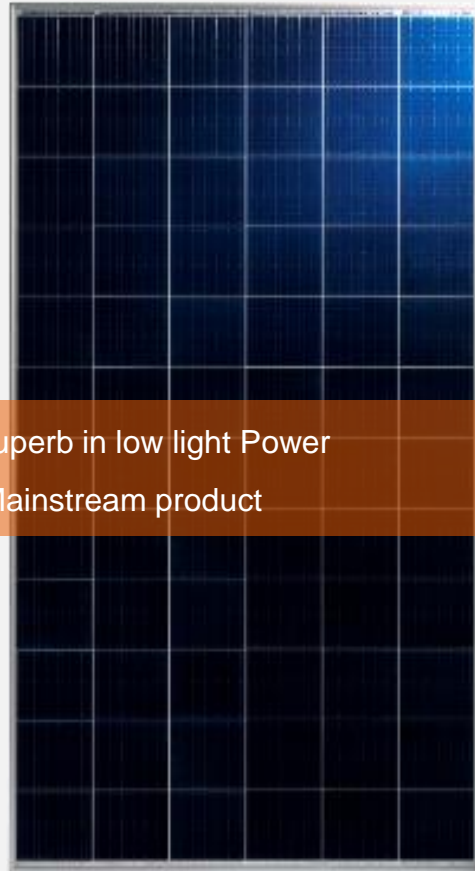
- Bifacial half-cut 9BB PERC technology
- Backside power gain up to 25%
- Compatible with major tracker systems
- Best choice for harsh environments

Hipro



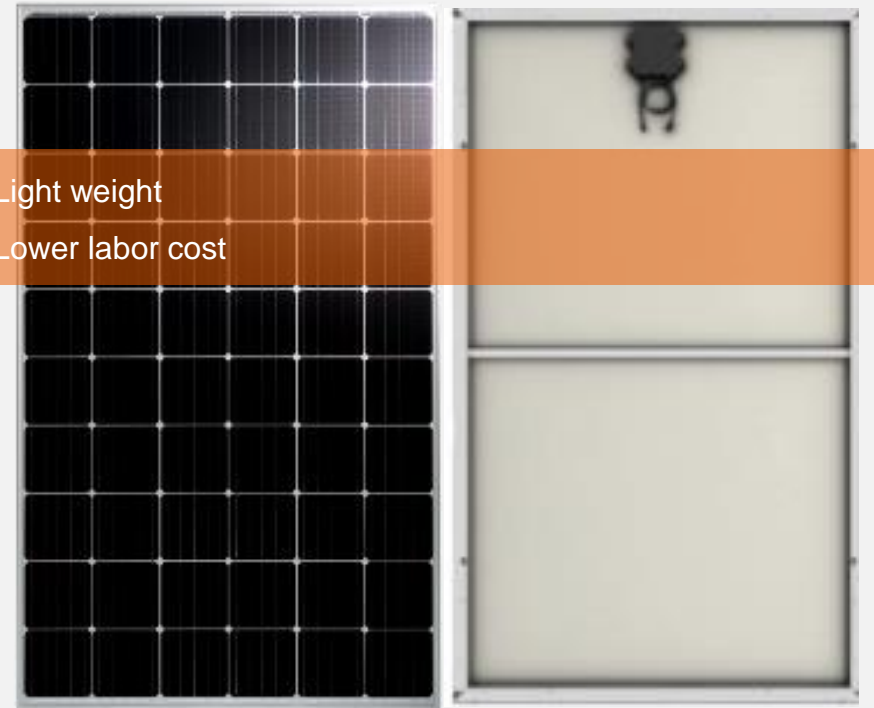
- Higher power output
- Lower BOS cost
- Improve low irradiance efficiency

