SUBMITTED TO

Chief Secretary, Government of Rajasthan

VIKSIT RAJASTHAN 2047

— THE MISSING LAYER —

A Strategic Supplement to the Viksit Rajasthan 2047 Framework

The Compounding Blueprint — Human Capital · Energy Economy · Sovereign AI · Startup Flywheel

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FOREWORD

How did one million people in San Francisco outpace ten million people in New York — when New York had every conceivable advantage? Capital. Talent. Infrastructure. Institutions. History. New York had it all. And yet San Francisco changed the world.

The answer is not resources. It is the architecture of possibility — a system deliberately designed to unleash human entrepreneurial energy without requiring permission from incumbents.

This insight carries a deeper resonance for India. Before 1500 AD, India held the largest share of global trade. Nalanda was arguably the world's first great university — drawing scholars from across Asia, producing knowledge that the known world sought. India was not merely a participant in the global knowledge economy. It led it. That inheritance was not lost. It was interrupted.

The time to rekindle it is now — under the leadership of Prime Minister Narendra Modi, whose Viksit Bharat 2047 mission is a civilisational commitment, not a policy programme.

Rajasthan stands at a rare inflection. In the past week, India's first greenfield refinery in a decade was commissioned at Pachpadra. Forty-three thousand crore rupees in data centre proposals have arrived. The state's solar energy capacity stands neck and neck with Gujarat — together the two states producing more than a third of India's entire renewable energy. The iStart programme has built one of India's largest state startup ecosystems. These are real achievements on a foundation that most Indian states would envy.

The argument of this report is that these achievements, impressive as they are, remain parallel contributions rather than a compounding system. The element that converts parallel strengths into exponential growth is the innovation flywheel — the institutional architecture that connects human capital, entrepreneurial energy, and economic opportunity into a self-reinforcing cycle.

Stanford University did not produce Silicon Valley through grants or government schemes. It produced Silicon Valley because Frederick Terman, a professor who became provost, made one decision: that the commercial success of his students was the university's highest academic achievement. That decision, made in 1937, is still compounding today. IIT Madras did not produce a startup every three days through policy mandates. It produced that ecosystem because Professor Ashok Jhunjhunwala returned from America in 1981 and spent forty years treating venture creation as equivalent to journal publication.

Rajasthan's universities — BITS Pilani, IIT Jodhpur, MNIT Jaipur — are capable of the same. The energy economy, the sovereign AI infrastructure, and the startup ecosystem are the sectors that give those universities their purpose and their market. The university innovation flywheel is the element that gives those sectors their long-run compounding engine.

This report submits the architecture for that flywheel — and the six decisions that, taken together, position Rajasthan to lead India's Viksit Bharat transformation rather than merely participate in it.

San Francisco did not wait for New York's permission.

— Sanjay Yadav

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EXECUTIVE SUMMARY

Rajasthan in July 2026 — The Inflection Point

Three developments in the past week mark Rajasthan's arrival as a new age economy state. HPCL Rajasthan Refinery at Pachpadra — India's first greenfield refinery in a decade, inaugurated by Prime Minister Modi on July 4, 2026, at a cost of ₹79,459 crore. Investment proposals worth ₹43,000 crore in data centres and AI infrastructure, announced July 1, with Chief Minister Bhajanlal Sharma personally positioning Rajasthan as India's sovereign AI hub. And 47,020 MW of installed renewable energy — within 158 MW of Gujarat — with Rajasthan holding India's undisputed solar leadership at 36 GW, or 27% of the national total.

The iStart programme adds a fourth pillar: 8,700+ registered startups, ₹1,000+ crore in investment raised, 48,000+ direct jobs created, and Techno Hub Jaipur recognised as India's largest startup incubator. Taken together, these four pillars place Rajasthan among India's most consequentially positioned states for the next quarter-century.

The Central Argument

The study of San Francisco's rise against New York — one million people outpacing ten million — yields a fundamental insight: economic transformation at scale does not come from good policies running in parallel. It comes from a compounding flywheel. The three factors that built Silicon Valley — Innovation Capital that accepts total loss, Talent Recycling across institutions and companies, and Institutional Permeability where universities dissolve the boundary between academic knowledge and commercial application — are the same three factors that Rajasthan must deliberately architect.

Rajasthan has the sectoral strengths. The critical missing element is the architecture that connects them into a self-reinforcing system. Human capital — the unleashing of talent from Rajasthan's universities into ventures that serve the state's energy economy and technology sectors — is the highest-priority investment. It is the only asset that compounds on itself indefinitely.

Six Decisions — In Order of Strategic Priority

#	Decision	Department	Timeline	Defining Outcome
1	Convene the Terman Summit — Directors of BITS Pilani, IIT Jodhpur, MNIT Jaipur, and Manipal Jaipur. One agenda: identify one faculty champion per institution and commit institutional support for the School of Patent and Venture Creation. Link each institution explicitly to a sector anchor — IIT Jodhpur to energy and AI, BITS Pilani to materials and petrochemicals, MNIT to manufacturing and electronics.	Higher Education + DoIT&C + TiE Rajasthan	90 days	4 institutional champions identified · SPVC Cohort 1 launched by Year 2
2	Launch the PCPIR — formally declare the 100 sq km area around HRRL Pachpadra as India's fifth Petroleum, Chemicals and Petrochemicals Investment Region. Invite downstream manufacturers in plastics, specialty chemicals, synthetic rubber, and pharmaceutical feedstocks.	Industries + Petroleum Ministry coordination	90 days	₹25,000 Cr downstream pipeline within 12 months
3	Constitute the Rajasthan Sovereign AI and Data Centre Authority — single-window body to convert ₹43,000 Cr proposals into grounded investment. Power guarantee from solar surplus at ₹2/unit. Land allocation at AI Infrastructure Parks. 30-day clearances.	DoIT&C + Energy + Industries	90 days	₹10,000 Cr grounded in Year 1
4	Issue the SAFE Policy Notification — upgrade iStart's funding instruments from grants and loans to SAFE equity participation. One DoIT&C circular. No legislation required. Makes iStart's ₹100 Cr Fund of Funds self-replenishing.	DoIT&C (iStart team)	60 days	Government innovation capital becomes permanent, not spent
5	Scale Government Procurement from Startups — from ₹30 Cr cumulative to ₹300 Cr per year. Energy department to procure from CleanTech startups.	All Departments — DoIT&C coordinates	6 months	₹75 Cr in Year 1 · proof of concept established

	Data centre companies to procure from AI startups. Petroleum orders to materials science startups.			
6	Activate AI/ML Policy 2026 Economic Layer — publish Rajasthan AI Data Catalogue, launch RAPI as CoE-AI's KPI framework at district level, establish IIT Jodhpur Rural AI Centre as CoE-AI's sector-specific arm.	DoIT&C + CoE-AI + Higher Education	6 months	District-level RAPI baseline published quarterly

