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# Project Portfolio and Program Management Issues in Enterprise Implementation

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MASTER THESIS

# Project Portfolio and Program Management Issues in Enterprise Implementation

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## ΔΗΛΩΣΗ:

Δηλώνω υπεύθυνα ότι:

Η εργασία αυτή είναι πρωτότυπη και εκπονήθηκε αποκλειστικά και μόνο για την απόκτηση του συγκεκριμένου μεταπτυχιακού τίτλου.

Τα πνευματικά δικαιώματα χρησιμοποίησης του μη πρωτότυπου υλικού ΜΔΕ ανήκουν στο μεταπτυχιακό φοιτητή και το επιβλέπον μέλος ΔΕΠ εις ολόκληρο, δηλαδή εκάτερος μπορεί να κάνει χρήση αυτών χωρίς τη συναίνεση άλλου. Τα πνευματικά δικαιώματα χρησιμοποίησης του πρωτότυπου μέρους ΜΔΕ ανήκουν στον μεταπτυχιακό φοιτητή και τον επιβλέποντα από κοινού, δηλαδή δεν μπορεί ο ένας από τους δύο να κάνει χρήση αυτού χωρίς τη συναίνεση του άλλου. Κατ' εξαίρεση, επιτρέπεται η δημοσίευση του πρωτότυπου μέρους της διπλωματικής εργασίας σε επιστημονικό περιοδικό ή πρακτικά συνεδρίου από τον ένα εκ των δύο, με την προϋπόθεση ότι αναφέρονται τα ονόματα και των δύο (ή των τριών σε περίπτωση συνεπιβλέποντα) ως συν-συγγραφέων.

Στην περίπτωση αυτή προηγείται γραπτή ενημέρωση του μη συμμετέχοντα στη συγγραφή του επιστημονικού άρθρου. Δεν επιτρέπεται η κατά οποιοδήποτε τρόπο δημοσιοποίηση υλικού το οποίο έχει δηλωθεί εγγράφως ως απόρρητο.

Ο μεταπτυχιακός φοιτητής

Δημητριάδης Χρήστος

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(Υπογραφή)

## ***Abstract in English***

This thesis presents and analyzes the link between an organization's strategy and its projects/programs and portfolio. The answer lies into Organizational Project Management models that aim to effectively and constantly improve the business processes. Before proceeding to the adoption of a certain model like the Organizational Project Management Maturity Model (OPM3) mainly used for an assessment in later chapters, several steps are needed. An assessment regarding change readiness is needed to measure the levels of acceptance within the organization. All systems, processes and people must be willing and ready to accept the transition to a desired future state that will increase their total maturity.

The next step is a gap analysis to identify and address current gaps in relation to the future organizational state. Creating recommendations to amend this state is the main part of the OPM analysis by utilizing a roadmap of improvement. A number of initiatives are created that call for prioritization and implementation to fix the gaps and sustain continuous improvement in desired aspects.

Organizational enablers consisting of several best practices are presented thoroughly and aim to assist the organization with the maturity assessment and initiative implementation.

A company from the oil and gas sector is used as an example case to assess, create and designate a roadmap consisting of 8 initiatives that will help it in achieving strategy alignment and benefits realization.

## ***Abstract in Greek***

Αυτή η εργασία παρουσιάζει και αναλύει τη σύνδεση μεταξύ της στρατηγικής που ακολουθεί ένας οργανισμός και των αντίστοιχων έργων/προγραμμάτων και χαρτοφυλακίων του. Η λύση έγκειται στο Οργανωσιακή Διοίκηση Έργων και τα αντίστοιχα μοντέλα της που έχουν ως στόχο την συνεχή και αποτελεσματική βελτίωση των επιχειρησιακών διεργασιών. Προτού ωστόσο να πραγματοποιηθεί η υιοθέτηση ενός συγκεκριμένου μοντέλου, όπως του OPM3 που θα αναλυθεί στα προσεχή κεφάλαια, αρκετά βήματα είναι απαραίτητα. Μία αξιολόγηση της ετοιμότητας στην αλλαγή απαιτείται για τη μέτρηση των επιπέδων αποδοχής μέσα σε έναν οργανισμό. Όλα τα συστήματα, οι διεργασίες και το ανθρώπινο δυναμικό πρέπει να είναι σε θέση να αποδεχτούν τη μετάβαση σε μια επιθυμητή μελλοντική κατάσταση που θα αυξήσει τη συνολική ωριμότητά τους.

Το επόμενο βήμα είναι η gap analysis για τον εντοπισμό και διευθέτηση των κενών μεταξύ της υπάρχουσας και της μελλοντικής κατάστασης. Η δημιουργία προτάσεων για τη διόρθωση της κατάστασης αποτελεί το κύριο μέρος της OPM analysis με τη χρήση ενός οδικού χάρτη βελτίωσης. Ένας αριθμός πρωτοβουλιών δημιουργείται που απαιτούν κατηγοριοποίηση με προτεραιότητα και εφαρμογή για συνεχή βελτίωση και ανάπτυξη.

Οι οργανωσιακοί ενεργοποιητές που αποτελούν βέλτιστες πρακτικές θα παρουσιαστούν εκτενώς και θα συμβάλλουν στην αξιολόγηση ωριμότητας και εφαρμογή των πρωτοβουλιών.

Μια εταιρεία που δραστηριοποιείται στον τομέα του πετρελαίου και αερίου με διάφορα έργα και προγράμματα στο ενεργητικό της, χρησιμοποιείται σαν παράδειγμα για την αξιολόγηση και δημιουργία ενός οδικού χάρτη 8 πρωτοβουλιών που θα συνεισφέρουν στην ευθυγράμμιση της στρατηγικής της και την υλοποίηση των συνολικών οφελών της.

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I would like to express my sincere gratitude to all the people who helped me undertake this thesis and supported me during my postgraduate studies.

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Lastly, I would like to thank my family and all the friends who stand beside me in every attempt to pursue my dreams and eventually realize them.

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# ***1. Introduction***

## ***1.1. General background***

Project management dates back to 2570BC when the Great Pyramid of Giza was completed, initiating an era of monumental creations. Relevant projects such as the construction of the Great Wall in China (208BC) and the Hoover Dam (1937) project in Nevada, stir up questions even today due to their unproven techniques and difficulty of realization at such early dates (Haughey, 2014). Project management has since become recognized as temporary endeavors aiming to deliver unique creations, products, systems, product improvements, process building, service initiation, software developments and many more. The Concorde aircraft, the Apollo space program, the English Channel tunnel, Jubail Industrial city, Etihad Rail are only a small fragment of modern landmarks which came to life due to project management implementation (Morris & Hough, 1987; Packendorff, 1995; Shenhar & Dvir, 2007; Bredillet, 2007; Morris, 2013; Newcomb, 2015; Vaskino, 2015).

Successful attempts in managing projects and delivering desired results are far from reality though, since the high percentages of failures and delays in recent projects are obvious. Project management practitioners have established associations, seeking aid in addressing the challenges faced by the alarmingly low rates of project success. The International Project Management Association (IPMA) and Project Management Institute (PMI) are such examples. The distribution and collection of knowledge regarding management of projects, has been further enhanced with the publication of popular volumes such as A guide to the project management body of knowledge (PMBOK Guide) (Duncan, 1996; PMI, 2000; 2004; 2008; 2013; 2017). The referred document continually evolves even today and is broadly considered as the main tool of support and guidance for all project managers regardless of their level of experience in the relevant field.

A collection of tools, methods, experience, techniques along with best practices and lessons learned from previous project attempts, constitute the main inputs towards optimizing project performance and delivering predictable results. Many organizations participating in projects and employing project management in their development, operation, and maintenance are compiling collections of project management knowledge and experience into project management methodologies (Wells, 2012) by setting up structures and populating them with contents intended to enhance project management in areas in which the organizations face challenges. Such collections of knowledge and experience, developed and operated by organizations for organization-specific reasons, are here referred to as organizational project management methodologies. The expectations and demands set upon projects and project management justifies the increasing use of these methodologies by modern organizations (Vaskino, 2015).

While Powel and Young (2004), Kerzner (2006), Hill (2008) and Kerzner (2013) have contributed in describing project management methodologies, research regarding the organizational use of project management is meager. Attempts have been made during the years by authors such as White and Patton (1990), Milosevic (1996), Cormier (2001), White and Fortune (2002), Milosevic and Patanakul (2005), Cimcil, Williams, Thompson, and Hodgson (2006), Patel (2009), and Aziz (2015) in describing the organizational project management (OPM) context and methodologies, but with unclear and incomplete direction. Recent papers including Wells (2012; 2013) and Joslin and Muller (2014) provide a significant source for information and study for understanding how project management is implemented in specific contexts through OPM methodologies. Chapter 2 will provide detailed information of these methodologies and their evolution through time. Figure 1 below depicts a timeline of important milestone events in the history of project management.

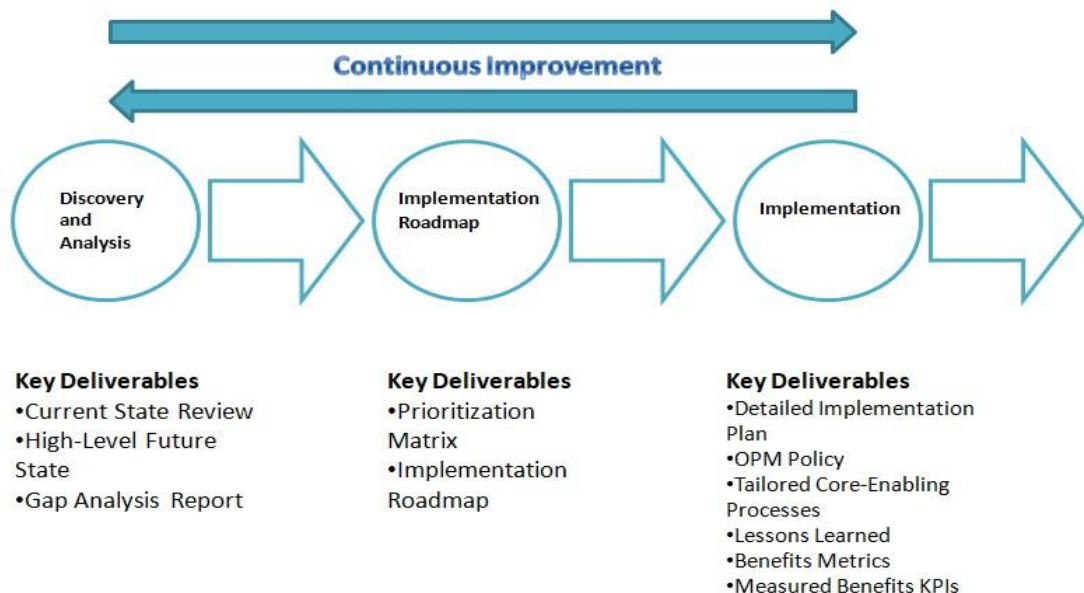


**Figure 1:** Evolution story of project management (www.pmi.org)

## 1.2 Aim of the thesis

The aim of this thesis is to expand upon the: Implementing Organizational Project Management: a practice guide (PMI, 2014), by presenting and analyzing the steps leading to a successful implementation of an Organizational Project Management (OPM) Framework. Project portfolio and program management issues faced by large enterprises and organizations are linked through organizational project management practices and methodologies within its context.

The alignment of projects, programs and portfolios of an organization with its strategic objectives, is further facilitated with the application of change management practices. A change readiness assessment, including key success factors will be analyzed before attempting to proceed to the main part of implementing the OPM initiative. Following the readiness assessment, a general overview will sum up the steps an organization should follow and tailor, so as to achieve the alignment with its portfolio mix. The second step of the OPM implementation framework shown in figure 2, (Implementation Roadmap) comprises the main objective of this thesis since later chapters will revolve around the identification and prioritization of initiatives embedded into a chronological roadmap.



**Figure 2:** OPM Implementation Framework (adopted from PMI)

Furthermore, introduction to the organizational project maturity model (OPM3) will enable the use of structural, technological, cultural and human resource practices which transform into best practices with the leverage of organizational enablers (OE). More specifically, in an OPM context 4 out of the total 18 groups of OEs are commonly known as 'core-enabling' processes that facilitate the continuous improvement, sustainability and realization of strategic objectives.

The extrapolation of results and benefits obtained from the implementation of an OPM initiative will conclude the scope of this thesis.

### ***1.3 Expected results and deliverables***

The development of a coherent yet flexible roadmap of initiatives that takes into account change management concerns and practices in large organizations, is the main expected deliverable of this OPM analysis. Chosen initiatives will be first categorized and prioritized in a matrix based on their difficulty of implementation and strategic importance. Prioritization will be made through use of weighting criteria for grading the initiatives with the aid of Microsoft Excel sheets and interviews for determining maturity level of core-enabling processes and organizational enablers. The result will be embedded in the roadmap described above by taking into consideration a number of factors such as strategic importance, priority, organizational resources and collaborative opportunities.

Change management activities will trigger the start of the implementation roadmap through assessing the readiness of an organization, as well including the critical success factors in the execution of organizational project management. Several survey questions adopted from the *Implementing Organizational Project Management: a practice guide* (PMI, 2014) for enhancing the assessment, will be included in the Appendix A1 of this thesis.

An extensive list of the 18 groups of the OEs will also be featured in the Appendix A2 alongside with the description of the best practices derived from the 4 core-enabling processes of an OPM context. (Strategic Alignment, Organizational Project Management Methodology, Governance, Competency Management)

### ***1.4 Thesis structure***

This thesis comprises several prologues, seven main chapters, a list of references and an extensive appendix. Analytically:



The prologues include abstracts in English and Greek, acknowledgements and a list of figures and tables, appearing in thesis.

Chapter 1 includes a general introduction regarding project management, the aim of this thesis and its expected results/deliverables, thesis structure, key terms and definitions and delimitations of scope regarding this work.

Chapter 2 features a small introduction regarding main sources and method used to create the literature review of organizational project management methodologies analyzed in the second part of chapter 2.

Chapter 3 sets the base for the OPM implementation framework by linking organizational project management context with change management activities. Assessment of change readiness is defined and the key factors for change management in the execution of OPM are analyzed.

Chapter 4 presents a general overview of the steps needed by an organization to implement and improve an OPM program.

Chapter 5 describes the use of the four core-enabling processes in an OPM context and their link to an Organizational Project Management Maturity Model (OPM3).

*Chapter 6* identifies and prioritizes a set of initiatives based on weighting criteria analyzed in Microsoft Office Excel sheets and further plots them into a prioritization matrix. Afterwards, an OPM implementation roadmap example is presented.

## ***1.5 Key terms and definitions***

*Project* refers to a temporary endeavor undertaken by an organizational unit or multiple ones, in order to create an agreed deliverable. The attempt results into a unique product, service or result, with the aim of its completion to be on time, within scope and without exceeding a certain budget.

*Project management* is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements. (Project Management Institute, 2013)

*Program* refers to a group of projects, subprograms and program activities, which share a common and coordinated way of management, in order to obtain benefits not obtainable from managing them individually. (Project Management Institute, 2006)

*Portfolio* refers to a component collection of projects, programs, or operations managed as a group to achieve strategic objectives. (Project Management Institute, 2013)

*Change management* is a comprehensive, cyclic, and structured approach for transitioning individuals, groups and organizations from a current state to a future state with intended business benefits. (Project Management Institute, 2013)

*Organizational project management (OPM)*: OPM is a strategy execution framework utilizing portfolio, program, and project management as well as organizational-enabling practices to consistently and predictably deliver organizational strategy leading to better performance, better results, and a competitive advantage. (Project Management Institute, 2013)

*Organizational project management methodology* refers to a system of practices, techniques, procedures and rules used by those who perform portfolio, program, and project work to meet requirements and deliver benefits. (Project Management Institute, 2013)

*Organizational project management maturity model (OPM3)* refers to a Framework that defines knowledge, assessment, and improvement processes, based on Best Practices and Capabilities, in order to help measure and mature their project, program and portfolio management practices. (Project Management Institute, 2013)

*Organizational enablers (OE)* refer to a series of practices leveraged to support and sustain the implementation of an OPM framework within the organizational environment. The support translates into a series of best practices that have been categorized into 18 groups of 4 different OE types: Structural, Cultural, Technological and Human Resource.

*Change readiness and Change readiness assessment* refer to an optimal state of acceptance demonstrated by an organization. The change readiness assessment measures the reality of the current organization compared to its future state. (Project Management Institute, 2013)

*Gap analysis* bridges the current performance of the organization with the desired future state and is used as an input in an OPM program to identify and prioritize selected initiatives.

*Implementation Roadmap* is a graphical representation of the initiatives implemented in an OPM program. The required initiatives for addressing an organization's gap towards its future state are presented in chronological order alongside with short/long- term milestones.

*Continuous improvement* refers to a constant and sustainable implementation of OPM framework within an organization.

*Core-enabling processes* aim to facilitate an organization's ability to realize and successfully deliver its strategic objectives through OPM.

*Tailored OPM methodology* is a custom-made and adaptive methodology created by an organization to effectively manage different types of projects, programs and portfolios.

## **1.6. Scope Delimitation**

This thesis attempts to link and align organizational strategy and objectives with the mix of projects and programs included in the portfolio of an organization or enterprise. The answer lies into the adoption of a Framework known as OPM which is presented and analyzed within the scope of this work. The second step of implementing the aforementioned Framework constitutes the main goal and analysis by using a number of initiatives in combination with a series of best practices. The first step referred as Discovery and Analysis will be thoroughly discussed, though its outputs from gap analysis needed for the initiatives will not be extensive in this scope. As far as implementation of the OPM is concerned, it entails a detailed implementation plan which includes dates, constraints, risks associated, resources, requirements KPIs and detailed components of the initiatives, only partially examined in this thesis.

Change management concerns will be mainly revolved around examining the level of change readiness acceptance needed in order to successfully prepare the organization for an OPM implementation. The desired readiness will be assessed from two perspectives:

- Organizational systems and structures improvement in order to support the level of change and
- People and culture along with physical and psychological reasons for supporting or resisting change (Ozmen, 2013)

Change management in the project, program or portfolio context will not be examined, though is of high importance to the alignment with OPM.

The core-enabling processes that facilitate the use of OPM will be analyzed but there will not be a detailed description of the processes of the OPM3 that lead to the creation of best practices.

## ***2. Literature review***

### ***2.1 Introduction***

This chapter contains an extensive literature review relevant to the organizational project management context and theoretical framework of this thesis. The selected papers used for this analysis mainly originate from academic project management journals such as International Journal of Project Management (IJPM), Project Management Journal (PMJ) and International Journal of Managing Projects in Business (IJMPB). The first phase of this review includes collection of qualitative and quantitative data regarding project and organizational project methodologies, with the next phase focusing on reviewing selected papers and presenting results.

### ***2.2 Organizational Project Management (OPM) Methodologies***

White and Patton (1990) described a private commercial organization facing a state of internal chaos, and focused on how it was able to effectively manage it and reverse the competitive decline by using a concurrent project management methodology which was based on interdisciplinary project team approach, empowering of project participants, and making use of available synergy benefits.

Use of PRINCE (Projects IN Controlled Environments) methodology in a library computer system replacement project at the University of Wales Bangor was described by Lewis (1995) and suggested the use of project management techniques at higher education. He emphasized on the potential cost repercussion in case of project failure by encouraging the adoption of project management methods despite their difficult learning embracement.

Conroy and Soltan (1997) found that contemporary project management tools were unable to provide sufficient decision making and conflict handling support and thus created a project management methodology aimed to assist project managers with multi-disciplinary challenges faced.

Clarke (1999) found in structured project management methodologies a potential way to enhance projects and remarked that many organizations consider project management methodologies organizational reporting tools.

Cormier (2001) proposed building of organizational project management methodologies by establishing tool, templates and techniques aligned with organizational policies. The creation of a common project lexicon, project structures, setting of roles and responsibilities, tying project management to organizational infrastructure, culture, and processes; and building credibility with stakeholders would bring upon benefits to the organization.

White and Fortune (2002) conducted an investigation in order to collect information regarding use of different methodologies, tools and techniques. The majority of the respondents (54,2%) used an in-house project method, 15,6% used PRINCE/PRINCE2 and 2,1% used an in-house methodology similar to PRINCE. 24% of PRINCE or PRINCE 2 users and 14% of in-house project management methodology users had experienced limitations regarding the methodology. Amongst the most reported limitations were: inadequacy for complex projects, difficulty in modeling real world, too heavy in documentation and too time consuming.

Müller (2003) investigated IT project manager communications, and suggested "... project managers should aim for stable communication practices with their customers, achieved through focus on clearly understood project management methodologies..." (p. 353).

Powell and Young (2004) distinguished generic project manager methodologies from tailored organizational project management methodologies by noting: a generic project management methodology "... spells out the steps to be followed for the development and implementation of a project" (p.952) while an organizational project management methodology...

... ensures that people and systems can speak a common language across multiple-project enterprise setting. It must ensure that the way in which projects are carried out fits the context and the culture of the organization. It is created and therefore 'owned' by the organization, and it focuses on its specific needs – sector, culture, size, and so on. (Powell and Young, 2004, p.953)

Furthermore, project management methodologies are said to include practices, methods, procedures, processes and rules.

Metaxiotis, Zafeiropoulos, Nikolinakou and Psarras (2005) presented a goal-directed project management methodology for Enterprise Resource Planning (ERP) project use, highlighting the methodology ability to enhance project scheduling, budgeting and scope management. The results from using the methodology include implementation and optimal adaptation of the ERP system and encourage building similar project management methodologies for enhancing ERP project performance.

Cimcil, Williams, Thomas and Hodgson (2006) considered project management methodologies "... universally applicable as a neat and orderly solution to implementing complex organizational initiatives" (p.681) and argued for a new

research approach which would take a serious look into practitioners' experiences of projects. The main reasons for project overruns were acknowledged (complexity, uncertainty and schedule constraints) and agile and lean aspects commonly integrated into IT project management were noted.

