STRATEGY-STARTUP's-SUSTAINABILITY

Modionimics -2 : Post Covid-19 Atmanirbhar Make in India Business Opportunities
(Enablement - Employment - Economic Growth)

Dr E S RAO
Independent Director GMR Infra Ltd and DAIL
Former Chairman BoG MDI & ILD and IFCI Group
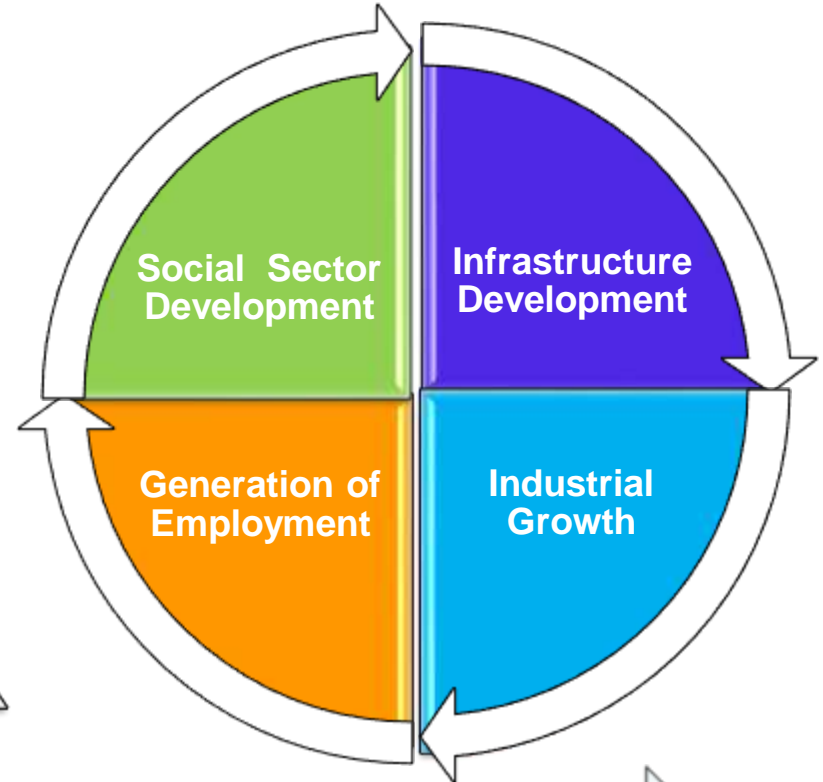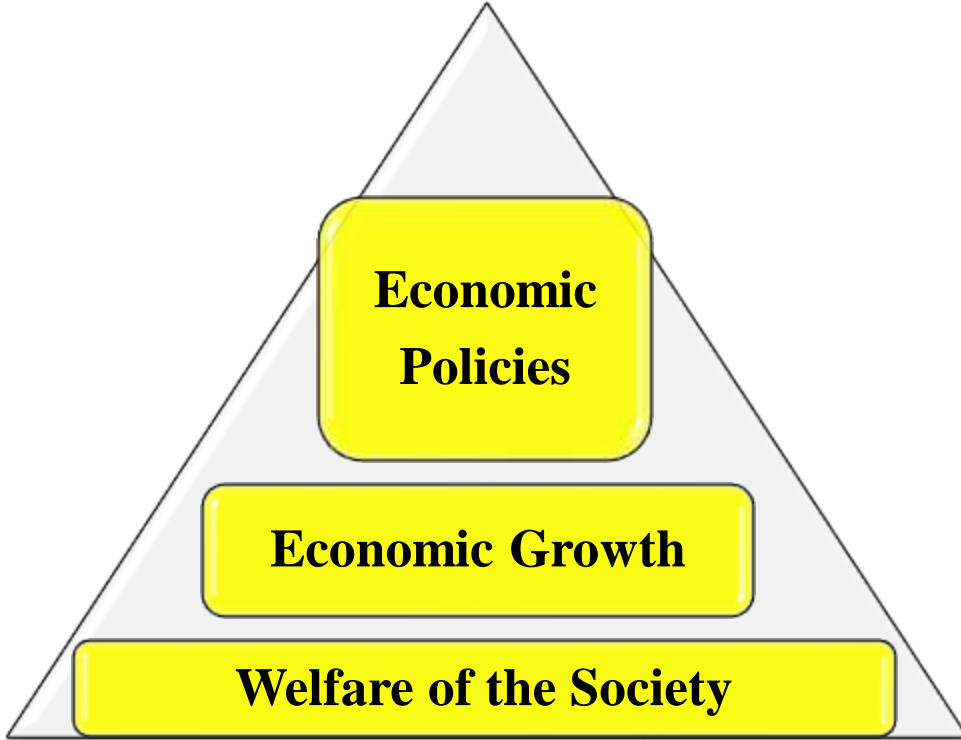**23rd Nov 2021**

Elements For Discussion

➢ Indian Economy, Infrastructure and Industry

➢ Policy, Regulation and Capital Formation

➢ Strategy & Innovation Case Studies :

  Power, Telecom, Legislative J&K, Cinema

➢ Innovative Startup's Case Studies :

  Education, Real Estate, Cinema and Agriculture

➢ Digital Economy-Technologies, Data Analytics & AI

  AI Case Studies : Agri Case Study and Hon'ble PM Speeches

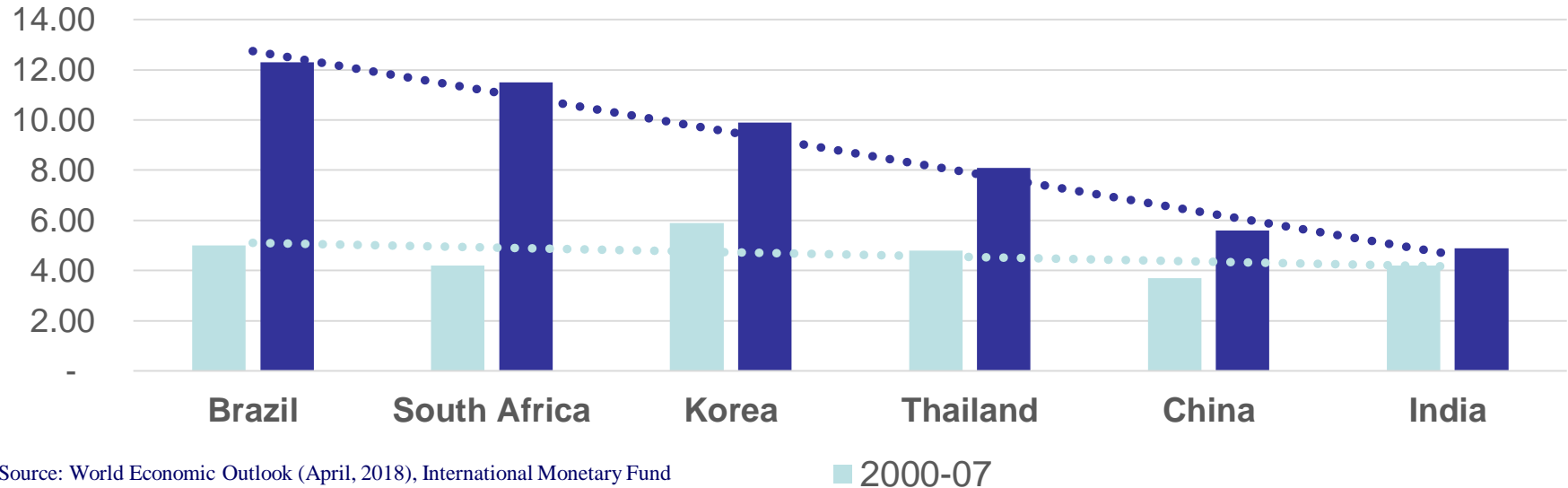➢ Skill Development: Re-Imaging and Re-Engineering

INDIA v/s OTHER EMERGING ECONOMIES - CAPTIAL to GROWTH

Incremental Capital to Output Ratio (ICOR)

Source: World Economic Outlook (April, 2018), International Monetary Fund

■ 2000-07

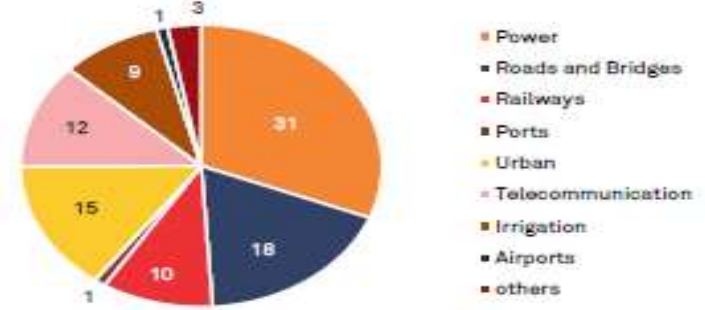❑ The Indian economy has witnessed low capital infusion in comparison to other emerging economies. The Incremental Capital to Output Ratio (ICOR) is on the lower side and also rate of growth of ICOR is lowest amongst the emerging economies under comparison.

