



DIGITAL TRANSFORMATION
ENABLING
RESILIENT AND SUSTAINABLE
URBAN DEVELOPMENT



SMART CITY
THE FUTURE OF URBAN
DEVELOPMENT

"We'll never live in the Smart Cities of tomorrow if we continue to rely on the technologies and infrastructure of yesterday"

-Mr Patrick Spedding -
Technology Leader

This Process is Fastest Adopting
Across the World

DIGITAL TRANSFORMATION

LEADING TOWARDS

- Data-Driven Decision-Making
- Smart Infrastructure
- Efficient Resource Management
- Improved Transportation
- Community Engagement



BIG Add-Values

- Complete Process Automation
- Instant & Continuous Improving Results
- Infinite Scalability
- One-Size-Fits-All Approach
- Better Utilization of Human Resources

DIGITALIZATION
SOLUTIONS
FOR
BROWNFIELD FACILITIES
& ASSETS

AS-BUILT ENGINEERING



STEPS TO BE TAKEN

- BROWNFIELD PHYSICAL ASSETS DIGITIZATION
- CONVERSION INTO DIGITAL FORMS

CONNECT WITH
LATEST ADVANCEMENTS IN APPLICATIONS

AS-BUILT CAPTURING



Above Ground : Capturing as-built data of above-ground structures



Plant and Equipment Level : Capturing as-built data of plant and equipment level structures



Underground : Capturing as-built data of underground structures

DIGITALIZATION

FINAL DELIVERY ON
3D ENGINEERING PLATFORM

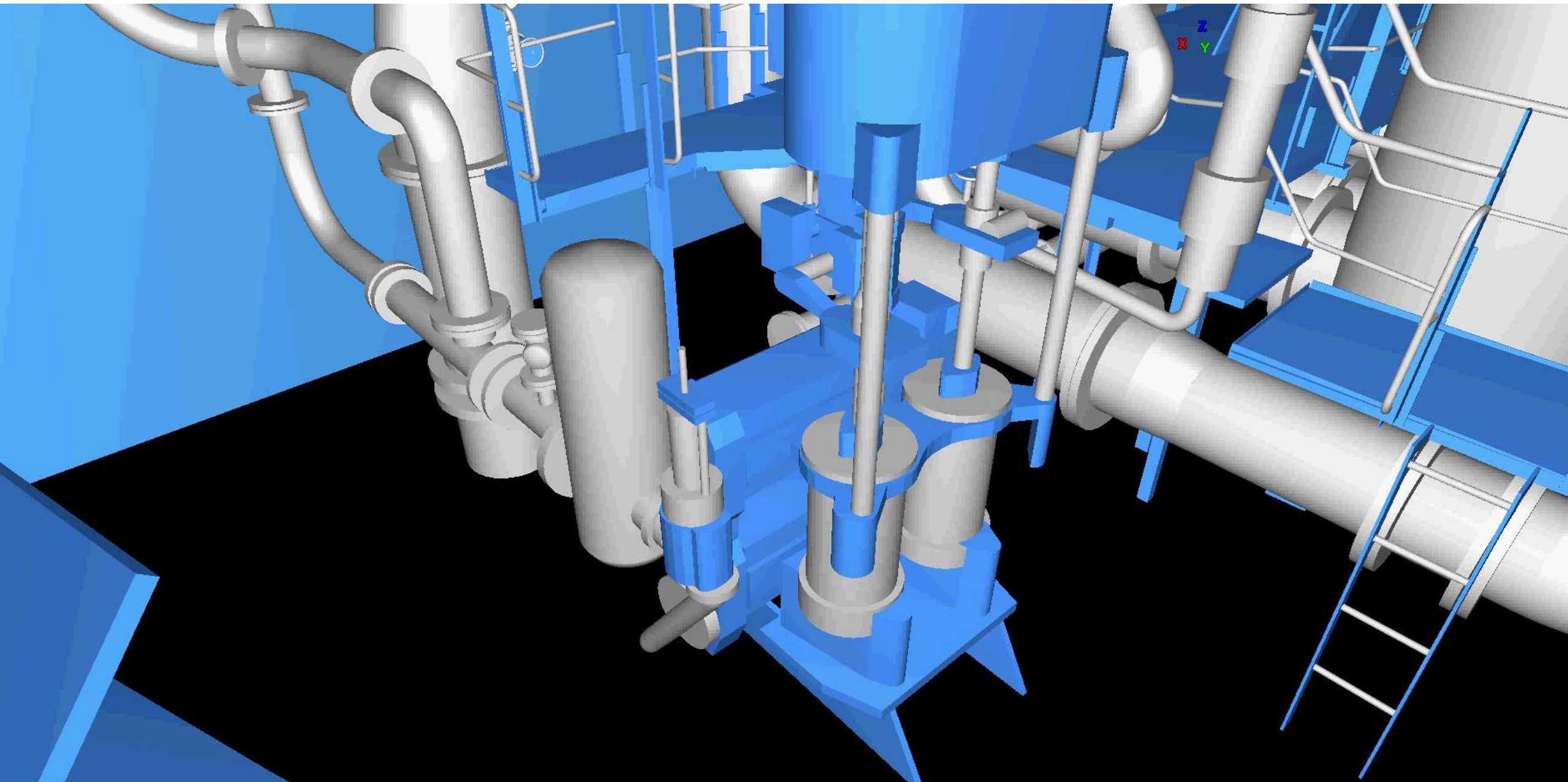
AS BUILT DETAILS COLLECTIONS

- By 3D Scanning
- Collection of all Detail Inputs
- Collection of All Necessary Specifications

