

Managing Small and Medium-Sized Projects



by Dr Jim Young PMP



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Contents

Chapters

- One – Introductory Stuff
- Two – Principles, Processes, Terminology, Roles, Responsibilities and Leadership
- Three – Recognising the Need and Justifying the Investment
- Four – Preparing the Charter
- Five – Engaging with Stakeholders
- Six – Outsourcing the Project
- Seven – Planning the Work
- Eight – Creating a Work Breakdown Structure
- Nine – Analysing the Work
- Ten – Scheduling the Work
- Eleven – Managing the Risk
- Twelve – Working the Plan
- Thirteen – Quitting the Project
- Fourteen – Closing the Project
- Fifteen – Managing the Change
- Sixteen – Securing the Benefits

Appendices

- One – Common Terms
- Two – Templates
- Three – Risk Checklist
- Four – Example Trade-off Analysis

Chapter One: Introductory Stuff

The Great Pyramid of Giza, the Colosseum in Rome, and the Great Wall of China are testimonies of huge and successful projects. China's Great Wall took centuries to build. President Donald Trump's modern day wall along the US-Mexican border to repel illegal immigrants will be a financial, engineering and logistical challenge of similar proportions. While mega infrastructure projects that cost over \$1 billion such as border walls, floating cities, oil pipelines, tunnels, motorways, railways, bridges, and airports catch our imagination, most projects are very much smaller in scale and cost. This book is about how to successfully manage these more modest endeavours.

Is this book for you? Yes, we're all project managers (PMs), although we don't necessarily hold the job title or manage projects full-time. In our workplaces we often do both project work to realise progress and we also do on-going operational or business-as-usual work to maintain the status quo. The difference between these two types of work depends mainly on whether we repeat the activity often enough for it to become routine. For example:

- Setting up a business is a project; running it on a daily basis is an operation.
- Developing software to process membership applications is a project; on-going processing of these applications is an operation.
- Closing the books at the end of the fiscal year is a project; routinely running the accounting function is an operation.
- Installing a robot to paint car bodies at an assembly plant is a project; using the robot to paint car after car is an operation.
- Developing a PM course is a project; presenting the course repeatedly is an operation.
- Setting up a help desk is a project; responding each day to customers' inquiries is an operation.
- Designing an iPod is a project; routinely manufacturing them is an operation.
- Composing an opera is a project; performing it regularly is an operation.

A project is a one-of-a-kind undertaking that moves things from where they are now to a new place, and usually to a better place. Projects might develop new products or enhance and maintain existing products to effect some beneficial change for whoever instigated the project. We use PM, allied with change management and

benefit realisation management to achieve this better place and often do so given challenging people, risk, quality, time, financial and other constraints. At our places of work the performance and competitive advantage of our business often depends on our ability to do this well.

While PM is chiefly associated with planning and managing change in an organisation, a project may also be something unrelated to business such as taking a holiday, organising a dinner party, holding a garage sale, creating or removing graffiti, emigrating to Aussie or returning to NZ, fixing a leaky home, extinguishing a bush fire, moving house, having a funeral, organising a jail break or cake stall, robbing a bank or dairy, prosecuting a crim, organising a celebration, holding a coroner's inquest, winning a rugby world cup, arranging a boxing tournament, running a referendum or a general election, undertaking a mine rescue, organising a rock concert or a crowd-funding campaign, finding a replacement planet, or undertaking a hikoī, hangi or hui. And here's me undertaking a DIY project to hardscape our yard, and admiring my recently completed dog-proof fence.



Yes, we all do projects. We organise events, we look for jobs, we refurbish our kitchens and bathrooms, we find new places to live and so on. Some would say that every facet of human life is a project and is best managed as such. For example, getting married or divorced is a project and staying married is mostly a series of TLC maintenance projects. While PM is now recognised as a life skill, even life itself could be viewed as a unique do-it-yourself project, which if properly completed may result in a beneficial afterlife or even reincarnation some religions proclaim. Anyway, like people, projects deliver products that have a birth, a life and a death, during which time their use generates beneficial change - the rationale for any project.

Yet, while PM is a life skill, most schools don't teach it. Perhaps this is one reason why many young people often struggle with the school-life transition. The basic principles of PM aren't particularly difficult - far less difficult than calculus, algebra, geometry, grammar or spelling surely. While it's true that there's no PM class, per se, if we look at the bigger picture, most of the truly valuable things we learn at

school occur in the playground. Play is the key to the physical, mental, intellectual and social wellbeing of our children. For children, play is serious learning and the work of childhood. But it seems that the current parental zeitgeist is one of worry and fear for our children, often far out of proportion to the actual dangers involved. Yet bullrush is how I first learned about the essential PM ingredients of risk, reward, and group dynamics - all during the lunch break.