Kerzner (2006) claimed that a world-class project management methodology is indispensable for an organization aiming to be a global leader. Main points of such a methodology are listed below:

- Maximum of six life-cycle phases
- Life-cycle phases overlap
- End-of-phase gates reviews
- Integrations with other processes
- Continuous improvement
- Customer oriented
- Companywide acceptance
- Use of levels (level3 work breakdown structure (WBS) )
- Critical path scheduling
- Simplistic, standard bar chart reporting (standard software)
- Minimization of paperwork (Kerzner,2006,p.144)

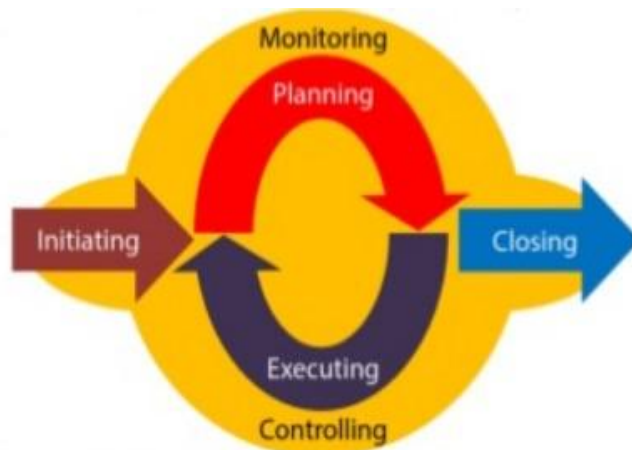
Hobbs and Aubry (2007) found 76% of the 500 Project Management Offices (PMOs) participating in their research involved in the development and implementation of a project management methodology: "The PMO with these functions is often in the role of promoting the use of the methodology, the development of competencies, and project management in general. This group thus constitutes a coherent set of functions that reinforce one another." (p.82)

Jaafari (2007) studied the health of large projects and programs towards their targets, noting sick endeavors with no systemic approach proceed in a disorganized way, whereas healthy endeavors with systemic structures, meaning standards and project management methodologies, proceed in an organized manner.

Rehman and Hussain (2007) compared five project management methodologies, - PRINCE2, Rational Unified Programming, Agile Development Methods, Microsoft Solution Framework, and Information Technology Infrastructure Library- against PMBOK Guide (PMI, 2004) and noted expert opinion, previous working experience, government regulations, stakeholder and client preferences and location were the main methodology selection criteria. Main PRINCE2 and PMBOK differences in processes are depicted in Figures 3 and 4.



**Figure 3:** PRINCE2 Processes ([www.scilsng.com](http://www.scilsng.com))



**Figure 4:** PMBOK Processes ([www.slideshare.net](http://www.slideshare.net))

Schoenberg and Ra (2007) described adopting a project management methodology for an airline, and reported their procedure toward a PMBOK Guide (PMI, 2004) – based initiating and planning methodology as a vehicle for increasing chances of project success and reaching strategic goals.

Smyth and Morris (2007) defined methodology as “... a system about *how* we go about something” (p.424) and noted “... we need to recognize that recommendations based on these insights [regarding general patterns of managing projects] cannot be applied mechanically with the expectation of automatic outcomes: applicability is contingent upon *context*” (p.424). They also noted the PMBOK Guides “... reflect an essentially ‘execution’ view of the discipline,

completely omitting reference to the crucial definitional stages” (p.424). This is the case with most public-domain and commercial project management methodologies.

Hill (2008) defined a project management methodology ...

... a standard, repeatable process to guide project performance from concept to completion.

It introduces and applies generally accepted project management techniques and practices that fit within the culture and business needs of the relevant organization. It includes identification of the roles and responsibilities associated with each process step, as well as specification of the input and output for the prescribed sequence of process steps. In essence, a project management methodology conveys to project managers and project team members what to do and how to do it ... The specification of standards and practices is what differentiates the project management methodology from a technical methodology. The project management methodology is a set of processes that can be applied to all types of projects in the relevant organization ... Ideally; the organization’s project management methodology will be constructed to integrate one or more technical processes for seamless use. (Hill, 2008, p. 3 ... 4)

Young and Jordan (2008) investigated the effects of top management support towards project success, and found project management methodologies effective for project risk management and resource management purposes however, not the most important factors that contribute to project success. They argued “Project managers must recognize the limitations of project methodologies and allow projects to focus on project success rather than project management success even though they cannot be accountable for the realization of outcomes/benefits” (p.721)

Crawford and Helm (2009) found project management methodologies “... streamlining processes and assisting time-constrained staff in doing their work, and in all cases there was recognition, however reluctant, of the accountability and transparency that the systems provided...” (p.85). Investigating PRINCE2 use in IT projects, Patel (2009) argued “The increasing role of project management methodologies in managing large or small projects remains a key challenge for many organizations” (p.1387). Reporting a general feeling PRINCE2 provides expected benefits regardless of the challenges with its methodological clarity and with IT use of PRINCE2, Patel mentioned advancing communications, coordinating of activities and resources, enhancing scheduling, budgeting and resources, improving control of quality and progress, and optimizing the business case as the most common reasons IT organizations were using a project management methodology.

Zwikael and Smyrk (2009) criticized project management methodologies for emphasizing output delivery as opposed to benefits realization, and suggested an inputs-transferred-into-outcomes type project management methodology to complement the traditional input-process-output process models.



Zwikael and Smyrk argued “This view indicates that meeting objectives, realizing benefits and effecting change represent the real rationale for a project” (p.634).

Aubry, Müller, Hoobs and Blomquist (2010) investigated project management offices, and identified “Degree to which methods are actually followed” (p.770) as key data regarding an organizational project management methodology.

Labuschagne and Steyn (2010) investigated project management practices in South Africa and found that project management methodologies enhance scheduling, budgeting and quality measures, and that a project management methodology enhanced consistency of project results, however, achieving a successful project management methodology requires sufficient project management knowledge and maturity from the focal organization.

Massis (2010) investigated using project management in library endeavors, opening his paper “The project management methodology can provide a library with a tool it can use to deliver a project using an effective and efficient technique so that the blueprint for success can be developed, followed and realized” (p. 526), considering project management a methodology per se. This point of view is not widely agreed to, as project management is not usually referred to as methodology.

Kulvik, Poskela and Turkulainen (2011) investigated project management office role in innovation front end, and referred to the Hill (2008) list of PMO tasks, the first one being “... practice management, including the subtasks of project management methodology, project tools, standards and metrics, and project knowledge management ...” (p. 413).

Recognizing the increasing use of organizational project management methodologies in enhancing project efficiency and effectiveness, Wells (2012) identified in her study of four ICT organizations operating in UK the capability organizational project management methodologies have to enable control and monitoring, to provide standardization and unified language, to ensure winning proposal bids and contracts and to guide and direct managers with uncertainty and unknown.

Referring to the 2008 and 2010 CHAOS reports by the Standish Group, Wells (2012) argued ...

Since 1999, to date PMMs are firmly placed as one of the top ten contributing factors toward project failure, according to the Standish Group (CHAOS, 2010). In the 2008 version of the CHAOS report, it was stated that, although improvements in the rate of project success (35%) are obtained, the rate of failure (19%), and challenged (46%) project performance remain at levels that deserve further attention. (Wells, 2012, p. 3)

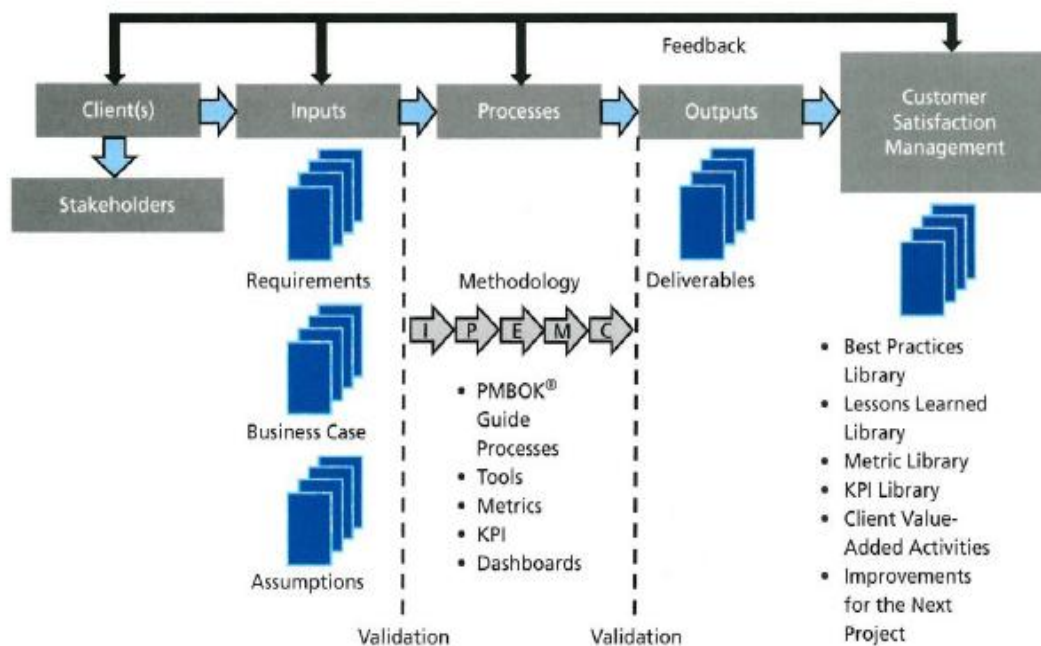
... and found misalignment between expected strategic benefits and reported operational benefits from project management methodologies, and indication

project management methodology users' proficiency, responsibility, and attitude play a key role in determining how many of the expected benefits are achieved. Noting 47.9 % of her respondents failed to see any benefit from an organizational project management methodology, Wells (2012) concluded ...

... PMMs are found to be useful to some extent where they replace and compensate for the absence of tacit knowledge in a project, helping managers with less experience and knowledge of project management ... Most project managers perceived the prime purpose of PMM to be management, control, and compliance rather than support and guidance. The investigation on this aspect reveals that 47.9% of project managers viewed PMMs as non-beneficial to their projects and claimed that using PMMs hinders their project delivery. (Wells, 2012, p. 19)

Kerzner (2013) described project management methodologies in private sector and listed items which influence project management methodology design, including company strategy, project complexity, management faith in project management, project budget, expected project life cycle, technology, customers, training needs, and supporting tools. Kerzner defined project management framework as "The individual segments, principles, pieces, or components of the processes needed to complete a project. This can include forms, guidelines, checklists, and templates" (p. 17) and a project management methodology as "The orderly structuring or grouping of the segments or framework elements. This can appear as policies, procedures, or guidelines" (p. 17) and differentiating between the two, felt organizations competing in the global marketplace were increasingly turning from project management methodologies toward project management frameworks.

Kerzner's view of a project management methodology is shown in Figure 5.



**Figure 5:** Project management methodology (Kerzner, 2013, p.19)

Wells (2013) investigated the role organizational project management methodologies play in successful management of Information Technology (IT) and Information System (IS) projects in private and public sectors, and looked into how and why certain methodology types are selected to be used. Defining project management methodology “A high level description of the way in which projects are to be managed which may include methods, processes, actions, practices, roles, procedures and rules” (p.3) she identified three organizational project management methodology types – traditional, structured, and agile – and suggested there are too many different project types for single methodology to cover them all. Recognizing the gap between research proposing for the best-fitting methodology to be used, and practical motives to use a popular methodology supported by training program, Wells (2013) defined type-agnostic as ...

... referring to something that is generalised so that it is interoperable among various systems. The term can refer not only to software and hardware, but also to business and management processes and practice. A Greek word prefixed with a... meaning without and Gnosis meaning knowledge. .... Hence Type Agnostic here implies with no particular type in mind. (Wells, 2013, p. 3)  
 ... and noted ...

... the selection and implementation of PMMs [project management methodologies]

is usually mandated via strategic organisational directives ... as a result of this top-down approach PMMs are selected and applied in a type-agnostic and context-free manner, which leads to limitations and shortcoming in the value of using PMMs for effective project delivery. (Wells, 2013, p. 2)

Young and Poon (2013) investigated the role of top management support for project success, and realized traditional project management approaches – project management methodologies, user involvement, and capable project staff – may be taking focus off of top management support. Investigating the impact project environments have on the connection between project methodologies and project success, Joslin and Müller (2014) found environmental factors influence how and to what extent project methodologies are able enhance the likelihood of project success: “PMOs will understand the need to customize their organization’s project methodology(s) according to project type and environmental context.” (p. 1).

Aziz (2015) recognized the changes organizational project management methodology deployments bring. He claimed program management is the most efficient solution to manage deployment, and suggested an approach for deploying, integrating, and sustaining project management methodologies.

The literature review of previous section presented project management methodologies, knowledge and experience as a means to propel project efficiency, effectiveness and increase project success percentages in organizations. The aim was to instruct project managers and stakeholders on the basic processes regarding initiation, planning, execution, controlling and monitoring and closing of project phases.

Regarding the high-level view of an organization, however, implementation of organizational frameworks and disciplines is essential for aligning the portfolio of projects and programs with the organizational strategy. An alignment with the vision and business plans of the enterprise will entail the project efficiency and success, demanded by the stakeholders and sponsors of correspondent programs.

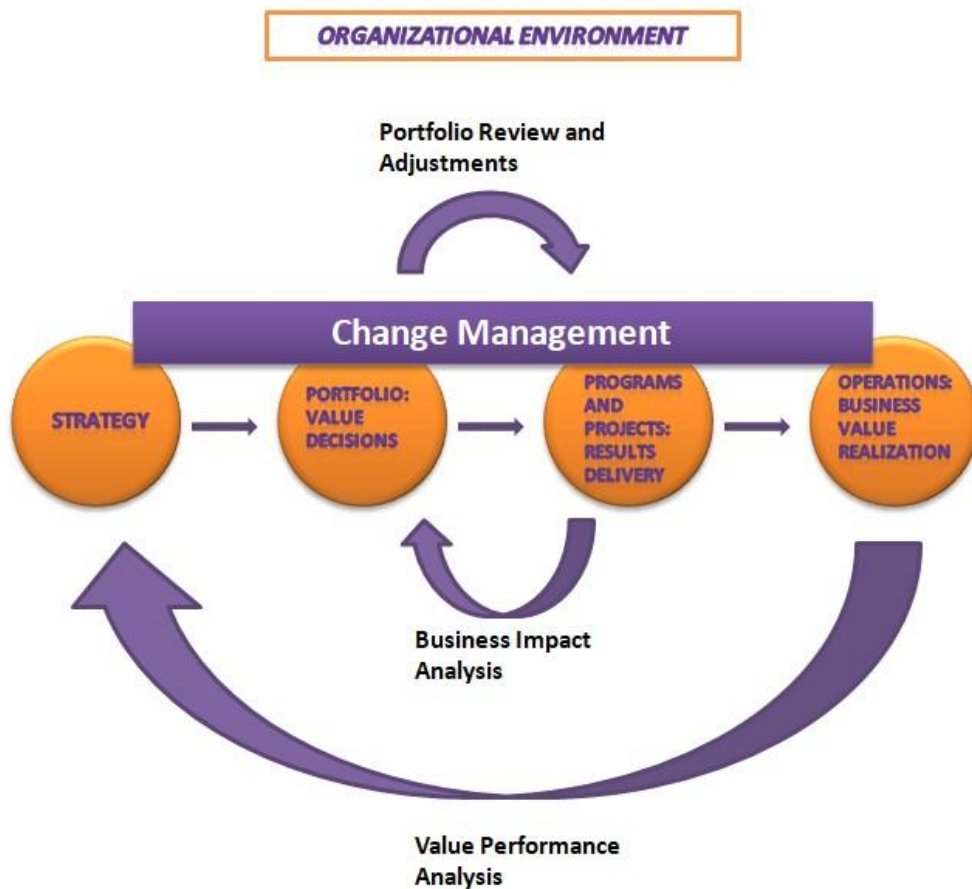


**Figure 6:** OPM Facilitates Efficiency between Project Management and Business Management Practices (adopted from PMI)

### ***3. Assessing readiness for initiatives - Change management in an OPM context***

#### ***3.1 Setting the base for the OPM program***

The launch of an OPM initiative within an organization requires a thorough assessment to determine the readiness of all systems, people and culture towards a new state. The strategy and vision should be aligned with the projects, programs and portfolio in order to ensure a sustainable competitive advantage and a continuous improvement. Change management activities will assist in addressing the gap between the current and the desired future state so as to deliver a successful OPM implementation. Figure 7 shows how organizations successfully deliver expected results and value through an organizational project management framework by utilizing change management practices.



**Figure 7:** Driving Achievement with Change Management and OPM (adopted from PMI)

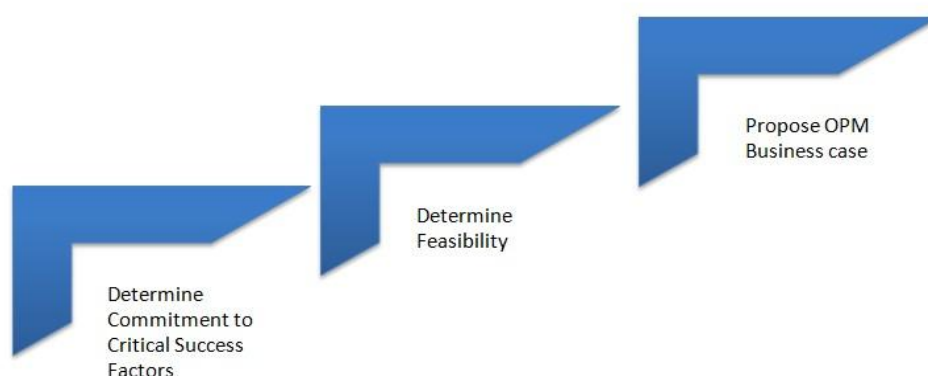
Change readiness as aforementioned in the introduction of this thesis, refers to an optimal state of acceptance that an organization should demonstrate when receiving change. The impact of change activities implemented in order to proceed to an OPM program will be assessed from two perspectives:

- Organizational systems and structures improvement in order to support the level of change and
- People and culture along with physical and psychological reasons for supporting or resisting change (Ozmen, 2013)

A number of additional elements should be also taken into consideration regarding an organization's preparedness for change before proceeding to an assessment. Examples of these elements along with the form an assessment takes can be found in the Appendix A1 of this thesis with a handful of questions aimed at an organizational self-assessment.

### ***3.2 Steps for assessing change readiness***

The three basic steps for assessing readiness within an organizational context (figure 8) are described in this section with critical success factors of step 1 further elaborated through change management concerns. The organization should not skip a step if it has yet to encounter a means for cultivating each corresponding capability. Analytically:



**Figure 8:** Basic Steps for Assessing Readiness (adopted from PMI)

## **Step 1: Determine Commitment to Critical Success Factors**

### **3.2.1 Sustained Leadership**

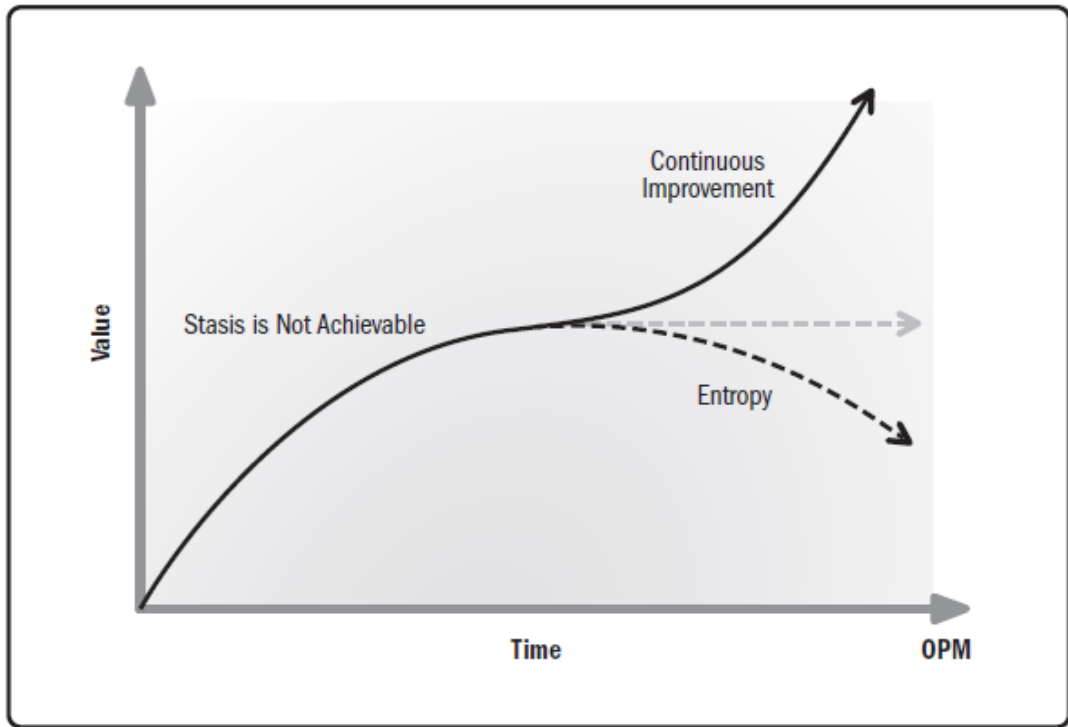
A fully committed, sustained and high-level leadership is required during and after the OPM implementation program since it is an ongoing and difficult initiative. Starting from the executive level, the organization should support and provide management buy-in that will lead to OPM success. One of the greatest challenges the implementation team has to deal with is changing structures and the organizational culture, especially if the maturity is not within accepted levels. Maturity model will be explained later in chapter 5. The selection of the team members, who will be held accountable for administering and monitoring OPM attempt, should possess the necessary and sufficient knowledge regarding organizational strategy and processes.

Furthermore, stewardship in form of overseeing and preserving initiatives is considered an important factor for success. For this reason, leaders and OPM stakeholders, centers of excellence as well as Portfolio or Program Management Offices provide good examples of the program's owners.

