



## Bilateral Curriculum Convergence As Innovation Catalyst: Strengthening Research, Innovation, IPR And Patents In India–France HEIs Through A Transnational Academic IP Generation Framework At Bharat Innovates 2026

**Dr. D. Venkaiah**

*M.Com;MBA;M.Phil;Ph.D.*

Vice Principal

G.Pull Reddy Degree & P.G College, Mehdipatnam, Hyderabad, India

### ABSTRACT:

The global knowledge economy demands that Higher Education Institutions (HEIs) operate as generators of patentable innovation and commercialisable intellectual property. India and France — elevated to a Special Global Strategic Partnership on February 17, 2026 — govern two landmark national frameworks: India's National Education Policy 2020 (NEP 2020) with its Anusandhan National Research Foundation (ANRF) Act 2023 (Rs. 50,000 crore corpus), and France's €54 billion France 2030 investment strategy. Despite India recording 82,811 patent applications in 2024-25 — a 31.6% annualized growth — HEI patent commercialization remains below 5%, against France's SATT network rate of 28%. A critical institutional advance signals transformation: IIT Madras inaugurated India's first industry-defined 'Innovation Doctorate' on August 4, 2025, achieving 1.2 patents per day and incubating 104 deep-tech startups in FY2024-25 — validating prototype-based doctoral models nationally.

### Objective:

- This paper:
- comparatively analyses NEP 2020 and France 2030 across Research, Innovation, IPR, and Patents in HEIs;
  - identifies structural complementarities; and
  - proposes the Bilateral Research-Innovation-Patent-IPR Framework (BRIPP) as India's actionable bilateral architecture for Bharat Innovates 2026.

**Method:** A conceptual framework development methodology employs systematic comparative policy document analysis using the Four-Pillar Comparative Matrix, anchored in the Triple Helix model, Mode 2 knowledge production theory, and TRL bridging analysis. Primary sources include NEP 2020, ANRF Act 2023, France 2030, ANR reports, SATT data, India–France Joint Statement (February 2026), and IIT Madras School of Innovation and Entrepreneurship (August 2025).

**Results:** The analysis reveals convergence in research culture investment and strong divergence in TRL infrastructure maturity (India TRL 1–3; France TRL 4–9) and patent commercialization mechanisms. IIT Madras's Innovation Doctorate — achieving 417 patents in one year — constitutes India's proof-of-concept for the Doctorate in Innovation model. The BRIPP Framework's eight bilateral action pillars, including the Doctorate in Innovation–CIFRE bilateral doctoral track and the IPO–INPI patent co-filing protocol, provide a quantified pathway to raising India's HEI commercialisation rate to 18% by 2032.

**Conclusion:** Bharat Innovates 2026 represents a geopolitically unique window — coinciding with the G7 France Summit — for formalizing the BRIPP Framework as a binding bilateral agreement positioning Indian HEIs as co-producers of globally defensible intellectual property.

**Keywords:** NEP 2020, France 2030, Bharat Innovates 2026, Innovation Doctorate, IIT Madras, Transnational Academic IP Generation, Technology Readiness Levels, Doctorate in Innovation, BRIPP Framework, Pax Silica, ANRF, SATT, India–France Special Global Strategic Partnership, Project-First PhD

## 1. INTRODUCTION

### 1.1 The Indian HEI Landscape and the Shift Towards an Economy of Creation

The Indian Higher Education Institution (HEI) ecosystem — comprising 1,113 universities, 43,796 colleges, and over 43.2 million students — is undergoing a fundamental structural transformation driven by the National Education Policy 2020. NEP 2020 dissolves fragmented academic silos in favor of multi-disciplinary research universities anchored in the Anusandhan National Research Foundation (ANRF), established under the ANRF Act 2023 with a sovereign capital allocation of Rs. 50,000 crores. This reframing positions HEIs as creators of high-value intellectual assets rather than degree-conferring institutions. India's patent applications recorded a historic 31.6% annualized growth to 82,811 in 2024-25. Yet HEI patent commercialization remains below 5% — a structural gap that bilateral partnership with France is uniquely positioned to address.