Pipro



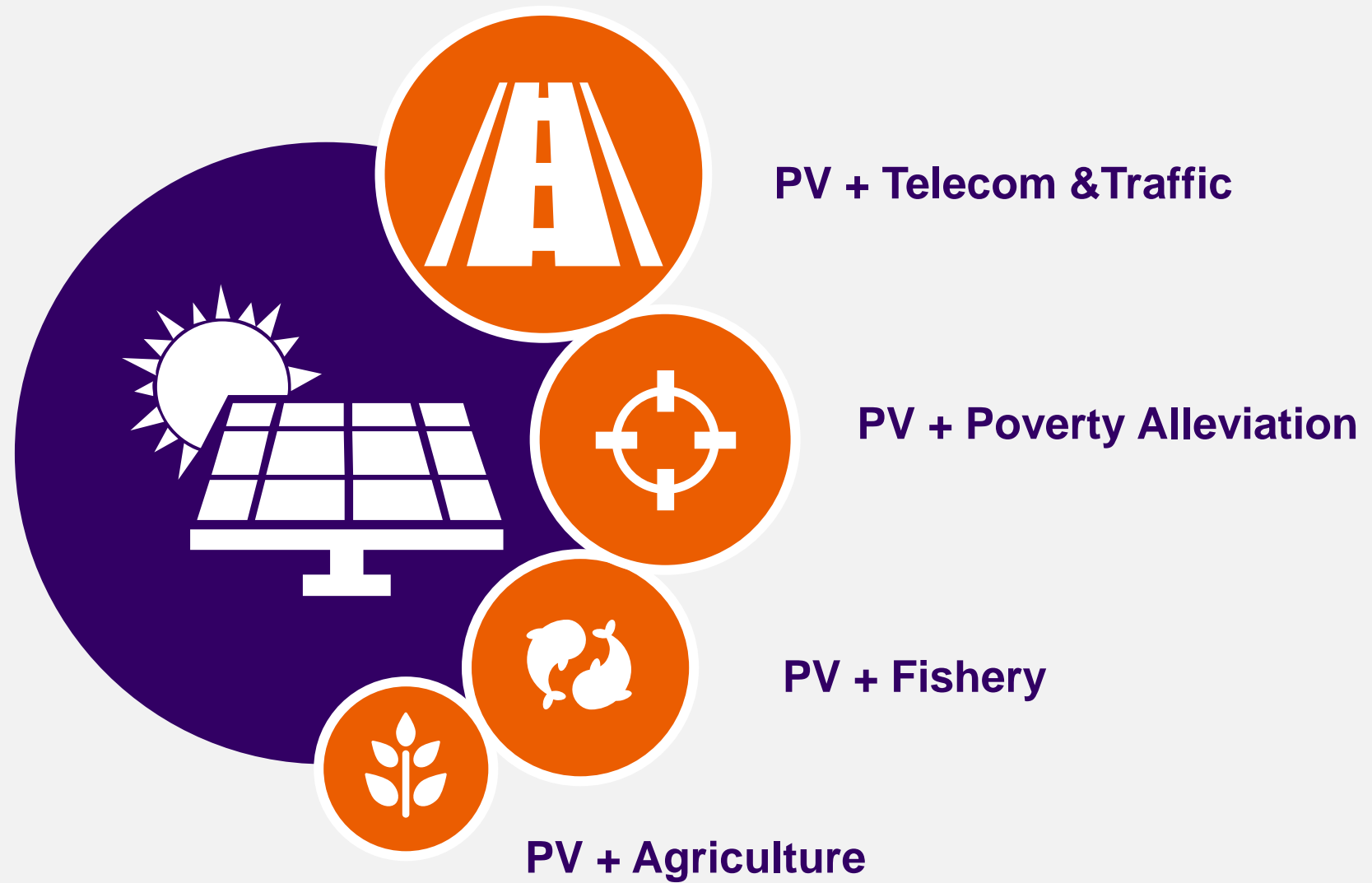
- Superb in low light Power
- Mainstream product

