



PROJECT SMART

21 WAYS TO EXCEL AT PROJECT MANAGEMENT

by duncan haughey

Preface

We are all engaged on a journey to achieve excellence in our industries, whether automotive, consumer goods, renewable energy or construction. Effective project management is a crucial enabler of this journey. The aim must be to provide our project managers with simple processes that they can rigorously and consistently apply to produce predictable results.

Project Management

Definition: "Project Management is the dynamic process that utilises the appropriate resources of the organisation in a controlled and structured manner to achieve some clearly defined objectives identified as strategic needs. It is always conducted within a defined set of constraints." ¹

Learn with this book, written in a question-and-answer style, containing 21 pieces of valuable advice for making your projects successful.

In the modern sense, project management began in the 1950s, although it has its roots back in the latter years of the 19th century. The driver for the development of project management was companies realising the benefits of organising work around projects and the critical need to communicate and coordinate work across departments and professions.

One of the forefathers of project management is still a familiar name today, Henry Gantt (1861-1919), the creator of the Gantt chart. Still in use more than one hundred years after their

creation, Gantt charts are one of the project managers' most valuable planning tools.

In the mid-20th century, PERT charts emerged, complex network diagrams showing a project's critical path. Soon after, the United States Department of Defense created the Work Breakdown Structure, which breaks projects into manageable pieces. These and other tools and techniques quickly spread as companies looked for new ways to manage large and complex activities, evolving into project management as we know it today.

It is more than seventy years since the birth of project management, and much of the early work has been collected and brought together into formal methodologies. Although many different methodologies exist, they all work with the same basic principles and good practice. You may expect we are experts in running projects, but all these years on and project failures are still with us, increasing in number according to some observers.

The Garden Bridge in London made headlines in the UK as a failed vanity project pushed by Boris Johnson when he was the Mayor of London. According to a report, the bridge was overly optimistic about the fundraising possible and the final cost. This optimism led to a shortfall that could not be closed, despite surveying work on the riverbed already underway. The project

was officially abandoned in August 2017, costing **£53.5m** in total, despite never being built.

Another high-profile UK project failure was the NHS's Civilian IT Project. The project to revolutionise the NHS IT systems failed and cost the taxpayer nearly **£10bn**. The project's politically motivated and top-down nature meant that scope creep and a complete underestimation of the requirements doomed this project from the outset. The UK government was heavily criticised for its inability to handle large IT contracts.

"Projects go wrong for the same reasons all the time. There are no new sins. We can look at a project in its first two months and know if it will be a success or not. Many organisations are failing to heed painful lessons learned from past projects." ²

The biggest sin in project management is not learning the lessons of past projects. We will cut the number of project failures when consistently practising a lessons-learned approach in our project processes.

What follows is a practical guide to managing projects that will help steer you to a successful outcome.

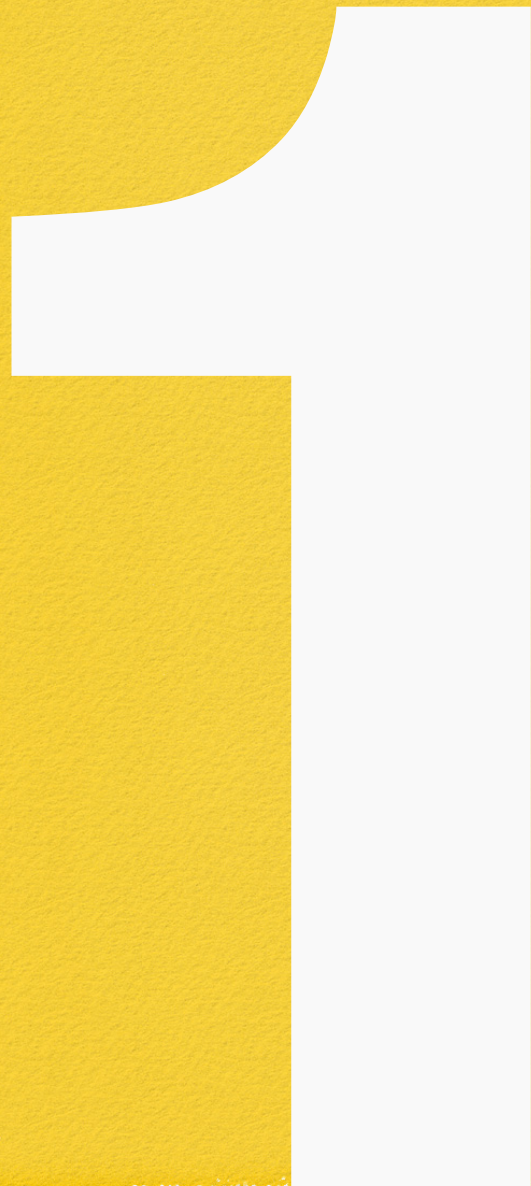
Good luck!

Duncan Haughey.

¹ Trevor L. Young, *How to be a Better Project Manager* (London: Kogan Page Limited, 1998), 16.

