GLOBAL HEALTH SCIENCES

Indian Pharmaceutical Industry: Vision 2010

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Acknowledgement: E & Y

Vision 2010: Glimpse of Indian Pharma's Future

	R&D	Manufacturing	Marketing
Current State(2004)	• **NCE Research:** Early days, Limited pipeline of 18-20 NCEs • **Contract Research:** Custom Synthesis & Analytical services • **Clinical Research:** Emerging destination, about 1% of global trials	• **API/Bulk Sourcing:** Emerging sourcing base for MNCs	• **Global Distribution:** Mostly through alliances,
Threshold (2005)			
Future State(2010)	• at least 100 NCEs in various stages of development • **Contract Research:** High end drug discovery services • **Clinical Research:** At least 10 % of global trials	• **API/Bulk Sourcing:** Preferred supplier • **Contract Manufacturing:** top 3 global manufacturing sites, in patent protected molecules	• **Global Distribution:** Top 15-20 Indian players to have direct presence

Vision to Reality : What will get us there ?

- **Implementation of new product patent regime**
- **R&D Innovation**
- **Maximizing Generics (For Near Term Growth)**
- **Global outsourcing & partnering**

Implications of a strict product patent regime post 2005

- **higher domestic investment in basic R&D and discovery led research**

  -Higher probability of new therapies coming out of India in the future

- **MNCs to outsource R&D and manufacture of patented products**

  - Strong boost to FDI in pharma and domestic CRAMS industry

- **Collaborative Research involving IP sharing**

  - Indian partners will move up the value chain & will not be mere service providers

The economic fundamentals of new drug development are about to be altered radically in the future

A disease led approach to drug development will significantly reduce time and resources that are required

	Current Model	Future Model Targets
Time from Target Identification to Launch	10-12 years	~3-5 years
Pre-launch Cost of Development	~$800 million	<$200 million
Success Rate from Entry into Man	5-10%	50% or better

Source: IBM Consulting

Government Run Research Organisations: Industry Collaboration

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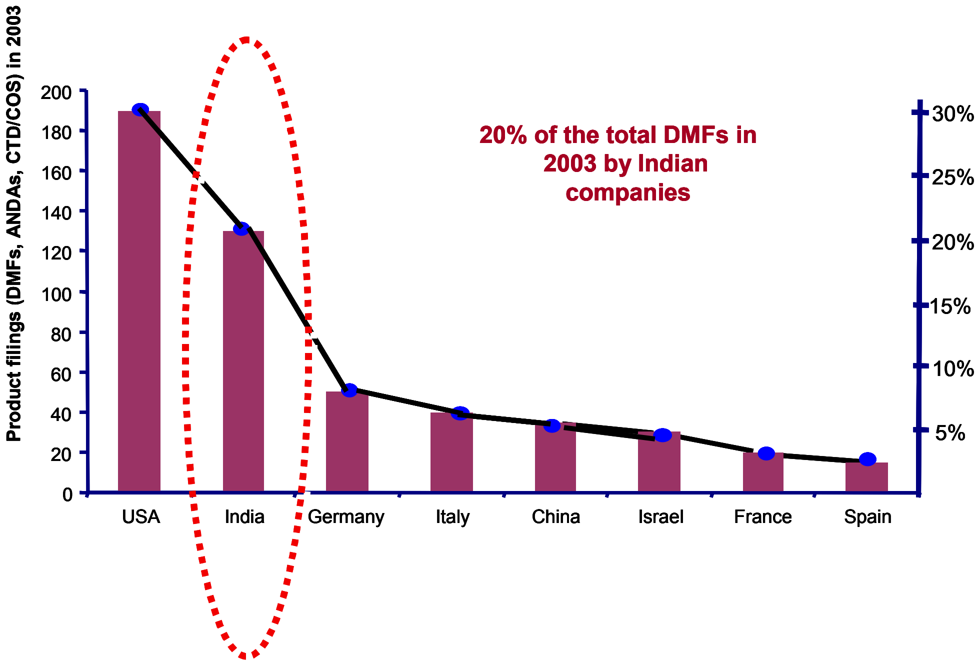
CDRI (Lucknow)	**IICT (Hyderabad)**	**CCMB (Hyderabad)**
Novo Nordisk, Denmark	Dr. Reddy's Laboratories, Hyderabad	Shantha Biotechnics Pvt. Ltd., Hyderabad
Krebs Biochemicals Ltd., Hyderabad	Lupin Laboratories, Mumbai	Dr. Reddy's Research Foundation, Hyderabad
Avon Organics Ltd., Hyderabad	Cadila Laboratories Ltd., Ahemdabad	Bangalore Genei Pvt. Ltd., Bangalore
Cipla Ltd., Mumbai	SOL Pharmaceuticals Ltd., Hyderabad	Dabur Research Foundation, Sahibabad
Dabur India Ltd., Ghaziabad	Neuland Laboratories, Hyderabad	Biological Evans Ltd., Hyderabad.
Duphar Interfran Ltd., Mumbai	Sun Pharmaceuticals Ltd., Mumbai	
Hindustan Latex Ltd., Thiruvananthapuram	Cipla Ltd., Mumbai	
IPCA Labs Ltd., Mumbai	Nectar Laboratories Ltd., Hyderabad	
Lupin Laboratories Ltd., Mumbai	Orchid Chemicals, Chennai	
Malladi Drugs & Pharmaceuticals, Chennai	Trident Labs Pvt. Ltd., Hyderabad	
Nicholas Piramal India Ltd., Mumbai	Unichem Labs Ltd., Mumbai	
Lumen Marketing Company, Chennai	Armour Chemicals Ltd., Mumbai	
Ranbaxy Laboratories Ltd., New Delhi	Bombay Drug House, Mumbai	
Themis Medicare Ltd., Mumbai	Cheminor Drugs Pvt. Ltd., Hyderabad	
Torrent Pharmaceuticals Ltd., Ahemdabad	Torrent Chemicals Ltd., Mumbai	
Unichem Laboratories Ltd., Mumbai	Coramandal Pharma, Hyderabad	
Wockhardt Ltd., Aurangabad.	IDPL, New Delhi	