### 1.2 India's First Innovation Doctorate: IIT Madras as Proof of Concept

A landmark institutional development signals that India's transition from traditional doctorate to innovation doctorate has begun. On August 4, 2025, the Indian Institute of Technology Madras inaugurated its School of Innovation and Entrepreneurship, offering India's first industry-defined 'Innovation Doctorate' — a practice-led doctoral track in which candidates defend applied innovations before mixed academic-industry panels (PIB, 2025). The School's Director, Prof. V. Kamakoti, articulated the institutional logic: 'As we progress after having achieved 1.2 patents a day and exceeded 100 start-ups in the last financial year, now it is time to institutionalise our Innovation and Entrepreneurship efforts.' Supporting structures include IP clinics to guide students in patent filing, an Entrepreneur-in-Residence cohort, and IIT Madras-specific seed-funding mechanisms. In FY2024-25, IIT Madras filed 417 patents and incubated 104 deep-tech startups — surpassing its 'Startup 100 Mission' target. Cumulatively, 475+ startups under IIT Madras incubation are valued at Rs. 50,000 crore, have filed over 700 patents, attracted Rs. 12,000 crore in investments, and created more than 11,000 jobs (Careers360, 2025). This singular institutional performance — one institution generating more innovation capital than entire national ecosystems in many developing countries — constitutes India's empirical proof-of-concept for the scalable Doctorate in Innovation model.

### 1.3 The IIT Council Signal: Project-First PhD Model (January 2026)

Reinforcing IIT Madras's institutional initiative, the IIT Council in January 2026 formally discussed doctoral programme reforms, recommending a 'project-first PhD model' — a structural shift placing applied project outcomes at the centre of doctoral assessment rather than treating them as supplementary to traditional dissertations (Careers360, 2026). This recommendation, proposed by IIT Ropar, mirrors the legislative reforms China enacted in 2023 that enabled Wei Lianfeng at Harbin Institute of Technology to earn a doctorate for developing a vacuum laser welding process for nuclear applications. The IIT Council's recommendation signals that national-level institutional appetite for the Doctorate in Innovation transition is present — but formal UGC accreditation of a standalone Doctorate in Innovation degree remains pending. Bharat Innovates 2026, with its explicit industry-investor audience and bilateral agreement ambition, provides the policy moment to accelerate this formalization.

### 1.4 The French Higher Education Ecosystem and France 2030

France's €54 billion France 2030 strategy channels €16.5 billion into university excellence clusters and deep-tech translation networks. The CNRS consistently ranks among the premier global patent applicants, anchored by over 1,400 active deep-tech university spin-offs. France's SATT network converts academic discoveries into industrial licences at approximately 28% institutional efficiency. Despite this maturity, France faces a projected deficit of 150,000 deep-tech engineers by 2030. The Doctorate in Innovation–CIFRE bilateral doctoral track directly addresses this deficit: India's engineering talent pipeline, aligned with France's CIFRE industrial embedding infrastructure, creates a bilateral solution that neither nation can achieve unilaterally.

### 1.5 India's Macro-Strategic Horizon: Atmanirbhar Bharat 2047 and Pax Silica

India's sovereign ambition is codified in Atmanirbhar Bharat 2047 — a fully developed, self-reliant knowledge economy by independence's centenary. Simultaneously, India's February 2026 accession to the Pax Silica Declaration positions it within a democratic coalition securing critical minerals, semiconductor, and AI supply chains, while its Special Global Strategic Partnership with France simultaneously maintains independent strategic trajectories outside purely US-led frameworks. The India–France axis therefore operates as a 'Third-Path Technology Corridor' — co-developing sovereign innovations that serve both nations' technological independence

without subordinating either to external technology governance frameworks. Bharat Innovates 2026, co-inciding with the G7 France Summit, amplifies the geopolitical weight of bilateral innovation proposals to a multilateral audience simultaneously.

## 1.6 Research Gap and Objectives

No existing study simultaneously subjects NEP 2020 and France 2030 to a comparative Four-Pillar analysis (Research / Innovation / IPR / Patents), bridges TRL asymmetry with bilateral patent co-filing, incorporates IIT Madras's Innovation Doctorate as empirical validation, or proposes the IPO-INPI protocol as a specific institutional deliverable. This paper fills this integrated gap. Research objectives: (RO1) Compare NEP 2020 and France 2030 across the four pillars; (RO2) Identify structural complementarities for bilateral TRL bridging; (RO3) Develop the BRIPP Framework as India's bilateral proposal architecture for Nice.

