

“INNOVATION & MANUFACTURING IN INDIA”

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Johnson & Johnson

Johnson & Johnson Medical (Asia
Pacific)



Topics of Discussion



- Innovation
- Creativity
- Entrepreneurship
- SWOT analysis for India



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Innovation



- Innovations in mainly 3 sectors
 - ✓ Distribution – reaching the masses
 - ✓ Education/ awareness
 - ✓ Product solutions



Innovation in Distribution

- Distribution – reaching the masses
 - ◆ Shakti
 - ◆ Disha
 - ◆ E-Chaupal



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Hindustan Unilever Limited

Shakti



Project Shakti – Hindustan Unilever Limited initiative

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Healthcare – Mobile Van



DISHA

Started with **Shankara Netralaya, Chennai, for Tele-Ophthalmology**
1.55 Lakh patients are benefited



Aravind Eye Hospital, Madurai
for Tele-Ophthalmology
80 Thousand patients are benefited



Dr. Mohan's Diabetic Research Foundation, Chennai for Tele-Diabetology & Eye Screening
5 Month's Old, 700 patients are benefited



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DISHA

DISHA - A MOBILE TELEMEDICINE INITIATIVE FOR RURAL HEALTH CARE

- Tele-Hospital, in Madurai & Theni Districts of TN
- Four party – venture : Philips, ISRO, Apollo, Dhan Foundation
- X-Ray, Ultra-Sound, Pathology, Toilet,
- Beginning of self-sustained efforts
- 100 Patient's per day



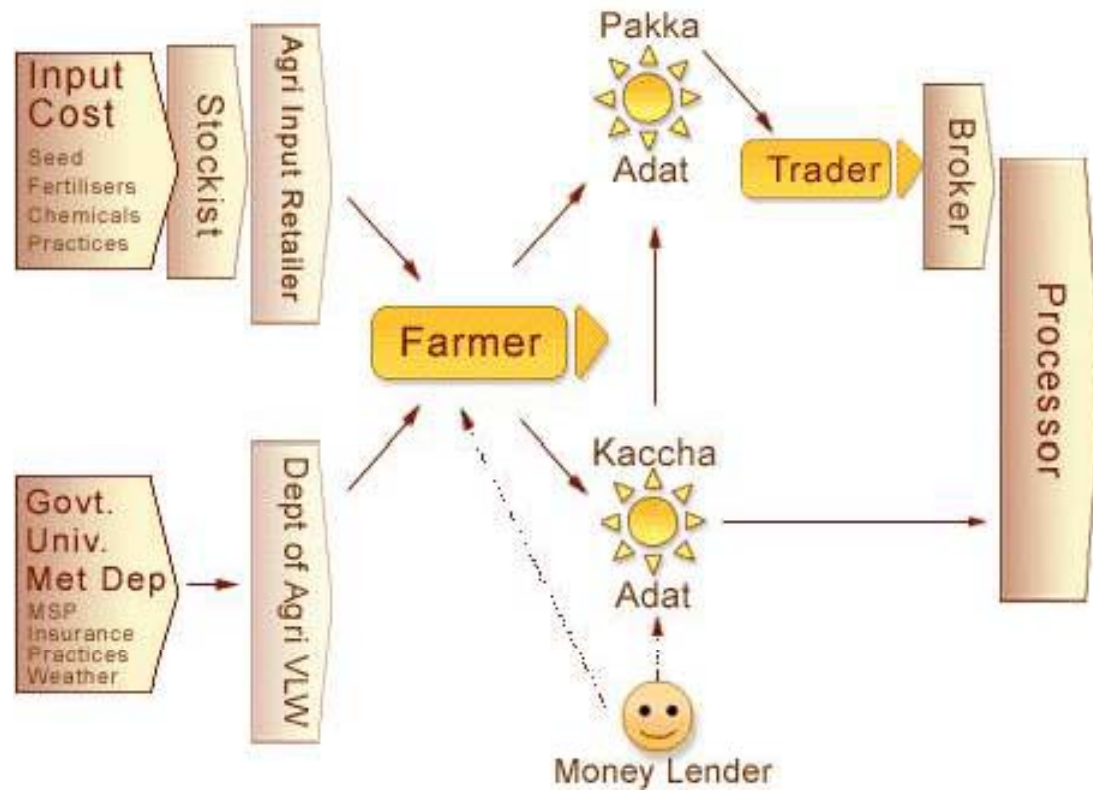
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e-Chaupal



