

Superfast Business Wales



Business Guide

IT Project Management

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IT Project Management

Superfast Broadband, along with the rapid development of the internet and the emergence of cloud computing, has catalysed huge changes to how businesses procure, implement and maintain their IT systems and infrastructure. Making such changes effectively requires significant planning and the careful management of systems implementation, data migration and user adoption. These types of changes can be defined as 'projects' which can be 'managed' to ensure a successful outcome.

Project Management is a recognised discipline which enables your business to proceed with new initiatives in a way that allows:

- Costs to be controlled
- Agreed outcomes to be measured and confirmed
- Timescales to be met

This Guide is an introduction to this discipline.

Understand

What is Project Management?

Project Management provides a structured approach to 'making things happen' and in doing so, enables initiatives (projects) to be delivered to time, quality and budget.

There are many Project Management methodologies (e.g. PRINCE2 and MSP), with the more popular processes and methods listed in Appendix 1. Your Plans are only ever as good as your Controls and these processes and methods bring that control and can provide a common language for project staff and those they work with. Slavishly following a full methodology can bring with it high levels of overhead and it is quite acceptable for smaller companies to select only those elements that are most appropriate to their business.

It's important point to understand that by applying basic project management principles to even the smallest of projects you stand a much better chance of ensuring you achieve the desired outcomes on time and within the cost parameters you have set. Many people, quite rightly, view project management as the application of structured common sense!

Projects vary in size but they all have a number of common characteristics:

- Support from within the business (typically referred to as sponsorship) which ensures there is a valid reason for undertaking the project in the first place.
- A plan that identifies the required resources (materials and labour), timescales and a set of outcomes that can be costed.



- Project tolerances, which specify how far over the project can over-run in terms of time or cost before some sort of remedial action is taken.
- Reports that confirm how things are progressing against the original plan (and any remedial actions needed).
- On completion, confirmation that the project outcomes have been achieved.

For larger projects, good practice would put more formal controls in place. You may not require all of these in your own business but it is certainly worth understanding what they are and the benefits they can deliver.

Sponsorship

A business case confirming the benefits of the proposed project would normally be submitted to an investment committee or directly to the Board of Directors. Approval of this business case would be the trigger for initiating a project and a senior manager or Director would be given responsibility to oversee the project and regularly report back to the Board on progress.

Planning

Once approved, the initial planning stage of a project will produce a Project Initiation Document (PID) that sets out:

- Timescales, split into logical stages
- Quality criteria that must be met
- Costs and benefits
- Reporting structures
- Required tolerances on time and cost within which the Project Manager must work

Approval

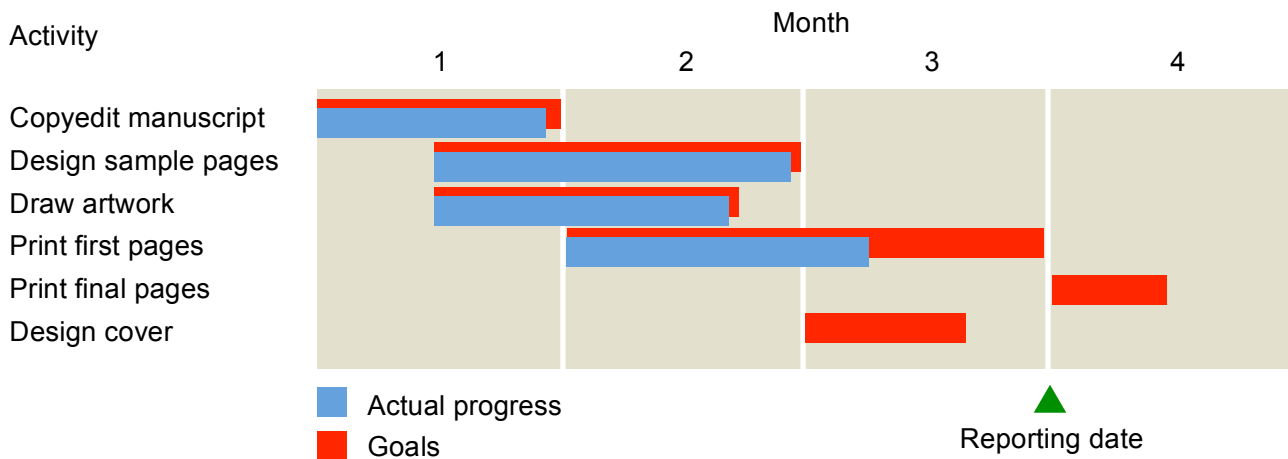
The Project Board approve the plans set out in the Project Initiation Document and confirm or amend the tolerances recommended by the project team. On large projects, the Project Board meets at the mid-point of each stage and at the end of each stage to formally review progress and give approval to proceed.

