

*IEA PVPS Workshop at PVSEC-19*

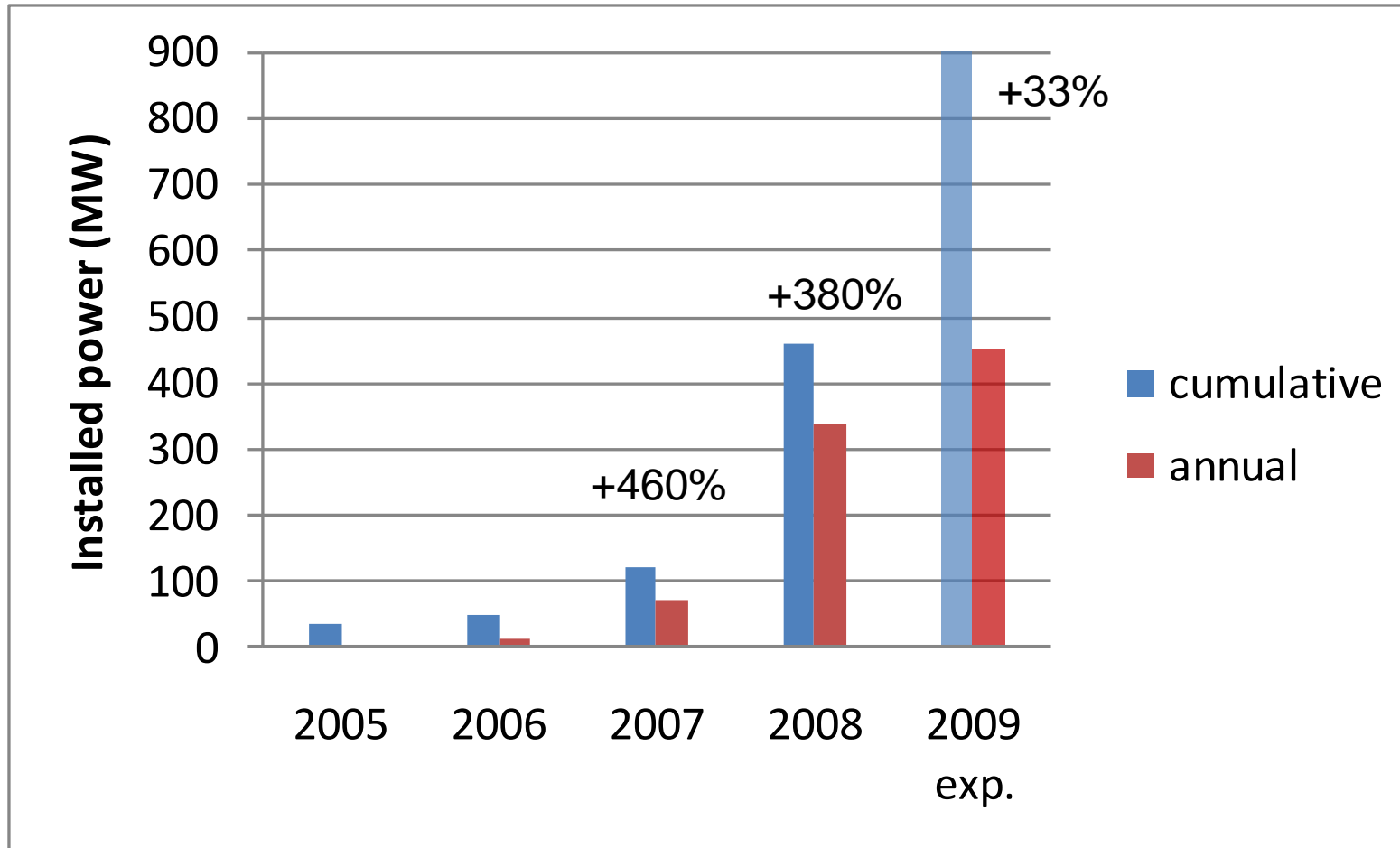
# Current Status and Prospects of Photovoltaic Power Generation in Italy

