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Merger between

*Vestas*

Gamesa 

Filinto Martins

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## ABSTRACT

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This dissertation focus is the analysis of a possible merger of two wind turbine manufacturers, Vestas and Gamesa. The proposed deal will have has business background the trend for market consolidation, as well the down trend of both firms market share and market value, being the wind power sector still with attractive prospects,.

For this proposal, it is combined a deep industry and company analysis with the state of the art valuation tools. Literature on Valuation and M&A is reviewed and applied to evaluate the standalone and merged businesses, proposing an optimal transaction structure.

The whole analysis relies on data until end of 2011, being performed estimated for both companies' standalone and the combined firm, for a growth and stable period. Data from comparables and market benchmarks where also collected for different tools usage.

The merged firm with synergies will generate a high increase in the equity value. Net synergies are estimated to be around 67% attributable to Vestas and 33% to Gamesa in the combined firm value. Therefore, it is concluded that the deal will create a sustainable value both firms' shareholders by issuing a new leading company.

## PREFACE

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Concluding this dissertation with success was defined as a goal after finishing the Master in Finance program, aiming the enlargement of my Finance skills. M&A area, by the large scope of work involved, addresses a mix of two very close and related areas, Business and Finance, always being part of my career.

I would like to express my acknowledgements especially to Professor Peter Tsvetkov for important advisory support and dedication crucial for the dissertation finish accomplishment.

I am especially grateful for the confidence and enthusiasm transmitted by my “always present colleague in this journey”, keeping me focused and motivated until the very last moment and to my family for the patience and support in the large periods of absence.

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## 1 – LITERATURE REVIEW ON VALUATION

### 1.1 – Overview on Valuation

In the field of Valuation we find a wide spectrum of models, from the simple to the most sophisticated ones, making several assumptions about the path to determine value, sharing some common characteristics. According to Damodaran (2006), this classification provides several advantages, by making easier to understand where individual models fit in to the big picture, why they provide different results and when they have fundamental errors in logic.

Fernandez (2007) classifies the methods for valuing companies in six groups: Balance Sheet, Income Statement, Mixed (*Goodwill*), Cash Flow Discounting, Value Creation, Options.

The four main groups of company valuation methods most widely used are:

Valuation Method	Remarks
Discounted Cash Flow Valuation	Relates the value of an asset to the present value of expected future cash flows on that asset.
Liquidation and Accounting Valuation	Built around valuing the assets of a firm, with accounting estimates of a value or book value often used as a starting point.
Relative Valuation	Estimates the value of an asset by looking at the pricing of “comparable” assets relative to a common variable like earnings, cash flows, book value or sales.
Contingent Claim Valuation	Uses option pricing models to measure the value of assets that share option characteristics. This is what generally falls under the topic of real options.

Fernandez (2007) states that the most suitable method for valuing a company is to discount the expected future cash flows, as the value of a company arises from the company’s capacity to generate cash flows. Therefore, this section and further work of the proposed transaction, on this valuation approach.

## 1.2 – Discounted Cash Flow Valuation (DCF)

### 1.2.1 – Basic Concepts

In DCF valuation, the value of company is the present value of its expected cash flows, discounted back at a rate that reflects the riskiness of these cash flows. This rate is determined for each type of cash flow:

$$[1] \text{ Value} = \sum_{t=1}^{t=\infty} \frac{CF_t}{(1+r)^t}$$

Where,

n = Life of the asset

CF<sub>t</sub> = Cash flow in period t

r = Discount rate reflecting the riskiness of the estimated cash flows

Due to the importance of the Residual Value or Terminal Value to a company's valuation, this will be subject to discussion in a specific topic of this section.

Damodaran (2006) also states that, beside the above described risk-adjusted discount rate DCF approach we can find other ones like certainty equivalent cash flow, adjusted present value and excess return. Also states that the risk-adjusted discount rate is the most common one, which will be our focus.

The process of valuing a company with the DCF (Steiger, 2008), contains different stages. In the first stage scenarios are developed to predict future cash flows for a certain period. Since the DCF method is a valuation technique that is based on predictions, a scenario analysis is usually conducted to examine the effects of changes in the underlying assumptions. That's why Damodaran (2006) states that using cash flow models are in some sense an act of faith.

Deriving the NPV of these free cash flows that accrue in the scenario analysis is very complex, because all these cash flows are based on assumptions (Steiger, 2008). To provide a detailed view on how the company's value might be affected by a change in the underlying assumptions, a sensitivity analysis is usually conducted.

The most important scenario in valuation of a company is the base case. In this sense, the prediction regarding the future development of the company, its relevant markets and competitors are used to build the scenario that is most likely to happen. That's why the topic of Industry and Company Review is crucial in this sense.

However, is important to pay attention to the reliability of any figures coming from the management, being often a personal incentive to increase the take over price and therefore might provide biased estimates.

### 1.2.2 – Estimating Cash Flows

The different methods of calculating value by DCF, depends on the type of cash flow that we take into account. We can consider the following inputs:

- Free Cash Flow to the Firm (FCFF) – is the operating cash flow, that is the cash flow generated by operations, without taking into account borrowing (financial debt), after tax. It is the money that would be available in the company after covering fixed asset investment and working capital requirements, assuming that there is no debt and, therefore, there are no financial expenses.

Damodaran (2006) expresses a formula that captures the above descriptions:

$$\text{FCFF} = \text{After-tax Operating Income} - (\text{Capital Expenditure} - \text{Depreciation}) - \text{Change in non-cash Working Capital}$$

- Free Cash Flow to Equity (FCFE) – is the cash available to equity investors. Is calculated by subtracting from the free cash flow to the firm the interest and principal payments (after tax) made in each period to the debt holders and adding the new debt provided. In short, it is the cash flow remaining available in the company after covering fixed assets investments and working capital requirements and after paying the financial charges and repaying the corresponding part of the debt's principal.

Damodaran (1994) expresses a way to measure FCFE that capture the above descriptions:

$$\text{FCFE} = \text{Net Income} + \text{Depreciation} - \text{Capital Expenditures} - \text{Change in non-cash Working Capital} - (\text{New Debt Issued} - \text{Debt repayments})$$

In certain conditions, dividends can also be considered as a sort of equity cash flow. In this sense, the Dividend Discount Model (DDM) could be applied using this equity cash flow. At the end, dividend represents the only cash flow from the firm that it's tangible to investors. Estimates of FCFE and FCFF remain estimates and conservative investors can reasonably argue that they cannot lay claim on these cash flows.

However, in the last years we observe firms choosing to hold back cash that they can pay out to shareholders, as well the increasing of stock buybacks usage as a way of returning cash to stockholders. In deed, the DDM as become decreasingly used although the method does have its proponents with recognized advantages.

- Capital Cash Flow (CCF) – is the term given to the sum of the debt cash flow plus the equity cash flow.

### 1.2.3 - Appropriate Discount Rate vs. Type of Cash Flows

According to Fernandez (2009), there are four basic cash flow valuation methods, relating the above described cash flows and their appropriate discount rate:

1) From the FCFF and the WACC (Weighted Average Cost of Capital)

The Value of the Debt (D) plus the Value of the Equity (E) is the present value of the expected free cash flows (FCF), discounted at the weighted average cost of capital (WACC):

$$[2] E_0 + D_0 = PV_0[WACC_t; FCF_t]$$

The definition of  $WACC_t$  is:

$$[3] WACC_t = [E_{t-1}Ke_t + D_{t-1}Kd_t(1-T)]/[E_{t-1} + D_{t-1}]$$

Where,

$Ke$  = required return on the equity flows;

$Kd$  = required return on the debt flows (cost of debt);

$T$  = corporate tax rate;

$E_{t-1}$  and  $D_{t-1}$  are the values obtained in the valuation using formula [2]. Consequently, the valuation is an interactive process: the FCF are discounted at the WACC to calculate the firm's value (E+D), but the firm's value (E+D) is needed to obtain the WACC. We will return to the cost of capital subject in a specific topic of this section.

2) From the FCFE and the required return on the firm's equity flows ( $K_e$ )

The value of Equity (E) is the present value of the expected cash flows for equity holders (CF<sub>e</sub>) discounted at the required return on the firm's equity flows ( $K_e$ ):

$$[4] E_0 = PV_0[K_e; CF_e]$$

The value of Debt (D) is the present value of the expected cash flows for the debt (CF<sub>d</sub>) discounted at the required return on the debt ( $k_d$ ):

$$[5] D_0 = PV_0[K_d; CF_d]$$



The expression that relates the FCF with the CFe is<sup>1</sup>:

$$[6] CFe_t = FCF_t + \Delta D_t - I_t(1 - T)$$

Where,

$\Delta D_t$  = increase in debt;

$I_t$  = interest paid by the firm;

$$CFd = I_t - \Delta D_t$$

The sum of the values provided [4] and [5] is identical to the value provided by [2]. In fact, the WACC is the rate at which the FCF must be discounted to obtain the result given by [4] and [5].

$$[7] E_0 + D_0 = PV_0[WACC_t; FCF_t] = PV_0[Ke_t; CFe_t] + PV_0[Kd_t; CFd_t]$$

3) From the CCF and the WACC<sub>BT</sub> (Weighted Average Cost of Capital before Taxes)

The capital cash flows are the cash flows for all of the firm's stakeholders (Debt and Equity), and are equivalent to the cash flow for shareholders (CFe) plus the cash flow for the debt holders (CFd) (Fernandez, 2008).

The following formula indicates that the value of debt today (D) plus the value of equity (E) is equal to the capital cash flow (CCF) discounted at weighted cost of debt and equity before taxes (WACC<sub>BT</sub>):

$$[8] E_0 + D_0 = PV [WACC_{BT_t}; CCF_t]$$

The definition of WACC<sub>BT</sub> is:

$$[9] WACC_{BT_t} = [E_{t-1}Ke_t + D_{t-1}Kd_{t-1}] / [E_{t-1} + D_{t-1}]$$

The above expression is obtained by equaling [2] with [8].

WACC<sub>BT</sub> represents the discount rate that insures that the value of the firm obtained with both expressions is the same. In deed, one way of defining WACC<sub>BT</sub> is: rate at which the CCF must be discounted to obtain the result given by [4] and [5]:

$$[10] E_0 + D_0 = PV [WACC_{BT_t}; CCF_t] = PV[WACC_t; FCF_t]$$

The expression that related the CCF with CFe and with the FCF is:

$$[11] CCF_t = CFe_t + CFd_t = CFe_t - \Delta D_t + I_t = FCF_t + I_t T$$

Where,

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<sup>1</sup> Free cash flow is the cash flow for equity holders in the hypothetical unlevered firm.

$$\Delta D_t = D_t - D_{t-1}$$

$$I_t = D_{t-1}Kd_t$$

4) The Adjusted Present Value (APV)

The formula below indicates that the value of debt (D) plus that of the equity (E) of the levered firm is equal to the value of unlevered firm's equity (Vu) plus the NPV of the tax savings due to payment of interest (VTS):

[12]  $E_0 + D_0 = Vu_0 + VTS_0$

[13]  $Vu_0 = PV_0[Ku_t; FCF_t]$

Where,

Ku = required return on the firms unlevered flows (or required return on the asset flows). Combining the two above formulas:

[14]  $VTS_0 = E_0 + D_0 - Vu_0 = PV_0[WACC_t; FCF_t] - PV_0[Ku_t; FCF_t]$

The four approaches described above always have the same output in terms of value for the firm, if they are used properly, for any type of forecast (Fernandez, 2008).

There is disagreement among various authors regarding the calculation of the Adjusted Present Value (APV): a number of theories exist about the size of Value of Tax Shields (VTS). The size of the VTS has implications for the valuation and affects:

- The value of equity (E) and debt of the firm (E+D);
- The relationship between the required return on asset flows (Ku) and the required return on equity flows in the levered firm (ke);
- The relationship between the WACC and the required return on the asset flows (Ku).

**1.2.4 - The Discount Rate**

From the topic above we can summarize the relationship between DCF methods and discount rate as follows:

Relation between DCF methods and discount rate		
DCF Methods	Appropriate Discount Rate	Inputs
FCFF	WACC	Cost of levered equity (Ke) and cost of Debt (Kd)
FCFE	Ke	Cost of levered equity
APV	Ku	Cost of unlevered equity

The most widely used asset pricing model is still the Capital Asset Pricing Model (CAPM)<sup>2</sup> (Goedhart et al. 2005a), with a large majority of the firms using it to estimate the cost of equity (Damodaran, 2002). The CAPM reveals the return that investors require for bearing the risk of holding a company's share. This required return is the return on equity that investors demand to bear risk of holding the company's share and is, therefore, equivalent to the company's cost of equity, which can be expressed by the following formula (Ross, Westerfield, Jordan, 2005):

$$[15] Ke = Rf + \beta_L(Rm - Rf)$$

Where,  $(Rm - Rf)$  is commonly referred as the MRP (Market Risk Premium)

In this sense, CAPM reaches the required return on equity by answering 2 main questions:

1. What return would this investment be required to yield, if it was risk-free?
2. In case it is actually not risk-free, how much additional return should be required?

Damodaran (2008) provides a good framework for deciding on which rate to use. In his own words, "risk in finance is viewed in terms of the variance in actual returns around the expected return".

Nevertheless, there are two conditions to be verified in a risk-free rate: no default risk and no reinvestment risk. Respecting both conditions leaves any zero-coupon government bond with maturity similar to our investment's duration as the best  $Rf$  estimate.

The risk-free investment realizes returns that are exactly equal to those expected, for a time horizon similar to that of our equity investment. Damodaran (2008) states that for mature companies (a study on S&P500), duration for an average firm's equity is around 8 years, approximately the same as a 10-year treasury bond.

The other parameter, the equity risk premium, should be the future excess return one expects from an investment in the market portfolio, above the risk-free rate.

The risk premium demanded by an investor depends on a variety of factors that are difficult to translate into a number. Yet, Lettau et al. (2008) prove that economic risk (uncertainty about future economic conditions, translated in volatility of real GDP) plays a major role. Thus, any analyst that can access reliable GDP growth expectations should try to incorporate those into his analysis. Surveying investors about the premium they apply has proved to have weak prediction power (Damodaran, 2010). Implied risk premiums in current dividend yields are conceptually appealing, but one cannot rely on it when there is no consensus about future cash flows.

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<sup>2</sup> The model was introduced by Jack Treynor (1961, 1962), William Sharpe (1964), John Lintner (1965) and Jan Mossin (1966) independently, building on the earlier work of Harry Markowitz on diversification and modern portfolio theory. The model is used to determine a theoretically appropriate required rate of return of an asset, if that asset is to be added to an already well-diversified portfolio, given that asset's non-diversifiable risk.

Risk premium is still a controversial issue over which academics don't agree. However, tracing historical returns on an equity index is generally an acceptable approach. For global firms (global operations and investors), which is the case of the considered companies in the proposed transactions, picking a global equity index rather than a domestic one may make sense.

To analyze exposure to market risk, there is the Beta ( $\beta$ ). The  $\beta$  parameter measures the volatility, or systematic risk, of a stock or portfolio in comparison to the market as a whole. To calculate the Beta of a stock, returns on the stock should be regressed against returns on an equity index representing the market portfolio. The time frame to be covered by the regression could range from 3 to 10 years - the longer the better, as long as the firm hasn't gone through any significant changes in its business mix and leverage over that period (Damodaran, 2002). The author also states that monthly returns minimize the bias on our data. The formula of calculating this parameter can be expressed as:

$$[16] \beta_i = \frac{COVAR(R_i, R_m)}{VAR(R_m)}$$

Both business risk and financial leverage affect a firm's equity Beta.

As mentioned previously, depending on the valuation model, we need the unlevered cost of equity (or cost of assets,  $K_u$ ), or the levered cost of equity ( $K_e$ ). When a Beta is estimated through a regression of a firm's stock against an index, we get Beta for the levered company, i.e. the Equity Beta of the firm given the observed leverage.

An accurate beta for a firm, if not directly regressed, could be obtained from adjusting industry betas or peer betas to the firm's capital structure. Betas can be unlevered and relevered to suit any capital structure, as long as the asset (unlevered) beta is appropriate.

$$[17] \beta_L = \beta_U \left[ 1 + \frac{D}{E}(1-T) \right] \quad \text{and} \quad [18] \beta_U = \frac{\beta_L}{\left[ 1 + \frac{D}{E}(1-T) \right]}$$

In result we can compute the unlevered cost of equity ( $K_u$ ) using the following expression:

$$[19] K_u = R_f + \beta_U(R_m - R_f)$$

The final input, to complete all the required ones to estimate the appropriate discount rate is the cost of debt. The cost of debt ( $K_d$ ) is the required return on a firm's debt, as if it was refinanced today. Specifically,  $K_d$  could be estimated by observing the yields at which the firm's bonds are trading, or summing up a risk-free rate and a spread based on Rating Agencies' tables (like Moody's or S&P), which rely on interest coverage ratios and indicators alike.

### 1.2.5 - Misconceptions and errors in WACC

According to Fernandez (2011), the WACC is just the rate at which the FCFs must be discounted to obtain the same result as the valuation using ECFs. WACC is neither a cost nor a required return: it

is a weighted average of a cost and a required return. To refer to the WACC as the “cost of capital” may be misleading because it is not a cost.

Some errors can occur by not remembering the definition of WACC. Also must be taken into account the relationship between the WACC and the VTS. The WACC is a discount rate widely used in corporate finance. However the correct calculation of the WACC rests on a correct valuation of the tax shields. The VTS depends on the debt policy of the company. When the debt level is fixed, the tax shields should be discounted at the required return to debt. If the leverage ratio is fixed at the market value, the Miles and Ezzel (1985) formula must be considered:

$$[20] VTS = \frac{DKdT}{(Ku - g)} \frac{(1 + Ku)}{(1 + Kd)}$$

Where,

g = rate of growing perpetuity

Other debt policies should be explored. For example, Fernandez (2007) develops valuation formula for the situation in which the leverage ratio is fixed at book values and argues that it is more realistic to assume that a company maintains a fixed book leverage ratio than to assume, as Miles and Ezzel do.

### 1.2.6 - Terminal Value

When evaluating a company using the DCF method, Terminal Value can be a key factor that might highly influence the final result. The reasonableness of this final economic valuation may be doubtful if Terminal Value is a back box whose contents are unclear.

The purpose of Terminal Value is to give a reasonable estimate of the economic value of the company in a given year, n, at which point annual forecasts cease to be given. This value will depend on the envisaged future scenario. For example, if it is considered reasonable that the business be wound up in a year n, the Terminal Value should be the liquidation value, net of tax. If the company is being valued as a going concern, the economic value may be estimated from market data (extrinsic value) or based on company fundamentals (intrinsic value).

Estimating Terminal Value using an extensive value is simply a matter of using a multiple for which it is assumed the company can be sold in year n. Terminal Value is frequently estimated in the form of an intrinsic value calculated by extrapolating from a baseline FCF.

A publicly traded firm potentially has an infinite life. The value is therefore the present value of cash flows forever. Since we can not estimate cash flows forever, we estimate cash flows for a “growth period” and then estimate a Terminal Value, to capture the value at the end of the period.

$$[21] \text{ Value} = \sum_{t=1}^{t=n} \frac{CF_t}{(1+r)^t} + \frac{\text{Terminal Value}}{(1+r)^n}$$

When a firm's cash flows grow at a "constant" rate forever, the present value of those cash flows can be written as:

$$[22] \text{ Value} = \text{Expected Cash Flow Next Period} / (r - g)$$

Where,

r = discount rate (cost of equity or cost of capital);

g = expected growth rate

In short, when using the DCF method to estimate Terminal Value it is necessary to give a reasonable estimate of three variables:

- the rate of growth of the FCF, g;
- the period considered;
- the baseline FCF from which the extrapolation is calculated.

Damodaran (2002) states that, when looking at the FCFF, the expected growth rate can be expressed as:

$$[23] \text{ Expected Growth Rate} = \text{Reinvestment Rate} \times \text{Return on Capital}$$

Where,

Reinvestment Rate =

(Capital Expenditure – Depreciation + Investment in Working Capital) / (EBIT x (1-T))

$$[24] \text{ Return on Capital} = (\text{EBIT} \times (1-T)) / \text{Capital invested}$$

However, the reasonableness of the growth rate, g, is often associated with the period considered. An infinite period is often used, and a growth rate which does not exceed real GDP growth.

The baseline FCF for the extrapolation must be consistent with the value we want to estimate. It is not appropriate to use the last year's FCF as it may not be representative of the future to perpetuity that the residual value needs to reflect. It's necessary to analyse the three components of FCF: (i) FCF from operations; (ii) FCF from needs of operational working capital; (iii) FCF from investments and divestments in fixed assets.

In scenarios where the business is expected to continue indefinitely it is often to check that the forecast value of ROCE is not much higher than that of WACC. Mature businesses usually have levels of profitability which do not exceed the cost of their resources.

The FCF used as the baseline in order to extrapolate an estimate of the Terminal Value must also include an investment in working capital and in fixed assets, as it is not reasonable to assume that a company may continue indefinitely as a going concern without making investments.

In order to prevent Terminal Value from turning into a back box that could be used to justify any economic value, regardless of whether it is reasonable, it is necessary to understand what Terminal Value is supposed to show and how it is estimated.

In the case of a valuation based on DCF, to analyse the reasonableness of the Terminal Value used, it is necessary to make a reasonable estimate of the main economic value generators: the period of time, the growth rate, and the baseline FCF from which the extrapolation will be made.

### 1.3 – The Multiples in Valuation

Although most authors of textbooks affirm the importance of the multiples valuation method in practice, along with its usefulness in supporting more complex valuations, they do not provide a “functional manual”. Therefore, some practitioners suggest that the selection of comparable firms and multiples is essentially an art form, which should be left for professionals. Yet the degree of subjectivity involved in their application is awkward from a scientific point of view (Bhojraj and Lee, 2002).

From the valuation accuracy of the multiples valuation method, several studies compare this approach to fundamental equity valuation models. Kaplan & Kuback (1995 and 1996) while conclude that DCF valuations approximate transaction values reasonably well, they also find that simple enterprise value to earnings before interest, taxes, depreciation, and amortization (EV/EBIDTA) multiples result in similar valuation accuracy. Richter (2005) presents a theoretical approach on how to link multiples to the DCF model. His approach is based on the fact that multiples consolidate specific information of a firm’s key value drivers (i.e., profitability, growth, and risk) which is also processed in the DCF valuation formula.

Based on Mckinsey, 2005, the principles for “well tempered multiples” are:

#### **1. Peer with similar prospects for ROIC and growth**

To choose the right companies, we have to match those with similar expectations for growth and ROIC.

Arzac (2005) and Koller, Goedhart & Wessels (2005) concentrate on the development of criteria for the identification of comparable firms. In an ideal world, comparable firms have the same operating and financial characteristics as the firm being valued. However, even in finely defined industries, “true” comparables are not always available. Koller, Goedhart & Wessels (2005), therefore, suggest collecting a list of firms based on the finest available industry first, and then further shortening this list by excluding firms with different prospecting of profitability and growth compared to the target firm.

In a similar context, the market for corporate transactions offers the opportunity to construct a peer group based on comparable transactions and therewith investigate the properties and valuation accuracy of transaction multiples. One of the major drawbacks of this approach is the difficulty of finding “comparable transactions”, as well some industry are not so dynamic in terms of deals to catch relevant and useful data to apply this kind of multiples.

## **2. Forward-looking multiples**

Empirical evidence shows that forward-looking multiples are more accurate predictors of value. Liu, Nissim, and Thomas (2000) compared the characteristics and performance of historical and forward industry multiples for a subset of companies trading on the NYSE, the American Stock Exchange, and Nasdaq. When they compared individual companies against their industry mean, the dispersion of historical earnings-to-price (E/P) ratios was nearly twice that of one-year forward E/P ratios. The three also found that forward-looking multiples promoted greater accuracy in pricing.

## **3. Enterprise-value multiples**

Although widely used, P/E multiples have two major flaws. First, they are systematically affected by capital structure. For companies whose unlevered P/E (the ratio they would have if entirely financed by equity) is greater than one over the cost of debt, P/E ratios rise with leverage. Thus, a company with a relatively high all-equity P/E can artificially increase its P/E ratio by swapping debt for equity. Second, the P/E ratio is based on earnings, which include many non-operating items, such as restructuring charges and write-offs. Since these are often one-time events, multiples based on P/E can be misleading.

One alternative to the P/E ratio is the ratio of enterprise value to EBITA. In general, this ratio is less susceptible to manipulation by changes in capital structure. Since enterprise value includes both debt and equity, and EBITA is the profit available to investors, a change in capital structure will have no systematic effect. Only when such a change lowers the cost of capital will changes lead to a higher multiple. Even so, don't forget that enterprise-value-to-EBITA multiples still depend on ROIC and growth.

## **4. Adjust the enterprise-value-to-EBITA multiple for non-operating items**

Although the one-time non-operating items in net income make EBITA superior to earnings for calculating multiples, even enterprise-value-to-EBITA multiples must be adjusted for non-operating items hidden within enterprise value and EBITA, both of which must be adjusted for these non-operating items, such as excess cash and operating leases. Failing to do so can generate misleading results.

A properly executed multiples analysis can make financial forecasts more accurate. Any analysis, however, is only as accurate as the forecasts it relies on.



Of the available valuation tools, a discounted-cash-flow analysis delivers the best results. Yet a thoughtful analysis of multiples also merits a place in any valuation tool kit.

