

Successful business expansion in Asia by using HK Science Parc as a hub

*EPFL, HKSP & Invest HK conference
Andréas von Kaenel, CEO Pasan*



Content

- ❑ PV Market
- ❑ Who are we ?
 - From Pasan
 - to 3S Swiss Solar Industries
 - and now Meyer Burger
- ❑ Challenges of a local presence in a global market
- ❑ The success story with HK Science Park

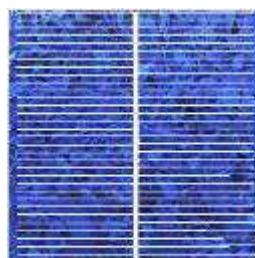
Crystalline PV value chain



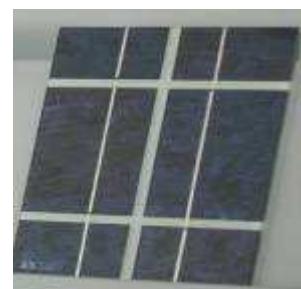
silicon



wafer



cell

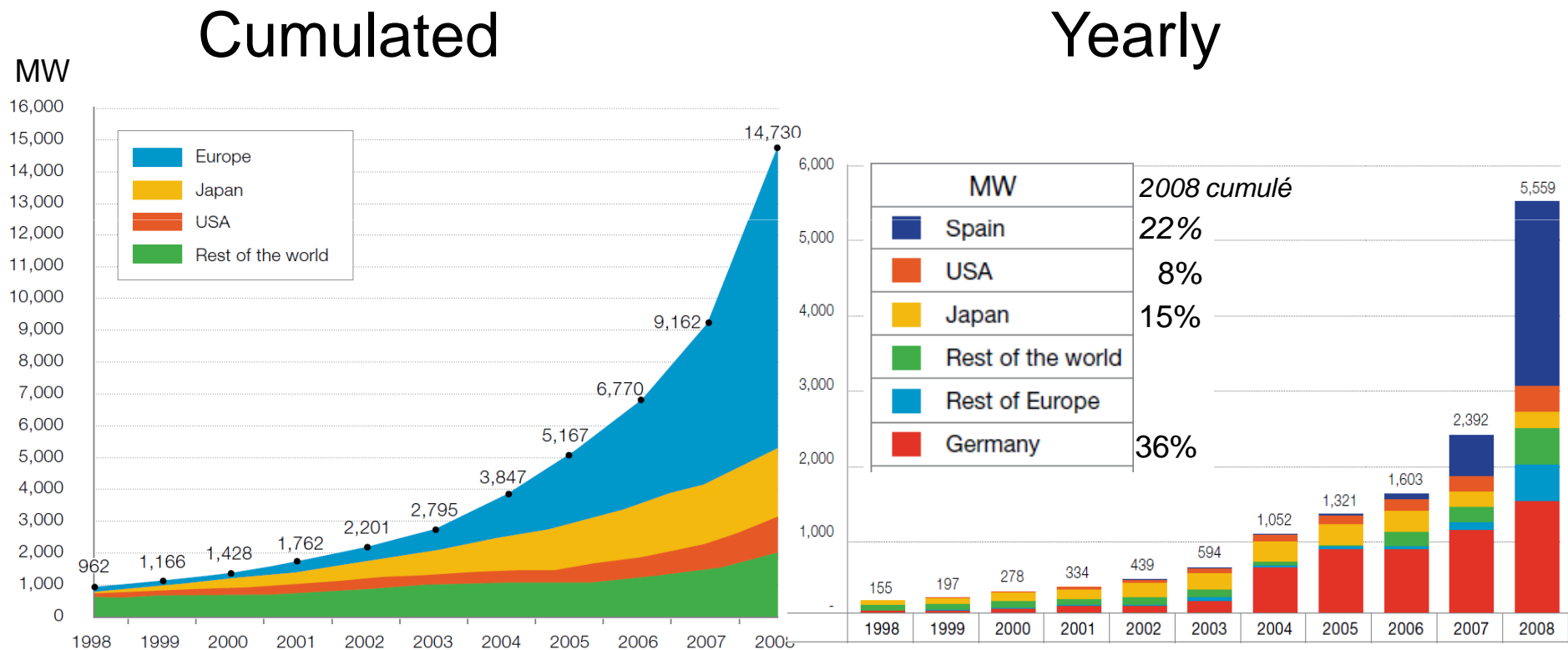


module



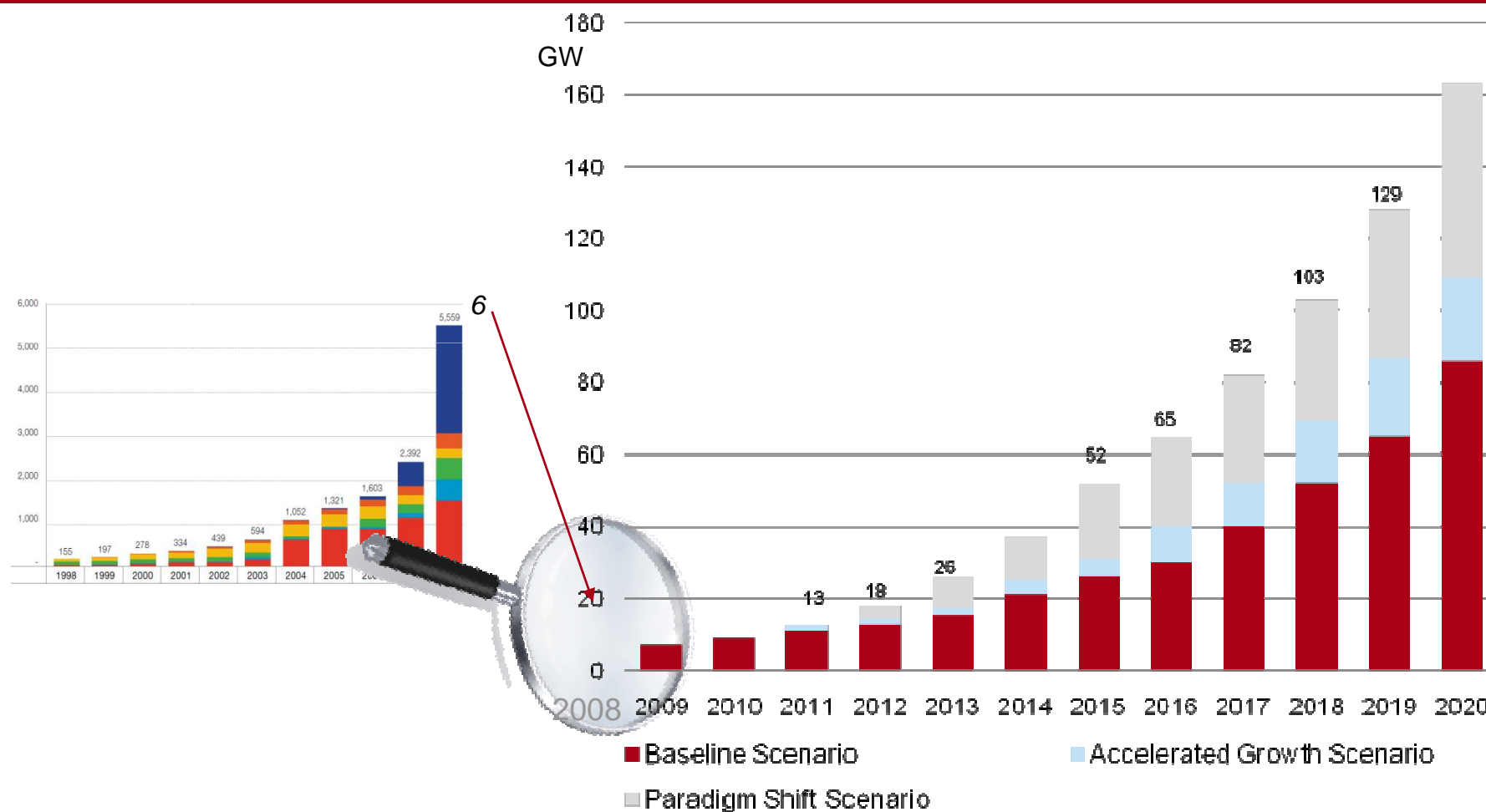
system design

Installed worldwide PV capacity



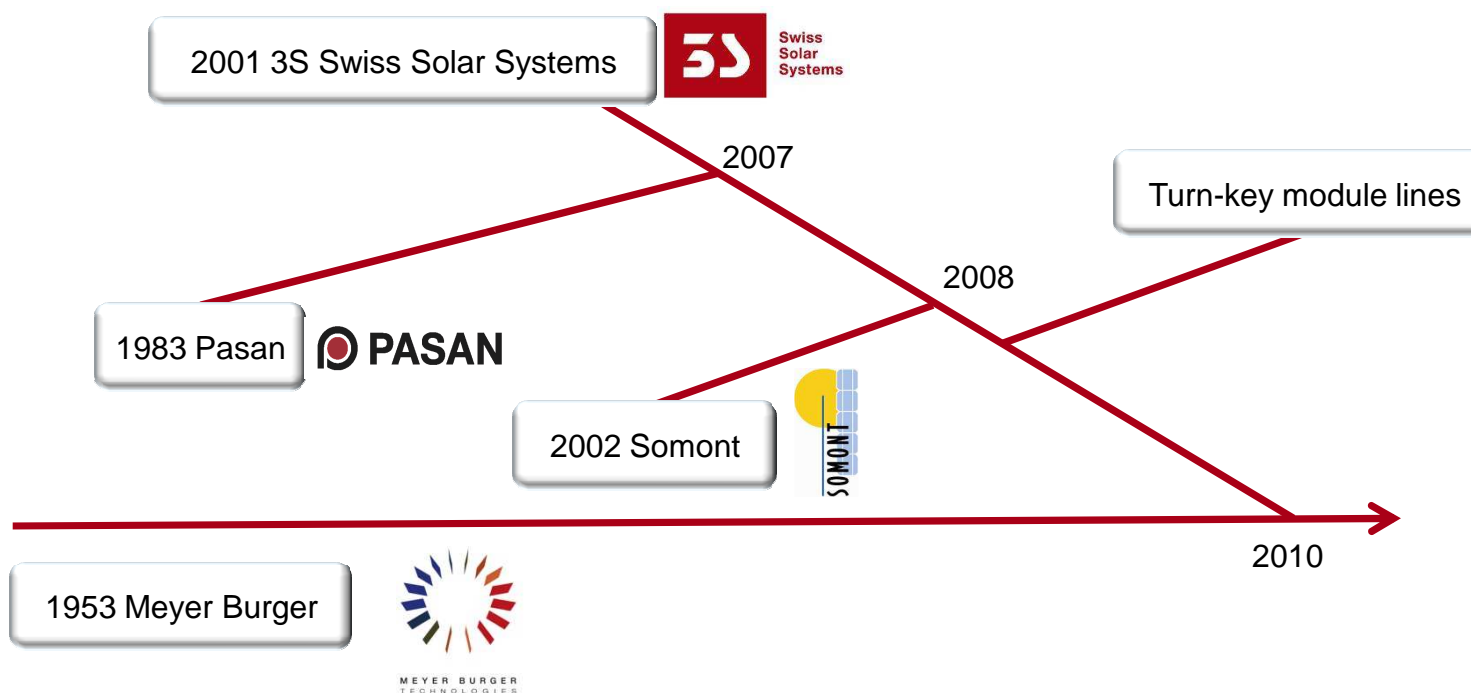
source: www.epia.org

Forecast



source: www.epia.org

From 3S Swiss Solar Systems to the Meyer Burger Group



Pasan: Pioneer in PV Test Systems since 1981



1983

Founding of Belval SA by Pierre-René Beljean

2007

Belval joins 3S Swiss Solar Systems



2008

Pasan, new company name  PASAN
Move to Neuchâtel
Somont joins 3S
3S provides turn key solutions