“The Secret Life of Four Year Olds” spy-cam documentary currently showing on TVNZ is about the leadership, planning, conflict, mischief, lies, rivalry, pestering, negotiation, dictatorship, decision-making, recruiting, gang warfare, delegation, rejection and violence of preschool life. It’s terrifying, but perhaps good preparation for a robust life as PMs, although most participants seem more interested in playing computer games than making friends. For some of these four year olds PM may become their accidental destination. Although today PM is just as likely to be a deliberately chosen career path as PM has now evolved from a discipline into a profession; to a principal calling or avowed religious faith.

Whether a project involves bomb-proofing an Afghan village or building a garden shed, it’s our job as PMs to make sure everything comes together in a timely, cost-effective manner, and we usually take the heat if it doesn’t. But PM has limitations. It may help us build a career, a house, or a software application, yet it will not help us comprehend the meaning of life or gravitational waves, understand the opposite sex, know what the dog’s thinking, explain why we blush or laugh, or help us make sense of semi-synthetic life, quantum computers, bitcoins, flux capacitors, Higgs Boson, computer viruses, and modern art. And PM won’t help us find those damn keys we misplaced last night in our drunken stupor. Yes, there are limits to what PM can accomplish, particularly if we attempt to apply complicated methodologies to small projects, when most of our time and energy will be expended grappling with bureaucratic overheads that quickly kill off our enthusiasm and creativity.

Even given an appropriate methodology, PMs must be willing to deal with frequent interruptions since project problems, requests and other imperatives never wait for us to become unbusy. Often we need to drop whatever we are doing and refocus our attention. PMs who hide behind “Do Not Disturb” signs run the risk of having trivial and easily addressed issues escalate into unrecoverable disasters where the only constant is stress. Despite our best efforts at managing our time, between urgent text messages, e-mails, phone calls, meetings, and people dropping in, we PMs don’t usually have a lot of uninterrupted space.

The first reality of PM is that a day is very rarely 9 to 5. There is seldom time for uninterrupted solitude. Often we need to schedule work that demands our full concentration before the normal workday begins, or do it after everyone has left for the day, and as soon as we open our eyes in the morning it all starts again as we reach for our iPhones to field a relentless stream of urgent messages. Such permanent connection is taking its toll and the French at least recognised that some intervention was needed to sever this electronic dog leash and cease harassing us at home. PMs in France now have the right to disconnect during weekends,

holidays, before 9am and after 6pm on work days. Although excessive hours correlate strongly with PM stress and mistakes, it seems unlikely that Kiwi companies will adopt la courte semaine any time soon.

Another PM reality is that due to limited organisational resources our project selection usually comes at the expense of other initiatives to thus ensure that there are regular turf battles and colleagues resentful that our project got the green light and theirs didn't. While suffering this resentment, we also have to stay on top of a hundred details, all the while attempting to motivate a group of overworked people, who have other things to do, to deliver on tough deadlines. It's a juggling act that has spawned many horror stories and seen the demise of many projects and their hapless PMs. Truly, PM can be a stressful profession, with its well-documented failures and steady doses of deadlines, collaborative overload, uncertainty, conflict, unrealistic expectations, and accountability with little authority. Also, our project teams may be comprised of reluctant people borrowed from different functional areas who are thrust together in the hope that we PMs will quickly mould them into a productive synergistic team.

But it's not all bad news. One particular saving grace is that we PMs are always learning, meeting all sorts of interesting people, never having a dull moment, and our achievements are usually well recognised. Because we solve a problem, create something new, or something better, our perceived value to our organisations is often highly rated, and usually more so than the efforts of our hard-working line management colleagues. Also, there is usually a greater sense of satisfaction in completing a project than there is in doing the same activity for the umpteenth time. We PMs are typically well compensated, foster innovation, create value, develop team members, reduce risk, fix problems, and see the beneficial results of our work.

PM is a mixture of administration, planning, experience, analysis, people-skills, leadership and luck. Luck is rarely acknowledged as an ingredient of PM success, as our fragile egos would prefer to attribute positive outcomes to our own brilliance. Other than luck, PMs have three key skills in common with entrepreneurs - the ability to lead a team, a willingness to take risks, and a readiness to assume responsibility. Also, PM is now a pathway to CEO positions. We PMs, like CEOs, have a lot of responsibilities, face all sorts of pressures, have to work with a wide variety of stakeholders and need to deliver promised results within a defined set of financial projections to ensure our customers are ridiculously pleased.

