

# Management of the Project-Oriented Company

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## 1. Introduction

The general topic of the World Congress of the IPMA (International Project Management Association) in June 1990 in Vienna, Austria was "Management by Projects". Since then the vision, to cope with the complexity and the dynamics of companies by projects, became reality. "Management by Projects" is today the best organizational practice in many industries. Research results about the specific strategies, structures, and cultures of the "Project-Oriented Company" (POC) have been published, even the project-orientation of regions and nations have been assessed and benchmarked.

This paper introduces the POC as a social construct and describes models for the organizational differentiation and integration in the POC, such as projects, programmes, expert pools, the PM Office, and the Project Portfolio Group. Further a *POC Maturity Model*, based on the specific business processes of POCs, is presented, which can be applied to assess and to benchmark the competences of POCs.

It is not intended, to describe the specific business processes of the POC in detail. This is done in the literature broadly for project and programme management. The intention is rather to elaborate on the new perceptions of projects and programmes as temporary organizations and social systems, and to present an integrative model for the POC.

## 2. The POC: A Social Construct

Companies are becoming more project-oriented. Projects and programmes are applied in all industries and in the non-profit sector. To perceive a company as a POC is a social construction. Any company (or parts of a company, such as a division or a profit center), which frequently applies projects and programmes to perform relatively unique business processes of large scope, can be perceived as being project-oriented.<sup>1</sup>

A POC can be defined as an organization, which

- defines "Management by Projects" as an organizational strategy,
- applies temporary organizations for the performance of business processes of medium and large scope,
- manages a project portfolio of different project types,
- has specific permanent organization units, such as a PM Office and a Project Portfolio Group,

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<sup>1</sup> To simplify the further reading the term "project," will be used instead of "project and programme". Many of the presented concepts apply to projects as well as programmes.

- applies a "New Management Paradigm", and
- perceives itself, as being project-oriented.

To observe the project-orientation of a company requires that we "put on a special pair of glasses of project-orientation," which allows us to observe the practices of project-, programme-, and project portfolio management and to observe the organizational design and the personnel management, which support these managerial practices. These observations are the basis for management interventions needed in order to optimize the maturity as a POC.

### **3. Organizational Fit of the Strategies, the Structures and the Cultures of the POC**

According to the organizational fit model a company can be described by its strategies, structures, and cultures. The strategies, structures, and cultures of a company have to fit, in order to provide good quality services, and to be cost and time efficient.

The specific organizational strategy of the POC is "Management by Projects". Further it is characterized by permanent and temporary organization structures, and by a culture based on a "New Management Paradigm". Projects as temporary structures can only be performed successfully, if appropriate strategic and cultural provisions exist.

#### **"Management by Projects": The Organizational Strategy of the POC**

POCs consider projects not only as tools to perform business processes of medium and large scope, but as a strategic option for the organizational design of the company. By applying "Management by Projects" the following organizational objectives are pursued:

- organizational differentiation and decentralization of management responsibility,
- quality assurance by project team work and holistic project definitions,
- goal orientation by defining and controlling project objectives,
- personnel development in projects, and
- organizational learning by projects.

For the implementation of "Management by Projects" symbolic management measures, showing the importance of projects, are required. Such measures are, e.g.

- showing in the organization chart of the company not only the permanent organization structures, but also temporary organizations (see Exhibit 1),
- including project-related functions in job descriptions of all managers and top managers,
- including a paragraph, which relates to the strategic importance of project management in the company mission statement,
- marketing of project management by project vernissages, reference cards, etc.

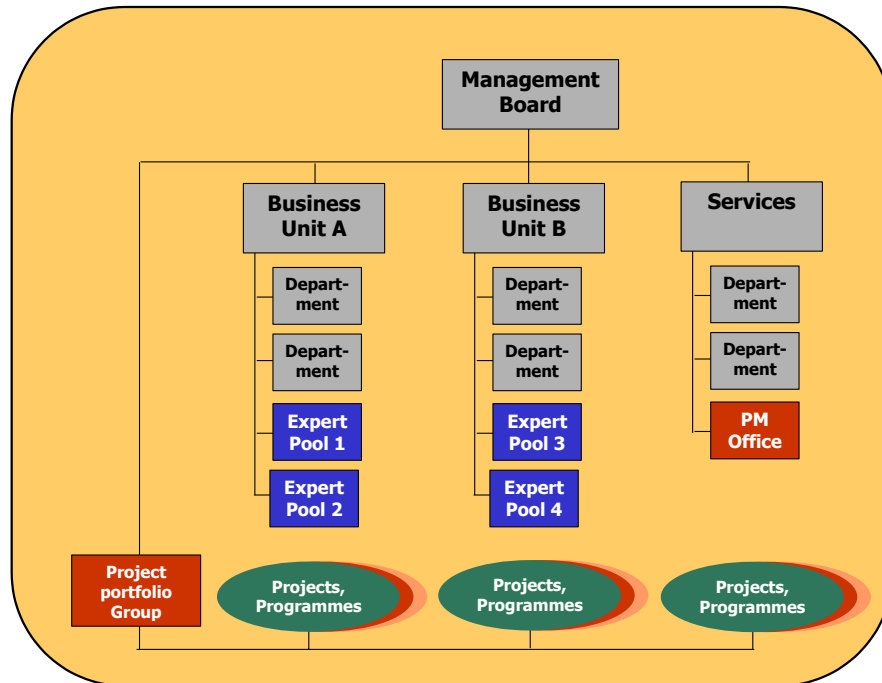


Exhibit 1: Organization Chart of a POC

### Projects and Programmes: Temporary Organizations of the POC

For business processes with different characteristics different organizations are adequate. For routine types of business processes, such as the production of a car by an automobile company, the permanent departments "Procurement" and "Production" are responsible. For relatively unique business processes of medium or large scope, and of short to medium duration, projects are the appropriate organizations. Projects can be defined for the performance of contracts for external clients as well as for product developments, marketing campaigns, investments in the company infrastructure or for reengineering activities for internal clients.

