

## Initiation of coverage

NOT RATED (Prev. NA)

Target: NA (Prev. NA)

Risk: High

## STOCK DATA

	Ord
Price €	1.3
Bloomberg code	EEMS IM
Market Cap. (€ mn)	55
Free Float	85%
Shares Out. (mn)	43.6
52-week range	1.18 - 1.66
Daily Volumes (mn)	0.21

## PERFORMANCE

	1M	3M	12M
Absolute	-6.7%	-16.6%	-10.4%
Rel. to FTSE all shares	-7.0%	-11.0%	-14.7%

## MAIN METRICS

	2010	2011E	2012E
Revenues	192	187	246
EBITDA	31	18	38
Net income	-3	-12	6
Adj. EPS - € cents	-6.6	-27.1	12.8
DPS ord - € cents	0.0	0.0	0.0

## MULTIPLES

	2010	2011E	2012E
P/E adj	nm	nm	9.9 x
EV/EBITDA rep	2.7 x	4.7 x	2.1 x

## REMUNERATION

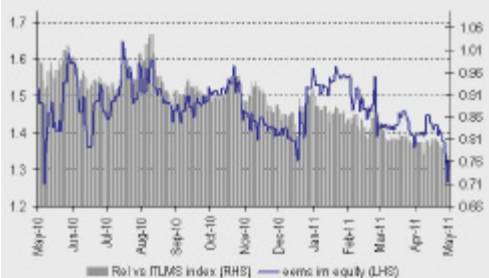
	2010	2011E	2012E
Div. Yield ord	0.0%	0.0%	0.0%
FCF yield	99.9% **	1.2%	10.1%

\*\* including proceeds from sale of assets

## INDEBTEDNESS

	2010	2011E	2012E
net financial position	-30	-29	-23
Debt/EBITDA (adj)	0.9 x	1.6 x	0.6 x
Interests cov (adj)	6.6 x	7.0 x	13.6 x

## PRICE ORD LAST 365 DAYS



## ANALYSTS

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May 20, 2011

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## TOWARDS A NEW EQUILIBRIUM

After the restructuring implemented during 2010 the Eems group is progressively focusing on the photovoltaic market. Strong experience in the semis industry and high quality products in the field of solar maket and an interesting player in the Tech segment in Italy.

## ■ A unique player, a clear strategy.

The EEMS Group, is currently active in the following fields:

- **Semiconductors:** with the assembly and testing of memories, mainly DRAM (around 40% of Sales and 60% of Ebitda in the next years)
- **Photovoltaic:** with the production of both cells and modules as well as with the EPC activities for the design and realization of solar systems (around 60% of sales and 30% of Ebitda).

We believe the above mentioned diversification offers the investors an interesting profile in the industry. While the Semiconductors business is stabilizing into a mature phase (and the aim of the group is to consolidate currently managed activities and client base), the solar business offers good opportunities for the coming years, with EEMS looking for expansion of the panels production activities and for the downstream diversification of the EPC activities, mainly in the retail solar installations field.

## ■ Decent expected growth although dependent on solar regulation. Weak 2011.

Although we believe 2011 is going to be a challenging year for Emms due to the 3 months block in the solar market (waiting for the new regulatory mechanism published 2 weeks ago) and prolonged supply/demand unbalance in the semis market, **we expect Eems to post an interesting growth in coming years with an 11% cagr of sales, 11% Cagr Ebitda in the period 2010-2013 and a net income growing to 11 €mn (2013) from a loss of -3 €mn (2010).** The new incentive scheme of solar, in fact, is providing for reasonable market fundamentals in the next 2-3 years (2500 MW per year through 2016) while transition to new technology standards (50nm) in semis, should favour profit recovery.

Finally, expected improved cash generation (avg fcf yield of 10% in 2010-2013) will help Eems to preserve a more safe balance sheet structure.

## ■ Reference valuation and investment case.

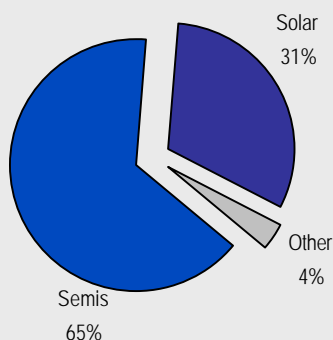
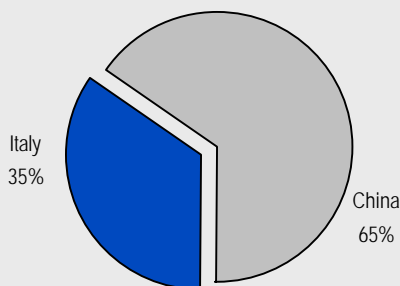
We have run a sensitivity analysis of the possible valuation of EEMS through a SOTP of the single divisions. **We estimate EEMS could be worth in the region of 54-88 €mn of equity value (or 1.19-2.02 € per share) at the end of 2011. This valuation would imply a downward risk of -5% and an upside potential of 60% as measured on last closure.** Our valuation ranges would consequently imply a PE of 10x-16x times as measured on 2012. We believe Eems:

- **is well positioned in the industry;** thanks to the consolidated experience in both semis and cells/panel;
- **is correctly diversifying downstream;** the control of the value chain and the perceived high quality products ensure Eems a good competitive advantage in favour of market share improvement.

**On the negative side, we think that covenants on debt could slow down growth opportunities** (although we don't see main risk on debt repayment), in a market with high volatility and strong pricing pressure, **while the uncertainties on the effect of the new regulatory framework reduces visibility in the short term.**

**BUSINESS DESCRIPTION**

The EEMS Group, which is controlled by EEMS ITALIA Spa, is among the leading operators at world level in the assembly, testing and finishing of semiconductors memories. Through its subsidiary Solsonica Spa, it produces also photovoltaic cells and modules and develops complete solutions for the design and realisation of photovoltaic systems.

**EBITDA BREAKDOWN - 2011****GEOGRAPHICAL EXPOSURE - 2011**

MAIN FIGURES € mn	2008	2009	2010	2011E	2012E	2013E
<b>Revenues</b>	<b>154</b>	<b>134</b>	<b>192</b>	<b>187</b>	<b>246</b>	<b>264</b>
Growth	-	-13%	44%	-3%	32%	7%
<b>EBITDA</b>	<b>26</b>	<b>26</b>	<b>31</b>	<b>18</b>	<b>38</b>	<b>43</b>
Growth	-	-2%	23%	-42%	109%	11%
<b>Adjusted EBITDA</b>	<b>26</b>	<b>26</b>	<b>31</b>	<b>18</b>	<b>38</b>	<b>43</b>
Growth	-	-2%	23%	-42%	109%	11%
<b>EBIT</b>	<b>-45</b>	<b>-15</b>	<b>-1</b>	<b>-14</b>	<b>11</b>	<b>19</b>
Growth	-	-66%	-96%	2040%	-184%	63%
<b>Profit before tax</b>	<b>-49</b>	<b>-21</b>	<b>-5</b>	<b>-16</b>	<b>9</b>	<b>17</b>
Growth	-	-56%	-75%	200%	-153%	94%
<b>Net income</b>	<b>-35</b>	<b>-20</b>	<b>-3</b>	<b>-12</b>	<b>6</b>	<b>11</b>
Growth	-	-43%	-86%	321%	-147%	94%
<b>Adj. net income</b>	<b>-35</b>	<b>-20</b>	<b>-3</b>	<b>-12</b>	<b>6</b>	<b>11</b>
Growth	-	-43%	-86%	321%	-147%	94%

MARGIN	2008	2009	2010	2011E	2012E	2013E
Ebitda Margin	16.9%	19.1%	16.4%	9.8%	15.5%	16.1%
Ebitda adj Margin	16.9%	19.1%	16.4%	9.8%	15.5%	16.1%
Ebit margin	-29.3%	-11.6%	-0.3%	-7.3%	4.6%	7.1%
Pbt margin	-31.5%	-16.0%	-2.8%	-8.7%	3.5%	6.3%
Ni rep margin	-22.8%	-15.1%	-1.5%	-6.3%	2.3%	4.1%
Ni adj margin	-22.8%	-15.1%	-1.5%	-6.3%	2.3%	4.1%

SHARE DATA	2008	2009	2010	2011E	2012E	2013E
EPS - € cents	na	-47.6	-6.6	-27.1	12.8	24.9
Growth	-	-	-86%	311%	-147%	94%
Adj. EPS - € cents	na	-47.6	-6.6	-27.1	12.8	24.9
Growth	-	-	-86%	311%	-147%	94%
DPS ord - € cents	na	0.0	0.0	0.0	0.0	0.0
BVPS - €	na	2.5	2.6	2.3	2.4	2.6

VARIOUS - € mn	2008	2009	2010	2011E	2012E	2013E
Capital employed	203	188	140	127	127	125
FCF	na	-7	54	1	6	13
Capex	-15	-17	-19	-15	-15	0
Working capital	1	13	2	7	10	11

INDEBTNESS - €mn	2008	2009	2010	2011E	2012E	2013E
net financial position	-75	-83	-30	-29	-23	-10
D/E (adj)	na	0.79 x	0.27 x	0.29 x	0.22 x	0.09 x
Debt/EBITDA (adj)	na	3.2 x	0.9 x	1.6 x	0.6 x	0.2 x
Interests cov (adj)	na	4.4 x	6.6 x	7.0 x	13.6 x	21.9 x

MARKET RATIOS	2008	2009	2010	2011E	2012E	2013E
P/E ord	na	nm	Nm	nm	9.9 x	5.1 x
P/E ord Adj	na	nm	Nm	nm	9.9 x	5.1 x
PBV	na	0.5 x	0.5 x	0.6 x	0.5 x	0.5 x
P/CF	na	-18.7 x	1.8 x	12.5 x	2.6 x	2.1 x

EV FIGURES	2008	2009	2010	2011E	2012E	2013E
EV/Sales rep	na	1.1 x	0.4 x	0.5 x	0.3 x	0.3 x
EV/EBITDA rep	na	5.5 x	2.7 x	4.7 x	2.1 x	1.6 x
EV/EBIT	na	-9.1 x	Nm	nm	7.2 x	3.7 x
EV/CE	na	0.7 x	0.6 x	0.7 x	0.6 x	0.5 x

REMUNERATION	2008	2009	2010	2011E	2012E	2013E
Div. Yield ord	na	0.0%	0.0%	0.0%	0.0%	0.0%
FCF yield	na	-13.6%	99.9%	1.2%	10.1%	23.7%
ROE	na	-19.2%	-2.5%	-12.0%	5.3%	9.4%
ROCE	na	-6.0%	-0.3%	-7.2%	6.1%	10.1%

**INVESTMENT CASE SUMMARY**

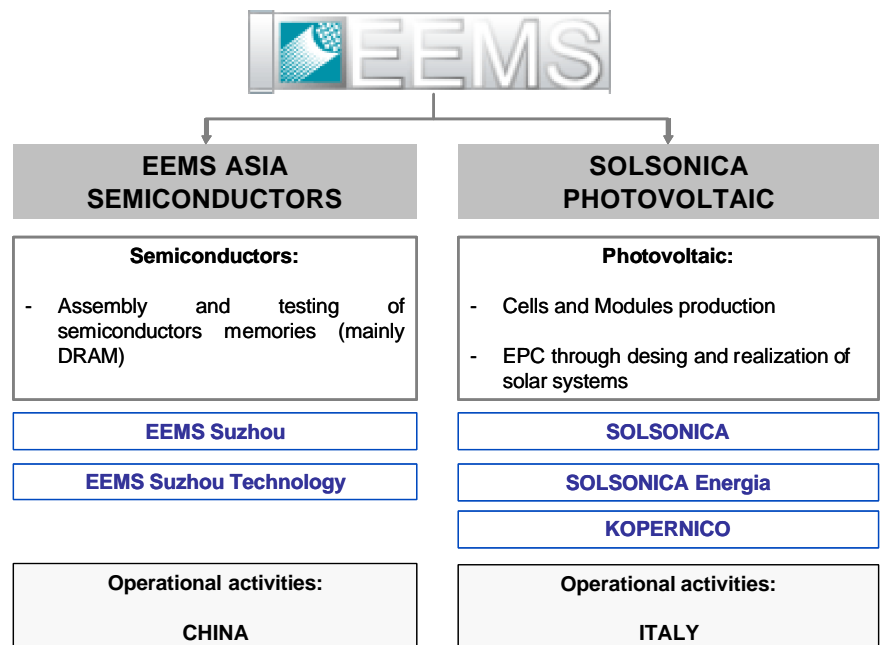
**A unique profile in the Tech space**

The EEMS Group, which is controlled by EEMS ITALIA Spa, is among the leading operators at world level in the assembly, testing and finishing of semiconductors memories. Through its subsidiary, Solsonica Spa, it produces also photovoltaic cells and modules, and develops complete solutions for the design and realisation of photovoltaic systems. Its headquarters are in Cittaducale (Rieti Italy), with a strong operational presence in China.

