www.epcworld.in FEBRUARY 2025 Vol. 16 Issue 9 Pages 80 ₹ 300

POWERED BY
WAAREE RTL
Execution with Pace & Comfort

EPC World

Engineering Projects Construction

Extensive Coverage Obsessive Readership

Road Reflectors
Road Marking Paint Manufacturer
Traffic Calming Solutions
OUR SAFETY MARKING SOLUTIONS
Anti-Skid Surfacing
Rumble Marking
Profile Marking
Flat Line Marking
Colored Road Surfacing
Dot Marking
Kerb Painting
Reflective Paint
Road Studs
Highway Marking | Airfeild Marking | Railways & Port Markings |
Parking & Industrial Markings | Racetrack Markings
Kataline®
Marking Every Journey Safe
kataline_sales@katalineindia.com
katalineindia.com
\ katalineindia

THE CHIEF EDITOR'S TAKE

Dear Readers,

Kicking off with positive news! The Reserve Bank of India's (RBI) Monetary Policy Committee (MPC), led by newly appointed RBI Governor Sanjay Malhotra, has slashed the repo rate by 25 basis points (bps) to 6.25 percent - marking the first rate cut in nearly five years. This reduction is set to lower home loan interest rates, offering significant relief to middle-class citizens. Adding to the good news, the Union Budget 2025-26 has introduced long-awaited benefits for the middle class, which were absent in previous budgets.

And from the political desk: the ruling party at the centre has returned to power after 27 years in Delhi. Now, with the same party in power at both the center and the state, development at all levels is expected to gain prominence. The Prime Minister has pledged comprehensive progress for Delhi in his victory speech.

The cover story delves into the implications of the Union Budget 2025, unveiled by the Government of India, marking a crucial milestone in the nation's economic trajectory. With substantial allocations toward infrastructure, the budget is set to transform urban development, enhance connectivity, and drive sustainable growth. As a key beneficiary of these investments, the infrastructure sector stands at a critical juncture, poised to capitalize on emerging opportunities while navigating inherent challenges.

The feature on renewable energy examines the sector's evolving growth dynamics and future potential. As India accelerates its transition to renewable energy, it aims to meet rising power demands while curbing carbon emissions. With immense opportunities in solar, wind, and green hydrogen, the country is strategically positioning itself as a global leader in sustainable energy development.

A vital pillar of the infrastructure sector, the cement industry plays a crucial role in supporting the nation's growth and development. Once viewed as a low-profile sector, it has now emerged as a key driver of economic progress, undergoing a significant transformation in recent years. Mergers, acquisitions, and strategic consolidations have reshaped market dynamics, enhancing operational efficiency and competitiveness. The feature on the cement sector delves into these shifts.

India's business infrastructure is experiencing sustained growth, fueled by rising demand for office spaces, warehousing, and data centers. A report on commercial real estate examines these emerging trends, analyzing key market drivers, investment patterns, and evolving workspace dynamics.

There are engaging reads, analytical articles, and expert insights on the Union Budget, and latest happenings from the construction, infrastructure and EPC sector.

Enjoy the read!

Tejasvi Sharma

Editor-in-Chief

Tejasvi Sharma
tejasvi@epcworld.in

Associate Editor

Sahar Khan

Assistant Editor

A. Mohankumar

Consulting Editor

Veena Kurup

Head-Marketing & Communications

Sriniwas Kumar
sriniwas@epcworld.in

Head-Business Development

Venkatesh K

GM-Sales & Mktg

Santosh Rai

Business Development (Delhi)

Brijender Kumar

Design

Vishwas G. Machivale

Branch Office: Ahmedabad (Gujarat)
Mobile:+91 95588 83190

Published by Tejasvi S Sharma on behalf of EPC World Media Pvt. Ltd., 301, Hilton Centre, Sector - 11, CBD Belapur, Navi Mumbai - 400614. Tel fax: 022 62714444. Email: marketing@epcworld.in and Printed at Siddhi Offset Pvt. Ltd. 5/12, Kamat Industrial Estate, 396, Veer Savarkar Marg, Prabhadevi, Mumbai - 400 025.

CONTENTS

CONTENTS

Precision Concrete Delivery with AMMANN ELBA Concrete Pumps

PUMPING UNIT

The pump has two powerful differential and pumping cylinders. The prodigious combined capacity and performance of these cylinder systems ensures a high output. Our pumps are designed to offer you maximum output with minimum number of strokes to increase the life of the cylinders.

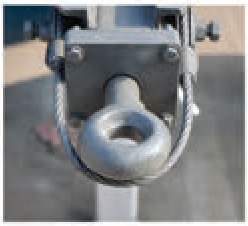
RELIABLE AND LONGLIFE

- Reliable ELBA German Engineering
- Less number of strokes for long life
- Higher Capacity jack
- Foot rest for hopper
- Gas springs and locks for canopy
- Shifting cylinder cover for better safety
- Grill provided for engine front cover
- Efficient splash guard design

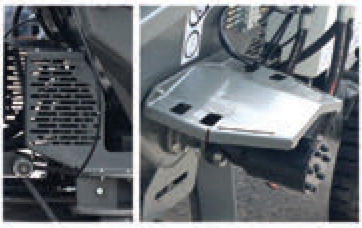
APPLICATIONS

- Real Estate
- Metro Projects
- Bridges
- Dams
- Power Plants
- Railways
- Domestic Airports

TOW HOOK



STURDY & SAFE GUARD



FOOT REST

SOLID AXLE WITH LEAF SPRING

Ammann India Private Ltd., Block No. 157 , AT - Ditasan, Post - Jagudan, State Highway, Ditasan, Mehsana, Gujarat, PIN Code: 384460
Toll Free Number: 1800 258 2233, info.ain@ammann.com
For additional product information and services please visit : **www.ammann.com**

AMMANN
ELBA

Visit us at bauma CONEXPO INDIA Outdoor Stall OC - 10

L&T despatches third steam generator for Kaiga Atomic Power Station

The Heavy Engineering arm of Larsen & Toubro (L&T) has despatched the third Steam Generator (SG), ahead of schedule, for the indigenously developed 10 x 700 Megawatt-electric (MWe) Pressurised Heavy Water Reactor (PHWR) fleet programme. The despatch ceremony took place at L&T's A M Naik Heavy Engineering Complex at Hazira, Gujarat, in the presence of Nuclear Power Corporation of India (NPCIL) Director Technical Rajesh V and his team. The SG is for the Karnataka-based Kaiga Atomic Power Station (KAIGA) Units 5 & 6. L&T had achieved a global benchmark by delivering the first SG in just 33 months.

INOXAP commissions its largest-ever ASU at SAIL's Bokaro Steel Plant

INOX Air Products (INOXAP) has successfully commissioned its largest-ever Air Separation Unit, with an installed capacity of 2150 tons per day (TPD), at the Steel Authority of India's (SAIL) Bokaro Plant. With an investment of INR 750 crore, the project is a result of INOXAP's largest-ever investment in a Greenfield Oxygen Plant in India. This is also the largest-ever ASU installed at any of the SAIL's facilities across the country. The state-of-the-art ASU will generate 2150 TPD of Industrial Gases, including 2000 TPD of Gaseous Oxygen, 150 TPD of Liquid Oxygen, 1200 TPD of Gaseous Nitrogen & 100 TPD of Argon. INOXAP already operates an ASU with a capacity of 1250 TPD at SAIL's Bokaro Plant. With this commissioning, INOXAP's combined production capacity at SAIL's Bokaro Plant is now more than 6300 TPD for all gases.

Ministry of Coal issued vesting orders for 7 coal mines under commercial coal mine auctions

The Nominated Authority, Ministry of Coal has issued the Vesting Orders for 7 Coal Mines under commercial coal mine auctions. The Coal Mine Development and Production Agreements (CMDPA) for these mines were signed on December 05,2024. The mines for which vesting orders has been signed are Gawa (East), Gare Palma IV/5, Marwatola South, New Patrapara South, Sarai East (South), Bartap(Revised) and Kerendari BC North Coal Mines. 5 mines are partially explored coal mines, and 2 mines are fully explored coal mines. The PRC(Peak Rated Capacity) of these coal mines are ~ 13.10 MTPA and is having ~3,308 MT of Geological Reserves. These mines are expected to generate an Annual Revenue of ~₹1,327 crores calculated on the basis of PRC and will attract Capital Investment of ~₹1,965 crores. It will provide employment to ~17,500 people both directly and indirectly.

Adani Energy Solutions bags ₹25,000 crore Bhadla-Fatehpur HVDC Project

Adani Energy Solutions (AESL) has won the ~₹25,000 crore Bhadla (Rajasthan)-Fatehpur (Uttar Pradesh) HVDC (High Voltage Direct Current) order. AESL won the project under Tariff Based Competitive Bidding (TBCB) mechanism and REC Power Development & Consultancy (RECPDCL) was the bid process coordinator. The project SPV got formally transferred to AESL on January 20, 2025. Called "Transmission system for evacuation of power from REZ in Rajasthan (20 GW) under Phase-III Part I", the project includes establishment of 6,000 MW HVDC (High Voltage Direct Current) system between Bhadla to Fatehpur (~2400 ckm) along with 7500 MVA transmission capacity. The project will help evacuate 6 GW renewable energy from various REZs in Rajasthan beyond Bhadla-III to demand centers of North India and to the national grid. AESL will deliver the project in 4.5 years.

Alstom to supply traction components and maintenance services for Vande Bharat sleeper trains in India

Alstom has been awarded a contract worth €144 million (approximately INR 1285 cr) to supply Mitrac traction components and other electrical equipment for 17 Vande Bharat Sleeper trainsets (408 cars). The systems will be supplied to Indian Railways' Integral Coach Factory (ICF) in Chennai. The contract also includes preventive and corrective maintenance of the traction and major electric equipment, as well as support services, for a five-year period, after completion of warranty, at various railway depots. The equipment will be installed in 24-car sleeper trainsets on the Vande Bharat platform, designed to run at a maximum speed of 180 km/h, with a service speed of 160 km/h.s


GOLDI
SOLAR
FIRST TIME IN INDIA
MOST ADVANCED PV MODULE MANUFACTURING LINE
POWERED BY
AI
REVOLUTIONIZING THE SOLAR INDUSTRY WITH AI,
CUTTING-EDGE 14GW PV MODULE MANUFACTURING,
AND A COMMITMENT TO UNMATCHED QUALITY.
MADE IN
INDIA
14GW
PV MODULE
MANUFACTURING
1800 833 5511
goldisolar.com

Blue Energy Motors signs MoU with Government of Maharashtra; to set up 30,000 EV Truck manufacturing plant

Blue Energy Motors, a partner in Essar's green mobility initiative and a pioneer in clean-energy trucks, has signed a Memorandum of Understanding (MoU) with the Government of Maharashtra at the World Economic Forum in Davos. The MoU paves the way for Blue Energy Motors' proposed investment in the state, with plans to manufacture 30000 EV trucks, aimed at fostering industrial growth and significantly enhancing the region's EV truck manufacturing infrastructure. Under the terms of the agreement, Blue Energy Motors will invest approximately ₹3500 crores to establish a state-of-the-art manufacturing facility dedicated to the production of its advanced electric (EV) trucks that will house advanced R&D capabilities, battery-pack line, motor manufacturing unit and set up charging stations as well. This investment is expected to generate direct employment for over 4,000 individuals, contributing to the state's transition to green energy and economic growth. The proposed projects are slated to commence in the fiscal year 2025-26.

Welspun New Energy commits ₹13,500 crore towards advancing Odisha's Green Energy Vision

Welspun New Energy, the green energy infrastructure arm of Welspun World, has signed a ₹13,500 crore Memorandum of Understanding (MoU) with Government of Odisha, in the presence of Chief Minister Mohan Charan Majhi, at the Make in Odisha Conclave 2025. As part of the MoU, Welspun New Energy has committed investments of ₹13,500 crore for developing a 1200 MW Pumped Hydro project and a 1000 MW Floating Solar Power project in Odisha. These projects are expected to enhance the State's energy storage capacity and support the integration of renewable energy into the grid. The MoU holds strategic significance as India pursues its ambitious target of achieving 500 GW of renewable energy capacity by 2030. It also aligns with Odisha's commitment to industrial transformation and its vision to emerge as a premier green energy hub as part of its 'Viksit Odisha 2036' ambition. Strengthening the shift towards a more sustainable and cost-effective energy ecosystem, Welspun New Energy's collaboration with Odisha will further propel this vision, reinforcing its commitment to advancing India's clean energy landscape.

EMAAR India launches Urban Ascent in Gurugram

Emaar India, the Indian business entity of the globally renowned brand EMAAR, has announced the launch of its latest luxury residential project, 'Urban Ascent' at Sector 112, Gurugram, strategically situated on Dwarka Expressway. The location is at the cusp of Delhi and Gurugram, offering easy access to robust physical and social infrastructure. Dwarka Expressway, since its inauguration, has been a hotbed of investment, especially for Delhi residents, owing to the ease of access it has created to both Gurugram business & entertainment hubs as well as to national capital-Delhi. Urban Ascent, spanning 140,606 sq. m. (9.164 acres), is a statement of refined living, seamlessly blending modern luxury & convenience. The project offers a range of thoughtfully designed spacious 3 & 4 BHK residences to suit diverse customer needs, offering ample space for an opulent lifestyle. Urban Ascent boasts of seamless connectivity, being less than 0.5 Km from Dwarka Expressway, linking it to NH-48 providing quick access to Gurugram business hubs on one side and Yashobhoomi & Dwarka side of Delhi, on the other.

IWAI sets up new regional office at Varanasi

For effective implementation of Inland Water Transport (IWT) activities in National Waterway-1 (NW-1), River Ganga, the Inland Waterways Authority of India (IWAI) under the Union Ministry of Ports, Shipping and Waterways has upgraded its existing sub-office at Varanasi to a full-fledged Regional Office. The decision is aimed at streamlining IWAI projects and related works in the state of Uttar Pradesh. IWAI, presently has five regional offices in Guwahati (Assam), Patna (Bihar), Kochi (Kerala), Bhubaneswar (Odisha) and Kolkata (West Bengal). It will now have its sixth regional office in Varanasi, Uttar Pradesh. The Varanasi regional office with its sub-office at Prayagraj will oversee works in 487-kilometre stretch from Majhua to Varanasi MMT (Multi-Modal Terminal) and further up to Prayagraj, apart from other NWs in Uttar Pradesh.

Brigade Enterprises to construct World Trade Center in Kerala

Brigade Enterprises has entered into a Memorandum of Understanding (MoU) with Technopark to develop a World Trade Center (WTC) and supporting infrastructure, including a business hotel at Thiruvananthapuram. Aimed at developing around 1.5 million sq ft of infrastructure, spread across a cluster of towers, the WTC is poised to bring in IT MNCs and provide 'Grade A' IT office space to the workforce in the park. The development is expected to generate employment opportunities, both direct and indirect, for over 10,000 people. Brigade Enterprises already signed and initiated the expansion of WTC in Kochi Infopark with its 3rd Tower, taking its IT infrastructure to over a million sq ft. Overall, Brigade plans to bring in appx ₹1,500 crores investment to the state in the coming years.

Welspun Corp to set up LSAW Line pipe manufacturing facility in Saudi Arabia

Welspun Corp has signed a Memorandum of Understanding (MoU) with Saudi Aramco at the ongoing Aramco IKTVA Forum & Exhibition 2025, to establish a state-of-the-art Longitudinal Submerged Arc Welded (LSAW) line pipe manufacturing facility in the Kingdom of Saudi Arabia. The facility, located in Dammam 3rd Industrial City, will have an annual production capacity of 350,000 MT and is expected to commence operations by mid-2026. The new facility will be equipped with comprehensive capabilities to support future line pipe requirements for Saudi Aramco's ongoing and upcoming projects, including the transmission of oil, gas, hydrogen, and CCUS developments. This collaboration reinforces Welspun Corp's position as a trusted partner in the global energy sector, while also contributing to the Kingdom's strategic industrial goals.

Waaree Energies commences commercial production at its manufacturing facility in Chikhli, Gujarat

Waaree Energies has commenced commercial production at its 1.4 GW Monocrystalline PERC (Mono PERC) solar cell production line in Chikhli, Gujarat. This marks the first phase of commissioning at India's largest solar cell manufacturing facility, which has a total planned capacity of 5.4 GW, including 4 GW of high-efficiency TOPCon solar cells to be commissioned in the next phase. The Chikhli facility features state-of-the-art production lines, advanced automation, and stringent quality control measures, ensuring world-class efficiency and reliability. Beyond technology, it is set to generate employment, contribute to industrial growth, and position India as a key player in the global solar supply chain. With this phase now operational, Waaree continues to lead the industry in delivering high-performance solar solutions, accelerating the transition toward a greener and more sustainable future.

NAREDCO Maharashtra in collaboration with IFC for sustainable real estate development in 2025

NAREDCO Maharashtra has entered into a strategic partnership with the International Finance Corporation (IFC) EDGE team. They will work together to unlock global financing opportunities that will not only drive growth in the real estate sector but also focus on sustainable practices, ensuring that India moves towards a greener, more environmentally conscious future. According to this partnership, the IFC EDGE team will provide technical expertise on green building standards by conducting knowledge sessions at selected NAREDCO chapters, offering free EDGE expert training programs, and facilitating the representation of developers with EDGE-certified projects at EDGE Expert Café events and other regional gatherings. At the same time, NAREDCO Maharashtra will support these efforts by organizing knowledge sessions with various NAREDCO chapters, advocating for the inclusion of EDGE standards in local and state incentive programs, and championing EDGE representation at NAREDCO-hosted events.

Vedanta inks MoU worth ₹1 lakh crore with Government of Odisha at Utkarsh Odisha

Vedanta has signed a memorandum of understanding (MoU) worth ₹1 lakh crore with the Government of Odisha, on the opening day of Utkarsh Odisha, the state's global investment conclave organised in Bhubaneswar. The MoU was signed in the presence of Mohan Charan Majhi, Chief Minister of Odisha and Anil Agarwal, Chairman, Vedanta. This transformative commitment aims to accelerate Odisha's industrial growth by establishing world-class aluminium production facilities and promoting sustainable development across the state. The collaboration includes the development of a 3 million tonnes per annum (MTPA) aluminium plant and an aluminium park that is poised to emerge as a major hub for downstream producers of aluminium products. Together, the announced initiatives will not only further cement Odisha's crucial role in the global aluminium value chain, but will also generate 2 lakh employment opportunities and foster MSME growth across sectors like automotive, power, construction, and logistics.

GMMCO India kicks off the League of Legends - Bangalore District Cricket Tournament 2024

GMMCO India successfully inaugurated the 10th edition of the Caterpillar Bangalore District Cricket Tournament at the prestigious Padukone-Dravid Centre for Sports Excellence in Yelahanka, Bengaluru. This year's event holds special significance as it aligns with Caterpillar's 100th anniversary, a remarkable milestone celebrating a century of excellence, innovation, and teamwork - a legacy that resonates with GMMCO's values and commitment. The opening ceremony was graced by the legendary Javagal Srinath, celebrated as one of India's finest fast bowlers and a true icon of Indian cricket. Renowned for his stellar career, Srinath's presence brought immense prestige and inspiration to the event. Since its inception in 2014, the Caterpillar Bangalore District Cricket Tournament has brought together Caterpillar dealers from across the India region, fostering greater collaboration and camaraderie. Having been hosted in Colombo, Delhi, Chennai, and now Bengaluru, the tournament continues to embody Caterpillar and dealer's values of teamwork and innovation.

TP Solar to Supply 300 MWp ALMM Modules to MSPGCL

TP Solar, a wholly owned subsidiary of Tata Power Renewable Energy (TPREL) has signed a contract with the Maharashtra State Power Generation Company (MSPGCL) to supply 300 MWp of ALMM-certified solar modules for the Mukhyamantri Saur Krushi Vahini Yojana (MSKVY) 2.0 project. Valued at approximately ₹455 crore, this milestone contract underscores TP Solar's leadership as a trusted supplier of high-quality solar modules in India. The ALMM-certified modules will be delivered to multiple locations across Maharashtra in current year. The award forms part of MSPGCL's larger 750 MWp tender, which was finalized following a competitive e-Reverse Auction (eRA) process. TP Solar operates India's largest single-location solar cell and module manufacturing plant in Tirunelveli, Tamil Nadu.

