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Beyond the factory floor:
digital transformation of
manufacturing companies

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Content

Introduction

When people talk about Industry 4.0, they usually think of high-tech plants and robot-controlled production, and now, perhaps, also of digital technology like mixed reality and the Internet of Things.

Industry 4.0, however, doesn't just include what happens on the factory floor. Its sole goal isn't just to create a factory of the future, but to digitally transform companies as a whole. Ranging from marketing to accounting, core processes should be as efficient and as agile as possible.

Why? It is not just the manufacturing itself that is crucial in manufacturing companies, but all prior and following processes. Digital transformation is a must if companies want to be able to react to challenges like global competition, pricing pressure, supply shortages or short-term market changes at any given time.

Whether you already have a smart factory or not, you should think of other factors, too. Transformation of the entire ecosystem is what is crucial.

In this white paper you'll learn about the advantages of digital transformation in manufacturing and take a closer look at the technological potential in three business areas — sales, project management and field service.

Challenges in manufacturing

There are plenty of great challenges that manufacturing companies face. Luckily, changes to their modus operandi empower them to tackle many of these challenges:

Competitive and innovative pressure:

Established manufacturers often struggle with rising competitors from low-wage countries. Companies can stand their ground by offering excellent quality and customer service.

Higher customer and service demands:

Nowadays customers do not only wish for high-quality products, but also quick solutions for errors and failures, more flexible means of communication and low extra costs for tending to their individual wishes.

Lack of flexibility:

Outdated, inefficient tools and long decision making often get in the way of adapting to changes quickly. A change of culture is necessary to introduce and accept new technologies.

Lack of professionals:

The manufacturing industry needs the commitment of its existing employees and to attract new ones. An outdated image of traditional manufacturers can be deterring, however. Modern workplaces will attract younger professionals.

Just like in other industries, manufacturers often try to resist changes. New technologies in particular aren't primarily seen as a means to make their work easier, but rather as a threat to their job. Therefore companies that decide to go down the path of digital transformation should always take change management into account, too.

Which areas of your business would you like to improve? Let's discuss your ideas!

CONTACT US TO TALK »

Benefits of digital transformation for manufacturing companies

Despite all challenges the manufacturing industry faces, "digital transformation" as a project may still not sound like the right answer to its struggles. After all, it's a significant effort that creates costs and several risks, too.

If in doubt, take a look at the many medium- and long-term advantages of digital transformation.

These include:

Savings through automation and increased efficiency

Better and faster **decision making** thanks to a profound data base

More flexible **adaptation** to changing market conditions

Higher **customer satisfaction** by becoming more unique

Greater **innovative prowess** through lower costs for executing new ideas

More **attractive employer** through modern workplaces

Increase in sales through better customer loyalty and new digital business models for new target groups

Valuable **insights** in real time to tackle negative trends in time

Organizations that optimize their processes with the help of digital technologies operate more efficiently. Thus, a successful digital transformation impacts fast and visibly on company success.

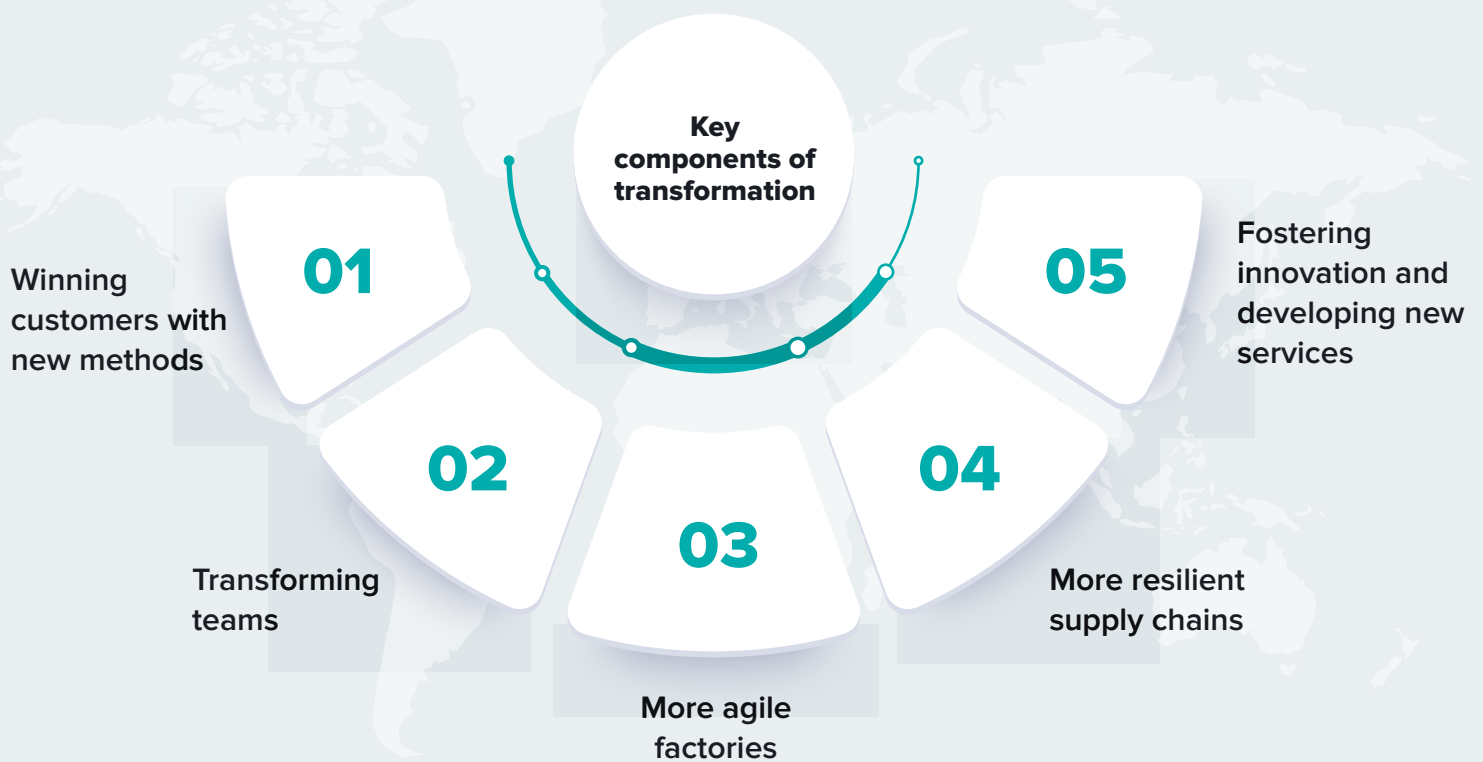**Professional support for your digital transformation**

With the support of a transformation partner you'll implement your project much faster, more efficiently and keep costs lower. Your partner's expertise will help you determine the right strategy and tactics for your project, among others.

