



BRICS CHAMBER OF COMMERCE & INDUSTRY

NEWSLETTER

BUILDING BUSINESS- BRICS AND BEYOND

**APRIL
2025**

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NEW MEMBERS



MR. VENKATA RANJIT PATTIBANDLA
FOUNDER, CYBERPARK DEVELOPMENT &
CONSTRUCTION PVT LTD

INDIVIDUAL MEMBER

We are delighted to welcome Mr. Venkata Ranjit Pattibandla as our Individual Member. Mr. Venkata Ranjit is a dynamic entrepreneur based in Bengaluru, Karnataka, with a strong footprint in the IT and Infrastructure sectors. With a keen vision for innovation and sustainable development, he has been at the forefront of driving impactful solutions in technology-driven infrastructure projects.

Over the years, Mr. Pattibandla has successfully led ventures that bridge the gap between digital transformation and physical infrastructure, contributing to the evolving urban and industrial landscape of India. Known for his strategic foresight, operational excellence, and commitment to quality, he continues to play a pivotal role in shaping the future of smart infrastructure and digital ecosystems.

Passionate about entrepreneurship, Mr. Pattibandla is also a strong advocate for leveraging technology to empower communities and create long-term socio-economic value.

We are proud to welcome Mr. Venkata Ranjit Pattibandla to the BRICS CCI community and look forward to his valuable contributions in driving innovation, growth, and sustainable development.

NEW MEMBERS



MS. GOTTIPATI BHAVYA

INDIVIDUAL MEMBER

We are delighted to welcome Ms. Gottipati Bhavya as our Individual Member. Ms. Bhavya is a student of law with a strong interest in international trade and commerce. She is particularly fascinated by the intersection of law and business, especially within the context of emerging global economies like the BRICS nations.

The evolving legal frameworks, cross-border transactions, and policy harmonization within BRICS present a dynamic landscape that she is eager to explore and contribute to.

She looks forward to connecting with like-minded individuals, learning from diverse perspectives, and actively participating in dialogues that shape the future of international economic cooperation.

We are proud to welcome Ms. Gottipati Bhavya to the BRICS CCI community and look forward to her valuable contribution in driving innovation, growth, and sustainable development.

NEW MEMBERS



MR. RAKESH MEHTA

DIRECTOR

DEXTER CHEM PVT LTD

INDIVIDUAL MEMBER

We are delighted to welcome Mr. Rakesh Mehta, Director Dexter Chem Pvt Ltd., as an Individual Member of BRICS CCI. A driven entrepreneur and sustainability advocate, Mr. Mehta has made a notable mark in India's renewable energy sector. He has been honored with the prestigious award for 'Best Solar Integrator' by Waaree Energies Ltd, recognizing his outstanding contribution and expertise in the solar EPC (Engineering, Procurement, and Construction) domain.

As an authorized partner of both Waaree Energies Ltd. and Reliance New Energy Ltd., Mr. Mehta plays a key role in delivering end-to-end solar solutions across India. His firm specializes in large-scale solar installations—primarily catering to commercial, industrial, and ground-mounted solar projects—with a strong focus on quality, scalability, and long-term impact.

By joining BRICS CCI, Mr. Mehta aims to expand his global network and actively contribute to collaborative efforts toward sustainable development and climate action. His vision aligns with BRICS CCI's broader mission of driving environmentally responsible growth across emerging economies.

We warmly welcome Mr. Mehta to the BRICS CCI community and look forward to his valuable engagement in advancing clean energy and sustainability initiatives.

NEW MEMBERS



MR. RAJESH ARYA

FOUNDER

VASTU ESTATES DEVELOPERS & REALTORS

INDIVIDUAL MEMBER

We are delighted to welcome Mr. Rajesh Arya as our Individual Member.

Mr. Arya is a seasoned and visionary leader with over 29 years of experience in the real estate and business sectors. He is the Founder of Vastu Estates Developers & Realtors, a reputed name known for delivering premium real estate solutions across high-value residential and commercial projects.

Throughout his dynamic career, Mr. Arya has worked extensively with a diverse clientele, including high-net-worth individuals (HNIs), celebrities, corporate houses, industrialists, and some of the country's most prominent construction and infrastructure firms. His deep industry insights and strong professional network reflect his credibility and influence in the sector.

We are proud to have Mr. Rajesh Arya join the BRICS CCI community and look forward to his valuable contributions as we continue to build meaningful business linkages across BRICS and BRICS+ nations.

NEW MEMBERS



TRAVEL SAPPHIRE DMC PVT LTD

CORPORATE MEMBER

We are delighted to welcome **Mr. Lokesh Sharma - Director (Travel Sapphire)** as our Corporate Member. Travel Sapphire is a boutique, mid-sized destination Management Company offering tailor-made holidays, educational tours, small group travel, corporate incentives, and themed experiences across the Indian Subcontinent—covering India, Sri Lanka, Maldives, Nepal, Bhutan, and Tibet.

Headquartered in New Delhi with branch offices in Colombo and Kathmandu, and International presence in Australia, the USA, UK, and Brazil, the company prides itself on delivering personalized service, unique itineraries, and 24/7 ground support. With a strong network of global travel partners, including HelloWorld, GoWay Tours, and Travel Counsellors, Travel Sapphire also collaborates with top universities like Harvard, Wharton, and London Business School on immersion programs.

Their clientele further includes major corporates such as Suzuki Motors and FICCI, as well as government bodies like the Ministry of External Affairs and the Government of Western Australia, reflecting their reputation for operational excellence and reliability.

We are proud to welcome Mr. Lokesh Sharma to the BRICS CCI community and look forward to his valuable contributions in driving innovation, growth, and sustainable development.