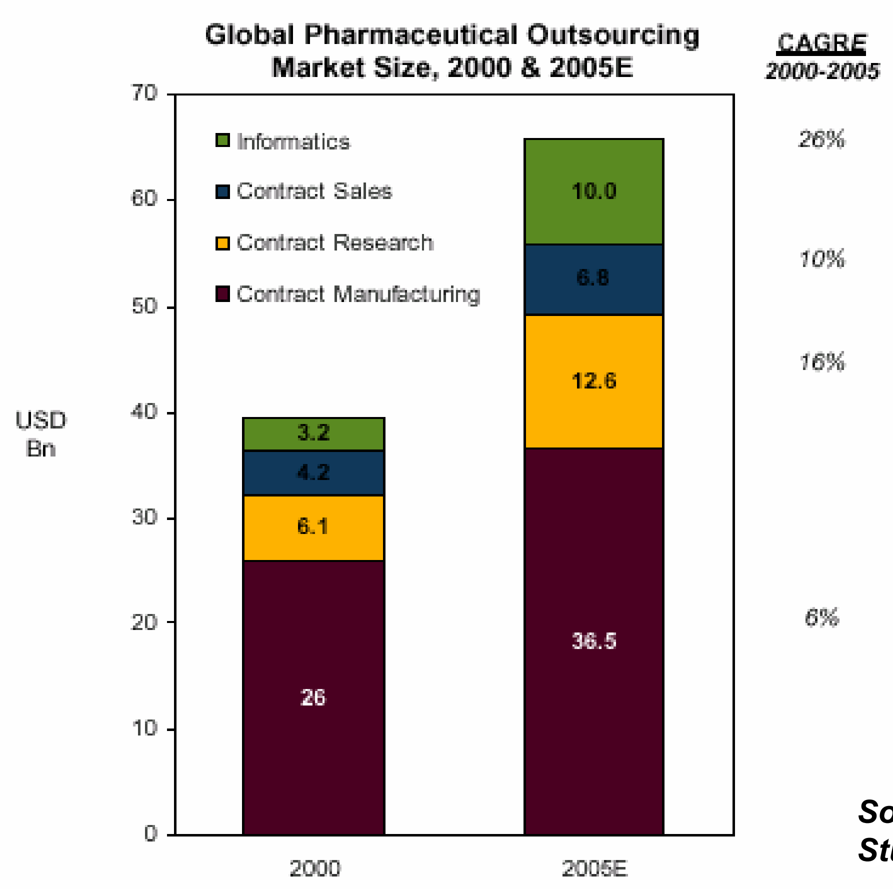
India is projected to corner about a third of the market by 2007