Feather

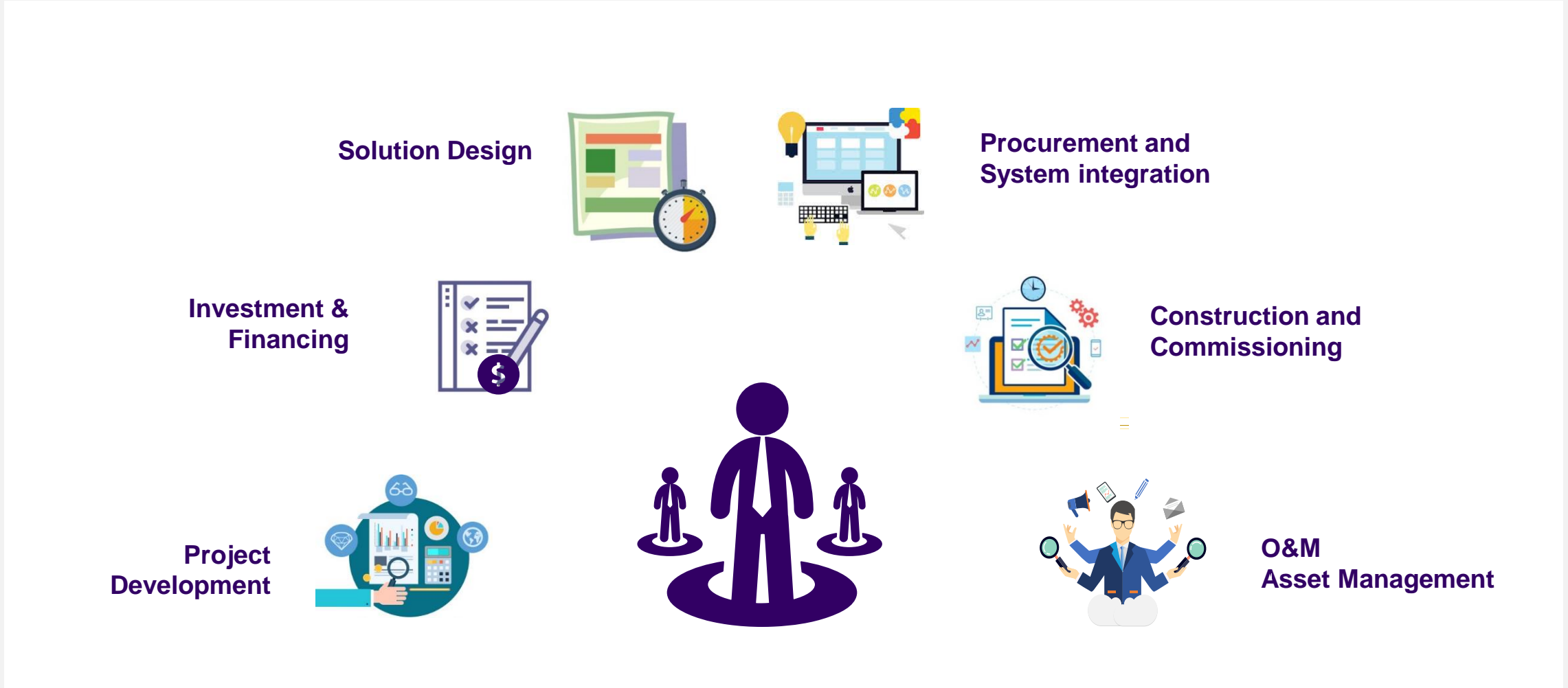


- Light weight
- Lower labor cost

PV+ Solution



Global PV Power Station Total Solution



315 MW Argentina Utility Projects --- One of the Largest PV Utility in South America



Cauchari, Argentina

Project size: 315 MW

Completed: 2019

Type: Utility scale

USA Riverside County Project



Riverside County, California, USA

Project size: 97 MW

Completed: 2016

Type: Utility scale

China Qinghai Project



Gonghe, Qinghai, China

Project size: 100 MW

Completed: 2017

Type: Utility scale

Talesun Thailand Factory Rooftop Project



Thai-China Industrial Park, Rayong, Thailand

Project size: 3.8 MW

Completed: 2016

Type: Commercial Rooftop
Projects

PV + Agriculture Project

Changshu, China 9.8 MW





Talesun Core Advantages

INDUSRIAL LEADING PLAYER

LONG ENDURANCE & SAFER INSURANCE SERVICES

Product Warranty & Multi-reinsurances



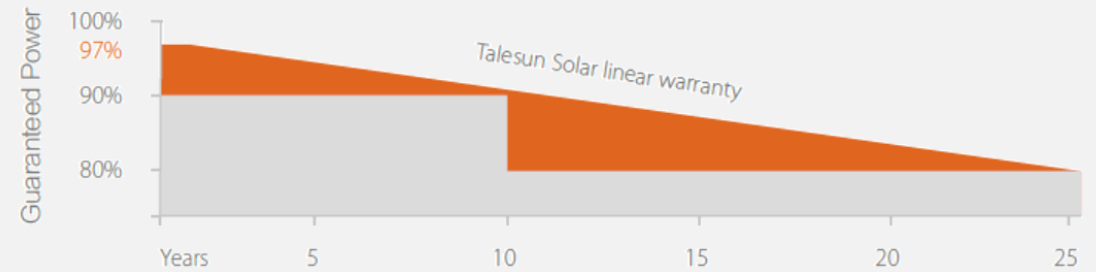
25 Years

LINEAR PERFORMANCE WARRANTY

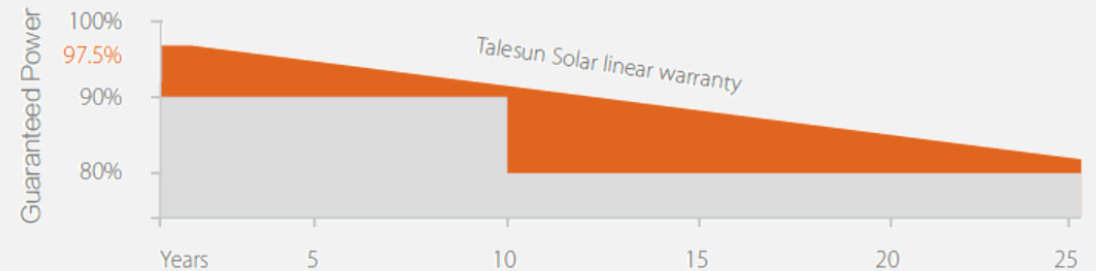
12 Years

WORKMANSHIP WARRANTY

Monocrystalline solar PV module



Polycrystalline solar PV module



R&D INVESTMENTS

5000m² R&D Lab & 2000m² Testing Lab

R&D investment



\$300M

(by the end of 2018)

R&D Investment

Average 2-3% of Talesun total revenue is invested in R&D

R&D Employees



350+

Technical Team

More than 350 technical staff working on cell, and module development

Patents Applied



340+

(160+ issued)

