

# Developing Business with European Collaboration

## Policy Imperatives & associated challenges

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## SUZLON A fact file....



- Indian company, started operations in 1995
- 5<sup>th</sup> largest wind turbine manufacturer of the world with market share of 6.1% in CY 2005
- Market Capitalisation of US\$ 9-10 billion dollars
- First to introduce multi-MW sized wind turbines in India
- Technology Knowledge hubs in Europe (Netherlands, Germany, Belgium)
- Major inroads into international markets, viz. US, China, S. Korea & Australia



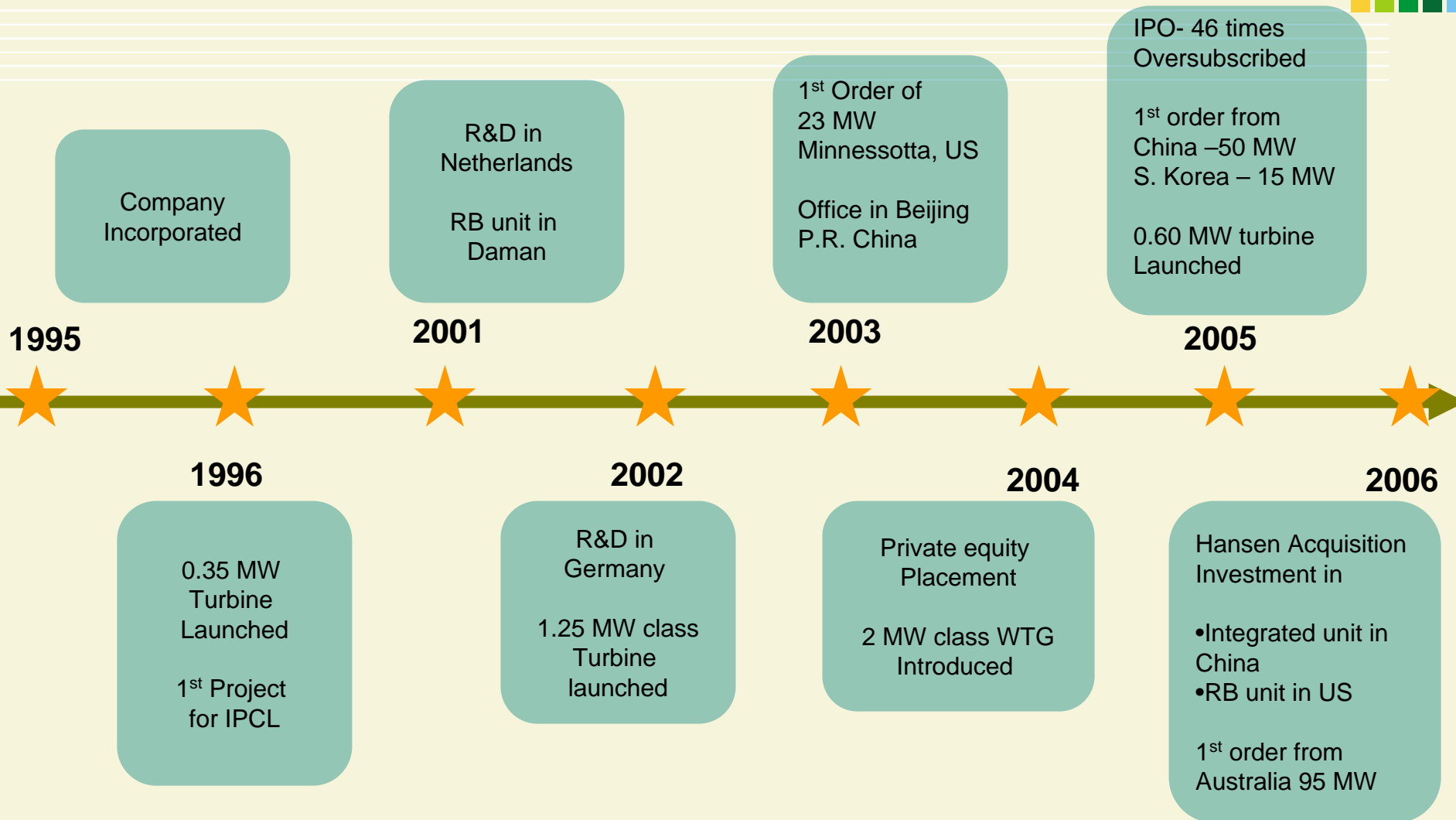
## ... the Indian Multinational



- Provides integrated wind energy solutions in Indian market place
- Backward integration for critical components
- Largest market share in India, for the past 8 consecutive years
- Employee strength of 8,500 + (1500 overseas)
- Second largest overseas acquisition by an Indian company
  - Hansen Transmission, Belgium (~ 560 US\$ million dollars)
- Vast product range : 350 kW to 2.1 MW
- Production facilities spread in India, P.R. China & US
- Bagged one of the largest wind turbine supply order in US & Australia