JK Tyre ties up with IFC for India's first tyre industry Sustainability-Linked Loan

International Finance Corporation (IFC) has sanctioned a $100 million Sustainability-Linked Loan (SLL) to JK Tyre, a leading Indian tyre manufacturer with a global presence. The funding includes $30 million to JK Tyre & Industries and up to $70 million for Cavendish Industries (CIL), a subsidiary of JK Tyre. JK Tyre is a flagship company of JK Organisation, a global conglomerate. The funding will support the expansion of tyre manufacturing capacity, focusing on Passenger Car Radial (PCR) tyres at JK Tyre's Banmore plant in Madhya Pradesh and Truck and Bus Radial (TBR) tyres at CIL's Laksar plant in Uttarakhand. The initiative aims to promote energy-efficient tyre production, strengthen local supply chains, and create jobs.

RenewX 9th edition

23 24 25 APRIL 2025
Chennai Trade Centre, Chennai

informa markets

VISITOR REGISTRATION
• LIVE

Vanakkam to Chennai

SCAN & REGISTER TO ATTEND

FREE ENTRY

An industry-recognized platform in South India, known for bringing top renewable products to market.

GET YOUR BADGE ON WHATSAPP

KEY SEGMENTS

- Solar Energy
- Bio Energy
- Energy Storage
- Battery Solutions
- Green Hydrogen
- E- Mobility

Brands At RenewX 2025

PLATINUM PARTNER
swelect

LANYARD & PREMIER SOLAR MODULE PARTNER — EMMVEE
REGISTRATION PARTNER — EVVO
CELEBRATION PARTNER — Feston
SOLAR INVERTER PARTNER — solaire
PREMIUM PV INTERCONNECT & BUSSBAR PARTNER — VALEO

SUPPORTING CHAMBER — IACC Indo-American Chamber of Commerce
BIO-ENERGY PAVILION — iba Indian Biogas Association

PREMIER EXHIBIT PARTNERS

GAUTAM SOLAR, Eastman, GOLDI SOLAR, SAATVIK, vikram solar, MICROTEK, INA SOLAR, Livguard Solar, Credence, VIRIDIS, FUTURE SOLAR, Deye, ECE INDIA, spider, NOVA, VSOLE, MASSIMO, ENICON, AXITEC, redren, LUBIPOWER, HPL, sun meister, SOLEX ENERGY, GB SOLAR

For Space Booking & Partnership

M: +91 99404 59444
E: julian.thomas@informa.com

M: +91 99673 53437
E: iyer.narayanan@informa.com

M: +91 93792 29397
E: amitava.sarkar@informa.com

www.renewx.in

JK Cement acquires 60 percent stake in Kashmir-based Saifco Cements

JK Cement has entered into a joint venture agreement with Saifco Cements, one of the leading cement brands in the Kashmir valley and having an enterprise valuation of INR 290 Crores. JK Cement will acquire 60% stake in Saifco Cements at a value of INR 174 Crore. This acquisition marks a strategic step in expanding JK Cement's presence in one of the fastest growing regions of the country and furthering its footprint in Northern India. Saifco Cements brings strong manufacturing capabilities and an impressive presence in Jammu & Kashmir market, which will scale up to meet the business plan objectives for JK Cement over the next few years. This move aligns with the government's focus on boosting infrastructural growth in Jammu and Kashmir region, accelerating the development journey. Saifco's integrated manufacturing unit at Khunmoh in Srinagar is spread across 54 acres of land and has a clinker capacity of 0.26MTPA and grinding capacity of 0.42MTPA. It has captive limestone reserves spread on an area of 144.25 hectares with a total minable reserve of 129MnT.

Tata Steel becomes India's first steel company to develop steel pipes for transportation of hydrogen

Tata Steel becomes India's first steel company to demonstrate end-to-end capabilities to develop pipes for the transportation of hydrogen, marking a significant milestone towards achieving the country's National Hydrogen Mission. The API X65 ERW pipes processed at Tata Steel's Khopoli plant, using the steel manufactured at the Company's Kalinganagar plant, successfully achieved all the critical properties required for hydrogen transportation. The hydrogen qualification tests were carried out at RINA-CSM S.p.A, Italy, a leading approving agency for hydrogen-related testing and characterisation. The new hydrogen-compliant API X65 grade pipes can be used for the transportation of 100% pure gaseous hydrogen under high pressure (100 bar).

BHEL to collaborate with ONGC for renewable energy projects

Bharat Heavy Electricals (BHEL) and Oil & Natural Gas Corporation (ONGC) have signed an MoU for exploring joint projects and collaboration in the area of New and Renewable Energy business, including Fuel Cell, Electrolyser and Battery Energy Storage System based Projects. This MoU will help in contributing towards the country's National Green Hydrogen Mission, as well as leveraging the combined strengths of both organisations for collaborating in emerging areas within the clean energy ecosystem.

SAIL supplied entire quantity of special steel for INS Nilgiri

Steel Authority of India (SAIL) has supplied the entire 4,000 tonnes of special steel for INS Nilgiri. The special steel provided by SAIL includes DMR 249A grade hot-rolled (HR) sheets and plates. This entire supply originated from SAIL's Bokaro, Bhilai, and Rourkela Steel Plants. Specifically, SAIL's Bokaro Steel Plant contributed approximately 2,000 tonnes of HR sheets and plates, with an additional 1,600 tonnes and 400 tonnes of plates supplied by the Bhilai and Rourkela Steel Plants respectively. INS Nilgiri is India's indigenous lead ship of the Nilgiri-class Project P17A frigates built for the Indian Navy by Mazagon Dock Shipbuilders (MDL). P17A ships are guided missile frigates, each of which are 149 meters long, with displacement of approximately 6,670 tonnes and a speed of 28 knots. The Navy had placed orders for seven stealth frigates, four of which went to Mazagon Dock (MDL) and three to GRSE. It is a matter of pride for SAIL that it has supplied the entire steel for warship construction of P17A Project.

L&T to build Uzbekistan's first AI-enabled data centre

Larsen & Toubro (L&T) has received contract to build Uzbekistan's first AI-enabled and sustainable 10-Megawatt data centre in Tashkent. The project will set new standards for data centre infrastructure in the region, combining cutting-edge technology with a strong commitment to sustainability. L&T will be responsible for the engineering, procurement and construction of this new-age Data Centre equipped with advanced AI capabilities to power the next generation AI applications, minimise environmental impact and maximise energy efficiency. The data centre will be equipped with robust security measures to protect sensitive data using cutting-edge security technologies.

ONGC and bp sign contract to enhance production from Mumbai High

Oil and Natural Gas Corporation (ONGC) and bp have signed a contract under which bp will serve as the Technical Services Provider (TSP) for the Mumbai High field, India's largest and most prolific offshore oil field. ONGC will retain ownership and operational control of the field. Under the terms of the contract, bp will receive a fixed fee for a period of two years for its deployed personnel, followed by a service fee linked to incremental oil and gas production. bp will work in close collaboration with ONGC to stabilize the field's current production decline and restore it to a robust growth trajectory. Leveraging its extensive experience in managing some of the world's largest oil fields, bp will optimize oil recovery at Mumbai High by conducting comprehensive reviews of sub-surface models, implementing system optimizations, and enhancing reservoir management practices. This partnership is anticipated to significantly boost domestic oil and gas production, thereby increasing revenue for ONGC and benefiting the people of India, while also yielding higher service fee returns for bp.

Saint-Gobain acquires FOSROC

Saint-Gobain has completed the acquisition FOSROC, a leading global construction chemicals player with a strong geographic footprint in India, the Middle East and Asia-Pacific in particular. Following the acquisitions of Chryso, GCP and OVNIVER (Cemix brand), this represents another important step in establishing Saint-Gobain's worldwide presence in construction chemicals, which will have combined sales of €6.5 billion across 76 countries following the acquisition (pro forma). FOSROC is expected to have generated revenues of $487 million in 2024, with a growth rate of around 11% per year on average since 2021. With 20 manufacturing plants and around 3,000 employees, FOSROC provides a wide range of technical solutions for the construction industry, including admixtures and additives for concrete and cement, adhesives and sealants, waterproofing solutions, concrete repair solutions and flooring. This acquisition strengthens Saint-Gobain's presence in high-growth emerging markets, notably India and the Middle East.

Ceigall India to construct six-lane greenfield southern Ludhiana Bypass

Ceigall India has successfully emerged as the lowest bidder for the development of a 25.24 km, six-lane greenfield southern Ludhiana Bypass, starting near Rajgarh village to the Delhi-Katra Expressway (NE-5) near Ballowal village. The project, a vital component of the Ludhiana-Ajmer Economic Corridor, will be executed under the hybrid annuity model in Punjab. Ceigall India's winning bid for the National Highways Authority of India (NHAI) is ₹923 crore. Notably, this project was previously awarded to Ceigall India in June 2022 for a bid of ₹702 crore but was amicably revoked due to the unavailability of the construction site. Last month, Ceigall India's subsidiary, Ceigall Ludhiana Bathinda Greenfield Highway, had executed a concession agreement with NHAI to develop a highway in Punjab, valued at ₹981 crore.

PNC Infra eyes robust growth with resumption in infra bids

PNC Infratech has announced that the Company and its SPVs are now eligible to bid for new projects from 17th February, 2025, allowing it to actively pursue fresh projects in the infrastructure sector and reinforcing its commitment to national development.

This is after the Ministry of Road Transport & Highways (MoRTH) reduced its previously imposed restrictions on the Company and its two Special Purpose Vehicles (SPVs) from one year to four months now, which is culminating on February 17th 2025. The revised order, issued by the MoRTH on February 6, 2025, modifies the original restriction starting October 18, 2024 to a period of 4 months, subject to the completion of certain procedures by the Company with the National Highways Authority of India (NHAI). This will also help the company in expanding its order book and increase its topline. PNC has now obtained a change in control approval from NHAI for 8 of the assets, which it will be transferring to KKR-backed Highways Infrastructure Trust.

UNION BUDGET 2025

A Transformative Era for India's Infrastructure Sector

The Union Budget 2025, unveiled by the Government of India, marks a pivotal moment in the country's economic trajectory. With a robust allocation of resources towards infrastructure, this budget is poised to reshape the landscape of urban development, connectivity, and sustainable growth. The infrastructure sector, a significant beneficiary of these allocations, stands at the cusp of remarkable opportunities and challenges. EPC World explores the impact of the announcements.

The strategic investments and policy reforms outlined in the budget demonstrate a strong commitment to transforming India into a Viksit Bharat by 2047. These measures aim to ensure sustained economic growth, global competitiveness, and an improved quality of life for all citizens. The government has introduced various initiatives, including an Asset Monetization Plan (2025-2030), designed to recycle ₹10 lakh crore into new infrastructure developments, supported by regulatory and fiscal reforms.

Additionally, the Budget has outlined a plan to leverage PM Gati Shakti for modernizing land records, urban planning, and infrastructure design, thereby enhancing project execution efficiency.

Prior to the budget, the Economic Survey of 2024-25 emphasized the necessity for a sustained increase in infrastructure investment over the next two decades to maintain a high growth rate.

The survey highlighted that capital expenditure experienced a decline in the first quarter of the financial year 2024-25. On average, the Union government spent ₹66,000 crore per month between April and November of FY25 on capital expenditure, compared to ₹60,000 crore per month during the same period last year.

The survey, released a day before the Union Budget, stated that there are numerous requirements. Accelerating efforts to build integrated multi-modal transport and modernizing existing physical assets will improve efficiency and last-mile connectivity. Disaster-resilient urbanization, public transport, preservation and upkeep of heritage sites, monuments, and tourist destinations, as well as rural public infrastructure, including connectivity, demand greater attention.

The survey pointed out that public sector efforts alone cannot fully meet these requirements due to budget constraints at various government levels. It emphasized that private participation, which has remained limited so far, should increase in critical infrastructure sectors. This includes program and project planning, financing, construction, maintenance, monetization, and impact assessment.

"Our infrastructure program supports a variety of PPP models, such as build-operate-transfer (toll and annuity), design-build-finance-operate-transfer, hybrid annuity model, and toll-operate-transfer. However, the uptake of private enterprise is limited in many core sectors," the survey noted.

This reinforces the need for collaborative efforts between the public and private sectors to achieve the ambitious infrastructure development goals outlined in the Union Budget 2025.

Key Announcements and Allocations:

Capital Expenditure and Reform Incentives

The Union Budget 2025 places a pronounced emphasis on capital expenditure, with an allocation of **INR 1.5 lakh crore** dedicated as 50-year interest-free loans to states. These loans are aimed at bolstering capital expenditure and incentivizing reforms. The rationale behind this move is to spur economic growth by enhancing infrastructure, which in turn, creates jobs, improves productivity, and stimulates private-sector investment.

Asset Monetization: Phase II (2025-30)

The second phase of asset monetization aims to unlock INR 10 lakh crore for investment in new infrastructure projects. This initiative is designed to leverage existing assets, attract private investment, and generate revenue for further development. By monetizing assets such as roads, airports, and railways, the government intends to create a sustainable funding model for infrastructure growth.

Public-Private Partnerships (PPP)

The budget underscores the importance of public-private partnerships in driving infrastructure development. Each infrastructure-related ministry has been tasked with preparing a three-year PPP project pipeline. This initiative is expected to enhance private sector participation, bring in innovative solutions, and ensure the timely execution of projects.

Regional Connectivity: UDAN Scheme

The UDAN (Ude Desh ka Aam Nagrik) Regional Connectivity Scheme receives a significant boost, with plans to add 120 new air destinations. This expansion is projected to cater to 4 crore passengers over the next decade. By improving regional connectivity, the government aims to promote balanced regional growth, enhance accessibility, and boost tourism.

Urban Challenge Fund

An allocation of INR 1 lakh crore has been made for the Urban Challenge Fund, which focuses on initiatives such as 'Cities as Growth Hubs', 'Creative Redevelopment of Cities', and 'Water and Sanitation' proposals. This fund is expected to drive urban transformation, improve living standards, and promote sustainable development in cities across India.

Maritime Development Fund

The establishment of an INR 25,000 crore Maritime Development Fund aims to attract private investment and enhance maritime infrastructure. This fund will support the development of ports, shipping facilities, and related infrastructure, thereby boosting trade and commerce.

Nuclear Energy Mission

A dedicated Nuclear Energy Mission has been introduced, with an allocation of INR 20,000 crore. This mission focuses on the research and development of Small Modular Reactors (SMRs), which are expected to provide a sustainable and clean energy source for the future.

Deep Impact on the Infrastructure Sector

The Union Budget 2025 is poised to bring about transformative changes in the infrastructure sector. Here are some of the key potential impacts:

Economic Growth and Job Creation

The substantial investment in infrastructure is expected to drive economic growth by creating jobs and improving productivity. The focus on capital expenditure, particularly in sectors such as transportation, energy, and urban development, will stimulate demand for materials, labour, and services. This, in turn, will have a multiplier effect on the economy, boosting GDP growth. The increased economic activity generated by these projects is expected to result in higher tax revenues, which can be reinvested into further infrastructure development, creating a virtuous cycle of growth.

Private Sector Participation

The emphasis on public-private partnerships and asset monetization is likely to attract significant private investment. By involving the private sector in infrastructure projects, the government aims to bring in efficiency, innovation, and timely execution. Private sector participation will also help bridge the funding gap and ensure sustainable development. The introduction of a three-year PPP project pipeline for each infrastructure-related ministry is expected to provide greater visibility and predictability for private investors, encouraging long-term investment commitments.

Regional Development and Connectivity

Enhanced regional connectivity through initiatives like the UDAN scheme is expected to promote balanced regional growth. By improving access to remote and underserved areas, the government aims to reduce urban-rural disparities and boost economic activity in these regions. This will create new opportunities for businesses and improve the quality of life for residents. The development of new air destinations and improved regional connectivity will also foster tourism, trade, and cultural exchanges, contributing to the overall socio-economic development of the regions.

Urban Transformation and Sustainable Development

The Urban Challenge Fund, with its focus on initiatives like ‘Cities as Growth Hubs’ and ‘Creative Redevelopment of Cities’, is set to drive urban transformation. This initiative is projected to inject ₹4 lakh crore into infrastructure development, with a focus on the redevelopment and enhancement of existing cities’ efficiency. The fund will cover up to 25% of the cost for eligible projects, encouraging public-private partnerships to address infrastructure gaps. By investing in urban infrastructure, water, and sanitation projects, the government aims to create sustainable and liveable cities. This aligns with long-term environmental goals and promotes inclusive growth. The emphasis on sustainable urban development will also address critical issues such as traffic congestion, air pollution, and inadequate housing, improving the overall quality of life for urban residents.

Maritime Infrastructure and Trade

The Maritime Development Fund will play a crucial role in enhancing maritime infrastructure. By developing ports and shipping facilities, the government aims to boost trade and commerce. This will not only improve connectivity but also enhance India's position as a key player in the global trade landscape. Improved maritime infrastructure will facilitate smoother and more efficient movement of goods, reducing logistics costs and enhancing the competitiveness of Indian exports.

Sustainable Energy Solutions

The Nuclear Energy Mission, with its focus on Small Modular Reactors, represents a significant step towards sustainable energy solutions. By investing in research and development, the government aims to create a clean and reliable energy source for the future. This will contribute to energy security and help reduce dependence on fossil fuels. The development of SMRs will also open up new opportunities for collaboration with international partners in the field of nuclear technology, positioning India as a leader in sustainable energy innovations.

Challenges and Areas for Contemplation

While the Union Budget 2025 presents numerous opportunities for the infrastructure sector, certain challenges and areas require further contemplation:

Implementation and Execution

The success of the budget's initiatives depends largely on effective implementation and execution. Ensuring that projects are completed on time, within budget, and to the desired quality standards will be crucial. This requires robust planning, coordination, and monitoring mechanisms. The establishment of independent monitoring agencies to oversee project implementation could help mitigate delays and cost overruns.

Regulatory and Policy Framework

A conducive regulatory and policy framework is essential to attract private investment and ensure the success of public-private partnerships. The government must work towards streamlining approvals, reducing bureaucratic hurdles, and creating a transparent and predictable environment for investors. Harmonizing regulations across different states and sectors will also be crucial to facilitate seamless project execution.

Financing and Funding

While the budget has allocated significant resources for infrastructure, there is still a need for innovative financing solutions to bridge the funding gap. Exploring alternative funding mechanisms, such as infrastructure bonds, green bonds, and international collaborations, will be crucial to meet the ambitious targets. Engaging with multilateral development banks and sovereign wealth funds can also provide access to long-term financing at competitive rates.

Environmental and Social Considerations

Balancing economic growth with environmental and social considerations is essential for sustainable development. The government must ensure that infrastructure projects adhere to environmental regulations, minimize ecological impact, and promote social inclusiveness. Engaging with local communities and addressing their concerns will be vital. Implementing robust environmental impact assessments and adopting best practices in sustainable construction can help mitigate adverse impacts on the environment.

Capacity Building and Skill Development

The successful implementation of infrastructure projects requires a skilled workforce and strong institutional capacity. Investing in capacity building, skill development, and training programs will be essential to meet the demands of the sector. Collaboration with educational institutions and industry stakeholders will play a key role in this regard. Developing specialized training programs for project management, engineering, and construction workers can enhance the quality and efficiency of project execution.

Looking ahead

The Union Budget 2025 represents a transformative era for India's infrastructure sector. With substantial allocations for capital expenditure, asset monetization, public-private partnerships, regional connectivity, urban transformation, maritime development, and sustainable energy, the budget lays a strong foundation for economic growth and development. While there are challenges to address, the opportunities for the real estate sector and the broader economy are immense.

By fostering a collaborative approach, ensuring effective implementation, and addressing key challenges, the government can drive India towards a future of sustainable and inclusive growth. The Union Budget 2025 is not just a financial statement; it is a blueprint for a prosperous and resilient India. EPC World

Industry Voices React to Union Budget 2025

A Step Towards Transforming India's Infrastructure and Economic Landscape

The Union Budget 2025 has sparked a wave of optimism among industry leaders across sectors, with a strong focus on infrastructure, digitalization, sustainability, and inclusive growth. Key figures from the infrastructure, construction, clean energy, and real estate industries have shared their reactions, emphasizing the potential of the government's initiatives to reshape India's economic future. From the allocation for interest-free loans to states for infrastructure development to incentives for clean energy manufacturing and investments in modernizing rail and urban transport, the budget reflects a comprehensive strategy aimed at propelling India towards its vision of 'Viksit Bharat.' Here's what industry leaders have to say about the proposed measures…

SAJJAN JINDAL, Chairman and Managing Director, JSW Group

This budget provides more money in the hands of the middle class which will help boost consumption. A change in tax slabs is a welcome step. The government has maintained its thrust on capex though the spend of Rs 11.2 lakh crore is lower than a spending of around 13 lakh crores that I was hoping for, based on the past trend. But still, capex spend is at a robust level and will give a boost to the core sectors. The boost to MSMEs, by increasing investment and turnover limits and expanding credit guarantees, is a very important step towards increasing the contribution of manufacturing sector in our economy. Creation of a 3-year pipeline for PPP projects and making the PM Gati Shakti data available for private sectors are important steps that will help the industry plan and execute large projects.

