

Doing Well by Doing Good

Our purpose is to help our clients, our communities, our country and our continent prosper.



Specialised Project Practice (SPPrac) provides niche consulting and expertise in the Project, Programme and Portfolio Management arena. We are specialists in our field and provide our clients with best practice frameworks, toolsets and processes to enable the execution of their strategy through project and portfolio management.

We are a recognised SAP PPM Special Expertise Partner who facilitate strategy enablement, bottom-line growth and efficiency through project, programme and portfolio management methods and have won a number of awards for this.

Welcome

We look forward to working with you.



With the ever increasing scarcity of resources, both capital and human, and the mounting pressure on business to continually improve delivery, companies have begun to turn to project portfolio management (PPM) to ensure the optimum allocation of resources to projects to maximise returns.

SPPrac comprises a team of experienced professionals who for years have been leading experts in their fields.

This allows us to serve our customers by focusing on the business processes, tools and techniques relating to project, programme and portfolio management (PPM). We specifically help customers identify the key challenges they would like to address within their business by applying project portfolio management and determine the likely benefits they would achieve by the adoption of a PPM framework to suit the needs of their business.

You can find our Consultant Profiles in the back of this book for specific information on skills and technologies.

Vaughan Cooksey Managing Partner

SPPrac focuses on the business processes, tools and techniques relating to project, programme and portfolio management (PPM).

We specifically help customers identify the key challenges they would like to address within their business by applying project portfolio management and determine the likely benefits they would achieve by the adoption of a PPM framework to suit the needs of their business. The key services we offer include:



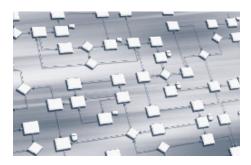
Project Portfolio Management Services and Consulting



Project Management Consulting



Change Consulting / Maturity Assessments



Business Process Design



Solution Architecture, Integration and Implementation



EPMO/PMO/PSO Design, Implementation and Optimisation



SAP invites companies to become consulting partners who have proven special expertise in particular sectors or SAP solutions. We are proud to have been awarded the status of Special Expertise Partner. In order to receive this status a partner's project delivery track record, specialized consulting skills and reference sites are considered by SAP as an indication that the partner has the necessary experience and proven know-how to deliver a successful project.

Table of Contents

iPPM and SAP

Our Award-winning Solution	6
The Core Objectives of PPM	
What is PPM? Why do you need it?	10
The Benefits of using PPM	
What PPM has done for organisations like yours	18
Our Implementation Approach	
Discovery > Implementation > Embed	21
The Technology behind our PPM solution	
PPM seamlessly integrated with the SAP ERP	27
Functional Process Model	29
SAP PPM Key Modules (summary)	31
Portfolio Management	33
Project Management	37
Collaboration Folders	39
Commercial Project Management	40
Project Systems (PS)	42
Investment Management	49
Case Studies	
Engen	52
City of Cape Town	57
Consultant Profiles	
Vaughan Cooksey	60
Mario Danieli	61

How many active projects are you managing? Is each project aligned to strategy? Are all of your projects on time? Which ones are at risk of failing? How many projects will make budget?

iPPM is the Solution!



Manage Active Projects



Keep projects aligned to strategy



Aware of inevitable project delays



Visually analyze risk failure



Easy reporting of budget tracking

Project Portfolio Management aligns projects with corporate strategy thereby enabling a company to prioritise their portfolio thus allowing the effective allocation of resources to projects and therefore improving delivery.

Project Portfolio Management is an important discipline, which has delivered positive impacts to organisations, providing senior management with reliable information to assist in the decision making process and enabling operational transparency thereby empowering management to respond effectively and efficiently to rapidly changing circumstances.

Integrated Project Portfolio
Management (iPPM) is a suite of best
practice PPM process, organisational
change management and technical
enhancements based on SAP Project
Portfolio Management framework.

iPPM provides customers with an award winning structured approach

to understanding and adopting PPM within their environment using industry specific road maps and key technical enhancements. iPPM will not only help diagnose and understand the challenges within your environment it will define a clear road map, underpinned by SAP PPM technology and our enhancements, to improve your organisations performance.

iPPM addresses the problems associated with multi project environments spanning across organisations and provides a holistic integrated solution taking into account three key dimensions of process design, change management and best practice technology. iPPM provides a transaction platform based on the SAP PPM solution all the while being fully integrated with SAP ERP, the end result is a fully transparent and integrated project portfolio management platform supported by aggregated dashboard views that can be used at an executive level to determine the appropriate projects and investment pattern to be followed by the company.

iPPM can be applied to multiple portfolios such as New Product Development & Innovation, Capital Project Portfolios and IT Portfolio Management to name but a few.

iPPM enables organisations to:

Increase alignment between project planning and business strategy

Balance your portfolio based on risk, mission critical objectives, and investment type

Focus resources on projects with the greatest benefits



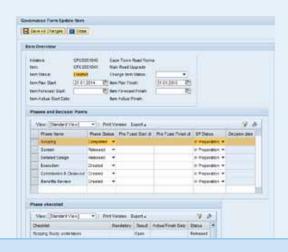
Improve resource utilisation by capturing, prioritising, and matching strategic projects to available supply of resources

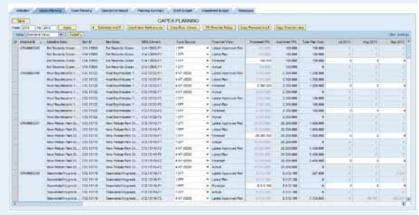


Gain clear financial visibility and control of capital projects

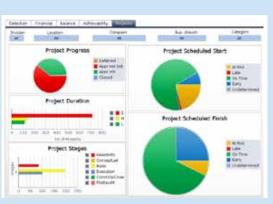


Streamline and enforce approvals for funding, resource, gate stage decisions, and ongoing monitoring

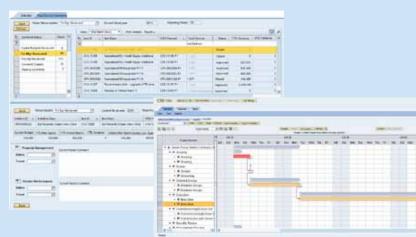




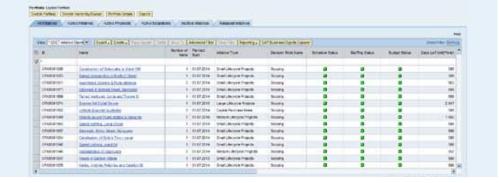
Increase visibility to identify project anomalies and risks, and make mid-course adjustments



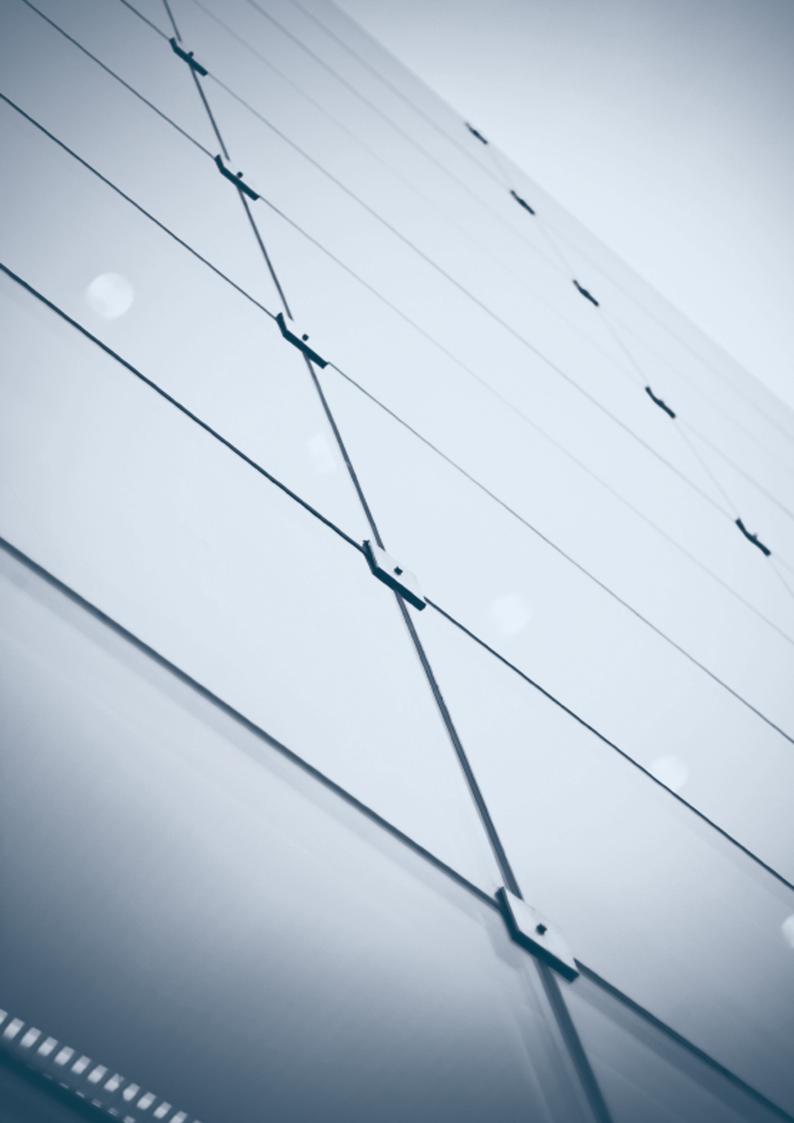
Develop common project methodologies across the enterprise



Reduce project overlaps and yearly carryover







The Core Objectives of Project Portfolio Management

Maximisation of value by selecting projects offering the greatest value and effectively allocating resources to these projects.

