articles

Project planning tools

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Getting started in project planning

Tight deadlines, limited resources, tricky stakeholders and demanding customers – for anyone who has ever managed a project, these things are all too familiar. As a manager you want to deliver high quality projects to meet the specification, stakeholder needs, deadline – and budget! You know that you need all the help and resources you can get, and central to success is the need for project planning.

Effective project planning is even more vital when you're in charge of a new and unfamiliar project, with a high degree of uncertainty and risk. So the challenge is: how do we go about organising people and resources – and preparing for unforeseen challenges? The answer is to use one or more of the established project planning models out there. But how do you choose the one that's most relevant to your project?

In this article, we introduce three widely used project planning models and explain why we have introduced our own – the Systems Model, designed specifically for managers in the not-for-profit sector managing what we call 'messy' projects.

Kepner-Tregoe

The model is a comprehensive systematic step-by-step approach to problem solving and decision-making. Kepner-Tregoe is especially useful when you're dealing with a complex stable project system and trying to work out what the variances are or might be. For example it was used to help analyse what went wrong during the Apollo moon shots when launch processes went wrong. It was developed by Dr. Charles Kepner and Dr. Benjamin Tregoe based on their research into critical thinking.

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The model is broken down into four distinct processes, each designed to address a specific aspect of project management:

- **Definition**: weighing up the need for the project and identifying specific results. Clarifying the timing, cost, resources and performance parameters.
- **Planning**: determining 'who with', 'do what' and by when, and managing risk.
- **Implementation**: the delivery, monitoring and evaluation of the project.
- **Project management communication**: this process is woven throughout definition, planning, and implementation.

It includes people management and addressing stakeholder involvement and satisfaction. The Kepner-Tregoe approach is designed to enable decision makers to respond to complex, repetitive challenges. So it's particularly useful for 'closed' projects – which are essentially repeat projects – where the outcome can be clearly defined from the beginning. The downside is that it's not as applicable to 'open' or 'messy' projects, which involve new or unknown situations, or where the project outcomes are uncertain.

PRINCE2

PRINCE2 (Projects in Controlled Environments) was launched as a project management tool in 1996 but it first originated as PRINCE 1 in the 1970s as a framework for the development and support of Information Technology systems through a structured project management approach. The PRINCE approach is rigorous, with very formalised roles, responsibilities and channels of communication for each aspect of the project. It is ideal for breaking down large and complex projects, which run over a period of time into manageable stages. The strong responsibility element ensures resource commitment from management as part of the approval to proceed. It is now the UK's standard model for project management widely used by Local Authorities and the NHS.

The model consists of eight processes, which detail what must be done to bring about a particular outcome including; making decisions, gathering information and identifying results:

Starting Up a Project (SU)	Setting objectives, establishing an approach and setting up the project team.
Initiating a Project (IP)	Planning the whole project in terms of time and resources.
Directing a Project (DP)	Determines who authorises each project stage.
Controlling a Stage (CS)	Basic project management with a focus on monitoring and reporting.
Managing Product Delivery (DP)	Creating, delivering and reviewing the products.
Managing Stage Boundaries (SB)	Reporting on the current management stage and planning for the next stage.
Closing a Project (CP)	Preparing for the end of the project, evaluation review and sign off.
Planning (PL)	Used during all other processes above.

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A useful feature of PRINCE2 is the business case – the justification behind the project – though this is really only explored at the start of a project.

PRINCE2 can only work if organisations abide by the key principles – they cannot pick and choose from the methodology. Because of this, use of this model is a more major organisational undertaking than working with less prescriptive project management tools.

The advantage of PRINCE2 is that the output and deliverables are clearly defined, with organisational benefits and risks outlined explicitly. However, PRINCE2 serves better as a project implementation tool because it does not necessarily prompt you to consider the business case systematically. The focus inevitably moves to the deliverables and this can result in a lack of big picture or strategic thinking. In addition, the strong focus on documentation can also lead to documents becoming an end, while the project itself falters. There is a danger that the process can become bureaucratic and so is often too labour intensive for smaller projects.

Log Frames

The term 'Log Frames' is a shortened version of Logical Frameworks. It was developed as a tool for strategic planning and adopted by the United States Agency for International Development (USAID) in 1969. Since then it has been adapted further and is now used widely by INGOs. Part of this popularity is less to do with its effectiveness and more to do with its link to funding agencies.