## 1.4 – Steps in DCF based Valuation

In the figure below, which contain a summary of this topic, being somewhat of a guideline for the valuation of each stand alone company involved on the proposed transaction of this thesis, aiming to serve as guideline for the valuation works in the next sections.

<b>Basic Stages in the performance of a valuation using DCF</b>	
<b>HISTORIC AND STRATEGIC ANALYSIS OF THE COMPANY AND THE INDUSTRY</b>	
<b>Financial Analysis</b> Evolution of Income Statements and Balance Sheets Evolution of the Cash Flows generated by the company Evolution of the company's investments Evolution of the company's financing Analysis of the financial health Analysis of the business's risk	<b>Strategic and Competitive analysis</b> Evolution of the industry Evolution of the company's competitive position Identification of the Value Chain Competitive position of the main competitors Identification of the Value Drivers
<b>PROJECTIONS OF FUTURE FLOWS</b>	
<b>Financial Forecasts</b> Income Statements and Balance Sheets Cash Flows generated by the company Investments Financing Terminal Value Forecast of various scenarios	<b>Strategic and competitive forecasts</b> Forecast of the industry's evolution Forecast of the company's competitive position Competitive position of the main competitors Consistency of the cash flow forecasts Financial consistency between forecasts Comparison of forecasts with historical figures Consistency of cash flows with the strategic analysis
<b>DETERMINATION OF THE COST (Required Return) OF CAPITAL</b>	
For each business unit and for the company as a whole Cost of the debt, required return to equity and weighted cost of capital	
<b>NET PRESENT VALUE OF FUTURE FLOWS</b>	
Net present value as their corresponding rate Present Value of the Terminal Value Value of the Equity	
<b>INTERPRETATION OF THE RESULTS</b>	
Benchmarking of the value obtained: comparison with similar companies  Identification of the value creation. Sustainability of the value creation (time horizon)  Analysis of the value's sensitivity to changes in the fundamental parameters  Strategic and competitive justification of the value creation	

Source: Fernandez, 2007

In resume the following steps that will be followed, considering a horizontal merger:

- a) Value both companies standalone;
- b) Value the combined firm with no synergies;
- c) Value the combined firm with synergy built in by adjusting DCF ingredients in the merged valuation model.

## 2 – LITERATURE REVIEW ON M&A

### 2.1 – Definitions

As stated by Nakamura (2005), M&A can be explained by a broad definition, which could lead to confusion and misunderstanding as it entails everything from pure mergers to strategic alliances. This thesis follows the concept of M&A in a narrow sense, which classifies M&A as stated below:

- **Mergers** as the combination of two or more companies in creation of a new entity or formation of a holding company (European Central Bank, 2000, Gaughan, 2002, Jagersma, 2005);
- **Acquisitions** as the purchase of shares or assets on another company to achieve a managerial influence/control (European Central Bank, 2000, Chunlai and Findlay, 2003), not necessarily by mutual agreement (Jagersma, 2005).

Our focus on this work will be a merger. Mergers are commonly referred as either merger by absorption or establishment (Chen and Findlay, 2003). Merger by absorption is the situation in which one company buys all stocks of one or more companies, and the absorbed companies cease to exist whereas merger by establishment refers to the case where two or more firms are merged into a newly created one and the combining firms in the merger are dissolved.

According to Nakamura (2005) merger by absorption could be considered as a *de facto* acquisition. Besides, Gaughan (2002) refers that the term “consolidation” could be used to imply a merger by establishment.

### 2.2 – Types of M&A

We can find in literature from M&A several types and classifications, depending of the rational, structure of the deals, but it is appropriate to state about this topic the following classification:

M&A Classification by Nature		
Value Chain	Relationship	Economic Area
Horizontal	Friendly	Domestic
Vertical	Hostile	Cross-border
Conglomerate		

Source: Hoang, 2007

Being the types by relationship and economic area more straightforward in terms of understanding, and this thesis is focused on a transaction valuation in which the main drivers are the value creation, the most common types on this classification are the following ones:

- **Horizontal M&A** – the acquiring and the target companies are competing firms in the same industry. According to Chen and Findlay, 2003, horizontal M&A has growing rapidly over

recent years due to global restructuring of many industries in response to technological changes and increase competition;

- **Vertical M&A** – are combinations of firms in client-supplier or buyer-seller relationships. The firms involved seek to reduce uncertainty and transaction costs by upstream or downstream linkages in the supply chain and to benefit from economies of scope;
- **Conglomerate M&A** – attempt to diversify risks and attain economies of scope by engaging in transactions where involving companies that operate in unrelated businesses.

### 2.3 – Motives for M&A

Mukherjee, Kiyamaz, and Baker (2003) suggest that there are as many motives for M&A as there are bidders and targets. However, grouping the motives of M&A transactions into various categories is often useful.

Some common motives for M&A, pointed out the most of the literature, include:

- Means for firms to grow quickly;
- Hope to experience economies of scale and scope;
- A larger firm as a result of a M&A may have a better access to capital market, which better leads to a lower cost of capital, i.e., financial benefits; and
- Anticipated gains which a firm may experience when applying its superior management skills to the target's business.

Nevertheless, all authors, in a broad sense, concur that M&A is driven by many complex motives, which can vary from deal to deal and cannot be justified by any single theory or approach.

Although the rationale can differ from one M&A deal from another, Brigham and Ehrhardt (2002) state that the primary motivation for most mergers and acquisitions is to increase the value of the combined enterprise.

Empirical evidence cannot say whether mergers, on average, create value (Mukherjee, Kiyamaz, and Baker, 2003). Although, several empirical studies supports the importance of synergy as a merger motive.

### 2.4 – The Value of Synergy

Many acquisitions and same large strategic investments are often justified with the argument that will create synergies.

Synergy can be defined as the additional value that is generate by combining two firms creating opportunities that would be available to these firms operating independently. It is the most widely used and misused rationale in M&A (Damodaran, 2005). Those synergies can be classified into to operational and financial.

Synergy is a stated motive in many mergers and acquisitions. Bhidé (1993) examined the motives behind 77 acquisitions in 1985 and 1986, and reported that operating synergy was the primary motive in one-third of these takeovers. A number of studies examine whether synergy exists and, if it does, how much it is worth. If synergy is perceived to exist in a takeover, the value of the combined firm should be greater than the sum of the values of the bidding and target firms, operating independently.

$$V(AB) > V(A) + V(B)$$

Where,

$V(AB)$  = Value of a firm created by combining A and B (Synergy)

$V(A)$  = Value of firm A, operating independently

$V(B)$  = Value of firm B, operating independently

Studies of stock returns around merger announcements generally conclude that the value of the combined firm does increase in most takeovers and that the increase is significant. Bradley, Desai, and Kim (1983) examined a sample of 236 inter-firms tender offers between 1963 and 1984 and reported that the combined value of the target and bidder firms increased 7.48% (\$117 million in 1984 dollars), on average, on the announcement of the merger. This result has to be interpreted with caution, however, since the increase in the value of the combined firm after a merger is also consistent with a number of other hypotheses explaining acquisitions, including under valuation and a change in corporate control. It is thus a weak test of the synergy hypothesis.

The existence of synergy generally implies that the combined firm will become more profitable or grow at a faster rate after the merger than will the firms operating separately. A stronger test of synergy is to evaluate whether merged firms improve their performance (profitability and growth) *relative to their competitors*, after takeovers.

Another concept must be added to the process: the value of control, being this the incremental value that an acquirer believes can be created by running a target firm more efficiently. Therefore, it is important at this stage that we keep the value of synergy apart from the value of control, which is the other widely cited reason for acquisitions.

By separating out the value of control from the value of synergy, two objectives are accomplished: 1) we ensure that there is no double counting. For synergy to create value there has to be a further increase in return on capital to the combined firm; 2) we can devise strategies for acquisition bidding that can differentiate between control and synergy value.

The issue of valuing synergies also point out the subject of the right price for a target firm. In these sense, a fair value acquisition would require that the total price be equal to the consolidated value with the synergy and control benefits built in.

We can conclude that the acquisition price will determine whether an acquisition is value increasing or value destroying to acquiring company's stockholders.

## 2.5 – Value Creation in M&A

Jensen and Ruback (1983) state that target shareholders gain from virtually every acquisition – a result that seems to be unanimously accepted by academics. In a sample of 151 mergers, Dodd (1980) finds that target shareholders do not vote against the merger proposal even once. Yet, Loughran and Vijh (1997) warn that target shareholders who soon sell the stock received as payment earn excess returns, while long-term hold strategies diminish the potential gains.

Sirower and Sahni (2006) analyze a sample of over 300 deals to conclude that the average premium paid for targets is nearly 36%.

To test whether value created is sustainable, Loughran and Vijh (1997) track long-term (5-year) returns on buy-and-hold strategies from the moment before the deal was announced. They conclude that, on average, acquirers earn negative excess returns, but refer also that value creation is idiosyncratic - the combination of mode of acquisition and form of payment being important drivers, with results that range from value-creation for all intervenient to value destruction even for target shareholders.

Bruner (2004) makes a sturdy effort to show that M&A does pay. According to his view, empirical studies whose historical period of analysis and sample are not biased, and reach statistically significant results, conclude that acquirers usually earn the hurdle rate. He sheds light on the heterogeneity of individual deals and how dangerous generalizations can be.

In the figure bellow we can find an extract of Bruner (2004) where he point out some probable critical points on M&A related to returns to buyers, that should be observed in any transaction:

The main conclusion is that M&A usually generates positive abnormal results for the combined shareholders, suggesting economic value is generated (Bruner, 2004).

The question then becomes how is value going to be shared – knowing the heterogeneity that marks these deals, any outcome is possible and depends on how the deal is structured/negotiated.

## 2.6 – Transaction and Payment Framework

The main deal-structuring issues in M&A are the mode of acquisition and the form of payment. Nevertheless, we must take into consideration that the type of M&A and the adequate sources of capital are important variables to assess.

At this stage is proper to recover that one of the steps in Acquisition Valuation is to decide on payment mechanism: Cash vs. Stock. Damoradoran (2002) stress the following conclusion in respect to this:

- Firms which believe that their stock is undervalued and some synergy can be achieved (Loughran and Vijh, 1997) will not use stock do to acquisitions;
- Firms which believe that their stock is over or correctly valued will use stock to do acquisitions;

- Not surprisingly, the premium paid is larger when an acquisition is financed with stock rather than cash;
- There might be an accounting rationale for using stock as opposed to cash. We are allowed to use pooling instead of purchase.

There might also be a tax rationale for using stock. Cash acquisitions create tax liabilities to the selling firm's stockholders.

When considering the stock for stock exchange, we can assume that:

- Correct Exchange Ratio to use in Valuation = Value per Share of Target Firm (with control premium and target-controlled synergies)/Value per Share of Bidding Firm;
- If the exchange ratio is set too high, there will be a transfer of wealth from the bidding firm's stockholders to the target firm's stockholders; and also in opposite

Despite of the above, we find in the available literature mixed perspectives of the proper form of payment.

For instance, Loughran and Vijh, 1997 states that whether it is a merger or a tender offer, cash always performs better than stock enhancing the long-term returns for the acquirer. When a deal is paid for with stock, only target shareholders earn abnormal returns, mostly because of the significant premium they're usually paid. Yet, Savor and Lu (2009) have recently added that results like these should be interpreted with care: it is universally accepted that stock issues, in general, suggest overvaluation and timing ability. Therefore, stock acquirers are likely to be overvalued and their stock expected to fall in the long run anyway.

The authors find meaningful and statistically significant evidence that stock mergers do create value, because the acquirer's stock is usually more overvalued than the target's assets. They earn negative returns, but not as negative as they would have been otherwise.



### 3 – COMPANY PROFILES and INDUSTRY REVIEW

In this section we will start perform a characterization of each company involved in the proposed transaction, object of this thesis, highlighting is evolution, business activity, and financial performance, mandatory to understand much of the rational behind the deal.

Further, we will aim a comprehensive understanding the wind energy sector, driver for the wind turbine manufacturing industry, being common to the two companies that will serve also the proposal to understand why we are looking to a merger between this two companies as well the forecasts performed on the next section of valuation.

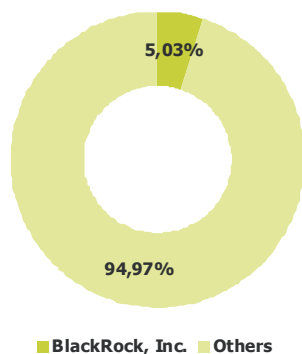
#### 3.1 – Vestas Wind Systems

Vestas, the largest supplier of wind turbines in the world, focuses its principal activities on the product development, manufacturing, turnkey delivery and maintenance of wind turbine installations. The company’s sale of wind turbines is by far its main activity and constituted 88 % of its 2011 revenue as sale of services constituted the remaining 12 %.

Vestas was originally a hydraulic crane manufacturer which entered the wind turbine market in the oil crisis of the late 1970s. The wind energy market expanded and Vestas entered the US market, in which they invested heavily. When tax advantages on wind turbine investments were removed in the US in 1986, Vestas was forced to sell off all non-wind -related assets and re-emerge as Vestas Wind Systems A/S. In the 1990s, Vestas bought Danish Wind Technology A/S. Germany, Denmark and Spain emerged as the major European markets.

Then, Vestas went public on the Copenhagen Stock Exchange in 1998. The current status of Vestas’ shareholders is has follows<sup>3</sup>:

#### Shareholders – status at March/2012



At 29 February 2012, Vestas had 180,981 registered shareholders, who combined represented 187,029,389 shares, or approx 93 per cent of Vestas' share capital. At the end of February 2012, approx 41 per cent of Vestas' registered capital was held by the company's 50 largest shareholders, including custodian banks. Based on the information available as of 29 February 2012, an estimated 45 per cent of Vestas' total share capital, including shares not registered by name, and was believed to be held by shareholders outside Denmark.

Source: Company Information

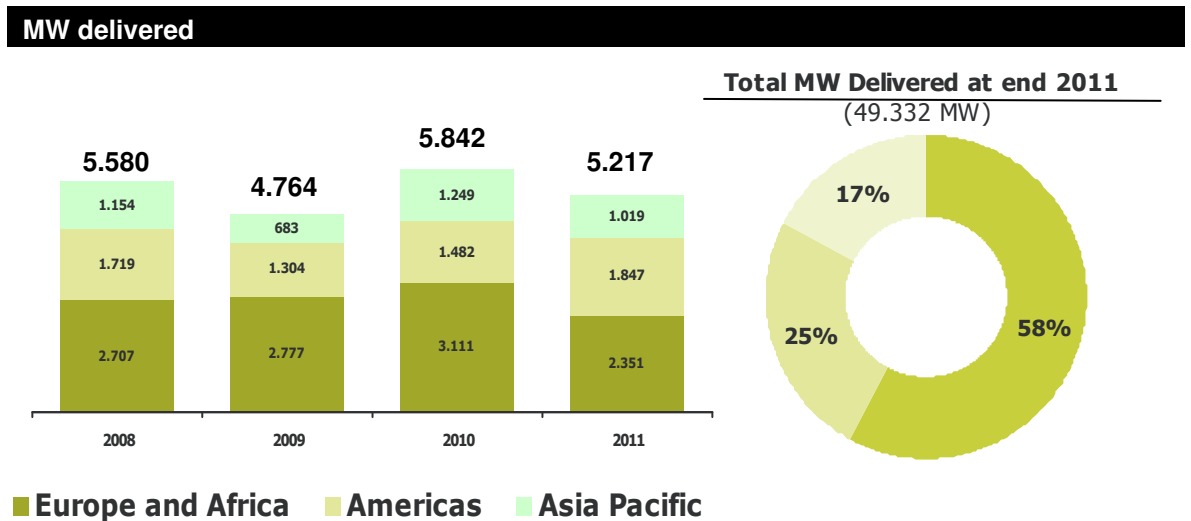
<sup>3</sup> In accordance with the Danish Public Companies Act, section 55, the shareholder disclosed are the ones that have informed the company that they own more than five per cent of the share capital.

In 2002, Vestas sold its 40 % stake in Gamesa Eólica, a Spanish joint-venture from 1994. In 2004, the Danish rival, NEG Micon, was then acquired.

Vestas, in the recent years, despite its leadership in terms of market share in wind turbine suppliers, has been losing market share decreasing from 19,8% in 2008 to 14,8%<sup>4</sup> in 2010.

To some extent, Vestas' falling market share is also a result of the prioritising of Vestas' executive management. Vestas has since 2005 prioritised EBIT-margin, and net working capital as the two most important financial goals. The third most important goal, market share, was replaced by revenue in 2008, as the original goal of a 35 % market share in 2008 was conveniently dropped. The actual figure is much lower, 14,8%. To some extent, Vestas' focus on profitability has sacrificed its superior market leadership. On the other hand, Vestas has become profitable since its 2005 annual report.

In 2011, Vestas supplied 5.217 MW of wind turbine capacity in more than 35 countries, reaching an accumulated delivery of 49.332 MW. The production facilities are distributed in Spain, Italy, Denmark, China, USA, Brazil, and Germany, with a total installed capacity of 12,000 MW.



Source: Company Information

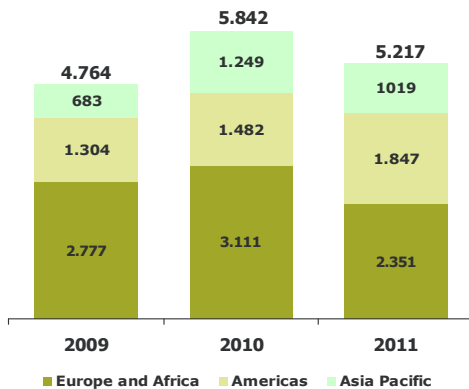
In respect to its workforce, we can see in the table below that the major share is located to the Production Units (48%) and especially in Europe and Africa (62%).

<sup>4</sup> According to BTM Consult

	Europe and Africa	Americas	Asia Pacific	Total
Production Units	6.871	1.710	2.419	11.000
Sales Units	4.450	1.472	1.759	7.681
R&D	1.283	211	543	2.037
Others	1.514	100	389	2.003
<b>Total</b>	<b>14.118</b>	<b>3.493</b>	<b>5.110</b>	<b>22.721</b>

Source: Company Information

### Geographical split of deliveries (MW)



In 2011 deliveries down by 11% compared to 2010, with a considerable decrease in Europe (24%). In the opposite way, Vestas had a new all-time-high in Americas with 25% increase compared to 2010.

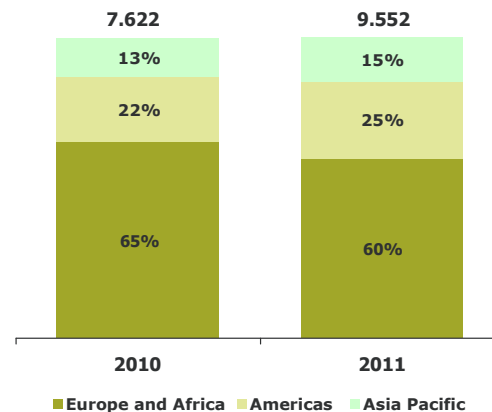
The lower performance in Asia (18%) is explained mainly by China, due to grid constraints and unacceptable contract terms.

Source: Company Information

### Order backlog by Region (MW)

Vestas records a big order backlog, representing an increase in face of 2010, with a value equals to 9,6 bn EUR.

Reinforced market position in Europe and Americas. Customers in the USA pulling the projects from 2013 to qualify for PTC.

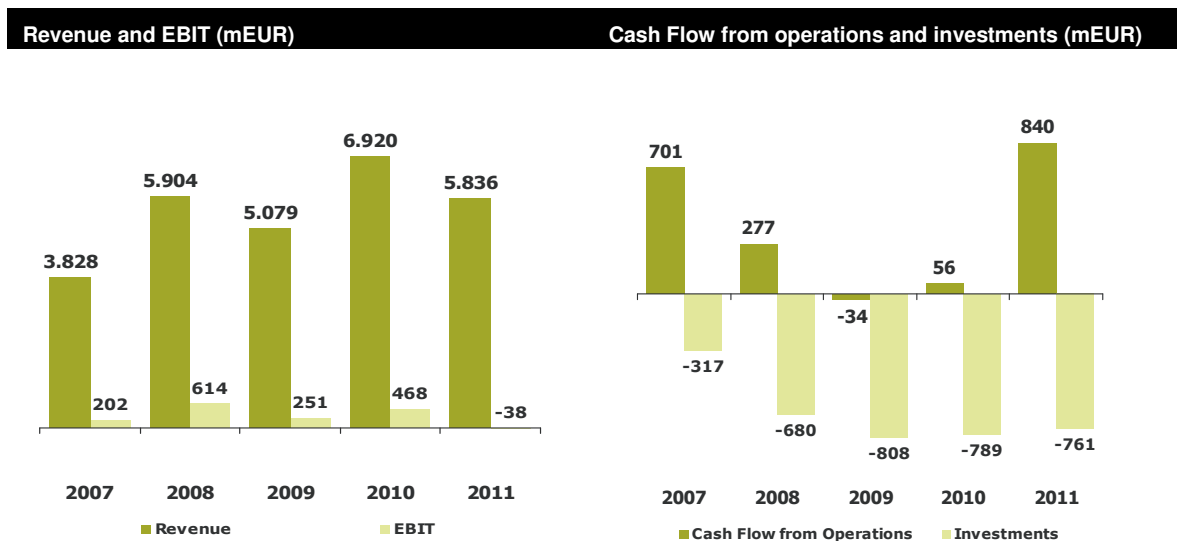


Source: Company Information

In financial terms, 2011 was a tough year for Vestas, with disappointing results:

- First loss since 2005;
- Share dropped 65%;
- Preparation for a round of lay-offs that will affect more than 2,000 workers;
- Abandon of Triple 15 targets established in 2009 (15% EBIT margin, 15 EUR bn Revenues, in year 2015) and issue two profit warnings.

The company has forecasted revenues for 2011 of around 7 bn EUR, generating only 5,8 bn EUR, being the difference explained among other things to commissioning problems of a new generator facility in Germany (impact of 600 million EUR on forecasted revenues). Some bad weather conditions, especially in Germany, caused postponement of some deliveries and, by extension, recognition of a number of projects. This lower than expected revenues impacted in the gross margin, with a drop from 17% in 2010 to 12,4% in 2011. By the other hand, revenues from service business rose by 13% to 705 million EUR, with an EBIT margin of 16%.



Source: Company Information

In 2011, Vestas assisted to an improvement of its net working capital, (71) million EUR, representing an improvement of 743 million EUR since 2010. This improvement was attributable especially to the reduction of component inventories following a make-to-order implementation, higher pre-payments and trade payables. This improvement also impacted on the free cash flow that rose by 812 million EUR to 79 million EUR.

The recent years of large scale investments in new facilities and technology, not fully utilised in 2011, being the activity far below the company's capacity, explain much of the huge decrease of the Return on Invested Capital (ROIC) for the (1,3)% in 2011 against the 10,8% in 2010. This large scale investments also explain much of the increase in the net debt that rose from (0,29)x of EBIDTA in 2009 to 1,79x in 2011.

Therefore the company established guidance ranges for EBIT, revenue and free cash flow to take into account the heavy fluctuations characterising these items depending on timing of orders intake, production, shipments and final deliveries to the customers.

For 2012 the management established a financial guidance with the following targets:

<b>FINANCIAL GUIDANCE 2012</b>	
Revenue (mEUR)	<b>6,500-8,000</b>
-of service revenue (mEUR)	<b>850</b>
EBIT margin (%)	<b>0-4</b>
EBIT margin, service (%)	<b>~14</b>
Investments (mEUR)	<b>550</b>
- tangible	200
- intangible	350
Free cash flow (mEUR)	<b>&gt;0</b>

### 3.2 – Gamesa Corporación Tecnológica

Gamesa, currently one of the top-ten suppliers of wind turbines in the world, focuses its principal activities on the product development, manufacturing, turnkey delivery, maintenance of wind turbine installations, and development and sales of wind farms. The company's sale of wind turbines is its main source of revenues, representing 82% of its 2011 revenue, as wind farm sales 18%.

Gamesa was founded in 1976 manufacturing and selling industrial machinery in the automotive sector and defence. Over the years the company began to focus its business model on the areas of renewable energy and aeronautics. This last business area was abandoned after the 09.11 attacks through a MBO deal.

In 1994, Gamesa embraces the activity of design, engineering, manufacture and sale of wind turbines. To support this business, it was created Gamesa Eolica among with two strategic partners for aiming different purposes. Vestas with 40%, served the objective of being the technological partner to supply know-how, and the Regional Government of Navarra, with 9%, for the establishment of the production facilities<sup>5</sup>.

The inclusion of the Business Unit of wind farm's development was performed in 1995, aiming the goal of being a vehicle to boost the wind turbine development, through the construction of wind farm, taking advantage of the strong push assisted in the Spanish market.

In 2000 several actions took place, being them important milestones for the company's future and current business model. Due to the high level of debt accumulated by the strong pipeline of constructed wind farms, over than 1.000 MW, the company started, by this, to develop and sell wind farms, excluding the operation from its business model. In this same year, Gamesa performed its IPO, being included in 2001 in the benchmark Spanish blue chip index, IBEX 35.