❑ A DFI can successfully channelize the investments and household savings to propel the **'investment driven growth'** conceptualised in the **Economic Survey, 2019.**

INFRASTRUCTURE INVESTMENT PATTERN & SEGMENTS IN INDIA
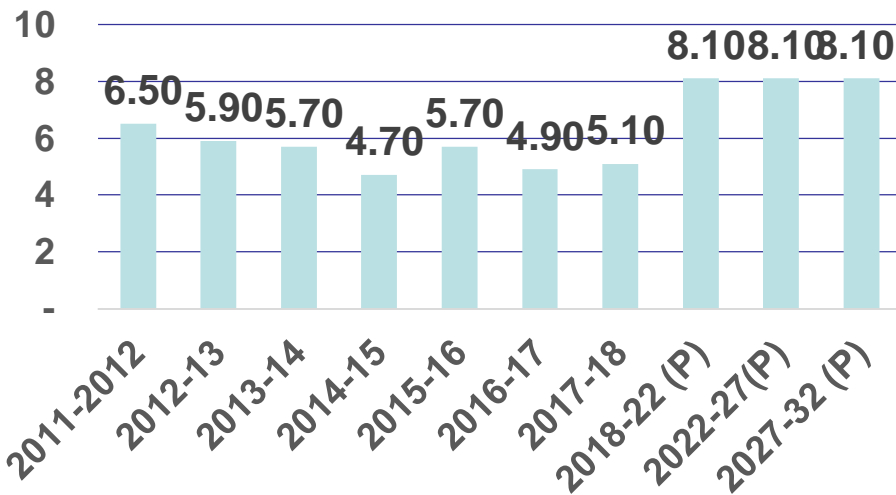
Infrastructure Investments Trend

Legend: Centre | State | Private | Total

Infra Spending as % to GDP

2011-2012	6.50
2012-13	5.90
2013-14	5.70
2014-15	4.70
2015-16	5.70
2016-17	4.90
2017-18	5.10
2018-22 (P)	8.10
2022-27(P)	8.10
2027-32 (P)	8.10

Sector wise % Share in Infrastructure Investments during Fiscals 2013-2019

Legend: Power | Roads and Bridges | Railways | Ports | Urban | Telecommunication | Irrigation | Airports | others

Source: Appraisal documents for five-year plans, CRIS estimates (Investments mentioned are at current prices)

- Power, Roads & Bridges, Telecommunications, Railways, Irrigation and Urban accounted for ~85% of the infrastructure investment in India during FY 2013-2019.
- NIP (2020-25) Rs 111 Lakh Crore Infra development along with private sector participation

Source: National Accounts Statistics, 2018; National Transport Development Policy Committee (2014)

Indian Story : Traditional Industry & Infrastructure
(Followed 60 years of 12 Five Year Economic Plans of India)
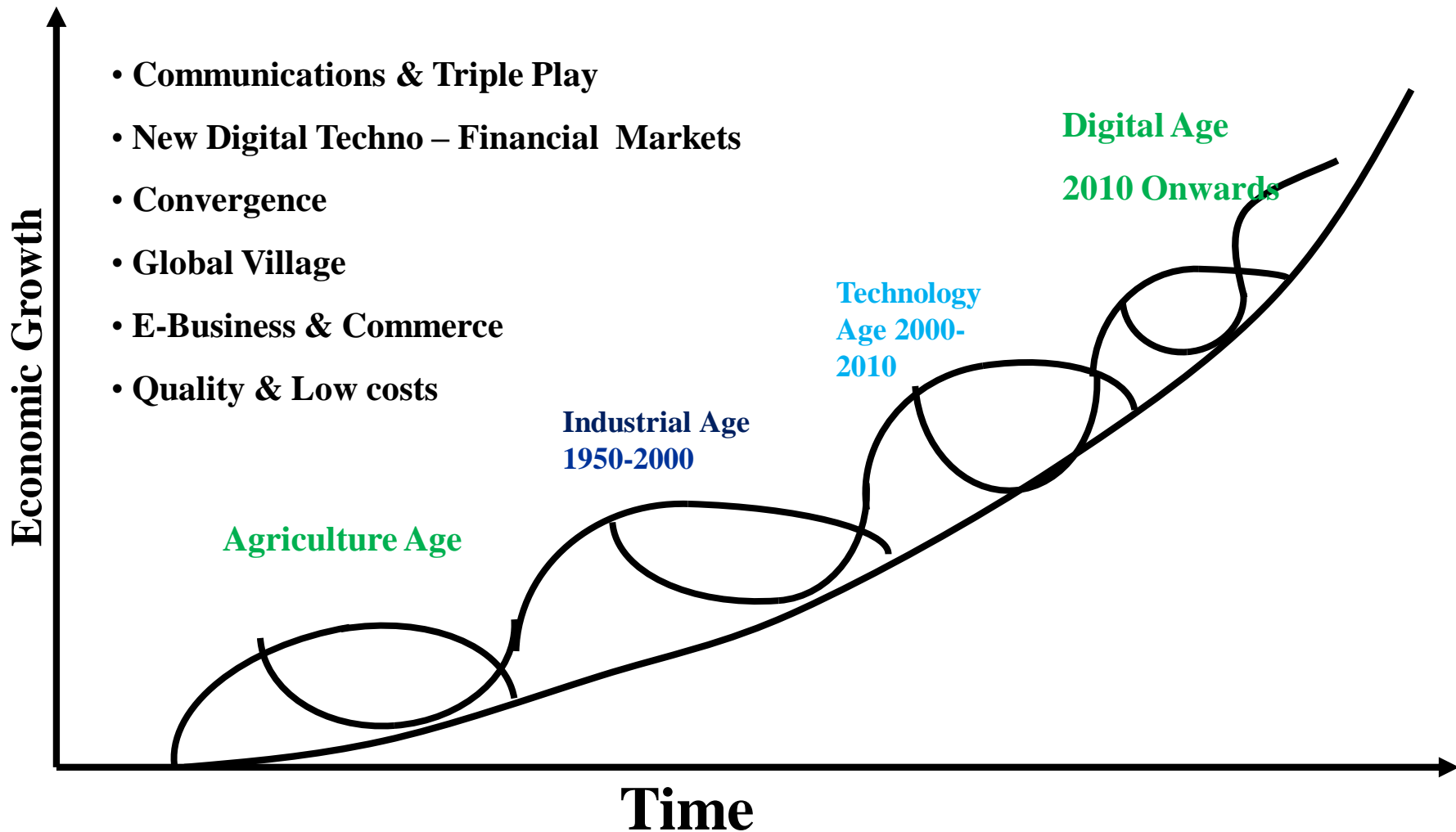
Core Manufacturing

Agriculture & Traditional

Infrastructure & Service

Core Manufacturing	Agriculture & Traditional	Infrastructure & Service
- Steel & Alloys	- Textiles	- Energy Sector
- Petrochemical	- Sugar	- Road Sector
- Cement	- Paper	- Port Sector
- Capital Goods	- Fertilizer	- Telecom Sector
- Light & Heavy Engineering	- Agri & Food Processing	- Shipping
- Electrical Machines	- Chemical	- Airports
- Electronics	- Pharma	- Health & Hospitals
		- Tourism & Hospitality

INDIA MARCHING TOWARDS DIGITAL AGE & NEW ECONOMY

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Economic Growth

- **Communications & Triple Play**
- **New Digital Techno – Financial Markets**
- **Convergence**
- **Global Village**
- **E-Business & Commerce**
- **Quality & Low costs**

Digital Age

2010 Onwards

Technology Age 2000-2010

Industrial Age 1950-2000

Agriculture Age

Time

HON'BLE PM'S VISION – 5 PILLARS FOR $5 TRILLION ECONOMY

ECONOMY

- A DFI along with FI's to be a partner & catalyst for Inclusive (Rural & Urban) Economic Growth by enhancing 3 components of GDP - Industry, Services and Agri Sectors

INFRASTRUCTURE

- A strong DFI with capabilities to Design, Develop and Financing of Infrastructure & Core Industry Sectors from Physical to Digital 5G with sector specific conducive Infra Policies & Regulations

SYSTEMS

- Along with DFI and other FI's an Institutional Framework Mechanism & Management System to be laid down in line with the Regulations

VIBRANT DEMOGRAPHY

- DFI & FI's to facilitate for provision & provide the Infra services with inclusiveness across the country

DEMAND

- To ensure a Affordable, Accessible and Quality of Service to create Elasticity of Demand is created for the Infra services and shall be used by citizens of India

