Indian Foundation For Quality Management

# OctaQube

A unified digital platform to institutionalize 8-stage problem solving, automate 7 QC tools, and accelerate plant excellence every single day.



*Redefining Quality*

Indian Foundation For Quality Management

# Why OctaQube?

**Unstructured problem solving**
leads to repeated defects
and inconsistent results.

**Manual Excel & paper tracking**
causes data loss, delays
and version confusion.

**Lack of visibility & governance**
makes it hard to review, guide
and learn from improvements.

That's the motivation for
building **OctaQube.**



# Introducing OctaQube

Indian Foundation For Quality Management

The foundation for institutional quality: standardizing daily execution and continuous Kaizen.

★ **OctaQube** is the enterprise operating system for managing Quality Circles, 8S Problem Solving, and Six Sigma projects.
It bridges the gap between shopfloor operators, facilitators, and executive management.

## 1 Standardize (8 Stages)

- Plan & Establish Team
- Define Problem
- Interim Containment
- Determine Root Causes
- Choose Permanent Corrections
- Implement Corrective Actions
- Take Preventive Measures
- Congratulate Team & Closure

## 2 Automate (7 QC Tools)

- Pareto
- Ishikawa
- Histogram
- Control Charts
- Scatter Correlation
- Checksheets
- Stratification



## 3 Govern (Review Gates)

**Multi-tier signoff workflows,**
only at Stage 1 (Plan & Establish Team)
and Stage 8 (Congratulate Team & Closure)

**Requests, immutable audit logs,**
facilitator oversight

**Assistance channels,** and
executive ROI dashboards

# Why we built OctaQube — and what keeps it working

Indian Foundation For Quality Management

**The goal:** Build a structured, data-driven system that institutionalizes 8-stage problem solving, automates QC tools, and drives measurable improvements every day.

## THREE SOURCES OF DATA

### Plants & Departments
Operational data, KPI targets, process information

### Quality Circle Teams
Project details, 8-stage progress, QC tools data

### Reviewers & Facilitators
Reviews, feedback, guidance, best practices

**One verified record per project**

## WHAT THAT MAKES POSSIBLE

### Right insights, right actions
Real-time visibility enables better decisions

### Disciplined execution
Standardized 8-stage workflow ensures quality and consistency

### Measurable impact
Track metrics, validate results, and drive continuous improvement




## WHAT KEEPS THE DATA GOOD

### Data Integrity
Validated inputs, audit logs, and access controls

### Quality is Shared
Teams create value, reviewers ensure quality

### Motivation & Recognition
Ratings, rewards, and recognition drive continuous participation

### Insights for Growth
Dashboards and reports help leaders plan better and act faster

## AND IT COMPOUNDS

More teams contribute → The record gets stronger → Search & matching get better → Everyone gets more value

which gives more reason to contribute

Indian Foundation For Quality Management

# How OctaQube works

From setting up the platform to driving continuous quality improvement and measurable business impact



**Admin** 01

### Set up

- Configure plants, departments & users
- Define KPI targets and thresholds
- Setup 8-Stage workflow & QC tools

→

**Project Creation** **Team Member/Leader** 02

### Create Project

- Form the quality circle team
- Add team member/leader
- Assign roles & collect initial data

→

**Team** 03

### Work on 8 Stages

- Follow 8-Stage problem solving workflow
- Use 7 QC tools interactively

ⓘ Submit for review only at Stage 1 (Problem Definition) and Stage 8 (Closure).

→

**Facilitator** 04

### Guide & Support

- Provide guidance on methodology & QC tools
- Clarify doubts at each stage
- Support teams to ensure quality

→

**Reviewer** 05

### Review at Key Stages

- Review & provide feedback at Stage 1 (Problem Definition)
- Final review & approval at Stage 8 (Closure)
- Ensure quality and compliance before closure

→

**Reviewer** 06

### Recognize & Standardize

- Recognize teams for successful projects
- Drive standardization and update knowledge base for reuse

**CEO** 07

### Monitor & Improve

- Track real-time KPI and project health
- Measure financial impact & ROI
- Drive continuous improvement across the organization

### Running throughout

Stage gates, audit logs, assistance, and real-time dashboards ensure accountability, transparency, and continuous improvement.

