



# Implementation of Ensō-LIMS at **NABL certified** Indian Cement Board Laboratory

CASE STUDY

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## 1. Project Details

NCB is the apex body providing R&D and technical services in cement and allied building materials. NCB was granted accreditation by NABL as per ISO/IEC 17025 for providing PT services covers cement, fly ash, aggregate, limestone, coal/pet coke, clinker, granulated slag and water for concrete in Mechanical & Chemical field.

NCB comes under Ministry of Commerce and Industries Govt. of India. Before using Enable IT Solution Pvt Ltd ENSOLIMS system NCB was using a Laboratory Information Management System developed by an American Company, as the maintenance cost of that software was very high, they decided to migrate into new advance LIMS solution software. With respect to that NCB lunched an open tender for procurement of new LIMS software, which was floated in the year 2015. Their main objective was to find a cost effective system that would drive NCB Laboratory processes and improve testing efficiency.

## 2. Scope of Work

NCB wants to increase the operational efficiency of the laboratory by automating and streamlining the workflows. ENSOLIMS covers the journey of a sample from its induction into a laboratory till the end of its life cycle, including the stages of Sample Storage, Testing, Reporting and Archiving. As a sample is introduced into a lab, the LIMS operation starts by accessioning the sample on to the system and assigning it with a particular identification number. As and when the samples move through the laboratory, the related information can then be updated in ENSOLIMS system to maintain the audit trail.

Key objective of LIMS for NCB - Research and development of innovative technologies with cement and construction industries are:-

- To develop a LIMS system handling 200+ concurrent users
- To enhance quality, productivity and cost-effectiveness
- To develop competency and productivity in human resources.
- To develop an inbound internal connectivity through local network across premises of 2 acres
- Improved quality control department of laboratory workflows.
- To develop technologies for durable infrastructure and affordable housing

### 3. Challenges

**NCB wanted a cost-effective Laboratory Information Management System (LIMS) that can meet the following requirements:**

- Acquiring data from previous existing system
- Managing complete hardware set-up for entire department of NCB
- Manage a large number of Multiple Sample on a day-to-day basis.
- Huge amount of technical data from multiple project location to be acquired and processed.
- Huge amount of efforts were needed to maintain work-flows and necessary reports for audits.
- Maintaining a complete Chain of Custody (CoC) of samples, right from the samples registration to their final disposal, ensuring complete sample traceability at all times.
- Work assignment and tracking was extremely difficult resulting in effort and cost over-runs
- Manual data acquisition and calculations led to human errors in reports.
- All this was causing huge deviation from core area of focus that is research and analysis

### 4. Solution

**Assessment of business process led to the idea of web-based integrated system that will cover:**

- Customer data management
- Quotation process
- Sample management

- Task management
  - Test data processing
  - Invoice generation
  - Real - Time Reporting
  - Maintenance & Calibration Management
  - Inventory management
- Secured access to remote branches through VPN

## 5. Outcome Benefits

National Council for Cement & Building Material, Haryana (NCB) has received a fully configurable and scalable system meeting regulatory compliance of **NABL ISO: 17025** with comprehensive sample inventory management with a record of test results. NCB was able to come up to speed quickly, given that his legacy data, tests and template for the report were pre-loaded in the system.

ENSOLIMS takes the effort out of sample reception, tracking and testing. It also now provides the lab with the accountability and security features that were once lacking to maintain the integrity of samples and test results. Since ENSOLIMS has simplified the sample collection and tracking process for the lab,

Laboratory Information Management System (LIMS) has streamline NCB operations of Reporting by generating custom reports for Clients and Management. National Council for Cement & Building Material now has more time to focus on quality assurance and servicing of clients.



***“We are extremely pleased with the work done by Enable IT Solutions Team, with the implementation of ENSOLIMS, our sample logging, analysis and results delivery to our clients are done in real time, thereby helping our clients to schedule production on time”***