



## **Moving people and goods:** project management for transportation companies

WHITE PAPER



Powered by  
 **Microsoft**

# Content

---

<b>1. Introduction.....</b>	<b>3</b>
<b>2. Digital transformation in transportation.....</b>	<b>5</b>
<b>3. The key to project management: software.....</b>	<b>5</b>
Microsoft Dynamics 365 Project Operations .....	6
Functionalities of Dynamics 365 Project Operations.....	8
Other Dynamics 365 modules.....	13
Microsoft Power Platform.....	16
<b>5. Case study: project management for a railway company.....</b>	<b>18</b>
<b>6. Further reading.....</b>	<b>22</b>



## Introduction

---

Traffic is one of the biggest emitters of CO<sub>2</sub>. Nothing less than a fundamental restructuring of the transportation system and a change in transportation behavior are needed to significantly and sustainably reduce the energy needs and emissions in this sector.

Implementing the necessary and relevant measures is a task for a whole range of players in the transportation sector: from transportation providers to infrastructure companies to vehicle manufacturers. Without them, there will be no public transport, no freight transport – and no rethinking our mobility.

However, mobility isn't the only challenge transportation companies face: infrastructure does not only need to be created, but also maintained and kept free of disruptions; R&D departments invest time and energy in the development of services and products for customers, which only works if their project management is effective.

Digital transformation is what many of these efforts have in common. After all, the potential of modern technologies is tremendous. They can improve added value, capacity management, maintenance, incident management, and much more. How? Read on in our white paper.

## Excellent project management is crucial

Replacing their current – often inconvenient, time-consuming and error-prone – solutions with digital technology, and implementing new software is a Herculean task for the companies concerned. On top of that, they need to be precise when it comes to reporting their use of public funds.

Completing projects on budget and on time is important not only when funds are involved. After all, failed projects not only affect an organization and its customers, but potentially the infrastructure of entire countries or regions, and millions of passengers.

Project management in the transportation sector is undeniably complex. In order to master a change of mind when it comes to mobility and transportation, stakeholders need modern, agile, and reliable project management software.



**In this white paper, we introduce you to Microsoft Dynamics 365 Project Operations, a suitable tool, and use a case study from the industry to explain how it can support companies in realizing the mobility turnaround.**



# Digital transformation in transportation

---

Digital transformation is the great opportunity for realizing the transport revolution. The use of modern technology enables many improvements, including cost reductions, reduced emissions and more customer-friendly processes.

Currently, companies in the industry tend to use many different software systems. These media disruptions create data silos and make it difficult for different departments to collaborate. Makeshift solutions, such as Microsoft Excel for presenting complex issues or for project management, sooner or later reach their limits.

That's why new solutions should be both purpose-built and holistic. The result should be a uniform system that meets all the company's requirements and enables effective collaboration between all participants.

## The key to project management: software

Central to the success of any measures for changing the way we think about mobility and transportation is an outstanding project management tool. It should provide an overview of all measures and their costs, and make all information and data accessible in one place for all parties involved.

As a Microsoft partner, proMX recommends the cloud application Microsoft Dynamics 365 Project Operations.

# Microsoft Dynamics 365 Project Operations

Microsoft Dynamics 365 Project Operations is a comprehensive solution for managing projects. It combines all project-related processes in one solution - from sales to project and resource management to accounting and data evaluation.

## What Project Operations covers



Dynamics 365 Project Operations maps the entire project cycle in one application and can be used by everyone involved in the project. This makes project work more transparent, efficient and productive.



The Professional Services Automation software is part of the Dynamics 365 family, a series of cloud applications for different business areas. All apps can be seamlessly connected. It also connects with most other Microsoft apps (such as Microsoft 365) and hundreds of third-party solutions (for example salesforce or SAP)

Through automation, the solution also relieves employees of time-consuming and unproductive tasks. Processes are optimized, project execution is accelerated, and profitability is maximized.

A major advantage of Project Operations is its high level of customizability. Workflows, entities and workspaces, labels and more can be customized to meet the needs of an organization or industry. For example, if the app is used to manage projects that are not billable but funded, it can be redesigned accordingly. Sales functionalities can be replaced by functionalities for managing public funds, for example.



## Functionalities of Dynamics 365 Project Operations

In Project Operations, everyone works in the same environment, where they have the tools they need to get the most out of their tasks.