UMESH CHOWDHARY, Vice Chairman & MD, Titagarh Rail Systems

We welcome the Union Budget 2025-26, which reinforces the government's commitment to strengthening India's rail infrastructure and operational efficiency. The Rs.2.9 lakh croreallocation, a 12% increase from last year, supporting 300 new Vande Bharat trains, modernization of 1,200 stations, 100% route electrification, and bullet train expansion, will drive key developments. Investments in freight corridors and AI-driven Kavach safety systems will enhance logistics and passenger safety, while the focus on rail MRO capabilities ensures long-term reliability. Additionally, export-driven initiatives under the National Manufacturing Mission and Export Promotion Mission will bolster India's global competitiveness, opening new avenues for manufacturers and aligning with the Viksit Bharat vision.The creation of a Rs.25,000 crore Maritime Development Corpus, along with revamped shipbuilding financial assistance, will empower Indian companies to invest in modern vessels, advanced technology, and infrastructure, ultimately making them more competitive in the global market. Additionally, the establishment of shipbuilding clusters and port expansions will enhance the industry's infrastructure, leading to increased efficiency and lower costs.

DR. AMIT PAITHANKAR, Whole-Time Director & CEO, Waaree Energies

The Union Budget 2025 has strengthened India's pledge to clean energy self-reliance by prioritizing domestic manufacturing, backward integration, skilling, and research & development. The announcement of the National Manufacturing Mission, along with enhanced PLI schemes and tariff rationalization for critical minerals will support the rapid growth of the entire renewable energy ecosystem. The inclusion of lithium-ion battery manufacturing incentives and duty exemptions on key raw materials like cobalt and lithium will accelerate India's emergence as a global hub for energy storage solutions, furthering the EV and solar industries. The focus on clean-tech is heartening, as it reinforces the long-term relevance of renewable energy in India's economic and environmental future.Additionally, the establishment of the National Centre of Excellence in Skilling, coupled with the PM Research Fellowship and industry-driven initiatives, will empower a wider segment of India's youth with industry-relevant expertise. The five engines of growth outlined in the budget are well-thought-out, ensuring inclusive and progressive development. Ultimately, it is the people of India who emerge as the biggest beneficiaries of today's announcements. With a strong push towards 'Make in India' evolving into 'Make for India, Make for the World,' these policy measures will drive capacity expansion, fortify supply chains, and position India as a global leader in clean energy manufacturing.

SANDEEP GARG, Managing Director, Welspun Enterprises

The Union Budget underscores a transformative vision for India's infrastructure landscape, emphasizing Public-Private Partnerships (PPP), sustainable urban development, and water security. The proposed reforms, including a structured PPP pipeline, asset monetization, and fiscal incentives, will accelerate project execution and unlock new opportunities for private sector participation. Extending the Jal Jeevan Mission with a focus on quality and community engagement reflects a strong commitment to inclusive growth.The decision to provide access to PM GatiShakti data and maps to the private sector, along with the launch of a National Geospatial Mission, is a welcome move. This initiative will further assist in project planning and facilitate urban development, leading to more efficient infrastructure design and execution.

Complementing this, long gestation debt support to states through aRs.1.5 lakh crore interest-free loan, along with NaBFID's partial credit guarantee scheme for corporate bonds, will enhance funding accessibility and drive capital flow for high-impact infrastructure projects.Additionally, the Urban Challenge Fund and energy sector reforms will drive efficiency and resilience in our cities.As a leading infrastructure player, Welspun Enterprises is excited to contribute to this ambitious growth agenda, strengthening India's infrastructure backbone for a sustainable future.

HARSH PAREEK, Regional Sales Director, India and SAARC, Trimble Solutions

With Rs.1.5 lakh crore allocated as interest-free loans to states for infrastructure development and continued investment in highways, urban transport, and smart cities, the Union Budget 2025 reinforces the government's commitment to modernizing India's infrastructure. The emphasis on digitalization and sustainable construction practices is a welcome move that will not only enhance project efficiency but also improve quality and reduce waste. At Trimble, we see immense potential in leveraging AI, automation, and digital twin technologies to support this vision. By integrating advanced construction technologies, we can help India build faster, safer, and more cost-effective infrastructure that stands the test of time.

YANCHARLA RATHNAKARA NAGARAJA, Managing Director, Ramky Infrastructure

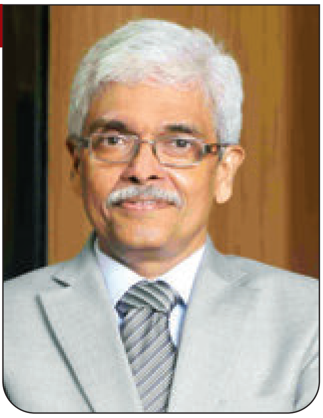
The budget introduces a range of infrastructure proposals aimed at fostering growth and improving efficiency across sectors. The emphasis on Public-Private Partnerships (PPP) through the creation of a 3-year pipeline of projects for each ministry reflects a clear intent to leverage private sector involvement in infrastructure development. This is further supported by the India Infrastructure Project Development Fund (IIPDF), which encourages state governments to seek assistance in project execution. The Rs.1.5 lakh crore outlay for interest-free loans to states underscores the importance of supporting regional development and incentivizing reforms. The second Asset Monetization Plan (2025-30) will unlock value from public assets, reinvesting capital into further infrastructure projects. The Rs.1 lakh crore Urban Challenge Fund is dedicated to urban reforms, focusing on improving governance, municipal services, and urban planning. Additionally, the modified UDAN scheme, which aims to enhance regional connectivity, alongside the development of greenfield airports in Bihar and the expansion of Patna airport, will significantly improve transportation infrastructure.The support for projects like the Western Koshi Canal ERM Project demonstrates the commitment to improving agricultural infrastructure. Lastly, providing private sector access to the PM Gati Shakti portal data is a crucial step toward optimizing project planning and execution, fostering greater collaboration between public and private entities in shaping the future of India's infrastructure.

VENKATESH GOPALAKRISHNAN, Director Group Promoter's Office, MD, ShapoorjiPallonji Real Estate

The Union Budget 2025 introduces strategic measures to strengthen India's housing and urban development sectors. The sustained support for PradhanMantriAwasYojana, alongside the government maintaining its robust capital expenditure trajectory with an increased allocation of Rs.11.21 lakh crore, demonstrates a comprehensive approach to infrastructure development. This consistent capex commitment, coupled with expanded infrastructure investments, creates a strong foundation for real estate growth. The Income Tax reforms, which include relief on incomes up to Rs.12 lakhs for the middle class, put more disposable income in the hands of the middle class, enabling them to direct funds toward both housing investments and consumer spending. This increased liquidity naturally stimulates housing demand while generating broader economic activity. Furthermore, the budget's focus on sustainable construction practices positions the sector for long-term growth by aligning with global environmental standards. These coordinated policy measures enhance market dynamics by expanding participation across income segments while fostering sustainable development practices.

SHALABH CHATURVEDI, MD, CASE Construction Equipment – India & SAARC

The Union Budget reflects a strong commitment to inclusive and sustainable growth, covering key areas such as infrastructure development, green energy, taxation reforms, and social welfare. The substantial increase in funding for key infrastructure projects, NIP extension, bridging the rural-urban divide, and enhanced allocations urban infrastructure set the stage for new opportunities in Construction Equipment Industry. The Rs.2.87 lakh crore allocation for road transport and highways is a significant investment that aligns with our mission to support and strengthen India's infrastructure growth. Furthermore, the emphasis on National Centers of Excellence for Skilling and vocational training is a welcome move, ensuring that India is future-ready by integrating innovation, technology, and workforce development. With initiatives like the National Manufacturing Mission, 50,000 Atal Tinkering Labs, and Centres of Excellence in AI, the government is fostering a robust ecosystem that promotes growth, upskilling, and employment generation. We are excited to be part of this transformative journey and contribute to India's economic and industrial progress.



SEBI JOSEPH, President, Otis India

This Budget lays a strong foundation for India's next phase of growth, with a sharp focus on agriculture, infrastructural expansion, digital transformation, and sustainable development. The reforms on personal income tax are going to drive consumption. The vision of SabkaVikas over the next five years will be instrumental in driving balanced growth across industries and steering India towards its larger goal of becoming a developed nation 100 years after independence in 2047.The thrust to further 'Make in India' through a National manufacturing mission, building national centres of skilling, and centre of excellence for AI, are progressive measures. Encouraging private-public partnerships in building the infrastructure is commendable. Continued attention to enhance connectivity across the country through operationalisation of new airports will boost the economy. The urban challenger fund would create new city growth hubs.The budget sets a confident path for India's transformation. The initiatives will not only strengthen India's position as a global economic force but also enable a smarter, more connected, and more inclusive urban landscape. It offers a clear roadmap—one that ensures India is not just preparing for the future but actively shaping it.

SANDEEP UPADHYAY, Managing Director – Infrastructure, Centrum Capital

The Union Budget 2025 has reinforced the government's commitment to accelerating infrastructure development by focusing on progressive policy measures to attract more private sector investments. A key highlight is the specific asset monetization plan for 2025-30, aimed at infusing Rs.10 lakh crore into new projects. This initiative is expected to enhance much-needed equity investments, boosting overall sectoral growth. While roads and highways have led the way in successful PPP (Public-Private Partnership) execution, the sector has witnessed a 60% expansion in the national highway network over the past decade, drawing investments from leading sovereign and pension funds. The Finance Minister's emphasis on encouraging states to leverage the India Infrastructure Project Development Fund (IIPDF) to develop PPP proposals is a refreshing move that could further expand the PPP framework beyond highways. Another major announcement is the Rs.25,000 crore Maritime Development Fund, structured with 49% government support and the remainder mobilized by ports and the private sector. As a dedicated maritime economy fund, this initiative is expected to fuel shipping and shipbuilding projects under BOT (Build-Operate-Transfer) and HAM (Hybrid Annuity Model) frameworks, strengthening private sector participation.With these strategic interventions, Budget 2025 lays a robust foundation for long-term infrastructure growth, creating a more investment-friendly ecosystem while ensuring sustainable development across key sectors.

DEEPAK SHETTY, CEO and Managing Director, JCB India

The Budget takes a comprehensive approach, laying the groundwork for a robust, resilient economy in our journey towards 'Viksit Bharat'. Focusing on four powerful engines - Agriculture, MSMEs, Investment, and Exports - will drive growth across all sectors. Strengthening the rural economy will help reduce inflation, while increased agricultural investment will grow it further. Strategic support for MSMEs will foster innovation and position them as key players in making India a global supply chain hub. The focus on new airports in the Northeast and the State Infra Ministries being encouraged to seek support from the India Infrastructure Project Development Fund (IIPDF) scheme to prepare PPP proposals reinforce the government's commitment to building infrastructure. Additionally, investments in technology and AI could transition India from a service provider to a solution provider on the global stage. Execution will be key, but overall, this budget strengthens India's potential as a global economic powerhouse.

VIVEK AGARWAL, Partner and Lead – Industrial and Infrastructure Development, Government and Public Sector, KPMG in India

Union Budget has, as anticipated, set the stage for a reforms-driven pathway towards Viksit Bharat 2047, pushing the boundaries on several fronts. While giving a fillip to consumption through taxation reforms and people-friendly schemes, the Budget balances it with policies and incentives towards building of forward-looking infrastructure sectors such as maritime, regional air connectivity, urban development, nuclear energy, tourism (especially hotels), and broadband connectivity (in schools and healthcare centres). There is also now, more than ever before, a clear unequivocal signal for greater private sector participation in infrastructure development, as the Centre is determined to usher in greater adoption of PPP at all levels of governments especially at the state and municipality levels, by provisioning project development assistance. Investment has taken on a broader meaning. Even as FDI relaxation in insurance sector is provided, investment in human capital through frontier areas of AI is also envisioned. Overall, a budget that offers something for different parts of the economy.

V G SAKTHIKUMAR, Managing Director and Chairman of SchwingStetter India

The Union Budget 2025 sets a progressive path for infrastructure expansion, emphasizing investments in roadways, airways, and railways while enhancing Public-Private Partnerships (PPP). The Rs.1.5 lakh crore interest-free loan for states will accelerate development and boost economic growth.A major highlight is the plan to connect 120 new airports over the next decade, improving regional connectivity, trade, and mobility. The budget also strengthens 5.7 crore MSMEs, which contribute 36% to manufacturing and 45% to exports, by expanding credit support for micro enterprises. This budget fuels the Make in India initiative, driving construction and manufacturing industry growth, generating employment, and reinforcing India's economic resilience while unlocking new opportunities for sustainable development and prosperity.

ANIRUDH BHUWALKA, CEO, Blue Energy Motors

The Union Budget 2025-26 reaffirms the government's strong commitment to sustainable transportation and the rapid advancement of electric vehicles (EVs) in India. The proposed reforms—ranging from enhanced financial support and tax incentives to substantial investments in EV infrastructure and battery manufacturing—are set to make electric mobility more accessible, affordable, and scalable. These initiatives align seamlessly with our vision at Blue Energy Motors and further reinforce our recent investment in Maharashtra to establish a cutting-edge electric truck manufacturing facility. With a robust policy push and growing domestic capabilities in battery technology, we are confident that India is on the fast track to accelerating clean-energy vehicle adoption, paving the way for a greener and more sustainable future.

VINOD AGGARWAL, MD & CEO, VECV

We congratulate the government on presenting a forward-looking and growth-oriented Union Budget 2025–26. The budget reaffirms the government's strong commitment to strengthening India's manufacturing sector and accelerating the transition to clean and sustainable mobility while bolstering India's economic resilience.The introduction of the National Manufacturing Mission and the emphasis on Clean Tech Manufacturing, including National Critical Minerals Mission, particularly for EV batteries, motors, controllers, and high-voltage transmission equipment, will provide a significant boost to 'Make in India' efforts. The rationalization of custom duties on key raw materials and the reduction of inverted duty structures will also enhance cost-effectiveness in domestic manufacturing. The duty exemption on capital goods for EV battery manufacturing is a welcome step toward accelerating India's electric mobility transition.

Furthermore, adjustments in GST rates, incentives for electric vehicle adoption and import duties on components will reshape the industry's landscape. Increased allocations for infrastructure development, particularly in roads and transportation, will directly fuel demand for commercial vehicles. Additionally, budgetary provisions for working capital support, technology upgradation funds, and easier credit access will play a crucial role in strengthening the MSME ecosystem, ensuring its long-term growth and sustainability.At VECV, we remain committed to advancing sustainable mobility solutions and contributing to India's vision of a self-reliant, cleaner, and more efficient transportation ecosystem. The budget outlines a plan for promoting sustainable transportation through integrated infrastructure development initiative. Overall, the Union Budget 2025 reflects a comprehensive approach to stimulate inclusive economic growth through targeted investments in critical sectors that are essential for India's development trajectory.

Budget 2025: What did it mean for the Infrastructure Sector

MITALI NIKORE
Founder
Nikore Associates

The Union Budget 2025-26 was a populist budget, aimed at restarting a trusted but sputtering engine of the economy – private sector consumption. Even as the middle class celebrated a massive tax relief, as the Budget exempted all those with incomes below INR 12 lakhs from income taxes, the Finance Minister also laid out a plan for enhancing capital expenditures and crowing in private sector investments to stem the recent slowdown in GDP growth putting it in the range of 6-6.5%.

Notably, the infrastructure sector received one of the highest allocations in a decade, focusing on investments in logistics and transport connectivity, maritime and shipbuilding, sectors, affordable aviation, and rural infrastructure development.

The Budget for FY 2025-26 allocates INR 11.21 lakh crore (3.1 per cent of GDP) towards capital expenditure. It includes capital support to States through interest free long-term loans with an outlay of INR 1.50 lakh crore – thereby empowering states to make their own infrastructure investment decisions.

Despite this increase in capital outlays, the fiscal deficit was revised to 4.8% of the GDP, a significant improvement despite nominal growth moderation. The government aims to further reduce the fiscal deficit below 4.4% by FY 2026-27. This suggests a consistent path of reducing revenue expenditures over the long term.

Pros

Refocusing on PPPs

- Each infrastructure-related ministry will come up with a 3-year pipeline of projects that can be implemented in PPP mode. States will also be encouraged to do so and can seek support from the India Infrastructure Project Development Fund scheme to prepare PPP proposals.
- Recognizing that expediting urban development requires empowering and incentivising city authorities, the Budget announced the establishment of an Urban Challenge Fund of INR 1 lakh crore to implement the proposals for 'Cities as Growth Hubs', 'Creative Redevelopment of Cities' and 'Water and Sanitation'. This fund will finance up to 25 per cent of the cost of bankable projects with a stipulation that at least 50 per cent of the cost is funded from bonds, bank loans, and PPPs. An allocation of INR 10,000 crores is proposed for 2025-26.
- For furthering PPPs and assisting the private sector in project planning, access to relevant data and maps from the PM Gati Shakti portal will be provided.

Maritime and Shipbuilding

- For long-term financing for the maritime industry, a Maritime Development Fund with a corpus of INR 25,000 crore will be set up. This will have up to 49 per cent contribution by the Government, and the balance will be mobilized from ports and private sector – again highlighting the importance of PPPs in this Budget.

- Shipbuilding Clusters will be facilitated to increase the range, categories and capacity of ships. This will include additional infrastructure facilities, skilling and technology to develop the entire ecosystem.

Affordable aviation

- A modified UDAN scheme will be launched to enhance regional connectivity to 120 new destinations and carry 4 crore passengers in the next 10 years. The scheme will also support helipads and smaller airports in hilly, aspirational, and North East region districts.
- Greenfield airports will be facilitated in Bihar to meet the future needs of the State. These will be in addition to the expansion of the capacity of Patna airport and a brownfield airport at Bihta.

Export promotion and integration with global value chains

- An Export Promotion Mission, with sectoral and ministerial targets, driven jointly by the Ministries of Commerce, MSME, and Finance will be established. It will facilitate easy access to export credit, cross-border factoring support, and support to MSMEs to tackle non-tariff measures in overseas markets.
- A digital public infrastructure, 'BharatTradeNet' (BTN) for international trade will be set-up as a unified platform for trade documentation and financing solutions. This will complement the Unified Logistics Interface Platform.
- India Post as a Catalyst for the Rural Economy is a very welcome development – given its extensive logistics infrastructure and affordable services. The expanded range of services will include: rural community hub colocation; institutional account services; DBT, cash out and EMI pick-up; credit services to micro enterprises; insurance; and assisted digital services. This will be particularly beneficial for MSMEs and women entrepreneurs.

Social Infrastructure

- The Gender Budget allocation for BE 2025-26 touched almost the 9% of the total budget expenditure for the first time since 2005-2006. This represents a nearly 40% increase in total expenditure allocation compared to BE 2024-25.

- Building on the initiative announced in the July 2024 Budget, five National Centres of Excellence for skilling will be set up with global expertise and partnerships to equip our youth with the skills required for "Make for India, Make for the World" manufacturing. The partnerships will cover curriculum design, training of trainers, a skills certification framework, and periodic reviews.

Cons

- The National Manufacturing Mission – announced in the Budget Speech - will lay emphasis on five focal areas i.e. ease and cost of doing business; future ready workforce for in-demand jobs; a vibrant and dynamic MSME sector; availability of technology; and quality products.However, the Budget allocation for the Mission stands at about INR 100 crores – which may be much lower than resource requirements for the ambitious goals of the mission.
- The Mission will also support Clean Tech manufacturing and aims to improve domestic value addition and build the ecosystem for solar PV cells, EV batteries, motors and controllers, electrolyzers, wind turbines, very high voltage transmission equipment and grid scale batteries. However, the demand for grants for the Ministry of New and Renewable energy includes no budgetary allocations for the Manufacturing Mission.
- The Budget has promised to facilitate upgradation of infrastructure and warehousing for air cargo including high value perishable horticulture produce. Cargo screening and customs protocols will be streamlined and made userfriendly. However, the implementation of these initiatives requires a dedicated mission or scheme – which has not been provided any allocations in the Budget.
- The Budget promises to revamp the Shipbuilding Financial Assistance Policy to address cost disadvantages. This will also include Credit Notes for shipbreaking in Indian yards to promote the circular economy. The actual revamp of the policy should be informed by industry inputs and consultations – otherwise it may exacerbate the current challenges.
- Post-Covid-19, emerging gender gap priorities like social safety, domestic violence prevention, skill development, inclusive transport, digital skills, and support for unpaid work need urgent attention. However, funding for these sectors remained low, representing only 5% of the gender budget, with cuts in vital areas like digital literacy and safe cities for 2025-26.

