

"Strategies for promoting RES, Wind in particular"

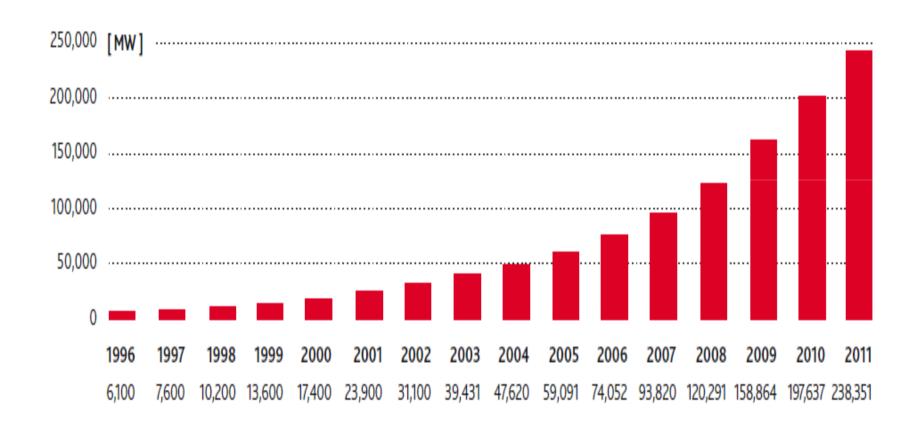
Presented at the 6th SE Europe Energy Dialogue of IENE

Yanos Michopoulos, VP General Manager, Vestas Hellas & Cyprus

Source: EWEA

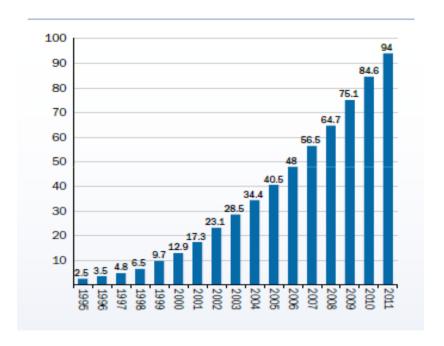
Significant growth in total Global Wind Power Capacity 1996-2011:

From 6.1 GW (1996) to 238.4 GW (2011)

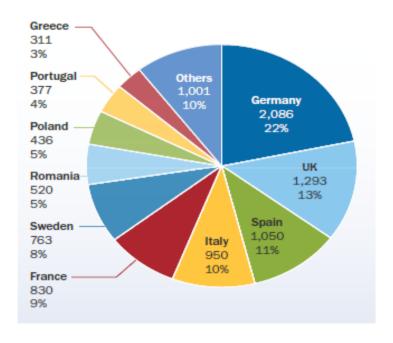


Wind Energy in Europe (EU27)

Total EU capacity 1995-2011: 94 GW



EU new capacity installed in 2011: 9,616 MW

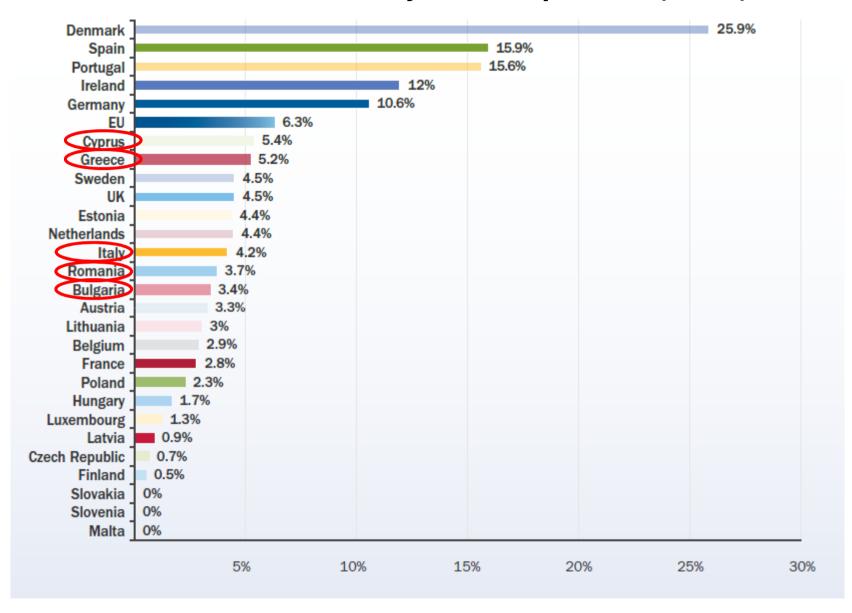


Wind Power installed in Europe (EU27) by the end of 2011 (accumulative)