BUSINESS MEETS AND EVENTS

BRICS CCI STRENGTHENS GLOBAL TIES AT PARKSEASON EXPO 2025 IN MOSCOW



Mr. Sameep Shastri, Vice Chairman of the BRICS Chamber of Commerce and Industry (BRICS CCI), represented the Chamber as an **esteemed speaker** at **ParkSeason Expo 2025** held in Moscow, Russia.

Participating in the panel discussion titled **"Comfortable Environment in Russian and BRICS Cities: Parks for a Healthy Nation,"** Mr. Shastri highlighted the importance of sustainable, inclusive urban development across BRICS nations.

During the event, Mr. Shastri also formalized a strategic partnership by signing a cooperation agreement with the **Association for the Development of Urban Parks and Public Spaces**, represented by Mr. Andrey Lapshin, Chairman of the Subcommittee on Management of City Parks, Development of Public Spaces of the Chamber of Commerce and Industry of the Russian Federation, and President of the BRICS Parks Forum.

BUSINESS MEETS AND EVENTS

CYBER SECURITY TRENDS IN BFSI SAFEGUARDING THE DIGITAL FRONTIER



In response to the growing need for digital security in the banking and financial services sector, **the BRICS Chamber of Commerce and Industry (BRICS CCI)** hosted a focused **seminar** on **"Cyber Security Trends in the BFSI Sector."** The event brought together distinguished experts and industry leaders to deliberate on the evolving threat landscape, emerging technologies, and strategic frameworks required to safeguard the digital financial ecosystem.

The seminar featured an esteemed panel of speakers:

Mr. Kamendra Kumar, Honorary Advisor – BRICS CCI & Director – TCIL, shared his rich expertise in policy formulation, infrastructure development, and international collaboration within cyber domains.

Mr. Ashutosh S. Landge, President – IT and Communications Vertical & Governing Body Member – BRICS CCI; President and MD – Terasoft Technologies, addressed the need for cybersecurity governance and strategic resilience, highlighting the urgency for BFSI institutions to future-proof their digital operations.

Mr. Pratik Shah, CTO – Cyber Security and Cloud Services, IBN Technologies Ltd., provided insightful perspectives on threat evolution, cloud security protocols, and proactive threat detection mechanisms essential for organizational safety.

The session underscored the importance of strong security frameworks, real-time response strategies, and collaborative engagement between public and private sectors to ensure data integrity and digital infrastructure protection.

BUSINESS MEETS AND EVENTS

BRICS CCI CHANDIGARH CHAPTER ENGAGES WITH HON'BLE GOVERNOR OF PUNJAB



The **BRICS Chamber of Commerce and Industry (BRICS CCI) Chandigarh Chapter** recently had the honour of meeting **Hon'ble Governor of Punjab, Shri Gulab Chand Kataria**, in a significant step towards strengthening regional collaboration and investment promotion.

Led by **Mr. Deepak Shukla, Regional Director – BRICS CCI Chandigarh Chapter**, along with **esteemed members Mr. Rahul Mittal, Mr. Aman Jindal, and Mr. Vikas Vij**, the delegation presented the Chapter's vision and discussed opportunities to drive economic growth across the state. The meeting placed a **special focus on the 'Invest in Punjab' initiative**, highlighting Punjab's strategic advantages in sectors such as industry, infrastructure, innovation, and entrepreneurship.

Through this engagement, **BRICS CCI reinforced its commitment to fostering impactful public-private partnerships, creating pathways for regional development, and aligning local strengths with global investment opportunities.** The Chandigarh Chapter continues to champion BRICS CCI's broader mission of building sustainable growth ecosystems across India.

BUSINESS MEETS AND EVENTS

BRICS CCI VICE CHAIRMAN SPEAKS AT AIM CONGRESS 2025



Representing India on the global stage, **Mr. Sameep Shastri, Vice Chairman – BRICS CCI**, addressed a high-level panel at **AIM Congress 2025 in Abu Dhabi, UAE**. Speaking on **"The Future of the New World Structure: Mastering the New Frontiers in Global Trade & Technology,"** Mr. Shastri emphasized the need for increased global trade and greater accessibility to goods and services.

He shared **BRICS CCI's vision of fostering an inclusive, innovation-led economy and reaffirmed the Chamber's commitment to strategic alliances under the BRICS+ framework**. His participation highlighted India's growing role in shaping the future of global trade and technology.

This marks important step in BRICS CCI's ongoing mission to promote economic diplomacy and international collaboration.

BUSINESS MEETS AND EVENTS

GLOBAL SYNERGY IN ACTION !



At **AIM Congress 2025**, the **BRICS Chamber of Commerce and Industry (BRICS CCI)** advanced its global outreach with a series of strategic meetings in Abu Dhabi.

On **April 8th**, **Mr. Sameep Shastri, Vice Chairman – BRICS CCI**, alongside **Mr. Ansh Virmani and Mr. Sushil Sharma** met **H.E. Ambassador Sidney Leon Romeiro** at the **Embassy of Brazil** to discuss collaboration under the BRICS+ framework.

In a separate engagement, the delegation met **Smt. Meenakshi Lekhi, Former Minister of State for External Affairs and Culture**, emphasizing the importance of India's cultural diplomacy and promoting entrepreneurship through global partnerships.

Mr. Shastri also engaged with **H.E. Humaid Mohamed Ben Salem, Secretary General – UAE Chambers**, and **Mr. Frank Wouters, Chairman – BeNeLux Business Council**. Discussions focused on cross-border trade, innovation, and green energy, reinforcing BRICS CCI's commitment to inclusive, future-ready economic cooperation across regions.

