



TECHNO COMMERCIAL AND SOCIO-ECONOMIC PERSPECTIVE OF INNOVATION: AN ENGINE FOR ECONOMIC EMPOWERMENT OF INDIA



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GII – INDIA'S POSITION

Determinants - Innovation Ecosystem

- Scope and potential to Innovating Ideas
- Technological advancement – Rise
- Access to the Market
- Closed Vs Open innovation ecosystem
- State Support
- Perception of Entrepreneurship
- Research capabilities

Challenges in Innovation

- Crunch of Capital
- Risk aversion
- Organizational and Structural problems
- Diversity in India
- Digital divide-----opp

- **Higher Edu, System –India**
- **Investment in Education- SE IEQ**
- **scope ...potential..**
- **Role of Policy**



NATIONAL EDUCATION POLICY 2020

Scope for Innovation and Creativity - HEIs

NEP-2020-- identify and foster the unique capabilities of promoting creativity and critical thinking to encourage logical reasoning and innovation.

- -Facilitates extensive use of technology in T-L, removing language barriers and educational planning and management.
- Encourages innovation and out-of-the-box ideas - autonomy, good governance, and empowerment - promotes outstanding research
- The vision - to improve the quality of education by giving equal space to creativity and innovation and transforming India into a vibrant knowledge society.
- Emphasis on HE – for knowledge creation and innovation thereby contributing to a growing national economy –
- HEIs – focus on setting up start-up incubation centers, Technology development centers, and Centers in frontier areas of research.
- HEIs – develop specific hand-holding mechanisms & competitions for promoting innovation among student groups
- To promote creativity--- institutions & faculty will have the autonomy to innovate on matters of curriculum, pedagogy, and assessment within a board framework of higher education qualifications

NURTURING OF INNOVATION ECO SYSTEMS IN HEIS



Key parameters that determine the innovation ecosystems – Role of HEIs

1. Research
Investment

2. Education
Policy

3. Researcher
Density

4. Publication
Output

5. No. of Patents
Registered

6. Start-Up
Environment

Technology Transfer

- Connect between commercially viable and academic research.
- TT on scientific publications – infrastructure - research

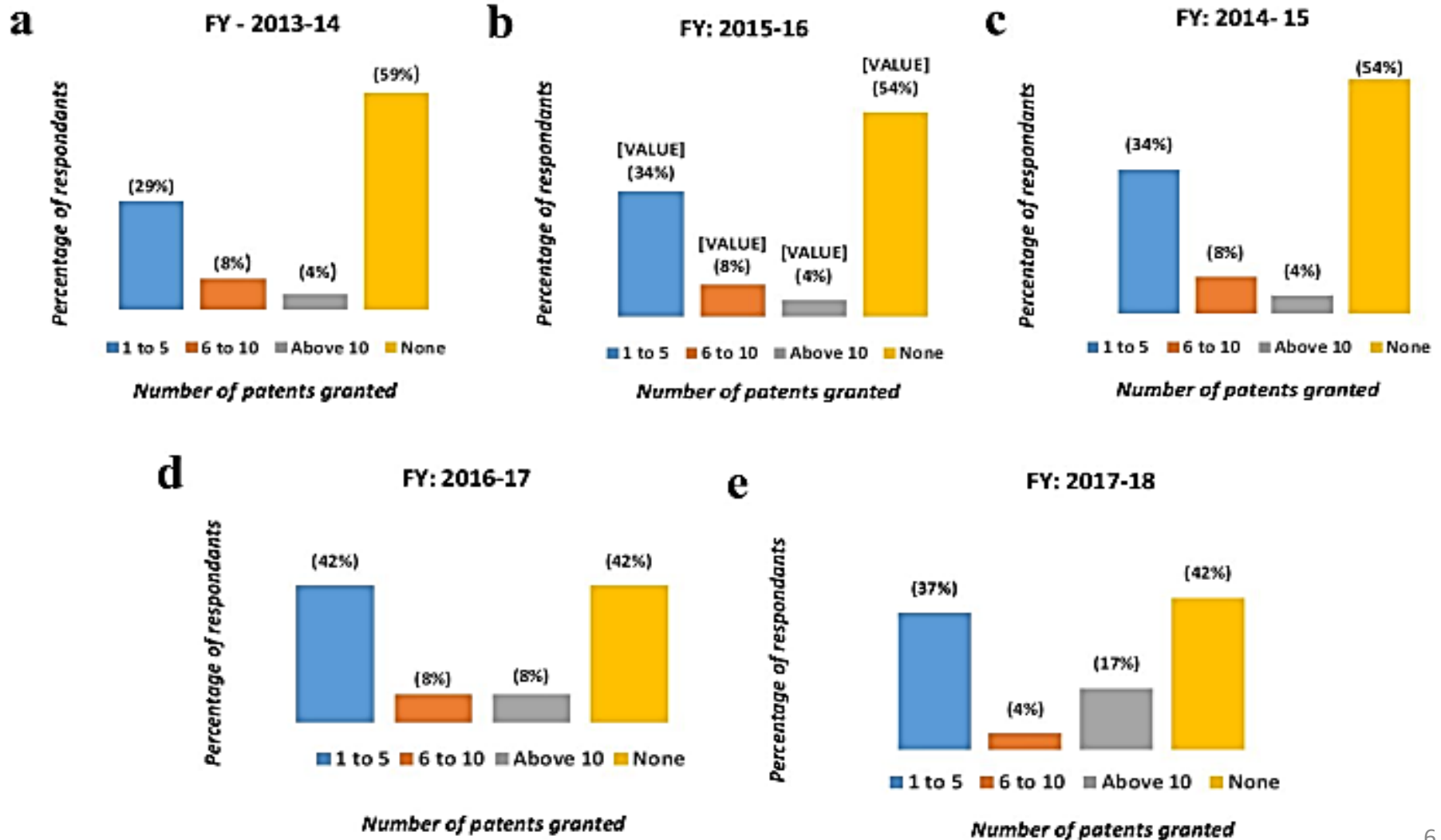
Technology commercialization (TC)

