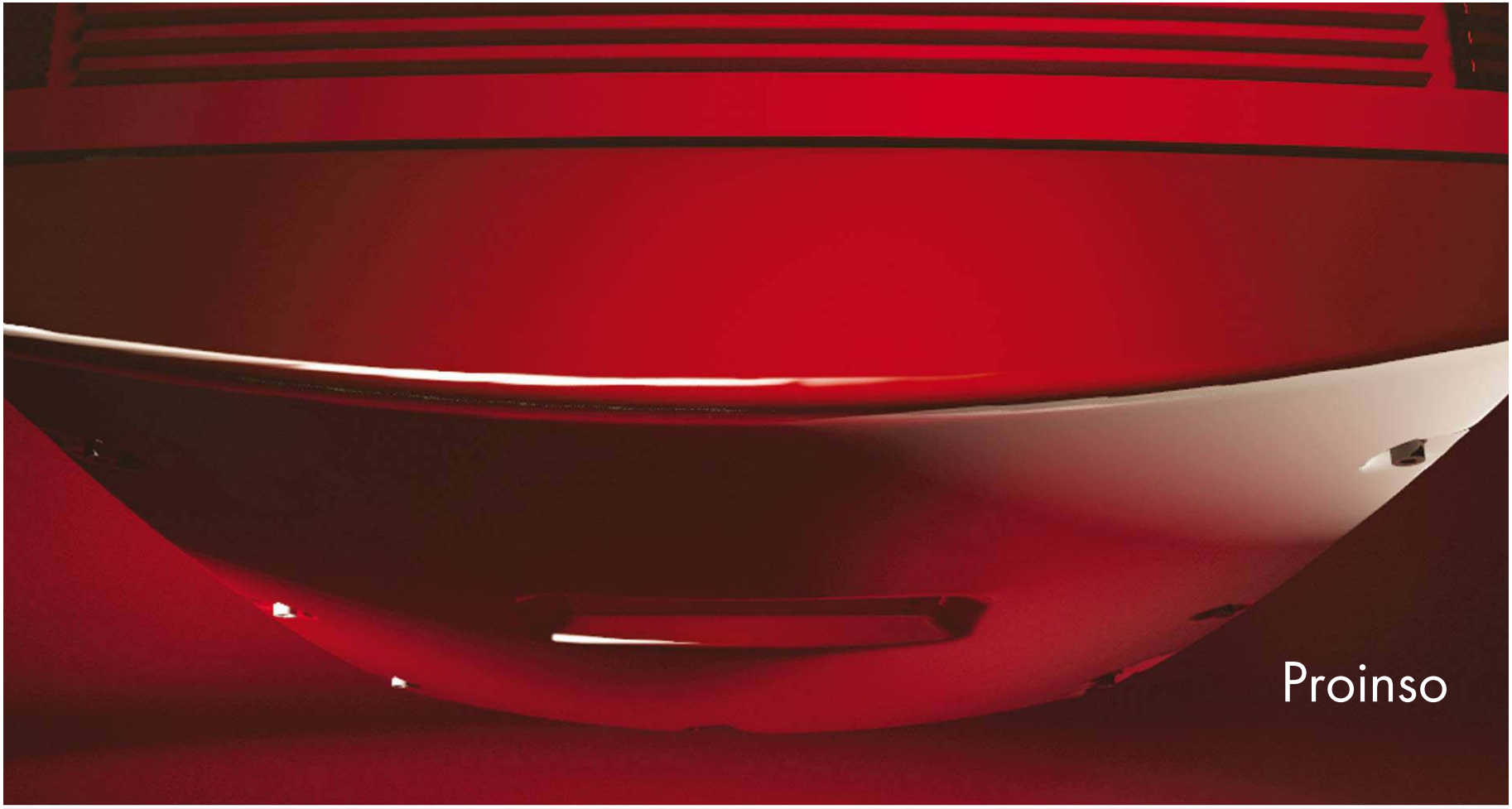
PROINSO SMA



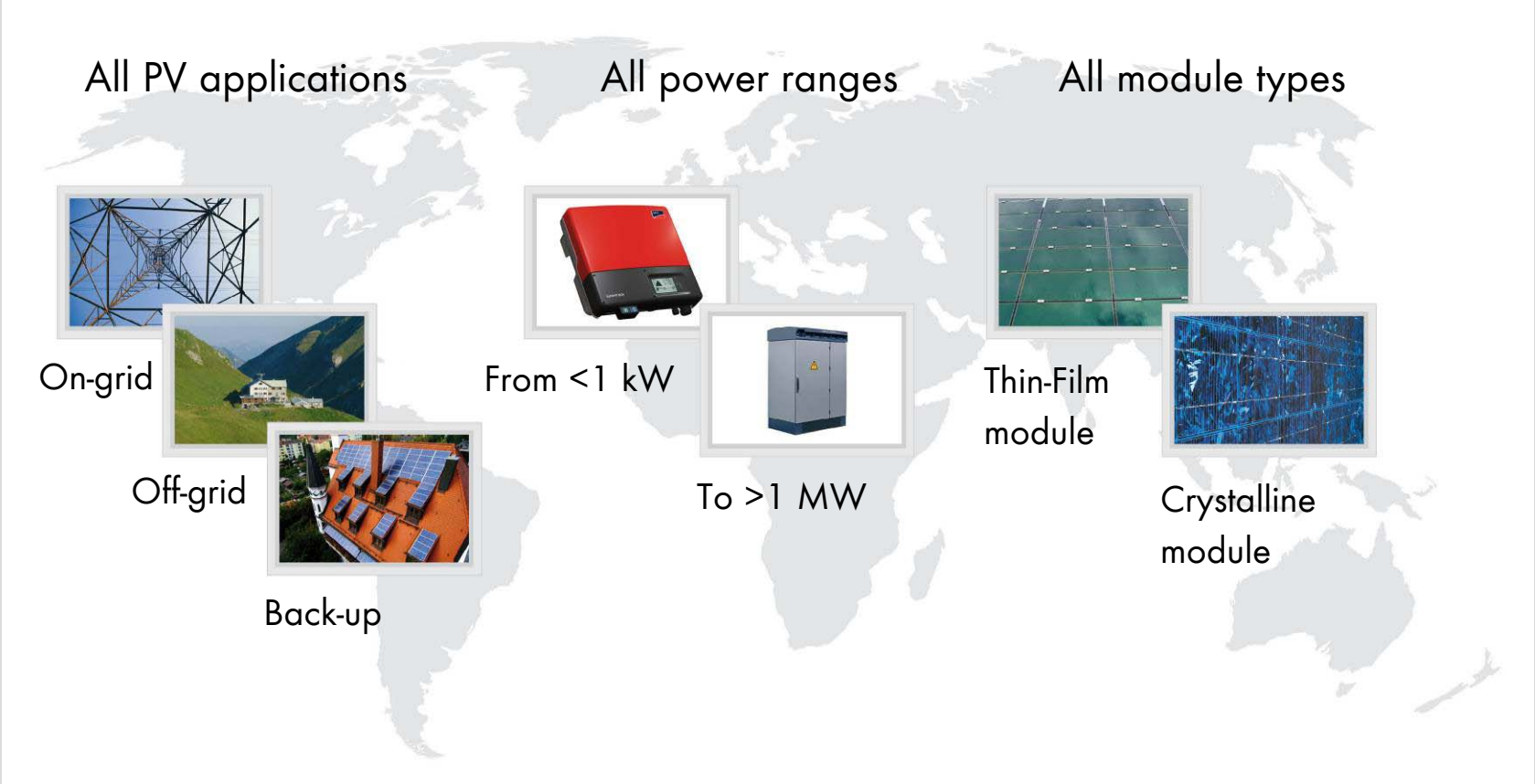
Proinso

15.01.09

Market

SUNNY ISLAND
Operation
Failure
