

# Insights



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## What's Wrong with Project Management?



**Project management is at a crossroads. Do project managers want to continue to be observers of failure or are they prepared to roll up their sleeves and get involved in delivering success?**

**Simon Murray, a member of the acumen7 network, has worked extensively in senior roles leading major projects. Here, he outlines how project managers need to change to deliver to a new set of goals.**

### Introduction

In his book *The Management of Projects* (Ref 1), Peter Morris wrote: "While the subject of project management is now comparatively mature...it is in many respects still stuck in a 1960s time warp. Project managers generally take a middle management, tools and techniques view of the subject. Few address the larger, more strategic issues that crucially affect the success of projects."

Although the book was published in 1994, Professor Morris's comments are still valid today. Whilst we have made progress in delivering more of our projects on time and within budget, all too often the completed projects don't work properly or fail to fulfil their intended function. And there is growing evidence that the process of delivering projects is wasteful. In a recent supplement on sustainable buildings (Ref 2), the *Financial Times* reported that the construction industry accounts for 8% of the UK's GDP but produces a third of the country's waste materials – more than three times the waste generated by all of the UK's households put together.

This situation is clearly unsustainable. We are now entering a decade in which investment in infrastructure will be severely constrained by the state of the Government's finances. It is vital that we find a way of managing projects that is more precise in defining the infrastructure we need and that delivers it predictably, efficiently and sustainably.

### A Brief History of Project Management

The discipline of project management has its roots in a series of technology projects that the US Government undertook in the aftermath of the Second World War. The Manhattan Project, the Atlas Missile Programme and the Apollo Programme were large projects even by today's standards and were pushing at the frontiers of technology. They were driven by political imperatives and by tight deadlines – to build an atomic bomb before Germany could and to put a man on the moon by the end of the decade.

These projects were led by US Government agencies that took responsibility for the design and planning of the projects and for their budgets. The challenge that they faced was coordinating the thousands of scientists, engineers and contractors to whom they sub-contracted the design and manufacture of the components that would be assembled into the finished project. This led to the development of work breakdown structures, critical path programming, earned value analysis and many other tools and techniques that we associate with project management today.

In the 1970s the oil industry was faced with the challenge of producing oil in the North Sea and on the north coast of Alaska. The industry invested billions of dollars in the construction of oil platforms, terminals and pipelines. They took responsibility for the outcomes of their projects and established their own organisations to plan and control the work. And they used project management techniques to coordinate the activities of their suppliers and contractors.

The emergence of inexpensive computers in the 1970s enabled the most detailed analyses of projects, encouraging an even closer focus on tools and techniques within the emerging profession of project management. At the same time there was a growing discussion about the role and the authority of the project manager. Clients began to believe that if they could find a really tough project manager and give him authority over all of the participants, their projects would be delivered successfully.

In the UK the election of the Conservative Government in 1979 led to a revolution in the procurement of infrastructure. Mrs Thatcher distrusted the public sector and believed that if the private sector was freed from control, it could finance, develop and operate the nation's infrastructure. Under her leadership much of the UK's transport and utilities infrastructure was privatised and the private finance initiative (PFI) was developed to provide the new railways, schools and hospitals that the UK needed.

At the core of PFI were two principles. The first was that the provider of the infrastructure should be at arm's length from the public sector client that promoted it. In practice this meant that the client specified their requirements and the provider agreed to build and maintain the infrastructure to meet these requirements for a period of thirty years or more in exchange for an annual payment or unitary charge. The second principle was that almost all of the risks in designing, building and operating the infrastructure should be transferred from the promoter to the provider.

These principles had unforeseen consequences and sometimes turned out to be unenforceable. The unforeseen consequence was that the providers of the infrastructure passed the risks on to their contractors who in turn transferred them to their sub-contractors and suppliers. What had been integrated delivery teams became fragmented supply chains held together by onerous contractual commitments. Key decisions on the design of projects and the management of supply and construction were taken at lower levels in the supply chain.

The enforceability of risk transfer to the providers of infrastructure has been tested in several large transport projects. In 1998 London and Continental Railways – the company that had been awarded the concession to build and operate the Channel Tunnel Rail Link – was unable to finance the construction of the project and had to be rescued by the Government and Railtrack Plc. Ten years later Metronet – the company awarded the concession to upgrade and maintain six of London Underground's lines – also got into financial difficulties and had to give up their concession leaving Transport for London with a bill estimated at £1.4bn.

Over the last twenty years these trends have had a significant impact on project management. What began in the 1950s as a critical role managing the inputs of contractors in complex technology projects is migrating towards a consultancy role advising clients on the best ways of avoiding risks and monitoring the performance of contractors. It is ironic that as the number of project managers has multiplied, their impact on the outcomes of our infrastructure projects has diminished.



