



ΙΝΣΤΙΤΟΥΤΟ ΕΝΕΡΓΕΙΑΣ
ΝΟΤΙΟΑΝΑΤΟΛΙΚΗΣ ΕΥΡΩΠΗΣ



Solar Cells Hellas Group

3 μ , 9-12 μ 2009



μ

•

—

μ

/

—

/

—

μ

/

•

μ

Solar Cells Hellas

•

/

•

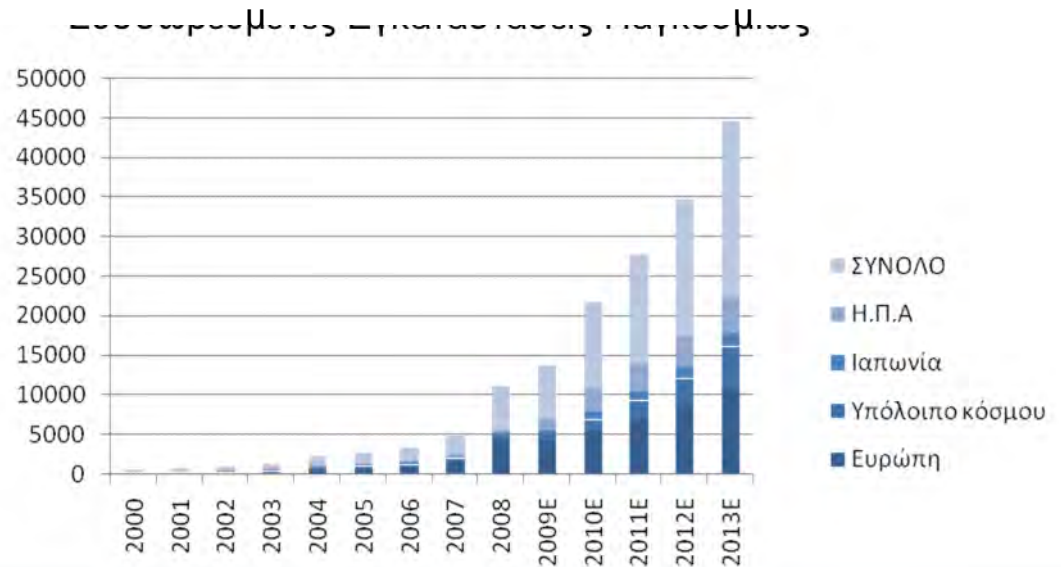
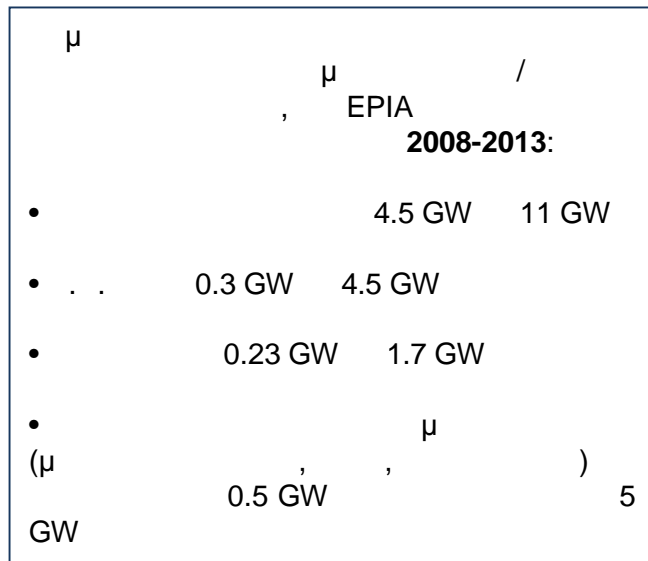
μ