ESC
ENTER
Utility Interactive Battery Inverter

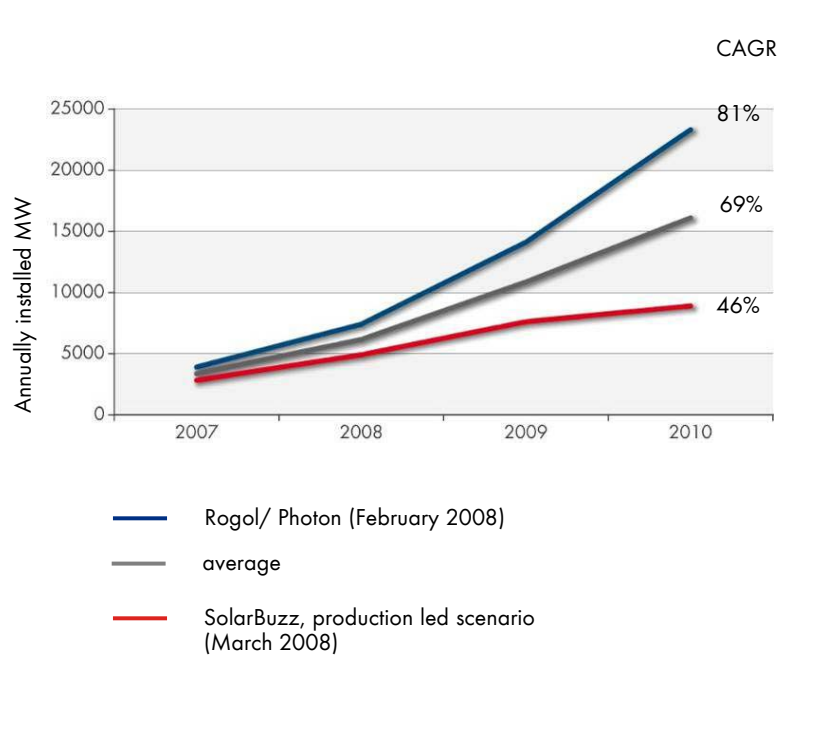
SMA is the market leader & trendsetter in inverter technology