A programme is a temporary organization for the performance of a business process of large scope. A programme consists of several closely coupled projects and activities. It has a time limit and is medium or long term in duration. Typical programmes are the development of a "product family" (and not of a single product), the implementation of a comprehensive IT-solution for an international concern, the reorganization of a group of companies in a holding structure, and infrastructure investments, considering several investment objects.

Projects and programmes allow us to further differentiate companies. In addition to the permanent organizations of companies, such as divisions, profit centers and departments, temporary organizations are applied, too.

## Clusters of Projects (and Programmes)

For the integration of the different projects performed simultaneously in a POC projects have to be clustered. Clustering according to the sequence, in which projects are performed results in a "chain of projects." By relating projects to each other according to a defined criterion, such as the technology applied, a common client, or a geographic region, a "network of projects" results. By considering all projects performed by an organization, the "project portfolio" results. A project portfolio is defined as a set of all projects a POC holds at a given point in time and the relationships between these projects.

In a project portfolio different project types, such as internal and external projects, unique and repetitive projects, marketing-, contracting-, organizational development projects, and infrastructure projects might be included.

## Supporting Projects by a "New Management Paradigm"

The POC is characterized by the existence of an explicit project management culture; i.e., by a set of project management-related values and norms. For the project and the programme management processes, specific procedures exist, creating a common understanding for the performance of these processes, the roles involved, and the management methods to be applied.

The application of a "New Management Paradigm" supports efficiency in the performance of projects. Traditional management approaches, based on a mechanistic management paradigm such as that of Taylorism, are emphasizing detailed planning methods, focusing on the assignment of clearly defined work packages for individuals, relying on contractual agreements with clients and suppliers, and using the hierarchy as a central integration instrument. "New" management concepts, such as Lean Management, Total Quality Management, the Learning Organization, and Business Process Re-Engineering, introduce new approaches. Among the common features of these "new" management approaches are:

- the usage of the organization to create competitive advantage,
- the empowerment of employees,
- process-orientation and team work in flat organizations,
- continuous and discontinuous organizational change,
- customer-orientation, and networking with clients and suppliers.

Of course, projects can be performed within a traditional management culture. But that results often in costly, time consuming and, for the project team members, frustrating experiences. The real benefits, the added values of project management can only be achieved if some concepts of the "New Management Paradigm" are applied in the project-performing companies.

## Management of Dynamics and Complexity in the POC

POCs have dynamic boundaries and contexts. On the one hand the number and the sizes of the projects performed are constantly changing, permanent and temporary resources are employed, and cooperations with clients, partners and suppliers are organized in virtual teams. On the other hand, varying strategic alliances are established, and relationships with different social environments of different projects have to be managed.

The greater diversity of projects a company holds in its project portfolio, the more differentiated it becomes organizationally and the greater its management complexity will be. In order to support the successful performance of single projects as well as to ensure the compliance of the objectives of the different projects with the overall company strategies, specific integrative structures, such as a Strategic Center, Expert Pools, a PM Office, and a Project Portfolio Group are required.

### 4. Specific Business Processes of the POC

The POC is characterized by specific business processes. The processes can be grouped in processes that relate to single projects, processes that relate to the project portfolio, and processes that relate to the permanent organization. The processes of project management, programme management, and assurance of the management quality of projects relate to projects. The assignment of projects, the project portfolio coordination, and the networking between projects can be defined as project portfolio management processes. The personnel management and the organizational design relate to the POC overall.

The specific business processes of the POC can be visualized in a spider web graph (see Exhibit 2), which can be used for the analysis of the maturity of a POC (see chapter 5). For each of these processes, which will be described briefly in following paragraphs, the POC requires individual and organizational competences.

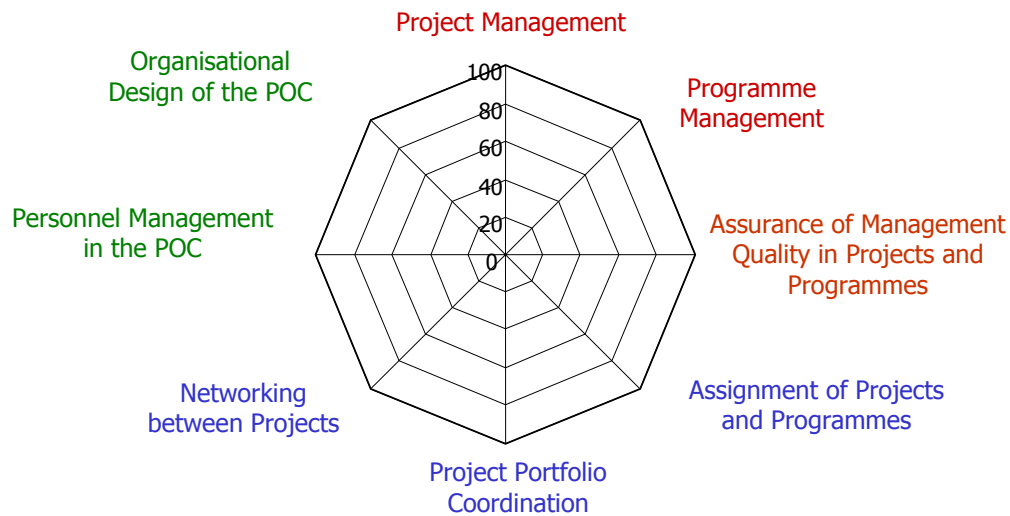


Exhibit 2 : *POC Maturity Model* based on *ROLAND GAREIS Management of the Project-oriented Company*<sup>®</sup>

