Organizational Project Management

PROJECT MANAGEMENT FOR DEVELOPMENT ORGANIZATIONS

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A methodology to manage development projects for international humanitarian assistance and relief organizations

Contents

Integrated Project Management

Integrated Project Management looks at the interrelationships, synergies and dependencies among the various project activities, from contract award to project closure. Rather than managing each part as a separate entity, Integrated Project Management looks to ensure that all project activities and phases are incorporated into a single effort. That includes the work of the project team, consultants and partners, and the work of key stakeholders, beneficiaries, and even the organization's project-support functions.

Integrated Project Management involves the following:

- Managing the project's internal and external dependencies.
- Establishing quality standards for the project based on the organization's quality standards.
- Contributing to the organizational project management process improvements.
- Enabling stakeholder concerns to be identified, considered and, when appropriate, addressed during the planning of the project.
- Ensuring that the project team, consultants and partners perform their tasks in a coordinated and timely manner, fulfill their obligations, and identify, track, and resolve coordination and integration issues.

Responsibilities for Integration

The project manager has the responsibility to manage the integration of the project activities:

- All project activities and efforts should share a common purpose or set of objectives.
- All project work performed should observe the same standard or set of standardized quality metrics.
- All project activities must be planned together at the same time with a unifying purpose.
- All project activities should share the same methodology and approach.

The project manager should pay close attention to the integration of all project plans, especially the scope, schedule, budget, and quality plans. These plans have a high level of dependency: changes to one plan affect the other plans. During project implementation, the project manager needs to coordinate and integrate the interfaces among the different people involved in the project and monitor that the plans are followed and that all change requests are authorized. In essence, the role of integration is central for the project manager; it is the responsibility to see the “big picture” and put all the pieces together into a cohesive whole.

Project, Program and Portfolio Integration

An integrated management approach looks beyond the project phases and sees the project, program and portfolio as a single effort, ensuring that all projects and other organizational project-related activities are aligned with the organization’s strategy. Project, Program and Portfolio Management are an integrated framework designed to ensure the organization is doing the right projects and doing the project right. In other words, the framework is used to ensure that the projects or programs selected are aligned with the organization’s development objectives, and that all projects are able to deliver their outputs in the most efficient and effective manner.

Portfolio Level

A portfolio is the collection of all the program and projects that an organization has created to meet their strategic development goals. This could be all the projects for an entire organization or all the projects for a region or sector in a large organization. Feedback is provided from program and project implementation so that adjustment to the portfolio can occur, if necessary. Changes to the organization ‘strategy can result in portfolio adjustments.

Program Level

A group of inter-related and inter-dependent projects managed in a coordinated way to obtain benefits and control not available from managing them individually. The specific deliverables of each project would be defined when each project starts and should align with the strategic goals of the program. The program is usually long (think years) and the level of integration can differ greatly between projects and organizations.

Project Level

A project is temporary undertaking to produce a unique product, service or result. Projects are shorter in duration that program and portfolios. The results provided by projects provide feedback to programs and portfolios; feedback includes opportunities to improve future projects, adjustments to program strategies and portfolio management.

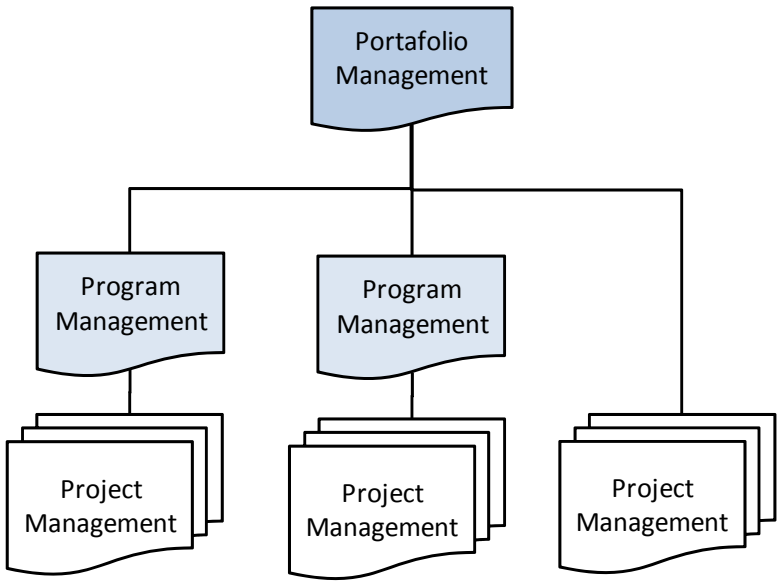

Figure 1 - Portfolio, Program and Project Management

Effective management of projects in development organizations requires a fine-tuned integration of project, program and portfolio management. Each of these three management perspectives is dependent on the other two in order to function effectively and requires a holistic view to managing projects in the organizations. Developing a well-balanced portfolio, program and project management framework in an organization requires a good understanding of each component, their relationships and dependencies. Project, program and portfolio all need the adequate processes, people and tools to manage them effectively. The chart below shows the relationships among these areas:

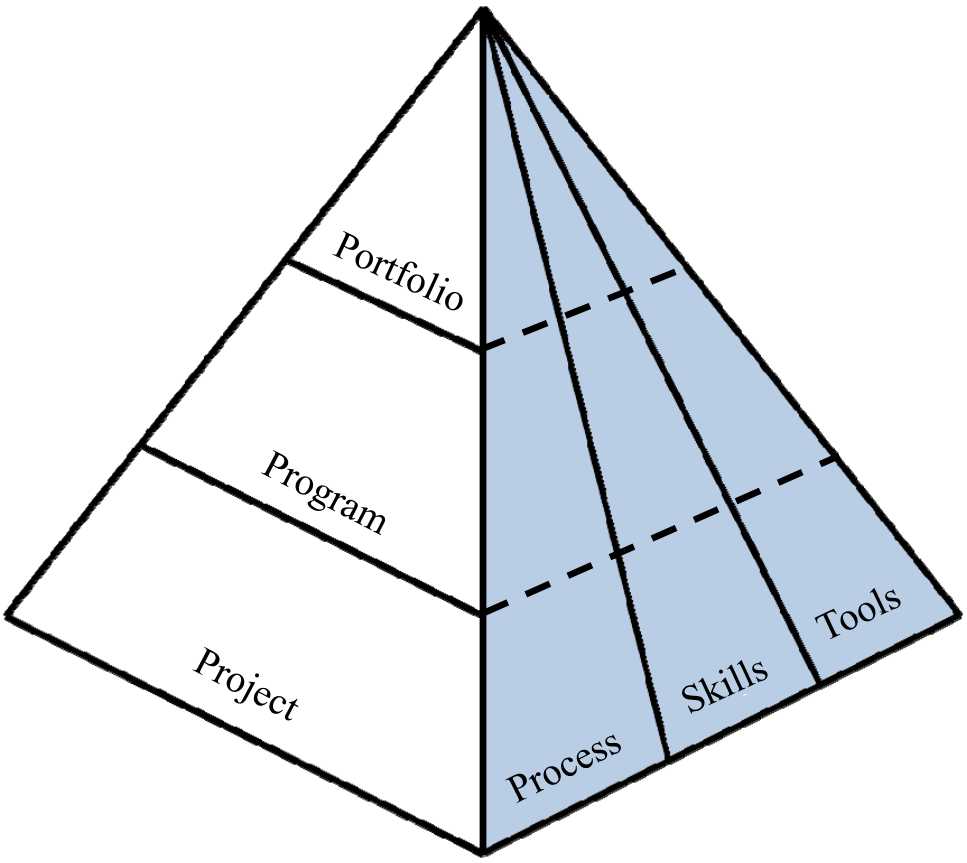

Figure 2 - Integrated Management Framework

The portfolio at the top is close to the organization's mission, vision and strategy. All programs and projects must be aligned with the portfolio. Projects can be housed in a program or linked directly to the portfolio. Each level also requires a set of processes, people skills and tools to manage each component of the integrated framework.