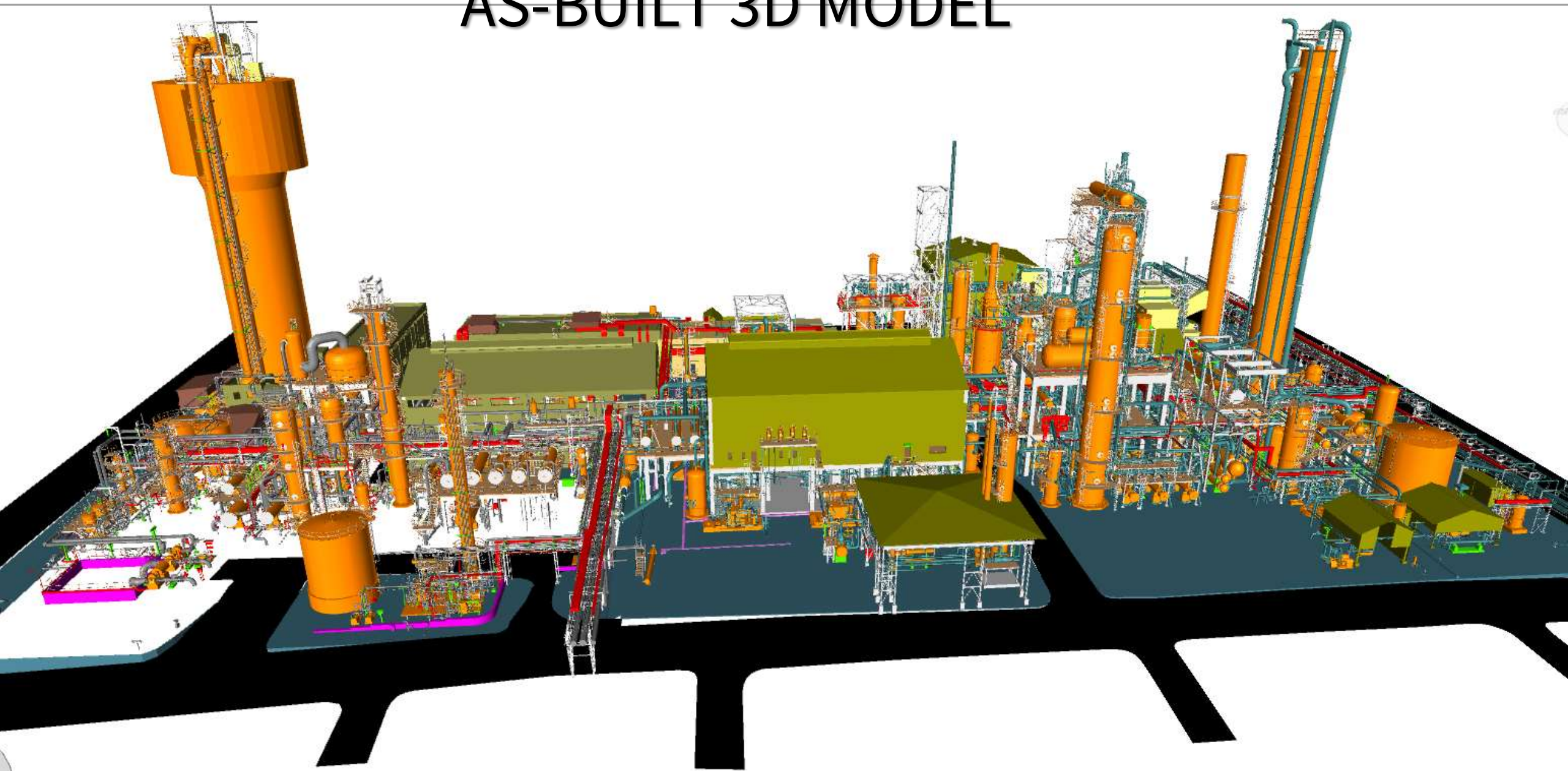


A 3D point cloud model of an industrial wellhead. The model is rendered in a dark, semi-transparent style, showing the complex structure of the wellhead and its associated piping. The pipes are color-coded: a prominent red pipe runs diagonally across the center, and several yellow pipes are visible at the top and bottom. The background is a dark, textured point cloud of the wellhead's structure.

From Point Cloud Data 3D Model Generation



AS-BUILT 3D MODEL

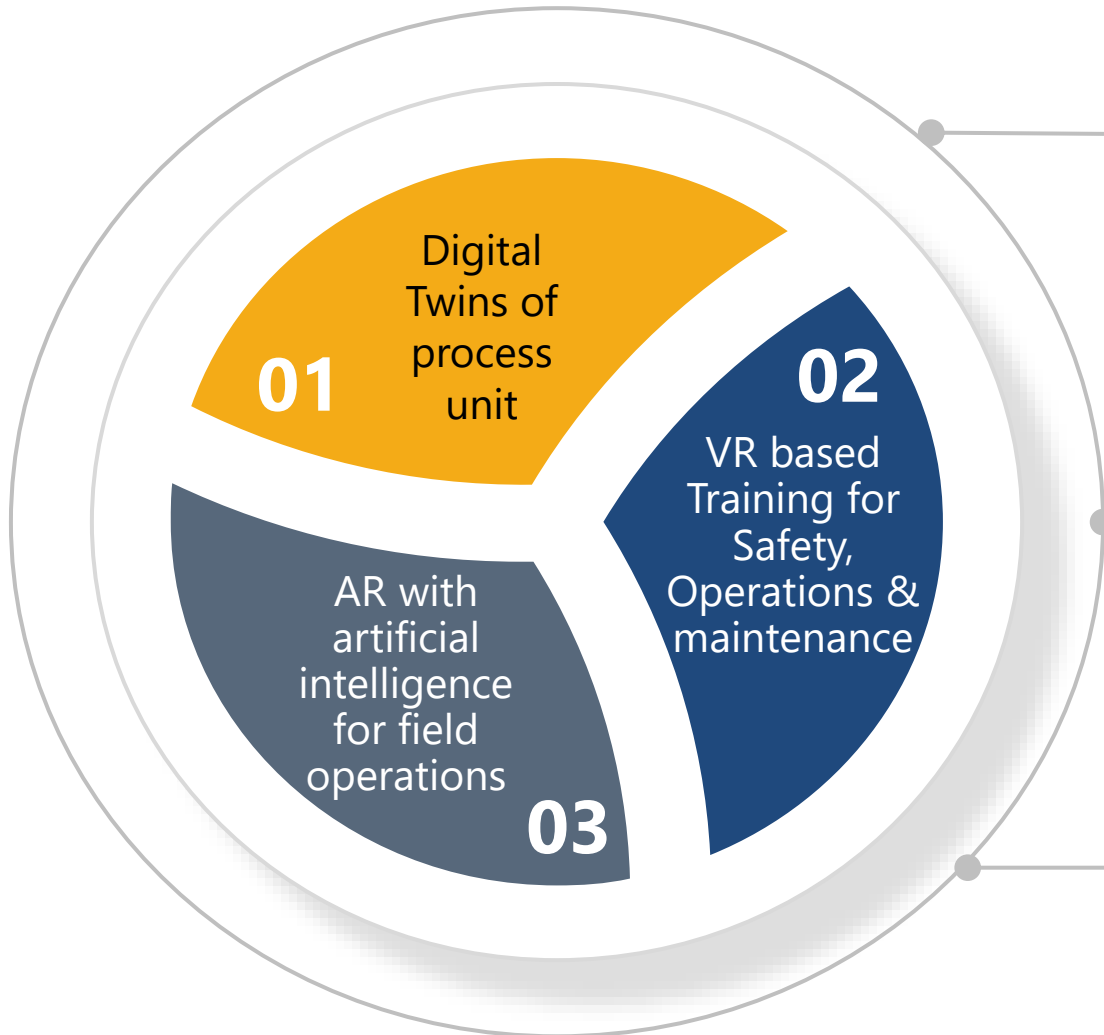




AS-BUILT EXCELLENCE

**Capture. Design.
Secure.**

"The future of Industry"



- Refining Existing Infrastructure
- Creating Accurate Digital Representations
- Mechanical, Civil, Electrical, Instrumentation, and More



- Training & Orientation
- Operational Training
- Maintenance Training
- Safety Protocols.