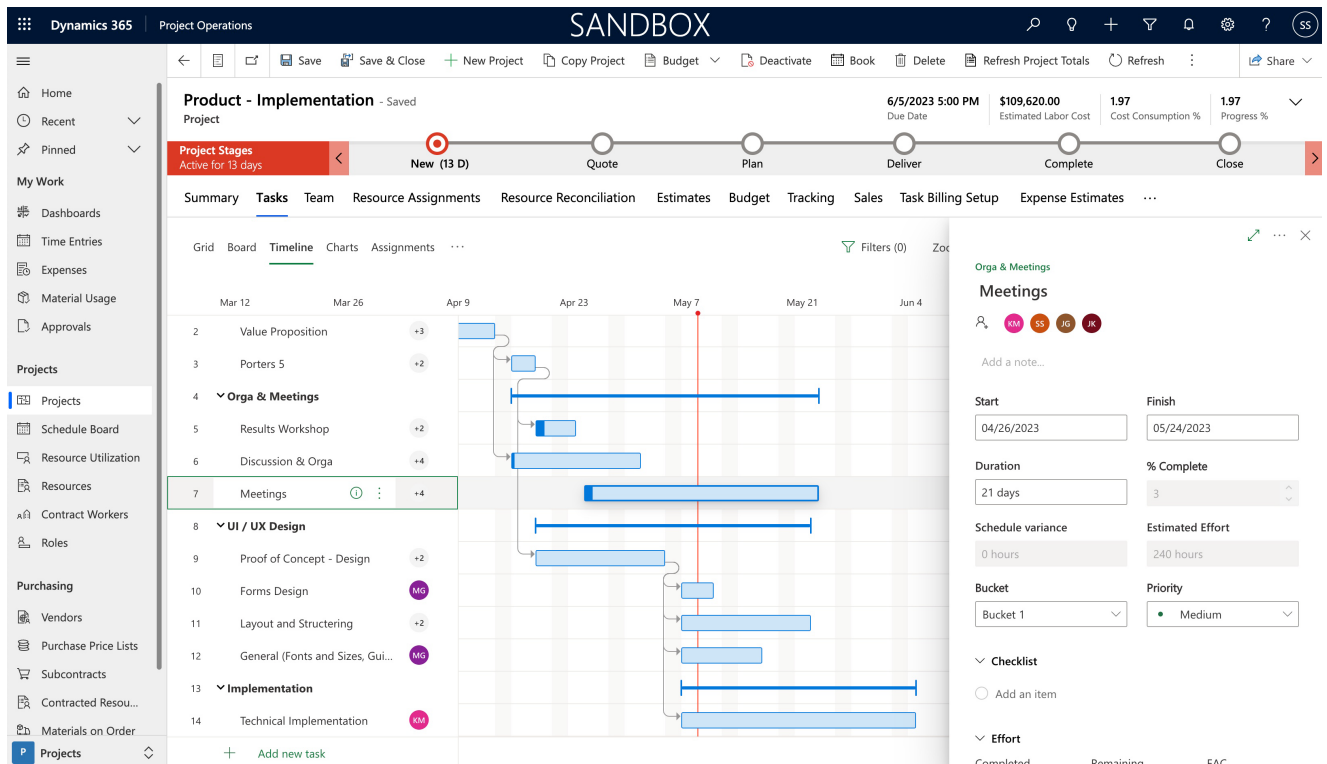
### **Why is Project Operations the right choice for transportation companies?**

Our projects with transportation and logistics companies have shown us that only with strong, reliable transportation networks will people and goods reach their destination on time. To achieve this, being able to manage external and internal projects, as well as (financial) resources and data in a cohesive, flexible and transparent system is vital to our clients.

### **Project planning**

Most project managers prefer to use Microsoft Project for project planning. So that they don't have to leave Project Operations, a Project-for-the-Web workspace is integrated into the application, including dashboards and Gantt charts.