Program Management

Program management is the process of managing several related projects, often with the intention of providing continuity of interventions to a group of beneficiaries. A program is more than a related set of projects; it's the coordination of various projects to obtain benefits that an individual project may not be able to achieve. The benefit of having a program is to take advantage of economies of scale and reduce coordination costs and risks.

Organizations that have the resources and the infrastructure required, use this type of process to manage projects from similar programmatic areas, such as health, education or economic development. In this structure, the project manager's job is to ensure that the project succeeds and delivers the expected results or outcomes. The program manager, on the other hand, is more concerned with the aggregate result or end-state of the program, and the delivery of outcomes and achievement of the impact. For example, an education program may include one project that is designed to educate children and another to rebuild old schools. These two projects are different with respect to their goals, but they fit together in the same education program. Additionally, the two projects could start at different times, but their combined results contribute to the program goal. In this structure, programs focus more on delivering outcomes, while projects focus on delivering outputs. Outcomes take longer to achieve; in many cases, longer than the planned schedule of a project. Many development projects face the inability to effectively measure final outcomes because changes to the beneficiaries require additional time to be measured. Moreover, projects are mostly planned and designed to deliver outputs, and that is where they put more of their focus. From a program perspective, the organization can monitor those changes beyond the life of the project and thus be able to measure impact.

Program vs. Project Management

Project management is defined as a temporary effort to control a set of related activities undertaken to achieve a unique goal or objective within specified constraints. Project management requires doing the project right, while program management requires doing the right projects. The program manager has to keep the long-term vision of the program and monitor the projects to ensure they are contributing to the final goal, whereas project management is about delivering outputs within the scope, budget, schedule, and quality constraints.

Program management focuses on the interdependencies amongst the various projects and their integration to deliver program objectives. In a program-management structure, project managers are assigned to the projects within a program, each manager carries out their management responsibilities. The program manager's major responsibility is to ensure that the work effort achieves the outcome specified in the program strategies. This involves setting and reviewing objectives, coordinating activities across projects, and overseeing the integration of the outputs.

Programs usually last between five and 10 years. The program manager is also involved in the financial viability of the program, and the selection of projects and donors who align with the program strategy. A program has a series of long-term development goals it needs to achieve, and the quality of the project's outcomes will determine the success of the program.

Program Governance

Program governance creates the structure and practices to guide the program and provide senior-level management with oversight and control. It includes all the decision-making roles and responsibilities involved in executing the program effort. Additionally, it looks at the alignment of programs with the vision and mission of the organization:

- Projects are typically governed by a simple management structure. The project manager is responsible for day-to-day direction.

- Programs require a more complex governing structure because they involve fundamental long-term changes and goals with significant development impact.

Like most projects, programs also have a steering committee or other group that represents diverse interests and provides high-level oversight. As the program evolves, this governing body ensures that the program continues to align with the organization's strategic direction and makes decisions that may eventually filter up to organizations' top management. This structure is more complex than that of a project. Creating this structure involves defining specific roles with specific decision-making authority and making clear those roles to all the ownership of all program functions.

The chart below shows a typical program governance structure:

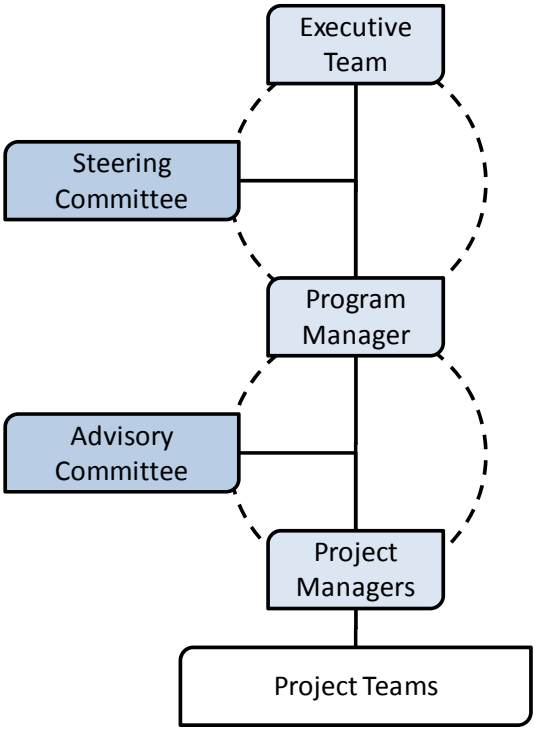

Figure 3 - Program Governance Structure

At the top of the program-management hierarchy is the senior management staff and the program steering committee. Their major responsibility is to own and oversee the implementation of the program's strategies, and to define the program's connection to the organization's direction. Duties include providing and interpreting policy, creating an environment that fosters sustainable momentum for the program, and periodically reviewing

program progress and interim results to ensure alignment with the overall strategic vision.

Responsibilities of a Program Manager

- Accountable to senior management for schedule, budget, and quality of all program elements.
- Leads high-level sessions for the development of the program plan and schedule.
- Reviews/approves project plans for conformance to program strategy, program plan and schedule.
- Acts as the communications conduit to executive management and program steering committee, and conducts periodic briefings/status updates.
- Have direct contact with Donor
- Escalates decisions to executive management as necessary.

A development organization may have one or two programs in a country or region, and each program will have a series of projects that contribute to the goals of the program. The chart below shows this relationship and how each level is responsible for delivering its contribution.