- Integration with Plant System Data
- AI Engine - "DIGITWIN"
- Real-Time Monitoring



VR TRAINING
– IMMERSIVE &
INTERACTIVE



OPERATORS CAN BE
TRAINED IN VIRTUAL
WORLD BEFORE GETTING
EXPOSED TO REAL PLANT



AI MONITORED TESTS TO
REVEAL BEHAVIOURS AND
COGNITIVE SKILLS

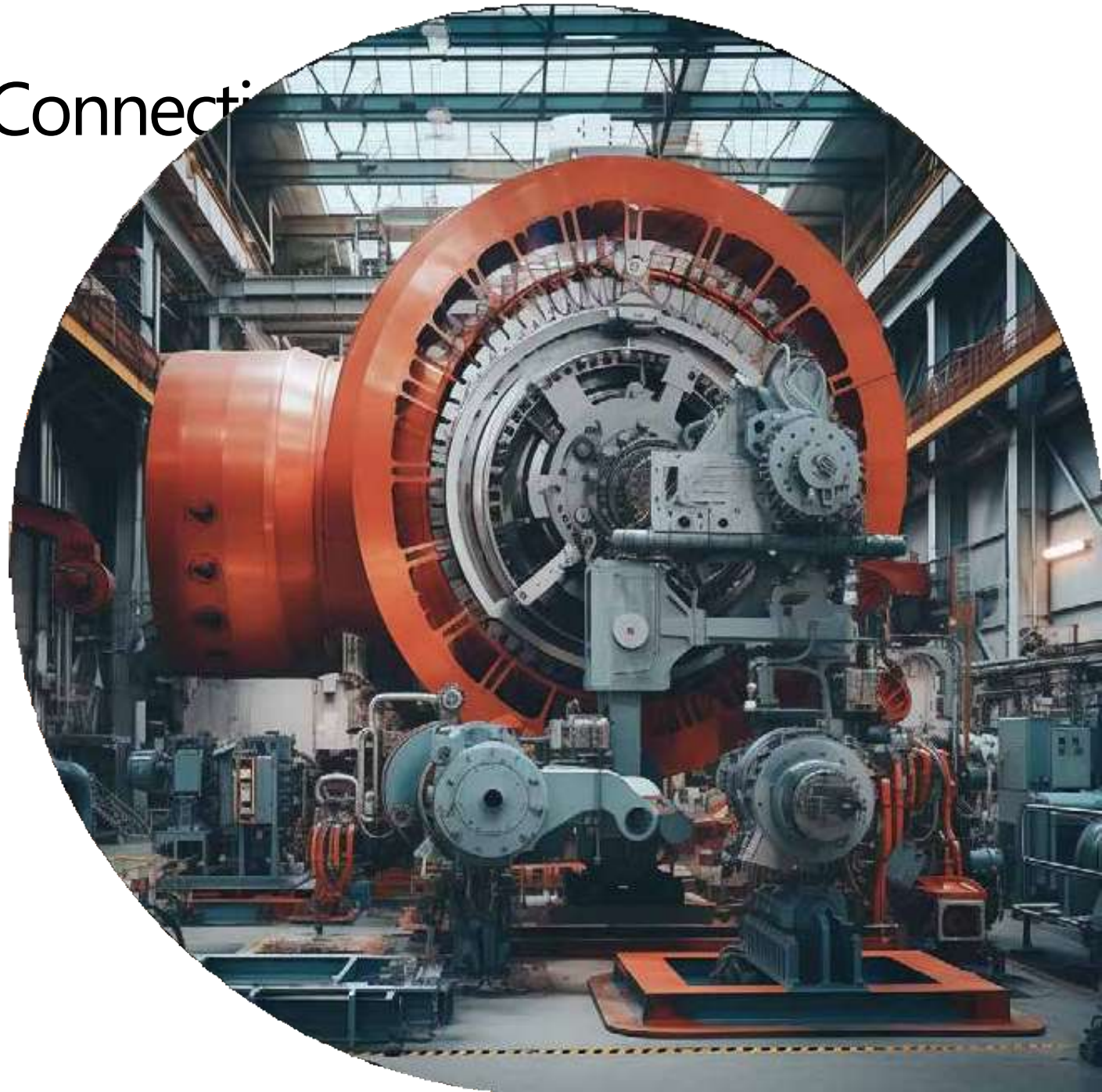


SIMULATE HAZARDOUS
SITUATIONS

VR Base Training with in-built Artificial Intelligence

AR with AI & Metaverse Connected Based Field Operations

- Effective use of AR to train field operations
- Field Operator can be empowered with online access of data from system
- Field Operator can be guided with on-line Mentoring by expert sitting in another location
- AI guides the operation with processed data
- Digital O&M Assistant - DOMA



"Addressing Critical Offshore Challenges- Transforming Legacy Platforms for Future Success"

Client: A prominent public Oil & Gas corporation.