We PMs are CEOs of our own domains and face many of the same issues as do CEOs, but usually on a smaller scale and with less remuneration and authority. It's likely that many of our next generation of CEOs are at present PMs and if we are interviewing people for a PM position, we might do well to imagine we are interviewing them for a CEO position. Good PMs and CEOs are both forward thinking, have a bias towards action, are optimistic, tough minded, perseverant, and willing to trust others. However, PMs may even have a tougher leadership role than CEOs since the fellow employees we depend on, our borrowed resources, don't usually report only to us. Project team members often have line managers to

contend with who see their own business-as-usual work as priority. Such is life in the dynamic matrix organisation – sometimes a recipe for frustration, conflict and confusion.

There are a variety of ways in which to tackle projects. This book focuses on the traditional, plan-driven approach to PM whereby the desired solution is pretty much defined at the beginning before project execution starts. We know the destination before we plan the route. Undertaking a project in this systematic manner is a process. It's about leading, planning and controlling equipment, material and people to achieve a goal. Unlike business managers who oversee a department or function, we PMs often need to control and co-ordinate the efforts of loaned people with different skills from different functional areas, even from different organisations, and sometimes from different countries, to spend other's money to produce new products to hopefully satisfy clients and users and a variety of other demanding stakeholders, which could be likened to attempting to paint a masterpiece with many hands manipulating our paint brush.

We might liken a PM to a symphony conductor who directs the orchestra to bring out the magic in the music by keeping everyone moving in harmony, hence the title of my first book on PM published by the New Zealand Institute of Management (NZIM) - "Orchestrating Your Project". Incidentally, I notice that "NZIM" has now been rebranded "IMNZ", which doesn't suggest a very radical change of direction, but doubtlessly an expensive project.

Within most organisations there are essentially two cultures, two sets of expectations, two languages even – the routine activity or business-as-usual culture concerned with on-going daily operations, and separately, the project culture concerned with producing new products, managing change and realising product benefits. These two cultures need to work together, although one culture may dominate, and on occasions there can be mutual incomprehension. While both projects and operations involve employees, need to be planned, produce products, and are constrained by resource limitations, they possess some important differences.

Operations are performed by relatively stable teams using ongoing and repetitive processes and are focused on maintaining the status quo, whereas projects are performed by temporary teams, are non-repetitive and produce unique products. Another significant difference is that our projects possess much less certainty than do operations. Operations, as a result of continual scrutiny and refinement, possess little uncertainty or risk and are thus much more predictable, whereas projects delve into the unknown and as such things may not go entirely as planned. For a project there is only some measure of certainty at completion, although even then results may not be exactly as originally predicted.

Another important difference is that projects cause change and most people are apprehensive about change. People who prefer project work like change and new

challenges, rather than steady routines. However, if this change is not completed successfully, project benefits, which are the rationale for undertaking projects, will not be realised or fully realised. The management of change and the achievement of business case benefits are now recognised as essential ingredients for project success and are fully addressed later in this book.

Differences Between Operations and Projects

Operations (business-as-usual work)	Projects (non-routine endeavours)
<ul style="list-style-type: none"> • Predictable and certain • Repetitive and routine • Have standard procedures • Have no end dates • Stable and permanent • Teams stay together • Easy to accurately measure • Preserves the status quo • Process-focused • Evolutionary • Continuous improvement • Mostly harmonious • Work in the business • Maintains the business 	<ul style="list-style-type: none"> • Unpredictable and uncertain • Unique and innovative • Have individual plans • Have end dates • Dynamic and temporary • Teams disband at finish • Hard to accurately measure • Drives change • Progress-focused • Revolutionary • One chance to succeed • Sometimes acrimonious • Work on the business • Changes the business

Formerly, we PMs were exclusively preoccupied with completing our projects on time and within budget, which are important measures of PM success, but not necessarily project success, which is about realising benefits. A project might be completed late and over budget, yet still yield benefits that ultimately exceed the costs involved and thus add value; an often quoted example being the Sydney Opera House that was completed ten years late and more than fourteen times over budget, but is now a celebrated landmark.

While projects can be acrimonious affairs, conflicts or differences of opinion can be healthy things and, if properly managed, can trigger useful debates. Conflict can make people think differently, and expand their knowledge and insights. In fact, if two people on our project planning team always agree, perhaps we have one too many people. While different opinions are potentially a very good thing, if those two people never agree, perhaps we have two too many people. It's how we handle the conflict that makes the difference.

Projects are discrete, unique and temporary pieces of work designed to achieve beneficial change. Some projects are monumental, and others are smaller in size. This book is about the more prevalent latter variety. However, a project is a project whether it's small or large; all have a start and an end date and yield a unique product, which is generally the solution to a problem, but might also be about

capitalising on an opportunity or complying with legislation. We could say that writing this book is a small project in terms of work effort, duration, size and cost, whereas constructing a hydroelectricity plant and the battle for Mosul are very large projects both physically and financially. Yes, military operations are also projects and the military orders format “SMEAC” (Situation, Mission, Execution, Administration and Command) is an excellent basis for any project plan. Anyway, size designations help put projects in perspective and influence the extent to which structured PM methodologies and their associated tools and techniques might be usefully employed.