- SMA offers a complete inverter product range for all solar applications

Direct exposure to high-growth PV-market

PV-market growth expectations (MW)



Every PV system requires an inverter

Residential <5kW

Commercial <250kW

Industrial >250kW

Off-Grid

Monitoring

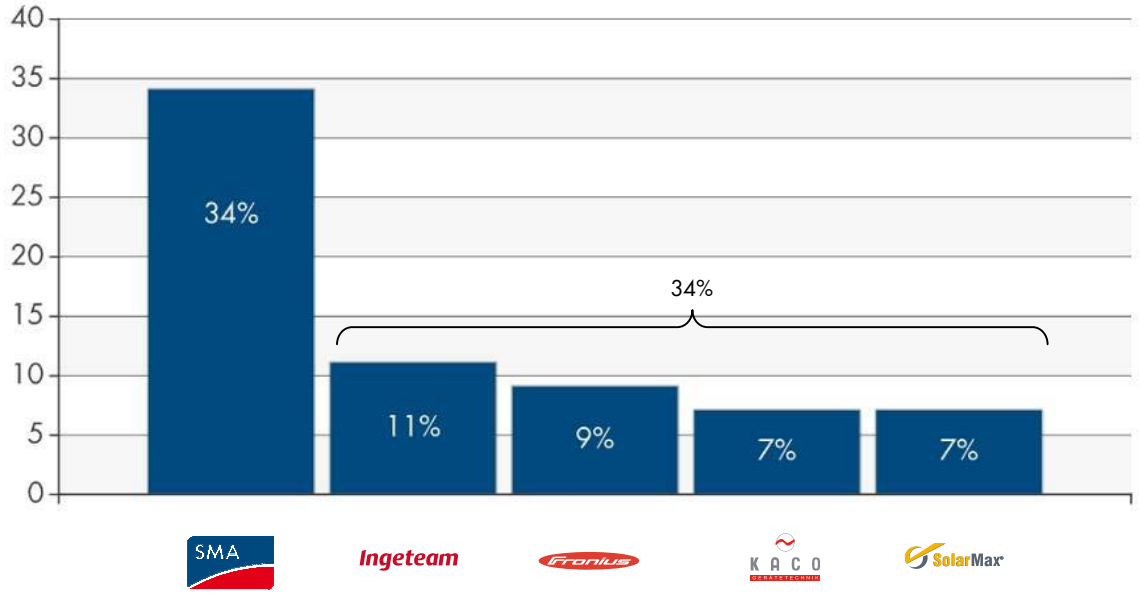
Back-up

- SMA has the right solar inverter for each solar system

Sources: Rogol/ Photon (February 2008), Solarbuzz LLC, production led scenario (March 2008).

SMA – A global leader for solar inverters

Leaders' market shares in the PV sector (2007)



