Project management

Overdue and over budget, over and over again

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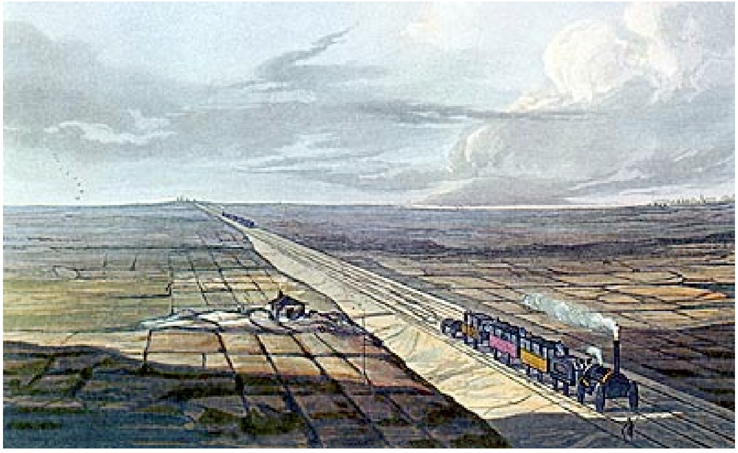

Companies are increasingly keen on projects. Why, when so many fail?

WHEN George Stephenson built a railway from Liverpool to Manchester in the 1820s, it cost 45% more than budget and was subject to several delays as it made its way across the treacherous Chat Moss bog. In the intervening 180 years the management of large-scale projects seems to have improved but little. At the end of May the reconstruction of Wembley Stadium, the hallowed home of English soccer, was threatened when Multiplex, the Australian developer of the site, admitted that it faced mounting losses on the £750m ($1.4 billion) project. An unanticipated rise in the cost of steel (which doubled in 2004) and the extra labour required to ensure the building is ready for next May's FA Cup Final were said to have thrown the management's calculations out of kilter.

Even projects deemed a success these days sometimes fail to meet their targets. The 1,770km (1,106 miles) oil pipeline from Azerbaijan's Caspian wells to the Turkish Mediterranean port of Ceyhan was opened with much fanfare on May 25th by the presidents of the three countries under whose soil it lies (Azerbaijan, Georgia and Turkey). But the $4 billion project, led by BP (see article), is several months overdue and 5-10% over budget. Although oil has entered the pipeline at Baku, it will be another six months before the high-grade steel pipe is full and ready to disgorge on to tankers in the Mediterranean.

Big projects today are as likely to be built on software as they are on steel. But IT projects are no better at meeting budgets and deadlines. A £6 billion project to put the medical records of 50m Britons online by the end of this year is way over budget and has already been postponed by several months. In March, the FBI finally abandoned a $170m internal IT project, two years after problems with it had first surfaced. The Standish Group, a research firm which produces an influential annual evaluation of IT projects, judged that in 2004 only 29% of such projects "succeeded", down from 34% in 2002. Cost over-runs averaged 56% of original budgets, and projects on average took 84% more time than originally scheduled.

It is not as if project management is a new science. It has its origins in critical paths and Gantt charts, planning tools first widely used in the early 20th century, and its own well-established international association, the Project Management Institute (PMI), based in Newtown Square, Pennsylvania. The PMI sets standards and professional exams that are taken by thousands every year. It boasts 150,000 members in 150 countries, all of them specialists in managing projects. So why do so many still go so wrong?

Projects, says the PMI, have five distinct phases: initiation; planning; execution; control; and closure. Problems arise most frequently when initiation gets separated from execution. To secure a project, bidders often make overly optimistic assumptions about costs and revenues—an example of what Max Bazerman of the Harvard Business School calls "self-serving bias", a phenomenon he uses to explain why good accountants do bad audits. It may also explain why good project managers make bad forecasts, particularly in the public sector, where after-the-event accountability to a project's paymaster, the taxpayer, is less rigorous. This may be pronounced with prestige projects (such as Wembley Stadium) where bidders are chasing glory almost as much as commercial gain.

A study published this year in the *Journal of the American Planning Association* examined 210 big rail and road projects in 14 different countries, and found their forecasts of future passengers to be wildly optimistic: for the rail projects, they were, on average, an astounding 106% higher than eventually turned out to be the case, with one in eight out by over 400%; the road projects' miscalculations were more modest, by over 20% in more than half the cases. The article's authors, led by Bent Flyvbjerg, a professor at Denmark's Aalborg University, claim that the forecasts on such projects are no more accurate now than they were 30 years ago.

Projecting forwards

Greg Balestrero, the head of PMI, says that for years project management was largely ignored. But that is now changing. A recent PMI survey found that three out of four European companies employ project managers. When Compaq, a computer maker, was taken over by Hewlett-Packard in 2002, it had some 1,400 on its payroll.

Three years ago the board of Siemens launched a worldwide initiative to improve its project management. The German electronics group had worked out that half its turnover came from project-like work, and it calculated that if it could complete all of these projects on time and to budget, it would add €3 billion ($3.7 billion) to its bottom line over three years. A key element of the scheme was the introduction of project managers to the company's sales teams to try and temper their more extravagant promises, a move that requires a careful balance between reining them in and killing the deal.

Some companies have gone so far as to become more like project co-ordinators than producers of goods or services. The "business-as-usual" bits of their operations have been outsourced, leaving them free to design and orchestrate new ideas. Nike, for instance, does not make shoes any more; it manages footwear projects. Coca-Cola, which hands most of the bottling and marketing of its drinks to others, is little more than a collection of projects, run by people it calls "orchestrators". Germany's BMW treats each new car "platform", which is the basis of new vehicle ranges, as a separate project. Meanwhile Capital One, a fast-growing American financial-services group, has a special team to handle its M&A "projects". For all these firms, project management has become an important competitive tool. Some of them call it a core competence.

Good project management can certainly make a difference. BP's fortunes were transformed when it converted its exploration division, BPX, into a portfolio of projects, each of them more or less free from head-office control—a structure which the company describes as an "asset federation". Asset/project managers can no longer rely on head office for support. They are required to build their own self-sufficient teams.

Moreover, there are still difficult individual projects that get completed with time and money to spare. The winner of last year's PMI Project of the Year award was the Saudi-Aramco Haradh gas pipeline, whose original contracting document was lauded for the way it "defined the mix of contracts best suited to accomplish the project's objectives". The three-year project to build a $2 billion gas terminal deep in the desert, 10km from the nearest road, was completed six months ahead of schedule and 27% under budget. Phew, what a scorcher.