While cost is usually the main sizing factor, exactly what cost depends on our business environment. To the oil industry a medium-sized project might have a \$100 million budget, and to a minor charity, medium might mean a budget of \$5,000, if not less. While medium is a relative term, in writing this book I’m keeping in mind those standalone endeavours that deliver a single product with only a few stakeholders, with budgets up to say one million dollars, with durations of less than twelve months, and a work-effort maximum of say 4,000 person-hours, and often undertaken on a part-time basis by a small team. In contrast, large projects are often multi-year, multi-deliverable, multi-stakeholder, multi-team member, full-time ulcer-producing pursuits, often with huge budgets. Given all of these "multi's" it's little wonder that large projects can be very risky endeavours, fraught with politics, difficult to manage. And if they're big IT projects, they're mostly destined to fail due mainly to an explosion of requirements during their lives – a consequence of the Agile PM methodology often used for their development.

In relation to project size, the terms project scope and scale are sometimes confused. Projects may be of small scale, but aren't necessarily of small scope. For example, if we build a house, some of the main components are the foundations, the framework and the cladding. These different components add to the scope of the project. On the other hand, the size of the house determines the scale of the project. So, if we add a garage to the house, we're increasing the project scope, but if we double the size of the garage, we're adding to the scale of the project.

Small and medium projects aren't necessarily risk free, of little consequence, or even simple. The difference in difficulty between small, medium and large projects varies, and sometimes we are of the mindset that small is simple and large is difficult, but this isn't necessarily so. Sometimes small projects are difficult and large projects are straightforward. For example, it's a simple thing to run or even walk a marathon – it's merely one step after another. We start and don't stop until we've reached the end. What could be more simple? The fact that it's an enormously difficult project doesn't negate its simplicity. Similarly, in our project planning endeavours, to be difficult is often simple, but to be simple is often difficult.

“Methodology” is a big word for how things are done – the procedure. It was no surprise that a recent KPMG survey showed that despite a significant uptake in the use of the PRINCE2 PM methodology by our public sector, there have been more and more project failures; recent and significant among which was Novopay our NZ

Ministry of Education's payroll venture undertaken by relative newcomer, Aussie contractor Talent2. As a consequence, KPMG emphasised that the following are important ingredients for project success:

- A proven PM methodology.
- A sound business case to support the investment.
- Early and on-going communication with stakeholders.
- Continuous management of risk.
- Accurate and up-to-date progress reporting.
- Effective change management and benefit realisation.

Our government's uptake of PRINCE2 was encouraged by a notorious government project, eventually abandoned in 1999 due to compounding risks. The project was called "INCIS" (Integrated National Crime Information System). At least this expensive IBM/NZ Police failure provided us with a useful risk acronym:

I	<i>Inexperienced team</i>	0.8	} $0.8^5 = 0.33 \text{ (33\%)}$
N	<i>Novel endeavour</i>	0.8	
C	<i>Complex functionality</i>	0.8	
I	<i>Imprecise specifications</i>	0.8	
S	<i>Scope change frenzy</i>	0.8	

Each of these five INCIS risk factors might separately reduce the likelihood of project success to say 80%, but their combined effect could reduce the chances of overall success to as little as 33%. We practitioners know that risks are much more likely to compound than compensate, where one risk creates or worsens other risks. Interestingly, the INCIS inquiry concluded that projects as complex, large and risky as this should not be approved as a single endeavour but should be broken down into smaller projects.

NZ Telecom, now rebranded Spark, has, according to unofficial reports, lost something close to \$1 billion in IT failures over the previous decade. Recent NZ public sector failures include a Health Waikato project that was abandoned at the cost of \$9 million, the failure of a large part of a \$26 million project by Capital Cost Health, and the Landline project which was late and \$52 million over budget. "Dangerous Enthusiasms" by Gauld and Goldfinch describes why our large IT projects often go wrong. Their book mentions eight habits to ensure project failure:

1. Prefer multiple requirements and a huge project scope.
2. Change product requirements often during the project.
3. Have an enormous and complex contract document.
4. Rely on the advice of salespeople and use lots of consultants.
5. Ensure the project takes a long time so the technology becomes outdated.
6. Believe everything we're told about progress.

7. When failure threatens, never terminate project, but rely on promised fixes.
8. And most importantly - continue to throw lots of money at the endeavour.

Although the book focuses on the NZ experience, it's a reflection of experiences all over the world. To be fair about IT project failures, our worldwide rate of innovation seems to be most pronounced in the IT industry where the frequency and extent of change is exponential. Moore's Law, now aged over 50 years, continues unabated. We can download a version of software one day and have it obsolete the next day, where IT product obsolescence readily beats IT product maturity. All we can be assured of as we might proudly depart the shop with our new bit of IT is that it's already superceded. We are lured on by the delusion that new is better, that more is better, that faster is better, and that only a lumpen tortoise could be content with yesterday's model.

