



European Business and Technology Centre



## Vibrant India – opportunities and challenges

[www.ebtc.eu](http://www.ebtc.eu)

- **Indian Business Context**
- **CSF for doing business in India**
- **EBTC Roles and Services**
- **Case studies**
- **Major Events**

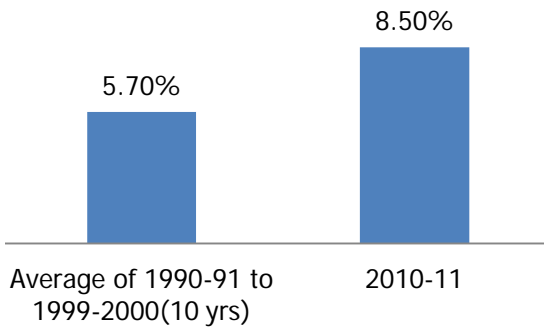




## Why India?

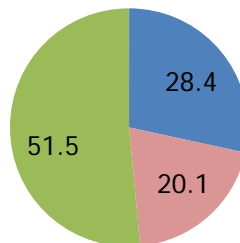
1. Stable political environment – largest democracy, Parliamentary Government
2. Population of 1.21 Billion, Census 2011 – strong domestic market
3. Transition from a closed to open economy in 1991 – unleashed growth potential

Overall Real GDP Growth



Journey to a Service Economy

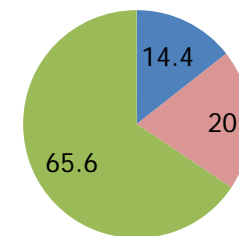
Average of 1990-91 to 1999-2000 (10 yrs)



■ Agricultural  
■ Industrial  
■ Services



Share in GDP -2010-11

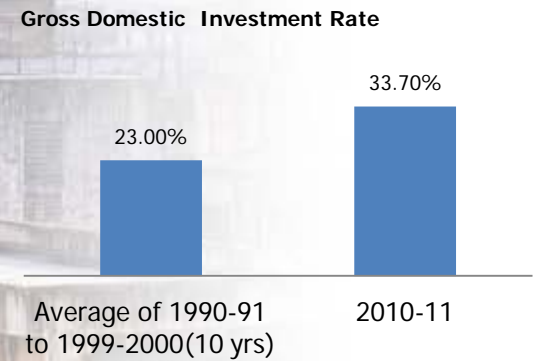
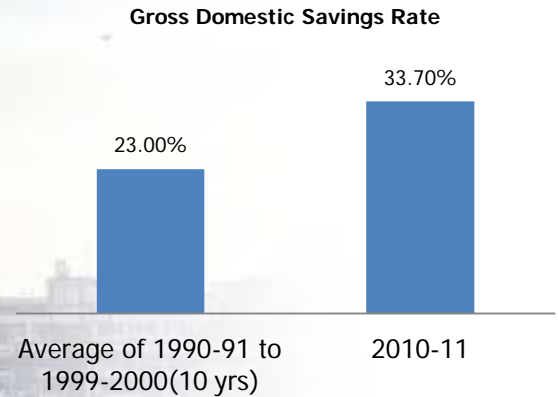


