

CHANGING CULTURE IN A GOVERNMENT DEPARTMENT

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1. INTRODUCTION

This paper deals with changing the organisational culture of a government department to accommodate project management. The department is Queensland Transport (QT), and it was motivated to change by some less than optimal project outcomes. Its senior management approved a Project Management Development Project (PMDP) to improve business outcomes. This paper describes the organisational environment, the approach adopted, the method of project delivery, the outcome, the deliverables and the lessons learned.

2. ORGANISATIONAL ENVIRONMENT

The transport portfolio in Queensland comprises Queensland Transport and the department of Main Roads (DMR) along with Government Owned Corporations (GOCs) which include Queensland Rail (QR) and Port Authorities. Queensland Transport responsibility covers both public transport and freight by land, sea and air. It also handles driver licensing and vehicle registrations.

Queensland covers an area of approximately 1,730,000 square km and has a 7,400 km coastline. It is seven times the area of the United Kingdom, is more than twice the size of Texas and five times larger than Japan. Queensland has a population of 3.57 million; and its transport task is carried on 174,000 km of road network, over 9,400 km of rail track, over 130 airports; including two of Australia's largest international airports, and 14 trading sea ports and two community sea ports. Queensland has 2.41 million licensed drivers, 2.96 million registered vehicles, over 157,000 registered recreational vessels and over 5,000 registered commercial vessels.

Each year in Queensland approximately 440 million tonnes of freight is moved by road, sea, rail and air, and road vehicles travel 34.7 billion kilometres. 1.3 million passengers arrive at Queensland's international airports, an estimated 185 million tonnes of goods pass through Queensland ports, and over 6,400 ships visit Queensland ports (Queensland Transport 2001-2005)

Queensland Transport's vision is better transport for Queensland – connecting people, goods and services to enhance economic, social and environmental well-being. Its mission is to lead, develop and manage a transport environment which is safe secure, inclusive, ecologically sustainable and promotes a strong economy.

Queensland Transport objectives are to provide

- **transport leadership**, including policy and planning,
- **strong relationships** with our portfolio and agency partners and identified stakeholders
- **system stewardship** in managing access to, and use of, the transport system and
- **service delivery** of co-ordinated and integrated transport-related services and infrastructure, while
- developing and maintaining a **vibrant organisation**

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The department is organised into eight groupings, namely Integrated Transport Planning, Public Transport, Translink, Rail Ports and Freight, Land Transport and Safety, Services Group, Corporate Governance, and Maritime Services Queensland. As at 30 June 2002, QT employed 4565 staff, of whom 2789 were in permanent roles and 1776 were in casual roles. The budget for 2001-02 was \$1.3 billion.

While QT is still heavily involved in operations and regulation, the proportion of project based work had been steadily increasing, with a multitude of business development projects, as well as planning, design and construction of the busway projects. Project management was therefore becoming an increasing part of QT's business, with projects frequently transcending internal divisional and sometimes departmental boundaries. Senior management therefore decided to move to a project approach to better manage business development and its associated organisational change.

3. APPROACH TO PROJECT MANAGEMENT IMPROVEMENT

To achieve the desired improvement in project management, it was recognised that the exercise was as much about culture change as it was about developing and introducing a new system. A business case was developed for a Project Management Development Project (PMDP). The stated purpose of this project was to enable Queensland Transport to obtain improved business outcomes by providing the framework to support the Department in improving project management capability.

The following objectives were set:

- Promote development of a department-wide culture supporting the application of a consistent project management methodology and terminology
- Develop project management policies and principles.
- Develop a "best practice" project management methodology which could be applied across the department.
- Make recommendations relating to organisational management processes required to implement this

Three key elements were included in the project planning. These were:

- Develop and have the organisation adopt a project management policy and framework
- Provide training
- Provide mentoring to key projects.

A three stage approach was taken to achieving the culture change as follows:

- Use investigation projects to develop the system. These projects covered very different work types and were selected from three different divisions.
- Test the system on pilot projects. Three more projects were selected from three other divisions.
- Full implementation of the framework.

This was an action learning approach with a working prototype of the project management framework being released as early as possible, and refined through user feedback. This was akin to IT "agile" processes. The projects selected included infrastructure, business development, IT and human resources projects.