μ



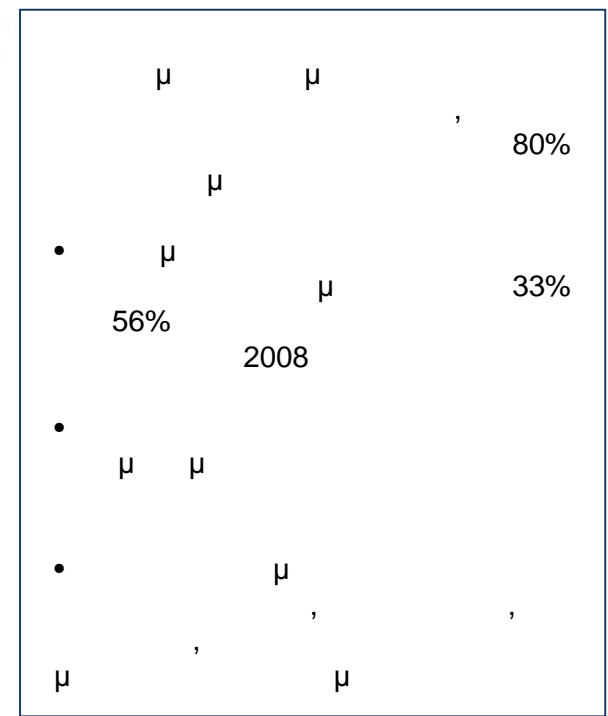
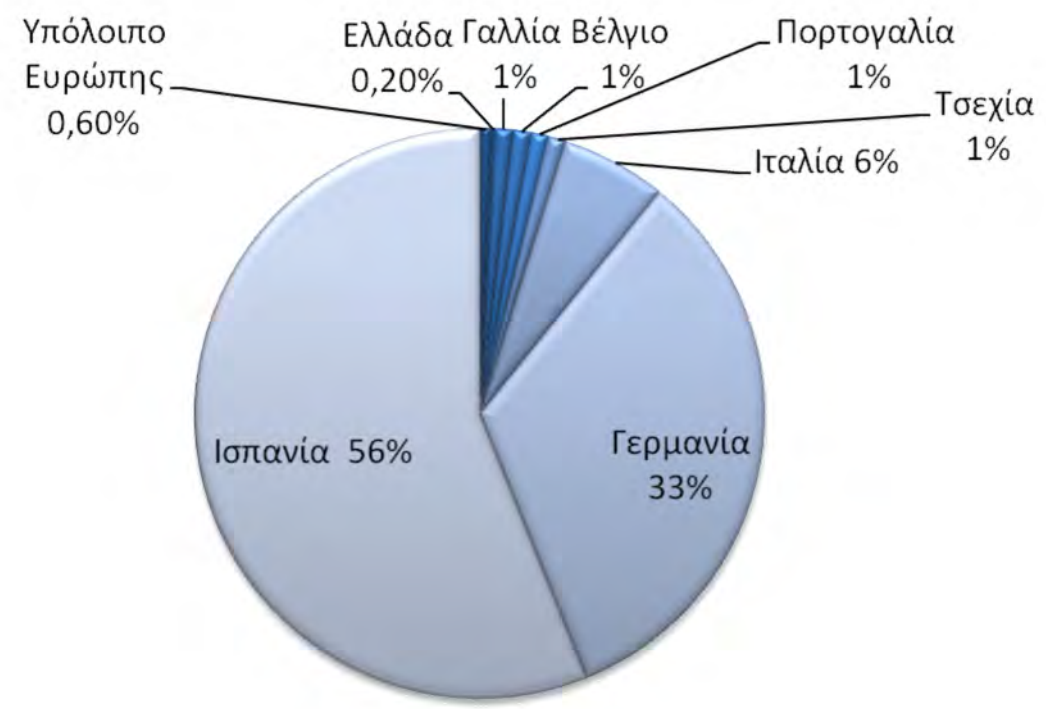
μ /

MW	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009E	2010E	2011E	2012E	2013E
	50	96	106	210	637	906	975	1768	4503	4302	5490	7110	8785	10.925
μ	94	75	104	98	53	12	196	207	485	800	1300	2100	3200	5200
	112	135	185	223	272	290	287	210	230	500	1000	1200	1500	1700
. .	22	29	44	63	90	114	145	207	342	1200	3000	3400	3900	4500
	278	334	439	594	1.052	1.321	1.603	2.392	5559	6802	10790	13810	17.385	22.325



