

Build Faster **With AI**

Unlock the Hidden Value of Your Oracle
Primavera P6 & MS Project Data



FORESIGHT • WORKS



BUILD FASTER WITH AI: UNLOCK THE HIDDEN VALUE OF YOUR ORACLE PRIMAVERA P6 & MS PROJECT DATA

Planning for megaprojects is hard. The schedule (also called a program) is the single most useful document of record in a megaproject. Such a schedule is typically compiled in Oracle Primavera P6 or Microsoft Project software.

Since the 1980s, Oracle Primavera P6 and Microsoft Project have revolutionized megaproject management by providing [systems of record](#). Project teams use these scheduling softwares to record the sequence of activities, their interdependencies, and durations to then calculate the time it will take to complete the project. More sophisticated teams may also include resources or costs of the activities, although that is rarer.



In theory, software like Primavera P6 or MS-Project should enable on-time project delivery by:

-  Providing a single system of record for planning and tracking progress, and
-  Enabling detection of things going off-plan to spur project teams into action — i.e. early intervention to prevent delays.

In practice, however, delays have remained stubbornly high for megaprojects over the last 70 years despite the widespread adoption of these tools. Projects appear not to be learning from their past experience despite the wealth of schedule data they now have available to them.

It doesn't have to be this way.

This eBook will examine the main shortcomings of these 1980s tools and the as-is scheduling workflow. Companies and project teams are not getting all the value from the schedule data trapped in their Primavera P6 or MS-Project records.

Overcoming these shortcomings requires a **system of intelligence**, powered with AI, on top of Primavera P6 and MS-Project to enable 21st Century performance excellence. Knowledge Concierge™ (KC) is that **system of intelligence** designed to help project teams accelerate megaproject delivery.



#1 Dark Data

According to [David J. Hands](#), Professor of Statistics at Imperial College, London, **dark data** is data produced but not meaningfully used inside an organization. Schedule data in megaprojects typically goes dark; it's produced at great expense but becomes trapped in a "black box" of Primavera P6 .xer or MS-Project .mpp files — a form that's not understandable to non-schedulers. **Because of this, executives and workforce professionals do not engage with the technical and obscure details of the program.**

[Gartner](#), the premier tech research company, likens dark data to "dark matter in physics" and argues that **organizations incur more cost in storing and securing dark data than the value they get out of it.**

A similar fate befalls schedule data. Only a few people, even on a megaproject, have the appropriate training and experience to view, make sense of, edit, manipulate, and extract the data stored in Primavera P6 or MS-Project. Thus, even when the underlying data contains useful signals, the project team fails to register it and act upon it in time.

SCHEDULE DARK DATA CHALLENGES

01

Key stakeholders, particularly owners and decision-makers, are unable to quickly access project data on their own.

02

Project managers become "middlemen" in the flow of data, spending many hours crafting reports and updates.

03

As the reporting burden grows, teams may hire specialized analysts, thereby adding more layers to an already-sluggish process.

The above cycle slows decision-making velocity and makes it difficult for teams to proactively address risks and bottlenecks.



Where teams lose time	What's at stake
Requesting project data	Decisions are either stalled until data becomes available or made without sufficient data at hand.
Creating reports	Planners, schedulers, and analysts perform fewer high-value tasks.
Disseminating and reviewing information	Increased burden on all team members to send and review internal communications, attend meetings, and confirm alignment.
Generating actionable insights from the raw data	Priorities get lost in the complexity of schedule data. People may be working super hard without the project moving forward.

STRATEGIC BIAS: A HIDDEN RISK OF DARK DATA

When schedule data is trapped in the “black box” of Primavera P6 or MS-Project, strategic bias may be introduced to the project. In his article, Top Ten Behavioral Biases in Project Management: An Overview, Oxford University professor Bent Flyvbjerg explains:

“Strategic misrepresentation is the tendency to deliberately and systematically distort or misstate information for strategic purposes...for instance, [when in] competition for scarce funds or jockeying for position.”

When only a few people control the upward and downward flow of project data, there is a greater likelihood of it becoming distorted or misrepresented. The phenomenon of strategic bias is well-documented in megaproject research. In fact, Flyvbjerg notes that the bigger and more expensive a project is, the more likely strategic misrepresentation becomes.