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Jeju, November 2009

# PV market in Italy

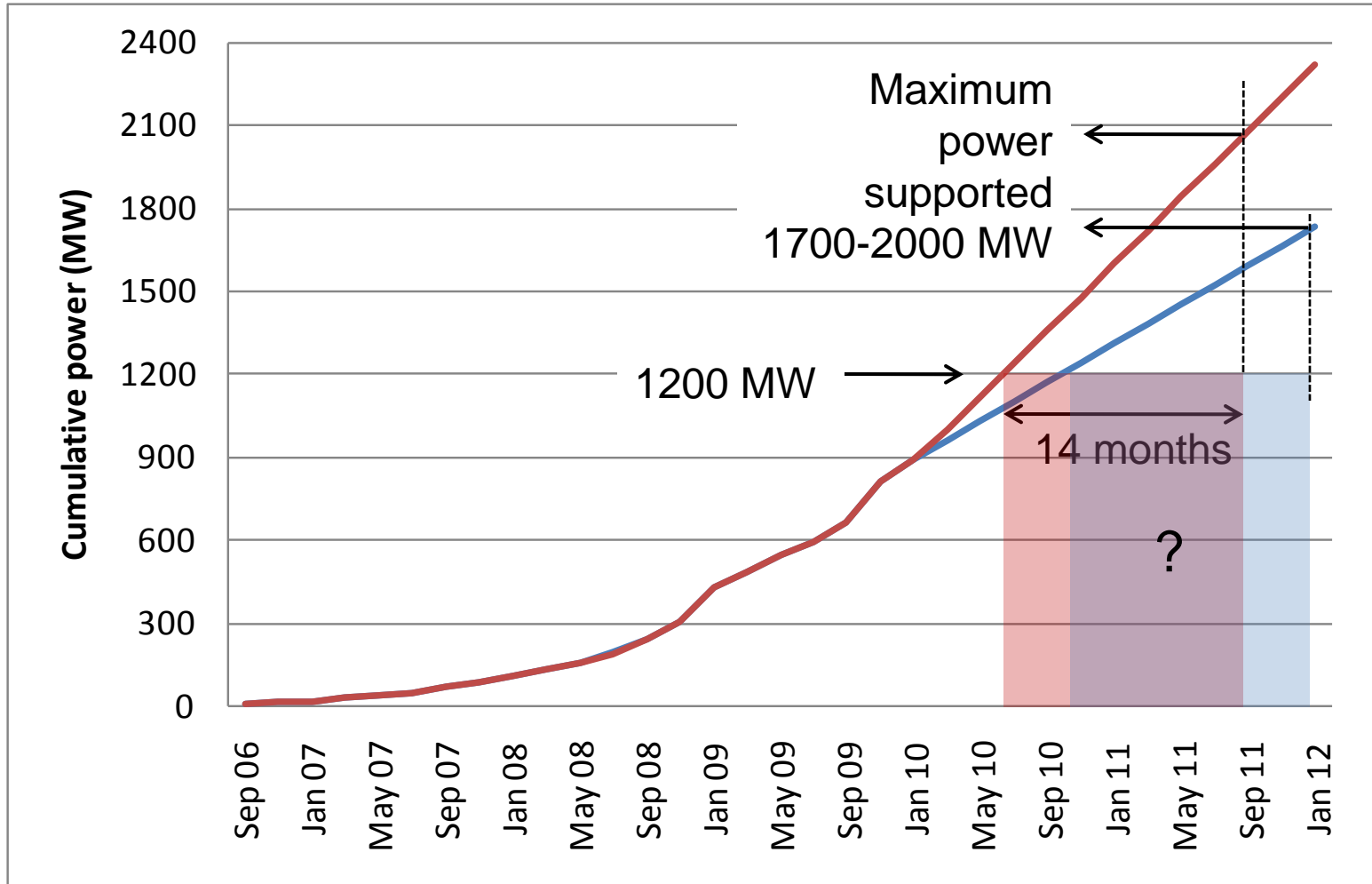


- Strong Growth in Italy's PV Market in 2007 and 2008
- Expected growth of 33% in 2009 despite the financial crisis