### **3.2.2 Continuous Improvement**

Implementation of an initiative is not solely enough to provide a sustainable advantage. Thus, continuous efforts to improve and evolve are indispensable for every organization. Research shows the difficulties revolving around sustaining the value of any implementation (Thomas and Mullaly, 2008). The main reason lies into the false perception of sponsors or executives that an OPM program can be managed as a single project. Thus they tend to ignore the perpetual benefits it provides through its life cycle. The decisions taken at a crucial point during time of implementation can lead to continuous improvement or regression to a lower level of competency. Stasis is never achievable for the organization since OPM always changes through time. Better explanation of the OPM continuous improvement is depicted in figure 9.





**Figure 9:** OPM Continuous Improvement (Implementing Organizational Project Management: a practice guide, PMI, p. 13)

In order for the organization to sustain the benefits derived from an OPM program it requires funding, sustained leadership and continuous improvement focused on the implementation and outcomes. An initial assessment of the current state is important to identify the gaps towards desired vision. It is also advised to include periodic reassessments for measuring progress and adjusting the program in case of new organizational concerns making their appearance.

### 3.2.3 Organizational Change Management

In order to understand and embrace the benefits of an OPM program, the organization needs to adapt and abide by the change this initiative brings. The successful implementation will require the existence of organizational management capabilities since the change expands in all aspects of the organization. Examples of change management aspects to consider are the

following, with an extensive analysis of critical key success factors being covered in section 3.3. :

- Inclusion of influential stakeholders to help advocate the change
- Lessons learned from existing projects or programs that allow integration of existing project practitioners into the OPM program
- Considering enthusiasm through the stages of the process and ensuring the creation of an ideal future environment
- Development of a change management plan, and a communications management plan in order to establish buy-in from leadership and sponsorship

### **Step 2: Determine feasibility**

An evaluation of the benefits of OPM versus the cost is needed in order to determine feasibility of further implementing and promoting the program. Indicative questions regarding this evaluation are:

- Why is change needed?
- Is OPM the solution and how long is it estimated to take?
- What are the expected benefits and what will be considered as a successful implementation?
- How much is the expected cost and what additional resources might be needed?
- Are there any implications regarding parallel development of other initiatives?
- How long is the OPM expected to last?
- Are the necessary capabilities in place in order to promote the implementation?

### **3.2.4 Share OPM Information**

Communication among stakeholders during all stages of development is crucial for the OPM success. Leadership has the responsibility of conducting sufficient training so as to ensure unassailable dissemination of information throughout the organization. Topics of interest may include but are not limited to:

- Explanation of OPM and its benefits for the organization
- Description of OPM and its relation to business model and processes
- Identification of gaps in current state of leadership

- Indicating areas of improvement during the implementation life-cycles
- Mentoring stakeholders in order for them to assist in all stages of the process

### **3.2.5 Evaluate Current Organizational State**

This part generally includes information in order to assess the current state of the organization, taking into account a large number of organizational factors. The factors in form of questions aiding the assessment are included in the Appendix A1.

The last step is to propose the business case, as long as the leadership has ensured that sufficient information has been shared.

#### **Step 3: Propose OPM Business Case**

Building the business case will allow the organization to gain executive authorization for OPM initiation. A typical layout may include:

- Executive summary
- Problem statement or current situation
- Alignment and linkage to business strategy
- Assumptions and constraints
- Approach and vision
- Cost-benefit analysis and other resource considerations
- Benefits definition and ways of measurement
- Competitor OPM practices and alternative solutions
- Contingencies and dependencies
- Expected deliverables
- Implementation roadmap or timeline
- Risks and opportunities
- Policies and recommendations

The main purpose of the business case is to reassure that OPM is a worthwhile investment that will benefit the organization in desired aspects. A cost-benefit analysis along with a valid strategic plan will obtain buy-in from top management. In addition, it sets parameters and success criteria and is used as a guide to design, execute and evaluate and OPM program initiative. A detailed and elaborated business case will enable approval of the OPM charter. Sustainable and continuous improvement requires a clear vision of the future state that shares common

benefits for all stakeholders. It is advised to engage all stakeholders at early stages and keep them informed throughout the implementation and improvement of OPM. Thus, constant alignment of the business case with the vision of the organization is necessary. Identifying the benefits OPM will help the organization realize and achieve its strategic objectives. Suitable metrics, key performance indicators, dashboards and scorecards will further demonstrate the total impact of the OPM.

### ***3.3 Key success factors for change management***

The following section analyzes a number of factors to be considered in the attempt to link strategic objectives of OPM with change management. Success factors in addition to factors impeding the initiative's success are explored.

#### **3.3.1 Critical success factors**

The main principles to consider in change management use within organizational project management are referred to as key success factors:

##### **3.3.1.1 Stakeholder Collaboration, Empowerment and Engagement**

Allowing a systematic and iterative input from all engaged stakeholders would give great insights for their behavior through the implementation of any initiative. Correction and monitoring for changes at an early point would provide a significant benefit for addressing people at the right time and with careful planning.

Empowering a person to implement change by telling them how to act and what to do may provide great barriers for success of the initiative. Thus, resistance is sure to appear in case of using a top-down scope definition. The solution to a proper change management approach lies into these three aspects:

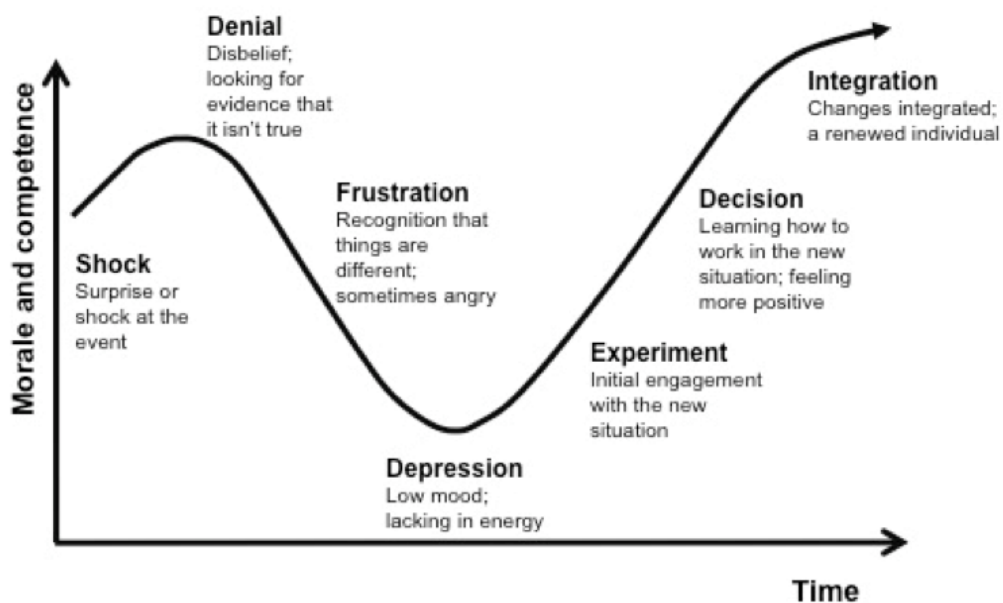
- a) Ensuring those impacted by the change will also understand the need for it
- b) Determining the degree and nature of change that all engaged stakeholders deem it necessary to solve a case, address a risk or benefit from an opportunity

- c) Determining the scope and implementation plan options to address an issue with the least bit of disruption

### 3.3.1.2 Allocate Time for Acceptance into the Change Life Cycle Framework

Creation of a flexible management plan that takes into consideration impact and human resistance to change is a crucial factor. The random appearance of change reactions sometimes is hard for the organization to recognize the degree to which it affects some people. It is very hard to materialize and rate the level of resistance. It is thus helpful to allocate some time for stakeholders to embrace the change before proceeding to a next project/program phase. Figure 10 depicts a change curve by Kubler-Ross further explaining resistance to change.

## The Kübler-Ross change curve



**Figure 10:** The Kubler-Ross change curve ([www.facilitate4me.com](http://www.facilitate4me.com))

### 3.3.1.3 Ensure System Alignment with the Change Initiative

All supporting systems need to work effectively and efficiently together since change is multidimensional. A detailed and strong change management plan will

align software systems, processes, skill sets, responsibilities and environment for a better interaction.

Change management seems to be scalable as its intensity is proportionate to the number of stakeholders, processes and systems affected. If the need for change is immediate then a more intensive approach to manage change is required.

#### **3.3.1.4 Provide Focus for the Change Initiative**

Creating a clear vision for the future state is crucial for assessing the degree to which the program has effectively performed towards the new state. A reliable sponsor may provide valuable resources and leadership that promote change management and help establish a vivid vision for the future. Furthermore, building an extensive communications plan will be the key for initiative's success by helping to:

- Clearly communicate the vision to stakeholders at early stages
- Outline the impact and benefits of the change to the overall organization
- Ensure incessant communication and diffusion of information throughout the initiative
- Use different methods and channels of communication (oral, written, formal, informal etc.)
- Promote dialogue use whenever issues arise
- Repeat change management messages whenever needed
- Monitor and measure the effectiveness of the communication

#### **3.3.1.5 Identify, Select, and Develop Talent Based on Change Management Competencies**

Organizations who embrace talent management need to develop competency development programs for project teams in order to help acquisition of knowledge, skills and proficiencies that aid in executing change management.

Furthermore, change management training for all organizational roles will address the skills required to effectively manage change. Lessons learned from change initiatives as well as employee development further facilitates the initiative.

#### **3.3.1.6 Formalize Philosophy and Policy of Change Management**

A very crucial factor affecting change is the culture of the organization and its interactions with different stakeholders. Written policies and vision statements need to be established before each major change initiative is undertaken. In order to successfully establish a standardized change methodology, the use of a common lexicon of terms, will facilitate the deciphering of change management messages and intents.

### **3.3.1.7 Develop and Deploy Change Management Measurement Processes and Tools**

Last but not least, successful embedding of change management calls for measurement systems to correct and realign actions not aimed at delivering the expected benefits.

### **3.3.2 Potential barriers and change derailers**

The high probability of meeting change resistance through the initiative needs to be managed during all phases of implementation. A change resistance survey is also included in the appendix (p.??) while some typical barriers that can derail change initiatives are analyzed:

#### **3.3.2.1 Lack of Good Sponsorship**

Organizational change commitment entails the support of a strong sponsor and leadership to facilitate deployment of initiative. The higher the status of the sponsor within the organization, the higher the degree of influence towards realizing benefits. Applying change requires commitment of time and organizational resources. In order for stakeholders to smoothly accept the change, time is needed and investment in tools, systems and equipment seems unquestionable.

#### **3.3.2.2 Cultural Resistance to Change**

A corporate culture that resists change is considered to be one of the greatest barriers in change implementation. The organization needs to face a number of reasons in order to overcome this barrier:

- *Inertia.* Identifying the need for change may sometimes be hampered from pertinent perceived sacrifices of workforce.
- *Trust.* A lack of trust among top management and lower level employees regarding performance needs to be addressed.
- *Competencies.* Training and educating all stakeholders and workforce to basic and advanced change management knowledge and models seems crucial for success.
- *Bureaucracy.* Growth and adaptation may be limited due to existing bureaucratic structures within the organization.

### **3.3.2.3 Failure to Build Change Readiness**

Managers tend to overestimate current state and success of their businesses and thus fail to recognize the need for change before competition enters or expands in the correspondent market segment. Information coming from the external environment of the organization is not to be ignored since it may distract and prevent sustainable improvement. Lack of knowledge regarding proper ways of implementing change should also be considered when attempting to change.

### **3.3.2.4 Insufficient Time Allocated to Change**

When insufficient time for implementing the program is allotted, huge costs may appear as post-change maintenance. Furthermore, rewarding during all stages of implementation and improvement ensures commitment until delivering all stated benefits of the program.

### **3.3.2.5 Poor Vision of the Future**

Daily work and operations may require changes that people fail to recognize. For this reason, their daily decisions do not consent with the desired future state.

### **3.3.2.6 Poor Access to Technology by All Stakeholders**

Technology availability is typical in large enterprises and organizations so rarely constitutes a problem when implementing change. Ineffective use however due to poor training and lack of understanding by all workforces may result into costly mistakes and large expenditures. When there is a lack of training programs for



new technology transition, employees have to cover the additional knowledge at their own expenses. Thus, morale regresses to lower levels and overall exploit of technology fails to deliver benefits.

### **3.3.2.7 Poor Measures and/or Measurement Process**

Change initiatives may entail significant costs and thus need to focus on high-leverage issues. Results should be measured before, after and during the change process. When necessary metrics are not in place, the initiative may fail or derail from its implementation track, with the worst case scenario being the false perception of it being successful.

### **3.3.3 Lack of synergy**

When planning for a change initiative one often overseen factor is monitoring of the relationship among stakeholders and especially among key sponsors, recipients and agents. The aim is to create synergistic relationships that sum a greater number than its parts together. This way knowledge, expertise and skills are shared to effectively and quickly promote change within the organizational context. Static or self-destructing relationships should best be avoided because they impede the progress of the initiative.

Stakeholders call for efficient engagement and empowering them with distributed control will greatly mobilize their intent to succeed through change. The key to achieving this state lies into clearly interpreting the ultimate objectives and purpose of the change program and communicating them to all different participants. By conducting a stakeholder analysis a number of advantages can be attained:

- Early identification of stakeholders and their perspective groups
- Explanation of different attitudes and their influence to change
- Identification of communication needs and potential risks in case of not meeting these needs
- Use of proper mechanisms to timely deliver communication messages

### **3.3.4 Sponsor capabilities**

The ever-growing business environment requires leaders who are eager to change and easily adapt to new environments. One helpful tool is the leadership 360-degree assessment which measures the following capabilities:

- Anticipates change
- Generates confidence
- Initiates action
- Liberates thinking, and
- Evaluates results

Organizational leaders need to approach change before the whole organization can embrace it. They need to direct and support the rest of the stakeholders and management in order to accept and abide by the change, securing a smooth transition. Motivation through each level and change cycles should be given by leadership since they are held responsible for implementing the change initiative. Sponsor involvement needs to be present at all phases of change with actions taken in order to provide a continuous improvement. Examples of such actions include assessing the readiness through each cycle of the program and taking preventive or corrective actions whenever the initiative fails to keep up with its expected benefits.

### ***3.4 Next step to the proposal of an OPM business case***

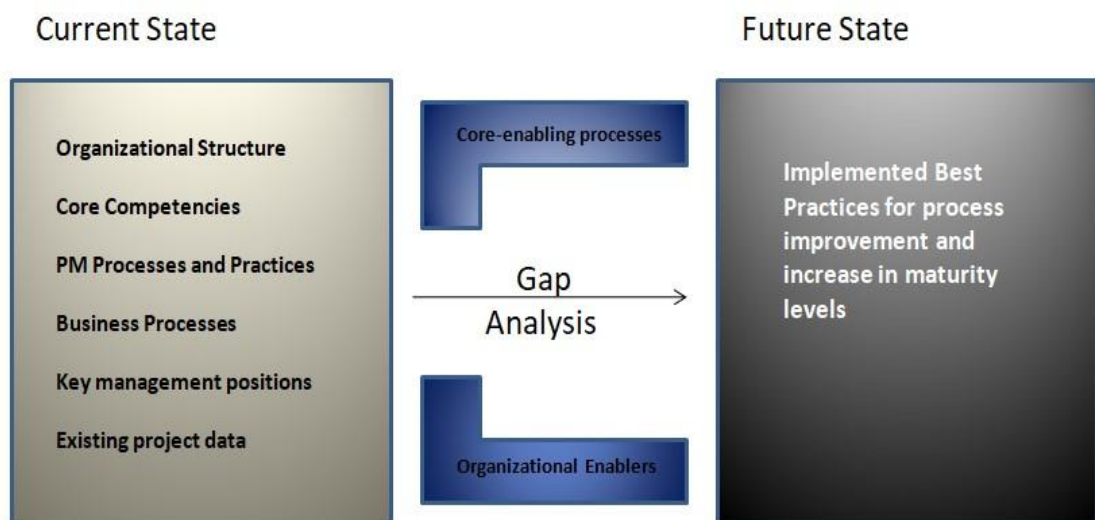
After all steps are successfully implemented and taken into consideration, the next step is the approval of the business case and charter in order to establish an OPM program implementation team. Sponsorship needs to be linked to the implementation team and continuous improvement should always be the goal of the responsible team. Indicative roles to be included in the implementation are but not limited to:

- Program manager
- Executive sponsor
- Process methodology expert
- Continuous improvement quality expert
- Change management expert
- Quality assurance expert
- Subject matter project managers and leaders.

## ***4. Implementation of an OPM initiative - General overview***

### ***4.1 Discovery and Analysis phase***

The readiness assessment results will be used as an input in order to proceed to the next phases of OPM implementation. Information gathered will facilitate the understanding of the current state of the organization and the bond between its projects. The link with the organizational strategy requires an analysis and comparison of current versus future state and as well identifying the requirements in order to bridge this gap. (Figure 11)



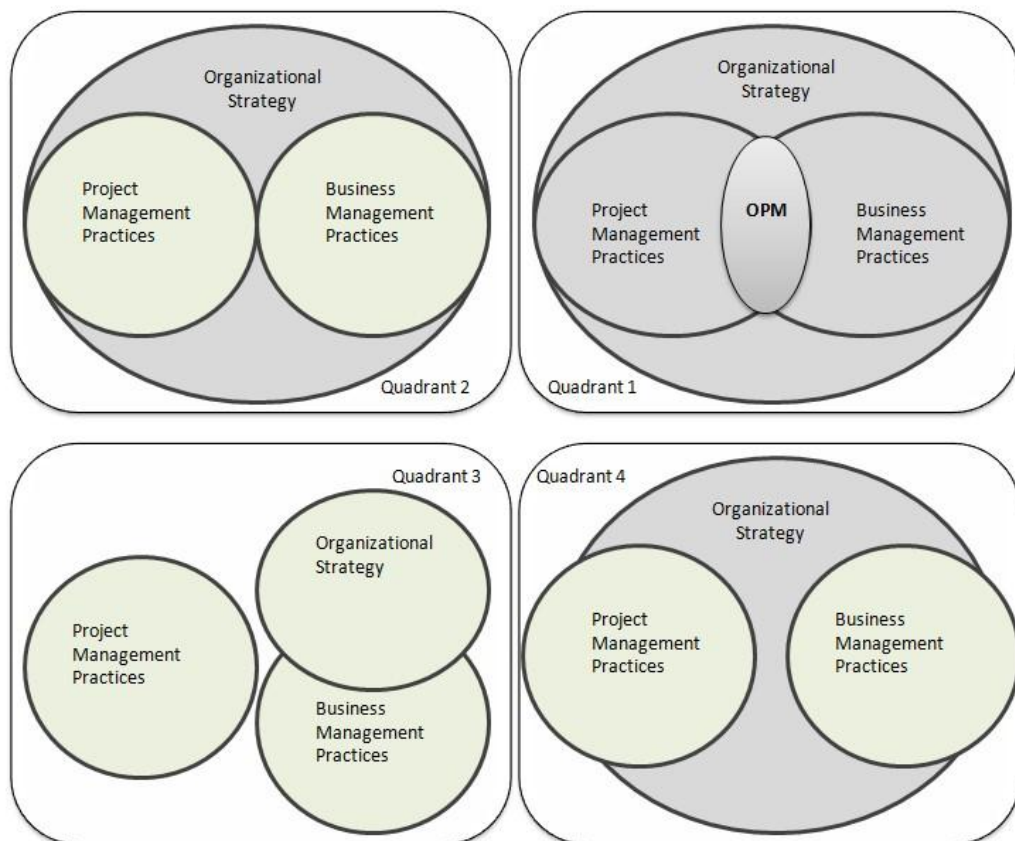
**Figure 11:** Current versus future state of the organization

#### **4.1.1 Current versus future state of the organization**

Organizational strategy needs to be clearly understood by all stakeholders in order to closely relate it with the organization's projects and programs. Annual reports

and other confidential documents are a common source of gaining knowledge and access to the strategy and vision of the organization.

OPM team and experts should work towards achieving a connection of the project management processes and the usual business processes and practices under the organizational strategy without levels of divergence. The core-enabling process strategic alignment described in next chapter will facilitate the effort of reducing the gap between current state and future state desired by the organization. Next figure 12 maps different scenarios faced regarding the level of divergence that needs to be addressed to reach an optimal alignment between business and project management practices.



**Figure 12:** Levels of Divergence between Project Management and Business Management Practices (adopted from PMI)

The *current state review* dynamic document will be the deliverable of this first step to implement an OPM program and provides details and information of the current way the business works. It mainly contains:

- The organizational structure and hierarchy
- The core competencies of the organization
- Project management processes and practices, templates and other artifacts
- Business management practices
- Key executive roles, responsibilities and positions
- Business processes
- Existing project data and performance

After the current state review is completed, the OPM implementation team strategically plans and presents a high level future state that will lead to a competitive advantage. The findings of the current state analysis will help identify the gaps that need to be filled in order to reach an optimal future state. The support of the core enabling processes will further aid in implementing needed changes towards achieving the organizational strategy. Next chapter will revolve around the use of such processes aimed to support the change and increase the maturity level of the organization. The deliverable document after the completion of this step, presents the *high-level future state*, future work and the changes that will impact the organizational structure.

#### **4.1.2 Gap analysis**

After both the current and desired future state has been defined by the organization, what needs to be done is to establish a link between them in order to deal with the gaps that call for addressing. Any variances between resource allocation and integration of current versus high level future state will be reduced through implementation of a gap analysis.

The main focus of gap analysis is to compare the current organizational capabilities and assets with the organization's business requirements and provide metrics for future performance. Changes and improvements that will drive the business towards a high-level desired state are the main responsibility of the OPM team. Metrics and elements used through the process; need to be based on objective and tangible terms to avoid subjective assessments into the gap analysis model. All stakeholders get to have a clear understanding of the improvements aimed at each relevant area of their interest and play a crucial role in developing metrics to be used as a baseline for the future state. Several tools may be included to propel the process such as interviews, surveys or even active engagement of stakeholders through the analysis.

