zinnov

GCC AI OPPORTUNITY

March 2026

IN PARTNERSHIP WITH

INDIASPORA

FOREWORD

Pari Natarajan
CEO & Co-founder
Zinnov

The role of Global Capability Centers (GCCs) in India has been shaped over decades, built patiently, layer by layer, into a portfolio that today rivals headquarters in both depth and sophistication. What was once seen as a cost and scale play has evolved into a system that delivers expertise, judgment, and increasingly, frontier innovation. For a long time, this evolution followed a predictable arc. Portfolios matured gradually. Capabilities deepened over years. Disruption, when it came, was incremental.

That world no longer exists.

AI has fundamentally altered the pace and nature of change. What used to take a decade is now unfolding in cycles of months. Every new model release has the potential to redraw the boundaries of work, compressing expertise into procedure, and procedure into automation. The portfolio itself, the very foundation of a GCC, is now the most exposed layer.

This raises an uncomfortable but necessary question: *What happens when the work you are built around begins to disappear?*

India's portfolio has matured significantly. Today, it closely resembles that of headquarters, with a strong share of expertise-driven and frontier work. In fact, in several cases, India is not just supporting innovation, it is co-creating it.

At the same time, more than half of the current portfolio still sits in commodities and procedures, areas that are increasingly vulnerable in the age of AI. And unlike previous technology shifts, this transition is not gradual. AI is compressing the journey from expertise to automation into a single product cycle.

The implication is clear: **we do not have another decade to adapt.**

FOREWORD

MR Rangaswami
Founder & Chairman
Indiaspora

The global conversation on India has long been anchored in its talent advantage. But what is unfolding today signals something more consequential, a transition from being a source of capability to becoming a shaper of global value creation.

This shift is not linear. It is being accelerated and complicated by the rise of artificial intelligence.

AI is compressing cycles of learning, redefining expertise, and challenging long-held assumptions about where and how value is created. In doing so, it is forcing a deeper question for economies and enterprises alike: what does it take to stay relevant when the foundations of work itself are being rewritten?

For India, this moment carries both promise and responsibility. The country's global footprint, strengthened by its enterprises, institutions, and a deeply connected diaspora, positions it uniquely. But advantage alone is not enduring. It must be continuously re-earned through reinvention, collaboration, and a willingness to move ahead of the curve.

Global Capability Centers are an important part of this story. They reflect how India has embedded itself into the core of global enterprises. What lies ahead is an opportunity to go further, to help shape not just execution, but direction.

This report comes at a timely moment. It offers a structured lens to understand the changes underway and the choices they demand.

For leaders across the global Indian ecosystem, the imperative is clear: the next chapter will belong to those who don't just adapt to disruption but actively participate in defining what comes next.

TABLE OF CONTENTS

METHODOLOGY

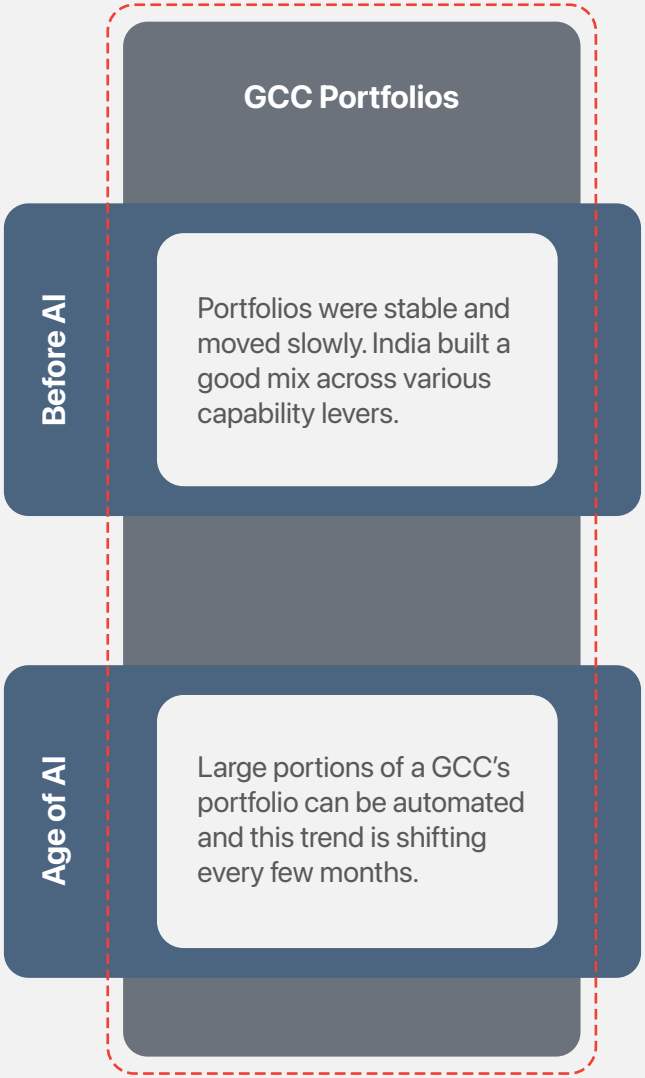
We contextualized the Nanda-Narayandas framework for Professional services, to the GCC ecosystem

	Commodities	Procedures	Grey Hair	Rocket Science
	Standardized, repeatable tasks with minimal variation.	Skilled execution of a complex but well-understood process.	Complex problem solving requiring deep experience & capacity.	Cutting-edge R&D for future opportunities & disruptions.
Role example	Manual QA tester	Software developer	**Technical architect**	Research scientist
Skills needed	Execution & adherence	Process optimization	Techno-functional context	Polymath / invention
Ability to improve margins	Linear (via cost arbitrage)	Incremental (via standardization)	Step change (unit economics & yield)	Non-linear (via new IP & markets)
AI disruption potential	Existential threat (full automation)	High (copilots / platforms)	Medium (augmentation)	Low / enabler (acceleration)

NOTE: (1) Professional Services Framework by Nanda and Narayandas (based on Maister's original framework) contextualized for the GCC ecosystem

Our Hypothesis

What did we believe?



What did we do?

We built a massive dataset

200+
Global Enterprises

1.7 Mn+
Job Descriptions

60+
Countries

Ran it through a classifier

Rocket Science
(Research Scientist, GPU Engineer, etc.)

Grey Hair
(Architect, Compliance Manager, etc.)

Procedure
(Software Engineer, Finance Executive, etc.)

Commodity
(Manual QA, Data Analyst, etc.)

Classification was done on the actual JD and not title to reflect the nature of work.

And asked some questions

Are there observable patterns across countries and industries?