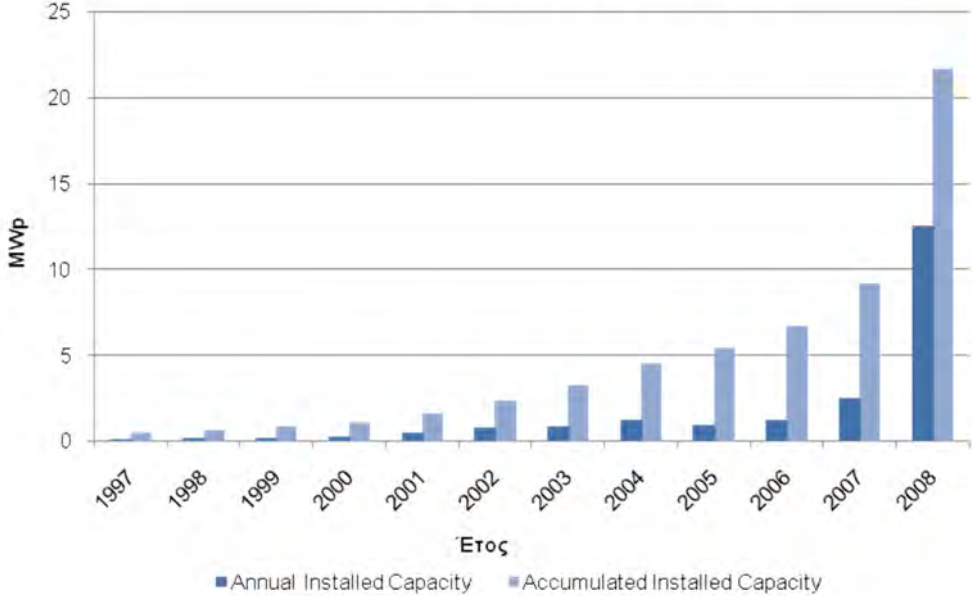
μ

2008



- 8.000 μ μ μ ~3.7GWp
- μ μ 2009, 75 MWp μ μ 38 MWp
- μ μ 2009 μ / μ μ 35-40MWp 100MWp to 2010.
- EPIA: 12% / μ 2020 – 7GWp
- Grip Parity : 2014-2018

Ελληνική Αγορά Φ/Β





μ

/



μ

/

		μ
Solar Cells Hellas	Wafers, Cells, Modules	80 MWp
Silcio/Piritium	Wafers, Cells, Modules	40 MWp
Energy Solutions S.A.	Modules	12 MWp
Exel Group	Modules	60-70 MWp
Heliosphera	Thin Film	60 MWp
Stel Solar	Modules	15 MWp

- μ μ : ~270 MWp



SCH Group	
μμ	
μ	:
μ	80 MWp/year
μ	: 120 M€
μ	: 14.000 m ²
μ	: GT Solar
-	(μ μμ)
-	





μ Solar Cells Hellas



μ /


Solar Cells Hellas

: Q1 2006
 : Q1 2007
 μ : Q2 2008
 : Q3 2008
 :

μ :

- μμ 40MWp/
- μμ 40MWp/

μ : 6.918,4 m²
 ():18.920 m²
 μ : 110 (Q4 2009)




Soltech

: Q3 2006
 : Q2 2007
 μ : Q2 2008
 : Q3 2009
 :

μ :

- μμ 40MWp/
- μμ 40MWp/
- μμ 45MWp/

μ : 7.218,1 m²
 (): 12.750m².
 μ : 100 (est. Q1 2010)




Reni

μ / μ :

- (μ / μ)
- μ
- μ
- μ

μ μ , /

μ .





