

CAPITAL PROJECTS:

CASE STUDY

ALIGNING MEGA-PROJECT TEAMS AND ASSET INFORMATION

INDUSTRY
Chemical Manufacturing

COUNTRY
United States

ISSUE

Facing a looming deadline, a rapidly evolving capital projects organization, and no infrastructure or processes to successfully manage and review the ensuing flood of contractor-generated information - The new capital projects group was 'flying the airplane while building it'.

SERVICES DELIVERED

- Program Assessment and Roadmap
- Requirements Development
- Technology Procurement Assistance
- Information Architecture
- Document Control as a Service

The design and construction of a multi-billion-dollar megaproject is inherently challenging. However, embarking on three concurrent, overlapping megaprojects multiplies the complexity, particularly when engaging with a network of at least 12 major contractors spanning the globe. This was further compounded by the absence of a pre-existing capital projects group within the client's organization, necessitating the simultaneous creation of one in parallel with the projects.

For this leading fuel supplier and marketer that operates a domestic network of refineries, pipelines, and terminals, effectively managing, securing, and working together on project information proved to be a daunting prospect, especially given geographical challenges, widely varying contractor information standards, and a rapidly evolving project team.

THE BUSINESS PROBLEM

Project and related asset information must be actively managed to ensure accuracy and reliability as it flows between an owner and its contractor partners. The new capital projects group was faced with 'flying the airplane while they built it' - designing processes and procedures; selecting, procuring, and implementing supporting technology; and simultaneously supporting ongoing FEED for the initial project. There was also a need to design and develop a review and approval process between the owner and contractors while maintaining data fidelity. And finally, all these requirements had to be met within just four months to be ready for the detailed design phase kickoff.

Given the parties' geographic and time zone distribution, the framework had to ensure timely reviews and clear, traceable approvals. Without the right information transmitted to the right party at the right time, the projects could not succeed. Underlying all these requirements, the owner wanted to ensure that all generated information was associated with the asset and its components so that the transition from the project to handover to O&M could occur seamlessly and support the asset's entire lifecycle.

This client turned to **Access Sciences** to ensure that information would become a valuable asset rather than an impediment to the projects.

THE SOLUTION

Partner with Engineering Information Management professionals to make information an asset.

THE BENEFIT

- ✓ **Streamlined Processes and Procedures**
- ✓ **Accurate and Reliable Project**
- ✓ **Clear Communication and Collaboration**
- ✓ **Deadline Adherence**
- ✓ **Full Asset Lifecycle Information Management**
- ✓ **Value-added Document Control Operations**

Working closely with client stakeholders, **Access Sciences** developed and executed on a future state roadmap designed to support each asset's multi-decade information life cycle. This framework included:

- Development of requirements for and selection of the best fit asset information (document) management solution
- Design and configuration of the solution's information architecture including naming standards, taxonomy, metadata, and review and approval workflows
- Design of data governance policies, processes, and procedures to maintain the information as the asset evolves
- Multi-level testing to ensure that requirements were met and information was organized for maximum usability at the asset and component level
- Design and development of a document control program capable of supporting three megaprojects simultaneously
- Operationalization of the [document control function as a managed service](#)
- Training to ensure that users and administrators were productive on day one
- Migration of FEED information from an existing repository into the new solution, that's then updated to conform to the new governance structure

By delivering the project roadmap, designing and implementing a new project/asset information management solution, and embedding document control operations, the client realized significant improvements:

- **Enhanced efficiency** - Streamlining processes and procedures for managing project and asset information effectively
- **Reliability** - Maintaining the accuracy and dependability of project information as it flows between the owner and contractor partners
- **Enhanced collaboration** - Recognizing the importance of clear communication and cooperation between the owner and contractors, despite geographical and time zone differences

The initiative underscored the importance of information management, emphasizing the need to govern and organize the asset's information efficiently to support decision-making and project success. It met the ambitious deadline adherence, completing the detailed design phase kickoff within the four-month timeframe.

The project also ensured a seamless transition, governing information generated during the project to support the entire life cycle of the asset and its components, facilitating a smooth transition from FEED to handover to O&M. Furthermore, it elevated the value of information, viewing it as a valuable asset rather than an obstacle, reflecting a strategic approach to information management.