Eyeing to Lead the Renewable Revolution

India is rapidly embracing renewable energy to meet its growing energy demands while reducing carbon emissions. With vast potential in solar, wind, and green hydrogen, the country is positioning itself as a leader in sustainable energy development. EPC World News Bureau explores the sector's changing growth dynamics and potentials…

As concerns about climate change and environmental degradation continue to rise, renewable energy presents an opportunity for India to transition from traditional fossil fuels to cleaner, more sustainable alternatives. This shift is not only crucial for reducing carbon emissions but also for ensuring energy security, promoting economic growth, and addressing the pressing issue of energy access in remote areas.

Fuelling the demand are the country's growing energy demands due to evolving population and vast geographical diversity – ultimately turning towards renewable energy as a sustainable solution to meet its future needs. The country, already a significant player in the global energy sector, is leveraging its abundant natural resources—solar, wind, hydro, and biomass—to diversify its energy portfolio. With strong policy support, technological advancements, and a favourable investment climate, India is making significant strides toward achieving its renewable energy goals.

The Growth Index

According to the official data available from the Ministry of New and Renewable Energy, as of December 2024, India's total renewable energy installed capacity reached 209.44 gigawatts (GW), marking a 15.84 per cent increase from 180.80 GW in December 2023. This growth is primarily attributed to solar and wind power installations. Solar power has seen a remarkable surge, with installed capacity increasing from 2.5 GW in 2014 to approximately 94.16 GW as of November 2024.

In 2024, India's electricity demand surged to a record high of 250 GW in May 2024. The peak demand for the year stood at 243 GW, reflecting a 13 per cent rise from 2022-23, the highest annual growth in thirty years. Renewable energy sources have increasingly contributed to meeting this rising demand. By December 2024, the share of renewable energy in India's total installed capacity had grown to approximately 43 per cent, with solar power leading the way. This upward trend in renewable energy capacity and its growing share in the energy mix underscore India's commitment to sustainable

energy development and its efforts to meet the escalating electricity demand through cleaner sources.

Solar energy is the primary driver of India's renewable energy growth, with a rapid increase in installed solar capacity and significant investments in solar projects. While not as dominant as solar, wind power also shows substantial growth, especially in coastal and inland wind corridors. Thanks to the country's abundant water reserves, the hydro power solutions have also been on a steady growth trajectory.

India's total non-fossil fuel-based energy capacity reached 217.62 GW as of January 20, 2025, driven by record additions of 24.5 GW in solar capacity and 3.4 GW in wind capacity during 2024, according to official data. However, despite the record growth, achieving the 2030 target is easier said than done.

Budget Favours

The Union Budget 2025-26 on February 1 allocated ₹26,549.38 crore to the Ministry of New and Renewable Energy, up 53.48 per cent against Revised Estimates of ₹17,298.44 crore a year ago. The allocation has increased by 904 per cent since FY21. The government allocated ₹24,224.36 crore out of the amount towards solar energy. This includes ₹1,500 crore towards solar power (grid), ₹2,600 crore towards Kisan Urja Suraksha evam Utthaan Mahabhiyan (KUSUM) and ₹20,000 crore towards PM Surya Ghar Muft Bijli Yojana.

The Solar Energy Corporation of India (SECI) has facilitated growth by organising solar power auctions, leading to competitive tariff rates that make solar power one of India's most cost-effective energy sources. In some auctions, solar tariffs have fallen below ₹2.50 (US$ 0.030) per kWh, often cheaper than conventional coal-fired power. India's involvement in the International Solar Alliance (ISA) has also strengthened the country's international partnerships, bringing foreign investment and shared expertise to its solar industry.

To support the middle-class population, Prime Minister Mr. Narendra Modi introduced the PM Suryodaya Yojana 2024 in January, which was later rebranded as PM Surya Ghar: Muft Bijli Yojana and officially launched on February 13, 2024, with an allocated budget of ₹75,021 crore (approximately US$ 9 billion). This extensive initiative aims to install solar panels on one crore homes, enabling households to generate their own electricity through solar energy. The programme is expected to reduce electricity costs for middle and lower-income families, making them more self-sufficient in meeting their energy needs. With rooftop solar panels, households can receive up to 300 units of free electricity each month, while also earning between ₹17,000 and ₹18,000 (approximately US$ 204-216) annually by selling any surplus electricity generated.

Provisions have also been put forth through the PM-KUSUM Yojana launched by the government to increase the income of farmers and provide sources for irrigation and de-dieselisation agricultural sector. Under the scheme, the subsidy is given for the installation of standalone solar pumps and for solarisation of existing grid-connected agricultural pumps. The government also allocated ₹600 crore towards the Hydrogen Mission.

Eyeing to strengthen the self-reliance on renewable energy technologies, the Government has also launched a new manufacturing mission under the ambitious Make in India initiative. This strategic move aims to establish a robust ecosystem for the production of solar photovoltaic (PV) cells, electrolysers, and grid-scale batteries — key components in advancing India's clean energy transition. The move has brought in a cheer especially among the stakeholders involved in the solar PV manufacturing sector.

The Growth Push

Significant investments are being made in renewable energy manufacturing and infrastructure. The Dhirubhai Ambani Green Energy Giga Complex, for example, is a fully integrated renewable energy manufacturing complex being developed by Reliance Industries in Jamnagar, Gujarat. Additionally, the government plans to invest $30 billion in grid infrastructure by 2030 to improve the reliability of the power supply.

There is an increasing deployment of wind plus solar power hybrid renewable energy solutions in the country. This approach addresses the variability and seasonality in energy generation from standalone wind and solar power plants, enhancing the reliability of the power supply.

The development and adoption of advanced energy storage solutions, such as batteries and grid-scale storage, are gaining momentum. These technologies are crucial for addressing intermittency issues and enhancing grid stability, enabling the storage of excess renewable energy for use during periods of low generation. Healthy investments are also being seen towards the battery energy storage systems (BESS) to enhance grid stability and manage the intermittent nature of renewable energy sources. The largest BESS project aims to provide electricity to 12,000 low-income customers in Delhi, exemplifying scalable solutions.

A growing emphasis is also seen towards decentralized renewable energy solutions, such as rooftop solar installations and microgrids. These systems empower local communities, reduce transmission losses, and enhance energy access, particularly in remote and rural areas. The integration of digital technologies and smart grid solutions is improving the management and distribution of renewable energy. Advanced data analytics, real-time monitoring, and automated control systems enable more efficient grid operations, better demand-response management, and enhanced integration of renewable sources.

The surge in electric vehicle adoption is contributing to the renewable energy landscape by increasing electricity demand and promoting the use of clean energy sources. This trend is expected to continue as India aims to electrify half of global energy demand by 2040.

Technical Amendments

A recent study by market research group IBEF states, "Modern solar installations in India often use monocrystalline and polycrystalline PV modules, with monocrystalline cells offering higher efficiency levels. India is also exploring bifacial solar modules, which generate electricity from both sides of the panel, thereby increasing overall power generation. Additionally, decentralised solar solutions, such as rooftop systems and solar-powered agricultural pumps, are helping meet the energy demands in rural and underserved regions. India is also exploring floating solar technology, which enables solar installations on water surfaces, saving land resources and reducing evaporation rates. The 100-MW floating solar project in Ramagundam, Telangana, is one of the largest of its kind in the country, and it reflects the potential for similar innovations nationwide. These technological developments showcase India's adaptability and determination to enhance its solar infrastructure, establishing a solid foundation for a sustainable energy future."

India's National Wind-Solar Hybrid Policy has also been supporting upcoming innovative technologies in the wind power space in the form of bladeless turbines. The government is exploring offshore wind, particularly along the coasts of Gujarat and Tamil Nadu, which experience strong and stable wind patterns. By 2030, India aims to reach 30 GW of offshore wind capacity, supported by both public investment and international partnerships.

A radical and evolving trend being observed is the increased usage of biomass energy. The IBEF study stated that India's vast agricultural sector and growing cities produce large volumes of organic waste, providing a natural feedstock for biomass and waste-to-energy projects. Biomass energy, which uses materials such as crop residues and forestry by-products, is especially relevant in rural areas. As on October 10, 2024, India had installed biomass capacity of 10.7 GW. These projects provide electricity to rural communities, enhancing local energy security and reducing dependence on traditional, polluting fuels.

"In urban centres, waste-to-energy plants offer a dual solution by generating power from municipal waste and reducing landfill dependency. These plants process solid waste to produce electricity, addressing urban waste management challenges and contributing to renewable energy output. As on October 10, 2024, India's waste-to-energy capacity stood at 604.49 MW. Although biomass and waste-to-energy contribute a smaller share of India's total capacity, they serve crucial roles in both rural and urban energy access," added the report.

Green Hydrogen Gains Momentum

India is making significant strides in the development of green hydrogen, positioning itself as a key player in the global transition to sustainable energy. The green hydrogen market in India is projected to grow at a compound annual growth rate (CAGR) of approximately 20.76 per cent between 2025 and 2030. This growth is driven by increasing government support and the rising demand for clean energy solutions. Currently, green hydrogen production costs in India are estimated in the range of $5.30 to $6.70 per kilogram, about 40 per cent higher than the cheapest G20 green hydrogen producer, Australia. To compete as a hydrogen exporter, India aims to reduce its production costs by around 30–40 per cent in the near future. With advancements in technology and economies of scale, India has the potential to produce about 40 million tonnes per annum of green hydrogen at a cost lower than $3.5 per kilogram. The country is also seeing power and energy majors stepping into this arena to explore its potentials. Reliance Industries plans to use about 3 GW of solar energy to generate 400,000 tonnes of hydrogen annually. Similarly, Adani Enterprises is focusing on green hydrogen and renewable manufacturing, contributing to the sector's growth.

India stands at a critical juncture in its journey toward a sustainable energy future. With ambitious renewable energy targets, government support, and substantial investments from both public and private sectors, the country is poised to become a global leader in renewable energy. The increasing adoption of solar, wind, and green hydrogen technologies, coupled with innovations in energy storage and grid integration, will play a pivotal role in meeting the nation's growing energy demands while addressing climate change.

However, challenges such as land acquisition, infrastructure development, and the need for technological advancements remain. Overcoming these hurdles will require continued collaboration between the government, industry stakeholders, and international partners. With the right strategies and sustained commitment, India can harness its vast renewable resources to not only achieve energy security and reduce emissions but also position itself as a key player in the global energy transition.

As the world increasingly shifts toward cleaner energy sources, India's renewable energy sector presents an opportunity for growth, innovation, and leadership. The nation's progress in this area will have far-reaching implications, not just for India, but for the global fight against climate change. EPC World

Hutama Karya used Bentley and Seequent software to analyze the subsurface, then optimize and coordinate construction efforts on the Jakarta Mass Rapid Transit project.

PT Hutama Karya builds smarter, sustainable substations in Jakarta

Bentley Software Advanced Subsurface Analysis and Construction of two new stations, reducing traffic congestion and improving air quality

Expanding Jakarta's Mass Transit

Phase 2A of Indonesia's Jakarta Mass Rapid Transit (MRT) expands the capital city's mass transit in bold and exciting ways. The project extends the city's Red Line from Bundaran HI into the old city and connects the rest of Jakarta to many cultural heritage sites. PT Hutama Karya, one of Indonesia's leading state-owned construction firms, was tasked with the construction of two new underground stations: Glodok Station, spanning 240 meters, and Kota Station, spanning 411.2 meters. Both are being built at depths ranging from 17 to 36 meters below the surface. Glodok and Kota will serve as major transit hubs, transforming

Image courtesy of PT Hutama Karya (Persero).

Jakarta's urban landscape and connecting the MRT to nearly every corner of the city.

To complete this complex undertaking, Hutama Karya needed software that was capable of navigating the subsurface with confidence, seamlessly integrating design and construction processes, and coordinating numerous urban stakeholders to complete construction quickly and onbudget.

Navigating the subsurface

Urban development projects of this scale are always challenging. They require meticulous planning and coordination between a wide range of disciplines, including civil engineers, geotechnical experts, construction teams, and city officials - all while minimizing disruption to the rest of the city. Hutama Karya wanted to interrupt urban traffic as little as possible while optimizing resource allocation. However, constructing new stations in the subsurface presents challenges

Project Summary

Organization

PT Hutama Karya (Persero)

Solution

Construction

Location

Jakarta, Indonesia

Project Objectives

- To build two new substation transit centers in South Jakarta.
- To reduce overall traffic congestion and carbon emissions.

Project Playbook

Bentley LumenRT, iTwin, Leapfrog, PLAXIS, ProjectWise, SYNCHRO

Fast Facts

- Jakarta Mass Rapid Transit is an ambitious project to expand public transport in the city, with phase 2A focusing on the northward expansion of the Red Line from Bundaran to Kota.
- Indonesian construction company Hutama Karya worked with Bentley to build two new substations.
- Hutama Karya used Bentley and Seequent software to analyze the subsurface, then optimize and coordinate project and construction efforts.

ROI

- SYNCHRO 4D reduced rental and operational costs by USD 30,000 each month of the project,helping reduce carbon emissions by 50 tons.
- ProjectWise and iTwin were both used to improve project coordination, leading to a 90% reduction in time spent on operational inspections.
- Leapfrog reduced the time needed for soil modeling by up to 95%, saving up to four weeks in planning.

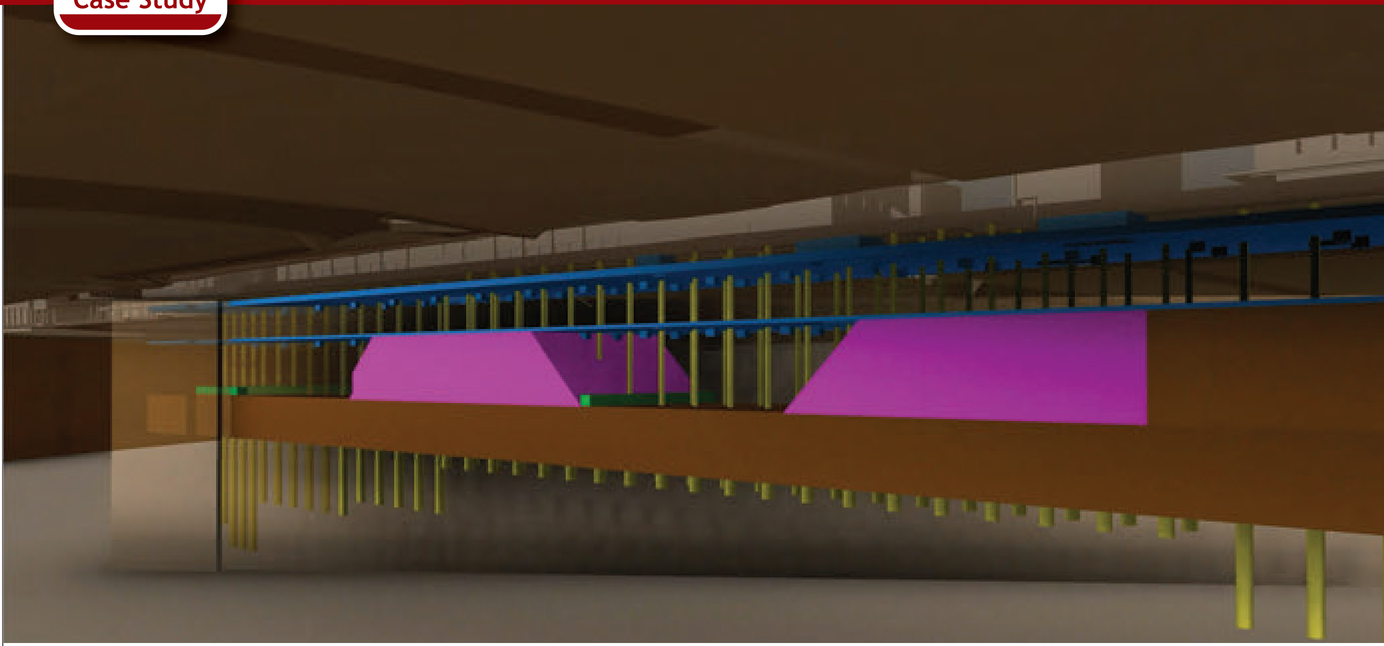


Image courtesy of PT Hutama Karya (Persero)

SYNCHRO 4D reduced rental and operational costs by USD 30,000 each month of the project, helping reduce carbon emissions by 50 tons.

> *Bentley software significantly propelled the Jakarta MRT Phase 2A project, seamlessly integrating over 18,000 project data points. The precise planning and real-time insights provided by Bentley applications also ensured the protection of cultural heritage and optimized resource utilization, delivering both environmental and social benefits on a transformative scale .*
>
> **Amy Rachmadhani Widyastuti,**
> *Vice President of System, IT & Information Technology, PT Hutama Karya (Persero)*

that require specific data, expertise, and execution strategies to overcome.

Additionally, all these challenges were amplified by the historic nature of the build site. Both stations are being built under major roads and under or near historic buildings. As a result, there was limited land data - Hutama Karya could only execute borehole sampling at 38 points. The firm also needed to use specific soil reinforcement strategies to prevent landslides or damage to historic buildings. The company needed software that could connect design and construction workflows, maximize subsurface insights for the construction process from a limited sample size, and organize and communicate them across the various stakeholders working on the project.

Maximizing insights by capturing and integrating data

Hutama Karya decided to use subsurface, data management, and construction solutions from Bentley and Seequent, The Bentley Subsurface Company, to overcome the project's challenges. They first used Leapfrog's advanced soil analysis capabilities to maximize the insights available from the 38 boreholes. Hutama Karya expanded their analysis area from 3,000 square meters to 5,500 square meters, reducing geotechnical uncertainty. Next, the data from Leapfrog's analysis was directly imported into PLAXIS, eliminating the need to remodel soil properties. With PLAXIS' 2D model, Hutama Karya determined how to execute a top-down excavation with retaining walls supported by kingposts.

Hutama Karya then used Leapfrog data in SYNCHRO 4D, ProjectWise, and iTwin to manage the construction phase of the project cycle. Intuitive 4D models and simulations enabled better coordination and communication, which in turn enabled significant cost and time savings. As a result, they reduced the amount of heavy machinery used on site and simplified collaboration and scheduling, both within the firm and with external parties. "The precise planning and real-time insights provided by SYNCHRO 4D, iTwin, Leapfrog, and PLAXIS also ensured the protection of cultural heritage and optimized resource utilization, delivering both environmental and social benefits on a transformative scale," said Amy

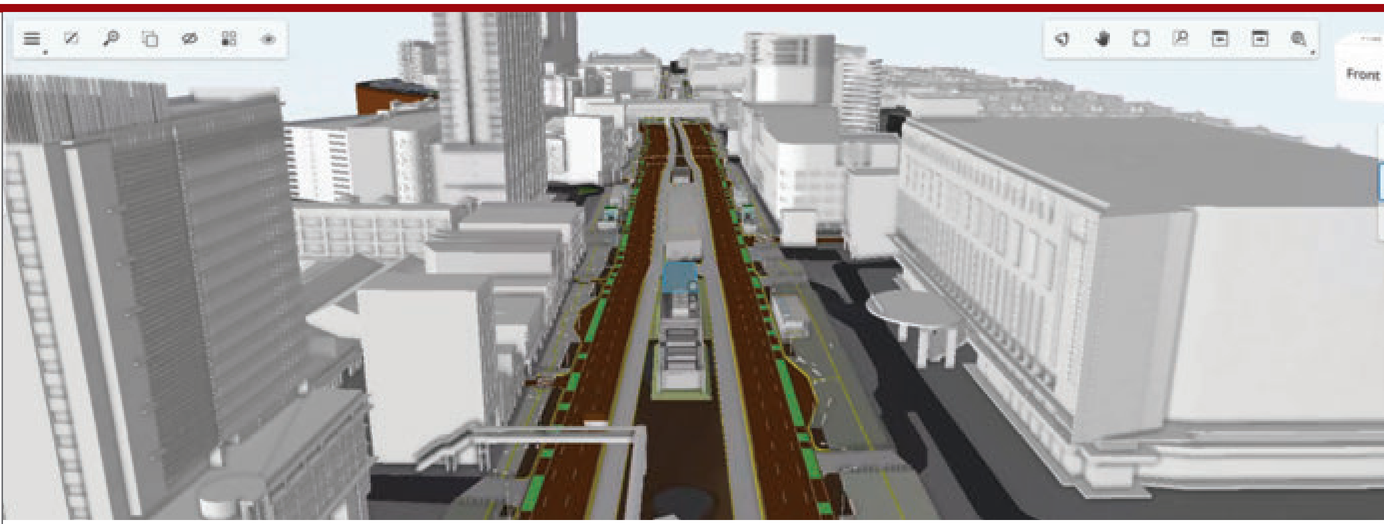


Image courtesy of PT Hutama Karya (Persero)

ProjectWise and iTwin were both used to improve project coordination, leading to a 90% reduction in time spent on operational inspection.