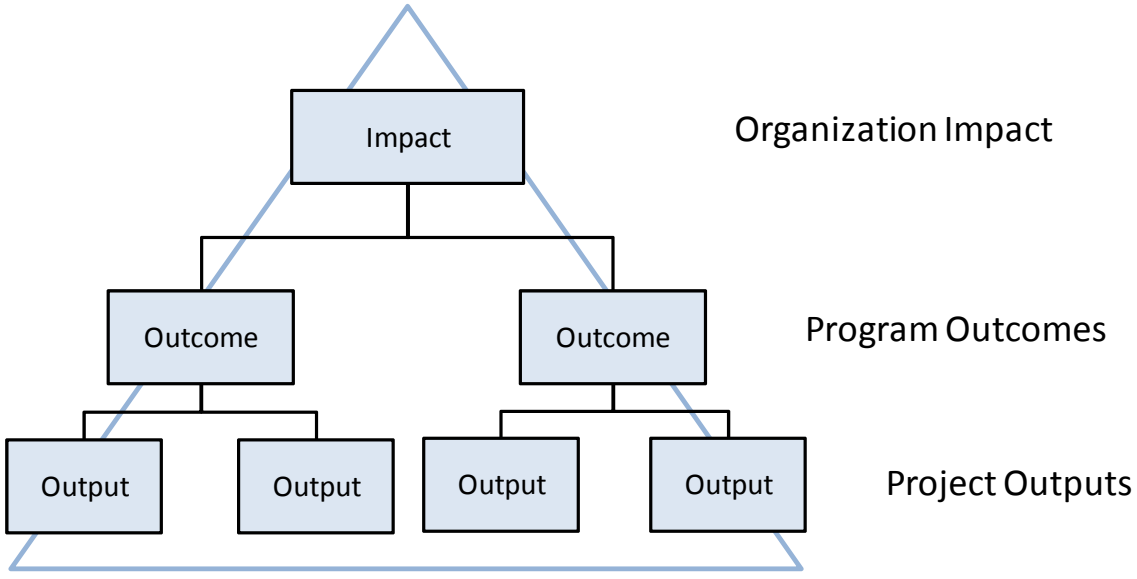

Figure 4 - Project and Program Framework

Projects deliver outputs as a result of project interventions. For example, an education project trained 150 school teachers with a new gender-based learning method, 150 trained teachers is the project's output. An increase in the inclusion of gender in the course curriculum by the teachers is the program outcome. At the top level, the impact is measured by the increase in school retention rates.

Portfolio Management

Project Portfolio Management is a method of analyzing and collectively managing a group of current or proposed projects. The objective is to determine the optimal mix and sequence of projects to best achieve the organization's overall goals. Typical attributes of projects being analyzed include each project's total expected budget, expected timeline and schedule, expected use of organization resources, expected cost-recovery values, magnitude and timing of benefits to be realized, and relationship or interdependencies with other projects in the portfolio.

Project Portfolio Management must also determine whether a set of projects in the portfolio can be executed by the organization within a specified timeframe given the limited resources in the organization, including unrestricted funds. The portfolio also looks at future projects, or projects that are in the proposal stages, and how they will impact the organization's bottom line. This is called "pipeline management." A fundamental principle of pipeline management is the ability to measure the planned allocation of organizational resources according to the strategic plan.

Once it is determined that one or many projects meet defined objectives, the available resources of an organization must be evaluated for their ability to meet project demand. Effective resource allocation typically requires an understanding of existing labor or funding resource commitments, as well as the skills available in the resource pool.

Organizational resources are subject to constraints; some projects do not get all of the funds needed, and organizations sometimes need to internally finance services required by the projects, such as the use and support of technology systems, human resource services, procurement services, and training to staff. Development organizations have limited resources to fill those gaps, and the criteria for selecting projects must take into account these constraints or else projects may encounter substantial risks during

their lifecycle when unplanned resource constraints arise to delay achieving project objectives.

Monitoring the Project Portfolio

Development organizations need a complete view of all projects. They need to know in advance which projects are on track and which projects are behind; this information helps focus on potential problem areas that will require close attention. One way to manage this information is through the project-portfolio view. This view doesn't need to be complicated: a simple summary report from each project showing progress made against expected schedules can be made available in a standard format that is easy to read and interpret. An example of a project-portfolio dashboard presenting the status of five projects is shown below:

Project Code	Scope	Schedule	Budget	Quality
Project 1	□	○	□	○
Project 2	◇	□	◇	□
Project 3	○	○	□	○
Project 4	□	◇	□	□
Project 5	□	○	○	◇

Table 1 – Project Portfolio

Legend:
On Target ○
Behind Target ◇
Ahead of Target □

This simple view allows one to see that Project 2 is showing issues with scope and budget, and management should provide more attention and support. Project 4 has some schedule issues and Project 1 is ahead of its scope and schedule targets. Organization managers can use this information to ask for more detail on the projects that are having issues. Here is another view of a project dashboard using numbers to indicate status:

Project Code	Scope	Schedule	Budget	Quality
Project 1	75%	65%	80%	80%
Project 2	15%	25%	40%	50%
Project 3	65%	65%	55%	90%
Project 4	55%	45%	60%	70%
Project 5	35%	50%	50%	60%

Table 2 – Project Dashboard

The example above shows that Project 1's budget and scope are on track, but its schedule is not. The project is spending faster than the schedule and activities planned. Project 2 is in a similar situation, with 40 percent of the budget spent and only 15 percent of scope completed. Project 3 is in good shape, with little difference between budget expenditures and scope. Project 4 is completing the scope and depleting the budget faster than planned; the project could end before the planned end date. Project 5 has used up half of the budget and schedule, but executed only 35 percent of the scope. Management should pay close attention to this project. Project information presented in this context creates information that made available on time can help management in taking corrective actions before it is too late.

Balancing the Project Portfolio

This view of all project information through a project portfolio can help identify how all the projects are addressing the organizational objectives, and how an organization may need to balance its portfolio to obtain a balanced mix of projects addressing the most important elements of its strategy. The example below shows how an organization can organize project information in a portfolio dashboard to evaluate a mix of projects. The portfolio presents a chart that groups all projects organized by their duration, budget and number of beneficiaries.

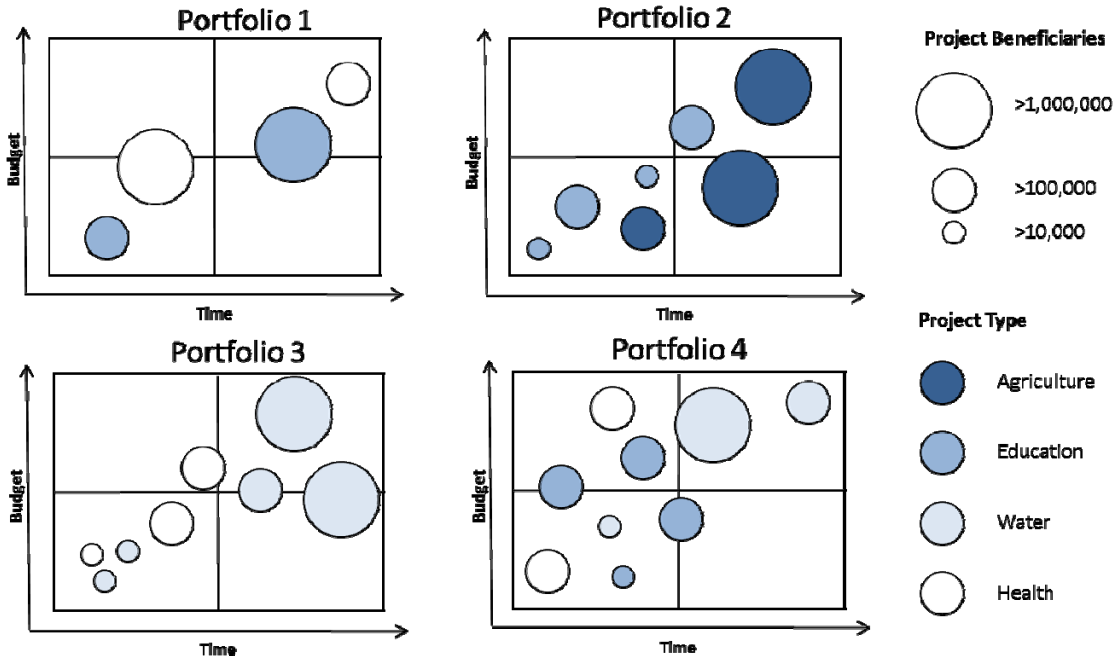

Figure 5 - Project Portfolio Dashboard

In some instances, the organization may choose to balance its project portfolio by focusing on developing proposals for a more strategic area that has a few projects to support it. In the example chart above, the first portfolio model has fewer projects as compared with the others, but they all are aligned with the organization's strategy.