The right partner has worked with companies in your industry and of similar size to your own business.

Key components of digital transformation

Microsoft has identified five central, transformation-related topics that help manufacturers create a resilient and sustainable future for themselves:

Key components of transformation

01

Winning customers with new methods

02

Transforming teams

03

More agile factories

04

More resilient supply chains

05

Fostering innovation and developing new services

In this white paper, we'll take a closer look at three topics: winning customers with new methods, transforming teams and fostering innovation and developing new services.

Winning customers with new methods

The main goals of every sales department are winning new customers and earning customer loyalty. Whereas in the past the challenge probably lay in drawing people's attention to an offer, nowadays customer satisfaction has become decisive for recurring sales.

Few manufacturing companies have a monopoly. They compete with other manufacturers that produce the same or a similar product. Consequently, customer experience has increasingly become a unique selling point and will give you a competitive edge. These include relationship selling, new services, intelligent field service and material planning systems.

Relationship selling is a sales technique that isn't focused on classic sales argumentation such as price or product details, but prioritizes the relationship between the seller and the buyer instead.

If companies want to offer an outstanding customer experience, they need to be sure to provide efficient end-to-end sales and service experience in each phase of the customer journey. Digital transformation opens up new opportunities to interact with customers across all channels. It offers solutions for reaching customers effectively and for improving customer engagement services.

Transforming teams

Digital technology creates the basis for improved processes and smarter decisions. However, employees across all departments need to make and execute these decisions. A primary goal for companies is to increase its productivity and efficiency.

In order to achieve this, it needs to provide its employees with better tools while at the same time making sure to teach them the necessary skills to use them. It should also help them accept and embody the concept of constant improvement that comes with digital transformation. No one has to feel overcome, excluded or overwhelmed by change.

That is why teams need to understand why change is necessary and the reasoning behind it. Accompanying change management is a decisive factor for the success of digital transformation.

Transformed teams can optimize their knowledge management, work more effectively from anywhere, are more comfortable in their workplace and are better equipped to work on their tasks.

Fostering innovation and developing new services

Nowadays you don't advance with technology alone, but through innovation of all sorts in each and every department. It is most important to predict your customers' demands and introduce the right processes while developing the right products or offering the right digital services.

Developing these products and processes makes digital feedback loops, open innovation practices, cloud-based tools for design, simulation, validation and trainings much easier. All these things are enabled by cloud computing.

Cloud computing provides you with reliable data to make better and faster decisions, create more efficient processes, further increase productivity, and develop better customer relationships and loyalty. That is how manufacturing companies can secure their competitive edge and exceed customer expectations.

Software for transforming your sales, project management and field service

Microsoft offers many products that are perfect for manufacturers or specifically made for them. We would like to introduce you to three Dynamics 365 modules, Microsoft's portfolio of intelligent business apps.

> In this white paper we'll give you an overview over these three apps. To learn more, we recommend that you dive deeper into our individual white papers, which you will find at the end of this document.

Sales automation with Dynamics 365 Sales

Microsoft Dynamics 365 Sales helps your sales team collaborate in a more organized fashion. Additionally, it takes over many unwanted and time-consuming tasks. It also creates a whole new world of opportunities for winning customers.

Dynamics 365 Sales combines customer relationship management (CRM) with sales automation. It is aided by artificial intelligence (AI) and easily customizable to your company's requirements.

Overview of all customer data

The minimum requirement sales software should fulfill is to summarize all data in one place that is easily accessible and clear. In Dynamics 365 Sales you can record lead and account information, related documents (e.g. offers and orders) and document all activities such as e-mail or the date and details of a call.

This way each team member can access all data and the entire customer history at any time. It improves transparency and helps with vacations or other types of absences on the team.

Upon viewing a data record, the status quo of the customer relationship is immediately visible. You can see what happened last and what's supposed to happen next: a true 360-degree view of the customer.

Data record of customer provides all relevant info

Dynamics 365 Sales not only offers storage space for your customer data, it also helps you use that data more effectively to shorten the sales cycle by as much as possible. For example, the app creates scores for you (based on signals from Dynamics 365 and Microsoft 365) to rate customer relationships and assess potential risks.

You'll instantly know which customer needs more care. If thus far you have relied on your intuition for some tasks, you can now access reliable data that'll provide you with a solid base for more success.

Automating standard tasks

Sales automation doesn't replace people; on the contrary, it helps them focus on the tasks that really matter.

There are many areas in which computers can't keep up with humans: conversations with empathy for the person you're talking to, coming up with spontaneous and creative solutions, implementing sales tactics.

In other areas, however, they are superior: keeping an overview of vast amounts of data, meeting deadlines, evaluating figures, efficiently executing recurring tasks.

Tasks that are part of the sales process and that can easily be automated with the help of software, should be automated with the help of software. Dynamics 365 Sales can help with the following tasks, among others:

Sending reminders for deadlines and appointments

**Creating data records automatically**

Making intelligent suggestions

Artificial intelligence cannot take over communication with potential customers, but it can support you with it. For example, the AI assistant in Dynamics 365 Sales is able to recognize the content of e-mail inquiries that ask for feedback and reminds the salesperson in charge to respond in time.