Rachmadhani Widyastuti, vice president of system, IT, and information technology at Hutama Karya.

A better connected, more sustainable Jakarta

SYNCHRO 4D enabled Hutama Karya to cut rental and operational costs by 20% and lowered fuel use by 15%, amounting to a 50-ton reduction in carbon emissions. Meanwhile, ProjectWise and iTwin significantly improved project coordination and communication, offering approximately two months of time savings on large projects and slashing operational inspection efforts by 90%. By better connecting people and data, the team was able to optimize project delivery and deliver better outcomes. "Bentley software significantly propelled the Jakarta MRT Phase 2A project, seamlessly integrating over 18,000 project data points through ProjectWise," said Amy Rachmadhani Widyastuti.

SYNCHRO 4D was used to detail work schedules, determine the excavation sequence based on soil layers, and optimize the amount of heavy machinery used. The use of excavators was reduced from 18 to 14 units and dump trucks from 20 to 17 units. SYNCHRO facilitated work control and evaluation with visualization, speeding up decision-making and evaluation.

Leapfrog has significantly improved soil data collection and analysis, reducing the time and effort needed for soil modeling and stratigraphy by up to 95%. This efficiency saves up to four weeks in planning by eliminating unnecessary data work and enhancing underground condition insights by 80%. Additionally, the models have cut excavation and retaining structure costs by 10%, preventing excavation risks and saving up to USD 2.5 million in potential damages. PLAXIS 2D also saved up to two weeks in design and improved software data exchange by 70%.

Most importantly, Jakarta MRT Phase 2A has already made a lasting impact on the city. The project has reduced carbon emissions by an estimated 25% to 35% annually by decreasing reliance on private vehicles, alleviating traffic congestion in Jakarta by 30% to 40%. Furthermore, the project's strategic use of advanced digital tools has facilitated the design and construction of energy-efficient infrastructure, leading to a 15% reduction in energy consumption across all operations. The project helps provide an improved capital for Indonesia—better connected and more environmentally friendly. EPC World

Marion Bouillin is a senior product marketing manager at Bentley Systems. She leads product marketing efforts for SYNCHRO, Bentley's digital construction delivery solution.

India's business infrastructure is witnessing sustained growth, driven by strong demand for office spaces, warehousing, and data centers. Despite global economic uncertainties and evolving work models, key sectors continue to expand, supported by foreign investments, policy reforms, and the rapid adoption of technology. Read on…

Demand uptick to continue amid market shifts

India's commercial real estate sector has witnessed significant shifts over the past few years, shaped by economic growth, evolving work patterns, and increasing investor confidence. While 2024 saw steady demand for office spaces, a rising preference for flexible workspaces, and strong momentum in retail and warehousing segments, the outlook for 2025 presents a dynamic mix of opportunities and challenges. Sustained economic growth, increasing foreign investments, and expansion into tier-2 and tier-3 cities are expected to drive demand, while factors like global economic uncertainty, high vacancy rates in certain micro-markets, and evolving workforce preferences may pose hurdles. Additionally, the push for sustainability and the adoption of smart real estate solutions will reshape commercial spaces, making adaptability crucial for stakeholders in the sector.

Office space demand remains a key driver of the sector, with Grade A office spaces in prime business districts continuing to attract occupiers, particularly in IT, BFSI, and global capability centers (GCCs). The hybrid work model has fueled demand for flexible office spaces and co-working hubs, while leasing activity in tier-2 and tier-3 cities is gaining traction as companies look beyond metros for cost-effective expansion. According to a recent report by JLL India, in the calendar year 2024, India's office market has become a key hub for global companies expanding their workforce and real estate footprint, as evidenced by a historic peak in net absorption reaching 49.56 million sq. ft. The year concluded with an exceptional fourth quarter (October-December 2024), marked by record net absorption figures of 18.53 million sq. ft, underscoring the robust growth in this sector. The top seven cities' (Bengaluru, Chennai, Delhi NCR, Hyderabad, Kolkata, Mumbai, and Pune) quarterly net absorption figures had Bengaluru posting its best quarter, while accounting for a 36.1 percent share, signalling the strong occupier demand that remains sustained for this city. Hyderabad jumped to the second spot with a 16.0 percent share followed by Delhi NCR with 15.4 percent and Chennai with 11.5 percent share in the quarterly net absorption numbers. For the full year (January-December 2024), Bengaluru led the charge with 2024 being its best year yet in net absorption terms while Mumbai also saw decadal high numbers. Strong annual performance across Delhi NCR and Hyderabad also contributed to the continued growth momentum in the office market. These four cities accounted for 77.8% share of the annual net absorption number in 2024. "Global companies played a crucial role, driving 58.6% of leasing activity, as India remains central to their real estate expansion plans. Global Capability Centres (GCCs) had a standout year, capturing 35.9% of the market with approximately 28 million square feet leased. As India's position as the 'office to the world' strengthens, its focus on AI and emerging technologies, alongside engineering R&D capabilities, is expected to further propel demand, making it a key destination for headcount growth and innovation over the next decade," said Dr Samantak Das, Chief Economist and Head of Research and REIS, India, JLL.

As per a report by ICRA, it estimates that the net absorption of commercial office leasing across the top six cities (Bengaluru, Chennai, Delhi NCR, Hyderabad, Mumbai Metropolitan Region (MMR) and Pune) in India is likely to increase by 10-11% to 59-60 million square feet (msf) in FY2025 and witness a further growth of 3-4% in FY2026 on a high base. Despite an influx of a huge supply of 125-130 msf in FY2025 and FY2026, the vacancy levels are expected to remain range-bound at 14.5-14.7% by March 2025 and improve to 14.0-14.5% by March 2026, supported by resilient absorption trends.

Demand uptick in industrial & warehousing

India's warehousing sector continued its robust growth in 2024, driven by the expansion of e-commerce, third-party logistics (3PL), and manufacturing sectors. Increased demand for grade-A warehouses, automation, and multi-modal logistics parks has reshaped the landscape, particularly in key hubs like Delhi-NCR, Mumbai, Bengaluru, Pune, and emerging tier-II cities. Government initiatives such as the National Logistics Policy (NLP) and infrastructure developments under the PM Gati Shakti plan further accelerated growth. According to a report by Colliers, with 25.6 million sq ft of gross leasing in 2024, industrial & warehousing demand across the top five cities remained healthy, witnessing a marginal 2 percent YoY growth. Although, there was a noticeable dip in leasing activity during the last quarter, strong space uptake in the earlier quarters ensured steady leasing levels during 2024. During the year, Delhi NCR led the demand with 26 percent share, closely followed by Chennai at 23 percent share. On a quarterly basis, Q4 2024 saw about 5.5 million sq ft of industrial & warehousing demand across the top five cities. Pune, closely followed by Bengaluru, cumulatively accounted for over half of the quarterly demand. The report further stated, while Third Party Logistics (3PL) players drove overall demand during the year, and accounted for 33 percent share in overall leasing, demand from Engineering and Electronics segments gained traction. At a micro market level, Bhiwandi in Mumbai led the leasing activity in 2024 with about 4.5 million sq ft of demand, followed by Chakan-Talegaon in Pune and Oragadam in Chennai. Both micro markets contributed to more than 2.5 million sq ft of demand each in their respective cities.

According to a report by Savills India, it expect an increase in the warehousing leasing activity in the upcoming quarters, fuelled by new enquiries, the introduction of high-quality supply, and the culmination of pending transactions. Delhi-NCR, Bengaluru, and Chennai are anticipated to be the key drivers of this increasing demand. the report further mentions, to facilitate proximity to a larger population and optimise operational costs, occupiers are anticipated to continue expanding their distribution networks across tier-II and III cities. Chandigarh, Hosur, Jaipur, Lucknow, and Vizag are projected to be the key focal points for warehousing expansion in these Industrial & Logistics emerging regions.

In 2025, the sector is expected to witness continued expansion, with rising demand for built-to-suit (BTS) facilities, cold storage solutions, and ESG-compliant warehouses. The increasing adoption of automation, AI-driven supply chain management, and green warehousing practices will drive efficiency and sustainability. However, challenges such as land acquisition hurdles, rising rental costs, and regulatory complexities could impact growth. Despite this, growing foreign investments and the push for supply chain resilience are likely to keep the sector on a strong growth trajectory.

Data centre market booms

"India's data centre (DC) market continues to experience robust growth driven by digital transformation, increased internet penetration, policy enablers, rising data consumption, and artificial intelligence (AI) adoption. The surge in data traffic from various sectors, combined with 5G deployment, is fuelling demand for reliable data storage and processing facilities. Infrastructure status granted to the DC sector, along with the formulation of the Draft Data Centre Policy, 2020, has created a favourable environment for operators and developers. Additionally, the implementation of the Digital Personal Data Protection Act (DPDPA) in 2023 has bolstered cross-border trade, legitimate data processing, and stakeholder trust, further enhancing India's digital innovation landscape. India's DC capacity has surged

over the past four to five years, mirroring the country's rapid digital transformation. As of 9M 2024, the total DC capacity reached approximately 1,255 MW," says a report by CBRE India

According to a release by Savills India, the demand for data centres in India continues to rise, driven by factors such as the increasing adoption of cloud computing, the expansion of big data, the Internet of Things (IoT), Artificial Intelligence (AI), and the rapid growth of e-commerce and digital transformation initiatives. In 2024, India witnessed an absorption of 407 MW IT capacity and the addition of 191 MW IT capacity across key cities. This demand was fueled by hyperscalers, BFSI (Banking, Financial Services, and Insurance), IT & ITeS, and service sectors, all of which heavily rely on data centre operators for colocation and related services. "India is rapidly emerging as a global data centre hub. The current momentum positions India as a promising global data centre hub. We project a strong demand for data centres in India in 2025, with an estimated demand of over 450 MW IT across major cities, while supply addition is expected to reach 600 MW IT during the same period. The increasing penetration of 5G and the rise in mobile application usage are driving demand for edge data centres in Tier-II and Tier-III cities such as Bhubaneswar, Patna, Lucknow, Jaipur, Kochi, Vizag, Coimbatore, Madurai, Raipur, and Hubli. Meanwhile, dominant Tier-I cities continue to grow. By 2030, we expect data centre stock to reach 3,400 MW IT across major cities," says Srihari Srinivasan, Director & Lead Data Centre Services, Savills India.

Road Ahead

The future of India's commercial real estate market in 2025 will be shaped by three key factors. Sustainability and ESG compliance will play a crucial role, with a growing emphasis on green buildings, energy-efficient infrastructure, and climate-conscious construction. Investors and occupiers are expected to prioritize ESG-compliant assets, driving demand for sustainable developments and making environmental responsibility a key differentiator in the market. Additionally, technology-driven transformation will redefine commercial spaces, with smart buildings, AI-based facility management, and digital leasing platforms improving operational efficiency and enhancing the tenant experience. The integration of proptech solutions will lead to more data-driven decision-making, space optimization, and predictive maintenance, further strengthening the sector's long-term resilience. Furthermore, foreign and institutional investments will continue to fuel the sector's growth. With Real Estate Investment Trusts (REITs) gaining traction, both global and domestic investors will contribute to increased liquidity and transparency in the market, strengthening its long-term stability. The continued influx of private equity investments and foreign direct investments (FDI) in commercial real estate will reinforce India's position as a preferred global business destination.

Despite short-term challenges such as fluctuating interest rates, regulatory shifts, and global economic uncertainties, India's commercial real estate sector is set to witness sustained growth and innovation. Demand for premium office spaces, flexible work environments, and high-grade warehousing facilities will remain robust, driven by corporate expansions, the rise of e-commerce, and the country's fast-growing digital economy. The road ahead for commercial realty looks promising, with strong government support, infrastructure development, and the rise of new business hubs in tier-2 and tier-3 cities adding to the sector's momentum. Continued urbanization, rising consumer spending, and strategic policy interventions will further shape the industry's trajectory. Developers and investors who embrace sustainability, technology, and adaptability will emerge as leaders in this evolving landscape.

As India cements its status as a global business and logistics hub, commercial real estate is set to thrive, innovate, and redefine urban landscapes. The sector's ability to adapt to new trends, leverage technology, and focus on long-term value creation will be key to ensuring sustained success. With collaborative efforts from industry stakeholders, policymakers, and investors, India's commercial real estate sector is well-positioned to scale new heights in the years ahead. EPC World

A game changer for real estate growth and infrastructure development

The Union Budget 2025 has set the stage for transformative growth in the real estate sector with key policy announcements aimed at boosting infrastructure, easing business operations, and fostering inclusive development.

The Union Budget 2025 has unfolded exciting possibilities for the real estate sector,and this is going to shape the sector's future significantly. The key policy announcements complement the sector's forward momentum, thus emboldening the key foundations on which the sector's success metrics rest. Most importantly, the key policy announcements offer a holistic perspective that is poised to accelerate growth and inclusive development, targeted at maintaining economic growth, upgrading infrastructure, facilitating ease of doing business, strengthening social schemes and the healthcare segment while addressing MSMEs.

In the realm of commercial realty, one of the key announcements that will fuel the expansionary sentiment of the sector is the provision of formulating a National Framework to provide guidance to the states for promoting global capability centres (GCCs) in emerging tier-II cities. Global Capability Centers (GCCs) have maintained a strong presence in India in the last few years, contributing 35-40% of the overall office leasing activity in 2024, and registering an over 20% growth compared to 2023. Global firms have actively established and expanded their GCC operations by capitalising on the country's skilled talent pool and a favourable business climate.

Once put into practice, the framework will further decentralize GCC growth landscape beyond established hubs such as Bengaluru, Hyderabad, and Delhi-NCR. This broader distribution is expected to mitigate migration pressures on major urban areas and contribute to a more balanced national economic development.

While this is a significant step to boost the sector's ongoing growth, improvement in urban infrastructure will create a new paradigm shift. This has been rightly addressed with the Budget emphasizing urban development as one of six focus areas targeted for transformative reforms. The allocation of INR 1.5 lakh crore in interest-free loans, coupled with the Asset Monetisation Plan, is projected to stimulate national infrastructure growth. Moreover, the 50-year loan tenure will not only alleviate the financial burden on states but will enable them to pursue larger and longer-term infrastructure projects. Besides, by accelerating infrastructure development, it is anticipated that the country will see more employment opportunities, supported by a robust economic activity. The Urban Challenge Fund of INR 1 lakh

crore is likely to be pivotal step towards transforming cities and ensuring balanced regional development. It would aid in improving urban infrastructure, adopting sustainable water and sanitation practices and creatively redevelop existing urban spaces. Overall, the vision of 'Cities as Growth Hubs' and the 'Creative Redevelopment of Cities' will boost economic growth and uplift urban living, making cities dynamic, thriving places to live and work.

All these provisions will have far-reaching implications across the investment ecosystem. Besides, the RBI's latest MPC announcements can be interpreted as a complementary measure to the government's recent budgetary initiatives of income tax relief aimed at stimulating consumption and economic growth. The repo rate reduction decision is expected to benefit loan borrowers, as banks are likely to lower lending rates for home loans, business credit, etc, making borrowing more affordable and accessible. This reduction serves as a potential catalyst for the real estate sector, encouraging fence-sitting homebuyers to move forward with their purchasing decisions. Sustained easing in the coming few months has the potential to invigorate demand and investment across residential and commercial real estate sectors, benefiting buyers, developers, and allied industries.

Additionally, the designation of 50 cities as global hubs for tourism, spirituality, and medical services is projected to uplift regional economies substantially. This initiative will create new avenues for growth, generate employment, and prioritize local infrastructure development. The SWAMIH Fund 2, with an allocation of ₹15000 crore, will facilitate the completion of an additional 100,000 housing units, thereby maintaining momentum in the real estate sector. The announcement of the National Geospatial Mission is a promising move towards modernizing India's land records.The personal taxation reforms, designed to increase disposable income for the middle class, are expected to stimulate consumption and, consequently, drive broader economic growth. EPC World

ANSHUMAN MAGAZINE
Chairman & CEO, India, Southeast Asia, Middle East & Africa,
CBRE

The Budget is a forward-thinking document that lays a comprehensive foundation for growth

Dr NIRANJAN HIRANANDANI,
Chairman,
NAREDCO &
Hiranandani Group

From the vantage point of the real estate and infrastructure sectors, the Budget FY26 sets the stage for transformative growth. Central to this budget is its unwavering focus on infrastructure enhancements. Notably, it incentivizes the purchase of a second flat, encouraging real estate investments. Moreover, the introduction of SWAMIH Fund 2.0 seeks to alleviate the burden on constrained homebuyers by delivering stalled projects, while the hike in TDS on rentals up to ₹6 lakhs promises to bolster rental investments.

By expediting mergers and acquisitions, the budget aims to initiate new real estate projects under innovative business models. Additionally, addressing the skill gap through the establishment of new centers of excellence will help bridge the widening talent chasm. However, the concern over inadequate long-term investment allocation remains a hindrance for achieving the ambitious Viksit Bharat growth targets.

The middle class, a crucial driver of demand, stands to benefit immensely from tax incentives that translate their aspirations for an improved quality of life into tangible home-buying prospects. This is expected to generate a positive demand curve in the real estate sector. Banks have reported a notable 40% increase in retail home loan portfolios post-Covid, and the anticipated reduction in home loan interest rates will further fuel this sustained demand.

Emerging growth corridors featuring new projects with integrated amenities are poised to attract even more buyers. The budget also shines a spotlight on labor-intensive sectors to ensure that quality, productivity, and competitiveness are enhanced, positioning India as a formidable global player.

A strategic highlight is the finance minister's announcement of a ₹1 lakh crore Urban Challenge Fund. This fund aims to address land and development obstacles, foster robust social infrastructure in key urban centers, and drive infrastructure development across urban corridors. The focus on new airports, shipping ports, and inland waterways is set to transform India into a competitive logistics hub, reducing product costs and boosting economic efficiency. However, it is worth noting that the budget has not taken significant action towards uplifting affordable housing, a segment crucial for inclusive growth and economic stability. In summary, the Budget FY26 is a forward-thinking document that lays a comprehensive foundation for growth, though certain areas like long-term investment and affordable housing require further attention to fully realize the vision of a prosperous and developed Bharat. EPC World

CWPCL
An ISO 9001 Company

STRUCTURAL REPAIRS

STEEL JACKETING

OUR STRUCTURAL ENGINEERS WITH EXPERT TEAM OF HIGHLY SKILLED AND EXPERIENCED MEMBERS BRING STRUCTURAL MEMBERS TO THE ORIGINAL OR STILL BETTER ENHANCED STRENGTH USING STEEL, POLYMERS, EPOXIES CARBON FABRICS ETC.

Chirag Waterproofing and Coatings P Ltd
info@cwpcl.in
www.cwpcl.in

The budget delivers both direct and indirect benefits, acting as a catalyst for growth

ANUJ PURI,
Chairman,
ANAROCK Group

The Union Budget focused on economic expansion, infrastructure development, MSMEs, futuristic cities, and middle-class welfare and brings substantial relief for the middle class. It also aims to stimulate rural consumption - an essential step toward unlocking India's economic potential. From a real estate perspective, the budget delivers both direct and indirect benefits, acting as a catalyst for growth. However, a notable shortfall was the absence of major announcements for the affordable housing sector, leaving stakeholders disappointed. Despite this, the budget overall remains strong and growth-oriented, with a clear focus on economic development and enhanced consumption.