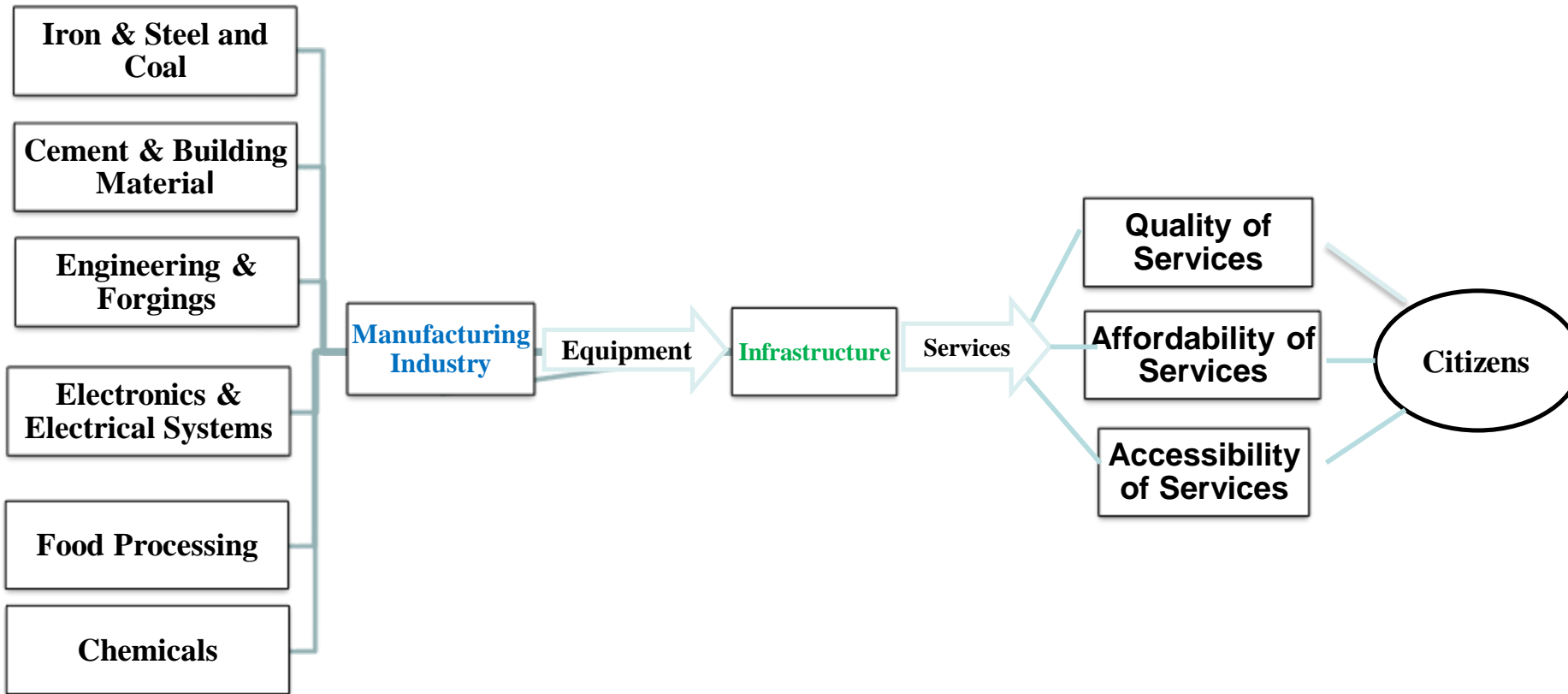# KEY FOR ACHIEVING US$ 5 TRILLION ECONOMY AND MAKE IN INDIA

DEVELOPMENT & FINANCING OF INTEGRATED INFRA & CORE INDUSTRY SECTORS

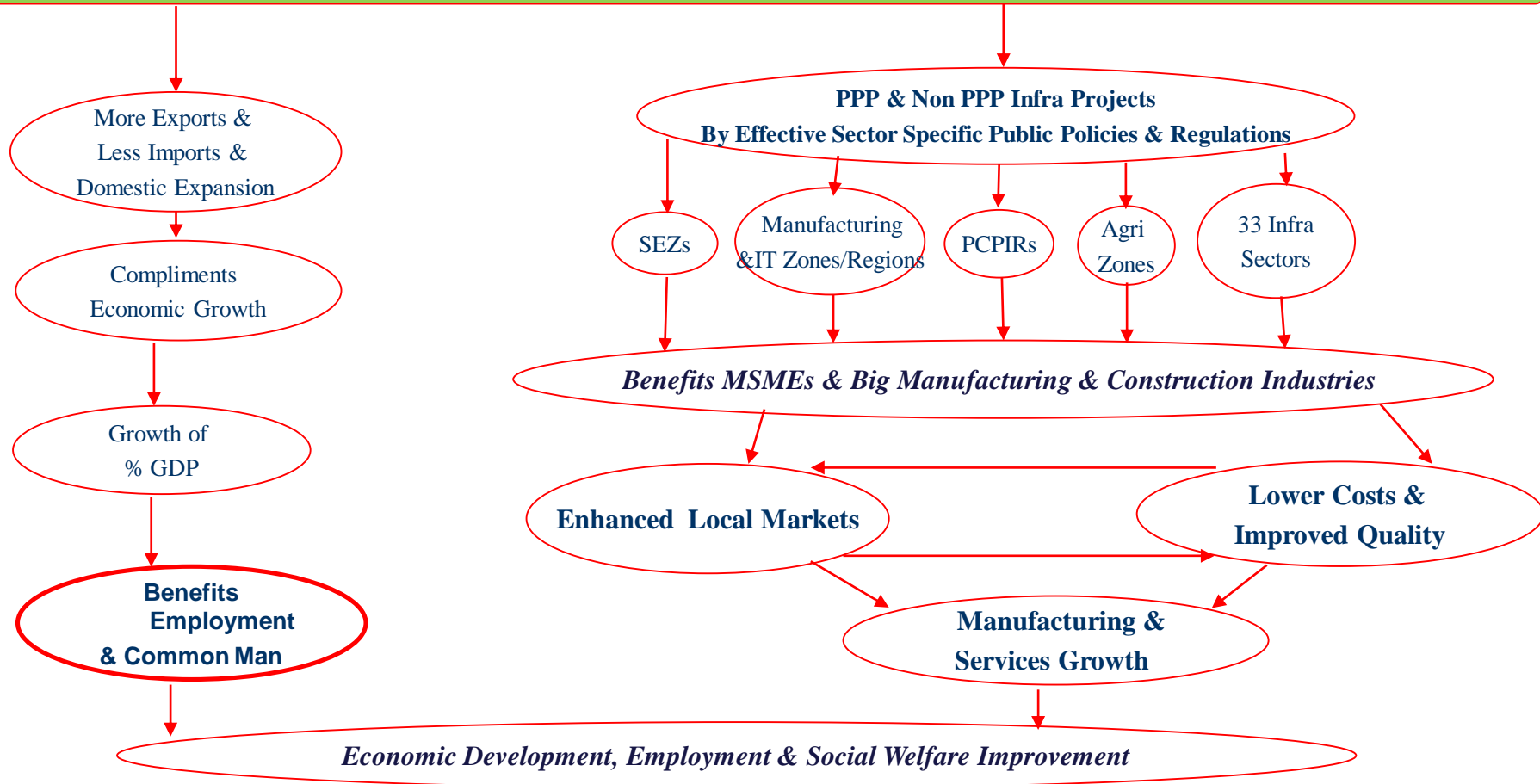A DEVELOPMENT FINANCIAL INSTITUTION NBIF WAS FORMED WITH NBIF ACT 2021

NEED FOR INTEGRATION OF INFRASTRUCTURE & CORE INDUSTRY ECOSYSTEM FOR SUSTAINABILITY

- Iron & Steel and Coal
- Cement & Building Material
- Engineering & Forgings
- Electronics & Electrical Systems
- Food Processing
- Chemicals

Manufacturing Industry → Equipment → **Infrastructure** → Services → Quality of Services / Affordability of Services / Accessibility of Services → **Citizens**

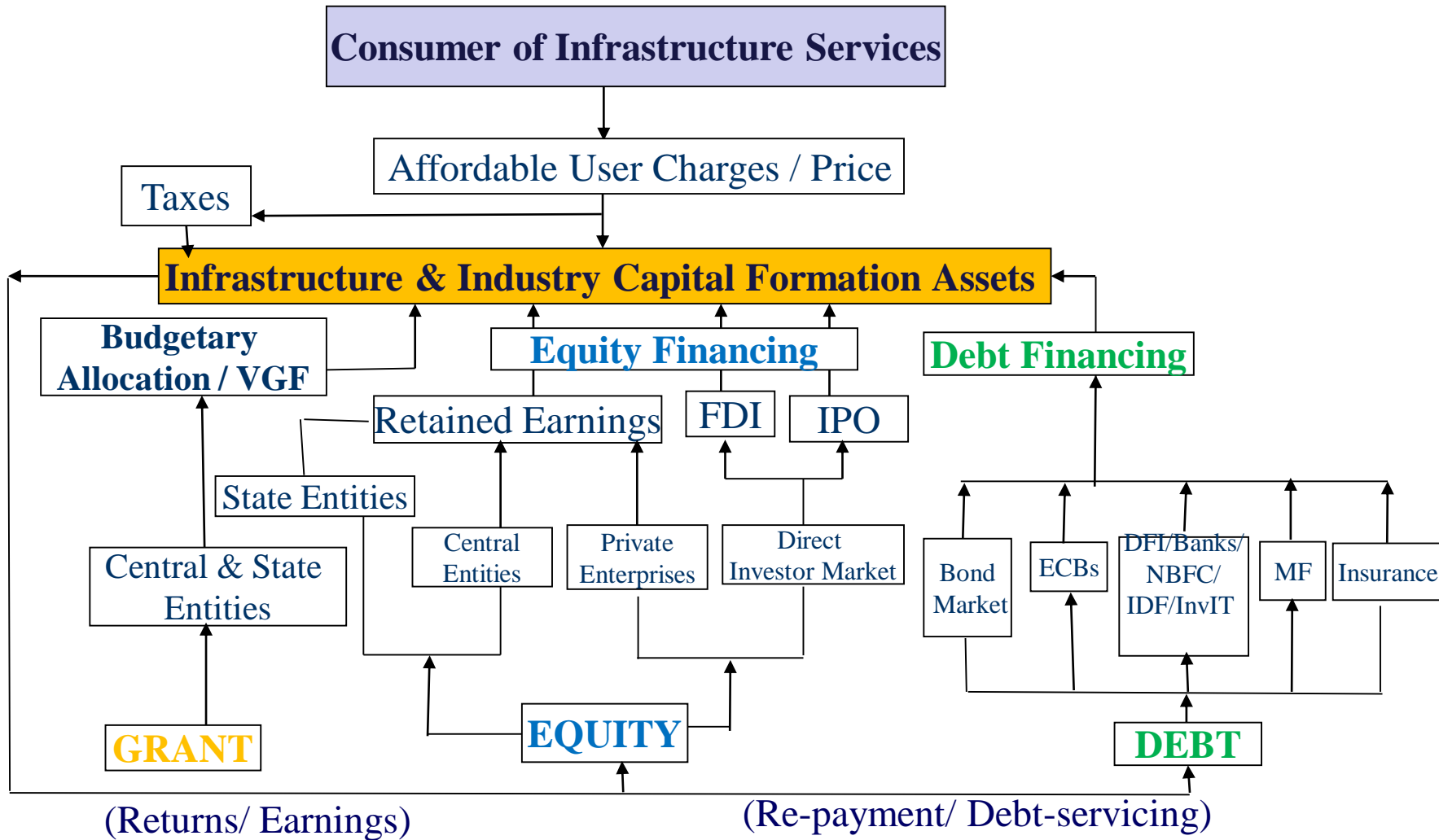**DEVELOPMENT FINANCE : A CATALYST FOR CAPITAL FORMATION & EMPLOYMENT CREATION**

INDIAN INFRASTRUCTURE & INDUSTRY ECOSYSTEM

INTEGRATED INDIAN INFRA & INDUSTRY ECO-SYSTEM FOR DEVELOPMENT & GROWTH

More Exports & Less Imports & Domestic Expansion

Compliments Economic Growth

Growth of % GDP

Benefits Employment & Common Man

PPP & Non PPP Infra Projects
By Effective Sector Specific Public Policies & Regulations