Rajasthan's 10-Year Horizon

Dimension	2026 Position	2036 Ambition
Human Capital and Innovation	iStart 8,700+ startups · SPVC not yet launched · University-sector link informal	BITS Pilani, IIT Jodhpur, MNIT each producing 10+ patents and 3+ ventures annually · 400+ patents/year state total · First Rajasthan university spinout unicorn
Energy Economy	47,020 MW RE · HRRL commissioned · Barmer crude · No PCPIR	125 GW RE target on track · PCPIR operational — ₹3 lakh crore downstream investment · 5 lakh petrochemical jobs · India's Energy Capital
Sovereign AI Infrastructure	₹43,000 Cr proposals · STT GDC operational · AI/ML Policy 2026 in force	₹2 lakh crore+ data centre investment grounded · India's second-largest data centre state · Physical anchor for IndiaAI Mission compute
Startup Ecosystem	8,700+ iStart startups · 48,000 jobs · ₹1,000 Cr raised	40,000+ active startups · 3,00,000+ jobs · ₹10,000 Cr annual VC · Top 2 national ecosystem
GSDP	~$204 Billion	~$600 Billion — credible with energy + AI + startup flywheel compounding

SECTION 1 Viksit Rajasthan 2047 — The Foundation

The Government of Rajasthan has built more than most Indian states can claim. Viksit Rajasthan 2047 is a genuine strategic framework, backed by real execution. Any credible analysis of what Rajasthan can become must begin with an honest accounting of what already exists.

1.1 — The New Age Economy Breakthroughs (2025-26)

HPCL Rajasthan Refinery Limited (HRRL) — Pachpadra, Balotra District — Inaugurated July 4, 2026

Investment: ₹79,459 crore. Joint venture: HPCL (74%) + Government of Rajasthan (26%). Refining capacity: 9 MMTPA. Petrochemical capacity: 2.4 MMTPA. Products: BS-VI petrol and diesel, polypropylene, HDPE, butadiene, benzene, toluene. Nelson Complexity Index: 17 — well above the global average of 8-10. The refinery meets 9-10% of India's fuel demand. 1.5 MT crude sourced from Rajasthan's own Mangla Terminal, Barmer. Commercial operations commenced June 22, 2026. An area of 100 sq km has been identified around the refinery for downstream petroleum, chemicals, and petrochemicals industries. India's first greenfield refinery in a decade — and the country's 24th refinery.

₹43,000 Crore Data Centre and Sovereign AI Proposals — Announced July 1, 2026

Investment proposals worth ₹43,000 crore in data centres received, announced at the 29th National Conference on e-Governance, Jaipur. Investors: STT GDC (AI-ready data centre already operational in Jaipur), HG Akaya, Nayo Bolt, Ztudium. Chief Minister Bhajanlal Sharma: "Rajasthan is positioning itself as a preferred

destination for data centres, Artificial Intelligence and next-generation digital infrastructure, backed by policy support, land availability and renewable energy." The state is preparing dedicated policies for AI, data centres, GCCs, drones, and geospatial technology.

1.2 — Energy Leadership

Dimension	Rajasthan	Gujarat	National Context
Total Renewable Energy (March 2026)	47,020 MW — 17.12% of India	47,178 MW — 17.18% of India	Separated by 158 MW. Together: 34% of India's total.
Solar Capacity	36 GW — India's #1. 27% of national total.	24.8 GW — India's #2	Rajasthan's solar lead is commanding: 11 GW ahead of Gujarat.
Solar Generation (2024-25)	57.35 BU — highest in India	52.00 BU	Rajasthan generates more solar power than any other Indian state.
Solar Radiation	6-7 kWh/m²/day · 325+ sunny days annually	Lower than Rajasthan	Thar Desert irradiation cannot be replicated by policy. It is geography.
Crude Oil Production	Barmer fields — Mangla Terminal · 1.5 MT feeds HRRL	No significant onshore crude	Rajasthan is the only state with solar dominance AND crude production.
Refinery	HRRL — 9 MMTPA · NCI 17 · Integrated petrochemicals · July 2026	Reliance Jamnagar (incumbent, world's largest)	Rajasthan now has the complete energy value chain.
Renewable Energy Targets	125 GW by 2030 · 290 GW by 2047	100 GW by 2030	Both states lead India's energy transition. Rajasthan has the

			natural advantage.

1.3 — Governance, iStart, and Startup Foundation

Dimension	Achievement	National Significance
Governance Reform	430+ BRAP reforms · Top Achiever in 4 DPIIT categories	Among India's most improved states for ease of doing business.
iStart Ecosystem	8,700+ startups · ₹1,000+ Cr raised · 48,000+ jobs · Techno Hub = India's largest incubator · 8 cities	One of India's largest and most systematically built state startup programmes.
AI/ML Policy 2026	Cabinet-approved December 31, 2025 · CoE-AI · MoUs with Google, IIT Delhi, NLU Jodhpur, Wadhwani Foundation	First state AI policy explicitly aligned with Viksit Bharat.
Mining	81 minerals · Lithium (Nagaur) · Potash (Bikaner) · Rare Earth Elements · India's 2nd largest mineral producer	Critical materials for India's energy transition, EV supply chain, and defence electronics.
Investment Conversion	₹35 lakh crore MoUs at Rising Rajasthan Summit · ~23% grounded	23% conversion is above the national average for investment summit outcomes.
School Innovation Programme	1,16,000+ students in iStart School Programme · 65 Launchpad Nests across all 33 districts	Grassroots entrepreneurial pipeline being built at scale.

Rajasthan in July 2026 is not at the beginning of its transformation. The energy economy infrastructure is operational. The startup ecosystem is real. The AI proposals are arriving. The challenge — and the opportunity — is to convert parallel progress into compounding growth. That is the argument of this report.

SECTION 2 Human Capital and the University Innovation Flywheel

Among all economic inputs, human capital is the only one that compounds on itself indefinitely. Physical infrastructure depreciates. Natural resources deplete. Capital is consumed. Talent — when given institutional permission to innovate — generates more talent, more capital, and more innovation in a self-reinforcing cycle. This is the central lesson of Silicon Valley, and it is the highest-priority strategic investment available to Rajasthan.