The activities can consequently be summarized as follows:

- **Semiconductors:** the division is active in services of assembly and testing of semiconductor memories (mainly DRAM) with a wide variety of applications both in consumer products (computers, TLC electronics, etc.) and other types of applications (industrial automations, applications in the automotive and medical fields).
- **Photovoltaic:** The division is active in the production of both cells and modules through Solsonica but is also active in the EPC business through the design and realization of solar systems

**MAIN ACTIITIES**

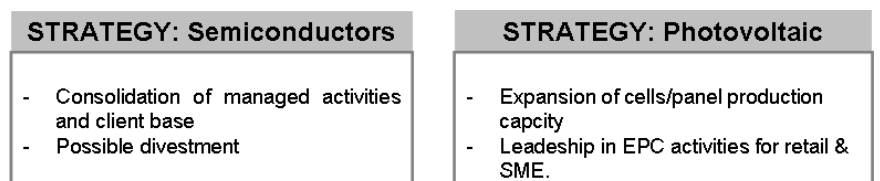


Source: EQUITA SIM on Company presentation

**A clear strategy**

We believe the above mentioned positions offers to the investors a unique profile in the industry. While, after the restructuring, the Semiconductors business is now stabilizing (thanks to already closed transition to the new production technologies) the solar business offer still strong opportunities for the coming years. The increasing technological evolution of the new cells and panels (increasing efficiencies and lower costs) allows Solsonica to exploit and leverage the strong industrial background in Eems in the field of semis.

**PILLARS OF THE STRATEGY**



Source: EQUITA SIM on company presentation

As you can see from the previous graphs, the strategy of the group is articulated as follows:

1. **Semiconductors: Consolidation of the currently managed activities and client base** since they are still too reliant on a few numbers of clients
2. **Solar: Expansion of the cells/panel production activities and downstream diversification of the EPC activities in the field of retail solar installations.**

**We judge positively the group strategy. While we believe that the presence in the semis business could offer strong insight in a “silicon” base business like the cells and panel production, the downstream diversification of the EPC activities is a natural transition, considering the stage of development of the Solar industry (reduced allowed returns and increased competition).**

### Interesting expected growth

Although 2011 is going to be a challenging period for Emms as a consequence of the 3 months block in the solar market (waiting for the approval of the new incentives published 2 weeks ago) as well as prolonged supply/demand unbalance in the semis market, **we expect Eems to post an interesting growth in coming year with an 11% cagr of sales, 11% Cagr of Ebitda in the period 2010-2013 and a growth in net income to 11 €mn from the loss of -3 €mn registered in 2010.** We believe, in fact, that

1. **the new incentive scheme on solar (4<sup>th</sup> Conto Energia) will provide for reasonable market fundamentals in coming years** (2000-3000 MW each year through 2016) allowing for stabilization of the margins in panels production and for an increase of the market share in the EPC activities (we estimate around 2% for Solsonica).
2. **the stabilization/recovery of the memory market and the transition to the 50nm technology will allow also for margin recovery in the semiconductor business.**

In the following table a summary of the main expected P&L metrics.

	MAIN REFERENCE METRICS P&L						
	2008	2009	2010	2011	2012	2013	Cagr 2010-2013
Semiconductors	118	95	82	77	91	103	8%
Solar	19	37	110	110	155	161	14%
Other (Eems Italia & elisions)	17	2	0	0	0	0	1%
<b>REVENUES</b>	<b>154</b>	<b>134</b>	<b>192</b>	<b>187</b>	<b>246</b>	<b>264</b>	<b>11%</b>
Growth %	nm	-13.3%	43.8%	-2.7%	31.6%	7.4%	-
Semiconductors	39	26	19	20	25	28	14%
Solar (cells/modules)	-2	1	11	-2	3	3	-33%
Solar (epc)	0	0	0	-1	8	10	>100%
Other (Eems Italia & elisions)	-11	-1	1	1	1	1	1%
<b>EBITDA</b>	<b>26</b>	<b>26</b>	<b>31</b>	<b>18</b>	<b>38</b>	<b>43</b>	<b>11%</b>
Growth %	nm	-1.9%	23.2%	-41.7%	108.6%	11.5%	-
Margin %	16.9%	19.1%	16.4%	9.8%	15.5%	16.1%	-
Semiconductors	1	-13	-11	-9	1	7	18
Solar	-2	-1	8	-6	9	10	2
Other (Eems Italia & elisions)	-44	-1	2	2	2	2	0
<b>EBIT - € mn</b>	<b>-45</b>	<b>-15</b>	<b>-1</b>	<b>-14</b>	<b>11</b>	<b>19</b>	<b>19 € mn</b>
Growth %	nm	-65.6%	-95.9%	nm	nm	63.5%	-
Margin %	-29.3%	-11.6%	-0.3%	-7.3%	4.6%	7.1%	-
<b>NET INCOME - € mn</b>	<b>-35</b>	<b>-20</b>	<b>-3</b>	<b>-12</b>	<b>6</b>	<b>11</b>	<b>14 € mn</b>
Growth %	nm	nm	nm	nm	nm	94.4%	-
Margin %	-22.8%	-15.1%	-1.5%	-6.3%	2.3%	4.1%	-

Source: EQUITA SIM estimates and company data

As you can observe, the main growth in revenues is expected from the Solar activities (+14% in the period 2010-2013).

**At Ebitda level, the recovery of the DRAM segment (+14%) and in the growth in Epc activities (cagr >100%) will more than compensate for the expected reduction in the cells/modules segment** from the peak registered in 2010 (booming market) and penalized from the increased pricing pressure, regulatory uncertainties and reduced incentives.

We also expect Indebtedness to progressively reduce in coming years thanks to the FCF generation mainly from the Epc activities (which don't require relevant investment).

In the following table a summary of the expected investments and the NFP evolution in coming years.

MAIN REFERENCE METRICS BS							
	2008	2009	2010	2011	2012	2013	Cumulated 2011-2013
Semiconductors	-38	-9	-12	-11	-12	-14	-38
Solar	-14	-3	-3	-1	-2	-2	-5
Other (Eems Italia & elisions)	-5	-3	-3	-3	-3	-3	-8
<b>Capex</b>	<b>-57</b>	<b>-15</b>	<b>-18</b>	<b>-15</b>	<b>-17</b>	<b>-19</b>	<b>-50</b>
<b>Net Financial position</b>	<b>-75</b>	<b>-83</b>	<b>-30</b>	<b>-29</b>	<b>-23</b>	<b>-10</b>	<b>-</b>
Debt /Ebitda	-2.9 x	-3.2 x	-0.9 x	-1.6 x	-0.6 x	-0.2 x	-

Source: EQUITA SIM estimates and company data

## Recent performance

**In light of the uncertainties caused by the change in the solar regulatory system, with a prolonged block of the market waiting for the new rules, Eems has posted a negative performance in last months.** Stock have moved from the peak at around 1.5 € touched in February, to current 1.25 € per shares (-17%) currently trading around 26 % below its 52weeks max price.

In the following table a summary of the group performance in both absolute and relative terms

ABSOLUTE & RELATIVE PERFORMANCE					
Performances ord.	1m	3m	6m	12m	Ytd
Absolute	-6.7%	-16.6%	-10.4%	-12.3%	-5.5%
Relative	-7.0%	-11.0%	-14.7%	-24.6%	-12.1%
Other performance data	52 wk min €	52 wk max €		Avg vol (000)	
EEMS	1.2	1.7		231.3	
Upside on 52wk min/max	4%	-26%		-	

Source: EQUITA SIM on Bloomberg data

LAST 365 DAYS PERFORMANCE					
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Source: EQUITA SIM on Bloomberg data

**We believe, anyway, that the new regulations (published last weeks) now provides for reasonable market fundamentals for the coming 2-3 years, with Eems ready to get benefits from its already consolidated position** (also from a market price perspective). We believe that in coming weeks market appetite towards the solar industry will rebuild on a more stable market condition.

## Reference valuation

As anticipated above, we have run a sensitivity analysis of the possible valuation of EEMS through a SOTP of the single divisions. **We estimate EEMS could be worth in the region of 54-88 €mn of equity value (or 1.19-2.02 € per share) at the end of 2011. This valuation would imply a downward risk of -5% and an upside potential of 60% as measured on last closure.** Our valuation ranges would consequently imply a Pe of 10x-16x times as measured on 2012.

SUM OF THE PART			
	MIN	MAX	METRICS
Ev/Ebitda	42.7	58.7	Peers comps with discount from 20%-40%
Ev/sales	39.9	62.4	Peers comps with discount from 40%-60%
Semiconductors.....	<b>41.3</b>	<b>60.5</b>	<b>Avg Ev/Ebitda; Ev/sales</b>
Dcf	18.1	20.5	9,5% Wacc, Exit Roce 6%-12%, G 0%-4%
Ev/Ebitda	11.6	15.4	Peers comps with discount from 20%-40%
Cells/Panel	<b>14.8</b>	<b>18.0</b>	<b>Avg Dcf; EV/Ebitda; EV/Sales</b>
Dcf	30.4	45.0	9,5% Wacc, Exit Roce 6%-12%, Exit ev/ebitda 2.2x-4.0x
Ev/Ebitda	27.7	36.9	Peers comps with discount from 20%-40%
Epc	<b>29.0</b>	<b>40.9</b>	<b>Dcf; EV/Ebitda; EV/Sales</b>
Pe	0.4	0.8	Pe multiples (Equit value)
Kopernico	<b>0.4</b>	<b>0.8</b>	<b>PE multiples (equity value)</b>
Solsonica.....	<b>44.2</b>	<b>59.7</b>	
REFERENCE EV.....	<b>85.6</b>	<b>120.2</b>	
Net financial position End 2011	-28.9	-28.9	End of the year
Other Assets	0	0.0	nm
Provision / Minorities	-2.5	-2.5	50% pension , full provision
<b>EQUITY VALUE</b>	<b>54.3</b>	<b>88.0</b>	
Shares outstanding	44	44	
<b>EQUITY VALUE PER SHARE</b>	<b>1.19</b>	<b>2.02</b>	
UPSIDE/DOWNSIDE RISK	-5%	60%	
Implied PE 2012	9.6 x	15.8 x	

Source: EQUITA SIM valuation

We believe the Eems group:

- **is well positioned in the industry;** thanks to the consolidated experience in both semis and cells/panel;
- **is correctly diversifying downstream;** the control of the value chain and the perceived high quality products ensure Eems a good competitive advantage in favour of market share improvement.

**On the negative side, we think that covenants on debt could slow down growth opportunities** (although we don't see main risk on debt repayment), in a market with high volatility and strong pricing pressure (with consequent needs for volumes and scale advantage), **while the uncertainties due to the new regulation on solar reduces visibility in the short term.**

## SWOT analysis

### Strength

- Consolidated experience in the semiconductor space to be leveraged in the new solar business
- Well known brand (quality) in both Dram/Cells/Panel production
- Geographical location close to main clients in the semis space

### **Weaknesses**

- Stressed financial situation and stringent covenants slow down growth opportunities;
- Market high volatility & typical pricing pressure in semiconductor space
- Still limited size in EPC

### **Opportunities**

- Solar is still in the middle of a growth phase Downstream diversification could offer good opportunities
- Consolidation in solar of an excessively fragmented market could offer M&A potentials.
- Possible disposal of remaining semis business can improve indebtedness

### **Threat**

- Italian budget constraint could force regulator to put in place severe regulatory changes in the solar space
- Prolonged unbalance between supply/demand in the Dram space could additionally reduce profitability.
- Difficulties to finance new production output capacity expansion causing bottlenecks.

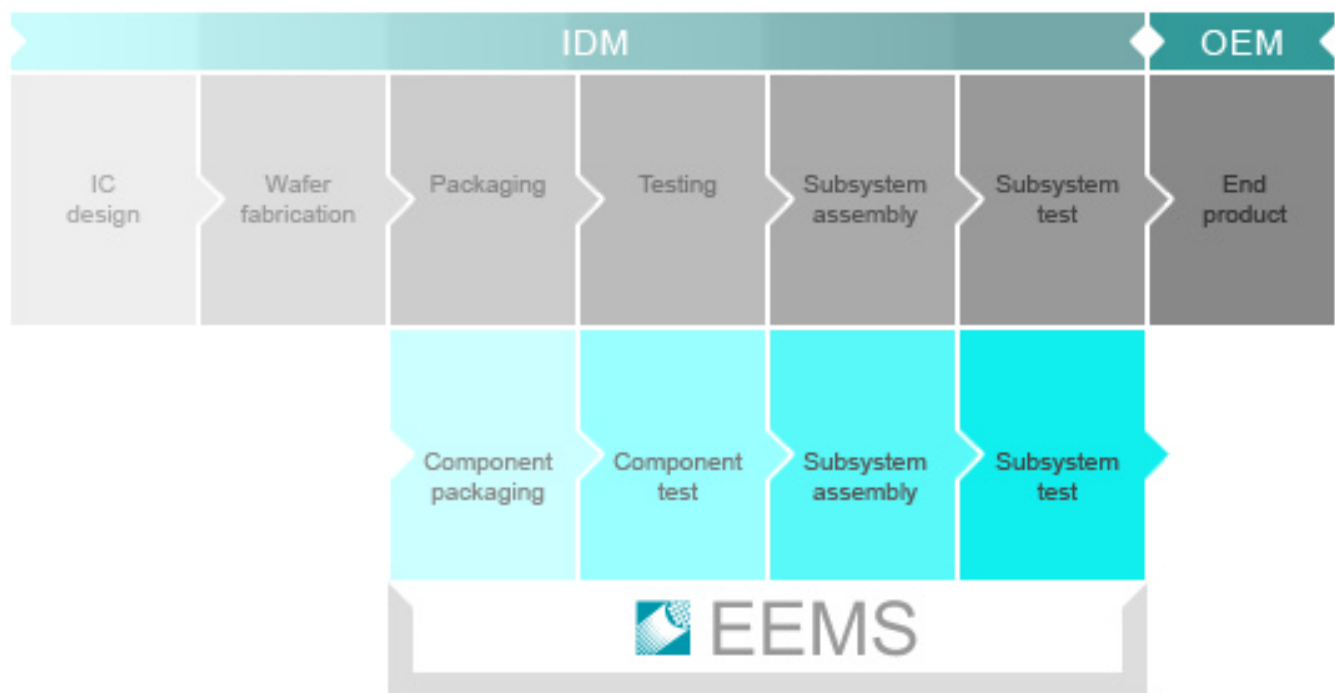
## EEMS SEMICONDUCTORS

The semiconductors division is active in services of assembly and testing of semiconductor memories (mainly DRAM) with a wide variety of applications both in consumer products (computers, TLC electronics, etc) and other applications (industrial automations, applications in the automotive and medical fields).