Log Frames combines both a top down approach of identifying the activities in a project with a rigorous risk and assumptions analysis. It does this by cross-referencing seven key areas in a 4x4 matrix:

Project summary	Indictors of achievement	Means of verification	Important risks and assumptions
Goal			
Purpose			
Outputs			
Activities			

The terms in the matrix above can be defined as:

- **Goal / Objective:** why are we doing this project?
- **Purpose:** what results do we expect, what will the impact or effect of our project be?
- **Outputs:** what are the deliverables?
- **Activities:** what needs to be done in order to deliver the outputs?
- **Indicators of achievement:** how will we know we have been successful?
- **Means of verification:** what sources of data are there to check our results/ progress? E.g. documents, surveys
- **Risks and assumptions:** what assumptions about external factors underly the structure of our project and what are the risks inherent in those assumptions?

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The strength of Log Frames is that it can be used as a participatory tool in project planning. It is also simple in that captures all the project aims and objectives on one sheet of paper so it can be understood at a glance.

Log Frames also force you to think through the structure of a plan. Its simplicity should promote transparency both the approach and the use of funds. However, because it is used by some many funding agencies there is a danger that it can be seen as a funding-bid tool, rather than a planning tool, so can therefore become 'tick box' exercise. The risks are that your hard work then becomes a meaningless document – or worse – an inflexible blueprint. The rigidity of the structure also means it can be slow to adapt in a changing environment.

Okay, so none of the models are perfect, but is there a project management model which can meet all your project needs? Well, we believe that there is. We designed the Systems Model – a flexible planning tool suitable for all types of projects, and encompasses all the considerations of Kepner-Tregoe, PRINCE2, and Log Frames.

Systems Model

The Systems Model was developed by **=mc** to address the needs and challenges of the not-for-profit sector. Much of the work of the not-for-profit sector is based around 'open' or 'messy' projects – that is those where the outcome is may change during the project cycle and or may involve multiple considerations and needs and is therefore not simply 'tangible'.

The Systems Model clearly emphasises defined success criteria linked to both the output and the purpose, with a consistent focus on reviewing and monitoring along the way. In this sense it is very different from PRINCE where the 'how' often takes over, and from Kepner-Tregoe/Logrames where the emphasis is on sticking to the predetermined framework.

A final benefit is that the model emphasises the importance of stakeholders – so it constantly asks the question "who is this for and is it meeting their needs and interests?"

Based on systematic thinking, developed by Ralph Coverdale, the Systems Model is about balancing:

- ensuring you are clear on the information and have before you planning and allocating activities and resources
- recognising that in projects which are 'messy' or open there is likely to be greater uncertainty
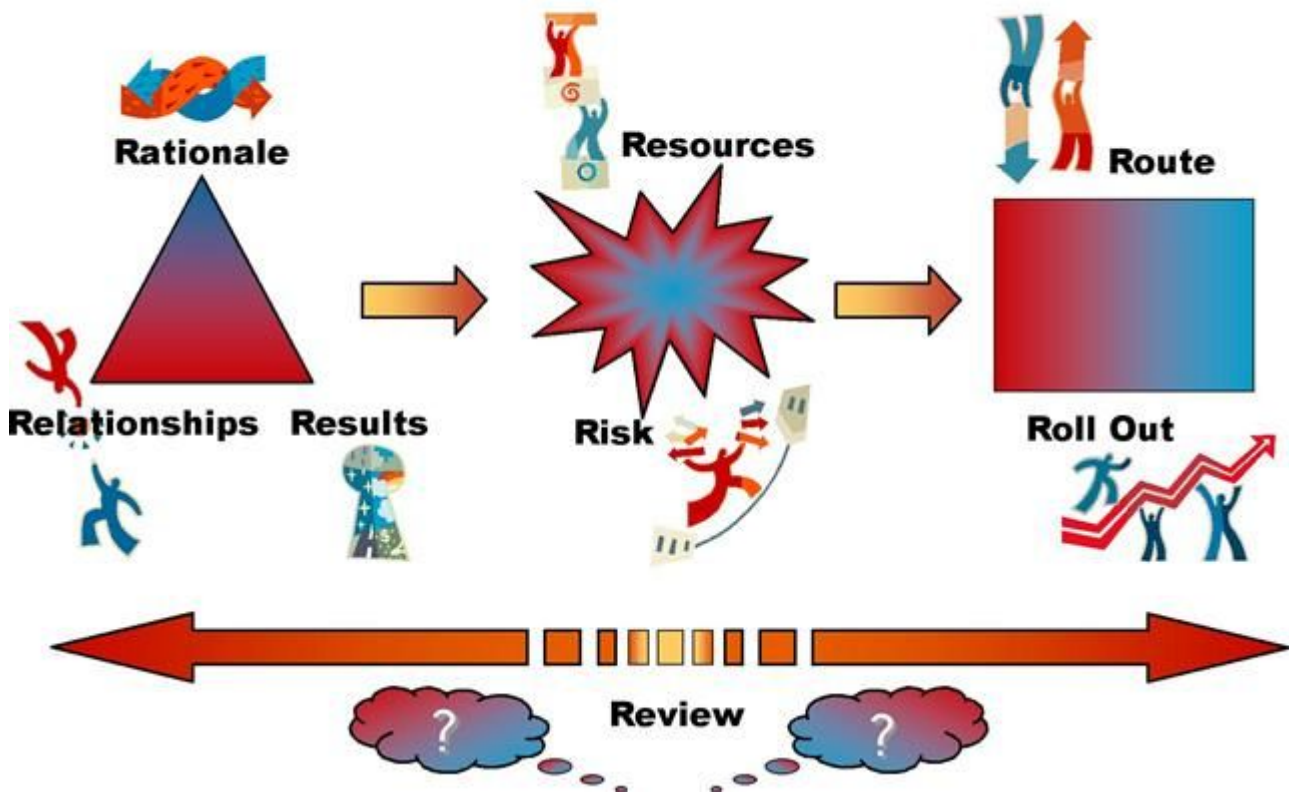
There are four stages and eight R's, which prompt us to plan and review systematically throughout the project process:

Stage 1	
Rationale	The logic of the project consisting of:
	Driver – what is the reason we are doing this project? What is the problem or opportunity it is addressing?
	Task – what are we going to do?
	Purpose – what do we hope to achieve? What will the project change?
Relationships	Who has ultimate accountability? Who are the stakeholders and what are their concerns? Who else is affected?
Results	What will we achieve and what will change? How will we measure success? Who is this result important to?

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Stage 2	
Risk	What could happen or go wrong? What can be done to prevent it? If we can't prevent it what can be done to mitigate the negative impact?
Resources	What do we have available? What else do we need and what impact will having or not having that resource make on the project?
Stage 3	
Route	What activities have to happen, by when, and who will carry them out? In what sequence do the activites have to happen?
Roll out	What decisions need to be made about who should be on the team and how the team works together? Consider delegation, cooperation, coordination etc.
Stage 4	
Review	Monitoring and evaluating. How will you track whether the purpose is still valid and meets the interests of the stakeholders? And how do you implement changes to the process? This happens throughout each stage.

Whereas other models tend to focus on project implementation from the start, the Systems Model is used to pin down 'open' projects as you go along. For this reason it can be used at the front end of other planning tools to help feed into them. It also helps to save precious time and resources – the focus on the logic and rationale, especially in terms of stakeholder needs, ensures the project is aligned before time and resources are committed. Or it ensures the resources are properly allocated to address the need.

The strength of the Systems Model is in its adaptability as a thinking tool to all types and sizes of project. It is as easily applied to initiating a community regeneration project as it is to writing a fundraising article by providing an integrated and flexible approach to your whole workload.

	Kepner - Tregoe	PRINCE2	Log Frames	=mc Systems Model
Rigorous for large projects	✓		✓	✓
Easy to use with small projects	✓		✗	✓
Suitable for open projects	✗		✓	✓
Designed for 'soft' or 'messy' projects	✗		✗	✓
Flexible and adaptable	✓		✗	✓
Focus on the needs analysis	✓		✗	✓
Emphasis on monitoring and evaluating	✓		✓	✓

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What's next?

If you've found this article helpful and you would like more information, please call +44 (0)20 7978 1516 and speak to one of our experienced management consultants.

Or, why not book onto our Project Management Training Programme? Learn a range of systematic project planning tools, including how to use the systems model. **Click here for more information**.

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