² Nick Dean, *Managing Director of Professional Values*.

The Stages of a Project



Good Practice: Typically, the first few weeks of the project will consist of a small team working on a project definition document. During the definition, initiation and planning stages, the project manager should answer questions 1 to 10.

The Stages of a Project

Projects are divided into six stages:

1. Definition.
2. Initiation.
3. Planning.
4. Execution.
5. Monitoring & Control.
6. Closure.

Each project stage is characterised by a distinct set of activities that take the project from the first idea to its conclusion. Each stage is equally important and contributes to the project's overall success.

1. Definition

Before a project starts, the project manager must define the project goals, objectives, scope, risks, issues, budget, timescale and approach. This must be communicated to all the stakeholders to get their agreement. Any differences of opinion must be resolved before work starts.

2. Initiation

This stage is perhaps the most critical stage of any project as it sets the terms of reference for running the project. If this is not done well, the project will have a high probability of failure. The initiation stage is where the business case is declared, the project's scope is decided, and stakeholder expectations are set. Time spent planning, refining the business case and communicating the expected benefits will help improve the probability of success. It is tempting to start work quickly, but a poor initiation stage often leads to problems and even failure.

3. Planning

The key to a successful project is planning. Creating a project plan is the first task when undertaking any project. However, many people fail to realise the value of a project plan in saving time, money and avoiding many other problems. Often project planning is ignored in favour of getting on with the work.

4. Execution

This stage is where the work to deliver the product, service or wanted result is carried out. Most of the work related to the project is realised at this stage and needs complete attention from the project manager.

5. Monitoring & Control

Once the project is running, the project manager must keep control. The project manager can achieve this by regularly reporting progress, issues, risks and constantly checking the business case to ensure that the project team will deliver the expected benefits and that the benefits are still valid.

6. Closure

Many projects do not have a clear endpoint because there is no formal sign-off. Often neglected, it is essential to ensure the project is closed correctly. Getting the customers' agreement that the project has ended is vital, as an understanding that the project team will do no more work.

Once closed, the project manager should review the project and record the good and bad points to help them repeat successes and avoid failures in future projects.

Note:

A project that is not closed will continue to consume resources.

Sponsorship & Leadership

Question 1: Do you have adequate business sponsorship and leadership?

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Sponsorship & Leadership

Question 1: Do You Have Adequate Business Sponsorship And Leadership?

Good Practice

Good Practice: A senior business sponsor should be identified at the highest possible level in the organisation and named in the project definition document.

A steering committee must be set up and operational from the project's beginning. The steering committee is responsible for taking all critical decisions about the project and should be composed of senior managers from the business.

The chair of the steering committee has ultimate responsibility for the project. The project manager leads and is fully accountable for delivering the project described in the Project Definition document.

In his article Six Ways to Give Proper Project Leadership Dr Keith Mathis offers this advice:

- Create an atmosphere of trust.
- Build the right team.
- Spell-everything-out for your team upfront.
- Monitor and give feedback.
- Keep communication open.
- Keep the end goal clearly in mind.

"The project sponsor is perhaps the second most influential person on the project, after the project manager and in some cases may even wield more influence on project results." -

Dave Nielsen.

Common Mistakes

- Wasting time and money on projects that do not have enough sponsorship, commitment or leadership to succeed.
- Hoping that people who do not commit early will find time later.
- Not involving the sponsor with setting direction and keeping the project on track.

Note

Before starting your project, find a committed project sponsor with enough clout in your organisation. Your project sponsor will prove invaluable in helping you overcome organisational roadblocks as they arise.

A project without a senior business sponsor is at serious risk of failure.

Defining the Business Objectives & Benefits

Question 2: Have you defined and understood the business objectives and benefits?



Defining the Business Objectives & Benefits

Question 2: Have You Defined And Understood The Business Objectives And Benefits?

Good Practice

A project definition document should be prepared early in the project and formally signed off by the steering committee. This document defines the goals, objectives, benefits, deliverables, exclusions, assumptions, business sponsors, responsibilities, estimated costs, timescale and serves the following purposes:

- Clearly defines the objectives and scope of the project.
- Provides management and team members with a common view and clear understanding of the project.
- Provides a strong starting point for the subsequent definition of more detailed documents, such as the project plan, budget, and functional requirements specification.

"The single best payoff in-terms-of project success comes from having good project definition early." - *RAND Corporation*.

Common Mistakes

- Start focusing on solutions, achieving something before understanding the business objectives you want to achieve and identifying the business sponsors needed to help achieve these objectives.
- Not returning to the benefits statement during the project to ensure they are still valid and achievable.

Quotes

- "The number of projects that set out confidently with little or no idea of what they are supposed to achieve is truly astounding."
- "Some projects start out with a clear idea, but lose track of it by the time they're 20% into the project."
- "Many proud, objective-oriented managers have a list of goals that are, on closer inspection, technology driven, and not business driven. They are headed for a successful project whose results will never be used."
- "Keep in mind that the aim of a project is *results delivery* not, as is-often-the-case, *construction activity*, This means thinking about the products the project is in business to deliver."

