

Project Turnaround

A high-speed rail project was doomed for failure. Here's **how we fixed it**.

Would you invest billions in a project that had less than a 1% chance of success?

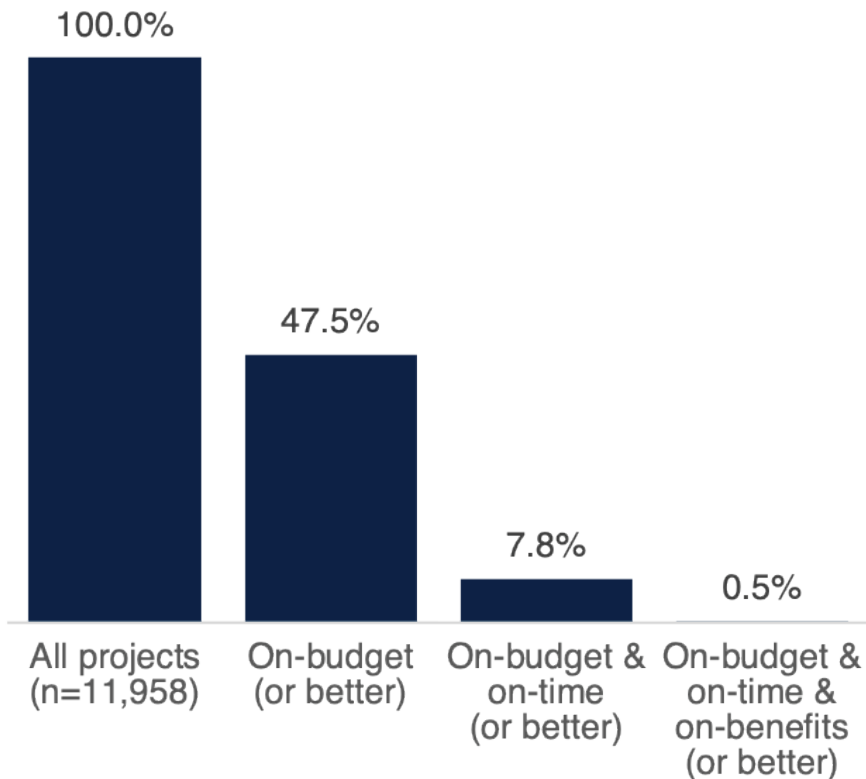
Of course not. And yet, that's exactly how megaprojects work.

Globally, we spend \$6-9 trillion USD—or more than 8% of global GDP—on megaprojects such as developing railways, airports, bridges, wastewater projects, and nuclear power plants each year. More than 99% of those projects fail to deliver on budget, on time and with the benefits they promised.

What most people don't realize is that megaprojects can bounce back from failures — even colossal ones. It requires a systematic approach, one that Oxford Global Projects has developed and used for decades to transform failed megaprojects into success stories.

[How does this process work?](#) Here's an example of how we used it to turn around a railway project that was billions over budget and years behind schedule.

The project opened ahead of the re-planned completion date in September 2018.



Over budget and off track

Hong Kong's high-speed rail



In 2014, MTR Corporation was in the midst of a crisis. Four years into a project to develop the Hong Kong section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link (XRL) — the region's first high-speed railway connecting Hong Kong with the Chinese mainland—the railway developer was facing fierce criticism for the megaproject's ballooning budget, legal controversies and completion delays. A railway that was once estimated to cost HK\$39.5 billion and open in 2015 was now expected to cost more than twice that amount and open three years late.

Alex and I were among the first experts that the Hong Kong government and MTR called upon to diagnose the root causes of this failure and execute a turnaround strategy. During the next 90 days, we used a three-step process to get the project back on track.



