

Knowledge that enables a stronger future



Intellectual Capital

Our intellectual capital drives product differentiation, process efficiency and low-carbon innovation. Continuous research, technical know-how and knowledge partnerships strengthen our ability to develop future-ready solutions. Innovation remains the key focus of our sustainability goals, helping reduce clinker intensity and expand green product offerings. Collaboration with academic and research institutions further deepens our technical capabilities and supports long-term competitiveness.

We combine R&D, customer-centric technical services and institutional partnerships to accelerate the adoption of blended and low-carbon cement. Knowledge-led engagement with customers improves application outcomes and builds confidence in new materials. Sustainability certifications and regulatory approvals reinforce the credibility of our solutions and strengthen brand trust in infrastructure markets.

FOCUS AREAS

Research and development

Corporate R&D

At Vijayanagar, Bellary

7

Quality control labs in plant locations

12

Filed patents

6

Granted patents

13

Collaboration with national and international Institutes

Digitalisation

Digital logistic control tower

Appointed to oversee the logistics process

Application ecosystem

- JSW Dealer Saathi App
- JSW Customer Saathi App
- JSW Aikyam Mobile App



STRATEGIES LINKED

S3

S4

RISKS ASSOCIATED

R3

R5

R6

R7

MATERIAL TOPICS LINKED

Data Privacy and Cybersecurity

UNSDGs LINKED



RESEARCH AND DEVELOPMENT

Our research and development efforts focus on advancing sustainable solutions that strengthen product performance and process efficiency. Continuous work across clinkerisation, grinding and quality control supports competitiveness and innovation. Partnerships with leading institutes enable applied and fundamental research in energy efficiency, circular economy and clinker factor reduction. Recent R&D efforts expanded our construction chemicals portfolio and introduced specialised solutions for modern construction needs. We also apply research to repurpose industrial wastes as alternative fuels, reducing fossil fuel dependence, lowering emissions and improving cost efficiency. This direction reinforces our commitment to innovation-led and sustainability-aligned growth.

Conserving natural resources

Our slag-based portfolio, led by PSC, composite cement and GGBS, enables a low clinker factor and supports our efforts to reduce CO₂ intensity and conserve natural resources.

Important collaborations

Our corporate R&D works alongside the JSW Steel R&D Centre at Vijayanagar and collaborates with leading institutes and startups to accelerate low-carbon and material innovation. Key collaborations include IIT Kanpur for piloting 1 TPD CCU and mineral carbonation of steel slag, IIT Delhi for pilot validation of LC3 cement technology, ENVICORE, USA for activation of iron ore slime as supplementary cementitious material, IIT-ISM Dhanbad for novel concrete admixture development, ECOCEM, Germany for demonstration of ACT technology in India, and Carbon to Stone, USA for carbonation and activation of steel slag.

Important trials

We continue to test emerging materials and processes that support low-carbon construction, circularity and resource efficiency. Current trials include a 1,200 sq ft model building for demonstration of JSW Geopolymer, demonstration of 3D printing technology using slag sand and Portland Slag Cement, pilot trials of Flash Calciner and Rotary Kiln processes for LC3 cement, plant trials with in-house developed concrete admixture, plant trials with Hot ESP dust at Shiva Cement, plant trials using slag sand to replace fine aggregate in concrete, and plant trials with durable low-carbon cement for concrete production.

Securing quality assurance

Our Vijayanagar R&D Centre anchors quality assurance and product consistency across operations. Advanced systems and plant-level laboratories support the full value chain, from raw material assessment to finished product validation. The core testing infrastructure includes X-ray fluorescence and diffraction instruments, optical microscope, thermo-gravimetric analyser, compressive strength testing machine, isothermal calorimetry, Fourier transform infrared spectroscopy, advanced wet classical chemistry instruments and rapid chloride permeability apparatus.

Delivering consistent quality

Structured quality protocols guide raw material selection, process control and product testing. Regular sampling and chemistry determination help control raw material quality, while detailed assessment of slag glass content ensures compliance with BIS standards. Microscopic analysis helps assess the quality and quantity of clinker phases, supported by mineralogical and chemical characterisation of clinker-based products.