BUSINESS MEETS AND EVENTS

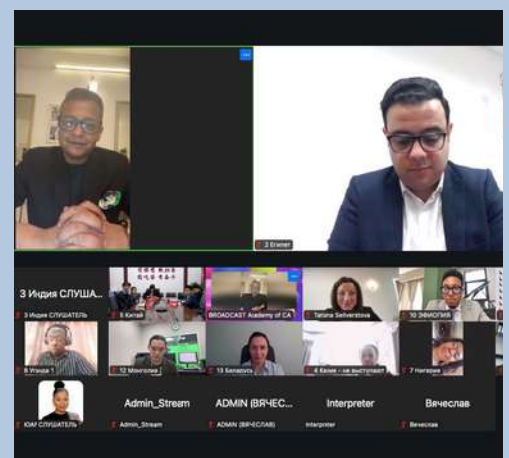
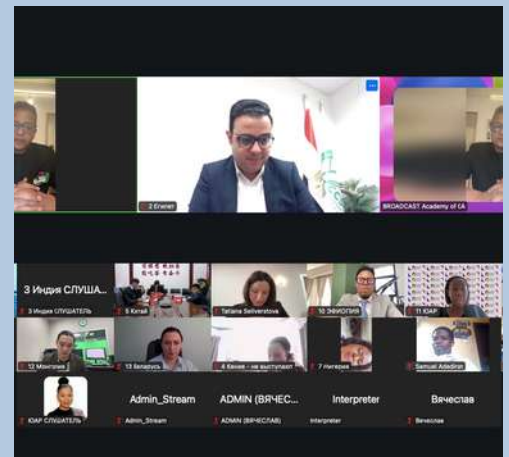
BRICS CCI PARTNERS WITH ACADEMY OF CONTEMPORARY ART FOR "OUR GENERATION 2025"

The BRICS Chamber of Commerce and Industry (BRICS CCI) has renewed its collaboration with the Academy of Contemporary Art to support the **International Television Junior Song Contest "Our Generation 2025."**

At an online ceremony held on **April 10, 2025**, attended by representatives from over 15 countries, an MoU was signed by **Mr. Sameep Shastri, Vice Chairman – BRICS CCI**, and **Ms. I.A. Chestnykh, Executive Director – Academy of Contemporary Art**.

Under this partnership, **BRICS CCI will serve as the official Indian representative, working on national qualifiers, logistics, promotion, and media outreach to encourage youth participation and cultural exchange across BRICS nations.**

This collaboration reaffirms BRICS CCI's commitment to empowering young talent, celebrating India's creative spirit, and strengthening cultural ties across the global stage.



BRICS AND BEYOND NEWS

UK Chancellor Advocates for Global Free Trade

UK Chancellor Rachel Reeves has called for a coordinated international response to rising protectionism, particularly criticizing U.S. tariff policies. She emphasized the need for a balanced global trade system and announced plans to strengthen economic ties with India and the EU. The UK government has also introduced emergency legislation to support industries affected by U.S. tariffs.

Source: [The Guardian](#)

Global Economic Outlook: Rising Recession Risks

The International Monetary Fund has issued a warning about significant risks to the global economic outlook, citing escalating trade tensions and policy uncertainties. Reflecting these concerns, Goldman Sachs has increased the probability of a U.S. recession within the next 12 months to 45%, up from a previous estimate of 35%. The firm attributes this heightened risk to the tightening of financial conditions and the potential dampening effect on capital spending.

Source: [AGBI](#)



Landmark Agreement on Shipping Emissions



In a historic move, countries have reached an agreement to reduce greenhouse gas emissions from global shipping. The International Maritime Organization's new regulations, set to take effect in 2028, will introduce mandatory fuel standards and a carbon pricing mechanism for the shipping industry. While the measures are projected to generate approximately \$10 billion annually, critics argue that they fall short of the ambitious targets needed to meet global climate goals.

Source: [Firstpost](#)

Germany's Fiscal Expansion: A Domestic Focus

Germany's new coalition government, led by Chancellor-in-waiting Friedrich Merz, has unveiled a substantial public spending initiative aimed at revitalizing the nation's economy. The plan includes significant investments in infrastructure and tax reforms to stimulate domestic consumption. However, analysts suggest that the impact on neighboring Central and Eastern European economies may be limited, as the benefits are expected to be largely confined within Germany.



Source: [Reuters](#)

Fitch Ratings Forecasts Weakest Global Growth Since 2009

Fitch Ratings has revised its global growth forecast, predicting the weakest expansion since 2009, excluding the pandemic period. The agency now expects global economic growth to fall below 2% in 2025, citing escalating trade tensions as a key factor. Growth projections for the U.S. and China have also been reduced, reflecting concerns over the ongoing trade disputes.



Source: [Reuters](#)

Semiconductor Industry Hit by Export Restrictions



The U.S. has tightened restrictions on AI chip exports to China, affecting major semiconductor companies. Nvidia anticipates a \$5.5 billion loss, while AMD expects an \$800 million impact due to these new limitations. The restrictions are part of broader national security measures and have led to significant stock price declines in the semiconductor sector.

Source: [The Times](#)

Bank of Japan Lowers Economic Outlook Amid Global Trade Tensions



The Bank of Japan (BoJ) is maintaining a cautious outlook amid uncertainty caused by rising U.S. tariffs and global trade disruption. While keeping interest rates steady, the BoJ signaled a possible adjustment to its ultra-loose monetary policy, depending on inflation and external economic shocks. The bank emphasized the need to support growth while monitoring risks to exports and financial stability.

Source: [The Economic Times](#)

BRICS nations discuss shared response to Trump trade policies

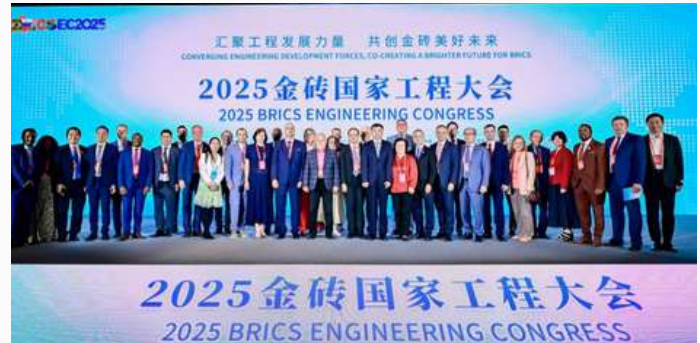
BRICS nations met in Rio de Janeiro to discuss a unified response to rising U.S. tariffs under President Trump's policies. While they expressed concern over global economic fragmentation and trade disruptions, the group failed to issue a joint statement due to internal differences. Brazil released a separate statement opposing protectionism and calling for stronger multilateral cooperation.