Planning the Project

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**Question 3: Have you
developed a detailed
project plan?**

Planning the Project

Question 3: Have You Developed A Detailed Project Plan?

Good Practice

A detailed project plan should be developed and signed off by the steering committee. It provides the following benefits:

- Translates the high-level business objectives into a detailed roadmap of concrete deliverables.
- Provides a detailed list of resource requirements.
- Provides a realistic assessment of project timescales.
- Allows estimated project costs to be further validated.
- Allows issues to be identified early on, such as tasks taking longer than expected, slippage in target dates, and team members not being productive.

Base the plan on known metrics. How long did an earlier similar project take?

Involve all team members, not just senior management. Develop a plan in iterations over several weeks by consulting team members and drawing on their experience.

Common Mistakes

- Having no project plan.

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- Having a wrong project plan. A wrong project plan is worse than having no project plan at all. Do not be swayed by a sexy-looking project plan that has been produced to give the steering committee a warm, comfortable feeling but which is not based on reality.
 - As with all methodologies, a healthy dose of common sense and pragmatism is required. Do not be too fastidious. For example, a 5-day project does not need a detailed project plan.
 - Do not lose sight of what the project is trying to achieve. Traditional project management techniques can encourage overplanning and an excessive focus on micro-level tasks at the cost of the overall objective.
 - Disbelieving evidence from past projects and insisting the current project be done faster with fewer people.
 - Committing to or baselining project plans too early.

Note

Trying to manage a large and complex project without a project plan is like crossing an unknown continent without a map. You are running blind. The critical thing to get right is the balance between planning and action. Take the example of driving from London to Paris: too much planning and other cars will be

halfway there before you leave; too little, and you will turn up at the Eurotunnel terminal in Folkestone without passports.

"A good plan, violently executed now, is better than a perfect plan next week." *General George S. Patton, JR.*

Warning Sign!

When successive project milestones get missed, this is a sure sign that a project is failing..

Ensuring the Project is a Manageable Size

**Question 4: Is your project
a manageable size?**

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Ensuring the Project is a Manageable Size

Question 4: Is Your Project A Manageable Size?

Good Practice

A large project should be cut up into more manageable sub-projects, which only depend on completed sub-projects. The project planning methodology provides an excellent tool to subdivide major projects into more manageable sub-projects with short-term deliverables.

Each project plan should be subdivided into several key milestones. This approach helps to provide continuous delivery and makes sure progress is measured regularly. For example, a recent large project involved two separate project plans for different stages of the project, development and implementation. Each plan consisted of around 300+ individual tasks and approximately 30 key milestones.

In his article 7 Steps to Project Success, Peter Draper suggests it is necessary to break up projects into smaller, independent sub-projects that are more easily manageable. These sub-projects must be:

- Small, that is, less than \$1m.
- Fast, that is, takes less than 6 months.
- Compact, that is, fewer than 6 people on the team.
- Focused on key benefits and not just deliverables.

Common Mistakes

- Going for a big bang implementation..
- Not being prepared to take the extra cost of splitting the project into separate stages.
- Underestimating the overall complexity and the interactions between all the different components.

Defining the Budget

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**Question 5: Have you
defined a detailed project
budget?**

Defining the Budget

Question 5: Have You Defined A Detailed Project Budget?

Good Practice

Define all costs in the form of a project budget. Your budget should include all external costs such as licences, third-party services, consultants, consumables, etc. This budget should be signed off by the steering committee or other authority to make sure enough funds are readily available.

A few basic rules will help make sure an accurate and realistic budget is produced:

- Assume that people will only be productive for 80% of their time.
- People working on multiple projects take longer to complete tasks because of time lost switching between them.
- People are optimistic and often underestimate how long tasks will take.
- When creating your budget, use other people's experiences and your own.
- Get an expert view.
- Include management time in any estimate.

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- Always build in contingency for problem-solving, meetings and other unexpected events.
 - Cost each task in a Work Breakdown Structure to arrive at a total rather than trying to cost the whole project.
 - Agree on a tolerance amount with your customer for extra work that is not yet defined.
 - Communicate any assumptions, exclusions or constraints you have to your customer.
 - Provide regular budget statements to your customer, copying your team so they are always aware of the current position.

Common Mistakes

- Lack of budget ownership.
- Providing funds on an ad-hoc basis.
- Significant costs are not clearly identified early on; this can result in the project being cancelled later because of a lack of funds.
- No control or monitoring of actual project spending against planned spending.

Managing the Risks

**Question 6: Are you
managing the project
risks?**

Managing the Risks

Question 6: Are You Managing The Project Risks?

Good Practice

The project manager's task is to identify the most severe project risks and plan to minimise them. Throughout the project, you should continue to focus on the significant risks facing the project, which will change over time. This approach helps to keep the focus on the areas that need addressing. As a project manager, you should consider using a risk mapping approach:

- Identify the project objectives.
- Prioritise the objectives.
- Identify the key risks to missing those objectives.
- Take preventive action.
- Track and update risks monthly using a risk log.