Data over intuition

Much of the data created in the sales process needs to be evaluated, because the results can be the basis for decisions later. With the help of Dynamics 365 Sales, you don't need to create these evaluations manually. Instead, the app generates them automatically based on the data in your system, including leads, activities, offers, sales opportunities and lead scores.
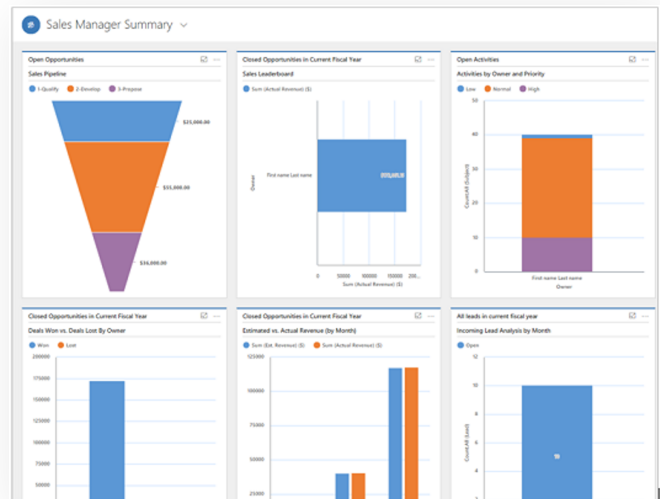
At the very beginning of the sales process, embedded artificial intelligence provides you with vital information. As mentioned above, it can identify the most promising leads and sales opportunities based on scoring parameters. It can then prioritize them for the salesperson. This way, your team member won't waste time and can instead work on (and with) the most lucrative customer.
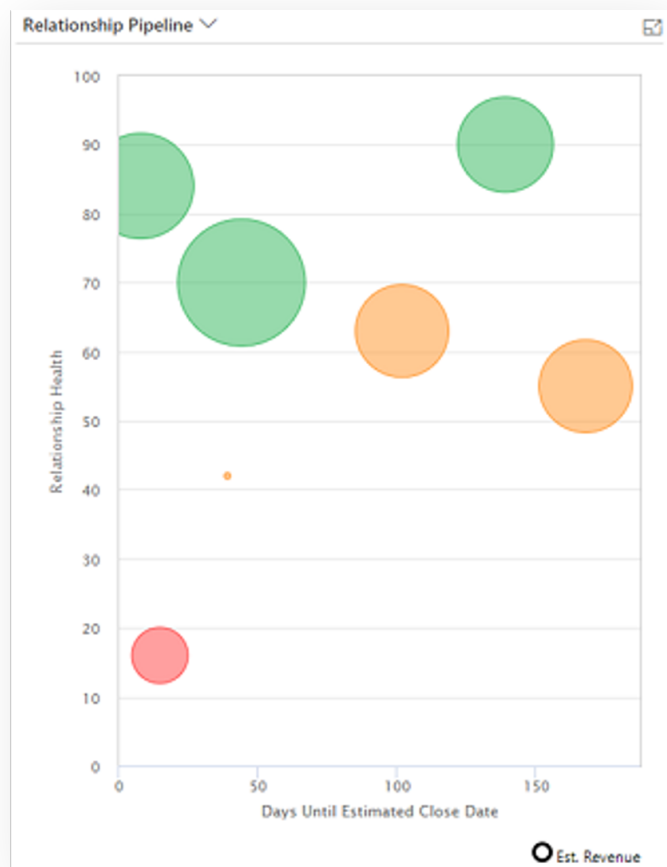
So-called "relationship analytics" in Dynamics 365 provides your sales team with a graphic that answers the following questions:

- ✓ **Which sales opportunity should be prioritized?**
- ✓ **Is it a healthy customer relationship?**
- ✓ **How much time have we spent on the customer?**
- ✓ **How many e-mails have we sent them in the past?**
- ✓ **How many meetings have taken place?**

- ✓ **How often does the customer respond to e-mails?**
- ✓ **When did we last contact them?**
- ✓ **When should we follow up?**
- ✓ **How many activities from the customer have there been?**
- ✓ **How long does it take for the sales team to respond?**

Here you can easily compare your customer relationships with successful sales activities from the past. It'll help you recognize the most important measures which led to success and which led to failure. Simply apply your insights to your current sales opportunities.

We're happy to introduce you to the app in a webinar. Let us know which functionalities you are interested in particularly and benefit from our know-how as experts.

CHOOSE A DATE »

Project management with Dynamics 365 Project Operations

As Professional Services Automation software, Microsoft Dynamics 365 Project Operations comprises all functionalities that project-based companies need. It renders project business more transparent, efficient and productive – for everyone involved. It unites teams, optimizes processes, accelerates project execution and maximizes profitability.

The application unifies all of the best project management capabilities from Microsoft's portfolio. Among them are the features of Microsoft Project and modern tools for (remote) team collaboration.

Project Operations is an all-in-one solution that covers the entire project life cycle – from sales to project management and accounting. However, you can always hide features that you don't need.

Optimized processes for better collaboration

Projects are no one-man-shows; many people contribute to them. That is why effective communication and transparent processes are important prerequisites for project success. But the wider the variety of different software your project team uses, the harder it gets to guarantee both.

That's why Dynamics 365 Project Operations brings together all project-related processes in one app.

Everyone involved works in the same environment where they have access to all tools they need to perform at their best.

Among other advantages, that optimizes the transition from the sales phase into project business, because the project team can already be involved in the opportunity phase. That helps to plan better right from the start. Project managers can see the status of an order, how probable it is that the project will be completed, and when it will approximately start.

During the project, Microsoft Teams supports communication between all project team members. You can set up a team for each project where your resources and contact persons can exchange and save messages and documents or talk on (video) calls. That puts an end to inefficient, endless e-mail traffic and ad-hoc phone calls.