Projects, Programs and Portfolio

As development organizations grow, there comes a point where it becomes necessary to prioritize and manage the range of projects from a strategic viewpoint. Otherwise, they face challenges when trying to provide the adequate support and resources to all the projects and make strategic decisions about their priorities. In other cases, the organization needs to evaluate if a proposed project is aligned with the organization's strategy, mission and vision; not making those decisions can lead to many projects that do not receive the appropriate resources or supervision, and projects that do not contribute to the long-term development goals of the organization.

Organizations can benefit from a Project–Program–Portfolio Framework that helps structure how decisions are made. There is often confusion when it comes to defining projects, programs and portfolios. Sometimes a program is called a project, and sometimes a project is called a program. Sometimes project-portfolio and program are mistakenly used interchangeably. These three components require quite different strategies to successfully manage. The structure that defines the structure from projects to programs to portfolios is detailed in the following chart:

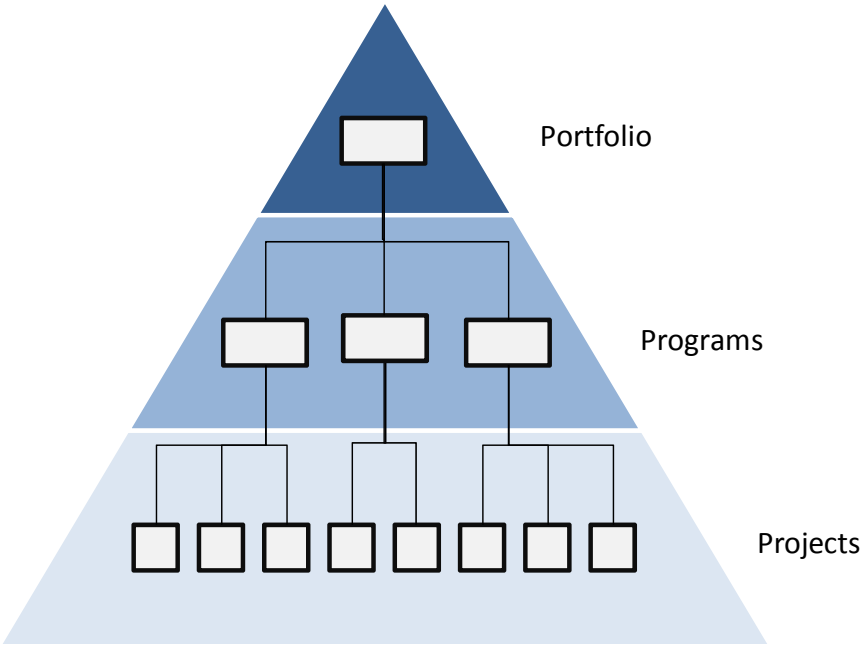

Figure 6 - Portfolio, Programs and Projects

At the top of the triangle is the organization’s portfolio of projects; this is a method to organize projects and programs aligned with the organization’s vision and mission, and supporting the key development strategies the organization has identified.

Project management generally exists in a hierarchy starting with the strategic plan, and projects are the vehicle used to execute the strategic initiatives of the organization. Project management is about “doing the projects right." The organization may utilize programs as a means of grouping related projects together, thus ensuring that the interrelationships are managed and leveraging economies of scale (i.e. shared administration, management of benefits, increased reach to beneficiaries, etc.)

Program management ensures that the interrelationships are managed to achieve efficiencies and effectiveness of resources across different projects. Programs and projects can be further grouped together as a portfolio. Portfolio management focuses on alignment with organizational strategy; setting priorities vs. resource and/or financial constraints; and ensuring the right mix of initiatives to meet organizational goals. This is not unlike the management of a financial portfolio.

Project-portfolio management is about "doing the right projects," ensuring that only those projects that will add value to the organization are selected for inclusion in the project portfolio. Also, portfolio management is ongoing and cyclical, while program and project management is temporary. It's not enough to just manage projects efficiently. It's critical that they be managed effectively within a project portfolio. Effective portfolio management is as critical as effective project management.

The responsibility to ensure the integration among these levels rest on the organization’s senior management team. All projects need to be aligned with either a program or to an organization strategy. Projects that are not aligned will not be able to contribute to the long-term goals of the organization. The senior management team is responsible for reviewing the organization’s strategy and making the adequate changes or corrections to the framework.

Due to their nature, development organizations may need to change, drop or add new programs to reflect changes in the programmatic focus. Some of these changes are caused by changes in donor interest. For example, a major international development aid agency may decide to stop any future funding in economic development projects. Such a change will require that organizations look for new funding resources or reduce the volume of projects in economic development, thus changing the nature of its

programmatic focus and the structure of its project, program and portfolio framework.

Project Maturity Model

A Development Project Management Maturity Model (DPM3™) is a framework used for the progressive development of an organization-wide project management capability. It determines how an organization is using project management. Organizations vary in their maturity levels based on their specific goals, strategies, resource capabilities, scope, and needs. The DPM levels are:

- Level 1 — Awareness
- Level 2 — Understanding
- Level 3 — Adoption
- Level 4 — Execution
- Level 5 — Performance
- Level 6 — Excellence

Where an organization stands on the maturity model is one of the biggest key factors determining the chances of success. The model helps identify strategic strengths and weaknesses which are then used to develop a detailed action plan for improving the capabilities of project management practices. The main benefits of the model are not necessarily in understanding the current level at which an organization is performing, but rather in setting direction, prioritizing actions, and beginning a cultural change.

The model serves as a guide to articulate and measure project success, to measure project performance against organizational goals, and to make the delivery of projects more predictable.