Indicative areas to be included in gap analysis are presented below:

- Organization's core capabilities and competencies
- Hierarchy among business levels
- Future goals and direction of business
- Business management practices
- Project management practices and competencies
- Review of metrics for alignment with future state
- Project alignment with business management practices

The core-enabling processes that will be analytically elaborated in the next chapter, aim to further support the development of gap analysis. The *gap analysis report* is the deliverable of this process and its being a dynamic document, may require frequent updates in case of internal or external changes that may affect the organizational strategy.

## ***4.2 Steps for creating an Implementation Roadmap***

After discovery and analysis phase is completed, the next step is to identify and later prioritize a number of initiatives that will close the gap between the current and future state and will be embedded into a chronological roadmap for implementation. A thorough example will be presented in chapter 6 of a company from the oil and gas sector.

### **4.2.1 Identification and prioritization**

Gap analysis data of previous step will be used as the main input for this step alongside the current and future states findings. The goal is to identify a list of possible initiatives for the OPM program implementation that will address the gap and increase organizational maturity, effectiveness and provide alignment with the organizational strategy and business case.

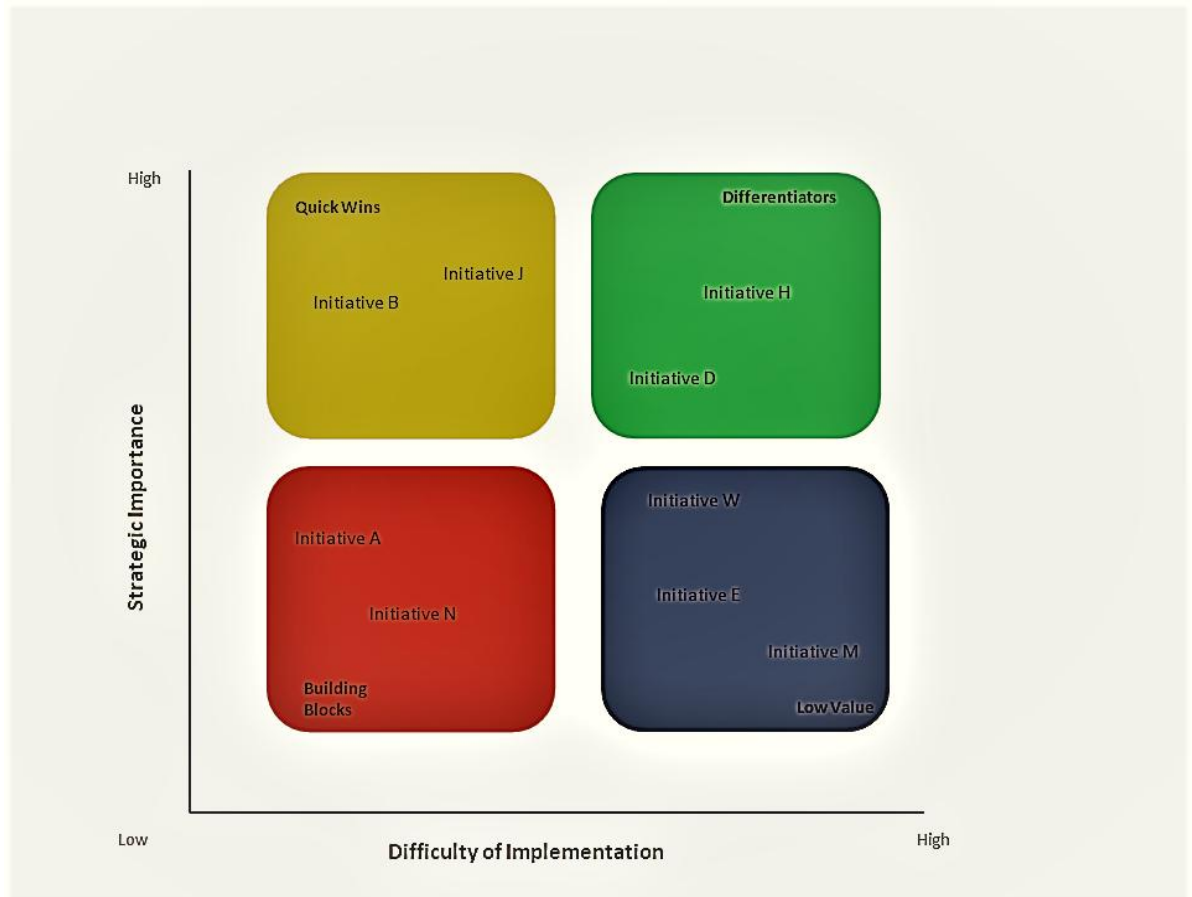
A set of best practices regarded as initiatives will be grouped and categorized based on their strategic importance, difficulty of implementation, priority and collaborative opportunities. Resource allocation, total cost, effort and benefits of each initiative will be taken into consideration before final approval for implementation. Prioritization of the selected initiatives may fall into one of the following categories: (figure 13 is used as an example)

***Quick wins:*** These initiatives are of high strategic importance for the organization and their difficulty of implementation is relatively low. Short-term planning and implementation of this category may prove vital in gaining consensus of stakeholders at the start of the OPM program.

***Differentiators:*** Being both difficult to implement and of very high strategic importance, it is recommended to implement this set of initiatives in the long-term cycle of the organization's business.

***Building blocks:*** The low strategic importance of these initiatives may not contribute to the future plan of the organization, however their being easier to implement may be useful in short-term planning.

***Low value:*** A very low score in strategic importance while being difficult to implement, does not rank these initiatives among the first choices of implementation. Associated risk and resource diversion also pose constraints.



**Figure 13:** OPM Implementation Prioritization Matrix example (adopted from PMI)

Below there is a list that sums up the steps needed for an effective prioritization matrix:

**Review data:** The OPM team reviews the data collected from current state, future state and gap analysis.

**Identify initiatives:** Identification of possible initiatives taking into consideration the gap that needs to be addressed, use of core-enabling processes and best practices to include in the OPM program.

**Define weighting criteria:** The use of weighting criteria will rank the initiatives to be included in the prioritization matrix. Possible risks, threats, opportunities, resource availability, duration and effort should be taken into consideration during this process.



**Ensure alignment to strategy:** Organizational strategy and its alignment with projects and portfolio should be the main focus of this attempt. Initiatives should aim to close the gaps between current and future state and deliver benefits to the organization.

**Identify collaboration and synergistic opportunities:** Some projects may share common scope, resources or goals and thus offer a great opportunity for collaboration with a specific initiative. Program benefits realization should be considered and may facilitate planning such initiatives.

**Develop a prioritization matrix:** The team plots the initiatives from previous steps into a *prioritization matrix* that constitutes the deliverable of this step towards implementing OPM.

**Obtain agreement and approval:** General approval from stakeholders and agreement are required to move forward with the implementation roadmap.

#### **4.2.2 Chronological Roadmap**

The prioritized initiatives selected from the previous process are used to create a chronological representation of the OPM program. This implementation roadmap depicts start and stop dates of each initiative, their possible relationship with each other, key decision points and milestones before reaching the desired future state. Organizational resource management and linkage to strategy can be also facilitated by using a roadmap. The OPM team develops detailed implementation plans for each initiative and a schedule based on strategic importance, difficulty of implementation, resource priority and collaborative opportunities. Each one of this aspect will be used in chapter 6 in order to grade a list of possible initiatives tailored to the oil and gas company.

Implementing OPM programs is a perpetual process and not a temporary endeavor. Continuous improvement is necessary for the organization to sustain its competitive advantage and reach the desired state described since the beginning of this chapter. The high-level and long-term strategic plan can also gain buy-in from stakeholders and create confidence to the leadership of this program.

The needs of each organization may vary so a tailored approach each time regarding project size, complexity, types etc, is crucial. Common examples of different approaches when implementing an OPM program are described:

**Implementation by domain: portfolio, program and/or project:** Focus of the OPM team may start from portfolio management, program management and eventually project management. The sequence of implementation depends upon the needs of the organization.

**Implementation by programs, projects, geographical locations or organizational units:** Organizational structure defines the best grouping sequence.

**Implementation by readiness level and business impact:** This option may be used when there are differences in readiness levels among business units, programs or projects. If the business impact whether be positive or negative can be managed within the OPM implementation program then this choice seems viable.

**Implementation by maturity ratings:** Projects, programs and business units which share common targets regarding maturity ratings, fall in this category. The maturity-based focus analysis will be present in this thesis since next chapters will feature implementation status regarding maturity levels of organizational enablers and best practices.

The steps leading to a successful implementation roadmap are summarized below:

**Review of the initiatives in prioritization matrix.**

**Selection of the initiatives to embed into the chronological roadmap:** The roadmap timeline may expand from 1 to 5 or even 10 years according to the strategic plan and business planning cycle of each organization. Initiatives that meet schedule requirements must be carefully selected before implementation.

**Development of the implementation roadmap:** The elements of the roadmap include:

- Planning period (year 1, year 2, year n...)
- List of selected initiatives from the prioritization matrix
- Short and long term view of initiatives to be implemented regarding each period
- Alignment to organizational goals and strategy if possible and
- Start and finish dates for each initiative

**Obtain approval and agreement:** Approval from stakeholders for the proposed implementation roadmap is present in this step as well. Budget, resources and timing need commitment from the OPM team.

The deliverable of this step is the *implementation roadmap*.

## **4.3 Implementation of the OPM initiative**

### **4.3.1 Development of implementation plans**

Each initiative requires an analytic and detailed plan in order to fulfill the implementation roadmap described in the previous stage. Different starting points of OPM programs inside organizations may entail unique and tailored approaches based on desired targets for the future state. Inclusion of the 4 core-enabling processes is recommended throughout the use of the initiatives. Best practices available are also crucial when implementing such a program. Details regarding these processes, best practices and how they link to each other are found in chapter 5.

Aside from the best practices intended to address the gap towards the future state, existence or creation from scratch of an OPM policy is essential to proceed forward. This will guide the implementation team and all stakeholders as to which are the right processes to follow during the phases of the program. The team size and composition along with the available budget determine the implementation of the OPM program from scratch or just an improvement in an existing one. In either case a pilot phase is recommended in order to best validate the fit to the organization and gain buy-in from engaged stakeholders.

The detailed implementation plan of each initiative includes a number of elements described in The Standard for Program Management-Third Edition of PMI such as a work breakdown structure and a program schedule. Some basic steps for creating the WBS are presented below:

#### **Determine requirements for initiative**

The main factors to consider when planning for requirements are:

- Size, type, complexity, duration, risks associated, work content of each project managed
- Budget and organizational resource availability
- Type of organization and organizational structure
- Current state of methodologies, processes and tools

- PMI standards or industry-specific ones
- Requests for change
- Lessons learned from previous projects or existing OPM programs

### **Development of tailored components of initiative**

Organization's current state and resources will define the decision to buy the initiative or implement it from start. Improvement upon an existing one may not need a pilot phase. After the decision is taken the organization needs to acquire, develop and tailor the components for the initiative. Analytically:

- *Pilot initiative:* The main focus of this step is to minimize risk before attempting to proceed with the main implementation of the OPM program. A pilot phase may be comprised of a fraction of the program aimed to be used in a large area of the organization or a might be a full initiative tested in a small area.
- *Adjust components and implementation plan:* In this step the team gathers lessons learned from the pilot phase and adjusts accordingly the implementation plans.
- *Deploy full initiative across the organization:* Deployment of initiative can be attained across the organization based on the implementation plan.
- *Conduct lessons learned review.*

The next step is the creation of a detailed program plan that includes all corresponding subordinate plans along with deliverables, dates, responsibilities and committee meetings. The specific components of the program plan for the OPM implementation are:

### **Benefits realization plan**

The benefits realization plan demonstrates the way and the timing of expected benefits to organization through using OPM Framework. Inability to provide the organization with promised benefits may restrain further executive support.

### **Resource management plan**

A plan to ensure core resource commitment and allocation is needed along with an organizational reporting structure of the OPM team. Enlisting volunteers from the project management environment might prove a viable alternative in case of resource constraints. Furthermore, when the organization implements OPM for the first time or is a low-maturity one, may consider engaging OPM subject matter experts in the process.

### **Organizational change management plan**

As previously stated in this thesis, change readiness plays an important role in embracing the change towards a new desired future state. An OPM implementation plan should aim to demonstrate to people the importance of change in their jobs and how it can enhance their skills in order to produce desired results. Training, support, reinforcement and technical aspects understanding are all entailed through the plan.

### **Risk management plan**

Managing possible risks during OPM implementation is crucial for the success of the program and the downright protection of the organization from subsidiary risks. Chasing opportunities whenever possible also improves the program implementation.

### **Key performance indicators (KPIs)**

By using the business case at the start of the program as a baseline, the team can track the program performance by using a number of metrics. Expected benefits should be measured during the process to identify levels of divergence against the starting baseline.

The *detailed implementation plan* is the deliverable after this step.

### **4.3.2 Pilot phase and implementation of OPM**

Implementing a pilot program before the actual one, might provide some insight from lessons learned though is optional. Since implementing OPM might expand for a long period of time, it might be useful to provide the stakeholders with some

immediate and obvious results in order to gain buy-in and support. Implementing in small steps for some quick wins may affect the total progress of the program in a good incremental way.

Rigorous attempts are best avoided because they may be embraced as administrative overheads and thus need to be adjusted to reflect desired results in organization based on pilots. At the completion of the pilot program lessons learned are made and a new OPM policy is created for all stakeholders.

The deliverables from this step are *OPM policy, tailored core-enabling processes, lessons learned and benefits metrics*.

### **4.3.3 Benefits realization**

During the implementation of OPM, the organization will start realizing the expected benefits of the program according to defined KPIs. The use of a scorecard example can be used to measure components of the processes implementation in early stages of the program.

The real value of the OPM however is best realized by measuring the business impact on the organization. Project success indicators may be translated as business value ones with metrics regarding time to market, budget attainment, resource utilization, etc. Internal or external factors may pose a challenge for deliverance of business results. Thus, establishing a baseline measure for each indicator and engaging the core-enabling processes later seems crucial for the program success.

The deliverable from this step is the *measured benefits KPIs*.

## **4.4 Continuous improvement**

The OPM policy should outline a continuous improvement even after the completion of the program. Organizations that fail to improve in a continuous base fall short of competition and rapidly lose their value.

A periodical implementation of all the steps described in the current chapter help determine the OPM status and identify areas of further improvement. Every successive cycle of repetition provides more benefits against baseline metrics and is easily implemented through established OPM processes. It is advised to engage different project management professionals periodically in case of existing members becoming obsolete and disconnected from the project management practice. The result of this practice reinforces a better and deeper understanding of

the OPM program through the organization and propels benefits realization in all areas of interest.

## ***5. Use of Organizational Project Management Maturity Model (OPM3) to enhance OPM maturity***

### ***5.1 Introducing the Organizational Project Management Maturity Model (OPM3)***

Seeking the best initiatives for each situation not only delivers effective organizational strategy but also produces better results, performance and provides the organization with a competitive advantage. In an attempt to accomplish this, specific practices, knowledge and tools need to be in place and there needs to be a proof that these practices consistently work and are used from a wide range of different industries and organizations. The Organizational Project Management Maturity Model (OPM3) indicates the proper use of best practices in order to establish and continuously improve them throughout the organization. This model provides a way to constantly and effectively deliver strategy through portfolio, programs and projects. Project, program and portfolio domain processes are transformed into high-quality processes aimed to deliver stable, clearly defined and repeatable results.

#### **5.1.1 OPM3 Construct and explanation of basic elements**

The basic components and the corresponding relationships among them are described within the OPM3 construct. The components analyzed in this section are: Domains, Best Practices, Capabilities, Outcomes, Process Improvement stages and Organizational Enablers.

##### **Domains**

Domains refer to the three process-based standards for project, program and portfolio management. The corresponding standards published from Project Management Institute provide the base for the Best Practices. A complete reference exists at the end of this thesis. The integration within the OPM3 model also includes Process Groups and Knowledge Areas for the Project and Portfolio Domain and Performance Domains for the Program Domain. More specifically:



### *Project process groups*

The PMBOK Guide® - Sixth Edition identifies five process groups and ten knowledge areas applicable regardless of industry and in line with project life cycle. Progressive elaboration may occur during the project duration. These are:

- Initiating
- Planning
- Executing
- Monitoring and Controlling
- Closing

### *Program Domains*

The standard for Program Management – Fourth Edition coordinates the management of five Performance Domains:

- Program Strategy Alignment
- Program Benefits Management
- Program Stakeholder Engagement
- Program Governance
- Program Life Cycle Management

Program benefits delivered are further facilitated with program delivery phase activities:

- Program Change Monitoring and Controlling
- Program Communications Management
- Program Financial Management
- Program Information Management
- Program Procurement Management
- Program Quality Assurance and Controlling
- Program Resource Management
- Program Risk Monitoring and Controlling
- Program Schedule Monitoring and Controlling
- Program Scope Monitoring and Controlling
- Program Integration Management

### *Portfolio process groups*

The Standard for Portfolio Management – Third Edition identifies three process groups with five knowledge areas:

- Defining Process Group
- Aligning Process Group

- Authorizing and Controlling Process Group

## **Best Practices**

Best Practices refer to currently recognized methods within a specific industry or discipline that have proven to result in attaining specific objectives. OPM3 measures maturity levels of an organization by assessing the existence of best practices. This concept will be our base for the next chapter assessment inside a Greek company from the oil and gas sector and will aid the creation of an improvement roadmap of different initiatives by following the aforementioned steps of previous chapter.

Achieving a best practice requires fulfillment of certain capabilities and outcomes in order to successfully deliver a project. All capabilities of a best practice should be attained in order to reach the best practice. An extensive list of best practices related with organizational enablers is included in the Appendix A2 of the thesis.

There are nine best practice categorizations:

**1) Domain:** Described in section 6.1.1

**2) Process Improvement Stage (SMCI):** Described in section 6.1.1

**3) Organizational enabler (OE):** Described in section 6.1.1

**4) Process Group:** Described in section 6.1.1

**5) Performance Domain:** Described in section 6.1.1

**6) Knowledge areas:** OPM3 maps each practice to a corresponding knowledge area. *Project Domain areas include:*

- Project Integration Management
- Project Scope Management
- Project Schedule Management
- Project Cost Management
- Project Quality Management
- Project Resource Management
- Project Communications Management
- Project Risk Management
- Project Procurement Management
- Project Stakeholder Management

Portfolio Domain areas include:

- Portfolio Strategic Management
- Portfolio Governance Management
- Portfolio Performance Management
- Portfolio Communications Management
- Portfolio Risk Management.

### **7) Project predictability:**

Project predictability contains the best practices aimed to forecast successful project completion and delivery.

### **8) Resource optimization:**

All best practices which help in identifying, deploying and releasing project resources are part of this category.

### **9) Balanced scorecard:**

Each best practice that supports development of and execution of tracking mechanisms falls into this category.

## **Capabilities**

A collection of people, processes, tools and technology are needed in order to successfully deliver OPM and is defined as Capability. There is no particular sequence of capturing capabilities in order to reach a certain best practice, however all of them should be in place for a best practice to occur. Predecessor relationships may exist in order for a next best practice to be realized.

## **Outcomes**

Outcomes are derived results from an organization demonstrating a Capability. The result may be tangible like a policy for organizational project management or intangible like the verbal acknowledgement of such policy. A single outcome is enough to reach a capability however multiple ones may exist.

## **Organizational Enablers**

Organizational enablers (*OE*) refer to a series of practices (cultural, structural, technological and human) leveraged to support and sustain the implementation of an OPM framework within the organizational environment. The support translates into a series of best practices that have been categorized into 18 groups. Section 6.2 and 6.3 provide extensive information regarding OEs.

### **Process Improvement Stages (SMCI)**

The four stages applied by OPM3 in order to improve the associated processes are presented below:

#### **1. *Standardize***

A repeatable and consistent best practice applied by the organization is the result of this stage. Standardizing a process entails the existence of a responsible governing body to manage the process and its potential changes, a documented methodology of the process and adherence to it.

#### **2. *Measure***

A quantified best practice results from the measure stage. Customer requirements, critical characteristics, measured critical characteristics and critical parameters are included in this stage.

#### **3. *Control***

When the control stage is applied to a process, yields a managed best practice. Characteristics include a fully developed control plan, its implementation and stability achieved through it. Actual versus planned performance is measured and variances and trends are examined through this stage. The progression of capabilities includes determining control limits, identifying root causes and finding alternatives or corrective actions to ensure the process is within desired control limits.

#### **4. *Improve***

Finally, the objective of the improvement stage is to produce a constantly improving best practice. In this stage the characteristics of a process include: problems identified, improvements implemented and improvements sustained.

## **5.1.2 OPM3 Framework**

The OPM3 Framework serves as a guide to organizations applying OPM3. Its main parts are elaborated in this section. (Cycle elements, areas of expertise and processes) Before implementing the framework, organizations should consider the following:

Buy in from stakeholders

Change impact

Managing OPM3 as a project or a program

Securing the desired knowledge and expertise

Understanding and properly tailoring the processes of OPM3 and

Identifying the differences between Areas of Expertise and Cycle elements

### **5.1.2.1 Areas of Expertise**

Undertaking an OPM initiative requires prior knowledge and skills outlined in three areas described below:

#### ***Governance, Risk and Compliance (GRC)***

The activities required in order to embrace and achieve this area expertise include corporate governance, enterprise risk management (ERM) and corporate compliance with applicable laws and regulations. Establishing proper governance ensures delivery of successful results and benefits. GRC encompasses three processes: Understand OPM, Establish Plan and Measure Results.