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Innovation for a social cause

- Akshaypatra
 - ◆ The centralized kitchens
 - ◆ Technology-intensive
 - ◆ Can cook about 100,000 meals in less than five hours
 - ◆ Least human intervention and sustained quality.



Innovation in Education

- Education/ awareness
 - ◆ CBFL
 - ◆ Ekal Vidyalaya

CBFL

- TCS's functional literacy project
- Computer-Based Functional Literacy (CBFL) programme





Ekal Vidyalaya

At every level, the Ekal Vidyalaya movement seeks the participation of local people. Ekal Vidyalaya involves the village folk in the creation of the school, the selection of the teacher, and the adaptation of the curriculum and schedule. Ekal also recruits local people to coordinate training and other project-related issues at every level

6 YOUNG WORLD Kaleidoscope:
The Hindu dt 27.5.2008

School for everyone

They aim to send every child to school and are succeeding too!

JOHN L. PAUL

The concept of 'one-teacher school' might be hard to believe for children living in cities. Such schools manned by just one teacher are a luxury for children in remote tribal hamlets. The Friends of Tribals Society has given shape to 500 such schools in Kerala's Wayanad, Idukki, Pathanamthitta and Palakkad districts. The society says that it has helped give shape to 18,000 informal schools across the country.

With Kerala having regular schools in and around most remote areas, the Society is engaged in providing supportive education to children aged 5 to 12 years of age. The children are taught a syllabus that aims to ensure their health and hygiene, apart from providing them emotional support. Taking into account the fact that both children and adults in tribal areas are exploited and enticed by anti-social elements, the stress area is education and empowerment.

Holistic development

The FTS was founded in 1989 with the vision to build a platform to ensure the holistic (all-round development) and sustainable transformation of tribal people. It gets help from caretaker families and well-wishers. Under the one-teacher school



BETTER LEARNING: Educating young people.
PHOTO: S.S. KUMAR

programme, the Society helps reach education to the door step of children in remote areas. Each such school has around 20 students, with a youth from the locality taking classes. Community participation is ensured with the help of the village committee. Health workers from villages are trained to provide preventive medical care, mother and child care and assistance to Government agencies in health campaigns.

Aimed at making villagers economically self-reliant, training is given in organic farming, cultivating vegetables and flowers, tree planting and watershed management.

Sponsors adopt schools by paying Rs 11,000 every year for educational expenses of a school, Rs 5,000 as health expenses or Rs 365 each year per student. Apart from the immeasurable love of the children, they get frequent tidbits in the form of periodic progress reports about the school sponsored by them. People can also become FTS volunteers, sharing their skills. The organisation arranges group tours to tribal villages, so that people can have a first-hand experience about the rustic innocence and warmth of the kids.

Recently, the Kochi Refineries Limited gave an ambulance for the society's activities in Wayanad and Rs 20 lakh to open 20 schools in tribal hamlets.

For details, contact: 0484 2323874 or e-mail: ftsko-chin@yahoo.co.in. check www.ftaindia.com for more info.

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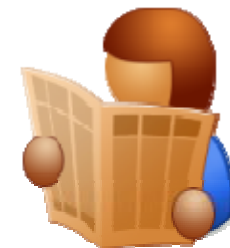
Innovation in Awareness

■ Awareness

◆ Can media play a role

★ TV, Radio, Newspapers, Internet

◆ Mobile phones





Innovation in Products

- Product solutions
 - ◆ Scorpio with Bio-Diesel
 - ◆ TATA nano
 - ◆ HP labs
- Medical Devices
 - ◆ Mac 400
 - ◆ Horizon
 - ◆ Advant 55