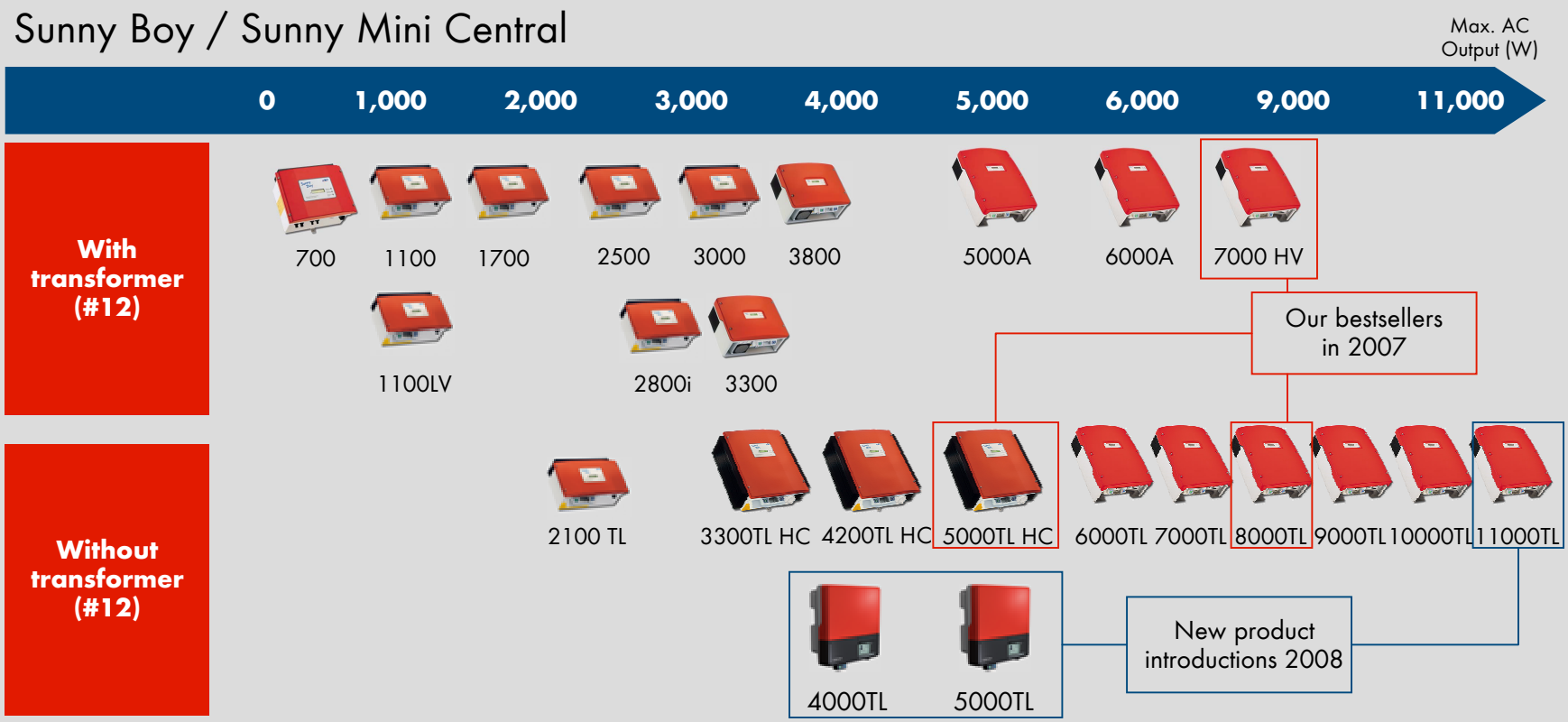
- Pole position through product range, service, global presence and flexibility

Sources: Solarbuzz LLC (March 2008), Photon (May 2008), Photon (September 2007), Photon International (March 2008).

