# 6 Project Management of BPR projects

## 6.1 Project Management Introduction

The Project Management style is a somewhat different form of management as the usual operation management style. This is caused by the intrinsic differences between operations and projects. A project is a *temporary* endeavour undertaken to create a *unique* product or service. Its temporary nature implies that it has a definite beginning and end, and uniqueness implies specific differences from similar products or services. Project Management is thus that application of knowledge, tools, and techniques to project activities to meet or exceed stakeholders' expectations from projects. [45. Siemens AG] BPR initiatives in itself cannot be described in any other way as unique, for each of its occurrences, even if in the same organisation. Therefore the need to approach the initiative as a project, and apply Project Management principles to it.

## 6.2 Chapter objective

Project Management is a topic that is well covered in literature both holistically and its various facets. After a recent internet search on 'Project management', using the Alta Vista search engine, 270485 Web pages were found. Trying to describe the total topic in one chapter would be ridiculous, thus in this section only a generic overview of project planning and managing actions will be discussed. Some attention will be given to specifics such as project phases, configuration management, and control, which has direct implications on BPR projects. The Sietel BPR project will be discussed as a case study for managing project structures and teams in practice.

## 6.3 Generic Project Management principles

### 6.3.1 Project Management overview

Michael Greer's book: "The Project Manager's Partner' (1996) is written and organised around 20 Key Project Manager Actions and Results. The Table below describe these 20 Actions, which are organised according to their support of the Five Essential Project Management Processes: initiating, planning, executing, controlling, and closing. [43. Greer]

| *Action* | *Results of Successful Performance* |
|---|---|
| | ***Initiating*** |
| 1. Demonstrate project need and feasibility. | • A document confirming that there is a need for the project deliverables and describing, in broad terms: the deliverables, means of creating the deliverables, costs of creating and implementing the deliverables, benefits to be obtained by implementing the deliverables. |
| 2. Obtain project authorisation. | • A "go/no go" decision is made by the sponsor.<br>• A project manager is assigned.<br>• A "project charter" is created which:<br>  • Formally recognises the project |

| | |
|---|---|
| | • Is issued by a manager external to the project and at a high enough organisational level so that he or she can meet project needs<br>• Authorises the project manager to apply resources to project activities |
| 3. Obtain authorisation for the phase. | • A "go/no go" decision is made by the sponsor which authorises the project manager to apply organisational resources to the activities of a particular phase<br>• Written approval of the phase is created which<br>• Formally recognises the existence of the phase<br>• Is issued by a manager external to the project and at a high enough organisational level so that he or she can meet project needs |
| ***Planning*** | |
| 4. Describe project scope. | • Statement of project scope<br>• Scope management plan<br>• Work breakdown structure |
| 5. Define and sequence project activities. | • An activity list (list of all activities that will be performed on the project)<br>• Updates to the work breakdown structure (WBS)<br>• A project network diagram |
| 6. Estimate durations for activities and resources required. | • Estimate of durations (time required) for each activity and assumptions related to each estimate<br>• Statement of resource requirements<br>• Updates to activity list |
| 7. Develop a project schedule. | • Project schedule in the form of Gantt charts, network diagrams, milestone charts, or text tables<br>• Supporting details, such as resource usage over time, cash flow projections, order/delivery schedules, etc. |
| 8. Estimate costs. | • Cost estimates for completing each activity<br>• Supporting detail, including assumptions and constraints<br>• Cost management plan describing how cost variances will be handled |
| 9. Build a budget and spending plan. | • A cost baseline or time-phased budget for measuring/monitoring costs<br>• A spending plan, telling how much will be spent on what resources at what time |
| 10. Create a formal quality plan. *(optional)* | • Quality management plan, including operational definitions<br>• Quality verification checklists |
| 11. Create a formal project communications plan. *(optional)* | A communication management plan, including:<br>• Collection structure<br>• Distribution structure<br>• Description of information to be disseminated<br>• Schedules listing when information will be produced<br>• A method for updating the communications plan |
| 12. Organise and acquire staff. | • Role and responsibility assignments<br>• Staffing plan<br>• Organisational chart with detail as appropriate<br>• Project staff<br>• Project team directory |
| 13. Identify risks and plan to respond. *(optional)* | • A document describing potential risks, including their sources, symptoms, and ways to address them |
| 14. Plan for and acquire outside resources. *(optional)* | • Procurement management plan describing how contractors will be obtained<br>• Statement of work (SOW) or statement of requirements (SOR) describing the item (product or service) to be procured<br>• Bid documents, such as RFP (request for proposal), IFB (invitation for bid),etc.<br>• Evaluation criteria -- means of scoring contractor's proposals<br>• Contract with one or more suppliers of goods or services |