Achieving balance by ensuring the appropriate mix of projects is selected. For example, high and low risk projects as well as long term and short-term projects.

Strategic alignment ensuring that individual projects contribute to the overall business strategy.



What is PPM?

Why do you need it?

Project portfolio management is generally defined as:

"a dynamic decision-making process, whereby a business' list of active initiatives is constantly updated and revised. In this process, new projects are evaluated, selected, and prioritized; existing projects may be accelerated, or de-prioritized; and resources can be allocated and/or reallocated to the active projects. In a full-scale PPM process, all of the projects in the portfolio are evaluated in concert with each other and in the light of the corporate vision and mission."

Project portfolio management has a broader context than traditional project management since it emphasises a collective response to organisational needs during the planning and execution of these projects. Naturally, in an informed PPM environment, projects are added to the portfolio, and subtracted from it, based on their overall contributions to the

corporate vision and strategic needs. Unlike traditional project management, which focuses only on managing a standalone project bounded by a budget, schedule, and scope, PPM is regarded as a critical discipline for organisational success especially in multi-project environments.

Organizations like yours benefit from the practice of Project Portfolio Managment.

Globally resources are becoming scarcer, external environments are far more volatile and the rate of change is increasing. The impact is that organisations have to achieve "more with less" and have a greater ability to be 'agile' in order to respond effectively and efficiently to the challenges they face.

In response to the changing environment, there has been greater adoption of project management as means to deliver both products and change within organisations. Due to their ever-increasing numbers of projects, organisations are faced with an environment that is becoming more complex, yet interdependent, requiring

a consolidated view of projects and investments. This has also led to a number of key requirements namely, but not exclusively:

- To effectively identify and evaluate the best projects in terms of investment for selection.
- 2. Prioritise and manage the projects selected.
- 3. To track and review the actual benefits derived from the investment in the projects.

Organisational

Context and Governance

In order to achieve its objectives PPM goes beyond the traditional boundaries of project management and begins to integrate with other key components of an organisation such as corporate planning, finance and human resourcing. A clear link is established with corporate strategy and the operational management of an organisation. The key premise of the link with corporate planning is

that strategy really begins when you start spending money essentially "the mission, vision and strategy of a business is made operational through the decisions that the business make on where to spend money". Moreover, with organisations becoming more reliant on project and programme management to achieve their strategic objectives, the link is clear between PPM and corporate strategy.

Four key business decision processes are interlinked in the PPM process namely:

- 1. Corporate planning
- 2. Business unit level strategy
- 3. New product process
- 4. The portfolio review

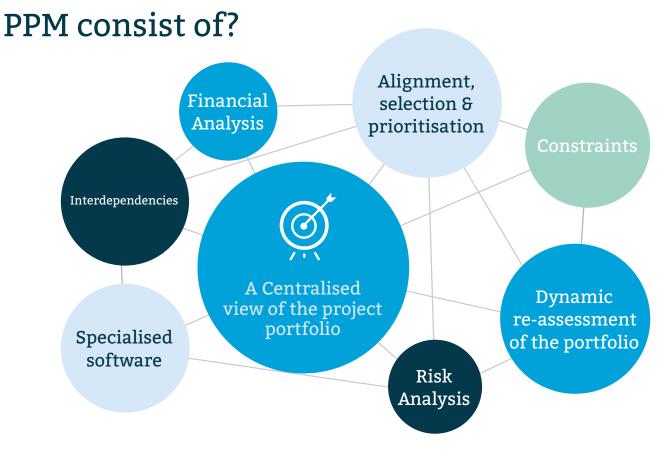


Generally, corporate planning allocates resources between the organisations divisions in a manner that is aligned with strategic objectives. These resources are then expended by divisions using standard product processes aligned with the divisional strategy, all of which has an impact on the project portfolio.

PPM is an enterprise-wide process and links into organisational governance. Governance is an essential part of aligning and organising work to ensure that it is executed in a coherent way. PPM requires a portfolio review, which should be integrated with standard corporate governance. A portfolio review

assesses all active and new projects and compares them against each other to "ensure that the projects in the portfolio meet the three goals of PPM: maximum value, balance and strategic alignment".

What does



A centralized view of the project portfolio

The portfolio inventory (list of all projects) is one of the key phases of the portfolio management process. The centralised view or inventory is essential for the analysis and management of the portfolio as it provides an aggregated dashboard view that can be used at an executive level to determine the appropriate investment pattern to be followed by the organisation. The increased visibility enables all the collated data on projects to be used in the analysis of the portfolio and provides the basis for other key elements of PPM such as prioritisation, alignment and selection. All essential data on projects should be collected and easily accessible to allow for prompt assessment of the portfolio and decision-making.

Financial Analysis

As one of the primary objectives of PPM is to maximise value it is important to choose a valuation methodology for projects. A number of standard investment appraisal techniques can be applied to projects ranging from discounted cash flow, return on investment, payback, cost/benefit analysis, economic value added and net present value. However, it should be borne in mind that not all projects have a positive case flow or return but still need to be undertaken just to stay in business, for example replacing an existing asset that has become obsolete. This leads to an important aspect of financials analysis through categorising projects into 'buckets' with similar business cases so as to enable fair comparison between projects by the use of common measures.

Alignment, Selection & Prioritisation

Strategic alignment, ensuring that individual projects contribute to the overall business strategy, is one of the main objectives of PPM. It is important that the strategic direction of the organisation should have been set before trying to select individual projects; this enables strategic objectives to be defined whereby projects can be aligned to the set objectives. Ensuring the strategy of the portfolio is always aligned with corporate and business strategy is a key activity of PPM and requires clear strategic direction from the organisation. A typical high-level alignment process consists of four steps; colleting project information, analysing the information, arbitrating and communicating agreed ...continued

Alignment, Selection & Prioritisation (continued)

A common technique is to create 'buckets' to represent investment themes that are related to specific corporate objectives thereby managing the delivery of corporate strategy by the amount of resources allocated to each bucket. For example a 'stay in business' bucket or and 'expansion and growth' bucket. A major strength of this approach is that it clearly links spending with corporate strategy. Spending can then be managed across the buckets to the desired levels at which point the project portfolio mirrors the corporate strategy.

The selection phase of the portfolio process involves comparing projects on a number of selection criteria in order to select the most desirable projects. A number of techniques can be used to assist in the decision making process (scoring models, comparative approaches, portfolio matrices) but these should focus on decision support and not decision making. Decision makers should be provided with an interactive mechanism for controlling and overriding portfolio selections thereby enabling them to adjust the portfolio.

In line with the second objective of PPM, achieving balance, when selecting projects for the portfolio it is important to try to maintain an optimal mix of projects. The balance of the portfolio could be along the lines of risk versus return, maintenance versus growth and short term versus long-term projects.

Once projects have been selected for the portfolio it is important to rank or prioritise the projects in order to enable the effective allocation of resources between competing projects. It is important that the information on the final selected and prioritised projects is easily accessible as most portfolio

- Updated status of current portfolio
- Completed activities
- Outstanding risks and issues
- New investment initiatives
- Available budget and resources capacity

Collect

Communicate

- · Inform stakeholders
- Updated strategies and decisions
- Reporting
- · Collaborative documentation



Analyze

- Investment maps and consolidated views
- Schedule, cost, value & risk
- Budget capacity utilization
- Deviation from objectives and impact analysis

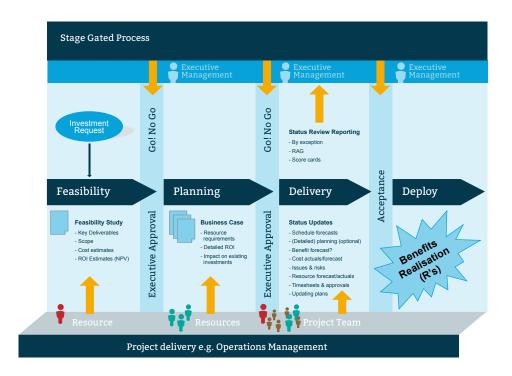
Arbitrate

- Selection and prioritization of investments
- · Budget capacity adjustments
- Balance portfolio blend
- Alignment of portfolio with strategic objectives
- New decisions to maximize performance
- Baseline to measure against

approvals are made by a selection of decision makers from different functions of the organisation. Decision makers should not be overloaded with unneeded data but be able to access the data when required, and be provided with feedback on the consequences of decisions made.

It is also important to integrate the project execution lifecycle and project

gate decisions with portfolio decisions thereby enabling the integration of the stage-gate process with the portfolio selection process. The stage-gate process involves the use of stages, which is defined by a specific type of related activities, and gates are the point at which the results of the stages are evaluated before permission is granted to progress to the next stage.