Technology

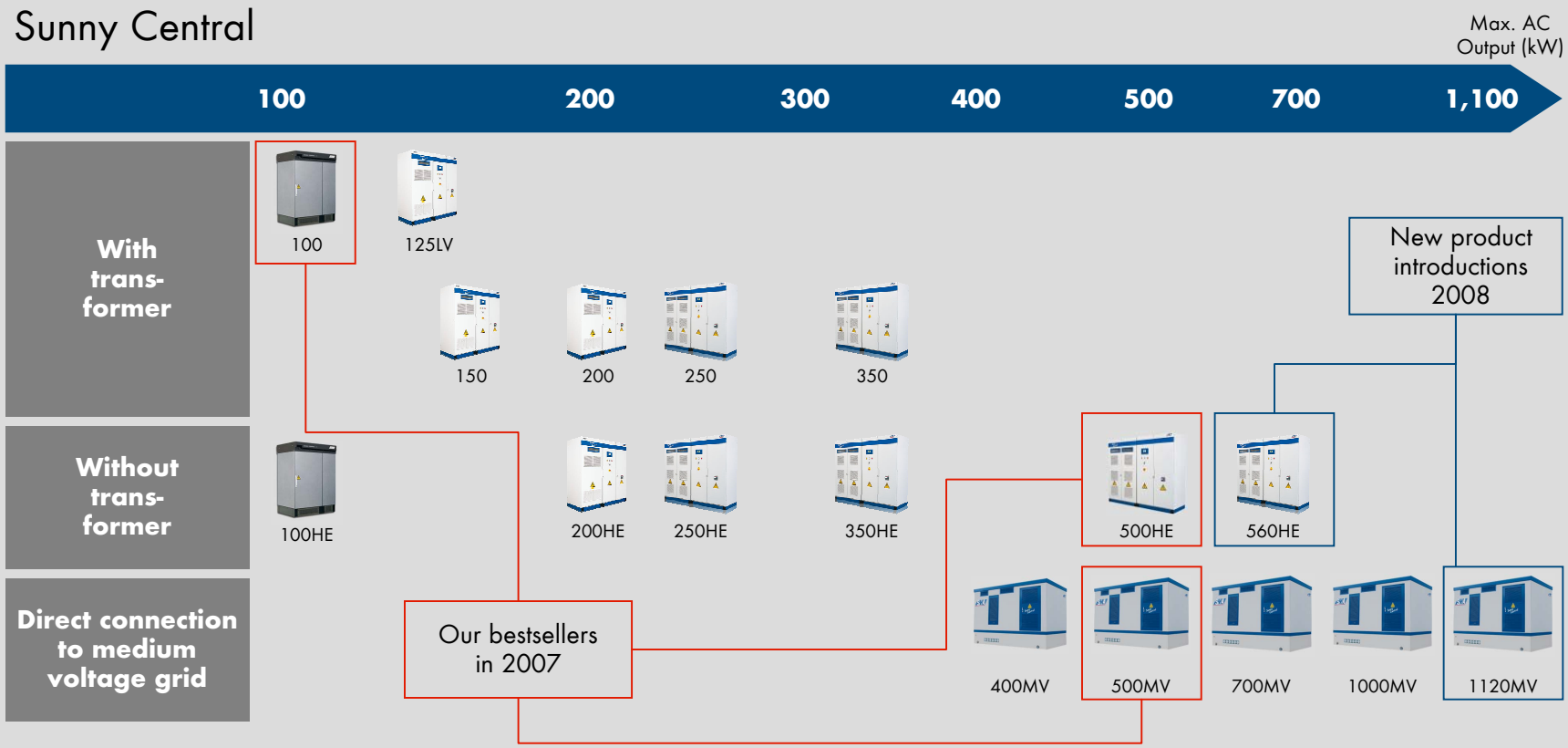
Six highly successful product families

Full product range for custom-fit system design



- Transformerless concept offers the ability to use highest efficiency topology
- Transformer concept device is the first choice for thin-film projects

Comprehensive product range for industrial solar applications



- Market leading product for medium voltage applications

SMA is the true trendsetter in inverter technology

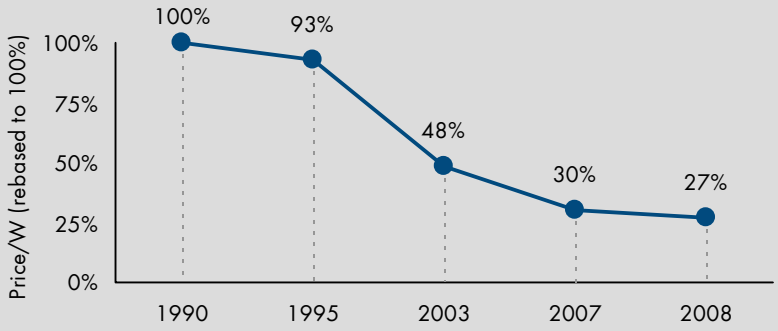
	1990	1995	2003	2008
Technology innovation	First serial inverter with transistor	First string inverter	Multistring with broad input voltage window	H5-Technology, Electronic Solar Switch, Opticool
SMA product	PV-WR 1800	Sunny Boy 700	Sunny Boy 5000TL	Sunny Mini Central 11000TL
Efficiency	Max. η: 90%	Max. η: 93%	Max. η: 96%	Max. η: 98%
Price per Watt	~ 1.20 €	~ 1.11 €	~ 0.58 €	~ 0.33 €