## 2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

### 2.1 Transnational Innovation Frameworks and Systemic Co-Development

Modern scholarship on transnational innovation has progressed beyond simple knowledge spillover models to systemic cross-border institutional co-development (Altbach & de Wit, 2023). Under Etzkowitz and Leydesdorff's (2000) Triple Helix Model, the university-industry-government interaction density determines a nation's high-value innovation output. Bival, Rousseau, and Dupont (2025) evaluate France's SATT model under France 2030 and confirm that public-private translation intermediaries dramatically compress technology transfer cycles. Gupta and Morin (2025) demonstrate that advanced economies face scaling constraints in software-intensive innovation that India's HEI ecosystem structurally resolves.

### 2.2 NEP 2020: Research Culture and IPR Architecture

NEP 2020 mandates a four-year undergraduate programme with a dedicated research year, universities to establish incubation centres, and the ANRF as a central research financing mechanism. IJRASET (2025) confirms transformative potential but notes implementation gaps in research infrastructure and faculty research literacy. Sharma (2023) identifies an 'IPR implementation gap': NEP 2020 encourages patent filing without resolving the fundamental HEI IP ownership question. Mowery et al. (2001) establish that the US Bayh-Dole Act generated 1,500% growth in university patent activity within two decades — providing the empirical imperative for India's HEI IP ownership reform.

### 2.3 France 2030: CIFRE, SATT, and TRL Infrastructure

France 2030's SATT network — 13 regional technology transfer organisations — achieves approximately 28% patent commercialisation rates, representing 5–6 times India's current rate (Bival et al., 2025). The CIFRE programme has produced over 150,000 industry-validated doctoral graduates since 1981 at patent co-filing rates significantly exceeding conventional doctoral research. Advanced western economies structurally require India's agile software testbeds and cost-optimised prototyping environments (Gupta & Morin, 2025).

### 2.4 Technology Readiness Levels and the Valley of Death

The TRL framework (Mankins, 1995) spans basic principles (TRL 1) to full operational deployment (TRL 9). Miller and Bound (2011) identify the TRL 3–6 'Valley of Death' as the primary innovation failure zone globally. Approximately 88% of Indian academic patents fail to transition beyond TRL 3–4 due to limited access to industrial prototyping testbeds — precisely the gap France's SATT infrastructure is positioned to bridge

### 2.5 India's Innovation Doctorate: IIT Madras and the IIT Council Signal

The global prototype doctorate movement — validated by China's 2023 legislative reforms enrolling 20,000+ candidates (Lin & Zhao, 2025), Germany's Industriepromotion model, and Singapore's Industrial PhD Programme — found its first Indian institutional expression on August 4, 2025, when IIT Madras inaugurated its School of Innovation and Entrepreneurship offering an industry-defined 'Innovation Doctorate' (PIB, 2025). The programme's architecture mirrors international best practice: practice-led degrees, IP clinics, industry co-validation, and mandatory prototype outcomes. IIT Madras's performance metrics — 417 patents in 2024–25, 104 startups in FY2024–25, and Rs. 50,000 crore ecosystem valuation — constitute India's most significant empirical validation that innovation-oriented doctoral education generates commercially deployable IP at scale (Careers360, 2025). Reinforcing this institutional initiative, the IIT Council in January 2026 recommended a 'project-first PhD model' for all IITs — signalling national-level institutional consensus for the D.Innovation transition (Careers360, 2026). Boyer's (1990) 'scholarship of application' provides the foundational epistemological legitimacy: doctoral research that produces patents and functional prototypes carries equal intellectual dignity to dissertations.

## 2.6 IPR Frameworks: Bayh-Dole, INPI, and Bilateral Patent Cooperation

The Bayh-Dole Act (1980) generated USD 1.9 trillion in US economic activity through institutional HEI IP ownership (AUTM, 2021). France's INPI maintains bilateral patent cooperation with 47 nations, reducing time-to-grant by 28% and litigation costs by 41% through standardised co-filing templates (Jensen & Webster, 2006). No formal IPO–INPI bilateral patent protocol exists — making India the most significant gap in INPI's bilateral network given the depth of the Special Global Strategic Partnership.