Patents

Has developed 340 patents on cell and module technology

INDUSTRY STANDARD

Certification and Leading Equipment



International Certificates

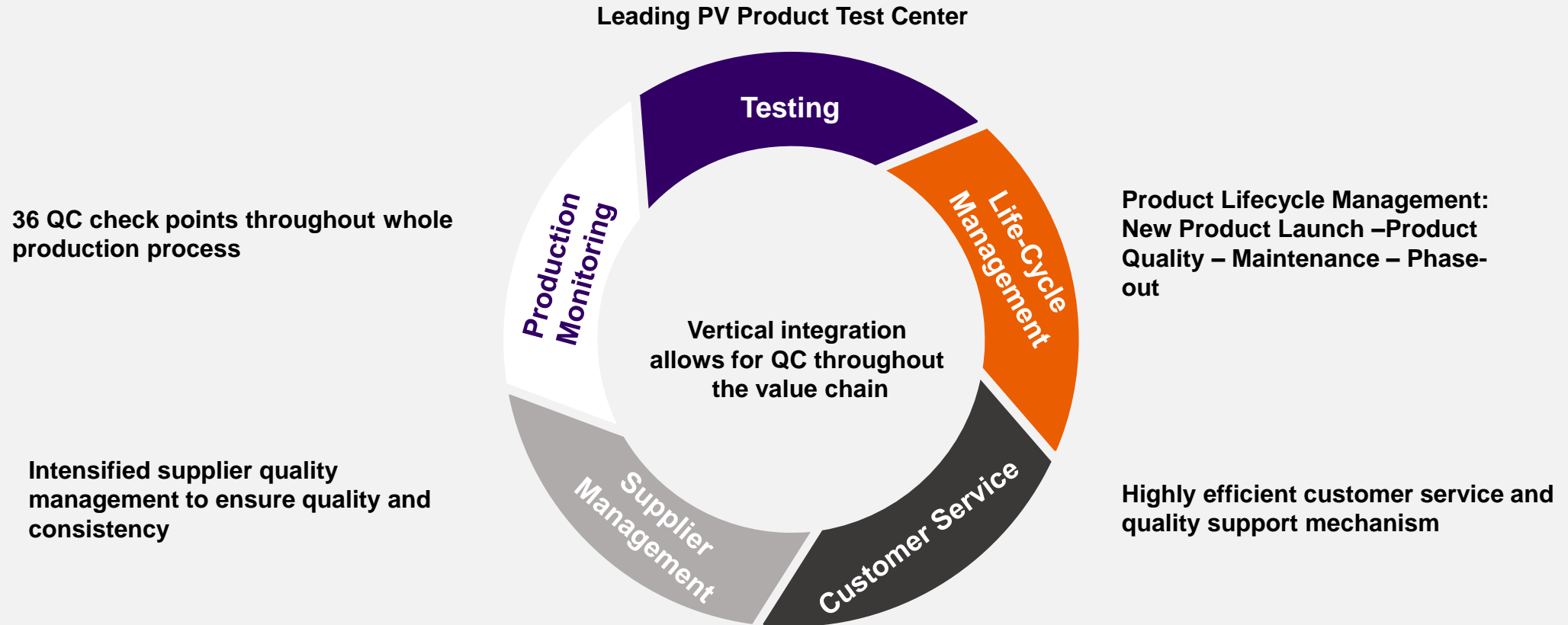


Leading Equipment Manufacturers

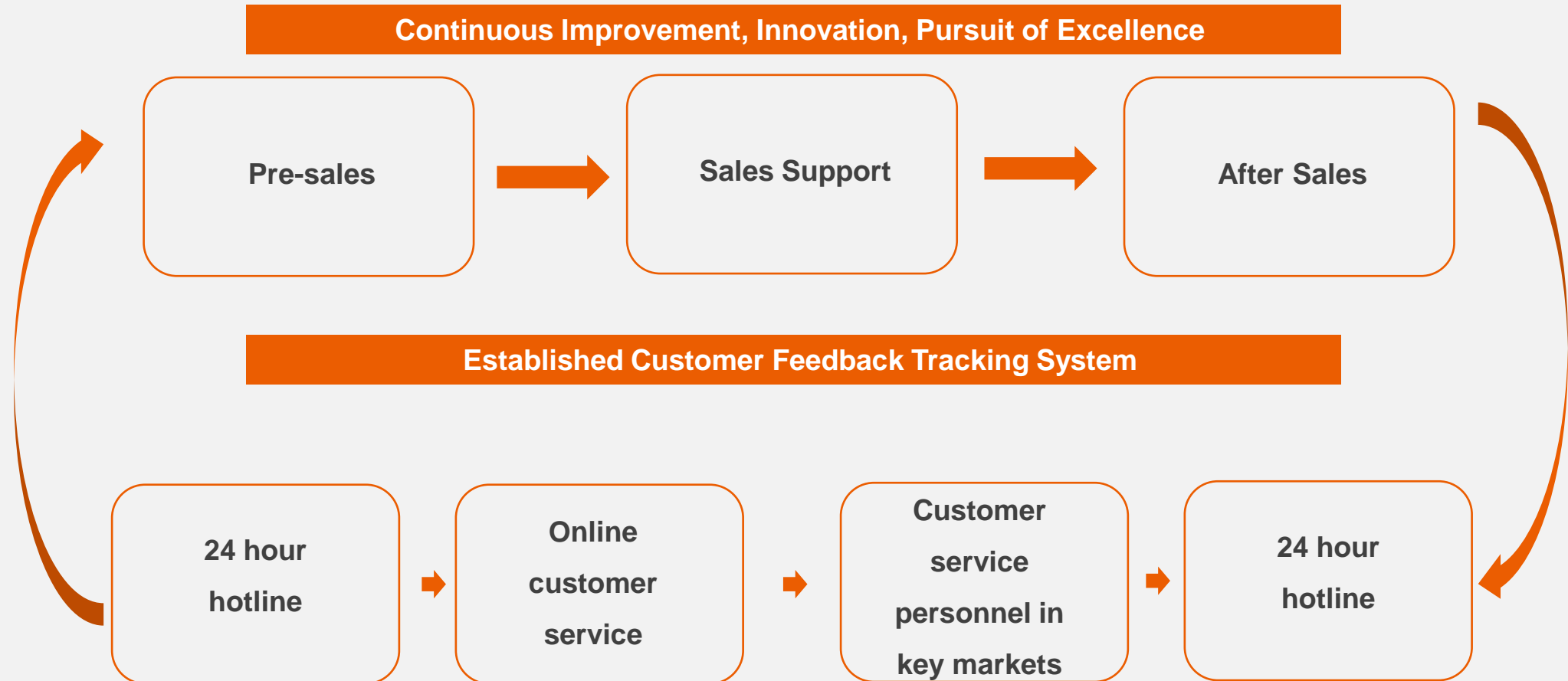
QUALITY ASSURANCE

360° QC Throughout Product Lifecycle



CONTINUING CUSTOMER SERVICE

Closed-loop and Trackable Service




TALESUN SHIPMENT

TOP 10 Module Shipment Supplier in 2018

Top 10 Solar Module Suppliers of 2018

#	Module Supplier	Y/Y
1	JinkoSolar	≡
2	JA Solar	↑
3	Trina Solar	↓
4	LONGi Solar	↑
5	Canadian Solar	↓
6	Hanwha Q-CELLS	↓
7	Risen Energy	↑
8	GCL-SI	↓
9	Talesun	↑
10	First Solar	↑