Key takeaways for the real estate sector include

Income tax relief for the middle class: The Finance Minister announced zero income tax for individuals earning up to INR 12 lakh annually, providing a major consumption boost. This move is also expected to strengthen demand for affordable housing. Additionally, the new income tax bill will retain nearly 50% of existing provisions while introducing personal tax reforms and rationalizing TDS and TCS regimes by streamlining rates and thresholds.

Tax benefits for residential property investors: Investors can now claim Nil valuation for two self-occupied properties, instead of just one - a positive move for residential real estate investment. The simplified TDS on rent decreases the compliance burden and enhances liquidity for landlords and will positively impact the rental housing market, especially in metro cities. Previously, homeowners could claim only one self-occupied property as tax-free; now, they can claim two - thereby removing taxation on notional rental income from a second home. This step minimizes tax pressures, promotes homeownership, and facilitates real estate investment, especially in second homes and Tier 2 and 3 cities. Middle-class homebuyers, landlords, and investors can now benefit from reduced tax liabilities, better affordability, and less compliance hassles. By simplifying financial constraints and tax rules, the budget has made property ownership and rental housing more accessible. This gives a significant fillip to the real estate sector, specifically to and housing demand.

INR 1 lakh crore urban challenge fund for new-age cities: The establishment of this massive urban development fund will enhance infrastructure, unlock real estate potential, and transform cities into major growth hubs.

SWAMIH Fund allocation of INR 15,000 crore: This initiative will facilitate the completion of over 1 lakh stalled residential units, providing much-needed relief to homebuyers, especially in the National Capital Region (NCR).

Revamped UDAAN scheme to improve connectivity: The restructured UDAAN scheme aims to connect 120 new destinations and serve over 4 crore passengers in the next decade. Greenfield airports in Bihar and other regions will be developed to support this expansion. This enhanced connectivity is expected to boost real estate demand in Tier-II and Tier-III cities.

PM Gati Shakti data access for private sector & tourism & warehousing infrastructure boost: The government will open PM Gati Shakti data to private players, while 50 top tourist destinations will be developed in collaboration with state governments. Additionally, hotels will be included in the harmonized scheme for tourism infrastructure, leading to enhanced real estate opportunities in major tourist hubs. This will also benefit the warehousing sector across the country.

Support for Global Capability Centres (GCCs): A national guidance framework will be introduced to help states attract and promote GCCs, strengthening India's position as a global business hub. Given India's rising economic influence, this move is expected to fuel office space demand in major metros like Bengaluru, Mumbai, Hyderabad, Pune, and Chennai, as well as Tier-II and Tier-III cities.

INR 1.5 lakh crore fiscal support for MSMEs: The allocation of INR 1.5 lakh crore to MSMEs is expected to spur capacity expansion, creating a ripple effect that will positively impact industrial real estate.

While the affordable housing sector saw fewer direct benefits, the budget is, overall, pro-growth, infrastructure-driven, and investment-oriented. The focus on middle-class relief, urban development, and connectivity is expected to stimulate real estate demand across various segments, making it an overall progressive and impactful budget. EPC World

A Post-Budget 2025 Analysis

This article explores the budget's impact on commercial real estate, analyzing its key provisions, missed opportunities, and long-term implications for the sector

ARPIT MEHROTRA,
Managing Director, Office Services,
Colliers India

The Union Budget 2025-2026 aims to stimulate economic growth by promoting investments in key sectors, fostering growth in small and medium enterprises and enhancing disposable income through tax reforms. With a capital expenditure outlay of INR 11.2 lakh crore, marking a 10% YoY increase, the budget continues to prioritize on infrastructure development, which is likely to have a multiplier effect on the real estate sector and attract more investments. While direct announcements specific to commercial real estate were limited, frameworks and measures related to Global Capability Centres (GCCs), urban development, startups, etc, and impetus to manufacturing including EVs & hospitality segment will percolate down and drive occupier demand as well as investments in the office market.

Notable misses from the budget were GST reduction on key construction materials, and accordance of industry status which could have provided an additional boost to commercial real estate. Moreover, amendment in the definition of "Plant and Machinery", can potentially have an impact on developer assessment of Input Tax Credit (ITC) benefits. Additionally, despite the continued impetus on infrastructure development, the budget has failed to build upon equitable growth and restricts itself by limited announcements related to flagship infrastructure projects, industrial zones and economic corridors. Also tax holidays for multi-modal logistic parks and clarity on Special Economic Zones (SEZs) / Development of Enterprise and Services Hub (DESH) bill could have had long-term positive implications for commercial real estate in India.

Key provisions of Union Budget 2025-26 impacting commercial real estate

National Framework for GCCs – To spur demand in Tier II cities

The budget announced the creation of a national framework to guide states in promoting Global Capability Centres (GCCs) in emerging tier II cities. This framework can catalyze GCC expansion by advocating measures to improve talent availability, accelerate state-of-the-art infrastructure creation, suggest reforms in building bylaws and form mechanisms for effective cooperation with the industry. The framework holds immense potential in boosting commercial real estate activity in these cities. Overall, the framework seeks to attract multinational corporations to establish capability centers, thereby boosting local economies and creating jobs, simultaneously positioning India as a global leader in business and technology services.

Emphasis on urban infrastructure- To have a multiplier effect on office market

The budget demonstrates a strong push for infrastructure development, reinforcing the government's commitment to urban growth and connectivity. The INR 1 lakh crore Urban Challenge Fund aims to transform cities into economic hubs, while INR 1.5 lakh crore outlay for infrastructure ministries under a three-year PPP model ensures long-term planning and execution. The expansion of the UDAN scheme to 120 new destinations would enhance regional connectivity, augmenting economic opportunities in smaller cities. All of these can cascade down and create expansion opportunities for businesses, thereby leading to traction in Grade A office space demand.

Boost for Start-ups and MSMEs – To enhance credit support, boost innovation and foster office space demand

The allocation of INR 10,000 crore to the alternate investment fund (AIF), would provide startups with the necessary financial support. This would encourage start-ups to take up incremental Grade A office space, particularly flex spaces across major office markets of the country. Moreover, for micro-enterprises, the credit guarantee cover has been expanded significantly, thereby enhancing credit access and boosting innovation & domestic manufacturing capabilities. Additionally, the National Geospatial Mission will strengthen foundational infrastructure & data-driven planning and drive office space demand from start-ups engaged in geospatial mapping and drone manufacturing.

Development of 50 tourist destinations- Hospitality demand can complement commercial real estate activity

Development of 50 tourist destinations will be carried out in partnership with state governments and include tourism infrastructure upgrade through hotels and retail outlets. Increased commercial activity in such destinations is likely to enhance demand for commercial spaces especially retail including shopping complexes, malls, food courts, outlets dealing in souvenir items, etc.

Exemptions on customs duty on critical minerals - To boost EV battery manufacturing

The continued focus on EV manufacturing and the removal of customs duty on critical minerals is crucial towards bolstering the EV ecosystem in India. These incentives will not only make EVs more affordable but also attract substantial investments, enhancing the country's competitiveness in the global EV market. With traction in EV sales, ancillary industries can flourish and create heightened demand for commercial real estate in the long-term.

Increase in Foreign Direct Investment (FDI) limit - To attract investments in real estate sector

The increase in FDI limit in the insurance sector to 100% is expected to have a positive impact on the real estate sector. With more foreign capital flowing into the insurance sector, there will be greater financial resources available for real estate projects, leading to more funding for commercial, residential, and infrastructure developments. Moreover, with increased FDI limits, leading insurance companies are expected to expand their operations and take up more office space.

Other announcements

- The Budget has increased the annual limit of INR 2.4 lakh for TDS on rent to INR 6 lakh. In addition to compliance reduction, the change can potentially stimulate more activity in real estate including commercial spaces. Smaller taxpayers and shop owners who rent out smaller premises for their living could enjoy higher disposable income.
- The Budget has raised the tax exemption limit to INR 12 lakhs and has also revised slabs under the new regime. Increased disposable income will boost consumption levels across sectors including real estate. Retail investors can also strategically increase their investments in instruments such as Real Estate Investment Trusts (REITs).

Missing links of Union Budget 2025-26 for commercial real estate

'Industry' status for real estate sector

The long due accordance of 'industry' status to real estate would have helped developers in access to financing products, lowered borrowing costs and facilitated refinancing of outstanding debt. Grant of industry status would have enabled developers to undertake new developments with lower financial risks as well. Overall investor participation into commercial real estate would have received an additional fillip.

GST reduction in key construction materials

Reduction in GST rates on key construction materials such as cement, steel, and other essential raw materials and rationalization of rates for under-construction properties could have helped in controlling project costs. This could have positively impacted commercial real estate developers as construction materials account for a significant share in total project costs.

Incentives for green bonds and renewable energy

Since built environment including offices are a significant contributor to greenhouse gases, incentivizing investments for green bonds would have fast-tracked the realization of national carbon emission and net-zero goals. Such encouraging incentives have the potential to boost sustainable infrastructure creation and accelerate long-term transition to low-carbon economy.

Tax holidays and clarity on impending bills

In addition to the National Manufacturing mission, incentives such as tax holidays for multi-modal logistics parks would have made development of logistics hubs financially more viable. It would have attracted institutional investments from both domestic and foreign investors. Heightened industrial & logistics activity would have ultimately created long-term demand for commercial real estate in economic corridors. Moreover, updated guidelines pertaining to SEZs and DESH Bill could have had far reaching positive implications for Indian commercial real estate. EPC World

Article

Green construction

How sustainable materials and smart technologies are shaping the future

This article explores how sustainable materials like cross-laminated timber, self-healing concrete, and hempcrete, along with smart technologies such as BIM, IoT-enabled buildings, and 3D printing, are transforming the industry. It also examines the benefits, challenges, and policy support driving this transition. As the sector embraces innovation, green construction is set to redefine urban development, balancing progress with environmental responsibility

In 2023, the construction industry stood at a crossroads. Contributing nearly 40% of global CO_2 emissions, it's one of the largest polluters on the planet. However, according to a recent report by McKinsey, 60% of surveyed construction companies plan to adopt green building practices within the next five years. Meanwhile, the global green building materials market is projected to reach $610 billion by 2030, growing at a CAGR of 11.6%. These figures underscore a significant trend: the future of construction is green.

This movement is driven by the urgent need to combat climate change, improve resource efficiency, and meet rising consumer and regulatory demands for sustainable practices. At the heart of this transformation are two key enablers: innovative sustainable materials and cutting-edge smart technologies.

The rise of sustainable materials

Traditionally, construction relied on materials like concrete and steel, which are highly energy-intensive to produce. Sustainable alternatives are now emerging as game-changers. Cross-laminated timber (CLT), for instance, is often called the "concrete of the future." Made from sustainably harvested wood, CLT is lightweight and has a significantly lower carbon footprint than concrete or steel. Similarly, recycled materials are turning waste into wealth. Recycled steel, for example, requires nearly 75% less energy to produce than virgin steel, while crushed concrete from demolition sites is being reused as aggregate for new concrete, closing the loop on construction waste. Another innovation is self-healing concrete, which contains bacteria that produce limestone when exposed to water, significantly extending the lifespan of structures and reducing emissions. Hempcrete, made from hemp fibres mixed with lime, is another sustainable material with excellent insulating properties that also absorbs CO_2 during its curing process, making it carbon-negative.

Smart technologies transforming construction

Sustainability in construction extends beyond materials - it also involves smarter processes enabled by technology. Digitalisation and automation are playing pivotal roles in making construction greener. Solutions like Building Information Modeling (BIM) allow for virtual collaboration and design optimisation. Furthermore, IoT-enabled smart buildings use real-time monitoring to minimise energy consumption. Additionally, 3D printing reduces material waste and labour costs, while drones and AI optimise project management and resource allocation.

Trimble, a global leader in construction technology, is at the forefront of this revolution. Its advanced solutions, such as Trimble's connected construction platforms, empower project teams to design, plan, and execute sustainable projects more efficiently. By integrating BIM, IoT, and real-time data analytics, Trimble helps reduce waste, lower emissions, and improve overall productivity.

The benefits of going green

Embracing sustainable materials and smart technologies delivers benefits far beyond environmental impact. Energy-efficient buildings lower operational costs, with green buildings saving 25% in energy consumption and 11% in water usage compared to traditional buildings, according to the U S Green Building Council. Sustainable materials and smart systems create healthier living spaces by improving indoor air quality and temperature regulation. Additionally, green practices help companies stay ahead of increasingly stringent regulatory requirements while enhancing their reputation.

Challenges and the road ahead

Transitioning to green construction isn't without hurdles. High upfront costs for sustainable materials and technologies remain a barrier for many companies. Limited availability of eco-friendly materials and resistance to change within the industry slow adoption rates. However, incentives such as tax credits, grants, and government policies promoting green building practices are helping overcome these obstacles. In India, initiatives like GRIHA and LEED certifications have spurred significant growth in green projects.

The role of education and awareness cannot be overstated. Training programs for construction professionals and campaigns to inform stakeholders about the long-term benefits of sustainability are crucial.

Conclusion

Green construction is more than a trend - it's a necessity. Sustainable materials and smart technologies are reshaping the industry, offering a path toward a low-carbon future. As these innovations scale and costs decline, the vision of cities built sustainably- with net-zero emissions and resilient infrastructure- comes closer to reality.

The construction sector has both the responsibility and opportunity to lead this transformation. By embracing sustainability, it can transform from a major polluter to a steward of the environment, proving that progress and preservation can go hand in hand. The question isn't whether we can afford to build green; it's whether we can afford not to. EPC World

HARSH PAREEK
Regional Sales Director, India and SAARC
Trimble Solutions

Role of net zero buildings in achieving india's net-zero goal

This article explores the benefits of net-zero buildings through energy efficiency, renewable energy integration, and sustainable building materials and practices. It also examines policy support and innovations driving their adoption. With the right policies and technology, net-zero buildings will play a crucial role in shaping India's sustainable urban future and achieving its climate goals

As the world faces the growing challenges of climate change, India has reached a critical milestone by committing to achieving net-zero emissions of greenhouse gases by 2070. This pledge, announced at COP26, positions India as a leader in the global fight against climate change, given its status as the third-largest emitter of greenhouse gases. While this target is set for the long term, immediate and innovative solutions are required across various sectors to ensure progress, particularly in construction and real estate-two areas playing a major role in India's transformation.

The construction sector contributes nearly 39% to global emissions, making it a key player in the journey toward sustainability. As India rapidly urbanizes, integrating net-zero buildings into the national landscape becomes essential. These buildings aim to eliminate carbon emissions by balancing the energy they consume with renewable energy sources, making them pivotal in reducing the overall carbon footprint.

Net-zero buildings are a crucial solution for India, not only in reducing emissions but also in supporting the country's vision for a greener, more sustainable future. This transformation in the built environment will be an essential component of India's broader commitment to combating climate change and promoting sustainability on a global scale.

Net-zero buildings: Principles and purpose

Net-zero buildings are designed in a way so that they generate as much energy over the course of a year as they consume, bringing carbon footprints to a nullification level. This is achieved in a manner that combines energy efficiency, renewable energy generation, and sustainable building practices. The core principles of net-zero buildings are energy efficiency, reduction of the overall energy demand through innovative design, usage of advanced materials, and state-of-the-art technology. It could also involve access to

renewable energy, such as solar, wind, geothermal, or any other form of renewable source; and sustainable building practices, which include not only excellent passive design, but also green material use for insulation, glazing, and roofs. Renewable energy includes integrating sources such as solar panels or wind turbines that are keys to satisfying building energy requirements. While it is difficult at times to offset completely, buildings can make investments in carbon offsetting that balance out residual emissions. These structures themselves are a far-reaching solution to one of the world's most carbon-intensive sectors andprovide a critical template for how the built environment can contribute to India's ambitious net-zero vision.

Reducing carbon footprints: The role of net-zero buildings

In India, where urbanisation comes to a scale that has never been seen before, the need for 'green', energy-efficient, and low-emission buildings is the need of the hour. It is estimated that the building stock in India will double from the current 660 million square meters to about 1.32 billion square meters by 2050, which will lead to an intensification of the energy demand. Zero-net buildings would reduce this energy burden severely because there would be zero emissions or energy consumption if new constructions followed the green standards and integrated renewable energy sources right from the beginning.

Research has shown that the carbon emissions by such net-zero buildings are lower to the extent of 80% compared with ordinary buildings. The design efficiencies reduce operational energy consumption in such net-zero buildings, and they incorporate on-site renewable energy systems. These buildings minimize their dependency on fossil fuels and play a more significant role in the decarbonization of India's urban environment.

Financial incentives and policy support

The Indian government is also aware of the contributions net-zero buildings can make towards attaining climate goals and to this end has effected several policies and financial incentives. One of the key policies is the National Building Code that incorporates regulations on sustainable construction. It has also established the Energy Conservation Building Code, or ECBC. This code requires the commercial buildings to maintain a standard that is less wasteful of energy.

Certifications developed by industry bodies such as Green Business Certification Inc (GBCI) and Indian Green Building Council (IGBC) have helped set benchmarks for being qualified as net-zero/green buildings. These certifications are recognized by the government as well as the industry. State governments are also playing an instrumental role in promoting net-zero/green buildings and have started reducing property taxes for certified green buildings. This encourages developers as well as homeowners to build net-zero buildings. All this is in the right direction, but it has taken real policies to actually build more net-zero structures. Recent events, including that of launching India's National Hydrogen Mission, indicate that it is time for policies and technology to come together for easier buildings powered by renewable energy.

The government has taken several initiatives, one of which is the

Technological innovations driving net-zero design

Technology advancement has been one of the main enablers in the realization of net-zero buildings. So far, innovations in building materials, renewable energy systems, and energy storage have

significantly enhanced the viability of net-zero construction in India. The following are some of the most prominent technological trends:

- Smart Energy Management Systems: These optimize energy usage within a building by automatically adjusting lighting, heating, and cooling according to available real-time data, thus minimizing waste of energy.
- Energy-Efficient Building Materials: The use of low-e glass, green concrete, and PCMs can contribute to the saving of energy within the building.
- Solar PV Integration: Solar photovoltaic panels are now being integrated in new construction so that the building can produce its own electricity from a renewable energy source.
- Integration of renewable energy generation with battery storage solutions will ensure that there is always energy available even when solar or wind energy generation is low during periods.

These technical improvements not only contribute to the building's energy efficiency but also make it more resilient. Hence, net-zero buildings present an attractive investment proposition for the future.

Climate resilience: Net-zero buildings for a changing world

India is highly sensitive towards the effects of global warming, with frequent heat waves, flash floods, and other extreme climatic events. By its very definition, net-zero buildings are intended to increase the level of resilience for the climatic perturbations. Better insulation with passive design strategies and energy-efficient systems keeps the building at a greater thermal comfort level while minimizing the amount of energy consumption required to heat/cool during such extreme climatic conditions.

Moreover, net-zero buildings contribute to the reduced dependency on energy grids that are often affected during the catastrophic phenomena. For these buildings, it is possible to generate their own energy, and therefore, building managers can guarantee that the buildings remain functional even in cases of power outage. This further adds onto occupants' safety and comfort in extreme weather events.

Conclusion

As urbanization continues in India, the building and construction sector has a pivotal role to play in helping the country achieve its net-zero ambitions. Access to and usage of technological advancements combined with supportive policy frameworks are critical to ensuring that net-zero buildings form the core of our fight against climate change and the driving force in our journey towards our net-zero goals. It is important to remember that investing in building green cities today will go a long way towards securing a liveable planet for generations to come.

EPC World

P GOPALAKRISHNAN
Managing Director, Southeast Asia and Middle East
GBCI

EPC World

Engineering Projects Construction

Extensive Coverage Obsessive Readership

SUBSCRIBE NOW

EPC World – SUBSCRIPTION RATES

Years	No. of Issues	Discount	Cover Price (₹)	You Pay (Rs.)	You Save (₹)
1	12	5%	3600	3420	180
2	24	10%	7200	6480	720
3	36	15%	10800	9180	1620

Name ....Designation..

Organization ....

Address ....

City ....Pincode........................State........................

Mobile....................Telephone....................Fax....................Email ....

I am enclosing my DD/Cheque No..............................Date......../......./..............

For ₹ .... (In Words) Rupees ....

Drawn on Bank .... Branch..

Drawn in Favour of "EPC WORLD MEDIA PVT. LTD." (Please add ₹100 extra for out of Mumbai cheque).