Investigation and pilot project staff were concerned about the potential extra time involved for them. This concern was addressed by placing a mentor with these projects. The approach taken by the mentor was to review the project against the methodology, move the project forward to achieve some improved and/or accelerated outcomes, then draw the project into the methodology.

4. PROJECT DELIVERY

The PMDP was originally to be delivered by resources drawn from across the department who would work part time on the project. While this worked well for review and comment type work, it did not work quite so well for actually producing the work in the first place. The core team therefore did more of the work than was originally planned.

The project was delivered for a total cost of \$775, 000. This included the time cost of all who worked on it, including reference committee members and consultants. It also included the cost of the intranet site development. The project scope was increased during the project to include delivery of the training. The original scope included development of the training package only.

The project was completed and handed over to ongoing operations two years after approval of the business case.

5. OUTCOME

The framework developed by the project has been successfully applied to a wide range of project types, from human resource change projects, through business development/IT projects, to large infrastructure projects costing several hundred million dollars. The following characteristics of the framework enabled this to occur:

1. Separation of project management processes from the work management processes
2. Templates were developed suitable for the most complex project, but which could be cut down and used as checklists for smaller ones
3. Projects were allowed to choose which elements of the methodology and which templates were relevant to them

The results for the department have been as follows:

1. Investigation and pilot project managers appreciated the improved progress without additional cost or overall time delay.
2. Usage of the system spread within QT because project managers found it helpful.
3. Business areas started to appreciate that increased time spent in planning actually saved time later in the project
4. Over 200 people voluntarily enrolled in QT project management training, with their cost centres paying for their attendance.
5. \$1M savings each were made on two separate projects where it was possible to estimate the amount of money saved.
6. Relationships between the business and the IT area improved and these areas now have a process flow for working together. This was achieved through defining the methodology flow for the overall project as well as for its components. QT has no IT projects, it has many business development projects with a very high IT component.

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7. Two projects reached the point where it became obvious they should not proceed. They were terminated. Previously projects never died.
8. One project which had been floundering for two years was moved forward to completion.
9. Other projects spent more time in the concept phase than they otherwise would have, and ultimately progressed more quickly to completion.
10. Usage of the framework has spread to other parts of the portfolio.
11. Over 30 projects have now successfully followed On-Q.
12. There has been a significant reductions in loose ends at project completion.
13. QT awarded the project a 2003 Australia day achievement medallion.

These results have been due to the project having incorporated and promoted the following:

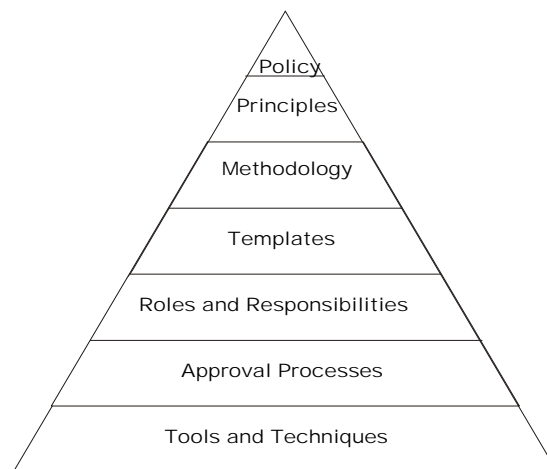
- communication between, and with, project stakeholders
- solutions that maximise customer satisfaction
- an understanding of the bigger picture and the project's part in it
- identification and appropriate management of opportunities and risks
- planning of the total project life-cycle before committing resources
- improved reliability in estimating costs and benefits
- original thought and a team approach to problem-solving

6. PROJECT DELIVERABLES

The project produced a project management framework, training packages and a mentoring system. These are described below.

6.1 Framework

The framework became known as 'On-Q', and is represented diagrammatically below. It brings together the policy, principles, methodology and other elements that provide the direction and guidance for the effective management of projects. The On-Q framework was designed to be flexible enough to be easily tailored to suit any nature of project, from the delivery of transport infrastructure, through provision of services to the re-engineering of business processes.