### 4.1 Project Management

The perception of projects influences the project management approach. The traditional perception of projects as complex, goal determined and risky tasks, supports above all the use of project planning methods. Typical examples are the work breakdown structure, the CPM, as well as CPM - supported resource and cost plans and risk management.

By defining projects as temporary organizations, the formal establishment of a project , its integration into the overall company organization, and the development of a project specific culture is emphasized. The perception of projects as social systems further promotes the context orientation in project management. The relationship of a project to company strategies, to the other projects performed simultaneously, to the relevant social environments, and to the business case of the investment initialized by the project become a concern. „Social“ project controlling, i.e. the controlling of the relationships to relevant project environments and the relationships in the project organization, is considered in addition to controlling the hard project facts (progress, schedule, costs). *ROLAND GAREIS Project and Programme Management*<sup>®</sup> represents a systemic-constructionistic approach to project management. Projects are perceived as temporary organizations and social systems, the development of project plans is considered as a construction process. The objects of consideration in the project management process are not only the scope of work, the project schedule, and the project costs but also the project objectives and the project income, the project organization, the project culture, as well as the project context dimensions, relationships to the relevant environments, to other projects, and to the company strategies, as well as the business case.

Project management is defined as a business process of the POC, which includes the sub-processes project start, continuous project coordination, project controlling, resolution of a project discontinuity<sup>2</sup>, and project close-down. The project management process starts with the formal project assignment and ends with the approval of the project results by the project owner.

The project start is the most important project management sub-process, because in it the basis for the other project management sub-processes is established. The project plans, the project communication structures, the relationships to relevant environments, etc, are developed and defined in the project start process. For each project management sub-process the objectives, functions, methods, responsibilities, and deliverables can be described, which allow to measure the quality of the project management process.

The objectives of the project management process are

- to successfully perform the project according to the project objectives,
- to contribute to the optimization of the business case of the investment, initialized by the project,
- to manage the project complexity and project dynamics,
- to continuously adjust the project boundaries, and
- to manage the project-context relationships.

The project management objective, to contribute to the optimization of the business case of the investment, initialized by the project, is of great concern in product development and capital investment projects and of less concern in contracting projects. Decisions in projects can influence the business case of the investment, e.g. in a new office building, to a large extent. Therefore the project manager and the project team have to take on the responsibility for the optimization of the business case of the investment, too.

A project needs an appropriate degree of complexity to be capable, to relate appropriately to its environment. It is a project management function, to build up and to reduce the project complexity. The differentiation of project roles, the creation of subteams as well as the consideration of different functional disciplines and hierarchical levels in the project team, are organizational possibilities for building up complexity. The application of different project management methods (i.e. the work break-down structure, the schedule, the cost- and resources plan, the risk analysis, the project environmental analysis, etc.) offers different perspectives of the project. This „multi-method approach“ further contributes to the development of the project complexity.

A reduction of project complexity occurs by the application of project management standards and by agreements . The definition of project specific rules and norms, the

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<sup>2</sup> A project discontinuity is a discontinuous development of a project. In the case of an existential threat to a project we talk about a project crisis. Another type of a project discontinuity, which also requires a change of the project identity (project objectives,, strategies, organization, and culture) is the project chance.

development of project plans as well as agreements in project owner meetings and project team meetings give orientation for the project work.

The project boundaries define, what belongs to the project and what not. The project boundaries are determined by the project scope and by the project start- event and the project end- event. By the definition of the project start- and the project end- event the pre-project phase and the post-project phase become project context. The social context of a project is determined by its social environments. Relevant for a project are those environments, of which we can expect that they will influence the success of the project.

Projects evolve over time. In the course of this we can differentiate between continuous and discontinuous developments. Discontinuous developments can take place when project-crises or chances occur.

## **4.2 Programme Management**

A programme consists of several projects and activities, which are closely coupled by common programme objectives, strategies, and rules. Usually some of the projects in a programme are performed sequentially and some are performed in parallel.

Programme management has to be performed in addition to the management of the single projects of a programme. The programme management process has the same structure as the project management process. It includes the sub-processes of starting, coordinating, controlling, closing-down a programme, and possibly resolving a programme discontinuity. Also the programme management methods are similar to the project management methods, i.e. there is a programme work breakdown structure, a programme bar chart, a programme environment analysis, and so forth.

In order to allow for autonomous projects on the one hand but to assure the benefits of organizational learning, economies of scale, and networking synergies in a programme on the other hand, a specific programme organization has to be designed. Typical programme roles are Programme Owner Team, Programme Manager, Programme Office and Programme Team (see Exhibit 3). The Programme Owner assigns the programme to the Programme Manager, who is responsible for the programme management. He is supported by the programme team members and the Programme Office. Typical programme communication structures are programme owner meetings and programme team meetings. The function of the programme organization is to integrate the different projects of a programme, in order to fulfill overall program objectives and strategies.