**Stable economic growth - survived the recent global recession**

Sources: [www.ibef.org](http://www.ibef.org), E&Y, RBI



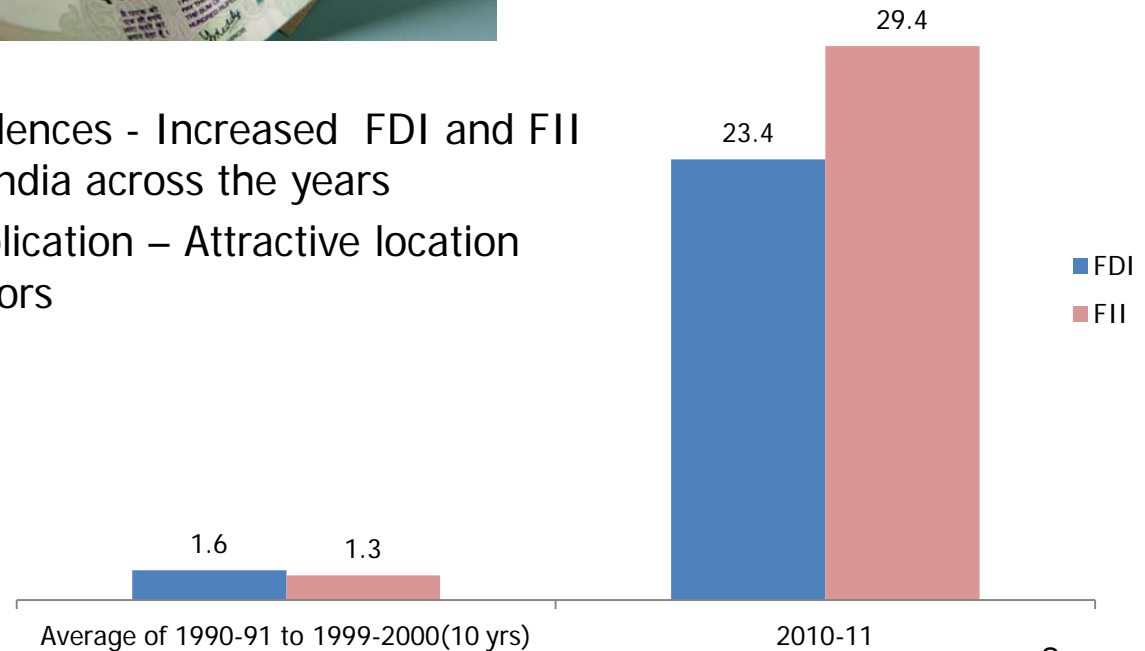
- High Potential to invest
- Evidence of Economic Development



Source: RBI



- Evidences - Increased FDI and FII to India across the years
- Implication – Attractive location factors

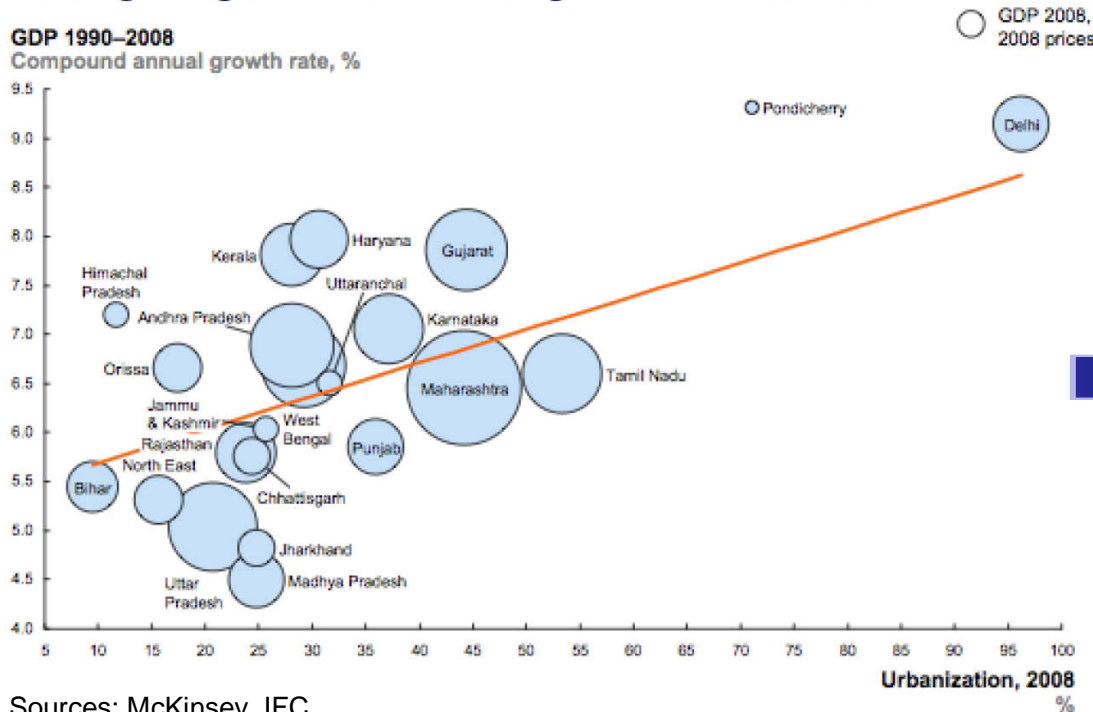


Source: RBI

## Urbanization

- The urban population expected to be close to 600 million by 2031.
- India will have 68 cities with a population of more than 1 million in next 20 years.
- 91 mln urban households will be middle-class by 2030, up from 22 mln today.