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PV InfoLink 2018 Global Module Shipment Ranking

Rank	Company
1	Jinko Solar
2	JA Solar
3	Hanwha Q CELLS
3	Trina Solar
5	Longi (LERRI)
6	Canadian Solar
7	RISEN Energy
8	GCL-Si
9	Suntech
10	Chint (Astronergy)
10	Talesun

Source: PV InfoLink Database

*This ranking is based on PV InfoLink's research data. Statistical unit: 100MW

BANKABILITY PV SUPPLIER LIST BY BNEF

Tier 1 Module Manufacturer

Bloomberg
NEW ENERGY FINANCE

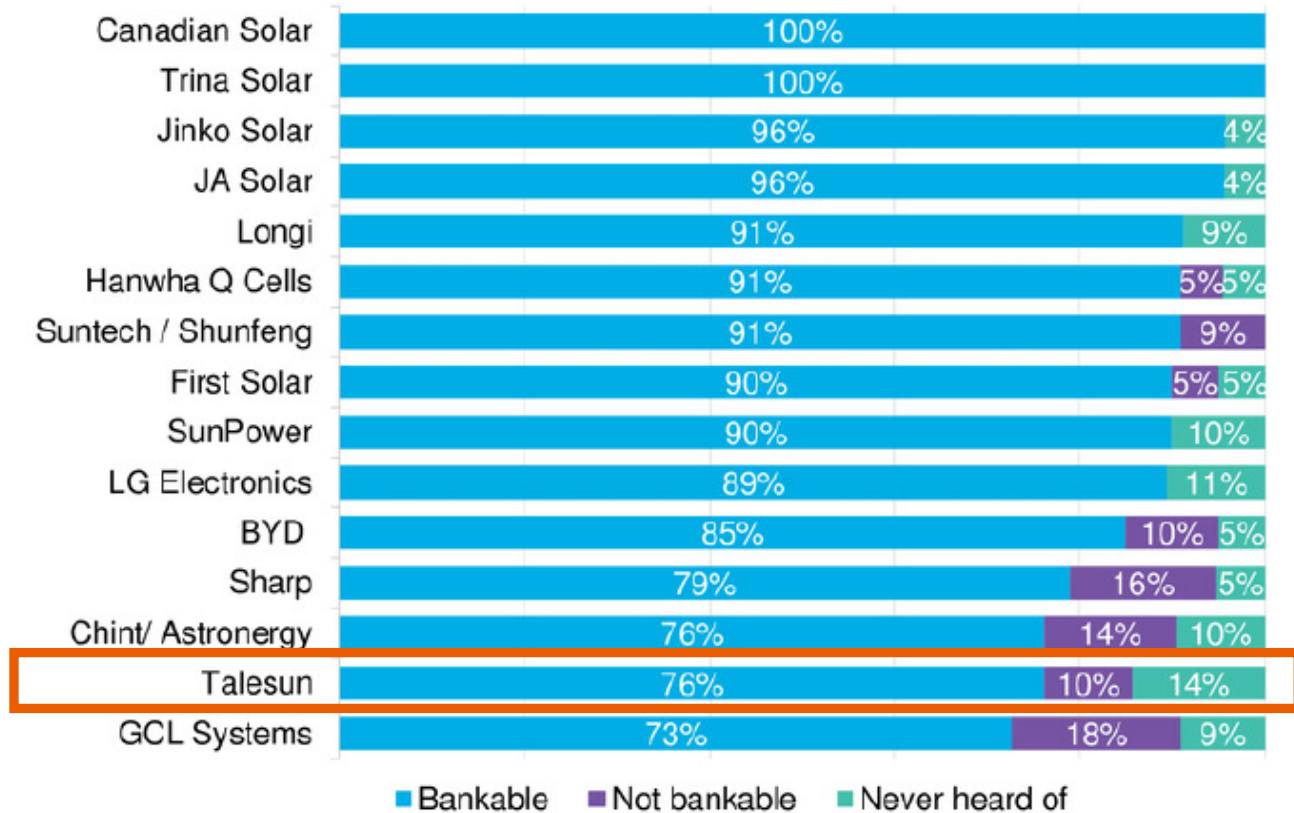
2016 Q 1 ~ Q 4
⋮
2017 Q 1 ~ Q 4
⋮
2018 Q 1 ~ Q 4
⋮
2019 Q 1 ~ Q 4