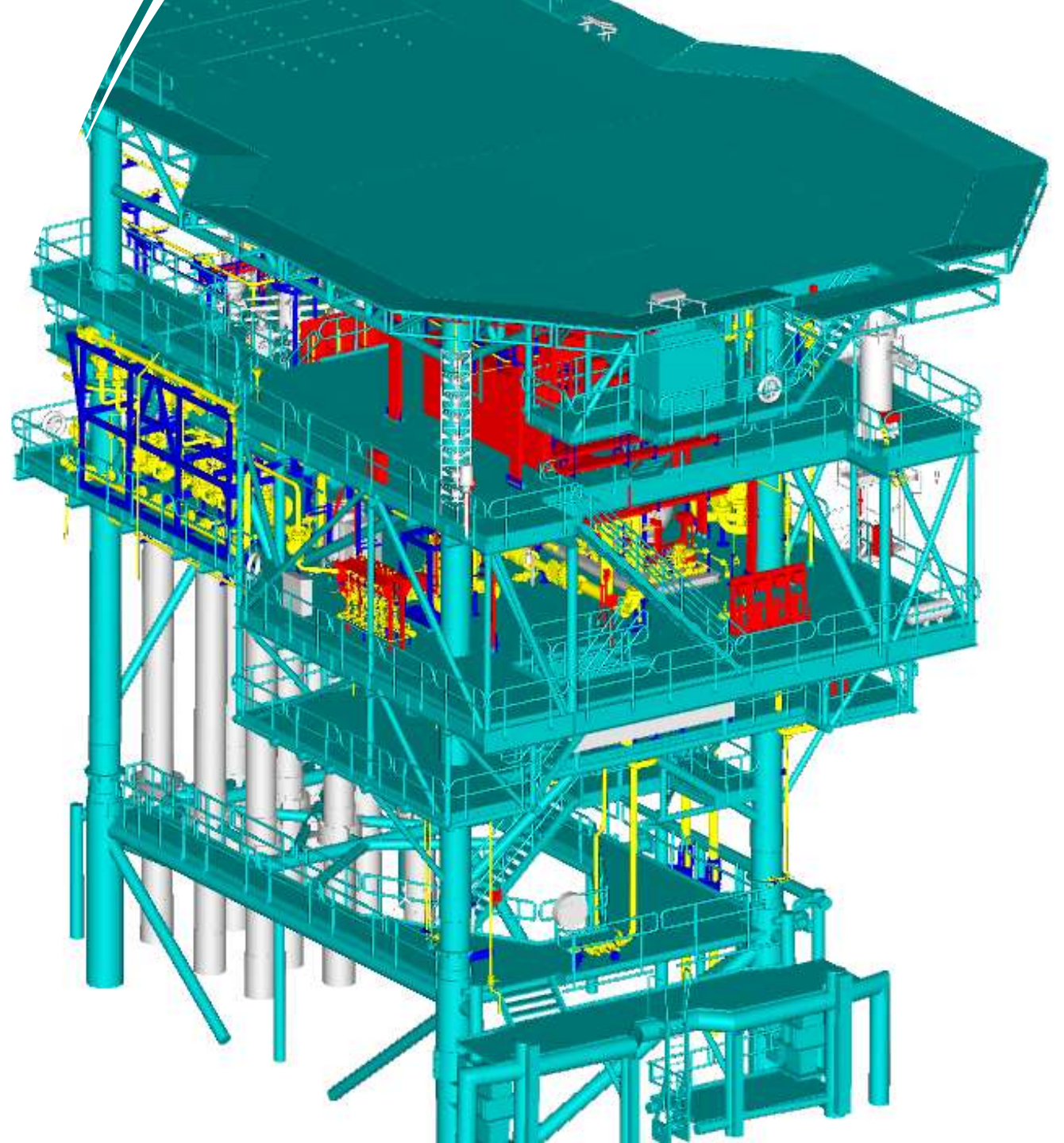
SixD Success Story : Our client faced a formidable challenge in dealing with aged Well Head Platforms, each having served for a quarter-century. The absence of digital information presented a substantial obstacle. Their primary goal was evident: obtaining a digital model of these platforms critical for their future expansion initiatives. We successfully accomplished this task for both the three-legged and four-legged platforms

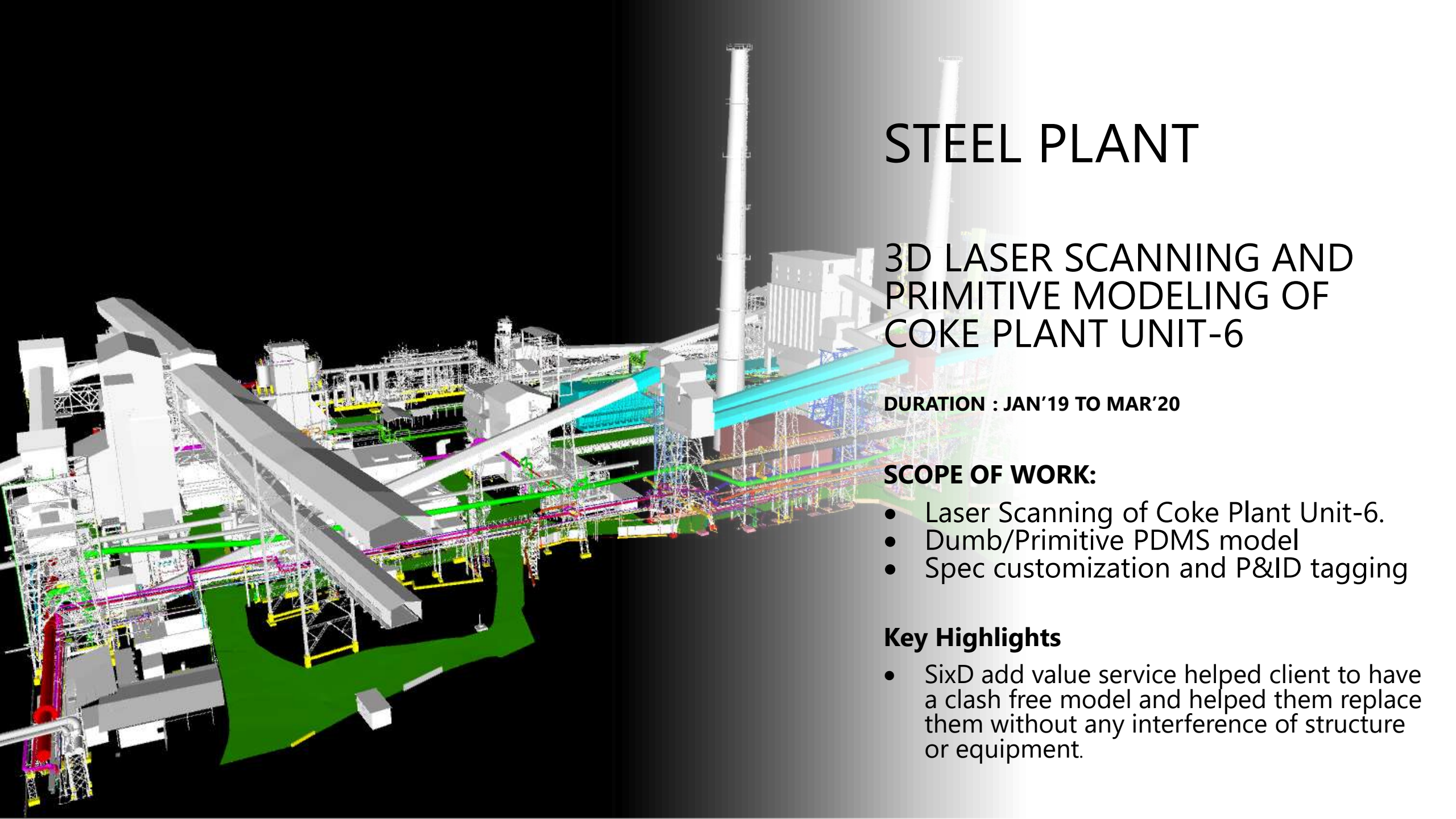
Timeline: 3 Weeks

Delivery: Intelligent 3D Model, Isometric Drawings, Bill of Materials of Piping, Piping support & equipment.

Category: Oil & Gas

Software Tools: Cyclone and E3D





STEEL PLANT

3D LASER SCANNING AND PRIMITIVE MODELING OF COKE PLANT UNIT-6

DURATION : JAN'19 TO MAR'20

SCOPE OF WORK:

- Laser Scanning of Coke Plant Unit-6.
- Dumb/Primitive PDMS model
- Spec customization and P&ID tagging

Key Highlights

- SixD add value service helped client to have a clash free model and helped them replace them without any interference of structure or equipment.