- Ideas To Market (Lab to Land)
- TC- creating financial value - licensing an invention- develop a new product or service, or creating a new business.
- TC- “finished technology” to market - earlier stage of development of Technology.
- TC - involves marketing the know-how or intellectual property associated with a technology

Implications for Economic Development



Number of patents granted to Indian universities for 5 Years (from 2013-18)

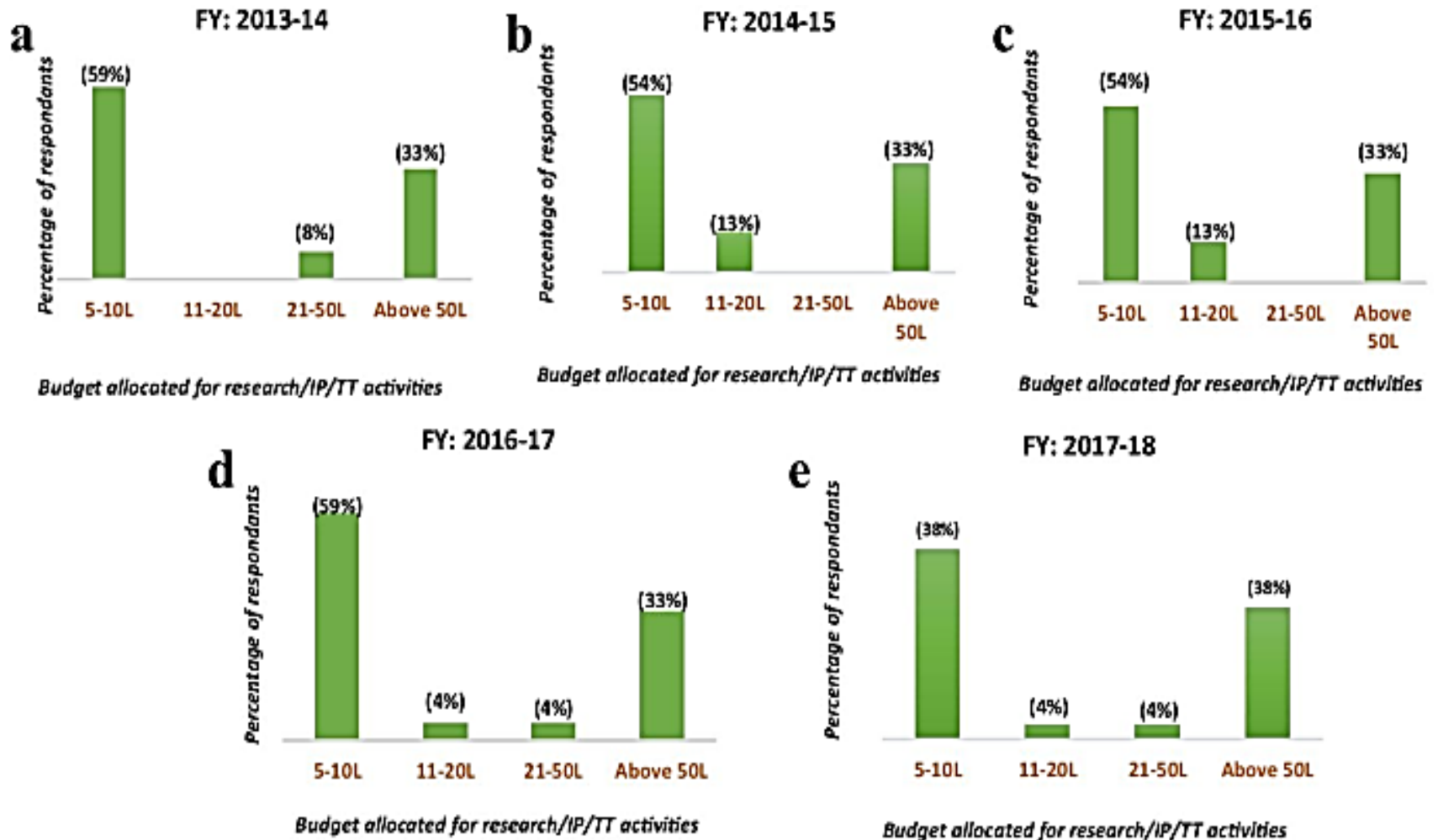




Budget allocation for research /IP/TT activities for 5 Years (from 2013-18)

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? TO ADDRESS SOCIAL and economic CHALLENGES THROUGH INNOVATION