There are four risk management techniques you may use to manage the risks of your project:

1. Avoidance

Use an alternate approach that does not have the risk. This model is not always an option. Some programmes deliberately involve high risks in the expectation of high gains. However, this is the most effective risk management technique if it can be applied.

2. Control

Controlling risks involves the development of a risk reduction plan and then tracking the plan. The key aspect is the planning by experienced persons. The plan itself may involve parallel development programmes, etc.

3. Assumption

Simply accept the risk and proceed. However, there can be a tendency within organisations to gradually let the assumption of a risk take on the aura of a controlled risk.

4. Risk Transfer

This means causing another party to accept the risk, typically by contract or hedging. Liability among construction or other contractors is often transferred this way.

"Never expect initial risk management plans to be perfect. Practice, experience, and actual loss results will dictate changes in the plan to allow different decisions to be made in dealing with the risks being faced. In order for companies to succeed in the twenty-first century, they need to excel in all aspects of their business, which includes risk management so they can fulfill their own and their customer's goals." ¹

Common Mistakes

- Reluctance to focus on risk.
- The steering committee not wanting to be presented with 'threatening statements about project failure' and only wanting to hear good news.
- Waiting too long and taking a reactive approach to risks.

Note

To run away from risks is to miss the whole point. To ensure project success, you need to take the right risks and be aware that that is what you are doing.

¹ Paul Bower, *Risk Management Options*, 2008.

Getting the Right Project Manager

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Question 7: Have you appointed an experienced project manager?

Getting the Right Project Manager

Question 7: Have You Appointed An Experienced Project Manager?

Good Practice

An experienced project manager should lead the project. For large projects, this should be a dedicated and full-time role. A full-time and dedicated person will continuously focus on moving the project forward.

In theory, all business projects should be led by the business. In practice, many business functions do not have the required project management skills, experience or disciplined approach. A good working compromise is to appoint two people to work together in a partnership, a project manager and a user representative. You should not underestimate the comprehensive nature of these two roles.

In her article The Top Five Project Management Traits to Master 'the How' Joli Mosier lists the top five traits you need to master the **how** of project management as:

1. A collaborative management style.
2. Adaptability.
3. Figure-it-out resourcefulness.
4. Highly developed communication skills.
5. Flexibility.

In his popular article Top 10 Qualities of a Project Manager, Timothy R. Barry identifies the qualities most important for a project manager:

1. Inspires a shared vision.
2. Good communicator.
3. Integrity.
4. Enthusiasm.
5. Empathy.
6. Competence.
7. Ability to delegate tasks.
8. Cool under pressure.
9. Team building skills.
10. Problem solving skills.

Common Mistakes

- No project manager is appointed.
- A project manager appointed with little prior experience.
- A user project manager is appointed to lead a large project alongside their existing responsibilities.

- More than one project manager is appointed.
- The project manager is not entirely responsible and accountable for the project.
- Mistaking enthusiasm or seniority for experience.

Getting Customer Representation

Question 8: Do you have experienced and effective user representation?



Getting Customer Representation

Question 8: Do You Have Experienced And Effective User Representation?

Good Practice

An experienced user representative should be appointed to work with the project manager. The user representative will lead the user group and be responsible for all business information for the project.

It is essential to keep the process user-driven, and ultimate project ownership must rest with the business. You must ensure you have enough user resources to drive the project forward. If this is not available, you should stop the project. Follow a no surprise approach with the user group. This approach requires regular communication and *telling it like it is*.

Common Mistakes

- Insufficient user resources made available.
- User representative made available part-time.
- Underestimating the amount of user information needed during **all** stages of the project.
- Business information ending with a User Requirements Specification.

Note

As the project moves into the design, development and user pilot stages, considerable and continuing business information is needed to define requirements at a lower level of detail and to answer the many questions that arise.

Warning Sign!

When users are not willing to participate in the project team.

Defining Roles & Responsibilities

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Question 9: Have you
clearly defined the project
roles and responsibilities?

Defining Roles and Responsibilities

Question 9: Have You Clearly Defined The Project Roles And Responsibilities?

Good Practice

The project manager must ensure that the project's roles and responsibilities are clearly defined. You should keep the organisational structure as simple as possible.

The following structure works well on large projects:

Executive Sponsor

- Highest ranking manager on the project.
- Vocal champion for the project at executive level.
- Secures budget for the project.
- The final decision-maker for the project.

Business Sponsor

- Champion of the project, who receives regular updates.
- Approves the project's goals and objectives.
- Attends regular project review meetings.
- An important decision-maker for the project.
- Usually chairs the steering committee.

Steering Committee (also known as the Project Board)

- Composed of senior managers from the business.
- Responsible for oversight, control and critical project decisions.
- Meets every 4 to 6 weeks.
- Helps resolve issues, approve scope changes and offers guidance and direction.