The On-Q Project Management Framework

Policy

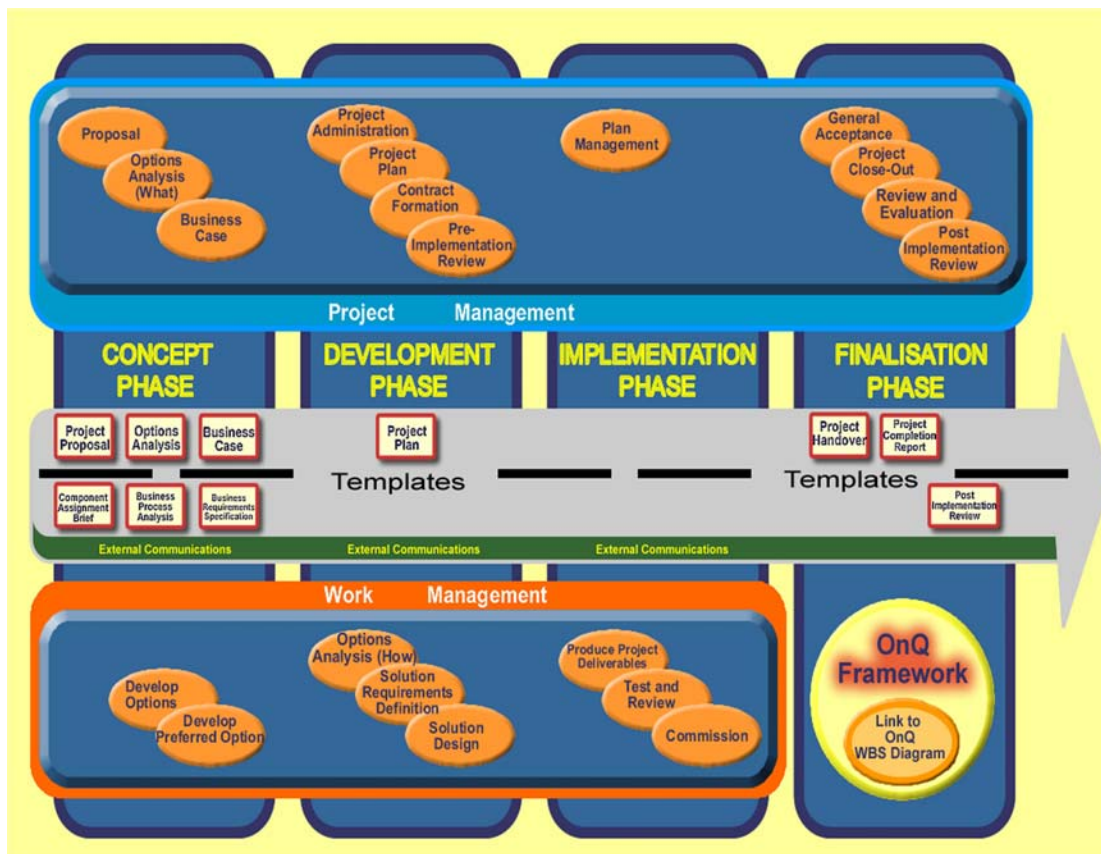
QT has adopted a project management policy requiring application of the On-Q framework to all projects and project components undertaken by the department. Individual business units are responsible for applying the framework to their projects and project components, and for developing the necessary skills to bring this about. The policy allows project customers and sponsors to predetermine the level of documentation required, with much less detail being required for small projects.

Principles

The principles and key elements in Appendix A were developed. The 25 key elements were QT's original principles, which were categorised under seven principles in collaboration with Main Roads, based on the work of Wideman (2000).

Methodology

A four-phase methodology was adopted, which assumes a prior strategy development step. However, the templates include guidance on items which need to be addressed if a robust strategy is not in place. The On-Q methodology is based on the nine elements of the PMBOK. It guides managers through the process by way of the conceptual 'road map' shown below. This provides project managers with a prompt of the documentation requirements throughout the four phases. The QT methodology used the CPMG methodology as a starting point.