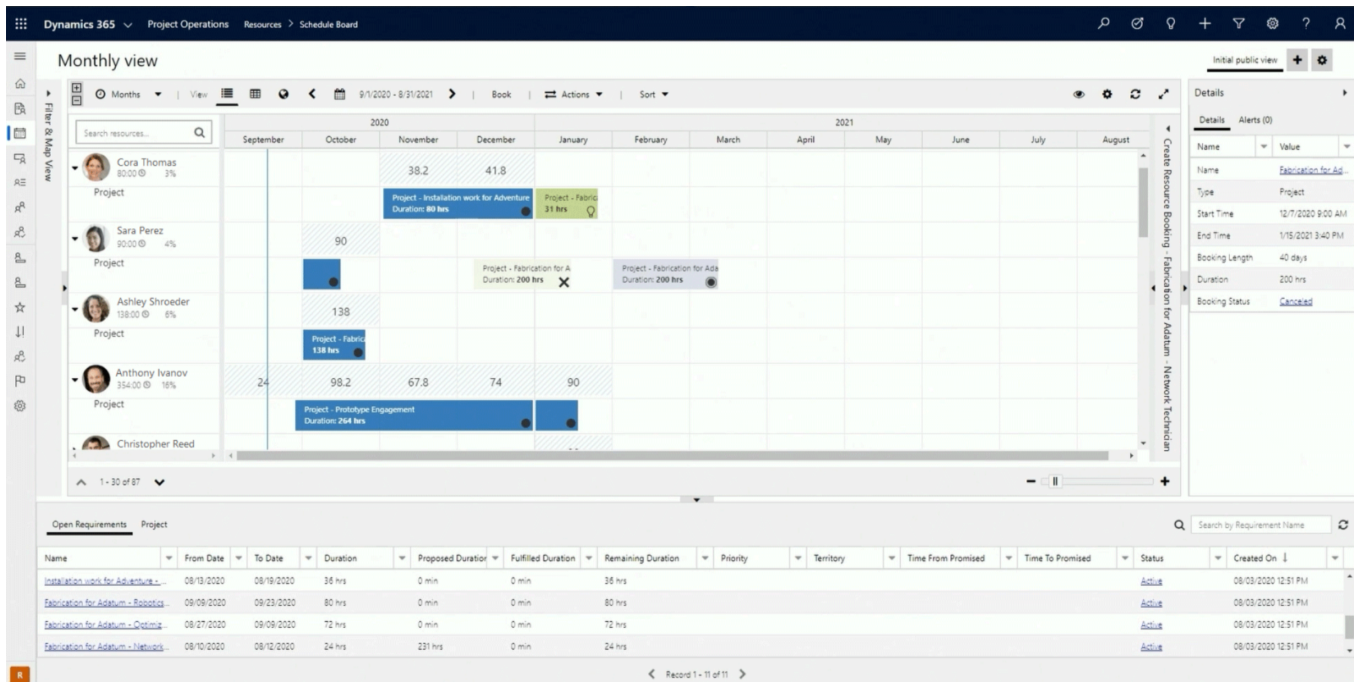
In the project plan, project managers can plan and structure their projects by creating and organizing project tasks, defining or adjusting their duration, assigning resources to them, and creating dependencies between different tasks.



The system continuously calculates the current costs of a project. Figures do not have to be entered or updated manually. Instead, the system uses existing information, such as the hourly rates stored for resources. Material costs or preliminary calculations can also be added.

## Resource management

Resource management is simplified by Unified Resource Scheduling (a common resource pool across all Dynamics 365 modules). It helps to quickly find the most suitable available resources for a project.



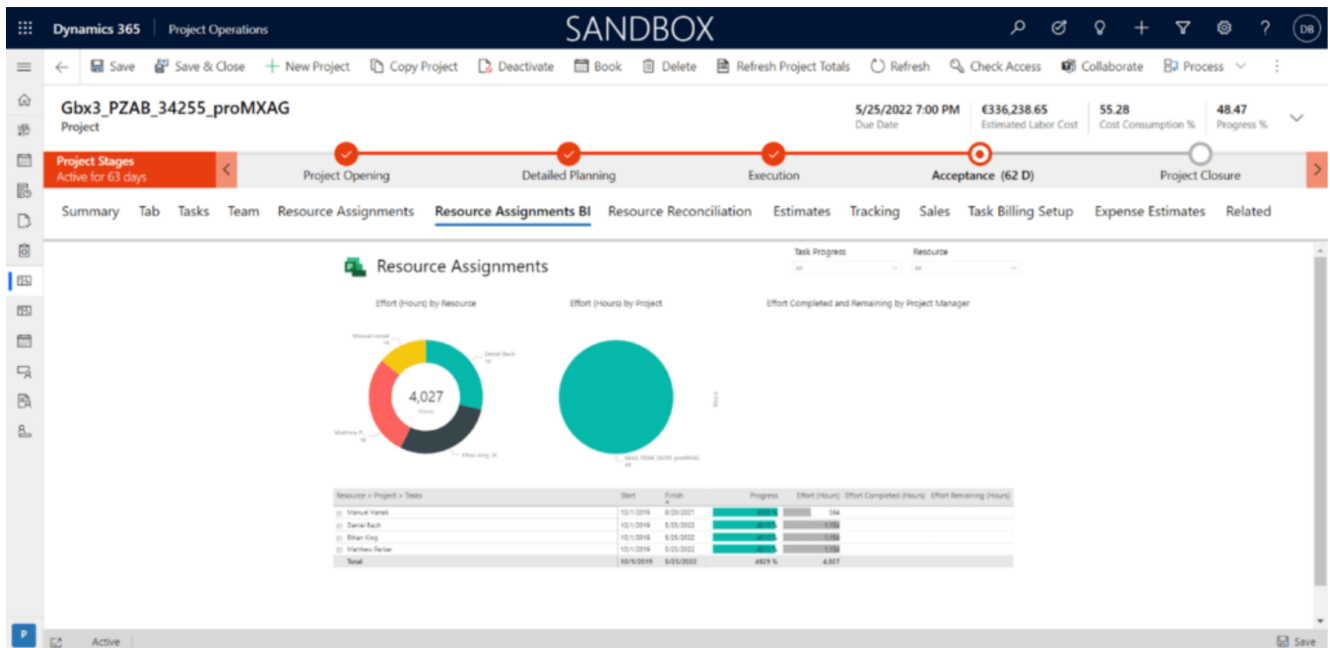
For this purpose, a profile with their skills and competencies can be created for each resource.