Are there differences in the scale of disruption seen in one country / industry vs another?

What are the leverage points for GCCs in India?

Limitations

Job descriptions are a soft signal for existing capabilities as they measure new inflows. Job descriptions from the last three years were considered for the study to accurately reflect the current state.

EXECUTIVE SUMMARY

India's portfolio mix has evolved significantly over the last decade

- 70-80% of work done by GCCs was execution-focused in 2015
- Expertise-driven work accounts for almost a third of the average portfolio today
- Frontier work is almost at par with HQ – India is a key innovation hub
- AI displacement will impact India on par with HQ and less than most other non HQ locations

55%

GCC portfolios are under displacement pressure

AI won't give us another decade

- **AI-natives are biting away at procedures and commodities**
- **The half-life of experience-based work has reduced from decades to a couple of years**

The AI-native GCC Playbook

Self-disrupt

Own the transformation of commodity and procedural work – identify ready pockets and automate

Invest in Rocket Science

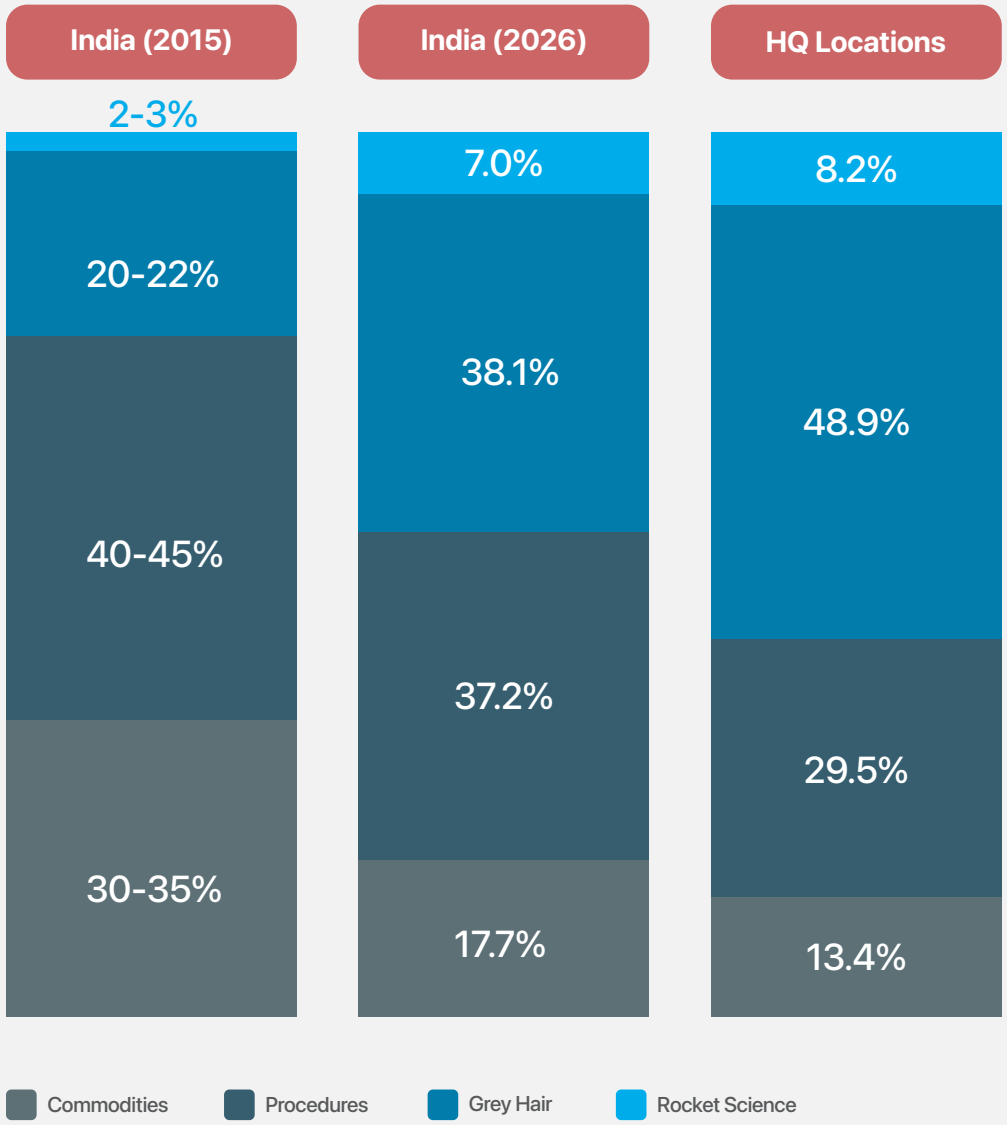
Invention in GCCs still lags behind the HQ and may require a different set of muscles than regular innovation

Deepen Grey Hair

Domain expertise is a must in the age of AI and several GCCs are building it through org and talent strategy

INDIA’S PORTFOLIO HAS EVOLVED SIGNIFICANTLY

India's portfolio mix has evolved to resemble that of HQ locations[1]