2.1 — The Silicon Valley Insight: Talent Unleashing as Economic Architecture

San Francisco's one million people outpaced New York's ten million not because they were more educated, better capitalised, or more institutionally supported. They outpaced New York because the institutional architecture was deliberately designed to convert knowledge into ventures, ventures into wealth, and wealth back into knowledge. Three mechanisms drove this:

Mechanism	What It Means	Silicon Valley Example	The Outcome
Innovation Capital	Risk-tolerant equity that accepts total loss in exchange for asymmetric upside. Capital that funds companies that "should not yet exist."	Sand Hill Road venture capital — not Wall Street debt. The SAFE instrument allows investment without requiring a startup valuation. Government and private investors accept failure as the cost of discovery.	Companies that would never have received bank loans became Apple, Google, Intel. The failures funded the successes through equity recycling.
Talent Recycling	Engineers and founders moving freely between	Fairchild Semiconductor alumni founded Intel, AMD, and Kleiner Perkins	A self-sustaining talent ecosystem where knowledge

	companies, carrying knowledge, relationships, and capital from each experience to the next.	— all within thirty miles of each other. Each generation funded and mentored the next.	compounds with each career move. Silicon Valley's unbeatable moat is not its companies. It is its human network.
Institutional Permeability	Universities dissolving the boundary between academic knowledge and commercial application. Faculty treating venture creation as a legitimate and rewarded academic output.	Frederick Terman at Stanford lent $538 to students Hewlett and Packard in 1937, treating their commercial success as the university's highest achievement. Stanford Industrial Park was the first university research park in the world.	Stanford alumni companies today generate revenue exceeding three trillion US dollars annually — larger than the GDP of France.

2.2 — India's Answer: Professor Ashok Jhunjhunwala and IIT Madras

India does not need to look to Stanford or Silicon Valley as its only reference. It has its own proof of concept — built in Chennai, not California.

In 1981, Professor Ashok Jhunjhunwala returned to India from the United States. He joined IIT Madras with one conviction: that technology research at Indian universities must solve Indian problems, and that the measure of that success is not the journal in which it is published, but the product it creates and the company it builds.

He founded the TeNeT Group — Telecommunications and Computer Networks — and spent four decades treating venture creation as academic output. He built the IIT Madras Research Park, where more than a hundred established companies and a hundred and fifty incubated startups now work alongside faculty and students. He was awarded the title of Dronacharya by TiE for nurturing more than three hundred and fifty companies. Faculty ventures from IIT Madras today carry a combined valuation of ₹11,500 crore. The institute produces a new startup every three days.

He did not wait for a government scheme. He did not require UGC approval to redefine what academic excellence meant. He made one institutional decision — commercial output equals academic output — and sustained it for forty years.

This is the model for Rajasthan. Not the Silicon Valley tech park. Not the government-funded incubator. The Jhunjhunwala decision: one person, inside one institution, making one unconventional commitment — and sustaining it.

2.3 — The Terman Decision for Rajasthan: Finding the Champion

Every compounding innovation flywheel in history has been ignited by one human catalyst. Frederick Terman at Stanford. Ashok Jhunjhunwala at IIT Madras. Lee Kuan Yew in Singapore. Narendra Modi in India. The institution provides resources. The person provides conviction. Without the person, resources produce activity. With the person, resources produce compounding.

Rajasthan has four institutions capable of playing the role that Stanford played in Silicon Valley and IIT Madras played in Chennai.

Institution	Natural Sector Alignment	Why It Can Be Rajasthan's Stanford	The First Step
IIT Jodhpur	Energy technology, AI and machine learning, materials science, desert ecology — all strategically aligned with Rajasthan's geography and the HRRL energy economy	Located at the geographic heart of Rajasthan's energy and mineral belt. Growing AI/ML faculty. Natural home for the Rajasthan Rural AI Centre under the CoE-AI. Direct proximity to the HRRL refinery and Barmer crude fields.	Formal link between IIT Jodhpur and HRRL for energy technology research. Joint appointment of a Senior Fellow bridging the institution and the energy sector.
BITS Pilani	Materials science, chemical engineering, petrochemicals, manufacturing systems — directly aligned with PCPIR downstream opportunity	Among India's finest private engineering institutions. Strong alumni network in industry. BITS Innovation Centre exists. The PCPIR creates immediate commercial demand for petrochemical and materials engineering research.	BITS Pilani faculty engagement in PCPIR technology development. Formal MoU between BITS and HRRL for research collaboration.

MNIT Jaipur	Electronics, manufacturing, data science, power systems — aligned with data centre and energy management demand	State's premier government technical institution. Largest engineering talent pool. MNIT MIIC incubator already operational. Proximity to iStart Techno Hub creates natural pipeline for ventures.	MNIT faculty integration with iStart Techno Hub. SPVC established as a division of MNIT MIIC with dedicated patent filing support.
Manipal Jaipur	Health technology, financial technology, AI applications — aligned with NBFC rural finance cluster and data centre AI demand	Newer institution with greater institutional flexibility. Strong HealthTech and FinTech orientation. The NBFC cluster of 111 companies around Jaipur provides immediate commercial demand for FinTech research.	TiE Rajasthan direct approach to Vice-Chancellor. First SPVC cohort focused on Rural FinTech and HealthTech applications.

2.4 — The School of Patent and Venture Creation (SPVC)

The SPVC is the institutional mechanism that operationalises the Jhunjhunwala philosophy at Rajasthan's universities. It is positioned above the iStart Launchpad Nests at school level and feeds directly into iStart's Techno Hub incubation pipeline — connecting the two layers of the ecosystem into a continuous supply chain from student idea to funded company.

SPVC Element	Design	Annual Output Target
Selection	15 student-faculty teams per institution selected competitively. Minimum 5 projects per cohort must use AI applied to one of Rajasthan's five sector anchors. Selection criteria: technical novelty, commercial problem addressed, team quality, faculty commitment.	15 teams per institution
Programme Duration	12 months: Customer discovery (Months 1-3) → Prototype and IP filing (Months 4-6) → Sector anchor pilot with a Rajasthan company	1 cohort per year

	(Months 7-9) → Investor readiness and Demo Day (Months 10-12)	
Financial Support	₹1 lakh Stupreneur Fellowship per student team member. Patent filing: dedicated Patent Cell provides provisional application within 30 days at zero personal cost to the team.	₹1 lakh per team member
Output Targets	10 provisional patents + 3 fundable ventures per institution annually. At 4 institutions: 40 patents and 12 ventures per year from Year 2 onwards.	40 patents + 12 ventures (4 institutions)
Pipeline Connection	SPVC Demo Day held at iStart Techno Hub. National VCs and iStart angel network attend. Best SPVC ventures enter iStart incubation pipeline at Techno Hub. Capital from iStart ₹100 Cr Fund of Funds available via SAFE.	Direct feed into iStart Techno Hub

2.5 — Faculty Policy Reforms

The SPVC produces its full potential only when faculty career advancement is materially linked to commercial output. University promotion criteria in India reward publications and citations exclusively. The following reforms are required at institutional level — none require UGC approval at the pilot stage.