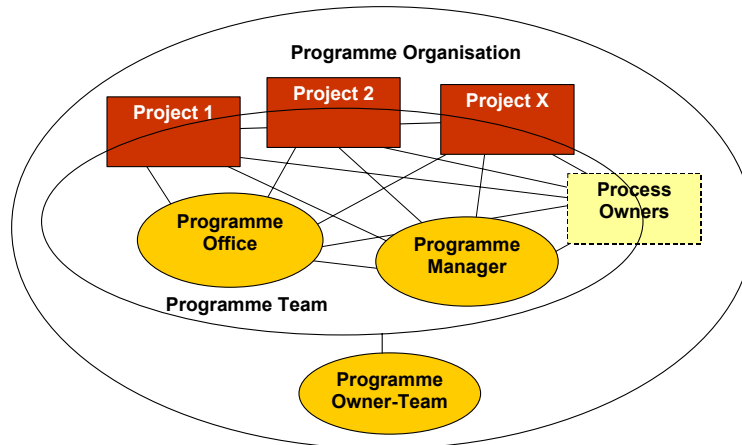


Exhibit 3: Programme Organization Chart

The advantages of designing a programme organization instead of defining a large “project” with several subprojects are:

- a less hierarchical organization
- a clear terminology: a programme manager and several project managers instead of one project manager and additional “project managers” of the sub-projects
- empowerment of the projects (of the programme) by allowing for specific project cultures, specific relationships to social environments, and specific project organizations
- differentiation between programme ownership and ownerships for the different projects.

### 4.3 Assurance of the Management Quality in Projects and Programmes

Projects and programmes are relatively autonomous organizations of the POC. The management of projects and programmes is supposed to be performed according to the general project and programme management procedures of the POC. Management consulting and management auditing have to be performed in order to assure the application of these general management procedures and to assure the management quality in the projects and programmes.

### Management Consulting of Projects and Programmes

The objective of management consulting of a project is to further develop the project management competence of this project. Not only the competences of the project manager or the project team are further developed, this service would be defined as “coaching”, but the temporary organization overall is consulted. The project as a temporary organization becomes the object of the management consulting service.

This means that not only a permanent organization, such as a company or a profit center, but also a project can be the client in the consulting process.

By definition projects are complex, risky, and dynamic. Therefore they need high management attention and management quality. This can be assured by involving project-external consultants. In a consulting assignment any of the management sub-processes of a project (start, controlling, resolution of a discontinuity, close-down) or all of them can be considered. Specific management consulting services for programmes might include the establishment of the Programme Office, the development of a programme marketing plan, or the definition and description of programme specific business processes.

The quality of the management consulting process can be measured. The key quality metric is the management competence of the project. It can be measured, if there are improvements in the management competences of the members of the project organization, in the quality of the project meetings, in the project management documentation, in the project image, and in the relationships of the project to the relevant project environments.

The management consulting process starts with the initial contact between the potential consultant and the project. It includes the analysis of the situation, moderating meetings and workshops, documenting these meetings and workshops, supporting the development and the updating of project management documentations, and so forth. Among the important intervention methods of consultants are interviews, documentation analyses, observations of meetings, and feedbacks.

The management consultants are assigned by the project owner. They are project-external people, but not necessarily company-external individuals. In many project-oriented companies management consulting on projects and programmes is considered an opportunity for job enlargement for senior (project) managers. Therefore, internal management consultants for projects and programmes are developed in special training and coaching programmes.

### **Management Auditing of Projects and Programmes**

Often a management audit on a project or a programme is performed because of performance problems. Actually management auditing is an instrument of quality management in projects and programmes. It is an instrument of organizational learning of the POC.

The NEN-EN ISO 19011 defines auditing as "systematic, independent and documented process for obtaining audit evidence and evaluating it objectively, to determine the extent to which the audit criteria are fulfilled". Criteria for a management audit of projects are the project management approaches against which the projects are audited. These approaches are documented either in company-specific or in generic project management procedures.

While in a project audit the business processes for the contents work as well as the project management process are considered, management auditing focuses on the project management competences only. The objects of consideration of a management audit are the project management sub-processes.

In the management audit of projects we can differentiate the roles that the audit owner, auditor(s), and representatives of the audited project or programme assume. The auditor(s) are project-external, but might be recruited from within the POC. The role of a management auditor of projects and programmes is also sometimes seen to be an option for job enlargement for senior (project) managers of the POC.

#### 4.4 Assignment of Projects and Programmes

Companies invest in their infrastructure, in new products or services, in new markets, in the organization, or in their personnel. A project or a programme might involve initializing such an investment. Therefore, an investment decision is often the basis for the decision to pursue a project or a programme. For the investment decision a business case analysis and initial project (or programme) plans have to be developed. These documents are part of the investment proposal.

We must assure the alignment of an investment with the company strategies. A formal instrument for this alignment is an investment score card. In such a score card the investment decision criteria are documented (see Exhibit 4). Among the criteria to be considered for score cards are financial data, customer relations, processes and resources, and innovations.