A positive side effect of this type of communication is that it increases transparency for your customers. They can object at an early stage if something doesn't develop to their liking, since they have a direct line to the project team. That minimizes one of the most common problems in project management: inefficient communication.
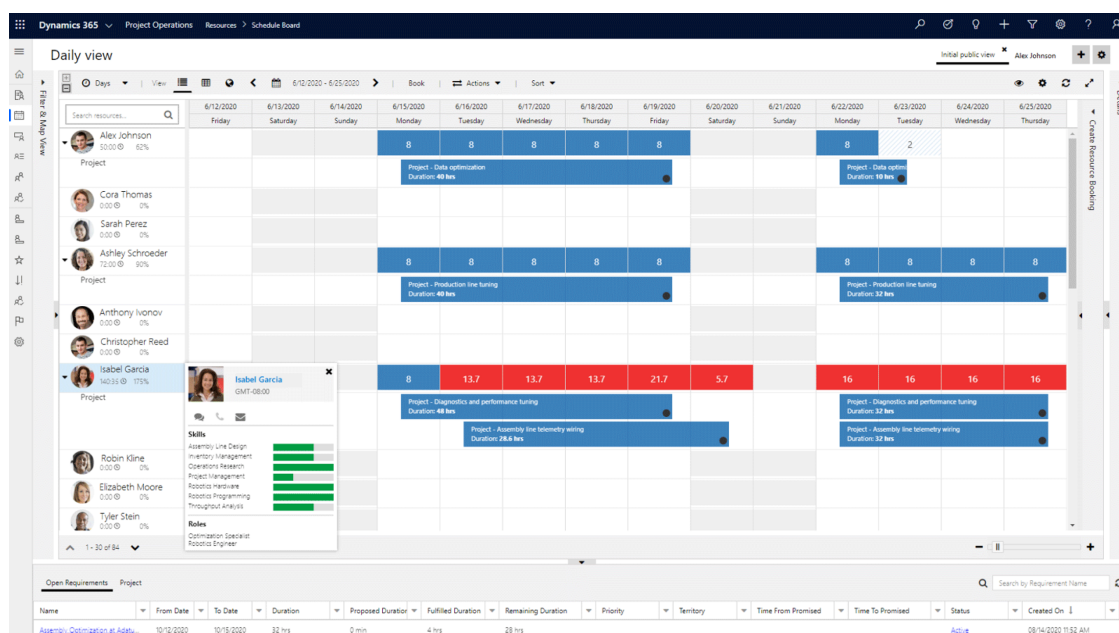
Overview of skills and availabilities of team members

Another decisive factor for the success of a project is to assemble the best possible project team. To achieve this, Project Operations offers intelligent resource planning tools that include the availability and skills of each resource in its calculations.

Unified Resource Scheduling

Several Dynamics 365 modules access Unified Resource Scheduling. It serves as a shared resource pool for all applications to make sure resources for a certain area aren't scheduled twice. A person cannot work on a project and be in field service or help with second-level support at the same time. Unified Resource Scheduling calculates the best resource for every job or task based on availability, skills, location and other factors.

Avoid common pitfalls

Perhaps the most common, and in any case, most severe problem in project management is missing goals. That means deadlines cannot be kept and budgets are exceeded. Both can happen easily if no one intervenes in time. It is the responsibility of your project managers to always control deadlines, budgets and quality targets and to react in case of negative developments.

To do so, they need a real-time overview of all relevant figures at any time: project progress, resource usage, costs, etc. In Dynamics 365 Project Operations these are saved centrally, for example on your personal dashboard that appears after log-in. Project managers recognize immediately if something is not going according to plan and can initiate measures to bring the project back on track.
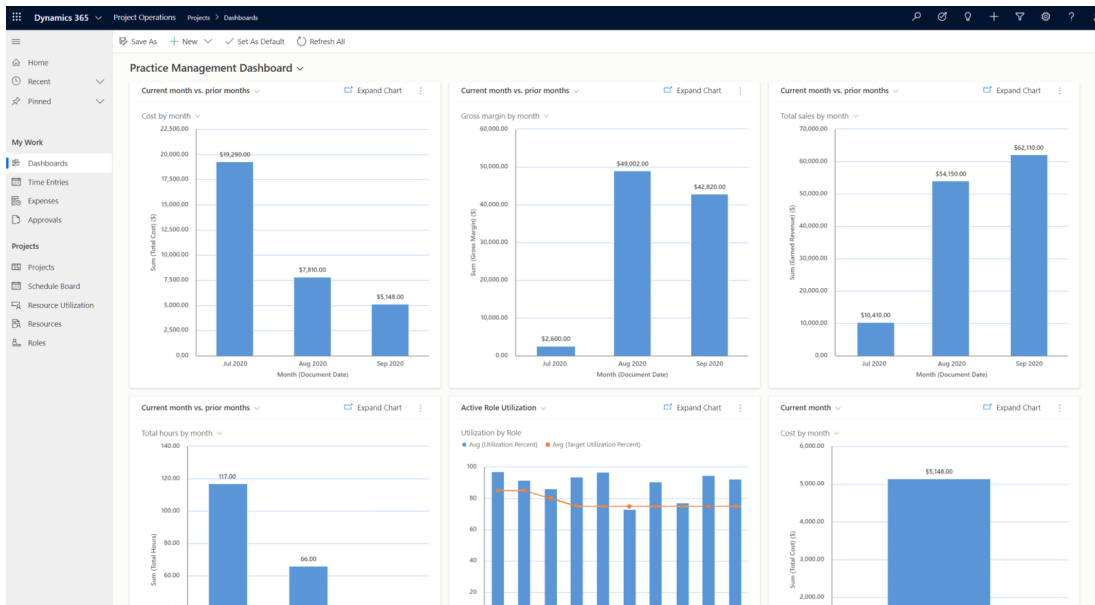
Dashboard with the most important current project figures

Unrealistic planning may be another reason for failing to reach goals. A PSA software like Project Operations helps here, too. It enables you to precisely predict how many employees, materials and financial resources are necessary for a project and how much time each work package will likely take.