Source: [Reuters](#)

Online gaming equals gambling, taxable at 28% GST

The 2025 BRICS Engineering Congress convened in Shenzhen, China, from April 24–26, under the theme "Converging Engineering Development Power, Creating a Bright Future for BRICS." Over 200 delegates from BRICS nations and partner countries—including Egypt, UAE, Ethiopia, and others—gathered to foster engineering cooperation and innovation.



Source: [Global Times](#)

Sebi mandates cooling-off period for directors at market infrastructure institute



SEBI has implemented a new governance framework mandating a cooling-off period for directors moving between key positions at Market Infrastructure Institutions (MIIs) such as stock exchanges, clearing corporations, and depositories. This policy applies to both Public Interest Directors (PIDs) and Shareholder Directors (SDs) and is intended to prevent conflicts of interest, improve transparency, and reinforce accountability within India's capital market infrastructure. The move aligns with SEBI's broader efforts to ensure robust corporate governance in critical financial market institutions.

Source: [ET Legal](#)

ARTICLE

INDIA INC. Q4 FY25 REVIEW: SECTORAL SNAPSHOT & FORWARD OUTLOOK



MS. PRITI GOEL

FOUNDER & CEO - PRISHA WEALTH MANAGEMENT PRIVATE LIMITED

PARTNER & CEO - AVINAV CONSULTING

AUTHOR - DHANAISHA, CHERISHED WEALTH

INDIVIDUAL MEMBER, BRICS CCI

Between January and April 2025, Indian equity markets experienced significant volatility. The year began with a downturn, as the Sensex fell by 1.88% in January, influenced by global trade tensions and foreign investor withdrawals. However, a strong rebound followed, with the Nifty 50 gaining 3.5% in April, supported by robust foreign portfolio inflows and optimism over a potential U.S.-India trade deal. Despite geopolitical tensions, including a deadly attack in Kashmir, markets remained resilient. The Indian rupee also strengthened, closing April at 84.4875 against the U.S. dollar, its highest level since November 2024, aided by equity inflows and exporter hedging.

As Indian companies closed their books for FY25, the Q4 earnings season offered a mixed yet insightful reflection of sectoral resilience amid rising macro and geopolitical uncertainty. From robust bank earnings to infrastructure execution hurdles, here's a crisp view of how each major sector fared and what lies ahead.

Banking & Financial Services

Private and public sector banks demonstrated strong profitability on the back of improved loan growth, healthier asset quality, and moderated credit costs. Loan-to-deposit ratios have normalized post-consolidation, and some institutions announced generous dividends, reflecting confidence in their capital positions. However, the rising interest rate environment and tighter global liquidity warrant a cautious outlook for aggressive lending in FY26.

Forward View: Stable to positive. Credit growth expected to remain healthy unless geopolitical escalation causes risk-off behavior among institutional borrowers or disrupts capital flows.

Industrial & Energy

The industrial and energy segments saw improved throughput and revenues, particularly in metals, mining, and port logistics. However, refining margins compressed marginally due to soft global crude prices, and some firms in the power sector reported profitability pressures due to elevated input and transmission costs.

Forward View: Moderately positive. Energy-linked sectors may face volatility if oil prices spike from Middle East tensions. Strategic shifts in crude sourcing and downstream capacity expansion are likely.

Consumer & Retail

Consumption-oriented sectors witnessed healthy topline growth, fueled by strong retail demand, especially in gold jewellery, FMCG, and lifestyle segments. While topline momentum held firm, margins in some categories were squeezed by promotional spending and inflation in supply chain costs.

Gold prices in India saw significant volatility during this period. At the beginning of January, 24-carat gold was priced around ₹82,000 (~\$950@86.23 per USD average exchange rate) per 10 grams. By late April, prices surged to approximately ₹97,000 (~\$1,133@85.58 per USD average exchange rate) per 10 grams, reflecting a rise of over 18%. This increase was driven by global economic uncertainties and geopolitical tensions, leading to heightened demand for gold as a safe-haven investment. However, the sharp rise in prices also led to reduced consumer purchases, as many opted to sell or hold onto existing gold holdings rather than buying new jewellery.

Forward View: Positive. Festive season pre-ordering and rural consumption (especially post-elections) could accelerate sales. Rising crude and gold prices, however, may dent consumer sentiment as higher fuel and gold costs typically reduce discretionary spending. Despite these challenges, the sector is expected to benefit from robust demand in the middle and premium segments.

Chemicals & Agribusiness

Crop protection and agri-input segments delivered solid EBITDA growth. However, topline growth was modest due to lower global chemical prices and sluggish demand recovery in Western markets. On the flip side, momentum from China's reopening has helped some specialized exporters.

Forward View: Stable to cautiously optimistic. Exporters may face margin stress if U.S. tariffs extend to chemicals. Domestic demand remains firm.

Infrastructure & Engineering

While the sector is sitting on strong order books, Q4 saw execution bottlenecks due to election-related disruptions, delayed receivables, and on-ground mobilization issues. Revenue growth was muted, and profitability varied across segments.

Forward View: Moderately positive. Project rollout expected to pick up in H2 FY26 following the resolution of election-related uncertainties. Geopolitical tensions could delay fund disbursements or reprioritize budget allocations toward defense. The Economic Survey 2024-25 noted that the Union Government's capital expenditure pace was affected during Q1 FY25 due to the model code of conduct during the general elections. However, capital expenditure saw an uptick in July-November 2024 as electoral processes settled.