Reform	Current State	Required Change
Promotion criteria	Publications and citations exclusively	Dual Track: Research Publication Track or Commercial Impact Track (patents, startup co-founding, industry partnerships, licensed IP). Either track is valid for promotion.
Patent equivalence	Patent carries no promotion weight	One granted patent with an active industry license is equivalent to one publication in a top-tier peer-reviewed journal for promotion purposes.
IP revenue sharing	Unclear, bureaucratic, minimal personal incentive	Faculty member receives 40% of net licensing revenue. Institution retains 40%. Department receives 20% for reinvestment in research infrastructure.

Patent filing support	Faculty bear personal cost and time burden	Dedicated Patent Cell at each institution. Provisional application filed within 30 days of faculty disclosure. Zero personal cost.
Startup leave	No formal policy — creates career uncertainty	Two-year Startup Leave with a guaranteed right to return to the same or equivalent position. Faculty retain institutional affiliation and laboratory access.
Institutional equity stake	No clear policy — institutions sometimes demand 20-30%	Standard 5% institutional equity stake — hard capped. Faculty retain the majority of their venture to incentivise disclosure and commitment.

SECTION 3 The Six Economic Engines — Rajasthan's Revised Position

Economic development at the scale Rajasthan aspires to — $4.3 trillion GSDP by 2047 — requires simultaneous progress across six universal engines. The Pareto principle applies: two or three of these engines, well-chosen and properly funded, will generate 80% of the compounding outcome.

Engine	Current Score	Revised Baseline Facts	Priority Action
1. Human Capital and Talent Unleashing	5/10	Education budget 16% of state expenditure. iStart School: 1,16,000 students. 65 Launchpad Nests. Four premier engineering institutions. But 30%+ teacher vacancies. University-sector link informal.	HIGHEST PRIORITY: Terman Summit · SPVC at 4 institutions · Faculty promotion reform · Institutional Permeability as policy.
2. Energy Economy (New Addition)	8/10	47,020 MW RE · India's #1 solar state (36 GW) · HRRL commissioned (9 MMTPA, NCI 17) · Barmer crude · ₹43,000 Cr data centre proposals · 100 sq km PCPIR identified.	PCPIR declaration · Sovereign AI Authority · Solar power guarantee for data centres · Captive solar for mining and industry.
3. Capital Formation and Innovation Capital	5/10	iStart equity fund ₹5 Cr/startup · ₹100 Cr Fund of Funds announced · 35% VC CAGR 2021-24 · $370 Mn raised since 2014.	SAFE notification · University Accelerator Vehicle · Angel network formalisation · NRR diaspora LP participation.
4. Institutional Quality	5/10	430+ BRAP reforms · AI/ML Policy 2026 · Top DPIIT achiever.	Single-window clearance · CoE-AI activation · RAPI as governance metric.

5. Infrastructure (Physical + Digital)	6/10	Roads improving · HRRL pipeline network · Solar grid infrastructure · iStart digital platform strong · DPI rails available.	AI Infrastructure Parks · Amritsar-Jamnagar Expressway activation · Data centre power infrastructure.
6. Startup and Innovation Ecosystem	5/10	8,700+ iStart startups · 48,000 jobs · ₹1,000 Cr raised · Techno Hub India's largest.	SAFE upgrade · SPVC-Techno Hub pipeline · Sector synergy design · Government as first customer (₹300 Cr/year).
Sovereign AI	3/10 (early but accelerating)	AI/ML Policy 2026 · ₹43,000 Cr proposals · CoE-AI mandated.	AI Data Catalogue · RAPI · IIT Jodhpur Rural AI Centre · AI Infrastructure Parks.
Debt Constraint	22% of budget to interest payments	41 paise of every rupee locked before productive investment.	Revenue growth through energy economy and innovation — not austerity — is the path out.

SECTION 4 Rajasthan's Integrated Energy Economy

Rajasthan has achieved something no other Indian state has managed: the complete energy trifecta. Solar dominance. Significant onshore crude production. And now, with the commissioning of HRRL, an integrated refinery and petrochemical complex. These three elements, combined with ₹43,000 crore in AI data centre proposals powered by solar surplus, constitute the foundation of a new age energy economy that places Rajasthan in direct competition with established industrial states.

4.1 — The PCPIR Opportunity

A refinery creates economic value in two ways. The first is direct: fuel production, employment, tax revenue. The second is transformational: the downstream ecosystem of industries that locate around a refinery to use its petrochemical outputs as feedstocks.

The HRRL refinery produces polypropylene, HDPE, butadiene, benzene, and toluene. Each of these is a feedstock for dozens of downstream industries. Polypropylene goes into automotive components, packaging, construction materials, and agricultural films. Butadiene is the raw material for synthetic rubber — used in tyres, automotive parts, and industrial components. Benzene feeds pharmaceutical synthesis, dyes, and specialty chemicals. The employment multiplier for downstream petrochemical industries is 6 to 8 jobs for every one job in the refinery itself.

- PCPIR designation: Formal declaration of the 100 sq km area around HRRL as India's fifth Petroleum, Chemicals and Petrochemicals Investment Region, bringing central government incentives and a dedicated authority
- Plastics and packaging manufacturing: Polypropylene and HDPE outputs from HRRL feed directly into this sector — the largest domestic consumer of refinery petrochemicals

- Synthetic rubber and tyres: Butadiene output supports tyre manufacturing, a sector currently concentrated in Chennai and Pune. Rajasthan can attract a western India tyre hub.
- Specialty chemicals and agrochemicals: Benzene and toluene feed specialty chemical manufacturing, including agrochemicals — directly relevant to Rajasthan's agricultural economy
- Pharmaceutical feedstocks: Proximity to Delhi's pharmaceutical distribution network makes Rajasthan attractive for API manufacturing using HRRL's aromatic outputs

4.2 — The Rajasthan-Gujarat Energy Competition

As of March 2026, Gujarat leads India's renewable energy capacity by 158 megawatts — a gap of less than 0.2%. The competition between the two states is the most consequential state-level contest in India's energy transition, because the state that leads will attract disproportionate investment in manufacturing, data centres, and green hydrogen — all of which require large quantities of low-cost clean power.

Rajasthan's advantage is irreversible in one dimension and improvable in others. Solar irradiation of 6-7 kWh/m² per day, sustained across 325 or more clear days annually, is a geographic and climatic fact that policy cannot replicate. Rajasthan's solar generation of 57.35 billion units in 2024-25 — the highest of any Indian state — reflects this advantage. The improvable dimensions are grid infrastructure, industrial power supply agreements, and the downstream use of solar surplus for data centres and green hydrogen production.