### Fastest-growing states also had the highest urbanization rates



**Urban India will drive national growth**

Sources: McKinsey, IFC

5 times GDP  
by 2030

70 percent new  
employment will be  
generated in cities

68 cities will have  
population of 1 million  
plus, up from 42  
today; Europe has 35  
today

590 million people  
living in cities, about  
10% more than the  
population of the EU  
today

91 million urban  
households will be  
middle class, up from  
22 million today

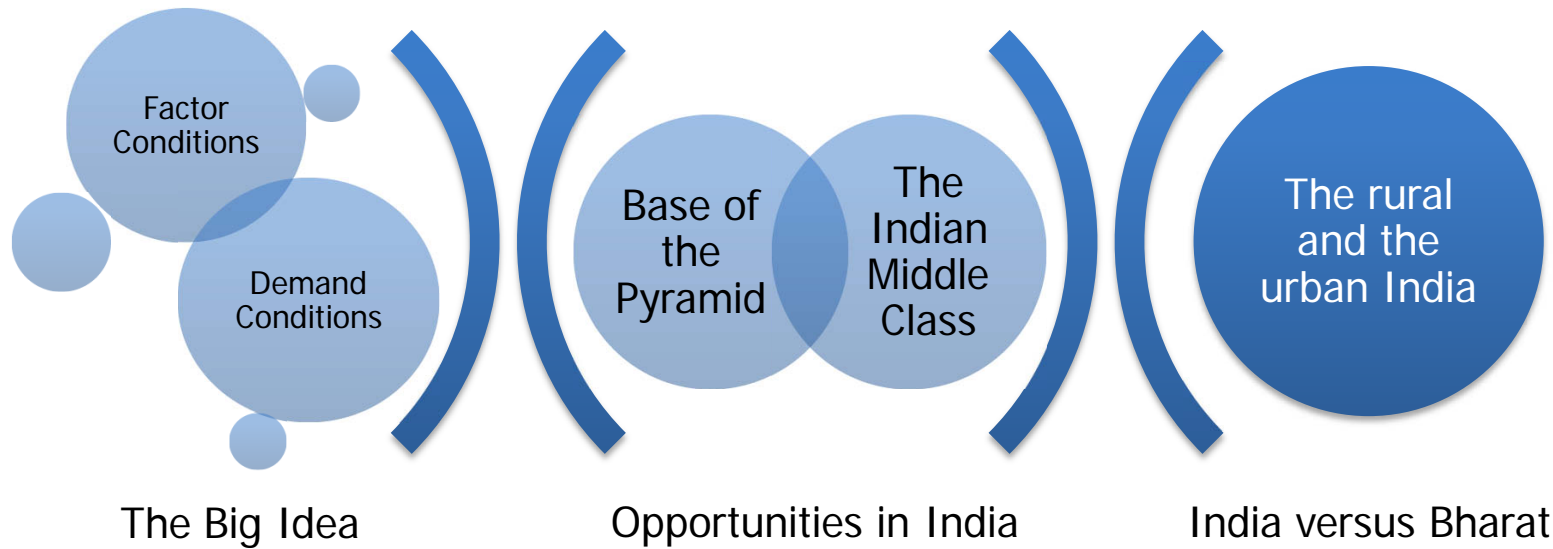
700-900 million square  
meters of commercial  
and residential space  
needs to be built – or a  
new Rome  
every year

270 million more people  
to enter working-age  
population

USD 1.2 trillion capital  
investment is necessary  
to meet projected  
demand in India's cities

2.5 billion square  
meters of roads will  
have to be paved, 20  
times the  
capacity added in the  
past decade

## India Macroeconomic Summary



Courtesy: IFC/ EBTC

## The Indian market is highly Regional



Courtesy: IFC/ EBTC

## Why is India so complex ?

- India is good at resource maximization
- Indian businesses have a way of making things differently and with minimal resources maybe because India is a poor country



Courtesy: IFC/ EBTC

## Innovation or Indo'vation

**Ind'ovation** commonly known in Hindi as **Jugaad** is a striking feature of the Indian business landscape.

It indicates the ingenuity to achieve results by out of box thinking, at times even temporary fixes.