OPC and slag cement products are evaluated for physical properties such as setting time, normal consistency, expansion, Blaine fineness and compressive strength to ensure compliance with BIS specifications. Established SOPs guide sampling, traceability assessment, analysis and instrument calibration. Periodic checks by third-party agencies and BIS further strengthen assurance across clinker and finished products.



DIGITALISATION

Digitalisation drives our operational efficiency and transformation into a tech-enabled organisation, strengthening plant operations, sales, payments and engagement across our value chain and channels.

During FY 2025-26, we advanced several technology-led initiatives across manufacturing, logistics, sales enablement, safety, dealer engagement and project management. These interventions are helping us improve real-time visibility, reduce manual dependencies, strengthen process discipline and create a more connected operating environment across plants and markets.

The current Digitalisation section already demonstrates a broad range of initiatives across manufacturing, logistics, sales enablement, customer engagement, safety and future digital roadmap.

However, elevating it from a project catalogue to an investor-focussed narrative would require stronger emphasis on AI and Industry 4.0 differentiation, strategic architecture and outcome-oriented storytelling. Those enhancements would position JSW Cement's digital journey as a key competitive advantage rather than a list of technology implementations.

Some JSW Cement's strongest differentiators can be highlighted:

- Model Digital Plant
- AI-driven Energy Forecasting
- IT-OT Integration
- Predictive Maintenance
- Digital Twin initiatives
- Historian Platform
- Digital Vision Analytics
- Integrated Command Centre
- AI-enabled Quality Prediction
- Smart Logistics Control Tower

We can also emphasise more on Artificial Intelligence Driving Smarter Manufacturing like:

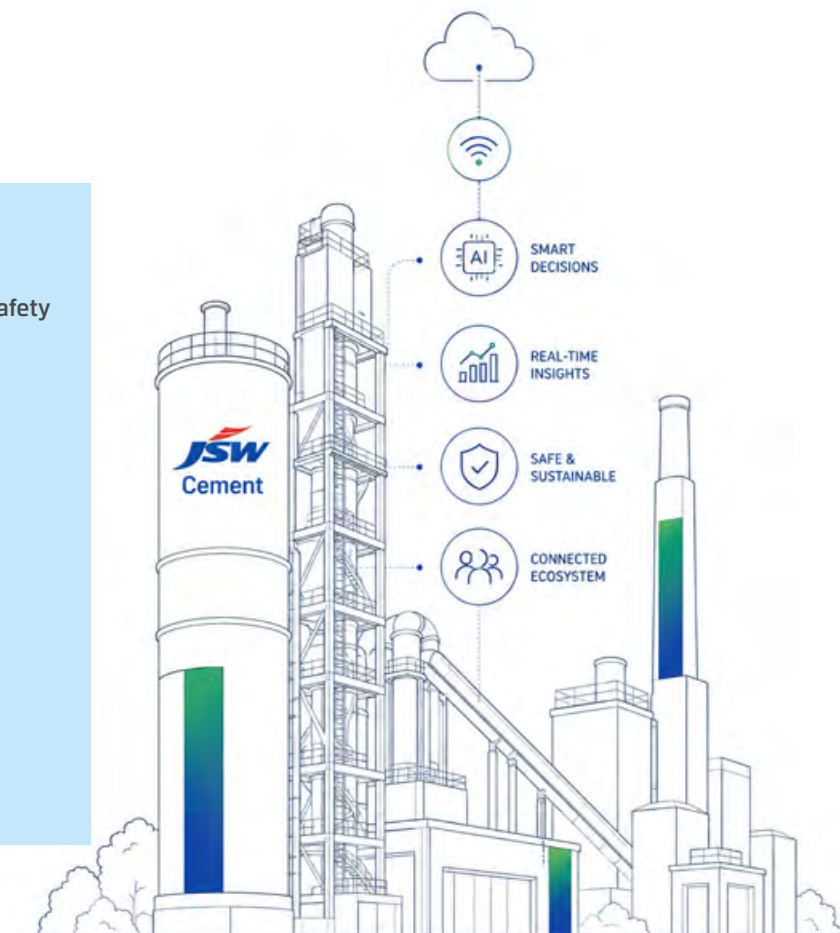
- Vision AI
- Predictive Maintenance
- Energy Optimisation
- Predictive Quality
- Intelligent Scheduling
- Computer Vision
- Generative AI

We can also highlight Digitalisation tied more explicitly to ESG outcomes:

- Reduced energy consumption
- Reduced CO₂ emissions
- Paperless operations
- Fuel optimisation
- Alternate Fuel monitoring
- Predictive maintenance reducing waste.