### Production of the semiconductors:

- Starts with design of the integrated circuit ...
- ... continues with the front-end phase (including fabrication of silicon wafers) ...
- ... and ends with the back-end phase concerning creation of packages (assembly) and testing. Chip packages are containers that have the function of permitting interconnection of the chip with the other components, protecting it from the external environment, regulating its thermal dispersion, facilitating its final testing, and also permitting its productive and reliable insertion in final applications, thus contributing to the latter's performance. The semiconductor and the other components are then assembled in subsystems on a printed circuit board and inserted in end-user electronic products.

### EEMS BACK-END ACTIVITIES



Source: company presentation

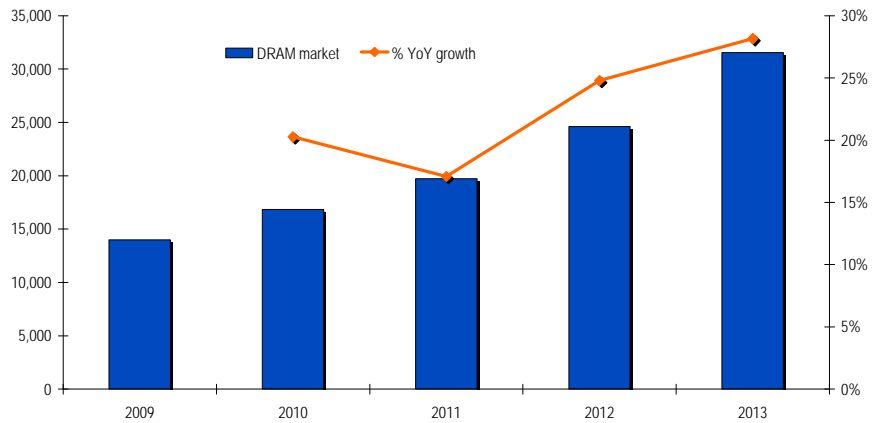
### EEMS operates in the back-end providing assembly and test services for:

- **DRAM (dynamic random access memory** - volatile memories, i.e. that retain data only for as long as the system is powered), featuring high density, data access speed and high operating performance. They are **mainly used in computers**, workstations, servers and other data processing applications. **Today they almost represent the entire EEMS' production**
- **Flash** (non-volatile memories, i.e. that retain data even after the system has been switched off), featuring lower energy consumption. They are mainly **used to store data** in devices such as mobile telephones, digital cameras, PDAs, MP3 players and other portable applications

**The back-end outsourcing market is seen as growing;** in our view this is **mainly due to growth of market volumes** (according to Gartner above 20% CAGR in the period FT11-13E) ....



DRAM MARKET TREND (mn units)



Source: Dataquest 1Q11

... than to a strategic decision by the main front-end players to increase outsourcing (especially by Samsung which apparently does not outsource at all, Powerchip and Elpida which mainly uses captive outsourcing).

DRAM – TOP 6 DRAM MANUFACTURERS BY VOLUME AND % OF OUTSOURCING

	Rank	BU	Estimated % Outsourcing	BU
◆ Samsung	1	5.1	<div style="width: 100%; height: 15px; background-color: white; border: 1px solid black;"></div>	-
◆ Hynix	2	4.0	<div style="width: 25%; height: 15px; background-color: green; border: 1px solid black;"></div>	1.1
◆ Elpida	3	3.1	<div style="width: 100%; height: 15px; background-color: #cccccc; border: 1px solid black;"></div>	3.1
◆ Micron	4	2.0	<div style="width: 50%; height: 15px; background-color: green; border: 1px solid black;"></div>	.5
◆ Nanya	5	.9	<div style="width: 100%; height: 15px; background-color: green; border: 1px solid black;"></div>	.9
◆ Powerchip	6	.8	<div style="width: 100%; height: 15px; background-color: #cccccc; border: 1px solid black;"></div>	.8
<b>Total</b>		<b>15.9</b>		<b>6.4</b>
EEMS estimated volume		.3		.3
EEMS estimated penetration %		1.9		4.7

In house  
 Outsourced  
 Captive subcontractors network

Source: Company presentation (October 2010)

As a consequence the business typically has a significant exposure to the economic cycles.

## ■ Competitive advantages and weaknesses

### EEMS's stated competitive advantages include:

- **A one-stop-shop model**, offering a full range of packaging and test services for DRAM and Flash memories
- **Geographical closeness** to main Asian customers
- **Low-cost production** and **tax advantages** of Asian plants
- **Technological know-how** and major management experience enabling the company to keep pace with **technological innovation**
- **Product reliability and quality** (certified both by the main customers and by independent entities).

### We perceive its weaknesses as being:

- **Sector related**
  - **Highly volatile demand for technological products, amplified by severe price volatility** (historically DRAMs are the most volatile semiconductor segments)
  - **Capital intensity**: significant investments necessary for technological innovation
- **Company specific**
  - **Reliance on a small number of customers**. Historically, 2-3 have always predominated, but after the bankruptcy of Qimonda (a spin-off of Infineon) in 2009, today Nanya accounts for about 90% of total EEMS 2011E sales. Over the years, other customers have generated sales, but often minor and not on a recurrent basis (e.g. Micron in assembly and testing DRAM, Broadcom in mixed signal and many years ago STM in flash memories)
  - **Limited financial flexibility**, which may make it difficult to make the investments necessary to meet the demands of new potential customers, thus jeopardizing growth potential.

Generally speaking, other features of the back-end business are:

- **Exposure to foreign exchange risk (exclusively translation)**. In our estimates we assume the €/USD exchange rate stable around current level of about 1.4. We estimate for every 5% of USD devaluation, with all else remaining equal, about -5% of impact at EBITDA level
- **Lack of any particular risk relating to oscillation of the raw materials used since their weight on sales is rather limited**

## ■ Semi business downsized and now concentrated in China

**When EEMS went public in 2006 it had about 1.1k employees** (o/w the majority in Italy) **and carried out its operations at 3 factories:**

- Cittaducale in Italy (EEMS Italia S.p.A.) for the assembly and testing of memories
- Suzhou in China (EEMS Suzhou Pte. Ltd.) started-up in 2H05 with the aim of being close to wafer fabs; Nanya immediately became the main customer
- Singapore (EEMS Test Singapore Pte. Ltd), started-up in 2000 and performing test activity in the mixed signal, wafer probe and logic segment.

**Today operations are carried out solely in China with 1.2k employees** following:

- **Italian operations discontinuation** (as they were no longer economically viable also because of the failure of the most important European customer Qimonda) and facilities/resources converted to the production of photovoltaic panels
- **The Singapore operations sales** last year (see following section).

## ■ Disposal of Singapore business

**On August 2<sup>nd</sup> 2010 EEMS announced the sale (completed in December) of EEMS Test Singapore** to the Taiwanese player ASE for USD 72 mn (EV). The multiples implicit in the deal were 2010E EV/Sales = 1.4x and EV/EBITDA around 3.5x, coherent with sector multiples.

**The cash-in served to reduce debt and finance the remaining businesses' operating costs and further investments.**

**The announcement of the disposal of EEMS Test Singapore did not surprise us, as it was consistent with the decision taken more than 3 years ago to shift the core business from the semiconductor back-end segment to photovoltaic panels.** In our view, this process has inevitably been accelerated because of the macroeconomic crisis, which caused:

- Major operating losses for the chip division (cumulated EBIT losses in excess of € -46 mn in the 3-year period 2008-10, including the divested assets)
- Breach of financial covenants at group level (see relevant section).

**The remaining activities (the Chinese ones) are the least profitable** (and thus more difficult to be sold standalone).

If, for the sake of argument, **this business too were to be sold, we would consider it positive regardless of the deal's valuation**, as it would:

- Generate additional cash-in for further financial reinforcement of the company
- Definitively transform EEMS into a pure "solar company"
- Improve the overall risk profile, in our view.

It is worth mentioning with disposal of the Singapore business **no drawbacks from the operations standpoint for the Chinese activities, as the two entities operated totally independently**

## ■ Nanya: The top customer (by far)

**Today we estimate Chinese Nanya accounts for almost 90% of EEMS FY11E sales** (the remaining business is generated by Micron and Sundisk). As it is a fabless company, there is no risk of it one day deciding to insource activities like back-end. We nevertheless believe that **volumes are mainly exposed to market volatility and to the success of Nanya's products, as we also believe that EEMS's possibilities of significantly increasing its penetration are limited.**

Today **Nanya uses 4 back-end service suppliers** based on the principle of diversification of risk. EEMS management estimates that volume is allocated

- mainly in favour of "captive" FATC (about 40% - a company of the Formosa Plastic group, which also controls Nanya)
- with the remainder split roughly 20% each between Taiwanese Walton, and UTAC and EEMS.

Since the equipment and materials used are exactly the same, **competition is based on price and on the standard of service.** Based on these variables, **we think there is variability of +/-5% vs. the percentages indicated above – but today we perceive no signs of them changing significantly.**

## DRAM – MARKET SHARE – B UNITS – EEMS CUSTOMERS

		<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Micron	B Units	2.0	2.3	3.0	3.5	3.6
Nanya	B Units	0.9	1.1	1.4	1.7	1.8
Etron	B Units	0.2	0.2	0.2	0.2	0.2
Total	B Units	3.1	3.6	4.6	5.5	5.6
Total Market	B Units	17.6	19.7	25.0	29.7	30.6
Share	%	18%	18%	18%	18%	18%

- ◆ Our customers own 18% of total Dram market
- ◆ Our customers will grow by 2.5 B units by 2014
- ◆ DDR3 products with higher density should increase our value added

Source: Company presentation (October 2010)

### ■ Vicious Circle: Financial structure – New Clients

The appeal of this division would increase significantly if EEMS were able to capture a new customer (Elpida as new entry?, Hynix increasing outsourcing?), which would enable it:

- to increase volume ...
- ... but above all to reduce its heavy reliance on Nanya.

### DRAM – MARKET SHARE (UNITS bn) ADDITIONAL POTENTIAL OPPORTUNITIES

		<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Elpida	B Units	3.1	3.9	5.0	5.9	6.1
Hynix	B Units	4.0	4.5	5.8	6.8	7.0
Total	B Units	7.0	8.5	10.8	12.8	13.2
Total Market	B Units	17.6	19.7	25.0	29.7	30.6
Share	%	40%	43%	43%	43%	43%

- ◆ Two key Dram players make 40% of market
- ◆ Elpida is said to be planning a new wafer fab close to EEMS factories in China
- ◆ Hynix has already a wafer fab near by the EEMS factories and is considering to grow its outsourcing

Source: Company presentation (October 2010)

To do this, however, **additional investments would be necessary that, as things currently stand, the group's financial structure is unable to bear.** If an opportunity for a new contract were to arise, the possible alternatives might be:

- A capital increase of EEMS (which we consider unlikely)
- **A capital increase reserved for a new partner to buy into the Chinese business unit, which would be the best case.**

Today, however, **we do not perceive this scenario is likely in the short-term.**

## ■ Capex evolution

**Management projects annual capex of about USD 15+ mn p.a.** including the annual maintenance capex of about USD 1 mn p.a. We estimate USD 16 mn in FY11 and on average USD 15 mn in the following years without including any capex to increase output capacity.

### Capex are:

- **Mainly to keep pace with technological change, such as the transition**
  - **from DDR2 to DDR3** (memories providing a reduction in power consumption of 30% compared to DDR2 modules), which will be completed this year and is a must-do to remain on the market and manage also to obtain price increases (typically suffering the inexorable erosion over time).  
**DDR3 weight on EEMS' sales is expected to grow from 10% in FY10 to 65/70% by 2/3 years**
  - **to 50 (and lower) nanometres** reducing in the size geometry and thus allowing a significant increase in units produced, for the same number of silicon wafers produced.  
**50 nanometres weight on EEMS' sales is expected to grow from zero in FY10 to 70% already in FY11.**
- **And only marginally for output capacity adjustments since utilisation rate is still quite low**

EEMS OUTPUT CAPACITY (FY10 - mn units)		
DRAM (DDR2-DDR3)	assembly and testing	300
% utilisation		70-80%
TSOP-FLASH	only assembly	100
% utilisation		50%

*Source: Equita SIM estimates on company data*

It is worth underlying the **FY11E capex to sales ratio will be in the region of 14%** (basically in line with last 2 years when output capacity was not fully saturated); this is not unusual being back-end typically a capital intensive business.