Templates

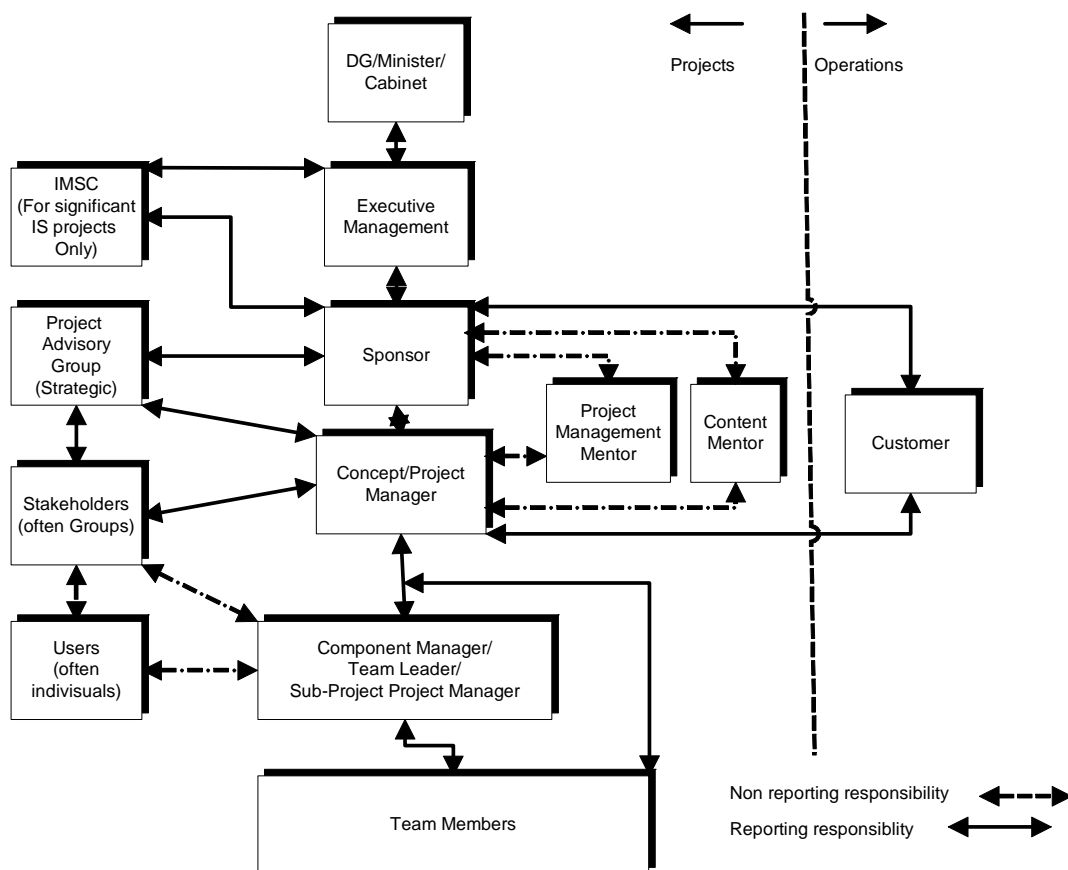
The templates within On-Q are as follows:

- Project Proposal
- Component Assignment Brief
- Business Process Analysis
- Options Analysis Report
- Business Requirements Specification
- Business Case
- Project Plan
- Handover Report
- Completion Report
- Post Implementation Review Report

These are pre-formatted, requiring insertion of text relevant to the particular project. The templates are indicated by the square boxes on the road map and can be downloaded by staff from the On-Q website.

Roles & Responsibilities

The following project governance model was developed, and roles and responsibilities were determined relative to it.



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These roles were determined to separate out any conflicts of interest. Note that there is an advisory committee (which has no fiscal authority) rather than a steering committee which would, by definition, have such authority. This aligns with the Queensland State Purchasing Policy (SPP), which requires certification by an individual with the necessary delegation that due process has been followed.

Project Roles were defined as follows:

- **Customer** – a person with authority, nominated to represent the organisation(s) that receives the business benefit of the project.
- **Sponsor** – a person with authority nominated to represent the organisation(s) undertaking the project.
- **Project Management Mentor** – a person nominated to assist/advise the project manager and provide project management oversight to the project.
- **Content Mentor** – a person nominated to assist/advise the project manager and provide content oversight to the project.
- **Project Manager (Concept)** – a person appointed to manage a project from initiation start to project approval (i.e. only the concept phase).
- **Project/Sub-Project Manager** – a person appointed to manage a project/sub-project from initiation (approval) through until project finalisation.
- **Component Manager** – a person who manages a project component.
- **Team Leader** – a person appointed to lead a team to deliver part of the project's work scope.
- **Team Member** – person assigned to a project team.
- **Project Advisory Group** – the group advising the sponsor and project manager.
- **Stakeholders** – people and organisations that are impacted by the project.
- **Users** – people and organisations that will use the output of the project.