If it is not yet clear which person should be assigned to a task, you can plan with a generic resource. This means that a group of people - such as a developer, consultant or project manager – serves as a placeholder. The system then automatically calculates the corresponding hourly rate. Later, the generic resource can be replaced by a real person with the desired qualifications.

## Project management

All important data can be stored in the project view. In addition, time and effort-related details can be viewed here: from when to when the project is running, its progress, how high the current personnel and material costs are, what the further plan looks like, whether the project currently deviates positively or negatively from the financing.

Throughout the course of the project, project managers keep track of all the important figures: project progress, resource consumption, costs, etc. On corresponding dashboards, they can track all developments in real time and take early action if deadline, budget and quality targets are in danger.



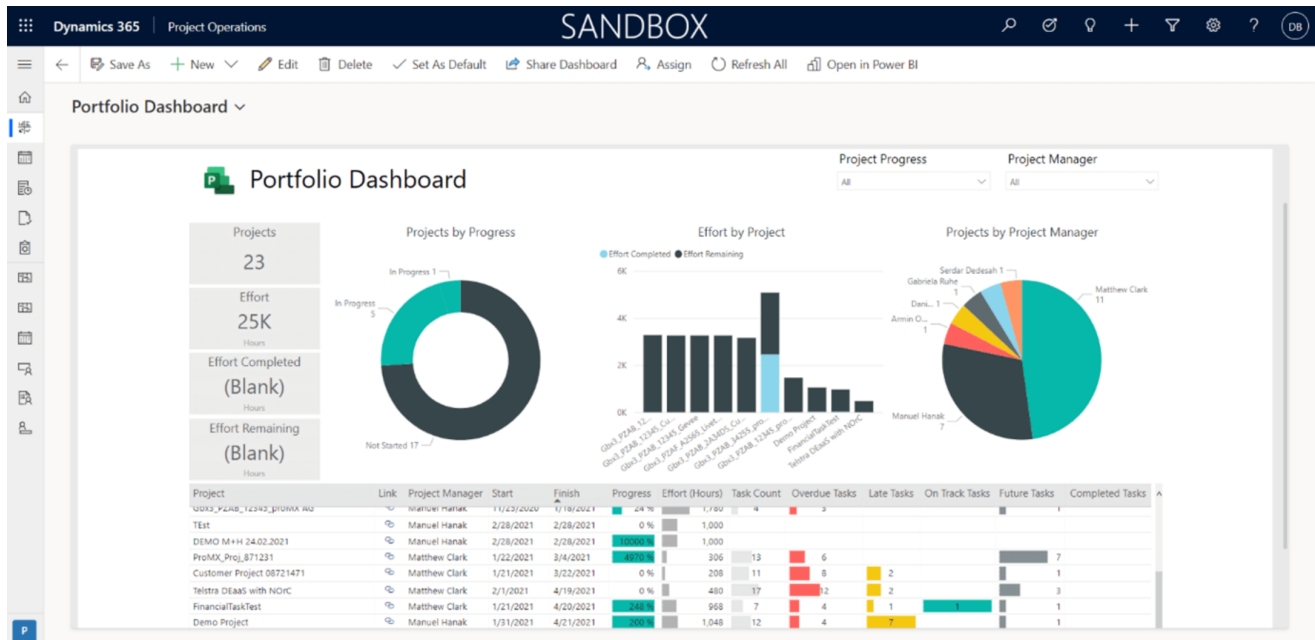
Power BI dashboard in Dynamics 365 Project Operations

## Time and expense tracking

In Project Operations, time and effort tracking is significantly simplified for project team members. Immediately after logging in, they receive an overview of all tasks assigned to them and their time entries. Anyone who has been assigned to a work package can precisely record working time or expenses for this with just a few clicks and forward these to the responsible project manager for approval. The recording is also possible via a mobile app or via an Outlook add-in.

## Controlling

Dashboards provide an overview of the status quo of all ongoing projects, especially with regard to costs. This allows trends to be identified and decisions to be made in good time.