Some observers tell us that this breakneck pace of innovation is confined to IT and other areas of endeavour are showing signs of slowing down. For example, we now drive modern cars that are faster and safer than previous models, but this upgrading of the horseless carriage over the last two centuries is hardly a break-through paradigm shift. Perhaps the slowdown in non-IT pursuits is partly due to an increasing aversion to risk as a result of increasingly stringent workplace health and safety legislation and associated penalties, although in the PM business it's probably better to view innovation and risk management as partners and not adversaries. Perhaps our local health and safety legislation is becoming an albatross around the neck of businesses, sometimes costing them millions of dollars a year and leaving entrepreneurs in fear of speculative claims.

Regrettably, our most widely used methods for managing projects are specifically designed for huge projects. The main culprits are PRINCE2 (Projects IN Confined Environments) and the PMBOK Guide (PM Book of Knowledge) that are both much too unwieldy and frightening for smaller projects and for use by us ordinary mortals, and despite their authors' claims, these methodologies strenuously defy tailoring to match smaller project needs. The PMBOK Guide is an encyclopedic source of knowledge with 47 processes, and PRINCE2 is a huge descriptive and inflexible methodology that is particularly user-hostile, even in its "PRINCE2 for Dummies" version. The 2012 ISO 21500 is strictly based on the PMBOK Guide, has the same ten Knowledge Areas and has 39 processes with their direct equivalents in the PMBOK Guide. The ISO 21500 is a much more concise and readable standard than is the PMBOK Guide, but is a higher-level description that has no mention of PM tools and techniques.

The PRINCE2 methodology is so top-heavy that it generates its own gravitational field, which together with the corporate immune system can kill innovation and neutralise anything that differs from the status quo. Britain has invented some great stuff, such as rugby and television, but PRINCE2 is most definitely not up there. Yet this cumbersome methodology is a now widely promoted PM qualification. Certainly it's proof that we've been on an expensive and tedious course to learn about PRINCE2 terminology in order to pass a theory test. Unlike PMP, the principal

PMI credential, we don't have to run projects in order to get PRINCE2 accreditation. Furthermore, PRINCE2 training is mostly about higher-level project control and governance. It does not address PM fundamentals such as how to lead and motivate our project team, communicate with a diversity of stakeholders, or any other people skills essential for PM success. Also, it doesn't tell us how to apply basic scheduling, estimating and budgeting tools and techniques, and how to keep our project on track. Little wonder that some people see PM as a needlessly bureaucratic overhead.

Yet, organisations must “innovate or die” and while PRINCE2 and its even more terrifying relative MSP (Managing Successful Programmes) seem to be favoured as default solutions by NZ central government, these methodologies have been likened to bureaucratic black holes that suck up all our energy. It's no coincidence that when this mammoth PRINCE2 method is rigorously applied, even the faithful feel imprisoned in its many inflexible processes, sub-processes and sub-sub-processes, and some users doubtlessly lose the will to live. This laborious method of managing projects represents an enormous overhead, and is simply impracticable for smaller projects.

PRINCE2 may be useful if we're looking to manage a large-scale project where there are many people involved and many complex stages, although it failed for Novopay, and the current Auckland City Council IT project is now well overspent and considerably late. Perhaps IRD should be apprehensive about applying PRINCE2 to their \$1.5 billion computer upgrade, recognising that the project risks and effort involved increase exponentially with novelty, size and complexity. But if we're looking for a straightforward framework to satisfy small and medium-sized PM needs, then PRINCE2 is mostly unsuitable.

Yet, not all PRINCE2 concepts are entirely unsuitable for smaller projects. In particular, I like its business case and benefits focus, whereby projects remain aligned with business objectives. But, we don't need PRINCE2 and its bestial bureaucracy and re-invented terminology to have sound justification for a project or to reap post-project benefits, although in this book I have adopted the PRINCE2 expression “product” meaning the output, deliverable or whatever remains at project completion, be it tangible or intangible.

Thus, for the vast majority of our projects, PRINCE2 and PMBOK are overkills. They are costly, unwieldy, overly bureaucratic, time-consuming and generate too much useless paperwork. They add little value, and despite their owners' claims, these process-heavy monoliths defy useful scaling. They are labyrinthine and confusing, which I suspect is in part because the academics who develop and keep “refining” them believe that simplicity would undermine their worth, or perhaps because consensus by committee is incapable of embracing simplicity, since consensus usually means trying to placate everyone.

