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India's Datacentre Boom Is a Sovereign Infrastructure Moment.

Are We Building the Right Governance Layer?

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About IndiaAIStack
IndiaAIStack is a practitioner-led initiative building a framework for assessing India's sovereign AI infrastructure capability. Our IS-1 to IS-9 model provides a structured lens across Strategic, Legal, Operational, Infrastructure, Capital, Supply Chain, Governance, Compute and Interoperability dimensions.

1. Introduction: The Moment India's AI Infrastructure Leaders Cannot Afford to Miss

In February 2026, India hosted its most significant AI policy moment to date. The Global IndiaAI Summit convened policymakers, technologists, researchers, and industry leaders to discuss India's trajectory as a leading AI nation. The conversation was ambitious, appropriately so. India has the scale of digital infrastructure, the engineering talent, the sovereign data assets through programmes like Aadhaar and UPI, and now the fiscal commitment — through Budget 2026-27's landmark **tax holiday until 2047** for foreign companies providing cloud services from Indian data centres — to become a genuine global node in AI infrastructure.

The numbers behind this moment are extraordinary. India's installed data centre capacity has tripled since 2019. Combined hyperscaler and domestic DC investment commitments are projected in the range of US $70–90 billion. Maharashtra, where the CII Datacenter Blueprint Summit convened last month, is the country's largest and fastest-growing data centre market — with Navi Mumbai, the BKC corridor, and emerging Pune clusters anchoring a physical infrastructure story that is, by any measure, world-class.

And yet. The harder question — the one that the investment story, the capacity charts, and the fiscal incentives do not answer — is this:

> ***"India is building infrastructure at scale. But is it building sovereign infrastructure at scale?"***
> *— IndiaAIStack*

This paper poses that question directly — drawing on India's own governance architecture, on what Europe has learned from a decade of building sovereign digital infrastructure, and on the IndiaAIStack IS-1 to IS-9 Sovereignty Capability Framework.

IndiaAIStack brings complementary practitioner lenses to this question. The initiative works on the governance architecture and EU policy dimensions — what the frameworks, assurance mechanisms, and control plane sovereignty questions look like in practice. and also on the supply chain, procurement, and physical infrastructure dimensions — what sovereign delivery actually requires at the level of hardware sourcing, site selection, and procurement continuity. Together, the IS framework reflects both perspectives.

2. The Questions India's Infrastructure Moment Demands We Ask

India's recent AI Summit and Budget 2026-27 have generated a productive infrastructure conversation. The tax holiday to 2047 is a bold fiscal signal. Hyperscaler investment commitments are real. Domestic DC operators are building at meaningful scale. IndiaAI Mission is creating the compute access architecture. Beneath the investment story, key governance questions should receive the analytical attention they require. They are capability architecture questions. And they will determine whether the infrastructure India is building in 2026 constitutes genuine sovereign capability or expensive dependency.

Question 1: Who controls the control plane?

India's Budget 2047 tax holiday incentivises foreign cloud companies to build data centres in India. This is a legitimate strategy for anchoring physical infrastructure within Indian jurisdiction. Indian DC majors — CtrlS, Yotta, STT GDC, AdaniConneX — will own the land, the power contracts, the buildings. The control plane — the management interfaces, hypervisor access, network routing decisions, configuration authority, and audit logging, is the key.

Physical presence ≠ sovereign control. Data Residency ≠ Data Sovereignty.

A data centre on Indian soil owned by an Indian developer, hosting a hyperscaler's cloud, running a government AI workload, is four layers deep before sovereignty is meaningful. India currently controls land and building well. But the cloud control plane and AI workload governance — are ungoverned sovereign territory.

Question 2: Data residency is not data sovereignty. Is India conflating the two?

India's DPDP Act 2023 and sectoral regulators (RBI, IRDAI, DoT) mandate data localisation across critical sectors. This is necessary. But localisation — requiring data to be physically stored within Indian borders — is not sufficient for sovereignty. India's legal sovereignty framework must address foreign legal instruments such as the US Cloud Act. India's DPDP Act gives the government strategic control over cross-border transfer whitelists. But without infrastructure audit rights that verify the legal chain of custody from physical storage through logical access, localisation laws remain partially unenforceable.

