



Godrej Construction Achieves Planning and Delivery Assurance to Strengthen Sustainable Construction

nPulse Empowers Real Estate Management Division with Digitized Lean Construction

CREATING HARMONY BETWEEN CONSTRUCTION AND ENVIRONMENT

Godrej Construction is the estate management arm of Godrej & Boyce Manufacturing, and manages the construction and operations of industrial and residential units for all 14 divisions of the Mumbai-based company.

To build and maintain its engineering, infrastructure, and construction projects at a quicker rate Godrej Construction knew it needed to digitize its processes. Therefore it decided to create a connected data environment that would ensure consistent and timely delivery of its projects.

The company realized it had to find a solution that could deliver real-time mobile collaboration, predictive analytics, and immersive decision support for all stakeholders. They began their search for an application that could provide these features and integrate project lifecycle processes. They had already adopted lean construction as their underlying process philosophy and, therefore, were open to creating a technology enabler that would allow collaboration among various internal and external stakeholders.

Godrej Construction's purpose is "creating sustainable habitats for generations to cherish." Being committed to sustainable infrastructure and a circular economy, they needed to streamline project lifecycles to remain competitive and to strengthen their position in the marketplace. With a focus on recycling construction debris, this environmentally friendly approach secured them Indian Green Building Council (IGBC) certification, as well as global Environment Management System certifications for its projects. However, building a digital infrastructure would be integral to reducing their paper usage, while improving productivity and generating forward-looking KPIs that were imperative to maintain their profitability.

TRACKING THE CHALLENGES AND EVALUATING THE RIGHT SOLUTION

The inherent uncertainty of construction costs and schedules made it difficult to reliably achieve the defined KPIs. With lapses in their existing monitoring system, collecting critical data at the appropriate time became a challenge. The situation was compounded by a lack of collaboration among project stakeholders.

They were also hindered by a dependence on paper checklists and a lack of visibility into wastage, which increased their raw material, labor, and other costs. Moreover, the inability to acquire adequate and timely data analysis impacted their desire to monitor and measure the financial impact of delays in procurement and engineering.

Godrej Construction determined that a connected data environment would provide a central place where all project information would be available. They found that its existing monitoring system and collaboration capacity fell short. A connected data environment would make extracting critical information at the right time simpler, and enable project stakeholders to collaborate effectively.

The connected data environment was also envisioned to encourage realistic cost analysis in the face of rising raw material and labor costs by adopting a unique earned value method. This would improve the timeliness and quality of projects during handover.

They searched for a solution that would provide project controls of all EPC processes and eliminate wastage and dependence on paper checklists. They demanded predictive capabilities to meet stringent sustainability benchmarks and reduce the financial impact of delays in engineering or procurement. The company also wanted a proprietary version of the Critical Path Method (CPM) algorithm to improve its forecasting and planning efforts.

PROJECT SUMMARY

ORGANIZATION

Godrej Construction

SOLUTION

Industrial Construction and Estate Management

LOCATION

PAN India

PROJECT OBJECTIVES

- ◆ To implement strategic initiatives to have proactive visibility into annual and strategic business plans.
- ◆ To track projects easier through faster data capturing and automatic report generation.

PROJECT PLAYBOOK

nPulse[®]

FAST FACTS

- ◆ Godrej Construction, the estate management arm of Godrej & Boyce Manufacturing, manages the construction and operations of industrial and residential units of all 14 divisions of Godrej & Boyce Manufacturing.
- ◆ The company manages greenfield and brownfield expansion of Godrej & Boyce through construction and civil engineering services that include horticulture and landscape management.
- ◆ The company has a construction materials business that manufactures sustainable construction materials using recycled construction waste.

ROI

- ◆ 2800+ meetings involving 500+ users conducted over nPulse to enhance collaboration
- ◆ 2000+ inspections digitized eliminating all paper-based quality inspections and NCs
- ◆ Annual and three-year strategic business plans generated in real-time using information collated from various systems, and people.

“At Godrej Construction, we strive to exceed stakeholder expectations. With nPulse, we have been able to deploy nontraditional and innovative ways of working. The system delivers commitments to stakeholders and enhances our position as a leader in environmental and social responsibility.”

– Aneev Ansari, Head of Planning, Delivery Assurance, and Systems, Godrej Construction



Since Godrej Construction is driven to provide sustainable infrastructure for all 14 Godrej & Boyce Manufacturing divisions, it was necessary to implement digital processes.