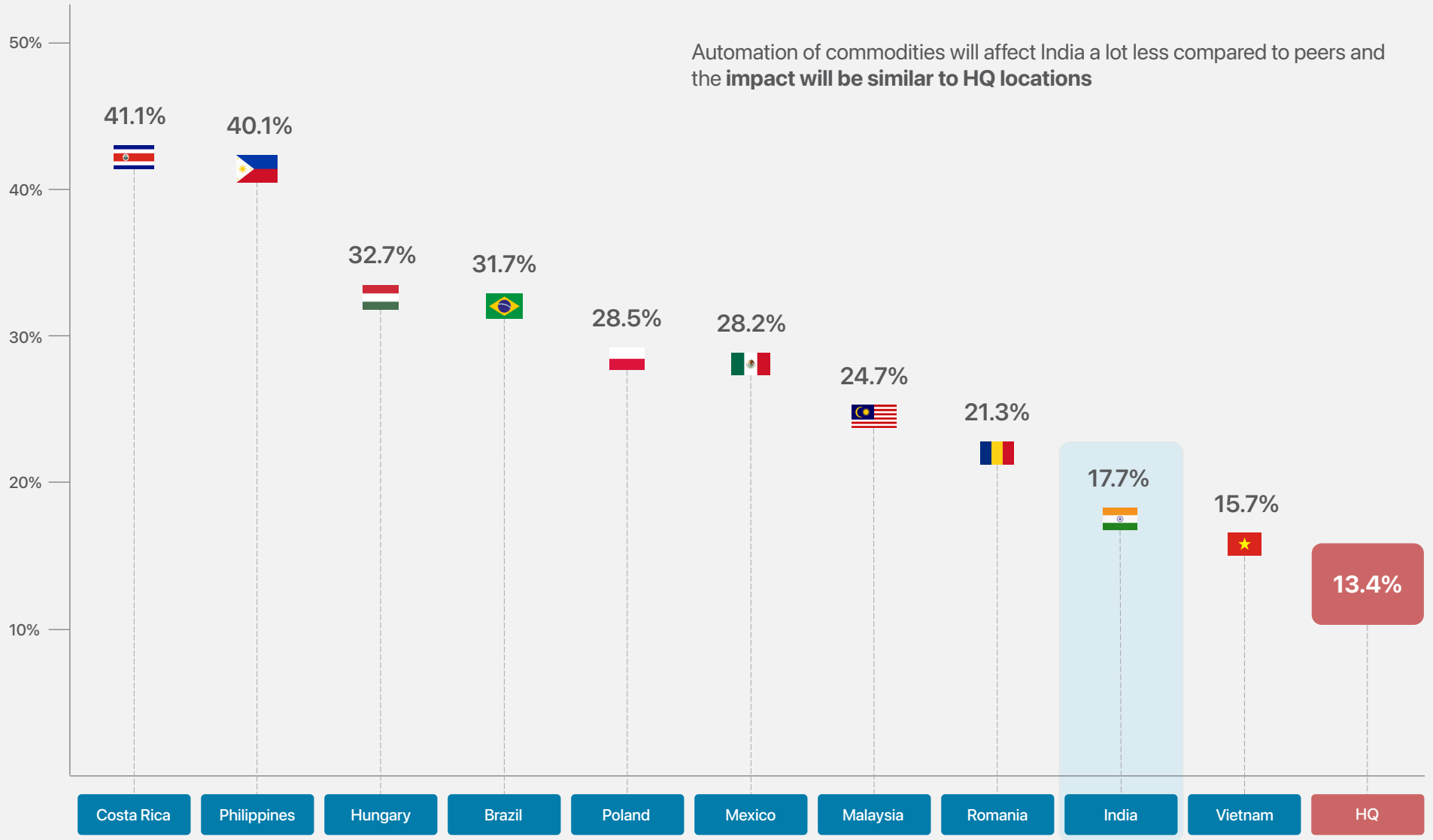


India's work portfolio has matured significantly over the past decade, with a much higher share of expertise-driven and frontier work

GCCs in India are driving nearly the same volume of frontier work compared to their HQs – almost half have an equal or higher share of rocket science

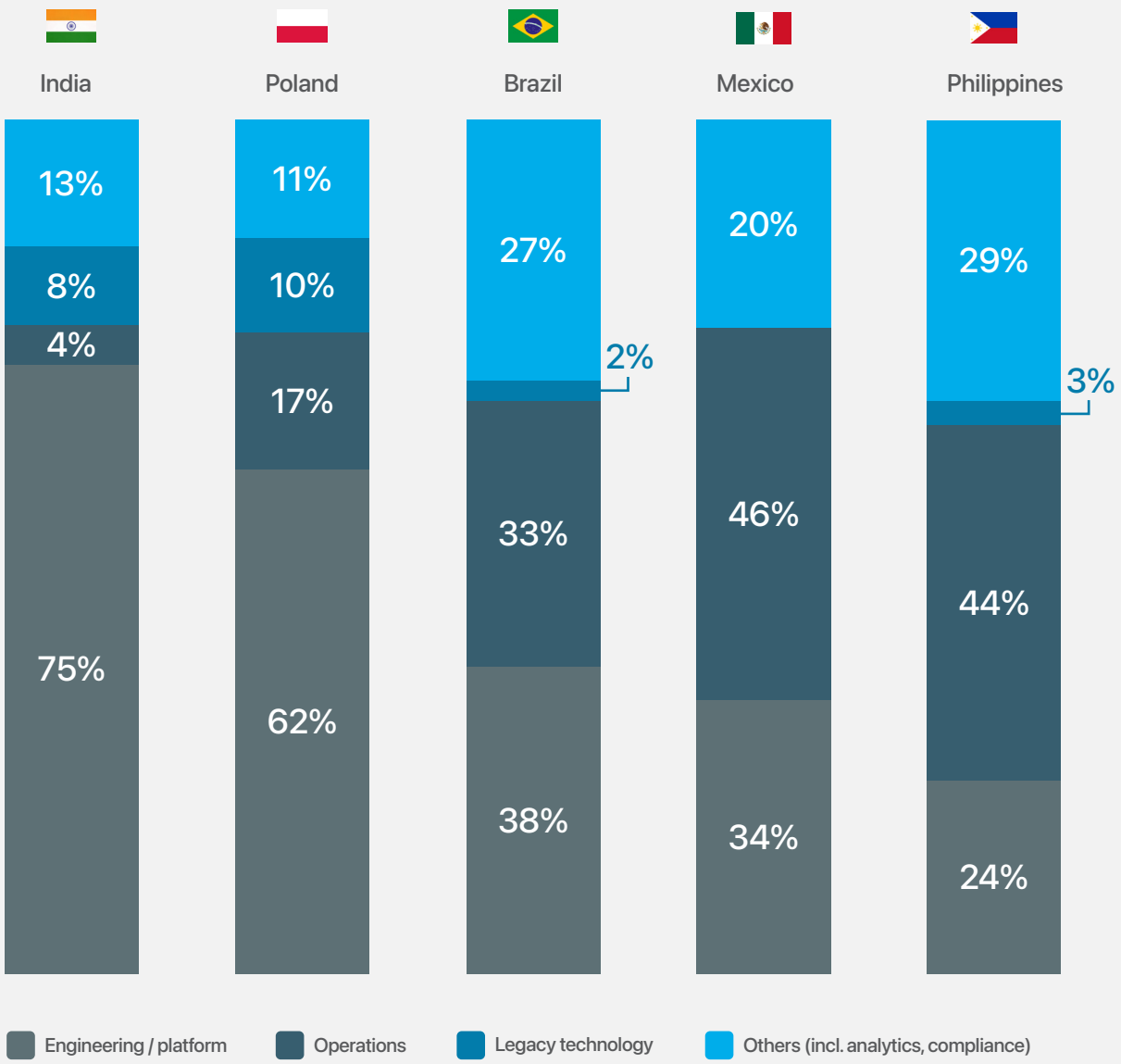
NOTE: (1) Based on analysis of 1.7 mn+ job descriptions across 60+ countries

India's commodity share is manageable and far below most other non-HQ locations[1]



NOTE: (1) Based on analysis of 1.7 mn+ job descriptions across 60+ countries

Procedural work in India is also stronger in engineering over operations[1]