SEZs

Manufacturing &IT Zones/Regions

PCPIRs

Agri Zones

33 Infra Sectors

Benefits MSMEs & Big Manufacturing & Construction Industries

Enhanced Local Markets

Lower Costs & Improved Quality

Manufacturing & Services Growth

Economic Development, Employment & Social Welfare Improvement

IMPACT : Capital Formation, Employment Creation, Cheaper & Quality Products & Services , Boosting Consumption, Lowers CAD

INFRASTRUCTURE & INDUSTRY FINANCING NETWORK = CAPITAL FORMATION

Consumer of Infrastructure Services

Affordable User Charges / Price

Taxes

Infrastructure & Industry Capital Formation Assets

Budgetary Allocation / VGF

Equity Financing

Debt Financing

Retained Earnings

FDI

IPO

State Entities

Central & State Entities

Central Entities

Private Enterprises

Direct Investor Market

Bond Market

ECBs

DFI/Banks/ NBFC/ IDF/InvIT

MF

Insurance

GRANT

EQUITY

DEBT

(Returns/ Earnings)

(Re-payment/ Debt-servicing)

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SECTOR SPECIFIC POLICIES & REGULATIONS FOR SUSTAINABLE GROWTH

Policies: Holistic & Attractive to All Stakeholders → Regulations: Independent & Level Playing → Good Governance → GDP Growth
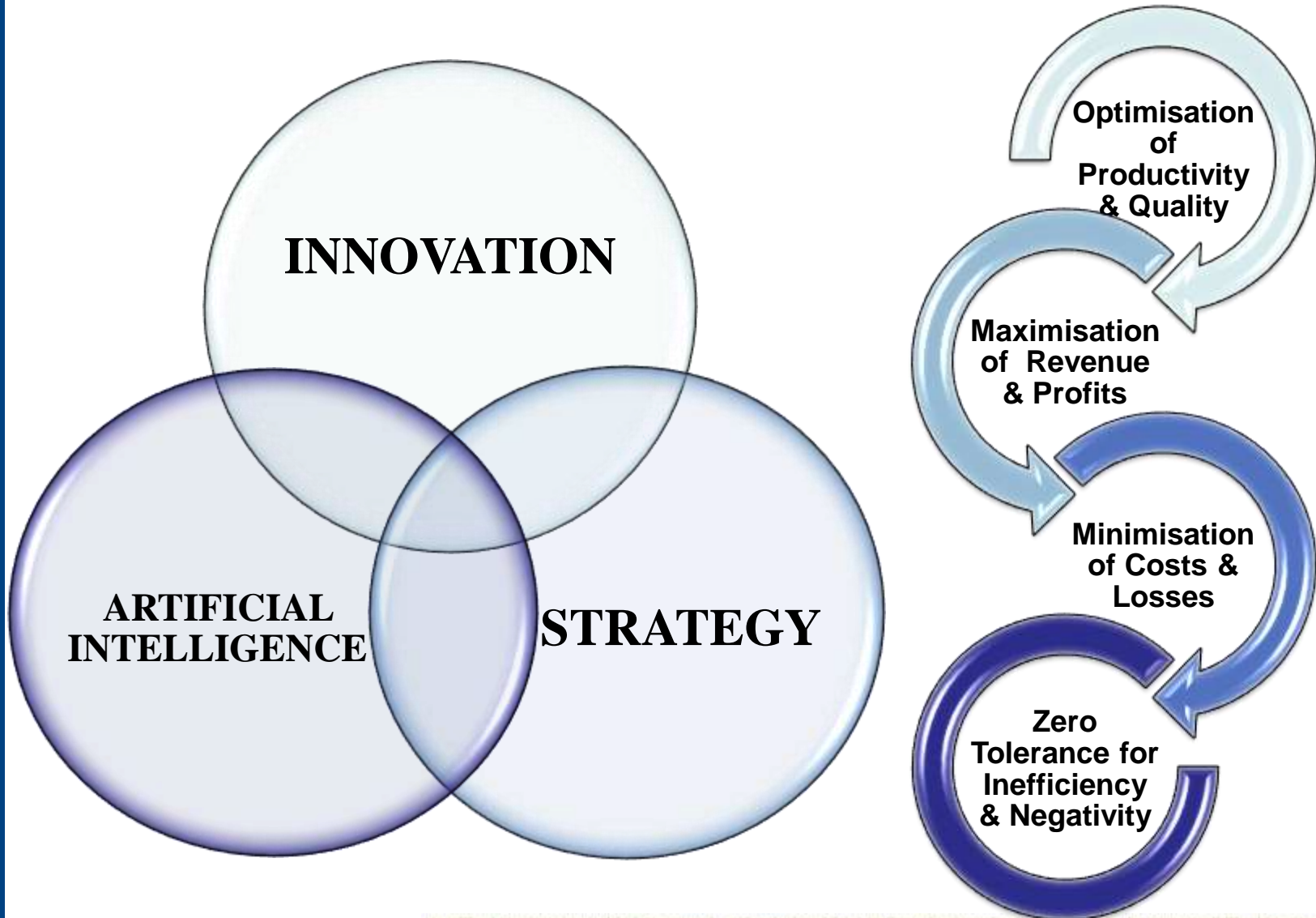
Effective Infrastructure Policies & Regulations = Leading To Sustainable GDP

	E-Commerce & Logistics	Telecom	Ports	Roads	Airlines	Airports	Power	Urban Infra	Social Infra
Competition									
Private Participation									
Effective Regulation									
Policy									
Taxation									
Legal									

● HIGH   ○ LOW

BUSINESS ECOSYSTEM & STRATEGY

INNOVATION

ARTIFICIAL INTELLIGENCE

STRATEGY

Optimisation of Productivity & Quality

Maximisation of Revenue & Profits

Minimisation of Costs & Losses

Zero Tolerance for Inefficiency & Negativity

STRATEGY & INNOVATION – CRUCIAL COMPONENT OF LEADERSHIP MANAGEMENT

- Use of Ideas, Management , Scientific Tools & Techniques
- Effective Use of Technology
- Think Differently for Innovation
- Fusion of Old & New Best Methods
- Never stop learning
- Leadership : Lead With Passion and By Action & Example