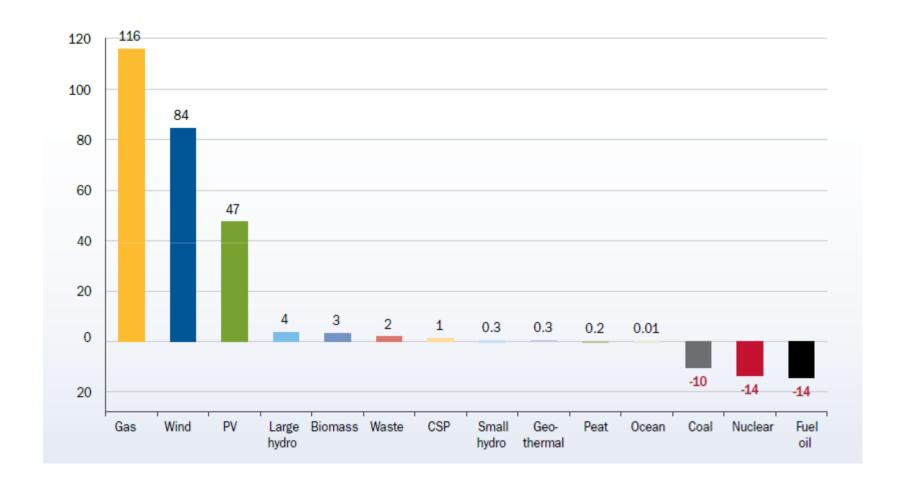
Source FIMEA

Wind Share of Total Electricity consumption in (EU27) countries



Source: EWEA

Considerable increase in Wind investments over the last 10 years: 84 GW added



Sources: BTM Consultant, March 2012

The Top-10 list of suppliers 2011

Vestas competes with different suppliers in each market

Positions in the Top-	Suppliers in the leading markets					
Ten markets Market/Country	Total MW 2011	No. 1	No. 2	No. 3		
1. P.R. China	17,582	Goldwind	Sinovel	United Power		
2. USA	6,901	GE Wind	Vestas	Siemens		
3. India	3,421	Suzion Group	Enerc on-India	Gamesa		
4. Germany	1,896	Enerc on	Vestas	Suzion Group		
5. UK	1,061	Siemens	Suzion Group	Vestas		
6. Canada	943	Siemens	GE Wind	Vestas		
7. Spain	706	Gamesa	Vestas	GE Wind		
8. Italy	787	Gamesa	Vestas	Enerc on		
9. France	888	Vestas	Enerc on	Suzion Group		
10. Sweden	670	Vestas	Enerc on	Siemens		
Total MW in Top-Ten	34,855	The Top-Ten markets counts for 86% of the global supply in 2011				

Sources: BTM Consultant, March 2012

The Top-10 list of suppliers globally

Vestas leads the way

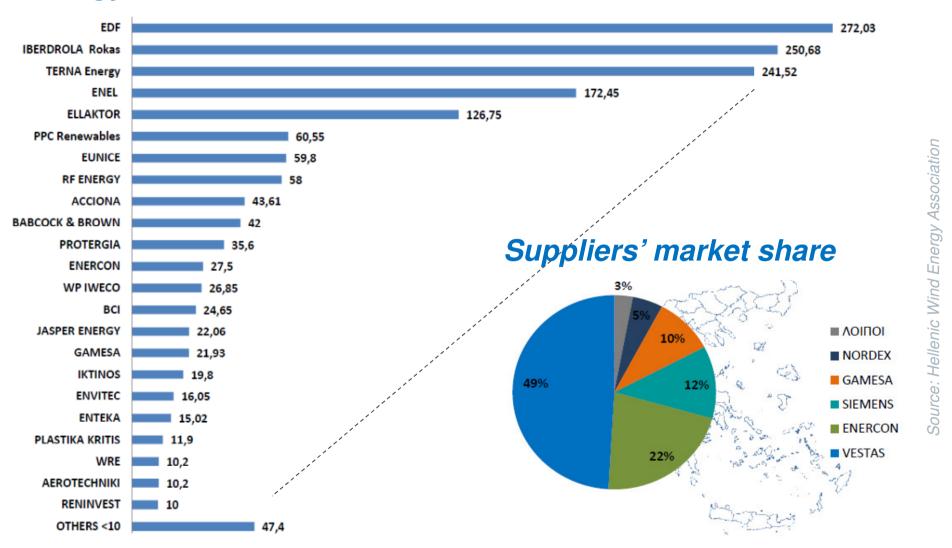
	Accu. MW	Supplied MW	Share 2011	Accu. MW	Share accu.
	2010	2011	%	2011	%
VESTAS (DK)	45,547	5,213	12.9%	50,760	20.9%
GOLDWIND (PRC)	9,055	3,789	9.4%	12,844	5.3%
GE WIND (US)	26,871	3,542	8.8%	30,412	12.5%
GAMESA (S)	21,812	3,309	8.2%	25,120	10.3%
ENERCON (GE)	22,644	3,188	7.9%	25,832	10.6%
SUZLON GROUP (IND)	17,301	3,104	7.7%	20,405	8.4%
SINOVEL (PRC)	10,044	2,945	7.3%	12,989	5.3%
UNITED POWER (PRC)	2,435	2,859	7.1%	5,294	2.2%
SIEMENS (DK)	13,538	2,540	6.3%	16,078	6.6%
MINGYANG (PRC)	1,799	1,178	2.9%	2,976	1.2%
Others	34,882	8,693	21.5%	43,575	17.9%
Total	205,927	40,358	100%	246,284	101%