Information Technology (IT) & Services

Most major Indian IT companies have declared their Q4 FY25 results, with mixed performances. While the U.S. market showed signs of recovery, contributing to improved deal flows, Europe remained weak, and discretionary IT spending continued to lag. Few companies, in particular, noted slower growth and cautious client sentiment. Despite these challenges, the sector is expected to benefit from ongoing digital transformation efforts, though margin pressures and slower growth in non-U.S. markets may persist.

Forward View: Cautiously optimistic. A strong U.S. dollar and steady demand from offshore markets are likely to support moderate revenue growth. However, risks such as tightening U.S. work visa regulations and prolonged global tariff tensions could impact talent acquisition and profit margins. Additionally, slower recovery in discretionary IT spending, especially in Europe, may continue to weigh on growth. Despite these headwinds, the sector is well-positioned to capitalize on digital transformation trends, with rising demand for cloud, AI (Artificial Intelligence), and cybersecurity services providing long-term growth opportunities.

Media & Broadcasting

While digital ad spends and election-led coverage drove revenue gains, a sharp rise in production and promotional expenses dragged profitability lower. Subscription and DTH revenues continue to face structural pressure.

Forward View: Mixed. Near-term ad revenues could benefit from political advertising and sports events, but monetization challenges in OTT and regulatory uncertainties persist.

Geopolitical Watch: Navigating Global Fault Lines

Key risks on the radar include:

- 1. India-Pakistan Tensions:** Rising tensions or military escalation along the India-Pakistan border could lead to heightened market volatility, disrupt investor sentiment, and delay investment decisions. In the event of prolonged conflict or cross-border incidents, there may be a significant reallocation of government resources toward defense, impacting fiscal balance and slowing capital expenditure on infrastructure and welfare programs. Additionally, sectors such as aviation, logistics, and export-driven industries may face operational disruptions or elevated insurance and risk premiums. Diplomatic uncertainty could also affect regional trade and cross-border collaborations.
- 2. U.S. Tariff Reinstatement & Trade Negotiations:** The reinstatement of tariffs on Indian exports like electronics, chemicals, and pharma could affect competitiveness in the U.S. market, leading to lower export volumes and squeezed margins. However, a positive shift in India-U.S. trade negotiations could mitigate this, offering better access to U.S. markets and tariff relief. Additionally, as U.S.-China trade tensions persist, India may benefit from companies diversifying their supply chains. Increased demand for locally produced goods and favorable trade terms could position India as a key alternative supplier, spurring growth in manufacturing and export sectors.
- 3. Middle East Volatility:** Escalating hostilities, such as the Iran-Israel conflict, could drive up oil prices, increasing India's import bill and heightening corporate input costs. Sectors like logistics, refining, and aviation would be directly impacted by rising fuel costs and supply chain disruptions. As India is heavily dependent on oil imports, any price spike would strain inflation, affect consumer purchasing power, and escalate operational costs, potentially dampening growth in key industries and consumer-driven sectors.
- 4. China Rebound:** A rebound in Chinese demand could boost global commodity prices, benefiting Indian exporters in sectors like metals and chemicals. However, this also heightens competition in markets like agri-chemicals and textiles, where China's production scale poses a challenge. While opportunities exist for higher exports, Indian companies may need to innovate to protect market share and maintain profitability.

FY26 Sector Sentiment Barometer

Sector	Outlook	Watch Factors
Banking & Finance	Stable to Positive	Liquidity, credit growth, geopolitical spillover
Industrial & Energy	Balanced	Oil prices, infrastructure push, policy clarity
Consumer & Retail	Positive	Rural demand, inflation, discretionary spending
Chemicals & Agribusiness	Cautiously Upbeat	Global pricing, China competition
Infrastructure	Moderately Positive	Execution post-election, fund availability
IT & Services	Watchful	U.S. tech budgets, hiring cost, regulations
Media & Broadcasting	Mixed	Ad cycles, OTT monetization struggles

Conclusion

Despite global uncertainties and a sensitive geopolitical backdrop, Indian Inc. has demonstrated broad resilience in Q4 FY25. While the road ahead may be uneven, particularly in export-driven and energy-dependent sectors, domestic consumption and infrastructure investment are likely to keep the growth engine chugging

Disclosures:

- Investment in securities market are subject to market risks. Read all the related documents carefully before investing
- The securities quoted are for illustration only and are not recommendatory
- Registration granted by SEBI, membership of BASL (in case of IAs) and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors

ARTICLE

TRANSFORMING DRUG DISCOVERY THROUGH INTELLIGENT COMPUTING



MR. RAHUL BAGGA

FOUNDER - AUMIRAH

INDIVIDUAL MEMBER, BRICS CCI

The global pharmaceutical industry stands at a transformative juncture; one where intelligent computing is redefining the very foundations of drug discovery and development. The methods which were once a laborious, trial-and-error endeavor are now guided by precision of algorithms, the depth of data, and the power of simulation. The infusion of advanced computing into early-stage drug discovery is not merely an upgrade, it is a reimagining of what can be possibly done.

Technologies such as NVIDIA BioNeMo and MolMIM exemplify this shift, enabling the virtual modeling of molecular interactions that previously required months, if not years, of painstaking laboratory work. These tools empower researchers to design, refine, and test drug candidates in silico, with a degree of efficiency and accuracy far surpassing. The result is not only a more streamlined pipeline, but also one that is inherently more predictive, adaptive and resource-efficient.

Intelligent computing is fundamentally altering the calculus of pharmaceutical innovation. By generating early insights into molecular safety and efficacy, it reduces the risks of downstream failure and accelerates the transition from hypothesis to therapeutic reality. In doing so, it holds the potential to democratize innovation and improve global access to cutting-edge treatments.