Project Team

- Responsible for planning and executing the project.
- Led by the project manager, who reports to the steering committee.
- Must include a user representative.
- Must include some vendor representatives.
- Must include some technical expertise.

User Group

- Led by the user representative.
- Must include subject matter experts (SMEs) from the business.

- Responsible for user acceptance testing the product or service.

Vendors

- Contracted to supply products and services to the project.

The roles and responsibilities for managing the project must be fully documented and adapted to suit the project's size and complexity and the organisation's skills.

One of the many roles of the project manager is to actively drive the steering committee, ensuring regular meetings take place, providing clear agendas, and ensuring that crucial decisions get made, and actions get followed up.

Common Mistakes

- No clear ownership for the project.
- Lack of leadership and commitment from the steering committee.
- Roles and responsibilities are not clearly defined.
- Disconnection between the project team and steering committee, such as discussions not being open and honest.

Note

This comment is from a project team member. “I was never quite sure what I was supposed to be doing.”

Warning Sign!

The business sponsor fails to attend scheduled project review meetings.

Getting the Right Resources



Question 10: Do you have enough experienced resources?

Getting the Right Resources

Question 10: Do You Have Enough Experienced Resources?

Good Practice

A significant contributor to the success of projects is the availability of customer and supplier managers with high levels of experience both in the business and with project delivery, and having them available early. Two or more people equal different backgrounds, professional networks and a healthy debate. Big projects need substantive and appropriate people. The dedicated people provide time to think it through.

The business culture and working practice are often heavily oriented to business functions and are not always conducive to project-based work and teamwork. Getting good people appointed as dedicated resources for projects early is a tough challenge, and some compromise is often necessary. A recent global project agreed to provide people in each area with six-month full-time secondments. In reality, only a tiny minority of areas provided dedicated resources; most people were made available part-time; this resulted in overall timescales being exceeded by six months.

"The challenge for the project manager consists of attracting the right resources, forming a cohesive team, keeping the team motivated, meeting individual aspirations and getting the work done - all within scope, cost, time, and customer satisfaction!" ¹

Common Mistakes

- Not enough experienced committed resources from the business.
- Appointed resource overcommitted and unable to devote enough time to the project.

Warning Sign!

- Resource requirements exceed resource availability.

¹ Dhanu Kothari, Getting Work Done: The Human Side of Project Management, 2008.

Once the definition, initiation and planning stages are complete the project moves to the monitoring & control stage. Questions 11, 12 and 13 should be answered.

Monitoring & Reporting Progress

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Question 11: Are you monitoring progress regularly?

Monitoring & Reporting Progress

Question 11: Are You Monitoring Progress Regularly?

Good Practice

The project plan should be monitored and updated every week. This activity is essential since tasks are often underestimated, and new tasks will be identified as the project moves forward.

"Many people use what is called Rolling Wave Planning. This is when you plan down to the level of detail currently known and go back to plan deeper once more information is acquired. Usually rolling wave planning needs to stay at least 2 to 3 months ahead of the actual work being done, but, of course, this varies slightly by industry." ¹

If you create plans at the beginning of a project, put them in a drawer and forget them, why bother making them in the first place?

"In poorly run projects, problems can go undetected until the project fails. It's like the drip...drip...drip of a leaky underground pipe. Money is being lost, but you don't see it until there is an explosion." - *Joy Gumz*

Common Mistakes

- Project plans are never updated beyond the first draft.
- Using non-binary milestones.

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- Reporting tasks as partially complete. Low-level tasks are not complete until complete; they should be measured as either 0% or 100% complete.
 - Ignoring warning signs and pressing on, hoping everything will turn out right by the end.

Warning Signs!

- The number of open issues continues to rise.
- Using contingency plans faster than the rate of progress on the project.

¹ Micah Mathis, PMP, Work Breakdown Structure: Purpose, Process and Pitfalls, 2007.

Communicating Progress

13

**Question 12: Are you
distributing regular
progress reports?**

Communicating Progress

Question 12: Are You Distributing Regular Progress Reports?

Good Practice

Progress reporting is an essential part of project management. Regular reports, from weekly to monthly, should be issued to the executive sponsor, business sponsor, budget holder, steering committee, project team, and user group and circulated to all other interested parties. The report should be as brief as possible and summarise key points.

The following is the recommended format for a maximum of two pages:

1. Report date.
2. Project status.
3. Project summary.
4. Key issues.
5. Identified risks.
6. Tasks and next steps.
7. Decisions needed.
8. Key future dates and milestones.
9. Budgeted cost.

10. Spend to Date.

This approach ensures that you are keeping people informed, involved and committed. Frequent communication is essential to the well-being of any project.

Regular progress reporting creates a valuable written record of the project's life. You can use these reports later to look back and decide how to improve the running of future projects.

You might develop some metrics to measure project progress in other ways, such as Earned Value or Activity Float Statistics.