Real-time visibility | Data integrity | Better collaboration | Measurable outcomes

One platform. Standardized problem solving. Measurable results.
**Better quality. Lower cost. Stronger performance.**

# High-Level Platform Architecture

## OctaQube – Quality Circle Management System

Indian Foundation For Quality Management

### Presentation Layer
Responsive Web Application (Class UI)
Role-based Dashboards

### Access & Delivery
Web / Mobile Access
Secure Delivery

### Security
JWT Authentication
RBAC, RLS, Audit Logs
Data Encryption

### Infrastructure
Cloud / Containerized
High Availability
Auto Scaling

### ADMIN / CEO (Executive Level)
- Plant KPI Targets
- Dept. Health & ROI
- Executive Reports
- Approvals & Rewards

### REVIEWER (Governance Level)
- Stage Gate Review
- Validation & Sign-off
- Revision & Comments
- Audit & Compliance

### FACILITATOR (Expert Level)
- Methodology Support
- Assistance Chatbot
- Statistical Validation

### TEAM LEADER & MEMBERS (Operational Level)
- 8-Stage Execution
- 7 QC Tools Data Entry
- Action Plans & Tasks
- Kaizen Submissions

HTTPS (SSL Secured)

### OCTAQUBE CORE APPLICATION CAPABILITIES
- Dashboards & KPIs
- 8-Stage Workflow
- 7 QC Tools Engine
- Projects & Teams
- Documents & Attachments
- Notifications & Alerts
- RAG-AI Assistant
- Knowledge Repository
- Reports & PDF Export
- Audit Logs & Timeline
- Settings & Configuration
- Help & Support

### 8-STAGE WORKFLOW ENGINE
1. Identification & Initiation
2. Observation & Data Collection
3. Cause Identification
4. Root Cause Analysis & Verification
5. Countermeasure Planning
6. Implementation & Change Mgmt.
7. Performance Verification (ROI)
8. Standardization & Closure

### INTEGRATIONS
- Email & SMS Notifications
- Razorpay Payments
- File Storage (Assets & PDFs)
- BI / Analytics Tools
- Webhook API (Extensibility)

### BACKEND SERVICES (FLASK REST ENGINE)
- API Gateway & Routing
- Auth Service (JWT)
- User & Role Service
- Workflow Service
- Business Logic & Policy Engine
- Notification Service
- Report Service
- RAG Service (LLM + Vector)