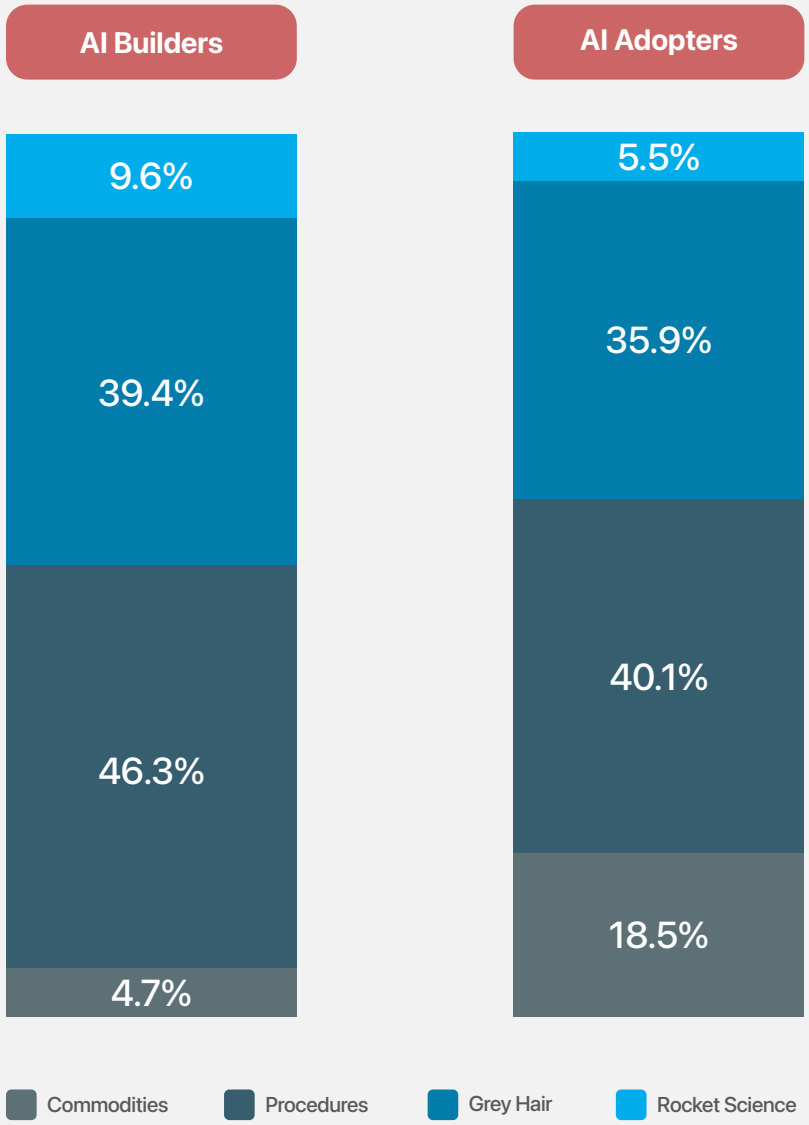


India's procedure share is fundamentally different from most other locations – Poland is the most similar

While engineering-heavy procedures are at risk of displacement, they are less exposed than operations-heavy procedures

NOTE: (1) Based on analysis of 1.7 mn+ job descriptions across 60+ countries

AI builders have invested in rocket science and it is paying dividends



AI builders have ~2x rocket science and ~0.25x commodities vs adopters[1]

Some adopters, for e.g. universal banks have commodity shares as high as 25% of the overall portfolio, while others like consumer retail have portfolios that resemble technology enterprises.

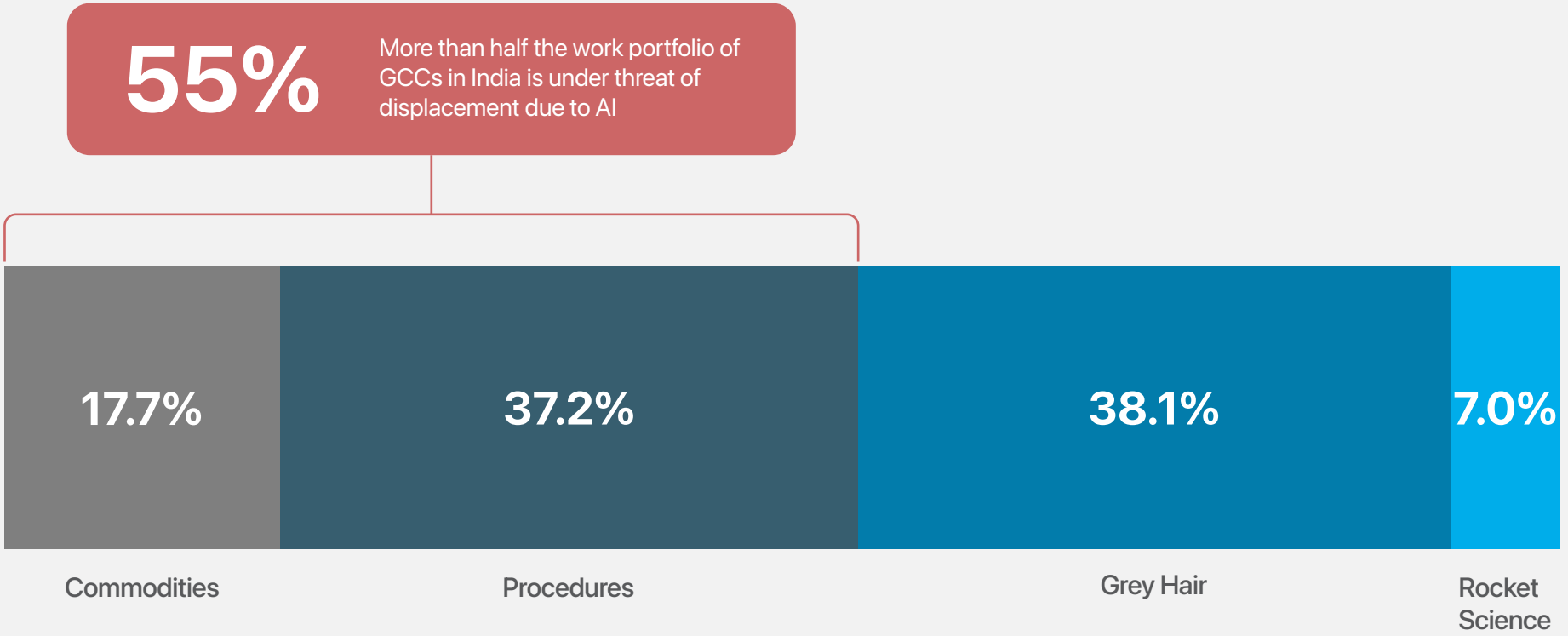
AI builders are placing frontier work in India at the same rate as headquarters – India is a co-development hub. The pattern is strongest in semiconductor GCCs where India's share of frontier work exceeds that of headquarters.