4.3 — Solar-Powered Sovereign AI: The Data Centre Opportunity

The ₹43,000 crore in data centre proposals received in the first week of July 2026 reflects a convergence that is unique to Rajasthan: large available land at low cost, reliable solar power at ₹1.8 to 2.2 per unit — 40 to 50% cheaper than grid tariffs in Mumbai or Hyderabad — and sub-20 millisecond latency to Delhi, Mumbai, and Ahmedabad simultaneously.

Electricity is the single largest operating cost for an AI data centre — typically 30 to 40% of total operating expenditure. A facility drawing 100 megawatts of power saves approximately ₹200 to 300 crore annually by locating in Rajasthan rather than in Maharashtra or Karnataka. For a ₹5,000 crore data centre, that is a payback of the electricity cost advantage within 15 to 20 years — making it one of the most significant locational advantages available anywhere in South Asia.

Beyond economics, Rajasthan's solar-powered data centres align with the global commitments of the largest technology companies. Microsoft, Google, and Amazon have each committed to 100% renewable-powered operations by 2030. A data centre in Rajasthan can claim solar-powered operations from day one — a credential of increasing importance to global enterprise customers and to the sovereign AI mission of the Indian government.

SECTION 5 The Startup Ecosystem — iStart's Foundation and the Compounding Upgrade

5.1 — What iStart Has Built

Dimension	Achievement
Registered startups	8,700+ on iStart platform · 5,200+ DPIIT-recognised
Investment and jobs	₹1,000+ crore raised · $370 Mn since 2014 · 48,000+ direct jobs · 2,194 women-led startups
Infrastructure	Techno Hub Jaipur — India's largest startup incubator (1.5 lakh sq ft · 700+ startups · 2,000 seats) · 8 cities
School programme	1,16,000+ students enrolled · 65 Launchpad Nests · all 33 districts covered
QRATE rating system	India's only startup rating mechanism — Bronze to Signature — used for funding access decisions
iStart 2.0 commitments	₹100 Cr Fund of Funds announced · ₹1,000 Cr for Innovation Hubs · 50,000 job target
Government procurement	168 direct work orders · ₹30 Cr cumulative from government departments to iStart startups

5.2 — Three Upgrades to Make iStart's Foundation Compound

Upgrade 1 — SAFE: From Consumed Capital to Self-Replenishing Capital

iStart's funding ladder runs from ₹2.4 lakh pre-seed grants to ₹5 crore equity per startup, with ₹100 crore Fund of Funds announced under iStart 2.0. The instrument — loans and grants — permanently consumes government capital when startups fail, which by the nature of innovation most will do. The SAFE instrument — Simple

Agreement for Future Equity — converts government capital from a one-time expenditure into a self-replenishing pool. No valuation is required at entry, removing the primary obstacle for government officials. The government's stake converts to equity at the next priced funding round. When ten ventures succeed in a hundred, those ten replenish the capital that the ninety consumed. The ₹100 crore Fund of Funds, deployed as SAFE, becomes permanent innovation infrastructure rather than a budget line item.

Upgrade 2 — SPVC: The University Layer Above the School Programme

iStart's Launchpad Nests operate at school level — building entrepreneurial awareness among students in classes 6 through 12. The SPVC operates at university level — producing patents, fundable ventures, and sector-specific AI models from faculty-student teams. The gap between these two layers is where the intellectual capital that iStart's incubators need is created. SPVC ventures enter the iStart Techno Hub pipeline at Demo Day, creating a continuous supply chain from university innovation to commercial startup.

Upgrade 3 — Sector Synergy: From Parallel Verticals to an Integrated Platform

iStart supports AgriTech, FinTech, EdTech, HealthTech, and CleanTech as separate sector verticals. The energy economy adds a sixth: EnergyTech. The upgrade required is horizontal connection: NBFC rural credit data trains AgriTech AI models. HRRL petrochemical outputs feed materials science startups. Solar energy powers data centres hosting AI models. Mining rare earths supply defence electronics ventures. Government procurement flows from energy departments to CleanTech startups and from data centre companies to AI startups. Each sector amplifying every other — that is the transition from a portfolio of good programmes to a compounding platform.

SECTION 6 Sovereign AI — From Proposals to Infrastructure Leadership

The ₹43,000 crore in data centre proposals received in July 2026 represents a window of strategic opportunity. The proposals must be converted to grounded investment within twelve to eighteen months, or the capital will seek locations — in Maharashtra, Karnataka, or internationally — where clearances are faster, power guarantees are firmer, and land allocation is simpler. The Rajasthan Sovereign AI and Data Centre Authority is the instrument for that conversion.

6.1 — The Strategic Context

Nations and states that control AI compute infrastructure — the physical layer of servers, power, and cooling — are positioned to capture a disproportionate share of the AI economy. India's IndiaAI Mission (₹10,300 crore, 38,000 GPUs) is building national compute capacity. Rajasthan, by anchoring the physical infrastructure that powers that compute on its solar energy surplus, becomes the natural location for India's sovereign AI infrastructure expansion.

The India data centre market is growing at 14.6% compound annual growth rate, reaching $27.2 billion by 2032. Microsoft, Google, and Amazon are committing $45 billion collectively to India's AI and cloud infrastructure. The global trend toward 100% renewable-powered operations makes Rajasthan's solar advantage increasingly valuable over time.

6.2 — The Rajasthan AI Per Capita Index (RAPI)

The Rajasthan AI/ML Policy 2026 mandates the Centre of Excellence for AI to conduct monitoring, evaluation, and KPI-based assessment of AI adoption across the state. The RAPI is the measurement framework that fulfils this mandate — extending iStart's QRATE startup rating into a state-wide AI penetration index published quarterly at district level.

When district-level RAPI scores are published quarterly — with the same transparency as crime statistics or election results — every district collector, school principal, NBFC branch head, and gram panchayat can see precisely where they stand relative to every other district. Competitive pressure drives adoption faster than any incentive scheme. The index is simultaneously a diagnostic tool, a governance accountability mechanism, and a forcing function.

Sector	RAPI Metric	2026 Baseline	5-Year Target
Energy (Refinery + Solar)	AI-managed operations as % of total capacity	~5%	60%
Agriculture	AI tools per 1,000 farmers	<5	200
Rural Finance (NBFCs)	AI-assisted credit decisions as % of total	~5%	50%
Data Centre and AI Infrastructure	AI-ready capacity as % of total data centre capacity	20% (STT GDC operational)	80%
Government Services	AI-processed citizen interactions as % of total	~10%	70%
Education	AI learning hours per student per year	<10 hours	200 hours
Overall RAPI Score	Composite weighted index (0-100)	~3 / 100	40 / 100

SECTION 7 Rajasthan as Viksit Bharat's Lead State

Rajasthan's strategy — integrated energy economy, sovereign AI infrastructure, human capital flywheel, and startup ecosystem upgrade — aligns with the national priorities of Viksit Bharat 2047 across every major dimension. A Rajasthan strategy explicitly positioned as Viksit Bharat's proof-of-concept in energy and AI commands greater central government support, stronger investor confidence, and clearer strategic legitimacy than any state strategy that stands in isolation.

