

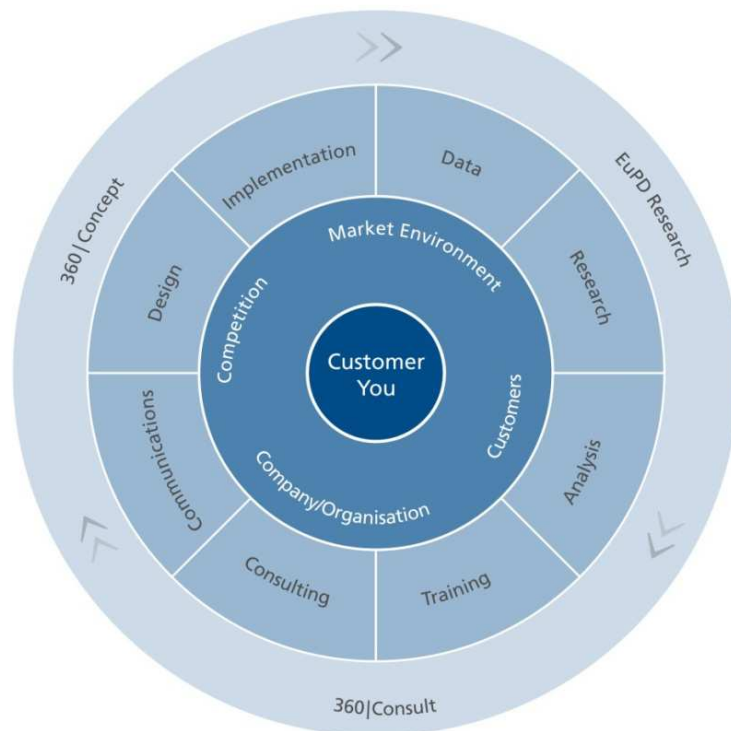


# Understanding the global solar market in relation to India

Martin Ammon | Senior Analyst  
EuPD Research

## Hoehner Research & Consulting Group (HRCG) – about us

The Hoehner Research & Consulting Group (HRCG) incorporates the expertise of [EuPD Research](#), [360|Consult](#) and [360|Concept](#) in its integrated solutions. We combine [market research](#) with [strategic consulting](#) and communications, which enable us to provide our customers from governments, associations, chambers of commerce as well as the finance and industry sectors with sustainable integrated business solutions.



### 14 years of focused research and consulting

- **Founded:** 11/24/2000
- **CEO and Founder:** Markus A.W. Hoehner
- **Principal Offices:** Bonn | Berlin | San Francisco
- **Employees:** >50 FTE analysts & consultants
- **Interview Center:** 40 agents (specialized in CleanTech)
- **Core Areas:** CleanTech, Pharmacy & HealthCare, Sustainable Management
- **Special Fields:** Market Research, Strategic Marketing, Strategy Consulting, Economics & Financial Research, Commercial Due Diligences, Risk Management