Qualcomm completed the tape-out of its next generation 2nm chip from its India engineering centres[2]

Intel's India centre drove key contributions to its flagship next-generation processor platform – Panther Lake[2]

NOTE: (1) Based on analysis of 1.7 mn+ job descriptions across 60+ countries; (2) Company websites, press releases

Despite the positives, the work portfolio of GCCs in India is under pressure[1]



NOTE: (1) Based on analysis of 1.7 mn+ job descriptions across 60+ countries

WE DON’T HAVE ANOTHER DECADE TO DEEPEN OUR PORTFOLIOS

AI is compressing the expertise-to-procedure shift from a generation to a product cycle

zinnov

Expert intuition used to take decades to be transformed into data-driven procedure

1970s – 1990s

Diagnosing equipment failures required 20-30 years of tacit experience. Senior technicians could feel anomalies invisible to instruments.

1990s – 2000s

Sensors and condition monitoring began codifying this knowledge into data.

2010s – 2020s

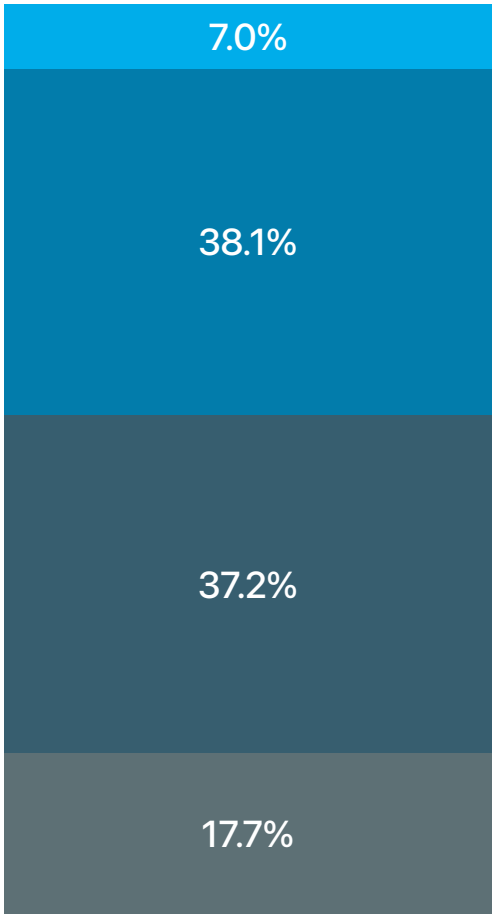
Predictive maintenance platforms made diagnosis systematic and procedural, requiring minimal expertise.

AI is enabling this transformation in years, if not months[1]

Expertise Area	Before AI	Age of AI	
Protein structure prediction	Determining a single protein's 3D structure took months to years.	AlphaFold 2 predicts structures in seconds. By 2024 it had predicted 200M+ structures.	Isomorphic labs is partnering with Novartis and Eli Lilly on AI-designed drug pipelines.
Clinical documentation	Physicians spent 15+ hours / week on clinical notes and admin. Required medical training and clinical judgement.	Abridge automates 91% of note creation. Reduces documentation burden by 2-3 hours per day per clinician.	Abridge is now deployed across 150+ health systems and handles 50 mn conversations per year.
Large-scale code refactoring	Nubank needed to migrate a multi-million line ETL monolith into sub-modules, which would take several years.	Devin helped engineers achieve 12x efficiency increase in engineering hours. Migration completed in weeks.	Devin states that a task that a human can do in 3 hours is within the agent's capability.
Tax preparation	Tax preparation required trained professionals interpreting complex regulations across federal and state jurisdictions.	Intuit's platform delivers full-service returns in under two hours using AI document import and expert matching.	GenAI implementation rose 70% among accounting firms in 18 months.

NOTE: (1) Based on analysis of 1.7 mn+ job descriptions across 60+ countries; (2) Company websites, press releases

GCCs need to self-disrupt, as AI-natives[1] are biting at their portfolios



AI-natives are disrupting operations across industry and corporate functions, which form a bulk of the procedural and commodity portfolios of GCCs in India

Healthcare	Logistics	Financial Services	Retail	Industrial
OpenEvidence	Locus	Arya	Lily ai	SIGHT MACHINE
ABRIDGE	fixefy	konnecto	Constructor	AUGURY
Ambience	PORTCHAIN	ZEST AI	syte	INSTRUMENTAL
ATROPOS HEALTH	paccurate	cleo		

Software & IT	CURSOR	Devin	lovable	poolside	Magic
Customer Support	Decagon	SIERRA	DevRev	Maven AGI	CRESTA
HR	MERCOR	Leena AI	moonhub	PARADOX	Sana
Finance	truewind	numeric	ramp	CLEARSPEED	VIC.AI

NOTE: (1) Company websites, CB Insights and other publications

01

Invest in frontier capabilities

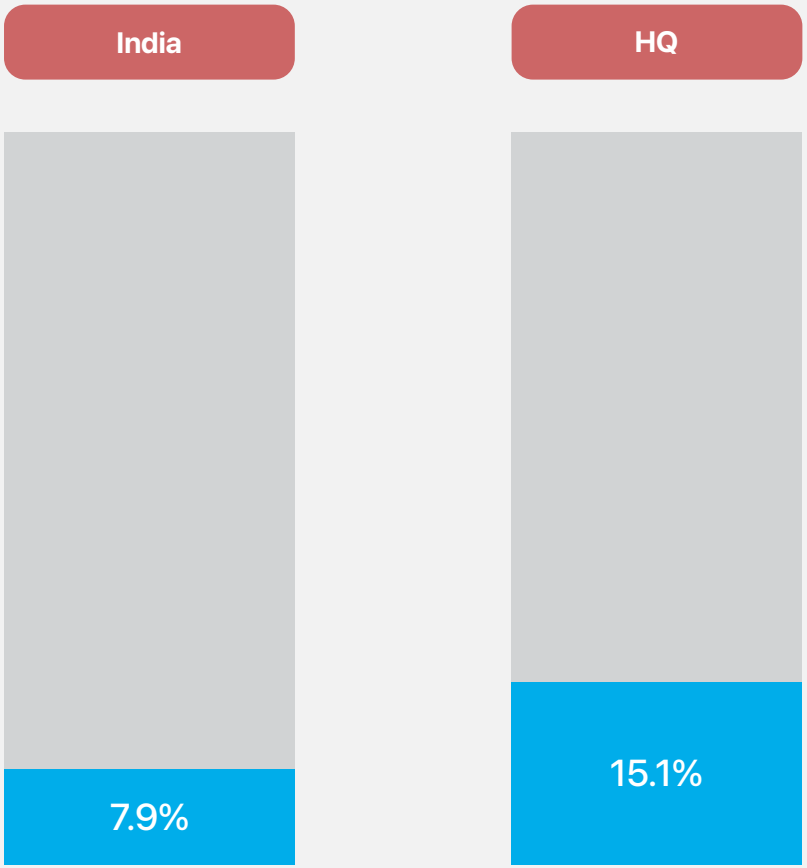
India has developed a strong set of frontier capabilities, but lacks genuine invention skills.