Power BI dashboard in Dynamics 365 Project Operations



**These dashboards can be customized without programming knowledge and enriched with your own data, e.g. data from Microsoft Power BI.**





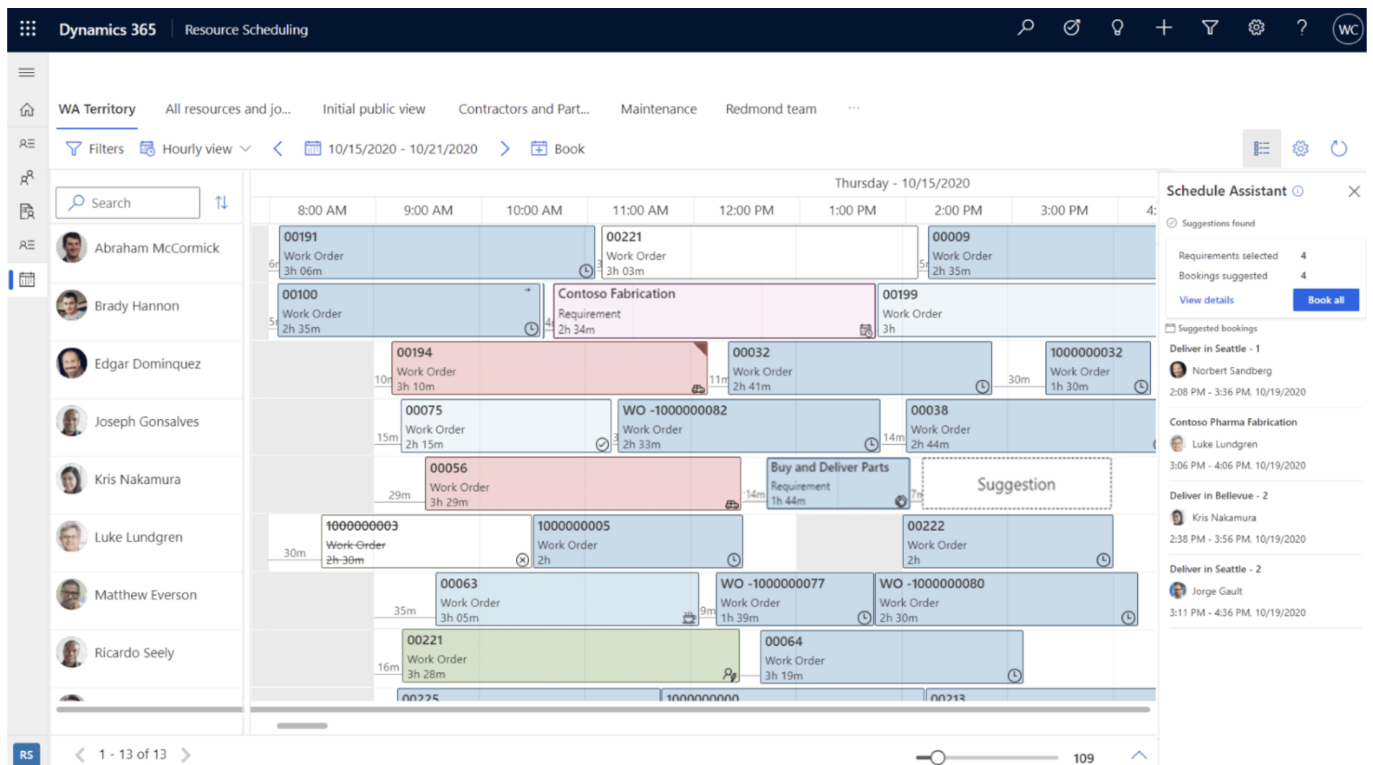
The modules in the Dynamics 365 suite integrate seamlessly with each other. For transportation companies using Project Operations, it may make sense to extend the application with the Dynamics 365 app for technical field service.



### **Microsoft Dynamics 365 Field Service**

For effective on-site operations, the right technicians need to be in the right place at the right time and have the right tools with them. It sounds simple, but planning and executing each mission successfully is challenging. Coordination is often a lengthy back-and-forth. There are often misunderstandings, scheduling conflicts or unexpected obstacles. Route optimization in particular is a challenge. This is because, for example, the geographical location of the deployment sites, the duration of the appointments and the working time models of the resources have to be taken into account. The more service calls are carried out per day, or the more projects have to be realized, the more complex this coordination becomes.

This process is made easier with a smart software solution. Microsoft Dynamics 365 Field Service facilitates the planning, execution and evaluation of technical service cases with the help of automations, artificial intelligence and a mobile app for the field service team. Dynamics 365 Field Service also enables the networking of devices and plants through IoT technology.



Field Service already supports the planning of work orders with AI-based planning tools. Among other things, these tools visualize the operations to be scheduled and, if desired, automatically create optimal routes and schedules. The so-called Schedule Board and the associated map view enable resources to be scheduled as sensibly as possible.

