How Pfizer created a frictionless drug-development project management system

By Mickey Butts

Drug discovery and development are complex. For every product like Pfizer's breakthrough COVID-19 vaccine, the pharma giant investigates many more options that could work in clinical testing. That means it has hundreds of active projects under way at any one time. Each of those research and development projects requires a project manager to create project codes and update project status, performance metrics, and scheduling information throughout the drug development process. If there's anything amiss in the process that could delay a drug's approval, the company's leadership needs to know about it and the appropriate researchers need to address it as soon as possible.

To help manage all of this complexity, Pfizer digitally transformed its legacy Snapshot project management system into an end-to-end, AI-powered automation tool that tracks hundreds of project elements. Information now flows from project managers into a data warehouse through an intuitive user interface. The data feeds into interlinked dashboards that R&D and operational leadership teams use to track project status and manage risk.

As a result, data went from static status updates that were instantly out of date to real-time data flows that serve as the single source of truth. Project managers are freed up to do more higher-order tasks. Transparency of project risks and any issues that affect the drug delivery timeline increase substantially, enabling early intervention to prevent projects from going "off track."

"We rolled out the new Snapshot in spring 2020 right as the COVID-19 pandemic hit and forced everyone to work from home," says Erin Petty, portfolio director of global product development at Pfizer. "Pfizer's reimagined R&D tool provided a mechanism for ensuring the critical project information that our people needed was readily available online in real time."

Illustration: Chris Kaeser

Product discovery & development

Example active project: COVID-19 vaccine

50% Time spent on updates [30–60 minutes to 15–30 minutes on average]

96% **80%** 16-point increase in monthly project updates completed

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REAL TIME

AI data warehouse

Improvement in system processing time **650%**

System wait time to process information decreased from 233 seconds to 36 seconds

Overall efficiency improvement **28%**

PROJECT SNAPSHOT: 1A–123YZ

Hundreds of users have benefited from the updated Snapshot, which is faster, easier to use, and includes mandatory form fills around completed goals, minimizing user entry errors.

Speed to insight accelerated: single-point-in-time system with continuous real-time data flow

Preclinical research

Clinical research phase 1

Phase 2

Phase 3

72% User experience satisfaction [2.5 to 4.3 average score, on a five-point scale]

Drug registration & approval

Project managers

MANUAL

PROJECT 1A–123YZ

AB108 E9024 — Coding   Status   Schedule   Metrics

Launch & monitoring