Benefits from using the DPM3™ as a basis for process improvement are:

- Improved schedule and budget predictability
- Increased productivity
- Improved quality
- Increased stakeholder satisfaction
- Improved staff morale
- Increased impact

The DPM3™ is a progressive process during which organizations experience notable improvements at different stages of development. Organizations that follow the DPM3™ will notice valuable results, such as better control of project costs, improved management decision-making, better coordination of resources, increased job satisfaction, and more visibility and recognition by project partners and donors regarding the capacity to manage projects. The chart below shows the relationships among the different maturity levels:

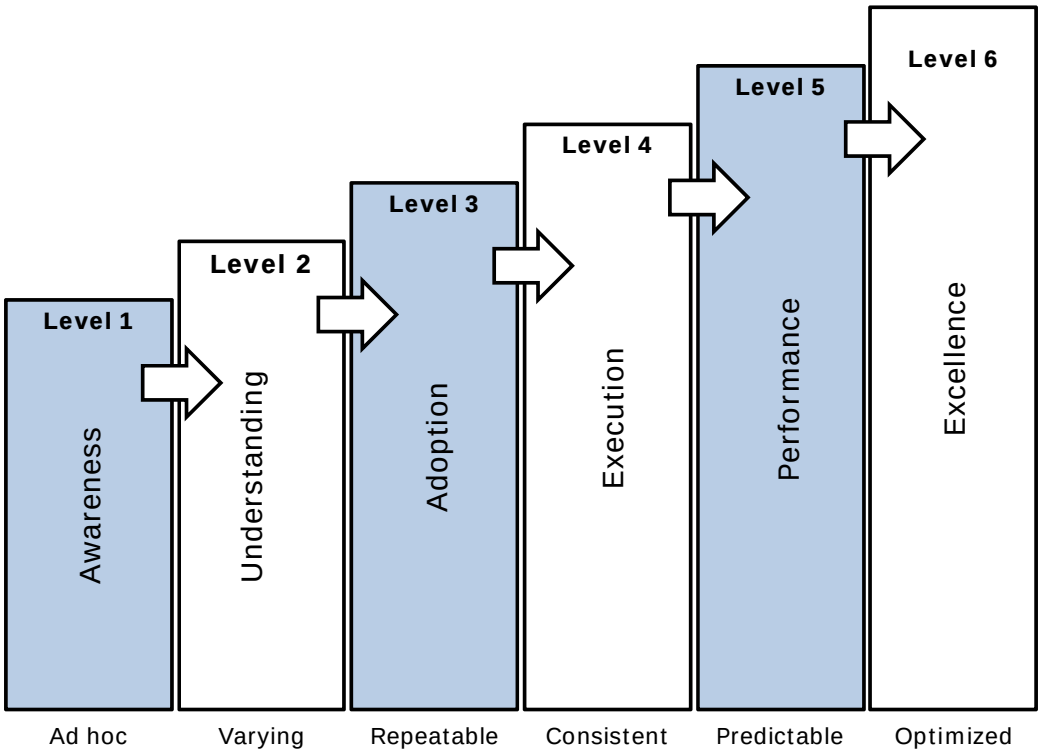

Figure 7. Project Management Maturity levels

Level 1: Awareness

The common characteristics of organizations at Level 1 of the Project Management Maturity Model are:

- Processes are not well documented and are constantly changing
- No coordination in the use of resources across different project or units
- Poor monitoring of project performance
- Conflicting roles and responsibilities
- No training on building management skills; the focus is on technical training
- Some project managers bring the tools and templates they may have learned elsewhere
- Successful project management is largely dependent upon heroic efforts
- Results are ad-hoc

Organizations at this level find that there are serious problems with some projects. Delays in the delivery of results and managers are constantly solving issues with little time for planning. At this level the organization is aware that there are problems in how projects are managed. This awareness is the first step that indicates an organization is ready to improve the performance of its projects.

A level one organization should take the following steps to move to a higher level of project management maturity:

- Develop guidelines and basic instructions to manage key aspects of a project
- Provide basic training in project management
- Identify opportunities to leverage the best practices from the top projects.

Level 2: Understanding

At this level of maturity, the organization begins to recognize the importance of project management. The common characteristics of organizations at Level 2 are:

- The organization has developed some guidelines for project management, but it is not enforced.
- There are a few projects that have developed their own methodologies
- Some people are taking courses on basic project management.
- Some units or projects start their own project management standards, but there is little sharing outside these units.
- Results vary across projects
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Senior managers in the organization begin to understand the benefits of a standard process to manage projects and reduce the risk, but there is no integrated effort across the organization to standardize management processes.

Level 2 organizations should take the following steps to graduate to a higher level of project management maturity:

- Develop a project management methodology and ensure the defined processes are replicated in all projects.
- Train project staff in the use of the methodology and monitor its adoption, especially on critical projects
- Support the adoption of the methodology across the organization

Level 3: Adoption

Level three occurs when an organization has adopted a standard methodology and it is used across most projects in the organization. The common characteristics of organizations at Level 3 are:

- Adoption of a project management methodology by most projects
- An organizational wide effort to support the use of the methodology
- The organization begins to adopt project management as a key competence.

- Training for project managers and project teams on the use of the methodology is now mandatory
- Project performance is starting to improve
- Success and results are repeatable

At this level of maturity, the organization makes a concerted effort to use project management processes. The organization realizes that methodology and processes are needed so that success in one project can be replicated to other projects.

Level 3 organizations should take the following steps to graduate to a higher level of project management maturity:

- Develop a support for project management methodology across the organization.
- Integrate all processes into a universally accepted project management methodology.

Level 4: Execution

Organizations that have reached this level are totally committed to the concept of project management. A level 4 organization understands the value of using a project management methodology to improve the performance of the projects

The common characteristics of organizations at Level 4 of the Project Management Maturity Model are:

- Wholehearted support of the organization in the use of a standard project management methodology;
- There are defined training programs in project management
- There are signs of increased process-performance across the organization.
- Results are consistent across all projects

Level 4 organizations should take the following steps to graduate to a higher level of project management maturity:

- Develop metrics to track project performance, especially in the use of resources

- Develop performance targets for all projects in the organization
- Develop a project management career track

Level 5: Performance

At this level of maturity, the organization uses benchmarking to continuously compare its project management practices with that of recognized leaders. Benchmarking is a continuous effort of analysis and evaluation, is a systematic process for identifying and implementing best or better practices. Level 5 organizations understand the essence of continuous process improvement for maintaining competitiveness in the market.

The common characteristics of organizations at Level 5 of the Project Management Maturity Model are:

- Use of process metrics to measure performance
- There is consistency in the performance in all projects
- A career path exists for staff in project management
- Results are predictable

Organizations at this level continuously compare their project performance with those of the leaders in order to set benchmarks. The organization has a project management office (PMO) dedicated to improving processes and performance of both quantitative and qualitative benchmarking. Level 5 organizations should take the following steps to graduate to a higher level of project management maturity:

- Create a culture of continuous improvement within the organization
- Develop a support for innovation in project management

Level 6: Excellence

At this level of maturity, the organization evaluates the information learned during benchmarking and implements the changes necessary to improve and optimize its project management process. The organization realizes that excellence in project management is a never-ending journey.

Level 6 organizations continuously improve and also adapt to changing organizational strategies. Such organizations constantly strive toward project management excellence. The common characteristics of organizations at Level 6 of the Project Management Maturity Model are:

- A culture of continuous learning and innovation
- The focus is on continually improving process performance through both incremental and innovative technological changes and improvements.
- The organization is recognized as a leader in the field
- Results are continuously optimized
- Project management is now a competitive factor that helps wins more contracts and attract new donors

Project Management Office

The Project Management Office (PMO) is a department or group within an organization that defines and maintains the standards related to project management. The PMO strives to standardize project management methodologies, processes and templates, and is the source of documentation, guidance, and metrics on the practice of project management and execution. PMOs can take other functions beyond standards and methodology, participating in strategic project management as facilitators, or as owners of the portfolio-management process. Tasks may include monitoring and reporting on active projects (following up the project until completion), and reporting progress to top management for strategic decisions on what projects to continue or cancel.

