



## Case Study

### Linde

Increased Efficiency, Greater Transparency:  
Introduction of a Cloud-Based  
Project Management Application

#### Replacing Lotus Notes with Agile Methods

Linde is one of the leading industrial gases and engineering companies in the world with a (pro forma) revenue of USD 28 billion (EUR 24 billion) in the year 2018. The company has approximately 80,000 employees worldwide and serves customers in more than 100 countries.

With the aim of standardizing project management in the section of Investment Projects at Linde Gas and increasing its efficiency, the company decided to introduce Microsoft Project Online. This cloud-based application replaces an old Lotus -Notes database, which is no longer supported.

The Project Group GmbH (TPG) implemented the solution and used agile methods to realize the customer-specific requirements.

#### INDUSTRY

Industrial gases, plant engineering

#### DEPARTMENT

Investment projects

#### SOLUTION COMPONENTS

Microsoft Project Online



*“Where we used to save data pools on various servers and at different sites, we now have everything available in one application for all project participants.”*

Frank Weissenbacher, Process Manager Investment Projects at Linde Gas

### A SINGLE SOLUTION FOR WORLDWIDE SITES



Frank Weissenbacher,  
Process Manager in the Invest-  
ment Projects section  
Linde Gas

Microsoft Project Online replaces a static Lotus Notes database hitherto used for project reporting. The expiry of the Lotus Notes licenses and the enterprise-wide introduction of Microsoft O365 Services provided a welcome opportunity for the Investment Projects section at Linde Gas to break new ground.

“The introduction of a project management tool requires a lot of persuasion and is nothing short of a cultural change for our section,” states Frank Weissenbacher, process manager in the Investment Projects section of Linde. Microsoft Project Online has provided the Investment Projects section at Linde Gas with a single application for project management across all sites. After the six-month implementation phase the go-live took place on schedule in September 2018.

### EMPLOYEES RECOGNIZE THE BENEFITS OF THE SOLUTION

“Microsoft Office 365 requires a way of thinking and working that is very different from Lotus Notes,” observes Andrea Krause



Andrea Krause  
Analyst Data Management  
& Communication in the  
Investment Projects section  
Linde Gas

who managed the introduction of Project Online in collaboration with Frank Weissenbacher. She sees the entire company as undergoing a learning curve and Project Online as only one element in this process of change. Bit by bit, awareness gained ground that the new technical possibilities actually make life easier.

“This is why we have trained super users in the different regions from the very beginning. In the end, they will be able to provide assistance much faster and more immediately than we will. This helps to reduce reservations against the new system,” Krause continues. Meanwhile, a very high level of acceptance has been reached. What’s more, top management recognizes the potential – an important prerequisite for good data quality.

### SPECIAL CUSTOMIZATION FURTHER INCREASES THE BENEFITS

In the introduction of Project Online, TPG tailored some components specifically to the particular requirements of Linde Gas. These include, for instance, multi-currency capability and data archiving. The system is meant to provide both an overview of the portfolio and a detailed project view across all projects worldwide. Therefore, the financial KPIs have to be displayed in the Linde group currency as well as in the respective domestic currency.

“Another particularity is reporting,” explains Julian Bönigk, the TPG project manager in charge of the Project Online introduction at Linde Gas. “The data is expected to be available for years, so it needs to be archived.” Every month (at a set time), a snapshot of the complete project data is archived. The data is used to populate the clearly structured status reports based on Excel 2016.

As it was essential to guarantee the data were actually archived and processed, it was necessary to go beyond the cloud-based Project Online application. Additional hardware as well as close collaboration with Linde’s global IT department were required.

## Short Project Profile

**The Company:** Linde is one of the leading industrial gases and engineering companies. The division Linde Gas offers a wide range of chemicals and compressed and liquefied gases. Linde gases are used in the energy sector, in steel production, chemical processing, environmental protection and welding, as well as in food processing, glass production and electronics.