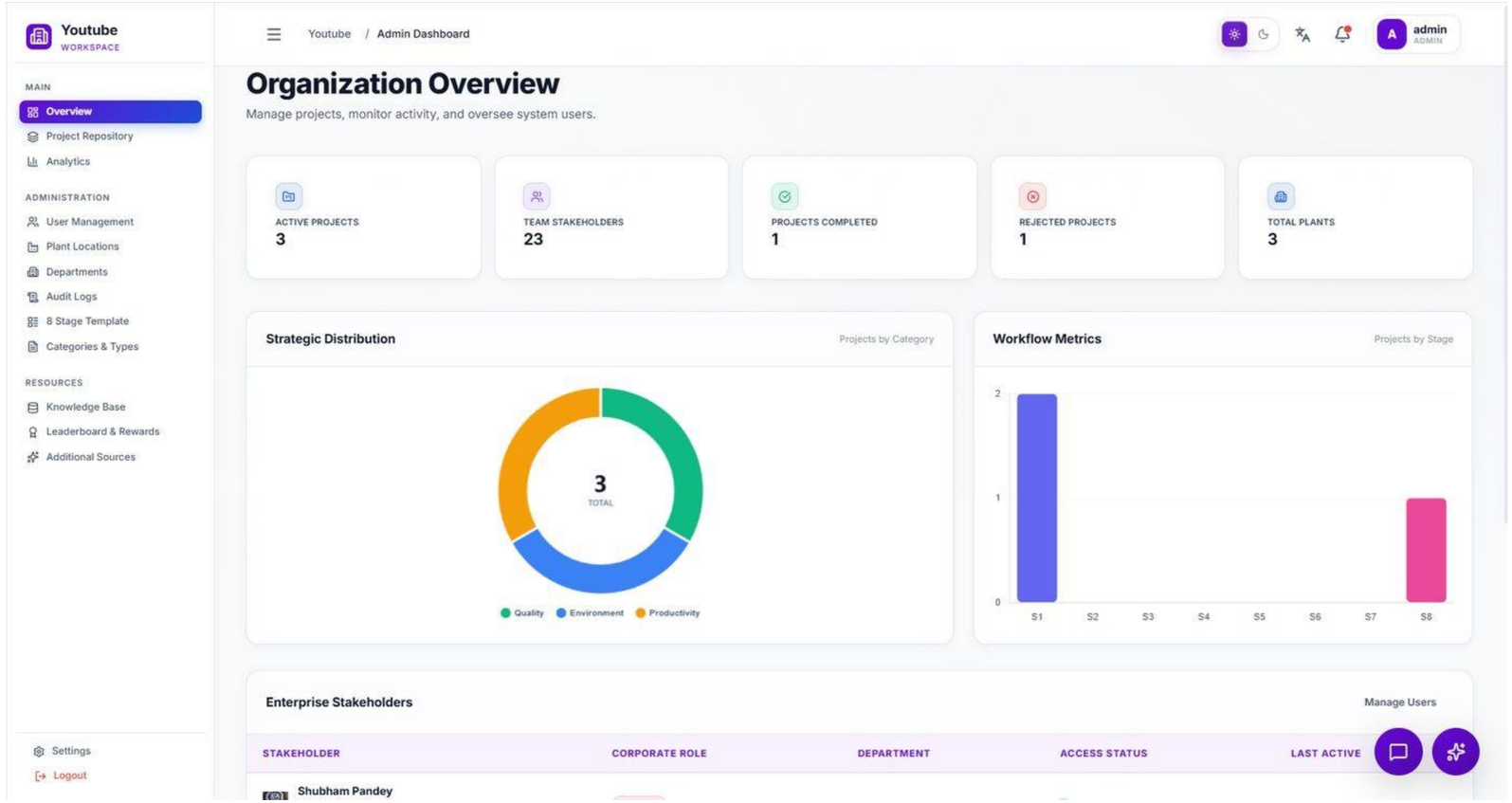
### DATA & STORAGE LAYER
- PostgreSQL (Primary RDBMS)
- pgvector (Vector Store)
- File Storage (Uploads / PDFs)
- Cache (Redis)
- Backup & Snapshots
- Audit Logs (Immutable)

Row Level Security (RLS)
Tenant Isolation (org_id)

### CLOUD INFRASTRUCTURE
- Cloud Hosting (Hostinger)
- Docker Containers & Orchestration

- User Interaction / Access
- External Integration
- Data / DB Connection
- Infrastructure / Deployment

# Organization Admin Dashboard




### Real-Time Financial & KPI Metrics

Automatically tracks cost savings, KPI improvements, and annualized ROI from Stage 7 validations.

### Automated Attention Flags

Identifies stopped stages, SLA breaches, and inactive circles before deadlines are impacted.