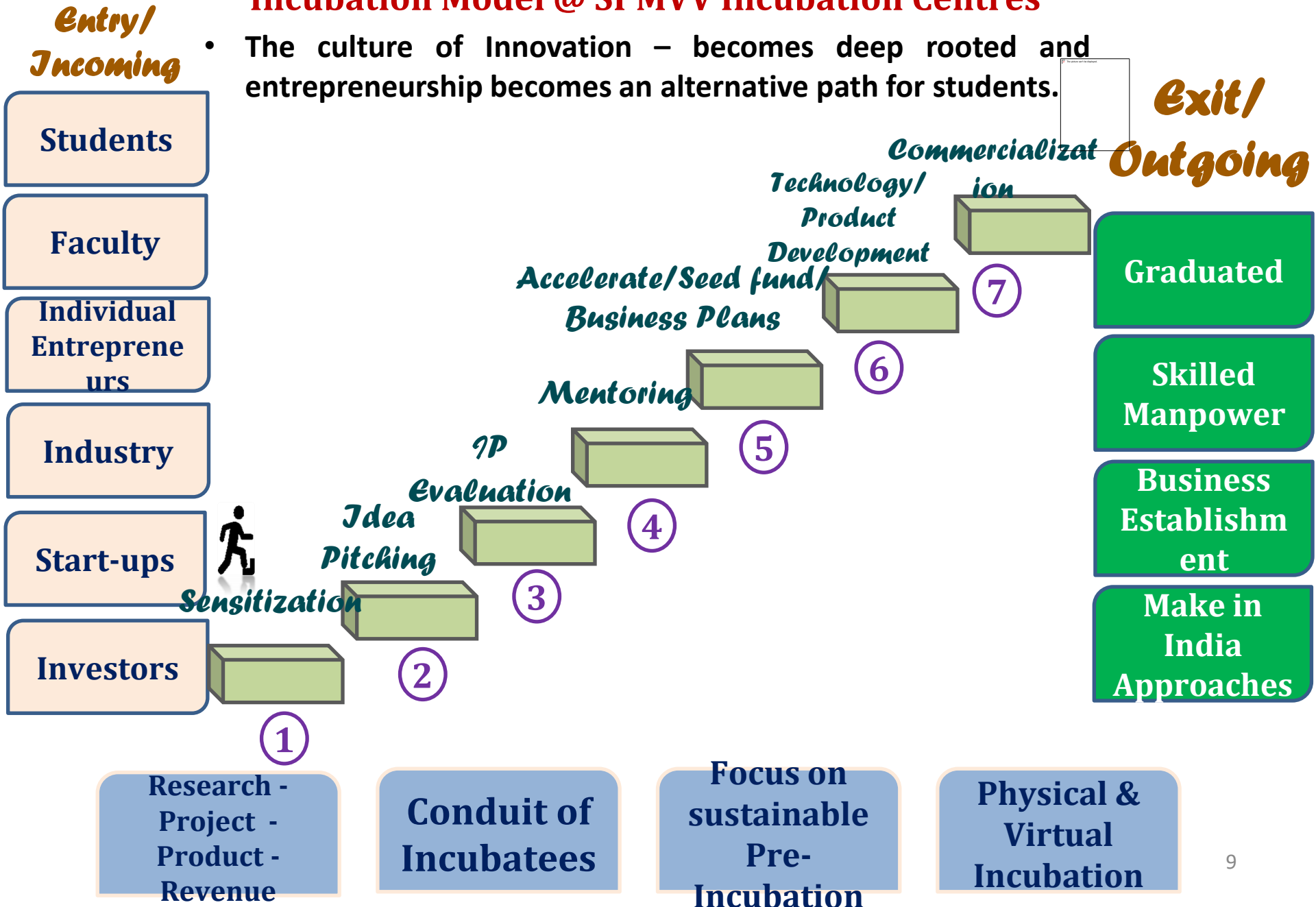
- **Wide gap** between eco growth & wellbeing - **main engines**
- Transformations in **innovation policies**
- Focus-- shifted from the **specialization and narrow spearheads of innovation.**
- For the development of commercialization - **successful innovation & demand oriented.**
- Innovation - source of **long-term growth** - crucial contributions to higher productivity and confront global and social challenges.
- collective action=Role of policy makers and other **societal stakeholders**
- Multi disciplinary nature of societal challenges – complex – resolving issues where social and technological progress co-evolves.
- Economic---commercialized technologies are frequently used in **manufacturing processes.**
- creates **expanded opportunities for entrepreneurs** and the development of support networks.



CASE STUDY OF SPMVV

Incubation Model @ SPMVV Incubation Centres

- The culture of Innovation – becomes deep rooted and entrepreneurship becomes an alternative path for students.





Key-role being played by SPMVV, TIRUPATI, Andhra Pradesh in the Promotion of Skills in Women related to Innovation, Incubation and Entrepreneurship

SPMVV CAMPUS SYNERGY - 2020

SCSIIE - 2020

Innovation, Incubation & Entrepreneurship

SPMVV Society for Innovation