In 2002, the joint-venture with Vestas was dissolved with purchase by Gamesa of Gamesa Eolica's total shares, and assuming the nowadays denomination of Gamesa Corporación Tecnológica. This operation allowed Gamesa to start its internationalization strategy and operations.

Gamesa being an absolute leader in Spain, the second market in Europe in terms of installed capacity after Germany at the end of 2011, took advantage of this position to sustain its market share, being currently in a downward trend specially by two factors: stagnation of the Spanish market in the end of 2000's decade and difficulties in shifting its business activity to the growing and emerging market. Currently, Gamesa's market share put the company in 7<sup>th</sup> position with an around 7% of share at the end of 2010<sup>6</sup>. Additionally, in common to all pioneers in this market, Gamesa's is suffering, in terms of market position, by the growing of the entrance of the Chinese players that currently have in the top-ten, four manufacturers.

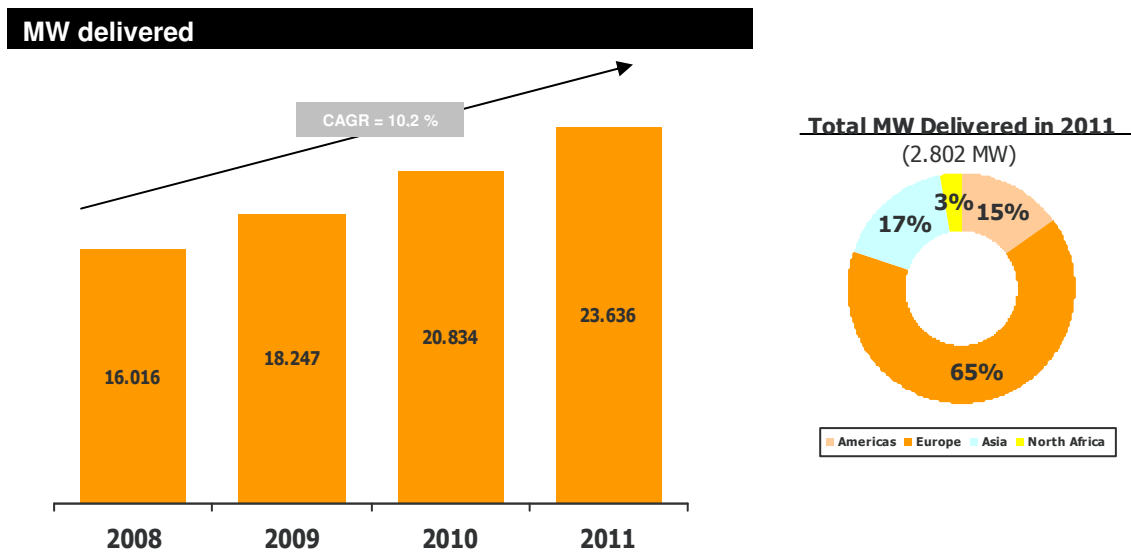
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<sup>5</sup> This joint-venture was limited to the Spanish market.

<sup>6</sup> According to BTM Consult.

The company don't have currently in its product portfolio, any large capacity turbine in commercial stage in either the field of onshore nor offshore, revealing a delay in this aspect in comparison to its main competitors. According to the current Business Plan of the company, the first turbine for offshore will be available on 2012, but

In 2011, Gamesa supplied 2.802 MW of wind turbine capacity in more than 11 countries, reaching an accumulated delivery of 23.636 MW.



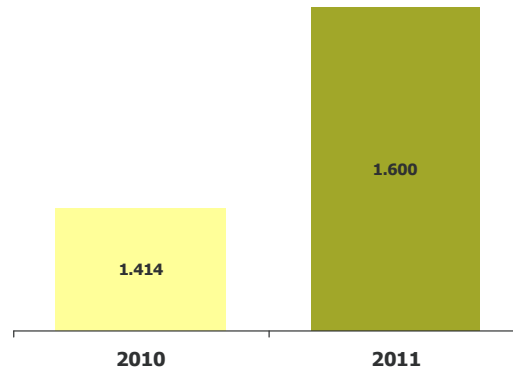
Source: Company Information

The company production capacity is distributed among 33 facilities, in Spain (21 facilities – 1.200 MW), USA and Brazil (3 facilities – 1.300 MW), China and India (9 facilities – 1.500 MW), with a total annual capacity of manufacturing 4.000 MW. In this sense, from the total 8,000 workers, 60% are in Spain, as well as the main production infrastructures.

The main clients of Gamesa have been, during the growth stage of the company, the main operators of Wind Power, more specifically, Utilities and Independent Power Producers (IPPs), with a major stake on the first one. Recently, we assist to a growing importance of the IPPs and increasing entering of a new type of player who are looking to this sector as a way to seek profitability and return on its investment strategy. For instance, during 2010, Gamesa performed several deals with companies such as investment funds, private equity, insurance companies, and IKEA!

**Order backlog (MW)**

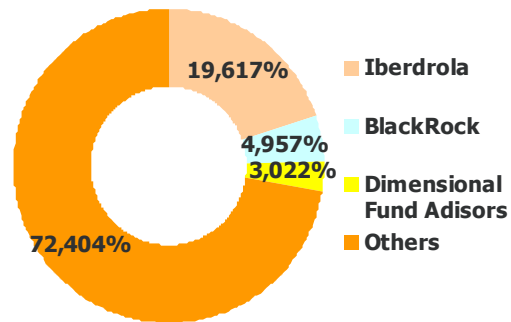
The order backlog has recorded an increase of 13% driven by Latin America, with 32% of the order volume, and North Africa with 13%.



Source: Company Information

**Shareholders (at March/2012)**

Iberdrola is the referent shareholder of the company, and has been a key customer of the company.



Source: Company Information

Gamesa's share price has fallen by over 44% during 2011, and is hovering near all time lows and following a tendency verified in last years in a clear signal of underperformance. Looking at its fundamentals seems that despite of relative good positioning in the wind market as well as sustained execution the market is strongly penalizing the shares in terms of its market value. Even though, the company market performance is in line, for the same period, with the verified tendency of its market benchmark, the IBEX 35.

The Revenues increased between 2010 and 2011 by 10,86% inverting the decreasing tendency verified since 2008. This increase is justified by growth in wind turbine sales of around 400 MW and wind farms (100 M€). After the big boom of wind power market in 2008 (when Gamesa took advantage of its great market power in Spain) the further decrease in revenues are explained, in a broad sense, by difficulties in penetrate in growing markets, revealing problems to put in practice its internationalization program;

Despite of the increase in value from 2010 to 2011, we observe a downward trend in EBIT margin due to the pricing pressure experience in markets like China and the rump-up of the new products



platforms. There were a number of non-recurrent factors included in this margin like part of the impact of the cost-saving plan (~5 M€) and close to 30 M€ in stocks provisions for highly obsolete components in the balance sheet.

The Net Financial Debt (NFD) did not surpass in 2011 the x2.0 EBIDTA in line with the guidance established for the year, accounting 710 M€. The increase of NFD in respect to 2010, is due to the following factors:

- **Wind Turbine Division:** 2010 => -405 M€; 2011 => 272 M€ (Δ +677 M€)

Main justification are related to the investment needs to accommodate the new manufacturing international facilities and work in progress of turbines.

- **Wind Farm Division:** 2010 => 196 M€; 2011 => 483 M€ (Δ +287 M€)

The increase of the level of NFD is due to the strong increase in construction of wind farms with deliveries expected for 2012. Looking to the evolution of the level of net debt in the recent years we can conclude that this business implies a 2-year cash investment cycle.

The guidelines published by management are as follows

### FINANCIAL GUIDANCE 2012

#### Wind Turbine Division

MW sold	2,800-3,200
EBIT margin (%)	02-04
Working Capital as % of sales	20-25
Capex (mEUR)	275

#### Wind Farm Division

MW delivered	400
EBIT (mEUR)	0
Net debt (mEUR)	250

#### Group

Net Financial Debt/EBIDTA	<2.5x
---------------------------	-------

#### Free Cash Flow

#### Breakeven

### 3.3 – Industry Review

The global shift towards renewable energy has been driven historically by three powerful factors:

#### **Climate change**

This was the key concern behind policy support in the 1990s (e.g. Kyoto Protocol) and into the 2000s (e.g. the EU's 20/20/20 targets<sup>7</sup>). A combination of the global recession and renewed attacks on the validity of the orthodox climate science has now driven the issue down in the political agenda. However, the recent agreement of the “Durban platform” shows that this factor is by no means dead, but could take some years before it becomes a major political force again<sup>8</sup>.

#### **Energy Security**

This factor rose to prominence following the 09.11 attacks, which made the Western world concern about how much of its energy was imported from regions with strong elements of political hostility towards it.

#### **The cost of energy<sup>9</sup>**

Used to be couched in terms of the rising price of hydrocarbon fuels, particularly oil, but recently there has been a shift of emphasis towards the falling cost of alternative energy sources (especially wind power).

Since the onset of the economic crisis three years ago, the most important factor from the above, as been clearly the third. Among other things, the much-publicized fall in the price of wind turbines, combined with advances in turbine technology, have caused a significant fall in the cost of wind energy over the past two years.

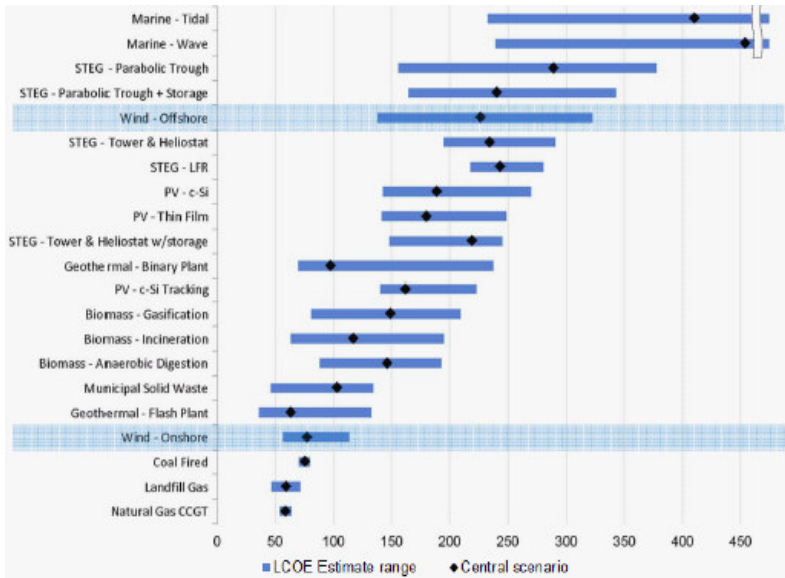
Is important to notice, as we can observe in the figure below, that the stated above is more applicable to the onshore wind power, a currently mature technology with large penetration and advancement, being in some stage of higher growth the offshore segment.

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<sup>7</sup> The European Union has a target of deriving 20% of all its energy from renewable sources by 2020, as mandated by Directive 2009/28/EC. For that, the European Union member states provided an Renewable Energy Action Plan containing their targets for this purpose.

<sup>8</sup> The 2011 United Nations Climate Change Conference was held in Durban, South Africa, from 28 November to 11 December 2011 to establish a new treaty to limit carbon emissions. The conference agreed to a legally binding deal comprising all countries, which will be prepared by 2015, and to take effect in 2020.

**Levelised cost of energy (LCOE)<sup>10</sup> – USD/MWh**



Among other things, the increasing power capacity of the offshore turbines (ranging from 5-7 MW) will lead to a downward trend of the LCOE.

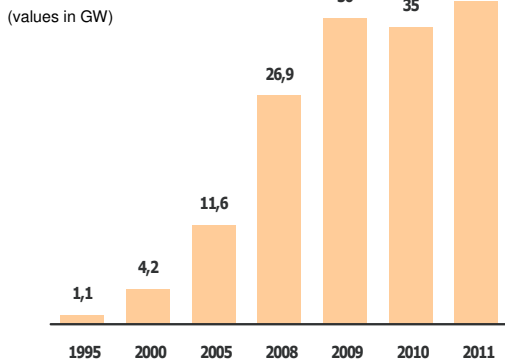
Source: Bloomberg New Energy Finance (BNEF) LCOE model as of Q4 2011

In the last years, the total wind power installed capacity, has grown in a strong pace, especially onshore, mainly in Europe, where the market reached nowadays a mature stage, being as well the “origin” of the pioneers in terms of turbine suppliers. At the end of 2011, the largest market in terms of installed capacity in Europe was Germany with around 29 GW.

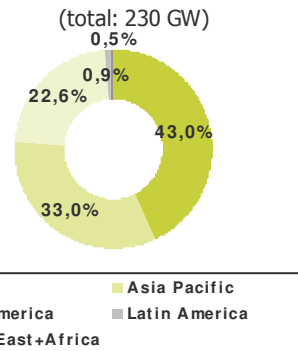
We can observe in the figure below, that we passed from a modest 1,1 GW of annual capacity installation in 1995 to 11,6 GW ten years later, being the average of the last 3 years around 36 GW per year.

**Wind Power Installed Capacity**

Installed Capacity per Year



World Total Installed Capacity 2011



Source: Wind Power Monthly Annual Market Review, March/2012

<sup>10</sup> The levelised cost of energy is the price at which electricity must be generated from a specific source to break even. It is an economic assessment of the cost of the energy-generating system including all the costs over its lifetime: initial investment, operations and maintenance, cost of fuel, cost of capital, and is very useful in calculating the costs of generation from different sources.

The policy changes that are affecting the developed-world markets are largely negative, while those affecting the developing countries are broadly positive. For this we can highlight the following changes:

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**China (47% of global new wind in 2010)**

Permitting of new wind farms is currently proceeding very slowly, with central government consent now required for small as well as large projects, with no current possibility to assess if it will have a negative impact on long-term installations

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**US (14% of global new installations in 2010)**

The ability to elect to receive 30% investment tax credit (ITC) in the form of cash grant expires at the end of 2011, while the ITC itself and the production tax credit (PTC) both expires at the end of 2012. The cash grant is highly unlikely to be extended, and there are currently doubts about the PTC as well.

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**Spain (4% of the global new wind in 2010)**

The draft of bill covering subsidies for new wind installations from 2013 cut premiums and reduced payments from 20 years to 12, which can jeopardise, according to Spanish wind association the Spain's 2020 target for wind installations. Uncertainties about the proposal from the new government remain.

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**Germany (4% of global new wind in 2010)**

Reforms on the Renewable Energy act include an acceleration of the annual degeneration in the feed-in tariff<sup>11</sup> from 1-1,5%, while the "system service bonus"<sup>12</sup> is being removed from the new projects.

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**France (3 % of global new wind in 2010)**

The new bill of law, Grenelle 2, reforming the planning process, among other things, for wind is likely to limit growth in deployments from 2012.

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**UK (3% of global new wind in 2010)**

The ROC's<sup>13</sup> for onshore wind have been cut with effect from 2013. The cut is much less than the industry feared, but the UK's changes of regulatory direction are fast winning it a reputation for regulatory risk.

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<sup>11</sup> Feed-in tariff (FiT) is a policy mechanism designed to accelerate investment in renewable energy technologies. It achieves this by offering long-term contracts to renewable energy producers, typically based on the cost of generation of each technology. Technologies such as wind power, for instance, are awarded a lower per-kWh price, while technologies such as solar PV and tidal power are offered a higher price, reflecting higher costs.

<sup>12</sup> The system service bonus, known in the German market as SDL Bonus, is an incentive to improve the integration of wind turbines into the grid, by fulfillment of certain technical requirements.

As described above, we can conclude that there will be a diminishing enthusiasm for clean-energy, and especially wind power, subsidies among EU countries and the US, and, on the other hand, steadily growing support for wind energy among developing countries, based on considerations of emissions, energy security and, mainly, cost of energy.

A huge stack of growth will come from the offshore segment, which will enjoy strong growth in the coming years, as we will further in this topic. However, the offshore wind market has some characteristics which are very different to those of the onshore market:

- a) **The turbine performance risk is currently higher**, implying a higher warranty risk for the manufacturers;
- b) **The Capex/MW is higher**, mainly due to the fact that offshore turbines must be engineered for very hostile offshore conditions. In order to spread the extra cost through economies of scale, new offshore turbines models are much larger than the traditional onshore models<sup>14</sup>, generally between 5-7 MW. Currently the cost per MW installed is around 3,5 million €/MW for offshore (of which turbines accounts for around 1,4 million €/MW), compared with around 1,25 million €/MW for typical onshore project (of which the turbine accounts for around 0,95 million €/MW);
- c) **The average offshore project is larger** – while a 100 MW onshore project is a large project by the standards of most countries, offshore projects are often much larger, implying a much higher Capex and development risks.

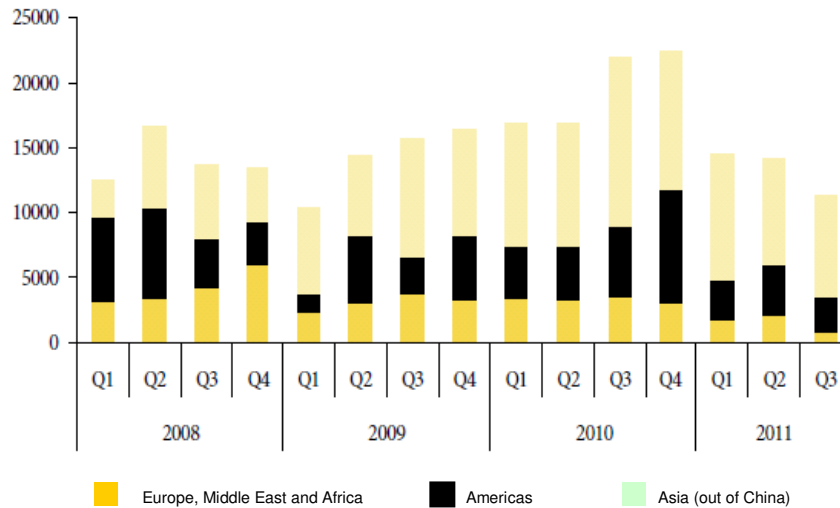
It is also important to analyse how is the status of the dynamics of availability of funds for onshore projects, which is a leading indicator for wind farm installations.

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<sup>13</sup> Through the Renewables Obligation, British electricity suppliers are now required by law to provide a proportion of their sales from renewable sources such as wind power or pay a penalty fee. The supplier then receives a Renewables Obligation Certificate (ROC) for each MWh of electricity they have purchased

<sup>14</sup> The common onshore turbines vary from 0,85 MW to 3 MW. The larger ones can reach 5-6 MW.

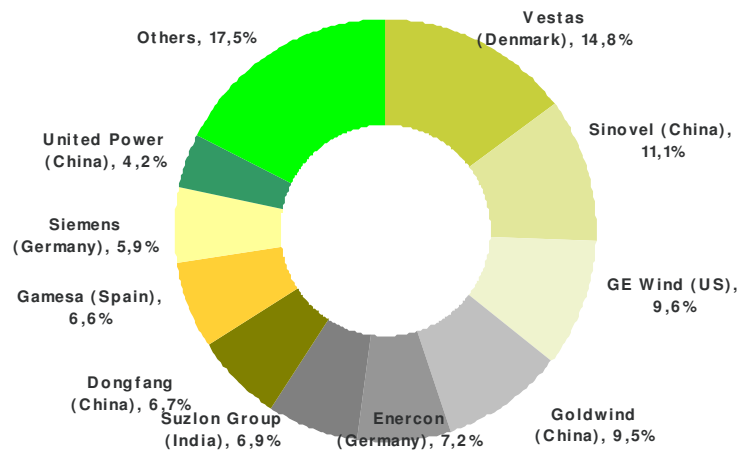
**Completed wind asset financings (2008-Q3/2011) – onshore – million USD**



Source: Bloomberg New Energy Finance

The figure above shows a strong recovery in financings in 2010, relative to 2009, with a slowdown in 2011. The weakest regions in 2011 have been Europe, Middle East and Africa, that can be explain by the euro crisis, that could impacted in the flow of capital into new projects, especially by the lack of liquidity of the banks.

**New Installations 2010 by Wind Turbine Suppliers**



Source: BTM Consult

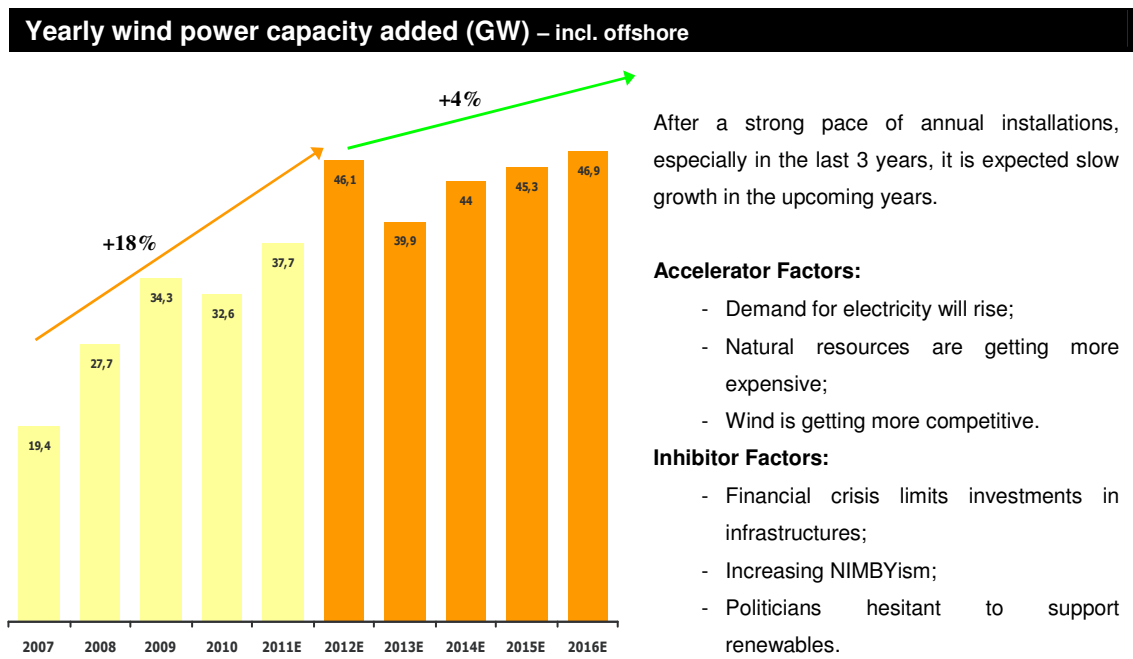
The market has a clear leader, Vestas despite of being losing market share, and the growing importance of the Chinese suppliers, that sustain their growth in terms of their high domestic market. Currently they have 4 players in the top ten, accounting for around 32% of the global installations in 2010.

We can also view this topic in terms of the kind of players and their currently market position. There are the so called pioneers (companies like Vestas, Gamesa, Nordex, Enercon), which developed the technology since its early stage, that accounts for around 40% of the market share, the so called conglomerates (specially large holdings with core businesses in the electrical business which entered in the market by acquisition deals, companies like Alstom, Siemens, GE), that accounts for around 20% of the market, and the “Locals” (companies which relays their share by the importance of their local markets, especially the Chinese players) which accounts for around 40% of the market.

Also must be pointed out that in terms of offshore, the market is clearly dominated by two players: Siemens and Vestas. The first one has around 50% of the cumulative installed capacity at the end of 2011 in this segment, and 80% of the new installations in this year, representing Vestas around 40% of the cumulative installed capacity in 2011. All other players are developing their efforts to put into commercial stage their turbines, as Gamesa an example, putting before their prototypes in testing sites.

Several trends can be pointed out for the market in the upcoming years:

- 1) Little growth in global onshore installations after 2011, with a expected growth of 4%



After a strong pace of annual installations, especially in the last 3 years, it is expected slow growth in the upcoming years.

**Accelerator Factors:**

- Demand for electricity will rise;
- Natural resources are getting more expensive;
- Wind is getting more competitive.

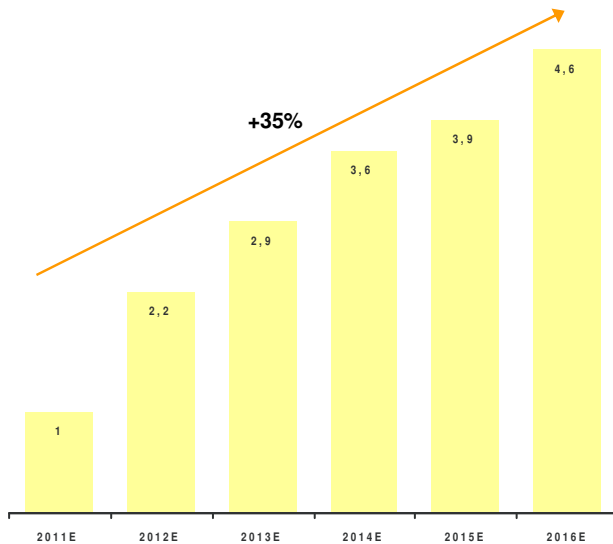
**Inhibitor Factors:**

- Financial crisis limits investments in infrastructures;
- Increasing NIMBYism;
- Politicians hesitant to support renewables.

Source: IHS EER Global Wind Energy Market Forecast 2011-2015, November 2011

2) The growth in offshore is very strong after 2011, though from a very low base of less than a 1 GW in this year.