Do with Passion | **Skill Set**

Team Management | **Innovation**

Strategy Process | **Technology**
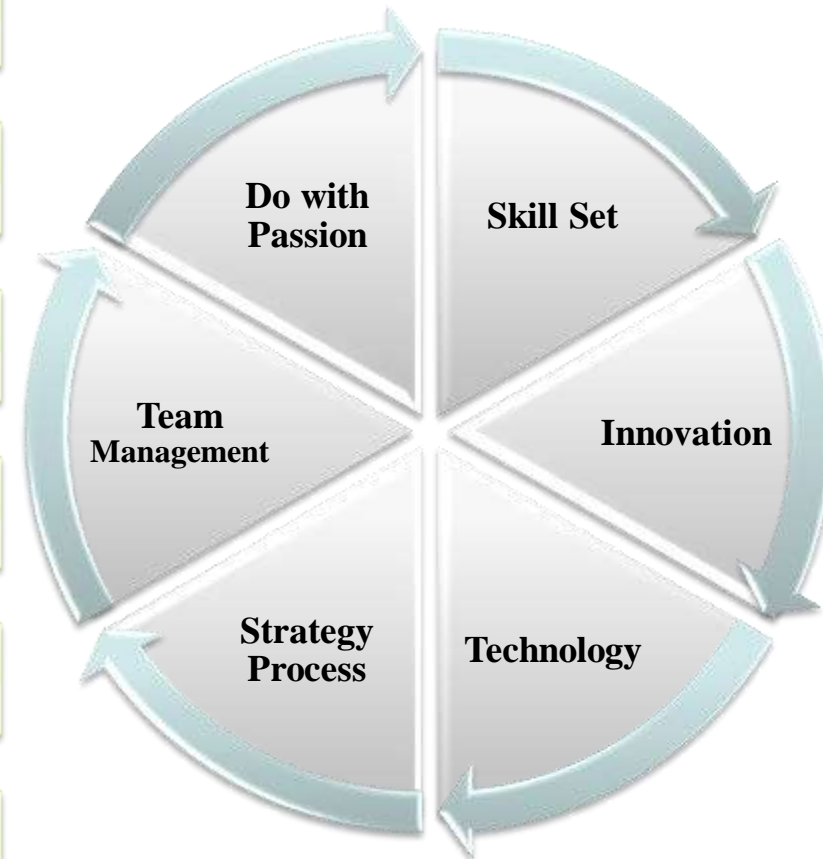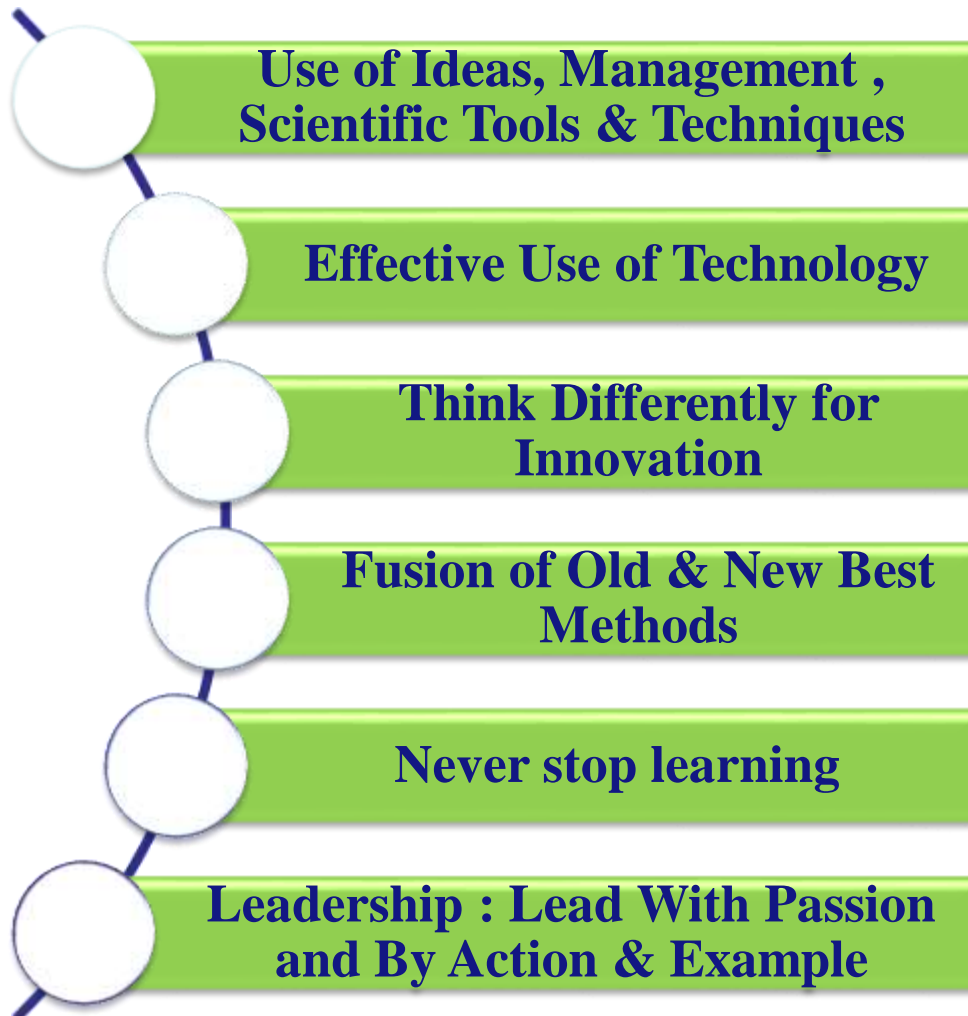
CASE 1: POWER GENERATION, TRANSMISSION & DISTRIBUTION SYSTEM

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Fuel Input

400/220KV AC Transmission Lines

Grid control (Load Dispatch Centre)

Boiler + Turbine + Generator

R
Y
B

Reactive Power Control

Power Generation

Power Transformer

High voltage switchgear

Substation 132/110/66KV

Distribution Lines 33/11/0.44KV

SSI

Service lines

LT Consumers

Houses

Distribution Transformers

HT Consumers

Large/Medium Industries

SSI

CASE 1 : THERMAL POWER PLANT BIDDING STRATEGY

STRATEGY

- Forgo ROE<14% first 5 years – 2 part tariff
- Reduce the secondary fuel to 3 times a year for Plant re-starting
- Use the Vendor Credit Finance in first 3 years for Low Finance Cost
- Optimisation of Station Heat Rate & Auxiliary Consumption
- Enhanced DSCR and IRR to get Optimised Tariff to bid
- Improved Levelised Tariff and won the Power Plant bid
- Optimising EPC Contract into 4 parts to Minimise Taxes

BACKGROUND
- Strong Players
- Coal based Tariff Bid

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CASE 2:INDIAN DIGITAL TELECOM INTEGRATED NETWORK ARCHITECTURE
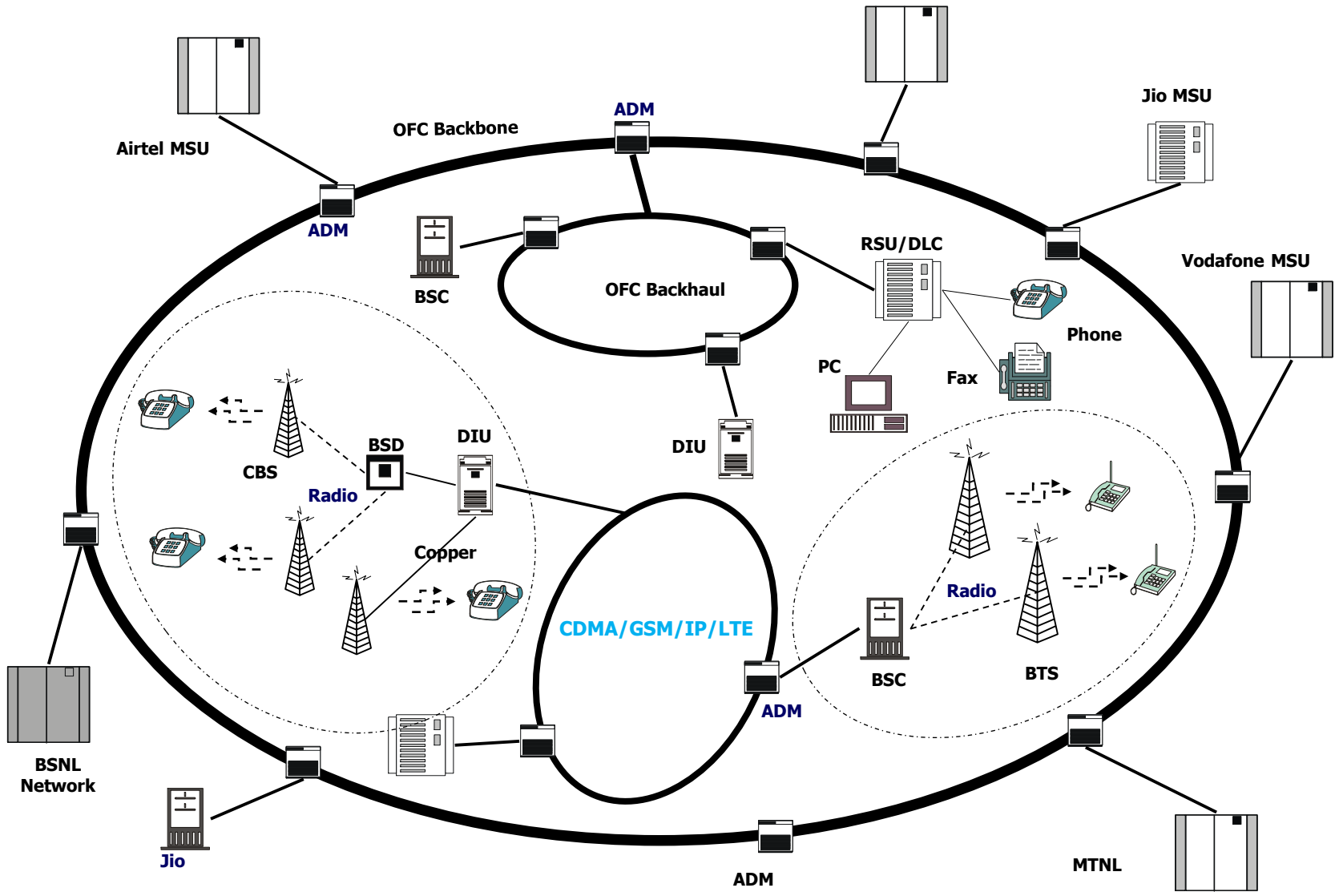
CASE-2 : STRATEGY – DIGITAL TELECOM SERVICE BUSINESS

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S T R A T E G Y

Blended PCM/TDM Network with IP Network

Higher Compression – Lower B/W per channel (32 IP to 16 TDM)

Used Satellite C+ transponder (with no echo than C) instead of OFC STM/SDH

Innovated with a Gateway solution SS7 developed by Vocaltech Israel

ASR – 90% on IP and 35% on TDM ; Revenue Advantage – 2 to 5 times for IP

Resulted in lower Capex & Opex Cost Rs. 7/min against competition Rs. 27/min

Garnered 38% market share and reached 4 digit (in crore) revenue in 2 years

BACKGROUND

- 3 Strong Competitors
- Using PCM / TDM / SDH / STM technologies

Case -3 : Political Innovation & Strategy

➤ <u>Skillset</u>: Advance Detailed Planning & Execution for repeal of **J&K Article 370 & Sec 35A** with minute Demographic Data Base Analysis

