Building Real Solar Resilience in Europe

How policy, technology and industrial strategy can rebuild Europe’s solar value chain

PV Module Tech Europe 2025

Paolo Di Lorenzo – Head of Product Lifecycle Management

3SUN

What resilience is and is not

IS NOT	IS
A trade barrier	A diversified and reliable supply chain
Shifting dependencies	Control of strategic steps
Only assembling modules	EU-developed technology
Only sustainability criteria	Ability to absorb supply shocks

3SUN is delivering resilience today

- **3 GW Cell & Module** capacity
- **In-house** developed Technology
- Strict **ESG** and **traceability** standards
- Clear **long-term** industrial **roadmap**

Value is recognised

but the gap is still too wide

Market signals

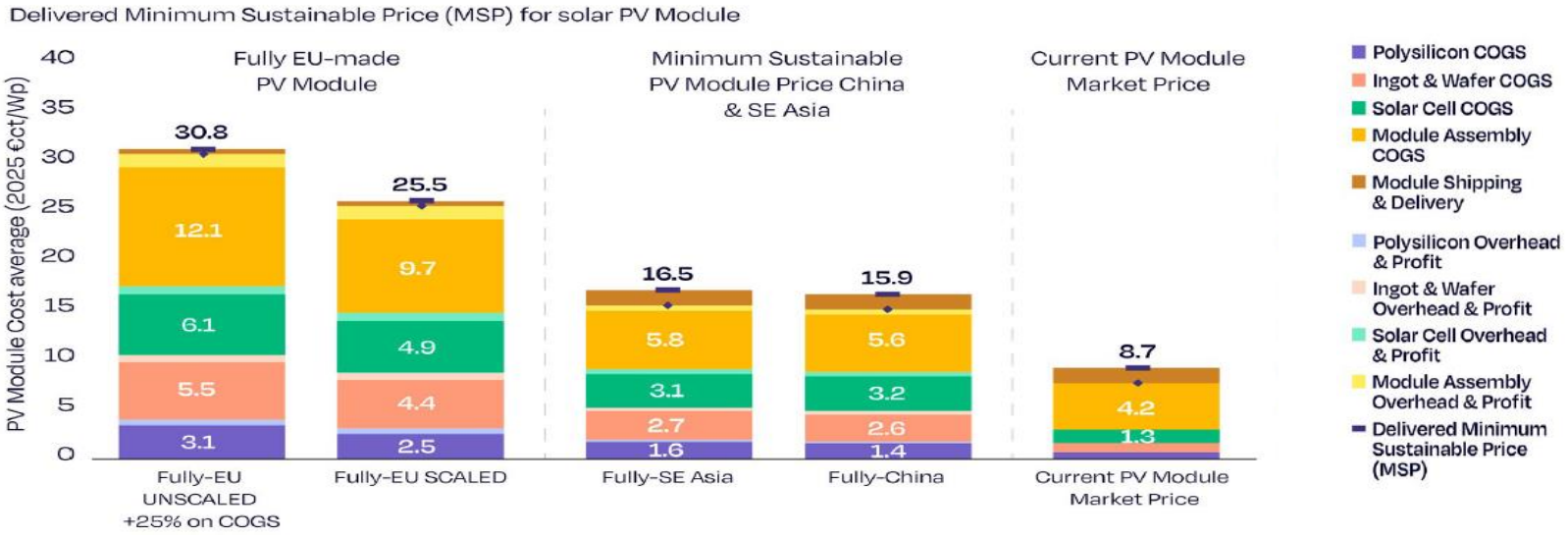
- Demand for **traceable**, **ESG**-compliant modules
- Developers seek to diversify supply chains
- Preference for **EU production** when viable

But…

- **Price and cost gap** remains **too large** today
- Projects cannot absorb today's **premium**

The cost gap is structural

Even for Europe's largest fabs



Source: *Fraunhofer ISE via SolarPower Europe (2025) Reshoring Solar Module Manufacturing to Europe: A Cost Gap Analysis and Policy Impact Simulation*

- FhISE assumes **10 GW scaled** EU factories running at 100% capacity
- Ramp-up phases and low utilization rates further widen the cost gap

Building resilience requires stable long-term market pull

Predictable demand at sustainable prices
is **essential** for EU Manufacturing

Long-term **market pull**
drives scale, cost reduction, and local supply chain development

NZIA brings resilience into the EU's solar market

Three major novelties

- **Resilience** and **sustainability** criteria in public auctions starting in 2026 (min. 30% of volumes)
- **Non-dominant country** sourcing for strategic components
- Non-price criteria allowed for **pre-qualification** and **award decision**

The NZIA resilience components

Modules 

Cells 

Inverters 

Trackers, Wafers, Glass, Polysilicon +1

and where 3SUN makes the difference

GW-scale **module manufacturing,** with integrated GW-scale **cell manufacturing,** a capability absent in Europe today, and based on **proprietary** 3SUN **technology**

Italy anticipated NZIA in the 2025 FER-X auctions

8 GW General Auction

Open to all PV suppliers

1.6 GW "Resilient" Auction

Restricted to modules meeting NZIA resilience criteria

Implementation

- **4 NZIA** Strategic **Components** used as **pre-qualification**
- Applied **only to the Resilient auction**
- No Resilience based **awarding** criteria

How **future** auctions can **strengthen** EU **resilience**

Learning from Italy's early NZIA implementation

1. Enable WTO-compliant "**Made in EU**" **resilience criteria**
2. Recognize **integrated cell** and **module** manufacturing as strategic
3. Reward manufacturers developing EU-based **technology platforms**

The path forward:

Building Real Solar Resilience in Europe

Resilience matters
for Europe's long-term energy security

NZIA can work if implemented well
for predictable, sustainable long-term market pull

3SUN stands ready
with GW-scale cell & module capacity and own technology


3SUN