Confusion and delays may also be caused by unclear dependencies between work packages. That can be avoided using Gantt diagrams like the ones that are part of the Microsoft Project Workspace in Project Operations.
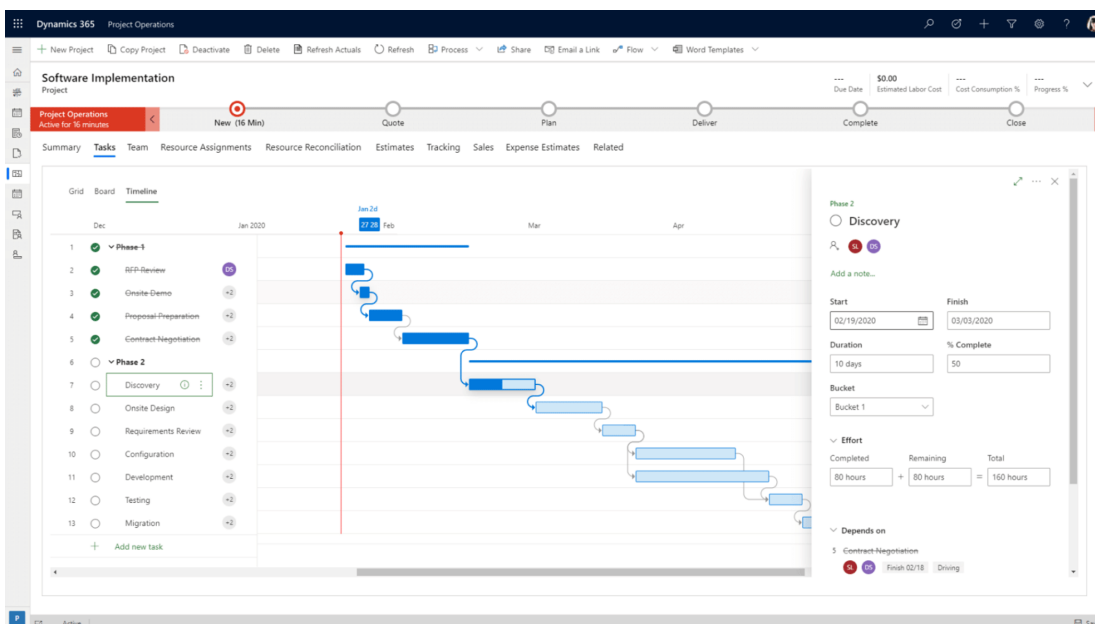

Gantt diagram

Productive tools for all team members

With the right tools at hand project managers can speed up the project's execution. In Dynamics 365 Project Operations, functions of Microsoft Project are integrated, including dashboards, task management, scheduling and planning, Gantt diagrams and work breakdown structure.

A rather tedious task every team member needs to do is tracking their working times and expenses. Project Operations significantly simplifies the process, for example, through artificial intelligence that automatically transfers details on expense receipts to the system or thanks to its ability to record bookings via the mobile app. The fewer clicks necessary, the more reliable the tracking.

The equally optimized subsequent approval workflows improve the accuracy of the data to avoid mistakes in invoicing.
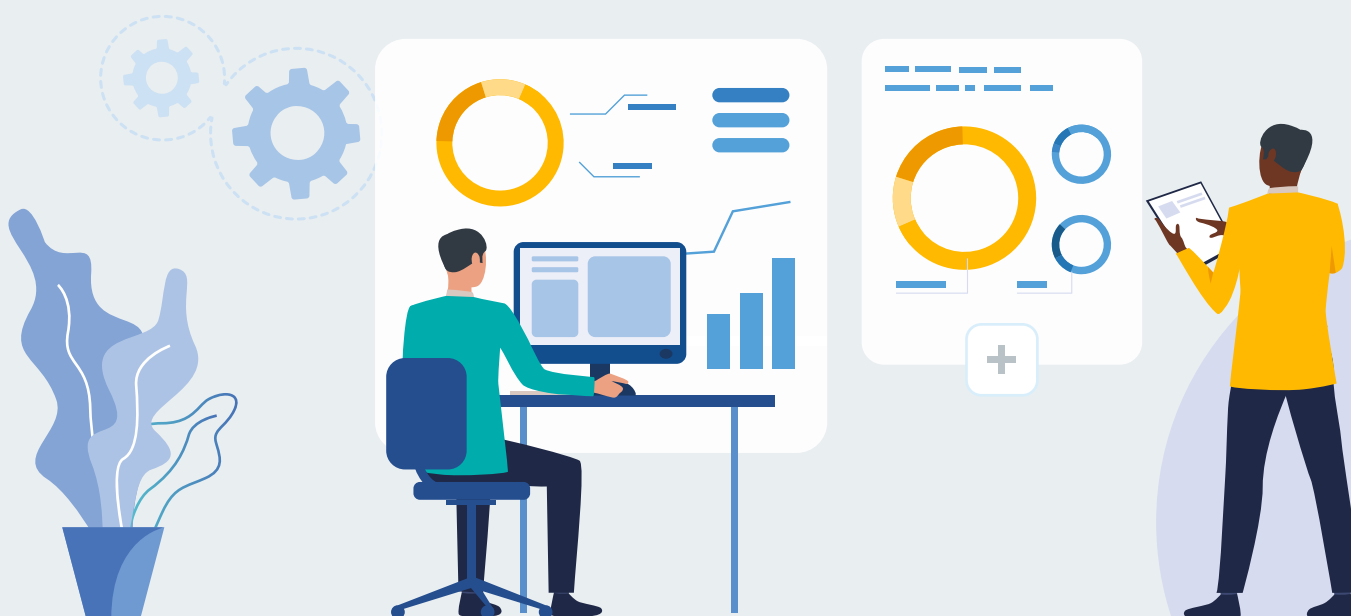
Deep dive into Dynamics 365 Project Operations with one of our experts. Just leave us a message and we will contact you.