POWER PLANT

Project Title

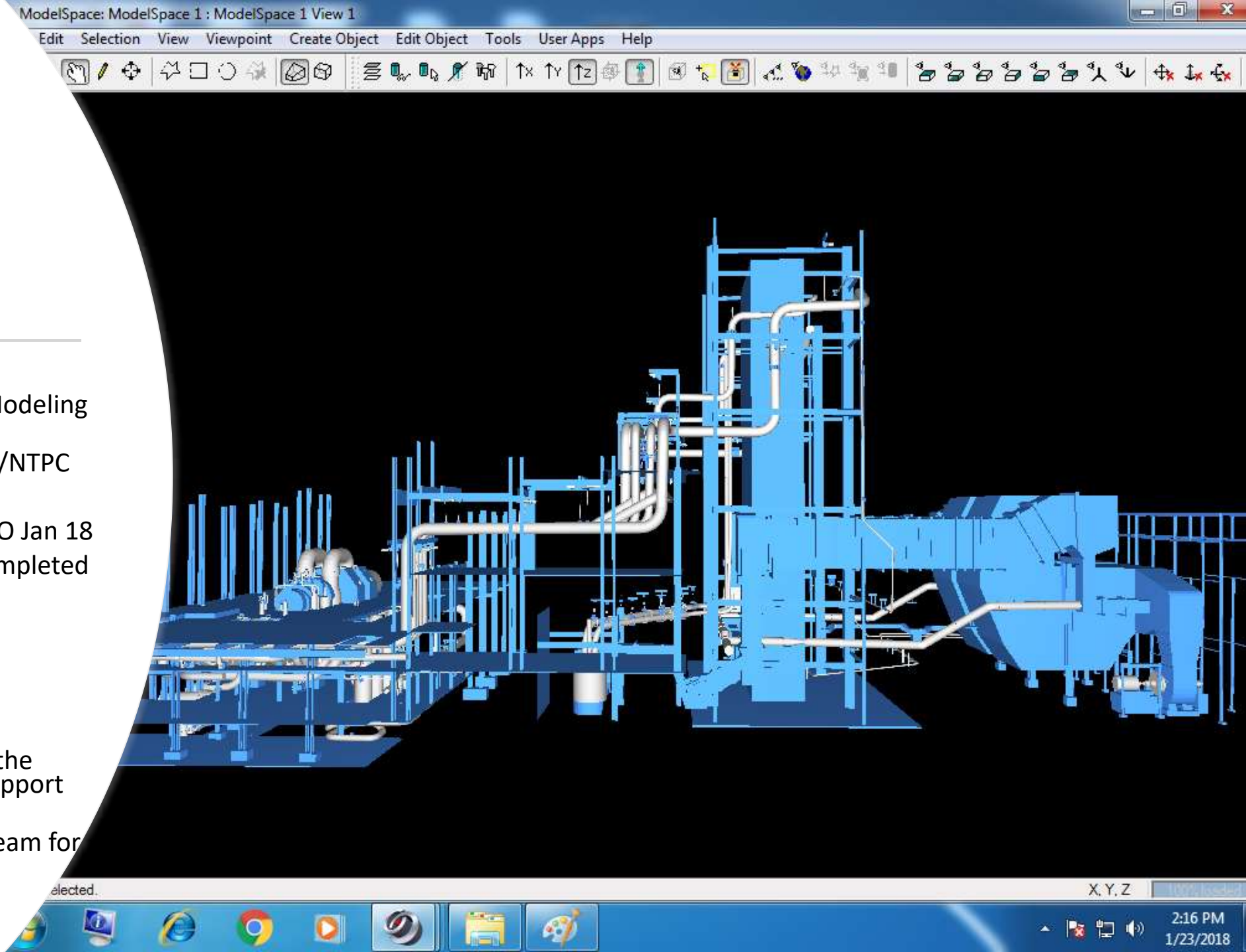
As Built 3D laser Scanning and Modeling Services for Power Plants

Client : L&T /GE /NTPC

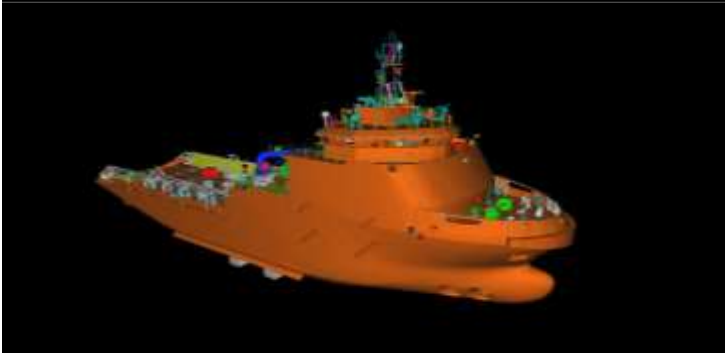
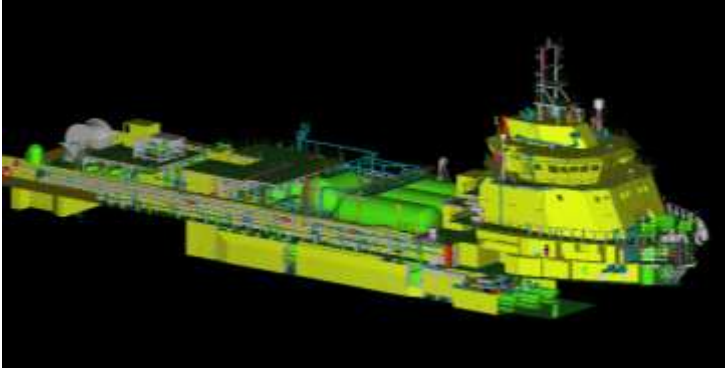
- Duration : Aug 17 TO Jan 18
- Status : 100% completed
- Software Tools : Cyclone

Key Highlights

- Laser Scanning, Survey and Registration
- Develop the as- is model for the piping systems along with the support location
- Provide the Inputs to Stress team for RLA studies



Enhancing Maritime Precision: SixD's As-built Solution for Ship Health Assessment



Client

Leading in the defense sector, from design to prototyping and serial production..

Location: Abu Dubai



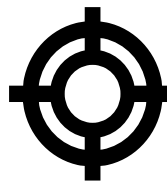
Challenge

The client's objective was to carry out health inspections for two ships, focusing on the storage tanks situated on the deck. These tanks hold various substances, such as fuel oil, lube oil, hydraulic oil, and drinking water. Additionally, the inspection required comprehensive insights into piping and supporting equipment, electrical utilities, other utilities, structural specifics, as well as outer shell and hull design.



SixD Success Story

SixD developed primitive models for fuel storage tank piping & and support equipment, electrical utilities, other utilities, structural details, outer shells & and hull design for 2 whole ships with detail at LOD 5000.



Highlights

Timeline: 2 Weeks

Delivery: Primitive model.

Industry: Ports

Software Tools: Cyclone

Revolutionizing Offshore Platform Digitization with SixD's Laser Scanning Expertise



Client

One of the largest and most influential energy global company , playing a crucial role in the world economy and the global energy market.