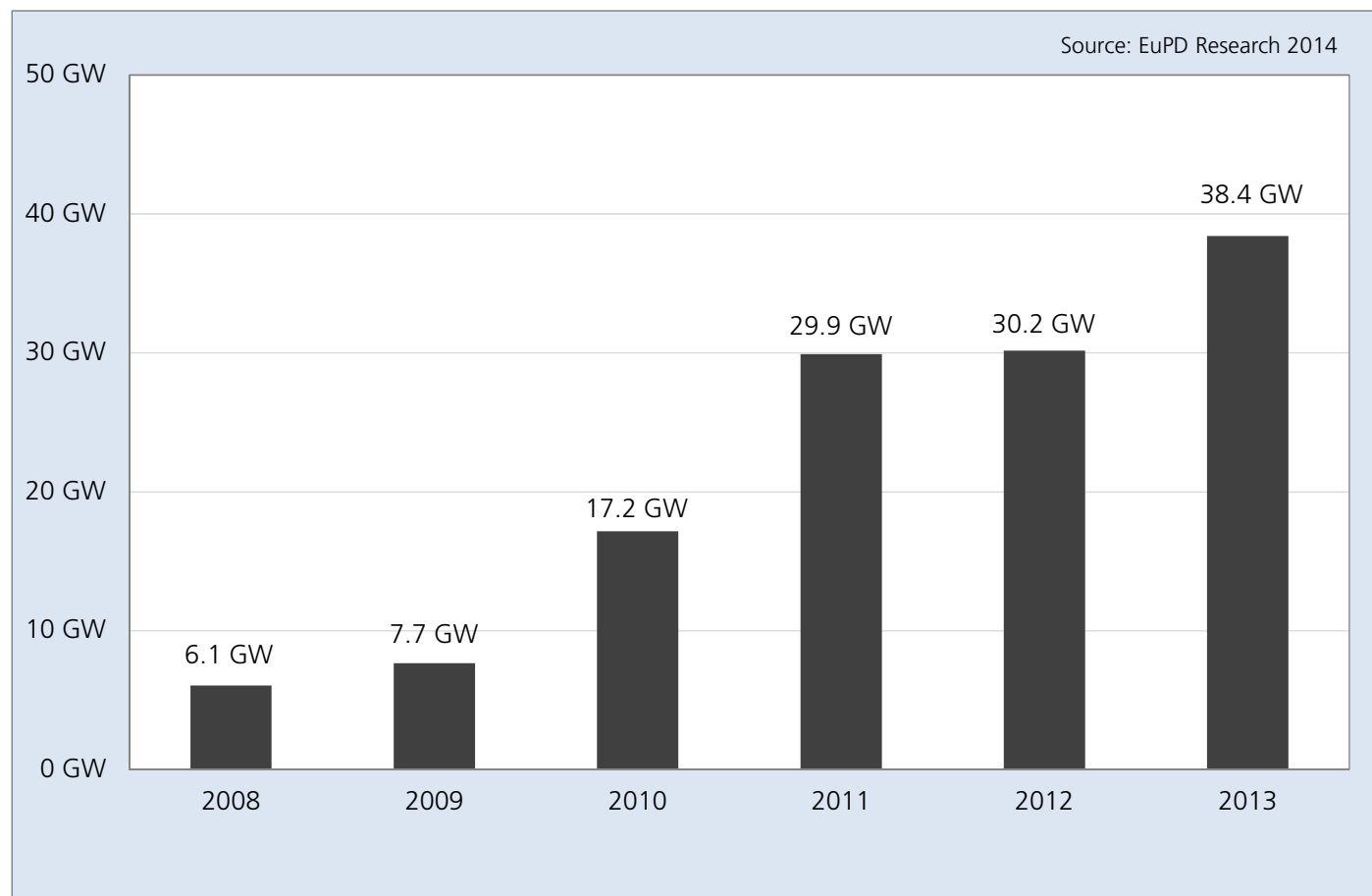
---

# Global PV sales markets – status quo and trends

## Global PV sales markets – status quo and trends

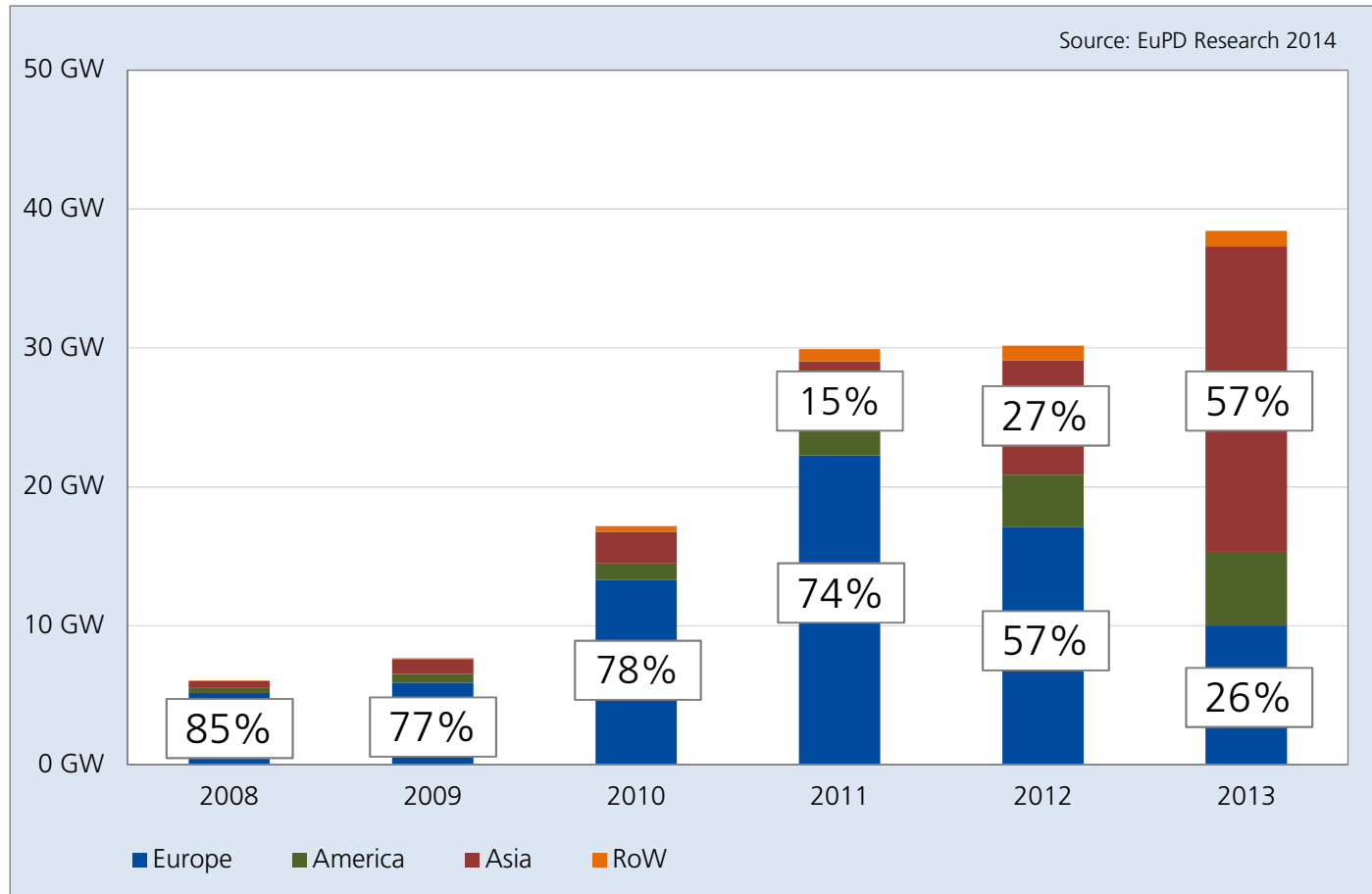
---

2008 to 2013: annual growth rate of 45%



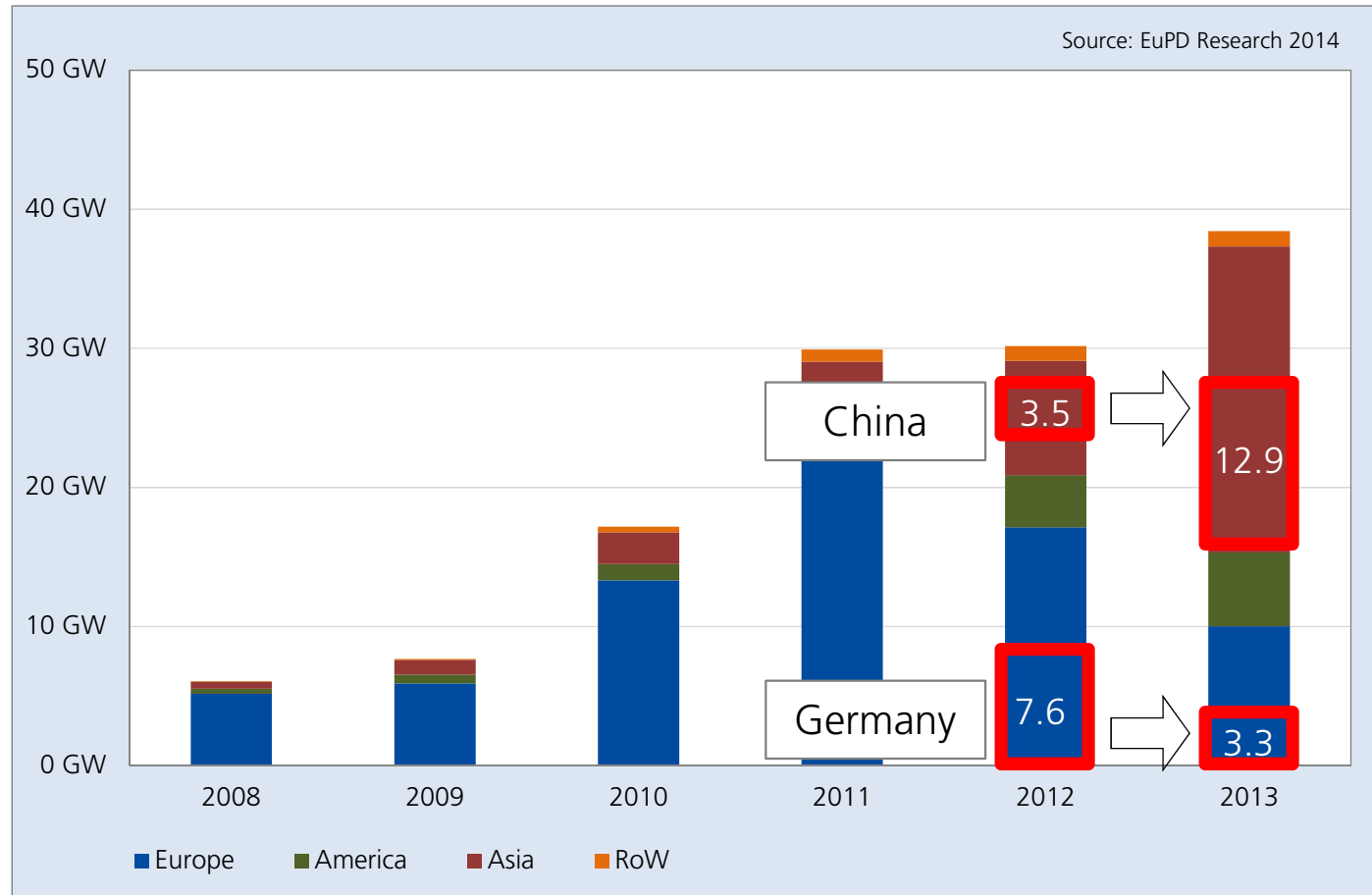
## Global PV sales markets – status quo and trends