Send this form along with cheque / draft to the below mentioned address.

For more details please contact: marketing@epcworld.in

EPC World media group

publications • awards • conferences

EPC WORLD MEDIA PVT. LTD.

301, Hilton Centre, Sector -11, CBD Belapur, Navi Mumbai - 400614, India

Tel : +91 22 62714444

As companies pursue aggressive capacity additions through acquisitions and new production facilities, the industry is witnessing a wave of consolidation, shaping a more competitive and efficient landscape. India's increasing urbanization, government-backed infrastructure projects, and rising per capita consumption continue to drive sustained expansion creating highest headroom for growth.

Room for Growth

The cement industry, historically perceived as a low-profile sector that attracted attention only during quarterly financial results, has now emerged as a focal point in the business landscape. In recent years, this industry has undergone a remarkable transformation, driven by a series of mergers, acquisitions, and strategic consolidations. This structural shift has been propelled primarily by India's ambitious infrastructure expansion, which has significantly escalated the demand for cement. Rather than undertaking new greenfield projects - which are capital-intensive and entail long gestation periods - cement manufacturers are increasingly resorting to acquisitions as a faster and more cost-effective growth strategy. Acquiring mid-sized and regionally strong companies not only reduces operational and logistical costs but also provides an immediate market foothold, making it a highly attractive expansion route.

India is currently witnessing an unprecedented infrastructure boom, with substantial investments channeled into roads, metro networks, railways, bridges, ports, airports, and urban housing projects. Cement remains the backbone of these developmental initiatives, with demand soaring to record levels. To capitalize on this rapid surge, leading cement manufacturers are aggressively expanding their production capacities through acquisitions and investments in new manufacturing facilities. The latest Union Budget has further reinforced this growth trajectory by allocating increased expenditure towards infrastructure and housing. Key government-led initiatives such as Smart Cities, affordable housing under the Pradhan Mantri Awas Yojana (PMAY), and industrial corridors are set to bolster the cement industry's long-term prospects, ensuring its integral role in India's economic growth story.

A wave of consolidation reshaping the industry

The trend of consolidation in the cement sector gained significant momentum in the latter half of 2022, marking the beginning of a new competitive era. The most notable development was the Adani Group's landmark entry into the industry through the acquisition of Ambuja Cements and ACC from Sweden-based Holcim AG in a $6.4 billion deal. This remains the largest cement acquisition in India's history, instantly making Adani the second-largest cement manufacturer in the country. The deal not only strengthened Adani's foothold in the industry but also intensified competition among top-tier players.

Following this, Dalmia Bharat fortified its presence in central India by acquiring assets from Jaiprakash Associates for $687 million in December 2022. Subsequently, in February 2023, Sagar Cements expanded its market reach by acquiring a 95% stake in Andhra Cements.

UltraTech Cement, India's largest cement producer with an installed capacity of 133 million tonnes per annum (MTPA), swiftly responded to this wave of consolidation by expanding its market dominance through strategic acquisitions. The company made a series of acquisitions, starting with the purchase of South India-based Indian

Cement, followed by the acquisition of Kesoram Cement in November 2023. In December 2023, UltraTech Cement further bolstered its market presence by acquiring Burnpur Cement's grinding assets, solidifying its leadership position. The momentum continued with its acquisition of a 32.72 percent stake in India Cements for ₹3,954 crore, enhancing its footprint in the highly competitive southern cement market. The latest addition to UltraTech's acquisition spree came in December 2024 when it acquired an 8.69 percent stake in Star Cement for ₹851 crore, reinforcing its aggressive expansion strategy.

Meanwhile, Adani Cement also responded to market dynamics by strengthening its position in the sector. In August 2023, the company expanded its cement footprint, followed by a major acquisition in June 2024, when it acquired Penna Cement Industries for ₹10,422 crore. This was further complemented by Ambuja Cements' agreement in October 2024 to acquire Orient Cement for ₹8,100 crore, reinforcing Adani's strategic expansion in the sector.

Recently, JK Cement acquired a 60% stake in Saifco Cement for ₹1.74 billion, marking a strategic entry into the Jammu and Kashmir cement market. This acquisition positions JK Cement to capitalize on the region's growing construction activities, which have witnessed a significant uptick in recent years.

The race for market dominance intensifies

The Indian cement industry is currently experiencing an unprecedented race for market dominance, with leading players aggressively focusing on capacity expansion, cost optimization, and technological advancements. The ongoing wave of acquisitions underscores the industry's transformation, as companies strive to consolidate their positions and strengthen their competitive edge.

The competition has now reached a crucial juncture, with the battle to acquire HeidelbergCement India intensifying. Multiple major players are engaged in active negotiations, signaling the potential for another significant deal in the sector. According to recent reports, UltraTech Cement is reportedly in advanced discussions to acquire the Indian operations of HeidelbergCement. If this deal materializes, it will further reshape the competitive landscape of the industry, setting the stage for future consolidations.

As India's infrastructure development accelerates, the cement industry remains at the forefront of this transformation. The ongoing wave of consolidation is not merely about market expansion but also about achieving economies of scale, optimizing logistics, and enhancing operational efficiencies. With demand poised for sustained growth, the sector is expected to witness continued mergers and acquisitions, further reinforcing its pivotal role in India's economic progress.

Rising raw material costs and intense price competition have placed mid-sized and smaller cement manufacturers under significant financial strain, making it increasingly difficult for them to sustain operations. As a result, more regional and mid-sized players are likely to be acquired by major cement companies seeking to strengthen their foothold across diverse markets in India.

Market performance: Q3FY2024-25

Ambuja Cements has registered 163.9 percent rise in consolidated net profit at ₹2,175.33 crore for the third quarter of the financial year 2024-25 (FY25) from ₹824.25 crore reported during the same period last year. The Consolidated revenue from operations rose marginally by 4.5 percent to ₹8,415.31 crore from ₹8,052.42 crore year-on-year (Y-o-Y). On a standalone basis, the Ambuja Cements registered a net profit of ₹1,758.03 crore, a 242 per cent rise Y-o-Y from ₹513.68 crore. ACC reported revenue of ₹5,927.3 crore in Q3FY2024-25. The revenue in the third quarter of the FY25 fiscal was 20.6 percent higher than ₹4,914 crore in the same quarter in the preceding financial year. The company's net profit doubled to ₹1,091.8 crore as compared to ₹537.7 crore in the corresponding quarter of the previous fiscal. Its EBITDA increased 23.4 percent on a year-on-year basis to ₹1,115.7 crore. In the December quarter of FY24, the company's EBITDA stood at ₹904.3 crore.

UltraTech Cement reported a 17.30 percent decline, year-on-year (YoY), in its consolidated net profit for Q3FY2024-25. During this quarter the company registered profit of ₹1,469.50 crore as against ₹1,776.98 crore in the year-ago period. Revenue from operations, increased 2.70 percent to ₹17,193.33 crore in Q3FY2024-25 from ₹16,739.97 crore in the corresponding period last year. Revenue from cement export, readymix concrete (RMC), building products and overseas grew by 37 per cent, 14 per cent, 26 per cent and 35 per cent, respectively, on a yearly basis.

Dalmia Bharat registered a 75.2 percent year-on-year (YoY) decline in net profit at ₹66 crore for Q3FY2024-25. In the same quarter in FY24, Dalmia Bharat posted a net profit of ₹266 crore. The company's revenue from operations declined 11.7 percent to ₹3,181 crore against ₹3,604 crore in the corresponding period of the preceding fiscal. The company's EBITDA dropped 34.4 percent to ₹511 crore in the third quarter over ₹779 crore in the year-ago period. The EBITDA margin stood at 16.1 percent in Q3FY2024-25 against to 21.6 percent in the corresponding period in the previous fiscal. Shree Cement's net profit decreased to ₹193 crore in Q3FY2024-25, down 72.4 percent as compared to ₹702 crore in the same period last year, as per the consolidated financial results. The company's revenue dropped 11.9 percent to ₹4,573 crore for the quarter under review from ₹5,193.5 crore in the corresponding quarter of the last fiscal. EBITDA decreased to ₹964 crore, down 23.7 percent as compared to ₹1,264 crore in the year-ago period. The margins narrowed to 21.1 percent from 24.3 percent.

JK Cement reported a 33.2 percent decline in net profit to ₹189.6 crore in the third quarter, down from ₹283.8 crore in the same period last year. Revenue stood at ₹2,930.3 crore, registering a marginal dip of 0.2 percent from ₹2,934.8 crore in the corresponding quarter of the previous fiscal. The company's EBITDA declined 21.2 percent year-on-year to ₹492.2 crore, compared to ₹625 crore last year. JK Lakshmi Cement reported a 59.7 percent decline in consolidated net profit to ₹60.46 crore for Q3FY2024-25. The company had posted a profit of ₹150.15 crore in the year-ago period. Its revenue from operations was down 12 percent to ₹1,496.83 crore in the December quarter. It was at ₹1,702.84 crore in the year-ago period.

The Ramco Cements reported over two-fold jump in consolidated net profit to ₹181.58 crore in Q3FY2024-25, helped by gains from sale of land. The company had posted a net profit of ₹81.57 crore during Q3FY2024-2 of the previous fiscal year. Its revenue from operations was down 6.03 percent to ₹1,983.45 crore during the quarter under review from ₹2,110.88 crore in the year-ago period. The company's EBIDTA stood at ₹291 crore as against ₹402 crore during Q3FY24, a de-growth of 28 percent.

HeidelbergCement India reported an 83.5 percent decline in net profit to ₹5.19 crore in Q3FY2024-25 due to lower volume and prices. The company had reported a net profit of ₹31.47 crore in the October-December quarter a year ago. Its revenue from operations declined 10.6 per cent to ₹542.82 crore during the

December quarter. It was at ₹607.13 crore a year ago. Nuvoco Vistas Corporation reported consolidated net loss of ₹61.37 crore in in Q3FY2024-25 as against net profit of ₹31.03 crore recorded in Q3 FY24. Revenue from operations decline marginally to ₹2,409.36 crore in third quarter of FY25 from ₹2,420.98 crore reported in the same period last year.

Cementing a growth trajectory

The Indian cement industry stands at a pivotal moment, driven by the government's ambitious infrastructure agenda and sustained economic growth. With large-scale investments directed toward roads, metro networks, railways, bridges, ports, and urban housing, the demand for cement is expected to remain robust in the coming years. Additionally, government initiatives such as Smart Cities, affordable housing schemes, and industrial corridors further reinforce the sector's importance in India's long-term development strategy.

Public-private partnerships (PPPs) and innovation in construction technology are set to play a crucial role in expanding production capacity and improving supply chain efficiencies. Major cement players are aggressively expanding through mergers and acquisitions, allowing them to capitalize on regional demand and achieve economies of scale. As witnessed in recent years, consolidation has emerged as the preferred strategy for market expansion, with industry giants acquiring mid-sized and regional companies to enhance their footprint. However, the path ahead is not without challenges. Rising raw material costs, fluctuating fuel prices, and supply chain disruptions continue to impact profitability. Intense price competition has further squeezed margins, particularly for mid-sized and smaller cement manufacturers struggling to sustain operations. As a result, the industry is likely to witness further consolidation, with larger firms acquiring financially stressed companies to strengthen their market position. While this will create stronger, more resilient players, it may also lead to reduced competition in certain regional markets.

Moreover, sustainability is becoming an increasingly critical factor for cement manufacturers. As India moves toward its decarbonization goals, the industry will need to invest in green technologies, alternative fuels, and energy-efficient production processes. Companies that prioritize innovation and sustainability will be better positioned to navigate regulatory challenges and attract investors in an evolving market landscape. Despite these headwinds, the overall outlook for the cement industry remains optimistic. The government's continued push for infrastructure development, coupled with rising urbanization and increased per capita consumption, will keep cement demand on an upward trajectory. Industry leaders that focus on capacity expansion, cost optimization, and technological advancements will emerge stronger, ensuring long-term growth and stability.

The Union Budget 2025-26 has reaffirms the government's commitment to infrastructure development. The cement sector, integral to these initiatives, is positioned to play a crucial role in India's economic progress. By leveraging the opportunities presented and addressing the inherent challenges, the industry can continue its trajectory of growth and transformation in the years ahead.

As India's infrastructure revolution unfolds, the cement sector will continue to be a key pillar of economic progress, shaping the nation's future and providing a solid foundation for sustainable development. EPC World

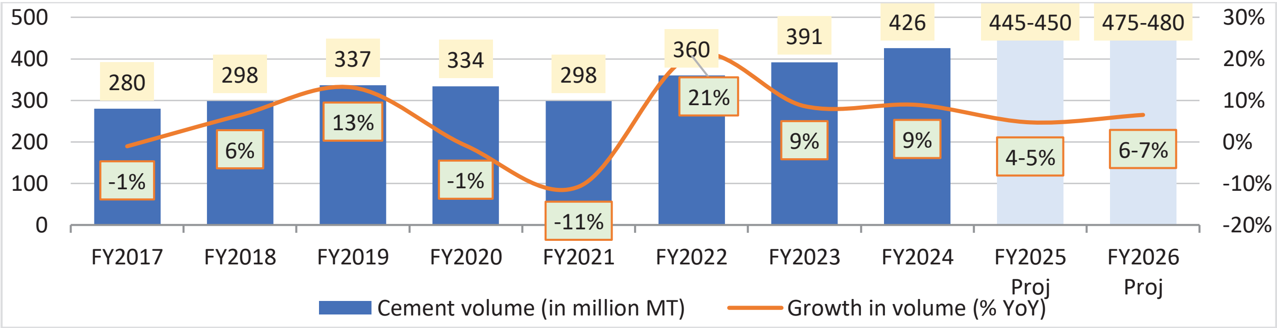

11th
EPC WORLD AWARDS
Elevating Excellence
February 21, 2025 | Hotel The Ashok, New Delhi
AWARD CATEGORIES
EPC
INFRASTRUCTURE
SPECIAL ACHIEVEMENT
CONSTRUCTION
REAL ESTATE
Organiser
EPC World media group
publications • awards • conferences
Official Publication
EPC World
Extensive Coverage Obsessive Readership

Cement volumes are likely to grow by 6-7% in FY2026

ICRA estimates the cement volumes to increase by 4-5% to around 445-450 million MT in FY2025. While the volumetric growth in H1 FY2025 was modest at 2% YoY, impacted by slowdown in construction activity due to the General Elections and extended monsoon season, it improved to 6% YoY in Q3 FY2025. With the expected ramp-up in Government capex and Q4 being seasonally stronger quarter, ICRA expects 8-9% volume growth in Q4 FY2025, translating into full-year growth of 4-5% during FY2025. ICRA foresees cement volume growth of 6-7% to around 475-480 million MT in FY2026, supported by demand from the housing and infrastructure sectors. Volumes increased at a 10-year CAGR of 5% during FY2015-FY2024.

The major demand driver for cement in India is housing at 63-67%, of which rural housing accounts for around 35-37% and urban housing for around 28-30% of total demand. The infrastructure sector accounts for around 22-24% and the industrial capex around 10%.

Exhibit 1: Trends in cement volumes



Source: Office of economic advisor; ICRA Research

Exhibit 2: Growth Drivers

Rural and affordable housing	The GoI's focus on the agri-economy and rural development, which is reflected in the increase in the budgetary allocation by 32% to ₹4.4 trillion in FY2026 (BE) compared to FY2025 (RE), is expected to support income for farm households and thereby support demand for rural housing. Target construction of 300 lakh houses under the PMAY, both rural and urban, supported by an increase in budgetary allocation by 62% to ₹746 billion in FY2026 (BE) compared to FY2025 (RE), is expected to support cement demand.
Urban housing	The residential sales (area in msf) in the top seven cities have witnessed a 7% YoY decline in 9MFY2025 on account of lower-than-expected launches, which are likely to spill over to FY2026, and high base effect of 9MFY2024. For the full year, the area sold is likely to contract by 2-4% in FY2025, however, with the expected improvement in launches, backed by healthy construction progress, low inventory, sustained demand and comfortable sales velocity, residential sales are expected to rebound in FY2026 with YoY growth of 3-5% in area sold in the top seven cities. The reduction in income-tax announced in the Union Budget of FY2026 is expected to enhance the disposable income in the hands of consumers and is a positive for mid-income housing segments.
Infrastructure	Healthy increase by 10% in capital expenditure to Rs. 11.2 trillion in FY2026 (BE) over FY2025 (RE) is expected to support the growth in infrastructure, thereby supporting the demand for cement.

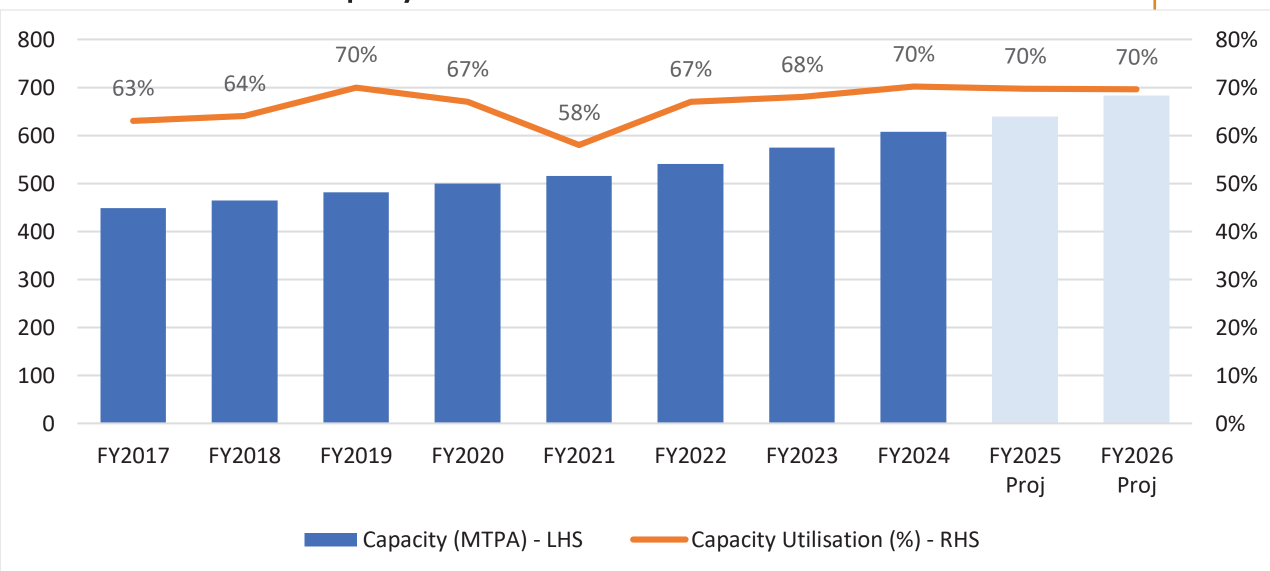
Source: Budget documents, ICRA Research

High upcoming capacities supported by healthy demand prospects

The installed cement capacity is at around 645 million MT as on September 30, 2024. With strong demand prospects supported by the healthy demand from the housing segment and the pick-up in infrastructure activities, the cement industry is likely to add 75-80 million MT capacity during FY2025-FY2026, of which 32-35 million MT is expected in FY2025 and around 43-45 million MT in FY2026. The eastern and southern regions are expected to lead the expansion and may add around 43-45 MTPA (equally split between the regions) during FY2025-FY2026.

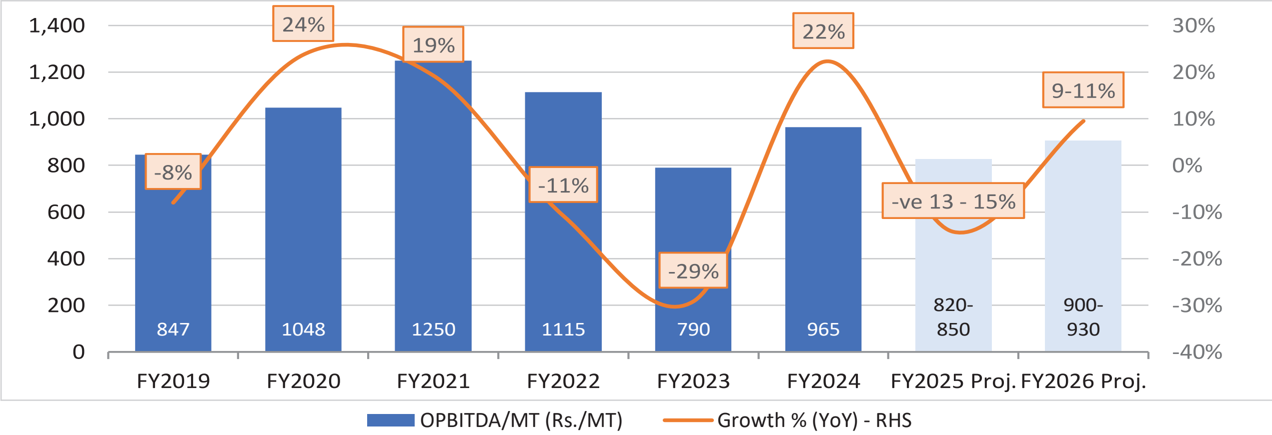
The volumetric growth resulted in the rise in the industry's utilisation levels to around 70% in FY2024 from 68% in FY2023. The capacity additions are likely to keep the capacity utilisation levels around 70% in FY2025 and FY2026. While in some regions like the North, the North East, the East and the Central, the cement players' utilisation levels are likely to be higher than the national average, in other regions like South India, the same is likely to remain muted, given the past capacity overhang.