DIGITAL HIGHLIGHTS FY 2026

- 25+ Digital Transformation Initiatives
- AI deployed across Manufacturing, Energy & Safety
- Connected IT-OT Architecture
- Enterprise CRM across Trade & Non-Trade
- Digital Dealer Ecosystem
- AI-enabled Vision Analytics
- Predictive Energy Forecasting
- Advanced Process Control
- Digital Project Management
- Data-driven Decision Platform



Digitalisation strategy, execution and impact

Wave 1

- Laying the foundation in key functional areas
- Understanding the organisation's current state, including its technological capabilities, processes and culture
- Identifying digital trends, market dynamics, and competitive pressures
- Defining the vision, goals, and objectives of the digital transformation initiative
- Developing a comprehensive digital strategy and roadmap

Wave 2

- Digitalisation of existing processes, workflows and assets
- Focussing on digitising manual or paper-based processes, such as document management, data entry, and communications
- Optimising digital processes and workflows to enhance efficiency, productivity, and cost-effectiveness
- Leveraging advanced technologies such as robotic process automation (RPA), workflow automation, and data analytics to drive improvements
- Integrating digital tools and systems to enable seamless data flow and collaboration across the organisation
- Digitalising core functional areas like sales & marketing, operations, logistics and also customer experience

Wave 3 and Digital Vision 2026

- Shifting from incremental improvements to more fundamental changes in business models, operations and customer experiences
- Embracing disruptive technologies such as artificial intelligence (AI), machine learning, Internet of Things (IoT) and block chain to drive innovation and create new value propositions
- Exploring new revenue streams, markets, and business opportunities enabled by digital technologies
- Fostering a culture of innovation, agility, and digital literacy across the organisation
- Empowering employees to embrace change, learn new skills and contribute to digital initiatives
- Personalising customer experiences through data-driven insights, predictive analytics and omni-channel engagement
- Expanding digitally with best-in-class customer experience and logistics
- Digitalisation in manufacturing and RMC
- Sustainability, safety and security finance
- Data-driven decision-making

Guiding principles

Strategic transformation in key areas

- Transform end-to-end
- Customer experience
- Excellence in logistics service and cost
- Industry 4.0/APC in manufacturing
- Transform key finance processes

Value lens

- ROI is the key to digital investments
- Prioritise focus and investment
- Increase focus on safety and sustainability projects

Democratise digitalisation

- Low investment and quick
- ROI projects undertaken at plant level
- Short, well-defined sprints as per 'Angle'
- Fail-fast and learn-fast approach
- Promote horizontal and vertical deployment



Digital enhancements for manufacturing practices

Packer automation

We advanced packer automation across key manufacturing locations to improve despatch accuracy, loading efficiency and operational traceability. The project was delivered at Salboni, Dolvi, Nandyal and Vijayanagar Phase 1, with 100% operational accuracy in automated zones. Implementation is currently in progress at Nagaur, Jajpur and Jharsuguda, supported by a multi-plant rollout roadmap.

The solution uses AI-enabled cameras installed across the discharge belt, long belt after printing machines and the cross belt of truck loaders. The system enables bag counting at truck loaders, label print inspection and packer efficiency analytics, supported by detailed MIS reporting.

Key outcomes

- Reduced manual intervention in truck loading by approximately 70%
- Improved despatch turnaround time by 15-20%
- Eliminated shipment entry errors in automated zones after go-live
- Improved shipment data traceability to near real-time
- Strengthened despatch accuracy and reduced dependency on manual validation

Digital Vision Analytics Platform (DVAP)

We deployed the DVAP, to strengthen safety and security monitoring across plant operations. At Nandyal, more than 60 AI-enabled cameras were installed across critical operational areas to capture, monitor and report safety and security violations. The platform supports use cases such as fire detection, vehicle speeding, safety harness monitoring, PPE violations and other site-level compliance requirements.