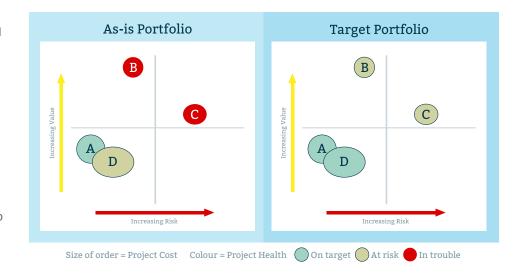


Risk Analysis

A Project Portfolio should not be selected considering only the individual characteristics of the investment, but it should be built based on the overall risk and reward of a portfolio. One of the main objectives of portfolio management is to achieve balance of risk versus reward. The bubble diagram, which maps risk versus reward, tends to be one of the most popular tools used in managing the overall risk profile of a portfolio.

Analysing the risk profile of the portfolio enables companies to generate a higher return for a given level of risk by assessing projects in relation to each other and their respective risk. For example, in a non-portfolio environment, projects are often assessed individually based on their business case and risk; managers would therefore most likely select projects that give a reasonable return with acceptable risk. However, should a high-risk project with a high return be assessed, on an individual basis, it is likely that the organisation would not pursue the project.

By assessing all projects together PPM enables the organisation to balance the



risk of high return projects with medium to low risk projects thereby creating a portfolio mix of projects which generates the highest return for the given level of risk. Without undertaking portfolio risk analysis, organisations with a risk averse appetite may be tempted to continually select 'low hanging fruit' i.e. projects that could be done quickly, easily and cheaply. This approach could be very short sighted and pose a great risk to the long-term sustainability of the organisation.

It is key for organisations to manage high risk projects that have a possible high return in the context of all projects as this enables the development of 'Pearls', projects that have a high probability of success and a high commercial value. Without attempting high risk high return projects it is not likely that organisations would develop many 'pearl' projects. High-risk high-return projects are essential to developing and maintaining competitive advantage in the market.

Interdependencies

The creation and delivery of products is often implemented via multiple projects, and this is characterised by multiple interdependencies between projects, resources and activities. It is has been estimated that up to 90%, by value, of all projects are executed in such 'multi-project' environments. A major problem with such an environment is that projects have an independent existence with separate goals and problems and yet they and other projects are interdependent on resources.

Interdependencies generally occur in three types:

Technical interdependencies

Resources interdependencies

Benefit interdependencies.

Consideration of such interdependencies when selecting projects can provide cost savings and greater benefit to organisations. An advantage of PPM is to reduce inter-programme competition of scarce resources and turn overlaps into productive interdependencies.

Constraints

Project Management has long focused on the management of the triple constraints of time, cost and quality. However, as PPM focuses on delivering value to the enterprise the constraints it seeks to manage are at an organisational level and not just within the context of single projects. The usual constraints faced are financial, human resources and facilities or equipment. PPM seeks to manage these constraints by the alignment, selection and prioritisation processes. Project portfolio selection has been defined as the periodic activity involved in selecting a portfolio of projects, that meets an organisations stated objectives without exceeding available resources or violating other constraints. A key objective of PPM is to maximise value by selecting those projects, which will deliver the greatest value, and then allocating the limited resources to those projects. This ensures the effective allocation of limited resources.

It should be noted that errors in trying to do too many projects for the limited resources available resulted in longer cycle times, poor quality of execution and underperforming products.

However, if through the PPM process, constraints are taken into consideration

and only the most appropriate projects are selected the evidence is that productivity improves. Typically, there is only one constraint at a time that causes a bottleneck in throughput in a system and by considering constraints, it is possible to improve the throughput of a system by reducing load. There is even significant evidence that reducing the number of projects improves profits, "the message is very clear: limiting the amount of work in the pipeline so that the projects can be completed as quickly as possible results in increased profits or savings and more satisfied clients, and leads to executing more projects without increasing resources".

Dynamic Re-assessment of the portfolio

PPM is a dynamic decision process and therefore a key element of the process is the re-assessment of the portfolio. The most common mechanism for re-assessment of the portfolio implemented is a review approach. Various types of PPM reviews that should occur in a portfolio have been identified:

The first is that of the individual project. The project stage gate review goes beyond the typical status of progress, risk and issues but links into the stage gate lifecycle. A project undergoes a detailed review of the deliverables required to progress past a defined stage gate and ensure the project's business case remains aligned with strategy and value deliver.

The second type of review is that of project portfolio selection. It is recommended that this review occurs monthly and is a review of all proposed projects and the selection of projects for the portfolio. During this review in progress projects are reviewed with additional new proposed projects and may be considered for delay, termination, or replacement by projects that better support the business goals.

The third type of review is called the portfolio review. Although similar to the PPM selection review it is suggested that portfolio review is held annually, biannually or quarterly and the focus is at the strategic direction and management of the portfolio. The review encompasses all projects to check that the projects within the portfolio meet the three objectives of PPM: maximisation of value, achieving balance, and strategic alignment. The review should take into consideration a number of strategic issues such as:

Impacts of the latest business forecasts, portfolio resource utilisation, balance points and capacity constraints on portfolio performance

Changes to the organisation's strategic vision, goals and direction

Governance standards

The portfolio review enables senior executives to ensure that the portfolio remains on course to deliver enterprise value aligned with their strategy. Key portfolio metrics are used via a portfolio dashboard to review the portfolio, these may include spending across strategic 'buckets', risk versus reward bubble charts, budgets versus actual costs and project rankings.

The final and fourth type of review is ad hoc reviews. As corporate strategy is so fundamental to creating a project portfolio any major change in strategy should trigger an ad hoc review to ensure that the portfolio remains aligned with the organisations direction, this may include a review of the selection criteria and priorities.

The various types of PPM reviews enable the dynamic re-assessment of the portfolio and although the reviews may have separate focuses they need to be integrate in order to ensure overall portfolio performance.

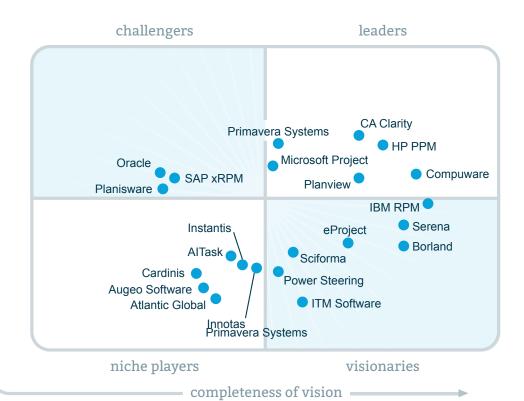
Specialised Software

The need for PPM software is a controversial issue in literature with some authors proposing that there is no need at all and others suggesting that without it the task of updating and collating all the information required for the decision making process would be impossible.

There has however been a marked increase in the number of software vendors supplying PPM solutions to the market. Forrester and Gartner offer detailed reviews and reports on PPM software packages.

The reviews take multiple aspects of what a PPM software platform should provide into account and propose a relative rating between each product. Those that support the use of software for PPM suggest it enables decisions to be made on rational data and articulated logic. Add into the debate the ability to integrate with an organisation's existing 'enterprise resourcing platform' and the fact that the basic project attributes of cost, cash flow, resource capacity and milestones are in the system, you then have the ability to aggregate and roll up data across portfolios. Having this data available in a standardised, visible and consistent format adds tremendous value to the entire organisation and PPM process.





Source: Gartner (June 2007)

ability to execute

As of 2007

What can PPM do for your organisation?

The Benefits of using PPM

- Centralised, standardised and holistic view of all initiatives in portfolio
- Aligns projects with organisation's objectives
- Selection and prioritisation of the right projects
- Financial analysis of the portfolio to ensure investments are justifiable
- Maximising value of investment
- Minimise risk
- Identification of interdependencies
- Effective allocation and use of limited resources
- The continual evaluation of project performance via stage gates and software
- Reducing the number of redundant and overlapping projects

These specific benefits can be further defined into tangible and intangible benefits:

Tangible Benefits

Business Cases and Project Proposals

Business cases and project proposals share a common format throughout the business.

- Effort spent on regenerating data will reduce
- Effort spent on reconciling the business case with the project will reduce

Linking project investments & priorities

Project investments can be re-evaluated in the light of changing & new business priorities

Snapshots can be taken at regular intervals to review the changes to the overall benefit

The balance between projects will be visible

Ensure that resources are not allocated to the wrong projects

Report Consolidation

Reports will not have to be manually consolidated. They will have a consistent format and use a common set of attributes.

Project Templates

Project templates can be established based on lessons learnt

Budgets and baselines

Common change procedures can be established

Budget changes and issues can be controlled

- Effort spent understanding variances will reduce
- Effort spent on unapproved changes will reduce

Data Verification

Projects need not maintain their own spreadsheets or databases

Data can be imported from external systems

Assumptions, formulae and status will be consistent

- Effort spent reconciling data will reduce
- Effort spent discussing discrepancies will reduce
- Effort spent looking for current data will reduce

Lifecycle Management

PPM enables a formal lifecycle management process on projects

Recognised governance process enables start & shut down of project to be applied with greater efficiency

 Effort spent on non-beneficial work will reduce

Formal checkpoints ensure that projects are fit to proceed to the next stage increasing project quality and to take corrective action before it is too late.