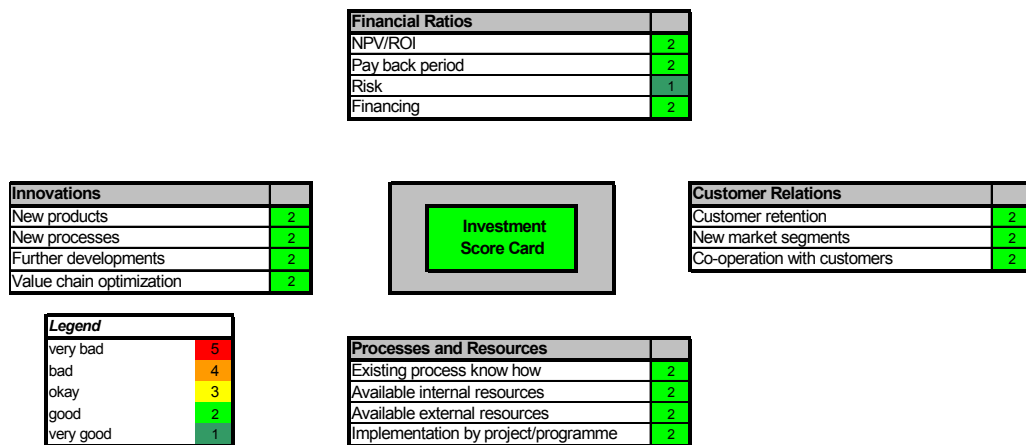


Exhibit 4: Investment Score Card

The investment decision is the basis for the decision about the appropriate organization for its implementation. A decision board has to decide, if the investment is to be implemented by a project, by a programme, or by organizational units of the permanent organization.

It is also necessary to analyze the fit of the project into the existing project portfolio. Each new project added to the portfolio means the mix has changed and a new portfolio is created. The relationships of the new project to the existing projects have to be considered and optimized. The decision about the project owner has to be made. The assignment of key personnel to the project, and the selection of partners and contractors for the project have to be made in consideration of the relationships to other projects in the project portfolio.

The authority to make the investment decision and the project assignment decision, may either be divided between an Investment Decision Board and a Project Portfolio Group (PPG) or might be with the PPG only. The role of the PPG will be described in Chapter 4.8. "Organizational Design of the POC".

#### **4.5 Project Portfolio Coordination**

The objectives of the project portfolio coordination process are:

- the optimization of the results of the project portfolio, and not of the single projects,
- the definition of project priorities,
- the coordination of internal and external resources, and
- the organization of learning of and between projects.

The basis for the coordination of the project portfolio is a project portfolio database, which shall include data about the project types, data about relations of projects to other projects, data about the project organizations, data about relevant project environments, and project ratios. The project portfolio database is not a project information system but contains aggregated project data only. It might be integrated in a project information system.

The project portfolio database allows the development of project portfolio reports. Typical project portfolio reports are the project portfolio bar chart, the project portfolio profit-risk graph, and the project portfolio progress chart. An integrative project portfolio reporting tool is the project portfolio score card (see Figure 5). It shows how the actual project portfolio contributes to the implementation of the company strategies, reports on the structure of the project portfolio, and on the project portfolio status overall. Visualizing the project portfolio reports contributes to their acceptance as communication instrument for management and top management.