At Nandyal, the system achieved 85% accuracy during the stabilisation phase. Dashboard onboarding and user training were completed. At Dolvi and Vijayanagar, adoption reached 75% during the rollout phase, with a target of achieving full adoption by Q2 FY 2026. Implementation at Nagaur is currently in progress.

Key outcomes

- Reduced manual approval time by approximately 40%
- Shifted vehicle clearance visibility from delayed reporting to real-time dashboards
- Improved compliance tracking efficiency by nearly 50%
- Standardised safety reporting across plants
- Strengthened accountability in plant-level safety and security governance

Smart conveyor belt health monitoring

We initiated smart conveyor belt health monitoring to improve equipment reliability and reduce production disruptions. The AI-based vision analytics solution is designed to detect issues such as joint openings, slashes, cuts, holes, damage from foreign objects and belt surface defects. It also addresses chute jamming risks caused by lump formation, stone chunks, moisture in material and reduced chute opening.

The solution is expected to support the shift from manual inspection to predictive monitoring, helping plants improve uptime and maintenance planning.

Expected impact

- 20-30% reduction in unplanned downtime
- 10-15% potential optimisation in annual maintenance costs
- Better process continuity through early detection of belt and chute-related risks

SAATHI 2.0 and app-led sales enablement

We continued to strengthen the SAATHI platform through Project NEEV, which delivered SAATHI 2.0 with an upgraded user interface, improved user experience and enhanced features. The upgraded platform was successfully rolled out in the North market and was supported through promotional flyers and snippet videos to improve adoption.

The platform has improved digital engagement among dealers and promoters. It has reduced navigation steps for key workflows by approximately 30%, increased user engagement and received strong qualitative feedback on usability.

Key enhancements

- Upgraded UI and UX for improved ease of use
- Higher acceptance among dealers and promoters
- Reduced navigation effort across key workflows
- Improved engagement time per user
- Stronger digital adoption across field and channel users

Sales Promoter App for non-trade business

We digitised promoter activity tracking for the non-trade business through the Sales Promoter App. The platform improves visibility of sales engagement activities and reduces manual reporting effort.

Electronic Proof of Delivery

We implemented Electronic Proof of Delivery to improve visibility across the delivery confirmation process. The solution supports faster reconciliation and reduces disputes linked to delivery confirmation.

Project Ekjoot

Project Ekjoot was implemented to centralise lead visibility across regions and improve sales follow-up governance. The platform helps reduce lead leakage and enables better tracking of conversion opportunities.

Digital enhancements for channel partners and customers

Smart customer onboarding

We are developing a Salesforce-based Customer Master Management System to simplify customer onboarding. The system will be accessed through the Sales SAATHI App and Non-Trade SAATHI App, creating a single digital entry point for customer code creation and onboarding.

E-KYC and dealer confirmation

E-KYC has been introduced in the Dealer and Customer SAATHI Apps to enable paperless upload of KYC documents. Quantity confirmation has also been digitised, allowing dealers to confirm monthly quantities directly through the SAATHI App. This reduces manual effort and improves process visibility.

My Safety feature

The Sales SAATHI App has been enhanced with the My Safety feature to support field teams. The feature includes an emergency toolkit with SOS, Medclaim e-card and other safety-linked tools for feet-on-street employees.

Dealer and influencer loyalty programme

We are onboarding digital platforms for the Dealer Loyalty Programme and Influencer Loyalty Programme. These platforms are designed to provide a seamless digital experience for earning, claiming and redeeming loyalty points, along with fulfilment tracking.



Digital roadmap 2026-2027

Ongoing initiatives

JSW NIRMAAN Integrated Project Management System

The JSW NIRMAAN Integrated Project Management System, or IPMS, is progressing as planned towards its targeted Phase 2 completion by July 2026. Significant progress has been made across application development, SAP integrations, workflow automation and stakeholder engagement. The platform is expected to improve project visibility, monitoring discipline and execution governance across the organisation.