#### ***Delivery and Benefits Management***

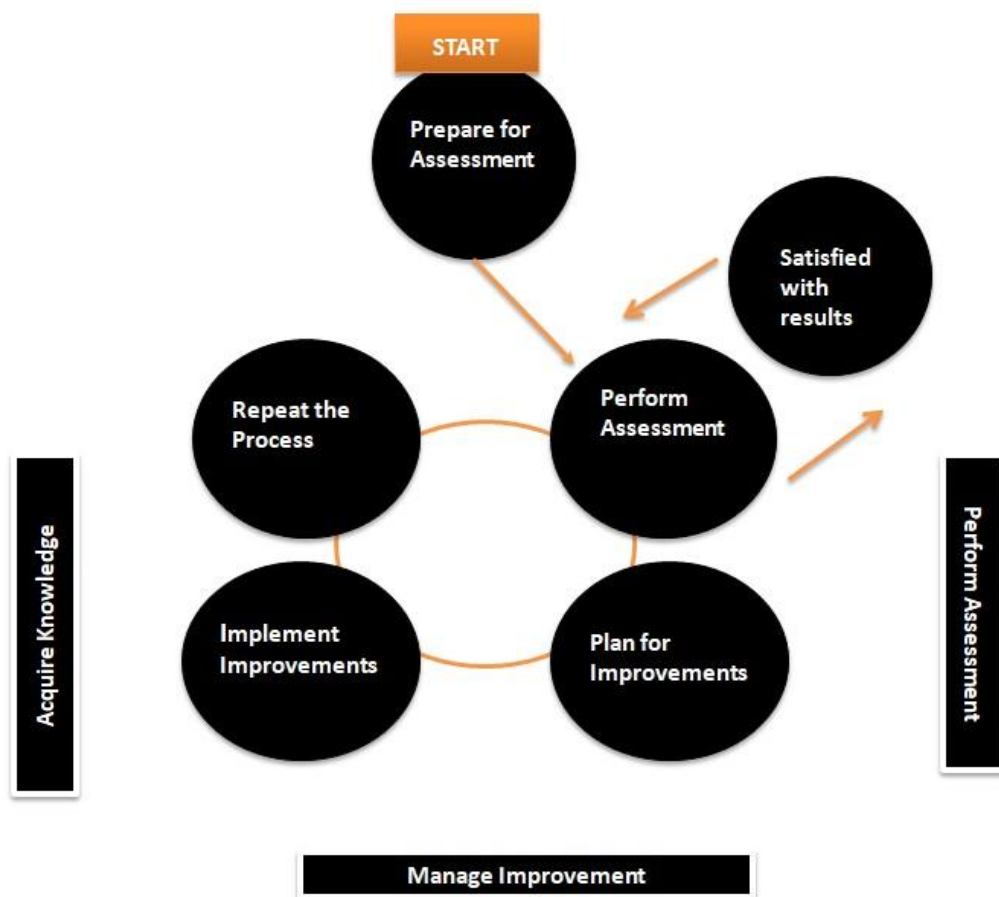
This area of expertise refers to the execution of OPM3 throughout the lifecycle of the initiative. The focus is on the methods and requirements for delivering the desired benefits. The associated processes are: Understand the Organization, Define the Scope, Conduct Assessment, Create Recommendations, Select Initiatives and Implement Improvements.

#### ***Organizational Change***

Organizational change focuses on the magnitude of change after the OPM3 initiative. Adapting to change may depend on different factors and variables like readiness (extensively elaborated in chapter 3), awareness, desire, willingness etc. Assess Change Readiness, Initiate Change, and, Manage Change constitutes the processes of this area.

### 5.1.2.2 OPM3 Cycle elements

The OPM3 Cycle elements are groups of processes and fall into three categories: Acquire Knowledge, Perform Assessment and Manage Improvement. The aim is to create a cycle of continuous improvement as the part of the OPM3 Framework depicted in Figure 14. A brief description of each process' contents is listed.



**Figure 14:** OPM3 Framework (adopted from PMI)

### ***Acquire Knowledge***

Each stakeholder gains knowledge regarding the OPM3 implementation, the organization and industry through three processes:

- *Understand OPM*: Before initiating an OPM program, organization gathers the necessary OPM3 experts, stakeholders, facilitators and researchers. Organizational enablers, project, program, portfolio processes and as well project information systems need to be in place.
- *Understand the Organization*: This process plays an important role in understanding the reasons for undertaking an OPM3 initiative.
- *Assess Change Readiness*: Described in chapter 4.

### ***Perform Assessment***

The assessment leader establishes a plan for the assessment; executes it and manages the total process by analyzing data and documents. The supporting processes are:

- *Establish Plan*: This process entails the tailoring of PMBOK processes to assist the assessment. Subsidiary plans for WBS, budget, risk management, metrics, schedules etc are in place.
- *Define Scope*: In this process an assessment statement of work is created that includes business units, resources, geographies, deliverables and acceptance criteria.
- *Conduct Assessment*: The execution of the assessment based upon the statement of the work is described herein.
- *Initiate Change*: This process includes the organizational change management activities necessary prior to launching the OPM improvement initiative

### ***Manage Improvement***

The identification, selection and implementation of improvement initiatives based on assessment and desired future results are included in this final cycle.

- *Measure Results*: Measure results process correlates the improvement plans with realized business results by reinforcing a culture of measurements and reporting performance.

- *Create Recommendations*: This process identifies the gaps between current and future state as presented in previous chapter and aims to identify recommendations for initiative implementation.
- *Select Initiatives*: Described in chapter 5 and tailored in next chapter case.
- *Implement Improvement Initiatives*: Described in chapter 5 and tailored in next chapter case.
- *Manage Change*: This final process monitors and controls the mechanisms for change by taking into account the culture, structure, technology and change impact when implementing an OPM initiative.

## ***5.2 Organizational Enablers***

The organizational strategy is supported by a series of practices that refer to environmental and cultural aspects of the organization and translate into best practices through OPM3. OPM advances organizational capability and achieves strategic goals through linking organizational enablers with portfolio, program and project principles and practices. The leverage of these practices and measurement of current organizational capability calls for improvement plans that yield best practices. The four categories of organizational enablers are explained below:

### ***Structural (S)***

This category is responsible for establishing strategic alignment of portfolio and projects/programs with organizational strategy by ensuring optimized resource allocation based on organizational structures. The three organizational enablers for achieving that are:

**1) *Strategic Alignment***: One of the four core-enabling processes that will be thoroughly explained in section 6.3.

**2) *Organizational Structures***: Establishing and adopting an organizational project management structure is the main function of these practices. Institutionalizing the OPM structure is facilitated by the support of an OPM office. The four associated best practices with Organizational Structures are:



- a) 7045: Establish Organizational Project Management Structure
- b) 7055: Adopt Organizational Project Management Structure
- c) 7065: Institutionalize Organizational Project Management Structure
- d) 7075: Provide Organizational Project Management Support Office

**3) Resource Allocation:** Resource Allocation enabler ensures the optimal allocation and assignments of resources among projects and programs. Specialists are shared evenly between projects.

- a) 1590: Record Project Resource Assignments
- b) 5220: Provide Competent Organizational Project Management Resources
- c) 9060: Establish Resource Allocation and Optimization Processes
- d) 9070: Establish Scarce Resource Allocation Criteria
- e) 9150: Specialists are Shared Between Projects

### ***Cultural (C)***

The second category of organizational enablers refers to the cultural aspect of the organization. The main objective is to establish governance, policy and vision for OPM and provide sponsorship to the initiatives. OPM communities are created in order to support and leverage the use of best practices. The corresponding organizational enablers of this category are:

**4) Governance:** One of the four core-enabling processes that will be thoroughly explained in section 6.3.

**5) Organizational Project Management Communities:** Creating project communities to support project management expertise is the main goal of this practice.

- a) 5240: Establish Internal Project Management Communities
- b) 5250: Interact with External Project Management Communities
- c) 9040: Establish Project Delivery Tips and Techniques Special Interest Group

**6) Organizational Project Management Policy and Vision:** Making stakeholders aware of the OPM Program and educating executives through programs entails the corresponding best practices:

- a) 1000: Establish Organizational Project Management Policies

- b) 5180: Educate Executives
- c) 5490: Recognize Value of Project Management
- d) 5500: Define Project Management Values
- e) 5520: Collaborate on Goals
- f) 6980: Create an Organizational Maturity Development Program
- g) 7005: OPM Leadership Program
- h) 7015: Educate Stakeholders in OPM
- i) 7025: Cultural Diversity Awareness
- j) 8940: Create a Risk-Aware Culture

**7) Sponsorship:** Sponsors should actively support and be engaged in project management processes and sponsorship.

- a) 1450: Establish Strong Sponsorship
- b) 5340: Establish Executive Support
- c) 8990: Establish Competent Project Sponsors

### ***Technological (T)***

The third category aims to help sharing of knowledge, practices and techniques across projects and enables the use of management systems for projects, programs and portfolio. Developing standards and methodologies for effective management and benchmarking of the performance against competitors conclude the utility of these organizational enablers.

**8) Organizational Project Management Methodology:** One of the four core-enabling processes that will be thoroughly explained in section 6.3.

**9) Benchmarking:** Benchmarking allows comparison with industry standards for best practice incorporation within the organization. PMO current state can be compared to other PMOs.

- a) 2190: Benchmark Organizational Project Management Performance Against Industry Standards
- b) 8930: Benchmark PMO Practices and Results
- c) 9090: Incorporate Performance Benchmarks into Balanced Scorecard System

**10) Knowledge Management and PMIS:** Information systems for managing projects should exist in the organization. Knowledge management will allow sharing of lessons learned, creation of reporting standards and documentation of projects completed as a part of case study.

- a) 3030: Capture and Share Lessons Learned
- b) 7365: Project Management Information System
- c) 7375: Intellectual Capital Reuse
- d) 8970: Document Project Management Case Studies
- e) 9010: Establish Executive Summary Dashboards
- f) 9030: Establish Organizational Project Management Reporting Standards

**11) Management Systems:** Establishing a common project management framework for managing all projects is essential for long term success. Independent bodies should also be present in order to certify desired quality of systems.

- a) 5280: Establish Common Project Management Framework
- b) 5320: Certify Quality Management System

**12) Organizational Project Management Practices:** Project managers and experts should have a clear understanding of all projects related to their own ones. Adherence to PM code of ethics is supported by this organizational enabler.

- a) 1670: Know Inter-Project Plan
- b) 8980: Encourage Adherence to Project Management Code of Ethics
- c) 9160: Consistent Project Orientation Process

**13) Organizational Project Management Techniques:** The organization selects a core set of techniques and tailors them to each project. The use of common templates and language in each project encourages further risk taking from all team members. Prioritization and optimization of project portfolio is also a part of this enabler. The effective overall management of programs and resource allocation is described within the following practices.

- a) 2090: Adherence to Project Management Techniques
- b) 3070: Encourage Risk Taking
- c) 5170: Use Common Project Language

- d) 7305: Estimating Template/Tools Established for Use Across Organization
- e) 9180: Use Mathematically Sound Methods for Prioritization
- f) 9190: Use an Optimizer to Select the Portfolio
- g) 9210: Manage Program Resources
- h) 9220: Manage Program Issues
- i) 9230: Manage Component Interfaces
- j) 9240: Plan Program Stakeholder Management
- k) 9250: Identify Program Stakeholders
- l) 9260: Engage Program Stakeholders
- m) 9270: Manage Program Stakeholder Expectations
- n) 9290: Plan for Audits

**14) Project Management Metrics:** The organization should define, collect, use, verify and analyze metrics for measuring the success of its projects, programs and portfolio.

- a) 7315: Define OPM Success Metrics
- b) 7325: Collect OPM Success Metrics
- c) 7335: Use OPM Success Metrics
- d) 7345: Verify OPM Success Metric Accuracy
- e) 7355: Analyze and Improve OPM Success Metrics
- f) 8950: Define Key Leading Indicators

**15) Project Success Criteria:** Project goals and results are also identified according to strategic goals and total performance.

- a) 1540: Include Strategic Goals into Project Objectives

### ***Human Resource (HR)***

The final category of organizational enablers ensures the OPM application and success by assigning the appropriate role to the right person. High level organization performance is achieved through Competency Management, Individual Appraisals and Training programs.

**16) Competency Management:** One of the four core-enabling processes that will be thoroughly explained in section 6.3.

**17) Individual Performance Appraisals:** In this practice the organization attempts to incorporate project management performance in formal processes and procedures in order to effectively assess it.

a) 1530: Use Formal Individual Performance Assessment

**18) Project Management Training:** Training in project management processes, tools and methodologies is essential for continuous improvement and success. These practices ensure that training and talent programs are in place for enhancing performance.

a) 5200: Provide Project Management Training

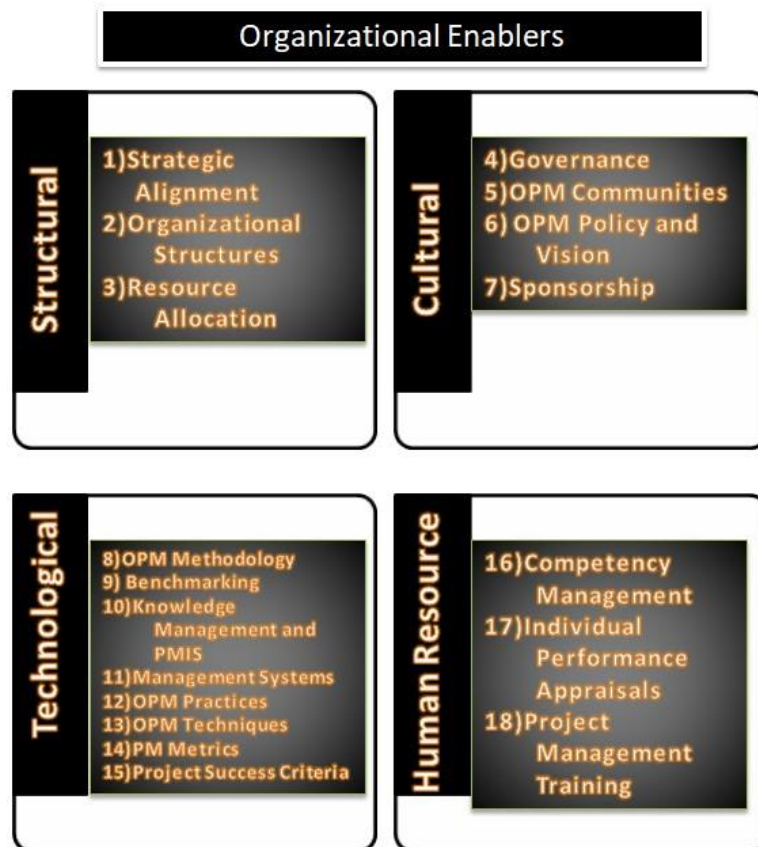
b) 5210: Provide Continuous Training

c) 5300: Establish Training and Development Program

d) 9100: Project Management Case Studies Included in Induction Program

e) 9110: Project Management Training is Mapped to Career Development Path

Figure 15 summarizes the organizational enabler categorization.



**Figure 15:** Organizational Enablers

### ***5.3 Implementation of the core-enabling processes***

#### ***5.3.1 Strategic Alignment***

The main focus of this core-enabling process is the alignment of organizational strategic goals and objectives with its portfolio mix. When supported by governance, it enables the organization to constantly align and maximize the value of its projects and portfolio initiatives. The inputs of this process may include:

- Organizational strategy and objectives
- Organizational structure, resources and process assets
- Benchmark data against competitors, industry or regulation
- Inventory of portfolios and roadmaps

The outputs derived from planning and implementing strategic alignment include:

- Portfolio charters
- Resource investment plans
- KPIs and measures of portfolio success
- Prioritized and optimized portfolio

Depending on the maturity level of the organization one foundational approach may be selected before attempting to improve the strategic alignment process.

#### **5.3.1.1 Foundational Strategic Alignment**

The basic activities required in order to initiate this process are:

- Identifying strategic goals
- Utilizing current portfolio
- Identifying responsible positions/functions in order to achieve desired objectives
- Identifying available resources for the current portfolio

After completing the activities below, the organization should carefully examine the strategic plan and the investment decisions that may hinder the implementation of the objectives. The next step is the development of a portfolio that is aligned with the organizational goals based on the existing one. Several passes may be required in order to constantly monitor if the portfolio is partially, fully or not yet aligned. Developing and formalizing portfolio charters in accordance with the strategic plan need authorization before proceeding to improving the process.

#### **5.3.1.2 Improved Strategic Alignment**

The additional elements required in order to improve an organization's strategic alignment are described below:

- Taking current inventory of planned portfolios that have yet to be approved
- Identifying organizational positions and functions for planning portfolios and associated leadership to approve the initiative
- Identifying current availability and use of resources

- Identifying available organizational process assets and procedures-policies for organizational enablers in order to facilitate the integration with business processes
- Identifying KPIs to be measured against improvements for alignment with OPM

A series of activities are required after the foundational and aforementioned elements are in place in order to improve OPM within the organization:

- Updating the inventory of aligned portfolios in order to include the planned portfolios for further alignment. The associated charters are developed and approved by the associated leadership.
- Utilizing organizational and portfolio process assets for planning and chartering proposed portfolios. The assets will lead to successful project and program conclusions.
- Developing KPIs to measure attainment of strategic alignment and portfolio performance, resource utilization and effectiveness of assets. An analysis may be required of the use of KPIs whether improvements may deem necessary.
- Conducting a gap analysis to manage strategic change and develop a prioritization matrix for initiatives as described in previous chapter. The results from the prioritization matrix will help identify recommendations for improvement and implement enhancements to organizational resources and assets.
- Integration of strategic alignment with enterprise's risk processes.

The best practices derived from this organizational enabler- core-enabling process include:

- a) 7035: Organizational Business Change Management Program
- b) 7405: Achieve Strategic Goals and Objectives
- c) 8910: Analyze Value Performance
- d) 8920: Assess the Realization of Proposed Benefits
- e) 9000: Establish Enterprise Risk Management Methodology
- f) 9080: Establish Strategic Alignment Framework
- g) 9130: Report OPM Performance to Strategy
- h) 9140: Report Project Program Strategic Performance
- i) 9200: Use Formal Performance Assessment
- j) 9310: Strategic Alignment of Programs



### **5.3.2 Governance**

OPM Governance helps the organizations to effectively manage their projects and maximize value from their deliverables and outcomes. It provides a decision Framework to cover stakeholders' needs and expectations and is achieved through a decision-making body which endorses or approves recommendations for OPM components. Governance includes all levels of the organization and may even transcend business lines. Recommendations and initiatives are also reviewed and accepted through governance processes in order to enhance current processes and methodologies during assessments. The inputs of this activity include:

- Prior organization assessments and work culture assessments
- Strategic alignment process data and details
- Organizational risk tolerance
- Understanding of existing governance boards
- KPIs

The outputs associated with this process include:

- An OPM Governance charter
- OPM governance process and a respective owner
- Strategic alignment through project, program and portfolio approval processes
- Communications management plan
- KPIs revised

#### **5.3.2.1 Foundational Governance**

Organizations aiming to expand or initiate project management methodologies and align their projects with strategic goals should approach OPM governance. This approach should maintain an alignment of governance leadership with the other core-enabling processes. The responsibilities include:

- Establishing roles and responsibilities for the governance board and its members.
- Determining a closely aligned manager and team and securing agreement on OPM responsibilities.
- Documenting and finalizing the charter, scope and membership of the governance board along with their integration with the Project, Program and Portfolio (PPP) processes.
- Review and implementation of the strategic alignment enabling process

- Establishing and approval of KPIs.

### **5.3.2.2 Improved Governance**

Organizations that have already established foundational governance should aim to improve the process by following the activities:

- Incorporate additional members to the governance board to support and represent governance for all business units in order to accomplish the organizational strategy.
- Allocate a budget if needed for the governance function. Approvals may be needed.
- Institutionalize the OPM governance process by adding applicable changes to the charter regarding scope and membership
- Transform the organizational performance through regular KPI assessments and reviews.
- Identify, prioritize and execute continuous improvement initiatives.

The best practices derived from this organizational enabler- core-enabling process include:

- a) 9020: Establish Governance Policies Across the Organization
- b) 9170: Consistent Project, Program and Portfolio Governance Across the Enterprise
- c) 9280: Plan and Establish Program Governance Structure
- d) 9300: Provide Governance Insight

### **5.3.3 OPM Methodology**

Organizational project management methodology describes a system of practices, techniques, procedures, and rules used in portfolio, program, and project work to meet requirements and deliver benefits to support the organization's strategy. (Project Management Institute, 2013)

Depending on the organization, the methodology should be tailored and scaled regarding size, type, complexity and maturity. More than one methodology might

be in use in order to connect critical parts of the organization and align with the business model.

The inputs of this process include:

- Understanding the project types and recognizing their size before managing them
- Understanding existing internal and external supporting organizational processes and procedures
- Gathering project data and lessons learned of completed projects to help in templates development
- Documenting lessons learned to extract best practices and avoid pitfalls
- Identifying an archive repository for saving original versions of project management methodology

The outputs associated with this process include:

- Project management methodology
- Changes to current policies and procedures and proposed new ones
- Project document templates
- Project roles and responsibilities
- Portfolio view of portfolios, programs and projects
- KPI visibility to drive corrective and continuous improvement actions
- Updated organizational change management plan, communications management plan and training plan

### **5.3.3.1 Foundational OPM Methodology**

The main focus of this enabler at the early stage of implementation is:

- Project level methodology
- Portfolio view of projects

The activities in order to develop a foundational project management methodology include:

- Establish a definition of a project regarding its cost, effort, risk etc and a definition for project management.

- Elaborate on a list that contains high-level information of all projects undertaken by the organization.
- Determine a set of processes tailored to the needs of each different project type.
- Describe the project management processes with a consistent documentation structure.
- Outline a tailoring process to allow flexibility of the project management methodology. Pre tailoring a standard methodology into project packages may vary from project type model, project size, complexity and risk.
- Establish project reporting models.
- After developing a specific methodology the organization should focus on updating the organizational change management plan to favor the stakeholder side towards the process. The training plan of competency management should be tailored to the new skill requirements and updating the communications plan deems necessary as well.