# Milestones crossed





# Challenges for developing Business with EU collaborations



# Trade barriers faced by SUZLON in early days



- Procurement of intermediate components in global & domestic market
  - EU based wind companies had an inherent advantage of getting intermediate components at a cheaper rate through global sourcing
  - Technology transfer happened on the final product, but not on intermediate components
  - One of the largest bottle-neck was rotor blade
    - Monopolistic market emerging in India
  - Problems in dealing with international vendors
    - “India” outlook
    - Not known entity – resistance transcending into higher costs



# SUZLON's strategy



- To reduce cost and dependence
  - Backward integration in a must
  - Upgradation of Indian vendors to supply components with high quality
  - Establishment and strengthening of overseas R&D units
    - To get the best technology in parlance with global standards
  - Establishment of communication linkages with R&D units and Indian vendors



**Backward Integration to Control Supply Chain  
and Reduce Costs**  
*Quality, Reliability and Service Security*



In-house manufacturing of key components

- **Rotor Blades: CY 2000**
- **Control Systems: CY 2004**
- **Nacelle Covers: CY 2004**
- **Tubular Towers: CY 2005**
- **Generators: CY 2005**
- **Gearbox : CY 2006**

Benefits

- **Optimized Technology Development**
- **Supply Control**
- **Low Manufacturing Cost**
- **Improved Quality Control**
- **Improved Service Support**
- **Total control over future technological development**



## Newer avenues for collaboration



# Renewable Portfolio Standards and Feed-In Tariffs



- Electricity Act 2003 requires state Electricity Regulatory Commissions to:
  - mandate minimum amount of electricity from renewables that must be procured by utilities, and
  - Establish preferential tariffs for this procurement
- Eleven Electricity Regulatory Commissions have mandated procurement percentages and tariffs
- This has led to increased investments in site development and in manufacturing-capacity enhancement



# Analysis of market models in the changing regulatory scenario



- **Pre-EA 2003**
  - Industries been overcharged by SEBs
  - Wheeling & Banking at nominal rates pushed 'captive market model', and 'third party sales model' in wind energy
    - Viz. TN, Gujarat
- **Post- EA 2003**
  - Section 86(i)e favors "sell to DISCOM" model
    - Various SERC have fixed percentage & 'procurement tariff'
  - Liberalization of 'captive', 'open access', 'transparency', and rationalisation of 'tariff', will reduce the rates of Industrial segment – however will take some time (say 3-4 years)



# Status of section 86(i)e in India

- Mandates RPS framework by SERC



State	Status of RPS Regulation	Minimum Quantum
MP	Final Regulation	0.5% Wind
Karnataka	Final Regulation	5-10%
Orissa	Final Regulation	3% (Wind+Hydro)
Gujarat	Final Regulation	2%
Rajasthan	Order issued	6%
UP	Order issued	7.5%
AP	Final Regulation	5%
Tamil Nadu	Order issued	10%
Kerala	Final Regulation	5% (wind+hydro)
Maharashtra	Final Regulation	3-6%
West Bengal	Final Regulation	3.8%
Himachal Pradesh & Haryana	Draft Regulation	- -



# EU-India collaborations



- Manufacturing & Supply Chain Management
  - At SME levels
- Utility level
  - Integration, Interconnectivity & dispatchability of wind energy in the power grid
- Policy level
  - Set-ups like that of RECs/RPS credits market
- ICT/Media
  - Dissemination of success stories (technical, policy, financial related) etc.
- Financing
  - Ideas and experience sharing about project financing (non-recourse based)



*Abstract qualities begin  
with capitals always:  
the True, the Good, the WIND ENERGY,  
the Beautiful - those are the things that  
pay*

with apologies to Lewis Carroll



**Thank you**