With this in mind, it is imperative that megaproject teams democratize project data as much as possible to enable accurate, unbiased decision-making.

One of the best ways to de-bias the plan is to shed light on the dark data, make the plan collaborative, and expose it to the whole project team.



The Shortcomings of Traditional Scheduling Software

#2 Amnesia: Not transferring learning from past projects.

Everyone knows the phrase “hindsight is 20/20”. For megaprojects, this phrase should read, “hindsight is invaluable”.

Learning from past patterns can help megaproject teams avoid repeating costly errors or oversights in the future. In data science, the process of predicting future outcomes by analyzing similar past situations and their outcomes is known as reference class forecasting. Unfortunately, though, existing scheduling software offers little to no functionality in this regard.

Reference class forecasting techniques were invented by psychologists as a way to correct optimism bias in forecasting. Human beings have a tendency to be optimistic about how long it will take them to do things. They form biased forecasts for even the most basic tasks, such as how long it will take us to go to the grocery store. In complex megaprojects, this bias amplifies.

Most project teams make no attempt to systematically learn from historical data. Such teams live in a state of project amnesia. In the words of one CEO, “We have been building projects since the 1970s but every time we start a new project, it is as if we have never built anything before.”

Some teams hire outside consultants who use third-party tools to visualize their historical data, such as Acumen or Power BI. This approach has its own challenges, though:

1

It is time-consuming to extract, analyze, and communicate these findings, resulting in large consulting bills;

2

Tools such as Power BI are only as good as their human handlers. These tools are not purpose-built to perform these calculations, so they require advanced configuration and administration to be used effectively. In the hands of a good consultant, a project team may get useful, albeit expensive, service. Getting consistent service across the entire portfolio proves challenging and non-scalable.



The silver lining is that a system of intelligence can natively read the Primavera P6 or MS-project data and systematically compare it against a relevant reference class of previous megaprojects and industry benchmarks.

UNIQUENESS BIAS: A HIDDEN RISK OF NOT DOING HISTORICAL DATA ANALYSIS

Without historical insights, uniqueness bias can quickly take hold in megaprojects. When this happens, project planners and executives believe their project is more singular than it really is. This feeling of exceptionalism fuels the belief that their project will not encounter the same risks that impact the wider population of megaprojects. These projects are consequently designed from a perspective known as the “inside view”.

From the inside view perspective, planners and management focus narrowly on the specific circumstances of the current project and draw on their own experiences to make decisions about budgets, schedules, resources, and more.

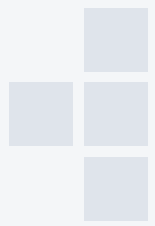
The inside view carries dire consequences as it fails to account for unknown unknowns — risks that simply cannot be predicted due to the sheer complexity and size of megaprojects.

The alternative to this is the “outside view”, wherein teams view their project from the perspective of similar projects that have already been completed (a relevant reference class). Only the outside view can account for unknown unknowns because anything that went wrong with previously completed projects is included in their outcome data.

Because megaprojects span many years or decades, it is unlikely that any individual could complete a sufficient number of projects in their career to accurately design a project from the inside view. There are simply too many possibilities to predict how a project may go wrong.

The best way to achieve an outside view is to employ reference class forecasting during project planning.





The Shortcomings of Traditional Scheduling Software

#3 Lack of collaboration, intelligent work management, and team insights

Scheduling software like Primavera P6 and MS-Project are powerful systems of record. But they are ineffective at prioritizing week-to-week action, small-scale activities, or follow-up across multiple teams. Collaborative features such as assigning activities to a responsible owner, commenting, tagging, and personalized tracking of activities are missing or harken back to the 1990s in their clunkiness. Without such functionality, project teams must take several manual steps involving lengthy meetings:

- 1 Identify priorities
- 2 Develop an appropriate plan of action
- 3 Create corresponding tasks in the detailed project schedule
- 4 Assign resources and responsible owners to these tasks, and
- 5 Follow up on progress toward resolution

It's easy to see how this process can break down at scale without an intelligent system to support it. Megaprojects contain thousands of activities, each with the potential to become at-risk. Manually implementing these many workflows requires tremendous human resources and coordination. As workflows progress, planners and schedulers must then cross-reference detailed schedules with the large-scale project timeline to ensure alignment.