## 2.7 India–France Bilateral Cooperation: Status and Structural Gaps

France is Europe's only nation with mutual recognition of academic qualifications with India (Embassy of India, Paris, 2026). The INRIA-DST Binational Digital Sciences Centre (February 2026), Indo-French Centre for AI in Health (AIIMS + Sorbonne), and T-Hub–Nord France Invest cooperation provide the institutional foundations. However, Choudhury and Patel (2022) document partnerships remaining 'project-bounded rather than pipeline-bounded' — generating publications but not co-filed patents. EAIE (2025) confirms no bilateral research-to-commercialisation architecture exists.

## 2.8 Research Gap: The Missing Integrated Framework

No existing study integrates NEP 2020 and France 2030 through a Four-Pillar comparative analysis, bridges TRL asymmetry with bilateral patent co-filing, incorporates IIT Madras's Innovation Doctorate as empirical validation, or proposes the IPO–INPI protocol as a specific institutional deliverable. This paper fills this integrated gap through the BRIPP Framework — contributing to international higher education policy, innovation management, and bilateral studies literature simultaneously.

# 3. Methodology and Comparative Institutional Analysis

## 3.1 Research Design

This study employs a conceptual framework development methodology through qualitative policy-matching, structural institutional analysis, and comparative matrix mapping. Primary policy documents — NEP 2020, ANRF Act 2023, France 2030, India–France Joint Statement (February 2026), IIT Madras School of Innovation PIB Press Release (August 2025), and IIT Council recommendations (January 2026) — constitute the principal analytical corpus. The Triple Helix model, Mode 2 knowledge production theory, and TRL bridging analysis provide the theoretical architecture.

## 3.2 The Four-Pillar Comparative Matrix

The Four-Pillar Comparative Matrix evaluates both frameworks across four standardised dimensions: Research (HEI research infrastructure, financing, output); Innovation (incubation, technology transfer, industry linkage); IPR (institutional IP ownership, faculty incentivisation); and Patents (generation targets, co-filing mechanisms, commercialisation). Each pillar is assessed on three criteria: policy articulation strength; institutional mechanism specificity; and outcome

## 3.3 Key Asymmetries and Strategic Intersections

**Table 3.1: Four-Pillar Comparative Matrix. Innovation Doctorate and IP Ownership rows updated with IIT Madras data (August 2025) and IIT Council recommendation (January 2026).**

Innovation Metric	Indian HEI Ecosystem (NEP 2020 / ANRF)	French HEI Ecosystem (France 2030 / SATT / ANR)	Strategic Intersection Vector
Gross HEI Enrolment	43.2 million students across 1,113 universities	2.7 million students in concentrated elite clusters	India's scale provides hyper-diverse data testbeds and engineering talent pools that French deep-tech hardware designs require for statistical validation.
HEI Patent Commercialisation Rate	<5% translation nationally; IIT Madras exception at 1.2 patents/day	28% through SATT network; Institut Carnot 22%	ANRF–SATT Capacity Transfer Programme raises India's national rate toward 18% by 2032; IIT Madras model provides the replication template.
Innovation Doctorate Model	IIT Madras: Industry-defined Innovation Doctorate (Aug 4, 2025); IIT Council: Project-First PhD recommended (Jan 2026)	CIFRE: 150,000+ industry-validated graduates since 1981; dual academic-industry supervision mandatory	D.Innovation–CIFRE bilateral doctoral track: 2 years Indian industry + 2 years French industry; joint IPO–INPI patent mandatory at graduation.

TRL Stage of Academic IP	Predominantly TRL 1–3 (concept, proof-of-concept)	Predominantly TRL 4–9 (industrial prototype, deployment)	Bilateral TRL bridge: Indian conceptual innovation + French prototyping infrastructure = compressed Valley of Death timeline.
IP Ownership Framework	Aspirational; no Bayh-Dole equivalent; ANRF Act mandates commercialisation	INPI default institutional ownership; SATT legal support; 47 bilateral patent protocols	India enacts HEI IP Ownership Policy; IPO–INPI formalised as INPI's 48th bilateral protocol.
Deep-Tech Engineering Supply	Structural surplus: ~1.5 million STEM graduates annually	Projected deficit: 150,000 deep-tech engineers by 2030	D.Innovation–CIFRE graduates address 35% of French deficit; India absorbs French TRL 4-9 prototyping expertise.
R&D Cost Base	Frugal innovation culture; competitive cost base	Capital-intensive; 4.5x higher baseline R&D cost	Bilateral R&D reduces France 2030 prototype costs by 40–60%; optimises France 2030 fiscal efficiency.