In addition to the significant investment at stake, PMs most certainly put their reputations on the line when they take on a large project. Mismanaged large

projects routinely cost the jobs of many PMs, and have even sunk whole organisations. A recent Standish Group report (an independent international research organisation) indicates that smaller projects have a very much higher success rate (76%) than do larger projects (10%).

Survey Results	Larger Projects	Smaller Projects
Successful	10%	76%
Failed	52%	4%
Challenged	38%	20%

The Standish Group describe “successful” projects as those that are delivered on time, on budget, and with required features and functionality, whereas “failed” projects are those cancelled prior to finish or their products were never used. “Challenged” means late, over spent or with less than the required features and functions. The Standish Group tell us that smaller projects are much more successful due to a combination of the following attributes:

- **Less Risk.** Today’s business environment is constantly changing. It’s unpredictable, volatile, becoming more complex every day, and is fraught with risk. Among other things, risk is a function of a project’s duration and complexity. Smaller projects are usually of shorter duration and possess less complexity, and thus have greater predictability and certainty. Generally, project plans are rarely accurate for more than about six months, often due to uncontrollable external factors, none of which are kind enough to stand still for the period of our project. When a project’s duration is more than six months, there will usually be several external changes (political, economic, environmental, social, technological, and legislative) any of which could upset our project. Also, there is less risk of an organisational disaster should a smaller project fail, and such failures usually attract little public attention.
- **Better Communication.** Smaller project teams have fewer communication channels than do larger project teams and we PMs are embedded in our smaller teams and not remote from them. With larger project teams, interactions don't just grow linearly; they explode exponentially to the square of the number of people involved. Anyone who has worked on a large project team knows too well how frustrating the communication and co-ordination process can be, particularly with cross-functional teams that are often characteristic of larger projects. Also, it’s easier to establish a quality relationship in a smaller project team with mutually agreeable ground rules for effective teamwork. Furthermore, larger projects are likely to have more stakeholders with different interests in the project. Due to better communication, smaller teams make quicker decisions that are also implemented more quickly, and aren’t usually challenged by the need to collaborate across cultures, organisation boundaries or time zones.
- **Better Co-operation.** Coupled with better communications, smaller project teams are more likely to develop strong and trusting cohesive bonds that enable

team members to work co-operatively, and are less likely to suffer from social loafing (free-riding on efforts of others), loss of individuality, polarisation and groupthink, which is the tendency for individual members to suppress dissent in the interest of group harmony. Jeff Bezos, the founder and CEO of Amazon famously coined the Two Pizza Rule: “If a team can’t be fed with two pizzas, the team is too big.” He maintained that people in smaller teams were far more productive and larger teams were often inefficient, lumbering, badly organised and unsupportive.

- **Easier to Start.** Imagine a freight train, say 15 wagons long, each wagon loaded with logs. Next to the train is a car. Both are at a standstill and gearing up to go. Picture as the car quickly speeds off while the train slowly begins to inch along the tracks as it strains to get going. It’s no contest. The heavier something is, the greater is the inertia and harder it is to get moving. Smaller projects have much less inertia and can quickly get underway, are more manoeuvrable, and if necessary can be stopped more quickly.
- **Easier to Stop.** With a large death-march project, no one, including the sponsor, may have the courage to stop it when it becomes evident that costs will exceed benefits. With smaller projects it’s usually much easier to recognise and admit that it’s time to stop, and because they are small the impact of stopping them and the sunk costs involved are much less. Sunk cost is a cost that has already been incurred and cannot be recovered, which alone should never be the reason for continuing a project. As PMs, we’re hard-wired not to quit, but should the rationale for the project evaporate, it’s time to abort the job and minimise our losses. Such failure might be hard to admit, but it’s easier to do so for smaller and relatively inexpensive projects.
- **Speedy.** Smaller projects can make an impressive impact because they generally produce a speedy return on investment (ROI). Smaller projects quickly create an environment of success that breeds more successes and promotes the continuous delivery of functionality in small doses such that the users don’t need to learn a lot of new stuff at any one time. It’s true that the return will usually be less than what a larger project provides, but it’s a return coming now rather than much later and, regardless of how we’re measuring that return, it’s always good to have some early value coming back into our organisation. Thus, a smaller project makes for faster successes that breed their own energy. Furthermore, CEOs, like politicians, prefer that project benefits be realised quickly and preferably during their term of office.
- **Single Goal Focus.** Smaller projects have us focus on a single goal and not multiple goals that often trouble larger projects. Larger projects usually don’t have a single common goal to unite effort. In fact, sometimes they have conflicting goals that can cause the project to overrun its budget and schedule, or even prevent its successful completion. Also, the closer the goal, the easier it is to reach. In rugby union the try lines are 100 metres apart. All the players and spectators can see the entire field, can readily assess progress, and understand

most of the rules. Small projects have similar attributes. The smaller the project the easier it is for the sponsor and other stakeholders to monitor and control progress.