Scorpio with Bio-Diesel



The Scorpio with indigenously developed CRDE technology is the first Asian vehicle in its class to run on 100% bio-diesel. M&M also unveiled a 5% bio-diesel tractor along with the utility vehicles, another first in the country

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TATA nano

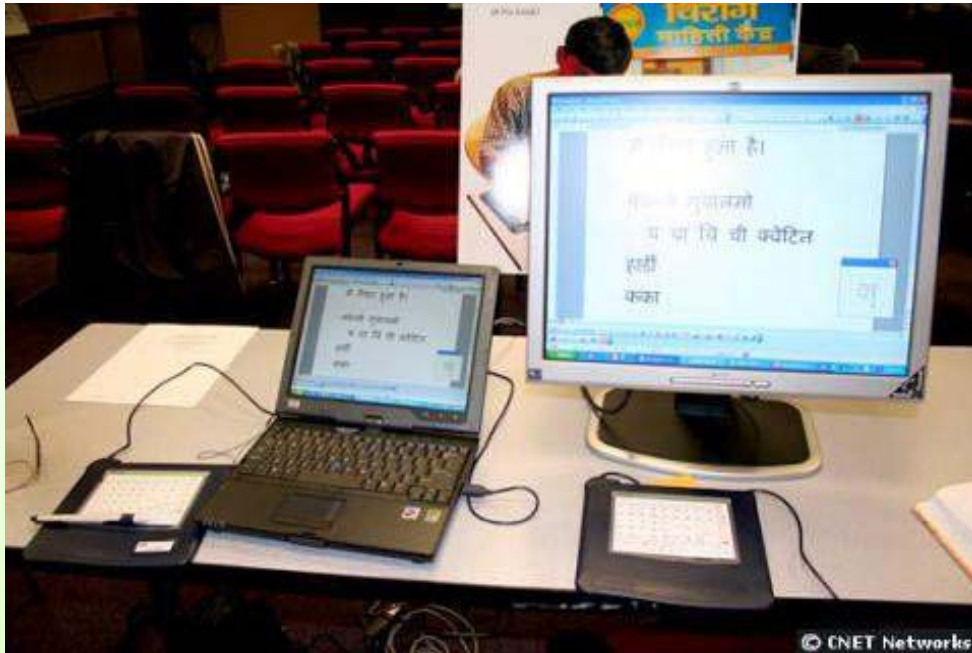


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Hewlette-Packard Labs India



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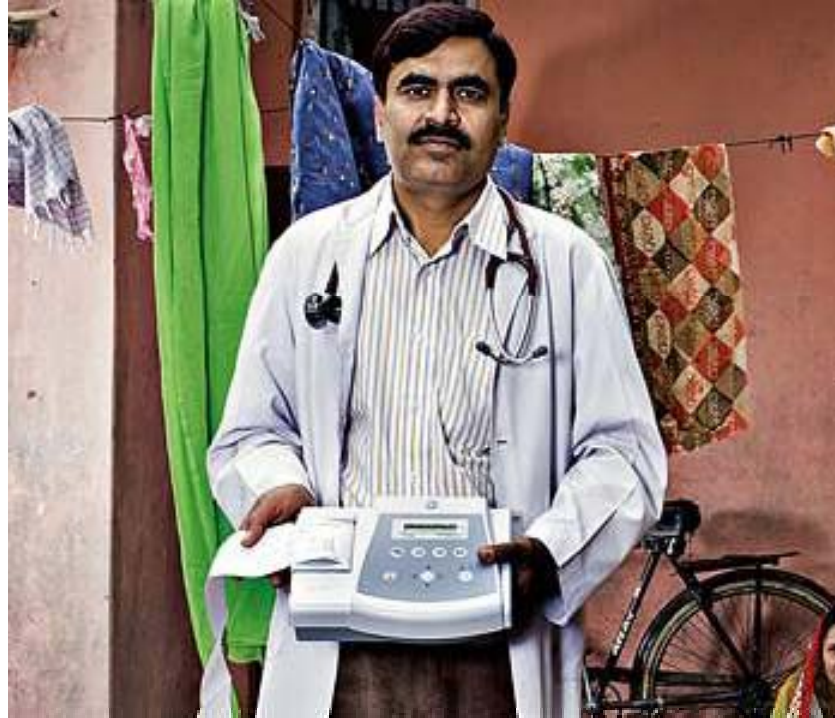
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Innovation in Medical Products - GE