**The Solution:** The Investment Projects section of Linde opted for Microsoft Project Online. The application for comprehensive project and portfolio management is part of the cloud-based Microsoft Office 365 suite. Users connect their desktop application to the service running in the cloud, or they access the appropriate tools directly from their browser. A separate server infrastructure at the company is not required for operation.

**The Challenge:** Linde did not have a single consistent solution for the global project management of investment projects. The company was using a Lotus Notes database as a reporting tool which was set to expire at the end of the year 2018. The enterprise-wide switch to Microsoft O365 offered a chance to change to a project management tool.

**The Benefit:** Project Online coupled with the customer-specific adaptations made by TPG provides Linde with all the necessary options for the efficient management of projects, the timely identification of risks and the monitoring of cost development. The solution makes all data available to project managers from a single source. The data is clearly prepared, and the tool supports collaboration in the project teams and generates meaningful reports.

Another feature of Project Online proved to be very helpful to project managers and the company's top management: the Project Center. This is where the status of projects is marked in traffic light colors according to different criteria.

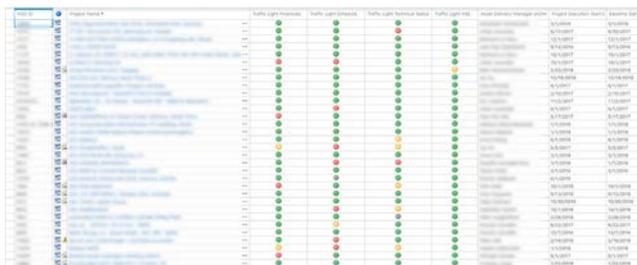


Figure: Project Center with indicators of project health

Thus, any problems on the horizon, for instance regarding budget, time planning and security, become visible intuitively and at a glance. This makes it possible to take countermeasures in individual projects at an early stage.

### EFFICIENT REPORTING THANKS TO SIGNIFICANTLY REDUCED WORKLOAD

Using another example, Andrea Krause explains how Project Online makes work easier and faster: "In Lotus Notes, we had to enter all data for each status report manually. When a new report is created today, all unchanged data is taken over automatically from earlier reports. So it is only necessary to edit the data that has changed."



Figure: Status reports with Excel

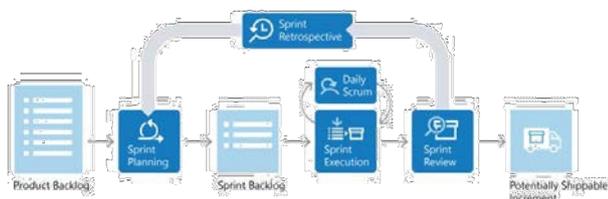
Better control, higher efficiency, smoother operations: This is how Frank Weissenbacher sums up the huge benefits Project Online brings to the company overall. In his view, the solution supports the comprehensive monitoring of the projects and affords a quick and coherent overview of schedules, completion statuses and milestones.

"Where we used to save data pools on various servers and at different sites," explains Weissenbacher, "we now have everything available in one application for all project participants."

*“Agile methods require a higher effort and more intensive coordination of the participants, but there are fewer subsequent changes than with a traditional waterfall project.”*

## AGILE PROJECT MANAGEMENT LEADS TO OPTIMAL RESULTS

For the introduction of Project Online, Linde and TPG chose the method of agile management. “It was the first agile project for us,” illustrates Frank Weissenbacher. “In this case, it proved to be absolutely the right decision.” Though the time investment was high during the project stage, the effort for changes after the go-live was significantly lower than with a traditional waterfall project.



This is when Linde Gas’s customer-specific requirements for Project Online were implemented – such as for example data archiving and the currency function. “The cooperation between Linde and TPG was intensive in all phases,” recalls Bönigk. “We discussed a lot, and in the process we found solutions to all difficult issues together,” adds Weissenbacher. “I was impressed by TPG’s collaborative commitment and specialist expertise.”

The introduction of Project Online began with the development of a solution concept, followed by the implementation of the basic components of the system and the migration of the data pool from Lotus Notes. This was succeeded by three so-called Sprints, typical of agile management – intense work phases of about three weeks each.

### CLIENT

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