Like Project Operations, Field Service uses Universal Resource Scheduling. This common resource pool is available for all Dynamics applications to ensure that employees are not scheduled twice.

In the field, a mobile app for smartphone or tablet supports field service technicians before and during their maintenance, repair or installation assignments - both online and offline. In the app, assignment details such as tasks to be performed, problem solutions or information on spare parts and product configurations can be viewed. With one click, work steps can be marked as completed and products or spare parts used can be noted. Push notifications inform technicians about new service calls assigned to them or status changes and, if necessary, remind them to document the call. From the app, they can create any follow-up calls that may be necessary. Certain information is automatically transferred from the existing service order.

For companies in which technical field service has been a problem child up to now, Dynamics 365 Field Service can change a lot for the better. They save costs through better planning and more effective deployments. The app also eliminates the communication vacuum between field and office service and enables predictive maintenance.



Microsoft has developed a series of low-code tools that help organizations get more out of their Dynamics 365 environment. With them, they can create data reports and visualizations, build custom applications or workflows, and digitize manual processes. To do this, users need little to no programming skills.



### **Microsoft Power BI**

The best known and most established application of the Power Platform is Microsoft Power BI. This business intelligence solution enables users to merge and visualize data, making it easier to analyze. The data processed in Power BI can come from a wide variety of sources and can be visualized quickly and easily even by BI laymen. The possibilities are sheer endless. Visualizations can then be shared with others in the organization or embedded elsewhere. Power BI can be used to improve understanding of data and its underlying processes, create reports, and make fact-based decisions. So it's useful for employees, managers and executives alike.

By extending it with Power BI, the project data available in Project Operations can be visualized in an appealing way and shared as dashboards or reports. This makes it easier to show the progress of projects, budgets and much more.



## Microsoft Power Apps

In principle, Power Apps enables all employees to create individual business applications for the browser and mobile devices to facilitate their daily work. Power Apps is particularly suitable for optimizing internal processes that previously involved a lot of paperwork and bureaucracy.

The service makes it quick and easy to build apps that, for example, digitize vacation and shift planning, sick leave notifications, expense reports or ordering spare parts.

Power Apps not only accelerates the development of business apps, but also solves a fundamental problem in the area of enterprise software: Many out-of-the-box applications do not meet the individual requirements of companies or are difficult to integrate into the existing IT landscape. With Power Apps, applications can be customized to meet individual needs and ideally integrated into the existing environment.

### Integration with third-party applications



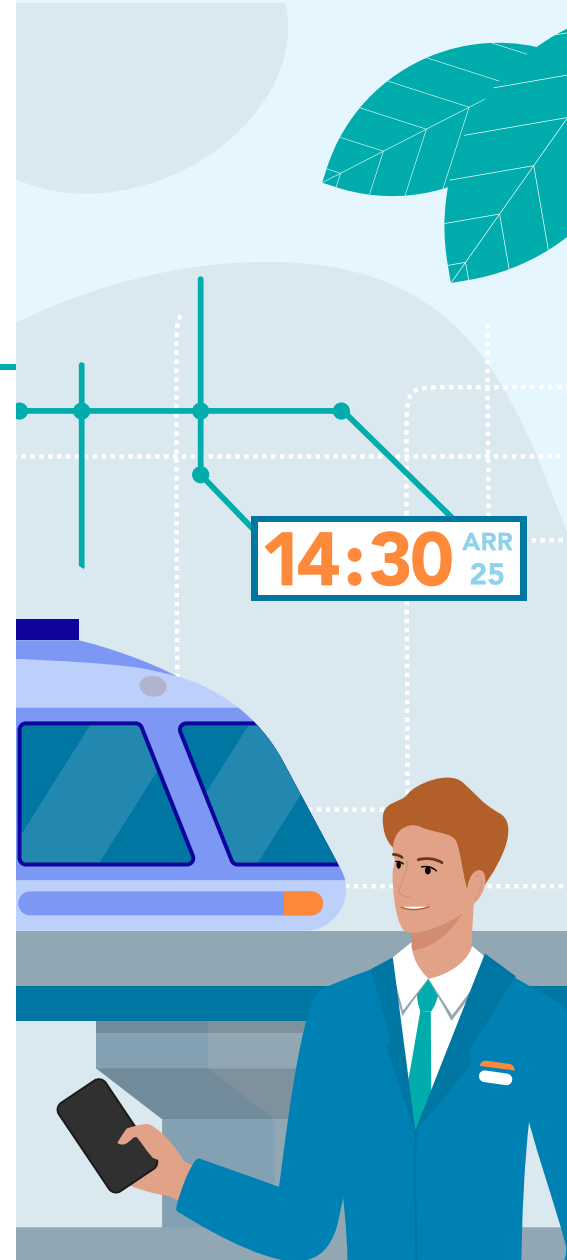
Microsoft Dynamics 365 can easily be integrated with other Microsoft solutions as well as a wide range of third-party applications such as ERP systems (e. g. SAP). This allows companies to leverage all the tools and resources they need to get their business done. A host of APIs offered by Microsoft makes connecting applications and systems possible. We recommend talking to an experienced implementation partner, as choosing the right API, migration or other connector is crucial.