Incubation Entrepreneurship

Technology
Business
Incubator

Women
Biotech
Incubation
Facility

Livelihood
Business
Incubator

TePP
Outreach
cum Cluster
Innovation
center

DST
CURIE - AI

Institution
Innovation
Council

Rural
Women
Technology
Park

Women &
ICT
Frontier
Initiative

Placement &
Career
Counselling
Cell

Skill
Development
Center

DSIR

Services

Preincubation Training Ideation Hackathon Idea Pitching
IPR Funding Resource awareness Incubation (Start-Up/Incubatee
Registration) Prototype-Graduation

INDIAN UNIVERSITIES – WAY FORWARD FOR SUCCESSFUL I & E



- **University Research either in specific domains or to pursue interdisciplinary research.**
- **focus towards commercially viable research.**
- **Awareness and practice of patents and research commercialization of Research/ TT --among Indian academia.**
- **Understanding strategies adapted to commercialization research.**
- **Suitable Government R&D funding, Provides a Critical Base.**
- **Identification of Mechanism to collaborate with Industry.**
- **The Entrepreneurial Educational Culture of a University is the Key.**
- **Networking of Technology based start ups.**
- **Entrepreneurship Programs can Add Value.**
- **Incubators and Research Parks Provide a Visible Technology Presence – showcase all research outcomes to industry.**



Thank you