CASE STUDY

Technip Energies uses Octave Sequence Enterprise to enable progressive digital transformation of project control processes

Key facts:

Company:
Technip Energies

Website:
www.ten.com/en

Industry: Energy

Country: France

Octave products used:
Sequence Enterprise *(EcoSys),* Loop Core *(Intergraph Smart Materials)*

Key goals:

- Increase in overall project execution productivity
- Ability to better optimize resources throughout the project lifecycle
- Improve forecasting to enhance predictability and improve decision-making

Technip Energies is a global engineering and technology company for the energy sector, with leadership positions in liquefied natural gas (LNG), hydrogen and ethylene.

Identifying goals

Engineering and construction companies across the globe face the challenge of growing project complexity combined with the need to improve margins while managing the turbulent industry outlook. Technip Energies, a world-leading engineering and technology player, recognized the need to increase predictability and visibility into project performance to mitigate the challenging economic environment.

The Technip Energies management team had a clear vision for the future: build a data-centric enterprise solution and create a single source for validated project management data across different disciplines and entities in the organization. The scope of the gradual digital transformation initiative includes:

- Integrate project execution and data management across engineering, estimating, cost control, procurement, construction subcontracting, planning and contract management
- Integrate quantities and cost management from engineering to procurement and eventually construction subcontracting
- Automate quantity and cost budgeting from estimating to cost control, and feed-back from cost control to estimating

Overcoming challenges

For historical reasons, Technip Energies had a challenging setup for managing project performance. The organization had a siloed infrastructure where different departments had unique data models. For example, cost control and cost estimating were using different cost-breakdown structures (CBS).

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Yann Guyot
Cost Control & Risk Management Director, Technip Energies



Technip Energies provides project, engineering & technology services enabling energy transition across the globe

The first step toward an integrated environment was to work on what the Technip Energies leadership team identified as key enablers for digital transformation: defining master data and agreeing on a single data model for the organization. This was the first step towards the gradual digital transformation of the project control processes.

In addition to aligning and setting up a shared data model, Technip Energies worked on standardizing lean work processes across the organization.

"This is an ongoing process for us – as you can imagine, in an organization with 15,000 employees worldwide, the work will continue for a few years. Now we are at a point where cost control has been digitalized and we are taking steps towards a fully digitalized project environment," said Yann Guyot, Cost Control & Risk Management Director at Technip Energies.

The upcoming road map for digitalization includes construction subcontracting, estimating, planning and contract management.

Realizing results

Technip Energies chose Sequence Enterprise solution to support digitally transforming its project control processes.

"We have deployed Sequence Enterprise in all of our projects across the globe," Guyot said. "The flexibility of the software enables a progressive approach to digital transformation: we started with cost control and materials management with Octave Loop Materials and have created our work map for the next digitalization steps."

Cost control

Technip Energies has used Sequence Enterprise for cost control for the past 10 years. The work started with budgeting and integration with the ERP systems for actuals and commitments and later included improving forecasting and project portfolio management. Sequence Enterprise also supports tender cost management by tracking commercial personnel expenses during a tender process. The company can now calculate forecasts and develop project control plans easily through automated interfaces.

Quantity management

Technip Energies has also integrated Sequence Enterprise with Loop Core. Loop Core is used for technical data and technical production data management. The materials quantity information is integrated with Sequence Enterprise, making the data available to the cost control department. Having automated access to materials requisition data enables the department to do better and more accurate forecasting. Similarly, having access to purchase order information and material takeoffs (MTO) enables real-time comparison to see how the MTOs are evolving.

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Yann Guyot
Cost Control & Risk Management Director, Technip Energies



Technip Energies is working on the enablers for digitalizing planning.

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Construction subcontracting

The next step in the project control digitalization is construction subcontracting. Historically, the data breakdown structure of pay items for construction works did not share the same data model across company and projects. The data was stored in Excel sheets, which meant manual work in locating price schedules and difficulty knowing you had the latest, most correct information at hand. As this data is used to forecast project costs, creating forecasts was also tedious and time-consuming.

To overcome the challenge, Technip Energies worked on aligning the data breakdown structure with the other domains of the company while using Sequence Enterprise to digitalize and standardize the data into a centralized platform.

Estimating

Estimating is another challenge for the company, as there wasn't a shared platform for estimating and cost control. Sequence Enterprise is intended to be used to build estimating price sheets with the same CBS as what the project execution team uses.

This will create two significant benefits:

- Swift transition between the estimation spreadsheet and budget of the project to enable better visibility into performance
- Automated feedback: Sequence Enterprise generates data on a daily basis so that employees will not have to reconcile data from Excel Sheets, creating both more trustworthy reporting and saving work hours.

Planning

Technip Energies is currently working on the enablers for digitalizing planning by standardizing how tasks are planned and what data structures are used across the different departments. Once this work is done, Sequence Enterprise and Primavera P6 will be used to create a platform for historical planning data and project execution information.

"Our experience with Sequence Enterprise has been very positive. The solution is flexible and integrates well with other systems. We see an overall improvement in efficiency, we can optimize resources better and no time is wasted on finding and validating data anymore."

Yann Guyot
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Moving forward

"Our experience with Sequence Enterprise has been very positive," Guyot said. "The solution is flexible and integrates well with other systems. We see an overall improvement in efficiency, we can optimize resources better, and no time is wasted on finding and validating data anymore."

In addition to the ongoing work with cost control, construction subcontracting, estimating and planning, Technip Energies will also integrate Sequence Enterprise with other in-house tools to create a fully collaborative project environment in the future.

When asked about advice for other E&C companies looking to digitally transform project control processes, Guyot was clear: "Firstly, make sure you have a clear vision for what you want to achieve and be ready to face adversity internally as the whole process starts with standardizing and restructuring your data and workflows. Also, true transformation will take time, but with the right solutions, such as Sequence Enterprise, you can create a realistic progressive work map for your digital transformation journey."

Learn more

Key benefits



Productivity enhancement

Increase in overall project execution productivity



Better resource management

Ability to better optimize resources throughout the project lifecycle



Enhanced efficiency

Data-centric platform enables sharing and benchmarking information across different disciplines so no time is wasted on looking and validating information



Improved forecasting

Better forecasting enhances predictability, allowing for improved decision-making

About Octave

Octave is a leader in enterprise software, turning data into decisive action and intelligence into your edge. Our software solves for and simplifies complexity, from the design and build to operations and protection of people, property and assets – for any scope, at any scale. For decades, we've partnered with customers to sharpen performance, elevate efficiency and amplify results. From factory floors to entire cities, our solutions are tuned to scale up what's possible from day one onward.

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