2008 to 2013: annual growth rate of 45%



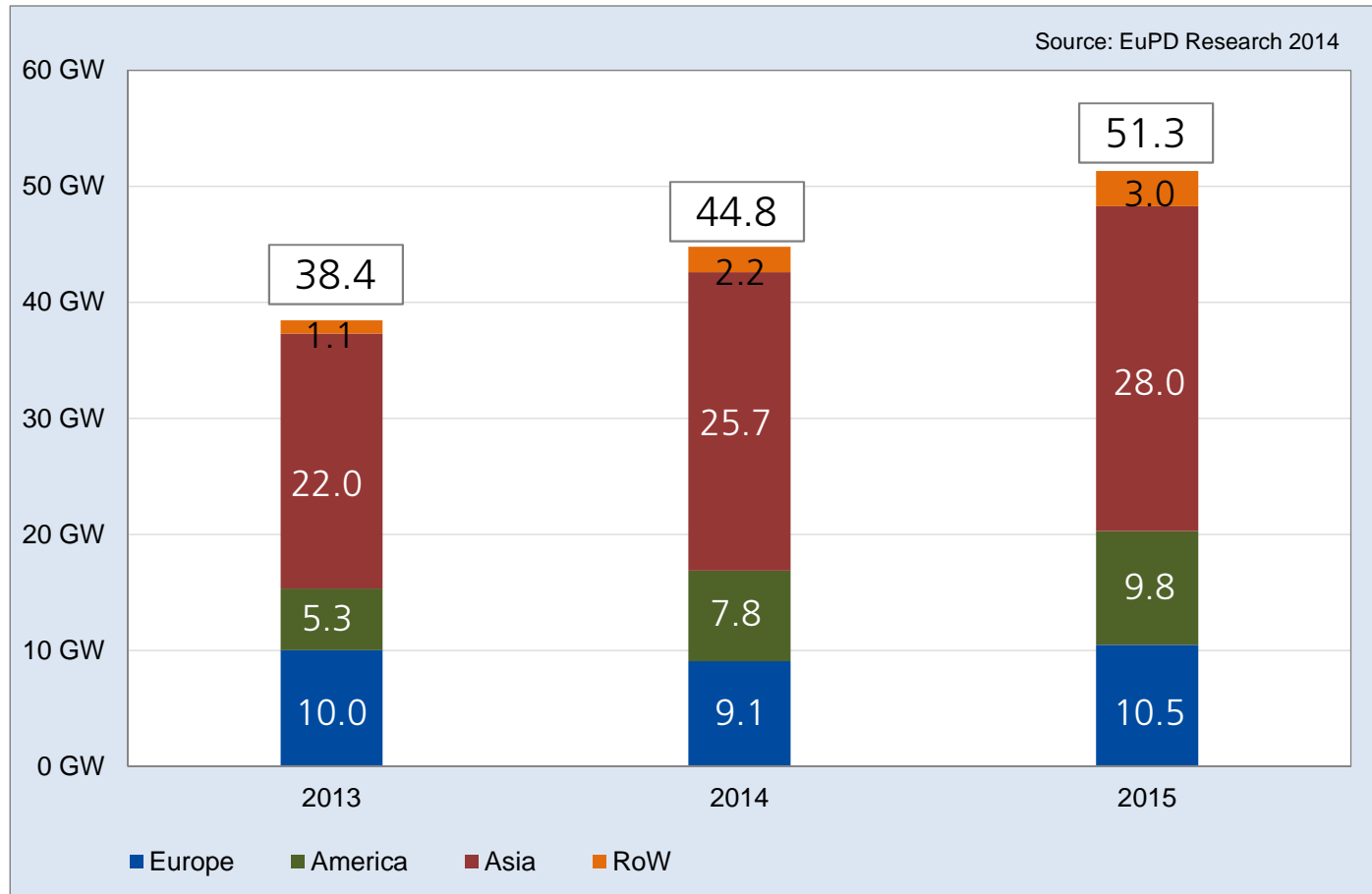
## Global PV sales markets – status quo and trends

2008 to 2013: annual growth rate of 45%



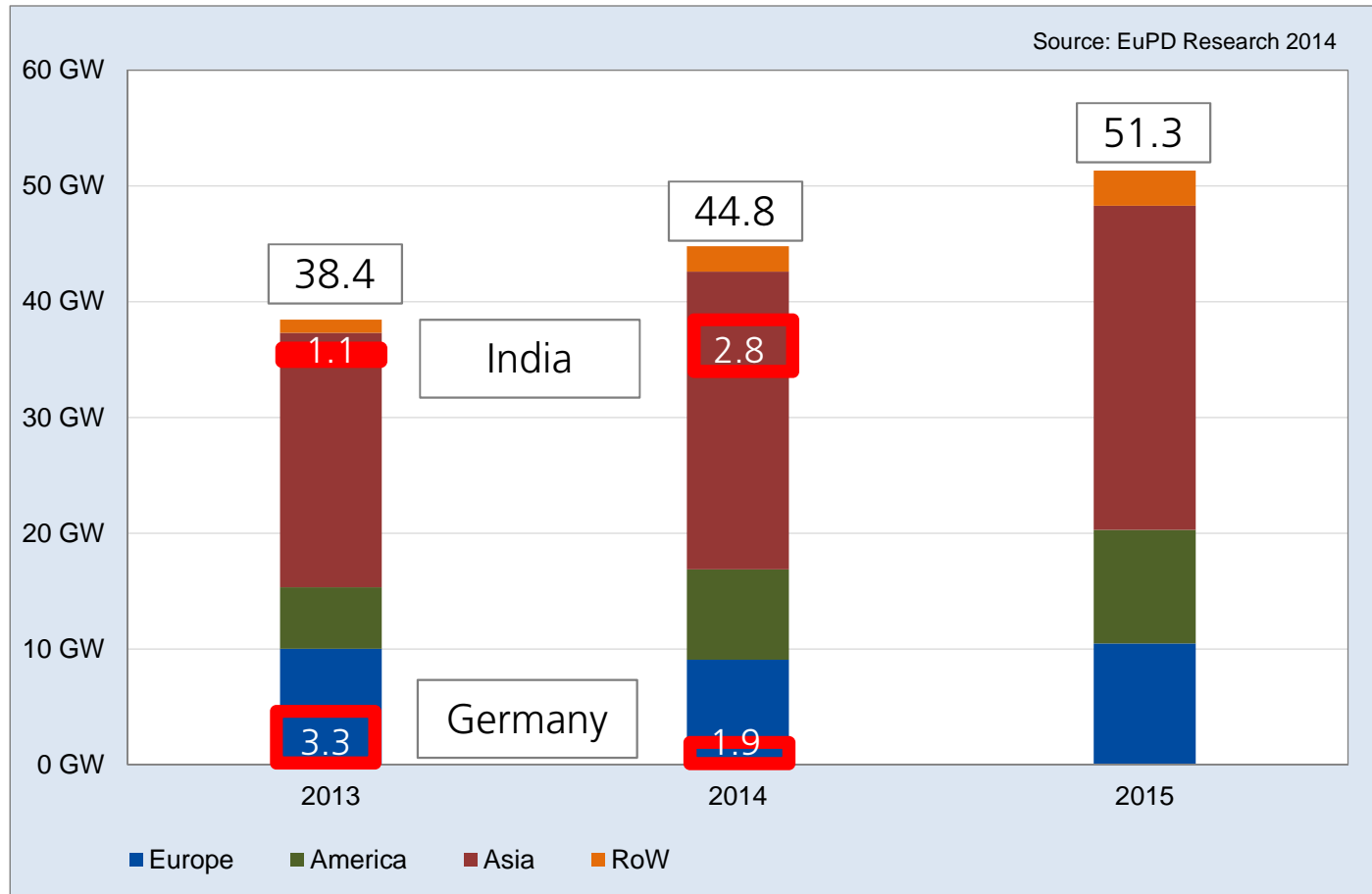
## Global PV sales markets – status quo and trends