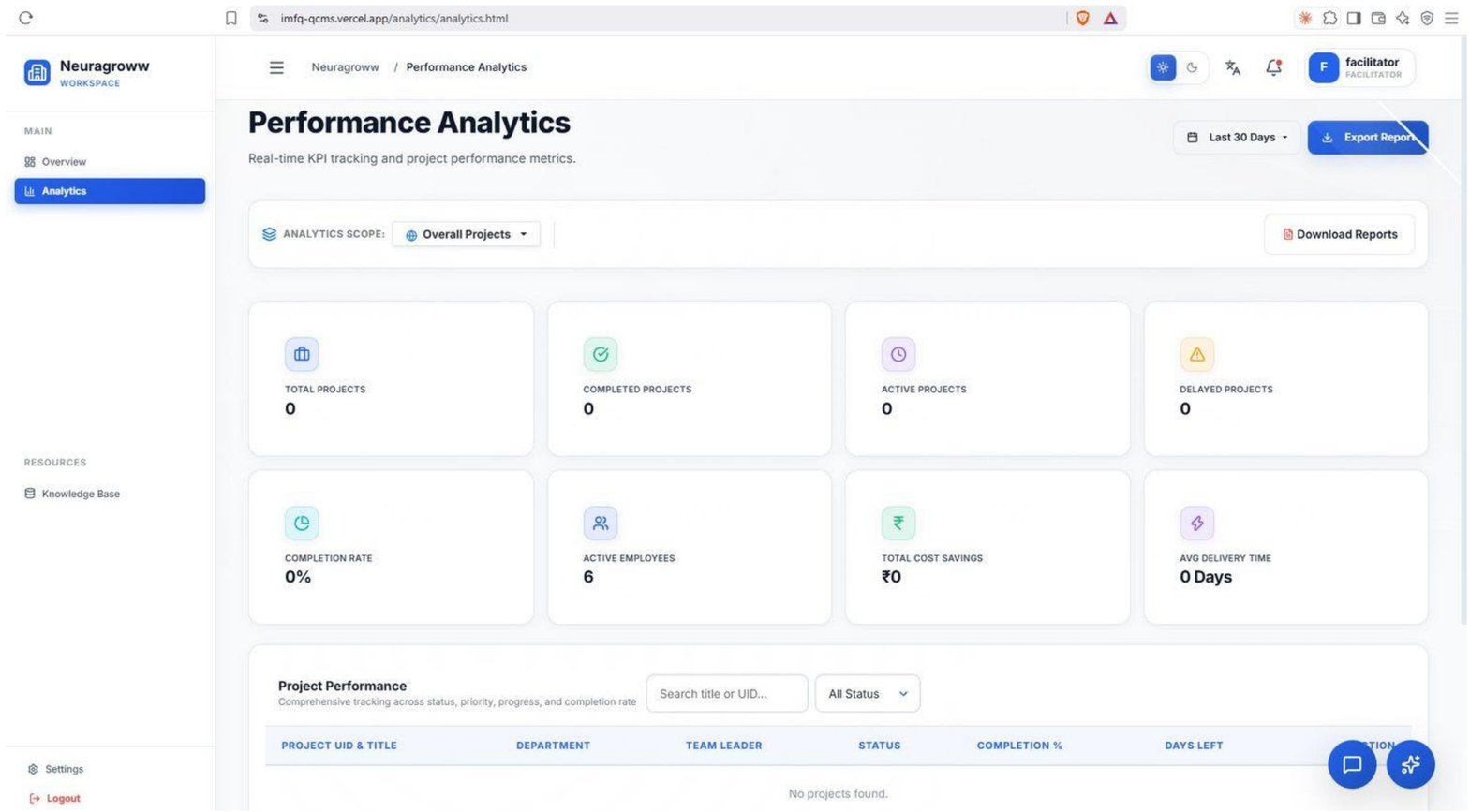
### 1-Click Executive PDF Export

Generates board-ready audit reports and department benchmark presentations instantly.



Confidential · OctaQube Enterprise Solutions

# Reviewer & Facilitator Governance Hub




### Strict Stage-Gate Enforcement

Teams cannot skip steps or jump to solutions without formal Reviewer approval.

### Two-Way Facilitator Assistance

Direct messaging and mentoring channels per stage to resolve tool selection and statistical doubts.