Effort spent on failed project will reduce

Enables management to determine which projects should be terminated

• Effort spent on ill-planned work will reduce

Procedures & Processes

Common processes will be established

Common procedures and work instructions will be established

Common Data

Enable effective evaluation of investments in projects

Common method for collecting & collating data

Common reports eliminate different versions of the truth

Training

Different business areas will not need their own distinct training programmes as all personnel can be trained in a consistent 'top down' training process which underpins PPM, Program Management and Project Management

Staff transferring between departments or projects will not need to be re-trained

Skilled Program management and project management practitioners can be share across the business

Intangible Benefits

Reinforce cultural transformation

Proactive financial management

Increased resource availability

Optimised use of the corporate information asset

Enhanced quality of project management decision making and decision support to business management

Grow profitability and reduce costs

Effective data management

Increased availability and accessibility of project data by means of an PPfM information system

Intangible Benefits

Grow profitability and reduce costs

Cost effective business model

Increased cash returns

Better compatibility and standardisation of processes

Reduction of operational risks by means of efficient control designs

Increase relevancy of reports

Focus on delivery of process outputs opposed to non-value adding activities

Organisational support more cost-effective process execution

Providing of an integrated platform and applications that will substantially enhance the integrity of CAPEX project information

PPM helps reduce the typical project problems including:

- projects not linked to strategic objectives and conflicting project objectives
- too many active projects
- projects that do not add value business benefits
- unbalanced portfolio of projects
- lack of coordination and cross-functional working between projects
- late delivery of projects
- resource constraints
- lack of commitment from business leaders

By implementing project portfolio management organisations have been able to ensure that the most effective initiatives are selected, aligned with corporate objectives, monitoring the progress of the initiatives thereby tracking progress towards the organisations strategic vision in detail and enable senior manager to adjust investment plans according to the progress achieved.

From first-hand experience, the following significant benefits have been realised within PPM environments:

Significant shifts in planned spend patterns aligned with strategy.

Shifts in project scheduling resulting in a more achievable project portfolio. Tremendous savings due to increased visibility of project spend.

Increase in governance by keeping an audit trail of project snapshots. Expediting of capitalisation process on the closure of projects.

Therefore, PPM has two forms of impact on the organisation:

1. The benefits PPM brings

2. Reduction in project related problems

It is however important to acknowledge that different organisations can have differing levels of maturity regarding the implementation of PPM.

A typical maturity model consists of several stages of maturity:

Defined stage -

Organisations have a central projects database and have defined and documented the key components of the enterprise portfolio and have high-level estimates of the costs and benefits of each element.

Managed stage -

Organisations have periodic portfolio reviews with

quantified investment feedback. New initiatives are screened, categorised and prioritised.

Optimised – Organisations use advanced valuation methods, benefits measurement techniques and have an overall understanding of risk and return with their portfolio balanced accordingly.

Benefits can be realised at all the various levels of PPM adoption, but the degree of benefit received is greatest at the optimised stage of adoption.

Implementation Approach

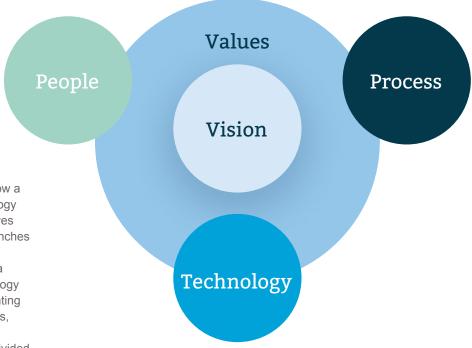
Implementing and adopting project portfolio management within an organisation is a key business change and a number of factors contribute to a successful implementation and adoption of PPM. This includes, not exclusively, the following factors:

Pre-conditions to the successful adoption of PPM

There are three main preconditions. Firstly, organisational strategy should be clear and communicated across the company. Secondly, business leader's involvement, who take a portfolio view instead of a silo view of the organisation enabling the PPM process to function effectively. Thirdly, team skills, i.e. having a team with the relevant finance and strategy skills is important, especially as the PPM process spans across functional areas and seeks to align projects, as investments, with strategy.

Organisational Change Focus

It is important to note that implementing project portfolio management is an organisational change programme and not a technology implementation. This requires a holistic implementation approach from a programme perspective focusing on three key aspects: People, Processes & Technology. The people, process and technology focus should be anchored to the company vision and values without which the implementation may not be sustainable in the long term.



Implementation Standards

The implementation and adoption should follow a standard programme management methodology creating a clear vision with structured objectives resulting in a clearly defined set of project tranches to deliver the require business changes. The projects within the programme should follow a suitable technology implementation methodology were applicable i.e. SAP ASAP. As implementing PPM can be a complex and long-term process, dependant on the scale and maturity of the organisation, the implementation should be divided into phases (Business Change Phases).

Discovery Phase



Implementation Phase

Embedding Phase

The discovery phase serves to understand and frame the change within the organisation at a high-level ensuring alignment with organisational objectives. The outcome of this phase is an understanding of the proposed benefits of the change and the subsequent Business Case.

The implementation phase encompasses the full development and implementation of the defined process, technology and people changes required to support Project Portfolio Management.

The embedding phase focuses on ensuring the long term sustainability of Project Portfolio Management within the organisation and on developing continuous business improvement processes.

Implementation Approach

It is highly recommended that the first phase of the implementation is to develop the overall portfolio model in conjunction with all key parties while at the same time piloting the model within one section of the organisation. This enables the overall "portfolio architecture" to be clearly defined ensuring that information within the organisation is aligned and creates the desired aggregated portfolio view of projects. The pilot then forms the main working template to be rolled out within each section of the organisation. The initial focus of the implementation should be to address a number of operational requirements first before implementing strategic functionality.

Key Challenges

Agreeing criteria for identifying programmes and projects within the organization and distinguishing them from `business as usual` and/or operational services

Resistance from programme and project teams to adopt a common approach to reporting progress and business case construction

Unwillingness of business managers to see their "pet" projects shifted in priority

Making and then actioning difficult decisions affecting the portfolio as a whole when resources are in short supply and timescales are tight

Difficulty in allocating skilled resources due to structural, geographical and HR issues.

Key Enablers

Common framework used by all programmes / projects.

Standardized reporting.

Initiating programmes / projects properly.

Programmes / projects with clear links to corporate objectives.

Dependencies between programmes / projects identified.

Realistic assessment of aggregate risk.

Prioritization based on contribution to corporate targets and objectives

Regular Management Board oversight and challenge.

Re-assessment of risk.

Assessing progress against key milestones and agreed criteria.

Active re-prioritisation based on changes in business context.

Re-allocation of resources to priority work.

Following up on agreed actions to check impact.

The cost of implementing a PPM solution is dependent on a number of variables

Size, complexity & timeline.

The size, complexity and timeline of the implementation will directly affect the total cost of implementation. It will be critically important to ensure the portfolio architecture supports the size of the organisation and the specific industry complexity relating to the projects being implemented. This is however offset by the scale of the benefits. Typically the larger the organisation the more distributed communications channels will be thereby increasing the problem of aligning projects with strategy and therefore PPM is likely to have a more significant benefit for the organisation.

Given the variables that influence the cost of implementing Project Portfolio Management It is highly recommended that in order to gain an accurate estimate of the total implementation cost a discovery phase is undertaken. The discovery phase serves to understand and frame the change within the organisation at a high-level, ensuring alignment with organisational objectives. The outcome of this phase is an understanding of the proposed benefits of the change and the subsequent Business Case.

During the discovery phase a number of key activities are undertaken, these include the following elements:

Organisation maturity

The maturity of the organisation with regarding to project management, cost control, forecasting, capital management and the effective use of the current ERP and project systems will directly affect the overall cost of implementation.

PPM Adoption level targeted

PPM is a collection of tools, processes, techniques and systems. Determining the desired/required level of adoption to meet the business objectives is critical to designing the correct implementation approach.



During the discovery phase a number of key activities are undertaken, including:

Executive Overview -

agree key PPM concepts and objectives

In order to enable a common understanding and build a shared mental model of Project Portfolio Management a number of executive overview sessions should be conducted. These sessions should focus on a high-level generic PPM process highlighting the key concepts, principles, objectives and benefits that need to be understood and internalised before compiling a Business Case.

Leadership Alignment

Experience has shown that the highest risk factor in implementing a PPM change is the human risk; there is a significant chance of failure if people do not buy in and support it. The objective of the Leadership Alignment exercise should be to conduct individual interviews with key stakeholders to firstly identify whether they are aligned and committed to the outcomes of the change. Secondly, to identify leadership expectations and asses the leaders' perceptions of their own roles in support of the change. Thirdly, to gain a better understanding of significant issues.

Maturity/Readiness Assessment

Running in conjunction with the Leadership Alignment Survey a Maturity/Readiness Assessment should be conducted across the project, programme and portfolio management disciplines within the organisation. A key input into developing an overall roadmap, the assessment determine the capability of the organisations current processes, map out logical paths to improve processes, set priorities for short-term and long-term process improvement actions and assess the role of project support structures. During the implementation phase the assessment should be used to track progress against the programme implementation plan.

Change Management Landscape

In order to develop the value proposition that PPM poses, an understanding of the change management landscape needs to be established. This should cover reviewing, at a high-level, the company vision, strategy and values. Combined with the maturity assessment, key behaviour and organisational changes should be identified and provide valuable input into the overall implementation roadmap.

The key products to be delivered from the discovery phase would be:

Business case with clear problem statement and benefits proposal

Conceptual portfolio process framework.

High-level implementation strategy and plan.

High-level implementation cost estimate.