These roles do not relate to organisational positions. The people who fill these roles are determined at the beginning of each project.

Approval Process

The approval process is specified in terms of the generic roles above, not by organisational positions.

Tools and Techniques

The project did not focus on tools and techniques. Mentoring was used as a means of ensuring that project managers were provided with guidance on tools and techniques, as well as process, throughout the project's life.

6.2 Training

Three levels of training need were recognised. These were:

1. Executives, program managers, customers, sponsors and project directors. A four-day training course was developed for people in these roles to give them an overview of both project management and the department's methodology, so they would know what to expect from, and could appreciate the needs of their project managers.

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2. Project Managers - A ten-day project management course was developed around the methodology, while at the same time covering the nine elements. This course utilises a participant's projects as well as a specially developed project to step through the methodology over the ten modules. This is aimed at giving participants a hands-on approach to project management so that they can apply the knowledge and skills they have gained straight into their work.
3. Team members - A three-day training course was developed for project team members which overviewed the methodology and focussed on the parts which team members would need to deal with.

These training programs have been well received, with over three hundred staff having attended by the end of December 2003.

6.3 Mentoring System

Mentoring of investigation and pilot projects was necessary, as these commenced before the training packages were developed. Mentoring has still been useful after course attendance, although the time required of the mentor reduces and continues to do so as the person's experience increases.

7. LEARNINGS

Significant learnings from the project are described below

(i) Cultural change is a slow and ongoing process

At the commencement of the PMDP there were very few staff within QT with any formal knowledge of project management. The implementation of the On-Q Framework, mentoring of individual projects and the training have together provided the basis for improvement in project management knowledge and performance. Project managers who have been exposed to On-Q are steadily improving their project management skills and their capacity to successfully apply the framework to their projects. However, of course, it takes some years to integrate the large project management body of knowledge into a person's way of working. While significant culture change has occurred, it has tended to develop in pockets. It may take some years for the culture change to completely permeate the organisation.

(ii) The success of cultural change around project management improvement is attributable to the adoption of a 3-way strategy – framework, mentoring and training

The PMDP project has been successful largely because it adopted a culture change strategy based around three key factors, namely:

- The On-Q framework was adopted corporately by the department
- Project mentoring was provided to significant projects to help them along
- Project management training was carried out in the department's framework

These three factors covered the people, the systems and the processes. If any one of these elements had not been present, the project would not have delivered the outcomes it has.

(iii) Projects must be viewed from end to end

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The On-Q framework has encouraged this view through adopting the four-phase model, i.e; concept, development, implementation and finalisation. It also encourages project managers, sponsors and customers to consider whole of life costs. Prior to On-Q, individual tasks or components were seen as projects e.g. IT projects separate from the business, studies (really part of concept), design (part of development). The previous lack of focus on the end to end process led to a lack of cohesion in delivering consistent outcomes and was the source of considerable conflict and turf protection between divisions and branches.

(iv) Management support for projects as well as for the project process is critical.

There has been significant attendance by the senior levels at executive level training. However, a higher attendance had been desired. Application of the framework to projects is sometimes seen by senior managers as slowing things down and impeding progress. Management decisions to not follow certain processes are often made in the context of urgent time requirements and without a clear understanding of the impact of not following processes. This also leads to a lack of understanding of the urgency of approvals and decisions required by project managers. It is commonplace for projects to continue work well past formal approval points and for substantial delays to progress to occur while waiting for decisions. There is also a tendency for management to see project management training as unnecessary to them, perceiving it as a duplication or extension of general management.

(v) Project Steering Committee roles have reduced

One of the key issues raised by senior management at the beginning of the project was their dissatisfaction with steering committees. Early in the project a number of project steering committees were being used as a substitute for organisational management structures rather than as an advisory role for the project team, customer and sponsor. This was taking a considerable amount of senior executive time and not achieving the desired outcomes.

The On-Q Framework has established an advisory role for such groups to ensure adequate stakeholder consultation occurs on projects without this being dependent upon senior management involvement. A number of steering committees still exist around the department. They now seem to serve as communication mechanism between various divisions and branches and provide a forum for managers to discuss and agree strategic direction.