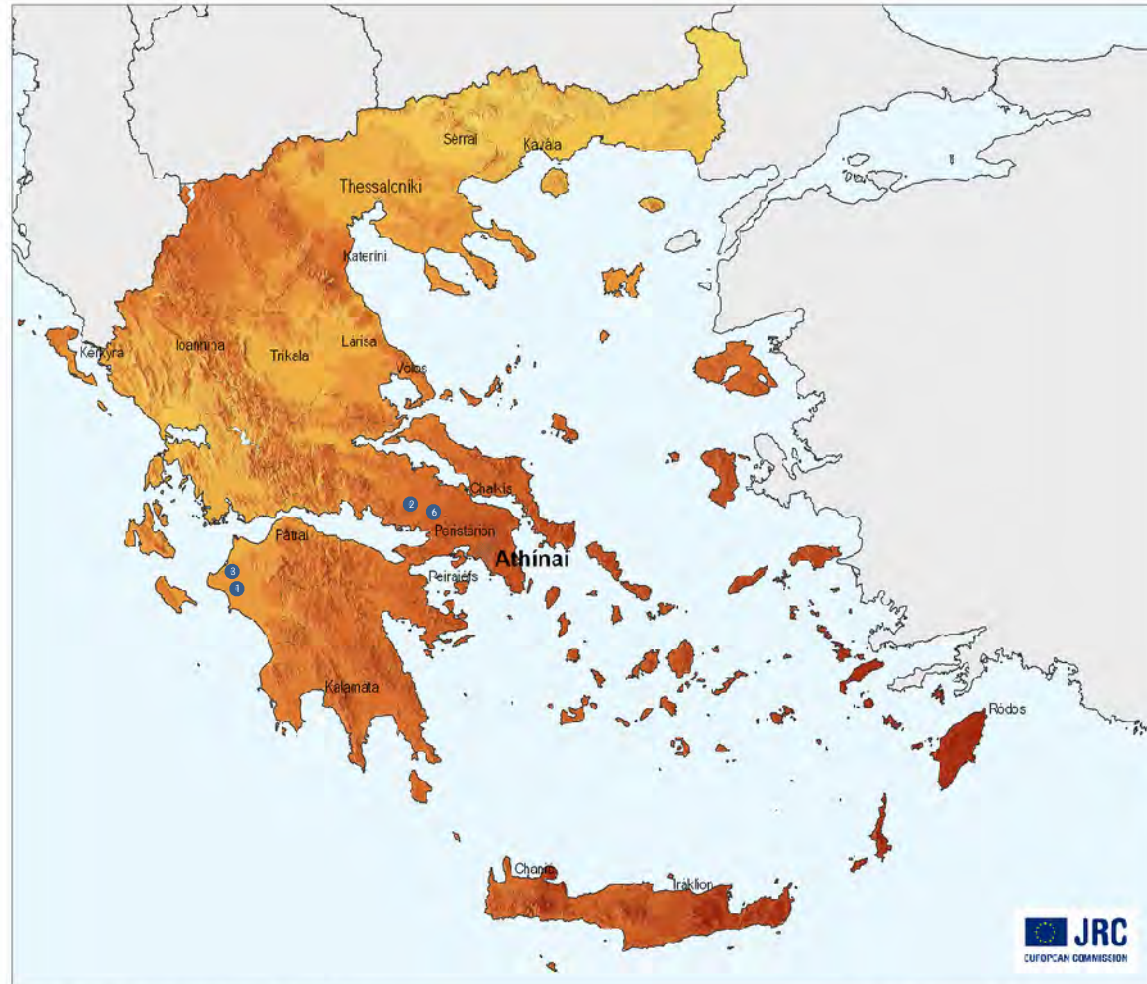
μ Solar Cells Hellas
μ :

μ μ Solar Cells Hellas
μ μ :



EPIA (μ)	
(μ)	
EPVTF (μ)	

(μ)	
μ	
. « »	
Fraunhofer ISE	



Authors: M. Šúri, T. Cebecauer, T. Huld, E. D. Dunlop
 PVGIS © European Communities, 2001-2008
<http://re.jrc.ec.europa.eu/pvgis/>

- Solar Datum . . .
- 4E . . .
- Solar Concept S.A.
- Spes Solaris S.A.

. . . (μ) / , μ

	μ (MW)	(m ²)	μ (KWh/)	(€)
Solar Datum .	2,913	62.018	3.637.221	15.535.570
	0,864	26.504	1.135.772	4.233.600
4E . .	4,499	92.397	5.615.513	23.790.180
	0,805	19.128	1.058.213	3.944.500
	3,730	76.315	4.663.130	19.770.605
Solar Concept . .	0,592	15.828	798.923	2.900.800
	0,320	10.051	421.937	1.568.000
	0,296	8.377	399.461	1.450.400
	1,989	44.906	2.455.990	10.960.980
	1,527	34.944	2.062.967	7.482.300
Spes Solaris . .	0,805	24.022	1.062.468	3.944.500
	0,201	7.281	265.617	986.272
	18,541	421.771	23.577.212	96.567.707