- More than 70% price reduction per Watt over the last 18 years

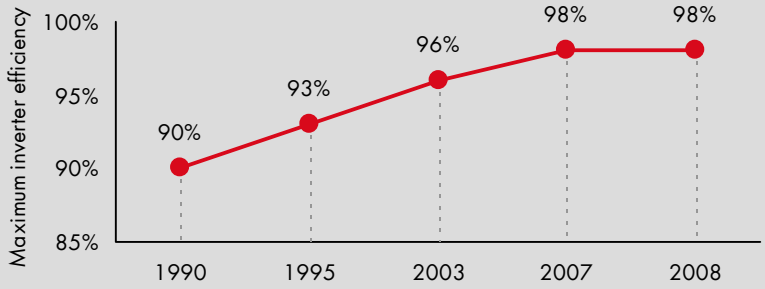
Proven technology leadership and high rate of innovation

Economics

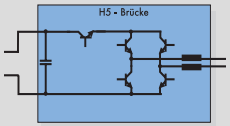
Product price reduction



Increased effenciency

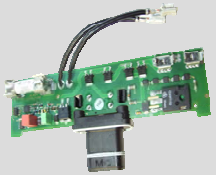


Key innovations



H5-Topology (2007)

> Innovative circuit technology enable efficiency increase to 98%

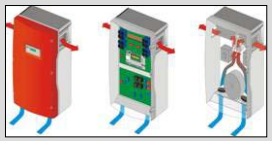


Electronic Solar Switch (2007)

> First integrated direct current load disconnection unit for highest security

OptiTrac (2007)

> Yield increase through optimization of Maximum Power Point (MPP) tracking system



OptiCool (2005)

> Full efficiency up to 40°C through licensed chassis concept

Up to 6 new products per year to offer you most innovative technology

Note: (1) Price/W reduction of Sunny Boy & Sunny Mini Central. Calculation based on catalogue price per Watt for most efficient and highest power product in the respective year.

Several innovations brought to market in 2008

Sunny Boy 5000TL

- Easy communication (Bluetooth, Display)
- Multistring
- Easy installation
- Transformerless

- Max η: 97%

Sunny Mini Central 11000TL

- Custom-fit system design
- Super energy yield
- Well accepted for commercial and industrial applications

- Max η: 98%

Sunny Central HE

- New Sunny Centrals for EU and US market
- High-efficiency technology

- Max η: 98.7%(1)

Sunny Backup 2220

- Backup solution for single-family houses
- Battery delivers stored solar power at power failure
- Add-on for every PV system

- Max η: 93.6%

Sunny Island 2224

- Off-grid manager
- Suitable for off-grid systems as well as a utility backup
- Excellent overload characteristics

- Max η: 93.6%

Our 300 engineers have a R&D budget of more than 30m EUR per year

Note: (1) Based on next generation of Sunny Central 300 (without transformer).

More products to be launched in 2009 and beyond

Sunny Central 600HE

> New generation with outdoor-cabinet
> Best system costs due to outdoor setup and high efficiency

> Targeted max η:
97.7% (300)
98.8% (600)

Sunny Central 630HE

> First inverter on the market meeting medium voltage directive
> Including new features to reduce system costs

> Targeted max η:
>98%

Sunny Boy 3000HF

> Light inverter with galvanic separation
> Attractive and light design
> Modern display
> Useable for US-market as well

> Targeted max η:
96%

TriPower 17000TL

> Three phase concept to easy energy feed-in
> Highest efficiency
> Including many new features to reduce the system costs