- **Transparency.** Fraudulence should never be tolerated. In smaller projects it's harder to hide the facts. Also, it's easier to keep our promises with smaller projects. Keeping promises establishes our integrity and trust. If our stakeholders trust us to do what we say we will do, then they are more likely to follow our advice and lend us support.
- **Less Team Turnover.** Turnover can wreak havoc with a project team. Loss of critical talent can delay a project for weeks or even months. However, with smaller projects it's easier to keep the team intact because of the project's shorter duration. The shorter the project, the less likely the team is to prematurely disintegrate.

Given these advantages, it's typical for new PMs to be assigned smaller projects to build their skills and confidence since smaller projects usually have limited value at risk, have only a modest budget, a shorter timeframe and a smaller team, and are thus easier to manage.

Regardless of a project's size, PMs who bring about change may face resentment, resistance, and even loathing from those affected. Often we are messing with people's worlds, challenging their norms, and forcing them to alter something with which they are very familiar and comfortable. Sometimes we are outsiders who don't "come from" or "know the business." In addition, smaller projects may have these further challenges:

- **Lack of Planning.** One serious problem is that when projects are smaller, it's tempting to skip the planning step and just "get it done", only to later find that resources aren't available when needed, and some essential tasks have been omitted, done out of order, or done later than desired. Likewise, costly mistakes can occur when key stakeholders and risks are ignored by executing work too soon, often causing acceptance disputes and expensive rework. A project sponsor who asks why we're wasting time with all that planning nonsense may soon be asking why our project is well past its intended deadline and why are we now redoing some work for the third time. It's sometimes said, "The more we plan the luckier we get." How much time we spend planning depends in part on what level of certainty we want, although in reality, time spent planning usually shows a diminishing return. However, no project is too small to ignore planning and as the famous American, Benjamin Franklin, once said, "*Fail to plan, plan to fail.*" All projects - personal, community and business, regardless of their size, need some groundwork to ensure best use of resources, albeit that once we are underway, things never go exactly the way we anticipate. Stuff happens, which is why our initial project plan is best seen as a basis for change. We adapt our plan as we go. Sir John Harvey Jones, a genial and genuine giant of British industry, once said the only good thing about not planning is that "*failure comes*

as a complete surprise, rather than being preceded by a period of worry and depression.” Without a proper plan we would need to manage our project based on our intuition and “squeaky-wheel” issue resolution. Much much better to jump into planning early before time slips by, recognising that the project end date is fixed.

- **Insufficient Rigour.** Smaller projects are at least as susceptible as are larger projects to cost overruns since we are inclined to apply less rigour to smaller project. In such circumstances we soon discover that the business case is based on fantasy – the product of passion, not facts. Also we might take less time and trouble over our estimates and we aren’t as rigorous about defining requirements. As a result, what’s delivered does meet expectations and expensive change requests come thick and fast.
- **Absentee Team Members.** One of the biggest costs for most projects is labour. Time delays and rework mean we have to keep the team together longer. If we are lucky, team members can return. But there is a cost implication as it takes time for team members to reacquaint themselves with our project on their return. We lose the synergistic behaviour of an effective team. Also, people may not be able to return when we want them, thus causing further delays, or they may not come back at all, leading to even bigger delays, and replacement recruiting, training and assimilation headaches.
- **Inexperienced Team.** We people are the root cause of most project problems. We change our minds. We work to our own agendas. We disagree with each other. For smaller projects, the problem can be the inexperience of the PM since smaller projects are often used as a training ground for developing the next generation of PMs. We wouldn’t want a newbie building a skyscraper. That inexperience means we are more likely to make mistakes. So such projects should get more support, but it’s a smaller project and organisations have lots of them and need to focus their support on their big investments. We also take holidays and get sick. In a smaller project we have less capacity to absorb such events and might need to hire expensive temporary staff or outsource work. The alternative may be unacceptable delays and extra costs.
- **Risks Ignored.** There can be a perception that smaller projects are low-risk endeavours, which isn’t necessarily true and they aren’t necessarily easier to manage than are larger projects. So it’s wrong to assume that just because the project is small, it will be simple and straightforward. A small project is still a project, and it can have just as many problems as a large project, particularly if it’s a pioneering endeavour.
- **Less Time.** Smaller projects have a challenging characteristic – they are usually of short duration. This means that there is little time in the schedule for mistakes or changes. Everything has to happen like clockwork or the project soon falls behind schedule. On large projects we usually have time to discover

and fix problems and get back on schedule and within budget; on small projects we often don't have this luxury.

