

EY Digital Turnaround Accelerator

Optimizing the turnaround process for chemical companies and oil refineries

Your digital world. Realized.

Time is money, and nowhere is that truer than for turnarounds. Those scheduled maintenance and repair projects, which can cost millions of dollars to hundreds of millions of dollars, often take significantly longer and cost much more than originally budgeted, according to EY research.

Turnarounds: often late and over-budget

Turnaround projects have varying complexities and costs, but investors expect companies to complete those projects on time and on budget. Beyond investor expectations, two other current market forces – an oversupplied global market and the COVID-19 pandemic – make the need to improve turnaround performance even more urgent.

A recent construction boom for some types of chemical processing plants has led to an oversupplied global market that has reduced margins for many products. COVID-19, in addition to causing a sharp decrease in demand for chemicals and refined petroleum products, has prevented sitting in a control room and conferring, with plant engineers, operators and budget managers to discuss the turnaround schedule.

For businesses that have not automated or digitized their turnaround process, the loss of person-to-person interaction may lead to the turnaround being completed late and over budget.

EY research¹ has shown that in large, complex capital projects at energy companies, including the oil refining segment, 73% of projects were behind schedule; 64% faced cost overruns and, estimated completion costs were 59% above the initial estimate.

This highlights the turnaround project that comes in on schedule and on budget remains the exception, not the rule.

It's easy to understand why so many turnaround projects go awry. It can take up to two years to scope, plan, and schedule a turnaround that lasts 6–12 weeks. Improving turnarounds requires a high level of coordination and flawless execution of numerous steps (see exhibit 1).

Costs of poor performance

Investors and lenders are increasingly imposing capital discipline on energy and chemical companies, heightening the need to hit turnaround deadlines and manage project budgets. Firms that don't perform will face weaker share prices triggered by higher risk profiles, lessened net asset value, lost market share, lowered revenue and higher costs.

Chemicals processing plants and oil refineries typically operate in a high-volume, low-margin environment. Inability to execute turnarounds on budget and on schedule can drain a company's financial strength and divert the attention of leaders.

EY Digital Turnaround Accelerator: Turning around your turnaround process

A new digital platform born from the collaboration between EY and Microsoft can help operators optimize turnarounds for chemical companies and refiners.

The EY Digital Turnaround Accelerator leverages the Microsoft Power Platform, Microsoft Dynamics 365, Microsoft Azure and Microsoft Office 365 to provide an integrated platform that taps into the power of business intelligence and data visualization to help shorten turnaround time and lower costs.

The EY Digital Turnaround Accelerator is the next step in the digital transformation of the industry. It provides all stakeholders – turnaround schedulers, operations and process engineers; financial executives, and contractors – with a near real-time single source of truth on the exact status of a turnaround. This robust solution also overlays the location of workers on site with facility and equipment IoT data to enhance the ability to monitor safety and compliance standards. The platform identifies potential bottlenecks before they occur. This low-code/no-code platform can easily and quickly be integrated into your IT structure to help boost productivity.

¹ EY, "Spotlight on oil and gas megaprojects" (2014)

The typical turnaround involves up to 20 spreadsheets and 10 separate software applications, the EY Digital Turnaround Accelerator incorporates all those disparate data sources and tools and more, producing a robust data visualization tool that can be shared across the enterprise.

EY Digital Turnaround Accelerator

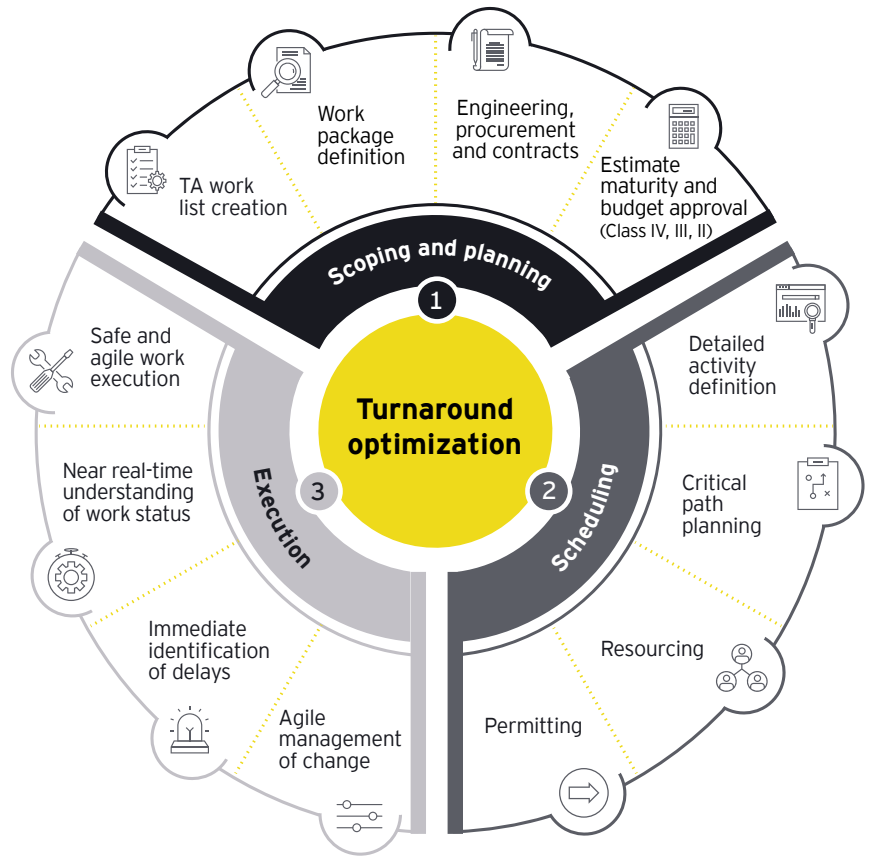
The EY Digital Turnaround Accelerator offers a rich and proven foundation to help our clients move faster and help create sustainable value by improving overall business performance. The solution provides rapid speed-to-value mapped to each client's specific business objectives.

EY and Microsoft

The EY and Microsoft alliance combines deep EY insights and experience in disruptive industry trends, new business models and evolving processes with scalable, enterprise cloud platforms and digital technologies from Microsoft. These complementary capabilities offer a rich and proven foundation to help our clients move faster and create sustainable value by amplifying business performance. Together, our solutions provide rapid speed-to-value mapped to each client's specific business objectives. Learn more: ey.com/microsoft

For more information, explore ey.com/digitaloil

Exhibit 1: The optimized turnaround process



The EY Digital Turnaround Accelerator can trim as much as 30% off the time it takes to plan and schedule a turnaround, and can reduce schedule variance by 70% or more.

Jade Rodysill, Americas Chemicals Sector Leader, EY

EY | Assurance | Tax | Transactions | Consulting

About EY

EY is a global leader in assurance, tax, transaction and consulting services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

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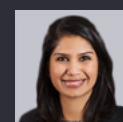
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