Courtesy: IFC/ EBTC

# Critical Success Factors

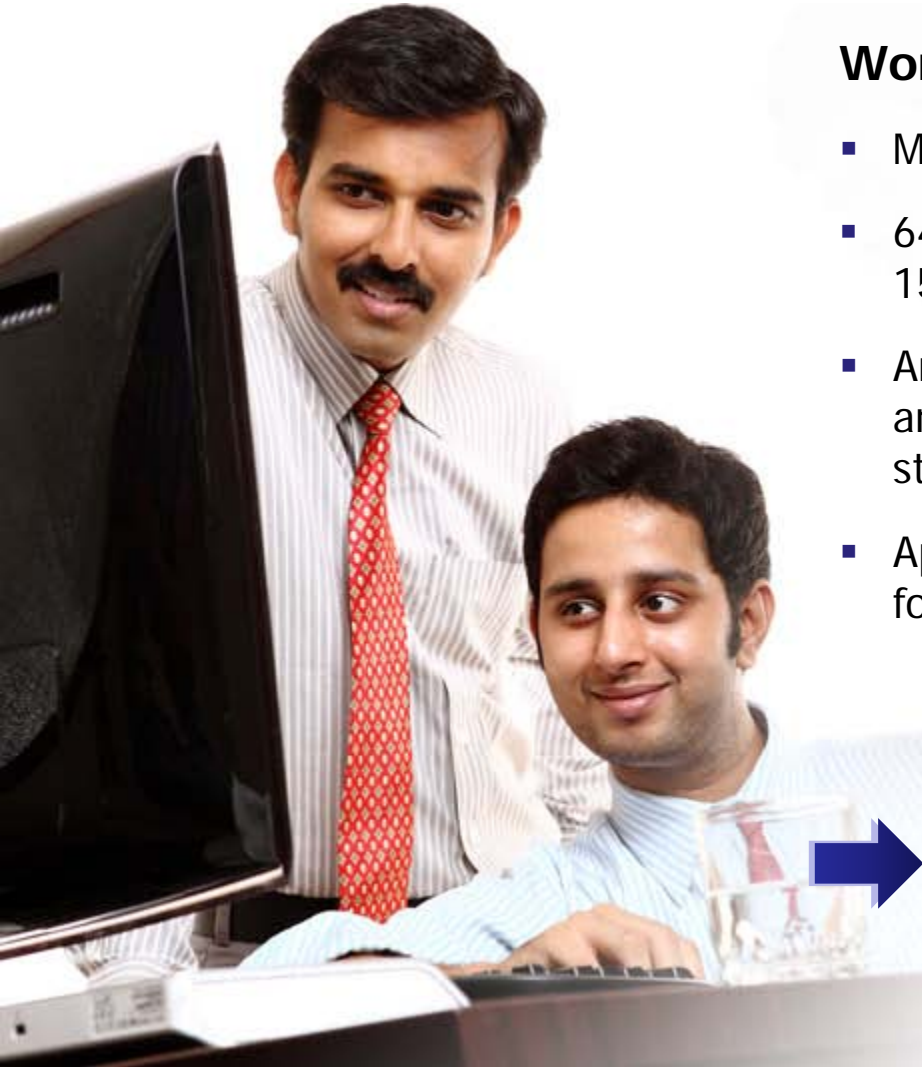
## Scale

- Indian Geography spans 3.29 sq km
- Population divide : 29% Urban, 71% rural
- Railways – 1,115,999 km
- Roadways -3,316,452 km
- Households – 240 mln

**Strong implications for businesses:  
implementing technologies and  
managing supply chains**



Sources: [www.ibef.org](http://www.ibef.org), E&Y



## Workforce

- Median age - 25.3 years.
- 64% of the population is the age group of 15 – 64 years.
- Around 400 universities, over 20,000 colleges and 7,000 technical institutions with 13 million students.
- Approximately, 13 million people enter work force every year.