02

Deepen grey hair capacity

Technical grey hair is strong, but grey hair in domain lags behind the HQ.

India's invention muscle is lagging and innovation programs aren't enough to build it



India has a strong AI and chip design footprint in rocket science but has half of HQ's share in research and invention.[1]

Element	Hackathons	What rocket science needs
Problems	Incremental	Frontier
Autonomy	Low	High
Team Composition	Self-selected Usually homogenous	Cross-disciplinary
Duration	2-3 days	12-24 months

NOTE: (1) Based on analysis of 1.7 mn+ job descriptions across 60+ countries

Incentive competitions solve problems at the frontier

How did XPRIZE solve a Rocket Science problem[(1)]?

Peter Diamandis announces a USD 10 Mn prize. The problem statement is precise and measurable – build a privately financed, reusable spacecraft that carries three people to 100km altitude, twice within two weeks.

1996

USD 10 Mn

26 teams participate and invest over USD 100 Mn of their own money to solve the problem. The prize is won by SpaceShipOne.

2004

USD 100 Mn

Within months, Richard Branson licensed SpaceShipOne's tech to create Virgin Galactic. By 2023, Virgin Galactic completed its first commercial space mission and the commercial space industry is valued at USD 469 Bn.

2023

USD 469 Bn

NOTE: (1) XPRIZE website

XPRIZE has moved the frontier across domains[1]

Competition	Prize	Duration	Problem	Outcome
Qualcomm Tricorder Prize	USD 10 Mn	5 years (2012-2017)	Handheld device diagnosing 13 health conditions	Spurred the consumer health diagnostics industry
Rapid COVID Testing	USD 6 Mn	6 months (2020-2021)	Fast, cheap, scalable COVID tests	1400+ patents filed. Solutions deployed at scale during Omicron
Global Learning	USD 15 Mn	4 years (2014-2018)	Mobile apps producing highest literacy gains in developing nations	Co-winners scaled to 17 countries and 14 Mn+ learners
Google Lunar	USD 30 Mn	11 years (2012-2017)	Private lunar landing + 500m traverse	Not completed, but spawned space companies in 5 countries

What can we learn from the XPRIZE model?

Define the threshold, not the method

XPRIZE defines what success looks like in measurable terms, but never the approach. Problems are fleshed out in measurable thresholds.

Small, cross-disciplinary teams outperform

XPRIZE winners are consistently teams of 10-30 people combining expertise that doesn't normally sit together. Frontier problems require framing from outside the technical domain.

Closed-loop systems spur stronger R&D

XPRIZE builds strong ecosystems around every problem that further accelerate frontier development.

NOTE: (1) XPRIZE website

What makes a good frontier problem?

zinnov

Good challenge problem	Bad challenge problem
Has a measurable threshold	"Explore AI applications in X"
Currently unsolved (not just unimplemented)	Already solved elsewhere, just not deployed here
Multiple technical approaches could work	Only one known approach
Solution is a reusable method	Solution is a one-time output

Examples of well-framed problems

Industrial
Create a predictive maintenance system that detects turbine degradation 30 days before failure with >90% accuracy using only vibration sensor data and no proprietary maintenance history.

Healthcare
Create a clinical system that matches specialist-level diagnostic accuracy for three specified conditions using only primary care data inputs – enabling frontline health workers to make specialist-grade assessments.

Rocket Science Council

- 4-5 internal senior domain experts
- 3-4 internal technical leaders
- 2-3 external advisors

Phase 1 – Landscape scan

- Where is the frontier in our domain? What problems are unsolved by the industry, not just by our enterprise?
- What would be transformative if solved? What would change the game?
- Where does our enterprise have a structural advantage in solving this problem?
- External advisors present on frontier developments in their domain

Phase 2 – Problem shaping

- Select 3-5 most promising problem areas
- Define a measurable success threshold for each – keep it achievable, but very aspirational
- Stress-test each threshold: Is it achievable in 12 months with AI acceleration? Is it too easy? Is it too hard?

Outcome: 2-3 published challenge statements for the enterprise / GCC

Invention requires cross-disciplinary teams coming together

zinnov

XPRIZE winners are consistently made up of people combining unlikely disciplines[1]

Ansari XPRIZE (SpaceShipOne)

Aircraft designers + composite material specialists + hybrid rocket engineers. Nobody on the team had built a spacecraft before.

XPRIZE Carbon Removal (Mati Carbon)

Geochemists + agricultural operations specialist + software engineers + development economist.

Rapid COVID Testing

ChromaCode (data science + molecular biology + software engineering), Mirimus (biotech spinout combining academic virology with commercial testing infrastructure)

AI research labs show the same hiring patterns[2]

Google DeepMind

DeepMind hires Research Scientists with PhDs in political science, sociology, philosophy, economics, law, and psychology. Their post-AGI research team requires expertise in "economics, law, political institutions, or AI and human relationships."

Microsoft Research India

Microsoft Research India combines ML researchers with social scientists, linguists, and public health experts. Their ELLORA project required computational linguists + community engagement specialists + data collection innovators.

How should hiring and development strategies change for GCCs?

Hire for problem-framing, not tool proficiency

Frontier hiring should test problem solving in ambiguous, messy situations and that needs to be covered in interview rubrics.

Create research exposure pathways for existing employees

Embed high-performing engineers and experts in frontier-focused projects as contributors. A financial services GCC embeds experts with 7+ years experience in frontier development work.

Recruit from adjacent talent pools that are ignored

India has deep talent pools in social sciences, design, public research, etc. that are not being tapped into.

NOTE: (1) XPRIZE website; (2) Company websites and press releases

Closed-loop systems create the foundations for frontier development

Closed loops across the value chain[1]

Healthcare GCC partners with a Physician Enterprise and Ambulatory Care Network to co-develop AI-driven patient experience intelligence.