Megaproject complexity is so great that no human team can satisfactorily manage it; human megaproject managers require AI assistance. With an intelligent, integrated work management tool, teams can reduce these burdens and resolve risks faster. Such an intelligent system can keep track of thousands of activities and sort them into the most important and urgent priorities relevant to each team.

Much like auto-complete for a Google search, this type of tool can suggest an appropriate plan of action and deploy it with a click of a button personalized for every team member. By pairing project controls with work management, teams can not only increase coordination and productivity, but more closely measure progress to resolution, too.

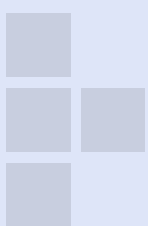
INSIGHTS GAP: A HIDDEN RISK OF LIMITED COLLABORATION

Lack of collaboration can quickly lead to process breakdowns, especially within the complex workflows of a megaproject. Teams with low collaboration tend to operate reactively, finding themselves constantly “putting out fires” to try to stay on track.

*Consequently, much time is spent gathering **descriptive insights**, or backward-looking indicators that simply describe what has happened to create the current situation.*

In contrast, collaborative teams tend to operate proactively. They use forward-looking **predictive insights** to reveal what will happen in the future and they take action using **prescriptive insights** that tell them how to avoid potential negative outcomes.

In both cases, teams are using their existing schedule data to draw out important insights; collaborative teams, however, extract much more value from their data by employing advanced insights that will improve outcomes both now and in the future.





BUILDING FASTER WITH A SYSTEM OF INTELLIGENCE FOR MEGAPROJECTS

Until now, Primavera P6 and MS-project were the default systems available to help teams execute megaprojects. These systems of record still hold tremendous value, but it's clear megaproject teams need something more. They need a system of intelligence that can work with these softwares to analyze project data, draw out important insights, and coordinate action.

System of record	System of intelligence
Compiles schedule data on a contract-by-contract or project basis	Makes sense of a large volume and variety of schedule data across thousands of projects
Maintains subjective data on projected vs. actual performance	Objectively analyzes project data against historical outcomes and industry benchmarks to proactively identify risk
Enables a few technical team members to shape the program	Empowers multiple stakeholders to access project data and take action with intelligent work management tools
Provides backward-looking analytics of progress (lagging indicators) for one file at a time	Unleashes predictive insights about delay risks and schedule compression opportunities learned across thousands of projects
Data goes dark and invaluable recommendations for action are lost	Turns dark data into insights and priorities that are visible to all teams

Foresight is a first-of-its-kind platform designed to be a system of intelligence for megaprojects. Using artificial intelligence and machine learning, Foresight analyzes project data from Primavera P6 and MS-Project to identify:

Critical tasks and priorities

Scheduling risks and opportunities

Appropriate next-steps and action items



How Foresight Helps Teams Deliver Megaprojects Faster

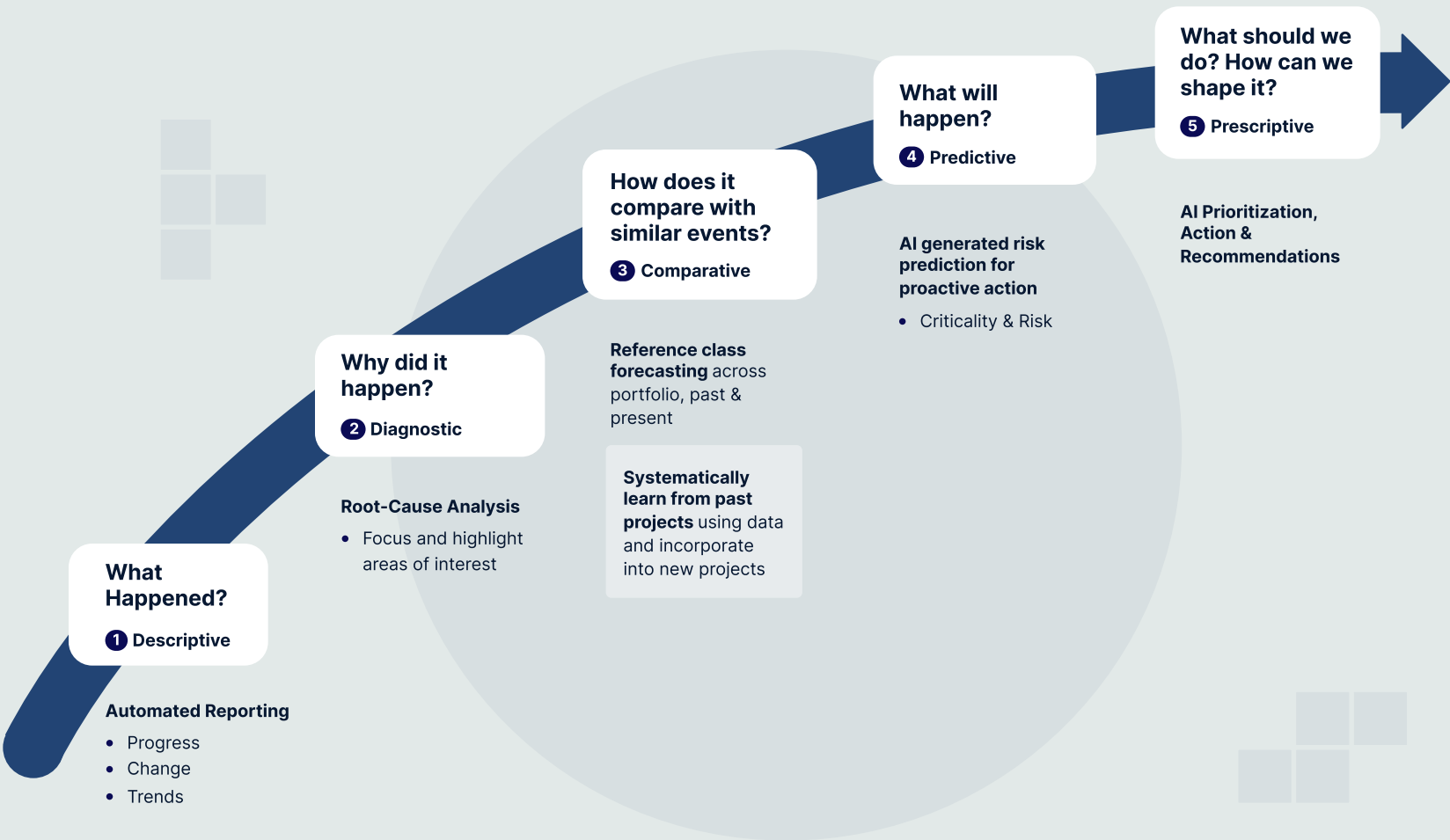
01

Increase Visibility

Foresight is cloud-based and purpose-built to support multiple end-users. Users can assign, share, comment, tag, and track progress across all teams. External parties can be invited to the platform with role-based access control to focus on specific work.

Foresight also provides teams with the highest level of insight into their schedule data. Unlike existing softwares, Foresight goes beyond answering simple questions like, “What happened?” to reveal what will happen in the future and what teams should do about it.

GLIDE UP THE DATA MATURITY CURVE WITH FORESIGHT

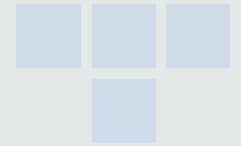


Focus On What Matters

Foresight is the only AI scheduling engine with a prioritization algorithm. Foresight sorts thousands of activities into focused priorities of what each team needs to be working on in the coming week, month, and quarter to achieve speedy results.

With Foresight's automated reporting, teams reduce hours spent on manual reporting by up to 90%. Users can configure customized dashboards displaying the insights they need most, so they can spend more time completing high-value activities.