### **5.3.3.2 Improved OPM Methodology**

Organizations which have already operated successfully a project management methodology at the project level are ready to promote it to the program and portfolio level. The deployment of the methodology will enable the alignment with the organizational strategic objectives. The activities that call for completion at the program level are as follows:

- Establish an organizational definition of a program to include minimum thresholds like cost, effort, risk and duration.
- Define and implement a program cataloging process for the existing projects.
- Determine a set of program management processes for each program type that are consistent with The Standard of Program Management- Fourth Edition.
- Describe the supporting program management processes by using a set structure and documentation.
- Outline a program specific tailoring process to allow scalability and flexibility of the project management methodology.
- Update the new OPM change management plan, training plan and communications management plan to understand the new program components.

Implementation of an improved OPM methodology at the portfolio level requires the following steps:

Define and implement an additional cataloging process to complete the existing project and program list.

Determine a set of portfolio management processes consistent with The Standard for Portfolio Management- Third Edition.

Describe the supporting portfolio management processes by using a consistent set structure and documentation.

Outline a portfolio-specific tailoring process to allow scalability and flexibility of the project management methodology.

Update the existing OPM change management plan, training plan and communications management plan to understand the new portfolio management components.

The best practices derived from this organizational enabler- core-enabling process include:

- a) 1460: Tailor Project Management Processes Flexibly
- b) 5260: Customize Project Management Methodology
- c) 5270: Integrate Project Management Methodology with Organizational Processes
- d) 8900: Accommodate Organization's Approved Frameworks and Governance Structures
- e) 8960: Developing Project Management Templates
- f) 9050: Establish Project Management Template Tailoring Guidelines

### ***5.3.4 Competency Management***

Implementing a project, program or portfolio within an organization requires the appropriate skills to be in place the right time. OPM competency management enabler reassures the timely assessment and existence of the necessary skills to deliver the desired results. Competency management supports the rest of the core-enabling processes by 1) ensuring short and long term planning for competency need; 2) roles and responsibilities are widely understood regarding deliverables; 3) skills and knowledge are attained by everyone in the organization and have the

opportunity to expand them; 4) providing mechanisms to ensure continuous improvement and learning.

The inputs of this process include:

- The list of portfolios, programs and projects
- Project skills assessment
- Skills and experience assessment of existing managers
- Organizational skills assessment
- Organizational structure

The outputs associated with this process include:

- Updated skill assessments
- Understanding of which organization will provide the needed skills
- Identification of external resources to provide the skills not already existing in the organization
- Competency model for improved implementation
- Career Development Framework (CDF) for improved implementation
- Training curriculum for improved implementation
- Knowledge Management System (KMS) for improved implementation
- KPIs

#### **5.3.4.1 Foundational Competency Management**

The main goal of this enable at a foundational level is to ensure that the main skills and competencies are available in order to deliver desired results. The steps an organization needs to follow are listed below:

- Make a review of the existing projects and programs to be aligned with and deliver organizational strategy.
- Assessment of necessary skills to deliver projects based upon published standards.
- Perform a skills gap analysis to determine if extra procurement is needed outside of the organization
- Identify sources for developing needed skills like expert mentoring or training.

- Reassess the skills and competencies needed in order to deliver the OPM business case, taking into consideration possible changes in organizational structure or strategy.
- Understand the impact of hiring and attrition on the organization's capabilities.

#### **5.3.4.2 Improved Competency Management**

The activities for implementing an improved competency management include:

- Development of a multi-level competency model.
- Develop and implement a career development framework that provides a path for a progressive development and enrichment of skills.
- Develop and implement a training curriculum that is benchmarked against similar organizations that use an advanced OPM program.
- Identify experiential learning opportunities with formal mentoring processes, pilot projects or formal development programs.
- Allow for knowledge sharing through platforms, create communities of practice and capture lessons learned to propel best practice use.
- Provide additional organizational support to ensure the desired skills and capabilities can lead to strategic alignment and provide long-term benefits for the organization.
- Reassess the performance using KPIs and benchmark against other business models to identify good practices.

The best practices derived from this organizational enabler- core-enabling process include:

- a) 1400: Staff Organizational Project Management with Competent Resources
- b) 1430: Establish Project Manager Competency Process
- c) 5190: Facilitate Project Manager Development
- d) 5620: Establish Career Path for all Organizational Project Management Roles
- e) 7105: Manage the Holistic View of the Project
- f) 7115: Manage the Environment
- g) 7125: The Organization Manages Self Development
- h) 7135: Demonstrate Competency in Initiating a Project
- i) 7145: Demonstrate Competency in Planning a Project

- j) 7155: Demonstrate Competency in Executing a Project
- k) 7165: Demonstrate Competency in Monitoring and Controlling a Project
- l) 7175: Demonstrate Competency in Closing a Project
- m) 7185: Demonstrate Communicating Competency
- n) 7195: Demonstrate Leading Competency
- o) 7205: Demonstrate Managing Competency
- p) 7215: Demonstrate Cognitive Ability Competency
- q) 7225: Demonstrate Effectiveness Competency
- r) 7235: Demonstrate Professionalism Competency
- s) 9120: Provide Mentoring to Project Managers



## ***6. Implementation of Initiatives to Manage Improvement- An industrial company from the oil and gas sector case***

The OPM3 Framework shall provide the basis to create a roadmap of initiatives for an industrial company from the oil and gas sector. The analysis will revolve around organizational enabler maturity level of the company by conducting an interview with associated project managers. The results of the current state implementation status of OEs will provide the data for the gaps that need to be addressed for improvement. The questionnaire included in Appendix A3 was used to determine levels of implementation regarding best practices for organizational enabler categories. The scoring model is presented below:

- 0- Not implemented for outcomes of a best practice*
- 1- Partially implemented*
- 2- Fully implemented, not consistently*
- 3- Fully implemented, consistently*

In Appendix A3 the Excel sheet of OE assessment status is also presented.

### ***6.1 Recommendations to address the gap between current and desired maturity level of OEs***

This process identifies the gaps between current and desired state of maturity and provides cost and effort estimates for areas of improvement. The estimates for cost and duration of initiatives (section 6.2) will depend on rough estimates since data needed to fully assess them is not within the scope of this thesis and calls for a complete maturity assessment with up to date data and details. This section depicts the desired maturity levels for best practices to be implemented in the aforementioned company with main focus and strategic goal on the core-enabling processes. (Tables 1-18)

### 6.1.1 Core-enabling Processes

1.Strategic Alignment			
<i>BP</i>	<i>BP Name/ Description</i>	<i>Assessed Implementation Status</i>	<i>Desired Implementation Status</i>
-	Implemented Strategic plan	2	YES
7035	Organizational Business Change Management Program	0	YES
7405	Achieve Strategic Goals and Objectives through the use of OPM	0	YES
8910	Analyze Value Performance	0	YES
8920	Assess the Realization of Proposed Benefits	0	YES
9000	Establish Enterprise Risk Management Methodology	1	YES
9130	Report OPM Performance to Strategy	0	YES
9200	Use Formal Performance Assessment	2	YES

**Table 1:** Strategic Alignment maturity level status

2.OPM Methodology			
<i>BP</i>	<i>BP Name/ Description</i>	<i>Assessed Implementation Status</i>	<i>Desired Implementation Status</i>
1460	Tailor Project Management Processes Flexibly	1	YES
5270	Integrate Project Management Methodology with Organizational Processes	1	YES
8960	Develop Project Management Templates	2	YES
9050	Establish Project Management Template Tailoring Guidelines	1	YES
-	Documented Project Management Methodology of Practices and Techniques	1	YES

**Table 2:** OPM Methodology maturity level status

<b>3.Governance</b>			
<i>BP</i>	<i>BP Name/ Description</i>	<i>Assessed Implementation Status</i>	<i>Desired Implementation Status</i>
9020	Establish Governance Policies across the Organization	2	YES
9170	Consistent PPP Across the Enterprise	1	YES
-	Established a governance structure within the organization	0	YES
9300	Provide Governance insight	1	YES
-	Existence of a PPP Governance Model/Framework	1	YES

**Table 3:** Governance maturity level status

<b>4.Competency Management</b>			
<i>BP</i>	<i>BP Name/ Description</i>	<i>Assessed Implementation Status</i>	<i>Desired Implementation Status</i>
-	Established processes and career paths for project managers	1	YES
7115	Manage the environment	1	YES
7135-75	Demonstrate Competency in Initiating/Planning/Executing/Monitoring and Controlling/Closing a Project	1	YES
7185	Demonstrate Communicating Competency	1	YES
7195	Demonstrate Leading Competency	2	YES
9120	Provide Mentoring to Project Managers	1	YES

**Table 4:** Competency Management maturity level status

## 6.1.2 Organizational Enablers

<b>5.OPM Policy and Vision</b>			
<i>BP</i>	<i>BP Name/ Description</i>	<i>Assessed Implementation Status</i>	<i>Desired Implementation Status</i>
1000	Establish OPM Policies	0	YES
5180/7015	Educate Executives/Stakeholders in OPM	0	YES
6980	Create an Organizational Maturity Development Program	0	YES
7005	OPM Leadership Program	0	YES
7025	Cultural Diversity awareness	1	YES
8940	Create a Risk-Aware culture	3	YES

**Table 5:** OPM Policy and Vision maturity level status

<b>6.OPM Practices</b>			
<i>BP</i>	<i>BP Name/ Description</i>	<i>Assessed Implementation Status</i>	<i>Desired Implementation Status</i>
1670	Know Inter-Project Plan	1	YES
8980	Encourage Adherence to Project Management Code of Ethics	1	YES
9160	Consistent Project Orientation Process	2	YES

**Table 6:** OPM Practices maturity level status

<b>7.OPM Techniques</b>			
<i>BP</i>	<i>BP Name/ Description</i>	<i>Assessed Implementation Status</i>	<i>Desired Implementation Status</i>
2090	Adhere to Project Management Techniques	1	YES
3070	Encourage Risk Taking	0	NO
5170	Use Common Project Language	2	YES

9180	Use Mathematically Sound Methods for Prioritization	1	YES
9190	Use an Optimizer to Select the Portfolio	1	YES
9210	Manage Program Resources	2	YES
9220	Manage Program Issues	1	YES
9230	Manage Component Interfaces	1	YES
9240	Plan Program Stakeholder Management	1	YES
9250	Identify Program Stakeholders	1	YES
9260	Engage Program Stakeholder	1	YES
9270	Manage Program Stakeholder Expectations	1	YES
9290	Plan for Audits	3	YES

**Table 7:** OPM Techniques maturity level status

<b>8.Organizational Structures</b>			
<i>BP</i>	<i>BP Name/ Description</i>	<i>Assessed Implementation Status</i>	<i>Desired Implementation Status</i>
7045/7055	Establish and Adopt OPM Structure	0	NO
7065	Institutionalize OPM Structure	0	NO
7075	Provide OPM Support Office	0	NO

**Table 8:** Organizational Structures maturity level status

<b>9.Benchmarking</b>			
<i>BP</i>	<i>BP Name/ Description</i>	<i>Assessed Implementation Status</i>	<i>Desired Implementation Status</i>
2190	Benchmark OPM Performance Against Industry Standards	0	YES
8930	Benchmark PMO Practices and Results	0	YES
9090	Incorporate Performance Benchmarks into Balanced Scorecard System	0	YES

**Table 9:** Benchmarking maturity level status

<b>10.Individual Performance Appraisal</b>			
<i>BP</i>	<i>BP Name/ Description</i>	<i>Assessed Implementation Status</i>	<i>Desired Implementation Status</i>
1530	Establish and Adopt OPM Structure	2	YES

**Table 10:** Individual Performance Appraisal maturity level status

<b>11.Knowledge Management and PMIS</b>			
<i>BP</i>	<i>BP Name/ Description</i>	<i>Assessed Implementation Status</i>	<i>Desired Implementation Status</i>
3030	Capture and Share Lessons Learned	2	YES
7365	Project Management Information System	3	YES
8970	Document Project Management Case Studies	1	YES
9030	Establish OPM Reporting Standards	1	YES

**Table 11:** Knowledge Management and PMIS maturity level status

<b>12.Managment Systems</b>			
<i>BP</i>	<i>BP Name/ Description</i>	<i>Assessed Implementation Status</i>	<i>Desired Implementation Status</i>
5280	Establish Common Project Management Framework	1	YES
5320	Certify Quality Management System	3	YES
5490	Recognize Value of Project Management	1	YES
5500	Define Project Management Values	1	YES
5520	Collaborate on Goals	2	YES

**Table 12:** Management Systems maturity level status

<b>13.OPM Communities</b>			
<i>BP</i>	<i>BP Name/ Description</i>	<i>Assessed Implementation Status</i>	<i>Desired Implementation Status</i>
5240	Establish Internal Project Management Communities	0	YES
5250	Interact with External Project Management Communities	0	YES
9040	Establish Project Delivery Tips and Techniques Special Interest Group	0	YES

**Table 13:** OPM Communities maturity level status

<b>14.Project Management Metrics</b>			
<i>BP</i>	<i>BP Name/ Description</i>	<i>Assessed Implementation Status</i>	<i>Desired Implementation Status</i>
7315	Define OPM Success Metrics	1	YES
7325	Collect OPM Success Metrics	1	YES
7335	Use OPM Success Metrics	1	YES
7345	Verify OPM Success Metric Accuracy	0	YES
7355	Analyze and Improve OPM Success Metrics	0	YES
8950	Define Key Leading Indicators	1	YES

**Table 14:** Project Management Metrics maturity level status

<b>15.Project Management Training</b>			
<i>BP</i>	<i>BP Name/ Description</i>	<i>Assessed Implementation Status</i>	<i>Desired Implementation Status</i>
5200	Provide Project Management Training	2	YES

5210	Provide Continuous Training	3	YES
5300	Establish Training and Development Program	3	YES
9110	Project Management Training is Mapped to Career Development Path	1	YES

**Table 15:** Project Management Training maturity level status

<b>16.Project Success Criteria</b>			
<i>BP</i>	<i>BP Name/ Description</i>	<i>Assessed Implementation Status</i>	<i>Desired Implementation Status</i>
1540	Include Strategic Goals Into Project Objectives	2	YES

**Table 16:** Project Success Criteria maturity level status

<b>17.Resource Allocation</b>			
<i>BP</i>	<i>BP Name/ Description</i>	<i>Assessed Implementation Status</i>	<i>Desired Implementation Status</i>
1590	Record Project Resource Assignments	2	YES
5220	Provide Competent OPM Resources	1	YES
9060	Establish Resource Allocation and Optimization Processes	1	YES
9070	Establish Scarce Resource Allocation Criteria	1	YES
9150	Specialists are Shared Between Projects	1	YES

**Table 17:** Resource Allocation maturity level status



18.Sponsorship			
<i>BP</i>	<i>BP Name/ Description</i>	<i>Assessed Implementation Status</i>	<i>Desired Implementation Status</i>
1450	Establish Strong Sponsorship	2	YES
5340	Establish Executive Support	2	YES
8990	Establish Competent Project Sponsors	1	YES

**Table 18:** Sponsorship maturity level status

After examining the gaps that need to be addressed based on the maturity levels of the company’s organizational enablers, several initiatives have emerged in order to identify and later prioritize ( section 6.2) them in an implementation roadmap (section 6.3).

Regarding core-enabling processes, the gap is huge in **Strategic alignment** with a great number of best practices still unimplemented. The first and second initiatives will mainly include this category without though establishing a **Governance** and **Organizational structures** in the company due to excess difficulty of implementation that will not be included in this thesis’ scope.

**OPM Policy and Vision** plays an important role in understanding and adopting OPM programs for further increase in organizational maturity. The best practices still unimplemented in this category will be included in the third and fourth initiative. **OPM Practices and Techniques** yet implemented in a satisfactory level may be included in the roadmap for improvement of their practices as collaborative opportunities.

**Benchmarking** and **OPM Communities** will constitute the next initiatives since their maturity status is totally unimplemented in our case and seem important to adopting and being able to measure OPM practices and value.

**Resource Allocation** and **PM metrics** though implemented will be included for further improvement.

To sum up, the main output of the Create recommendations process of the OPM3 lists all identified and prioritized improvement areas into initiatives to be selected and used in a roadmap in next sections of this thesis. The list contains:

Initiative 1: Strategic Alignment BPs: 7035

Initiative 2: Strategic Alignment BPs: 7405, 8910, 8920,9130

Initiative 3: OPM Policy and Vision BPs: 1000, 5180, 7015

Initiative 4: OPM Policy and Vision BPs: 6980,7005

Initiative 5: Benchmarking BPs: 2190, 8930, 9090

Initiative 6: OPM Communities BPs: 5240, 5250, 9040

Initiative 7: Resource Allocation BPs: 5220, 9060, 9070, 9150

Initiative 8: Project Management Metrics BPs: 7315-7355

## ***6.2 Selection of Initiatives to Manage Improvement***

The Select Initiatives process of the OPM3 outlines a set of initiatives by grouping several best practices for implementation within a business cycle. The identified improvement areas of previous process (6.1) will be used as an input to create a final list of prioritized initiatives based on strategic importance and difficulty of implementation. The best practices grouped into initiatives in Create Recommendations process will be analyzed through Microsoft Excel sheets and final prioritization will bring about the creation of a roadmap.

### **6.2.1 Ranking process**

After selecting and grouping the best practices into initiatives for further analysis, the next step is to prioritize them and plot them into a matrix before proceeding to the final creation of an improvement roadmap.

The two main categories used to rank them were strategic importance and difficulty of implementation.

#### ***Strategic Importance:***

This category is subdivided into benefits and collaborative opportunities. Each best practice is briefly analyzed based on its strategic benefits without a special discrimination of quantitative or qualitative results due to insufficient data for the assessment. A subjective score is given into percentage with an extra 10% for a best practice that offers an option for collaboration with other practices. A weight of 60% is given to the strategic importance based on benefits it provides for the organization. The total score is taken into consideration for ranking the initiatives for implementation.

Difficulty of Implementation:

The two main aspects of this category include duration and effort along with total cost sustained for implementation. The range in percentage scores was based on the following tables:

Total Effort	Percentage score
0-50	80-100%
50-100	60-75%
100-150	40-55%
150-200	20-35%
200+	10%

**Table 19:** Total effort score calculation

Total Cost in Thousand Euros	Percentage score
0-10 T	80-100%
10-20T	60-75%
20-30T	40-55%
30-40T	20-35%
50T+	10%

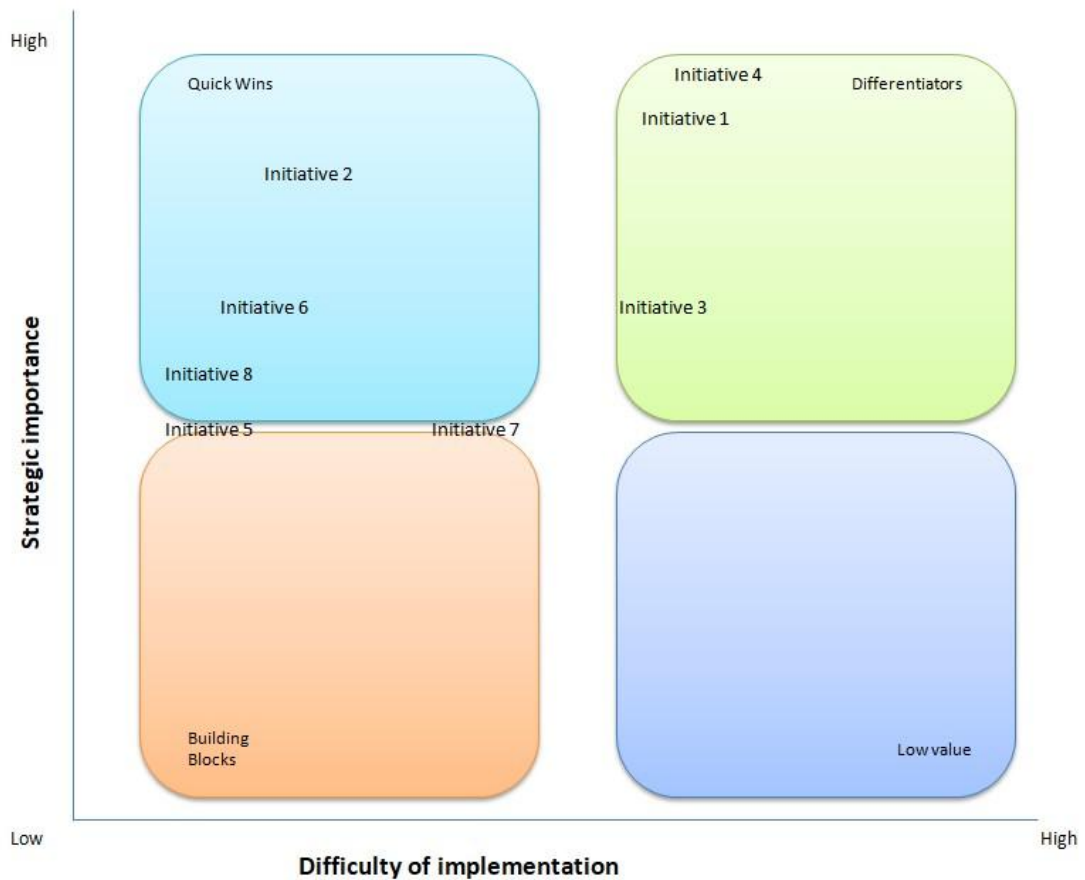
**Table 20:** Total cost score calculation

A weight of 40% is given to this category based on the combined results of the aforementioned table scores. Note that 100% in this category means that the initiative is of lowest difficulty to implement thus counting positively to the total score(Example: 20% as a total score including the 40% weight means that the initiative is by 80% difficult to implement). Next excel sheet table 21 sums up the ranking of all initiatives based on their respective scores. Figure 16 depicts the plotting of all initiatives based on their score into a prioritization matrix as described in section 4.1.2 of this thesis and categorized as a) Quick wins, b) Differentiators, c) Building Blocks, d) Low Value.

\*Benefits analysis is provided in appendix A3 of the thesis.