- **Part-timers.** While larger projects are likely to have dedicated PMs, smaller projects often have part-time PMs who also have other projects and business-as-usual work to contend with and are thus interruption-prone. Their project team members come from departments that favour the status quo – in fact, they are the status quo. Projects disrupt the status quo. The combined workloads, task switching and interruptions involved can become a source of wasted time, confusion, exhaustion, stress and frustration. In many organisations, where doing more with less is the mantra, small projects are often under-resourced and it's just not possible to dump, delay or re-assign our routine operational work. Realistically, there is a maximum number of projects that any PM can properly manage concurrently.
- **Bad Apple.** Sometimes not all of our team members want to be part of our project. Many have other jobs, responsibilities and pressures. Often, they are assigned to us by a line manager who is required to provide a resource, but not necessarily their best resource. Don't assume that all team members are excited and motivated by the chance to work on our project. One toxic personality can be deadly for the productivity of a small project team. Also, some friction may arise given that a project team member may be above us PMs on the organisation chart, but they are required to report to us during the project.

While I can labour on about PM bad stuff such as politics, cranky sponsors, distracted team members, conniving stakeholders, and poorly written business cases, to be fair our project may not possess those deficiencies. Also, we might think because PM is a mature discipline that it would be practised successfully everywhere, and there wouldn't be many if any failed projects. Unfortunately, this is not the case. What we find is a landscape littered with delayed, challenged and unsuccessful projects.

When we think of success, there is a difference between PM success and project success. The former is about meeting deadlines, sticking to a schedule, staying under budget and producing products that are built and perform to specifications. This requires PM expertise. On the other hand, project success is about achieving outcomes and measurable benefits created by project products during their operational life. Benefits typically arise after the project proper is closed and sometimes considerably later. The ideal is both project success and PM success.

The US-based PM Institute describes a project as “a temporary endeavour undertaken to create a unique product, service or result” and the UK government PRINCE2 methodology describes a project as “a temporary organisation created for the purpose of delivering one or more business products according to an agreed business case.” The shortcoming of these definitions is that they aren't specifically focused on the purpose of the project, which is to deliver the benefits that validate the investment. I prefer to describe a project as “a benefits-driven investment.”

Also, while the focus should be benefits, projects are usually named after their products, which can endorse the impression that the product is the sole focus of the project. And since outcomes and benefits are usually only realised sometime after a project is finished, it's easy for PMs to become product-fixated, given too that PM success is traditionally seen as producing the specified product on time and within budget.

A project should not be started unless there is a sound business case in place. The business case describes the reasons for the project and the justification for it and is based on estimated project costs, the risks involved, and the expected business benefits. It's a "living document" as it needs to be reviewed and updated periodically during the project life, particularly when major variations are proposed.

A project's final product that remains when the project is completed has its own lifecycle during which time the benefits that justified the investment in the project are hopefully realised. Also, there may be unanticipated additional benefits and even disbenefits. Thus, project products, the vehicles upon which project benefits are realised, may be initiated for a variety of reasons such as:

- To realise an organisation's mission or purpose and business goals.
- To meet business, social, economic and market demands.
- To respond to a customer's request.
- To increase sales revenue, market size or share value.
- To improve productivity or reduce cycle time.
- To control, reduce or avoid costs.
- To reduce or eliminate waste.
- To improve an organisation's image, processes or productivity.
- To enhance employee satisfaction, motivation, performance or retention.
- To introduce new products and services and exploit commercial opportunities.
- To outperform or gain an advantage over competitors.
- To comply with new codes of practice or meet legal imperatives.
- To retain customers or gain new customers, members and supporters.

In effect all projects solve problems or exploit opportunities. Projects aim to close the gap between the existing state and the desired state. They upset the status quo, although the burden of proof is usually with those wanting to change the status quo. Those who want to keep the status quo don't usually need arguments.

This book is a guide to managing small and medium-sized projects, with special attention given to project justification, stakeholder engagement, project planning, implementing work, keeping on track, managing change associated with the introduction new project products, and post-project benefit realisation, recognising that all projects are undertaken to bring about beneficial change.

Projects don't just end with the delivery of a product, and after closure we can't expect the benefits to just magically appear without effort. As PMs, we are uniquely positioned to help our clients gain promised business case benefits. Contemporary

thinking is that we PMs should be more involved in project conception activities and also we must not let our projects just deliver and die; rather we must help ensure the benefits envisaged at the start are realised at the end. Appropriately, we now include measures and responsibilities for change management and benefit realisation in our project plans.

Thus, projects produce various products that result in outcomes that can be expressed as measurable benefits. Some benefits lead to other benefits or indirect benefits. For example, an effective advertising campaign means that more tourists visit NZ, which leads to more income for local shops, which leads to more jobs. Our projects may also have disbenefits or negative side-effects. For example, more tourists place extra pressure on the country's infrastructure. Road accidents and traffic congestion are also associated concerns.