Large Indian pharma companies are joining the global league by leveraging their low cost cGMP manufacturing and focusing on regulated markets

India is the largest filer of DMFs outside the US



*Global Pharmaceutical **Outsourcing Market** estimated to exceed $65 bn by 2005…*



Source: OPPI- Monitor Group Study 2003

Leveraging India's Capabilities in Clinical Research…

Easy access to genetically diverse patient pool with varied disease profiles

Well trained medical professionals and clinical investigators with international exposure

Large number of CROS with capabilities to undertake ICH-GCP compliant studies

Translates into….

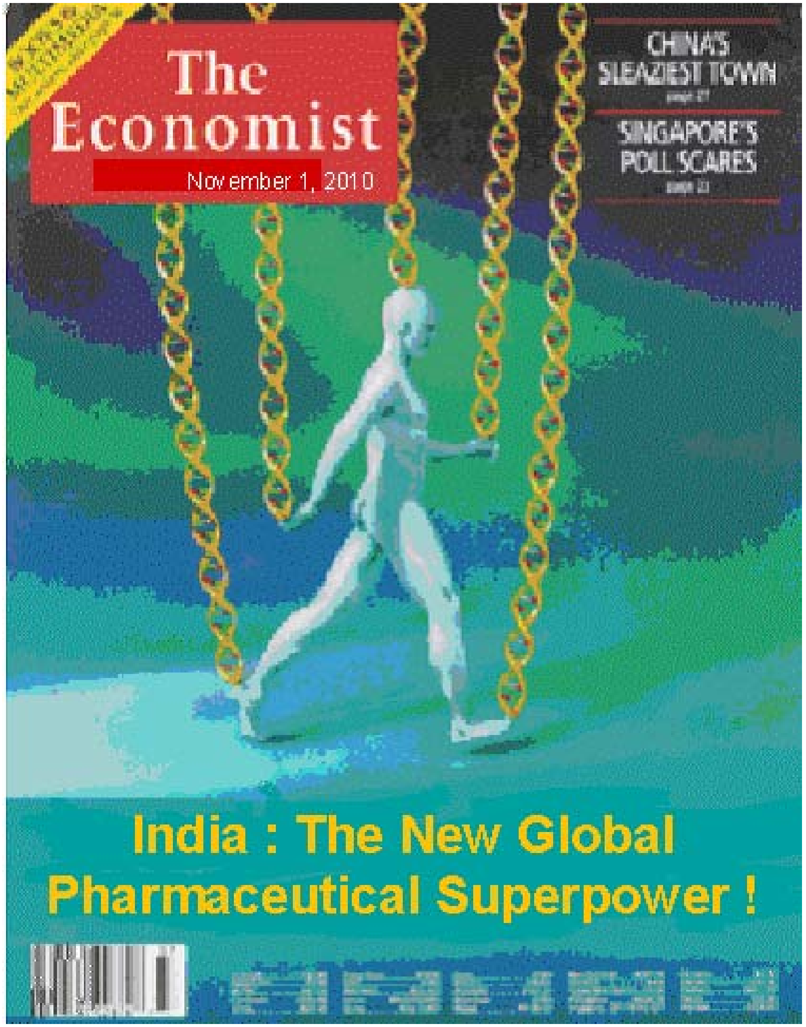
Higher speed & ease in recruiting large volume patients

Increasing international acceptance of Indian data

30-40% lower costs than the US /Europe

Indian Pharmaceutical Industry: Back to the Future !

5 years from today, could this be a possible cover story !!!



Thank You!!!