## Case study: project management for a railway company

proMX supported a rail transport company in improving the capacity and robustness of its own infrastructure. This is a significant contribution to changing our approach of transporting people and goods, and to fighting climate change. The main objective was establishing a sound project management for complex projects across Germany. Full transparency in the management of KPIs, as well as data-based reports and analyses were crucial.

Read on to learn how we achieved this with the help of Microsoft Dynamics 365 Project Operations, Power BI, and Azure Maps.



### The project:

- Size:** Large (10,000+ employees)
- Products:**
-  Azure Maps
  -  Dynamics 365 Project Operations
  -  Power BI
- Summary:**
- ✓ Access to comprehensive program, project and financial resource planning, as well as KPI management and extensive data analysis
  - ✓ Detailed, transparent reporting capabilities with Power BI
  - ✓ Mapping visuals and location data thanks to Azure maps

## About the company:

The state-owned company operates the majority of a European country's rail network and rail transport. The company has been given tens of billions of euros in public money as part of a climate package to modernize and expand its infrastructure. These projects are designed to make rail operations more environmentally friendly and help achieve the government's climate targets for passenger and freight transport and transport infrastructure.

To this end, the Group has launched many different projects throughout the country. The measures differ in complexity and scope.

## Challenges:

One of the company's major problems is the organization of its data. Until now, these were located in different systems and were often prepared in separate Excel spreadsheets in an error-prone manual process. In the future, it should be possible to better organize, analyze and visualize the data.

Transparency in all projects was also important to the organization. On the one hand, because they should be ideally coordinated in terms of time and, if necessary, bundled. Second, because reports on the use of public funds must be submitted semi-annually.

The robust management of project key performance indicators (KPIs) was important if only because the funding is time-limited. Projects must therefore be able to be implemented quickly. Progress must be evident at all times and investment lines must be able to be fully mapped. This requires full transparency in tracking KPIs as well as the ability to generate data-based reports and analysis.



**Eliminating  
error-prone,  
manual  
processes**



**Improving  
transparency in  
all projects**



**Creating  
data-based  
reports and  
analyses**

## Solution:

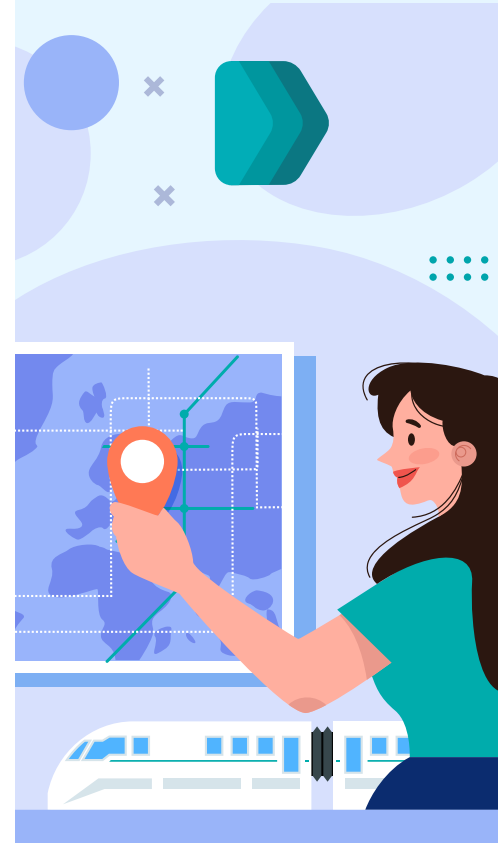
The railroad group wanted a centralized, modern system for its project management that would meet equally stringent controlling and reporting requirements. proMX implemented Microsoft Dynamics 365 Project Operations and customized it to meet the company's specific needs and processes.

To help the company better organize its many different projects, programs, subprograms and measures can now be created in Project Operations. Subprograms can be stored with their most important metrics, such as the number of measures or the maximum measure duration. When measures are called up, not only the affiliation to programs and subprograms is displayed, but also the responsible resort in the company and the region in which it is implemented.

All available funds can be planned annually and divided into months or into investment programs. In the steering meeting cockpit, notes on the current status, emerging issues, current risks and countermeasures, and new tasks can be centrally recorded for the monthly meetings of the company's steering committee. It also features monthly KPI status indicators and an excerpt from the respective monthly report.