2010

Merger
3S Meyer Burger Technology



1981 First solar simulator



Technology leader dedicated to customer value

Core Know-how

Solar Simulators for cell and module performance measurement (IEC Standard)
Measurement technology for PV quality control

High skilled engineers

45 people, mainly engineers & PhD :

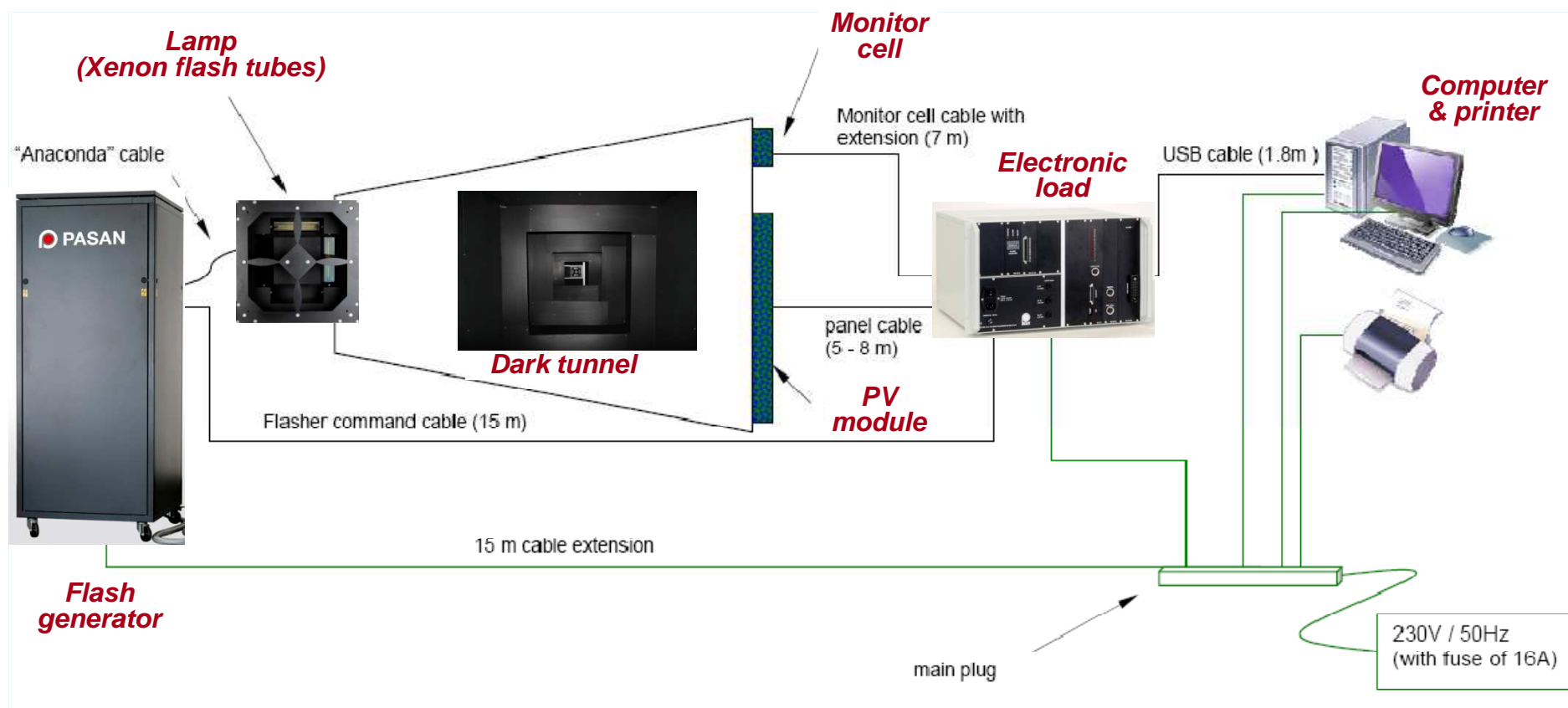
- 1/4 Customer service and sales
 - 1/3 R&D and innovation
- cooperation with leading PV institutes