### The global photovoltaic boom continues



## Global PV sales markets – status quo and trends

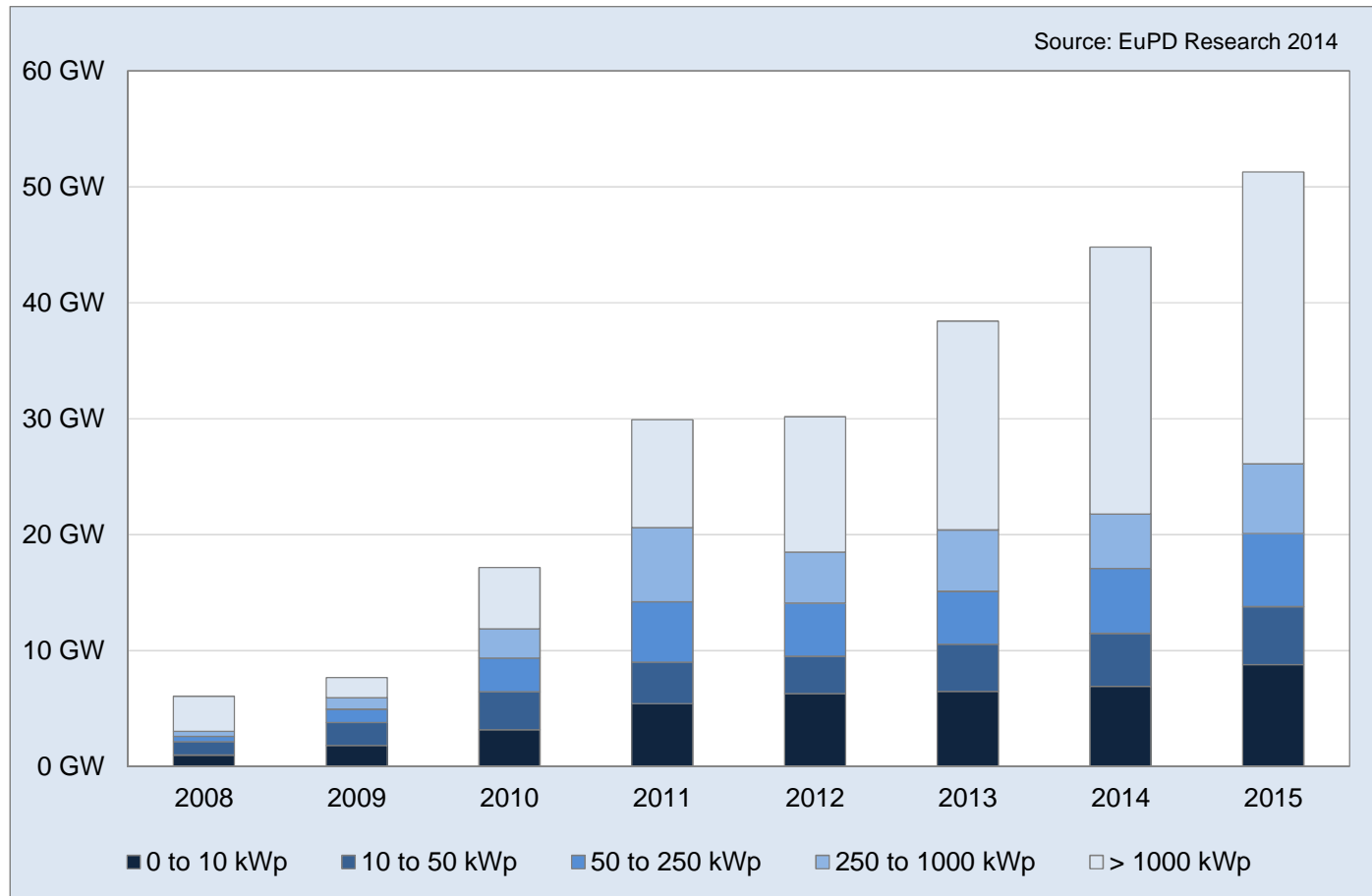
### The global photovoltaic boom continues





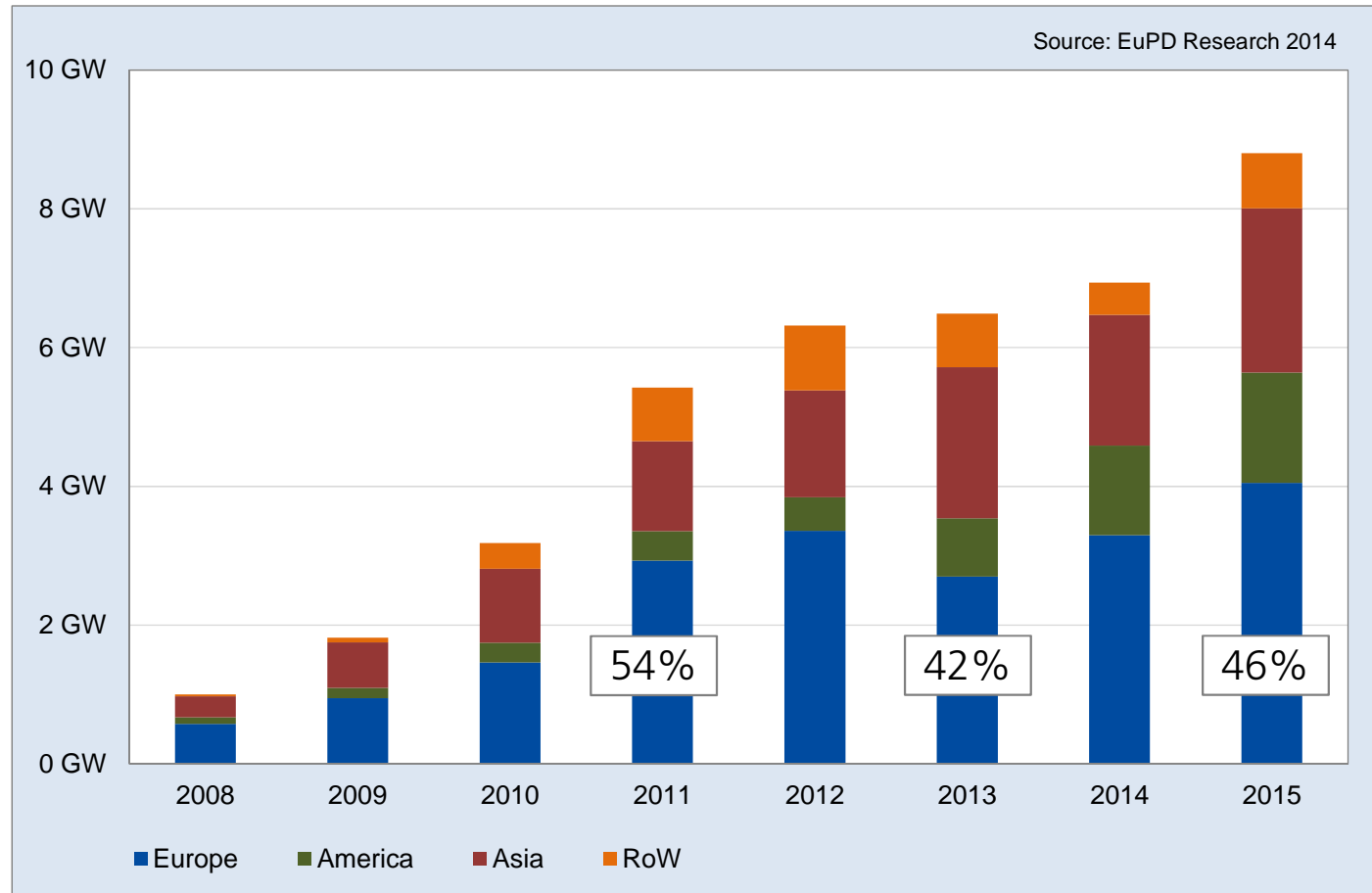
## Global PV sales markets – status quo and trends