Question 3: India's AI compute is growing. But who governs access to it?

India will, in the next five years, have more AI compute available within its borders than at any point in its history. The governance question that this capacity growth does not answer is: who gets access to it, under what terms, with what assurance of continuity? Sovereignty requires a governance model for compute access, not just a compute procurement budget.

Question 4: India's supply chain for AI infrastructure — how sovereign is it?

Every data centre being built in India depends on a hardware supply chain that is, for critical components, concentrated in geographies that India does not control. GPU accelerators, high-bandwidth memory, advanced cooling systems, structured cabling, and precision power infrastructure are sourced from supply chains that run through the United States, Taiwan, Japan, and South Korea.

India's PLI (Production Linked Incentive) programs and semiconductor strategy are building long-term design and packaging capability. But the near-term supply chain for the infrastructure being built under Budget 2026-27 incentives is not sovereign. An export control decision, a logistics disruption, or a geopolitical event affecting Taiwan Strait shipping lanes has direct consequences for India's ability to maintain and expand its AI infrastructure.

This is (Supply Chain Sovereignty) in our framework — and it is the parameter where India's current trajectory is most exposed. The physical irreversibility of data centres as assets makes supply chain planning a sovereign obligation, not merely an operational procurement matter.

Question 5: India's AI infrastructure investment is large. But is it sufficiently governed?

US $200 billion in projected AI and cloud infrastructure investment is a national asset. But the governance architecture surrounding that investment — procurement assurance, accountability frameworks, public interest obligations, sovereignty compliance verification — is not commensurate with the scale of investment.

MeitY's empanelment framework approves cloud providers through a process-based evaluation. It does not assess sovereignty capability systematically. There is no equivalent of the EU's Cloud Sovereignty Effective Assurance Level (SEAL) — which gives Indian government procurers a structured tool for comparing how 'sovereign' a cloud solution actually is across eight defined parameters. Without equivalent tools, India's public sector AI procurement is making billion-dollar infrastructure decisions with an incomplete governance framework.

3. What Europe Built — And What India Can Learn Without Copying It

Europe's digital sovereignty journey is instructive not because India should replicate it — the two contexts are fundamentally different — but because Europe has spent a decade and tens of billions of euros learning which governance instruments actually work, which are aspirational rhetoric, and which create genuine sovereign capability. India can compress that learning curve.

The EU's digital sovereignty ecosystem — built around GAIA-X, EuroHPC, the Digital Europe Programme, , SIMPL, and EuroStack — rests on a core strategic philosophy that differs from India's emerging approach in one fundamental way:

Europe's Model	India's Emerging Model
Govern the cloud. Fund the compute. Federate the data. Certify the providers. Sovereignty through standards, federated governance, and coordinated public funding across 27 member states.	*Own the land. Own the power. Own the buildings. Attract the clouds.* Sovereignty through physical irreversibility, fiscal incentives, and DPI-scale digital infrastructure.

Neither model is superior. But Europe's model is more advanced in the governance architecture layer — precisely the layer where India's gap is greatest. The following table maps EU initiatives to India's current equivalent and identifies the specific governance gaps that India's infrastructure leaders and policymakers need to address.

EU INITIATIVE	SOVEREIGNTY METHOD	WHAT IT DOES	INDIA ANALOGUE (PARTIAL OR ABSENT)	GOVERNANCE GAP FOR INDIA
GAIA-X	**Control via standards & certification**	Defines open standards, trust frameworks, and federation services for interoperable data spaces. Cloud providers must certify against sovereignty criteria. Includes a Governmental Advisory Board ensuring member state oversight.	MeitY empanelment framework (process-based, not capability-based). No unified cloud certification scheme.	India has no sovereignty assurance scoring equivalent to EU Cloud SEAL. Empanelment approves providers but does not certify sovereignty capability.
EuroHPC JU	**Own the compute**	Joint EU–Member State partnership co-financing	National Supercomputing Mission	EuroHPC is multinational in scale