**We believe the plan for “strictly necessary” capex can be self-financed.** Conversely, EEMS's current financial flexibility does not assure visibility for the financing of any additional investments (like those needed to start production for a new customer see also section “Vicious circle: financial structure – new clients”).

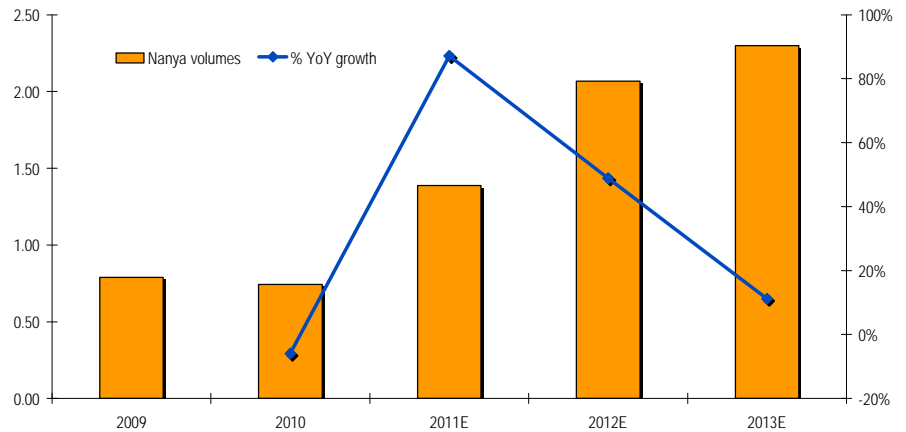
**In case of DRAM output capacity increase, as a rule of thumb capex needed to add 100 mn of incremental annual output in DDR3** are about USD 15-20 mn.

■ **Improvement of results dependent on volumes**

**Volume growth is by far and away the main driver for the improvement of operating results.** We expect

- **higher volumes** due to Nanya expected very strong growth (based on official Gartner projections above +80% YoY in FY11E and above +40% in FY12E)

**NANYA VOLUMES (bn units)**

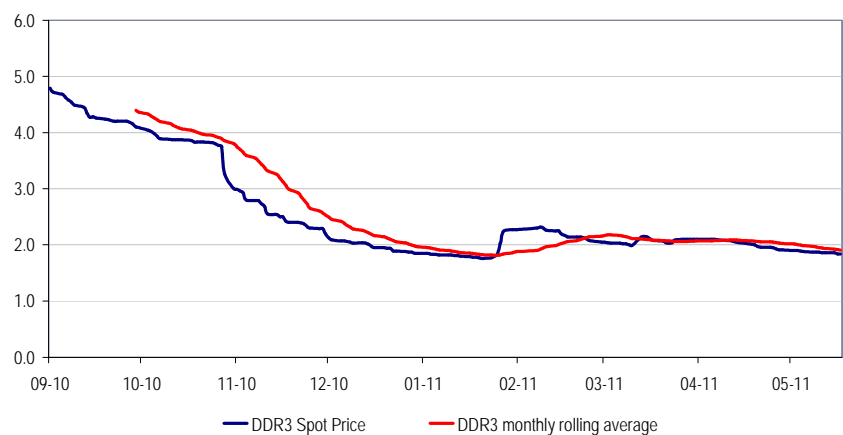


Source: Dataquest 1Q11

- **slightly higher average selling prices (ASP) in FY11E** as a result of
  - declining prices in DDR2 (a typical feature for the sector when a product is mature)
  - offset by positive mix effect following the higher percentage of sales for new DDR3

**For the following years we estimate on average a 6% annual decline in prices** (a typical trend for the DRAM sector as showed in the following chart)

**DDR3 spot price (USD - 2 Gb 256 Mx8)**



Source: Bloomberg (based on DRAMeXchange.com)

**It is worth noting back-end pricing is not directly linked to DRAM market prices volatility**, but eventual strong price pressure on DRAM inevitably generates additional pressure due to clients requested discounts

**The top line decline in FY11E** despite the 70% jump in Nanya volumes is explained by disappearance of Micron sales (from USD 48 mn as a result of a temporary contract in FY10 to zero in FY11E)

**Management stated a targeted EBITDA margin of 25-35% which we consider reasonable in the low-end** (after achieving 23% in the 2-year period 2009-10). It must also be remembered that EBIT will benefit significantly from the decrease of depreciation & amortization (D&A) due to the end of amortization period for investments made to start-up the Chinese plant in the period 2005-06.

**Management states that the 2 business units (assembly and test) have similar profitability at ROS level as:**

- Assembly has a lower contribution margin (about 30%) but lower D&A
- Test has a higher contribution margin (about 40%) but higher D&A.

**We estimate FY11E EBIT loss** (around € -9 mn) and a profit in FY12E (€ 1 mn), needing further confirmation on a quarterly basis.

EEMS SEMICONDUCTORS: MAIN FIGURES (€ mn)										
	2009*	%	2010*	%	2011	%	2012	%	2013	%
Sales	64.4		81.6		76.6		90.8		102.9	
% change	n.a.		27%		-6%		19%		13%	
Volumes	n.a.		14%		-9%		24%		19%	
Price/mix	n.a.		12%		2%		-5%		-6%	
EBITDA	15.0	23.3	18.9	23.2	19.9	26.0	25.0	27.5	28.3	27.5
% change	n.a.		26%		5%		25%		13%	
D&A	-29.2	-45.4	-29.5	-36.1	-29.1	-38.0	-24.1	-26.6	-21.3	-20.7
EBIT	-14.2	-22.1	-10.5	-12.9	-9.3	-12.1	0.9	0.9	7.1	6.9
% change	n.a.		n.m.		n.m.		n.m.		723%	
Capex	8.5	13.1	12.0	14.7	11.4	14.8	12.1	13.3	14.2	13.8
Capex to sales	13%		15%		15%		13%		14%	
EUR / USD	1.39		1.33		1.41		1.41		1.41	
ASP	0.32		0.34		0.37		0.35		0.33	

\* pro-forma excluding Singapore business unit sold in 2010

\*\* based on Dataquest estimates

Source: Equita SIM estimates and company data

**1Q11 results were very weak** (sales -36% YoY to € 13.7 mn and EBITDA -55% YoY to € 2.7 mn), mainly because of lower volumes (-50% YoY as expected due to the absence of Micron business and to main client Nanya transition to new technology for DDR3). This can be considered the bottom of the year; based on the current visibility on orders intake **a strong recovery is expected starting from 2Q11.**

EEMS SEMICONDUCTORS: 1Q11 MAIN FIGURES (€ mn)						
	1Q10	%	%on FY	1Q11	%	%On FY
Sales	21.4	100	26%	13.7	100	18%
% change				-36%		
Volumes				-50%		
Price/mix				28%		
EBITDA	6.0	28.1	32%	2.7	19.8	14%
% change				-55%		
D&A	-6.7	-31.5	23%	-7.4	-54.0	25%
EBIT	-0.7	-3.5	7%	-4.7	-34.3	51%
% change				n.m.		
Capex	1.7	8.1	15%	3.4	24.6	30%
Capex to sales	8%			25%		
EUR / USD	1.38			1.37		
ASP	0.327			0.418		

Source: Equita SIM estimates and company data

## ■ Semiconductors division valuation

The multiples of semiconductor back-end sector have typically always been somewhat low reflecting

- the high volatility** of results (visibility is typically limited to 3 months but with possible sudden changes relating to volume trends), but also
- high capital employed**
- and **limited bargaining power**.

### EEMS PEERS MULTIPLES

Company	EV/SALES		EV/EBITDA		EV/EBIT		PE		PCF		EBITDA MARGIN		EBIT MARGIN	
	2011E	2012E	2011E	2012E	2011E	2012E	2011E	2012E	2011E	2012E	2011E	2012E	2011E	2012E
AMKOR TECH INC	0.74	0.67	2.0	1.7	5.1	3.1	8.7	6.4	n.m.	n.m.	22%	24%	9%	13%
POWERTECH TECHNO	1.77	1.56	4.4	3.9	8.5	7.7	9.4	8.2	4.9	4.7	40%	40%	21%	20%
WALTON ADVANCED	1.57	n.m.	2.0	n.m.	5.5	n.m.	6.3	6.4	2.0	n.m.	40%	n.m.	14%	n.m.
SILICONWARE PREC	1.72	1.52	7.0	5.7	16.0	10.1	18.6	13.8	8.0	6.1	26%	28%	11%	16%
<b>AVERAGE</b>	<b>1.45</b>	<b>1.25</b>	<b>3.8</b>	<b>3.8</b>	<b>8.8</b>	<b>6.9</b>	<b>10.7</b>	<b>8.7</b>	<b>5.0</b>	<b>5.4</b>	<b>32%</b>	<b>31%</b>	<b>14%</b>	<b>17%</b>

Source: Equita SIM estimates on Bloomberg consensus data

**With mere application of the FY11-12 multiples of the few listed comparables (for some of them no consensus data are available), we would get an enterprise value ranging between €43 mn-€59 mn using EV/EBITDA and between €40 mn-€62 mn using EV/SALES to which we would apply a discount (in our sensitivity ranging from 20% to 60%) due to the:**

- small business size and low stock liquidity
- lower profitability since all peers have positive double digit EBIT.

In the following table a summary of the applied multiple analysis

### EEMS MAIN COMPARABLES MULTIPLES

EV EBITDA	2011E	2012E	Disc**	Mult2011	Mult2012	EV 2011	EV 2012	Avg
Amkor Tech Inc	2.0 x	1.7 x	20%	3.1 x	3.0 x	56.1	61.3	59
Powertech Techno	4.4 x	3.9 x	25%	2.9 x	2.8 x	52.2	57.1	55
Walton Advanced	2.0 x	n.m.	30%	2.7 x	2.6 x	48.4	53.0	51
Siliconware Prec	7.0 x	5.7 x	35%	2.5 x	2.5 x	44.6	48.8	47
<b>Average reference multiples</b>	<b>3.8 x</b>	<b>3.8 x</b>	<b>40%</b>	<b>2.3 x</b>	<b>2.3 x</b>	<b>40.8</b>	<b>44.7</b>	<b>43</b>

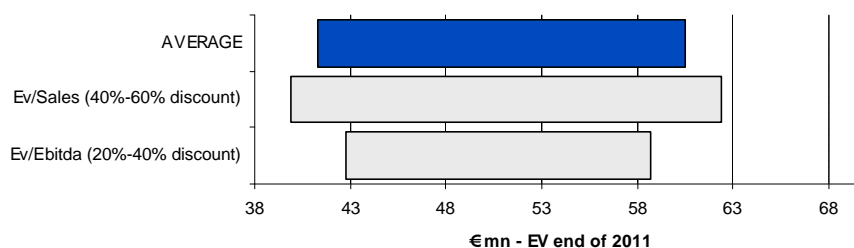
  

EV/SALES	2011E	2012E	Disc	Mult2011	Mult2012	EV 2011	EV 2012	Avg
Amkor Tech Inc	0.7 x	0.7 x	40%	0.9 x	0.8 x	61.6	63.1	62
Powertech Techno	1.8 x	1.6 x	45%	0.8 x	0.7 x	56.1	57.4	57
Walton Advanced	1.6 x	n.m.	50%	0.7 x	0.6 x	50.5	51.8	51
Siliconware Prec	1.7 x	1.5 x	55%	0.7 x	0.6 x	45.0	46.1	46
<b>Average reference multiples</b>	<b>1.4 x</b>	<b>1.3 x</b>	<b>60%</b>	<b>0.6 x</b>	<b>0.5 x</b>	<b>39.4</b>	<b>40.4</b>	<b>40</b>

Source: EQUITA SIM ON Bloomberg estimates

\*\* as applied to peers avg multiple

### SEMICONDUCTORS – VALUATION RANGES (€ mn)



Source: Equita sim estimates

**In the belief, however, that management may consider to take any M&A opportunities that could happen to arise, we think valuation may differ from simple application of multiples.**



In the meantime, in order to facilitate this objective it is necessary that:

- The market support recovery of volume and profitability ...
- ... and, possibly, that management succeed in creating the conditions necessary to increase the customer base.

**The reference market seems to be supportive since M&A activity recently reawakened.** Despite being a totally different segment, on April 4<sup>th</sup> Texas Instruments launched a take-over bid on National Semiconductors (specialized in analog processor) with a 78% premium on market price.

By way of information, we point out that **the BV of these assets is about USD 100 mn and debt to be repaid connected to semiconductor business** is about USD 65 mn; we do not rule out this level of debt to be repaid could be the minimum price acceptable by management for a deal.