Reporting

The project team work to the agreed plan and produce reports on a regular basis; for a large project these would be:

- Weekly checkpoint reports
- Monthly highlight reports
- Mid-stage and end-stage assessment reports
- Exception reports

There are tools and support systems available to assist both the project team and the Project Board; the systems include products such as MS Project and IPMS. These tools provide capabilities such as a Gantt chart (see below) which acts as a scheduling aid, enabling you to clearly see the actual and planned elements of a project together with their start and end dates.



Completion

Once a project is completed it should be confirmed in writing by the project sponsor that they are satisfied and a Post Implementation Review (PIR), dependent upon the size and complexity of the project, can be scheduled. The purpose of a PIR is to assess the immediate and long-term outcomes of the project and to highlight any lessons that may be learned for future projects.

PIRs can be time consuming and should only be used if it is felt that the benefits will outweigh the cost of conducting one, but ensuring that 'lessons learned' are captured and published can be done with low overhead and should always be encouraged.

Adopt

Getting Started

Do I need to use project management in my business?

The answer is almost certainly yes—it's really a question of scale. It's important to understand just how dependent your business is on projects. If your business is relatively stable, with new initiatives occurring infrequently it would be inappropriate to invest in a highly expensive integrated Project Management suite with all the associated processes, reporting requirements etc.

If, however, your business is highly volatile/dynamic and new products and initiatives drive your growth, then such an investment would be both rational and necessary.



Initial decisions

If you have determined that you need to implement a Project Management discipline you will need to decide the appropriate:

- Methodology for your business that is affordable and meets your business needs
- Training for your staff
- Support tools

Selecting the methodology

There are a large number of standards and methods to choose from; these include PRINCE2, MSP, APM, PMI, BS6079 and CMMI, but the industry you are working in often determines the best method to use. For example, if your company works mainly with the Civil Service or Local Government, then the key methodologies will be PRINCE2 and MSP. On the other hand, you may be tendering with a major construction contractor that requires all sub-contractors to be accredited to BS6079 and interconnect on projects using CMMI process methods.

Training your staff

If you're planning to use one of the more formal methods then start by:

- Establishing who will be working on projects and their roles
- Carry out a training needs analysis to establish the:
 - Type of training required
 - Time out of the office
 - Overall costs
- Build these costs and activities into your overall plan

Selecting support tools

Consideration should be given here to the size of projects and the dependency your business has on sharing information and outcomes. The use of project support tools and the benefits they can deliver is the subject of another Superfast guide.

How should I go about reviewing my business' projects?

Start by listing any projects currently being undertaken and looking at the time spent by staff on each:

- Review the business cases and establish what proportion of your turnover and margin they represent
- Look at recently completed projects and establish whether they kept to time and budget, and whether they delivered what they said they would
- If some form of Post Implementation Review has been completed, then this may well provide valuable feedback



How do I decide whether an initiative or a good idea should be developed into a project?