BP ID	BP Name	Order	Difficulty of Implementation						Strategic Importance		Total score	Ranking
			Duration and Effort (days)			Estimated Cost in T Euros			Benefits*	Collaborative opportunities		
			Internal Effort	External Effort	Total Effort	Investment	HR cost	Total				
<b>Initiative 1</b>												
7035	Organizational Business Change Management Program	1	100	50	150	20	10	30				
Score			40%			40%			90%	0,70	5	
<b>Initiative 2</b>												
7405	Achieve Strategic Goals and Objectives through the use of OPM	4	60		60							
8910	Analyze Value Performance	1	30		30							
8920	Assess the Realization of Proposed Benefits	2	50		50							
9130	Report OPM Performance to Strategy	3	10		10							
Score			40%			100%			80%	0,76	2	
<b>Initiative 3</b>												
1000	Establish OPM Policies	3	20	15	35	10	10	20				
5180	Educate Executives	1	30	10	40		5	5				
7015	Educate Stakeholders in OPM	2	30	10	40		5	5				
Score			45%			40%			60%	0,53	8	
<b>Initiative 4</b>												
6980	Create an Organizational Maturity Development Program	1	20	100	120	10	10	20				
7005	OPM Leadership Program	2	20		20							
Score			45%			55%			100%	0,80	1	
<b>Initiative 5</b>												
2190	Benchmark OPM Performance Against Industry Standards	2	10		10							
8930	Benchmark PMO Practices and Results	3		20	20	5		5				
9090	Incorporate Performance Benchmarks into Balanced Scorecard System	1	10		10							
Score			85%			90%			50%	0,65	6	
<b>Initiative 6</b>												
5240	Establish Internal Project Management Communities	1	30		30							
5250	Interact with External Project Management Communities	2		10	10		2	2				
9040	Establish Project Delivery Tips and Techniques Special Interest Group	3	10	10	20		5	5				
Score			75%			85%			70%	0,74	3	
<b>Initiative 7</b>												
5220	Provide Competent OPM Resources	2	30		30	5	10	15				
9060	Establish Resource Allocation and Optimization Processes	3	10		10		2	2				
9070	Establish Scarce Resource Allocation Criteria	4	10		10		2	2				
9150	Specialists are Shared Between Projects	1				5	5	10				
Score			80%			40%			50%	0,54	7	
<b>Initiative 8</b>												
7315	Define OPM Success Metrics	1	10		10							
7325	Collect OPM Success Metrics	2	10		10	5		5				
7335	Use OPM Success Metrics	3										
7345	Verify OPM Success Metric Accuracy	4	10		10							
7355	Analyze and Improve OPM Success Metrics	5	15		15		5	5				
Score			95%			80%			60%	0,71	4	

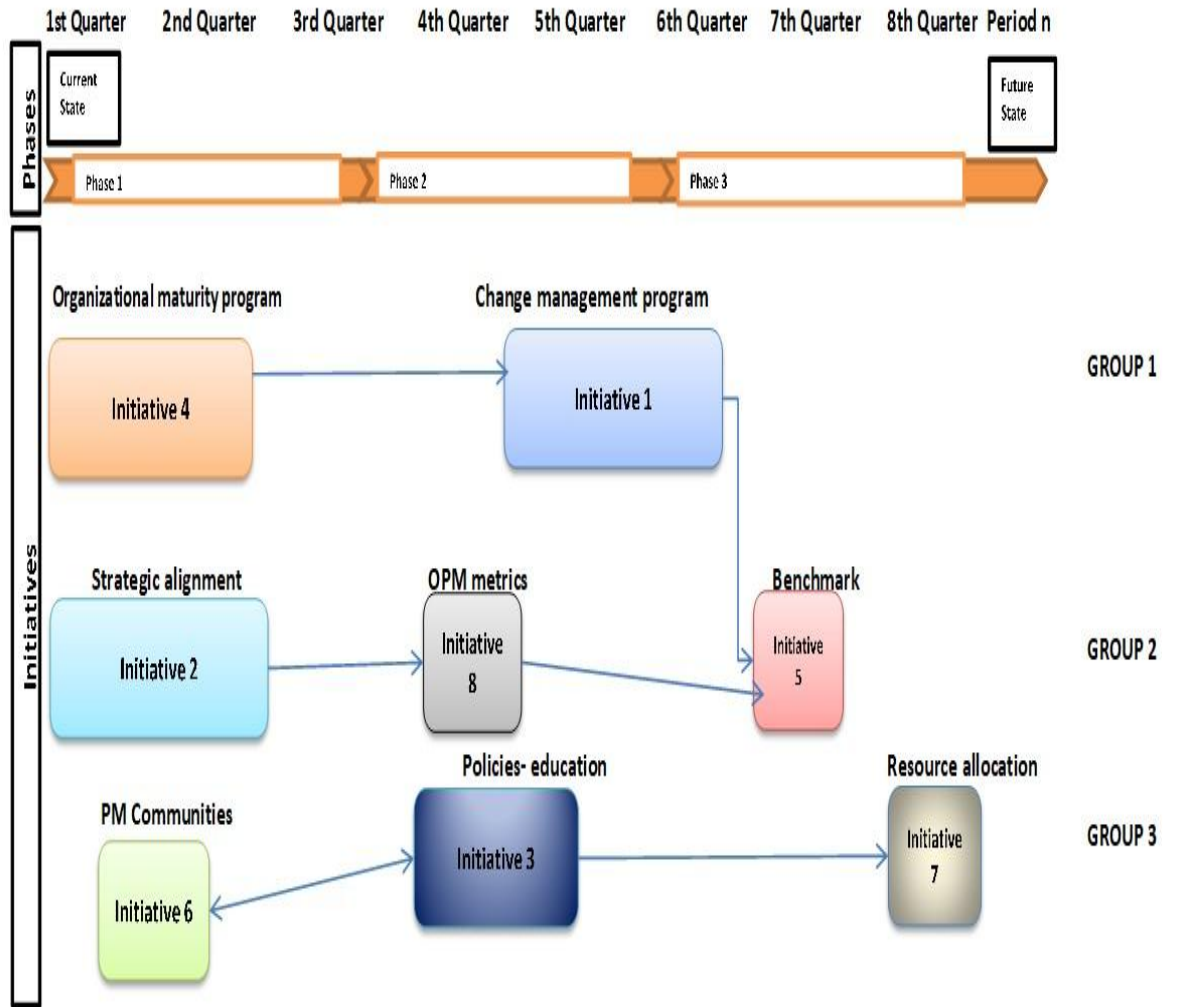
**Table 21:** Excel sheet initiative ranking



**Figure 16:** Prioritization matrix of selected initiatives

### ***6.3 Roadmap of Improvement***

After analyzing and ranking the selected initiatives the organization should develop a roadmap to reflect the transition from current to future state through use of the prioritized initiatives. All 8 of the above initiatives will be included in the roadmap with priority of implementation to the first 4 in total score. Table 22 reflects a 2 year planning timeline within all initiatives are due to be implemented and their respective relationships.



**Table 22:** Roadmap of implementation

## 6.4 Benefits and results derived from the OPM Program

The next step after the organization has a clear understanding of where to focus the improvement, is to apply and create improvement plans for each initiative and manage change effectively at the end of the OPM3 program.

A great number of benefits could arise from the implementation of OPM programs and considerably aid the organization in attaining a competitive advantage. Figure 17 sums up the results of implementation as benefits for the organization and our case example.

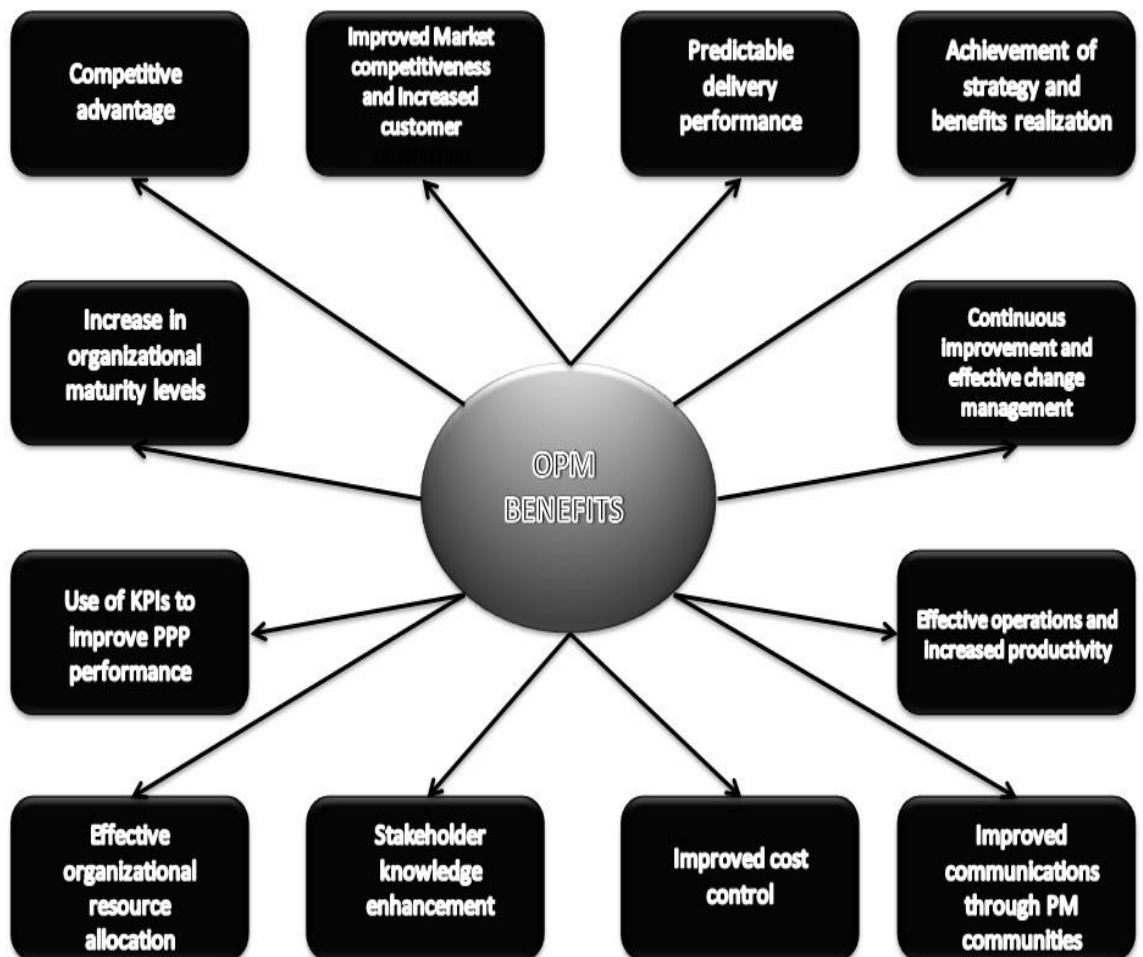


Figure 17: OPM Benefits

## **APPENDIX**

**A1: CHANGE READINESS ASSESSMENT QUESTIONS**

**A2: OPM3 BEST PRACTICES/ORGANIZATIONAL  
ENABLERS**

**A3: EXCEL SHEETS USED FOR ASSESSMENT-  
ASSESSMENT QUESTIONNAIRE- BENEFITS ANALYSIS  
SCORE**

**LIST OF REFERENCES**



## **A1) CHANGE READINESS ASSESSMENT QUESTIONS**

### ***1. Questions relating to implementation of Critical Success Factors:***

#### ***a) Sustained Leadership***

- Who is the most senior and qualified person to sponsor an implementation OPM program in the organization?
- Who is the most appropriate person to manage and lead OPM initiatives in a daily basis?
- What relevant sponsorship practices are in place currently? What is their maturity level?

#### ***b) Continuous Improvement***

- How does the organization identify areas that call for improvement?
- How does the organization manage risk and who is responsible to define contingency plans?
- Who keeps track of the achievements in organizational strategy and in what way?
- How does the organization identify threats and opportunities?
- What is the frequency of gap analysis and how does the organization relate the improvement actions with the appropriate portfolio mix of projects and programs?

#### ***c) Organizational Change Management***

- What is the type of relationship between supporting functional areas in the organization and the business functional areas?
- Does the organization have cross-business functional area initiatives and have they been successful?

- Does the organization link initiatives with business processes?
- How do projects fit into the cross-business initiatives and how into the business processes?
- How does the organization manage change?
- Who is the responsible leader for change management initiatives into the organization?
- Is there an available change management policy?
- What communication channels exist for each stakeholder?

## ***2. Questions relating to General Readiness for OPM Initiatives***

- ***Business results.*** What is the current performance of existing projects, programs and portfolio?
- ***Environmental factors.*** What is the relationship between projects and external environment? ( competitors, customers, regulation)
- ***Organizational culture.*** Is there a decision-making model currently available? What is the main type of communication used among stakeholders and employees? What is the organization's tolerance for risk? What are the policies and practices regarding employee treatment?
- ***Organizational experience with substantial improvement changes.*** Is the organization competent and agile enough to adopt and sustain change programs? Are there any current initiatives that could potentially obstruct OPM initiative progress?
- ***Organizational process assets (OPA).*** What is the governance process related to projects, programs and portfolio? How effective is the Project Management information system? How does enterprise risk fit the OPM context?

- ***Organizational Strategic planning.*** Is there an obvious and clear connection between strategy and vision with organization's projects?
- ***Organizational structures.*** Is the organization considered to be functional, matrix or project-centric? Are there any existing policies or structures that may hinder or encourage OPM implementation?
- ***OPM- related roles and responsibilities.*** Are there any PMOs in place? Are there any internal project management communities?
- ***Stakeholder list.*** Who are the main stakeholders and people in the organization that need to take part in the OPM initiative?

## **A2) OPM3 BEST PRACTICES/ORGANIZATIONAL ENABLERS**

### ***Structural (S)***

#### ***1) Strategic Alignment:***

<b><u>BP ID</u></b>	<b><u>BP Description</u></b>
<b>7035:</b> Organizational Business Change Management Program	The organization has a business change management program.
<b>7405:</b> Achieve Strategic Goals and Objectives	Organizations adopt OPM as the means of achieving organization's goals and objectives.
<b>8910:</b> Analyze Value Performance	The organization performs value performance analysis against the performance of its endeavors and refines the strategy appropriately.
<b>8920:</b> Assess the Realization of Proposed Benefits	The organization establishes a formal process to assess and account the realization of proposed benefits of their PPPs.
<b>9000:</b> Establish Enterprise Risk Management Methodology	The organization captures enterprise risk (market, financial, business and environment) and their impact on strategy and portfolio, programs and projects.
<b>9080:</b> Establish Strategic Alignment Framework	The organization reviews the strategy, current conditions and results and adjusts the portfolio components accordingly.
<b>9130:</b> Report OPM Performance to Strategy	The OPM system delivers feedback from the completion of projects and the realization of benefits back to the strategy of the organization.
<b>9140:</b> Report Project Program Strategic Performance	Review and report strategic benefits of project and program metrics and their importance to portfolio performance.
<b>9200:</b> Use Formal Performance Assessment	Formally assess the performance of projects or phases in relation to business case used during initiation.
<b>9310:</b> Strategic Alignment of Programs	The organization establishes and maintains the alignment of programs with the organizational strategy.

#### ***2) Organizational Structures:***

<b><u>BP ID</u></b>	<b><u>BP Description</u></b>
<b>7045:</b> Establish Organizational Project Management Structure	The organization has determined the appropriate organizational structure to support OPM.
<b>7055:</b> Adopt Organizational Project Management Structure	Adopt OPM structure across the organization.

<b>7065:</b> Institutionalize Organizational Project Management Structure	Institutionalize the OPM structure across the organization.
<b>7075:</b> Provide Organizational Project Management Support Office	The organization has an OPM support office structure.

### 3) Resource Allocation:

<b><u>BP ID</u></b>	<b><u>BP Description</u></b>
<b>1590:</b> Record Project Resource Assignments	The organization has a formal process for assigning resources to projects and recording assignments.
<b>5220:</b> Provide Competent Organizational Project Management Resources	The organization's project management community provides sufficient competent resources to manage OPM.
<b>9060:</b> Establish Resource Allocation and Optimization Processes	The organization utilizes resources in an optimized manner matching available resources with project and program needs.
<b>9070:</b> Establish Scarce Resource Allocation Criteria	The organization allocates its scarce resources to its highest priority initiatives.
<b>9150:</b> Specialists are Shared Between Projects	The organization provides adequate staffing with specialized resources, sharing them between the projects.

## Cultural (C)

### 4) Governance:

<b><u>BP ID</u></b>	<b><u>BP Description</u></b>
<b>9020:</b> Establish Governance Policies Across the Organization	The organization establishes governance policies across the organization.
<b>9170:</b> Consistent Project, Program and Portfolio Governance Across the Enterprise	The organization establishes a governance board over all the portfolio, program, and project processes across the enterprise to optimize business value.
<b>9280:</b> Plan and Establish Program Governance Structure	The program team identifies governance goals and defines the governance structure, roles, and responsibilities.
<b>9300:</b> Provide Governance Insight	The program team provides governance and audit ability throughout the course of the program.

**5) Organizational Project Management Communities:**

<b><u>BP ID</u></b>	<b><u>BP Description</u></b>
<b>5240:</b> Establish Internal Project Management Communities	The organization establishes an internal community that supports project management.
<b>5250:</b> Interact with External Project Management Communities	The organization encourages membership of external communities that support project management expertise. These can include professional associations or initiatives.
<b>9040:</b> Establish Project Delivery Tips and Techniques Special Interest Group	Organization establishes special interest groups for the project management community to share project delivery tips and techniques with respective colleagues. The organization will invite speakers to present relevant topics to the pm community.

**6) Organizational Project Management Policy and Vision:**

<b><u>BP ID</u></b>	<b><u>BP Description</u></b>
<b>1000:</b> Establish Organizational Project Management Policies	The organization has policies describing the standardization, measurement, control, and continuous improvement of OPM processes.
<b>5180:</b> Educate Executives	The organization educates its executives on the benefits of OPM.
<b>5490:</b> Recognize Value of Project Management	The organization recognizes the value of project management.
<b>5500:</b> Define Project Management Values	The organization defines and applies project management values and vision within the organization.
<b>5520:</b> Collaborate on Goals	People in different roles and functions throughout the organization collaborate to define and agree on common goals.
<b>6980:</b> Create an Organizational Maturity Development Program	The organization creates a program to achieve project management maturity.
<b>7005:</b> OPM Leadership Program	The organization has a leadership program for their OPM managers.
<b>7015:</b> Educate Stakeholders in OPM	The organization educates stakeholders in the OPM.
<b>7025:</b> Cultural Diversity Awareness	Educate employees on cultural diversity and empower them for working in a multicultural environment.
<b>8940:</b> Create a Risk-Aware Culture	The organization has created a risk-aware culture, advocating that the portfolio, programs and projects are less risky when more risks are being identified.

**7) Sponsorship:**

<b><u>BP ID</u></b>	<b><u>BP Description</u></b>
<b>1450:</b> Establish Strong Sponsorship	Sponsors actively participate in supporting the project.
<b>5340:</b> Establish Executive Support	The executives strongly support the project management process.

<b>8990: Establish Competent Project Sponsors</b>	Project sponsors are competent in project sponsorship.
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## ***Technological (T)***

### **8) Organizational Project Management Methodology:**

<b><i>BP ID</i></b>	<b><i>BP Description</i></b>
<b>1460: Tailor Project Management Processes Flexibly</b>	The organization applies processes in a manner that is relevant to each project.
<b>5260: Customize Project Management Methodology</b>	The organization customizes a generally accepted project management methodology to meet organizational requirements.
<b>5270: Integrate Project Management Methodology with Organizational Processes</b>	The organization integrates the project management methodology with strategic, operational, and tactical purposes.
<b>8900: Accommodate Organization's Approved Frameworks and Governance Structures</b>	Design and adopt flexible project management processes to accommodate and comply with frameworks and governance structures approved by the organization such as CMMI, ITIL, COBIT.
<b>8960: Developing Project Management Templates</b>	Develop templates for organizations adopted project management Knowledge Areas to standardize project management practices.
<b>9050: Establish Project Management Template Tailoring Guidelines</b>	Organization provides tailoring guidelines for the project management templates to allow controlled customization of templates amended based on project approach.

### **9) Benchmarking:**

<b><i>BP ID</i></b>	<b><i>BP Description</i></b>
<b>2190: Benchmark Organizational Project Management Performance Against Industry Standards</b>	The organization identifies external standards against which they measure OPM performance.
<b>8930: Benchmark PMO Practices and Results</b>	The PMO is using benchmark data to compare its achieving and current state to other PMOs.
<b>9090: Incorporate Performance Benchmarks into Balanced Scorecard System</b>	Augment traditional financial measures with benchmarks for performance in relationship with customers, key internal processes, and learning and growth using balanced scorecard system.

**10) Knowledge Management and PMIS:**

<b><u>BP ID</u></b>	<b><u>BP Description</u></b>
<b>3030:</b> Capture and Share Lessons Learned	The organization collects and shares lessons learned from projects, programs, and portfolios.
<b>7365:</b> Project Management Information System	The organization has a mechanism for the storage, retrieval, dissemination, and reporting of OPM information.
<b>7375:</b> Intellectual Capital Reuse	Intellectual capital is stored and reused.
<b>8970:</b> Document Project Management Case Studies	Organization documents case studies for all projects completed to ensure all successes and challenges are recorded.
<b>9010:</b> Establish Executive Summary Dashboards	Organization has dashboards for executives that summarize project progress with clear indicators of project status.
<b>9030:</b> Establish Organizational Project Management Reporting Standards	Organization has created consistent OPM reporting standards to ensure repeatable quality reporting of projects, programs, and portfolios for all stakeholders.

**11) Management Systems:**

<b><u>BP ID</u></b>	<b><u>BP Description</u></b>
<b>5280:</b> Establish Common Project Management Framework	The organization uses a project management framework for all phases of a project.
<b>5320:</b> Certify Quality Management System	Independent bodies certify the quality management system.

