

Business Intelligence Solution For a US Construction Company

How switching from spreadsheets to Power BI with automated reports generation and easy-to-grasp custom dashboards allowed a US-based construction company to save up to **40 hours of work per report** and get a **real-time 360-degree overview** of project management workflows.

Challenge

Our customer's approach to managing projects was no longer keeping up with an accelerating pace of work. The data used to be captured in various spreadsheets, which were barely efficient enough to make use of. Struggling through a bazillion of rows stuffed with data is not so great of a plan to get a powerful insight. The more difficult deciphering the data was becoming the stronger our customer was striving for a new, unconventional strategy that would help **to automate** generating multiple reports and **transmit** them to user-friendly, intuitive dashboards.

Getting on track of innovations was decided to start with a **Project Management Unit** as it more than any other company's units experienced problems due to obsolete solutions. Project managers had difficulties predicting how many new contracts they could expect and, as a result, their workforce levels were not always optimized. Answering simple questions on workforce numbers or seasonal trends turned into a big deal since it required handling a number of dense, indistinct spreadsheets.



"We can't let our progress be limited by out-of-date solutions. Especially, when BI is almost on everybody's A-list"

Tasks

- to provide architecture design for software modernization roadmap
- to set up cloud data storage
- to configure data pipelines for the first stage of modernization and make it possible for managers to get high-level data reports
- to create custom dashboards showing the most profitable projects by regions/seasons/contracts, which earn below-average revenue, etc.
- to demonstrate project management workflows and cash flows way, trendlines, and predictions

Solution

*instinctools has developed a business intelligence system, allowing project managers within our customer's company to painlessly analyze automatically generated and categorized information, and switch from a project's quick overview to tracking all the necessary details.

To make data visualizations and custom metrics as helpful as they could possibly be, it was crucial to start data integration from different systems to single online storage. Power BI technology seemed to be a perfect fit in this case since it can integrate data from a variety of sources and deliver it straight to users in the form of reports and dashboards.

Our team has designed dashboards that, among other things, help:



see trends by area, seasons, timeframe, and job types;



clarify the reasons for contract breakdowns;



define average monthly workforce levels.

Key features

- Single cloud storage
- Automatic data aggregation and transformation
- Dashboards
- Data storytelling
- Data exception report

Value

The implemented BI system enables project managers to make data-driven decisions about contracting and workforce levels and helps to keep projects on time and on budget.

Without the necessity to manually enter data into spreadsheets, the company saves up to 40 hours of work per report. The time gained thanks to the newly acquired system can now be spent on more challenging tasks. Having a clear view of the data in their projects at hand, project managers can easily spot new opportunities for optimization and increase the number of winning bids.

Well, that's just a start. This project is the first step on the way to a deep modernization process in the company.

Technologies



Python



Power BI+DAX+Power BI Dataflows



Azure SQL Database

Do you have a similar project idea?

Contact us — and we will estimate your projects costs for free!

[CONTACT US](#)