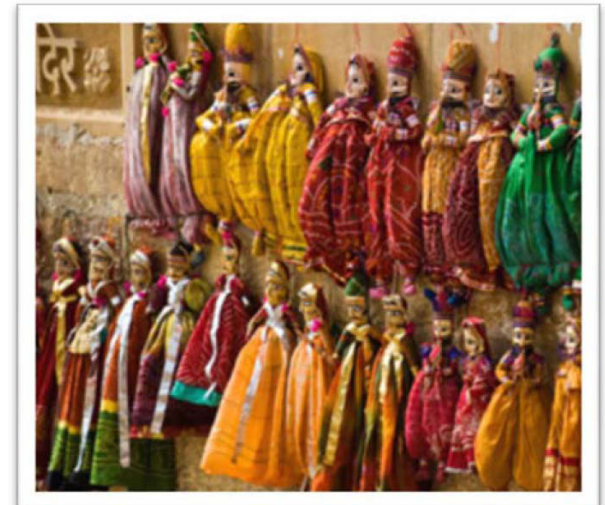
**Demographic Dividend or  
Demographic Burden?**

Sources: [www.ibef.org](http://www.ibef.org), E&Y

## Cross Cultural issues

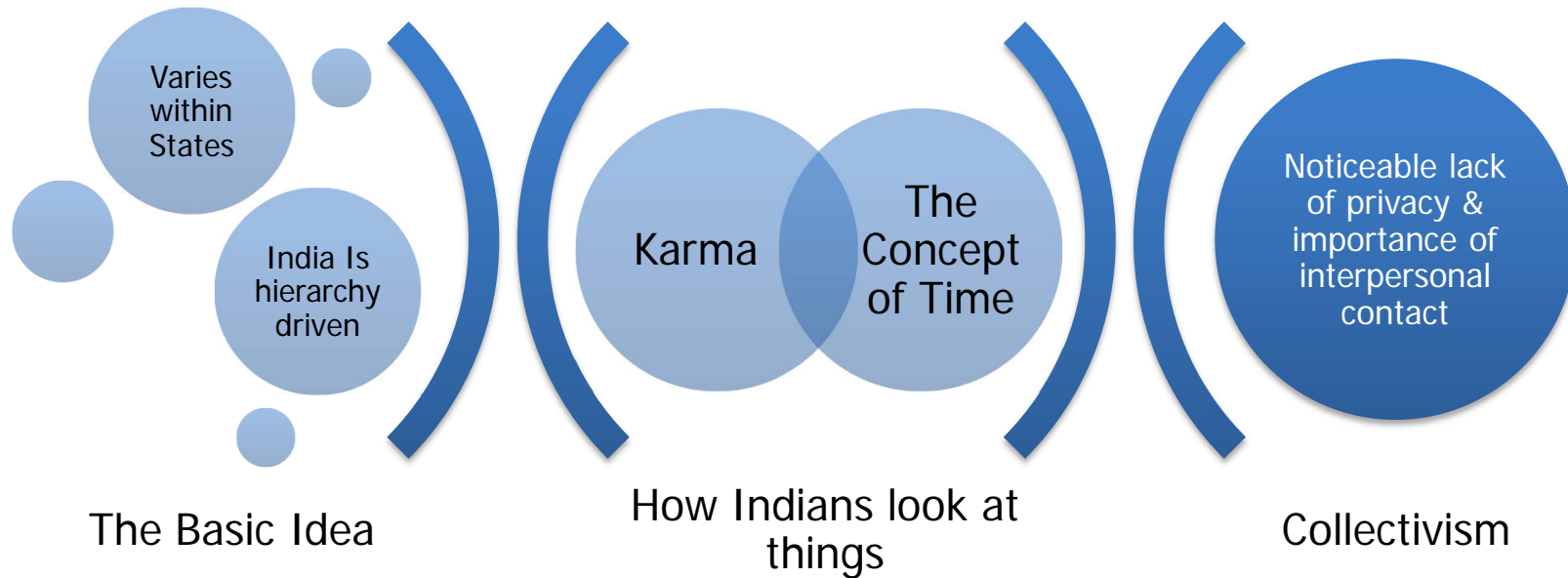
- Cultural differences between India and Europe
- Mindsets
- This has implications across all management functions and organization design.