(vi) All nine elements of project management must be considered and balanced

The nine elements of project management must be in balance (scope, time, cost, risk, communications, quality, HR, procurement, integration) If a project concentrates on one or more elements and neglects others the outcome can be disastrous. Examples of this are:

- Developing detailed risk mitigation strategies around keeping key stakeholders informed but then not having effective communication practices in place.
- Updating scope with approved changes but not updating cost forecasts or timelines

(vii) Managing the work is not the same as managing the project

The On-Q framework makes clear the difference between work management and project management. Project management refers to the activities needed to manage the project including the initiation, planning, monitoring, controlling and review of the overall project. Work management refers to the project specific work which needs to be done to produce the

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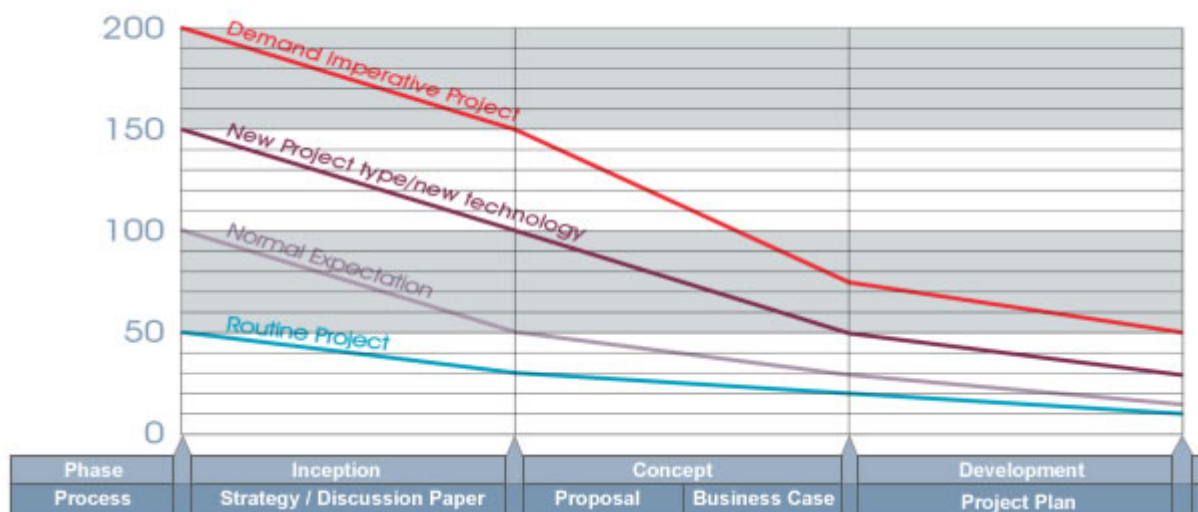
product or service which is identified as the key deliverable of the project. Many departmental project managers were unaware of this distinction and assumed that if they were knee-deep in the detail they were project managing. Project management tasks are still often seen as ‘paperwork’, and of a secondary nature to “real work”. Projects have been much more successful when project managers have focused on managing the project rather than on managing the work.

(viii) Inadequate project estimating / budgeting condemns many projects to failure before they even start

Projects are often initiated in a way that pressures project staff to provide cost and time estimates for project delivery at very early stages. Releasing cost and time estimates without the relevant level of understanding of the scope of the task and analysis of the risks and impacts of both the project development and implementation into the business can be fatal for the project.

Estimates need to be developed based on an appropriate level of analysis. In the concept phase and early in the development phase, where scope and risk detail is limited, appropriate use of contingencies is necessary. The following graph of suggested contingency percentages to be added to project estimates has been adopted as a guide where a quantified risk analysis has not yet been completed.

Suggested Contingency Percentages to be added to Project Estimates



(ix) It is better to deliver one thing properly than start three things that don’t reach implementation

Many project managers within government are working on multiple tasks or have full time operational roles in addition to managing substantial projects. This often results in cutting corners particularly in the project management area.

(x) A project director is not necessarily a business director

Because of confusion with terminology, it was decided that the project governance model adopted should not have a project director role as such. The term “project director” tended to produce confusion with organisational director roles. This role was therefore split into two, namely project management mentor and content mentor, which aligned with the distinction in the methodology between project management and work management. The content mentor

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role has been filled either by branch directors or by program managers who are in the chain of command, below director level, with a number of projects reporting to them. A project support office or a mentor from the On-Q panel have generally filled the project management mentor role, and are not in the chain of command.