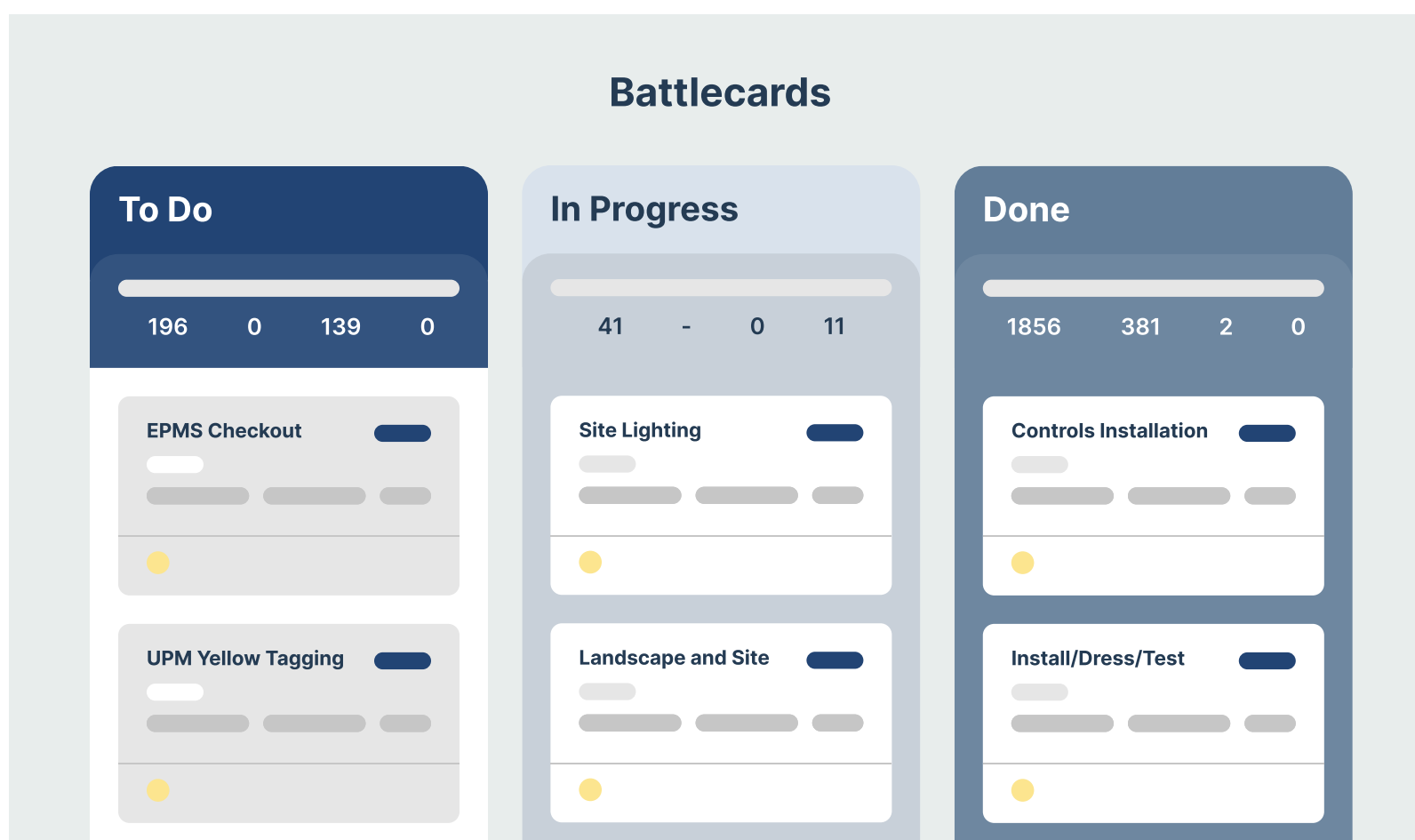




Decide Better, Act Faster

Foresight draws on proprietary industry data as well as teams' past project files to predict future outcomes. Users can see their entire portfolio on one screen — risks and bottlenecks included. Lessons learned across the portfolio become recommendations and alerts for in-flight projects.

In the Foresight platform, each activity automatically becomes a Battlecard containing all the information one needs to get it done. When a risk is detected, Foresight uses AI to suggest relevant risk mitigation strategies that can be deployed with the click of a button.



DELIVER PROJECTS UP TO 10% FASTER WITH FORESIGHT.

Accelerate your project delivery with Foresight, the only AI scheduling platform that unlocks the full value of your schedule data. **Book a demo today** to discover how Foresight can help you build your projects faster.

HOW OUR PRODUCT MAKES A DIFFERENCE



Book a demo