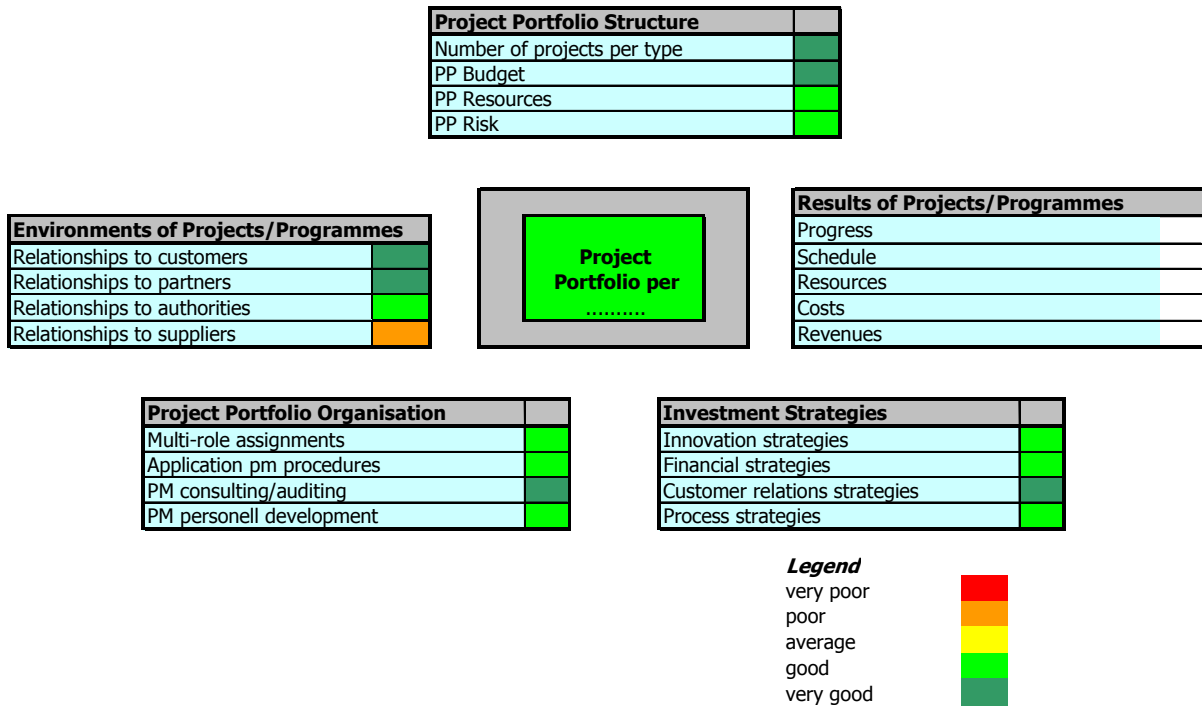


Exhibit 5: Project Portfolio Score Card

### 4.6 Networking between Projects

A set of closely coupled projects can be defined as a network of projects. Examples of the criteria, which might relate projects in a network, are a common technology applied, a common client, a common partner or supplier, or a common geographic region. The construction of a network of projects occurs at a point in time, in order to resolve a common problem or use a common opportunity. Therefore a network of projects is not an organization with a common objective and a manager, such as a programme, but it is an ad-hoc communication structure.

The objective of constructing networks of projects is to identify synergies and potential conflicts between projects and to define strategies and measures to resolve the conflicts and to use the synergies. The networking between projects might result in a redefinition of the objectives of one or more projects of the network, in an assignment of common resources to two or more projects, or in re-negotiations of contracts with the clients, partners or suppliers.

The networking might be promoted by the PM Office, in order to generate the added value. The construction of the network of projects, the description of existing relationships between projects, and the establishment of new relationships is organized through ad hoc-communications (meetings, workshops) of the project managers of the projects of the network. Also project team members and representatives of relevant project environments, which might contribute relevant information, might participate.

The communication between the projects requires a trust and openness between these partners.

An example of networking between projects is presented in Exhibit 6.

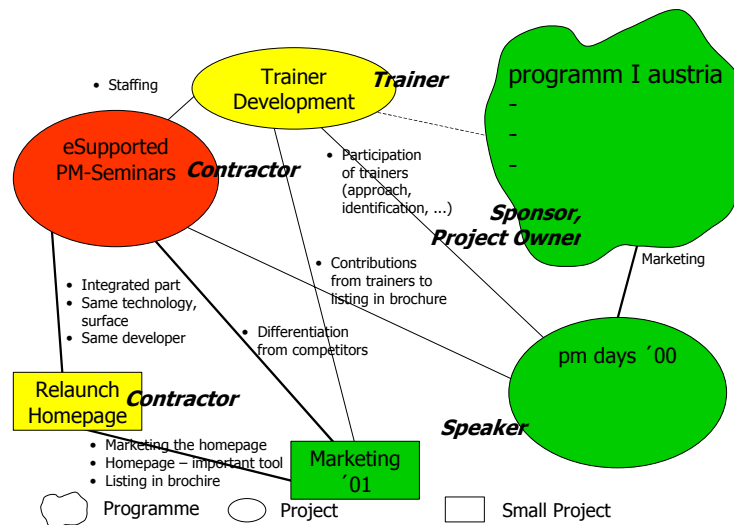


Exhibit 6: Network of Projects performed with an IT-Company

The demand for networking between projects of an Austrian consulting company, visualized in Exhibit 6, occurred because of a crisis in the project "eSupported PM-Seminars". In this project the cooperation with the IT-supplier caused major problems. The project portfolio database showed, that this IT-supplier was also supplier or cooperation partner in other projects. Measures to resolve this problem could not be decided under consideration of the project "eSupported PM-Seminars" only, but the relationships to the other projects the IT-supplier was involved in, had to be considered too.

In order to analyze the consequences for all the projects the IT-supplier was involved in, a networking workshop with the project managers of the projects was organized, with the objective to analyze the relationships between the projects, and to develop common strategies and measures to resolve the problem.

The strategy agreed on was to further cooperate with the IT-company but to reduce the dependency on it as partner and supplier. Measures agreed on were to resolve the crisis of the project "eSupported PM-Seminars", to assign the same developer to 2 projects and to cancel the invitation of employees of the IT-supplier to join the trainer team.

#### 4.7 Personnel Management in the POC

Personnel management processes in the POC include the recruiting, leading, developing, and releasing processes for project personnel.

In POCs a project management career path exists. This is based on definitions of competences for the different roles in the POC. "Competence" can be defined as knowledge and experience for the performance of a business process. The specific competences, which are required in a POC, relate to the performance of the specific business processes of the POC. The competences are required by individuals and by teams.

**Competences of Project Management Personnel**

The project management competences required differ according to the project roles to be fulfilled by individuals. The following project roles can be performed by individuals: project owner, project manager, project management assistant, project team member, and project contributor. The project contributor contributes to the performance of workpackages, but does –compared with the project team member- not participate in project team meetings. The project management functions to be performed by project personnel can be described in project role descriptions (see, for example, Exhibit 7).