Rediscovering nature through the lens of technology:

Amid the momentum of synthetic chemistry and complex biotechnologies, a quieter revolution is underway, the scientific rediscovery of nature. Empowered by advanced computational frameworks, researchers are revisiting plant-derived

compounds with the rigor of modern science and the wisdom of traditional medicine. For instance, the leaf extract of *Artocarpus altilis* (breadfruit) has demonstrated antidiabetic and antioxidant properties in preclinical investigations. Today, intelligent computing allows scientists to simulate its pharmacological behavior, model its interactions with biological targets, digitally refine its structure for optimal efficacy. This synthesis of ancestral knowledge and artificial intelligence is more than symbolic; it is transformative. It facilitates a methodical, scalable, and evidence-based approach to unlocking the therapeutic potential of the natural world.

While handling these complex, multifactorial diseases such as cancer, metabolic disorder, and neurodegenerative conditions, the ability to explore multi-target plant-based compounds through digital means is a game changer. Intelligent platforms mine vast biological datasets, identify novel interactions, and optimize candidate molecules, reducing the need for repetitive benchwork and expediting translational progress.

This integration of nature and technology signals a return to holistic science, one that honors biodiversity while leveraging the tools of the future.

Advancing Precision and Scaling Innovation through Intelligent Infrastructure:

The promise of intelligent computing extends far beyond discovery; it is foundational to the future of precision medicine. Once in the domain speculative science, personalized therapeutics are now within reach, propelled by AI-driven infrastructure that models human diversity at the molecular level.

Companies such as Recursion and Terray Therapeutics are at the vanguard of this movement, designing platforms that support high-throughput compound screening, disease-specific modeling, and adaptive experimentation. These technologies enable the rapid development of bespoke treatment strategies tailored to individual genetic and phenotypic profiles—an approach that enhances both efficacy and safety.

What was once a multi-year endeavor can now unfold in a fraction of the time, guided by the granularity of data and the logic of simulation. Virtual clinical trials, biomarker-led predictions, and real-time feedback loops are steadily becoming embedded within the pharmaceutical development cycle.

As these capabilities mature, they promise not only to reduce the financial and temporal costs of innovation but also to foster a more inclusive, responsive healthcare ecosystem—one that recognizes the biological uniqueness of every individual and responds with commensurate precision.

Key Takeaways

- Intelligent computing transforms drug discovery by replacing trial-and-error methods with predictive analytics and simulation-driven design.
- AI-powered platforms can model protein structures, simulate drug-target interactions, and design optimized compounds—before a single experiment is conducted in a lab.
- Natural compounds are being re-evaluated through advanced computational techniques, unlocking new therapeutic pathways from traditional botanical sources.
- These technologies are especially promising for tackling diseases with complex biological mechanisms, such as cancer and diabetes.
- Precision medicine is becoming a reality, supported by digital tools that adapt to individual genetic, molecular, and phenotypic data.
- High-performance platforms are enabling scalable, cost-efficient, and personalized drug development on a global level.

Conclusion:

As the boundaries between biology, data science, and computational engineering continue to dissolve, the future of drug discovery is taking shape—not in the lab alone, but in silico, in real time, and with unprecedented foresight.

Intelligent computing represents not just a technological leap but a philosophical shift. It reorients the pharmaceutical sciences toward a more predictive, personalized, and equitable framework—where discovery is accelerated, nature is re-engaged, and medicine is molded to the nuances of human biology.

This new paradigm offers a compelling vision: a healthcare future that is not only smarter and faster, but also more just, rooted in science, elevated by technology, and ultimately shaped by human need.

ARTICLE

REIMAGINING REGULATORY EQUILIBRIUM: TRAI'S POSITION ON SATCOM VS TELCOS AND THE COMPLIANCE CONUNDRUM



MR. GAURAV MAHAJAN

LAWYER - DISPUTE RESOLUTION/ TECHNOLOGY-DATA & AI ETHICS/
WHITE COLLAR CRIME

PARTNER, THE PRECEPT LAW OFFICES

INDIVIDUAL MEMBER, BRICS CCI

In a rapidly digitizing India, the march toward universal connectivity has catalyzed innovations in telecommunications, with satellite communication ("Satcom") services emerging as a frontier technology. Against this backdrop, the Telecom Regulatory Authority of India ("TRAI")'s recent recommendations on spectrum allocation for Satcom services have stirred significant debate. In particular, TRAI's assertion that concerns regarding a "level playing field" between Satcom operators and traditional telecom service providers ("TSPs") are largely unfounded, has provoked sharp reactions from stakeholders, raising complex questions around regulatory parity, compliance fairness, and constitutional principles.

TRAI's Regulatory Position: Dismissing Competition Concerns

TRAI has emphasized that concerns regarding a "level playing field" between Satcom TSPs are largely exaggerated. TRAI argues that the market conditions, service offerings, and regulatory environments for Satcom and TSPs are sufficiently different, such that any notion of direct competition between the two is unfounded.

According to TRAI's consultation paper and subsequent recommendations, Satcom services, such as those provided by companies like Starlink and OneWeb, are designed to address underserved and remote regions where traditional telecom infrastructure is either not viable or cost-prohibitive. The regulator claims that Satcom services, particularly Low Earth Orbit ("LEO") satellites, primarily target rural or isolated geographies and thus do not directly compete with terrestrial TSPs in urban markets. TRAI's stance is based on several key points:

1. **Geographical Market Segmentation:** The primary service markets for Satcom are the remote areas with limited connectivity which are distinct from the urban-centric, high-density markets dominated by TSPs. As such, TRAI concludes that the overlap in service areas between satellite and terrestrial providers is limited.
2. **Cost and Infrastructure Differences:** The infrastructure required for Satcom, particularly the launch and operation of satellites, is vastly different from the ground-based infrastructure that TSPs rely on. As a result, the operational costs of Satcom providers are significantly higher, and the scope of services they offer may not align with the traditional telecom services provided by TSPs in urban settings.
3. **Regulatory Treatment:** TRAI has recommended administrative spectrum allocation for Satcom providers, especially those using higher-frequency bands such as Ka-band and Ku-band, arguing that the regulatory burden of auctions and usage fees is not suitable for satellite services. In contrast, TSPs are required to participate in spectrum auctions and comply with stringent regulatory requirements set forth by the Department of Telecommunications ("DoT"). This disparity in the regulatory treatment of Satcom and TSPs has been a focal point of debate, with critics contending that it creates an unlevel playing field in competitive markets.