Scientific partner



Sun Simulator set-up for performance measurement



Product Portfolio



Module testers

- Illuminated area: 2x2m, 3x3m or bigger
- Class AA-AA-AA




Cell testers

- Illuminated area: 22x22cm
- Class A-A-A

PV quality control equipment

- Shuntometer
- Spectrometer
- HiPot
- In-line control systems

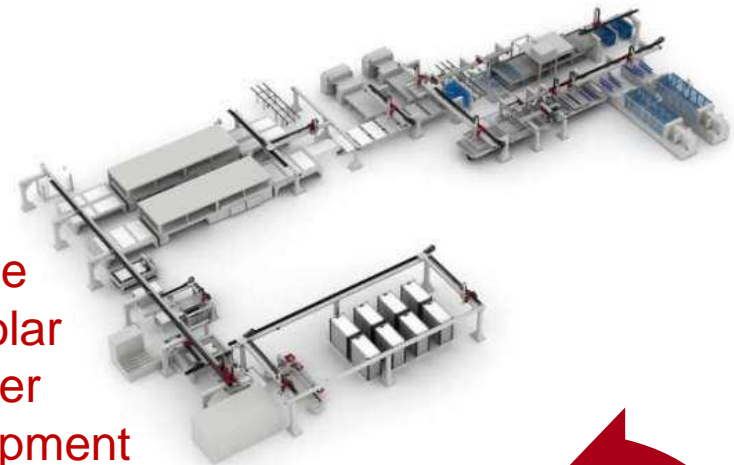
3S Product and Service Overview

	Component Production	Production lines	Photovoltaic systems
			
Product groups	<ul style="list-style-type: none"> • Stringer • Laminators • Cell and module testers • Edge trimming machines • Framing machines • Module sorters 	<ul style="list-style-type: none"> • Lines of various automation degrees • Technology transfer • Certification assistance • Turn-key solutions 	<ul style="list-style-type: none"> • MegaSlate roofing systems • Shading • Glassing • OEM Production
Geographical reach	<ul style="list-style-type: none"> • Global presence 	<ul style="list-style-type: none"> • Global presence 	<ul style="list-style-type: none"> • Switzerland • Europe

Business Model, know-how transfer from process

World's market leader for production equipment for manufacturing of solar modules

Know-how accumulated from the conception and production of solar modules flows directly into further development of production equipment



Experts in design and development of innovative building integrated solar systems