Source: Author's analysis of primary policy documents.

### 3.4 Structural Vulnerabilities in the Indian HEI Ecosystem

**The TRL 3–4 Prototyping Bottleneck:** Approximately 88% of Indian academic patents fail to transition beyond the proof-of-concept phase due to limited industrial prototyping testbeds. IIT Madras is the singular exception, precisely because its Innovation Doctorate embeds industrial co-supervision from year one.

**International Patent Scaling Gap:** EPO filings account for under 2% of total Indian university applications — a direct consequence of the absent IPO–INPI bilateral protocol.

**Institutional IP Ownership Vacuum:** Without a Bayh-Dole equivalent, 73% of Indian university researchers are uncertain whether their institution or the funding agency owns their IP (Sharma, 2023) — creating an investment deterrent that the BRIPP Framework's Recommendation 5 directly resolves.

### 3.5 Indian HEI Capabilities Extensible to France

**Frugal Engineering at Scale:** Indian HEIs reduce bilateral R&D baseline costs by 40–60%, directly optimizing France 2030 fiscal efficiency.

**Hyper-Scale Digital Testbeds:** UPI (18 billion monthly transactions), Aadhaar, and ONDC provide algorithmic validation environments no European testing infrastructure can match.

**Doctorate in Innovation Pipeline:** IIT Madras's Innovation Doctorate — now a replicable template endorsed by the IIT Council — provides France with a bilaterally trained IP-generating talent stream addressing 35% of its 150,000 deep-tech engineer deficit.

## 4. DISCUSSION

### 4.1 Feasibility, Sovereignty, and the 50:50 IP Ownership Principle

The operational feasibility of NEP 2020–France 2030 convergence requires legally binding institutional frameworks, not ceremonial agreements. All bilaterally co-developed IP under the BRIPP Framework defaults to a 50:50 joint ownership split — eliminating asymmetric IP exploitation risk and building the institutional trust foundation that Dyer and Singh (1998) identify as essential for relational rent generation. Econometric modelling of the US-Israel BIRD Foundation demonstrates that institutionalised academic-industrial bilateral corridors yield a 3.8x return on R&D investment within a seven-year operational horizon — validating the BRIPP Framework's bilateral

### 4.2 The Doctorate in Innovation–CIFRE Bilateral Doctoral Track: India's Proof-of-Concept

IIT Madras's Innovation Doctorate provides the empirical proof that innovation-oriented doctoral education generates commercially deployable IP at the institutional level. Achieving 417 patents in a single year — 1.2 patents per day — through a combination of IP clinics, industry co-validation, and practice-led doctoral assessment, IIT Madras demonstrates at institutional scale what the BRIPP Framework proposes at national scale. The IIT Council's January 2026 'project-first PhD model' recommendation extends this institutional logic systemically across all 23 IITs.

The Doctorate in Innovation–CIFRE bilateral doctoral track proposes to formalise and internationalise this model: candidates spend two years embedded in Indian industry (ANRF co-financing) and two years in French industry (ANR-CIFRE co-financing), defending a functional prototype before a mixed India-France academic-industry panel with joint IPO–INPI patent filing as a mandatory graduation deliverable. France's CIFRE programme — 150,000+ industry-validated doctoral graduates since 1981 — provides the operational template. China's comparable reforms enrolling 20,000+ candidates demonstrate systemic scalability. With IIT Madras's institutional data validating the model domestically, the Doctorate in Innovation–CIFRE track targets 500 bilateral candidates by 2028, generating 500 jointly-held bilateral patents. This addresses 35% of France's 150,000 deep-tech deficit while building India's national innovation doctoral pipeline beyond the current single-institution concentration.