Closed loops with Indian universities[2]

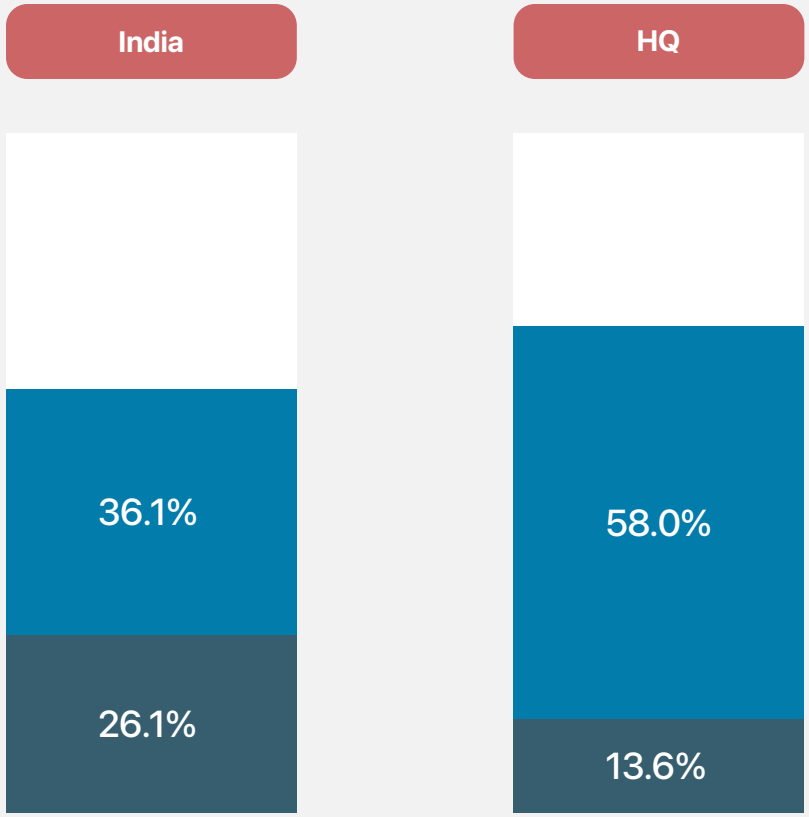
Samsung R&D Institute has established a Quantum Technology Lab in partnership with IISc focused on quantum communications and integrating Cryogenic Control Chips with Qubits.

Closed loops with foreign universities[2]

Technical University of Munich has set up a lab in SAP's new campus to research neuro-symbolic AI for supply chains – they are building brains for supply chain robots to reason about physical objects.

NOTE: (1) Interviews with GCC leaders; (2) Company websites and press releases

India's grey hair gap is mostly in the domain and commercial layers



India has 2x HQ's concentration of technical grey hair, but domain is the biggest gap

Technical Domain

How are GCCs bridging the domain grey hair gap?

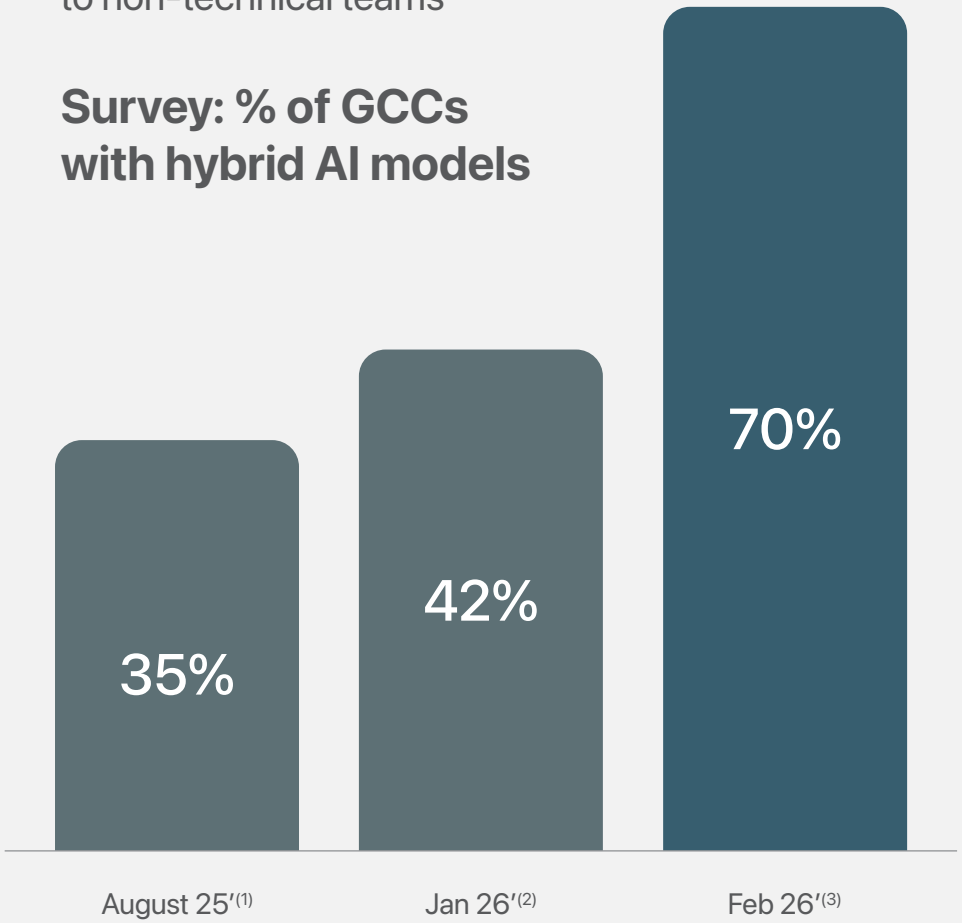
- **Building stronger interlocks b/w technical and domain teams**
- **Developing T-shaped talent**

NOTE: (1) Based on analysis of 1.7 mn+ job descriptions across 60+ countries

Domain gaps are being bridged by bringing technical and domain teams together

GCCs are increasingly moving beyond CoEs and are decentralizing AI development to non-technical teams

Survey: % of GCCs with hybrid AI models



AI talent is being deputed to non-technical teams(4)

AI SMEs of a technology GCC are assigned to specific product verticals, maintaining dual exposure: horizontal platform knowledge from the CoE plus vertical domain depth from the business unit. The GCC of a universal bank follows the same deputation approach with technical experts spending months working closely with operations teams.

Domain talent is being deputed to the CoE(4)

A cybersecurity GCC holds enterprise-wide AI hackathons where cross-functional teams from engineering, product, and support pitch solutions for business-critical gaps. Winning teams rotate into the AI CoE to move inventions into production. The GCC also puts technical and domain experts into AI pods to ensure solutions reflect domain nuance.