The most cost effective time to stop a project is before you have started it—so a very critical review of potential projects needs to be carried out before you decide to spend time and effort developing them. In Appendix 3 we have included a series of questions that could aid you in reviewing good ideas and initiatives at an early stage. These were originally developed by the Office of Government Commerce and make an excellent checklist when establishing the viability of a new project.

By following the basic principles of project management you are more likely to ensure that any projects you undertake align themselves with the objectives of your business, that they address the stated objectives and, therefore, that they are both useful and relevant to your business.

Costs are more effectively controlled with a clear view on any deviation from planned effort, timescales and expenditure.

By focusing on risk at the early stages of a project it is possible to develop effective mitigation plans; this in itself ensures that savings generated by the project are optimised.

Many Government contracts now require their supplier's Project Managers to be accredited to certain methodologies and standards.

Top Tips

Critically review any new ideas before initiating them as a project

The questions at Appendix 3 will assist you with this. Remember, these are guidelines and it is not essential that every question is answered in detail. They are there to enable you to 'hold up a mirror'

Ensure that your project plans cover the following key aspects (even if they are in very general terms):

- Critical milestones
- Key deliverables and their quality criteria
- Reporting
- Total costs
- Total benefits

Make sure that a Change Management plan runs alongside any implementation

Projects bring change; this can be operational, cultural or systems change and it can cause a variety of problems if not addressed directly. Good communication with all affected parties, together with sensitive handling of personal issues can be vital in ensuring success.



Regularly review the progress of your project

- Pay particular attention to:
- Risks and assumptions
- Costs and timescales
- Scope

Evaluate your project

For a small project get written feedback from the key people involved and put together a short 'lessons learned' paper which highlights what went well (and why) and what went wrong (and why). These lessons can prove invaluable as and when you come to undertake similar projects. For larger projects ensure appropriate levels of Post Implementation Review are conducted and formally reported back to the Board.

Other Relevant Guides

SFBW Guide Change Management

<http://business.wales.gov.uk/superfastbusinesswales/change-management>

Links to Further Information

Appendix 1: Project Management Methodologies

Methodologies Method or Organisation	URL
PRINCE2 Projects in a Controlled Environment	http://www.prince2.com/
MSP Managing Successful Programmes	http://www.msp-officialsite.com/
APM Association for Project Management	http://www.apm.org.uk/
PMI Project Management Institute	http://www.pmi.org/
BS6079-1:2010 British Standard for Project Management	http://www.itgovernance.co.uk/shop/p-398-bs6079-1-bs-6079-1-guide-to-project-management-hardcopy.aspx#.UhYCaZK1E1w
CMMI Capability Maturity Model Institute	http://cmminstitute.com/



Appendix 2: Software Tools

Tools	URL
IPMS Integrated Programme Management System	http://www.ipms-sa.com/
Oracle Primavera Integrated Planning tool	http://www.rpc.uk.com/software/primavera-p6-eppm.php
Microsoft Project PC-based Project Management tool	http://office.microsoft.com/en-gb/project/
Microsoft SharePoint PC-based document sharing tool	http://office.microsoft.com/en-gb/sharepoint/
AceProject Cloud-based and SaaS PM tools	http://www.aceproject.com/
2-plan Free, Open Source software	http://2-plan.com/
Brightwork pm Point Sharepoint add-on for projects	http://www.brightwork.com/brightwork/index.htm
EPM Live Integrates MS Project and SharePoint	http://epmlive.com/
FusionForge Free collaboration tools adapted from 'Forge'	http://fusionforge.org/
GanttProject Free project scheduling tool	http://www.ganttproject.biz/
Matchware Mindview Mind mapping software	http://www.matchware.com/en/products/mindview/default.htm
Project.net Open Source PM software	http://www.project.net/
Project Open Open Source PM software	http://www.project-open.com/
Projectmanager.com Web-based project planning suite	http://www.projectmanager.com/
Rational Plan Alternative to MS Project	http://www.rationalplan.com/
Web 2 Project Open Source PM software	http://web2project.net/



Appendix 3: Evaluating an Initiative – a Structured Approach to Evaluation

The Office of Government Commerce developed the following questions that can be used when evaluating a new initiative within your business as you decide whether or not this should be a project:

What is the initiative?