Implementation Costing

Business Case with clear problem statement and benefits proposal

The purpose of the Business Case is to define the business benefit to be achieved against resources and capital investment required. The Business Case will cover the following information and will be produced in Microsoft Word format:

Executive Summary	Key Risks
Strategic Alignment	Financial Justification
Current Position	Expected Benefits
Future Position	Implementation Timeline

Conceptual portfolio framework

The conceptual portfolio framework is used in the discovery phase to outline possible courses of action from a process design perspective and to present the preferred approach to implementing Project Portfolio Management at the client. The framework will cover the following information and will be produced in Microsoft PowerPoint:

High-level organisational portfolio and governance structure

High-level portfolio planning process

High-level portfolio execution process

High-level portfolio support structures

High-level implementation strategy and roadmap

The implementation strategy and roadmap will define the recommended approach to implementing Project Portfolio Management within in the company; and highlight key milestones and deliverables for the implementation to be successful. The implementation strategy will cover the following information and will be produced in Microsoft Word format:

Implementation Strategy	Road Map
Change Management	Define Key Deliverables
Maturity/Readiness Assessment	Benefit Realisation Plan

Key Deliverables

Implementation Phase	Embedding Phase
Programme Management	Embedding plan
Process Management	Maturity benchmark
Change Management	Continues business process
Technology	improvement roadmap

PPM is a decision support tool.

It is important to note that the PPM process does not automatically select the right projects to implement but is a decision support tool. The process provides important information for organisations to more easily identify the right projects to select for implementation aligned with strategy in order to maximise value and thereby minimise risk.

The effectiveness of PPM hinges on Corporate Strategy and Leadership.

The PPM process is dependent on a clearly defined corporate strategy and the process by itself does not guarantee the vision will be achieved. Instead, the process gives senior leadership an effective means to direct the spending of the organisation

aligned with their strategy – and although it has subjective elements in it, the PPM process has proven a better method than previous processes for selecting projects.

PPM is a collaborative effort; Corporate Values will support alignment.

PPM is a cross-functional process integrating strategy, accounting, project execution and operational management. PPM is a collaborative process and facilitates debate in a structured manner by providing visibility to project information.

Debate and conflict cannot be avoided; these conversations are best supported by a common set of corporate values to ensure alignment between individual executives with varying objectives and points of view.

Reliable information & operational transparency enable best response to challenges.

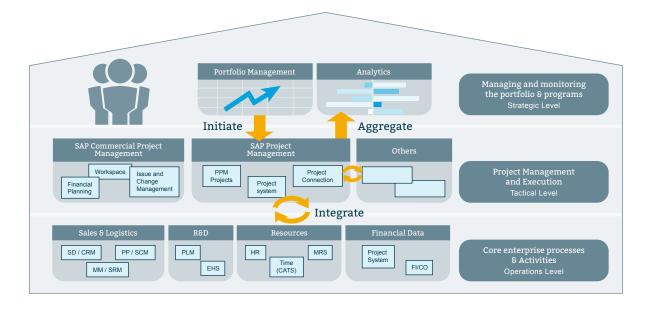
Project Portfolio Management is an important discipline; especially in an ever-changing global environment where resources are becoming scarcer each day and the demand for increased profits continue to climb each year. PPM has had

and will continue to have a positive impact on organisations by providing senior management with reliable information and enabling operational transparency, allowing organisations to respond effectively and efficiently to the challenges they face.

What technology is behind PPM?

SAP Portfolio and Project Management is a comprehensive solution combining strategic and operational portfolio management with programme and project management capabilities and prebuilt integration to the SAP ERP. The solution encompasses portfolio planning, resource management, financial management, governance, risk

management, benefits planning, and collaboration with both internal and external stakeholders. It integrates information from existing project management, human resources, and financial systems to provide an integrated overview of the project portfolio. The key technical building blocks are detailed in the diagram below:



The key functional offering from the SAP solution has been summarised below as follows:

Portfolio Planning and monitoring (organisational management P3M3®) entails aligning the overall portfolio, its investments programmes and projects with the organisational strategy. It ensures that organisational strategy is translated into investment programmes and delivery programmes and projects are clearly linked to the strategic objectives of the organisation. Key functions within the solution that enable portfolio planning and monitoring include the portfolio structure, investment buckets, alternative hierarchies, programme (initiatives) structures, project structures (items), scoring models, questionnaires, ranking scoreboards and portfolio reviews.

Governance and monitoring (management control P3M3®) ensures that sufficient controls are applied and adhered to throughout the lifecycle of the portfolios, programmes (initiatives) and projects (items). Key functions within the solution that enable Governance and monitoring include customizable portfolio, programme and project lifecycles with defined gates, checklist items, approvals and supporting workflow. Full audit trails of stages gates and project status are possible while monitoring the portfolio includes portfolio, programme and project management reports across all process groups. Reporting is customizable and has the capability for

drill down and dashboard displays to enable early detection of challenges.

Financial Management ensures that the costs of portfolios, programmes and projects are captured and evaluated with formal business cases and costing categorised (FEL) and managed over the investment cycle. Key functions within the solution that enable financial management include financial spend planning, budget management, cost plan breakdowns, cost estimating, funds identification, financial approvals, baselines, reporting and integration with SAP ERP.

Resource Management ensures that all the resources required for delivery

The Technology of Project Portfolio Management

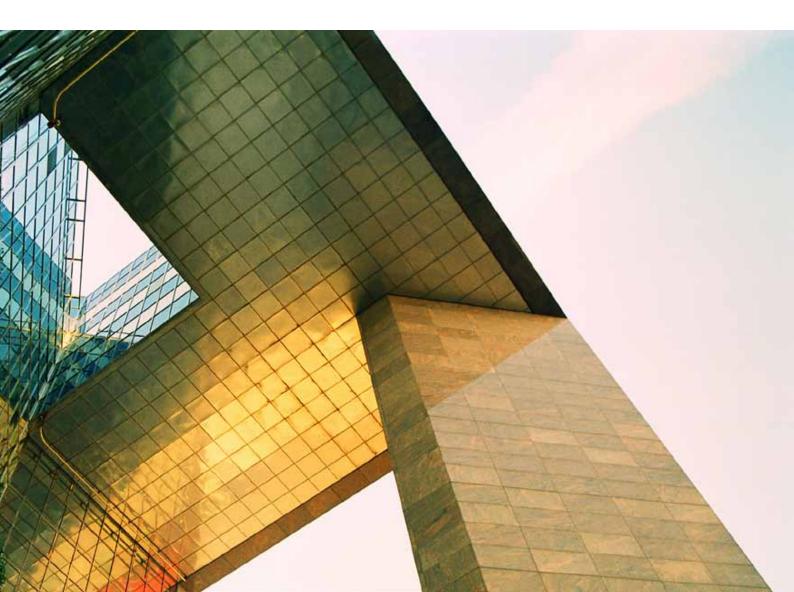
are planned, managed and monitored to support the delivery of the portfolios, programmes and projects. Key functions within the solution that enable resource management include integration with SAP HR, resource identification, resource skill definition, resource capacity management, role based assignment, monitoring and tracking.

Risk Management ensures that threats and opportunities presented to the portfolios, programmes and

projects are clearly identified, defined (qualitative and quantitatively), planned for, monitored, controlled and closed out correctly. Key functions within the solution that enable risk management are risk registers, issue logs, workflow and reporting.

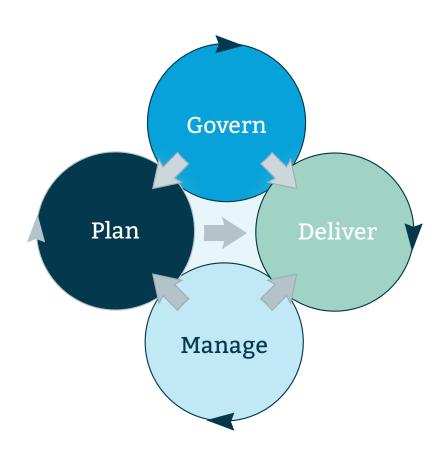
Collaboration (Stakeholder Management) supports the identification, engagement and communication with both internal and external stakeholders. Key functions within the solution include stakeholder's forums, communications logs, internal and external project folders.

Benefits planning supports the definition, documentation and tracking of benefits (KPI) within programmes and projects. Key functions within the solution include defining benefits (KPIs), planning benefits (KPI's) and tracking/ measuring their realisation beyond the life of the programme or project.



Functional Process Model

SAP Portfolio and Project
Management is a comprehensive
solution combining portfolio
and project management
capabilities with prebuilt
integration to the SAP ERP.
Our solution has four key phases
detailed in the tables below.