INITIATE CALL >>

Field service with Dynamics 365 Field Service

Microsoft Dynamics 365 Field Service is software for organizing technical field service. It offers digital support in this tricky but important business area.

Via automatization and algorithms, it takes some workload off of dispatchers when it comes to assigning, preparing and coordinating service technicians. Additionally, the mobile app supports field service agents with their on-site work.

Better planning leads to more successful field service assignments

Every potential field service job starts with a work order. In Dynamics 365 Field Service, this includes all information that is necessary to successfully execute it: details about what kind of work needs to be done, status information, estimated duration and priority. When your technicians have comprehensive information about the customer and their service history and are equipped with the right tools and fitting spare parts, they are well prepared to deliver the service task efficiently.

Field service agents can access these details via the mobile app on the road, too, including information about the work order, routes or navigation instructions. Since they may not be aware of every customer's situation and service history or may be on site for the first time, this kind of information (for example, when a system was installed or repaired, or in which room it is located in the customer's building) makes their job easier.
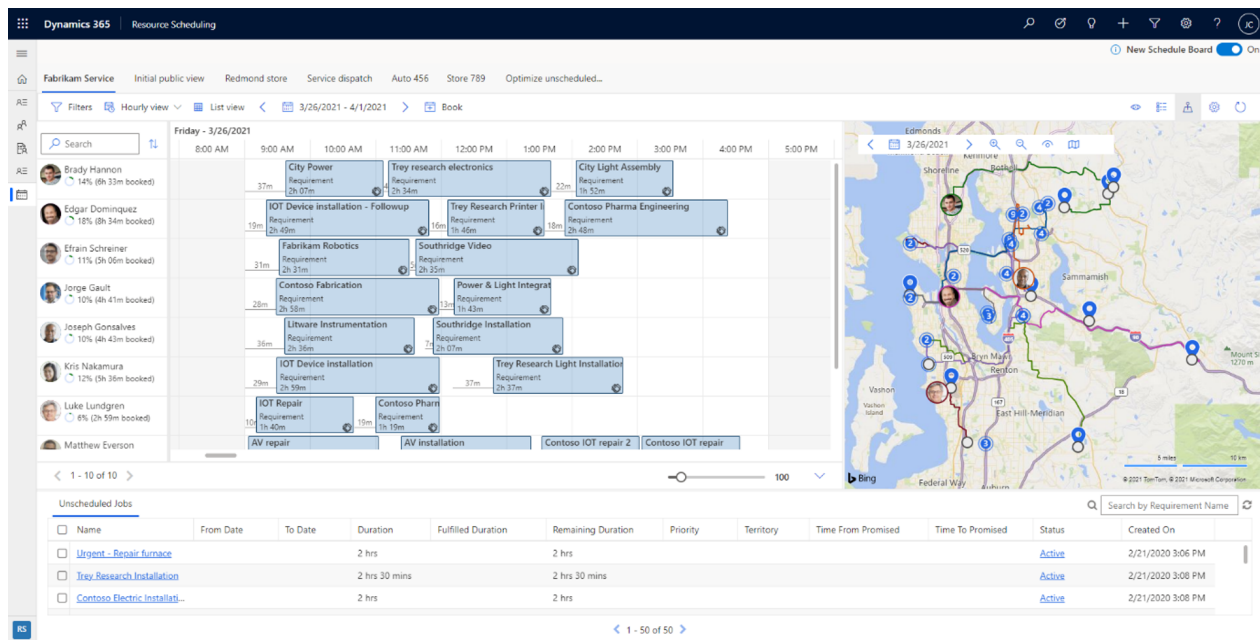
The Schedule Board helps to assign the field service agents as logically as possible.

The core of this process within the application is the Schedule Board. It enables dispatchers to schedule resources in the best way possible. All current jobs, their respective status, and the timetables of all field service agents are shown. Jobs that are marked on the map can be placed on a resource's timetable via drag-and-drop. It is also possible to schedule service assignments automatically. This option takes the employees' skills, their location and the optimal workload into consideration.

The integrated inventory management provides a real-time overview of tools and spare parts in warehouses or vehicles, as well as of work orders and returns. This ensures their availability on schedule or triggers a re-order and correct distribution.

## Efficient communication among all stakeholders

Jobs at the customer site require a lot of clarification: between the service company and the customer, and between the dispatchers and the field service technicians.

The former can be improved a lot with Dynamics 365 Field Service without creating additional work for employees. The first contact between both parties – the creation of a work order – can be handled more efficiently. It can be set up easily, quickly and flexibly via a customer portal. This is also the place to plan activities and manage documents; even automated work order creation is possible here, triggered by an alarm of a connected IoT sensor from a plant at the customer's site (learn more about that below in the paragraph "Connected Field Service").