**Offshore Yearly wind power capacity added (GW)**



**Accelerator Factors:**

- Traditional markets are keeping momentum;
- France is getting into the offshore market;
- NIMBYism

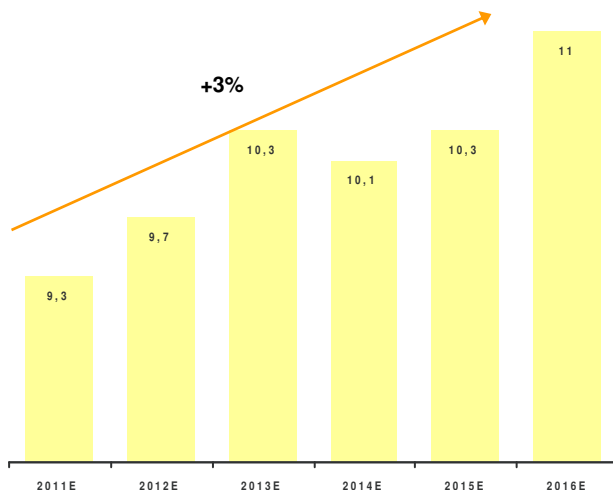
**Inhibitor Factors:**

- Chinese offshore contracts fail to guarantee permits, siting, feasibility;
- Spain and the Netherlands are changing attitude towards offshore;
- Political unwillingness to invest in infrastructure.

Source: IHS EER Global Wind Energy Market Forecast 2011-2015, November 2011

3) Growth in total Europe installations will be modest in the upcoming years, with many markets beginning to be constrained by maturity (most of the best sites have gone), and NIMBYism<sup>15</sup>. The biggest slice for growth will come from offshore.

**Europe, Middle East and Africa yearly wind power capacity added (GW) - onshore**



**Accelerator Factors:**

- EU 2020 targets are driving demand in EU;
- Eastern European markets are rising;
- South African market is expected to take off

**Inhibitor Factors:**

- Political uncertainty for renewables in southern EU;
- Access to grid in certain regions;
- NIMBYism.

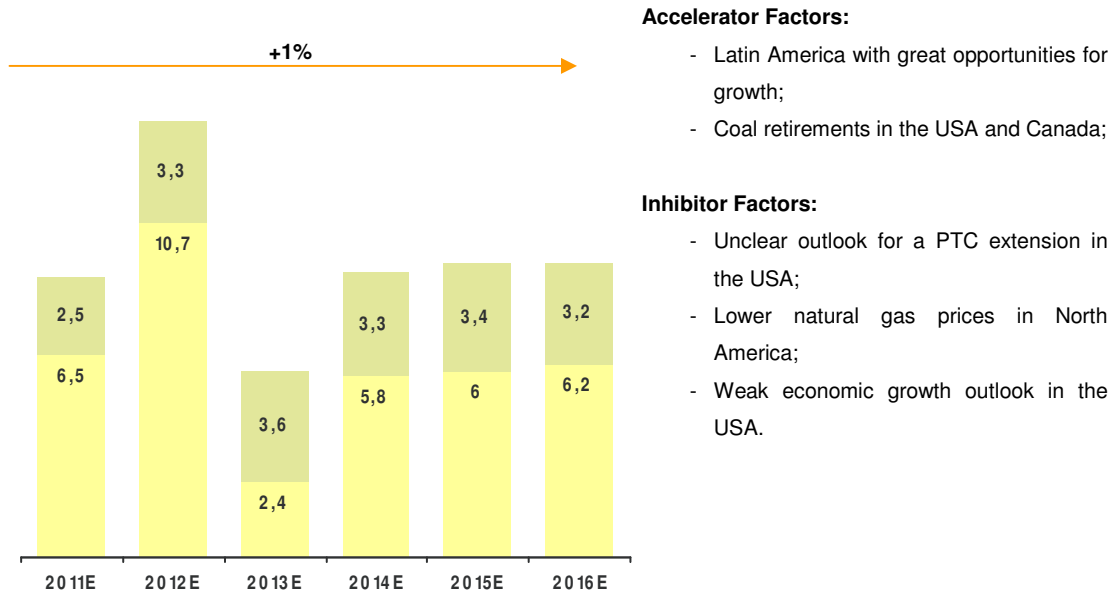
Source: IHS EER Global Wind Energy Market Forecast 2011-2015, November 2011

<sup>15</sup> European countries have high population densities, e.g. the UK's population density is twice that of China and nine times that of US.



- 4) Total American installations are expected to fall, mainly due to ongoing difficulties in obtaining viable Power Purchase Agreements (PPAs) caused by low electricity prices and the ongoing uncertainties in respect to PTC extension.

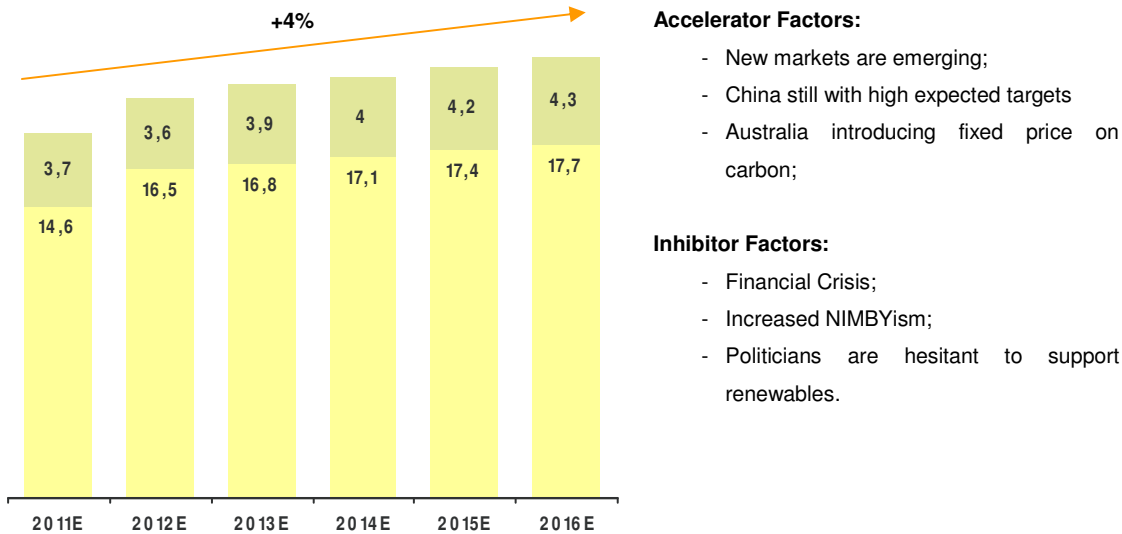
**Americas Yearly wind power capacity added (GW) - onshore**



Source: IHS EER Global Wind Energy Market Forecast 2011-2015, November 2011

5) The Chinese market will remain the biggest market in the world, still with ambitious targets.

**Americas Yearly wind power capacity added (GW) - onshore**



Source: IHS EER Global Wind Energy Market Forecast 2011-2015, November 2011

In a long term analysis, it's important to notice that, especially in European Countries, with the current public debt issues, is in place a growing social and economic pressure to force the abandon of any kind of incentives to renewable energy, although most of them adopt the European Directive 2020<sup>16</sup> that establish ambitious renewable targets. Taking into account the installed capacity in 2010, 84 GW, these targets represents an increase of over 150% reaching an aggregate total of 213 GW. In conclusion, for the European market, is expected an annual installations between 12-13 GW until 2020.

The International Energy Agency (IEA) estimates that on the basis of the US's existing subsidies policies, the US could have accumulative total installed wind capacity by 2020 of 92 GW, which represents a 129% increase over 2010's figure of 40 GW. In conclusion, for the US market, is expected an annual installations around 5 GW until 2020.

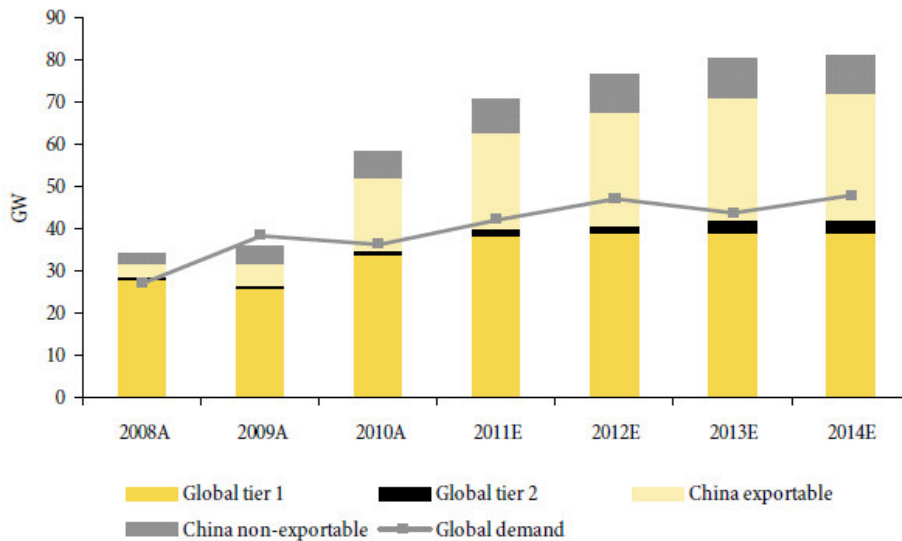
China has a current informal target for wind capacity cumulative installations of 225 GW in 2020, which represents a 432% increase of 2010's figure of 42 GW. Therefore, for this market, is expected an annual installations around 18 GW up to 2020.

For the Rest of the World (ROW), is assumed a growth rate out to 2020 which is the same as the weighted average for the EU, US, and China. This takes cumulative installations from 28 GW in 2010 to 89 GW in 2020, an increase of 218%. This implies annual installations of 6 GW.

<sup>16</sup> The European Union has a target of deriving 20% of all its energy from renewable sources by 2020, as mandated by Directive 2009/28/EC.

Going into the supply demand analysis, the figure below clearly shows that the global turbine capacity far exceeds demand in 2011, and this situation is unlikely to change in the medium term.

**Wind turbines discounted production capacity and demand 2008-2014**



Note 1: Tier 1 includes Vestas, GE, Siemens, Gamesa, Suzlon, Acciona, REpower, Nordex, Enercon and Mitsubishi. Tier 2 includes Clipper, Ecotecnia, WinWind, Impsa, Eozen and all Korean OEMs. China exportable includes Goldwind, Sinovel, United Power, Dongfang's direct drive turbines, Sewind's >2MW turbines, XEMC and Mingyang. China non-exportable includes all other Chinese turbines and suppliers  
 Note 2: Discounted production capacity indicates the actual net capacity available for production after discounts to nominal manufacturing capacity

Source: Redburn (demand); Bloomberg New Energy Finance (capacity)

It must be taken into account that the turbine manufacturing is not a process industry, with large amounts of capital tied in fixed assets which must be used in a continually base to be economically viable. Turbine manufacturing is much more an assembly business, where the capital intensity of a turbine manufacturer depending in where its particular plants sit in the value chain<sup>17</sup>. The consequence of this is that relatively large amounts of capacity can remain unused with only a modest loss of margin.

Any analysis validity in terms of prices in this market always depends in the equation of the possibility of the Chinese turbines enter in the Western markets. The most probable impacts are as follows:

- a) **Chinese turbines are very competitive in terms of price** and the low price offered by the Chinese manufacturers is exploited in the turbine tenders held in the Western developers to drive down the pricing of the Western manufacturers, even when the developers have no intention of buying the Chinese turbines;

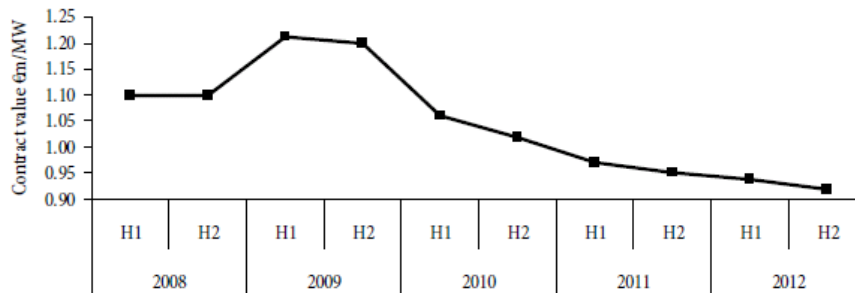
<sup>17</sup> Examples on this particular issue are blades, rotors, nacelles, gearboxes, generators, towers, electronics, etc.

- b) **Quality is a major issue**, an often this is one of the factor take into account as contributing to the reluctance of using the Chinese turbines, also considered to the financing parties of the projects;
- c) **Chinese players can supply debt to support a project**, with the China Development Bank (CDB) agreed in 2010 to lend to the greatest manufacturer (Sinovel) 6,5 bn USD and Goldwind 6 bn USD, aiming mainly the support of overseas projects;
- d) **Chinese manufacturers may find it difficult to compete with domestic supply chain.**  
The cost of shipping a turbine from China to a Western Market is around 8% of the price of an average 2 MW turbine in the West, which can take off some Chinese cost advantage when competing with a domestic supplier.

We can conclude that the Chinese turbines are likely to achieve a steady narrowing of the quality gap between them and the Western manufacturers, and that they will retain some degree of cost advantage, even if some or most of their production is done locally in the West. These developments will involve a steady increase in the competitive challenge presented to Western manufacturers, rather than the rapid seizure of a dominant position.

We expect a pricing pressure that will continue to follow a downward trend which leads to a margin pressure also by the increase in the raw material prices seen in the last years.

**Average turbine contract price by date of delivery (2008-2012) – excl. China**



Source: Bloomberg New Energy Finance

**US Steel Plate Price**



**LME Copper Spot Price**



Although prices have eased since the economic slowdown, the hunger for resources on the major emerging economies will sustain an upward movement.

Therefore, we can conclude that the overcapacity in turbine manufacturing will continue to put downward pressure on Western turbine prices which as fallen more than 20% from the high-point in 2009.

### **Main Conclusions**

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- a) Some growth for the next few years, with little or no growth, especially for onshore in second half of the decade. Taking into account the current economical crisis it is expected a downside in European Markets. This will impact negatively the growth forecasts of Vestas and Gamesa;
  
- b) Developing markets will grow faster than developed countries. Despite of this fact, the global market will maintain the prominence of the established markets of Europe, US and China;
  
- c) High growth in the offshore market. Vestas is allocating high resources to the development of a 7MW turbine for this segment (almost all the 550 million EUR in the financial guidance for 2012) but the experience is a must, and some players like Siemens are well advanced. Gamesa will face more difficulties to have a significant role in this segment, with some delays in terms of both technological and business development;
  
- d) The downward trend in turbine prices will pressure Vestas and Gamesa margins, pushing their efforts towards more efficient production efficiency to be in line with this market trend, which can lead, especially Gamesa, to rethink its production and business organization.

## 4 - Standalone Valuation

### 4.1 – Vestas Wind Systems

We will start the task of performing the standalone valuation of the firm, by establish the appropriate estimates of the main items used on the further methods:

#### a) Sales and Revenues

REVENUE MODEL		values in mEUR					
Year end Dec	2009	2010	2011	2012	2013	2014	
Deliveries (MW)	4.764	5.842	5.217	7.165	6.277	7.399	
Growth	-15%	23%	-11%	37%	-12%	18%	
Average selling price (ASP)	0,96	1,08	0,98	0,94	0,9	0,89	
<b>Equipment sales</b>	<b>4.575</b>	<b>6.297</b>	<b>5.131</b>	<b>6.735</b>	<b>5.649</b>	<b>6.585</b>	
Growth	-17%	38%	-19%	31%	-16%	17%	
<b>Global Solutions and Service</b>	<b>504</b>	<b>623</b>	<b>705</b>	<b>850</b>	<b>920</b>	<b>1.005</b>	
Growth	27%	24%	13%	21%	8%	9%	
<b>Consolidated group sales</b>	<b>5.079</b>	<b>6.920</b>	<b>5.836</b>	<b>7.585</b>	<b>6.569</b>	<b>7.590</b>	
Growth	27%	36%	-16%	30%	-13%	16%	

**Source:** Company information; own estimations

Vestas operates with three types of orders and the order type is paramount for timing of revenues recognition:

- Supply only: Vestas supplies only the turbines and the project developer conducts the civil works, installation and commissioning of the wind farm;
- Supply and installation: Vestas supplies and installs the turbines but has no responsibility for civil works and commissioning,
- EPC (engineering, procurement and construction), also known as turnkey: Vestas delivers a complete wind project including commissioning to the customer. This is the most complex order type and contains the highest operational risk.

Due to the accounting principles (IFRIC 15) implemented by Vestas, the company cannot recognize revenue for supply-only and supply-and-installation order types until the projects have been legally delivered and TOR (transfer of risk) has been made to the customer. For EPC contracts, Vestas recognizes revenues according to the percentage of completion of the project.

This means that Vestas mainly books revenue in the income statement only at full delivery.

## b) Wind Turbine Pricing

In the early section, more precisely the industry review was concluded that the intense industry competition and the ongoing turbine price deflation contribute largely to the trend of ASP (Average Selling Price) reduction.

Therefore, the revenues forecasts reflect the described competitive environment with a progressive decline of around 10% on new equipment.

Due to the strong impact on the revenue model, this item suggests some comments on Vestas's turbine pricing:

- a) the achieved pricing of almost EUR1,08m/MW delivered in 2010 included UK offshore deliveries, which carry an higher price than onshore, and also almost 1 GW of Chinese deliveries, which weigh on the ASP;
- b) In 2011, the 9% ASP slide, among other things can be explained by the lack of offshore capacity in the mix. Notably, Chinese deliveries were roughly half the level in 2010;
- c) In China, pricing is very low. Its realistic to believe that Vestas's pricing is slightly higher than the average in China. This contributed to the significant backdrop o new orders signed in the Chinese market in 2011 (370 MW in 2011 against 973 MW in 2010). In this sense, Vestas decided not to participate in some tenders due to unacceptable pricing levels<sup>18</sup>;
- d) Pricing in the European markets remains firmer than in the US and Asia, partly because of stronger policy support and higher fossil fuel prices. Thus, Vestas should be able to demand higher prices on European supplied equipment than the global average (excluding Asia) of EUR0,93m/MW<sup>19</sup>.

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<sup>18</sup> According to Vestas's CEO Ditlev Engel, in FY 2011 results call.

<sup>19</sup> According to Bloomberg New Energy Finance price index.

c) Margin Outlook

<b>EARNINGS and MARGINS</b>		<b>values in mEUR</b>				
<b>Year end Dec</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b>Sales</b>	<b>5.079</b>	<b>6.920</b>	<b>5.836</b>	<b>7.585</b>	<b>6.569</b>	<b>7.590</b>
Production costs	4.243	5.745	5.111	6.523	5.641	6.431
<b>Gross profit</b>	<b>836</b>	<b>1.175</b>	<b>725</b>	<b>1.062</b>	<b>928</b>	<b>1.159</b>
<i>Gross profit margin</i>	<i>16,5%</i>	<i>17,0%</i>	<i>12,4%</i>	<i>14,0%</i>	<i>14,1%</i>	<i>15,3%</i>
R&D	92	150	203	304	324	320
<i>R&amp;D/sales</i>	<i>1,8%</i>	<i>2,2%</i>	<i>3,5%</i>	<i>4,0%</i>	<i>4,9%</i>	<i>4,2%</i>
Sales & distribution costs	178	206	208	200	176	197
<i>Sales &amp; distribution costs/sales</i>	<i>3,5%</i>	<i>3,0%</i>	<i>3,6%</i>	<i>2,6%</i>	<i>2,7%</i>	<i>2,6%</i>
Administration costs	315	351	352	330	294	295
<i>Administration costs/sales</i>	<i>6,2%</i>	<i>5,1%</i>	<i>6,0%</i>	<i>4,4%</i>	<i>4,5%</i>	<i>3,9%</i>
<b>EBIDTA</b>	<b>469</b>	<b>684</b>	<b>305</b>	<b>643</b>	<b>622</b>	<b>864</b>
<i>EBIDTA margin</i>	<i>9,2%</i>	<i>9,9%</i>	<i>5,2%</i>	<i>8,5%</i>	<i>9,5%</i>	<i>11,4%</i>
Non-recurring costs	0	158	22	50	0	0
<b>EBIT</b>	<b>251</b>	<b>310</b>	<b>-60</b>	<b>178</b>	<b>134</b>	<b>346</b>
<i>EBIT margin</i>	<i>4,9%</i>	<i>4,5%</i>	<i>-1,0%</i>	<i>2,3%</i>	<i>2,0%</i>	<i>4,6%</i>

**Source:** Company information; own estimations

In January 2012, Vestas announced its plans for an organizational reorganization, including expansion of the executive management from two to six members and a redundancy program totaling 2,335 employees, primarily in the European organization.

Vestas expects to save at least EUR150m, with full cash effect by end-2012, of which the redundancies constitute by far the vast majority. Although, by being easy to announce and difficult to implement, the following was considered in respect to this topic:

- Vestas did not achieve production optimization measures worth EUR41m according to schedule in 2011. Such “cost-out” savings initiatives are part of the usual production flow optimization in industrial companies when launching new products (the launching of two new models V100 and V112). Therefore, reflecting the timing uncertainty associated with such “cost-out” effects, illustrated by the 2011 miss, were not considered in the forecasts of 2012 any additional cost-out;
- However, increasing R&D amortization and high cash cost R&D counterbalances more than half the expected savings from redundancies and cost-out initiatives due to completion of development programs.

In the table below is expressed the forecasts for the impacts of the cost savings. It's assumed, allocating lower staff costs, a half-year effect in 2012 and a full year effect from 2013 onward.



<b>COST REDUCTIONS FROM ANNOUNCED EMPLOYEE REDUCTIONS AND COST-OUT INITIATIVES</b>					
<b>Item (values in EURm)</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>Aggregate reductions</b>
Production costs	5.745	5.111	6.523	5.641	
Research and Development	150	203	304	324	
Sales and distribution	206	208	200	176	
Administration	351	352	330	294	
Operating expenses	707	763	834	797	
- Less incremental R&D expenses			733	774	
Cost reductions Opex (staff)			30	60	
Cost reductions COGS (staff)			0	32	
Cost reductions COGS (cost-out)			0	41	
<b>Total cost reductions</b>			<b>30</b>	<b>133</b>	<b>163</b>
Incremental R&D expenses in P&L			101	20	121
<b>Net EBIT impact from staff reductions and delayed cost out</b>					<b>42</b>
<b>Source:</b> Company information; own estimations					

#### d) Cash Flow Analysis

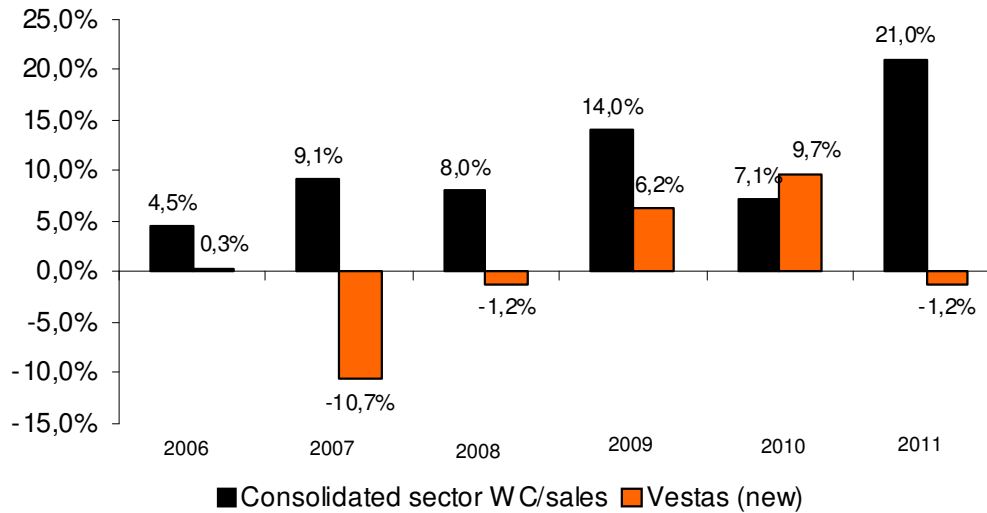
The guidance objectives from management established in 2011, reflected free cash flow generation rather than giving guidance on the working capital to sales ratio. Among other reasons this was a consequence of the company changing its accounting principles, meaning revenue and earnings from the vast majority (>90%) of orders executed cannot be recognized in the income statement until the entire project has been fully completed and legally delivered to the customer.

This results in cash inflow from milestone payments according to the progress of order execution now being accumulated as prepayments in the balance sheet until full legal delivery has been achieved according to the completion of project principle. Previously such payments were booked continually in the P&L.

This change has had a material positive impact on reported net working capital (NWC) and the NWC to sales ratio due to a significant increase in reported prepayments.

Essentially, all other wind turbine manufacturers and component manufacturers are operating with significant higher NWC to sales ratio.