Turn key module production line

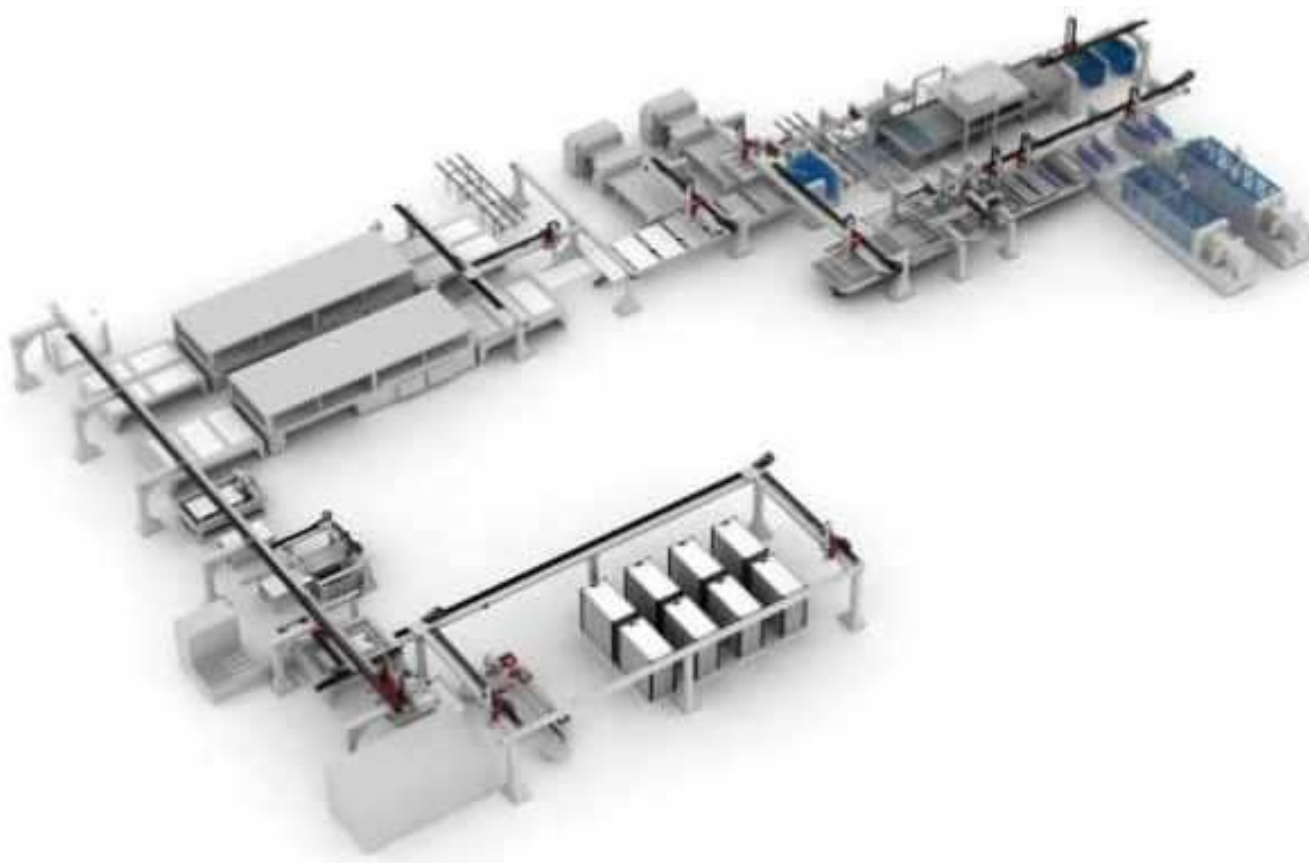
Cell connection

Lay-up

Lamination

Assembly

Mesure



