



SAP Analytics Cloud Engineering, Constructions, and Operations

## SAP SAC TRANSFORMING ENGINEERING

## **Transforming EC&O for tomorrow!**

The engineering constructions and operations industry is responsible for many things being built every day. They have to maintain a uniform work pattern to ensure their products are the best. It can get very difficult to maintain quality. This is why engineering construction companies are shifting towards using analytical tools like SAP Analytics Cloud.

SAP SAC helps with valuable insights about operation processes and the quality of work. Using its powerful predictive system the entire efficiency and the output quality can be predicted at an early stage.





## **SAP ANALYTICS CLOUD REFORMING BUSINESSES:**

- An engineering construction company who is responsible for building bridges and roads that
  are to be used by the public was having problems delivering quality products. They needed a
  proper monitoring system that would store every piece of information during the designing
  and building phase of the bridge.
  - SAP Analytics Cloud helped them by providing insights about the processes and helping the engineers to understand if they are on the right path. Using the analytics services also allowed the system to suggest changes in the operations system to reduce the cost of the entire build and to increase the efficiency of the entire process.
- The professionals at an EC&O company were having problems in monitoring the level of work that was being carried out at the project site. Using the SAP Analytics Cloud platform they ensured that the collaboration of all the specialists in a particular project was confirmed.
  - Using the cloud platform as a medium of integrating all the different engineering departments allowed efficient monitoring of the tasks that were being done. Along with this, the entire company became aware of the processes and if anyone felt like changing a particular process they could contribute effectively to the system.
- A construction company was having problems in taking proper decisions. SAP Analytics Cloud's predictive modeling and features helped the engineers to have an in-depth understanding of the future possible scenarios. This allowed them to make changes to the process if required. The predictive model was powered by advanced technology like artificial intelligence and machine learning.

These systems gathered data from different processes and stored them in the SAP HANA cloud database framework and then used them to find patterns among the data. Having a known pattern helps in identifying and comparing scenarios and giving an accurate estimate of what might happen in the near future. All these things helped the engineers to make sure that the job done by them would be sustainable in the long run.

# SAP LEVERAGING MAJOR REFORMS IN ENGINEERING, CONSTRUCTIONS, AND OPERATIONS:

#### • Quick decision-making process:

SAP Analytics Cloud helps the engineers to get a proper insight into the type of task that they are conducting. The smart analytics cloud also helps in suggesting steps to improve the existing processes thus helping in a faster decision-making process.

#### • Supports inter-departmental collaboration:

Every employee is able to track the progress of the job and will be able to provide inputs from time to time. This helps in making a cooperative work environment for all.

#### • Powerful prediction systems:

Equipped with AI and ML features, the SAP Analytics Platform is able to make the best predictions about future events. Which helps in designing a goal-oriented approach towards the task.





## **CASE STUDY:1**

#### **ABOUT CUSTOMER**

A multinational construction company aimed at • developing sustainable future-proof buildings faced trouble due to the excessively high costs. They were not able to determine the best way to efficiently solve the problem of developing buildings that will be both sustainable and budget-proof. That is why they came to us to integrate SAP Analytics Cloud with their existing systems to ensure a budget-friendly construction process.

#### **PROJECT HIGHLIGHT**

- Monitoring the process for fault analysis
- Use insights to determine the total costing beforehand

#### THE RESOLUTION

The construction company was able to start cutting down costs while maintaining the quality. SAPAnalytics Cloud helped them in changing different existing processes to save money. The end results were exactly what they wanted and were able to improve their customer satisfaction rate in the process.

#### **KEY BENEFITS**

- Having in-depth knowledge about the different processes
- Predictive analysis allows foreseeing any hurdles and preparing accordingly future-ready

#### **TOP BENEFITS**

- Prices were reduced by 17%
- Processes became more streamlined by 12%
- Unwanted delays reduced by 50%

#### PRE MIGRATION STATE

- Constructions were mainly done in the traditional ways without any changes
- No proper workflow discussion was done

#### **KEY CHALLENGES**

- Replacing older processes with the new ones
- Making rapid changes in the workflow of the entire company
- Trying to apply the suggested reforms effectively

#### **ACHIEVEMENTS**

- The company was able to build budget-friendly sustainable buildings
- Faster project completions allowed the company to finish more jobs in a year



#### **ABOUT CUSTOMER**

Our client, an engineering operations company, was unable to perform efficiently due to the increased demands. They were concerned with helping the construction industry to make proper planning for their jobs. Having an automated system to prepare valuable insights will be able to help them in overcoming this process.

#### **PROJECT HIGHLIGHT**

- Making a proper plan for performing a following all standard regulations
- Using the suggested reforms effectively to improve efficiency

#### THE RESOLUTION

The company was able to provide effective efficient plans for carrying out the construction job. Proper monitoring of the resources and the net cost of the job was done. This helped in ensuring that the task was not exceeding its previously mentioned budget limits.

#### **KEY BENEFITS**

- Better processes help in providing better quality products to meet the demand
- Faster decision making process reduced unnecessary delays

Proper resource management and order procurement facilities help reduce loss of money on unwanted resources

#### **TOP BENEFITS**

- Decision-making speed increased by 1.5 times
- Unwanted wastage got reduced by 67%
- Proper ordering processes reduced project costing by 30%

#### PRE MIGRATION STATE

- Lack of any smart analytics system
- Lack of communication and collaboration leading to unsatisfied customers

### **KEY CHALLENGES**

- Training the members how to get the best out of the SAP Analytics Cloud system
- Implementing suggested reforms in the most efficient ways

#### **ACHIEVEMENTS**

- A streamlined workflow ensures faster delivery
- Proper resource planning reduces overhead costs



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#### **ABOUT CUSTOMER**

This client was a construction company that struggled in providing efficient building solutions to high-risk projects. This affected the profitability of their company to a great extent. Big-scale constructional projects are both risky and rewarding at the same time. They wanted to take assistance from the SAP Analytics Cloud to ensure the smooth completion of such complex projects. Using the SAP Analytics platform will solve several issues related to asset management, planning, and departmental collaboration.

#### **PROJECT HIGHLIGHT**

- Providing a proper management system for assets and resources
- Ensuring streamlined workflow for improved efficiency

#### THE RESOLUTION

The construction company was able to improve profitability greatly and was able to successfully deliver high-risk projects. Having in-depth access to valuable insight helped the engineers to monitor the exact working conditions of the company very closely.

#### **KEY BENEFITS**

- Satisfactory end results
- Lesser overhead costs

- Proper asset management and planning
- Efficient work processes

#### **TOP BENEFITS**

- Company profits increased by 74%
- Overhead costs reduced by 15%
- Unwanted delays got reduced by 23%

#### **PRE MIGRATION STATE**

- No analytics or monitoring system present
- Poor quality of end products for big projects
- Unnecessarily high costs led to unsatisfied customers

#### **KEY CHALLENGES**

- Regaining the trusts of the clients for procuring big projects
- Proper resource management to maximize profits

#### **ACHIEVEMENTS**

- The company was able to regain its status for delivering quality products
- Making better planning prior to the start of a project to examine its profitability



budget projects and proper prior planning is very much required. SAP Analytics Cloud becomes very handy in such decisions.

Not only do they help in making the best decisions but they also allow the engineers to have a proper prediction about the costing of the entire project. It also suggests how to finish the project while delivering the best results and making the most profits.



E 701, Lotus Corporate Park, Ram Mandir Road, Western Express Highway, Goregaon (E), Mumbai 400063