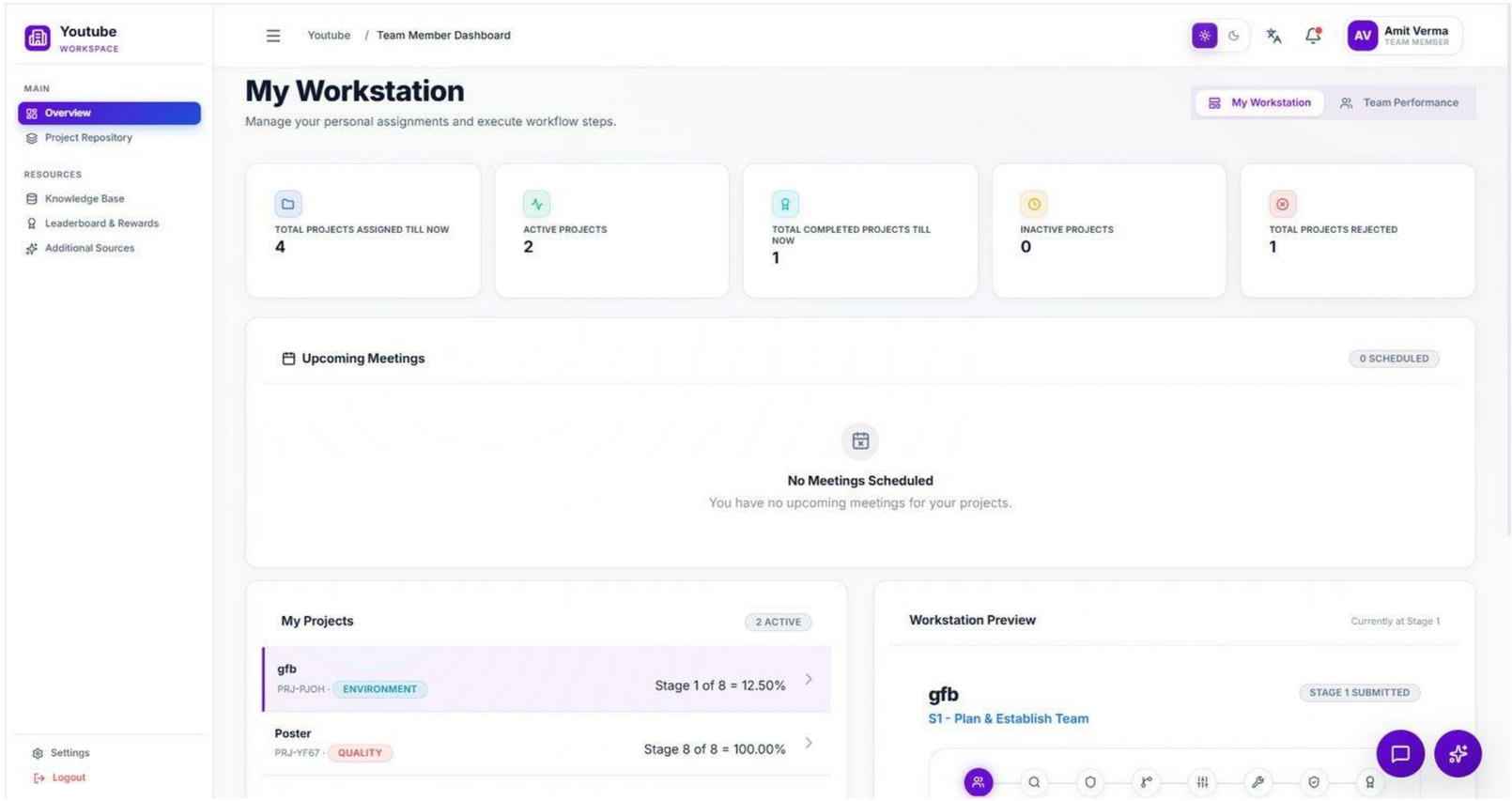
### Immutability Snapshots

Approved stages are permanently snapshotted and locked for regulatory and audit compliance.



Confidential · OctaQube Enterprise Solutions

# Team Leader & Member 8S Workspace




### Guided 8-Stage Progression

Step-by-step forms pre-filled with project team metadata, automated dates, and 5W2H problem scoping.

### Native 7 QC Tools Rendering

No third-party drawing software needed—enter raw shopfloor data and instant charts render automatically.

### AI Quality Co-Pilot

Instant historical suggestions from past archived projects across the enterprise.



Confidential · OctaQube Enterprise Solutions

Indian Foundation For Quality Management

# Thank You



Indian Foundation For Quality Management