➤ <u>Team</u>: A Passionate & Experienced multi-disciplinary team work of **Legal +Defense+ Intelligence + Parliamentary Affairs**

➤ <u>Innovation</u>: Re-organization of J&K state to 2 UT's to gain the confidence of the 3 regions citizens

➤ <u>Strategy</u>: **First introduced the bill in RS** with the discretionary powers of RS Chairman where Opposition is divided and unaware. **Then introduced in LS where there is super majority** and passed the bill easily

20

Case -4 : Cinema Innovation & Strategy

Cinema Innovation – Independent Biopic Movies are more Successful than and Non-Independent movies

Case - 4: Strategy & Innovative Cinema

STRATEGY

- Major Film Costs : Cast (Hero & Heroine), Director and Others

- Select & Fit the Cost to Story & Script

- Understanding Public & Viewer Psyche

- Finalising the Budget of the Project – Low Cost plus Innovation and 'Selling Rights' translates to Higher Returns

- Innovation – Scenery Foot Hill of Everest (Evadee Subramanyan) , Biopic (Mahanati) , Technology (Bahubali), Jai Bhim
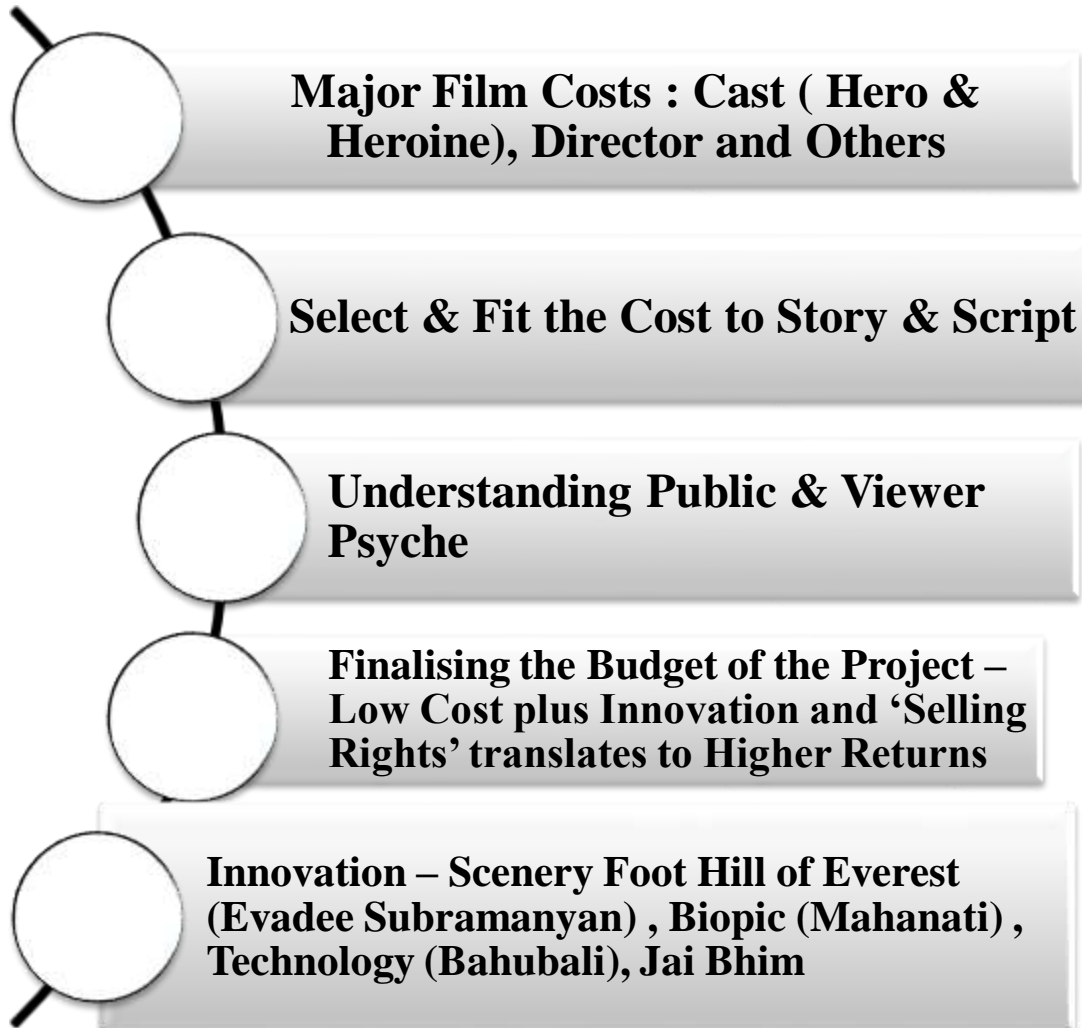
BACKGROUND
- Strong Telugu Media Market
- High Competition

Great Start Up's Humble Origin

Where it all started
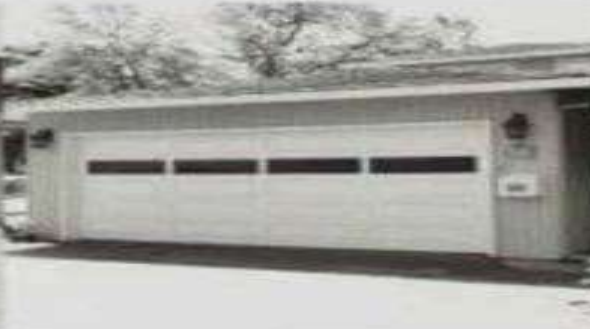
APPLE   GOOGLE   AMAZON
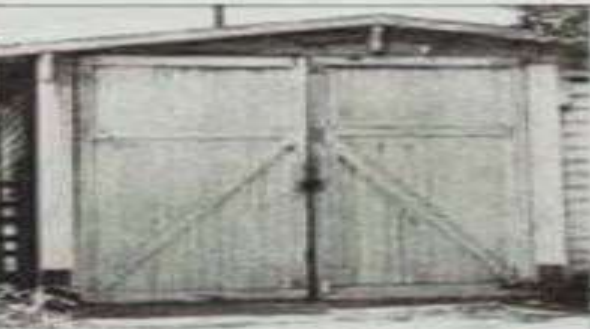
HARLEY   DISNEY   MATTEL

5 YEAR OLD START-UP : EDUCATION

Stones2Milestones
my place in the world

https://www.stones2milestones.com/

- **Started in 2015**

- **In business to create a Nation of Readers**

- **Employee strength risen from 3 to 33**

- **Income jumped from 0.75 crore to 22.5 crore,**

- **Valuation has jumped several times**

- **Sharp jump in user base from 15000 to 250000**

- **Number of schools reached increased from 8 to 110**

- **Encouraging & Inculcating Reading habits**

- **Touching children, parents & teachers**

5 YEAR OLD START-UP : REAL ESTATE MARKETING

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HONEYY GROUP

http://honeyygroup.com/

- **Started in 2016**

- **Investment Rs.10 Lakh**

- **In business end-to-end solutions in real estate - sales & consultancy**

- **Expanded to 20 branches / 3 states**

- **Over 500 employees**

- **Over 350 projects**

- **ISO 9001 Certified**

- **Only RERA approved consultancy across 3 states**

- **More than 1800 satisfied customers**

- **Revenue grown from Rs.3 cr to Rs.5.7 cr**

-**Net Worth : Rs. 2 cr**

8 YEAR OLD START-UP : AGRI & SOLAR ECOSYSTEM

CLARO

http://claroenergy.in/

- **Made a mark in the irrigation infrastructure of the country**

- **Energy efficient, easy access to the farmer & enhanced productivity of land**

- **Geographical footprint widened to over 17 States**

- **Valuation has risen to 2x Revenue**

- **9000 pumps**

- **Grown from 6 people to 140**

- **Income from Rs.2 cr to over Rs.60 cr**

- **Value: Rs.0.4 cr**

- **Started in 2011**

- **Rural ecosystem inclusive business**

- **1 state**

- **30 pumps**

Leading to a New Company integrating Data Analytics & Artificial Intelligence on Soil, Water & Pumps

INDIAN LEADERS ON DIGITAL INDIA

"Digital India is an enterprise for India's transformation on a scale that is perhaps unmatched in human history."

Shri Narendra Modi
Hon'ble Prime Minister of India

"Digital India is more for the poor and the underprivileged. It aims to bridge the gap between the digital haves and have-nots by using technology for the citizen."

Shri Ravi Shankar Prasad
Hon'ble Union Minister for Electronics and IT
& Law and Justice

INDUSTRY LEADERS ON DIGITAL INDIA

"The new trifecta of a bank account, digital identity and smartphone for everyone will drive economic change."

Nandan Nilekani
Co-founder of Infosys &
First Chairman of UIDAI

"Everything that's happening in marketing is digitised. Everything that's happening in finance is digitised. So Pretty much every function in every industry, has a huge element that's driven by information technology. Its no longer discreet."