The timing of status updates depends on the size and complexity of your project. Some project managers find fortnightly or even monthly reporting adequate. A good approach is to provide weekly status updates over video conferencing and then follow up with an email. Follow a no-surprises approach to projects. Weekly status updates mean delivering any good or bad news within a few hours or days of its occurrence.

Common Mistakes

- Poor communication channels.
- Lack of honest communication.
- Not asking for help when it is needed.

Warning Sign!

- Unwillingness to communicate bad news.

Consultation & Leadership

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Question 13: Are you achieving the right balance of consultation and leadership?

Consultation & Leadership

Question 13: Are You Achieving The Right Balance Of Consultation And Leadership?

Good Practice

There should be widespread consultation with many parties during all project stages. However, control of the project should ultimately be by a small, dedicated core project team focused on achieving a concrete result. This approach will ensure that when making difficult decisions, they get made clearly, forcefully and quickly.

Engage in lots of consultation but do not have too much democracy. Supposing you want to achieve tangible business results in a realistic timeframe. In that case, a small team operating on Stalinist principles is more likely to succeed than large committees acting as talking shops. This management style is especially applicable to regional, cross-regional and global projects.

Common Mistakes

- Making a decision and then starting a debate.
- Not getting an absolute agreement and then having to revisit the issue.
- Failing to stay goal focussed.

Note

"The Romans did not build a great empire by having meetings, they did it by killing all those who opposed them."

Questions 14 to 17 should be answered during the design and build stages of the project.

Getting Realistic User Requirements

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Question 14: Are the user requirements realistic?

Getting Realistic User Requirements

Question 14: Are The User Requirements Realistic?

Good Practice

Obtaining a realistic requirement set is essential to your project's success and the well-being of the project team.

For many projects, the total set of user requirements can be ambitious, making it difficult or even impossible to deliver a solution that meets all the requirements, in a way, that is robust, cost-effective, maintainable and can be rolled out quickly to a large user base.

It is essential to match the user requirements specification against the available technology and solutions you can implement in a timely, robust and practical way. This situation can result in an agreement that some requirements, say 20%, will not be delivered. Such a compromise will ensure that the remaining 80% can be delivered quickly. This compromise is essential for global projects with a large user base. On such projects, the speed and ease of implementation is an important consideration for the overall solution.

To be successful at requirements gathering and to give your project an increased likelihood of success, follow these rules:

1. Don't assume you know what the customer wants. Ask!
2. Involve the users and practitioners from the start.

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3. Define and agree on the scope of the project.
 4. Ensure requirements are specific, realistic and measurable.
 5. Get clarity if there is any doubt.
 6. Create a clear, concise and thorough requirements document and share it with the customer.
 7. Confirm your understanding of the requirements with the customer by playing back to them.
 8. Avoid talking about technology or solutions until the requirements are **fully** understood.
 9. Get the requirements agreed upon with the stakeholders before the project starts.
 10. Create a prototype, if necessary, to confirm or refine the customers' requirements.
 11. Use a recognised notation, such as the Unified Modelling Language (UML), for modelling the software.
 12. Cross-check the software design against the requirements and review regularly.

Common Mistakes

- Basing a solution on complex or new technology and then discovering that it cannot easily be rolled out to the real world.
- Not prioritising the user requirements into *must have*, *should have*, *could have*, and *would have*, commonly known as the MoSCoW principle.
- Not having enough consultation with actual users and practitioners.
- Solving the problem before you know what it is.
- Lacking a clear understanding and making assumptions instead of asking for clarification.

Defining Your Approach

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Question 15: Have you based your development on an iterative prototyping approach?

Defining Your Approach

Question 15: Have You Based Your Development On An Iterative Prototyping Approach?

Good Practice

Developing a prototype will breathe life into the requirements-gathering process. People can find it challenging to engage in dry documents, where a screen-based prototype can bring the debate to life.

"Prototyping involves feedback from customers to developers on a trial based product. Each time a new prototype is released, it is usually an enhancement of a previous one. The evolutionary prototype often becomes the final-product. Prototyping was first recognised as a software development approach when developers found that they couldn't figure out all the requirements, until work had started on the project." ¹

Basing the development on a series of prototypes will create a perception of early delivery to the users and a feeling of involvement in and commitment to the development process.

It is best to involve many users in prototype reviews as early as possible. This approach ensures that many users have seen the system through demonstrations and training sessions before the go-live date. This will provide high confidence that the system meets user needs and highlights any problem areas needing more attention early on.

Skipping this prototyping step and going straight to build may result in costly rework.

Common Mistakes

- Basing user requirements on large documents only.
- Not using an iterative prototyping approach.
- Not involving enough actual users.

¹ ContekSoft, Prototype Development Approach, Glossary.

Conducting Structured Testing

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Question 16: Have you
conducted structured
testing?

Conducting Structured Testing

Question 16: Have You Conducted Structured Testing?

Good Practice

You should test deliverables early. One of the fundamental lessons from delivering IT projects is that the later you leave the testing in the development cycle, the more it costs to fix.