<b>Role Description: Project Manager</b>
<b>Objectives</b>
<ul style="list-style-type: none"> <li>• Representation of the project interests</li> <li>• Contribution to the realization of the project objectives and to the optimisation of the business case</li> <li>• Leading the project team and the project contributors</li> <li>• Representation of the project towards relevant environments</li> </ul>
<b>Organizational Position</b>
<ul style="list-style-type: none"> <li>• Member of the project team</li> <li>• Reports to the project owner team</li> </ul>
<b>Tasks</b>
<b><i>During the project assignment process</i></b>
<ul style="list-style-type: none"> <li>• Formulating the project assignment together with project owner team</li> <li>• Nominating the project team members</li> </ul>
<b><i>During the project start process</i></b>
<ul style="list-style-type: none"> <li>• Know-how transfer from the pre-project phase into the project</li> <li>• Development of adequate project plans</li> <li>• Design of an adequate project organization</li> <li>• Performance of risk management</li> <li>• Design of project-context-relations</li> <li>• etc.</li> </ul>
<b><i>During the project controlling process</i></b>
<ul style="list-style-type: none"> <li>• Determination of the project status</li> <li>• Redefinition of project objectives</li> <li>• Development of project progress reports</li> <li>• etc.</li> </ul>
<b><i>During the resolution of a project discontinuity</i></b>
<ul style="list-style-type: none"> <li>• Analysis of the situation and definition of ad-hoc measures</li> <li>• Development of project scenarios</li> <li>• Definition of strategies and further measures</li> <li>• Communication of the project discontinuity to relevant project environments</li> <li>• etc.</li> </ul>

<b><i>During the project close-down process</i></b>
• Coordination of the final contents work
• Transfer of know-how into the base organization
• Dissolution of project-environment relations
• etc.

Exhibit 7: Part of the Description of the Role “Project Manager”

The project manager requires knowledge and experience not only to apply project management methods, but also to creatively design the project management process.

These design functions include:

- The selection of the project management methods appropriate for a given project
- The selection of the appropriate communication structures
- The facilitation of the different workshops and meetings
- The decision to involve a project management consultant
- The selection of the appropriate IT- and telecom infrastructure
- The definition of the appropriate form for the project management documentations.

The project management competence of a project manager is the capability to fulfill all functions specified in the role description. Besides the project management knowledge and experience for a given project type, a project manager needs product, company, and industry knowledge. In international projects, cultural awareness and language knowledge are also prerequisites.

**Competences of Project Teams**

In order to perform a project successfully, a project team requires team competence. The competence of a project team can be defined as the competences of the project team members plus the social knowledge and experience of the team, to commonly create the “Big Project Picture,” to produce synergies, to solve conflicts, and to ensure learning in the team.

A project team cooperates in workshops and meetings. The application of project plans, such as a work breakdown structure, a schedule, a project environment analysis, etc, are tools, to support the communication in the project team.

**4.8 Organizational Design of the POC**

In order to integrate the different projects performed simultaneously, a POC requires specific permanent organization structures, such as a PM Office, a Project Portfolio Group and Expert Pools.

**The PM Office**

In order to assure that the different ongoing projects apply a common management approach, somebody in the POC has to take on the ownership for the project management process. The project management competences of the POC have to be

institutionalized. The PM Office is the organizational unit, which can take on this responsibility.

The PM Office is a permanent structure and is part of the base organization of the POC. It provides services for all projects of the POC and also for the Project Portfolio Group. The PM Office has to be differentiated from project offices and programme offices, which are temporary, are part of the project or programme organization, and provide services for one project or one programme only.

The organization chart of a PM Office (see Exhibit 8) includes the roles PM Office manager and personnel for project-, programme-, and project portfolio management services. The Expert Pools "PM-Personnel" and "PM-Trainer, PM-Consultants" might be coordinated by the PM Office manager.

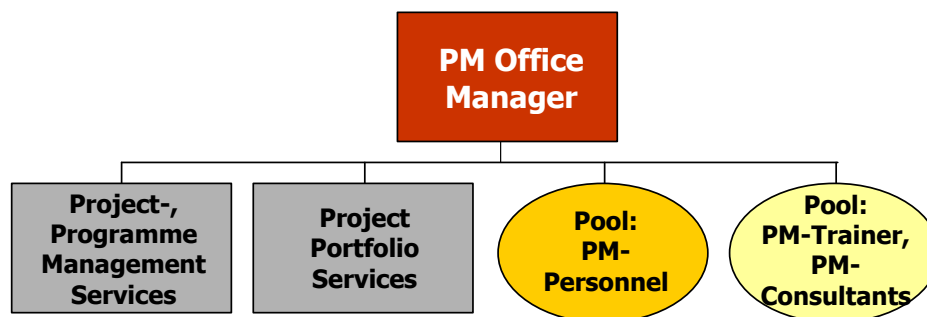


Exhibit 8: Organization Chart of the PM Office

Services provided by the PM Office might include the following:

- development and maintenance procedures for project and programme management, management auditing of projects and programmes, and project portfolio management
- development and maintenance of standard project plans (standard WBSs, work package specifications, milestone lists, etc)
- provision of project management support services
- project and programme marketing
- organization of project management training, coaching, consulting, and auditing
- promotion of project management as a profession by establishment of a project management career path, project management certification programmes
- assurance of a project management infrastructure (meeting rooms, ICT-tools, moderation tools)
- (internal) benchmarking of the project and programme management processes
- maintenance of the project portfolio database
- development of project portfolio reports
- support of the meetings of the Project Portfolio Group

## The Project Portfolio Group

In a POC many projects are performed simultaneously. Synergies and possible conflicts between these projects have to be managed. The results of the project portfolio have to be optimized. Because of the high organizational differentiation of the POC the management of the project portfolio might not be taken care of in the usual meeting structures, such as management board meetings, department head meetings, etc. It might be preferable to delegate this responsibility to a specific communication structure, the Project Portfolio Group.