**Apollo 11 - early application of project management**



**Channel Tunnel rail Link - rescued by Government and Railtrack**

### A Different Approach to Project Management

In the mid-1990s a group of large and influential companies emerged to challenge the orthodox approach to project management. Led by Tesco, BAA and MacDonald's Restaurants, they recognised that the future success of their businesses depended on their being able to build the right facilities quickly, efficiently and predictably. They came together through the Construction Round Table and began to apply the skills that they had learned in their core businesses to the management of their projects.

Whilst each of these companies developed its own approach to project management, there were some common themes that set them apart from their competitors. They were guided by the success of lean manufacturing and believed that the same principles could be applied in construction to improve quality, reduce waste and accelerate delivery. There were four factors that defined their approach:

- **LEADERSHIP** – they recognised that they had to lead their projects. Getting a project right was more important to their businesses than transferring the risks of failure to their contractors.
- **SUPPLY CHAIN** – they understood that their supply chains were the key to their performance. They had direct relationships with their suppliers, accessing their skills and knowledge and putting it to work on their projects.
- **INTEGRATION** – they realised the importance of integrating the processes of design, manufacture and construction.
- **MEASUREMENT** – they measured all aspects of the delivery of their projects and used the measurements to guide their efforts to improve the process.

These companies had not developed a new form of project management. What they had done was to apply to their projects the general management principles and techniques that had made their core businesses so successful. And the results were impressive. Tesco reduced the capital costs of new stores by 40% over a five-year period. BAA reduced the time that it took to build new aircraft stands and taxiways by more than 30%. And MacDonald's accelerated the construction of their new restaurants to the point where one was built in a day.

In 1997 the Labour Government was elected with a commitment to increase investment in affordable housing, schools and hospitals. They were determined to get the most out of their investment and they appointed Sir John Egan to chair a task force

on improving the performance of the UK construction industry. Their report Rethinking Construction (Ref 3) was published in 1998 and is recognised as a blueprint for a more effective approach to delivering projects.

### A Future for Project Management

What seems to be wrong with project management is that it has lost sight of its original function to enable clients to plan and coordinate the work of their contractors. Instead it has sought to establish itself in a pivotal position between clients and their contractors claiming to ensure that projects are delivered "on time, within budget and to quality." Many project managers have moved from a functional role at the centre of projects to a peripheral role monitoring and reporting to clients on the contractors' performance in delivering the projects.

This change in the role of project managers has been accompanied by a marked increase in their numbers; in particular the number employed as consultants. Most large firms of consulting engineers, quantity surveyors and management consultants now offer project management as a core service. And project management itself has expanded into programme management and portfolio management. Unfortunately these developments do not seem to have resulted in an increase in clients' confidence in the outcomes of their projects.

Perhaps the most damning criticism of the present practice of project management is that it is almost silent on the challenge of reducing waste in the delivery of projects. At a time when the whole world is concerned about reducing energy consumption and waste, project managers have had very little to say on the subject. It has been left to their clients to ask why the construction industry still wastes 50% of man-hours and around 20% of the materials that it uses.

The future of project management lies in project managers having a more mature and realistic understanding of the factors that determine the success of projects. They should stop worrying about their role and authority and give more thought to the contribution that their technical expertise can make at all stages in the planning and delivery of projects. In short, they need to work out where they can add value in terms that will be meaningful to their clients.

The two critical roles on any project are the promoter and the provider. Most projects are promoted by their clients and provided by their contractors. These are very different but complementary roles and the success of a project depends on them both being carried out competently and in a spirit of cooperation. When either role is diminished and when conflict arises between the two parties, the project is put at risk.

Project management has an important role to play in enabling clients to be more effective in promoting their projects. But for this to happen, project managers would have to set aside their desire to represent the client and begin to use their skills to help the client to do their job. This would require project managers to have a much deeper understanding of their clients' operations and of their objectives in undertaking their projects. They would also have to develop new skills in business planning, operational management and risk management.

Project management also has a role to play in enabling contractors to be more effective in providing projects. But once again, they would have to set aside their desire to control the work and instead develop the skills that are needed to enable all of the suppliers and sub-contractors to make their contributions efficiently and effectively. With the right technical and management skills, project managers could establish themselves as the people who ensure that the design, production, logistics and assembly on site are properly integrated and supported with modern production management systems.

If project managers took on these new roles, they would begin to engage with the challenge of improving performance and reducing waste in construction. Through their intimate involvement with clients they would understand the importance to clients' businesses of projects being free of defects and being delivered efficiently. And through their central role in the providers' teams they might begin to work out how to do this.

Project management is at a crossroads. Do project managers want to continue to be observers of failure or are they prepared to roll up their sleeves and get involved in delivering success?

### References

1. "The Management of Projects", Peter W G Morris, Thomas Telford 1994
2. Supplement on Sustainable Buildings, Financial Times, 27 April 2009
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