# Incentive scheme in Italy

- Incentives were first endorsed in 2005, then updated in 2007
- The support scheme consists of:
  - a tariff (premium) for the electricity produced by PV plant (35-48 c€/kWh) fixed for 20 years
  - the value of electricity produced (selfconsumed or sold to the grid).
  - a further increase up to 30% in case of improving the energy efficiency of the annexed building
- The goal of cumulative power installed is 3 GW within 2016
- Maximum power supported: 1,2 GW + the power installed in the next 14 months

# Supported power



# Granted incentives

- The cost of the incentive is covered by a component of the electricity tariff structure to be paid by all consumers

Granted incentives up to Aug. 09				
kind of plant	number of plant	MW	GWh	incentives (M€)
net metering	26851	137	177	79
energy sold	2865	234	290	132
total	29716	371	467	211

- Incentives to be granted from the end of this phase (1.8 GW): 1,000 M€/year
  - Cost increase per consumer: + 7 €/year (+ 1.3%)
  - Total investment: 8,000 M€
  - Labour places: 35,000 units

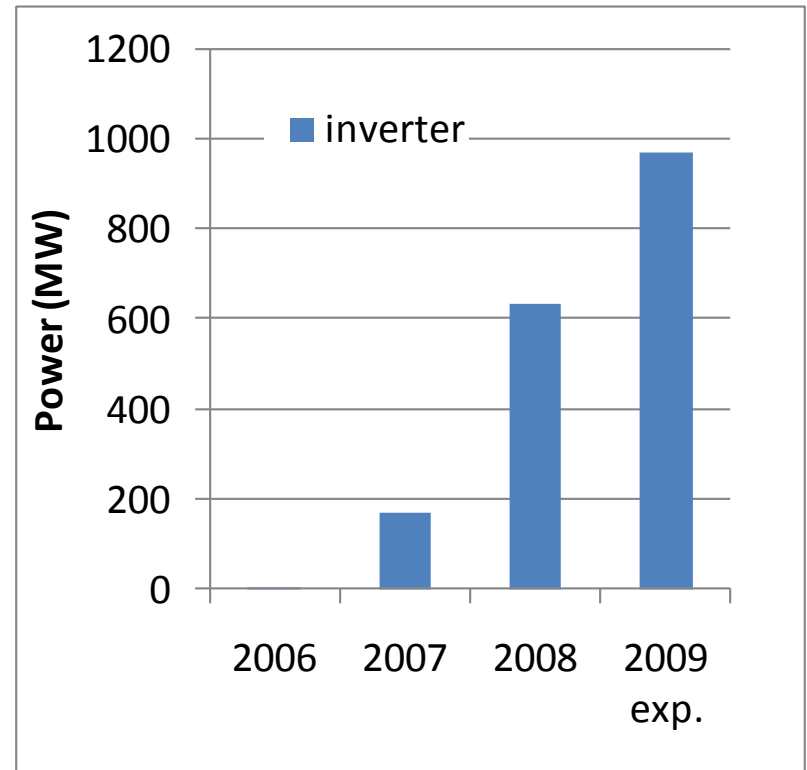
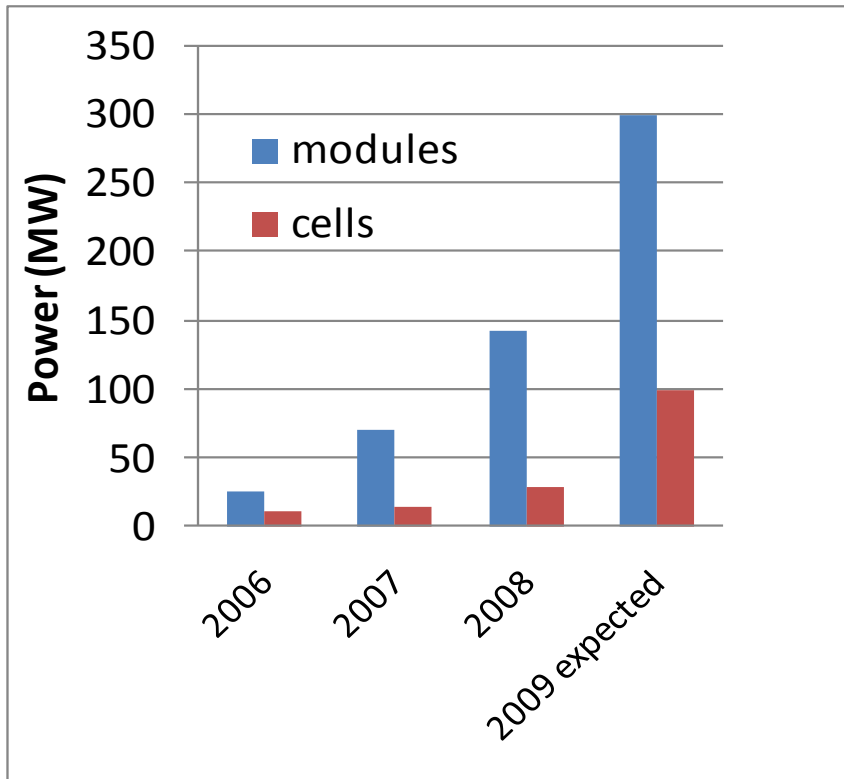
# Monitoring results