A structured test plan should be developed and executed by people independent of the development team. Besides testing the deliverables, you should also test the overall infrastructure over which the deliverables will run. The major components in the architecture should be tested before building the final deliverables.

The test development life cycle has the following elements:

1. Test plan.
2. Test specification.
3. Code tests.
4. Validate test.
5. Run tests.

Test documentation is a necessary tool for managing and maintaining the testing process. Documents produced by testers should answer the following questions:

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- What to test?
 - How to test?
 - What are the results?

"When end users get involved in the final stages of testing, light bulbs go on, and they often have an 'aha' moment.

Unfortunately, that is often too late." - *Frank R. Parth*

Common Mistakes

- No test plans and, therefore, no testing.
- Testing is conducted in an ad-hoc way by the development team.
- Waiting until the deliverable is deployed before testing.
- Using test time as a contingency when development is running late.

Warning Sign!

Documentation or testing stages are cut to make up lost time.

Creating an Implementation Plan

18

Question 17: Do you have a comprehensive implementation plan?

Creating an Implementation Plan

Question 17: Do You Have A Comprehensive Implementation Plan?

Good Practice

For large projects with a broad user base, the implementation stage can often be more complex and time-consuming than the development stage. The implementation stage can often benefit from being treated as a separate project. The following ideas are worth considering, especially for large projects introducing new business processes across multiple locations:

1. The implementation should be carried out by the people who will live and work with the new system; they will have a strong vested interest in getting it right.
2. Conduct a company survey for each site, meet the senior management, gain support, and fully understand the local working practices. This work will help ensure that the new process is fitted in seamlessly with the existing processes and that you discover any nasty surprises early.
3. An implementation event for each site should include a presentation by the chairperson to the rest of the company to show strong support from the organisation's top.
4. Comprehensive training for all users with different sessions if the process involves different user types, such as gatekeepers, project leaders and team members. You can never have enough training. It is better to split training

into several short sessions, such as basic training, with two follow-up sessions at monthly intervals.

5. For multiple site implementations, use the idea of a showcase company where the conditions, such as user buy-in, expertise and motivation, are good. A successful implementation in the showcase company will then prove the system and process and act as a centre of expertise for the remaining sites.
6. For multiple company implementations, consider running several workshops for the implementation staff to allow them to learn from one another. A little competition between different companies also helps to spur the implementation. This approach helps ensure that problems are resolved quickly, and that other team members rapidly remove false problems. Consider special awards for implementation success. For example, an accreditation certificate when a company has successfully implemented the system and met some key (but simple) criteria in the business process. The certificates should be signed by the president or chairperson and presented to the local implementation team. Consider special awards for implementation success.

7. Consider special measures to track implementation progress, for example, gold, grey and blacklists. People do not like to be singled out as poor performers. For this approach to work, you must select a few simple key measures that cannot be challenged; be scrupulously fair and objective and reject all bribes.

Common Mistakes

- Failure to involve end users.
- Inadequate training.

Questions 18 to 21 should be answered at the end of the project.

Conducting a Post Implementation

19

Question 18: Have you
conducted a post
implementation review?

Conducting a Post Implementation Review

Question 18: Have You Conducted A Post Implementation Review?

Good Practice

It is best practice to go back and review the progress made in delivering the project deliverables and overall business benefits. Time the post-implementation review to allow you to make final improvements to get the best benefits from the project.

Organisations are beginning to recognise the growing importance of knowledge management as a key to competitive advantage. We must therefore become better at capturing our learning and making this information available to the rest of the organisation. This task will increasingly become the duty of every manager.

As the project manager, you are in a position to help your customer gain the benefits detailed in the business case. It can be a different phase once you have closed the project or run as a part of the overall project. It may not follow on directly from the project end and start after a short time, but before the post-implementation review, which typically takes place three to six months after the project has been completed.

Opinion seems divided as-to-whether active benefits realisation is the project manager's domain. Still, one thing is sure; many projects declared successful never deliver the planned benefit or result.

Hold a formal debrief session at the end of your projects, including a post-implementation lesson-learned review with your team.

Common Mistakes

- Forgetting what has been done and discarding any valuable experience gained on a challenging project.
- Being so relieved to finish that we moved on without reviewing the project's result.
- Disbanding the project team too fast before capturing the learnings.

Realising the Benefits

20

Question 19: Will the deliverables and benefits of your project survive?

Realising the Benefits

Question 19: Will The Deliverables And Benefits Of Your Project Survive?

Good Practice

Taking a benefits realisation approach for projects can help ensure that the benefits identified at the start of a project get realised at the end.

Frequently a team is disbanded soon after delivery on projects. This approach can result in the solution withering away and dying over time, particularly if it has fallen on stony ground. This outcome can be especially true for a project that involves a change in working practices or revised business processes.

On a recent large project, after the usual development and implementation stages, we retained the project team for a third stage called *benefits realisation*. We designed this stage to ensure that the roots of the new business process and the supporting IT system would grow deep and deliver real business value.