Exhibit 3: Trends in cement capacity utilisation



Source: ICRA Research

Exhibit 4: Yearly Trends in OPBITDA/MT for ICRA's Sample Set



Source: Quarterly financial results, Investor presentations, ICRA Research

OPBIDTA/MT expected to increase by 9-11% to ₹900-930/MT in FY2026

Cement prices have declined by 10% YoY in 9M FY2025 due to moderation in demand. However, there has been a decline in the coal, pet coke and diesel prices in 9M FY2025 by 29%, 17% and 2% YoY, partially offsetting the pressure on OPBIDTA/MT. The ICRA's sample of cement companies[1] reported OPBIDTA/MT of ₹965/MT in FY2024 supported by stable net sales realisation and lower input costs (majorly power and fuel costs). However, lower cement prices are expected to result in a decline in OPBIDTA/MT by 13-15% to ₹820-850/MT in FY2025.In FY2026, with likely increase in realisations by 1-2% YoY and stable cost structure, the OPBITDA/MT is estimated to increase by 9-11% to ₹900-930/MT.

Leverage and debt coverage metrics for ICRA's sample companies likely to remain comfortable

In FY2025, ICRA expects the revenues for its sample set to increase marginally by 1-2%, largely supported by volumetric growth of 6-7%, despite estimated decline in net sales realisation by 4-5%.The operating margins are likely to moderate by 130-180 bps to 15.6-16.1% in FY2025 owing to moderation in net sales realisation, despite benign input costs. In FY2026, the revenues are expected to increase by 10-11% and the operating margins may improve by 70-120 bps to 16.8-17.3% due to a likely improvement in cement prices. On the brighter side, while the capacity addition is likely to witness an increase in FY2025-FY2026, the debt reliance is expected to remain on the lower side owing to the strong liquidity of cement companies, resulting in healthy debt coverage metrics. The leverage, as indicated by Total Debt/OPBIDTA, is likely to be comfortable at 1.3-1.4xin FY2025 and is expected to further improve to 1.1-1.2x in FY2026, driven by an improvement in earnings. The coverage, as indicated by DSCR, is estimated to be healthy at 2.8-2.9x in FY2025 and is likely to increase to 3.0-3.1x in FY2026.

Industry going through a wave of consolidations

Backed by healthy demand prospects for the cement sector, large cement companies are looking to increase their capacity and maintain market share through organic and inorganic expansions. While organic growth is expected to continue in the medium term, cement companies are also preferring the inorganic route to boost capacities rapidly, leading to consolidation in the industry. There were 15 mergers & acquisitions in the 2016-2024 period in the cement industry with the average cost of the M&A ($80/MT) being lower than the cost of setting up an integrated greenfield cement plant ($110–120/MT), thus leading to capex cost savings. Further, the acquirer would get access to ready-made capacity, limestone reserves and the acquisition prevents them from the hassle of longer gestation periods. The market share of top five cement companies increased from 45% as of March 2015 to 55% as of March 2024 and is expected to further increase to 60% as of March 2025. The eastern and western regions are leading the consolidation with expected increase in the share of top five cement players by 22-25% from FY2015 to FY2025. Southern India, though highly fragmented, is also expected to witness some consolidation with increase in the share of the top five cement companies from 40% in FY2015 to 50% by FY2025. EPC World

ANUPAMA REDDY V
Vice President &
Co-group Head
ICRA

[1]ICRA's sample includes ACC Limited, Ambuja Cements Limited, JK Cements Limited, JK Lakshmi Cement Limited, The India Cements Limited, The Ramco Cements Limited, UltraTech Cement Limited, Dalmia Bharat Limited, Birla Corporation Limited, Shree Cement Limited, Sagar Cements Limited, Heidelberg Cement India Limited

Our target is to achieve 80 MTPA capacity by 2028

We are confident in driving sustained growth while delivering long-term value to stakeholders, says **SATISH CHANDER**, Chief Manufacturing Officer, Shree Cement

With the growing focus on sustainability, how is your company addressing carbon emissions and adopting green technologies?

We are actively working to reducing carbon emissions and adopting green technologies through continuous innovation, process improvements, and digitalization. Over 55% of our electricity needs are met through green sources like Waste Heat Recovery, Solar, and Wind energy. In FY 23-24, this transition led to the avoidance of 0.94 million tons of CO2 emissions. Our installed green capacity currently stands at 521 MW, with an additional 150 MW under various stages of construction. Our blended cement products not only cater to diverse customer needs but also significantly reduce our carbon footprint. In FY 23-24, blended cement accounted for 73.52% of total production, cutting CO2 emissions by 7.2 million tons. Additionally, we substitute conventional fuels with alternatives like Refuse Derived Fuels (RDF) from municipal waste, hazardous industrial waste, and agricultural residue. A state-of-the-art, end-to-end solid waste feeding system has been implemented for municipal waste at one location and is being replicated across others to boost alternative fuel use and enhance our Thermal Substitution Rate.

We have installed India's largest air-cooled condensers (ACC), cutting water consumption by 90%. Our Zero Liquid Discharge policy ensures that all wastewater is reused within plant premises, minimizing freshwater usage. In select locations, treated municipal sewage water substitutes for fresh water. As we expand our production capacity to 80 million tonnes by 2028, we remain committed to enhancing renewable energy use, improving energy efficiency, and setting new sustainability benchmarks, while ensuring digital technology drives our environmental initiatives.

How are you leveraging digital and AI-driven solutions to enhance manufacturing efficiency, optimize logistics costs, and mitigate the impact of increasing input costs, particularly energy and raw material prices?

Digital and AI-driven solutions are central to our strategy for enhancing efficiency, optimizing logistics, and managing rising input costs. We've integrated AI and Machine Learning (ML) into various aspects of our manufacturing process. AI-powered predictive maintenance reduces downtime and extends equipment life, while ML algorithms analyse real-time production data to optimize operational parameters, improve product quality, and reduce energy consumption. Additionally, automated process control and blending optimization technologies in our cement and raw mills improve operational performance, enhance efficiency and consistency, laying the foundation for future innovations.

On the logistics front, we have implemented digital solutions like the Logistics Control Tower, which provides real-time visibility into truck and rake movements. This allows us to plan and optimize deliveries, ensuring customer demand is met while keeping costs low. Our custom-built Shree Sahyog application automates freight bidding and bill approvals, reducing manual effort and speeding up operations. This has streamlined processes, cut turnaround times, and significantly improved overall efficiency. To counter rising energy and raw material costs, our AI systems optimize energy usage by analysing consumption patterns and minimizing wastage. These digital innovations ensure operational efficiency, sustainability, and cost competitiveness in an evolving market.

What are the major growth targets, expansion plans, and strategies your organization is aiming for in this calendar year?

Shree Cement is focused on sustainable growth, strategic expansion, and operational excellence. With cement demand rebounding, especially in affordable housing and infrastructure, we are poised to capitalize on new opportunities. Our target is to achieve 80 MTPA capacity by 2028, supported by an investment of ₹4,770 crore in FY25 for key projects in Rajasthan, Karnataka, Chhattisgarh, and Uttar Pradesh. As we grow, we continue to strengthen brand equity and enhance premium offerings to meet evolving customer needs. As part of our expansion strategy, We are rapidly scaling Bangur Concrete, aiming for ~100 plants in 50 cities over the next three years, creating ~3,000 direct and indirect jobs. Our Ready-Mix Concrete (RMC) venture is progressing steadily, with seven operational plants and a new greenfield facility in Hyderabad. Additionally, our Uttar Pradesh plant is producing Autoclaved Aerated Concrete (AAC) Blocks—a sustainable, lightweight, and high-insulation building material.

Cost optimization remains a priority, driven by process improvements, automation, and digitization. By expanding our market presence, strengthening brand positioning, and enhancing customer experience through technical expertise and service excellence, we reinforce our industry leadership. Simultaneously, we remain committed to minimizing environmental impact and leveraging digital transformation for consistent product quality and cost efficiency. With a strong foundation and forward-looking approach, we are confident in driving sustained growth while delivering long-term value to stakeholders.

How do innovation and technology adopted by your company help you maintain a competitive edge in the market?

Innovation and technology are key to maintaining our competitive edge, especially from the dealer's perspective. Our commitment to digitalization has enhanced operational efficiency and decision-making. Centralized control across our plants through SCADA and PLC systems ensures streamlined production and real-time monitoring. The integration of IIoT and BI dashboards enables faster, smarter decisions, ensuring optimal production and high-quality cement delivery. For dealers, real-time insights ensure reliable, timely deliveries, improved inventory management, and reduced stockouts or excess inventory—boosting customer satisfaction. Our focus on cost optimization through innovations, such as using agro-waste in our grinding units, has lowered production costs, allowing us to offer competitive pricing that benefits our dealers. Our green energy initiatives, including a 56% green share in electricity consumption, contribute to long-term sustainability, reducing costs and strengthening our brand's reputation. By continually investing in cutting-edge technologies and innovative processes, we empower our dealers to remain competitive, delivering superior products and services to their customers. EPC World

Reshaping the cement industry

The business dynamics of mergers and acquisitions

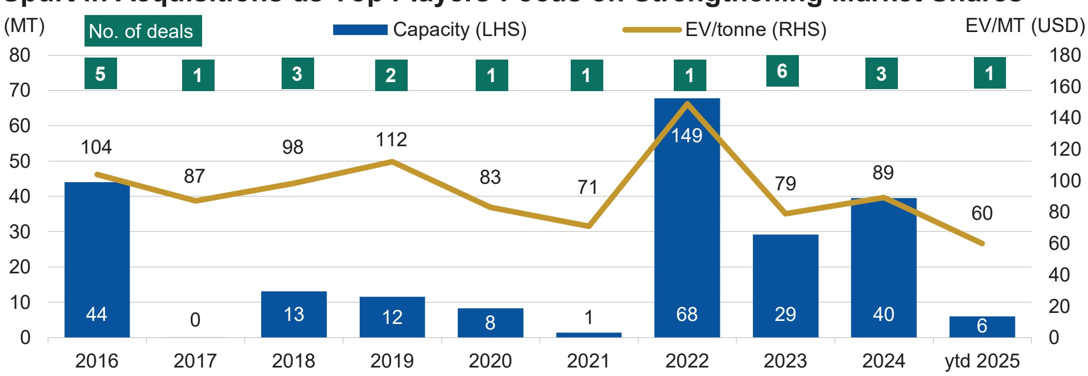
This article analyses the key mergers and acquisitions that have taken place in the recent past and delves into how these deals are influencing production capacity, pricing strategies, and overall industry growth

Indian cement industry has been witnessed a massive wave of consolidation in the past couple of years after the change of ownership of the second largest cement player in FY23. The consolidation would continue with more acquisitions likely to be announced in the near-to-medium term, given the aggressive medium-term capacity targets of leading players that are unlikely to be fully achieved organically. The capacity share of top five players, which increased only 100bps between FY10-FY20, is likely to cross 60% in FY25 (FY20: 53%) with the announced organic and inorganic expansions. While consolidation could increase pricing power of the leading players over the medium-to-long-term, the race for market share has increased the sector's competitive intensity due to which cement prices are likely to remain under pressure in the near-term as players try to maximise volumes and gain market share. This will lead to the gap between the leading and the small players to widen given the wider presence and better cost efficiencies for large players. As a result, while the balance sheets of large players are likely to remain healthy given the headroom to absorb subdued profitability, pockets of stress could build in the mid-sized space over the next couple of years.

Acquisitions at all-time high: The cement industry has seen a significant rise in inorganic expansions over FY24-FY25 with 10 deals comprising around 65 million tonnes (mnt) capacity announced, mostly by the market leaders. The Indian cement industry had witnessed its largest M&A deal in FY23 with 67.5mnt of domestic cement capacity changing hands from Holcim to the Adani Group which set the ball

Figure 1

Spurt in Acquisitions as Top Players Focus on Strengthening Market Shares



Source: Ind-Ra, Company reports

rolling for acquisitions in the industry. The acceleration in the M&A activity is stark, with over 130mnt of capacity changing hands in between FY23-FY25, highest ever in a 3-year period. Infact, only around 110mnt of capacity changed hands in the preceding 10 years.

While the valuation of cement units is linked to various factors such as cost efficiency of plants, extent of clinker integration, limestone reserves and brand and distribution strength of the target, the average valuation of integrated units in the recent past has been USD70-90/mt, which is lower than cost of constructing a greenfield, integrated plant. While the acquisition costs often also consider additional cost likely to be incurred for plant improvisation particularly for stressed assets that may not have undergone all necessary maintenance, an acquisition helps the acquirer to obtain immediate access to markets or synergies in lead distance along with access to limestone reserves along with economies of scale.

Increasing competitive intensity to keep cement prices under pressure: The race for market share has increased the competitive intensity in the cement industry, putting pressure on cement prices. After a healthy growth of 8-9% over FY22-FY24, cement demand grew at a modest 3% yoy in 9MFY25, lowest in the last six years, hit by the fall in the union government capex (which was down 12% yoy in 8MFY25) in the election year even as demand from the housing segment grew. The 10% growth in capex in the union government's budgeted capex for FY26 over the revised estimate for FY25 is likely to drive a single-digit growth in cement demand. The revised estimate of INR10.2 trillion for FY25 indicates 7% growth, for which a significant push is needed in 4QFY25. However, the focus of the budget to boost consumption could aid cement demand from the housing segment, which forms around two-thirds of the cement demand.

The subdued demand coupled with the high competition resulted in the generally resilient cement prices falling 5-7% yoy in 9MFY25, sharpest in the past two decades. While some pick-up is likely in the seasonally strong 4Q, cement prices are likely to remain under pressure in the near-term given the sizeable capacities coming on stream. The weak pricing environment has affected the profitability of cement companies that are likely to decline across the board in FY25 with only a limited recovery in FY26.

Figure 2

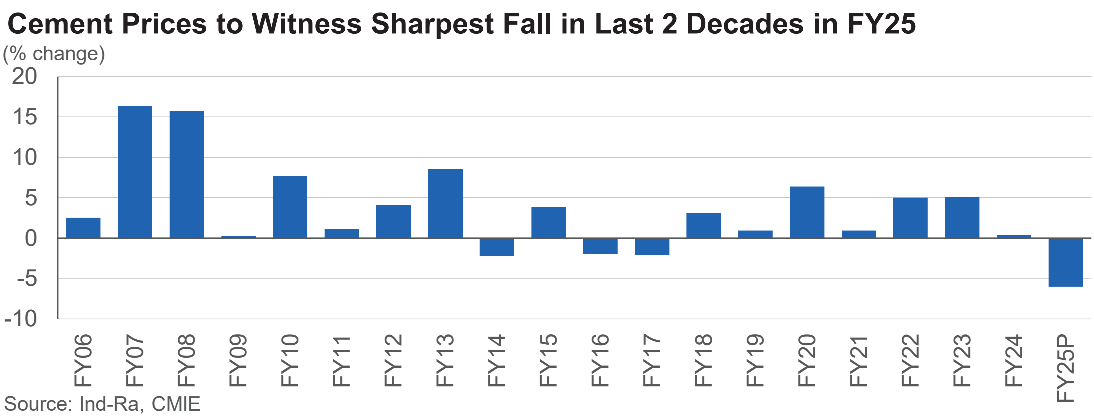
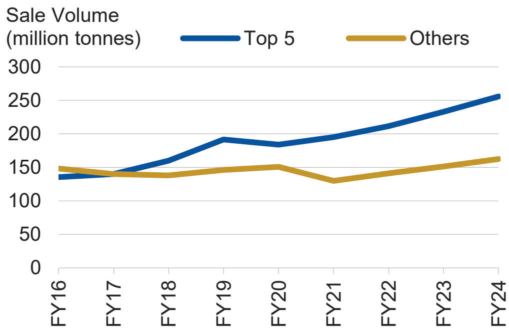
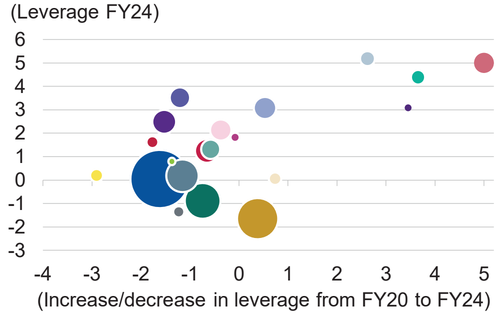


Figure 3
Widening Gap as Top Players Grow Faster than Average



Source: Ind-Ra, Company reports

Figure 4
Balance Sheet Health Stronger for Large Players



Note: Size of the bubble represents capacity
Source: Ind-Ra, Company reports

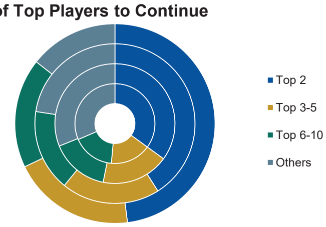
Widening gap between large and small players: The top five players witnessed a volume CAGR of around 8% over FY16-FY24, higher than the industry CAGR of 5%. The higher volumes along with better profitability have kept the balance sheets of large players healthy despite the expansions. In fact, the top five players witnessed a reduction in the net leverage between FY20-FY24. The sector overall has a strong balance sheet but there have been pockets of stress, particularly in the small-mid-sized space where companies have witnessed deterioration in the credit profile led by weak profitability typically coinciding with capex.

Further consolidation ahead: While India is the second-largest cement producer in the world after China, the per capita consumption is substantially below the world average. Given the demand potential emanating from the likely development in infrastructure and housing, significant investments have been planned over the next five years, with many leading players aiming at increasing capacities by 50%-200% over FY23-FY30.

However, this proportion of expansion (even after factoring some delay) may not be possible completely organically, as 1) the capacity would not be absorbed by the market and 2) resource constraints could impede expansion in some regions. Availability of adequate limestone reserves would also determine the fructification of these plans, given that reserve availability could be limited in geographies such as North and East, in addition to a massive increase in the royalty of limestone won through auctions. This is in addition to an increase in the capital cost of setting up greenfield integrated plants to USD110-120/mt (up 15%-20% post covid), which coupled with the subdued pricing environment could result in a low return on capital employed. These factors, in addition to the widening gap between the performance of large and small-to-mid sized players, make the market ripe for further consolidation.

Share of top players to rise; Large inorganic potential in South: The capacity share of top five players, which had increased only 100bp to 53% between FY11-FY20, rose over 100bp between FY20-FY24. This share is likely to increase to about 60% by the end of FY25 and by another 600-800bp by FY30 in view of the announced plans. Over 85% of the completed/announced acquisitions over FY23-FY25 have been done by the top 2 players.

Figure 5
Rise in Market Share of Top Players to Continue



Inner circle FY10, followed by FY20, FY25, outer circle for FY30
Source: Ind-Ra, Company reports

Notwithstanding the acquisitions carried out in the past 1-1.5 years, the southern market still offers high potential for inorganic expansion, given the high fragmentation and presence of several small-to-mid sized players many of which have witnessed a deterioration in their credit profiles given the pricing pressure over the recent past. EPC World

KHUSHBU LAKHOTIA
Director
India Ratings & Research

Registered with the Registrar of Newspapers in India under serial No. MAHENG/2010/34081 • Postal Reg. No. NMB/115/2020-22
Posted at Konkan Bhavan Post Offi ce, CBD Belapur, Navi Mumbai 400614 on every 16th and 17th of the month. Date of Publication - 15th of the Month.