Process Functions Govern Establish Establish **Authorize** Release Portfolio Monitor Portfolio Rebalance Portfolio Budget Portfolio Plan Portfolio Plan **Funding** Progress Portfolio Establish and authorise **Fund Approve** Review **Identify Strategy** Include approved Authorise budget Release approved Create reporting Approve Budget pillars, programme, scenario in budget project budget baselines Create approval Create approval objectives Process Draft budget baselines Release Long-lead Conduct Portfolio baselines Define Portfolio item budget Create proposed categorisation baselines Set Portfolio targets

System Functions

SAP BIPortfolio Pipeline

SAP PPMPortfolio bucket targets

SAP BI Proposed Budget SAP PPM

What-if scenarios Portfolio update Budget proposal Baseline creation Proposed budget export

SAP BIApproved Budget

SAP PPM
Budget approval
Baseline creation
Approved budget
export

SAP BI Budget Control Report

SAP PPM
Approved plan copy
to IM
Future Approval

Release SAP IM Budget load

SAP B

PPM Dashboard Business Plan Status Budget Control Report Progress reports

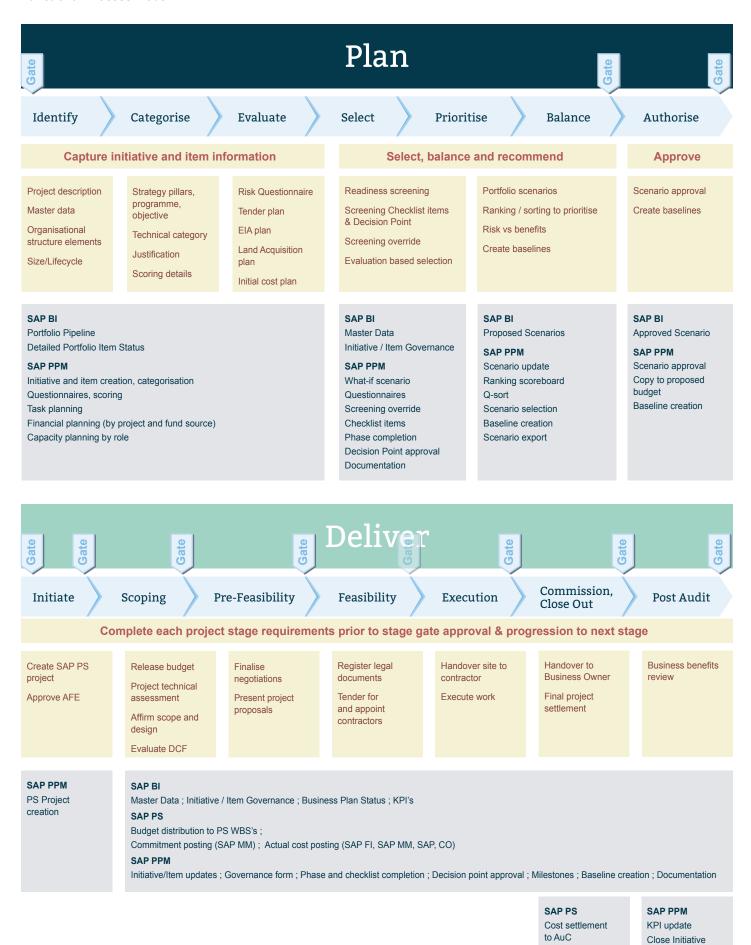
SAP PPM

Baseline creation
Progress comments

SAP BIApproved Budget

SAP PPM
What-if scenarios
Portfolio update
Revised budget
proposal/approval
Revision motivations
Baseline creation
Budget export

Functional Process Model



Close Project

Close Item

Functional Process Model

Manage

Risk Management Change Management

Monitor

Re-Forecasting

Stage Gate Reviews Supporting Processes

Complete each project stage requirements prior to stage gate approval & progression to next stage

Create and manage risks

Create and manage issues

Process change request

Process contract variation

LOA governance

Reporting baselines

Portfolio reviews

Re-forecast project dates

Re-forecast project resources

Re-forecast cost estimates

Conduct program / project reviews

Checklist items

Decision Point approval

Baselines

Periodic reporting

Record project progress and anticipated spend

Budget revisions

SAP BI

Risk summary/detail Issue summary/detail

SAP PPM

Risk/issue registers
Risk/issue forms
Risk/issue details
Risk mitigation plan
Issue action plan
Documentation

SAP BI

Change requests

SAP PPM
Change request (CR)
CR approval
Financial approval
Receipe greation

Baseline creation Notifications Documentation SAP BI

PPM Dashboard Business Plan Status Budget Control Report

SAP PPM

Baseline creation

SAP BI

Master Data
Business Plan status
Detailed Portfolio

SAP PPM

Project task updates Resource planning Easy cost planning SAP BI

Master Data
Governance
Business Plan status

SAP PPM

Governance form Baseline creation

SAP BI

Business Plan status Budget Control Report Progress reports

SAP PPM

Periodic status
Revised budget
proposal/approval
Revision motivations
Baseline creation
Budget export

"With the ever increasing scarcity of resources and the mounting pressure on business to continually improve delivery, project portfolio management (PPM) enables us to ensure the optimum allocation of resources to projects to maximise returns."

> D.W. Wright General Manager, Corporate Planning May 2010

Behind every Engen Petroleum forecourt in South and sub Saharan Africa, lies a business planning process which must select which capital projects should be undertaken to provide the facilities on offer; and develop the supply chain, distribution network and manufacturing to support this.

With finite capital available Engen needed to select those capital investments which are most in line with its strategic objectives. The complexity in doing this lies in the large number of capital projects which are put forward for funding. These projects range from small-scale capital investments to maintain its facilities or supply chain through to large and complex engineering projects. Requirements arise from all the major centres in South Africa where Engen has its headquarters, through to the many countries in Africa in which it operates, including Botswana, Burundi, Democratic Republic of Congo, Gabon, Ghana, Guinea-Bissau, Kenya, Mozambique, Namibia, Rwanda, SEP Burundi, Tanzania, Uganda and Zimbabwe.

The challenge is not only in selecting the right projects. Engen must ensure it remains agile with its capital investments, responding efficiently and effectively to strategy changes, by changing its mix of projects, should this be required; and ensuring that once selected, capital projects are tracked and the intended benefits derived.

This led to the introduction of the Project Portfolio Management (PPM) programme at Engen. Project Portfolio Management can deliver a positive impact to an organisation, providing senior management with reliable information to assist in the decision making process and enabling operational transparency thereby empowering management to respond effectively and efficiently to rapidly changing circumstances.

It aligns projects with corporate strategy, assisting organisations with prioritising their projects, and through this enabling the effective allocation of resources with the result evidenced in improved project delivery.



With us you are Number One

SAP PPM Implementation



Implementation

After a thorough investigation of the technology available and of supporting business practices, Engen's PPM implementation started in November 2007 with the formation of a programme team to introduce this business discipline company wide.

A number of business objectives were identified as part of the programme, including:

enabling the effective allocation of capital to projects in order to maximise value and return to shareholders

enabling the alignment of projects with corporate objectives to ensure the corporate strategy was being 'operationalised' via projects

enabling the monitoring of project progress, thereby tracking progress towards Engen's 2016 vision, allowing Engen to adjust investment plans where necessary

These high-level objectives were translated into key success criteria which included:

aligning divisional capital plans with corporate strategy

creating a more realistic and achievable capital plan

prioritising projects aligned with strategy

reducing the yearly carryover of capital projects

increasing operational transparency of capital projects

The key deliverables that enable the PPM programme vision included:

The creation of an enterprise-wide project portfolio management framework, processes and supporting systems so that consistent standards are applied in the planning and execution of projects.

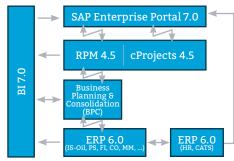
An integrated system to record and track progress on capital and operational expenditure projects and support resource planning at divisional level.

An enterprise-wide view of capital investment projects at Engen to improve measurement against strategic objectives.

It therefore covered the entire project spectrum, from selecting the most suitable projects proposed during Portfolio Planning phase, through to tracking progress on the projects during the Project Execution phase.



The programme integrated and embedded a number of SAP modules into the PPM processes, including: SAP Investment Management, SAP Project Systems, SAP Resource and Portfolio Management, SAP Materials Management, SAP Controlling, SAP Business Intelligence and SAP Enterprise Portal.

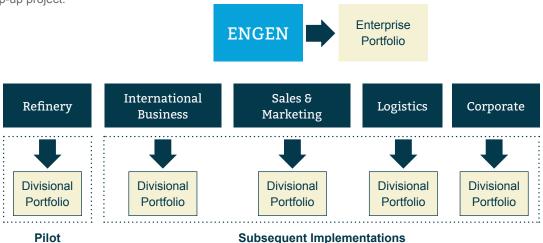


Case Study ENGEN

The portfolio concepts were underpinned by SAP RPM, the key system at the core of this programme. Not only is Project Portfolio Management, as a discipline, fairly new to many organisations, SAP RPM is a fairly new and innovative product to the marketplace. Engen therefore participated actively in SAP's own drive for quality by participating as part of an xRPM 4.5 ramp-up project.

The programme scope encompassed the entire organisation (Refinery, International Business, Sales & Marketing, Logistics, Corporate (including Building Services), Information Services and Health & Safety) and integrated with the business planning cycle.

In order to drive down the implementation costs a phased rollout strategy was agreed. This enabled a pilot to be completed shortly after the high-level business process blueprint was defined. The pilot took place in the manufacturing division, the Refinery, which executes a large number of capital projects.



The remaining company divisions were then rolled out in parallel, enabling a rapid implementation which resulted in initial benefits being realised sooner. The high-level and detailed business blueprints were captured using business process improvement standards. Because the blueprints for subsequent divisional implementations were based on a standard framework they were simply adjusted to fit each division rather than being recreated. This provided for a significant amount of

reuse and cost savings due to blueprints being developed faster. The use of ARIS also enabled the project team to leverage standard ARIS extracts for the creation of training material and process documentation from the documented processes.

Bringing down the software-to-services ratio was a key focus during the implementation, particularly when the implementation coincided with a global recession, bringing with it more competition for project resources and an

increased focus on cost management. Any focus on reducing costs was accompanied by a thorough analysis of any consequent risks so that driving down the software-to-services ratio did not compromise the overall quality of the programme.