Viksit Bharat Priority	Rajasthan's Contribution	National Significance
Energy Security and Transition	HRRL refinery (9 MMTPA) + 47,020 MW RE + Barmer crude + PCPIR hub in development	Rajasthan is the only Indian state with the complete energy trifecta — solar, crude, and integrated refinery. National template for energy self-sufficiency.
Sovereign AI and Digital Infrastructure	₹43,000 Cr data centre proposals + AI/ML Policy 2026 + solar-powered compute + CoE-AI operational	Solar surplus makes Rajasthan South Asia's most competitive location for sustainable AI compute. Natural anchor for IndiaAI Mission infrastructure expansion.
Human Capital and Innovation	SPVC at 4 premier institutions (proposed) + iStart 8,700+ startups + BITS Pilani, IIT Jodhpur talent pipeline	University-anchored flywheel model replicable across every non-metro Indian state. National template for talent-led regional innovation ecosystems.
Rural Financial Inclusion	111 NBFCs including AU Small Finance Bank (transitioning to Universal Bank), SK Finance, Kogta Financial — India's most concentrated rural finance cluster	National model for AI-powered rural credit. RuralCredit AI trained on 30 years of Jaipur NBFC data is the best agricultural underwriting tool India can build.
Manufacturing and	81 minerals + Lithium (Nagaur)	Critical mineral supply chain and

Materials	+ Potash (Bikaner) + REE + HRRL petrochemicals	petrochemical feedstock for India's EV, defence, and fertiliser security. National materials resilience, not state industry.
Agricultural Modernisation	27% GSDP in agriculture + 800+ iStart rural innovators + AgriTech sector priority	Ground-truth agricultural AI possible only from Rajasthan's desert and semi-arid data. No other state can replicate the underlying training data.

SECTION 8 The Compounding Flywheel — Year 1 to Year 10

Rajasthan enters this decade not at the beginning of its journey but at the critical inflection — where momentum already exists and the right architecture converts linear progress into exponential compounding. The energy economy infrastructure is operational. The startup ecosystem has real scale. The AI infrastructure capital is arriving. The university talent is present. The question is sequencing: which actions trigger the next, and at what point does the system become self-sustaining.

Phase	Period	Priority Actions	Defining Milestones
IGNITION	Year 1-2	Terman Summit: 4 faculty champions identified · SPVC Cohort 1 launched PCPIR formally declared · downstream investor roadshow Sovereign AI Authority constituted · ₹10,000 Cr grounded SAFE notification: iStart ₹100 Cr FoF deployed as equity RAPI baseline published at district level	4 SPVC cohorts running · 40+ patent applications filed ₹25,000 Cr PCPIR pipeline · ₹10,000 Cr data centres grounded iStart 10,000+ startups · 60,000+ jobs RAPI baseline: 3/100 measured and published
FIRST COHORTS	Year 3-4	SPVC Cohort 1 Demo Day — ventures enter Techno Hub pipeline PCPIR first downstream manufacturers operational First national AI company cites Rajasthan solar as location rationale Energy sector procures from iStart startups: ₹150 Cr/year Sector AI models deployed: SolarGrid AI, RuralCredit AI	40-50 patents from SPVC · 12+ fundable ventures ₹1 lakh Cr PCPIR investment announced ₹50,000 Cr data centres grounded iStart 15,000+ startups · 1,00,000+ jobs RAPI: 15/100
PROOF POINTS	Year 5-6	First Rajasthan university spinout raises Series A from national VC PCPIR operational — western India chemicals hub emerging Rajasthan data centres host first	First Series A from university spinout PCPIR: 2.5 lakh downstream jobs Data centres: ₹1,00,000 Cr grounded iStart 25,000+ startups · 2,50,000+ jobs

		sovereign AI compute cluster Government procurement from startups: ₹300 Cr/year SME IPO pipeline — 5+ ventures ready	RAPI: 35/100
ACCELERATION	Year 7-8	SPVC alumni invest in next SPVC cohort — talent recycling institutionalised PCPIR recognised as India's leading petrochemical zone Rajasthan solar powers 20%+ of India's AI data centre capacity National VCs open Jaipur presence SAFE recycling: iStart FoF self-sustaining	Energy economy: 15%+ of GSDP Data centre economy: ₹2,00,000 Cr+ iStart 40,000+ startups · 3,00,000+ jobs Annual VC: ₹5,000 Cr RAPI: 55/100
ESCAPE VELOCITY	Year 9-10	All loops self-sustaining without government ignition Rajasthan = India's Energy Capital + Sovereign AI Hub + Top 2 Startup Ecosystem SPVC, Techno Hub, PCPIR, data centres each reinforcing the others First Rajasthan AI models exported to South and Southeast Asia	GSDP on track for $600 Bn by 2036 Energy + AI economy: 25%+ of GSDP 75,000+ startups · 10,00,000+ jobs RAPI: 70+/100 India's 2nd largest data centre state

SECTION 9 Six Decisions — The Minimum Viable Actions

The six decisions below are sequenced in order of strategic priority. The first — the Terman Summit — is placed first because human capital is the primary economic engine and the longest lead-time investment. The decisions that follow address energy, AI infrastructure, capital instruments, procurement, and measurement. Together they form a coherent and complete action set. Each builds on existing institutions and commitments, requiring no new legislation where avoidable.

For the Chief Minister

Decision 1 — Convene the Terman Summit (90 Days)

Host a formal working session with the Directors of BITS Pilani, IIT Jodhpur, MNIT Jaipur, and Manipal Jaipur. Co-convened by the Chief Minister's office, iStart Rajasthan, and TiE Rajasthan. The single agenda item: identify one faculty champion per institution and commit institutional support for the School of Patent and Venture Creation. The session should explicitly frame each institution's role in Rajasthan's economy: IIT Jodhpur and energy technology, BITS Pilani and petrochemical materials, MNIT and manufacturing and data systems, Manipal and rural finance technology. Each Director leaves with a named Terman Fellow, a ₹10-15 lakh Terman Fellowship commitment, and a calendar date for SPVC Cohort 1.