Firm/Brand	Annual module capacity (MW/year)
Jinko	16,000
Longi	15,000
Hanwha Q CELLS	10,700
JA Solar	10,500
Canadian Solar	9,400
Risen Energy	9,100
Trina Solar	8,000
GCL System	7,200
First Solar	6,200
Talesun	5,800
Seraphim	5,000
Chint/Astronergy	4,200
Wuxi Suntech	3,900
Renesola	3,650
ZNSHine	3,500

Source: BNEF PV module maker tier 1 list, Q4 2019

BANKABILITY SURVEY BY BNEF

Figure 1: BloombergNEF's PV module bankability results, top 15



Source: BloombergNEF

BNEF's PV module bankability survey results 2019
TALESUN Ranking 14th

TALESUN BANKABILITY

Recognized by Most of Banks Globally

ASIA

MIZUHO

JFC 日本政策金融公庫

中国民生银行 CHINA MINSHENG BANK

Bangkok Bank

Bank of Tokyo-Mitsubishi UFJ

りそな銀行 RESONA

YES BANK

TATA CAPITAL

PFS

JFC 日本政策金融公庫

筑波銀行 Teikoku Bank

SBI

SMBC

EUROPE

HSBC

Deutsche Bank

Standard Chartered

CREDIT COOPERATIF

Santander Consumer Bank

BANK OF SCOTLAND

GROUPE CAISSE D'ÉPARGNE

BBVA

saar^{LB}

European Investment Bank

European Bank for Reconstruction and Development

SOCIETE GENERALE

UmweltBank Mein Geld macht grün.

CA

BANQUE POPULAIRE

LA BANQUE POSTALE

GROUPE CRÉDIT AGRICOLE

CaixaBank

UniCredit

ukrзibank НАЛЕЖИТЬ ДЕРЖАВІ

ING

HSH NORDBANK

AMERICAS

citibank

Bank of America

J.P. Morgan

WELLS FARGO

COBANK COOPERATIVE. CONNECTED. COMMITTED.

Peoples Bank A higher level of service.

HSH NORDBANK

GLOBAL PARTNERS

Trusted by Industrial Strong PV Players





Projects Worldwide

TALESUN REFERENCES

Overseas Utility Projects

TALESUN
MAKE IT HAPPEN.



Overseas Utility Projects

TALESUN
MAKE IT HAPPEN.



Gaultney, UK 21.6 MW



Aspartia, UK 18.3 MW



Lincolnshire, UK 13 MW



Whitchurch, UK 14 MW



Essex, UK 12 MW

Overseas Utility Projects

TALESUN
MAKE IT HAPPEN.