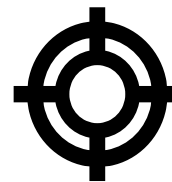
Challenge

The client had a big problem at their old Oil & Gas plant as the platforms there were more than 30 years old. They want to digitize their assets.



SixD Success Story

Through the application of cutting-edge laser scanning technology, SixD successfully collected all the essential data required for the comprehensive digitization of offshore platforms. The delivered data encompassed engineering models, Piping and Instrumentation Diagrams (P&ID), Isometric drawings, Bill of Materials (BOM), and invaluable insights extending down to the equipment level



Highlights

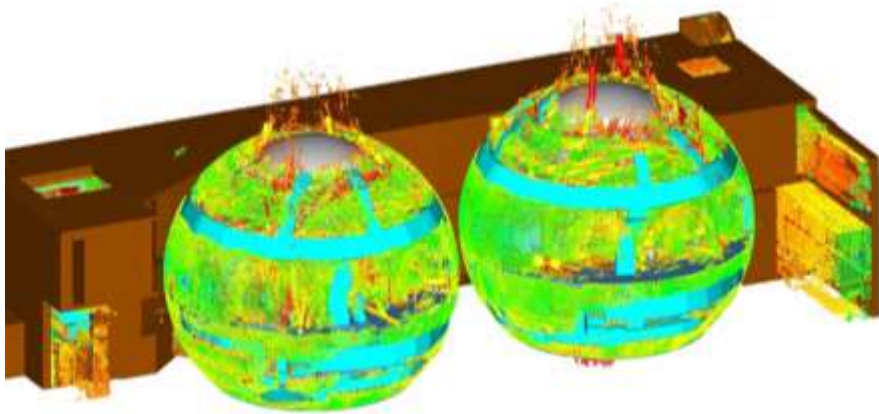
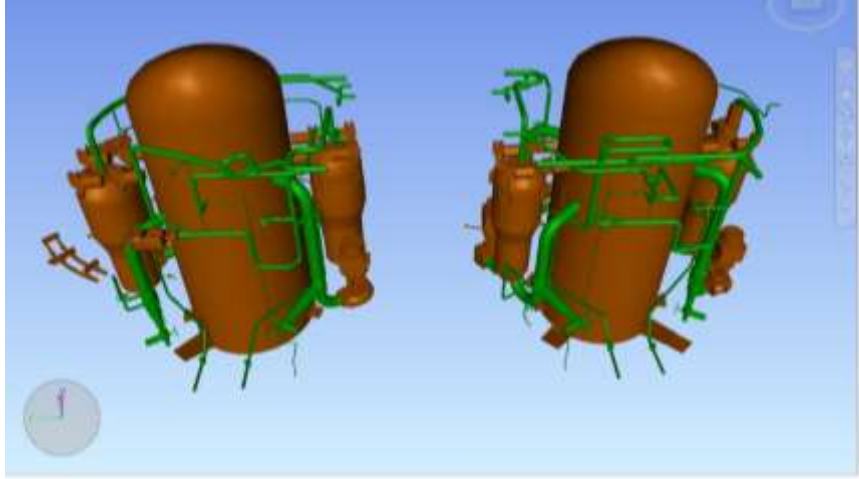
Timeline: 25 Days

Delivery: Intelligent 3D Model, Isometric Drawings, Bill of Materials of Piping, Piping support & equipment.

Industry: Oil & Gas

Software Tools: Cyclone and E3D

Revitalizing Aged Nuclear Power Infrastructure: SixD's Data-Driven Success Story



Client

A venerable nuclear power plant in India, standing resilient for 60 years.

Location: Nestled in Maharashtra, India.



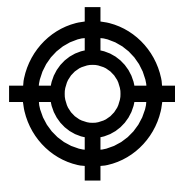
Challenge

With over six decades of operation, our client, faced a pressing predicament. The intricate piping surrounding the reactor, essential for its operation, had accumulated rust and wear. Eager to rejuvenate their infrastructure, the client aimed to replace the aging piping. However, the absence of proper documentation for these vital pipes presented a considerable roadblock.



SixD Success Story

Through the creation of a comprehensive primitive model and the integration of a 3D intelligent model, we unlocked a world of possibilities. The outcome was monumental: SixD provided the client with a detailed piping payout, isometric drawings, and a Bill of Materials (BOM). Armed with this comprehensive documentation, the client could confidently proceed with the replacement



Highlights

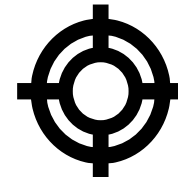
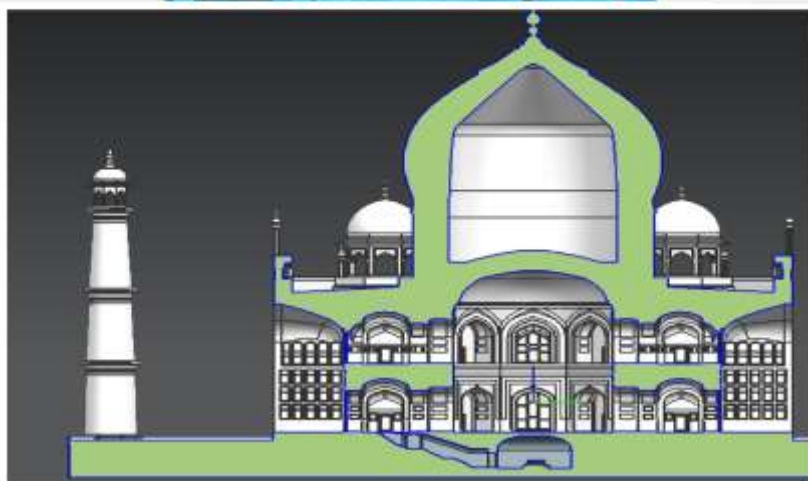
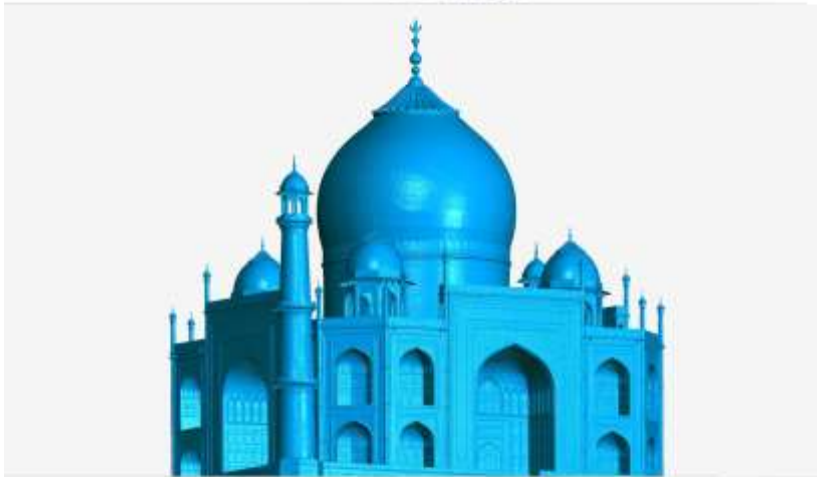
Timeline: 1 Month.