AN INTEGRATED APPROACH TO SURPASS PERFORMANCE INDICATORS

Godrej Construction chose Bentley Systems’ nPulse to handle their digitization transformation in their real estate arm. nPulse helped the company create unique workflows for each sector and contract type by building an interconnected and integrated data environment that enabled new functionalities and modules.

They first used nPulse to remove resource hours that were being spent on email, office software, and meeting minutes by digitizing field and office workflows. Then, Godrej Construction used the software to launch a centralized collaboration platform for all external and internal stakeholders to upload data through browsers and mobile apps.

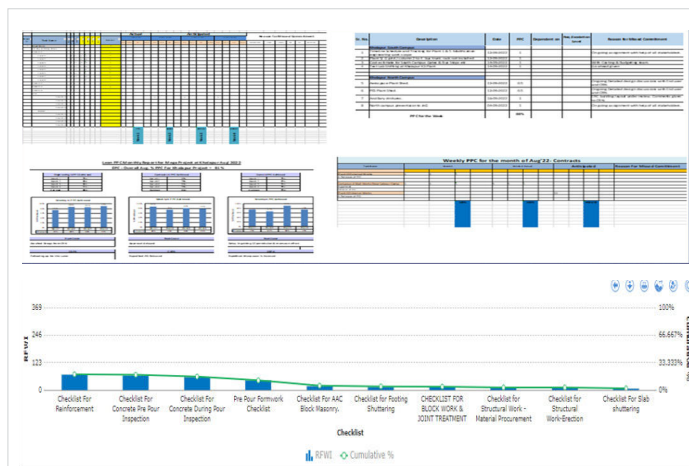
Lastly, Godrej Construction used nPulse to improve collaboration through a Meeting & Issues module that had configurable alerts and reminders. The process made last-mile data capture seamless, even from far-flung project sites, by making the company’s workforce mobile-enabled and always on. Time stamps and geospatial positioning system coordinates were made available with data shared with the central quality analysis team.

With actionable tasks in real time, Godrej Construction can now make data-driven decisions that mitigate delays and prevent cost overruns. Indeed, information-based decision-making is one of the primary benefits of past and present performance analytics and visibility that Godrej Construction has achieved through its use of nPulse.

The application has also provided the company with a robust control framework that integrates time, cost, and quality of projects to remove data silos. Reports and reminders are automated to remove any information lags that may impede business decisions. Dashboards contain lead indicator KPIs that provide four-to-six week lookaheads to streamline the company’s lean construction efforts. This has turned the focus from individual project management to portfolio management.

MEETING THEIR ENVIRONMENTALLY FRIENDLY INITIATIVE

nPulse’s integrated approach helped Godrej Construction reduce construction waste, which was a major performance indicator, and nPulse’s integrated approach brought the project team relevant expertise at each stage. The company’s processes are now more efficient and cost-effective than ever before. Moreover, the collaboration, transparency, and real-time information sharing that nPulse delivered have enhanced project sensitivity among all partners and suppliers.



nPulse’s connected data environment gives Godrej Construction a central place to access all project information.

THE DIGITAL ENVIRONMENT IS ENHANCING BUSINESS DECISION-MAKING

Godrej Construction deployed nPulse to meet the client’s needs for a digital transformation project that covers tracking and monitoring, collaboration, and performance analysis. The software helped them achieve real-time tracking and monitoring of over 850 projects since 2015, or more than 120 initiatives each year. Moreover, they were able to upskill over 500 users by training them to work with modern digital protocols. To date, over 2,800 meetings have been held over nPulse and more than 14,000 issues have been managed smoothly and efficiently using the platform.

All documents are now uploaded with pre-defined workflows to avoid redundancy or wastage. Customized alerts and indicators are set for commitments from different stakeholders so that everyone knows what needs to be done. This grants complete transparency and accountability through personalized dashboards so that business heads and leaders can make well-informed decisions.

By deploying nPulse Godrej Construction has realized a significant reduction in workflow processing time and project construction time as a result of this digitization. They no longer use paper, and have no defects or rework costs on important projects. Quality control has also improved, leading to a more engaged and motivated salesforce within the organization. As a result of these efforts, the Confederation of India Industry named Godrej Construction the Platinum winner in the Paperless Office category. Moreover, the company’s seamless audit compliances and ease of doing business are further boosting their profitability and reliability in a competitive marketplace.



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