**12) Organizational Project Management Practices:**

<b><u>BP ID</u></b>	<b><u>BP Description</u></b>
<b>1670:</b> Know Inter-Project Plan	Project managers know the goals and plans of all projects related to their own projects. This allows them to explore alternative ways to avoid conflicts while still satisfying goals.
<b>8980:</b> Encourage Adherence to Project Management Code of Ethics	The organization promotes the adherence to the Project Management Code of Ethics and Professional Conduct to improve project quality, deliverables and quality.
<b>9160:</b> Consistent Project Orientation Process	The organization has standardized project orientation process to help prepare new team members to perform their work according to the project defined process and plan.



**13) Organizational Project Management Techniques:**

<b><u>BP ID</u></b>	<b><u>BP Description</u></b>
<b>2090:</b> Adherence to Project Management Techniques	The organization selects a core set of project management techniques to which it adapts and evolves over time. The organization also permits these techniques to be tailored based upon the specific needs of the project.
<b>3070:</b> Encourage Risk Taking	The organization encourages project teams to take calculated risks that enhance project performance.
<b>5170:</b> Use Common Project Language	The organization uses a common language to describe project activities and deliverables.
<b>7305:</b> Estimating Template/Tools Established for Use Across Organization	Standardize estimating so that there is consistency in the percentage applied to similar activities, consistent risk factors applied. This also provides a foundation for similar meaning for metrics collected during and after project execution.
<b>9180:</b> Use Mathematically Sound Methods for Prioritization	The result of this prioritization along with the objectives prioritization produces ratio-scale relative benefit for each project candidate so they can be compared meaningfully.
<b>9190:</b> Use an Optimizer to Select the Portfolio	Select the optimal portfolio rather than ranking and choosing until budget runs out.
<b>9210:</b> Manage Program Resources	The program manager allows for the adjustment and reallocation of resources required to meet the needs of the program.
<b>9220:</b> Manage Program Issues	The program team identifies, tracks, and closes issues effectively to ensure stakeholder expectations are aligned with program activities and deliverables.
<b>9230:</b> Manage Component Interfaces	The program team maintains the adherence of program delivery and its constituent parts and manages relationships between the program components.
<b>9240:</b> Plan Program Stakeholder Management	The program manager covers planning how stakeholders will be identified, analyzed, engaged, and managed throughout the life of the program.
<b>9250:</b> Identify Program Stakeholders	The program team addresses the systematic identification and analysis of program stakeholders and creates the stakeholder register.
<b>9260:</b> Engage Program Stakeholders	The program team ensures that stakeholders are involved in the program.
<b>9270:</b> Manage Program Stakeholder Expectations	The program team manages communications to satisfy the requirements of and resolves issues with program stakeholders.
<b>9290:</b> Plan for Audits	The program team prepares for both external and internal audits of program finances, processes and documents and demonstrates compliance with approved OPM processes.

**14) Project Management Metrics:**

<b><u>BP ID</u></b>	<b><u>BP Description</u></b>
<b>7315:</b> Define OPM Success Metrics	The organization defines how it will measure the success and value of PPP management.
<b>7325:</b> Collect OPM Success Metrics	The organization uses and maintains a formal performance system to collect OPM success metrics.
<b>7335:</b> Use OPM Success Metrics	The organization uses the OPM success metrics to improve the performance of PPP management against plans, and improve realization of benefit to the organization.
<b>7345:</b> Verify OPM Success Metric Accuracy	The organization ensures that OPM and benefit to the organization data is valid and accurate.
<b>7355:</b> Analyze and Improve OPM Success Metrics	The organization continuously improves its OPM data collection and use processes.
<b>8950:</b> Define Key Leading Indicators	The project team defines key leading indicators critical to the success of the project.

**15) Project Success Criteria:**

<b><u>BP ID</u></b>	<b><u>BP Description</u></b>
<b>1540:</b> Include Strategic Goals into Project Objectives	Objectives of projects include explicit strategic goals in addition to time, cost and quality.

## ***Human Resource (HR)***

### ***16) Competency Management:***

<b><i>BP ID</i></b>	<b><i>BP Description</i></b>
<b>1400: Staff Organizational Project Management with Competent Resources</b>	The organization provides OPM with an adequate workforce with the right level of competence for each project-related role.
<b>1430: Establish Project Manager Competency Process</b>	The organization establishes a process to ensure project managers have sufficient knowledge and experience.
<b>5190: Facilitate Project Manager Development</b>	The organization ensures project manager development.
<b>5620: Establish Career Path for all Organizational Project Management Roles</b>	The organization has progressive career paths for OPM related roles.
<b>7105: Manage the Holistic View of the Project</b>	The project managers understand stakeholder needs, project impacts to the overall organization environment, organizational structures both formal and informal, politics, and uses emotional intelligence to understand and explain others' action and attitudes.
<b>7115: Manage the Environment</b>	Project managers effectively manage project environment.
<b>7125: The Organization Manages Self Development</b>	The organization provides project managers the ability to effectively manage and develop their competencies.
<b>7135: Demonstrate Competency in Initiating a Project</b>	Project managers are able to demonstrate their competencies in initiating a project.
<b>7145: Demonstrate Competency in Planning a Project</b>	Project managers are able to demonstrate their competencies in planning a project.
<b>7155: Demonstrate Competency in Executing a Project</b>	Project managers are able to demonstrate their competencies in executing a project.
<b>7165: Demonstrate Competency in Monitoring and Controlling a Project</b>	Project managers are able to demonstrate their competencies in monitoring and controlling a project.
<b>7175: Demonstrate Competency in Closing a Project</b>	Project managers are able to demonstrate their competencies in closing a project.
<b>7185: Demonstrate Communicating Competency</b>	Project managers are able to demonstrate their communicating competency.
<b>7195: Demonstrate Leading Competency</b>	Project managers are able to demonstrate their leading competency.
<b>7205: Demonstrate Managing Competency</b>	Project managers are able to demonstrate their managing competency.
<b>7215: Demonstrate Cognitive Ability Competency</b>	Project managers are able to demonstrate their cognitive ability competency.
<b>7225: Demonstrate Effectiveness Competency</b>	Project managers are able to demonstrate their effectiveness competency.

<b>7235:</b> Demonstrate Professionalism Competency	Project managers are able to demonstrate their professionalism competency.
<b>9120:</b> Provide Mentoring to Project Managers	Provide continuous mentoring to project managers on organizations project management processes.

**17) Individual Performance Appraisals:**

<b><u>BP ID</u></b>	<b><u>BP Description</u></b>
<b>1530:</b> Use Formal Individual Performance Assessment	The organization integrates PM performance in their formal processes and procedures to assess performance.

**18) Project Management Training:**

<b><u>BP ID</u></b>	<b><u>BP Description</u></b>
<b>5200:</b> Provide Project Management Training	The organization provides project management training appropriate for all roles within the project hierarchy.
<b>5210:</b> Provide Continuous Training	The organization provides continuous training in the use of tools, methodology, and deployment of knowledge.
<b>5300:</b> Establish Training and Development Program	The organization establishes a training and development program to improve the skills of project personnel.
<b>9100:</b> Project Management Case Studies Included in Induction Program	Organization includes the project management case studies in the project management induction program to ensure success and key learning's are made available.
<b>9110:</b> Project Management Training is Mapped to Career Development Path	Career development of staff needs to be supported by trainings.

# A3) EXCEL SHEETS USED FOR INITIATIVE SELECTION

## 1) OE Assessment- Questionnaire

### Organizational Enablers Assessment questionnaire

	Domain	Type	Answer(0-3)	Related Best Practice(BP)	Assessed Implementation Status	Desired Implementation Status
<b>1 Strategic Alignment</b>						
<i>Structural</i>						
1.1		Portfolio	2	-	YES	YES
1.2		Portfolio	0	7035	NO	YES
1.3		PPP	0	7405	NO	YES
1.4		PPP	0	8910	NO	YES
1.5		PPP	0	8920	NO	YES
1.6		PPP	1	9000	YES	YES
1.7		PPP	0	9130	NO	YES
1.8		PPP	2	9200	YES	YES
<b>2 OPM Methodology</b>						
<i>Technological</i>						
2.1		PPP	1	1460	YES	YES
2.2		PPP	1	5270	YES	YES
2.3		PPP	2	8960	YES	YES
2.4		PPP	1	9050	YES	YES
2.5		PPP	1	-	YES	YES
<b>3 Governance</b>						
<i>Cultural</i>						
3.1		PPP	2	9020	YES	YES
3.2		PPP	1	9170	YES	YES
3.3		Program	0	-	NO	NO
3.4		Program	1	9300	YES	YES
3.5		PPP	1	-	YES	YES
<b>4 Competency Management</b>						
<i>Human Resource</i>						
4.1		PPP	1	-	YES	YES
4.2		PPP	1	7115	YES	YES

4.3	Do project managers demonstrate their competencies in initiating/planning/executing/monitor and controlling and closing a project?	Project	1	7135-75	YES	YES
4.4	Do project managers demonstrate communicating competency?	PPP	1	7185	YES	YES
4.5	Do project managers demonstrate leading competency?	Project	2	7195	YES	YES
4.6	Does the organization provide mentoring to project managers?	Project	1	9120	YES	YES

### 5 OPM Policy and Vision

		<i>Cultural</i>				
5.1	Has your organization established OPM policies?	PPP	0	1000	NO	YES
	Does your organization educate executives and stakeholders on the benefits of OPM?	PPP	0	5180 7015	NO	YES
5.3	Has your organization created an organizational maturity development program?	Portfolio	0	6980	NO	YES
5.4	Does your organization have an OPM leadership program?	PPP	0	7005	NO	YES
5.5	Has your organization educated employees on cultural diversity?	PPP	1	7025	YES	YES
5.6	Has your organization created a risk-aware culture?	PPP	3	8940	YES	YES

### 6 OPM Practices

		<i>Technological</i>				
6.1	Do all project managers know inter-project plan?	Project	1	1670	YES	YES
	Does the organization promote adherence to the project management code of ethics?	Project	1	8980	YES	YES
6.3	Does the organization have a consistent project orientation process?	Project	2	9160	YES	YES

### 7 OPM Techniques

		<i>Technological</i>				
7.1	Does the organization adhere to project management techniques?	Project	1	2090	YES	YES
7.2	Does the organization encourage risk taking?	Project	0	3070	NO	NO
7.3	Does the organization use a common project language?	Portfolio	2	5170	YES	YES
7.4	Does the organization use mathematically sound methods for prioritization?	PPP	1	9180	YES	YES
7.5	Does the organization use an optimizer to select the portfolio?	Portfolio	1	9190	YES	YES
7.6	Does the organization manage program resources?	Program	2	9210	YES	YES
7.7	Does the organization manage program issues?	Program	1	9220	YES	YES
7.8	Does the organization component interfaces?	Program	1	9230	YES	YES
7.9	Does the organization plan program stakeholder management?	Program	1	9240	YES	YES
7.10	Does the organization identify program stakeholders?	Program	1	9250	YES	YES
7.11	Does the organization engage program stakeholders?	Program	1	9260	YES	YES
7.12	Does the organization manage program stakeholder expectations?	Program	1	9270	YES	YES
7.13	Does the organization plan for audits?	Program	3	9290	YES	YES

### 8 Organizational Structures

		<i>Structural</i>				
8.1	Does the organization establish and adopt OPM structure?	PPP	0	7045 7055	NO	NO
8.2	Does the organization institutionalize OPM structure?	PPP	0	7065	NO	NO
8.3	Does the organization provide an OPM support office?	Portfolio/ Program	0	7075	NO	NO

<b>9 Benchmarking</b>		<i>Technological</i>				
9.1	Does your organization benchmark OPM performance against industry standards?	PPP	0	2190	NO	YES
9.2	Does the PMO benchmark practices and results against other PMOs?	PPP	0	8930	NO	YES
9.3	Does the organization incorporate performance benchmarks into a Balanced Scorecard System?	PPP	0	9090	NO	YES
<b>10 Individual Performance Appraisal</b>		<i>Human Resource</i>				
10.1	Does the organization use a formal individual performance assessment?	Portfolio	2	1530	YES	YES
<b>11 Knowledge Management and PMIS</b>		<i>Technological</i>				
11.1	Does the organization capture and share lessons learned?	PPP	2	3030	YES	YES
11.2	Does the organization make use of a PMIS?	PPP	3	7365	YES	YES
11.3	Does the organization document PM case studies?	Project	1	8970	YES	YES
11.4	Does the organization establish OPM reporting standards?	PPP	1	9030	YES	YES
<b>12 Management Systems</b>		<i>Technological</i>				
12.1	Does the organization establish a common project management framework?	PPP	1	5280	YES	YES
12.2	Does the organization certify quality management system?	Portfolio	3	5320	YES	YES
12.3	Does the organization recognize value of project management?	PPP	1	5490	YES	YES
12.4	Does the organization define project management values?	PPP	1	5500	YES	YES
12.5	Does the organization collaborate on goals?	Project	2	5520	YES	YES
<b>13 OPM Communities</b>		<i>Cultural</i>				
13.1	Does the organization establish internal project management communities?	PPP	0	5240	NO	YES
13.2	Does the organization interact with external project management communities?	PPP	0	5250	NO	YES
13.3	Does the organization establish special interest groups for delivering project management tips and techniques?	PPP	0	9040	NO	YES
<b>14 Project Management Metrics</b>		<i>Technological</i>				
14.1	Does the organization define OPM success metrics?	Portfolio	1	7315	YES	YES
14.2	Does the organization collect OPM success metrics?	PPP	1	7325	YES	YES
14.3	Does the organization use OPM success metrics?	PPP	1	7335	YES	YES
14.4	Does the organization verify OPM success metric accuracy?	PPP	0	7345	NO	YES
14.5	Does the organization analyze and improve OPM success metrics?	PPP	0	7355	NO	YES
14.6	Does the organization define key leading indicators for project success?	Project	1	8950	YES	YES
<b>15 Project Management Training</b>		<i>Human Resource</i>				
15.1	Does the organization provide project management training?	PPP	2	5200	YES	YES
15.2	Does the organization provide continuous training?	PPP	3	5210	YES	YES
15.3	Does the organization establish training and development programs?	PPP	3	5300	YES	YES

15.4	Is project management training mapped to career development path?	Project	1	9110	YES	YES
<b>16 Project Success Criteria</b>						
16.1	Does the organization include strategic goals into project objectives?	Project	2	1540	YES	YES
<b>17 Resource Allocation</b>						
17.1	Does the organization record project resource assignments?	PPP	2	1590	YES	YES
17.2	Does the organization provide competent organizational project management resources?	PPP	1	5220	YES	YES
17.3	Does the organization establish resource allocation and optimization processes?	PPP	1	9060	YES	YES
17.4	Does the organization establish scarce resource allocation criteria?	Portfolio	1	9070	YES	YES
17.5	Does the organization share specialists between projects?	PPP	1	9150	YES	YES
<b>18 Sponsorship</b>						
18.1	Does the organization establish strong sponsorship?	PPP	2	1450	YES	YES
18.2	Does the organization establish executive support?	PPP	2	5340	YES	YES
18.3	Does the organization establish competent project sponsors?	Project	1	8990	YES	YES



## 2) Strategic importance score analysis

### Benefits/Collaborative Opportunities

#### Initiative 1

**Benefits:** The organization adopts a change management program for its projects, programs and portfolio needs and utilizes change as a strategy to continually evolve and ensure long-term success. Indicative listed benefits:

- Encourage Innovation
- Agile adaptation to the internal and external environment
- Better management of stakeholder relationships
- Formalized PM methodologies

**Collaborative Opportunities:** -

**Total score: 0.9**

#### Initiative 2

**Benefits:**

- Use of OPM to effectively achieve strategy and goal realization
- The organization is able to provide business value realization data from value business fulfillment back to strategy
- Establishment of a formal process in order to assess the realization of proposed benefits
- Iterative feedback from completed projects and programs back to organizational strategy

**Collaborative Opportunities:** -

**Total score: 0.8**

#### Initiative 3

**Benefits:**

- Creation and establishment of policies to standardize, measure, control and constantly improve OPM processes
- Executive education and knowledge over OPM practices, methodology and processes
- Stakeholder knowledge enhancement over OPM policies and processes

**Collaboratives Opportunities:** refer to Initiative 6

**Total score: 0.5+0.1**

#### Initiative 4

**Benefits:** The organization creates a program in order to increase maturity in project management and also establishes an OPM Leadership initiative for the respective OPM managers. Indicative listed benefits:

- OPM3 designates the way to effectively apply best practices and realize organizational improvements
- Selection of specific initiatives delivers organizational strategy, better results and performance
- Comparison of current organization state against industry practices
- Organizational view of PPP management to support achieving best practices
- OPM Leadership team to foster improvement and continuously manage change

**Collaborative Opportunities:** -

**Total score: 1**

#### Initiative 5

**Benefits:**

- Identification of external standards which assist in measuring OPM performance against industry practices
- Use of benchmark data for PMO comparison to other PMOs
- Use of a balance scorecard system to augment financial performance in relationship with customers, internal processes and learning and growth

**Collaborative Opportunities:** -

**Total score: 0.5**

#### Initiative 6

**Benefits:**

- Establishment of internal communities to support project management processes
- Interaction with external communities that support project management expertise
- Professional associations and initiatives for external expertise (seminars, invited speakers and educational programs)
- Creation of special interest groups for sharing project delivery tips and techniques

**Collaborative Opportunities:** Interaction with Initiative 3 in educating and augmenting knowledge sharing

**Total score: 0.6+0.1**

#### Initiative 7

**Benefits:**

- The organizational community provides competent resources in order to effectively manage OPM initiatives
- Allocation of main organizational and scarce resources in an optimized manner to match project and program needs of the organization

program needs of the organization.

-Staffing of additional specialized resources for sharing between projects

**Collaborative Opportunities:** -

**Total score: 0.5**

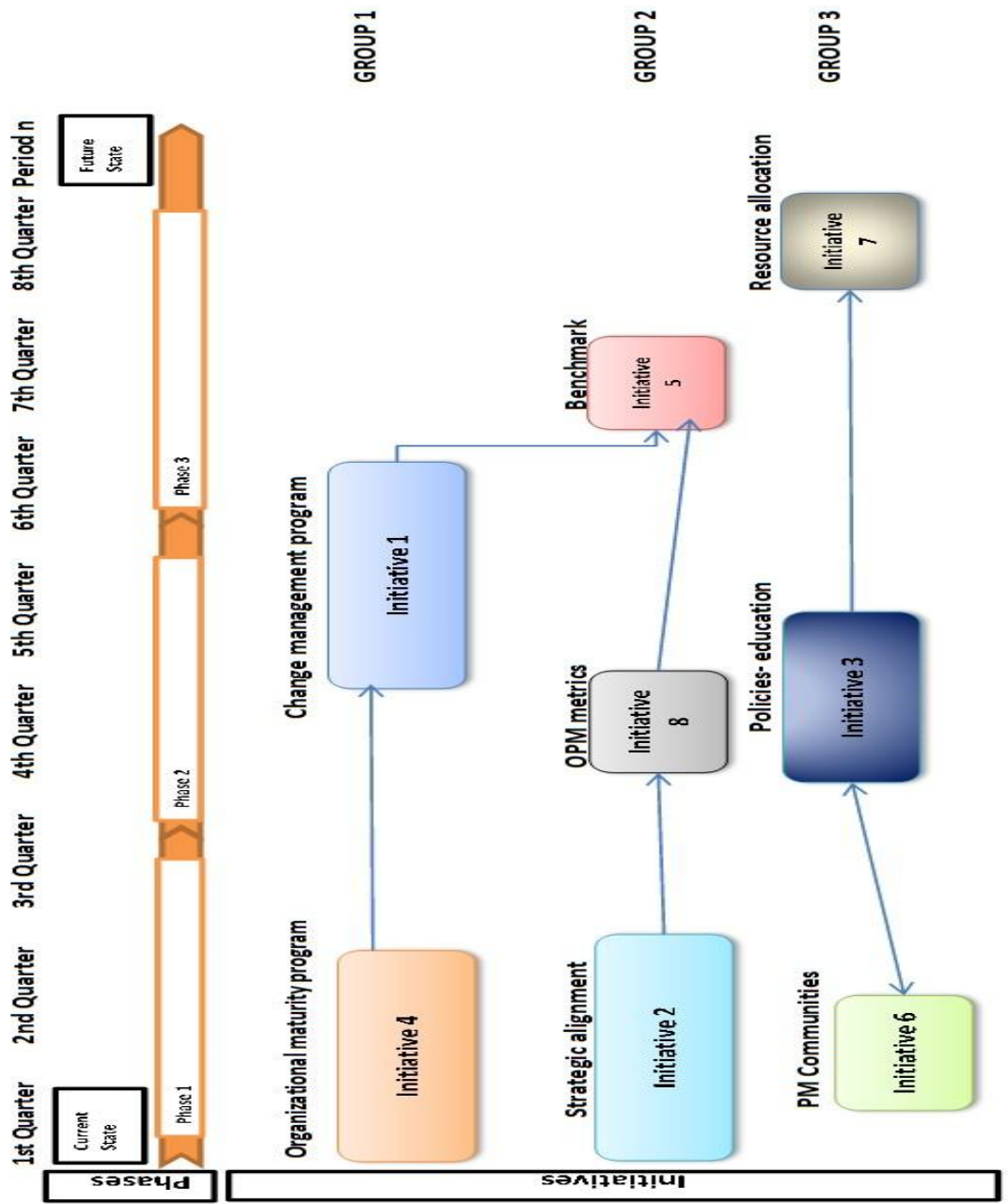
#### Initiative 8

**Benefits:** The organization defines and measures the success of its projects using OPM metrics and KPIs. It also uses and maintains a formal performance system to collect OPM success metrics in order to improve the performance of portfolio, program, and project management. Improving realization of benefits to the organization is aided by continuously collecting and validating OPM data.

**Collaborative Opportunities:** -

**Total score: 0.6**

### 3) Roadmap of implementation



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