**VESTAS'S WORKING CAPITAL RELATIVE TO SECTOR AVERAGE**

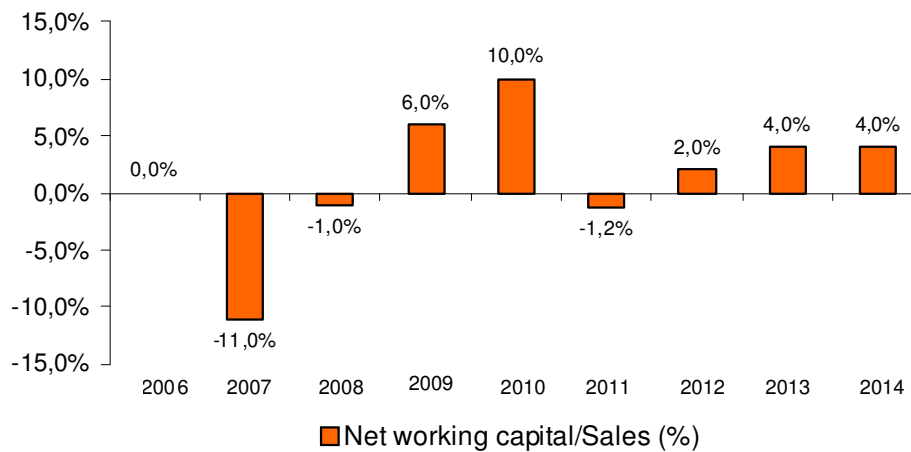


Source: Danske Markets

However, such reported working capital requirements are posted under accounting principles allowing revenue and earnings recognition according to the percentage of completion principle. Thus, customer payments are largely recognized in the income statement simultaneously with invoicing.

For Vestas, earnings recognition lags invoicing and this results in Vestas being able to operate with a lower reported NWC to sales ratio than its closest peers.

**VESTAS'S WORKING CAPITAL EVOLUTION AND FORECAST**



Source: Company information; own estimations

In the table below are stressed the long-term working capital assumptions for Vestas:

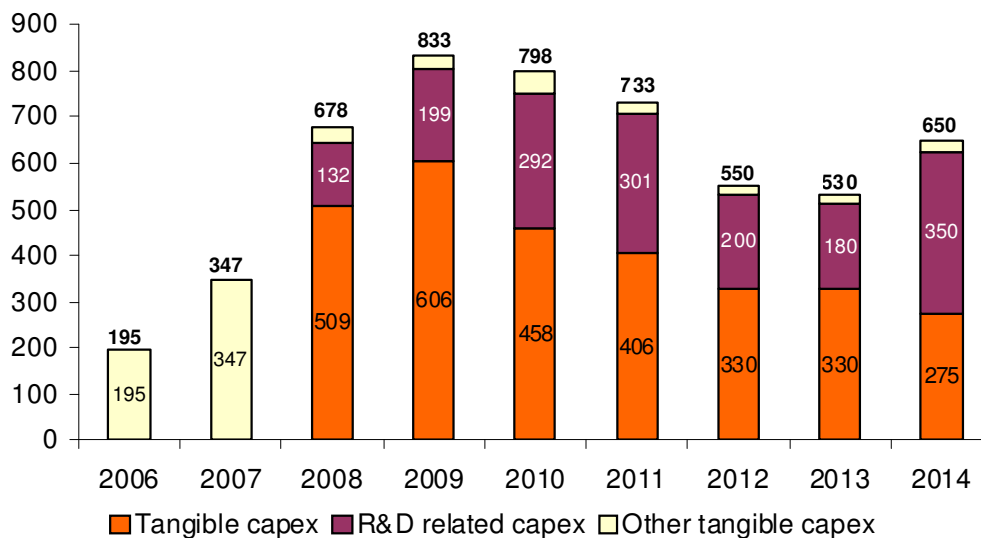
<b>Working capital long-term assumptions</b>			
<b>Working capital component</b>	<b>Turnover (x)</b>	<b>% sales</b>	<b>Days</b>
Inventories	2,50	40%	146
Receivables	5,00	20%	73
Prepayments	3,33	30%	110
Payables	5,00	20%	73
Other liabilities	16,57	6%	22
<b>Net working capital</b>		<b>4%</b>	<b>15</b>

**e) Investments**

Management announced total investments for 2012 of EUR550, split EUR200m for tangible capex and EUR350m for intangible capex.

For the period 2012-2013 the forecast of total investments considers around EUR530-550m per year before another hike in tangible investments in 2014 related to manufacturing facilities for the new offshore wind turbine.

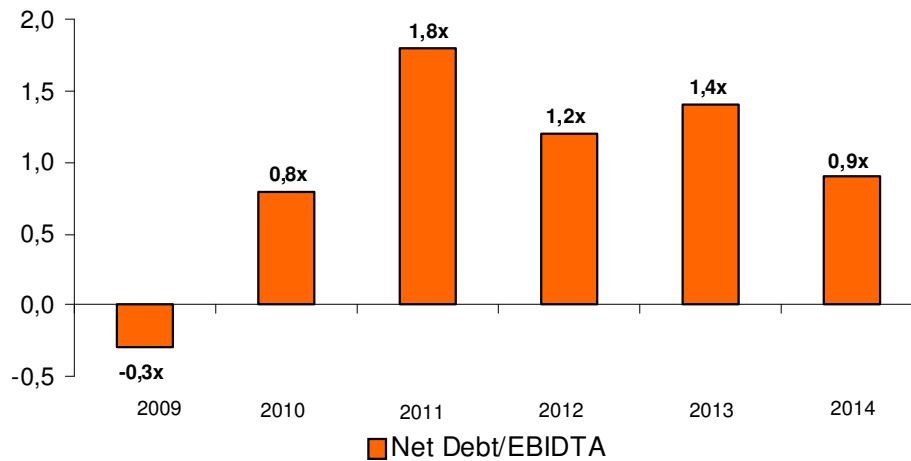
**VESTAS'S CAPEX EVOLUTION AND FORECAST (EURm)**



**Source:** Company information; own estimations

f) Debt

**VESTAS'S NET DEBT RATIO EVOLUTION AND FORECAST**



**Source:** Company information; own estimations

The forecasts reflect a cash outflow of EUR330m by end-2013, resulting in a net debt position of around EUR850m at end-2013, corresponding to a net gearing of 31% and a reported net debt/EBIDTA ratio of 1,4x.

**VESTAS'S CURRENT CREDIT FACILITIES**

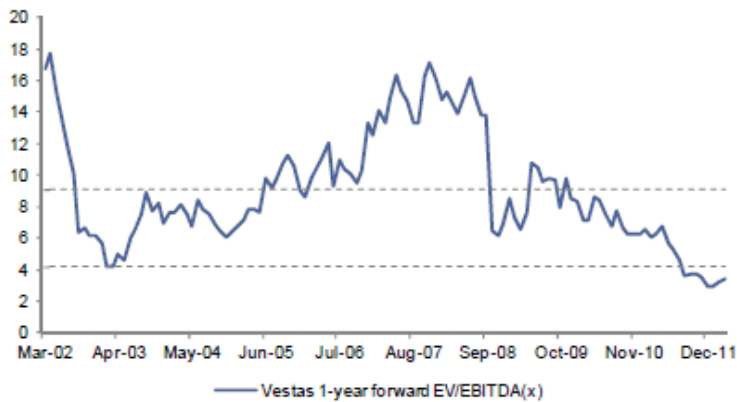
Facility	Value (EURm)	Duration (years)	Status	Issuance	Public/private
Euro bond	600	5	Drawn	16-03-2011	Listed in Luxemburg
Revolving syndicated credit	1.300	5	Undrawn	01-07-2011	Private with 9 banks
Bank loans	305		Drawn		
- European Investment Bank	250				
- Nordic Investment Bank	55				

**Source:** Company information

**Valuation**

Vestas shares are trading below the previous trough EBIDTA valuation and the P/E valuation has only recent recovered from all-time lows, now trading around the valuation level post the Lehman Brothers collapse. Moreover, the stock is trading at valuation levels around or below the 2003 valuation (four profit warnings weighed on the share price in 2002-2003). This clearly reflects a lack of investor confidence following the two profit warnings in October 2011 and January 2012.

**VESTAS'S 1-YEAR FORWARD EV/EBDTA(x)**



**Source:** FactSet, Danske Markets

This work assumes that, due to the announced capacity rationalization initiatives, focusing on its structural overcapacity, Vestas should be able to proceed as a going concern without needing to raise new equity. Nevertheless, the company should begin to realize gross margin stabilization in the period 2012-2014.

Nonetheless, due to the near-term not favorable regulatory environment in southern European markets and the US, combined with the ongoing intense competition in the wind turbine equipment industry, this valuation assumes that, as well as the other wind turbines manufacturers, Vestas should warrant any premium to the pan-European capital goods sector, especially pan-European electrical sector.

**EUROPEAN ELECTRICALS EV/EBIDTA VALUATION**



Source: FactSet, Danske Markets

In this sense, using a relative valuation method, such as multiples, and applying the average EV/EBIT and P/E multiples of the European Electricals to the 2014 earnings forecast, which reflects the margin recovery of Vestas after implementing the announced structural cost-reduction initiatives, reaches a fair value of 8,62-10,34 EUR per share, as stress in the following table:

<b>VALUATION MATRIX</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
European Electricals EBIDTA valuation	6,9	6,4	5,9
European Electricals EBIT valuation	9,4	8,2	7,4
European Electricals P/E valuation	12,1	10,8	9,7
<b>Vestas valuation range</b>			
EV/EBIDTA	18,05	15,38	21,08
EV/EBIT	4,49	1,24	8,62
P/E	5,64	3,36	10,34
	<b>Target price</b>	<b>9,48</b>	
	Current share price (end 2011)	8,44	
	<b>Upside/downside potential</b>	<b>12,31%</b>	

Following this estimates, we can see that comparing to the share price at the end of 2011, the upside potential is around 12%, even considering the measure implemented to create value to the company, after a downgrading trend assisted in the recent years. The valuation using this method was pushed to 2014 where is forecasted to be in place all established cost-reduction measures and some margin stabilization.

Looking to the valuation matrix above, and considering the 2013 forecasts, the Vestas shares seems to be expensive. This fact is mainly due the slump in the US volumes. Based on the 2014 forecasts of a normalized US market and the implementation of the cost-cutting measures, the shares are being traded at a discount.

Looking to the peers, and its multiples, stressed in the table below, the EV/EBIT multiple estimates for 2014, supports, more less, the value reached in the previous methodology.

PEER VALUATION										
	Market Cap (EURm)	EV/Sales (x)			EV/EBIDTA (x)			EV/EBIT (x)		
		2012	2013	2014	2012	2013	2014	2012	2013	2014
Gamesa	783	0,4	0,4	0,3	3,7	3,4	3,0	10,9	9,1	7,4
Nordex	316	0,3	0,3	0,3	5,5	4,8	4,2	11,6	9,2	8,5
Suzlon	1254	0,5	0,5	0,5	6,0	4,9	4,9	8,0	6,6	6,6
<b>Simple average</b>	<b>2353</b>	<b>0,4</b>	<b>0,4</b>	<b>0,4</b>	<b>5,1</b>	<b>4,4</b>	<b>4,0</b>	<b>10,2</b>	<b>8,3</b>	<b>7,5</b>
<b>Weighted average</b>		<b>0,4</b>	<b>0,4</b>	<b>0,4</b>	<b>5,2</b>	<b>4,4</b>	<b>4,2</b>	<b>9,4</b>	<b>7,8</b>	<b>7,1</b>
	<b>Value per share (EUR)</b>				<b>11,20</b>			<b>13,76</b>		<b>8,79</b>

Looking to a long-term assumption using a normalized EBIT margin between 4-5%, despite of being far from the Vestas's medium-term guidance for a high single digit EBIT margin, and using a ROIC valuation subject to sustainable EBIT margin assumption, the vale are as follows:

ROIC Valuation					
	EBIT Margin				
	4%	5%	6%	7%	8%
ROIC	7,0%	8,8%	10,5%	12,3%	14,1%
WACC	9,30%	9,30%	9,30%	9,30%	9,30%
<b>Share price (EUR)</b>	<b>7,92</b>	<b>11,54</b>	<b>15,30</b>	<b>18,93</b>	<b>22,68</b>

Assumptions	
<b>Normalised revenue</b>	EUR7,5bn
<b>Growth</b>	2%
<b>Invested Capital</b>	EUR3,4bn

As we can see in the outcomes above, the most important conclusion is that the share price is highly sensitive to different long-term assumptions of EBIT margin.

Being so, it's reasonable to verify the relative valuation, considering the company as an ongoing concern, and extending the forecasts (exposed on appendix) to a long-term basis and applying the DCF valuation method.

The assumptions for the WACC where as follows:

f

WACC parameters		Remarks and Sources
Risk-free rate	4,00%	Redburn assumptions, Dec.2011
Market risk premium	4,50%	Redburn assumptions, Dec.2011
Beta Unlevered	1,2	Electrical Equipment Unlevered Beta. Source: Damodaran, 2012
Beta Levered	1,5	According to formula [17]: $\beta_L = \beta_U \left[ 1 + \frac{D}{E}(1 - T) \right]$
<b>Cost of Equity</b>	<b>10,75%</b>	According to formula [15]: $Ke = Rf + \beta_L (Rm - Rf)$
Debt Ratio	25%	Own assumption
Target D/E	33%	Own assumption
Credit Spread	3%	Spread Applied to Credit Rating A2 Moody's; A S&P
<b>Cost of Debt</b>	<b>7%</b>	Risk-free rate+Credit Spread
Tax rate	28%	Applied Marginal Tax Rate
<b>WACC</b>	<b>9,32%</b>	According to formula [3]: $WACC_t = \frac{[E_{t-1}Ke_t + D_{t-1}Kd_t(1-T)]}{[E_{t-1} + D_{t-1}]}$

<b>Enterprise Value</b>	<b>2.735</b>
Net Debt	545
<b>Equity Value</b>	<b>2.190</b>
n° of shares (m)	203,7
<b>Value per share (EUR)</b>	<b>10,75</b>

Parameters	
<b>WACC</b>	9,32%
<b>Long-term growth</b>	3%      Forecast of global Economic Growth
<b>Source:</b> The Conference Board Economic Global Outlook, 2012	

As we can see, the DCF valuation puts the value per share around 13% higher as the target estimated on the relative valuation.

Being the mid-term estimates for the company uncertain in connection with final transfer of risk (legal delivery) to the clients, and also the time necessary to align the margins after the cost-reduction initiatives, it's more reliable to see the fair value of the company based on the DCF valuation methodology.

The company's guidance (as stated in the company profile) reflects the timing uncertainty in accordance with full legal delivery. Vestas's 2011 performance provides a good example that delivery postponements can cause material fluctuations in revenue and earnings recognition. In this sense, all forecasts and consequent valuation reflects that the potential upside do not materialize in 2012 but could be addressed in upcoming years.



**FORECASTS vs. VESTAS'S 2012 GUIDANCE**

values in EURm	Vestas 2012 G	2012 FCT	Diff.
<b>Sales</b>			
High	8.000		
Low	6.500		
Mid	7.250	7.585	5%
<b>EBIT</b>			
High	320		
Low	0		
Mid	160	178	11%
<i>EBIT margin</i>	2,2%	2,3%	

**Source:** Company information; own estimations

**POTENTIAL SALES UPSIDE FROM ORDER BACKLOG**

values in EURm	Vestas 2012 G
Order Backlog end-2011 (MW)	9.552
For delivery 2013 beyond (MW)	1.622
<b>Deliveries for 2012 (MW)</b>	<b>8.757</b>
Price/MW	0,95
Equipment Sales	8.297
Service Revenue	850
<b>Group Sales</b>	<b>9.147</b>
<b>Potential upside to guidance</b>	
High end of guidance	1.147
Low end of guidance	2.647

**Source:** Company information; own estimations

In this sense, we will assume a fair value for the shares of Vestas in 10,75 €.

Issues related to value per share on the transaction perspective will be more largely stressed on the transaction valuation topic of this thesis.

## 4.2 – Gamesa Corporación Tecnológica

Gamesa faces in the near future a combination of industry-wide and company-specific challenges. Not all are entirely in its control, e.g. the wind energy support in Europe and US.

The main difficulties establishing reliable forecasts for Gamesa include the lower support for wind energy in some of the most past key markets of the company in Europe, being the most important Spain, and the uncertainty in the US.

Gamesa's manufacturing overcapacity and the effect of the announced cost savings initiatives and the low Emerging Markets exposure are also key factor to take into account in the financial forecasts.

### Overview of Key Medium-term Opportunities and Threats

#### Opportunities

##### Volumes

Long-term support for renewables from governments

##### Unit Pricing

Development of new product platforms

##### Profit Margins

Growing service revenues

Cost savings

#### Threats

##### Volumes

Averse mid-term regulation: lower renewable incentives

Low natural gas process in the US

Surplus power generation capacity

Access to demand in Emerging Markets difficult

##### Unit Pricing

Manufacturing overcapacity

##### Profit Margins

Need for further restructuring costs to adjust capacity

Launch costs of new product platforms

##### Cash-flows

Lower customer prepayments

##### Leverage

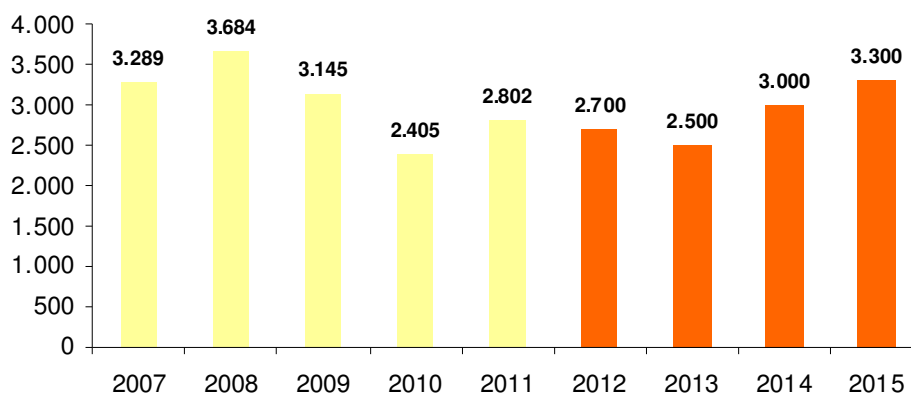
Debt headroom limited (Gamesa: 3.2x net debt/EBIDTA)

**KEY ASSUMPTIONS**

EURm	2009	2010	2011	2012	2013	2014	2015
<b>P&amp;L</b>							
Revenue	3.187	2.736	3.027	3.013	2.668	3.217	3.601
%YoY	-16,6%	-14,2%	10,6%	-0,5%	-11,5%	20,6%	11,9%
EBIT	177	119	131	51	96	109	142
%YoY	-24,1%	-32,8%	10,1%	-61,1%	88,2%	13,5%	30,3%
% margin	5,6%	4,3%	4,3%	1,7%	3,6%	3,4%	3,9%
<b>Balance Sheet</b>							
Net Debt (excl. Factoring)	283	-199	688	616	309	593	391
x EBIDTA	0,72	-0,61	1,89	2,26	0,95	1,55	0,87
Net Debt (incl. Factoring)	1.157	544	1.103	896	557	891	726
x EBIDTA	2,94	1,66	3,03	3,29	1,71	2,34	1,62
<b>Cash-flow statement</b>							
Capex	128	139	234	229	216	205	195
FCFE	-51	551	-819	44	300	-282	209
<b>Returns on capital</b>							
RoE	7,3%	3,1%	3,0%	-0,9%	1,3%	1,9%	3,1%
RoCE	6,7%	9,5%	4,1%	1,7%	3,7%	3,6%	4,9%

**a) Sales and Revenues**

**GAMESA - MW Sold**



**Source:** Company information; own estimations

The above forecast of volumes reflects the key assumptions and market challenges described above, where can be highlighted some prudence on the PTC scheme in the US and that the demand in the Southern European markets – key to Gamesa – remains subdued in the foreseeable future:

- **Regulation in Spain – indefinite moratorium on new capacity**

The current regulation is a setback for Gamesa, with Spain historically representing 30-40% of its wind turbine sales. Other Southern European countries have followed suit by also limiting new renewable capacity (e.g. Portugal).

▪ **Regulation in the US – fiscal consolidation likely later in 2012 a risk**

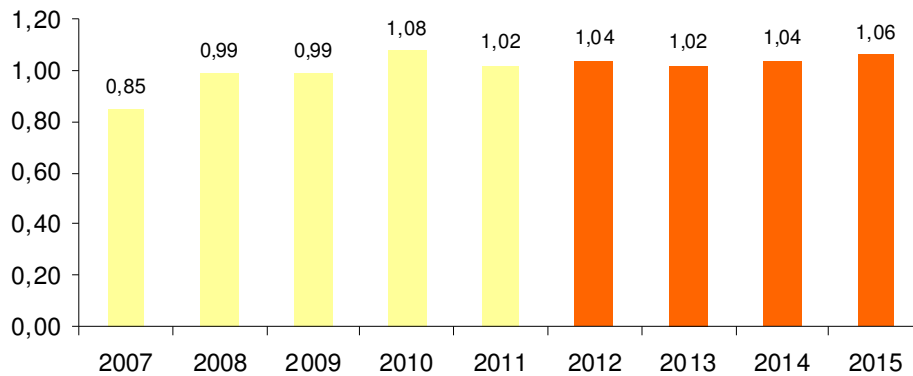
Sales of turbines in the US have made up 14%-28% of Gamesa’s sales in the 2008-2011 period. As things stand currently, the odds are now in favor of an expiration of the Renewable Production Tax Credit (PTC) scheme in December 2012.

Nevertheless, peers like Vestas have been more vocal than Gamesa about the need for a PTC extension. As stress on Vestas’s valuation topic of this work, Vestas warned that it may have to dismiss around 1,600 workers at its US factories (~7% of its workforce) if the PTC is not renewed beyond 2012.

The revenue model assumes a 4% volume of MW sold by Gamesa in 2012 (3% below the low end of Gamesa’s target range) and assume a 7% decline in 2013.

**b) Wind Turbine Pricing**

**AVERAGE SELLING PRICE (ASP) - EURm/MW sold, all in**



**Source:** Company information; own estimations

Gamesa’s revenue per MW sold is a function of multiples variables:

- a) the type of wind turbine sold (e.g. the nominal power of the turbine or the efficiency it can attain);
- b) the geographic market in which the turbines are sold;
- c) whether the turbine in question is a “spot” sale or part of a framework agreement; and
- d) the proportion of services revenues, if any, that may be attached to the sale of the turbine.

The peak of the company's revenue per MW was reached in 2010 (EURm1,08/MW) but declined in 2011 by 5%. Excluding services revenues, Gamesa's revenue per MW sold contracted by only 3% in 2011 (EURm0,92/MW sold).

The forecasts assumes a 2% on-off increase in unit pricing (to EURm1,04/MW "all-in", or EURm0,94/MW excluding services), based on the indication that Gamesa will be booking exceptional higher revenues in 2012 from installations it performed in 2011.

Nevertheless, its expected unit pricing to contract in 2013 by 3% (to EURm1,02/MW "all-in", or EURm0,91/MW excluding services). In 2014 onwards it's expected a recovery based on two assumptions:

- 1) the industry supply/demand balance improves (74% of the company capacity utilization by 2014);
- 2) Gamesa successfully starts to commercialize its offshore turbines.

**c) Capacity and Costs**

**GAMESA'S MANUFACTURING CAPACITY vs SALES**



**Source:** Company Information; own estimates

Shifting into new markets requires establishment new supply chains. This demands time and means incurring costs, but a must to remain competitive:

▪ **Manufacturing Capacity**

Gamesa has a nominal capacity<sup>20</sup> equivalent to 4,3GW, being around 65% effectively utilized.

Its main locations are Spain, China, US, India, and Brazil. The forecasts envisage Gamesa's nominal capacity will remain underutilized in the foreseeable future, which is suboptimal from an earnings and cash-flow perspective.

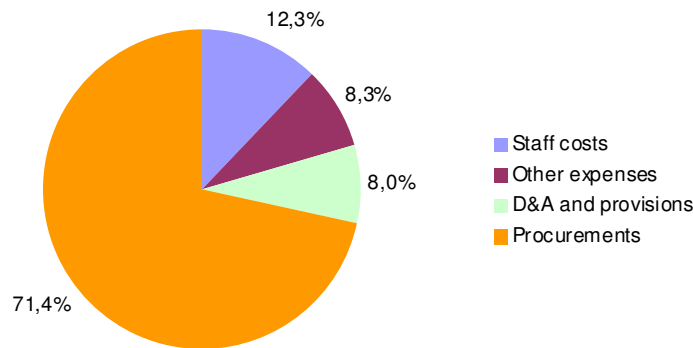
However, the company has started to address this issue, being its capacity in Spain now 45% lower relative to 2009 (1 GW vs. 2,2 GW). Most of its capacity has been transformed into Operation & Maintenance (O&M) and component and repair centers.

▪ **Cost Savings**

Gamesa announced 3 cost initiatives:

- 1) cut the "per unit bill of materials"<sup>21</sup> by 5% by 2013;
- 2) cut its "support functioning cost"<sup>22</sup> by EURm30 by 2013 (~4% cut);
- 3) to "rationalize manufacturing" without quantifying it. It's expected to include several actions, such as cuts in the manufacturing capacity and a reorganization of capacities across Gamesa's existing geographies.

**GAMESA's COST BASE**



**Source:** Company Information

<sup>20</sup> Nominal capacity includes both internal capacity (i.e. based on assets effectively owned by Gamesa) and external capacity (when materials and components are purchased from third party desk).

<sup>21</sup> Gamesa refers to "bill of materials" as the cost of the materials and components used in a turbine.

<sup>22</sup> Gamesa refers to "support function cost" as structure costs (fixed costs), mostly personnel.