**EEMS PHOTOVOLTAIC: THE SOLAR BET**

**Activities**

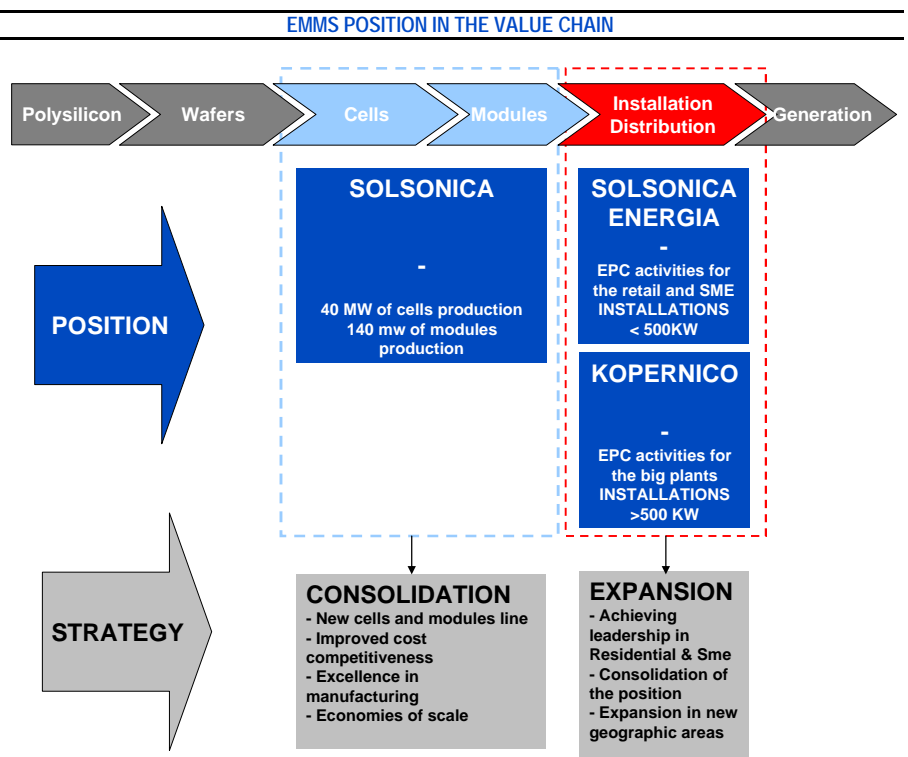
As we briefly described above, Eems is active in the field of Solar with its subsidiary Solsonica Spa, through which it produces photovoltaic cells and modules and develops complete solutions for the design and realisation of photovoltaic systems. The activities can consequently be summarized as follows:

- **Cells and Panel production.** The activities are managed through the fully owned subsidiary Solsonica which, at the end of 2010, managed lines for the production of 40 MW of polycrystalline photovoltaic cells and lines for the production of 80 MW of solar modules
- **EPC activities in the field of installation of big size photovoltaic system (>500Kw).** The activity is managed through a JV between Solsonica and the Espe group (Kopernico). The group installed around 6 MW during 2010.
- **EPC activities in the field of installation of smalls size photovoltaic system (Retail and Sme).** The activity is managed through the fully onwed subsidiary Solsonica Energia that is currently under development. The objective is to achieve a critical size in the EPC activities for the retail and sme segment.

**Pillars of the strategy**

While the cells and panel production is an already consolidated activity within the group, and the name of Solsonica is very well known brand for the quality of the panels (Terni Energia is one of the main clients), the EPC activity is still in its development stage as a consequence of the natural downstream diversification started in the last year. **The strategy of the Eems group is consequently:**

1. on one side **to reinforce the activity of cells and panel producers** through the construction of new cells and panel production lines (currently the group has the biggest modules production line in Italy with around 140 MW of capacity), the improvement of the cost competitiveness, the maintenance of excellence in manufacturing process and achievement of economies of scale;
2. on the other side **to expand the EPC activities in particular at Solsonica Energia**, by achieving the leadership in the segment of residential and small/medium business rooftop installation, consolidating the positioning in the Italian market and expand toward new geographic areas.



Source: EQUITA SIM on group strategy

■ **Market fundamentals, astonishing growth and need for new regulation**

**A global trend...**

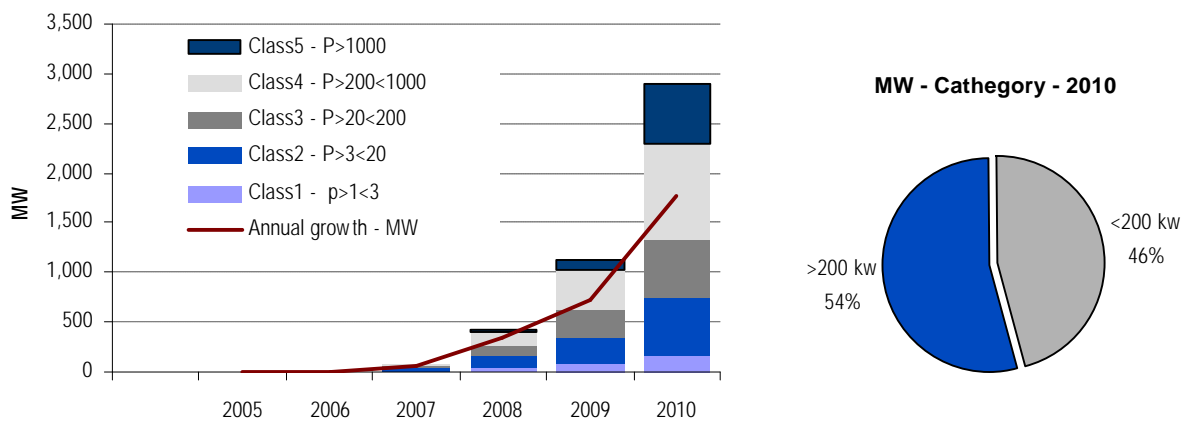
Like all the other technologies in the renewables segment, solar power's world-wide growth (in Italy as well) has been driven in the last few years by global energy trends and the "Green Revolution", favoured by the political environment.

The increase in electricity demand, rising cost of traditional fossil fuels, political/social difficulties related to nuclear power, the need to improve security of supply and energy independence, the target to reduce CO2 emissions and people's growing awareness of climate change issues, have forced politicians to develop and implement "greener" energy policies, and to introduce economic incentives to favour the development of the renewable industry.

**...a National success**

In this contest, and in line with the indications of the EU policy makers, our country have implemented a series of incentive measures (grouped under the name of "Conto Energia") which have favoured a significant growth of the solar industry in the last 5 years. **Installed capacity in the country have moved from 7MW at the end of 2005 to around 2900 MW at the end of last year, and our country have become the second biggest country in the world in terms of installations in 2009-2010.** In the following table a summary of the evolution of the installed capacity in our country in the period 2005-2010

**SOLAR INSTALLED CAPACITY EVOLUTION - ITALY**



Source: EQUITA SIM estimates

The reported number at the end of 2010 is even stronger if we consider that last week numbers of installed capacity stood at around 5,000 MW (as declared by the GSE) and that a pipeline of 25-30 GW is already in place for installation in the coming years.

**The new Conto Energia**

While, from an industrial point of view, the relevant growth indicates an healthy industry, on the other, because it is mainly driven by the regulatory requirements from the government, it implies a relevant burden on the final customer's electricity bills, for the overall amount of released incentives. As a consequence, and in order to limit next years development and to keep under control the overall levels of incentives, the Government has recently published a the new regulatory scheme for solar (4<sup>th</sup> Conto Energia) in place from the 1<sup>st</sup> of June this year to the end of 2016, with both reduced tariffs and caps to the cumulated annual cost of incentives (better details of the new system are provided in the appendix).

As a consequence, while in 2010 the overall amount of built plants have reached the incredible amount of 5800 MW, in the coming years, the amount of installation will be driven by the cap decided by the government.

Unfortunately, the change in the system have caused a couple of months of total uncertainties in the whole industry, with cancelled projects and delayed investments which have negatively affected the whole sector and also 1q11 results.

Anyway the new system now provides visibility for industry development to the level of around 23,000 MW (From current 5,000), thus providing EEMS with decent market fundamentals for the next 2-3 years.

In the following table a summary of our expectations in terms of installations for the coming years..

SOLAR SEGMENT COMPOSITION							
	2009	2010	2011	2012	2013	2014	2015
Class1 - p>1<3	87	159	275	435	735	1,285	1,635
Class2 - P>3<20	262	578	1,095	2,070	3,820	5,695	6,670
Class3 - P>20<200	277	593	1,547	2,522	4,272	6,147	7,122
Class4 - P>200<1000	394	969	3,019	4,119	5,219	5,719	6,219
Class5 - P>1000	115	604	1,584	1,684	1,784	1,984	2,184
<b>Solar installation YE - MW</b>	<b>1,135</b>	<b>2,903</b>	<b>7,830</b>	<b>10,830</b>	<b>15,830</b>	<b>20,830</b>	<b>23,830</b>
Annual growth - MW	717	1,768	4,927	3,000	5,000	5,000	3,000

Source: EQUITA SIM estimates

### ■ Cells & Modules production

#### Increasing dimension

As we briefly described above, Solsonica is the vehicle through which the Eems group operates in the field of Cells and modules production.

Funded in 2007 with the aim to become one of the reference player in the midstream activities the group have installed a capacity for 40 MW of cells and 80 MW of modules at the end of 2010 with clients in Italy, Germany, Spain, France, England and Netherlands.

With around € 110 mn of sales and € 11.2 mn of Ebitda at the end of 2010, Solsonica is now increasing its current capacity to arrive at 140 MW of modules production during 2011 (testing phase for the additions should be happening in current days) to follow the important growth experienced by the market in 2010 and to be more competitive on the cost side thanks to the scale economies.

PRODUCTION CAPACITY & OUTPUT					
	2010	2011	2012	2013	2014
Cells line capacity - MW	40	40	40	40	40
Expected cells output - MW	30	34	36	36	36
Modules capacity - MW	80	140	140	140	140
Expected modules output - MW	65	77	95	95	95

Source: EQUITA SIM estimates

#### Pricing pressure & reduced profitability.

In light of the progressive reduction in incentives to solar (as per the new regulation), the consequent expected slowdown in market growth as well as the pricing pressure from increased competition at worldwide level, we expect the cells/panel production market to be under pressure for significant cost reduction in the coming year.

While 2010 has been a booming year for the industry (especially in Italy), the recent Italian government intervention to limit in the time the growth of the industry (as described above), have currently blocked the market during the 1Q, thus putting cells/modules producer under pressure with stopped order. We believe this pressure is turning into significant profitability reduction in 2011 that will be only partially recovered in the coming years.

In the following table a summary of the expected evolution of the main reference metrics.

CELLS / MODULES PROFITS ESTIMATES				
	2010	2011	2012	2013
Expected modules sales - MW	65	78	94	95
Expected modules price - €/MW	1.67	1.30	1.13	1.03
<b>Revenues - €mn</b>	<b>110.2</b>	<b>102.4</b>	<b>107.1</b>	<b>98.7</b>
Growth %	-	-7%	5%	-8%
<b>Ebitda - €mn</b>	<b>11.2</b>	<b>-1.6</b>	<b>3.5</b>	<b>3.4</b>
Growth %	-	-114%	-320%	-1%
Margin %	-	-2%	3%	3%
<b>Ebit - €mn</b>	<b>8.2</b>	<b>-4.7</b>	<b>0.4</b>	<b>0.4</b>
Growth %	-	-157%	-108%	-5%
Margin %	-	-5%	0%	0%
<b>Investments - €mn</b>	<b>-4.4</b>	<b>-1.0</b>	<b>-1.5</b>	<b>-1.5</b>

Source: Equita SIM estimates and company data

As you can see from the table, although we expect an increase in the modules sales from 65 MW to 95 MW as a consequence of the increased capacity, the sale price of the modules is expected to significantly decrease in line with the incentives reduction and the trend towards the grid parity achievement (sales flat in the period). **The Ebitda is consequently expected to drop from 11 € mn to a loss of -1.6 € mn in 2011, with a stabilization in the medium term in the region of 3-4 € mn as a consequence of the cost recovery expected to happen thanks to the size increase at production level and efficiencies gains at production costs.**

In the following table a summary of the expected evolution in the cost of production for the cells, the acquisition costs on the market and the expected prices for modules

MAIN ECONOMICS - OPEX				
	2010	2011	2012	2013
Wafer cost - €/watt	0.60	0.50	0.44	0.39
Transformation cost cells - € /watt	0.27	0.22	0.19	0.18
Power loss 3.5% & other inefficiencies -€/watt	0.06	0.06	0.05	0.05
<b>Cells cost production - €/Watt</b>	<b>0.93</b>	<b>0.78</b>	<b>0.68</b>	<b>0.62</b>
Growth %	-	-16.2%	-12.0%	-8.9%
<b>Modules production cost - €/Watt</b>	<b>0.39</b>	<b>0.32</b>	<b>0.27</b>	<b>0.25</b>
Growth %	-	-17.9%	-15.6%	-9.3%

Source: Equita SIM estimates and company data

## Valuation

**We have run a sensitivity analysis of the Solsonica valuation for what pertains to the Cells and modules production activities with 2 different methodology:**

1. **DCF** on the base of a wacc of 8%, a G ranging from 0% to 4% and a Sustainable Roce for the long term ranging from 6% to 12%.
2. **MULTIPLES** analysis based on the 2013 EV/EBITDA for a panel of comparables cells and modules producers, with a discount ranging from 20% to 40%.