Satya Nadella
CEO, Microsoft

"We've learned that that when we solve for a place like India, we solve for everyone around the world. #Digital Unlocked"

Sundar Pichai
CEO, Google

DIGITAL AND TELECOM TECHNOLOGIES AIDING NEW BUSINESS MODELS

Voice & Data Infrastructure :
- **Access Switching**
- **Transmission**
- **Telecom & IT Instruments**

Media & Broadcasting Infrastructure :
- **Digital Content (King)**
- **Last Mile Connection (Queen)**
- **IOT**

E-COMMERCE

M-COMMERCE

Broadband Internet & Broadcasting

Wire line Voice & Data

Wireless Voice & Data

IOT
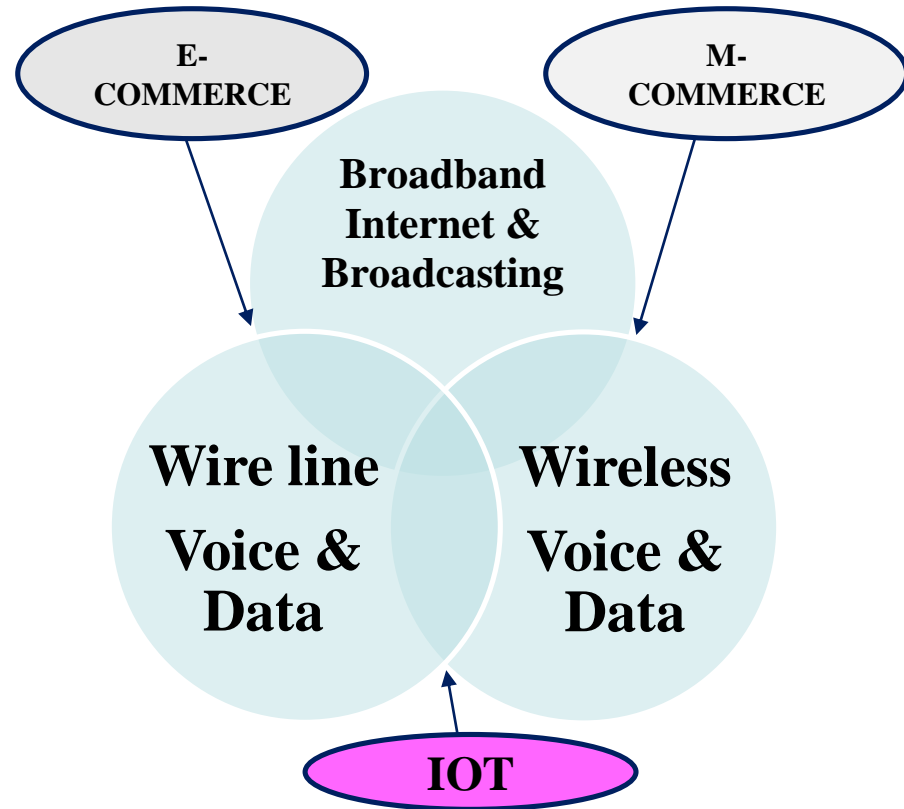
The Telecom & IT Infra will compliment businesses opportunities in E&M-Commerce, Media, Logistics, Banking, Fin Tech and AI in a big way in the Next 5 Years in India

M&A LEADING TO HOMOGENEOUS & HETEROGENEOUS CONVERGENCE

- *Service Bundling*
- *Diversified Business*
- *Revenue Enhancement*
- *QoS and VAS*

Country/Company
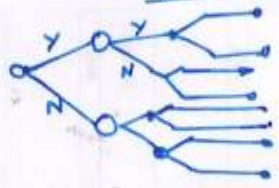
UK, France, Germany, Chile