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		exascale supercomputers (JUPITER, LUMI, Leonardo). 32 countries sharing compute under federated governance. Now includes AI Factory programs. Total deployment: 11 supercomputers, 6 quantum systems.	(NSM) / PARAM network. IndiaAI Mission compute allocation.	with exascale systems. India's NSM provides multi-petaflop capacity but no federated governance board with shared access rules across institutional boundaries.
EuroStack	**Build indigenous stack alternatives**	Industry-led coalition (260+ companies) advocating European cloud, middleware, and platform alternatives. White Paper proposes 'Buy European' procurement mandates, product directory, and open-source platform consolidation.	AI4Bharat, indigenous cloud firms (E2E Networks, ESDS), DPI protocols. No formal IndiaStack-for-cloud policy articulation.	India has the DPI innovation story. The missing layer is a formal policy coalition that connects indigenous cloud capability to public procurement mandates — India's version of EuroStack does not yet exist.
Open Source cloud to edge Middleware	**Make clouds interchangeable**	EU-funded open-source middleware enabling federated cloud-to-edge services. Cloud Rulebook provides trusted service procurement guidance. Together they prevent vendor lock-in at the infrastructure layer.	No equivalent middleware initiative in India.	Without a cloud interoperability layer, India's AI infrastructure risks deep hyperscaler lock-in. Each workload migration becomes a costly renegotiation rather than a standards-based portability exercise.

Key EU lesson Most Relevant for India's Current Infrastructure Moment

The time to build the governance architecture for sovereign AI infrastructure is before the infrastructure is built, not after it. India is at that moment right now. The CII Datacenter Summit this week is a conversation about building foundations. The question is whether governance is part of what's being laid.

4. The IndiaAIStack IS-1 to IS-9 Sovereignty Capability Framework™

The IndiaAIStack Indian Sovereign (IS) framework™ is a practitioner-built diagnostic tool for assessing India's sovereign AI infrastructure capability across nine parameters. It is not a policy proposal.. It is an analytical instrument designed to make the governance gap conversation precise — to move it from abstraction to assessment.

Each parameter names a distinct dimension of sovereignty that India's infrastructure conversation tends either to conflate with others or to omit entirely. Together, they provide a 9-parameter checklist against which any AI infrastructure program — a data centre, a cloud procurement, an AI compute allocation — can be evaluated for its Sovereignty Assurance level.

IS Framework™ — The 9 Parameters briefly

IS-1 Strategic & Capital Sovereignty
IS-2 Legal & Jurisdictional Sovereignty·
IS-3 Data & DPI Sovereignty·
IS-4 Infrastructure & Operational Sovereignty.
IS-5 Security & Defence Assurance Sovereignty ·
IS-6 Supply Chain & Hardware Sovereignty.
IS-7 Compute & AI Governance Sovereignty.
IS-8 Linguistic & Cultural AI Sovereignty.
IS-9 Interoperability & Population-Scale Sovereignty.

The framework is designed to be applied at the program level — to a specific data centre procurement, a specific cloud service contract, a specific AI compute allocation. It is not a national scorecard (though it can be used as one). Its primary value is as a governance diagnostic: when India's decision-makers evaluate a proposed infrastructure investment, the IS parameters provide the questions that commercial procurement criteria will not surface.