Technical Academy 2.0

Technical Academy 2.0 is being developed to strengthen digital learning and capability building. The upgraded platform will include advanced modules covering kilns, mines, mills and other technical areas. Structured training modules and guided learning flows will improve onboarding, increase training accessibility and support stronger knowledge retention.

SAATHI App for RMC and CC business

We are extending the SAATHI platform to the RMC and CC business. The mobile app, being developed for Android and iOS, will digitally empower dealers through a unified platform for order placement, order tracking, sales performance review, service requests and access to financial statements. SAP integration is currently in progress.

Future initiatives

IT-OT integration at Dolvi

The IT-OT integration initiative at Dolvi is aimed at enabling seamless, real-time data flow from the shop floor to decision-making systems. The initiative supports the broader Industry 4.0 objective of improving automation, predictive maintenance, operational agility and data-led performance monitoring.

AFR monitoring

We are developing a digital solution for monitoring alternate fuel and raw material operations. The solution will support real-time monitoring of moisture variation, calorific value variation, alternate fuel sizing, composition identification and DCS integration to control energy input.

Leaders podcast

The Leaders Podcast initiative is being explored as a digital communication platform to deepen engagement, improve discoverability of leadership perspectives and create reusable content across internal and external communication channels.

Our digital focus areas

JSW CEMENT'S DIGITAL FOCUS AREAS

SUSTAINABILITY



Mining



Supply Chain



Manufacturing



Sales and Marketing



Finance

ADDITIONAL FOCUS

Safety, security, governance

Digitally-enabled sustainability and R&D

Continuous learning culture

Standard and AI/ML-enabled analytics

ANTICIPATED IMPACT



Increased sales



Increased asset availability



Improved safety



Cost optimisation



Emission reduction



Connected worker

ADDITIONAL FOCUS

Integrated IT+Plant Automation+Digital

- IoT, IT/OT In
- Data sciences, AI/ML
- Intelligent Analytics, BI+O1
- Edge-to-cloud
- Digital depots
- Leveraging startup ecosystem

Horizontal Vertical Deployment ENABLED BY:

Digital depots

- Digital learning
- One Digital team

People Upskilling

- 2-tier training
 - Mass awareness
 - Specialised deep-dive
- Digital Central (Group)
- Digital Confluence (Group)
- Digital Exchange (Group)

Objectives of our digitalisation initiatives

Operations improvement with advanced operations

How: Packer automation using computer analytics and AI-enabled cameras to monitor truck and wagon loading

Why: To raise efficiency and productivity by removing manual bag counting and label inspection

Improve sustainability to achieve Net-Zero goals

How: Energy forecasting and scheduling at the Dolvi plant

Why: To optimise energy use and support emission reduction through efficiency and alternative fuel strategies

Operations intelligence using AI-ML

How: IT-OT integration and advanced process controls

Why: To generate actionable insights, improve data reliability and support better planning through automation and predictive analytics

Safe and smart workplace

How: Digital vision analytics platform with AI-enabled safety monitoring

Why: To strengthen safety and security at critical plant locations



Harnessing digital efficiency

We use digitalisation to identify inefficiencies and reduce production disruptions, improving output, energy performance and product quality. Our plants track energy use, CO₂ emissions and quality parameters influenced by operating conditions such as humidity, vibration and temperature. Earlier, frequent manual adjustments were required across multiple variables. Automated root-cause analysis now supports process teams with timely insights and recommendations, helping reduce energy losses, stabilise clinker quality, maintain throughput and manage kiln feed variations.

Quarrying raw material	Quarrying
Crushing	Power balance
Prehomogenisation and raw meal grinding	
Preheating	Dust production
Precalcining	Waste heat use Dust production
Clinker production in the rotary kiln	Kiln fuel consumption
Cooling and storing	
Blending	Clinker and cement production, total clinker consumed
Cement grinding	Non-kiln fuel consumption
Storing in the cement silo	Power balance (indirect emissions)

DRIVING GREATER ORGANISATIONAL SYNERGY

Our digital initiatives streamline business processes and strengthen engagement with dealers and sub-dealers, supporting stronger relationships. These efforts improve customer service and satisfaction while raising operational efficiency.