- High interest of
  - Citizen: 80 % of feed in tariff beneficiary
  - Private company: 65% of the total power
- Substantial regional differences
  - less sunny northern part of the country had the most solar PV installations (50%).
  - In the south and islands only 30%
- Positive exploitation of surfaces not differently utilised
  - 75% of plants have been realized on roofs (industrial structures, private houses, schools, farmhouses)
  - Ground mounted: only 25%
- High share of imported components (85% of modules)

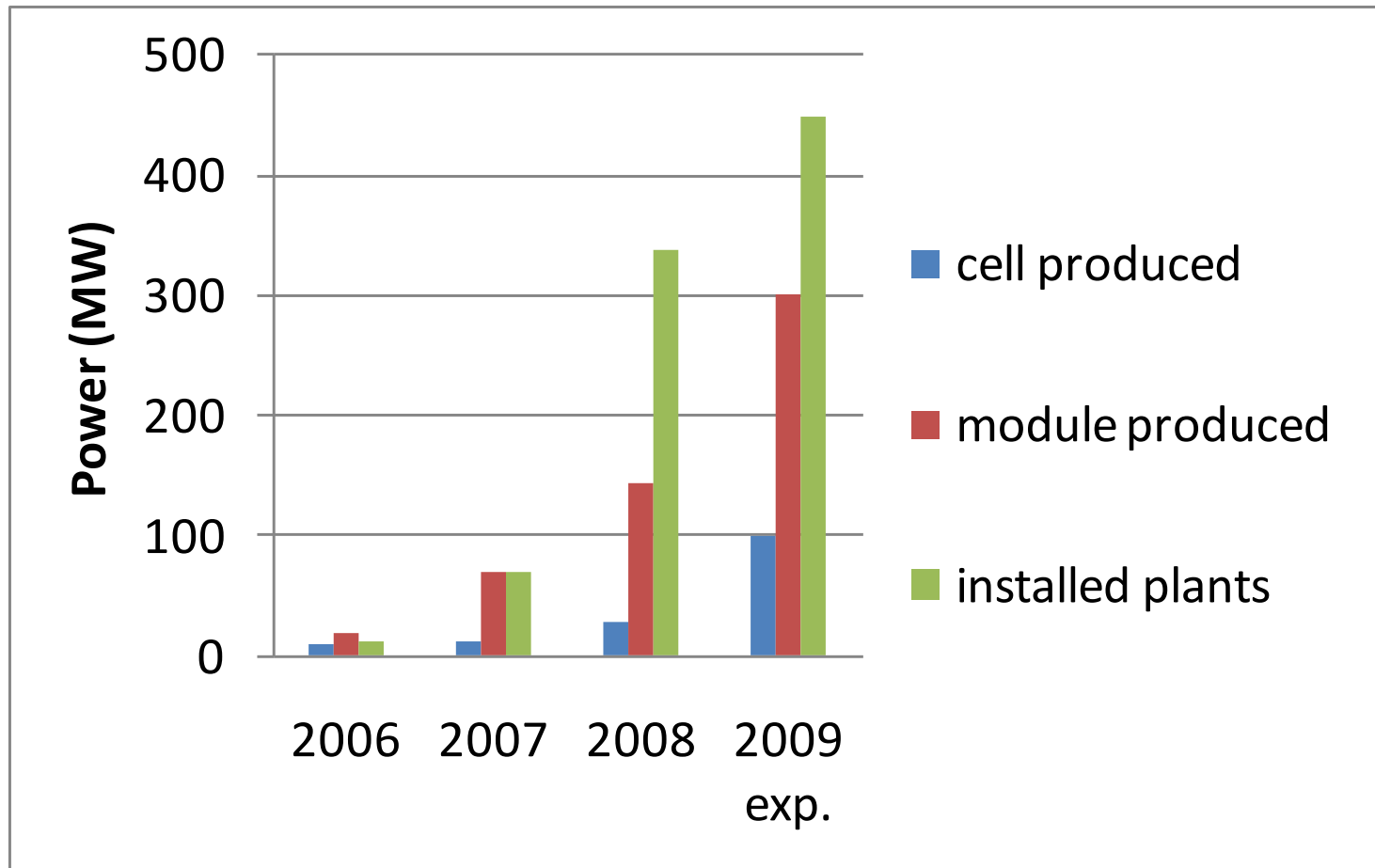
# PV Industry in Italy

Main national producer

- Modules: 12
- Cells: 4
- Polysilicon : 3 initiatives announced (10,000 tons/year)
- Inverter: 5