Delivery: Piping payout, isometric drawings, and a Bill of Materials (BOM).

Industry: Energy

Software Tools: Cyclone and PDMS

Digitising the mighty Taj Mahal



Client

Government of India Body.

Location: India

Challenge

The illustrious Taj Mahal, one of the world's most iconic landmarks, was set to undergo a revolutionary transformation. The Government of India aimed to digitize this architectural marvel and ensure its enduring structural integrity. They sought comprehensive digital records of the monument while also conducting assessments to track any changes over time.

SixD Success

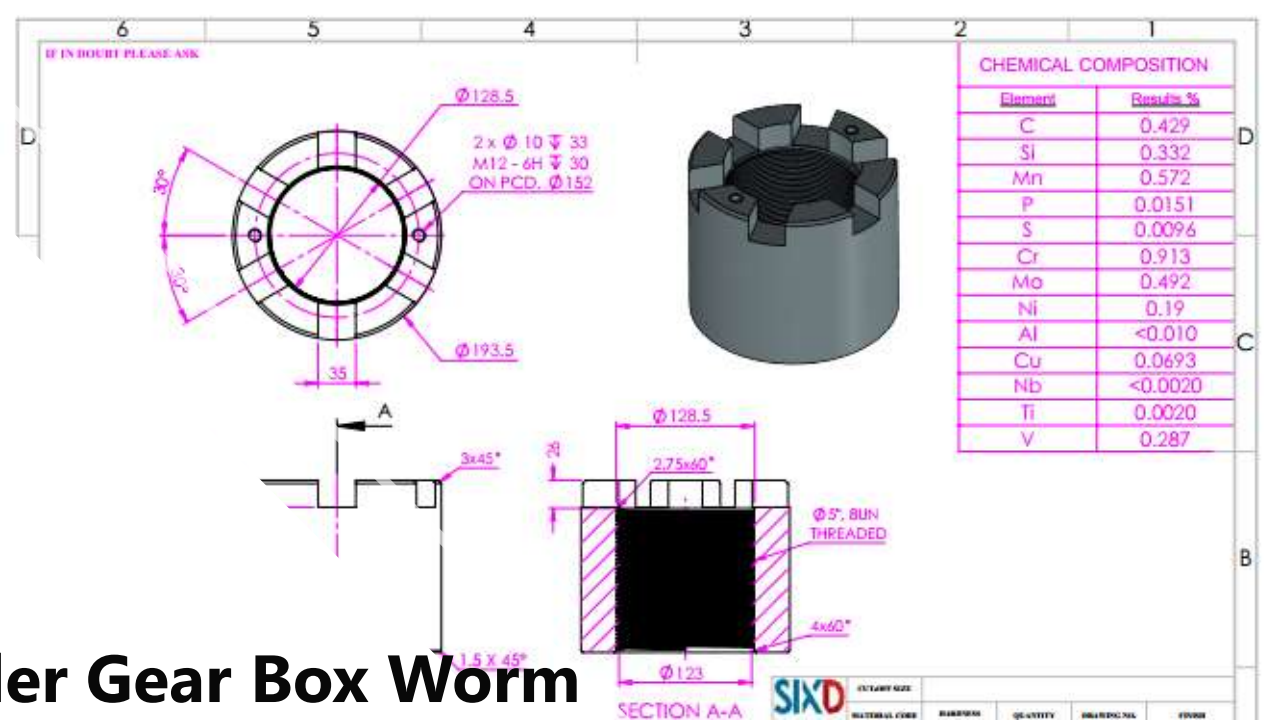
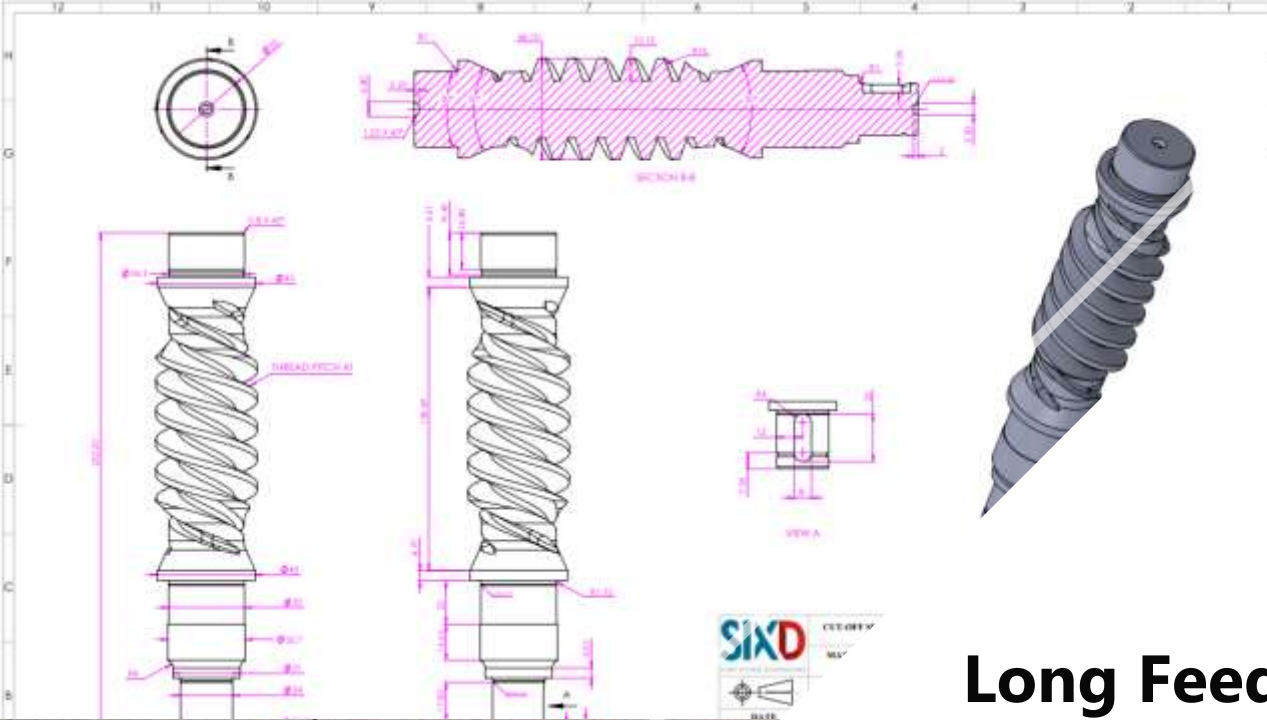
SixD embraced this monumental challenge with unwavering commitment. Our laser scanning expertise was brought to bear, capturing intricate details of both the exterior and interior of the main building and its four minarets. Despite the monument's cultural significance and delicate nature, even in challenging foggy conditions, we meticulously documented every facet.