> Targeted max η:
98%

SMA strives to remain trendsetter in inverter technology

Technology leadership confirmed by external sources

product design award 2008

2007 Innovationspreis
Symposium Photovoltaische Solarenergie
Bad Staffelstein

Photon
Darling of the Team

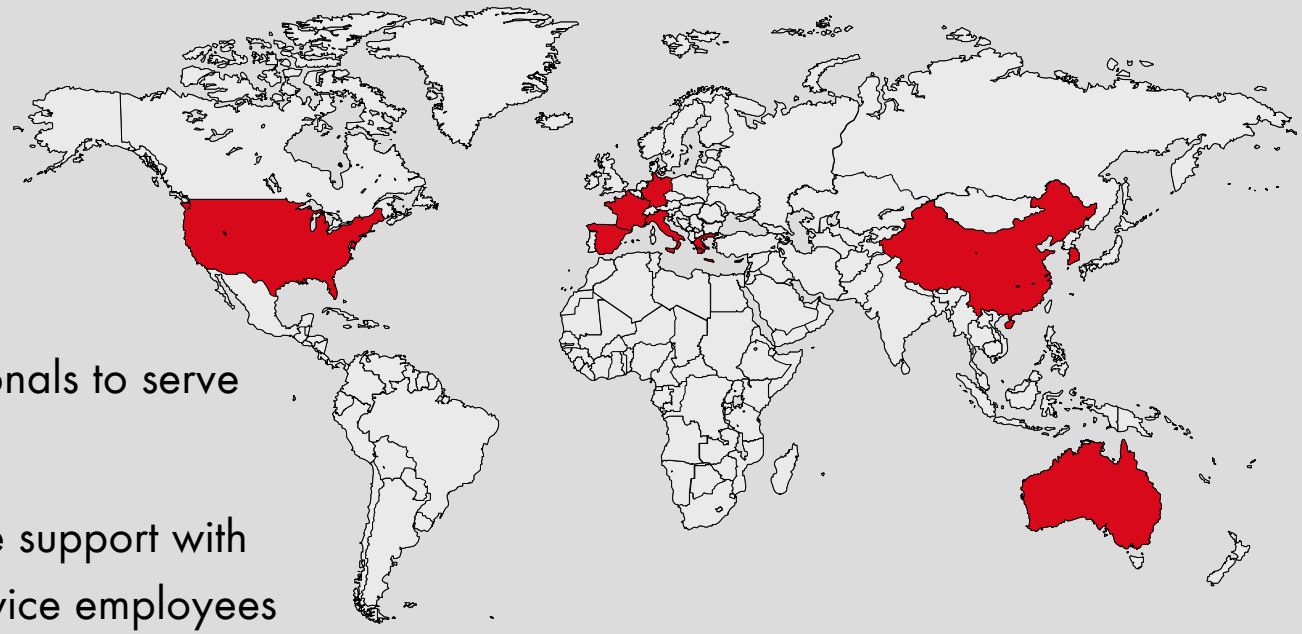
STIFTUNG WARENTEST
Testsieger
SMA Sunny Boy 3300
test®
5/2006
www.test.de

"Die Testergebnisse des Sunny Mini Central 8000 TL sind (...) so außergewöhnlich gut, dass es kaum vorstellbar ist, derzeit noch ein besseres Gerät am Markt zu finden. (...) Da der Hersteller, die SMA Solar Technology AG, die Sunny Mini Central-Baureihe zudem zu äußerst günstigen Preisen anbietet, haben wir den Sunny Mini Central 8000TL zum »Liebling der Redaktion« gekürt."

Photon – Das Solarstrommagazin, Ausgabe Juli 2007

Flexibility

SMA has a powerful global sales and service infrastructure



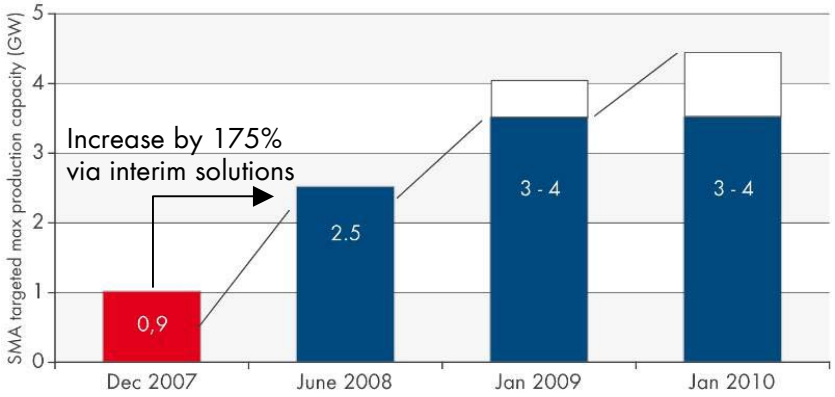
> 170 sales professionals to serve customers locally

> World wide service support with more than 180 service employees

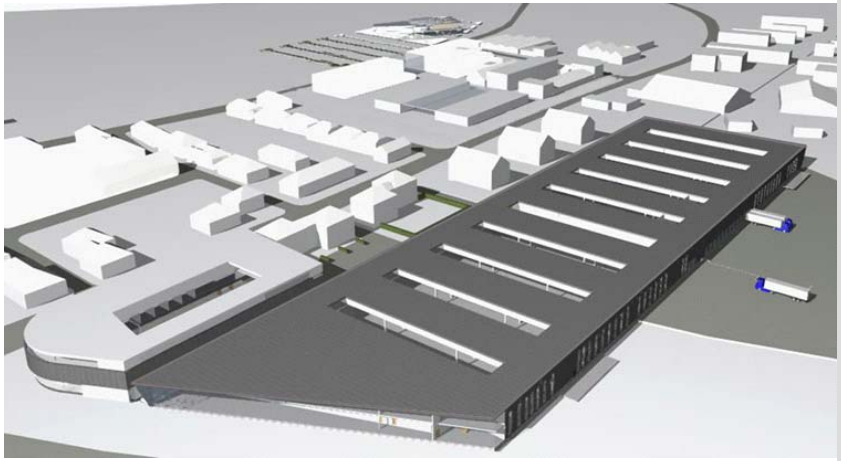
- SMA aims to be the first mover in upcoming solar markets