## DCF

**We estimate that, under the DCF methodology, the value of cells/modules production, ranges from 18 € mn to 21 € mn at EV level at the end of 2011.**

In the following table a summary of our analysis

## DCF : VALUATION RANGES

		G				
		0%	1%	2%	3%	4%
ROCE	6%	18.1	17.0	15.6	13.8	11.3
	7%	18.1	17.4	16.6	15.5	13.9
	8%	18.1	17.7	17.3	16.7	15.9
	9%	18.1	18.0	17.8	17.7	17.4
	10%	18.1	18.2	18.3	18.4	18.7
	11%	18.1	18.3	18.7	19.1	19.7
	12%	18.1	18.5	19.0	19.6	20.5

Source: EQUITA SIM estimates

## MULTIPLES

We estimate that under the MULTIPLE approach, the value of cells/modules production ranges from 12 €mn to 15 €mn at the end of 2011 as measured on the average of 2012-2013 EV/EBITDA. In the following table a summary of our analysis

## EV/EBITDA VALUATION

COMPARABLES				Ev/Ebitda				EV
	2012	2013	Disc	Mult 2012	Mult 2013	EV 2012	EV 2013	
Q-cells	4.5 x	4.2 x	20%	4.4 x	4.5 x	15.3	15.6	15.4
Sunpower	4.4 x	5.1 x	25%	4.1 x	4.3 x	14.3	14.6	14.5
Conergy	11.5 x	10.3 x	30%	3.9 x	4.0 x	13.4	13.6	13.5
Suntech	4.9 x	5.2 x	35%	3.6 x	3.7 x	12.4	12.7	12.5
China sunergy	1.6 x	3.2 x	40%	3.3 x	3.4 x	11.5	11.7	11.6
Solarworld	6.2 x	6.2 x						
Average reference multiples	5.5 x	5.7 x						

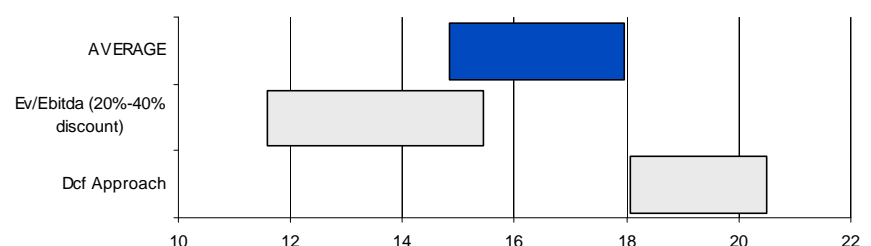
Source: EQUITASIM estimates

We have used a discount to the peers in light of the different dimension and the much lower operating leverage.

## Overall ranges

Under an average of the above mentioned valuation we consequently estimates the cells/production activities to be reasonably valued in whatever range between 15 €mn and 18 €mn at EV level and at the end of 2011 as showed in the following table (as the average between the 2 methodologies).

## CELLS &amp; PANELS – VALUATION RANGES (€ mn)



Source: EQUITA SIM estimates

## ■ EPC retail

## Naturally diversifying downstream...

As we described above, while the cells/modules production is already consolidated into Eems business model, the group has recently started to diversify downstream in the Installation/distribution field through the EPC activities mainly in the field of retail and Sme (below 500 kw).

We find the downstream diversification as being the natural evolution of the business. Increasing size and pricing pressure, in fact, force players to look for efficiencies and vertical integration in order to control a wider range of profit drivers. Furthermore as we believe that a progressive shift in the level of

incentives towards the smaller have materialized in the new regulatory system (see appendix), we consequently find it reasonable to concentrate the efforts in this business segment.

**...as control of the value chain allows for competitive advantage**

**Furthermore, we believe the retail market is definitively less sensitive to the price issues.** Retail customers takes more an “environmental” decision rather than a pure “investment” choice based on expected returns (like it happens for the big installations and the industrial customers).

We share the view that retails installation are more sensible to arguments related to the “Security” of the systems (Warranty packages), the “Aesthetical” impact of the installation on their roofs, the “easiness of the installation procedures”, the “full maintenance services” , all packages that usually justify a higher prices and a higher margin. As a consequence, although we believe that reduced incentives will increase competition also in the retail segment, **we think that “qualitative” issues will play a stronger role in the marketing activities in this segment vs the big size plants (where cost is the king). Having the control over the entire process (from the cells to modules to installation), we believe Solsonica Energia have a strong competitive advantage vs smaller/traditional peers, and will be able to provide higher quality services at the same price.**

**A 2% market share the worse case**

**Under conservative assumptions, we believe Solsonica Energia will be easily able to reach the level of 20 MW of installation per year (which, under the assumption showed in previous paragraphs would imply a market share of 1%-2%).**

Considering also the expected decrease in installation cost to follow the expected incentives reductions, we believe Solsonica Energia could be able to reach around €80 mn sales in 2013 with an EBITDA margin in the region of 15%.

In the following table a summary of our reference metrics for the coming years.

<b>EPC (retail) ACTIVITIES</b>				
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Assumed installations - retail	0.0	1.3	5.0	5.0
Assumed installations - smes	0.0	0.5	8.0	15.0
<b>TOTAL INSTALLATIONS - MW</b>	<b>0.0</b>	<b>1.8</b>	<b>13.0</b>	<b>20.0</b>
Market share on total market	0.0%	0.0%	0.4%	1.2%
Installation price class1 - €/Watt	-	4.3	4.0	3.5
Installation price class2 - €/Watt	-	4.0	3.5	3.0
<b>Revenues - €mn</b>	<b>0.0</b>	<b>7.8</b>	<b>48.0</b>	<b>62.5</b>
Growth %	nm	nm	519%	30%
<b>Ebitda - € mn</b>	<b>0.0</b>	<b>-1.4</b>	<b>8.4</b>	<b>9.5</b>
Margin %	0%	-18%	18%	15%
<b>Ebit - €mn</b>	<b>0.0</b>	<b>-1.4</b>	<b>8.4</b>	<b>9.5</b>
Margin %	-	-18%	18%	15%

Source: Equita Sim estimates

The EPC activities doesn't absorb relevant investments as it mainly requires a sensible attention to the working capital management, to match the materials acquisition costs with the downpayments till the delivery of the plant. We have anyway expensed at P&L around 2-2.5 € mn additional costs in the next 3 years to account for the required investments in the retail network development.

**Valuation**

**We have run a sensitivity analysis of the EPC activity with 2 different methodology:**

1. **DCF** on the base of a wacc ranging from 9% to 11% and an exit multiple (Ev/ebitda) ranging from 2.2x to 4x.
2. **MULTIPLES** analysis based on the 2013 EV/EBITDA and EV/SALES multiples for a panel of comparables EPC players, with a discount ranging from 0% to 50%.

**DCF**

We Estimate that , under the DCF methodology, the value of Solsonica Energia ranges from 30 €mn to 45 €mn at EV level at the end of 2011. In the following table a summary of our analysis

DCF ANALYSIS						
		WACC				
		9.0%	9.5%	10.0%	10.5%	11.0%
EV EBITDA	2.2	30.4	29.9	29.5	29.1	28.7
	2.5	33.2	32.8	32.3	31.8	31.4
	2.8	36.1	35.6	35.1	34.6	34.1
	3.1	39.0	38.4	37.9	37.3	36.8
	3.4	41.8	41.2	40.7	40.1	39.5
	3.7	44.7	44.1	43.4	42.8	42.2
	4.0	47.5	46.9	46.2	45.6	45.0

Source: EQUITA SIM estimates

**MULTIPLES**

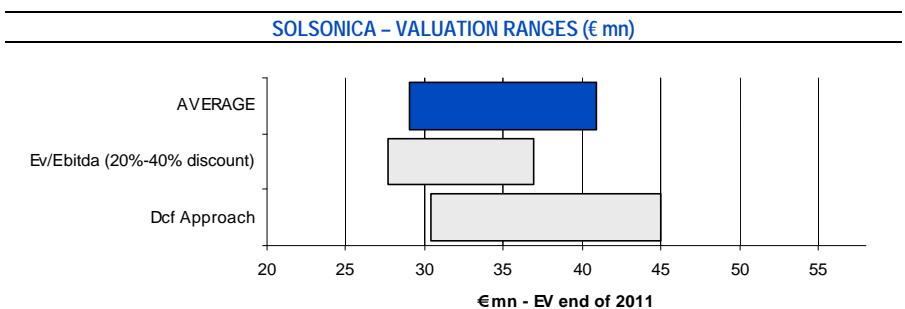
We estimate that under the MULTIPLE approach, the value of Solsonica Energia ranges from 28 €mn to 37 €mn at the end of 2011 as measured on 2012-2013 EV/EBITDA. In the following table a summary of our analysis

EV EBITDA VALUATION SENSITIVITIES									
	2012	2013	Disc.	mult 2011	mult 2012	EV 2011	EV 2012	EV	
Solar Millennium Ag	11.8 x	8.3 x	20%	4.2 x	4.0 x	35.8	37.9	36.9	
Phoenix Solar Ag	4.1 x	5.9 x	25%	4.0 x	3.7 x	33.6	35.6	34.6	
Centrosolar Group Ag	3.9 x	3.4 x	30%	3.7 x	3.5 x	31.3	33.2	32.3	
Payom Solar Ag	1.4 x	1.5 x	35%	3.4 x	3.2 x	29.1	30.8	30.0	
Ternienergia Spa	5.3 x	5.8 x	40%	3.2 x	3.0 x	26.9	28.5	27.7	
Average reference multiples	5.3 x	5.0 x							

Source: EQUITA SIM estimates

**Overall ranges**

Under the above mentioned valuation we consequently estimates the EPC(etail) activities to be reasonably valued in whatever range between 29 and 41 €mn at EV level and at the end of 2011 as showed in the following table (The value is the average between the 2 methodologies



Source: EQUITA SIM estimates

### ■ EPC (big plants) - Kopernico

Through a JV with the ESPE group, the EEMS group is active also in the field of installation for the big plants (>500 kw) the activities are managed through the KOPERNICO vehicle, currently consolidated at equity. We estimate the group as being able to install something in the region of 20 MW per year.

We believe Kopernico is not a relevant profit contributor as the group will mainly account for the benefit of the Cells/modules sales in the Solsonica division, while the profits from the EPC installation will be mainly accounted by the ESPE group. As a consequence the group will have residual profits to be accounted at equity as follows



<b>EPC (big plants) - KOPERNICO</b>				
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
<b>REVENUES</b>	<b>21.00</b>	<b>38.58</b>	<b>12.13</b>	<b>11.41</b>
Growth %	nm	nm	-68.6%	-6.0%
<b>Operating expenditures</b>	<b>-20.40</b>	<b>-37.42</b>	<b>-11.77</b>	<b>-11.06</b>
Growth %	nm	nm	-68.6%	-6.0%
Margin %	nm	-97.0%	-97.0%	-97.0%
<b>EBITDA</b>	<b>0.60</b>	<b>1.16</b>	<b>0.36</b>	<b>0.34</b>
Growth %	nm	nm	-68.6%	-6.0%
Margin %	nm	3.0%	3.0%	3.0%
Depreciation & provisions	0.00	0.00	0.00	0.00
<b>EBIT - € mn</b>	<b>0.60</b>	<b>1.16</b>	<b>0.36</b>	<b>0.34</b>
Growth %	nm	nm	-68.6%	-6.0%
Margin %	nm	3.0%	3.0%	3.0%
<b>NET INCOME - €mn</b>	<b>0.37</b>	<b>0.73</b>	<b>0.23</b>	<b>0.22</b>
Growth %	nm	97.1%	-68.6%	-6.0%
Margin %	1.8%	1.9%	1.9%	1.9%

Source: EQUITA SIM estimates

We have valued Kopernico on the base of a PE multiple with a discount ranging from 0 to 50% as follows. The valuation range is between 3.8 and 7.6 € mn

<b>KOPERNICO VALUATION</b>						
<b>REFERENCE VALUATION MULTIPLES</b>	<b>PE 2013</b>	<b>VALUATION</b>	<b>CASE 1</b>	<b>CASE 2</b>	<b>CASE 3</b>	<b>CASE 4</b>
Solar Millennium Ag	7.5 x	Net Income 2012	0.23	0.23	0.23	0.23
Phoenix Solar Ag	5.9 x	Reference PE 2012	7.2 x	7.2 x	7.2 x	7.2 x
Centrosolar Group Ag	5.0 x	Discount to reference PE	50%	30%	15%	0%
Payom Solar Ag	2.7 x	Valuation PE	3.6 x	5.0 x	6.1 x	7.2 x
<b>Average EPC contractors</b>	<b>5.4 x</b>	<b>EQUITY VALUE.....</b>	<b>0.8</b>	<b>1.2</b>	<b>1.4</b>	<b>1.6</b>

Source: EQUITA SIM estimates

## ■ SOLSONICA

As derived from the analysis above, we consequently believe SOLSONICA (the solar business) could be worth in the region of 44 € mn to 56 € mn as showed in the following table

<b>SOLSONICA VALUATION</b>				
Dcf	18.1	20.5	9.5% Wacc, Exit Roce 6%-12%, G 0%-4%	
Ev/Ebitda	11.6	15.4	Peers comps with discount from 20%-40%	
<b>Cells/Panels</b>	<b>14.8</b>	<b>18.0</b>	<b>Avg Dcf; EV/Ebitda; EV/Sales</b>	
Dcf	30.4	45.0	9.5% Wacc, Exit Roce 6%-12%, Exit ev/ebitda 2.2x-4.0x	
Ev/Ebitda	27.7	36.9	Peers comps with discount from 20%-40%	
<b>Epc</b>	<b>29.0</b>	<b>40.9</b>	<b>Dcf; EV/Ebitda; EV/Sales</b>	
Pe	0.4	0.8		
<b>Kopernico (Epc)</b>	<b>0.4</b>	<b>0.8</b>	<b>PE multiples (equity value)</b>	
<b>Solsonica.....</b>	<b>44.2</b>	<b>59.7</b>	<b>-</b>	

Source: EQUITA SIM estimates

## DEBT RESTRUCTURING FULLY ADRESSED

### From a distressed situation...

As it emerges from the analysis of the financial profits, the Eems group have passed in 2008-2009 a very difficult situation from a financial point of view. Mainly as a consequence of the abrupt bankruptcy of Quimonda, its main customer of DRAM business (for which new additional investments in equipment, buildings and facilities were made) the group have breached covenants on its outstanding debt and missed the payment of expected reimbursement during the first part of the year (2009).