Although the PPM programme spanned a number of key systems, it is key to acknowledge that it serves as a classic example of wide-spread organisational change driven and supported by these business systems.

Business Context

As Engen's EPIC 2016 vision drove it to expand into environments which are more complex, it required a multi-dimensional view of the information available across its business to facilitate a 'portfolio approach' to its capital investments in order to align spend with strategy. Engen had formal

Project Offices in manufacturing, sales & marketing and IS and used project principles in some of the other divisions.

The PPM system Engen adopted uses a number of integrated systems to facilitate the identification and prioritisation of projects according to

funding and investment strategies. This 'portfolio approach' relies on a consolidated view of data from the various satellite project offices and provides not only a corporate view, but allows individual divisions to drill down to view their own projects, resources and investments.

Benefits / Impact

Project Portfolio Management plays a significant role in allowing Engen to select the right projects and track their progress. This extends across its entire supply chain and distribution network, across South Africa and sub Saharan Africa, through to customers which include the petrol forecourts which are perhaps more visible to the consumer.

The PPM system provides a 'single source of the truth' to multiple

audiences, databases which consolidate information from various satellite project offices to provide not only a corporate view, but to allow individual divisions to drill down to view their own projects, resources and investments.

With the implementation of standardised PPM definitions, categorisation and data structures across the business, PPM has provided an effective means to direct the capital spend of the

organisation, facilitating executive debates in a structured manner by providing visibility of project information. The end result provides senior management with reliable information, operational transparency, and allows Engen to respond effectively and efficiently to the challenges it faces.

According to the Harvard Business Publishing Weekly Hotlist (23/11/2009):

Project Portfolio management has introduced greater control and visibility in a format which, in a very short time, has resulted in:

significant shifts in planned spend patterns aligned with strategy

shifts in project scheduling resulting in a more achievable project portfolio

tremendous savings due to increased visibility of project spend

increase in governance by keeping an audit trail of project snapshots

expediting of capitalisation process on the closure of projects

It is not only the visibility of information, but the form in which it has been presented that is of significance.

At a strategy level PPM has made a significant contribution to the business planning process, improving Engen's decision making around prioritising projects according to its funding and investment strategies. At a more tactical level it is PPM which allows Engen to monitor progress on its capital project portfolio and track its progress towards its EPIC 2016 vision.

"The simple act of placing data in front of people changes their behaviour. Data makes people smarter and inspires them to make small changes to save money and energy."

Business and project management

The PPM programme provided challenges on both the technical and user front. On the technical front the solution embraced new technology which:

Enabled flexibility in definition/ structure of reports

Provided visible audit trail on project information

A greater challenge was the people aspect. PPM relies on good quality data. However, motivating users to provide that data is often dependent on them having

an appreciation of what the output looks like. People value the output more than the input! Creating sufficient pressure to get the desired quality and level of data input was key. Visibility of PPM by top management provided this pressure, and as users started to appreciate the value of the output they were more driven to provide better quality input.

In addition this challenge was overcome by:

The people, process and technology changes were implemented in an integrated manner at the same time

so that the value of the PPM systems could demonstrate early.

Standardising the business process and system design early on to achieve efficiency.

Involving all project team members to think continuously about the impact the implementation and involving business resources in the PPM programme team from early on. This avoided an 'us versus them' mentality.

With the increasing scarcity of resources in both capital and technical skills, and the mounting pressure to continually improve delivery, organisations are turning to project portfolio management (PPM) to improve the effective and efficient delivery of capital project portfolios.

The City of Cape Town is faced with an environment that is becoming more complex and interdependent because of the increase in projects. Discussions and workshops across the organisation previously identified a broad requirement in relation to project portfolio management (PPM) processes and practices to improve the planning, selection and execution of capital projects thus improving capital expenditure.

Project portfolio management enables the alignment of projects with organisational strategy, thus enabling the effective allocation of resources to projects and thereby improving delivery. Project portfolio management (PPM) is an important discipline which can deliver positive impact to an organisation, providing senior management with reliable information to support decision-making processes and enabling operational transparency of projects.

The internal PPM project is an innovative first in local government in South Africa. Using the SAP PPM function, it entails a holistic multidisciplinary approach to the design, implementation and support of capital projects from a people, process and technology perspective.

In late 2012 a specific 'discovery phase' was initiated to explore and understand how PPM could help the City achieve its objectives. The discovery phase entailed a number of interactions with key stakeholders including the Mayoral Committee, the Executive Management Team, and managers from Finance, Human Resources, Information Systems & Technology and other departments. This included a high-level analysis of current processes, introductory sessions to PPM theory, and the development of conceptual models to outline possible changes and actions from a solution (process and technology) design perspective. The phase also took into consideration the current project management policy framework, key business drivers, and problems and opportunities.





Enabling the effective allocation of resources to projects and thereby improving delivery



Case Study City of Cape Town

Design-led thinking is a collaborative and usercentric process through which challenges are identified and creatively addressed to deliver innovative and relevant solutions. With the responsibilities placed on a city administration, the core driver for embracing design-led thinking is the improvement of the quality of life of citizens, the ethos that underpins the World Design Capital programme.

Based on the discovery phase, a business project to implement PPM was initiated. This includes:

the creation of an organisation-wide PPM framework, processes and supporting systems so that consistent standards are applied in the planning and execution of projects;

an integrated system to enable longer-term multi-year planning (5+ years) of capital projects; and

an organisation-wide view of capital projects aligned to strategy and objectives.

The vision is to successfully implement standard PPM practices, processes and supporting technology within the City in order to achieve the following:

enable better up-front planning and screening of capital projects to ensure that the most feasible and

implementable projects are submitted for funding in the budget cycle

shift the focus from 'budgeting' to planning capital projects over a longer term

support the alignment of projects with strategy and objectives

improve the successful delivery and tracking of capital projects

improve up-front capital planning and delivery

Integrated Development Plan Linkages

WELL-RUN CITY: The project aims to confirm that all projects are better defined up front, and that all aspects and challenges relating to the delivery of the projects are identified and addressed to ensure their successful execution once included in the budget.

How has design been used

Of the key tools which support design-led thinking in project conception, creation and implementation, the following are fundamental to the success of this project:

- + DREAM TEAM: A multi-disciplinary team from various backgrounds such as project management, engineering, finance, information technology and human resources was established. A collective of challenges and solutions was identified, and individual members took ownership of respective initia- tives and the realisation of those.
- + CONSULTATION/COMMUNICATION: The team listened to the challenges faced by implementers and ensured that solutions addressed these, and that stakeholders were able to view their issues and acknowledge that their concerns had been considered through feedback. This approach ensured buy-in.
- + EVOLUTIONARY APPROACH: An agreement was reached on the respective interventions to address the solutions.

 Multi-disciplinary inputs were established during the solution, development and planning of the project, and short, medium and long-term objectives and interventions were identified.
- + INNOVATION CHAMPS: The corporate vision and approach was applied; no silo thinking and a focus on solid collaboration. The multi-disciplinary team consists of members from various backgrounds such as project management, engineering, finance, information technology and human resources, and part- nerships were established in the development and implementation of solutions.



Vaughan has been a key note speaker at a number of national and international events relating to project portfolio management.

Vaughan Cooksey

Vaughan, who is currently pursuing a PhD in Project Portfolio Management, has spent over fifteen years within the Private and Public sectors working as a Project and Programme manager, managing various initiatives across the UK and South Africa. Vaughan holds several professional project management qualifications from various associations including Prince 2 practitioner from the Office of Government Commerce UK, Project Management Professional (PMP) from the Project management institute USA and an MSc in Project management from the University of Aberdeen in the United Kingdom.

More recently Vaughan was responsible for designing and leading the enterprise wide implementation of project portfolio management for all capital projects across multiple clients. Working with the senior executives and all levels of management, Vaughan facilitates the definition of enterprise wide project portfolio management frameworks. The frameworks focused on ensuring alignment of all capital projects with the organisations vision and the execution of the strategy via project portfolio management. Key deliverables typically included:

The creation of an enterprise-wide project portfolio management framework, processes, organisational structures and supporting systems so that consistent standards are applied in the planning and execution of capital projects.

An integrated system to record and track progress on capital and operational expenditure projects and support resource capacity planning at divisional level.

An enterprise-wide view of capital investment projects to improve measurement against strategic objectives.

Organisational wide change management to enable project portfolio management.

Key engagements

City of Cape Town (Public Sector) – Enterprise wide Project Portfolio Management

MMG (Mining) - Enterprise wide Project Portfolio Management

Engen (Oil & Gas) - Enterprise wide Project Portfolio Management

Awards

ITWeb Business intelligence award – Gold

SAP African Quality award – Gold

SAP Europe, Middle east & African quality award - Silver

Mario has been a key note speaker at a number of national and international SAP events relating to ERP and project portfolio management.

Mario Danieli

Mario has over 27 years experience designing, implementing, and managing integrated business solutions. He has previously held positions at one of the Big-5 consulting companies, as well as a SAP consultancy in the USA.

Mario has 20 years of SAP experience on over 20 projects, ranging from application development, application configuration, integration management, as well as project management. The past ten years have been as a Project Manager, managing SAP projects for various clients in South Africa.