NOTE: (1) nasscom AI Maturity Study; (2) Survey of 25+ CXOs; (3) Survey of 50+ CXOs; (4) Interviews with GCC leaders

Talent needed today is becoming increasingly T-shaped

zinnov

AI-natives are creating entirely new role categories that merge domain knowledge with technical fluency

AI-native	Role	Job Description
Harvey	**Legal Engineer**	"Skilled lawyers from top-tier firms who apply legal experience to ensure solutions enhance day-to-day workflows."
ABRIDGE	**Clinical Scientist**	"Req: 5+ years as a clinician (MD/DO). Bridge clinical reality and ML capabilities. Ensure eval reflects clinical judgement."
Hebbia	**Forward Deployed Engineers**	"Lead technical discovery. Decompose high-level business problems into code. Autonomy required."

GCCs are focusing on development journeys as a means to create this T-shaped talent

Domain trainings for technical workforce(2)

70% of a Healthcare GCC's workforce was trained in foundational US Healthcare through caregiver-led clinical immersion, VR simulations, and applied case studies. 98% of the India team of a Semiconductor enterprise was trained in AI, complemented by deep tool-specific training across Copilot, GitHub Copilot, and agent-building frameworks.

Persona aligned growth journeys(2)

A Fintech GCC has persona-aligned growth journeys for non-technical staff. Talent starts by being an AI User, then becomes an AI Power User (embedded usage, prompt innovation, low-code solutioning), followed by AI Builder/Composer (experimentation, workflow design, enterprise integration) and finally AI Enabler (custom agent development, orchestration). This creates a clear ladder from tool user to system architect.

NOTE: (1) Company career websites; (2) Interviews with GCC leaders

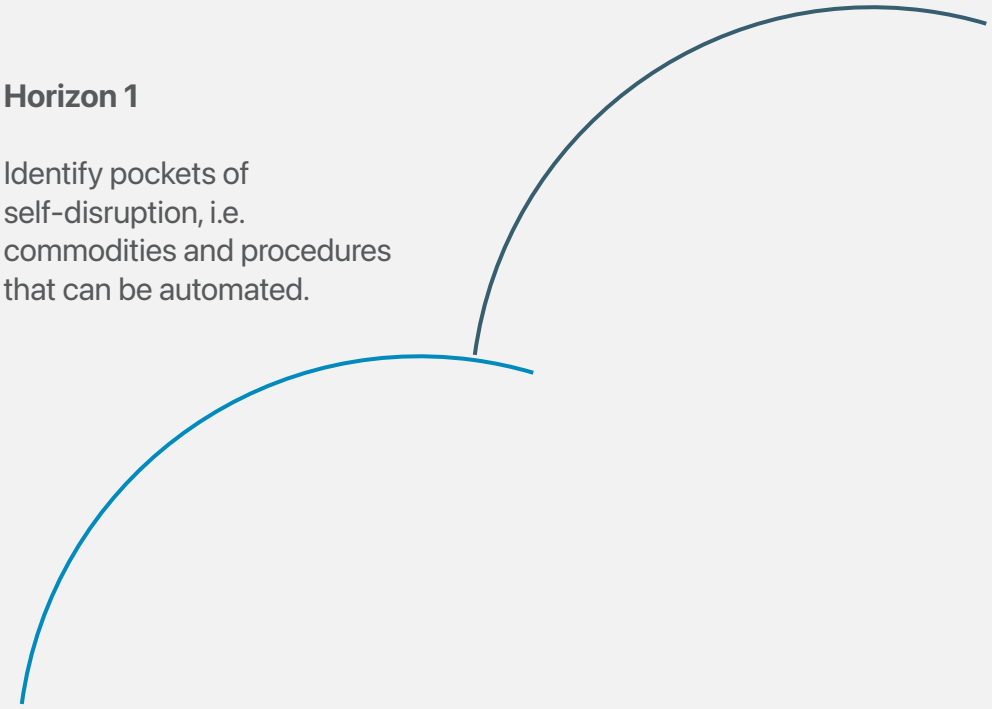
What does this mean for you?

Horizon 2

Invest in building invention and grey hair muscles across select domains where the GCC has leverage.

Horizon 1

Identify pockets of self-disruption, i.e. commodities and procedures that can be automated.



Monday morning actions for leaders

Audit your work portfolio

Classify your work portfolio across the four segments and measure your exposure.

Put a non-engineer on your next AI project

Pull a compliance manager, a financial analyst or a supply chain expert on your next initiative – see what happens when domain expertise sits with technical development.

Measure differently

Identify value metrics across portfolio segments and start measuring them – what gets measured, gets managed.

AUTHORS

Pari Natarajan
CEO & Co-founder
Zinnov

Namita Adavi
Partner
Zinnov

Tanmoy Nayak
Engagement Manager
Zinnov

ABOUT ZINNOV

Founded in 2002, Zinnov is a leading global management consulting and strategy advisory firm, with a presence in 10 global locations including New York, Seattle, Santa Clara, Houston, Paris, Gurgaon, Bangalore, Hyderabad, and Pune. In the last 24 years, Zinnov has worked closely with Global Enterprises and Fortune 2000 companies across their value creation journeys and helped them develop actionable insights - across revenue, talent, innovation, scale, and optimization. With core expertise in Product Engineering, Digital Transformation, Innovation, and Outsourcing Advisory, Zinnov enables companies to develop and optimize a global engineering footprint through center setups, and technology and functional Centers of Excellence (COEs), portfolio optimization, partnerships, and real-time data and insights - through its unique GCC Accelerator Platform (GAP) offering.

This multi-lever approach helps Zinnov's customers be a part of an immersive and highly networked model, enabling them to achieve higher R&D efficiencies, innovation, and productivity. The company's expertise also extends to advising global PE firms in asset shortlisting and target evaluation, due diligence, and value creation, especially for their portfolio companies through a globalization lens.

With its team of experienced consultants, subject matter experts, and research professionals, Zinnov works with global industry bodies to identify business and technology trends, and also serves clients from across multiple industry verticals including Enterprise Software, BFSI, Healthcare, Automotive, Retail, and Telecom in the US, Europe, Japan, and India across their digital transformation and innovation journeys.

For more information, drop us a note at info@zinnov.com or visit **http://zinnov.com**

www.zinnov.com | info@zinnov.com

NEW YORK | SANTA CLARA | HOUSTON | SEATTLE | PARIS | UK | BENGALURU | GURUGRAM | HYDERABAD | PUNE