Development organizations that deliver dozens or hundreds of projects per year will have dozens or hundreds of project managers, each with varying levels of skill and experience. These organizations' project management processes are typically set up to follow donor compliance requirements, which results in project managers and team members learning new processes as they move from project to project. In addition, there is no central point that collects information about how the organization is delivering projects, and where opportunities exist to introduce economies of repetition in the execution of projects. In this environment, a centralized PMO ensures that all project managers have a core set of project management skills, common processes and templates, and a support organization to help projects with project management assistance. In

addition, the PMO can also serve as a place for providing an organization-wide view of the status of all projects and can report on improvements being made to project delivery capabilities over time.

Development organizations also need to look at the number of projects executed per year and make a determination of whether or not the projects are completed successfully. This internal analysis starts with gaining an understanding of how projects are executed and identifying the potential benefits of gathering best practices and finding a mechanism to share them across the organization. In some cases, the organization will find recurring issues that are keeping the project from successfully delivering all the project goals; this analysis provides insights about systemic issues that can be addressed by improvements to the processes, skills and tools across the organization, and not just on a project-by-project basis.

Roles of a PMO

A PMO can take on different roles, each dependent on the organization's culture and level of project management maturity. For the PMO to be effective, organizations need to define their role and ensure it is well understood by everyone in the organization. A poorly defined PMO will result in an organizational perception that the PMO is either over-extending its mandate or failing to perform. When this happens, the PMO's effectiveness is severely compromised.

A PMO's role is defined by its core activities and by its contrast to the activities of project, program-and portfolio management. The general role of a PMO is to improve the level of project management capabilities in an organization. The PMO is responsible for:

Strategic Role

In this role the PMO works with senior leadership to select the projects that best align with the strategic goals of the organization. The PMO will be able to provide the executive team with enough information on the project concepts to make smart decisions. Using an efficient and transparent process that provides leadership focused information needed to make informed decisions and ensure that the selected project have the best chance for success. In this role the PMO will manage the project portfolio and provide senior management with project performance reports.

Governance Role

The PMO monitors the projects to ensure they are properly following project process and procedures laid out in the project management methodology. The PMO can also be in charge of ensuring all projects meet regulatory donor requirements and compliance with local laws.

Tactical Role

The PMO manages the lessons learned from all projects. The information is used as a reference when doing future similar projects. The PMO manages the project document repository and best practices. The PMO provides guidelines, templates, and project management tools to help Project Managers follow the PMO procedures.

Responsibilities of a PMO

A PMO can also be assigned a series of responsibilities from which the organization can measure its performance. Responsibilities can vary depending on the role and type of PMO. Among the most typical are:

Center of Excellence:

- Define, develop and implement common project management processes and methodologies.
- Improve the methodology and update based on improvements and best practices from the field. New or revised processes and templates are made available; the PMO deploys them to the organization along with the necessary guidelines and training.
- Setup and support of a repository of documents from previous projects for reuse by similar projects in an effort to reduce project planning times.
- Disseminate project status information and reduce costs through standardization.
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Project Performance:

- Track information on the current status of all projects in the organization, including the management of the project portfolio.

- Provides training to all project staff to build the required project management competencies and skills.
- Tracks project outcomes against project goals, project quality standards, and specific organizational development goals for a region or a country.
- Identifying and solving problems. The PMO performs assessments, audits, and evaluations of the overall state of project management. In addition, the PMO may review and audit individual projects to identify any problems and take specific actions to resolve those problems.
- Continuous improvement. Development organizations are constantly changing, and the PMO must be able to adapt to the changes. When problems or opportunities are identified, the PMO can support ongoing improvement in project management.
- Cost reduction. The PMO can increase project efficiency through the centralization of common services, such as procurement management, and supplier, customer and equipment management. Centralizing these services also standardizes how they are implemented, thereby reducing the costs incurred by using different methods on different projects.

Support Services:

- Provide the training and support to help project managers succeed in their projects.
- Assess and review the status of project management and projects to define problems and recommend corrective action.
- Provide coaching services to help new project managers and projects that are at risk to ensure that they get better.
- Development of project management competencies and a career path for project managers, including the certification requirements.
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PMO Models

There are three types of PMO models than can apply to development organizations. The type chosen will depend on the role the organization wants to give the PMO, and how this role aligns with the current organization’s governance structure.

The Support PMO

The Support Project Management Office serves as a reference and resource for project teams. The members of this type of Project Management Office have a general role of supporting project management in the organization. It may offer different types of capacity-building opportunities to project team members, assisting them in gaining knowledge about project management. It might also serve as project consultant, assisting the members of any project team with different aspects of project management. For example, the office could be available to assist a newer project manager during a project planning session, or to help calculate and interpret evaluation reports. This type of PMO has the following functions:

- **Project Methodology**. The PMO owns the methodology and helps project managers and project team in its use and application across the organization. The PMO assists in creating and updating the different sorts of project management documentation that are required depending on the project phase. This could include the project charter, and any or all of the documents contained in the project plan (e.g., work breakdown structure, network diagram, risk, quality, and communications plan).
- **Capacity Building** -. Develops a training curriculum on project management. Provides training in the use of the methodology. The PMO develops training material and conducts continuous trainings sessions to increase the knowledge and skills of project teams
- **Knowledge Management** - The PMO works on establishing and maintaining best practices for project management that project teams can consult, as well as maintaining a library of books and other materials that can be consulted as necessary

The Coordinating PMO

The coordinating PMO makes use of project management best practices across the organization. The project office coordinates the use of limited resources. Best practices are documented and shared and project performance is monitored actively. The PMO may have some monitoring responsibility for all projects. It also serves as project consultant, assisting the members of any project team with different aspects of project management. For example, the office could be available to assist a newer project manager during a project planning session, or to help calculate and interpret evaluation reports. This type of PMO has the following functions:

- **Best Practices** – The PMO gathers lessons learned from projects and creates a learning library that eventually helps improve the project management methodology
- **Project Monitoring** - The PMO will use a software tool to track all projects. From project execution and control, the PMO may coordinate work authorization or issue the work authorization notices under the direction of the project manager.
- **Project Performance** - The Project Management Office may also be in charge of collecting project status reports and consolidating them for the program manager, as well as monitoring progress, issues and calculating earned value.