Customer can trust on our flexible business model

SMA annual production capacity



World's largest solar inverter factory



- Production capacity is not a limiting factor for SMA

Our special corporate culture fosters flexibility and innovation

Leadership awards – Selected examples

2008

Great Place to Work Award 2008

2007

Life Long Learning Award 2007

2008

German Fairness Award 2008

2006

Entrepreneur of the Year Award 2006

Key elements of SMA's culture

> Established organization with flat hierarchies and open door policy

> Continuous personnel training (5 training days per year & employee)

> Significant earnings participation of all employees (16% of pre-tax earnings)

> Low rate of employees' absence related to sickness of 2.8% (SMA Germany) vs. a 3.2% on average in Germany in 2007

> Low employees fluctuation (0.7% in 2007)

▸▸ SMA is also the employer of choice

Financials

Customers seek reliability of both the product and SMA

Strong company

> Established 1981

> Approx. 2,500 employees worldwide

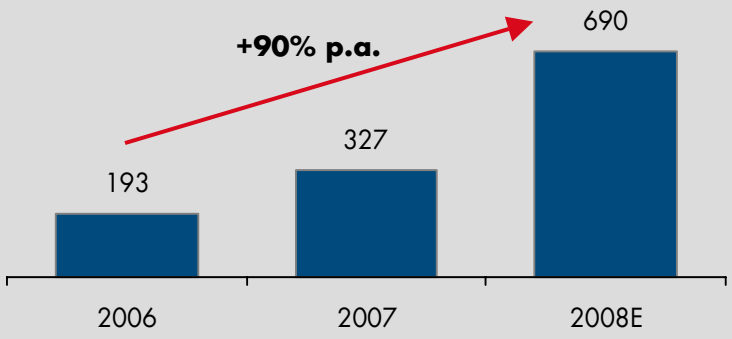
> Export share c. 40%

> Clean balance sheet without refinancing needs

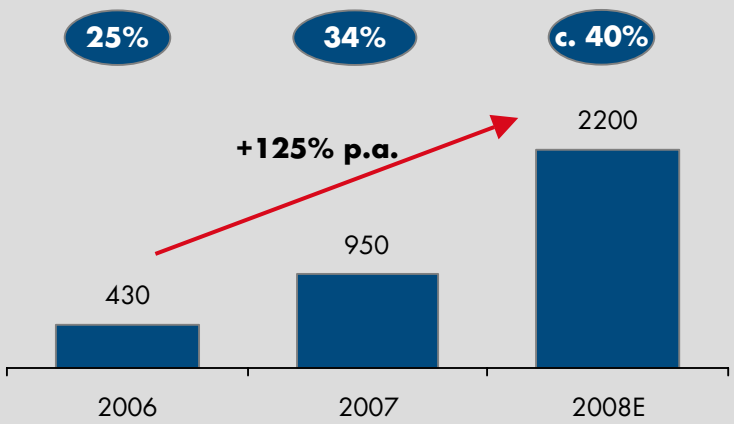
> TecDax company since September 2008

> 75% of shares are still owned by the founders

Strong sales growth (€m) [1]



Continuous market share gains[2] (MW)



You can count on SMA for many years

Notes: (1) Sales 2008E is the upper corridor of SMA's management guidance for 2008 (Ad-hoc message November 5, 2008)
(2) Market share based on SMA's inverter sales in 2007 (950MW) in relation to newly installed PV-market volume in 2007 (2,826MW) as reported in Solarbuzz LLC (March 2008). For 2008E the market share figure is based on SMA's estimates.

Proinso

SUNNY ISLAND
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Proinso

> Key player in the South European Market

- Long-term relationship with SMA;
- Frame delivery contracts with module manufactures vertically integrated along the supply chain (Solarworld, REC Solar, Trina, Nex Power);
- 80 MW modules delivered in 2008;
- 140 MW SMA inverters delivered in 2008;
- Distribution on exclusivity basis of dual-axis Mecasolar trackers

> International Strategy

- Win-Win approach to key customers and suppliers;
- Open of subsidiaries in key markets (USA, Italy, Greece, East Europe);
- Flexible Structure according market development;

» Business catalyser at different stages of the value chain