The company operates a largely variable cost-base business. The procurement cost represents 70% of its cost base. However, its fixed costs (largely personnel) are sticky and hard to address over short time horizons if volumes contract. This means the actual savings that the company can deliver depends substantially on the turbine it sells in 2013.

#### d) Investments and Capital Employed

##### CAPITAL EMPLOYED

Year-end December EURm	2009	2010	2011	2012	2013	2014	2015
Property, plant and equipment (+)	417	428	452	511	551	572	575
Intangible assets (+)	540	554	618	669	706	730	741
Inventories (+)	784	844	1.116	1.007	840	1.014	1.036
Trade receivables (+)	1.793	1.454	1.881	1.816	1.535	1.763	1.825
Factoring (average position of the year) (+)	596	414	281	280	248	299	334
Trade accounts payable (-)	1.657	1.905	1.947	1.981	1.900	2.027	2.269
<b>Total capital employed (year-end)</b>	<b>2.473</b>	<b>1.789</b>	<b>2.401</b>	<b>2.302</b>	<b>1.980</b>	<b>2.351</b>	<b>2.242</b>

Source: company information; own estimations

#### e) Debt and Leverage

##### FINANCIAL DEBT

Year-end December EURm	2009	2010	2011	2012	2013	2014	2015
Bank borrowings (non-current) (+)	396	557	941	989	967	1.010	1.060
Bank borrowings (current) (+)	688	257	434	409	409	409	409
Cash and cash equivalents (-)	801	1.013	687	781	1.066	827	1.078
<b>Total net debt (net cash) - narrow definition</b>	<b>283</b>	<b>-199</b>	<b>688</b>	<b>617</b>	<b>310</b>	<b>592</b>	<b>391</b>
Debt from factoring (+)	874	743	415	280	248	299	334
<b>Total net debt (net cash) - narrow definition</b>	<b>1.157</b>	<b>544</b>	<b>1.103</b>	<b>897</b>	<b>558</b>	<b>891</b>	<b>725</b>
<b>Net debt/EBIDTA (x)</b>							
- based on narrow definition of net debt	0,72	-0,61	1,89	2,26	0,95	1,55	0,87
- based on broad definition of net debt	2,94	1,66	3,03	3,29	1,71	2,34	1,62

Source: company information; own estimations

The level of debt is highly than desired for the current conjuncture:

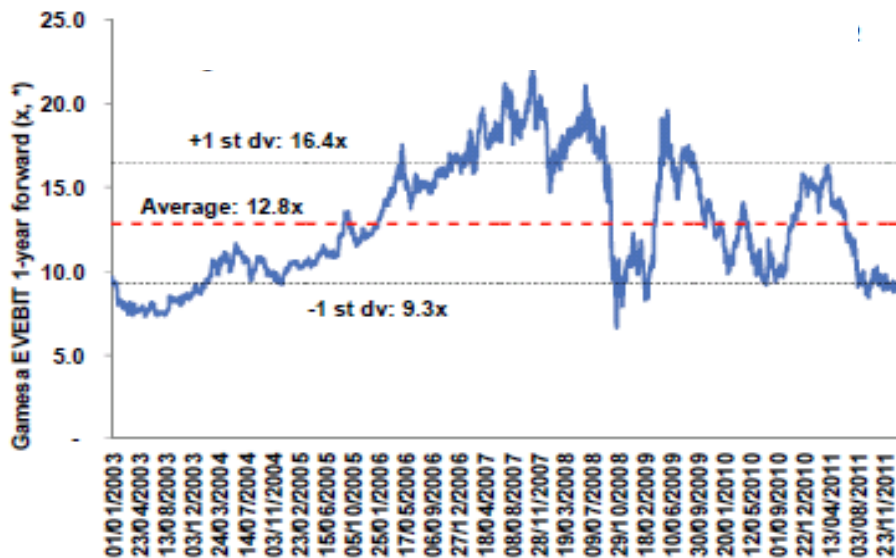
- the volume for the period 2012-2015 remains highly uncertain. If the volumes estimated in this financial forecast declines substantially (even if we consider this estimates conservative), would have huge impact on the cash flows;
- on the other hand, if the volumes of demand are higher than expected, Gamesa's leverage may deter it from pursuing more volumes as this requires higher working capital investments (inventories and payables).

## Valuation

### Relative Valuation

EV/EBIT and P/B are theoretically two suitable multiple metrics for valuing Gamesa. The former reflects the varying degrees of capital intensity in the business (except when Capex substantially exceeds D&A). The latter allow to measure how efficiently capital is being allocated, especially when set against the RoE.

### GAMESA EV/EBIT



**Source:** FactSet definition and consensus

For this valuation, is not considered the near-term multiples a solid tool given that:

- Consensus forecasts highly differ, like saying too high in comparison to the present forecasts in this work;
- Is considered that the book value of Gamesa's equity is overstated (EUR,1,685 at end of 2011);
- There are some uncertainties in respect the wind turbine manufacturing cycle, which translates in some difficulties to assess if Gamesa offers a reliable value estimates based on near-term earnings forecasts.

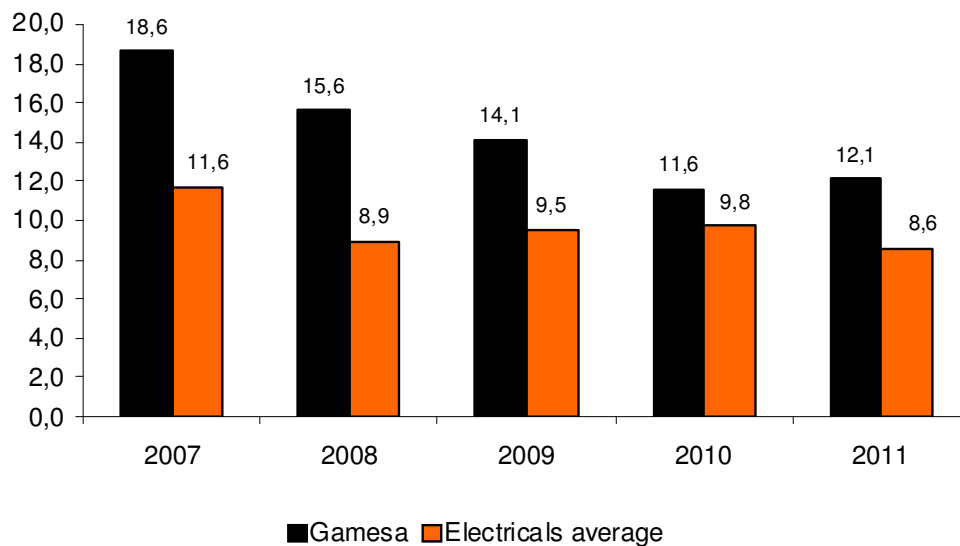


KEY ASSUMPTIONS									
EURm	2012			2013			2014		
	FCT	Cons.	% Diff	FCT	Cons.	% Diff	FCT	Cons.	% Diff
Revenues	3.013	3.212	-6%	2.668	3.300	-19%	3.217	3.520	-9%
EBIDTA	272	286	-5%	327	331	-1%	382	372	3%
EBIT	51	95	-46%	96	125	-23%	109	156	-30%
% margin	1,7%	3,0%		3,6%	3,8%		3,4%	4,4%	
Profit before taxes	-19	36	-153%	29	101	-71%	42	140	-70%
Net Income	-15	30	-150%	22	53	-58%	32	76	-58%

**Source:** own estimates; FactSet consensus

Target multiples on future earnings could capture the “option value” of the next wind turbine up cycle.

**TARGET MULTIPLES APPROACH - EV/EBIT (x)**



**Source:** Company Information; Santander Investment Bolsa

As opposed to Gamesa’s own historical multiples, the European Electricals stocks are theoretically an appropriate peer group for Gamesa:

- a) in the period above, the chances of cuts to renewable incentives by the governments looked to be a remote possibility. Currently, the austerity programs, especially in Europe, are one of the key aspects of the market (as described in the industry review section);
- b) There are a large number of competitors in the industry and returns are now lower;
- c) Necessity of a lower CoE in wind. For instance, we assist to the emergence of the US natural gas as a cheap rival vs. wind energy.

Looking to the historical multiple EV/EBIT of European Electrical stocks<sup>23</sup> (such as Siemens, Schneider Electric, Alstom, and ABB), we reach to a 10x EV/EBIT long-term average.

One of the key assumptions in terms of earnings is assuming that 2013 will be Gamesa's next earnings trough and that 2015 will be its next earnings peak. In this sense, was used the 2015 EBIT forecast to reflect the value recognized to Gamesa's recovery.

#### TARGET 10x EV/EBIT Multiple Applied to 2015 Forecast

	EURm	per share (EUR)
2015 EBIT	142	
Target EV/EBIT (x)	10	
<b>Target EV</b>	<b>1.419</b>	<b>5,70</b>
Bank borrowings (non-current) (-)	1.060	
Bank borrowings (current) (-)	409	
Cash and cash equivalents (+)	1.078	
Debt from factoring (-)	334	
PV implied debt from operating leases (-)	66	
Market value of minorities (-)	1	
Investments accounted for using equity method (+)	47	
<b>Target Equity Value (end 2015)</b>	<b>674</b>	<b>2,71</b>
Discount rate (WACC 9,3%)	0,70	
<b>Target Equity Value (end 2011)</b>	<b>472</b>	<b>1,90</b>

#### broad concept of net debt

<b>Target Equity Value (end 2015)</b>	<b>1.028</b>	<b>4,13</b>
Discount rate (WACC 9,3%)	0,70	
<b>Target Equity Value (end 2011)</b>	<b>720</b>	<b>2,89</b>

#### WACC parameters

Risk-free rate	4,00%
Market risk premium	4,50%
Beta Unlevered	1,2
Beta Levered	1,5
<b>Cost of Equity</b>	<b>10,75%</b>
Debt Ratio	25%
Target D/E	33%
Credit Spread	3%
<b>Cost of Debt</b>	<b>7%</b>
Tax rate	28%
<b>WACC</b>	<b>9,32%</b>

<sup>23</sup> It is important to notice that Siemens and Alstom have their wind power division as wind turbine manufacturers

We assist in the table above to a significant impact of the inclusion of a broad definition of debt in value per share (~EURm250, EUR 1/per share).

Due to this is important to establish some comparison to the DCF method despite of the not stable near-term cash flows, using the same parameters of WACC used on the relative method above:

<b>Enterprise Value</b>	<b>1.457</b>
Net Debt	688
<b>Equity Value</b>	<b>769</b>
n° of shares (m)	248,0
<b>Value per share (EUR)</b>	<b>3,10</b>

<b>Parameters</b>	
<b>WACC</b>	9,32%
<b>Long-term growth</b>	3%

The outcome of value will support the estimation of value using the 10x target EV/EBIT multiple for the earnings peak of 2015.

Is important to notice that, applying the narrow definition of debt (i.e. including the 2011 year-end factoring) the results are as follows:

<b>Enterprise Value</b>	<b>1.481</b>
Net Debt	1.103
<b>Equity Value</b>	<b>378</b>
n° of shares (m)	248,0
<b>Value per share (EUR)</b>	<b>1,52</b>

<b>Parameters</b>	
<b>WACC</b>	9,32%
<b>Long-term growth</b>	3%

In a future transaction the usage of this out comes must be strongly considered in terms of negotiations, or understanding.

In conclusion the range of 2,89-3,1€/per share will be the value support for further transaction valuation purposes.

Looking to the market price at the announcement of the proposed transaction in this thesis (3.21€/share), this represents a downside potential to Gamesa's shares of 3.43% in respect to the DCF valuation.

This results reflects most of the concerns exposed in respect to the business forecasts.

## 5 - Opportunity for the Transaction

### 5.1 – History and Status of M&A in Wind Industry

The wind sector has a history of M&A activity related principally to the consolidation of national players, technological acquisition and sector/segment entry.

The five largest acquisitions of wind turbine manufacturers in the past were achieved at an average of ~1.2 EV/Sales:

Target	Acquirer	Date	Market share at acquisition	EV/Sales	EV/EBIT	Comment
Repower	Suzlon	2007	3%	1.8x	32x	Consolidation
Multibril	Areva	2007	1.5%	1.1x	n.a.	Sector entry
Ecotecnia	Alstom	2007	1.5%	1.1x	18x	Sector entry
Bonus	Siemens	2004	8.0%	1.3x	14x	Sector entry
Enron Wind	GE	2002	9.0%	0.5x	n.r.	Sector entry; Operating loss

**Source:** Bryan, Garnier & Co.

Recent press articles referred to Alstom eyeing to take-over REpower for a consideration of EUR1.5bn, i.e. ~1.2x EV/Sales, which is in line with past acquisitions in the segment.

Nowadays, a deal could set a reference price and be a support for a potential wind turbine stocks re-rating. In 2011, ZF Friedrichshafen acquired Hansen Transmission a supplier of sub-components (gear boxes) for a consideration of ~EUR500m with a multiple of 1.3x EV/Sales, despite its lower margins and the fact that it also faced similar industry challenges.

When assessing the fundamental positioning of wind turbine manufacturers, it's fair to believe one should keep in mind that turbines are not commodities. There are tangible differences between products and manufacturers than can affect the turbine yield and as consequences the wind farm IRR.

The market suggests that are three categories of turbine manufacturers, when considering in terms of cost of operation ease of set-up, reliability, quality, etc. Vestas is considered to be in the top-tier, while Gamesa middle tier actors. However, the market acceptance of its latest product offering is satisfying.

## 5.2 - Market Environment and Motives

To start describing the most likely scenario of M&A in the wind industry, is important to recover the most prominent risks that are making pressure under the key players business:

- A collapse of global co-ordination of greenhouse gas reduction schemes weakening sovereign nations' incentives to reduce further, among other things, carbon emissions, due partially to the competitive disadvantages such reductions would impose on a nation's industrial sectors;
- Changes in national regulatory frameworks resulting in weaker support for renewable energy, including wind power capacity expansions. The most discussed risk currently is additional European governments implementing retroactive tariff cuts and the US potentially not renewing the PTC before expiry. This could adversely affect wind power through weakened demand for wind turbines and cause investors to require higher risk premiums for investments in the wind power sector;
- The availability of wind project financing contracting. We believe it less likely that financing will contract, emphasizing our analysis showing that project financing is gradually improving, albeit patchy at the regional level;
- A collapse in fossil fuel prices would significantly weaken the ability for wind power to approach the LCoE (grid parity), hurting the competitiveness of wind relative to fossil-fuelled power generation;
- The risk of other CO<sub>2</sub> low-emission technologies such as nuclear power, natural gas (roughly half the emission levels of coal) and carbon capture and storage gaining a stronger foothold within some policy frameworks, e.g. such technologies would probably be included in a potential 'clean energy act' as proposed in the US Senate;
- Global wind turbine makers suddenly reversing the current trend of expanding manufacturing capacity only begin to rationalize capacity in western markets. Such development could lead to a significant step-down in turbine pricing, as wind turbine manufacturers would be likely to dump price in order to utilize capacity;
- Permanent expiry of the American PTC, without another adequate subsidy or renewable energy obligation legislation offering a sufficient substitute to the tax credit, would adversely affect the US wind power market.

In face of the above, it's likely to assume a M&A risk in the wind turbine industry, with the need for consolidation, depresses valuations of the key players, and still attractive medium-term prospects, as stressed in the industry review.

Improving financing conditions could also be a core M&A driver. The recent sell-off in wind turbine manufacturers' shares has changed the list of potential targets, including all the remaining so called "pioneers": Vestas, Nordex, REpower, Gamesa.

The key areas of M&A can be resumed as follows:

- a) further consolidation to reduce current over-capacity and margin pressure;
- b) acquisition of offshore capability broadly (i.e. not just turbine hardware specifically);
- c) the possible sector entry through the acquisition of incumbents;
- d) the merger between two key players to consolidate their position in the market and avoid a takeover (the case of this work).

### 5.3 - Gamesa perspective

Any possibility of an M&A transaction involving Gamesa, should be considered in terms of Iberdrola's perspective for its feasibility.

Iberdrola<sup>24</sup> is Gamesa's large customer and shareholder (19,6%), therefore a key element in any M&A equation. Iberdrola makes up on average 20-35% of Gamesa's revenues (2011: 18%; 2010: 36%), with a current framework agreement governing their commercial relationship since the end of 2011.

As per the current agreement, Iberdrola is to purchase from Gamesa at least 50% of the onshore turbines it will install between 2013-2022. This framework agreement can also terminate earlier if Iberdrola purchases a total of 3,8 GW before 2022. Additionally, this agreement also previews "*collaboration in offshore opportunities and within the area of maintenance services*".

In opposition to other pure-play listed peers (e.g. Vestas and Nordex), Gamesa has a largest single shareholder. However, among other issues, an outright acquisition of Gamesa by Iberdrola has a low probability to occur, given their unrelated cash-flows and investment cycles.

But with the recent evolution of the sector (stressed in the industry review section), and the status of the industry favorable for M&A, Iberdrola could have a different investment rationale for their position in Gamesa.

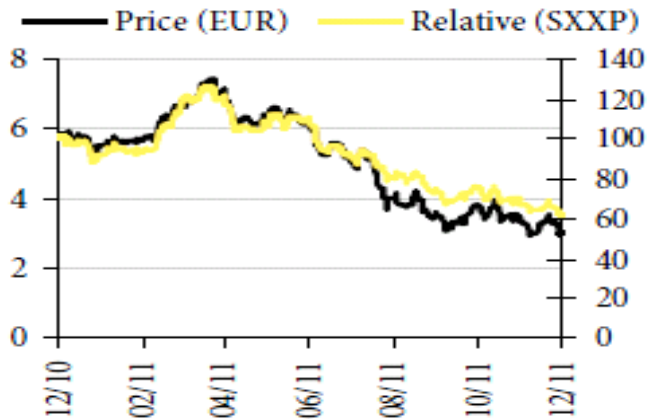
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<sup>24</sup> is a Spanish private multinational electric utility company based in Bilbao, Basque Country. Iberdrola has a workforce of around 33,000 employees in over 40 countries on four continents serving around 30 million customers. Subsidiaries include Iberdrola Renovables; Iberdrola Portugal (Portugal), Scottish Power (Scotland), Iberdrola USA (United States), Elektro (Brazil), Electropaz (Bolivia), among others.

Since embarking on its growth and international expansion plan in 2001, Iberdrola has become Spain's largest energy group by market capitalization, the global leader in wind energy and one of the world's largest utilities by market capitalization.

Currently, can be stated that Gamesa is a non-core and loss-making business for Iberdrola, with Gamesa's share price decline trend already triggered and impairment charge in 2011.

**GAMESA SHARE PRICE vs EUROPE**

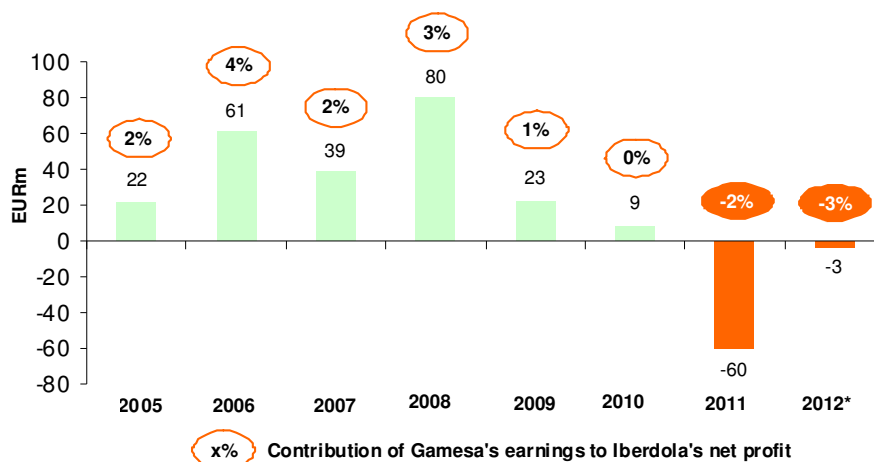


Source: Bloomberg

It's important to notice that in 2011 Gamesa lost almost 80% of its value on the market, although being excessive in terms of its fundamentals, reflects a lot of uncertainties and instability observed by investors.

Observing the chart below, we can conclude that Gamesa starts to become a painful investment for Iberdrola.

**CONTRIBUTION of GAMESA's EARNINGS to IBERDROLA's NET PROFIT**



Source: Company information; own estimations

\* includes the estimates of Gamesa net profit (loss) in 2012

Additionally, Iberdrola has big targets for offshore business, especially in UK, and Gamesa is already at a scale disadvantage vs. other more consolidated players (e.g. Siemens, Repower, and Vestas). A volume commitment with Gamesa would clearly benefit demand visibility, but the company is facing some important delays on the launch of its offshore turbines at a commercial level.

## 5.4 - Vestas perspective

Vestas is trading around the all time low, reflecting a lack of confidence of the investors more than the fundamental outlook.

### Price Performance



Source: Danske Markets

The cost-cutting program, distressed in the form valuation, also carries certain risks, as well as a potential negative earnings impact from the late US renewal of the Production Tax Credit subsidy.

Additionally to the industry challenges, Vestas presents some operational risks:

- a) Not successfully conclude its rationalization program of its manufacturing capacity and employee base, failing to implement the announced structural cost savings;
- b) A systematic structural flaw in one or more turbine models as required large scale production stoppage;
- c) Vestas has lost a significant market share (13% in 2011 against 28% in 2006).

Following this risks, Vestas could be seduced by a merger opportunity with a turbine maker (such as Gamesa), seeking to capitalize that transaction.

Generally speaking if the turbine makers do not continue to address the current supply-demand imbalance resulting in a continued intense competitive environment characterized by significant manufacturing capacity, or global wind turbine volumes suddenly markedly pickup, this could lead to a harsher price decline, having a negative impact on cash flows and the balance sheet.



## 6 - VALUATION OF THE MERGED FIRM

### 6.1 - Methodology

As the reader can see in the last sections where the companies involved in the proposed merger had their standalone valuations based on relative and DCF methods, the main conclusions were based on this last methodology.

In this sense, the DCF method is going to be applied to the valuation of the merged entity, with the following assumptions and criteria:

- a) adaptation of the items until EBIT to a common basis, in order to assess the value added of further synergies;
- b) for the revenues forecasts concern, and assuming that the companies are developing their activities in almost the same geographies, the estimations are based on growth and business diversification perspective;
- c) The tax rate applied before and after the merger are the same;
- d) The WACC that will be applied for the merged entity will be result of changes in financial capacity (issue explored in the financial synergies topic).

In order to reach the value of the merged entity and the necessary inputs to reach a fair value and transaction structure, the following steps were undertaken:

- 1) Valuation of each of the involved firms in the merger standalone, using the DCF method (already performed in the previous sections);
- 2) Estimation of the value of the combined firm, with no synergy, by adding the values obtained for each firm in the previous step;
- 3) Identification and the expected synergies by type (operational and financial), and build their effects in the expected cash flows;
- 4) Determine the value of the synergies by the difference between the value of the combined firm without synergy;
- 5) Determine the contribution of each firm to the estimated synergies in order to serve as proxy to the weight of each firm's current shareholders in the merged firm.

### 6.2 - Synergy Assumptions

After adding the standalone valuation in the DCF model (as we can see in appendix), the results of the merged entity without synergies are as follows:

<b>Enterprise Value</b>	<b>4.193</b>
Net Debt	1.233
<b>Equity Value</b>	<b>2.960</b>
n° of shares (m)	451,7
<b>Value per share (EUR)</b>	<b>6,55</b>

<b>Parameters</b>	
<b>WACC</b>	9,32%
<b>Long-term growth</b>	3%

To follow the valuation of the merged entity, we just need to build on the synergy assumptions and plug them in that same model.

It is importance to notice that, at this stage, for simplification proposals, it was used to calculate the value per share of the merged entity the sum of the outstanding shares of each company.

In the offer topic it will be exposed the proposed number of shares of the new entity in line with the proposed deal structure.

### **Cost Synergy**

Financial literature defends that cost synergies are the most reliable. As being in the valuation of a horizontal merger, this type of synergies assumes a higher weight and result.

Cost synergies usually present fast implementation and perpetual results. However, due to the production and structure changes that the merged firm will face, due to technological, branding and assets in place, I assume that a great deal of those synergies will start to produce higher impact on cash flows from 2014 onwards, like saying 2 years after the merger.

Although, and to support this assumptions is important to remember, as exposed in the previous section of this work, that both companies started in 2011 a cost reduction program.

We observe to sources of cost synergies in the merged firm:

#### a) Cost of production implying a higher gross margin

- Higher bargaining power in negotiating the supply of components to the plants of wind turbine fabrication;
- Higher efficiency in fabrication, applying criteria of dedication to the most value added specialization: Gamesa current assets to the 2 MW wind turbine segments and Vestas assets to higher capacity turbines and offshore;
- Reduction the distribution costs, being the higher geographical coverage allowing a boost element for this goal. No need also to maintain two commercial networks;

In this sense, the gross margin will become higher than 30% when the merger reaches its stability

b) Operating expenses reduction

- Integration of marketing approaches and converging efforts in customer acquisition;
- Workforce reduction especially in the general and administrative areas;
- Existence of only one brand;

This will represent the highest estimated synergy accounting for an average reduction of 2 points as percentage of revenues.