The Project Portfolio Group is a permanent organization structure of the POC. It could be considered as a staff or a line position reporting to the management board. 5-8 managers of profit centers and departments being strongly involved in projects and programmes should be members of the Project Portfolio Group. In a major Austrian telecommunication with some 1500 employees and 70-80 projects at any given time in the project portfolio the Project Portfolio Group consists of the department heads for marketing, engineering, call center, IT, and PM Office. The head of the group is the director of finance. The Project Portfolio Group meets every week for 2-3 hours.

Depending on the duration and the dynamics of the projects in the portfolio not more than 100 projects should be managed by one Project Portfolio Group. In large POCs several Project Portfolio Groups, differentiated by project types or by business units, might be required. The major services of the Project Portfolio Group are the selection of projects, to be started and integrated into the project portfolio, the creation of synergies (common use of resources, economies of scale, organizational learning) and the resolution of conflicts within the project portfolio, and the quality assurance and the provision of early warnings in the project portfolio. Criteria for the assurance of the project portfolio quality are e.g.

- the number of projects for one project manager,
- the number of projects for one project owner,
- the number of projects per project type, and
- the project portfolio budget (per project type).

## Expert Pools

Experts, to perform the work packages in projects, are required in POCs. Depending on the type of industry a POC is in and the type of projects it performs different expert categories are required. Typical expert pools are pools of engineers (differentiated by mechanical, electrical, etc engineering), procurement experts, and marketing experts. These experts most of all need competences in the discipline they represent, but they also need project management competences in order to cooperate in teams. The roles in an expert pool are the expert pool manager, the experts, and exchange of experience groups and possibly supervision groups.

One important expert pool of a POC is that pertaining to "Project Management." The experts of this pool might be differentiated according a project management career path

into project management assistants, junior project managers, project managers, senior project managers, and programme managers.

An expert pool manager has personnel management, knowledge management, and infrastructure management functions. She has to recruit, to develop, and to allocate personnel, has to further develop standards and to provide ethics of work, and has to provide the infrastructure for the performance of the work packages. On the otherhand, the quality control of the work packages, which are performed in the projects and programmes, is not her responsibility.

## 5. Maturity of the POC

Not only individuals but also organizations have the capability to acquire knowledge and experience and to store it in a "collective mind" (Senge, 1994, Weik & Roberts, 1993). Organizational principles, which might be stored in the collective mind of a POC, are project management procedures, project management templates, standard project plans, procedures for the management auditing of projects, as well as project portfolio management procedures, structures for a project portfolio database, and standard project portfolio reports.

### Assessing and Benchmarking the Maturity of a POC

The organizational competences of the POC can be assessed with the *POC Maturity Model*. This model is based on a POC questionnaire and is visualized in a "POC spider web." The axes of the spider web represent the business processes of the POC. The maturity of a POC in the performance of each of these processes can be assessed by the application of a set of questions relating to the business process.

Questions relating to the project start process are grouped regarding the planning of project objectives, the project risk, the project context relationships, the project organization and the project culture. They are not assessed for the application of a given project management method, but for the resulting project management documents.

The overall maturity of a POC can be represented by the area in the spider web (see Exhibit 9).

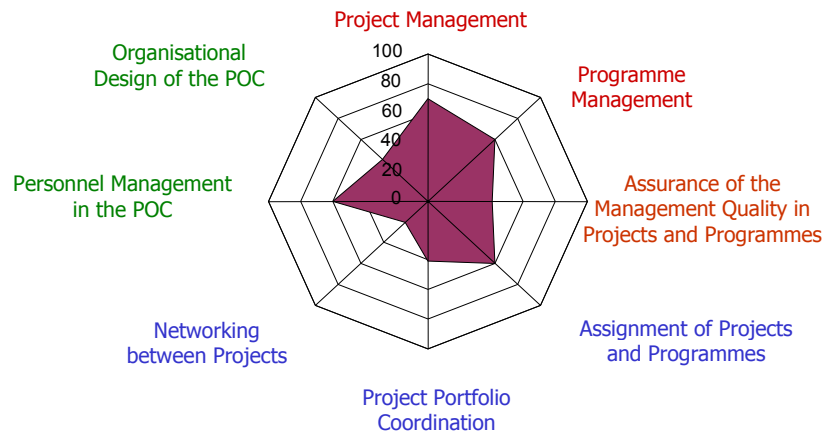


Exhibit 9: Maturity of a POC

The maturities of POCs can be benchmarked and further developed. Instruments to develop the competences of individuals performing roles in the POC are (self-) assessments, trainings (classroom, on the job) and coachings. Instruments to develop the organizational competences of the POC are assessments, benchmarkings and organizational development projects, e.g. to implement project portfolio management, to establish a PM Office.

## 6. Summary

“Management by Projects” is the organizational strategy of the POC. The application of a “New Management Paradigm” supports the efficient application of projects in the POC. Specific organizational structures, such as Expert Pools, a Project Portfolio Group and a PM Office, are required to perform integrative functions in the POC. For the performance of the specific business processes of the POC specific competences are required by individuals, teams, and the POC overall.

It is important to differentiate between the project management process and other specific processes of the POC. Even project management is the most important business process of the POC, competences for the performance of the other specific business processes of the POC have to be further developed, too. The *POC Maturity Model* supports the assessment as well as the further development of these competences.

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