As a consequence of the distressed situation, the Eems group have started a restructuring process, after the elaboration of a new strategy plan, that was positively concluded with a standstill agreements for the expected repayments till the 28<sup>th</sup> of February 2010, the renegotiations of the maturities on the credit facilities as well as the agreement to provide for additional financing to sustain the investments and the working capital requirements of the solar activities.

After the agreements, and at the end of 2009 the Eems group has around 94.4€ mn of outstanding debt organized as follows:

- FACILITY A: for an amount of 16.5 €mn expected to be paid on 6 half year payments as from the 30<sup>th</sup> of June 2011
- FACILITY B: for an amount of 60 €mn to be paid in 5 half year payments as from the 30<sup>th</sup> of June 2012 plus an amount of around 12 €mn to be paid as single solution as of the 31<sup>st</sup> December 2014
- REVOLVING FACILITY: for an amount of 18 € mn at the 31<sup>st</sup> of December 2011
- Interests on the outstanding debt for the remaining amount

### ... to a safe condition

On top of the restructuring achievements described above, during 2010, the Eems group has put in place additional restructuring measures. With the sales of EEMS TEST SINGAPORE (for an amount in the region of 67 \$mn) as described in previous paragraphs, the group have additionally repaid a significant part of the outstanding debt. More in details Eems have fully repaid the FACILITY A and 17% of the FACILITY B in advanced time vs the original agreement.

As a consequence the group reduced the total debt from 97 € mn at the end of 2009 to around 60 € mn at the end of 2010, thus finally concluding the debt restructuring process.

The evolution of the repayments done in the previous years, as well as the expected evolution of the remaining facilities and the debt/cash expected evolution for the coming years is showed in the following table

DEBT ANALYSIS						
	2009	2010	2011	2012	2013	2014
Total financial debt beginning of the year	97	61	61	52	36	1
Facility A	17	0	0	0	0	0
Facility B	60	42	42	34	17	0
Revolving facilities	18	18	18	18	18	0
Other facilities (interests & other)	3	1	1	1	1	1
Cash available	15	31	32	29	25	12
Net financial position	-83	-30	-29	-23	-10	11
Solvency coverage ratio (Immobilizz/Total assets)	82%	83%	77%	69%	67%	62%
leverage ratio (Nfp/Ebitda)	3.2 x	0.9 x	1.6 x	0.6 x	0.2 x	-0.2 x
Interest coverage ratio (Ebitda/interests)	3.8 x	5.2 x	4.3 x	9.7 x	13.9 x	37.6 x
DSCR ((FFO-capex)/ammortamento debito)	na	31%	nm	80%	157%	88%

Source: EQUITA SIM estimates

As you can see from the table, we estimate the group has enough cash to fulfill its expected payments for the coming years. Furthermore Eems has the availability of revolving lines in the region of 12 €mn for the year 2011 as well as performance bonds for 5 € mn in 2011 that should be more than enough to grant for any working capital requirements that should arise from the build up of the EPC activities in the solar division.

### SOLAR VERY STRONG IN 1Q BUT NOT ENOUGH TO RECOVER POOR SEMIS TREND.

#### Weak 1Q 2011 Results

Mainly as a consequence of a weak performance in the semiconductors business, EEMS reported weak numbers in its 1Q11 results, only partially compensated by the relevant growth reported in the Solar division (although penalized by the regulatory changes in the solar market).

- Revenues improved by around 9.2 €mn to 37.6 €mn (+33% YoY)
- Ebitda reduced by -1.3 €mn to 3.2 €mn (-29%)
- Ebit reduced by around -1.2 €mn to a loss of -4.3 €mn
- Net income from the continuing activities reduced by -1.7 € mn to 4.4 €mn

In the following table a summary of the reported results for the 1Q 2011. The numbers highlights results of the ongoing activities after the already described sales of EEMS TEST SINGAPORE during 2010

MAIN 1Q 2011 MAIN METRICS				
	1Q 10 PF	1Q 11 REP	Growth - € mn	Growth - %
Revenues - € mn	28.3	37.6	9.2	33%
Ebitda - €mn	4.5	3.2	-1.3	-29%
Ebit - € mn	-3.2	-4.3	-1.2	nm
Net income from recurring activities - €mn	-4.3	-4.4	-0.1	nm
Net income reported - €mn	-2.7	-4.4	-1.7	nm
Net financial position	-29.0	-40.9	-11.9	nm

Source: EQUITA SIM & company data

As we mentioned above, the performance has been penalized by the weak trend of the semiconductors activities, only partially compensated by the good trend in the solar division (although penalized by the regulatory changes) as showed in the following table.

SEGMENTAL RESULTS				
	1Q 10 PF	1Q 11 REP	Growth - € mn	Growth - %
Semiconductors	21.4	13.7	-7.7	-36%
Photovoltaic	6.5	23.9	17.4	> 100%
Other (Eems Italia + Elisions)	0.4	-0.1	-0.5	< 100%
<b>TOTAL SALES</b>	<b>28.3</b>	<b>37.6</b>	<b>9.2</b>	<b>33%</b>
Semiconductors	6.0	2.7	-3.3	-55%
Photovoltaic	-0.7	0.7	1.3	> 100%
Other (Eems Italia + Elisions)	-0.8	-0.1	0.6	> 100%
<b>TOTAL EBITDA</b>	<b>4.5</b>	<b>3.2</b>	<b>-1.3</b>	<b>-29%</b>

Source: EQUITA SIM & company data

#### More difficult 2011

**Semiconductors:** Revenues in 1Q11 have decreased by around € -7.7 mn or -36% YoY due to reduced volumes from the main client (which has shifted to the new 50 nm technology) as well as prolonged pricing pressure on demand/supply unbalance. Volumes reduction has consequently caused the -55% decrease in EBITDA.

Situation is expected to improve in the second part of the year when the switch to the 50 nm technology will be finalised.

**Photovoltaic:** Profits of the division are strong thanks to the boost granted by the regulatory allowances in 2010. Revenues increased by 17.4€ mn (>100%YoY), Ebitda improved by 1.3 €mn to a positive +0.7 € mn. Despite the relevant growth, performance is penalized by much lower volumes vs the potential of the group. The change in the regulatory mechanism have blocked the market for a couple of months thus reducing Profitability of the division (ebitda margin from 10% to 3% in the quarter. Outlook for the division is now improving after the approval of the new legislation (4<sup>th</sup> Conto Energia). Orders should rebuild in the coming weeks and profitability should gradually recover.

## VALUATION RANGES AND INVESTMENT CASE SUMMARY

As we have described in details in the previous pages, **the EEMS Group, is among the leading operators at world level in the assembly, testing and finishing of semiconductors memories. Through its subsidiary Solsonica Spa, it produces also photovoltaic cells and modules and develops (through Solsonica Energia and Kopernico) complete solutions for the design and realisation of photovoltaic systems in both the big and Retail/Sme plants.**

While the Semiconductor business has been significantly restructured in the past year (sale of EEMS TEST SINGAPORE) and we cannot exclude further divestment in coming years, the group is aggressively focusing the Solar business, with the aims to expand the production capacity at both cells and modules level (Solsonica) as well as expanding the EPC activities run in Solsonica energia and Kopernico.

We have run a sensitivity analysis of the possible valuation of the EEMS group taking into account

- **Semiconductor: M&A deal multiples (EV/Ebitda and EV/SALES) which drives us to a valuation range from 41 €mn to 60€mn at the end of 2011 as an average between the 2 methodologies.**
- **Solsonica (solar): valuing the three different components for a total valuation range between 44 €mn and 60 €mn, detailed as follows:**
  - Cells/Modules: using both DCF and EV/EBITDA approach we arrive to a valuation range from 15 €mn to 18 €mn
  - EPC retail/Sme: using both DCF and EV/EBITDA multiples approach we arrive to a valuation range from 29 € mn to 41 €mn
  - EPC big plant: using a PE multiple for the equity consolidated JV multiple we have a range value from 0.4 € mn to 0.8 € mn at the end of 2011

**While doing our analysis we have used a 9.5% Wacc on the dcfs with EXIT ROCE ranging from 6-12%, G ranging from 0%-4% and ev/ebitd exit multiples from 2.2x-4x. We have furthermore run the multiples analysis with discounts ranging from 20%-40% in the case of ev/ebitda and from 40%-60% in the case of EV/sales to account for the different dimension, position, indebtedness and operating leverage.**

In the following table a summary of the valuation ranges. We estimate that the potential equity value ranges between 54 €mn and 88 €mn or between 1.20 and 2.02, as showed in the following table.

SUM OF THE PART			
	MIN	MAX	METRICS
Ev/Ebitda	42.7	58.7	Peers comps with discount from 20%-40%
Ev/sales	39.9	62.4	Peers comps with discount from 40%-60%
Semiconductors.....	<b>41.3</b>	<b>60.5</b>	<b>Avg Ev/Ebitda; EV/sales</b>
Dcf	18.1	20.5	9.5% Wacc, Exit Roce 6%-12%, G 0%-4%
Ev/Ebitda	11.6	15.4	Peers comps with discount from 20%-40%
Cells/Panel	<b>14.8</b>	<b>18.0</b>	<b>Avg Dcf; EV/Ebitda; EV/Sales</b>
Dcf	30.4	45.0	9.5% Wacc, Exit Roce 6%-12%, Exit ev/ebitda 2.2x-4.0x
Ev/Ebitda	27.7	36.9	Peers comps with discount from 20%-40%
Epc	<b>29.0</b>	<b>40.9</b>	<b>Dcf; EV/Ebitda; EV/Sales</b>
Pe	0.4	0.8	Pe multiples (Equit value)
Kopernico	<b>0.4</b>	<b>0.8</b>	<b>PE multiples (equity value)</b>
Solsonica.....	<b>44.2</b>	<b>59.7</b>	
REFERENCE EV.....	<b>85.6</b>	<b>120.2</b>	
Net financial position End 2011	-28.9	-28.9	End of the year
Other Assets	0	0.0	nm
Provision / Minorities	-2.5	-2.5	50% pension , full provision
<b>EQUITY VALUE</b>	<b>54.3</b>	<b>88.0</b>	
Shares outstanding	44	44	
<b>EQUITY VALUE PER SHARE</b>	<b>1.19</b>	<b>2.02</b>	
UPSIDE/DOWNSIDE RISK	-5%	60%	
Implied PE 2012	9.6 x	15.8 x	

Source: EQUITA SIM estimates

**Our valuation implies an downside of 10% and an upside of 48% on recent closure and implies a PE of 10x and 16x as measured on 2012.**

We believe Eems:

- **is well positioned in the industry;** thanks to the consolidated experience in both semis and cells/panel;
- **is correctly diversifying downstream;** the control of the value chain and the perceived high quality products ensure Eems a good competitive advantage in favour of market share improvement.

**On the negative side, we think that covenants on debt could slow down growth opportunities** (although we don't see main risk on debt repayment), in a market with high volatility and strong pricing pressure (with consequent needs for volumes and scale advantage), **while the uncertainties on the current evolution of the solar regulatory framework reduces visibility in the short term.**

**Market multiples**

In the following table the reference market multiple of the main peers of EEMS in each reference segments.