Brazil

Poland, Hungary

Hungary, Slovenia, Russia

Cable television

Electricity T&D

Water

Gas T&D

Telecom

Transport

Brazil, *INDIA,* South Korea

Australia, Argentina

UK

France, US

UK, US, Chile
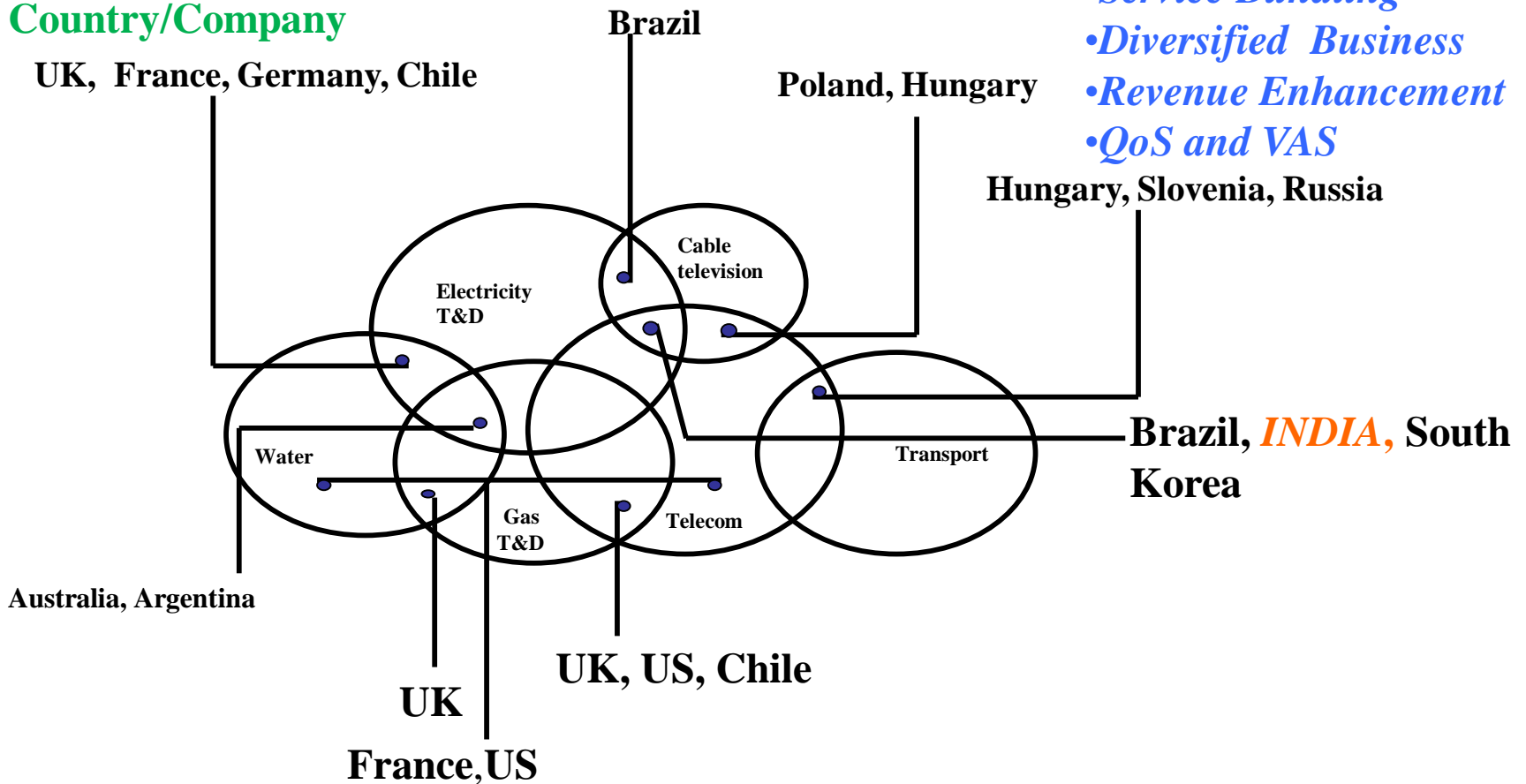
ARTIFICIAL INTELLIGENCE

- ➢ Science & Medicine: Prediction, Diagnosis

- ➢ Manufacturing: Process modeling, FME & C analysis

- ➢ Marketing & Sales: Market analysis, customer classification

- ➢ Finance: Portfolio & Investments analysis

- ➢ Banking & Insurance: Credit, Risk and Treasury

- ➢ Elections: Predictions & Game Theory Simulations
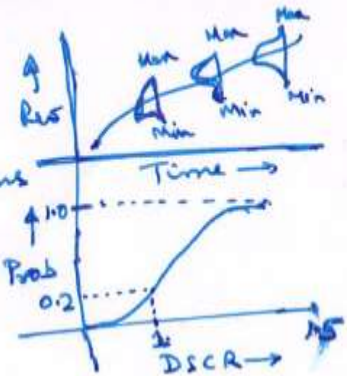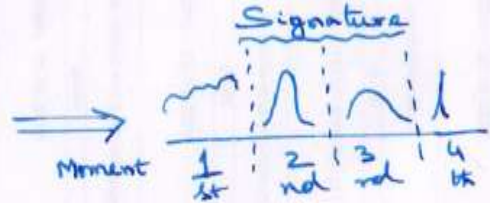
- ➢ Power Sector Grid: LDC Computing Algorithm
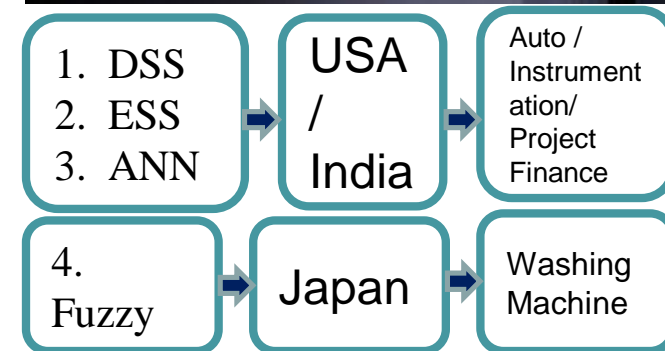
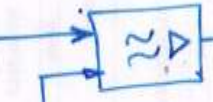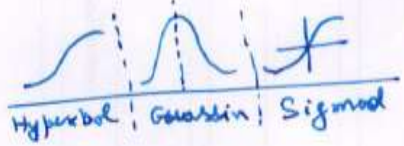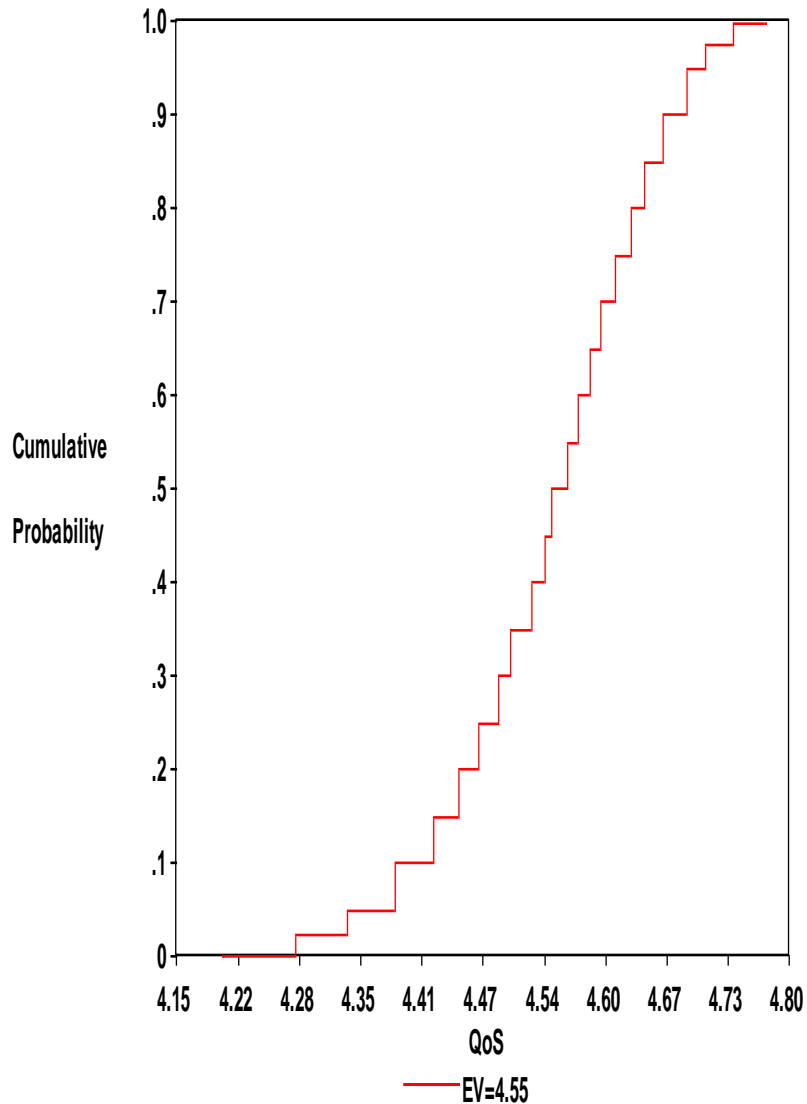| 1. DSS
2. ESS
3. ANN | → | USA / India | → | Auto / Instrument ation/ Project Finance |
| 4. Fuzzy | → | Japan | → | Washing Machine |

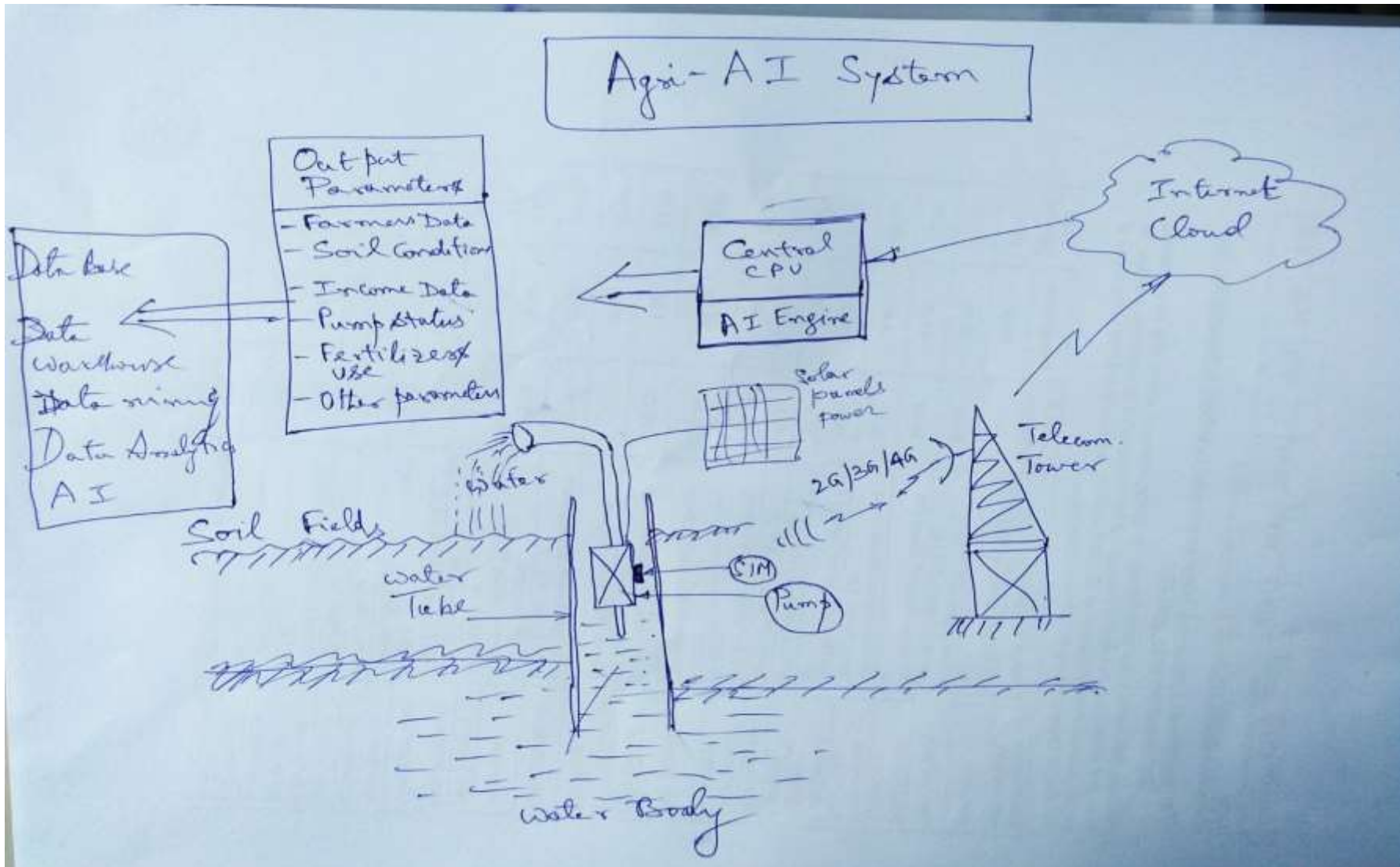GMR Varalakshmi Foundation

GMR Varalakshmi Foundation
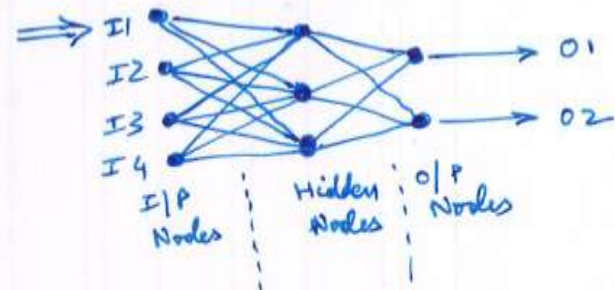
Stochastic Verses Deterministic for Accuracy of Decision Making

S.No.	Output Parameter	Units	Deterministic Method	Probabilistic Method
1	Traffic	Mn Minutes	835	840
2	Revenue	Rs. Crores	1461	1400
3	EBITDA	Rs. Crores	184	181
4	LCC	Rs. Crores	260	215
5	Capex	Rs. Crores	128	127
6	Opex	Rs.Crores	1276	1503
7	QoS	No.	4.55	4.55
8	NEI	No.	3.87	3.8
9	Availability	No.	.99950	.99945
10	Bandwidth E1s	No.	323	329

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Sentiment Word Counts - Speech on Jun 2 2020

Count of words that occured more than 100 times, in past 50 speeches

Sentiment Map - speech on Jun 2 2020

Sentiment Map - Speech on 15 Aug

Skill Development For 21st Century Vision & Mission Of Make In India

Technology :

➢ Make use of *2/3/4/5 G Digital Communication with IOT devices* eco-system to connect Services & Products to enhance *Productivity and QoS*

➢ Effective IT Platforms & Applications using *Deep Machine Learning & AI* for making the good Policies & Regulations

➢ Digital Technology & AI to be used for above for productivity but *Not To REPLACE Human Resources*

Standards :

➢ Move fast to implement *Industry 4.0 Standards* effectively using *Digital & IoT Technologies for Smart Infra and Industry Operations*

➢ The New Industry 4.0 Standards with 4&5 G, IoT's with AI & Machine Learning enhances the exports & domestic requirements with smart & quality production

Skill Set Re-Imaging & Re-Engineering :

➢ Skill Development & Talent programmes to be re-designed to meet the *Post Covid-19 Make In India* new order of life

➢ Have more Skill Development Centres in Rural and Sub-Urban areas to have more *Inclusive participation by all*

Humility | Entrepreneurship | Teamwork and Relationships | Deliver the Promise | Learning | Social Responsibility | Respect for Individual

37

THANK YOU

(Always Committed for the Inclusive Development)

GMR Varalakshmi Foundation