Work order creation via customer portal

Connection to headquarters

Automated customer notification
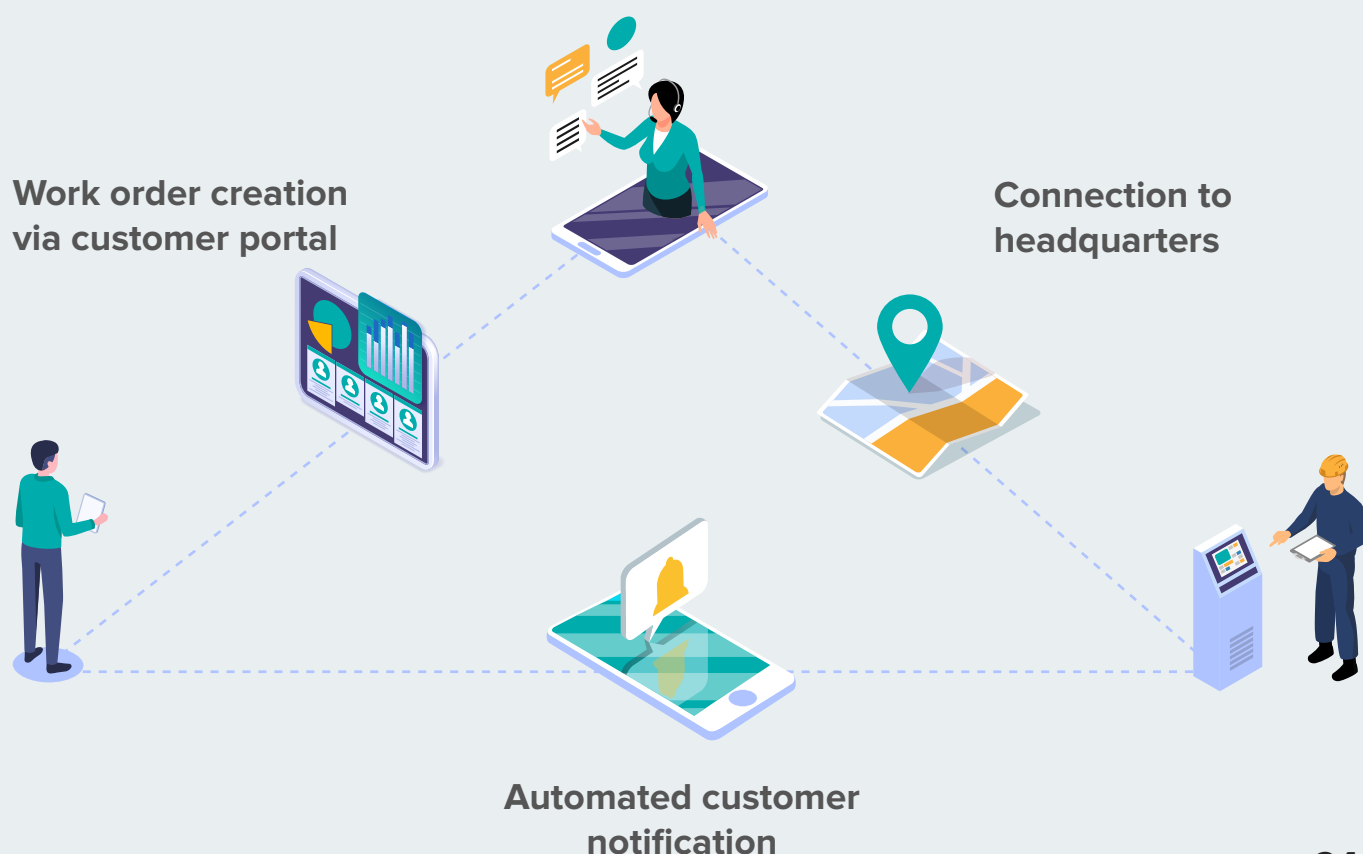
Once the timeline is ready, the app automatically sends notifications to customers if desired: when an appointment is fixed, when the technicians start driving up to the customers, when there are delays or a new appointment must be made. That helps customers to plan better, and they are always informed about the status of their work order.

Back office and field service agents are in constant contact with each other, too. This improves collaboration and coordination before, during and after on-site jobs. Being connected with your headquarters is particularly helpful if an unclear issue pops up during a service job or if technicians need to discuss the next steps. The Dynamics 365 Field Service mobile app supports technicians before, during and after their work on-site. For example, they can add photos, videos or text to document their work, or they can let customers sign off on the service they performed.
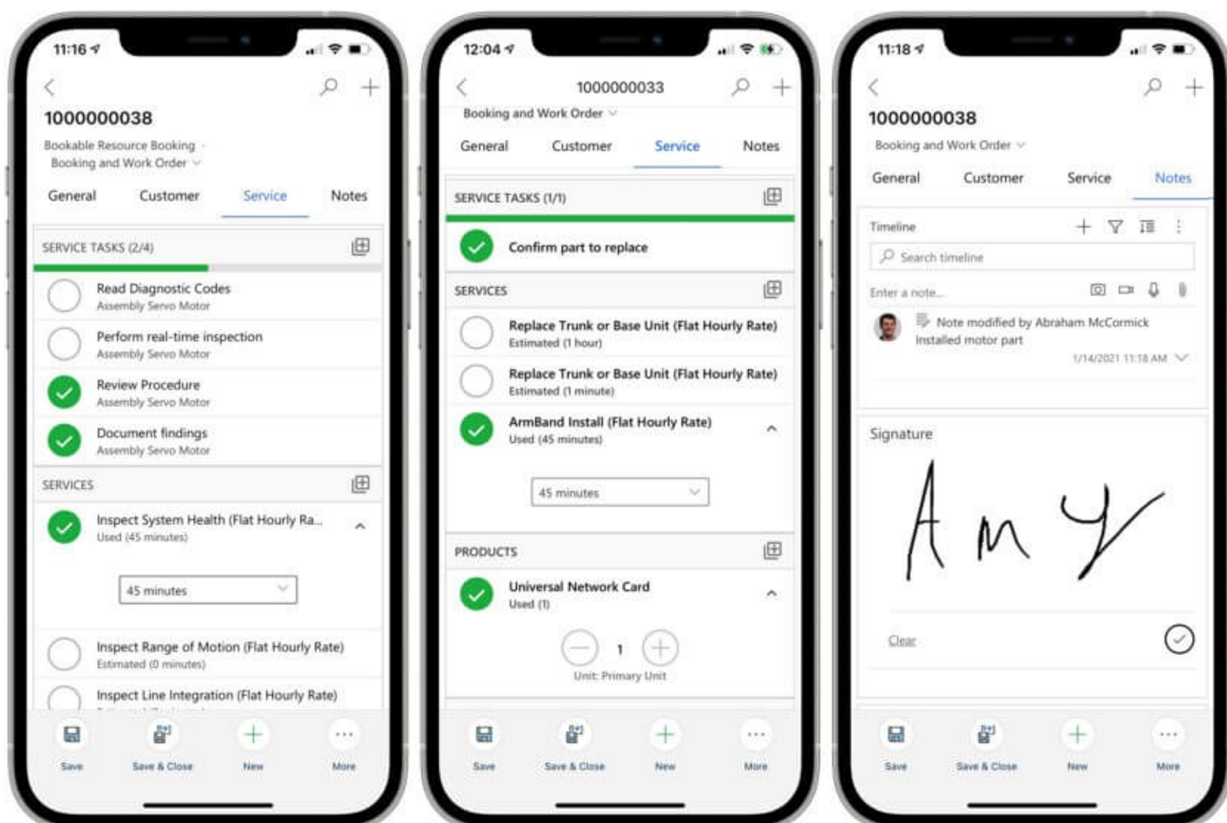

Dynamics 365 Field Service mobile app

Modern maintenance models

Field Service is a great example of how digital transformation can make a tedious, cost-intensive task for the company not only more efficient but, in some cases, profitable.

