ForePaaS

Multi-purpose reporting tool for day-to-day construction operations monitoring

CONTEXT

Why construction progress tracking matters

Delays and **budget-overrun** are all too common in the engineering and construction sector. 98% of megaprojects in mining, oil and gas and infrastructure face cost overruns or delays according to a 2015 McKinsey report (The construction productivity imperative). With so many moving parts and different disciplines, keeping a site on track is critical.

Among the main factors accounting for schedule and cost challenges**, inconsistent progress reporting** and **inadequate communication** are often on top of the list. As a result, productivity has remained flat for decades in the construction industry while spending is on the rise (US construction spending has hit its highest level in 13 years, with a seasonally adjusted rate of $1.28 trillion*).

Yet, many companies are still stuck with **outdated technologies** and **inefficient, manual reporting**. Thus, they often lack of a global vision on their key advancement metrics.

SK is the 3rd largest Korean conglomerate with over 52K employees and 75B $ in revenue. Its construction division SK E&C operates over 150 projects yearly with a heavy focus in complex chemical, oil & gas or energy facilities worldwide.

CHALLENGE

But monitoring advancement is tough

SK E&C, despite deep expertise in construction management with over 50 projects run yearly, worldwide, suffers, life many, from a lack of visibility on their sites' advancement. Remote construction sites, multitude of subcontractors and suppliers, or even skepticism towards changing to new tools… making it even harder.

Siloed projects and poor communication between business units and onsite stakeholders make **access to information** difficult. Site intendants and planners waste too much time updating or tracking down missing data and not enough time leveraging it for better decision-making.

Data is hardly **traceable**, without standard reporting and consistent data governance. Because they struggle to know the origins of issues happening on site, it is therefore difficult to make people feel accountable.

Planners have a hard time checking **data quality** using tools like Excel spreadsheets. Data validation on top of reporting is therefore a manual process open to frequent human errors.

As a result, delays creep in slowly day after day remaining unseen until too late, while they could have been anticipated or avoided and site intendants lack of resources to understand teams progress.

KEY RESULTS

200 hr/month saved for planners

Reporting & data cleaning time from 3 days to **real-time**

3 large construction sites already on board

SOLUTION

Real-time reporting to optimize work performance

SK E&C leveraged ForePaaS platform to implement real-time reporting in order to optimize work performance and monitor delays efficiently. Improved communication and better accountability allowed them to **proactively address delays** when observed instead of just implementing corrective strategies.

With first initial deployments of selected construction sites, they are now scaling a standard report practice across their construction projects thanks to:

- **Automated** data integration and cleaning
- **Flexibility** to update activities and planned progress
- **Accessibility**, even in remote locations

Eventually, they could **better share information** among planners and site intendants through a comprehensive dashboard including all relevant metrics for progress monitoring and performance trends. Nothing was new to the final users, as the basis for action as what they already prototyped in Excel.

Reports have become easily and quickly **verifiable** and project teams are better aligned on information, whether it is at a global level or broken down between each discipline involved in the construction project.

The project **started small** - with documents sent by email, and the application has since been implemented in **3 different sites** in a few weeks only. This comes as a stepping stone to building an actionable project database for future ML & AI projects.