Resulting in High-tech BIPV projects



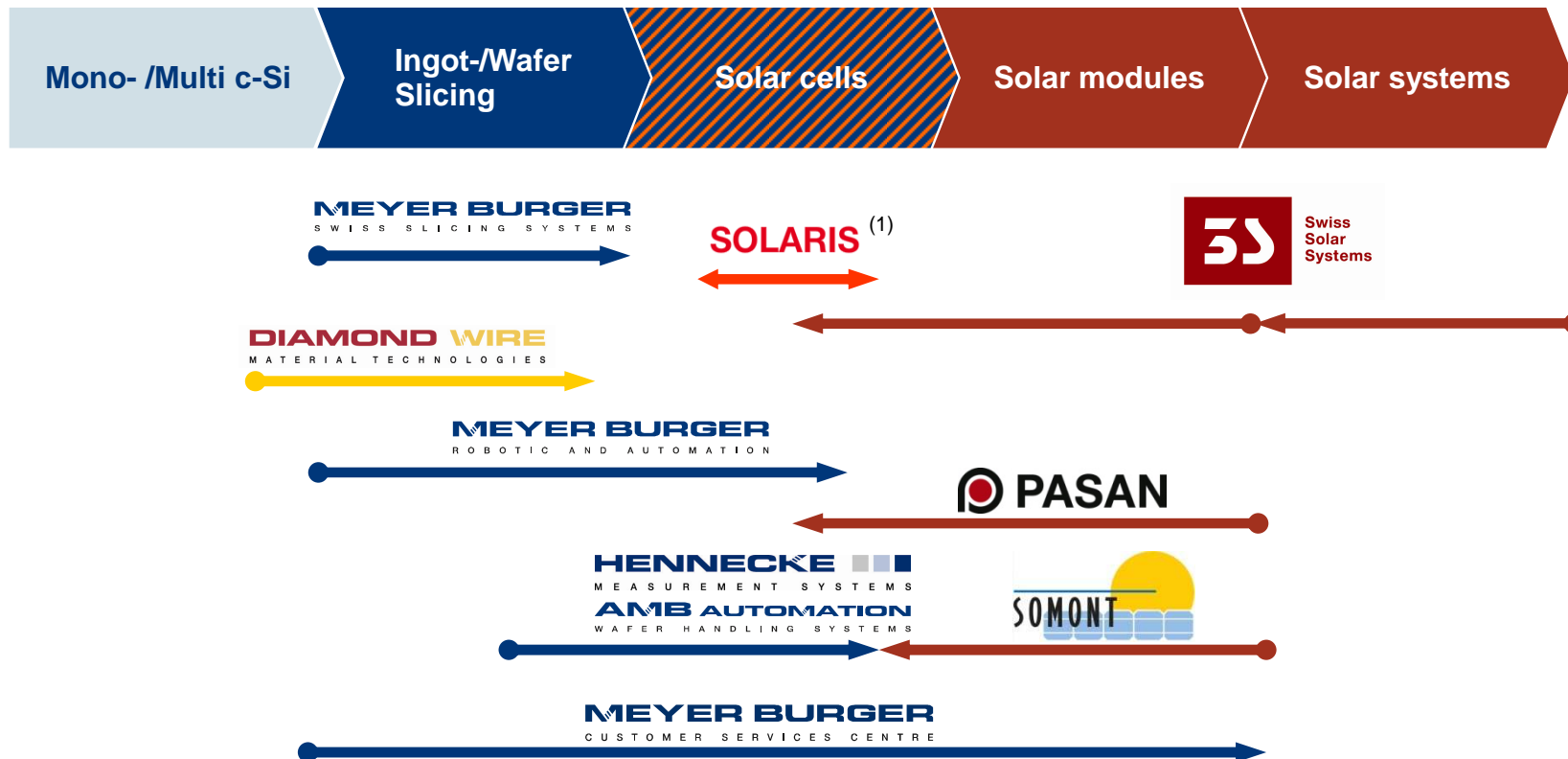
Know-how transfer: supporting our customer's success