CODE	PARAMETER	DOMAIN	DEFINITION — WHAT IT MEASURES
IS-1	**Strategic & Capital Sovereignty**	*National Policy, Ownership & Investment*	Whether India has a coherent, long-horizon sovereign AI infrastructure strategy with defined goals, accountability structures, and governance milestones — beyond individual program announcements. Includes assessment of ownership and capital structure of digital infrastructure providers operating in critical national domains (Government, BFSI, Defence, Health) to prevent strategic influence via foreign equity or debt in mission-critical systems.
IS-2	**Legal & Jurisdictional Sovereignty**	*Jurisdiction, Law & Regulatory Enforcement*	Whether legal authority over data processed in AI infrastructure — including access rights, audit rights, and extraterritorial obligations — rests with Indian institutions rather than foreign legal frameworks. Covers legal enforceability, jurisdictional anchoring, and exposure of Indian-hosted services to foreign extraterritorial laws (e.g. US CLOUD Act, foreign intelligence statutes). Also covers alignment with DPDP Act 2023, lawful access frameworks, and domestic compliance enforcement capability.
IS-3	**Data & DPI Sovereignty**	*Digital Public Infrastructure & Data Governance*	Whether hosted, governed, and operated within Indian jurisdictional and operational boundaries — and whether national AI systems are trained on, and governed through, domestically controlled data pipelines. Includes consent architecture, data space governance, and auditability of DPI-linked data flows. Formal data format interoperability standards and formal cross-sector data spaces governance framework
IS-4	**Infrastructure & Operational Sovereignty**	*Physical Layer, Control Plane & Continuity*	Whether India controls both the physical data centre layer (land, power, cooling, connectivity) AND the logical control plane (hypervisor access, management interfaces, network routing, audit logging, configuration authority) of AI infrastructure. Also covers whether national AI infrastructure can operate, recover, and maintain continuity without dependence on foreign vendor decisions, export controls, or geopolitically controlled supply chains.
IS-5	**Security & Defence Sovereignty**	*Defence AI, Intelligence & Secure Compute*	Whether India has the capability to deploy and operate compute and AI stacks for defence, intelligence, and strategic systems in air-gapped or nationally controlled environments — immune to foreign licensing risks, export bans, or platform-level kill-switches. Includes assessment of cybersecurity governance, CERT-IN operational capacity, and protection of Critical Information Infrastructure.

IS-6	**Supply Chain & Hardware Sovereignty**	*Hardware Independence & Procurement Continuity*	Whether critical hardware components for India's AI infrastructure — GPUs, cooling systems, server racks, structured cabling, networking equipment, semiconductors, firmware — have trusted, diversified supply chains not subject to single-geography concentration or export control vulnerability. Includes procurement continuity planning, domestic content requirements, and hardware traceability frameworks.
IS-7	**Compute & AI Governance Sovereignty**	*AI Compute Access, Allocation & Oversight*	Whether India's AI compute capacity — GPU clusters, HPC systems, AI training infrastructure — is accessible to Indian public institutions, researchers, and startups under sovereign governance terms rather than purely commercial Hyperscaler terms. Includes formal governance structures for compute allocation, audit rights, procurement oversight, performance accountability, and sovereignty assurance verification for AI infrastructure programs and their private-sector delivery partners.
IS-8	**Linguistic & Cultural AI Sovereignty**	*Indic AI, Language Models & Bhashini Layer*	Whether India's AI systems can operate across all 22+ scheduled languages using Indic datasets, benchmarks, and locally governed model pipelines — reducing dependence on English-centric Western models. Covers foundational language AI assets (datasets, benchmarks, NLP models), governance of Indic AI training pipelines, and sovereign deployment of language AI in public services including welfare delivery, justice, agriculture, and citizen services.
IS-9	**Interoperability & Population-Scale Sovereignty**	*Federation, Portability & Last-Mile Resilience*	Whether India's AI infrastructure components — cloud platforms, data centres, government compute, DPI layers — are interoperable through open standards, preventing vendor lock-in and enabling workload portability across providers. Also covers whether AI infrastructure is optimised for India's population-scale deployment conditions: low-bandwidth environments, edge deployment, affordable devices, and last-mile operability across rural and low-connectivity regions.

The Core Argument in Three Sentences

India's data centre boom is a sovereign infrastructure moment — but only if governance architecture is built alongside physical infrastructure.

Europe spent a decade and €8+ billion learning that standards, certification, and federated governance are not optional extras — they are the difference between sovereign capability and expensive dependency.

India is at the governance architecture decision point right now. The IS-1 to IS-9 framework is a tool for making that decision with precision.