Mario holds a BCom Info Systems Degree from the University of Witwatersrand. His certification include a Project Management Professional (PMP) from the Project Management institute (PMI) USA, as well as SAP PPM.

More recently Mario performed Technology Project Management and Integration Management roles on the enterprise wide implementation of project portfolio management for all capital projects across Engen Petroleum limited. Working with the various programme streams, as well as business stakeholders, he ensured that the technology solution supported the portfolio management framework, and enabled the portfolio management processes.

This enablement included the design of an award winning Business Intelligence solution.

City of Cape Town:

SAP PPM Architect and Integration Manager: PPM Programme: Implementation of Enterprise wide Project Portfolio Management

MMG:

SAP PPM Architect: PPM Programme: Implementation of Enterprise wide Project Portfolio Management

Engen Petroleum Limited:

SAP PPM Architect and Integration Manager: PPM Programme: Implementation of Enterprise wide Project Portfolio Management

Project Manager: Technical reimplementation of SAP CRM 3.0 to CRM 2005 **Programme Manager:** Technical upgrades of SAP landscapes (ERP, BI, HR, Portal)

Intelligroup, Inc., NJ, USA:

Block Drug Company, Inc., NJ, USA - Project Manager for full SAP ERP implementation

The Wella Corporation, NJ, USA - Project Manager for full SAP ERP implementation

FMC Corporation, PA, USA - Lead SAP CO Consultant for full SAP ERP implementation

Brother International, NJ, USA - Lead SAP CO Consultant for full SAP ERP implementation

Deloitte & Touche, Johannesburg, South Africa:

Alusaf - Lead SAP CO Consultant for full SAP ERP implementation **Spoornet** - Lead SAP CO Consultant for product costing and profitability analysis

Acknowledgements

Benko, C & McFarlan, F.W (2003), Connecting the Dots: Aligning projects with objectives in Unpredictable times, Harvard Business School Press.

Turner, J.R (1999). The Handbook of project-based management 2nd edition, McGraw-Hill.

Payne, J.H (1995). Management of multiple simultaneous projects: a state-of-the-art review, International Journal of Project Management, Vol 13, pp. 163-168.

Cooper, R.G., Edgett S.J. & Kleinschmidt E.J., (1997). Portfolio management in new product development: Lessons from leaders: II. Research Technology Management, 40(6), pp. 43-53.

Archer, N.P & Ghasemzadeh, F. (1999) An integrated framework for project portfolio selection, International Journal of Project Management, Vol. 17, pp. 207-216.

Cooper, R.G., Edgett S.J. & Kleinschmidt E.J., (1999). New Product Portfolio Management: Practises and Performance, Journal Product Innovation Management, issue 16, pp 333-351.

Levine, H.A. (2005) Project Portfolio Management: A Practical Guide to Selecting Projects, Managing Portfolios, and Maximising benefits, Jossey-Bass.

Roussel, P., Saad, K. & Erickson, T., (1991) Third Generation R&D: Managing the Link to Corporate Strategy. Boston, Massachusetts: Harvard Business School Press and Arthur D. Little inc., cited in Cooper, R.G., Edgett S.J. & Kleinschmidt E.J., (1999) New Product Portfolio Management: Practises and Performance. Journal Product Innovation Management, issue 16, pp. 333-351.

Office of Government Commerce (2004), Portfolio Management.

Project Management Institute (2006). The Standard for Portfolio Management. Project Management Institute, Newtown Square, PA.

Rad P.F & Levin G. (2006), Project Portfolio Management Tools and Techniques. International institute for learning, IIL Publishing.

Thiry, M. & Deguire, M. (2007). Recent developments in project-based organisations. International project management association, Vol 25, pp 649-658.

Jamieson, A. & Morris, P. (2004), Translating Corporate Strategy into Project Strategy. Project Management Institute.

Wideman, M.R, Ten Steps to Comprehensive Project Portfolio Management Part 8, Available from: http://www.maxwideman.com/papers/ index.htm [Accessed 12 September 2008].

Cooper, R.G., Edgett S.J. & Kleinschmidt E.J, (1997). Portfolio management in new product development: Lessons from leaders: I. Research Technology Management, 40(5), pp. 16-28.

De Reyck, B., Grushka-Cockayne, Y, Lockett, M., Calderini, S.R, Moura, M. & Sloper, A. (2005). The Impact of project Portfolio Management on Information Technology Projects, International Journal of Project Management, Vol 23, pp. 524-537.

Pennypacker, J.S & Sepate, P. (2005). Integrating Project Portfolio Management with Project management Practises to Deliver Competitive Advantage, Published in Project Portfolio Management: A Practical Guide to Selecting Projects, Managing Portfolios, and Maximising benefits, Jossey-Bass.

Atrill, P. (2000). Financial Management for Non-specialists, second edition, Prentice Hall.

Lan-ying, D. & Yong-dong, S. (2007). Implement Business Strategy via Project Portfolio Management: A Model and Case Study, Journal of American Academy of Business, Cambridge, 11,2 pp 239.

Markowitz, H., (1952). Portfolio Selection. J Finance, 7, pp. 77-91 cited in De Reyck et al (2005) The Impact of project Portfolio Management on Information Technology Projects, International Journal of Project Management, Vol 23, pp.524-537.

Matheson, J.E. and Menke, M.M. (1994). Using decision quality principles to balance your R&D portfolio, Research Technology Management, 37(3): pp. 38-43.

Danilovic, M. & Sandkull, B. (2005). The use of dependence structure matrix and domain mapping in managing uncertainty in multiple project situations, International Journal of Project Management, Vol 23 pp. 193-203.

Turner, J.R (1993). The Handbook of project-based management, McGraw-Hill, cited in Payne, J.H (1995). Management of multiple simultaneous projects: a state-of-the-art review, International Journal of Project Management, Vol 13, pp163-168.

Lee, J.W & Kim, S.H. (2001). An integrated approach for interdependent information system project selection, International Journal of Project Management, Vol 19, pp. 111-118.

Thorp, J. (1999). The information paradox – realising the business benefits of IT. Torronto; McGraw-Hill, cited in De Reyck, B., Grushka-Cockayne, Y, Lockett, M., Calderini, S.R, Moura, M. & Sloper, A. (2005).

The Impact of project Portfolio Management on Information Technology Projects, International Journal of Project Management, Vol 23 (2005) pp.524-537.

Archer, N.P & Ghasemzadeh, F. (2000). Project portfolio selection through decision support, Decision Support systems, Vol. 29, pp. 73-88.

Levine, H.A. (2005) Sciforma Corporation, The new world of resource allocation: PPM Model, Available from: http://www.sciforma.com [Accessed 1 July 2008].

Schlick, J. & Longman, A., From Overload to productivity via systematic decision-making, In Project Portfolio Management(2005): A Practical Guide to Selecting Projects, Managing Portfolios, and Maximising benefits, Jossey-Bass.

Leach, L. Applying the Theory of Constraints to Project Portfolio Management, In Project Portfolio Management (2005): A Practical Guide to Selecting Projects, Managing Portfolios, and Maximising benefits, Jossey-Bass.

Herakleitos. Change is the only constant Available from: http://en.wikipedia.org/wiki/Heraclitus [Accessed 17 December 2008].

Cardin, I. (2007). The Forrester Wave: Project Portfolio Management Tools, Forrester.

Light, M. & Stang, D.B (2007). Magic Quadrant for IT Project and Portfolio Management 2007, RAS Core Research Note G00149082, Gartner.

Jeffery, M & Leliveld, I. (2004). Best Practises in IT Portfolio Management, MIT Sloan Management Review, Spring 2004, pp.41-49. Controversy of Project Portfolio Management Available from: http://en.wikipedia.org/wiki/Project_portfolio_management#cite_note-0 [Accessed 12 November 2008].

Harder, P. (2002) A conversations with Dr Harry Markowitz. Available from: http://www.gantthead.com/content/articles/119883.cfm [Accessed 8 August 2008].

Archer, N.P & Ghasemzadeh, F. (1996). Project Portfolio Selection Techniques: A review and suggested integration. Innovation Research working group working paper No. 46 MacMaster University.

De Reyck, B., Degraeve, Z. & Vandenborre, R. (2006). Project options valuation with net present value and decision tree analysis, European Journal of Operational Research Management, Vol 184 (2008), pp. 341-355.

Fabrycky, W.J and Moolman, C.G (1997). A capital budgeting model based on the project portfolio approach: avoiding cash flows per project. The Engineering Economist. Available from: http://findarticles.com/p/articles/mi_qa3621/is_199701/ai_n8743633/pg_1?tag=artBody;col1 [Accessed 8 December 2008].

Project Management Institute (2004). A guide to the Project Management Body of Knowledge, Third Edition. Project Management Institute, Newtown Square, PA.

Monte Carol Simulation Software. Available from: http://www.primavera. com/products/pertmaster/lit.asp [Accessed 8 December 2008].

Monte Carol Simulation Software. Available from: http://www.palisade. com/riskproject/default.asp [Accessed 8 December 2008]. Aberdeen University (2006-2009). MSc in Project Management course work.

Pennypacker, J.S & Sepate,
P., Integrating Project Portfolio
Management with Project Management
Practices to Deliver Competitive
advantage, In Project Portfolio
Management (2005): A Practical
Guide to Selecting Projects, Managing
Portfolios, and Maximising benefits,
Jossey-Bass.