An example of a complete transformation of the customer experience is predictive maintenance. It gives manufacturers the possibility to improve the reliability of their plants and avoid problems that otherwise would cause production downtimes.
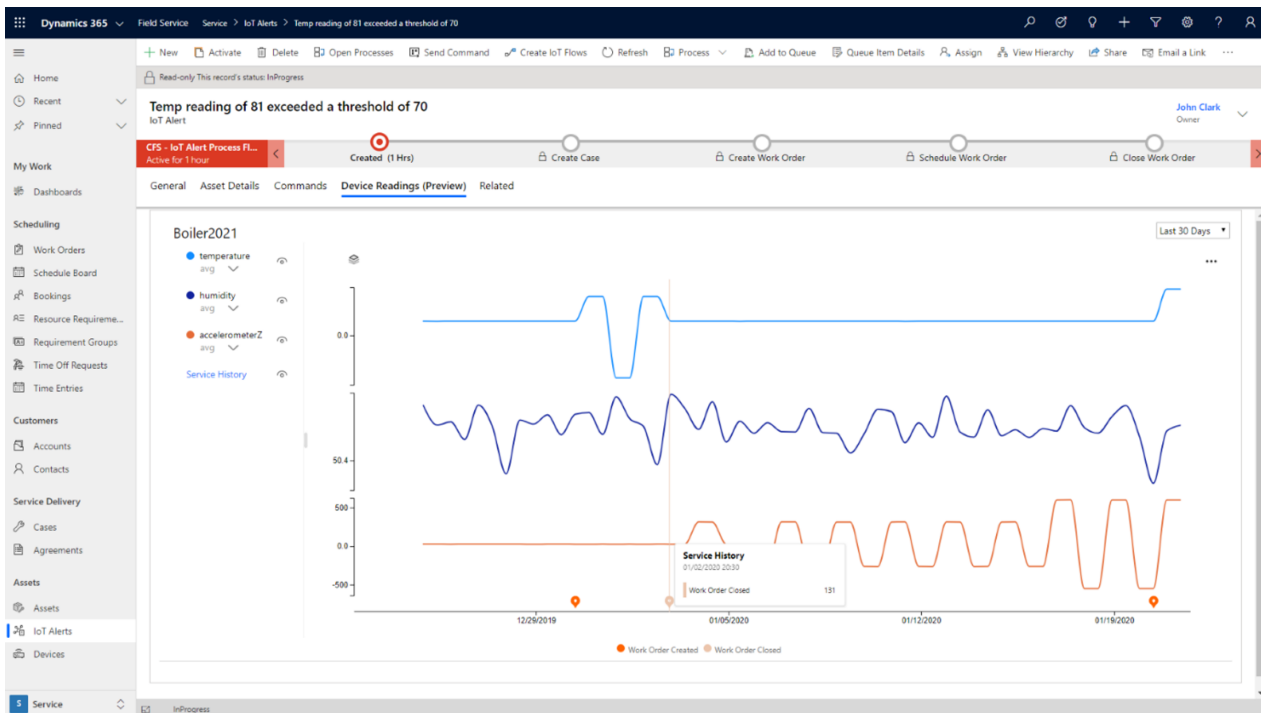
IoT sensors on plants or machines show malfunctions

By documenting the customers' mood, usage and other data as well as by analyzing it using machine learning algorithms, manufacturers can generate the insights they need to optimize processes and make changes, improve product quality and increase customer satisfaction.

In doing so, instead of offering only reactive service, it is a crucial step to develop a predictive just-in-time maintenance model which allows you to take action only if necessary, thus saving money. Internet of Things sensors on plants and machines can recognize malfunctions remotely and perhaps even solve them remotely before it becomes an even bigger problem. After all, the most efficient service jobs on-site are those that don't have to be done at all.

Connected Field Service

Connected Field Service enables remote monitoring and predictive maintenance of plants via IoT technology. Companies can transform from a model that solves problems to a just-in-time or proactive service model.
Connected Field Service also reduces downtime in plants because some issues can be fixed before the customer even realizes there is a problem; in the best case scenario, expensive and extensive work on-site can be avoided. Furthermore, data about the plant and the service that was captured by sensors help to assign the right technicians to the jobs.

To get a first-hand impression of the app, it is best if you test it yourself. We would be happy to provide you with a demo version.

TEST FIELD SERVICE NOW »

Further reading

To learn more about the applications we introduced you to,
we recommend you the following white papers by proMX:

How to boost your sales processes

Sales teams that want to be successful face a wide range of challenges.
How can they deliver predictable and scalable results in times of constant
change? Unlock the key to success in our white paper.

The essential guide to Microsoft Dynamics 365 Project Operations

How does Project Operations integrate project management, sales and
finance aspects into 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.

Field service software: increase field service efficiency

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.

Also interesting:
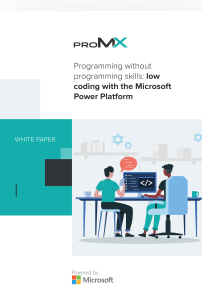
Low coding with the Microsoft Power Platform

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 the manufacturing industry. Contact us!

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