Vestas track record of delivered MW in various countries

87 30 1.261 433 2 295 204 303 1.875 26 0 117 3.465 51 48 4 82 68 2.694 25 79 27	Lithuania Luxemburg Malaysia Mauritius Mexico Morocco Netherlands New Caledonia New Zealand North Korea Norway Peru Philippines Poland Portugal Republic of Ireland Romania Russia Slovakia South Africa South Korea	6 13 1 1 56 84 1.299 20 231 2 27 1 20 240 365 563 192 3	103 50 1.548 346 0 16 0 33 495 664 586 488
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82 68 2.694 25 79	Romania Russia Slovakia South Africa	192 3 4	488 1 3
68 2.694 25 79	Romania Russia Slovakia South Africa	3 4	1
2.694 25 79	Slovakia South Africa	4	3
25 79	South Africa	_	
79		3	1
	South Korea		- 4
0.7		104	166
2/	Spain	2.777	3.749
1.392	Sri Lanka	5	3
7.795	Sweden	1.158	1.427
1.044	Switzerland	17	25
105	Taiwan	50	86
2.711	Thailand	1	C
16	Turkey	223	556
0	USA	11.796	9.669
2.664	Ukraine	1	3
39	United Arabian Emirates	1	1
510	United Kingdom	1.179	1.781
1		16	32
5	Vietnam	3	6
1			
	16 0 2.664 39 510	Turkey USA Ukraine United Arabian Emirates United Kingdom Uruguay Vietnam	16

Wind Market in Greece

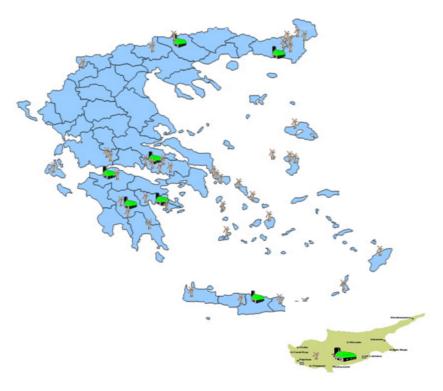
Energy investors



Vestas Hellas: Strong Local Presence

- Established in Athens in 2000 (although present from 1985)
- Core business: Sales, Installation and Maintenance of WTGs in Greece, Cyprus and some Balkan countries (FYROM, Serbia)
- 1044 MW* 770 WTGs* in Greece
 82 MW* 41 WTGs* in Cyprus
 *delivered as of 31 December 2011
- > 50% market share
- Safety First! 468 days since last loss-time injury (LTI) (before that, we had another 500 days with no LTI)
- **130 employees**, most of them employed at the Service sites in Greece & Cyprus
- 50 Operational Wind-Farms, 800 MW in Service
- Service & Logistic Centers strategically located in: Crete, Alexandroupolis, Kranidi, Patra, Sidirokastro, Livadia, Tripoli, Kefallonia & Cyprus

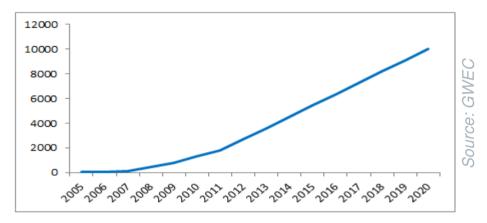




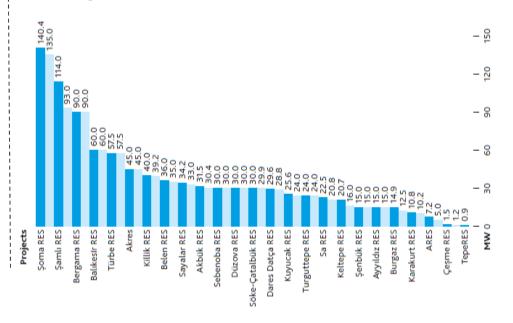
Wind Market in Turkey

- One of the fastest growing power markets for the last 2 decades (especial gas)
- Market is mostly dominated by local developers
- Local production of towers & blades
- Complex & bureaucratic administrative procedures
- 1,799 installed MW (556 with Vestas WTGs)
- Ambitious growth plan: 10 GW on 2020. Road map to be clarified e.g. unclear local content regulations