The core of TRAI's argument is that, because Satcom primarily operates in complementary markets (i.e., rural and remote areas), its regulatory framework should not mirror that of TSPs. The agency also suggests that concerns about unfair competition may arise only when Satcom players expand their footprint into urban markets, which remains a more distant concern given the current operational realities of Satcom providers.

Legal and Constitutional Challenges: The Equality Principle and Regulatory Fairness

A significant legal concern raised by stakeholders involves the constitutional principle of equality under Article 14 of the Indian Constitution, which guarantees that no person or entity shall be discriminated against by the state. Critics argue that the differential treatment of Satcom and TSPs by TRAI and the DoT could be seen as unconstitutional, particularly because it allows satellite operators to benefit from administrative spectrum allocation, while TSPs are burdened with spectrum auction costs and stringent regulatory compliance.

The key issue here revolves around regulatory fairness. While TRAI justifies its treatment of Satcom services as being in the public interest citing the need to expand connectivity to underserved regions. This exemption from auctions and fees has been criticized for

creating an uneven regulatory landscape as by offering Satcom operators more favorable spectrum access and cost structures, critics argue that TRAI has created a regulatory asymmetry that favors satellite services over terrestrial networks, potentially undermining the viability and competitiveness of TSPs.

The legal concerns also stem from the precedent set by the 2G case, where the Supreme Court ruled that spectrum allocation must follow a transparent, auction-based system to ensure fairness and avoid arbitrary decision-making. Some legal experts contend that TRAI's deviation from this principle in the case of Satcom could open the door to challenges based on the arbitrary and discriminatory nature of regulatory decisions.

In addition to constitutional concerns, critics argue that the lack of proper stakeholder consultations on this matter could render TRAI's recommendations legally vulnerable. According to Justice L. Nageswara Rao of the Supreme Court, failing to consult all affected stakeholders before issuing recommendations on such significant policy shifts could violate legal standards for procedural fairness, which require inclusivity and transparency in policymaking.

Compliance and Licensing Frameworks: Disparate Regulatory Obligations

One of the most contentious issues in the regulatory landscape is the divergence in licensing frameworks for Satcom and TSPs. TSPs in India operate under the Unified License ("UL") regime, which subjects them to a comprehensive set of compliance obligations, including spectrum fees, service quality benchmarks, and stringent financial reporting. TSPs also contribute significant portions of their revenue to the government through spectrum usage charges ("SUC") and license fees, as determined through the auction process.

In contrast, Satcom operators specifically those offering services under the Global Mobile Personal Communication by Satellite ("GMPCS") framework face a far more lenient regulatory environment. The GMPCS licence does not impose the same level of financial obligations or compliance requirements as the UL. Importantly, Satcom providers are exempt from SUC, which is a critical cost component for TSPs.

The regulatory treatment of Satcom versus TSPs creates a situation where satellite companies are able to operate with relatively low overheads in comparison to terrestrial operators, despite providing similar services, such as high-speed broadband and enterprise connectivity.

The disparity between the two licensing regimes raises concerns about regulatory arbitrage, where operators may choose the less costly route of satellite services to avoid the stringent requirements placed on TSPs.

Moreover, there are concerns related to consumer protection and national security. TSPs are required to comply with various security mandates, including the need for lawful interception capabilities, disaster management protocols, and periodic audits. However, these requirements are not clearly defined for Satcom providers, especially those operating international networks with foreign ownership, such as Starlink or OneWeb. This gap in regulatory compliance could undermine the national security framework, as the Indian government may face challenges in enforcing compliance with domestic laws over satellite-based services that operate globally.

Given these stark differences in licensing and compliance obligations, many stakeholders argue for a more harmonised regulatory framework. This could involve standardising compliance norms for both satellite and terrestrial services, or at least aligning them in cases where service offerings are similar or overlapping.

Stakeholder Reactions: Calls for Reassessment and Transparency

The divergent regulatory approach taken by TRAI has unsurprisingly sparked sharp and vocal reactions from across the telecom ecosystem. The most prominent criticism has been the alleged lack of procedural transparency and insufficient consultation with affected stakeholders an accusation that cuts at the heart of TRAI's statutory obligations under the TRAI Act, 1997.

Reliance Jio, in particular, has submitted a strong objection through a legal opinion asserting that TRAI's approach violates Section 11(4) of the TRAI Act. This provision obligates the regulator to ensure transparent consultation and reasoning in its recommendations. Jio's criticism focuses on the absence of a dedicated public consultation on the issue of a level playing field arguing that TRAI's recommendations fail to factor in the competitive and compliance disadvantages imposed on TSPs when Satcom players are exempted from auctions and allowed administrative spectrum access.

Similarly, Bharti Airtel which has a dual interest in terrestrial networks and LEO satellite ventures via OneWeb has maintained a nuanced but firm position. Airtel asserts that any provision of broadband in urban or commercially lucrative areas by satellite operators should not be exempt from the standard licensing

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They argue that allowing Satcom providers to function under lighter regimes in revenue-rich territories is “regulatory arbitrage in plain sight.”

