India’s 1st Digital Project Management Platform: 5D BIM Integrated with SAP ERP
Challenges in Mega Construction Projects

- Cost Overrun
- Time Overrun
- Quality Adherence
- Weak Document Management
- Lack of Effective Asset Management

1st Integrated 5D BIM & ERP For Metro Project

- Better Project Management Through 5D BIM
- Visualise Real Metro Virtually
- Convenience backed by Technology
- Real Is Virtual Is Real

Manage Projects Through 5D BIM + ERP

- 5D: Cost Monitoring on visual BIM model
- 4D: Time progress on visual BIM model
- 3D: Visualisation through BIM Models & Object collaboration
- 1D: Conventional CAD Drawings

Digital Project Management Platform

- OSO (Owner’s Support Office)
- Digital Project Management Platform
- ERP (Enterprise Resource Planning)

Top business benefits of using BIM for construction project owners

- Improve Construction quality
- Significantly reduce lifecycle cost
- Better understand design projects end to end
- Optimize operational efficiencies & Increase use rate

- Reduced document Error s& omissions: 61%
- Reduced Rework: 36%
- Reduced Construction Cost: 30%
- Reduce Project Duration: 22%
- Fewer Claims/ Litigations: 17%

Integrated 5D BIM

Intelligent 3D Models
- Have additional information, Dimension, Coordinates, Volume etc.
- Information further utilized for processing

Engineering Collaboration
- Usage of Collaborative platform for managing engineering design & drawings
- Platform will be used across eco system (NMRCL, DDC, GC, Contractor etc.)
- Establishing common understanding across stakeholders

Asset Information Management
- Asset tagging with the models
- Track assets and sub assets
- Which can be further used during operation & maintenance phase

Design Reviews
- Common platform for Design/Drawing
  - Transmittal
  - Review
  - Approval

Project Schedule 4D
- Time dimension (4D) added to Intelligent 3D model - Primavera integration
  - Project progress can be tracked live
  - Monitor planned vs. actual progress

Project Cost 5D
- Cost dimension (5D) added to Intelligent 3D model - SAP integration
  - Monitor actual vs. estimated cost
  - Simulate actual progress with cost
Metro Case Study: India’s First Linear Mega Project using 5D BIM integrated with ERP

Digital Platform: Adding Value at every stage

- Easy collaboration environment minimizes coordination efforts
- Dynamic allocation of reviewers
- Maintain intelligent information (Graphical & Non-Graphical)
- Clash detection & conflict resolution
- Reports to help minimize delays in review of drawings
- Customizable dashboards to monitor design & drawings management

Design & Planning

- 5D simulation & visualization
- Office automation
- Change order management to track variation in quantities, change of materials.
- Single platform for enterprise level reporting
- Repository of construction phase data to act as reference during O&M phase

Execution & Monitoring

- Timely & cost effective
- Maintenance processes
- Asset information management
- Maintenance Dashboards
- Efficient asset management

Operation & Maintenance

- Engineering practices combined with project management practice
- Single source of truth to avoid duplication
- Highest level of visibility in megaprojects
- Reduction in lifecycle cost
- Faster delivery of project with highest quality

Overall Benefits

About Highbar Technocrat Limited

Highbar Technocrat Limited is a leading end-to-end IT solution provider with its portfolio of enterprise business solutions, line of business IT solutions, process consulting & IT Infrastructure services aiming at increasing efficiencies for the infrastructure industry. IT expertise backed by industry domain knowledge differentiates Highbar as preferred partner for IT initiatives for infrastructure industry. Highbar has developed SAP certified templates based on industry best practices enabling customers to achieve business efficiencies. Highbar is now offering IT services across multiple sectors like manufacturing, BPO, Agro-Chemicals, Telecom, Consumer Products, Pre-engineered Buildings etc. Highbar is a preferred partner for SAP implementation & re-implementation with eleven global case studies.

Highbar Technocrat Limited
D-Wing | 14th Floor, Empire Tower | Reliable Cloud City | Off. Thane Belapur Road | Airoli, Navi Mumbai 400 703 | India | Tel: +91 22 6279 2000 / +91 9821222810 (D)
Email: enquiry@highbartech.com Website: www.highbartech.com