The global photovoltaic boom is driven by the large scale segment



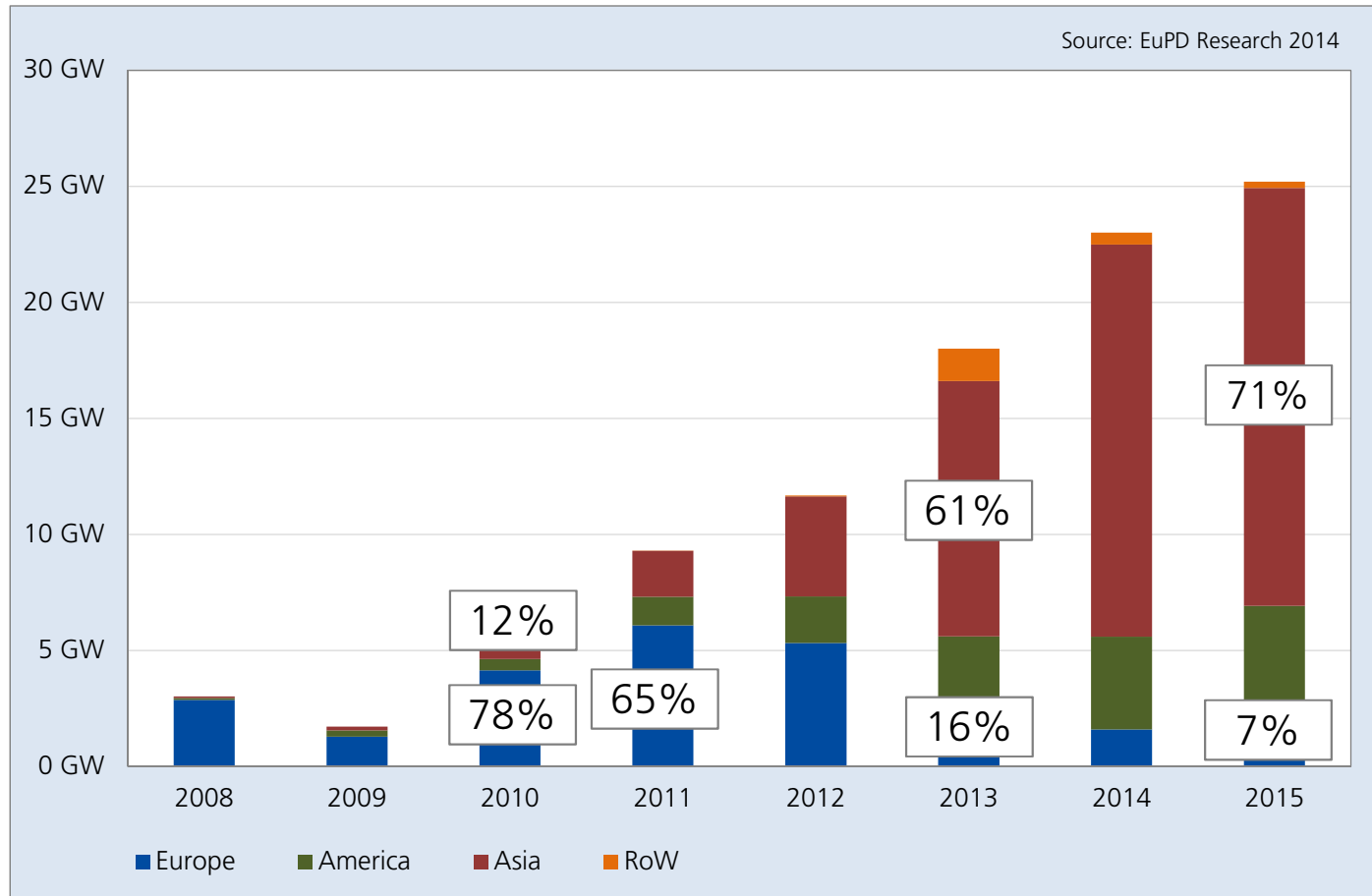
## Global PV sales markets – status quo and trends