From 1.8GW to 20 GW on 2023



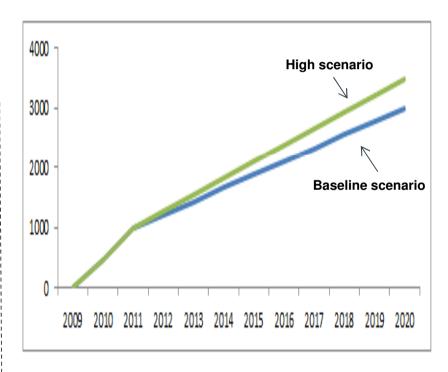
Expected to be installed in 2012



Wind Market in Romania

- Target national quota for renewable energy use in 2020 is 24%
- Despite vast wind resources, wind power only accounts for about 3,7% of its national electricity production
- Significant development pipeline, the market is estimated to reach 3 - 3,5 GW by 2020
- Wind friendly legal framework since 2008
- Insufficient grid infrastructure
- Impact of financial crisis' is not known yet
- 982 MW of which 488MW with Vestas WTGs, in operation
- Main investors are: CEZ (Czech utility), EDP
 & Enel Green Power

From 982 MW today to 3 - 3,5* GW on 2020

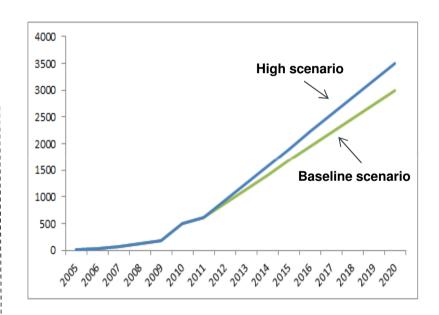


*based on EWEA's baseline & high scenarios

Wind Market in Bulgaria

- 16% of the total energy supply should be represented by RES until 2020
- Insufficient grid infrastructure
- Unstable market framework
- Complex authorization process
- Luck of electricity exchange market
- 612 installed MW of which 303MW with Vestas WTGs

From 612 MW today to 3 - 3,5* GW on 2020



*based on EWEA's baseline & high scenarios

Market requirements for success

- Stable frame work
- Adequate infrastructure
- Public awareness
- Available finance

Financing (not Cost) is the Key Success Factor for future growth

Wind Projects

Many projects are now maturing (e.g. 20 GW with production license in Greece) but:

- Limited own of funds
- Weak project finance capabilities

VIABLE PROJECTS

Potential Investors

(Companies with strong equity, Utilities, Foreign investors, PE Funds, Private Investors, HNWs etc)

Key issues:

- Need help to identify good projects
- Mixed technical capabilities
- Mistrust of license holders and technical advisors
- Looking for OEMs, for technical & financial support

Potential Lenders

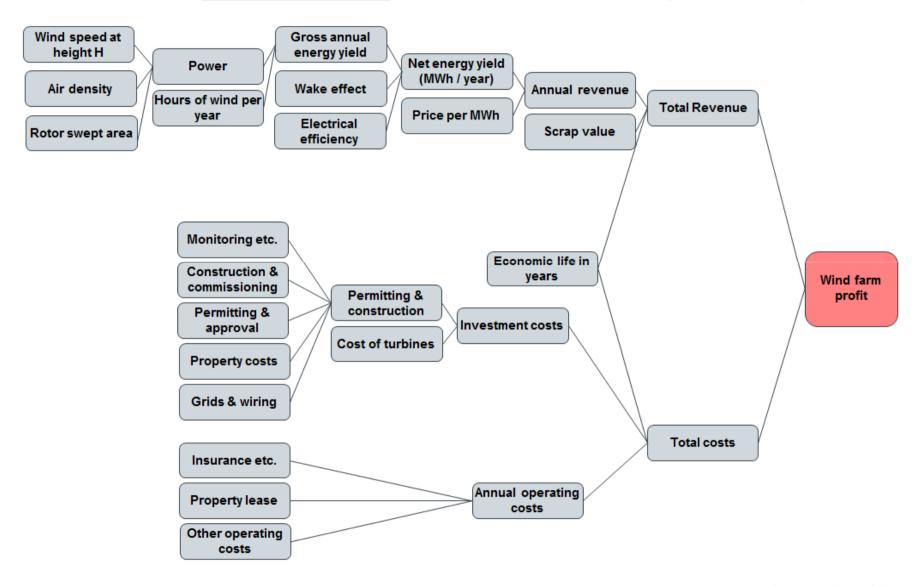
(Greek & International Banks)

Key issues:

- Weak technical capabilities
- Increased role of multilaterals, such as EIB
- Big projects would need clubbing
- Role of ECAs

The factors that impact revenue and cost

WTGs' cost is 1 out of the 25 factors that affect the profitability of a w/f





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