**Revenue Synergy**

As the literature in finance suggests, revenue synergies are much more speculative in value. In this sense, it is hard to estimate their size, timing, and sustainability.

The revenues synergies considered in the model assume the following:

- a) The industry is retracting in growth, with a huge battle to maintain the current market share;
- b) The goal for the merger in terms of revenues is to maintain each forecasted revenues of each company, struggling to go against the low pace in growth in the most mature markets (e.g. Europe);
- c) The merged firm will take advantage of the most important markets and segments of each firm and boost the offshore segment;
- d) Probable cannibalization effect resulting from two firms with technological similar product will be compensated with the business of development and sales of wind farms coming from Gamesa.

In this sense, was assumed a CAGR of 4% for the explicit period, being added a 0.6% coming from the growth of the services business segment.

At the end of 2011, Vestas registered around 50 GW of delivered capacity and Gamesa accounted for 24 GW. This represents a combined delivered capacity of 74 GW meaning around 32% of the total installed wind power capacity in the world. In this sense, the new company will take advantage of its huge stake in the market to boost its maintenance services business segment. This will represent the higher stake of the revenues synergy.

**Capex Synergy**

- Reduction of double investments. As stress in the company profile, both firms are spending use amounts in R&D programs of new turbines, onshore and offshore. The stand alone forecasts accounts for an average of 7% of revenues, being a great deal of this value allocated to the offshore turbines;

In this sense was assumed an average of 5% of revenues.

### Financial Synergy

The merged company has at the end of 2011 a combined net debt of 1.233 EURm. The targets for the D/E are even being 33%, disclosed in the WACC used for DCF method valuation proposals, resulting in a debt ratio of 25%.

In 2011, Gamesa presented a net debt/EBIDTA ratio of 3.0 with our forecast of 1.3 in 2013, with Vestas, for the same indicator and time frame, going from 1.68 to 1.36.

Therefore, a higher EBIDTA levels with decreasing net debt will allow the combined firm, to increase its leverage capacity, contributing also to this its much higher dimension.

In this sense, the model of the combined firm with synergies will assume a debt ratio of 35% resulting in the following WACC parameters:

WACC parameters		Remarks and Sources
Risk-free rate	4,00%	Redburn assumptions, Dec.2011
Market risk premium	4,50%	Redburn assumptions, Dec.2011
Beta Unlevered	1,2	Electrical Equipment Unlevered Beta. Source: Damodaran, 2012
Beta Levered	1,6	According to formula [17]: $\beta_L = \beta_U \left[ 1 + \frac{D}{E} (1 - T) \right]$
<b>Cost of Equity</b>	<b>11,20%</b>	According to formula [15]: $Ke = Rf + \beta_L (Rm - Rf)$
Debt Ratio	35%	Own assumption
Target D/E	47%	Own assumption
Credit Spread	3%	Spread Applied to Credit Rating A2 Moody's; A S&P
<b>Cost of Debt</b>	<b>7%</b>	Risk-free rate+Credit Spread
Tax rate	28%	Applied Marginal Tax Rate
<b>WACC</b>	<b>9,04%</b>	According to formula [3]: $WACC_t = [E_{t-1}Ke_t + D_{t-1}Kd_t(1-T)]/[E_{t-1} + D_{t-1}]$

### Restructuring Charge

Despite of the restructuring program ongoing in both firms, the combined firm will need to face cost coming from merging the two entities, as well coming from the fact of being horizontal merger.

Financial literature and evidence prove that is no doubt that merging two companies, especially developing the same business in the same markets, always entails incremental costs coming from their integration. In the case of Gamesa and Vestas, we are dealing with a combined workforce of around 30.000 works and 16 GW of installed production capacity.

Although being very hard to estimate, it is very clear that they will incur from 2012 to 2015. This somewhat high time length to put in place all the necessary restructuring processes are mainly due to transform two similar firms, despite of their different dimensions, into a cost efficient new merged firm.

It was assumed a restructuring charge considering the following:

- a) develop a new common brand;
- b) costs of redundancies elimination;
- c) same supply chain and logistics;
- d) decommissioning of fabrication assets to avoid overcapacity.

Facing these high challenging tasks, the estimation in % of revenues from the time estimated time frame was:

Restructuring charge	values in EURm			
	2012	2013	2014	2015
% revenues	2,0%	2,5%	3,0%	1,5%
Value	212	231	324	172

### 6.3 - Value of Synergy

Going forward with the methodology expressed in the first topic of this section, after listing all the synergies expected to occur in the merged firm, and applied them into the DCF model, the following outcomes were achieved:

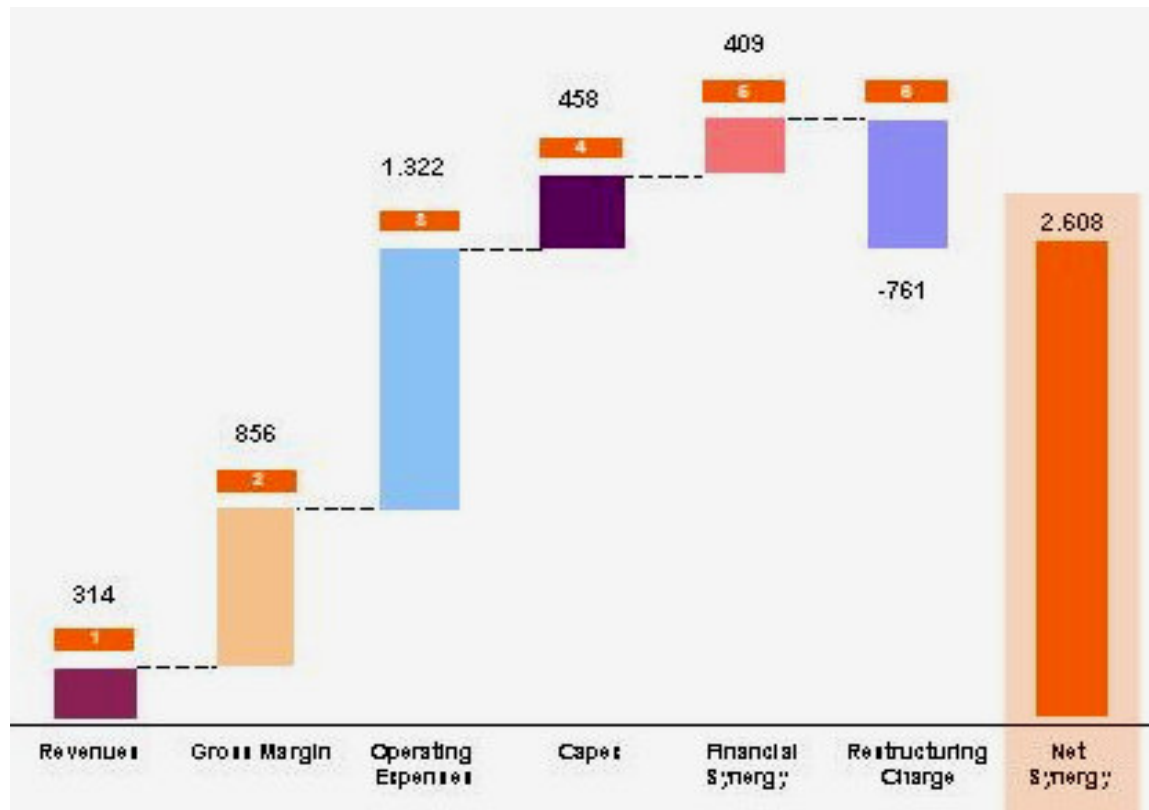
Valuation of the merged firm	Values in EURm		
	Enterprise Value	Net Debt	Equity Value
Merged firm with synergies	7.562	1.233	6.329
Merged firm without synergies	4.193	1.233	2.960
<b>Value of total synergies</b>		<b>3.369</b>	

Taking into consideration the restructuring charge (i.e. the integration costs), that accounts at present values for 716 EURm, the difference between the equity values will stay at 2.608 EURm.

Therefore, we can estimate a target equity value for the merged firm of 5.568 EURm, representing a potential upside in value from the firm without synergies of 88%.

To understand this upside potential, it's important to disclose how is composed those above present synergies:

Synergy Breakdown



Synergy Value Breakdown		Values in EURm	
Source of Synergy	Total		
	Value	Weight	
1 Revenue Growth	314	9,3%	
2 Gross Margin increase	856	25,4%	
3 Operating expenses savings	1.332	39,5%	
4 Capex decrease	458	13,6%	
5 Financial synergies	409	12,1%	
<b>Total Synergies</b>	<b>3.369</b>	<b>100%</b>	
6 Restructuring Charge	-761		
<b>Value of net synergy</b>	<b>2.608</b>		

Clearly, we can observe that most of the synergies come from cost synergies, with the increase in margin with less average production costs and operating expenses savings accounting for 65% of total synergies.

In a much more mature market, with lower growth rates, the space for revenue synergies is lower. Also, the aggressive competition landscape in the wind turbine manufacturers expected in short-term makes this type of synergy somewhat ephemeral.

Therefore, this proposed merger addresses to a high value added from cost synergies that will allow the combined firm to compete in a higher level and face the constraints identified in the industry.

Both firms have the resources needed in this sense to manage a global business avoiding double work.

## 7 - THE MERGER

### 7.1 - Methodology and structure

In this section the main goal is to define, based on the outcomes of the previous sections, the deal structure and the transaction.

After arriving to the equity value of the combined firm with synergies and estimate the value of the foreseen synergies by source, in order to reach the outcome for the deal proposal, this section will proceed as follows:

- Assuming a merger by creating a new firm, is important to devise the estimated synergy share of each firm in the merged firm;
- With the outcomes of the previous step, establish a framework for how much will be proposed to the shares of each firm into the new company;
- Establish the form of payment, in order to see if will be a cash deal or a stock deal.

### 7.2 - Sharing Synergy

As stated in the Literature Review section, all the framework of the deal will depend on how much of the sources of synergy are specific to each firm involved in the transaction.

The outcomes sharing each of the already disclosed synergy value by source are as follows:

Synergy Value Breakdown			Values in EURm				
Source of Synergy	Total		Vestas share		Gamesa share		
	Value	Weight	Value	Weight	Value	Weight	
1	Revenue Growth	314	9,3%	236	75,0%	79	25,0%
2	Gross Margin increase	856	25,4%	642	75,0%	214	25,0%
3	Operating expenses savings	1.332	39,5%	666	50,0%	666	50,0%
4	Capex decrease	458	13,6%	343	75,0%	114	25,0%
5	Financial synergies	409	12,1%	327	80,0%	82	20,0%
<b>Total Synergies</b>		<b>3.369</b>	<b>100%</b>	2.214	65,7%	1.155	34,3%
6	Restructuring Charge	-761		-456,6	60,0%	-304,4	40,0%
<b>Value of net synergy</b>		<b>2.608</b>		<b>1.758</b>	<b>67,4%</b>	<b>851</b>	<b>32,6%</b>

As we observe in the table above, Vestas will have a fair value of around 67% of the net synergy, being the share of Gamesa 33% including the contribution of each firm to the integration costs.

### 7.3 – The Transaction

Taking into consideration the relationship between the market cap at the announcement<sup>25</sup>, and the outcomes for the standalone valuation performed, we reach the following conclusions:

<sup>25</sup> For the purpose of this work it was assumed 31/12/2011.

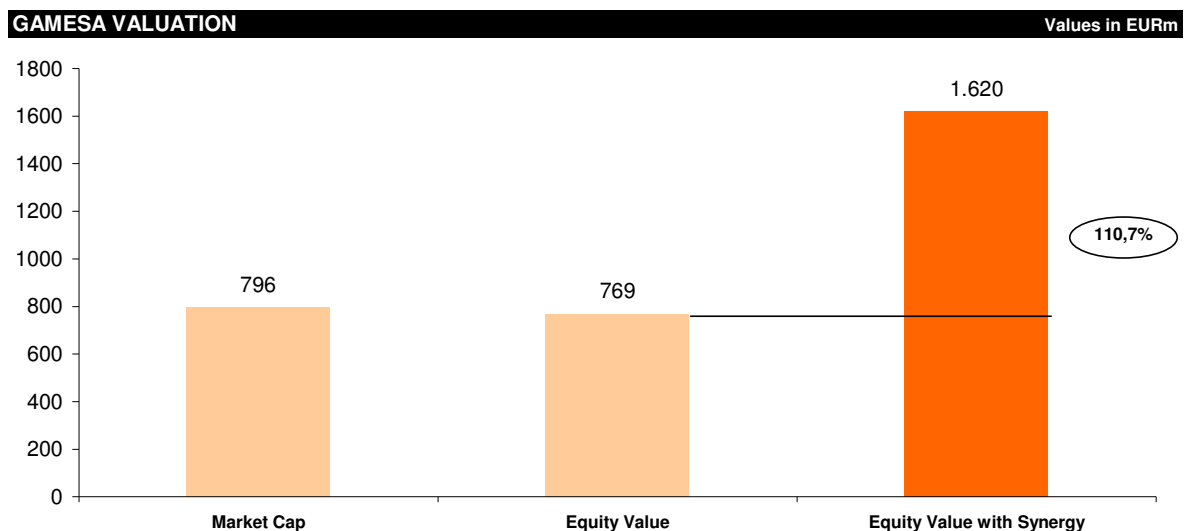


	Market Value (EUR/Share)	Valuation (EUR/Share)	Remark
Vestas	8,44	10,75	undervalued
Gamesa	3,21	3,1	overvalued

As we can see in the above table, it's clear that the prospects for the Vestas share have a upside potential of around 27%, being the Gamesa expectations slightly (-3%) below the current market value.

Coming again to the combined firm with synergies, the value added is massive (88%) point out a combined business that will benefit both shareholders.

Facing the results of the previous sections, if considered a common takeover, the maximum price that could be paid by Vestas in the probable acquisition of Gamesa could be seen as follows:



Therefore, considering all contribution to synergies, the premium relative to the equity value of Gamesa is extremely high, representing a 110,7% of maximum premium.

Looking to the Vestas Shareholder Value at Risk (SVAR)<sup>26</sup>, we can see that:

$$\frac{\text{Value paid for synergy}}{\text{Vestas Equity Value}} = \frac{851}{2.190} = 39\%$$

Therefore, the risk is somewhat high in case of the synergies are not realized, putting at risk 39% of the target value for Vestas.

<sup>26</sup> SVAR reflects how much of shareholders' value is at risk if no synergies are realized.

As stressed in the last section, most of the synergies are coming up from a jointly developed business. Also considering that, in line with the Literature in Finance, being Gamesa overvalued or with limited standalone upside potential, the transaction should be a stock deal.

Taking into account that the proposed deal will be a new company, combining both existing firms, with no surviving company, the weights on the estimated equity value with synergies will be as follows:

<b>Merged Firm</b>	<b>Equity Value weight</b>	<b>Net synergy share</b>
<b>Vestas</b>	70%	67%
<b>Gamesa</b>	30%	33%

In case of an acquisition, as considering a offer by Gamesa shares of 6.53€/share, representing a 3.43€/share premium over the equity value, would result in a exchange ratio of 77%.

As a conclusion, a fair ratio for each of the existing shares in the new merged firm would be as the net synergy share.

## 8 – Conclusion

The proposed transaction will result in a horizontal merger by the creation of new entity, where the two involved firms, Vestas and Gamesa. Vestas shareholders would own 67% of the new form, and Gamesa's shareholders 33%. The net synergy coming up in the merged firm accounts for 2.608 EURm, to be added to a combined equity value without synergy of 2.960 M€.

The main benefits resulting from the deal will be in resume:

- a) Better position to compete in a industry that is facing a consolidation trend, by the creation of a sustainable and leading player;
- b) Benefits resulting from economies of scale;
- c) Higher pricing power;
- d) Avoiding market share down trend of each individual firm, by the entrance in the market of large conglomerates.

## APPENDIX

## HISTORICAL FINANCIAL DATA and FORECASTS

## Gamesa Corporación Tecnológica

## INCOME STATEMENT

values in EURm

Year end Dec	2007	2008	2009	2010	2011	2012	2013	2014	2015
<b>Revenues</b>	<b>2.167</b>	<b>3.820</b>	<b>3.187</b>	<b>2.736</b>	<b>3.027</b>	<b>3.013</b>	<b>2.668</b>	<b>3.217</b>	<b>3.601</b>
<b>EBIDTA</b>	<b>209</b>	<b>326</b>	<b>276</b>	<b>222</b>	<b>230</b>	<b>171</b>	<b>235</b>	<b>270</b>	<b>323</b>
D&A charge and provisions	-221	-297	-217	-209	-233	-221	-231	-272	-306
D&A charges	-77	-94	-99	-103	-99	-120	-139	-160	-181
Provision charges	-144	-204	-118	-106	-164	-101	-92	-112	-126
<b>EBITA</b>	<b>133</b>	<b>233</b>	<b>179</b>	<b>135</b>	<b>119</b>	<b>51</b>	<b>96</b>	<b>109</b>	<b>142</b>
Impairment charges	0	0	-2	-16	13	0	0	0	0
Total operating expenses inc. D&A	-2.734	-3.588	-3.010	-2.617	-2.895	-2.962	-2.572	-3.108	-3.459
<b>Operating Profit (EBIT)</b>	<b>133</b>	<b>233</b>	<b>177</b>	<b>119</b>	<b>131</b>	<b>51</b>	<b>96</b>	<b>109</b>	<b>142</b>
Financial Income (expenses)	-66	-50	-53	-54	-39	-70	-67	-68	-70
Finance Income	10	26	12	18	15	13	16	16	16
Finance Costs	-62	-62	-59	-67	-81	-83	-83	-84	-87
Exchange Differences	-15	-15	-7	-5	27	0	0	0	0
Loss on disposal of non-current assets	29	-3	-2	-1	2	0	0	0	0
Net Impairment Losses	0	0	-2	-30	-25	0	0	0	0
Associates	1	2	2	2	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0
<b>PBT from continuing operations</b>	<b>97</b>	<b>181</b>	<b>122</b>	<b>35</b>	<b>70</b>	<b>-19</b>	<b>29</b>	<b>42</b>	<b>72</b>
Income tax on profit from cont. ops.	25	-2	-7	15	-18	4	-7	-10	-16
<b>Net profit from cont. operations</b>	<b>122</b>	<b>179</b>	<b>115</b>	<b>51</b>	<b>52</b>	<b>-15</b>	<b>22</b>	<b>32</b>	<b>55</b>
Net profit from disc. operations	101	143	0	0	0	0	0	0	0
<b>Net profit for the year</b>	<b>223</b>	<b>322</b>	<b>115</b>	<b>51</b>	<b>52</b>	<b>-15</b>	<b>22</b>	<b>32</b>	<b>55</b>
Minority interest	-3	-2	0	0	-1	0	0	0	0
<b>Attributable net income</b>	<b>220</b>	<b>320</b>	<b>115</b>	<b>51</b>	<b>51</b>	<b>-15</b>	<b>22</b>	<b>32</b>	<b>55</b>

**BALANCE SHEET**

	2007	2008	2009	2010	2011	2012	2013	2014	2015
<b>Assets</b>									
Non-current assets	978	1.053	1.280	1.358	1.413	1.571	1.655	1.710	1.742
Current assets	3.387	2.922	3.632	3.582	4.218	4.139	3.976	4.137	4.473
Non-current asset held for sale	0	89	0	0	0	0	0	0	0
Current asset held for sale	0	712	0	0	0	0	0	0	0
<b>Total Assets</b>	<b>4.365</b>	<b>4.776</b>	<b>4.912</b>	<b>4.940</b>	<b>5.631</b>	<b>5.710</b>	<b>5.631</b>	<b>5.847</b>	<b>6.215</b>
<b>Equity and Liabilities</b>									
Equity and minorities	1.259	1.508	1.576	1.629	1.692	1.672	1.694	1.719	1.767
Non-current liabilities	858	626	757	888	1.315	1.379	1.359	1.423	1.501
Current liabilities	2.248	2.379	2.579	2.423	2.624	2.659	2.578	2.705	2.947
Non-current liabilities held for sale	0	150	0	0	0	0	0	0	0
Current liabilities held for sale	0	113	0	0	0	0	0	0	0
<b>Total Equity and Liabilities</b>	<b>4.365</b>	<b>4.776</b>	<b>4.912</b>	<b>4.940</b>	<b>5.631</b>	<b>5.710</b>	<b>5.631</b>	<b>5.847</b>	<b>6.215</b>

## CASH FLOW STATEMENT

values in mEUR

	2007	2008	2009	2010	2011	2012	2013	2014	2015
<b>PBT</b>	<b>97</b>	<b>181</b>	<b>122</b>	<b>35</b>	<b>70</b>	<b>-19</b>	<b>29</b>	<b>42</b>	<b>72</b>
<b>Adjustment for Cash Flow</b>									
D&A and provision charges	221	297	217	209	233	221	231	272	306
Incentive plan	0	0	4	3	4	0	0	0	0
Finance income and costs	65	49	52	52	39	70	67	68	70
Disposal of non-current assets	-29	3	2	1	-2	0	0	0	0
Impairment losses	0	0	2	30	25	0	0	0	0
Deferred income	0	0	0	0	0	0	0	0	0
<b>Changes in working capital</b>	<b>259</b>	<b>-319</b>	<b>-277</b>	<b>439</b>	<b>-850</b>	<b>123</b>	<b>277</b>	<b>-365</b>	<b>59</b>
Change in trade and other receivables	59	-26	-204	330	-551	64	282	-228	-62
Changes in inventories	-87	-475	385	-59	-280	109	167	-173	-22
Change in trade and other payables	400	246	-317	248	34	35	-81	127	242
Changes in consolidation method	-8	63	-3	0	-1	0	0	0	0
Forex	-1	4	2	5	26	0	0	0	0
Utilization of provision	-52	-131	-140	-85	-79	-85	-90	-91	-38
Other	-52	0	0	0	0	0	0	0	0
<b>Operating Cash Flow</b>	<b>612</b>	<b>211</b>	<b>121</b>	<b>770</b>	<b>-481</b>	<b>396</b>	<b>603</b>	<b>16</b>	<b>507</b>
Income tax paid	-11	-19	-16	-46	-41	-45	-13	-19	-33
Net cash interest	10	-46	-34	-37	-64	-78	-74	-74	-70
<b>Cash Flows from operating activities</b>	<b>611</b>	<b>146</b>	<b>71</b>	<b>687</b>	<b>-586</b>	<b>273</b>	<b>516</b>	<b>-77</b>	<b>404</b>
Purchase of subsidiaries	0	7	-19	-7	-4	0	0	0	0
CAPEX-intangible assets	-38	-40	-48	-47	-92	-90	-86	-81	-77
CAPEX-PP&E	-56	-120	-79	-92	-142	-139	-130	-124	-118
Investments in other non-current financial assets	-3	-8	-6	-14	-7	0	0	0	0
Investments in other current financial assets	0	0	0	-10	-3	0	0	0	0
Other	11	81	23	-11	10	0	0	0	0
<b>Cash flow from investing activities</b>	<b>-86</b>	<b>-80</b>	<b>-129</b>	<b>-181</b>	<b>-238</b>	<b>-229</b>	<b>-216</b>	<b>-205</b>	<b>-195</b>
Equity issue of subsidiaries	0	0	0	0	2	0	0	0	0
New bank borrowings	62	66	525	302	556	500	50	50	50
Dividends paid	-37	-56	-50	-10	-5	-5	0	-8	-8
Cash outflows relating to bank borrowings	-1	-114	-157	-597	-42	-445	-65	0	0
Acquisition of treasury shares	0	-18	-1	-2	1	0	0	0	0
<b>Cash Flows from financing activities</b>	<b>-26</b>	<b>-121</b>	<b>317</b>	<b>-307</b>	<b>511</b>	<b>50</b>	<b>-15</b>	<b>42</b>	<b>42</b>
<b>Changes in cash and cash equivalents</b>	<b>499</b>	<b>-55</b>	<b>258</b>	<b>200</b>	<b>-314</b>	<b>94</b>	<b>285</b>	<b>-240</b>	<b>251</b>

## Vestas Wind Systems

INCOME STATEMENT										values in mEUR
Year end Dec	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Net Sales	3.583	4.179	3.828	5.904	5.079	6.920	5.836	7.585	6.569	7.590
Cost of sales & operating costs	-3.663	-3.853	-3.511	-5.155	-4.617	-6.180	-5.511	-6.942	-5.947	-6.726
<b>EBIDTA</b>	<b>-80</b>	<b>326</b>	<b>317</b>	<b>749</b>	<b>462</b>	<b>740</b>	<b>325</b>	<b>643</b>	<b>622</b>	<b>864</b>
Depreciation	0	-90	-85	-103	-151	-175	-109	-252	-254	-267
<b>EBITA</b>	<b>-80</b>	<b>236</b>	<b>232</b>	<b>646</b>	<b>311</b>	<b>565</b>	<b>216</b>	<b>391</b>	<b>368</b>	<b>597</b>
Amortisation	-36	-33	-29	-32	-60	-105	-244	-213	-234	-251
Impairment charges	0	0	-1	0	0	-150	-32	0	0	0
<b>EBIT before non-recurring items</b>	<b>-116</b>	<b>203</b>	<b>202</b>	<b>614</b>	<b>251</b>	<b>310</b>	<b>-60</b>	<b>178</b>	<b>134</b>	<b>346</b>
Non-recurring items	0	0	0	0	0	0	0	0	0	0
<b>EBIT</b>	<b>-116</b>	<b>203</b>	<b>202</b>	<b>614</b>	<b>251</b>	<b>310</b>	<b>-60</b>	<b>178</b>	<b>134</b>	<b>346</b>
Financial items, net	-42	-31	4	46	-62	-72	-94	-47	-44	-46
Associated companies	0	0	0	0	15	1	1	0	0	0
<b>Pre-Tax PROFIT</b>	<b>-158</b>	<b>164</b>	<b>202</b>	<b>660</b>	<b>204</b>	<b>239</b>	<b>-153</b>	<b>131</b>	<b>90</b>	<b>300</b>
Taxes	-33	-51	-98	-190	-79	-82	-13	-37	-25	-84
Minorities	0	0	0	0	0	0	0	0	0	0
Discontinued operations	0	0	0	0	0	0	0	0	0	0
<b>NET PROFIT</b>	<b>-192</b>	<b>113</b>	<b>104</b>	<b>470</b>	<b>125</b>	<b>157</b>	<b>-166</b>	<b>94</b>	<b>65</b>	<b>216</b>