Analyze the failure – brutally and honestly

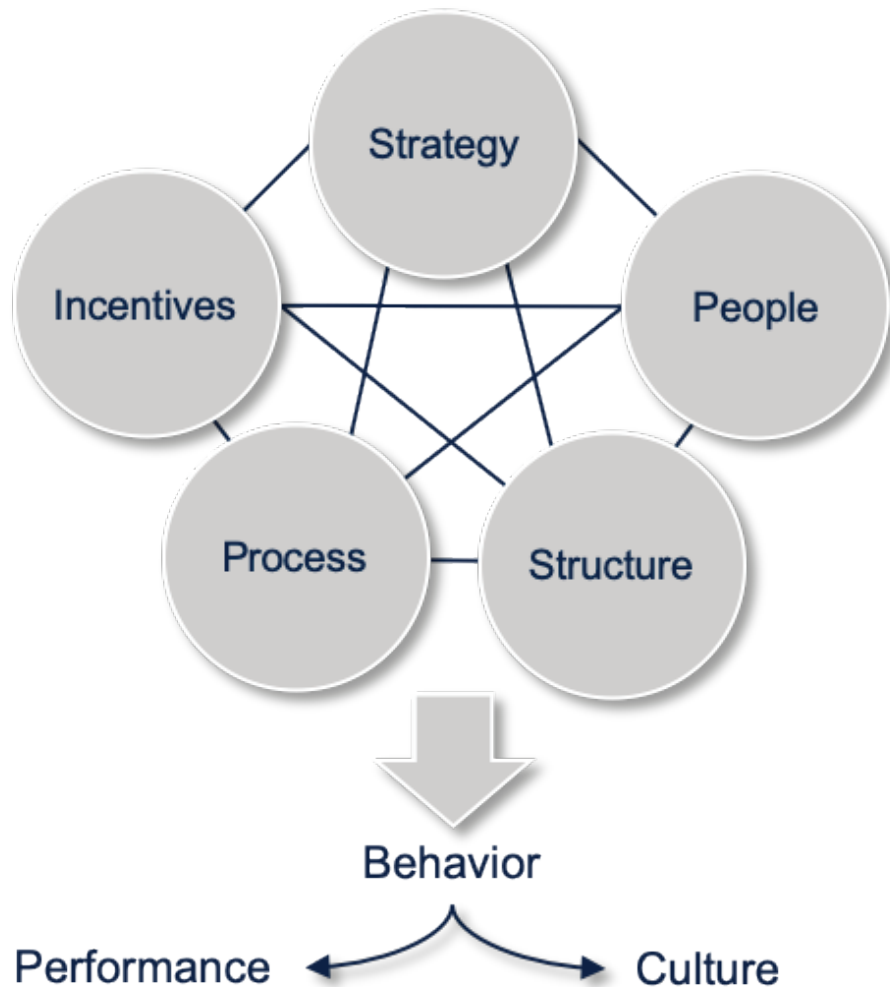


Reset realistic goals



Own the mistake

Step 1



Analyze the failure brutally and honestly

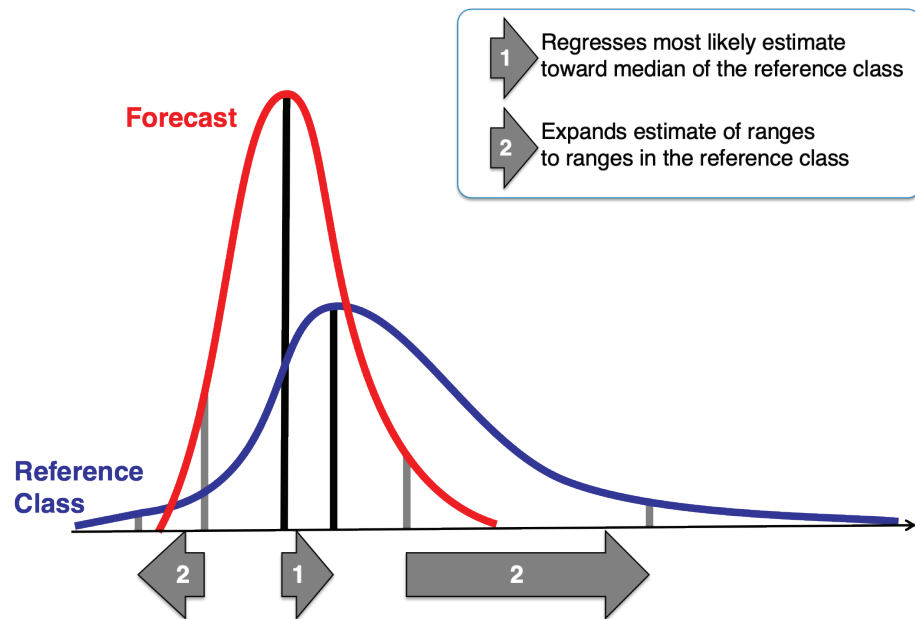
When a project fails, the first step is to analyze how its strategic and structural elements—such as processes, people, political pressures and incentives—have clashed in a way that compromises the project’s timeline or execution.