Highlights

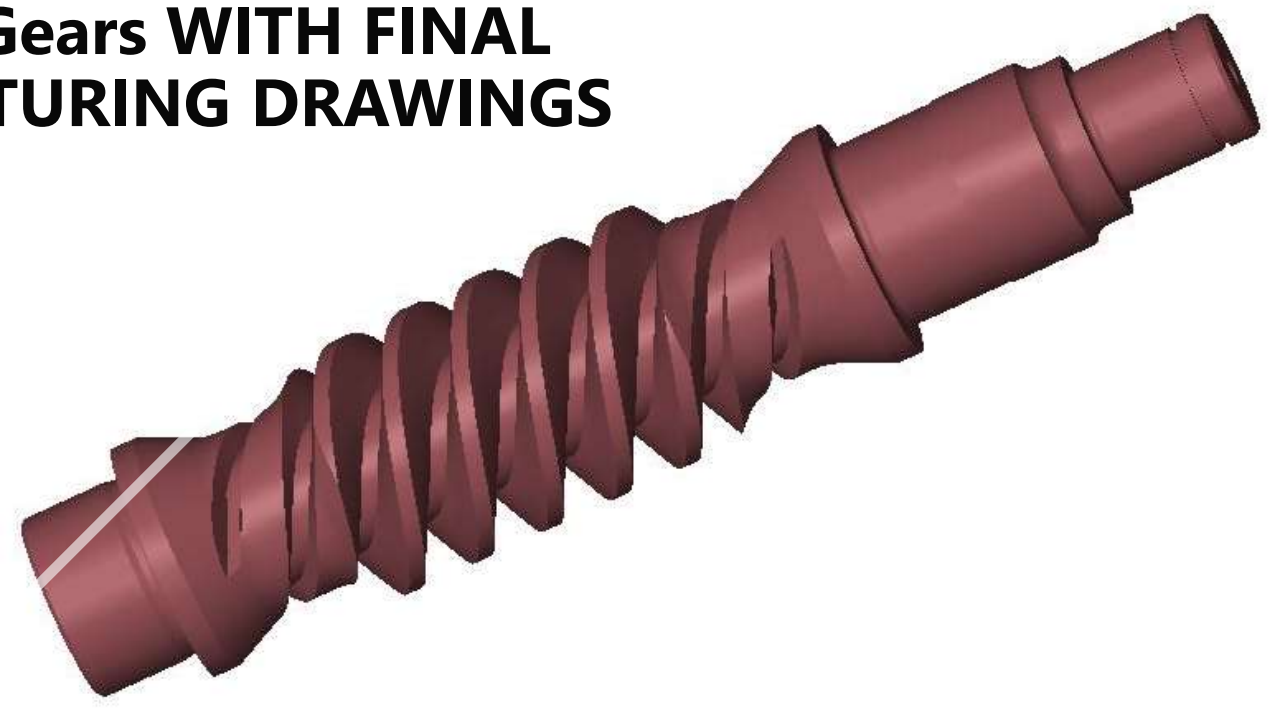
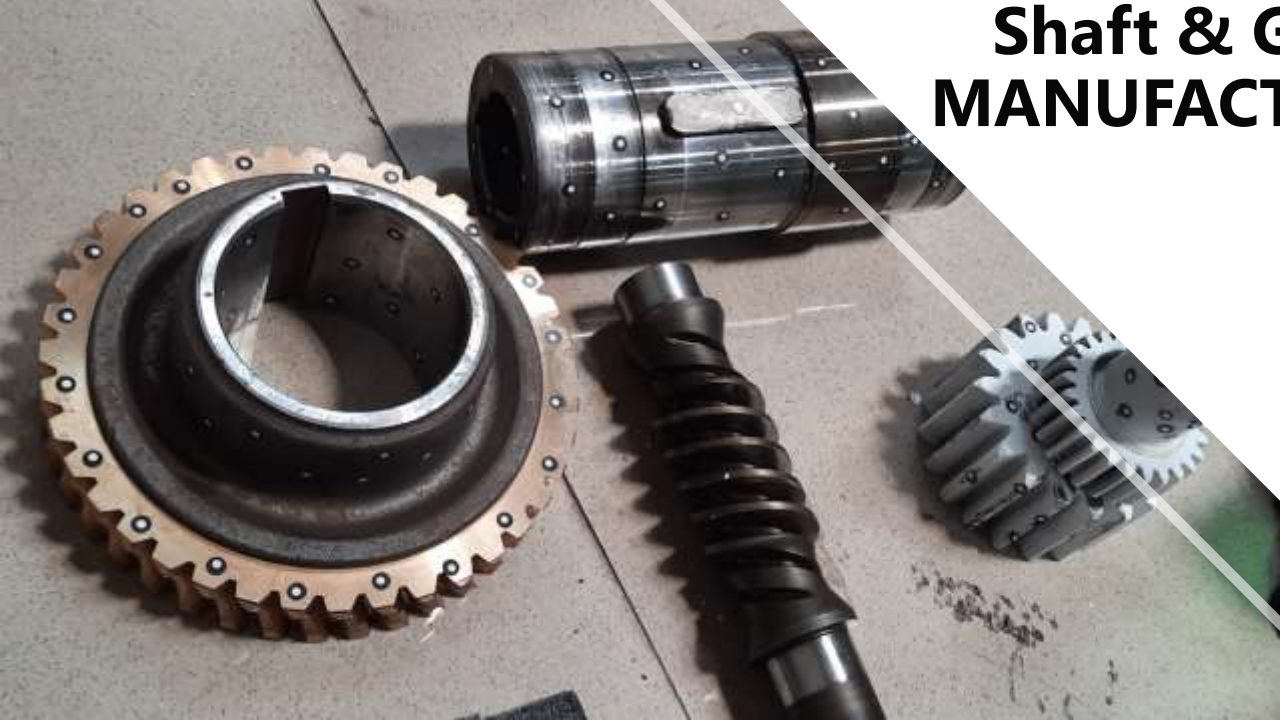
Delivery: 3D CAD model with textured mapping for Digital documentation. Structural, Section, and Elevation drawing for dimension inspection.

Industry: Architecture

Software Tools: Revit



Long Feeder Gear Box Worm Shaft & Gears WITH FINAL MANUFACTURING DRAWINGS



Innovate.

SIXD

SIMPLIFYING DIMENSIONS

Capture. Transform.

OUR GLOBAL CUSTOMERS



IndianOil



Reliance
Industries Limited



NIPPON STEEL ENGINEERING



RELIANCE
Power



adani



TATA

TATA STEEL

ANDRITZ



SMS
SIEMAG

SMS group

AM/NS
INDIA



emirates steel



L&T



TOSHIBA

VOITH

SIEMENS

Thank you

Thank you

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