The control of KPIs has been completely moved to Microsoft Power BI. For this purpose, proMX has extended Project Operations with Power BI to enable detailed, transparent reporting. All users can now view all information in a single system instead of having to open different programs. A comprehensive reporting dashboard lets users view funding sources, prioritize programs, and better allocate resources to projects.

Azure Maps have also been incorporated to better illustrate project locations in the system. For this, the entire rail network of the country was visualized.





## Results

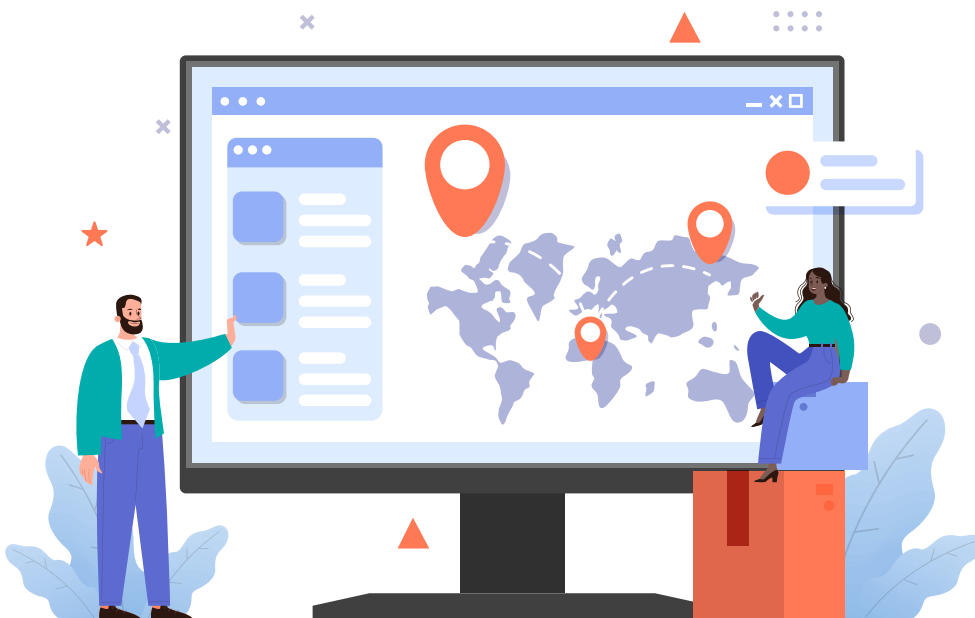
With Microsoft Dynamics 365 Project Operations, Power BI and Azure Maps, the company is in the best position to successfully implement all its mobility transformation projects. It can better plan programs, projects and financial resources, has a better overview of its key metrics and can analyze the resulting data faster and easier.

Through Gantt charts, dynamic KPI visualization with Power BI, and many other features, the group can better map its projects and investment lines.

The data insights gained enable them to continuously optimize the implementation of their programs. The corresponding reporting dashboards allow employees to see where the financial resources for a project are coming from and to which business unit they have been allocated. They also make it possible to prioritize programs and better allocate resources.

The increased transparency now makes it easier for the company to better align the content and timing of construction projects that are funded by different programs.

By combining the geographic representation provided by Azure Maps with information from the Dynamics system, the company can correlate geographic locations with temporal sequences to quickly visually identify potential disruptions in operations. This leads to greater efficiency and faster resolution of issues and helps meet project deadlines.



## Further reading

If you'd like to learn more about digital transformation, Microsoft Dynamics and its possibilities, we recommend the following white papers by proMX:



### **The essential guide to Dynamics 365 Project Operations**

How does Project Operations integrate project management, sales and finance aspects in one solution that helps overcome common internal and external hurdles in managing projects? Learn about the benefits and opportunities that Project Operations offers as well as how a Microsoft Partner can support you in implementing it.



### **Efficient field service with the right software**

Find out how a solution for field service management will help you overcome challenges in field service and how you and your customers will benefit from it. Learn about concrete advantages of the Microsoft solution Dynamics 365 Field Service in the included case study of one of our customers.



### **More power for Dynamics 365**

Users without programming skills are able to analyze and visualize data, build custom business applications, automate recurring processes and more. How? With the help of the Microsoft Power Platform that is based on the low-code applications Power Apps, Power BI, Power Automate and Power Virtual Agents. In this white paper, you'll learn more about the concept of low code and its potential for enhancing Dynamics 365.

# We offer a helping hand in your digital transformation

The ideal digital transformation partner is not only an expert in theory and technology but also in its customer's industry. Our consultants are familiar with the processes, priorities and challenges of different sectors. Contact us!

[www.proMX.net](http://www.proMX.net)



**look@proMX.net**



**+49 (9 11) 81 52 3-0**



**+1 (786) 600-3688**