	PEERS COMPARISON								
	PRICE EARNINGS			EV/EBITDA			EV/SALES		
	2011	2012	2013	2011	2012	2013	2011	2012	2013
Amkor Tech Inc	8.7 x	6.4 x	10.7 x	2.0 x	1.7 x	n.m.	0.7 x	0.7 x	n.m.
Powertech Techno	9.4 x	8.2 x	7.5 x	4.4 x	3.9 x	3.5 x	1.8 x	1.6 x	1.4 x
Walton Advanced	6.3 x	6.4 x	n.m.	2.0 x	n.m.	n.m.	1.6 x	n.m.	n.m.
Siliconware Prec	18.6 x	13.8 x	11.7 x	7.0 x	5.7 x	5.2 x	1.7 x	1.5 x	1.4 x
<b>Average SEMIS peers</b>	<b>10.7 x</b>	<b>8.7 x</b>	<b>10.0 x</b>	<b>3.8 x</b>	<b>3.8 x</b>	<b>4.3 x</b>	<b>1.4 x</b>	<b>1.3 x</b>	<b>1.4 x</b>
Q-Cells Se	20.5 x	11.2 x	16.1 x	4.6 x	4.5 x	4.2 x	0.6 x	0.5 x	0.5 x
Sunpower Corp-Class A	13.1 x	9.4 x	9.7 x	6.4 x	4.4 x	5.1 x	0.7 x	0.5 x	0.4 x
Conergy Ag	nm	nm	75.5 x	16.0 x	11.5 x	10.3 x	0.4 x	0.4 x	0.3 x
Motech Industries Inc	10.8 x	9.8 x	9.7 x	na	na	na	nm	nm	nm
E-Ton Solar Tech Co Ltd	33.2 x	24.1 x	na	11.0 x	9.2 x	na	1.0 x	0.9 x	nm
Gintech Energy Corp	7.4 x	8.4 x	11.8 x	6.5 x	6.3 x	5.5 x	1.0 x	1.0 x	1.1 x
Suntech Power Holdings-Adr	6.6 x	6.3 x	6.7 x	5.8 x	4.9 x	5.2 x	0.8 x	0.6 x	0.6 x
Ldk Solar Co Ltd -Adr	3.9 x	3.8 x	5.5 x	4.7 x	4.2 x	5.2 x	1.0 x	1.0 x	1.3 x
China Sunergy Co Ltd-Adr	5.7 x	12.0 x	7.6 x	2.6 x	1.6 x	3.2 x	0.1 x	0.2 x	0.2 x
Neo Solar Power Corp	6.3 x	6.8 x	na	3.6 x	3.2 x	na	0.5 x	0.4 x	nm
Solarworld Ag	13.6 x	14.1 x	14.1 x	6.4 x	6.2 x	6.2 x	1.2 x	1.1 x	1.0 x
<b>Average CELLS/MODULES producers</b>	<b>12.1 x</b>	<b>10.6 x</b>	<b>17.4 x</b>	<b>6.8 x</b>	<b>5.6 x</b>	<b>5.6 x</b>	<b>0.7 x</b>	<b>0.7 x</b>	<b>0.7 x</b>
Solar Millennium Ag	16.1 x	13.9 x	7.5 x	12.0 x	11.8 x	8.3 x	1.2 x	1.1 x	0.8 x
Phoenix Solar Ag	8.8 x	7.5 x	5.9 x	7.1 x	4.1 x	5.9 x	0.2 x	0.2 x	0.1 x
Centrosolar Group Ag	6.8 x	5.1 x	5.0 x	4.2 x	3.9 x	3.4 x	0.3 x	0.3 x	0.3 x
Payom Solar Ag	4.4 x	3.6 x	2.7 x	2.1 x	1.4 x	1.5 x	0.2 x	0.2 x	0.1 x
Ternienergia Spa	6.1 x	5.8 x	5.6 x	5.4 x	5.3 x	5.8 x	0.8 x	0.8 x	0.9 x
<b>Average EPC contractors</b>	<b>8.5 x</b>	<b>7.2 x</b>	<b>5.4 x</b>	<b>6.2 x</b>	<b>5.3 x</b>	<b>5.0 x</b>	<b>0.5 x</b>	<b>0.5 x</b>	<b>0.4 x</b>
Ebitda exposure to Semis	69%	69%	69%	69%	69%	69%	69%	69%	69%
Ebitda exposure to Cells modules	7%	7%	7%	7%	7%	7%	7%	7%	7%
Ebitda exposure to Epc activities	24%	24%	24%	24%	24%	24%	24%	24%	24%
<b>Average reference multiple</b>	<b>10.3 x</b>	<b>8.5 x</b>	<b>9.4 x</b>	<b>4.6 x</b>	<b>4.3 x</b>	<b>4.6 x</b>	<b>1.2 x</b>	<b>1.0 x</b>	<b>1.1 x</b>
<b>EEMS reference multiples</b>	<b>nm</b>	<b>9.9 x</b>	<b>5.1 x</b>	<b>4.7 x</b>	<b>2.1 x</b>	<b>1.6 x</b>	<b>0.5 x</b>	<b>0.3 x</b>	<b>0.3 x</b>

Source: EQUITA SIM estimates & Bloomberg consensus data

**STATEMENT OF RISKS**

The primary elements that **could negatively impact the solar division include:**

- Any negative change in incentive schemes and Feed In Tariffs
- Arising pricing pressure on global panels oversupply
- Prolonged competition in the EPC market development

The primary elements that **could positively impact the solar division include:**

- Strong demand for installation for the coming years
- Relevant improvement in international silicon procurement costs
- Concentration of the market to cost advantage on scale achievement

The primary elements that **could negatively impact the semis division include:**

- Significant deterioration in the reference macroeconomic scenario
- Significant increase in short term interest rates
- higher price pressure due to either competition or strong end-users demand
- quicker than expected technological evolution requiring increase in capex

The primary elements that **could positively impact the semis division include:**

- Significant improvement in the reference macroeconomic scenario
- Significant decrease in short term interest rates
- lower price pressure due to either lower competition or weak end-users demand
- conquest of a new client reducing the client portfolio concentration

## APPENDIX 1: THE NEW SOLAR REGULATION

**6-7 €bn annually or 23,000 MW till end of 2016**

After a prolonged period of uncertainties, last week, **the new regulation on solar has finally been published into Gazzetta Ufficiale. The new regulation named “4<sup>th</sup> Conto Energia” will be in place from the 1<sup>st</sup> of June 2011 to the end of December 2016 with the aim to grant, to the solar industry, an additional development to the limit of 6-7 €bn of annual incentives or an indicative level of 23,000 MW (vs current 5,000 as measured at the end of last week).**

As main criteria, the new regulation aimed at:

- Granting additional growth to the industry, but capping the total incentive expenditures (in order to reduce the weight on the final customers energy bill);
- Granting higher incentives and lower capacity limits to the “small” plants installations
- Protecting European equipments producers against the “invasion” of low cost Asian panels from the world proved panel overcapacity.

Let's see the decree in more details.

### Small and big plant definition

At first, the decree defines what is intended as “Small plants” and “Big plants”:

- **Small plants:** plants on ground below 200 kw, plants on roofs below 1MW and whatever plants (regardless of the size) that is installed on “public administration” properties (lands or roofs);
- **Big plants:** anything else: plants on ground above 200 KW & plants on roofs above 1MW

As we mentioned above, the definition is provided because small plants installation are favoured with less capacity limits in the next 2 years

Here the main rules:

### The 4<sup>th</sup> Conto Energia

1. The 4<sup>th</sup> Conto Energia rules applies to plants entering on stream within the 1<sup>st</sup> of June 2011 till the 31<sup>st</sup> of December 2016 with the aim to reach an “indicative” level of 23,000 MW and for a total “cost of incentive” in the region of 6-7 €bn. When incentives released will reach 6 €bn, the Ministry for the Economic development can decide to eventually “revise” the incentives mechanisms in order to allow potential further development of the industry. We judge the article positively. The regulator allows for additional development of the industry indicating a clear cap, but leave the windows open to potential additional incentives extension in the long run
2. In the period from the 1<sup>st</sup> of June to the 31<sup>st</sup> of December 2012:
  - a. No limits are imposed to the installations of SMALL PLANTS (<200 KW on ground and <1MW on roofs).
  - b. Limits to the incentives released to BIG plants are imposed as follows:

BIG PLANTS LIMITS 2011-2012				
	Jun-Dec 11	1h 2012	2h 2012	TOTAL
LIMIT TO INCENTIVE - € mn	300	150	130	580
Indicative MW	1200	770	720	2690

In order to access the incentives, a producer must apply and “qualify” to a Registry (managed by the GSE) in which priorities sets in the following order:

- plants already connected to the grid
- plants with construction works already ended and certified;
- Older date of Authorization
- Lower size of the plants
- Older date of application to the registry

If the plants is not in a position to access incentives within the cost limit have to apply again for the following period. Qualification in the registry cannot be sold.

A transitory period till the 31<sup>st</sup> of August is established. In this period, all the big plants that will be “connected to the grid” will access the incentives with no limits but, if the total costs of incentives exceed 300 € mn (see the table above for the limits) the difference reduces the total amount of incentives to be released in 2H of 2012. Lets make an example. If from the 1<sup>st</sup> of June 2011 to the 31<sup>st</sup> of august plants connected to the grid sum up for incentives of 400 €mn, in the 2H of 2012 there will be available only additional 30 €mn of incentives.

As a consequence of this framework we believe that there will be a hurry in building up both “small plants” in the period 2011 and 2012 (because of absence of limits) and “BIG PLANTS” in the period from 1<sup>st</sup> of June 2011 to 31<sup>st</sup> of August 2011 (as the registry limits will work only beyond this date)

3. In the period from the 1<sup>st</sup> of January 2013 to the 31<sup>st</sup> of December 2013.
  - a. Limits to cost of incentives are imposed on installations for both small and big plants as follows

BIG PLANTS – LIMITS 2013- 2016									
	1h 2013	2h 2013	1h 2014	2h 2014	1h 2015	2h 2015	1h 2016	2h 2016	TOTAL
LIMIT TO INCENTIVE - € mn	240	240	200	200	155	155	86	86	1362
Indicative MW	1115	1225	1130	1300	1140	1340	1040	1480	9770

Source: EQUITA SIM estimates

Anyway no registry is imposed, hence all “Connected to the grid” plants will be given incentives with the eventual excess of costs going to reduce the level of incentives of the following period. Let’s make an example: if in the 1H of 2013 are “connected” plants for correspondent incentives of 300 €mn (see the table), the 60 €mn in excess reduces the 240 €mn of available incentives for the 2H of 2013 (also in the case of lower incentives. the amount remains available for the following period). We believe this will push up installation during 2013 as incentives are progressively decreasing.

4. Reduction to incentives. Feed in tariff are heavily reduced in the period to grant for grid parity achievements. In the following table a summary of the Fit mechanisms.

FIT – NEW 4TH CONTO ENERGIA																				
Type	New capacity	2011		Jun 2011	Jul 2011	Aug 2011	2011				2012		2013		2014		2015		2016	
		May 2011	Jun 2011				Sept 2011	Oct 2011	Nov 2011	Dec 2011	1h 2012	2h 2012	1h 2013	2h 2013	1h 2014	2h 2014	1h 2015	2h 2015	1h 2016	2h 2016
ON ROOFS	1 <= Capacity <= 3	402	391	387	379	368	361	345	320	298	274	252	375	341	297	258	220	187	131	91
	3 < Capacity <= 20	377	360	356	349	339	325	310	288	268	247	227	352	320	279	242	206	175	123	86
	20 < Capacity <= 200	358	341	338	331	321	307	293	272	253	233	214	299	272	237	206	175	149	104	73
	200 < Capacity <= 1000	355	335	325	315	303	298	285	265	246	224	202	281	256	222	194	165	140	98	69
	1000 < Capacity <= 5000	351	327	314	298	280	278	256	233	212	182	164	227	207	180	156	133	113	79	55
	Capacity > 5000	333	311	299	284	269	264	243	221	199	171	154	218	198	173	150	128	108	76	53
OTHER	1 <= Capacity <= 3	362	347	344	337	327	316	302	281	261	240	221	230	209	182	158	135	114	80	56
	3 < Capacity <= 20	339	322	319	312	303	289	276	256	238	219	202	207	188	164	143	121	103	72	50
	20 < Capacity <= 200	321	309	306	300	291	271	258	240	224	206	189	195	177	154	134	114	97	68	48
	200 < Capacity <= 1000	314	303	291	276	263	245	233	210	189	172	155	183	167	145	126	107	91	64	45
	1000 < Capacity <= 5000	313	289	277	264	250	243	223	201	181	156	140	149	136	118	103	87	74	52	36
	Capacity > 5000	297	275	264	251	238	231	212	191	172	148	133	140	127	111	96	82	70	49	34

Source: EQUITA SIM elaboration on GSE data

As you can see reductions are important. Please note that from 2013 onwards the FiT also include the market price of Energy, while till end of 2012 is an additions to the power prices.



5. Premium to European Equipment. In order to favour the European equipment, incentives are increased by 10% in case at least 60% of the equipment used in the plant comes from Europe.

### Considerations

We judge the new decree in a positive way. We believe it will grant a more rapid “grid parity” achievement, in favour of more efficient players and against small “de-structured” players.

- **Strong development of the small plants is favoured** against big “on ground” assets that are heavily penalized. As a consequence we believe a strong refocus of EPC will be done to build up more efficient “retail” distribution networks.
- **We do envisaged M&A activities and plants management concentration** from “too small” players unable to manage rapid cost contraction against reduced incentives.
- **We see European “panel” producer as favoured against Asian “cheap cost” players** thanks to the higher incentives linked to the European Origin of the equipments.
- **We see Italy to reach the 23000 indicative level of incentives already in 2014** as the absence of a Registry limiting installations as from 2013 onwards will force players to accelerate installations on reduced incentives

New level of incentives requires the achievement of “Grid parity” in 2015 which could open the road to a higher visibility of the industry in the long run (instead of being linked to the level of incentives).

**INFORMATION PURSUANT TO ARTICLE 69 ET SEQ. OF CONSOB (Italian securities & exchange commission) REGULATION no. 11971/1999**

This publication has been prepared by Martino De Ambroggi and Roberto Letizia on behalf of EQUITA SIM SpA (licensed to practice by CONSOB resolution no. 11761 of December 22nd 1998 and registered as no. 67 in the Italian central register of investment service companies and financial intermediaries)

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Date	Rec.	Target Price (€)	Risk	Comment
nil				

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	COMPANIES COVERED	COMPANIES COVERED WITH BANKING RELATIONSHIP
BUY	58.3%	57.8%
HOLD	33.7%	35.6%
REDUCE	6.1%	2.2%
NOT RATED	1.8%	4.4%