The Control PMO

In a Control Project Management Office, the project managers report to the PMO director and receive all of their supervision from the Project Management Office. When project managers are assigned to projects, they have an indirect (or dotted) line between them and the program manager and a direct (or solid) line between them and the director of the PMO. The Control PMO would also be concerned with the knowledge and skills of the project managers. This type of PMO has the following functions:

- **Project Process** - The Control Project Management Office is responsible for project portfolio management, specially project approvals, audits and internal evaluations. It is involved in the approval of project plans to ensure they comply with the methodology and best practices.
- **Project Quality Control** - The PMO is involved in ensuring that all documents that require sign-off have been received, final budgets are turned in, and all project documentation is properly formatted and archived. The control PMO may do some administrative task necessary to monitor risks and quality in all projects.
- **Project Resources –** The Control PMO is also in charge of the assignment of project resources to projects; this ensures that critical projects receive the adequate project manager with the skills needed to do the job. This type of PMO can include ownership of hiring new project staff, and the performance evaluation of all project managers under the PMO.

Most development organizations seeking to implement a PMO could achieve benefits from standardizing and following project management policies,

processes and methods. A PMO can become the source for guidance, documentation, and metrics related to the practices involved in managing and implementing projects within the organization. But most important, the PMO can become a unique and critical competitive tool for the success of the organization.

The PMO can provide oversight for the overall management of projects, programs, and portfolios of the organization. The unification of all projects within one overall standard can help improve efficiency, costs and execution of project deliverables.

The PMO can reduce frustration from project teams with the variance in project policies, standards, and procedures that shift from project to project. A PMO can integrate all standards, procedures and policies to make them uniform, thus improving project processes and increasing project success.

Project Management Information Systems

A Project Management Information System (PMIS) is an integrated set of mutually supporting tools, processes and methods for managing project information, applied in a consistent way to support the decision-making and information needs of project stakeholders. Project managers use the techniques, processes and tools to collect, organize, analyze, and share information through electronic and manual means. The PMIS helps the project manager by providing a set of interrelated components that work together to collect, classify, store, and distribute information to monitor the progress of a project. The success of a PMIS is measured by how effectively the project manages the data, how it transforms data into information, and how that information eventually becomes knowledge.

A project management information system is not about technology alone. A good PMIS has a systematized approach to manage information, but it does not necessarily need complex or expensive technology. It is more about designing the appropriate methods and processes, implementing a sound plan to manage the information cycle, and making the right information available to the right people at the right time.

A PMIS helps the project manager plan, implement, monitor, and monitor the progress of the project management goals. During the planning process,

a project manager uses a PMIS to structure the project work, set the scope baseline, estimate the budget, and create a schedule. During implementation, the project team collects information into one single database; the PMIS is then used to compare the baseline with the actual accomplishment of each activity, monitor the quality of deliverables, collect financial data, and keep a record for reporting and evaluation purposes. During the monitoring phase of the project, the PMIS is used to review the goals and check whether the tasks were accomplished or not.

The management of project information is a critical element and a key responsibility of the project manager, as it informs, educates, guides and builds support for the project. Providing key project stakeholders with the right information at the right time can significantly improve decisions to adjust, change and guide the project to improve its outcomes. A project management information system serves four principal functions:

- Provide information for decision-making.
- Demonstrate results through project evaluation.
- Empower communities and other project stakeholders.
- Increase opportunities to learn from experience.

Characteristics of PMIS

In the project information cycle, establishing smart goals and objectives, and selecting indicators for measuring progress are the elements that form the basis of a sound information system. An important step in developing the system is the development of an information-management plan that outlines how information will be selected, collected, analyzed, and shared during the lifecycle of the project.

A PMIS focus is on the systematization of the information-management processes; once the project has completed the design and planning of the information, the project should be able to move to a systemized process to manage all the information maintained by the project. In order to have flexible and responsive interventions, a project-information system needs to be more than just a reporting mechanism, serving as a powerful management tool for advancing an organization's program goals of accountability, transparency and partnership. A good PMIS needs to contain the following characteristics:

- A PMIS will supply the necessary information and feedback so that potential problems are identified and solutions are

implemented early before becoming constraints. The system should be able to generate timely information to initiate corrective actions.

- A PMIS is a tool to collect, analyze, store, and disseminate information useful for decision-making in a project. A good PMIS builds on a project's success while using lessons from earlier experiences to improve project performance.
- A PMIS may differ from other Management Information Systems (Financial, Payroll, etc.) because their demand-driven approach requires them to be flexible and adaptable to the changing conditions of the project.
- Flow of information is central to the PMIS and constitutes an empowerment agenda that includes the following elements:
- Transparency: the availability and access to information by all project stakeholders.
- Accountability and the use and application of information to monitor the progress of the project and correct deviations.
- Inclusion and participation, where project participants are given control over decision-making, including decisions on appropriate criteria and indicators to judge the performance of the services provided by the project.

Technology Levels of a PMIS

Every project has different information needs, both in quality and in quantity. Every project requires different levels of technologies to satisfy its basic information-management needs. A small project with small needs will suffice with simple technologies, but large projects with large information needs can benefit from more extensive technology solutions.

A major imperative lies in the need for a coherent systematization of information-handling as part of the information-management process; this must occur before automating, as this implies adapting the technology to the process and not the process to the technology. The use of complex technology does not necessarily mean efficiency. A small project with few information needs will not benefit from a complex integrated system. On the contrary, managing the system can be less efficient than a simple solution.

It is important for the project to identify and develop a PMIS that satisfies its critical requirements to manage information and avoid the creation of

complex systems that are too expensive, take more time to develop, and require additional resources to manage properly.

The information requirements of a project can be divided into three levels:

- **Level 1** – Information requirements are low; the project can use basic desktop computer applications to manage information.
- **Level 2** – Information requirements are medium; the project can use a desktop or server-based system to manage a significant volume of information.
- **Level 3** – Information requirements are large; the project will require a fully integrated system to manage large amounts of data and information.

The following diagram represents the three levels of technology to consider when designing a computerized information-management system. The levels increase as the level of requirements increase. Each box represents a level, progressing from easy (Level 1) to the more difficult (Level 3). More technical and information requirements are needed to set up an integrated information system and for the ever-greater complexity of supporting and operating the system itself as a project shifts from Level 1 to Level 3.

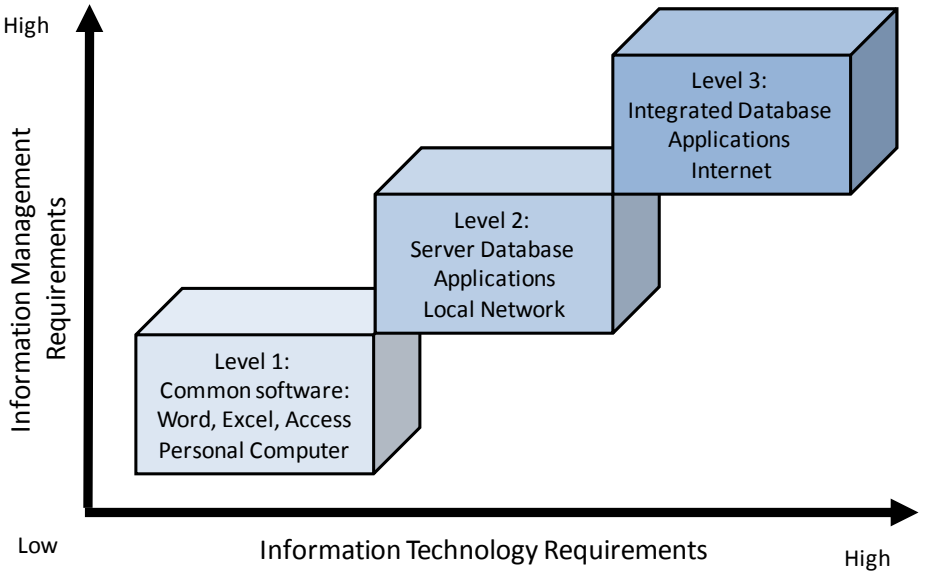

Figure 8 - PMIS levels of technology

This classification of levels is a guide to help projects assess their needs to manage information and identify the right level of technology. During the life of a project, the levels may change. A project could start at Level 1 and progressively move to the next level. A development organization with several projects, programs and sectors may have projects at each one of the levels. Becoming more sophisticated (or automated) may not be appropriate or feasible in some situations, due to local conditions or external factors. It can be acceptable for a project to remain at Level 1, as long as it has a system that provides with good quality and reliable information.