8. CONCLUSION

The project has been successful in achieving culture change. This has been attributed by the team to having the three pronged approach where the organisation supported the project management framework, mentoring was provided to key projects, and then training aligned to the framework was delivered.

REFERENCES

Widerman, R.M., (2000), *First Principles of Project Management*, www.pmforum.org

Queensland Transport (2001), *QT Directions Queensland Transport Strategic Plan 2001 - 2005*

Appendix A

Principles and Key Elements of Project Management, Queensland Transport & Main Roads

Preamble

All projects take place in an organisational environment. A project is a temporary endeavour to create a unique product or service. Temporary means that every project has a definite beginning and a definite end. Unique means that the product or service is different in some distinguishing way from all other products or service.

A project produces predetermined deliverables within an often changeable time frame and budget. It requires significant resource planning and management effort which warrants a structured management approach and set of management tools.

It is therefore necessary for the organisation to follow certain principles. Seven guiding principles have been determined. These are supported by 25 key elements which enumerate the guiding principles.

Principle 1 - Both Customer and team must be committed to the project.

An equitable commitment between the sponsor and the project team must exist before there is a viable project.

- 1 Projects must be aligned with business objectives.
- 2 The project must be managed to satisfy customer requirements.
- 3 Objectives and scope must be clearly documented.
- 4 The customer and sponsor are responsible for approving and obtaining project funding.

Principle 2 - Measures of success must be pre determined.

Success means different things to different people. Even at the most basic level, the customer will be interested in benefiting from the project outcome whilst the team members will be seeking success from the process. Success criteria can also change over time, and the fact that the original objectives were not achieved does not necessarily define project 'failure'.

- 5 The customer should nominate both the business benefits to be realised and the criteria which will make the project successful before the project commences

Principle 3 - Planning – first plan, then do.

Activity does not necessarily equate with progress. Taking time to think through a plan of action is often not considered active management. Insufficient planning in the concept phase, un-realistic project goals and timeframes or a failure to estimate the degree of complexities in integrating all three, will eventually lead to a reduced ability to achieve the project objectives.

- 6 All projects must produce a project plan for performance to be measured against.
- 7 Project risks must be identified and managed.

- 8 Procurement must be planned.
- 9 All projects must have a work breakdown structure(WBS) and responsibility assignment.
- 10 Total project costs should be known throughout its life.

Principle 4 - There must be a single point of responsibility for both the customer representative and the project manager.

A single channel of communication must exist between the customer and the project manager for all decisions affecting project scope.

- 11 There must be one customer representative and a clearly nominated project manager.
- 12 The project manager should be given sufficient authority to control the project.

Principle 5 - Control procedures must be established before the doing commences

Policies and procedures must be in place for the conduct and control of the project commitment.

- 13 Project progress must be reported regularly.
- 14 Corrective action must be taken early if projects deviate from the project plan.
- 15 Changes to the project must be controlled.
- 16 Project issues must be identified and managed.
- 17 Project documents must be recorded and managed.
- 18 Contractors must be effectively managed.
- 19 Projects should be open to independent review.

Principle 6 - Trade-off – Scope, time, cost and quality must be mutually consistent and attainable.

These variables are measures of internal project efficiency. If they are not mutually consistent or attainable, then it is unlikely the success criteria will be achieved. The relationship of these separate elements is akin to a four-sided frame with flexible joints at the corners. With one side fixed any other side can be moved but only by affecting the other two.

Fitness for purpose is the most enduring of the variables determining success. Quality of an item, product or service must be such that it achieves the project's minimum requirements. This may range from 'utility' to 'world class', and must be clearly stated.

- 20 Quality of project outputs must be fit for purpose and managed effectively.
- 21 All aspects of project activity should be integrated and co-ordinated.

Principle 7 – “Management” must provide an informed, supportive and relational organisational environment for effective project management.

The project team's ability to produce effective results is highly dependant upon the cultural environment of the organisation. This 'cultural environment' encompasses both internal and external relationships and values.

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Internally, the style of the project manager must be suited to the type of project. Externally, the management of the organisation in which the project takes place must be supportive and free of obstacles consciously or un-consciously placed in the path of success.

- 22 Projects must be adequately resourced.
- 23 The project manager must establish good team and stakeholder relationships.
- 24 Projects must communicate appropriately and early with all stakeholders.
- 25 The project manager must select or have staff trained to provide the skills needed by the project.