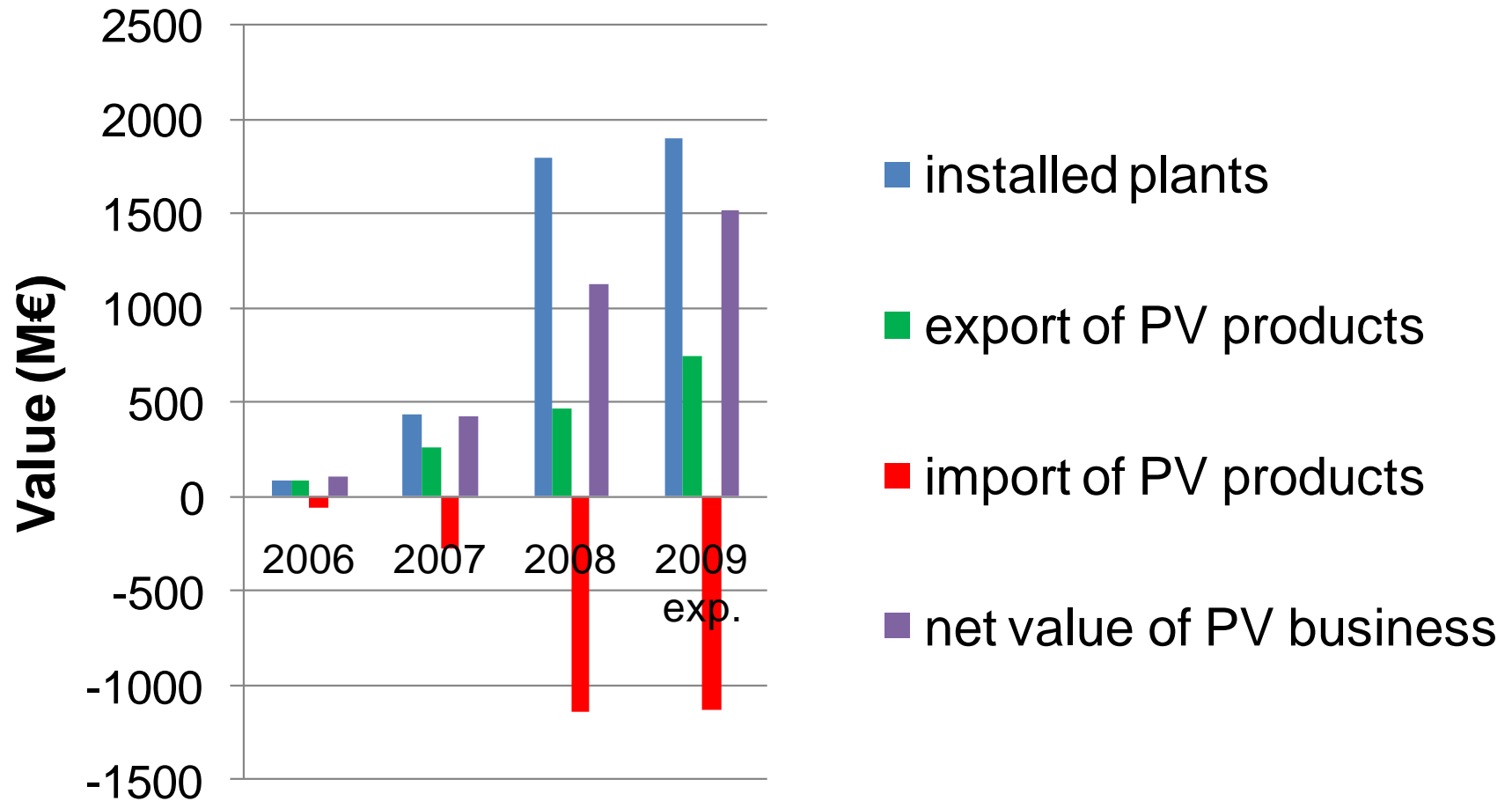


# Installed power and module production





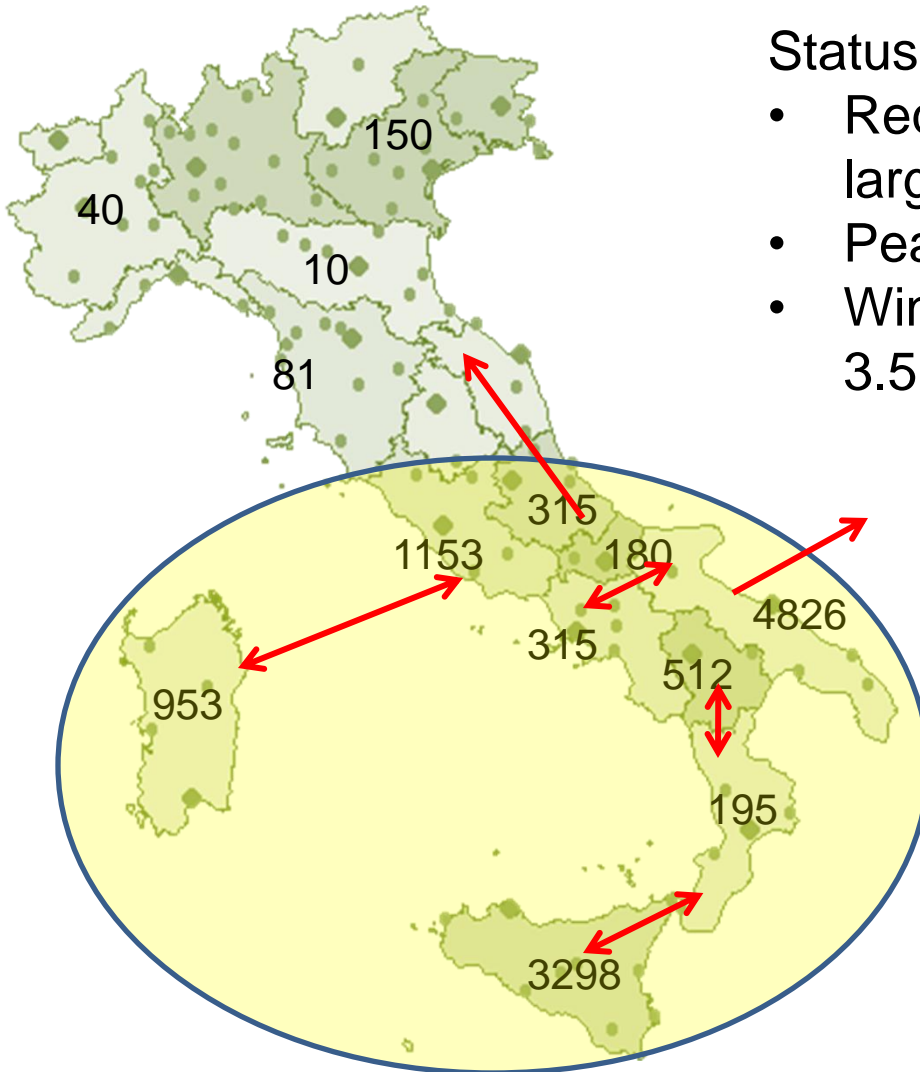
# Business value in Italy



# Barriers in the Italian PV market

- Italian market is not booming although attractive incentives, low module prices, brief return on investment
  - Difficulties to find a way to finance the project (economic conjuncture not favorable)
  - Long times between the construction and the actual payment of incentives
  - Authorization process not uniform on the territory
  - Complicate procedures for connection to the grid
  - Grid not adequate

# Barriers in the Italian PV market



## Status of MV and HV grid in South Italy

- Requests of connection of large PV Plants: 11.7 GW
- Peak load: 12 GW
- Wind power installed : 4.2 GW + 3.5 GW (already authorized)

## TERNA Plan for grid development

- Increase of transmission South-Nord