### PV systems up to 10 kWp



## Global PV sales markets – status quo and trends

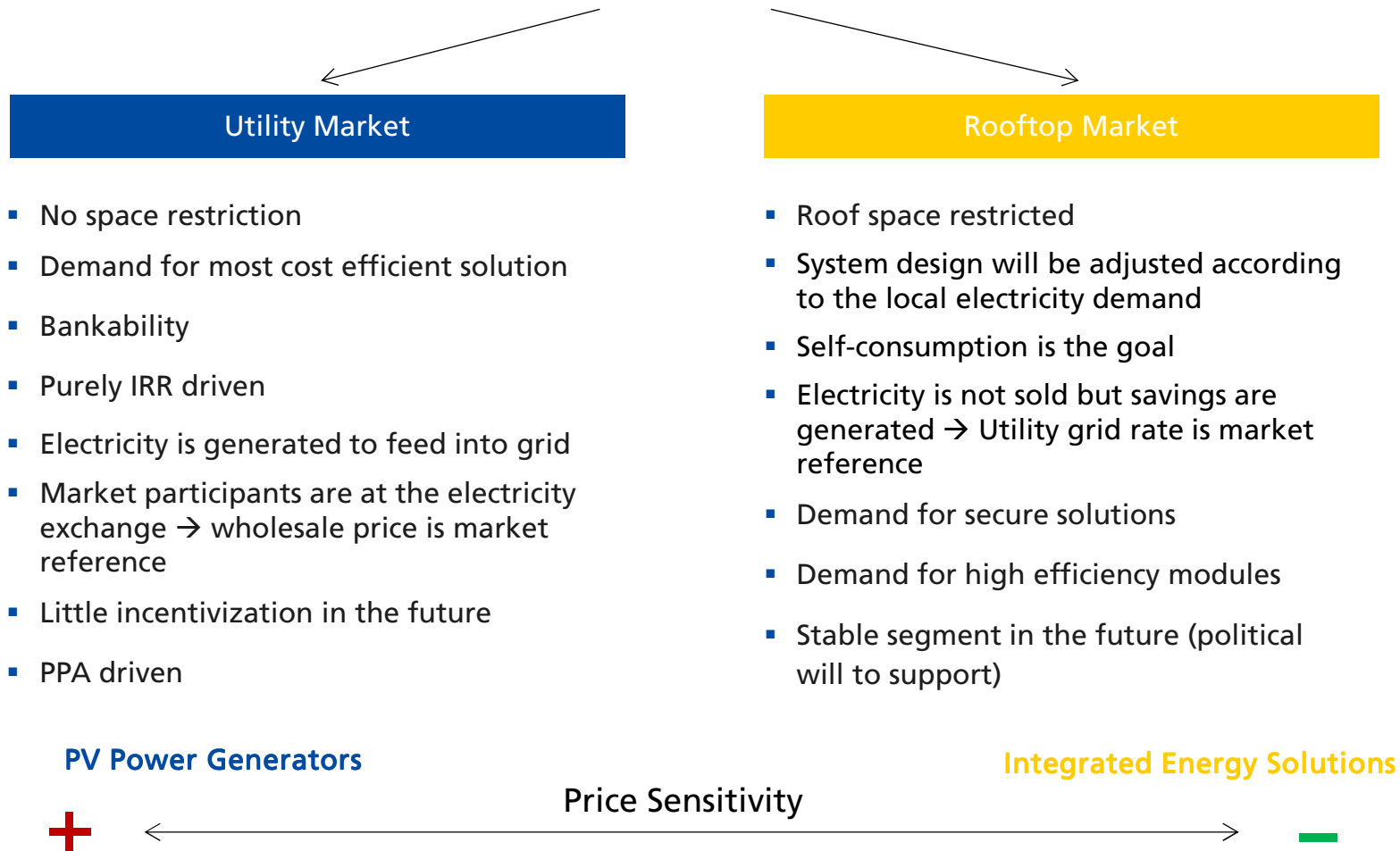
### PV systems over 1 MWp



## Global PV sales markets – status quo and trends

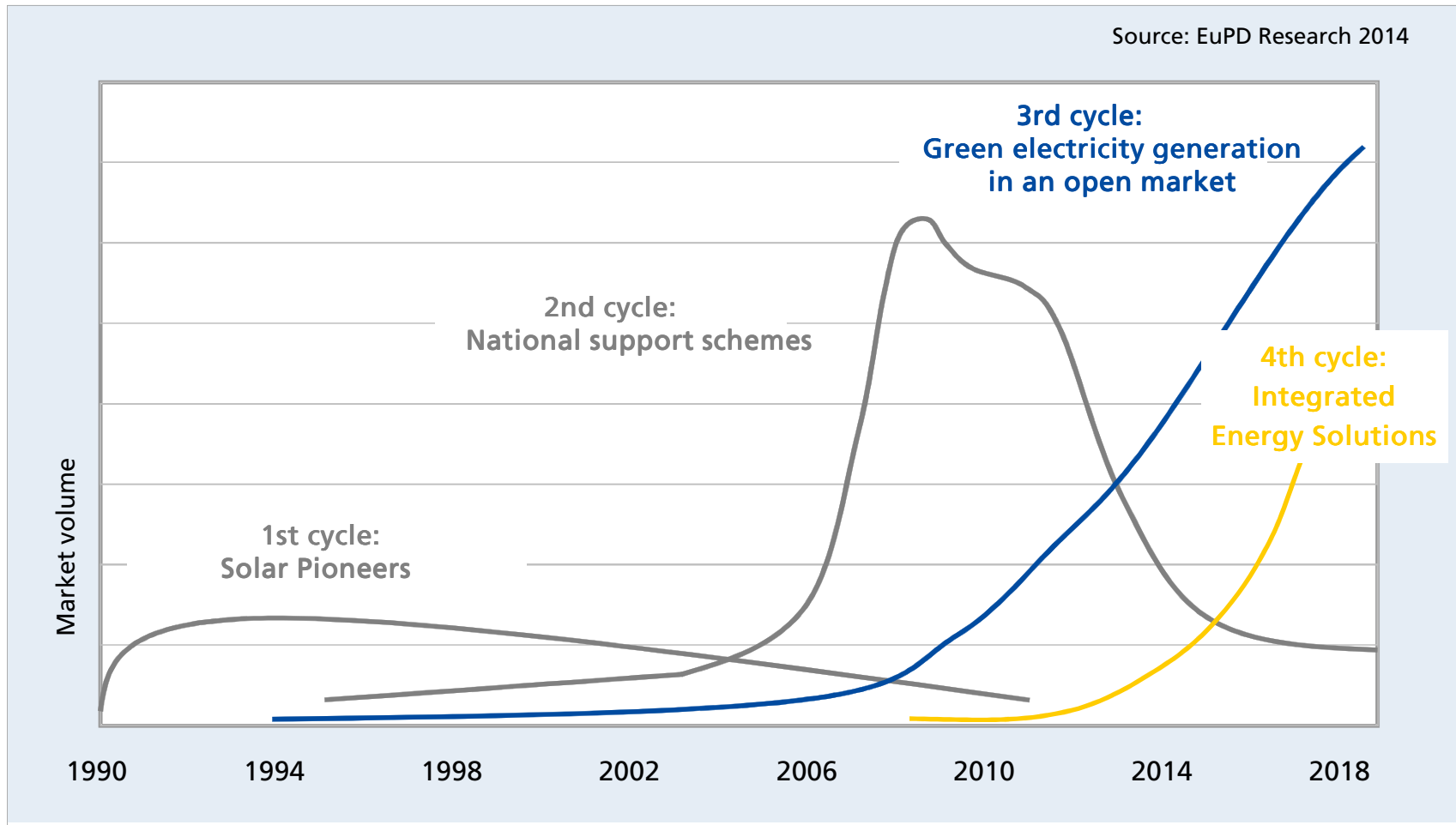
---

PV 2.0 will evolve into two different markets!



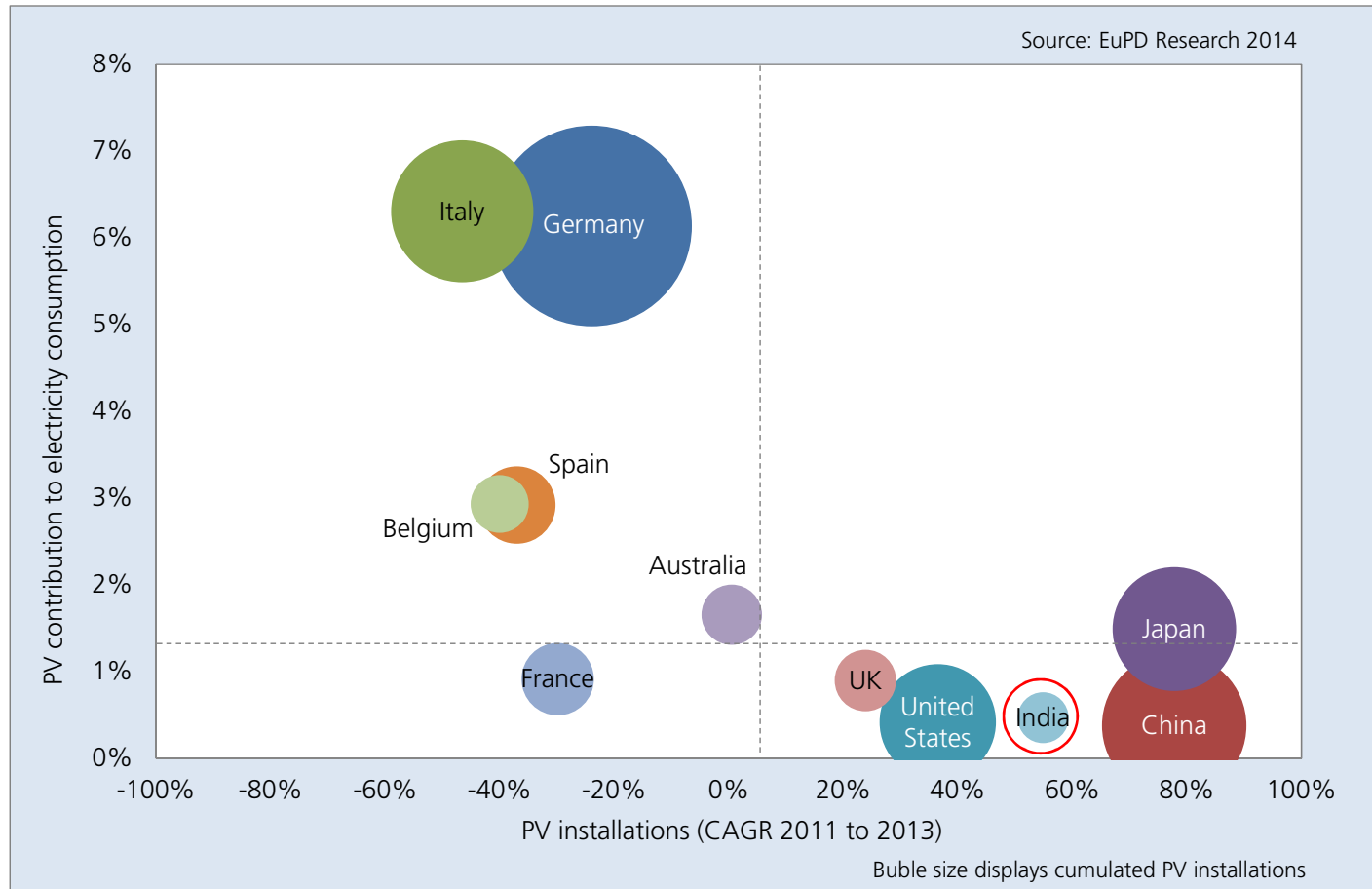
# Global PV sales markets – status quo and trends

## PV growth cycles



# Global PV sales markets – status quo and trends

## Top 10 PV sales markets



## Global PV sales markets – status quo and trends

---

### Differences between Germany and India

	Germany	India
Annual growth rate of final consumption of electricity (2002 – 2012)	0.3%	7.9%
Electricity price (private households)	30 €Cent/ kWh	5 €Cent/ kWh
PV contribution to electricity consumption	6.1%	0.5%
Expansion target for PV	52 GW (2020)	20 GW (2022)