Industry associations such as the PHD Chamber of Commerce have offered more pragmatic proposals. They advocate for a hybrid model wherein spectrum allocation is done administratively for remote or rural areas where terrestrial rollout is economically unviable but is auctioned in urban zones where the competitive overlap with telecom players is direct and measurable. This, they argue, would both encourage Satcom growth in underserved regions and prevent distortion of the competitive landscape in metro markets.

What these reactions underscore is the need for regulatory parity not just in form but in substance. While the operational dynamics of satellite and telecom services may differ, their increasing convergence in areas like direct-to-home broadband, enterprise solutions, and mobility services demands a recalibration of compliance standards and competitive safeguards.

Way Forward: Regulating with Technology-Neutral Equity

To create a balanced and future-ready telecom ecosystem, TRAI and the DoT must adopt a regulatory approach that is technology-neutral, competition-sensitive, and functionally consistent.

- **Segment-Specific Regulation:** Rather than treating Satcom as a monolith, TRAI should develop differentiated compliance obligations based on service geography. For instance, administrative allocation and relaxed licensing may be justified for rural or hilly terrains where connectivity gaps persist. However, in metro areas or high-revenue enterprise corridors, a stricter licensing regime—comparable to that imposed on TSPs—must apply.
- **Periodic Stakeholder Consultations:** To ensure transparency and democratic legitimacy, TRAI must establish a mechanism for regular and theme-specific public consultations. These must not be broad-brush discussions but instead focus on specific regulatory asymmetries, competitive impacts, and technological overlaps.
- **Unified Spectrum Framework:** India needs a National Spectrum Policy that treats spectrum as a public good subject to context-based pricing—auction where demand is high and public benefit is indirect, administrative allocation where societal welfare is the primary goal. This spectrum framework should be codified in law to prevent policy flip-flops and litigation.

- **Harmonization of Compliance Standards:** Compliance obligations relating to security vetting, emergency call access, consumer grievance redressal, and revenue sharing should be standardized across platforms. These are not technology-specific but service-specific obligations, and should apply equally to satellite and telecom operators alike.
- **Coordination Across Ministries:** Since Satcom intersects with space law, defense regulations, and telecom compliance, a multi-ministerial task force should be constituted to ensure policy coherence. This would prevent contradictory norms, regulatory capture, and delays in approvals.

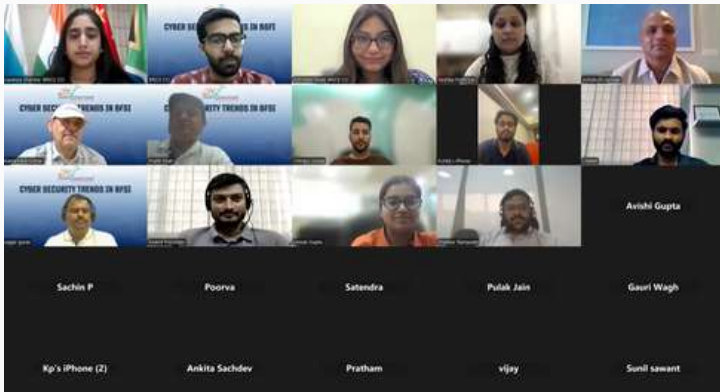
Conclusion

TRAI's recommendations mark a significant milestone in India's attempt to formalize satellite communication into its mainstream connectivity framework. However, its dismissal of level playing field concerns as "misplaced" may be a premature oversimplification of a complex regulatory issue.

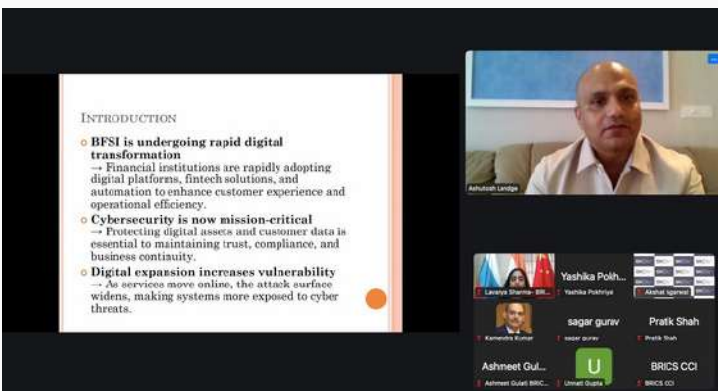
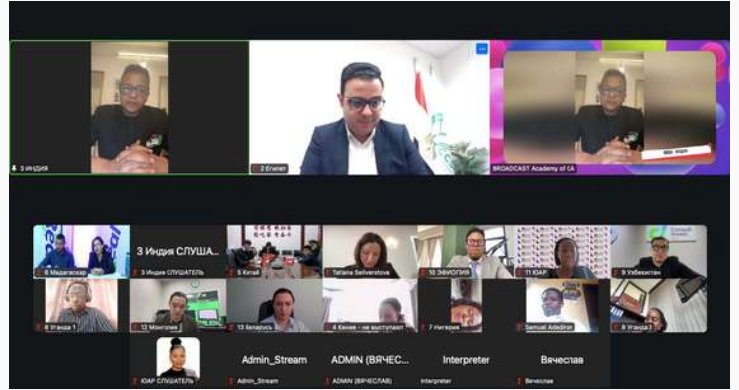
The truth is that technology is converging faster than regulation is evolving. Satellite and terrestrial services are increasingly addressing similar markets, offering comparable services, and competing for the same consumer segments. Treating them unequally in terms of licensing burden, spectrum access, and compliance requirements not only invites legal challenges but also disrupts the delicate competitive balance that India's telecom sector has strived to maintain post the 2G spectrum reforms.

The road ahead lies in acknowledging that equal treatment does not mean identical rules but equitable rules based on function, impact, and public good. It is this principle that must guide India's next phase of telecom regulation if we are to ensure innovation without inequity, growth without regulatory loopholes, and competition without compromise.

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