- International Interconnection
- Interconnection with islands

# Barriers in the Italian PV market

- Low presence of energetic and environmental aspects in urban planning and in building design
- Lack of skilled workers for the design of PV plants
- Ineffective information campaigns
- Plant decommissioning (CdTe)
- Uncertainty in the medium term on
  - tariffs
  - degression rate
  - supported power

# Market perspectives

- The Italian Government estimated in 2007
  - an intermediate target of 3 GW by 2016
  - a potentiality of 8.5 GW by 2020
- At present, the market is growing so fast that
  - the target of 3 GW could be reached by 2012
  - the 8.5 GW goal could be reached long before 2020 even with a low average growth (10%)
- A new decree (under preparation) will redefine
  - maximum power supported
  - tariffs of the PV plants commissioned after 2010

# Incentive scheme proposal

(by GIFI)

- Maximum power supported: 7 GW (2011-2015)
- ongoing tariff reduction of 20%
  - ground mounted: 27 c€/kWh
  - on buildings: 30-40 c€/kWh +25% for BIPV
- Annual degression rate: 5-20%/year
- Same incentive scheme (no changing law) including
  - a fixed tariff (premium) for the electricity produced by PV plant
  - the value of electricity produced (self consumed or sold to the grid)
- PV concentration admitted

# Conclusion

- With very attractive incentive scheme, Italy is today the world's second largest PV market
- Nevertheless, the Italian market is not booming (barriers)
- In order to ensure a sustainable development of the market the future incentive scheme should:
  - be based on simplified procedures
  - guarantee an acceptable PBT
  - avoid huge windows of opportunity
  - drive price down
  - create job opportunities

Thank you for your attention