 **Critical for developing cooperations**



Sources: [www.ibef.org](http://www.ibef.org), E&Y

## Cross Cultural issues - continued



- India needs to improve infrastructure and conducive business improvement. The actions in these are evident as:
  - India has set ambitious targets for more than US\$ 1 trillion to be invested in infrastructure over the Twelfth Five-Year period (2012-2017)
  - The Right to information Act is in place to address corruption issues
- The growing importance of including climate change concerns in economic activities The National Climate Change Action Plan – **Journey to a Low Carbon Economy**

Sources: [www.ibef.org](http://www.ibef.org), E&Y



- National Climate Change Action Plan
- 8 National Missions – National Solar Mission, National Mission for Energy Efficiency, National Mission for Sustainable Habitat, National Water Mission
- EBTC – Promoting Clean Technology from EU to India under the Umbrella of Climate Change
  - Business Platform
  - Research Platform



**EBTC will play an Important role in this Journey**



- The **European Business and Technology Centre (EBTC)** supports **EU cleantech companies and researchers** on their market entry to India and offers **hands-on support** in the early stages of expansion.
- Through its offices in **New Delhi, Mumbai, Bangalore and Kolkata**, EBTC is offering complete end-to-end solutions to clean technology companies who want to enter and be successful in the Indian market.
- EBTC's efforts focus on 4 key sectors – **Biotech, Energy, Environment and Transport** – all offering enormous scope for closer EU-India collaboration – be it in business, science or technology.

 **High growth market, dynamic sectors**

## EBTC's efforts focus on 4 key sectors – Biotech, Energy, Environment and Transport



### Biotechnology

- Biotech solutions to climate change
- Red, white and green biotech
- Bioinformatics



### Environment

- Water and waste water
- Solid waste
- Clean air
- Green building
- Green chemistry



### Energy

- Solar photo voltaic and solar thermal
- Wind
- Biomass / Bio energy
- Hydro power
- Clean coal
- Energy efficiency



### Transport

- Intelligent Transport System (ITS)
- Low carbon transport solutions
- Fuel cells
- Hybrid technologies



**Great opportunities for research collaboration**



- **Denmark** - Danish Technological Institute
- **Estonia** - Baltic Innovation Agency
- **France** - Lyon Chamber of Commerce and Industry
- **Finland** - Finpro
- **Germany** - Fraunhofer Institute for Factory Operation and Automation
- **Germany** - Steinbeis-Europa-Zentrum
- **Germany** - DII
- **Italy** - Piemonte Agency for Investments, Export and Tourism
- **Italy** - Politecnico di Torino
- **Italy** - Milan Chamber of Commerce
- **Italy** - Unioncamere Piemonte
- **UK** - Coventry & Warwickshire Chamber of Commerce
- **UK** - Coventry University Enterprises
- **UK** – Nucleus One
- **Spain** - Acc10
- **Sweden** - IVL Swedish Environmental Research Institute

 **Collaboration is the foundation**

- **Promoting EU business with a focus on innovation**

- Conception of Idea to doing Business in India
- Research to Business
  - Strong participation in Research to Business activities
- Cluster Collaboration
  - Developing grounds for continuous innovations in India



## Step 1

### Market Insight

- Guidance on doing business in India
- Information on regulatory framework
- Information on market access barriers
- Intellectual Property Rights (IPR)- Help desk
- Focused market reports



## Step 2

### Market Access Roadmap

- Screening of projects in India at national or state level
- Identification of potential business partners
- Design of market entry strategy
- Customised market intelligence

## Step 3

### Market Strategy Implementation

- Proactive incubation services to acclimatise with minimum risk and costs
- Hands-on-support in bidding for projects
- Assistance in finalising pilot projects
- Liaising with government and financial institutions



**EBTC services: taking European companies from the point of considering the Indian market to implementing their projects**

## Further Services/ Initiatives

- Identification of projects seeking technologies – Project Briefs
- Creating 'packaged' projects addressing hurdles
- Enterprise Europe Network (EEN)
- Still evolving !



- **Facilitate linkages (EU to India)**
  - Academia and Industry / Academia to Academia
- **Bridge Research Needs**
  - Based on regional resources of India and research strength of EU (Clean Technology Mapping being undertaken)
- **Coordination**
  - Research cooperation between different Institutions of EU and India; e.g. R&D activities identified in National Action Plan for Climate Change
  - Facilitate for forming smaller and medium sized projects and partner consortia that allow efficient coordination. e.g. public-private partnerships (PPPs), e.g. Joint Technology Initiatives (JTI), or projects involving joint programming
- **Demonstration projects**
  - Develop pipeline and coordination of Demonstration projects available with central and state research institutions.
  - Supporting global demonstration programmes e.g. large scale, high risk programmes like Carbon Capture and Storage (CCS) and Concentrated Solar Plants (CSP) due to multilateral platform
- **Intellectual Property Rights (IPR)**
  - To promote guidelines on the use of IP in international research cooperation.
- **Laboratory to Market movement**
  - Facilitate removal of barriers in basic and applied joint research between Indian and EU.