Once a project determines its information requirements, it has to match them with the appropriate technology. As the amount of information increases, the efficiency of the use of fixed technology solution decreases, due to the time it takes to process, analyze and report the additional information. For example, a Level 2 system decreases in efficiency as the volume of information increases. This does not necessarily means that a Level 3 is the ideal level all PMIS should seek, in fact, quite the opposite. A Level 3 shows a low efficiency when the volume of information is small. This can happen when a project is using a complex system to track small amounts of information; the effort to set up, manage and use the system, and all its associated costs, make a Level 3 system less efficient compared with simpler solutions when the project information needs are low.

PMIS Levels of Technology:

- **Level 1, Desktop Applications** - Level 1 implies low information management requirements. The system will rely on the use of computer desktop applications (such as Microsoft (MS) Office Suite) to organize and store data, and produce reports. Level 1 assumes the volume of information to be small; all the data comes in physical form and is entered on a computer to produce monthly reports. All information is stored on the computer and in physical files, while reports and other consolidated information is stored on a computer hard drive. Typical software includes MS Excel, MS Access, and MS Word.

- **Level 2, Network Server Applications** - Level 2 occurs when the project has significant information-management requirements; the PMIS requires the use of more computers to manage centralized databases that contain most, if not all, project information. These databases may not be totally

integrated, but meet the need to organize large amounts of data collected by the project and generate the required reports. The level of data at this level is large, and may come from different sources and project locations. A central database may be used to consolidate data for reporting purposes. All data and reports are stored on computers connected to a local server. There is less need to store physical records. The database collects information and generates all required reports. This type of setup allows sharing of project information across the local network and a project team working from a single location.

- **Level 3, Integrated Systems** - Level 3 occurs when the project has large and complex information management requirements, and the PMIS requires an integrated view of project data and information processes. It requires a network where all computers are connected and sharing data from a central system that stores project data and information. The integrated system may contain other types of project data, such as budget, human resources, and external or secondary data. This situation is typical of large projects disseminated in many locations, and in a location with the required connectivity to link all systems with the central database. The volume of data in Level 3 is quite large and requires dedicated resources to manage the technology. All data are stored in servers and accessed via the network or the Internet. Access to information is controlled by a central system and security features implemented to protect the data. This setup is needed when the project team is dispersed and works from many locations.

Information and Technology Requirements

The list below can help project managers identify information requirements in order to define and develop an information technology solution for the PMIS. This step is needed in order to evaluate the complexity of the information the project will manage.

- Requirements of information from the donor
- Requirements of information from the organization
- The methods the project will use to collect and organize all the information

- The frequency the project needs to analyze and report the information to key stakeholders
- The volume of information it needs to collect from beneficiaries
- The types of visual reports required, such as graphs, tables, maps, etc.
- The types of access, security and controls to manage, modify and update the information
- The need to develop special reports in defined formats
- The need for complex analysis of the information collected

The next step is to evaluate the current Information Technology (IT) capacity of the project. This will identify the IT capacity that will satisfy the information requirements.

- Available funds for IT resources dedicated to the project
- The current capacity of the project to manage technology
- The need for communications, emails, Internet, and other online systems
- The number of staff that will use computers during the project
- The level of computer literacy of the project staff
- The IT support required by the project

Once a project has identified its information requirements, it needs to define its technological requirements and start to design a technological infrastructure that will provide the appropriate hardware and software needed to manage the information.

A PMIS can provide upper management with adequate information about all the projects in the organization's portfolio and help break the cycle of project miscommunication. Traditionally, project managers do not communicate project status adequately with senior management and functional departments; they are either too busy or find the PMIs just another imposed requirement from senior management. Furthermore, functional departments are often reluctant or do not have time to provide information to project engineers. These circumstances often lead to late, over-budget, and low-quality projects.

Summary

- Integrated Project Management looks at the interrelationships, synergies and dependencies among the various project activities, from contract award to project closure. Rather than managing each part as a separate entity, Integrated Project Management looks to ensure that all project activities and phases are incorporated into a single effort.
- Program management is the process of managing several related projects, often with the intention of providing continuity of interventions to a group of beneficiaries. A program is more than a set related of projects; it's the coordination of various projects to obtain benefits that an individual project may not be able to achieve. The benefit of having a program is to take advantage of economies of scale and to reduce coordination costs and risks.
- Project Portfolio Management is a method for analyzing and collectively managing a group of current or proposed projects. The objective is to determine the optimal mix and sequence of projects to best achieve the organization's overall goals.
- A Development Project Management Maturity Model (DPM3™) is a framework used for the progressive development of an organization-wide project management capability. It determines how an organization is using project management. Organizations vary in their maturity levels based on their specific goals, strategies, resource capabilities, scope, and needs.
- The Project Management Office (PMO) in a department or group within an organization that defines and maintains the standards related to project management. The PMO strives to standardize project management methodologies, processes and templates, and is the source of documentation, guidance and metrics on the practice of project management and execution.
- A Project Management Information System (PMIS) is an integrated set of mutually supporting tools, processes and methods for managing project information, applied in a consistent way to support the decision-making and information needs of project stakeholders.

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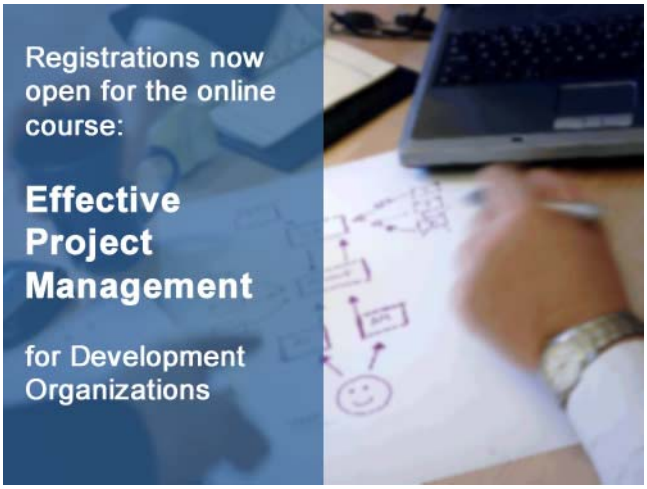

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