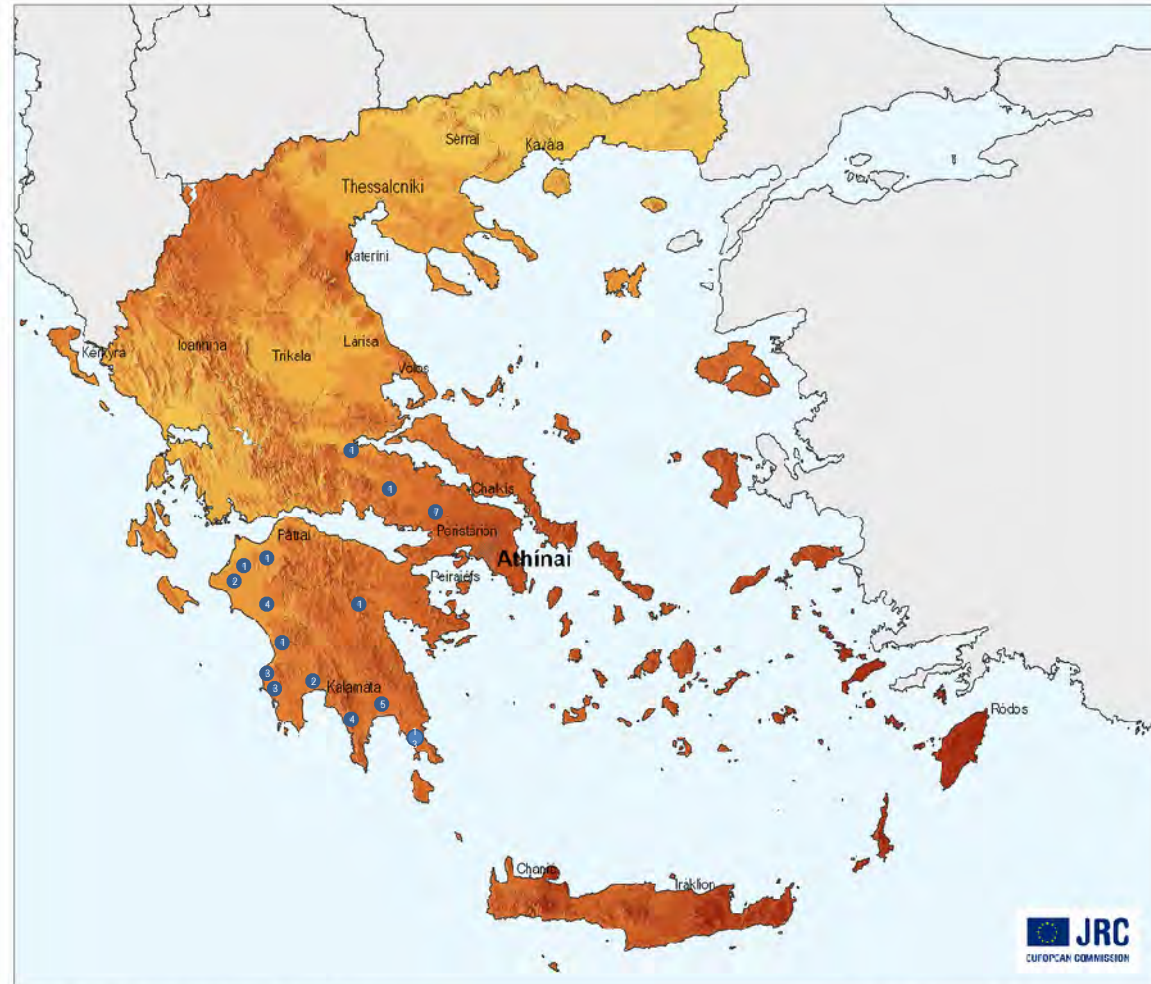
μ

μ



/

μ	μ	μ	SCH,
μ	μ	49 /	μ
	μ	45MWp	μ
• 27 /	μ	>100 KWp	
• 22 /	μ	100 KWp	



Yearly sum of global irradiation [kWh/m²]
 <1500 1600 1700 1800 1900 2000>

<1125 1200 1275 1350 1425 1500>

Yearly electricity generated by 1kW_{peak} system with performance ratio 0.75 [kWh/kW_{peak}]

Authors: M. Šúri, T. Cebecauer, T. Huld, E. D. Dunlop
 PVGIS © European Communities, 2001-2008
<http://re.jrc.ec.europa.eu/pvgis/>

0 50 100 200 km



μ μ

- μ / μ , μ
- / μ μ μ MWp μ /
- μ μ μ Solar Cells Hellas
- μ μ : , / , /
- 18MWp μ μ
- 45MWp μ μ