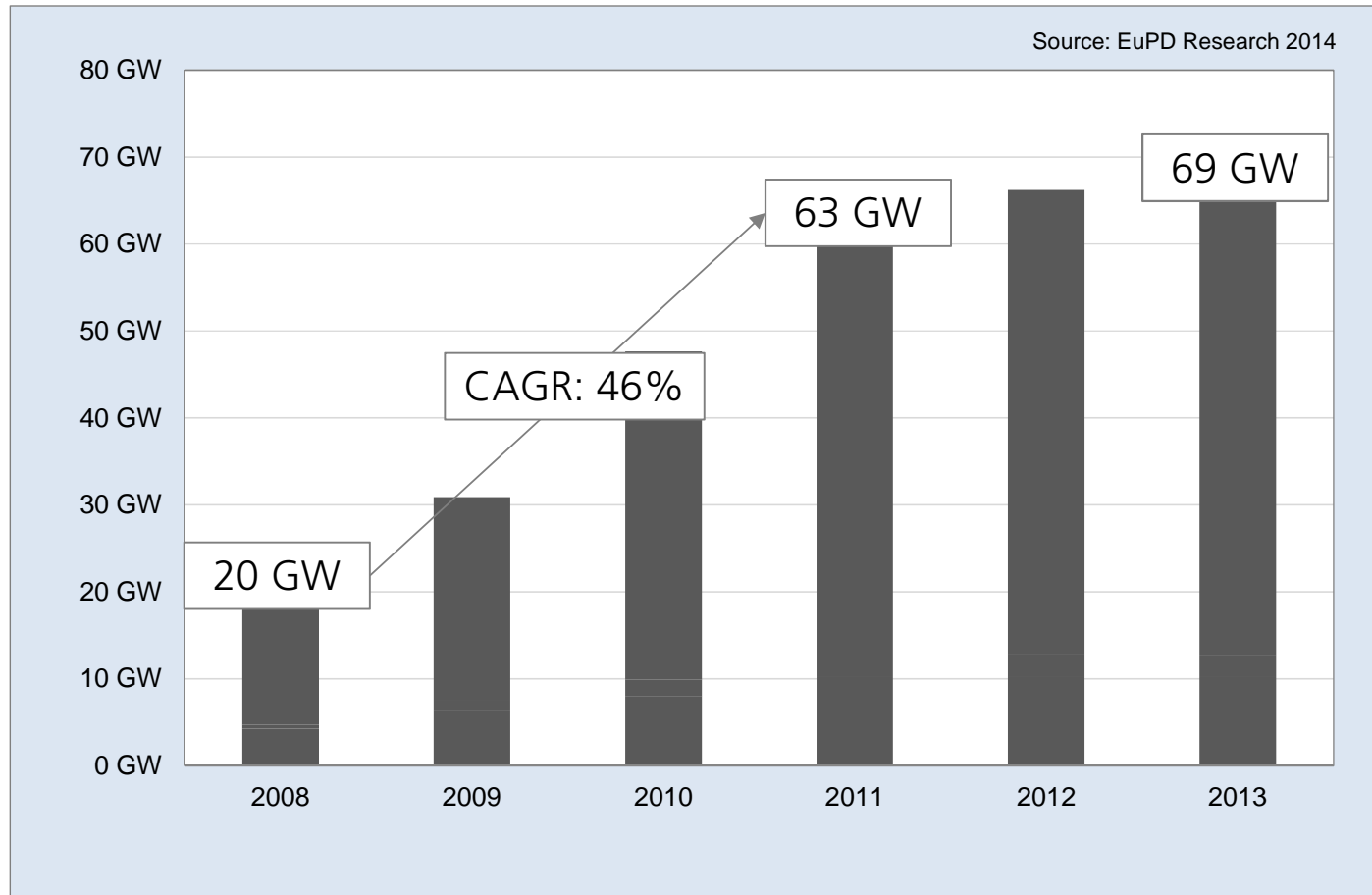
---

# PV manufacturing



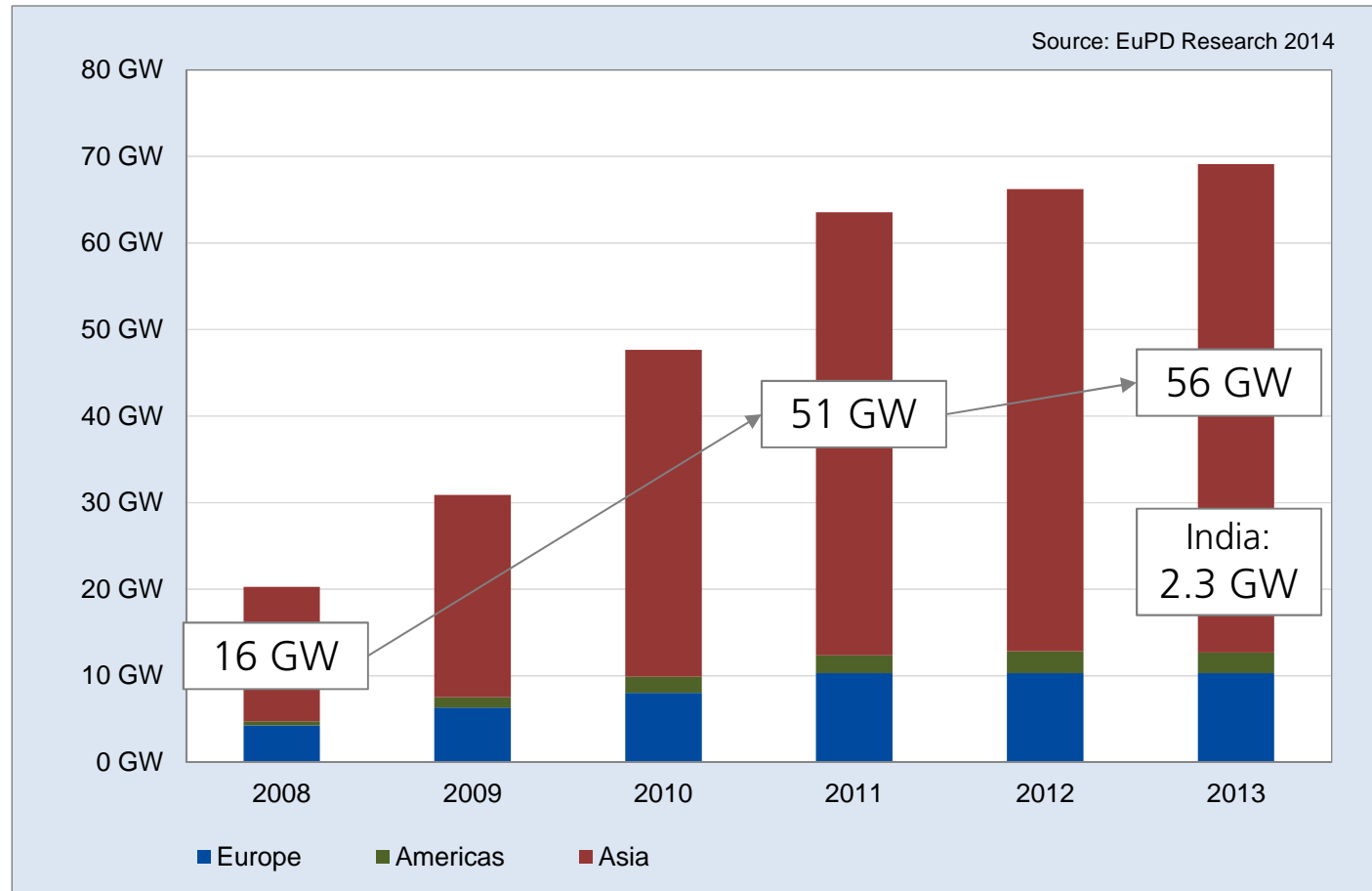
## PV manufacturing

### Module manufacturing capacity



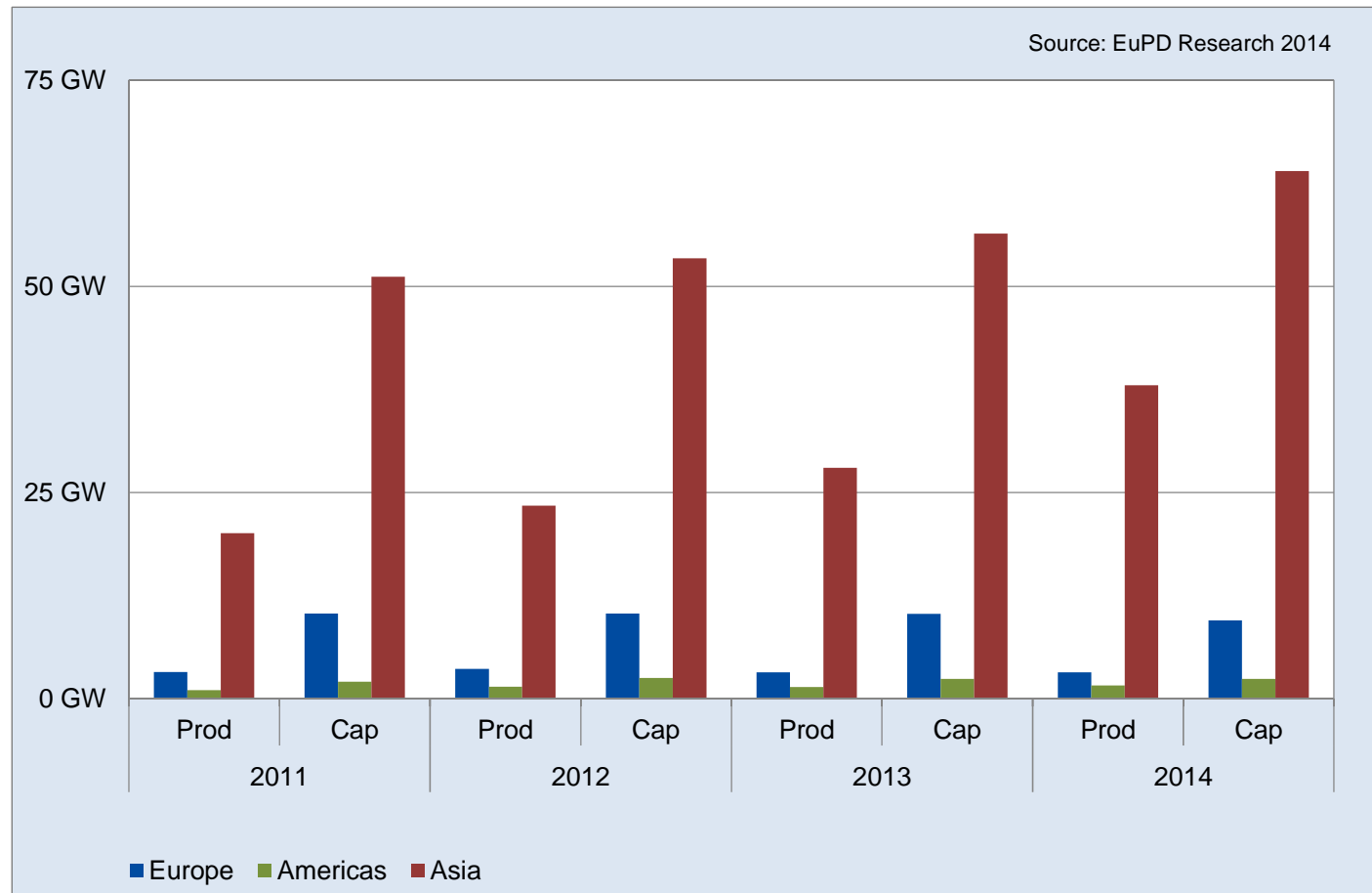
## PV manufacturing

### Module manufacturing capacity by region



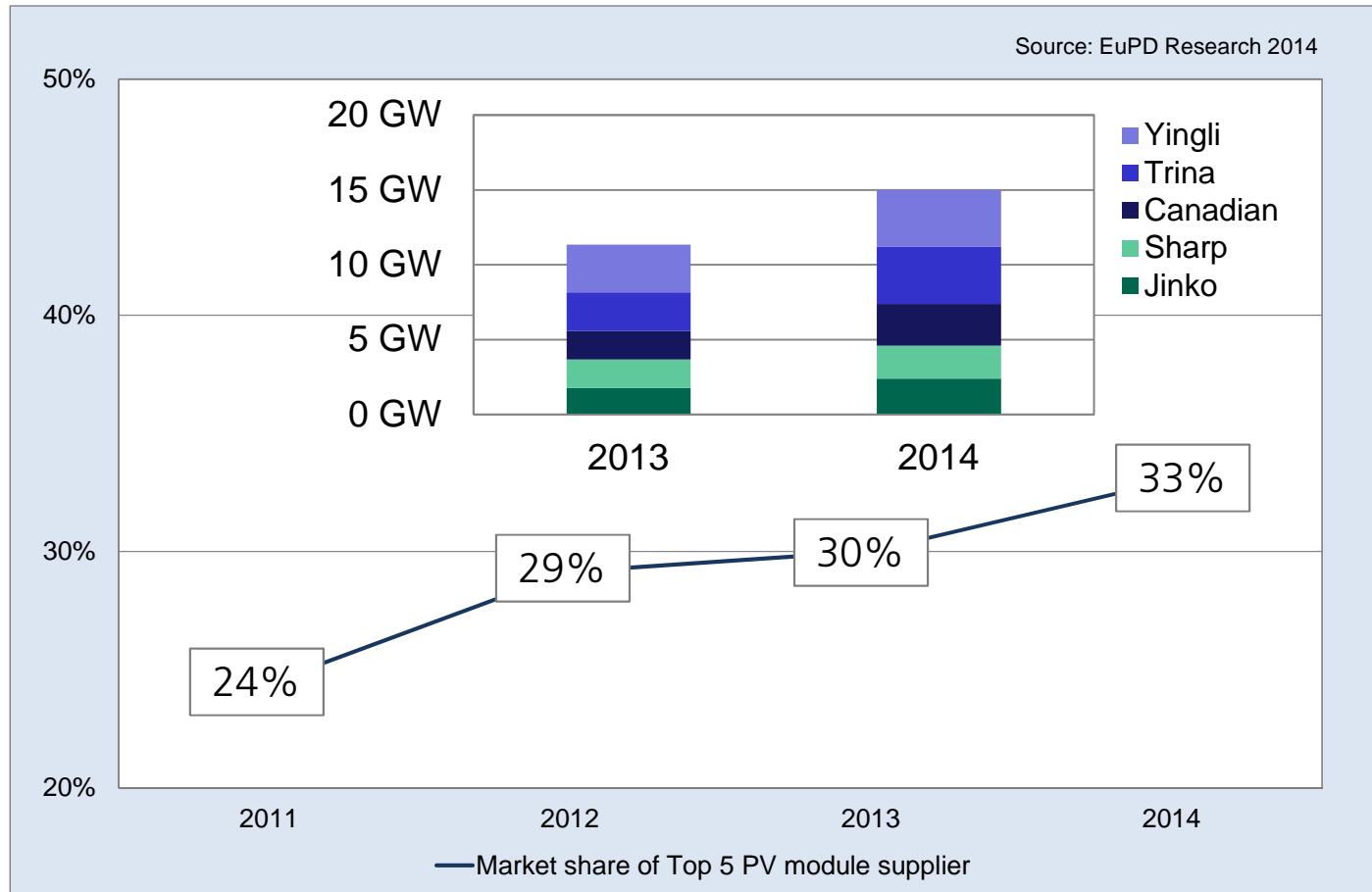
## PV manufacturing

### Module manufacturing capacity compared to production by region



# PV manufacturing

## Top 5 PV module suppliers



---

# Future projections

## Future projections

---

### Global PV market

- worldwide PV installations will increase - reaching a cumulated PV installation of over 600 GW in 2020
- according to long term learning curve, PV manufacturing costs will continue to decrease – PV system prices will reduce by around 1/3 from today until 2020
- PV production will concentrate more and more on a few top players
- electricity generated by PV systems becomes more and more competitive to other (fossil) energy sources

### India

- electricity generation capacities in India will continue increasing by 8% every year – facing a strong growing electricity demand
- coal will continue to be the dominating energy source for electricity generation in future
- reaching 20 GW of PV installations will be the base for a higher PV share after 2020

---

**THANK YOU FOR YOUR ATTENTION!**

## Imprint

---

EuPD Research

Phone +49 (0) 228-971 43-0

Fax +49 (0) 228-971 43-11

[info@eupd-research.com](mailto:info@eupd-research.com)

[www.eupd-research.com](http://www.eupd-research.com)

Contact

Martin Ammon

Senior Analyst

[m.ammon@eupd-research.com](mailto:m.ammon@eupd-research.com)

EuPD Research® is a brand of HOEHNER RESEARCH & CONSULTING GROUP GmbH.