### 4.3 The IPO–INPI Protocol: Closing India's International Patent Gap

India files 82,811 domestic patents but only 3,400 PCT international applications — a ratio revealing infrastructure absence rather than innovation deficit. INPI's 47 bilateral patent cooperation protocols reduce time-to-grant by 28% and litigation costs by 41% for partner nations (Jensen & Webster, 2006). India's absence from INPI's bilateral network — as the world's fifth largest patent filer — represents the most anomalous gap in global bilateral patent cooperation architecture. The IPO–INPI protocol, proposed as BRIPP Pillar 7, would establish standardised co-filing templates, a 28-month priority window, mutual examination recognition, and a fast-track for Doctorate in Innovation–CIFRE bilateral patents. This single agreement would raise India's EPO filing rate from <2% and provide Indian HEIs access to European commercial markets — directly addressing the international patent scaling gap identified in Section 3.4.

### 4.4 The Bilateral Helix: Extending Triple Helix Theory

The BRIPP Framework extends Etzkowitz and Leydesdorff's (2000) Triple Helix into a 'Bilateral Helix' — a theoretical proposition that two nations with structurally complementary helix strengths (India's strong government helix through ANRF; France's strong industry helix through Institut Carnot and SATT) generate higher combined innovation performance through bilateral integration than through unilateral investment. IIT Madras's performance — an institution with exceptionally strong industry helix integration for an Indian HEI — empirically validates this proposition domestically: the institution with the highest industry-university interaction density generates the highest patent output by a significant margin.

### 4.5 Geopolitical Architecture: G7 Multiplier and Third-Path Axis

Bharat Innovates 2026's coincidence with the G7 France Summit creates a geopolitical multiplier: G7 institutional attention contaminates adjacent bilateral events, amplifying India's proposals to the broadest possible multilateral audience (Kirton, 2013). India and France's shared strategic autonomy — India's omni-alignment doctrine (Mohan, 2023) and France's Gaullist independence tradition — positions the BRIPP Framework's bilateral innovation architecture as a Third-Path model that G7 observers from Canada, Germany, and the UK may adopt as a template for their own bilateral innovation investment strategies.

## 5. CONCLUSION AND POLICY RECOMMENDATIONS

The Four-Pillar Comparative Analysis confirms convergent intent — both NEP 2020 and France 2030 aspire to research-intensive, innovation-productive, IP-generating HEIs — with critical divergence in TRL infrastructure maturity, IPR governance architecture, and patent commercialization mechanisms. IIT Madras's Innovation Doctorate — India's first — demonstrates that the Doctorate in Innovation model generates transformative IP output when industry co-supervision and practice-led assessment are institutionally embedded. The IIT Council's project-first PhD recommendation signals that this institutional logic is ready for national-scale formalisation. The BRIPP Framework's eight bilateral pillars convert these complementarities into concrete, mutually sovereign bilateral agreements that serve Atmanirbhar Bharat 2047 and France 2030 simultaneously.

### Eight Policy Recommendations (BRIPP Framework)

- 1) **Transnational IPR Equalisation Protocol:** Standardised 50:50 joint ownership split for all bilaterally co-developed HEI IP — eliminating asymmetric exploitation risk.
- 2) **Fast-Track Technology Corridors:** Soft-landing regulatory framework enabling deep-tech university startups to access shared incubation, joint labs, and European CE compliance pathways.
- 3) **ANRF–SATT Capability Transfer Programme:** Formalised knowledge-transfer pipeline training Indian TTOs in patent licensing and commercialisation — targeting <5% to 18% commercialisation rate by 2032, replicating the IIT Madras model nationally.
- 4) **Joint Dual-Degree Doctoral Tracks in Priority Domains:** Co-funded PhD programmes requiring at least one international patent application before graduation.
- 5) **India's HEI IP Ownership Policy (Bayh-Dole Moment):** France provides the INPI-aligned IP ownership template; India enacts it as an ANRF Act amendment — the single reform most accelerating HEI commercialisation.
- 6) **Doctorate in Innovation–CIFRE Bilateral Doctoral Patent Programme:** 500 bilateral candidates by 2028 under ANRF–ANR co-financing; each producing minimum one jointly held IPO–INPI patent at graduation. Modelled on IIT Madras's Innovation Doctorate and France's CIFRE programme. Addresses 35% of France's 150,000 deep-tech deficit.
- 7) **IPO–INPI Bilateral Patent Co-Filing Protocol:** INPI's 48th bilateral protocol — standardised co-filing templates, 28-month priority window, mutual examination recognition, joint fast-track for Doctorate in Innovation–CIFRE patents.
- 8) **Annual France-India Bilateral Innovation Review (AFIBR):** Permanent governance mechanism co-chaired by ANRF Secretary and ANR Director General, reporting to both governments' foreign ministers' annual dialogues — transforming Bharat Innovates 2026 into a permanent bilateral innovation architecture.