Diagnostic ECG machine



Portable ECG machine
MAC 400

Innovation in Medical Devices – J&J



Product – Advant 55

Customer Need

- › Access to stapling technology
- › Affordable
- › User friendly

Innovation

- › Reusable and disposable combination
- › Changeable knife module
- › Ease of re-sterilization



Innovation in Medical Devices – J&J

LIFESCAN

Product: Horizon

Customer Need

- › Simple
- › Affordable

Innovation

- › Single button control
- › Small screen with large fonts
- › Elimination of memory circuit



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Manufacturing

- Very few accredited (ISO 13485) Medical Device manufacturing companies



- ◆ HCL
- ◆ Hindustan Latex
- ◆ Hindustan Syringes
- ◆ Transasia Bio-medicals
- ◆ BD
- ◆ GE
- ◆ Philips
- ◆ Flextronics
- ◆ J&J

- Limited opportunity

- Commercial Viability



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SWOT analysis for Medical Device Industry in India

Strengths

- ✓ Innovation / creativity / Entrepreneurship
- ✓ Skilled healthcare providers
- ✓ Related industry development
(Automobile, IT, Consumer Electronics)

Weaknesses

- ✓ Distribution
- ✓ Regulatory scenario
(clinical trials)
- ✓ Paying capacity
(lack of insurance coverage)
- ✓ Education and awareness in masses
- ✓ Talent for product development / manufacturing
- ✓ Preclinical facilities

Opportunities

- ✓ Special 2 year post graduate course in Medical devices
(Stanford -India biodesign)
- ✓ Accredited Design houses with prototyping facilities
- ✓ Dedicated Manufacturing Base
(Medical equipment ---> Medical devices)

Threats

- ✓ Better R&D facilities in China and Eastern Europe
- ✓ Infrastructure
- ✓ Intellectual Property scenario with respect to western countries

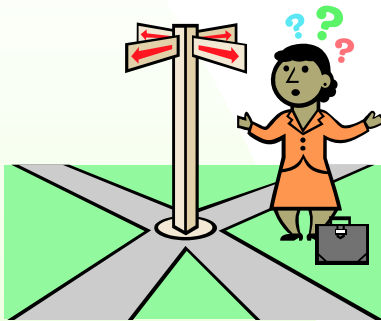
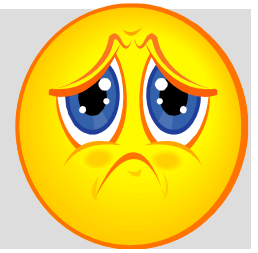
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Talent Creation

Corporate Sponsors

Abbott Laboratories

Boston Scientific

Edwards Life Sciences

Johnson & Johnson

Medtronic

St. Jude Medical

Stryker

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Biodesign offers innovative, hands-on courses that provide students with first hand experiences in medical device innovation.



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Threats



- Better Manufacturing facilities in China and Eastern Europe
- Infrastructure – Roads, Power
- Intellectual Property scenario with respect to western countries



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Regional R&D Center – J&J

We are the 'A³' TEAM

Affordability. Accessibility. Availability.



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Regional R&D Center – J&J

- A team of 25 engineers and scientists
- ISO 13485 certified Design and Development Center
- Scope from Voice of Customer to Post- Market Surveillance
- Focus on Emerging Markets
- Global Quality Standards
- Excellent relationship with surgeons and academia

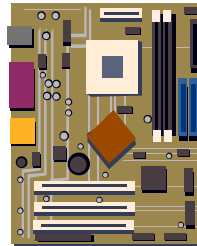




Summary

- Accessibility
- Availability
- Affordability
- Awareness

Innovation, Innovation & Innovation!!!



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Thank You



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