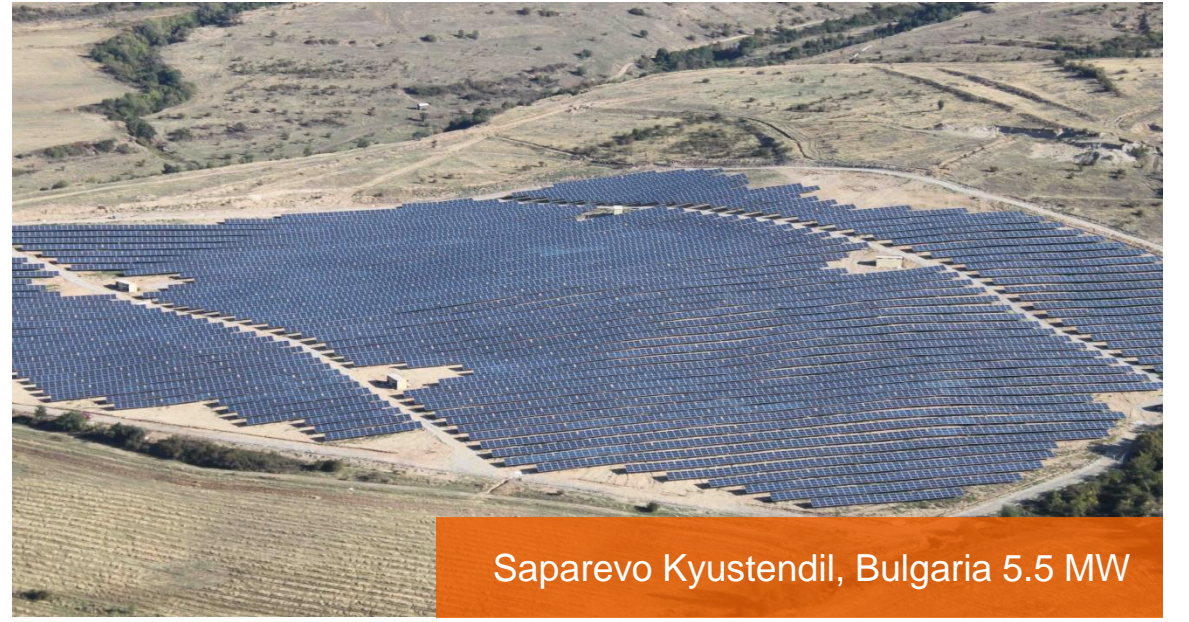


Overseas Utility Projects

TALESUN
MAKE IT HAPPEN.



Bezier, France 12 MW



Saparevo Kyustendil, Bulgaria 5.5 MW



Denmark 17.25 MW



Saparevo, Bulgaria 5.5 MW



Hannahs Mill, USA 1 MW

Overseas Utility Projects

TALESUN
MAKE IT HAPPEN.



Domestic Utility Projects

TALESUN
MAKE IT HAPPEN.



Jiayuguan, Gansu 100 MW



Yili, Xinjiang 20 MW



Jinchang, Gansu 100 MW



Yumen, Gansu 30 MW

Domestic Utility Projects

TALESUN
MAKE IT HAPPEN.



Shuyang, Jiangsu 10 MW



Turpan, Xinjiang 40 MW



Hongze, Jiangsu 20 MW



Xuzhou, Jiangsu 23.8 MW



Hami, Xinjiang 40 MW

Overseas Industrial and Commercial Projects

TALESUN
MAKE IT HAPPEN.



Overseas Industrial and Commercial Projects

TALESUN
MAKE IT HAPPEN.



Groningen, Netherlands 829 kW



Kampen, Netherland, 3.2 MW



Bonvillars, Switzerland 7.2MW

Overseas Industrial and Commercial Projects

TALESUN
MAKE IT HAPPEN.



California, USA 47.52 kW



Woodbury, NJ, USA 268 kW



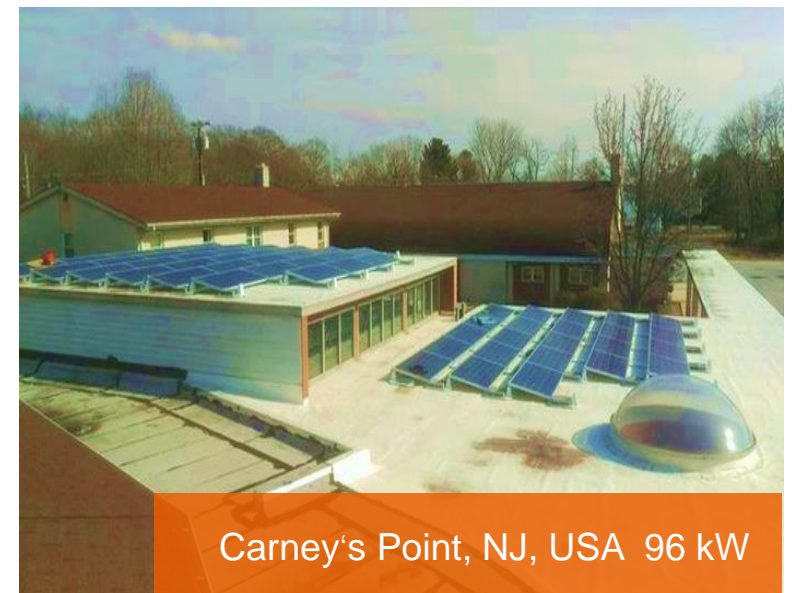
North Cape May, NJ, USA 85kW



Napa Valley, CA, USA 750 kW



Ocean Township, NJ 145 kW



Carney's Point, NJ, USA 96 kW

Overseas Industrial and Commercial Projects

TALESUN
MAKE IT HAPPEN.



Thank you