Saathi app

We strengthen dealer engagement through the Saathi app suite. The Dealer and Customer Saathi apps allow order placement, payments and real-time tracking for trade and non-trade customers. The Sales Saathi app gives sales teams visibility into dealer history and financial health and supports timely grievance resolution. Together, these applications improve communication, transparency and efficiency, leading to stronger partnerships and a more resilient distribution network.

Aikyam App

Aikyam serves as a unified mobile platform across JSW Group businesses. It helps sales managers track upcoming infrastructure and housing projects and identify opportunities. Group-wide data integration provides actionable market intelligence for better planning and outreach.

Cybersecurity and Information Security Governance at JSW Cement

We follow a structured cybersecurity and information security framework to protect data and operational systems while supporting secure growth. Oversight sits with the Board-level Risk Management Committee, while a Group Head – Information Security leads execution and improvement.

Our security architecture includes next-generation firewalls, unified threat management and network segmentation. We also deploy cloud risk assessments, multi-factor authentication, real-time monitoring and phishing simulations to strengthen defence and awareness.

Our cybersecurity programme includes:

- Deep and Dark web monitoring and threat intelligence
- Secure remote access controls
- Continuous vulnerability assessments and penetration testing
- Defined escalation channels for incident reporting
- An organisation-wide Information Security Policy

We promote a security-first culture through mandatory employee training and periodic assessments. Incidents and violations follow a formal disciplinary process based on severity.

We maintain tested Business Continuity Plan (BCP) and Incident Response Plans (IRP) to ensure resilience. Our ISO 27001-certified ISMS is supported by independent audits and simulated cyberattacks to regularly evaluate preparedness.

Awards and Recognition

KOCH Award
for Model Digital Plant



Digital Transformation
Recognitions



Industry 4.0 Awards



AI Implementation Awards

BRANDING ACTIVITIES

FY 2025-26 was marked by execution-led marketing initiatives focussed on building brand salience, strengthening channel relationships, supporting business expansion and improving visibility across consumer and trade touchpoints. The marketing function supported new product introductions, regional expansion programmes and market-specific business priorities, ensuring sharper alignment between brand investments and commercial goals.

Building visibility through sports marketing

Sports marketing emerged as a key pillar of brand building during the year. The Company built a diversified sponsorship portfolio across cricket, kabaddi, football, rugby, hockey and fitness events, helping strengthen visibility and engagement across key markets.

Strategic associations with Haryana Steelers, Bengaluru FC, JSW Soorma Hockey Club and other sporting properties were amplified through on-ground activations, digital integrations, dealer rewards and consumer engagement programmes. These initiatives helped improve brand recall and affinity among dealers, contractors, influencers and individual home builders.

76 million

Cumulative reach across TV and OTT
through the India-England Cricket
Series partnership

19X

Media value return on sponsorship
investment through the Haryana
Steelers partnership

Deepening dealer engagement

Dealer engagement remained a major focus area during the year. The Company scaled its engagement efforts from regional interactions to larger dealer platforms through Annual Dealer Conferences, regional meets and product launch events across the country.

Premium product launches, including CHD Jal Kavach and Water Guard, were supported through dealer activation programmes across multiple states. These initiatives helped drive trade participation, product advocacy and stronger channel connect.

3,000+

Dealers and channel partners engaged
through ADCs, regional meets and
product launch events

There have been no penalties, fines, or adverse orders in relation to anti-competition, anti-trust, branding & advertisement, and marketing and labelling. However, there is one ongoing litigation pertaining to trademarks.

Expanding on-ground visibility

On-ground visibility execution expanded substantially during FY 2026. Trade visibility was strengthened through dealer boards, branding assets and market visibility initiatives across priority markets. This supported deeper market penetration, stronger point-of-sale presence and improved brand recognition in key trade channels.

Scaling digital and social media outreach

Digital and social media platforms delivered strong performance during the year. The content strategy focussed on product communication, project showcases, sports partnerships, sustainability initiatives and regional market activities. This helped create consistent brand conversations across platforms while supporting awareness and engagement.

43 million

cumulative consumer reach across
digital and social media platforms