Decision 2 — Launch the PCPIR (90 Days)

Formally declare the 100 sq km area around HRRL Pachpadra as India's fifth Petroleum, Chemicals and Petrochemicals Investment Region, coordinating with the Ministry of Petroleum and Natural Gas for central government notification. Invite downstream manufacturers in plastics, specialty chemicals, synthetic rubber,

pharmaceutical feedstocks, and agrochemicals to participate in a dedicated investor roadshow within 60 days of declaration. The PCPIR converts a ₹79,459 crore refinery into a ₹2 to 3 lakh crore industrial ecosystem over a decade. An employment multiplier of 6 to 8 downstream jobs per refinery job projects 5 to 7 lakh downstream jobs over the same period.

Decision 3 — Constitute the Rajasthan Sovereign AI and Data Centre Authority (90 Days)

Create a single-window body — chaired by a senior IAS officer with direct access to the Chief Minister — with four mandates: a power guarantee from solar surplus at ₹2 per unit for qualifying data centre investors; land allocation at designated AI Infrastructure Parks in Jaisalmer, Bikaner, and Jodhpur; clearance within 30 days for data centre investments above ₹500 crore; and formal application to IndiaAI Mission for Rajasthan to host sovereign AI compute infrastructure expansion. The ₹43,000 crore pipeline will not wait indefinitely. Maharashtra and Karnataka are active competitors. The Authority converts political intent into investment-grade commitment.

Decision 4 — Issue the SAFE Policy Notification (60 Days)

Direct DoIT&C to issue a policy notification upgrading iStart's pre-seed and seed funding instruments from grants and loans to SAFE-based equity participation. The iStart Startup Equity Fund already participates in equity up to ₹5 crore per startup — SAFE replaces the complex valuation requirement with a conversion-at-next-priced-round mechanism. One notification. No new institution. No legislation. The ₹100 crore Fund of Funds announced under iStart 2.0 becomes self-replenishing rather than consumed. Government innovation capital becomes permanent infrastructure.

Decision 5 — Scale Government Procurement from Startups to ₹300 Crore per Year (6 Months)

iStart has proven the government-as-first-customer model: 168 work orders, ₹30 crore cumulative. Scale this tenfold by mandating that every major government

department allocates a minimum of 2% of its technology procurement budget to iStart-registered startups. The energy alignment is direct: HRRL and DISCOM orders go to CleanTech and energy management startups. Data centre companies procure from AI security and systems startups. The Agriculture Department orders from AgriTech startups. This is the mechanism — DARPA's role in Silicon Valley, replicated for Rajasthan — where government demand de-risks private investment and accelerates the innovation ecosystem.

Decision 6 — Activate the AI/ML Policy 2026 Economic Application Layer (6 Months)

The Rajasthan AI/ML Policy 2026 is published and in force. The Centre of Excellence for AI is mandated. Four specific activations complete the framework: publication of the Rajasthan AI Data Catalogue — making state data assets available for responsible AI training by startups and researchers; launch of RAPI as the CoE-AI's official quarterly KPI framework at district level; establishment of the Rajasthan Rural AI Centre at IIT Jodhpur as the CoE-AI's rural sector arm; and mandatory AI literacy certification for all IAS and RAS officers within two years.

For the Chief Secretary — Implementation Schedule

Action	Department Responsible	Timeline	Output Metric
Convene Terman Summit with 4 institution Directors	Chief Minister's Office + DoIT&C + TiE Rajasthan	90 days	4 faculty champions named · SPVC Cohort 1 date set
Declare PCPIR around HRRL Pachpadra	Industries + MoPNG coordination	90 days	PCPIR notified · downstream investor roadshow within 60 days of declaration
Constitute Rajasthan Sovereign AI and Data Centre Authority	DoIT&C + Energy + Industries	90 days	₹10,000 Cr grounded in Year 1 from ₹43,000 Cr pipeline
Issue SAFE policy notification	DoIT&C — iStart team	60 days	First SAFE deployments within 90 days of notification

Amend university promotion criteria at pilot institutions	Higher Education Department	90 days	2 institutions adopt dual-track promotion criteria
Establish Patent Filing Cells at BITS Pilani, IIT Jodhpur, MNIT, Manipal	Higher Education + DoIT&C	90 days	Provisional patent filing within 30 days of faculty disclosure at zero personal cost
Designate AI Infrastructure Parks in Jaisalmer, Bikaner, Jodhpur	Industries + Energy + DoIT&C	6 months	Land allocated · power guarantee issued · policy notified
Scale iStart government procurement to ₹300 Cr/year	All departments — DoIT&C coordinates	6 months	₹75 Cr in Year 1 — 25% of annual target
Publish Rajasthan AI Data Catalogue	DoIT&C + all sector departments	6 months	10+ state datasets available for responsible AI training
Launch RAPI as CoE-AI official KPI framework	DoIT&C + CoE-AI + IIT Jodhpur	6 months	District-level RAPI baseline published and publicly accessible
Establish Rajasthan Rural AI Centre at IIT Jodhpur	Higher Education + DST + CoE-AI	9 months	MoU signed · founding faculty appointed · compute infrastructure ordered
Commission Rajasthan energy-AI economic platform study — jointly with NITI Aayog	Planning Department	6 months	Investment prospectus published for national and global capital

For NITI Aayog — The National Positioning

- Recognise Rajasthan as India's Energy Capital — the only state with the complete trifecta of solar leadership, crude oil production, and an integrated refinery-petrochemical complex. Commission a national study on the Rajasthan PCPIR as the model for India's chemicals and materials security.
- Position Rajasthan as the physical anchor for IndiaAI Mission compute expansion — solar-powered, land-rich, talent-supplied. Rajasthan's renewable energy surplus makes it the most cost-competitive and carbon-neutral location for sovereign AI infrastructure in South Asia.

- Recognise the Rajasthan AI/ML Policy 2026 as a national policy model and fast-track IndiaAI Mission support to Rajasthan under this recognition.
- Adopt RAPI as a national AI penetration measurement framework, replicable across all states, with Rajasthan credited as the pioneer.
- Feature Rajasthan's rural finance cluster — AU Small Finance Bank, SK Finance, Kogta Financial, and 111 NBFC startups — in India's global investment promotion as Asia's most concentrated rural financial services innovation ecosystem.
- Fast-track DST and MEITY funding for the Rajasthan Rural AI Centre at IIT Jodhpur under the IndiaAI Mission, as the rural sector specialisation arm complementing the IIT Delhi CoE-AI general research collaboration.

SECTION 10 Key Performance Indicators — Output Metrics

The following metrics measure economic value created, not administrative activity completed. They are calibrated from iStart's verified 2025-26 baseline figures and Rajasthan's energy economy data as of July 2026.