- In what ways do we want the world to be different as a result of this initiative?
- What is the rationale for change?
- Does the initiative offer value for money?
- What would you need to measure to evaluate the changes?

Who are the stakeholders?

- Who is likely to be impacted?
- Who has the power or influence to facilitate or stop the initiative?

What outcomes do the priority stakeholders want?

- In what ways do we think/know the key stakeholders want?
- Does this change our approach?
- How does this initiative relate to others?
- What is the priority of this initiative in relation to others?

What mechanisms, systems, processes and changes does the initiative indicate?

- What do we need to make or change?
- Could we do nothing?
- What delivery approach should we take?

What's the scope of this initiative?

- What's included?
- What's excluded?
- What's essential, important, worthwhile, bonus?

What are the success criteria?

- What would success look like?
- What are the milestones?

What are the pre-conditions for success?

- What big things, if missing would cause the initiative to fail?

What are we going to have to produce?

- Given what we need to make or change what do we need to deliver?
- What are the component parts of these?
- Have you broken it down to the level where you understand what has to be done to create the components?



What do we need from others?

- What can't or shouldn't we do ourselves?
- What do we need others to do with the things we or they produce?
- What buy-in or ownership do we need from stakeholders?

How big are these things?

- How much effort or resource is needed?
- What skills are needed?
- Is this amount of effort/resource consistent with the scope of the initiative (does it still represent value for money)?

What sequence do they need to be done in?

- Which things need to be done first?
- To what extent can you do things in parallel?
- Is there a particular sequence of things which dominates or drives the timetable?

What resources are available?

- Do we have the necessary resources and skills (or can we get them)?
- Do we need to revisit the delivery approach or scope?
- Are there different ways of doing things that would enable us to deliver the outputs with the resources and skills we have?

What assumptions are we making?

- What are we holding to be true to create the plan and take things forward?
- Can we do anything to confirm any of these assumptions?
- How different would the plan be if the assumptions did not hold?
- What level of risk do the assumptions imply?

What are the constraints?

- Are there any legal, social, environmental or other restrictions?
- Are all the restrictions real?
- What level of risk do the constraints imply?

What are the barriers to success?

- What else would stop us or slow us down to the point where we couldn't succeed?

What are the likely consequences and side effects of our success?

- Could there be any negative outcomes from this initiative?
- Could we be too successful?
- What level of risk do these side-effects imply?



Who is likely to be disadvantaged by our success?

- What are they likely to do that would cause problems?
- What level of risk does this imply?

What is the likely probability and impact of each risk?

- What is the range of probability and impact on a high, medium, low scale?

What should we do to reduce the probability or impact?

- What countermeasures can we take?
- What is our reassessment of probability and impact after the countermeasures have taken effect?
- Should we reconsider the delivery approach, scope or initiative?

What contingencies do we need?

- What could we do if the risks turned into reality?
- What separate plans do we need for these contingencies?

What's the plan?

- In the light of the answers to the previous questions what is the plan?
- Is it complete and deliverable?
- What's plan B?



NEXT STEPS

1. Register to attend a fully-funded Business Development Workshop.
www.business.wales.gov.uk/superfastbusinesswales/events
2. Make an appointment to see a Business Advisor who will help you create a personal action plan to grow your business.
www.business.wales.gov.uk/contact-us

For further information on Project Management take a look at:

See how other businesses in Wales have exploited Superfast Broadband
www.business.wales.gov.uk/superfastbusinesswales/superfast-success-stories

Find out how much your business could save with our
www.business.wales.gov.uk/superfastbusinesswales/savings-calculator

Other business guides that may interest you include:
www.business.wales.gov.uk/superfastbusinesswales/superfast-business-guides

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