1 MW Solar BIPV glas/glas modules produced by Lucky Power



A leading technology group over the PV value chain



Note: (1) Cooperation agreement with Oerlikon Systems



MEYER BURGER
SWISS SOLAR SYSTEMS

A new technological leader group



MB WAFERTEC
SWISS SLICING SYSTEMS



MB ROBOTICS
ROBOTICS / AUTOMATION



HENNECKE
METROLOGY SYSTEMS



AMB AUTOMATION
WAFER PROCESSING



DIAMOND WIRE
MATERIAL TECHNOLOGIES



SOMONT
CELL CONNECTING



3S MODULTEC
MODULE SOLUTIONS



PASAN
MEASUREMENT SYSTEMS



3S PHOTOVOLTAICS
SOLAR BUILDING TECHNOLOGIES



MB SERVICES
WORLDWIDE ASSISTANCE

Challenges of a local presence in a global market

For a small enterprise

- ❑ Approach with agents
 - No direct control of the market
 - Poor customer feed-back
 - Difficult to set-up a service
- ❑ Market presence and customer relationship
 - Mostly through fairs, Internet and advertisement
 - Customer visits, but difficult to establish a close and followed relationship

For a bigger group

- ❑ Find the right people (risk)
- ❑ Have the good Network

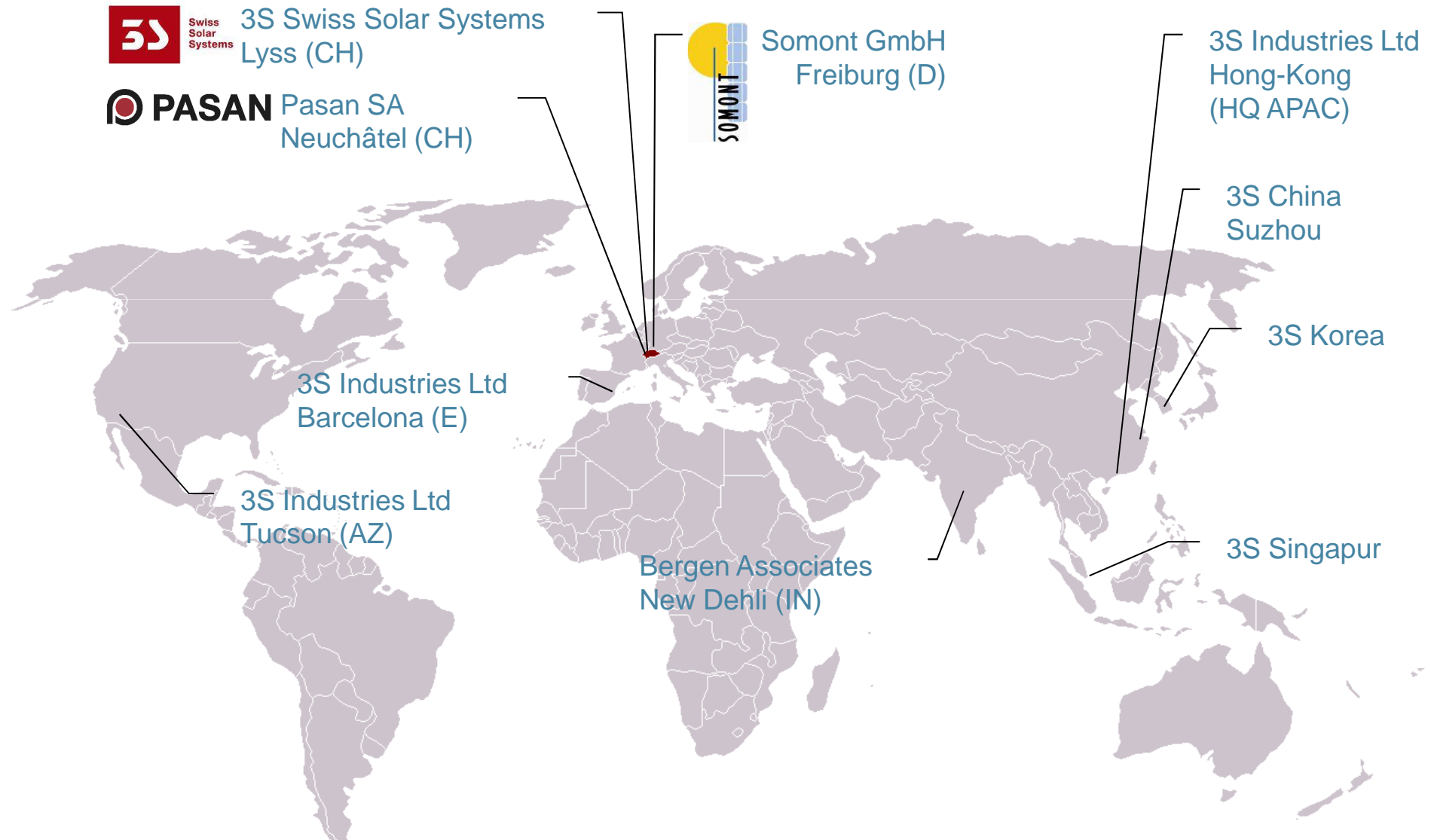
For Asia Pacific

- ❑ Huge region, different markets, different cultures
- ❑ Used to short response time and high service level

Further challenges for PV

- ❑ Becoming an industrial market
 - Speed ↗ ↗
 - Customer expectations ↗ ↗
 - Service requirements ↗ ↗
 - Visibility ↘
(the market is still driven by feed-in tariffs)
- ❑ Changing to a mass production market
 - Rapid change of key players
 - Germany vs China
 - Top ten producers becoming really big
(key account approach and negotiation power)

Decision to control APAC through a BU centered in HK



Succes story HK Science Park

- ❑ Commitment to Green Tech
- ❑ Science Park Top-Down full support and commitment
- ❑ Common interest to build-up a PV center
 - Share of Network
 - Joint organisation of first PV expo and conference in HK (Oct. 09)
- ❑ Situation:
 - Central in APAC, well deserved by planes
 - Nice facilities
- ❑ Support in the build-up of our organisation:
 - Contact setting to the future APAC Manager

**It is running now since one year
and we have won a lot of time !
Thanks to HK Science Park**

Thank you for your attention