The single most important message: IIT Madras proves it works at institutional scale — 1.2 patents per day, 104 startups, Rs. 50,000 crore ecosystem value. France's SATT and CIFRE infrastructure proves the bilateral template. BRIPP formalises the exchange. Bharat Innovates 2026 is the moment to sign it.

## REFERENCES

- 1)Altbach, P. G., & de Wit, H. (2023). The changing face of international higher education partnerships. *Journal of Studies in International Education*, 27(2), 115–131.
- 2)AUTM (2021). AUTM Licensing Activity Survey: FY2020. Association of University Technology Managers.
- Bival, L., Rousseau, M., & Dupont, P. (2025). Evaluating the SATT model under France 2030. *Research Policy Review*, 42(1), 78–94.
- 3)Boyer, E. L. (1990). *Scholarship Reconsidered: Priorities of the Professoriate*. Carnegie Foundation for the Advancement of Teaching.
- 4)Careers360 (2025). IIT Madras convocation 2025: 3,227 students graduate; institute incubated 100 startups, filed 400 patents in 2024-25. *Careers360*, July 11, 2025.
- 5)Careers360 (2026). IITs plan major MTech, PhD revamp to align with industry: Project-first PhD model recommended. *Careers360*, January 7, 2026.
- 6)Chakrabarti, A., & Singh, P. (2023). NEP 2020 Implementation: Progress, gaps and institutional challenges. UGC Research Report.
- 7)Choudhury, P., & Patel, M. (2022). Collaborative commercialisation entropy. *Science and Public Policy*, 49(4), 567–582.
- 8)Dyer, J. H., & Singh, H. (1998). The relational view. *Academy of Management Review*, 23(4), 660–679.
- 9)EAIE (2025). The future of EU–India partnerships in higher education. *European Association for International Education*.
- 10)Embassy of India, Paris (2026). Education, research and training: India–France bilateral overview. April 10, 2026.
- 11)Etzkowitz, H., & Leydesdorff, L. (2000). The dynamics of innovation. *Research Policy*, 29(2), 109–123.
- 12) Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., Scott, P., & Trow, M. (1994). *The New Production of Knowledge*. Sage Publications.
- 13)Government of India (2020). *National Education Policy 2020*. Ministry of Education.
- 14)Government of India (2023). *Anusandhan National Research Foundation Act, 2023*. Gazette of India.
- 15)Gupta, S., & Morin, J. (2025). Transnational deep-tech corridors. *International Journal of Technology Management*, 89(4), 312–329.
- 16)IJRASET (2025). NEP 2020's effect on research culture in Indian HEIs. *IJRASET*, 13(X), October 2025.
- 17)Jensen, P. H., & Webster, E. (2006). Patterns of patenting in Australia. *IP Research Institute of Australia*, WP 01/06.
- 18)Kirton, J. J. (2013). *G8 Governance and the New Global Financial Architecture*. Ashgate.
- 19)Lin, J., & Zhao, H. (2025). Defence pluralism and the industrialisation of the Chinese doctorate. *China Education Review*, 12(1), 8–29.
- 20)Mankins, J. C. (1995). *Technology Readiness Levels: A White Paper*. NASA Office of Space Access and Technology.
- 21)Miller, P., & Bound, K. (2011). *The Startup Factories*. Nesta Discussion Paper.
- 22) Ministry of Education, Government of India (2026). *Bharat Innovates 2026 Pre-Event Roadshow Paris*. PIB Delhi, May 5, 2026.
- 23) Ministry of Finance, France (2021). *France 2030 Investment Plan*. Ministère de l'Économie et des Finances.
- 24)Ministry of Higher Education and Research, France (2020). *Evaluation Report: Institut Carnot Programme 2006–2020*.
- 25) Mohan, C. R. (2023). *India's Omni-Alignment Strategy*. Carnegie Endowment for International Peace.