## **National Innovation Council of India launched EBTC Cluster Helpdesk EU-India Cluster Collaboration Platform**

### **Short Term**

- Increase mutual awareness on cluster policies development methods and management practices
- Facilitating in Europe and in India access to and contact with the appropriate stakeholders and understanding their respective research, innovation and industrial environments

### **Long Term**

- Provide Market entry Services
- Stakeholder in Technology Transfer
- Formation of Consortium for R&D
- New Product development in the Indian conditions
- Facilitate financial Closure

# Case Study 1

## Enzen Global (Bengaluru) and Ciel et Terre (France)



### Floating solar PV systems

- **EBTC's role:** partner research and identification, matchmaking, and facilitating the relationship.
- The issue of land availability is a global concern, and Ciel et Terre in their search for alternative solutions found that there were many unused water bodies.
- The floating solar PV system developed as a result, is an innovative approach that does not require valuable land for setting up solar power projects, as well as the added advantage of the attached aeration system treating and cleaning the water bodies.
- The patented technology by C&T is innovative, combining solar power generation with water treatment. Vast water resources such as water ponds, industrial reservoirs can be used, and the technology can also improve the quality of water.

# Case Study 2

## Enzen Water Solutions (Bengaluru) and Tech Sub (France)

### Rejuvenation and restoration of lakes and water bodies

- **EBTC role's:** partner research and identification, matchmaking, and facilitating the relationship.
- Enzen Water Solutions and Tech Sub, will jointly evaluate the opportunity of rejuvenation and restoration of lakes and water bodies in India.
- Share and promote technologies and solutions thereby implementing support programs for water quality improvement and conserving water bodies on an exclusive basis at select locations across the country.
- Equipped with the best standards for resource management and following the eco-friendly methods of restoration, they will be able to counter the eutrophisation of aquatic environments using renewable energies through this venture.
- The restoration of water bodies requires a sound knowledge of the environment and the ecosystem. This project will bring together all of the required skills to rehabilitate water bodies, ensuring complete, effective and long lasting solutions.

# Case Study 3

## Rafako (Poland) and Hari Machines (Kolkata)



### Delivery of 'Circulating Fluidised Bed Boilers.'

- **EBTC's role:** technical and business development expertise to facilitate a European-Indian cooperation which resulted in an agreement signed between Kolkata based Hari Machines Ltd. (India) and RAFAKO (Poland) for the delivery of 'Circulating Fluidised Bed Boilers.'

### RAFAKO:

- A leader in the European power generation equipment market and one of the largest European boiler manufacturers in Europe.
- Offering design and manufacturing of a wide range of boilers, RAFAKO supplies industrial and power boilers, as well as environmental systems, and more.
- Interested in adapting and delivering products to the Indian market, and also in modernization, up-grading and optimisation of their products.

### Hari Machines Ltd:

- Manufacturing, exporting and supplying world class heavy industrial machinery and equipment.
- Interests in heavy engineering and manufacturing, mineral processing solutions, boilers for power & process plants.

# Major Events 2012



- High-level Workshop on Public Procurement for best practices from Europe, New Delhi, February 2012.
- Energy Business & Research Delegation to Renewable Energy World Conference and Expo, New Delhi, April 2012
- Workshop on IPR in Biotech, Bangalore, April 2012
- Workshop on Renewable Energy - Research to Business, New Delhi, April 2012
- Biotech Business & Research Delegation, Bangalore, April/May 2012
- Water, Waste-treatment and Green Building Mission, New Delhi/Mumbai, April/May 2012
- Seminar on Sustainable Solutions for Jatropha-based Biofuels in India, Bangalore/ New Delhi , April/May 2012
- Transport Cluster Development event, Mumbai/Pune , June 2012
- Workshop of funding facilitation of projects with relevant and demanded EU technologies in India, Mumbai/Bangalore, June 2012
- Workshop and Roundtables joining energy and climate change issues with sustainable transport strategies, Mumbai, September 2012
- Seminar on utilisation of mini-grids, off grid energy solutions, New Delhi, September 2012
- Environment Business & Research Delegation, Mumbai, November 2012
- Transport Business & Research Delegation to Urban Mobility Conference cum Exhibition, New Delhi, 3-6 December 2012

# Thank You



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