CASH FLOW	values in mEUR									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
EBIDTA	-80	326	317	749	462	740	325	643	622	864
Change in working capital	-105	474	442	-504	-210	-447	784	-223	-111	-41
Net interest paid	-42	-40	0	46	-62	-72	-94	-47	-44	-46
Taxes paid	-135	-128	-144	-107	-165	-37	-116	-37	-25	-84
Other operating cash items	0	0	0	0	0	0	0	0	0	0
<b>Cash flow from operations</b>	<b>-362</b>	<b>632</b>	<b>615</b>	<b>184</b>	<b>25</b>	<b>184</b>	<b>899</b>	<b>336</b>	<b>442</b>	<b>693</b>
Capex	3.512	-152	-284	-676	-786	-906	-806	-550	-530	-650
<b>Free cash flow</b>	<b>3.150</b>	<b>480</b>	<b>331</b>	<b>-492</b>	<b>-761</b>	<b>-722</b>	<b>93</b>	<b>-214</b>	<b>-88</b>	<b>43</b>
Incr./(decr.) in equity	-1.954	46	-37	-71	830	55	-12	0	0	0
Incr./(decr.) in debt	-975	-318	-24	-27	228	563	6	0	150	-50
Dividend paid	0	0	0	0	0	0	0	0	0	0
Minorities and other financing CF	-84	0	0	0	0	0	0	0	0	0
<b>Cash flow from financing</b>	<b>-3.013</b>	<b>-272</b>	<b>-61</b>	<b>-98</b>	<b>1.058</b>	<b>618</b>	<b>-6</b>	<b>0</b>	<b>150</b>	<b>-50</b>
Disc. Ops and other	0	0	0	0	0	0	0	0	0	0
Incr./(decr.) in cash	-37	318	319	-602	326	-153	40	-214	61	-7

BALANCE SHEET	values in mEUR									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Cash and other equivalents	135	445	764	162	488	335	375	161	223	216
Other current assets	1.840	2.080	3.112	4.279	4.797	3.740	3.792	4.440	4.179	4.595
Fixed tangible assets	466	490	638	1.030	1.461	1.704	1.898	1.846	1.772	1.855
Intangible assets (incl. Goodwill)	477	478	507	644	812	1.034	1.243	1.380	1.496	1.545
Other non-current assets	166	239	277	212	401	253	381	381	381	381
<b>Total Assets</b>	<b>3.085</b>	<b>3.732</b>	<b>5.298</b>	<b>6.327</b>	<b>7.959</b>	<b>7.066</b>	<b>7.689</b>	<b>8.209</b>	<b>8.051</b>	<b>8.592</b>
Creditors	1.342	2.055	3.488	4.182	4.387	3.004	3.822	4.248	3.876	4.250
Short-term debt	51	11	25	109	12	4	6	6	7	7
Other current liabilities	50	32	73	42	145	24	42	42	42	42
Long-term debt	441	163	125	14	339	910	914	914	1.063	1.013
Other long-term liabilities	239	350	399	393	534	370	329	329	329	329
<b>Total liabilities</b>	<b>2.123</b>	<b>2.611</b>	<b>4.110</b>	<b>4.740</b>	<b>5.417</b>	<b>4.312</b>	<b>5.113</b>	<b>5.539</b>	<b>5.317</b>	<b>5.641</b>
Shareholders' equity (incl. Min.)	962	1.121	1.188	1.587	2.542	2.754	2.576	2.670	2.735	2.951
<b>Total liabilities and equity</b>	<b>3.085</b>	<b>3.732</b>	<b>5.298</b>	<b>6.327</b>	<b>7.959</b>	<b>7.066</b>	<b>7.689</b>	<b>8.209</b>	<b>8.052</b>	<b>8.592</b>
Net debt	357	-271	-614	-39	-137	579	545	759	847	804
Working Capital	448	-7	-449	55	265	712	-72	151	262	303



## STANDALONE VALUATION

## Gamesa Corporación Tecnológica

Discounted Cash Flow Model										
Values in EURm	2012	2013	2014	2015	2016	2017	2018	2019	2020	Stable
<b>Revenues</b>	<b>3.013</b>	<b>2.668</b>	<b>3.217</b>	<b>3.601</b>	<b>3.889</b>	<b>4.200</b>	<b>4.536</b>	<b>4.831</b>	<b>5.145</b>	<b>5.248</b>
COGS	1.928	1.708	2.027	2.251	2.411	2.604	2.812	2.995	3.190	3.254
<b>Gross Profit</b>	<b>1.085</b>	<b>960</b>	<b>1.190</b>	<b>1.350</b>	<b>1.478</b>	<b>1.596</b>	<b>1.724</b>	<b>1.836</b>	<b>1.955</b>	<b>1.994</b>
%revenues	36,0%	36,0%	37,0%	37,5%	38,0%	38,0%	38,0%	38,0%	38,0%	38,0%
SG&A	914	725	920	1.027	1.078	1.152	1.231	1.318	1.359	1.411
%revenues	30,3%	27,2%	28,6%	28,5%	27,7%	27,4%	27,1%	27,3%	26,4%	26,9%
<b>EBIDTA</b>	<b>171</b>	<b>235</b>	<b>270</b>	<b>323</b>	<b>400</b>	<b>444</b>	<b>493</b>	<b>518</b>	<b>596</b>	<b>583</b>
D&A	120	139	160	181	186	192	198	204	210	216
<b>EBIT</b>	<b>51</b>	<b>96</b>	<b>109</b>	<b>142</b>	<b>214</b>	<b>252</b>	<b>295</b>	<b>314</b>	<b>386</b>	<b>367</b>
% of revenues	1,7%	3,6%	3,4%	5,0%	5,5%	6,5%	7,5%	7,2%	7,2%	7,2%
Taxes	14	27	31	40	60	71	83	88	108	103
% of EBIT	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%
<b>NOPLAT</b>	<b>37</b>	<b>69</b>	<b>78</b>	<b>102</b>	<b>154</b>	<b>181</b>	<b>212</b>	<b>226</b>	<b>278</b>	<b>264</b>
+D&A	120	139	160	181	186	192	198	204	210	216
%revenues	4,0%	5,2%	5,0%	5,0%	4,8%	4,6%	4,4%	4,2%	4,1%	4,1%
-CAPEX	229	216	205	195	176	181	186	192	198	203
%revenues	7,6%	8,1%	6,4%	5,4%	4,5%	4,3%	4,1%	4,0%	3,8%	3,9%
- WC Investment	-123	-277	365	59	88	97	104	111	118	121
										<b>Terminal Value</b>
<b>FCFF (Free Cash Flow Firm)</b>	<b>51</b>	<b>269</b>	<b>-332</b>	<b>29</b>	<b>77</b>	<b>96</b>	<b>120</b>	<b>127</b>	<b>172</b>	<b>156</b>
<b>Free Cash Flow Discounted</b>	<b>46</b>	<b>225</b>	<b>-254</b>	<b>20</b>	<b>49</b>	<b>56</b>	<b>64</b>	<b>62</b>	<b>1.187</b>	
<b>Enterprise Value</b>	<b>1.457</b>									
Net Debt	688									
<b>Equity Value</b>	<b>769</b>									
n° of shares (m)	248,0									
<b>Value per share (EUR)</b>	<b>3,10</b>									
<b>Parameters</b>										
WACC	9,32%									
Long-term growth	3%									

## Vestas Wind Systems

Discounted Cash Flow Model											
Values in EURm	2012	2013	2014	2015	2016	2017	2018	2019	2020	Stable	
Revenues	7.585	6.569	7.590	7.894	8.209	8.538	8.879	9.234	9.604	9.892	
COGS	6.523	5.641	6.431	6.473	6.567	6.403	6.659	6.926	7.203	7.419	
<b>Gross Profit</b>	<b>1.062</b>	<b>928</b>	<b>1.159</b>	<b>1.421</b>	<b>1.642</b>	<b>2.134</b>	<b>2.220</b>	<b>2.309</b>	<b>2.401</b>	<b>2.473</b>	
%revenues	14,0%	14,1%	15,3%	18,0%	20,0%	25,0%	25,0%	25,0%	25,0%	25,0%	
SG&A	419	306	295	554	672	1.116	1.064	1.050	1.369	1.410	
%revenues	14,0%	14,1%	15,3%	18,0%	20,0%	25,0%	25,0%	25,0%	25,0%	25,0%	
EBIDTA	643	622	864	867	970	1.018	1.156	1.258	1.032	1.063	
D&A	465	488	518	465	493	512	533	554	576	594	
<b>EBIT</b>	<b>178</b>	<b>134</b>	<b>346</b>	<b>402</b>	<b>478</b>	<b>506</b>	<b>623</b>	<b>704</b>	<b>456</b>	<b>470</b>	
% of revenues	2,3%	2,0%	4,6%	5,0%	5,0%	5,6%	5,6%	6,0%	6,0%	5,0%	
Taxes	50	38	97	113	134	142	174	197	128	132	
% of EBIT	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	
<b>NOPLAT</b>	<b>128</b>	<b>96</b>	<b>249</b>	<b>290</b>	<b>344</b>	<b>364</b>	<b>448</b>	<b>507</b>	<b>328</b>	<b>338</b>	
+D&A	465	488	518	465	493	512	533	554	576	594	
%revenues	6,1%	7,4%	6,8%	5,9%	6,0%	6,0%	6,0%	6,0%	6,0%	6,0%	
-CAPEX	550	530	650	538	556	574	593	612	633	652	
%revenues	7,3%	8,1%	8,6%	6,8%	6,8%	6,7%	6,7%	6,6%	6,6%	6,6%	
Working Capital	151	262	303	316	328	342	355	369	384	396	
% of revenues	2,0%	4,0%	4,0%	4,0%	4,0%	4,0%	4,0%	4,0%	4,0%	4,0%	
- WC Investment	223	111	41	19	19	20	22	19	16	13	
										Terminal Value	
<b>FCFF (Free Cash Flow Firm)</b>	<b>0</b>	<b>-180</b>	<b>-57</b>	<b>76</b>	<b>198</b>	<b>261</b>	<b>282</b>	<b>367</b>	<b>430</b>	<b>255</b>	<b>267</b>
<b>Free Cash Flow Discounted</b>	<b>-165</b>	<b>-47</b>	<b>58</b>	<b>139</b>	<b>167</b>	<b>165</b>	<b>196</b>	<b>211</b>	<b>2.010</b>		
<b>Enterprise Value</b>	<b>2.735</b>										
Net Debt	545										
<b>Equity Value</b>	<b>2.190</b>										
n° of shares (m)	203,7										
<b>Value per share (EUR)</b>	<b>10,75</b>										
<b>Parameters</b>											
WACC	9,32%										
Long-term growth	3%										

## MERGED FIRM VALUATION

### COMBINED FIRM Valuation (without synergies) - Discounted Cash Flow Model

Values in EUR m		2012	2013	2014	2015	2016	2017	2018	2019	2020	Stable
Revenues	Vestas	7.585	6.569	7.590	7.894	8.209	8.538	8.879	9.234	9.604	9.892
	Gamesa	3.013	2.668	3.217	3.601	3.889	4.200	4.536	4.831	5.145	5.248
	<b>Total</b>	<b>10.598</b>	<b>9.237</b>	<b>10.807</b>	<b>11.495</b>	<b>12.098</b>	<b>12.738</b>	<b>13.415</b>	<b>14.065</b>	<b>14.749</b>	<b>15.140</b>
COGS	Vestas	6.523	5.641	6.431	6.473	6.567	6.403	6.659	6.926	7.203	7.419
	Gamesa	1.928	1.708	2.027	2.251	2.411	2.604	2.812	2.995	3.190	3.254
	<b>Total</b>	<b>8.451</b>	<b>7.349</b>	<b>8.458</b>	<b>8.723</b>	<b>8.979</b>	<b>9.007</b>	<b>9.472</b>	<b>9.921</b>	<b>10.393</b>	<b>10.673</b>
<b>Gross Profit</b>		<b>2.147</b>	<b>1.888</b>	<b>2.349</b>	<b>2.771</b>	<b>3.120</b>	<b>3.731</b>	<b>3.944</b>	<b>4.144</b>	<b>4.356</b>	<b>4.467</b>
% revenues		20,3%	20,4%	21,7%	24,1%	25,8%	29,3%	29,4%	29,5%	29,5%	29,5%
SG & A	Vestas	419	306	295	554	672	1.116	1.064	1.050	1.369	1.410
	Gamesa	914	725	920	1.027	1.078	1.152	1.231	1.318	1.359	1.411
	<b>Total</b>	<b>1.333</b>	<b>1.031</b>	<b>1.215</b>	<b>1.581</b>	<b>1.749</b>	<b>2.268</b>	<b>2.295</b>	<b>2.368</b>	<b>2.728</b>	<b>2.821</b>
% revenues		12,6%	11,2%	11,2%	13,8%	14,5%	17,8%	17,1%	16,8%	18,6%	18,6%
<b>EBIDTA</b>		<b>814</b>	<b>857</b>	<b>1.134</b>	<b>1.190</b>	<b>1.370</b>	<b>1.463</b>	<b>1.648</b>	<b>1.776</b>	<b>1.628</b>	<b>1.647</b>
% revenues		7,7%	9,3%	10,5%	10,4%	11,3%	11,5%	12,3%	12,6%	11,0%	10,9%
D & A	Vestas	465	488	518	465	493	512	533	554	576	594
	Gamesa	120	139	160	181	186	192	198	204	210	216
	<b>Total</b>	<b>585</b>	<b>627</b>	<b>678</b>	<b>646</b>	<b>679</b>	<b>704</b>	<b>731</b>	<b>758</b>	<b>786</b>	<b>810</b>
% revenues		5,5%	6,8%	6,3%	5,6%	5,6%	5,5%	5,4%	5,4%	5,3%	5,3%
<b>EBIT</b>		<b>229</b>	<b>230</b>	<b>456</b>	<b>544</b>	<b>691</b>	<b>758</b>	<b>918</b>	<b>1.018</b>	<b>842</b>	<b>837</b>
% of revenues		2,2%	2,5%	4,2%	4,7%	5,7%	6,0%	6,8%	7,2%	5,7%	5,5%
Taxes		64	64	128	152	194	212	257	285	236	234
% of EBIT		28%	28%	28%	28%	28%	28%	28%	28%	28%	28%
<b>NOPLAT</b>		<b>165</b>	<b>166</b>	<b>328</b>	<b>392</b>	<b>498</b>	<b>546</b>	<b>661</b>	<b>733</b>	<b>606</b>	<b>603</b>
+D&A	Vestas	465	488	518	465	493	512	533	554	576	594
	Gamesa	120	139	160	181	186	192	198	204	210	216
	<b>Total</b>	<b>585</b>	<b>627</b>	<b>678</b>	<b>646</b>	<b>679</b>	<b>704</b>	<b>731</b>	<b>758</b>	<b>786</b>	<b>810</b>
% revenues		5,5%	6,8%	6,3%	5,6%	5,6%	5,5%	5,4%	5,4%	5,3%	5,3%
-CAPEX	Vestas	550	530	650	538	556	574	593	612	633	652
	Gamesa	229	216	205	195	176	181	186	192	198	203
	<b>Total</b>	<b>779</b>	<b>746</b>	<b>855</b>	<b>733</b>	<b>732</b>	<b>755</b>	<b>779</b>	<b>804</b>	<b>831</b>	<b>855</b>
% revenues		7,4%	8,1%	7,9%	6,4%	6,0%	5,9%	5,8%	5,7%	5,6%	5,7%
- WC Investment	Vestas	223	111	41	19	19	20	22	19	16	13
	Gamesa	-123	-277	365	59	88	97	104	111	118	121
	<b>Total</b>	<b>100</b>	<b>-166</b>	<b>406</b>	<b>78</b>	<b>107</b>	<b>117</b>	<b>126</b>	<b>130</b>	<b>134</b>	<b>133</b>
% revenues		0,9%	-1,8%	3,8%	0,7%	0,9%	0,9%	0,9%	0,9%	0,9%	0,9%

Terminal Value

<b>FCFF (Free Cash Flow Firm)</b>	<b>-129</b>	<b>213</b>	<b>-255</b>	<b>227</b>	<b>338</b>	<b>378</b>	<b>486</b>	<b>557</b>	<b>427</b>	<b>424</b>	<b>6.703</b>
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<b>Free Cash Flow Discounted</b>	<b>-118</b>	<b>178</b>	<b>-195</b>	<b>159</b>	<b>217</b>	<b>222</b>	<b>260</b>	<b>273</b>	<b>3.197</b>		
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<b>Enterprise Value</b>	<b>4.193</b>
Net Debt	1.233
<b>Equity Value</b>	<b>2.960</b>
n° of shares (m)	451,7
<b>Value per share (EUR)</b>	<b>6,55</b>

<b>Parameters</b>	
WACC	9,32%
Long-term growth	3%

<b>COMBINED FIRM Valuation (with synergies) - Discounted Cash Flow Model</b>										
<b>Values in EURm</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Stable</b>
<b>Revenues</b>	<b>10.598</b>	<b>9.237</b>	<b>10.807</b>	<b>11.495</b>	<b>12.160</b>	<b>12.865</b>	<b>13.894</b>	<b>15.006</b>	<b>16.206</b>	<b>15.140</b>
COGS	8.451	7.349	8.458	8.723	9.023	9.391	9.726	10.204	11.020	10.598
<b>Gross Profit</b>	<b>2.147</b>	<b>1.888</b>	<b>2.349</b>	<b>2.771</b>	<b>3.137</b>	<b>3.474</b>	<b>4.168</b>	<b>4.802</b>	<b>5.186</b>	<b>4.542</b>
%revenues	20,3%	20,4%	21,7%	24,1%	25,8%	27,0%	30,0%	32,0%	32,0%	30,0%
SG&A	1.333	1.031	1.215	1.581	1.763	2.161	2.293	2.401	2.593	2.574
%revenues	12,6%	11,2%	11,2%	13,8%	14,5%	16,0%	16,0%	15,5%	15,0%	16,5%
<b>EBIDTA</b>	<b>814</b>	<b>857</b>	<b>1.134</b>	<b>1.190</b>	<b>1.374</b>	<b>1.312</b>	<b>1.876</b>	<b>2.401</b>	<b>2.593</b>	<b>1.968</b>
%revenues	7,7%	9,3%	10,5%	10,4%	11,3%	10,2%	13,5%	16,0%	16,0%	13,0%
D&A	585	627	678	646	682	643	695	750	810	757
<b>EBIT</b>	<b>229</b>	<b>230</b>	<b>456</b>	<b>544</b>	<b>692</b>	<b>669</b>	<b>1.181</b>	<b>1.651</b>	<b>1.783</b>	<b>1.211</b>
% of revenues	2,2%	2,5%	4,2%	4,7%	5,7%	5,2%	8,5%	11,0%	11,0%	8,0%
Taxes	64	64	128	152	194	187	331	462	499	339
% of EBIT	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%
<b>NOPLAT</b>	<b>165</b>	<b>166</b>	<b>328</b>	<b>392</b>	<b>498</b>	<b>482</b>	<b>850</b>	<b>1.188</b>	<b>1.284</b>	<b>872</b>
+D&A	585	627	678	646	682	643	695	750	810	757
%revenues	5,5%	6,8%	6,3%	5,6%	5,6%	5,0%	5,0%	5,0%	5,0%	5,0%
-CAPEX	779	746	855	733	735	708	695	750	648	757
%revenues	7,4%	8,1%	7,9%	6,4%	6,0%	5,5%	5,0%	5,0%	4,0%	5,0%
-WC Investment	100	-166	406	78	107	117	126	130	134	133
%revenues	0,9%	-1,8%	3,8%	0,7%	0,9%	0,9%	0,9%	0,9%	0,9%	0,9%
<b>FCFF (Free Cash Flow Firm)</b>	<b>-129</b>	<b>213</b>	<b>-255</b>	<b>227</b>	<b>338</b>	<b>300</b>	<b>724</b>	<b>1.058</b>	<b>1.311</b>	<b>739</b>
<b>Free Cash Flow Discounted</b>	<b>-118</b>	<b>178</b>	<b>-195</b>	<b>159</b>	<b>216</b>	<b>176</b>	<b>388</b>	<b>519</b>	<b>5.830</b>	
<b>Enterprise Value</b>	<b>7.153</b>									
Net Debt	1.233									
<b>Equity Value</b>	<b>5.920</b>									
n° of shares (m)	451,7									
<b>Value per share (EUR)</b>	<b>13,11</b>									
<b>Parameters</b>										
WACC	9,32%									
Long-term growth	3%									

Terminal Value

11.690

<b>COMBINED FIRM Valuation (with synergies) - Discounted Cash Flow Model</b>										
<b>Values in EURm</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Stable</b>
<b>Revenues</b>	<b>10.598</b>	<b>9.237</b>	<b>10.807</b>	<b>11.495</b>	<b>12.160</b>	<b>12.865</b>	<b>13.894</b>	<b>15.006</b>	<b>16.206</b>	<b>15.140</b>
COGS	8.451	7.349	8.458	8.723	9.023	9.391	9.726	10.204	11.020	10.598
<b>Gross Profit</b>	<b>2.147</b>	<b>1.888</b>	<b>2.349</b>	<b>2.771</b>	<b>3.137</b>	<b>3.474</b>	<b>4.168</b>	<b>4.802</b>	<b>5.186</b>	<b>4.542</b>
%revenues	20,3%	20,4%	21,7%	24,1%	25,8%	27,0%	30,0%	32,0%	32,0%	30,0%
SG&A	1.333	1.031	1.215	1.581	1.763	2.161	2.293	2.401	2.593	2.574
%revenues	12,6%	11,2%	11,2%	13,8%	14,5%	16,8%	16,5%	16,0%	16,0%	17,0%
<b>EBIDTA</b>	<b>814</b>	<b>857</b>	<b>1.134</b>	<b>1.190</b>	<b>1.374</b>	<b>1.312</b>	<b>1.876</b>	<b>2.401</b>	<b>2.593</b>	<b>1.968</b>
%revenues	7,7%	9,3%	10,5%	10,4%	11,3%	10,2%	13,5%	16,0%	16,0%	13,0%
D&A	585	627	678	646	682	643	695	750	810	757
<b>EBIT</b>	<b>229</b>	<b>230</b>	<b>456</b>	<b>544</b>	<b>692</b>	<b>669</b>	<b>1.181</b>	<b>1.651</b>	<b>1.783</b>	<b>1.211</b>
% of revenues	2,2%	2,5%	4,2%	4,7%	5,7%	5,2%	8,5%	11,0%	11,0%	8,0%
Taxes	64	64	128	152	194	187	331	462	499	339
% of EBIT	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%
<b>NOPLAT</b>	<b>165</b>	<b>166</b>	<b>328</b>	<b>392</b>	<b>498</b>	<b>482</b>	<b>850</b>	<b>1.188</b>	<b>1.284</b>	<b>872</b>
+D&A	585	627	678	646	682	643	695	750	810	757
%revenues	5,5%	6,8%	6,3%	5,6%	5,6%	5,0%	5,0%	5,0%	5,0%	5,0%
-CAPEX	779	746	855	733	735	708	695	750	648	757
%revenues	7,4%	8,1%	7,9%	6,4%	6,0%	5,5%	5,0%	5,0%	4,0%	5,0%
-WC Investment	100	-166	406	78	107	117	126	130	134	133
%revenues	0,9%	-1,8%	3,8%	0,7%	0,9%	0,9%	0,9%	0,9%	0,9%	0,9%
<b>FCFF (Free Cash Flow Firm)</b>	<b>-129</b>	<b>213</b>	<b>-255</b>	<b>227</b>	<b>338</b>	<b>300</b>	<b>724</b>	<b>1.058</b>	<b>1.311</b>	<b>739</b>
<b>Free Cash Flow Discounted</b>	<b>-118</b>	<b>179</b>	<b>-196</b>	<b>161</b>	<b>219</b>	<b>179</b>	<b>395</b>	<b>530</b>	<b>6.215</b>	
<b>Enterprise Value</b>	<b>7.562</b>									
Net Debt	1.233									
<b>Equity Value</b>	<b>6.329</b>									
n° of shares (m)	451,7									
<b>Value per share (EUR)</b>	<b>14,01</b>									
<b>Parameters</b>										
WACC	9,04%									
Long-term growth	3%									
										<b>Terminal Value</b>
										<b>12.232</b>

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