In the case of MTR, leadership attributed setbacks to unexpectedly difficult ground conditions and flooding that damaged the tunnel-boring machine. They noted that the project had fallen into a [vicious cycle of slipping, working harder to catch up, then slipping again](#). Setbacks brought more pressure and penalties, while the project’s goals looked less and less achievable. Without recognition for what had gone well, the team became anxious and stressed.

However, we discovered that the [root causes of these problems](#) went even deeper than leadership thought. MTR had set unrealistic milestones and budgets due to its inexperience with the project’s size and scope. While the company had a 100% track record of delivering on time and on budget, none of its past projects had been close to the scale and challenge of XRL.

Using the largest existing high-quality dataset on global project performance, we [benchmarked](#) XRL against other high-speed rail projects around the world. It quickly became evident that pressure and over-ambition had squeezed what should have been a six-year project into a four-year timeline. In other words, the project was set up to fail from the start.

Step 2



Reset realistic goals

The second step in our turnaround process is setting a new, [achievable completion date and budget](#) for a project.

For MTR, this required taking a scientific approach to forecasting to ensure accuracy. Using [reference-class forecasting](#), we compared data on hundreds of similar projects to statistically model the uncertainties, risks and likely outcomes of different strategies.

These estimates provided the basis to define new, short-term achievable goals we called project “[inchstones](#).” Switching MTR’s focus to inchstones that deliver the milestones—as opposed to major milestones—also empowered the team to have more productive conversations about problem-solving.

This approach helped bring objectivity and precision to the budget, which was essential for convincing the Hong Kong government to allocate additional funding to the project in the wake of mounting public pressure. It also gave MTR the justification and confidence to set a new completion date in 2018 and stick to it.

Step 3



Own the mistake

Admitting failure is never easy, but it is an essential final step to megaproject turnaround. To restore trust among employees, suppliers, governments and the public, a project leader needs to acknowledge what went wrong, why it went wrong and what the team will do to fix it.

To that end, Hong Kong's Secretary of State for Transport issued a public apology that offered reassurances about the railway project's future. MTR also made personnel changes to rebuild faith in the organization as the project entered the next crucial stage, welcoming new leadership as the company's then-CEO and projects directors stepped down. Leadership also made significant changes to the governance, reporting policies and incentives of the project based on the earlier root cause analysis.

Finally, MTR took the important step of recognizing achievements in the process. We helped the company build a practice of celebrating progress against inchstones and recognizing personal and team accomplishments. The iterative nature of the revised plan also improved transparency and encouraged regular dialogue with stakeholders.



The outcome

In accordance with the new schedule, XLR officially opened on September 22, 2018 and is currently in the final stretches to deliver all works within the new budget of HKD 84.7bn.

In the first year of operations the high-speed railway carried on average more than 46,000 passengers on weekdays and more than 64,000 passengers during the weekend.

To find out how our data and methods can help your project to succeed visit **www.oxfordglobalprojects.com** or contact us at:

Bent Flyvbjerg
Professor for Major Programme Management
Saïd Business School, University of Oxford
Chairman, Oxford Global Projects
bent.flyvbjerg@oxfordglobalprojects.com

Alexander Budzier
Fellow in Management Practice
Saïd Business School, University of Oxford
CEO, Oxford Global Projects
alexander.budzier@oxfordglobalprojects.com