You should only consider a project completed on delivery of the benefits to the business and not immediately after project delivery. This approach will ensure a swift resolution to implementation problems and the delivery benefits envisioned at the start of the project come to fruition.

To gain benefits, you must have change. In their book *The Information Paradox*, John Thorp and DMR's Centre for Strategic Leadership say that "it is a central tenet of the Benefits Realisation Approach that benefits come only with change and, equally, change must be sustained by benefits." "People must change how they think, manage and act in-order-to implement the Benefits Realisation Approach."

Changing how people think, work and manage is no easy task. Still, without it, your project is in danger of joining a long list of successful project deliveries that never realised their expected benefit or result.

Common Mistakes

- Believing that a project is over once the delivery and implementation are complete.
- Expecting benefits automatically to drop out of the project without any effort.
- Expecting benefits without change.

Learning the Lessons

21

**Question 20: Have you
looked at the lessons
learned from your project?**

Learning the Lessons

Question 20: Have You Looked At The Lessons Learned From Your Project?

Good Practice

Every project has the potential to help you run future projects more efficiently. Assess whether the project was a great success, a total failure or somewhere between the two. Concentrate on the big, important lessons from the project, the ones that will have a significant impact on your future projects.

In his article *Lessons Learned: Why Don't We Learn From Them?* Derry Simmel identifies two common problems preventing us from learning valuable lessons from past projects:

1. We think the lessons don't apply to us.
2. We want to get things done.

"The sad truth is that these lessons learned are useful. That time spent in doing the work better is time well-spent. That getting it right the first time is cheaper and easier than doing it now and fixing it later," Derry says.

History has a strange way of repeating itself. If we don't take time to learn our past lessons and act on them, we will repeatedly commit the same mistakes.

Common Mistakes

- Being too busy to evaluate projects when they have finished.
- Moving on to your next project before reviewing the last.
- Failing to heed the lessons from past projects.
- Not making lessons learned available to other people in your organisation.

Warning Sign!

Making the same mistakes time and again.

Celebrating Success

22

**Question 21: Have you
celebrated the success of
your project?**

Celebrating Success

Question 21: Have You Celebrated The Success Of Your Project?

Good Practice

Before moving on to your next project, it is worth celebrating your success. It provides a way to thank your team and helps with motivation. Always publicise your accomplishments both inside and outside the organisation. This publicity will help raise your and the team's profile and credentials for future projects.

"Completion of a project and the steps along the way can be intrinsically rewarding for project team members. Outwardly celebrating successes also can be a source of motivation for the team. When project milestones are reached, they should be communicated to project team members and stakeholders. Small rewards for team members who go above and beyond their duties also should be considered to communicate a job well done. These rewards can come in various forms, from certificates of appreciation to recognition in the organisations staff newsletter or on its website." ¹

American psychologist Frederick Herzberg said, "True motivation comes from achievement, personal development, job satisfaction and recognition."

¹ Alison B. Flynn & Timothy J. Mangione, Five Steps to a Winning Project Team, 2008.

Checklist

23

Every project is different and, therefore, presents a new set of challenges. The skills needed to manage projects are becoming a standard part of life in organisations today.

Checklist

Use This Checklist To Drive Your Project Success.

Every project is different and presents a new set of challenges. The skills needed to manage projects are a standard part of life in organisations today.

Use this checklist to drive your project success:

1. Do you have adequate business sponsorship and leadership?
2. Have you defined and understood the business objectives and benefits?
3. Have you developed a detailed project plan?
4. Is your project a manageable size?
5. Have you defined a detailed project budget?
6. Are you managing the project risks?
7. Have you appointed an experienced project manager?
8. Do you have experienced and effective user representation?
9. Have you clearly defined the project roles and responsibilities?
10. Do you have enough experienced resources?

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11. Are you monitoring progress regularly?
 12. Are you distributing regular progress reports?
 13. Are you achieving the right balance of consultation and leadership?
 14. Are the user requirements realistic?
 15. Have you based your development on an iterative prototyping approach?
 16. Have you conducted structured testing?
 17. Do you have a comprehensive implementation plan?
 18. Have you conducted a post implementation review?
 19. Will the deliverables and benefits of your project survive?
 20. Have you looked at the lessons learned from your project?
 21. Have you celebrated the success of your project?

By following these twenty-one steps and continuing to develop and refine your skills, you will be well equipped to excel in the modern business environment.

Project Smart is the project management resource that helps managers at all levels improve their performance. We provide an essential knowledge base for managing projects of all kinds.

You can find more information about project management on our website www.projectsmart.co.uk

Further Reading

[Project Planning a Step by Step Guide](#)

[Risk Management Options](#)

[The Top Five Project Management Traits to Master "the How"](#)

[Top 10 Qualities of a Project Manager](#)

[Getting Work Done: The Human Side of Project Management](#)

[Work Breakdown Structure: Purpose, Process and Pitfalls](#)

[What is Benefits Realisation?](#)

[Lessons Learned: Why Don't we Learn From Them?](#)

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