Human Capital and Innovation

Metric	2026 Baseline	Year 3	Year 5	Year 10
Patents filed annually (SPVC across 4 institutions)	~50 state total	80+	150+	400+
Fundable ventures from SPVC annually	0 (SPVC not yet launched)	12+	30+	80+
iStart registered startups	8,700+	15,000+	25,000+	75,000+
Annual VC investment in Rajasthan	~₹1,000 Cr (35% CAGR)	₹2,000 Cr	₹3,000 Cr	₹10,000 Cr
Direct jobs — startup ecosystem	48,000+ (cumulative)	1,00,000+	2,50,000+	10,00,000+
Government procurement from startups (annual)	₹10 Cr (168 orders cumulative)	₹150 Cr	₹300 Cr	₹1,000 Cr
SME IPOs (cumulative from ecosystem)	0	2-3	5-8	20-25

Energy Economy

Metric	2026 Baseline	Year 3	Year 5	Year 10
Solar installed capacity	47,020 MW — India #1	60,000 MW	80,000 MW	1,25,000 MW

PCPIR downstream investment	₹0 (just declared)	₹50,000 Cr announced	₹1,50,000 Cr grounded	₹3,00,000 Cr ecosystem
Data centre investment grounded	STT GDC operational · ₹43,000 Cr pipeline	₹15,000 Cr grounded	₹75,000 Cr	₹2,00,000 Cr+
PCPIR direct employment	0	50,000	2,50,000	5,00,000+
Data centre employment	~2,000	15,000	50,000	2,00,000
Energy economy as % of GSDP	~12% estimated	15%	18%	25%+

Sovereign AI and RAPI

RAPI Metric	2026 Baseline	Year 3	Year 5	Year 10
Agriculture — AI tools per 1,000 farmers	<5	50	200	600
Rural Finance — AI-assisted credit decisions %	~5%	25%	50%	90%
Energy — AI-managed operations %	~5%	30%	60%	90%
Data Centres — AI-ready capacity %	20% (STT GDC)	50%	80%	95%
Government — AI-processed services %	~10%	35%	70%	95%
Education — AI learning hours per student/year	<10 hours	80 hours	200 hours	500 hours
Overall RAPI composite score (0-100)	~3 / 100	15 / 100	40 / 100	70 / 100

CLOSING — The Architecture of Compounding

On July 4, 2026, Prime Minister Narendra Modi inaugurated India's first greenfield refinery in a decade at Pachpadra. Three days earlier, Chief Minister Bhajanlal Sharma announced ₹43,000 crore in data centre proposals. Rajasthan's energy and AI transformation is not a future aspiration. It is present reality.

The central argument of this report is drawn from the most consequential economic mystery of the 20th century: how one million people in San Francisco outpaced ten million in New York. The answer — that compounding growth requires not more resources but a different architecture — carries direct application to Rajasthan in 2026.

Rajasthan has the resources. The Thar Desert's solar advantage is irreversible. The Barmer oil fields are productive. The HRRL refinery is commissioned. The iStart ecosystem is real. The BITS, IIT Jodhpur, MNIT, and Manipal campuses are filled with talent. The ₹43,000 crore in AI proposals is arriving. What determines whether these resources produce linear growth or compounding growth is the architecture that connects them.

Human capital — the deliberate unleashing of talent from Rajasthan's universities into ventures that serve its energy economy and technology sectors — is the primary investment. It is the only asset that compounds indefinitely. When a student at BITS Pilani builds a petrochemical monitoring startup that is acquired by a PCPIR company, and that founder then funds the next student at BITS Pilani, the flywheel has begun. That flywheel, once started, does not require government fuel to keep spinning. But it requires a deliberate ignition: the Terman decision, made by one person, inside one institution, in 2026.

India led the world's knowledge economy before 1500 AD. That leadership was not lost through lack of intelligence or talent — it was lost through the absence of institutional architecture that channelled human energy into compounding

economic output. The Viksit Bharat mission is India's commitment to rebuild that architecture. Rajasthan — with its energy trifecta, its sovereign AI momentum, its startup foundation, and its university talent — has every ingredient needed to demonstrate how that architecture works. This report submits the blueprint.

The architecture of compounding does not wait for perfect conditions.

It is built now — or not at all.

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Jaipur, Rajasthan | July 2026

APPENDIX — Verified Data and References

A1 — Key Data Points Verified as of July 2026

Fact	Verified Figure	Source
HRRL Refinery — Total Investment	₹79,459 crore	Prime Minister's Office · July 4, 2026
HRRL Refinery — Refining Capacity	9 MMTPA	HPCL / Ministry of Petroleum and Natural Gas
HRRL Refinery — Petrochemical Capacity	2.4 MMTPA	HPCL / Ministry of Petroleum and Natural Gas
HRRL Refinery — Nelson Complexity Index	17 (global average 8-10)	Industry sources · July 2026
HRRL — Commercial Operations Commenced	June 22, 2026 (petrol, diesel, petroleum coke invoiced)	The Print · July 4, 2026
HRRL — Crude from Rajasthan (Mangla Terminal, Barmer)	1.5 MT of 9 MT annual requirement	ANI · July 3, 2026
HRRL — Downstream PCPIR area identified	100 sq km around the refinery	Wikipedia / Industry sources
Data Centre Proposals	₹43,000 crore	CM Bhajanlal Sharma · July 1, 2026 · 29th National e-Governance Conference
STT GDC Jaipur	AI-ready data centre already operational	Convergence-now.com · July 3, 2026
Rajasthan Solar Installed Capacity (Nov 2025)	36 GW — 27% of India's national total	MNRE / PV Magazine India · December 2025
Rajasthan Total RE Capacity (March 2026)	47,020 MW — 17.12% of India total	MNRE / SolarQuarter · April 2026

Gujarat Total RE Capacity (March 2026)	47,178 MW — 17.18% of India total	MNRE / SolarQuarter · April 2026
Gap between Rajasthan and Gujarat (RE)	158 MW — less than 0.2%	MNRE March 2026
Rajasthan Solar Generation (2024-25)	57.35 BU — highest in India	EQ Magpro RE Statistics 2024-25
iStart Registered Startups	8,700+ · 48,000+ jobs · ₹1,000+ Cr raised	iStart Rajasthan portal · July 2026
iStart VC CAGR 2021-2024	35% — outpacing Delhi NCR	Inc42 State of Rajasthan Ecosystem Report 2025
Rajasthan AI/ML Policy 2026	Approved December 31, 2025 · Launched January 6, 2026	DoIT&C Government of Rajasthan
India Data Centre Market Size	$10.48 Bn in 2025 → $27.2 Bn by 2032 (14.6% CAGR)	Markntel Advisors · December 2025
IIT Madras startup output	A startup born every three days	NASSCOM / FAST India 2025
Professor Jhunjhunwala — companies incubated	350+	TiE Dronacharya Award citation

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