| | |
|---|---|
| 15. Organise the project plan. | • A comprehensive project plan that pulls together all the outputs of the preceding project planning activities |
| 16. Close out the project planning phase. | • A project plan that has been approved, in writing, by the sponsor A "green light" or okay to begin work on the project |
| 17. Revisit the project plan and replan if needed. | • Confidence that the detailed plans to execute a particular phase are still accurate and will effectively achieve results as planned. |
| ***Executing*** | |
| 18. Execute project activities. | • Work results (deliverables) are created.<br>• Change requests (i.e., based on expanded or contracted project) are identified.<br>• Periodic progress reports are created.<br>• Team performance is assessed, guided, and improved if needed.<br>• Bids/proposals for deliverables are solicited, contractors (suppliers) are chosen, and contracts are established.<br>• Contracts are administered to achieve desired work results. |
| ***Controlling*** | |
| 19. Control project activities. | • Decision to accept inspected deliverables<br>• Corrective actions such as rework of deliverables, adjustments to work process, etc.<br>• Updates to project plan and scope<br>• List of lessons learned<br>• Improved quality<br>• Completed evaluation checklists (if applicable) |
| ***Closing*** | |
| 20. Close out project activities. | • Formal acceptance, documented in writing, that the sponsor has accepted the product of this phase or activity.<br>• Formal acceptance of contractor work products and updates to the contractor's files.<br>• Updated project records prepared for archiving.<br>• A plan for follow-up and/or hand-off of work products |
| *From* The Project Manager's Partner © *Copyright 1996, Michael Greer & HRD Press* | |

*Table 6-1 20 Key Project Manager Actions and Results [43. Greer]*

Kerzner, in his book "Project Management" (1996), segmented a project into the same lifecycle phases as Cleland and King (1975) did for system lifecycles [5. Kerzner]:

1. **Conceptual phase** – which is the preliminary evaluation of the idea, with a preliminary analysis of risk, and the resulting impact on the time, cost and performance requirements on company resources.
2. **Definition phase** – is mainly a refinement of the elements described in the conceptual phase. This includes a set identification of the resources required with realistic time, cost and performance parameters.
3. **Acquisition / Production phase** – is mainly a testing and standardisation effort before the operations begin. Most of the documentation must be completed in this phase.
4. **Operational phase** – integrates the project's products and services into the existing organisation. If a marketable product has to be produced from the project, market introduction, growth and maturity would also be part of the phase.
5. **Divestment phase** – is basically the reallocation of project resources, answering the question: "Where should the resources be reassigned?".

### 6.3.2 Project Life-Cycle phase descriptions

By breaking a project up into its various life-cycle phases, it becomes more understandable in terms of what needs to be done, and more manageable in terms of using a systematic approach. These generic life-cycle phases described in the previous paragraph, can thus be related to specific project management activities performed in each one of those phases.

The Conceptual phase relate to Greer's Initiating actions. This stage is mainly occupied with interaction between the project manager, customer and executives to clear out what the project objective is, and if it is worth the risk and costs. A Charter is one of the key deliverables from this stage, which documents the project manager's authority, responsibility and also set the scope of the project.

The 2nd and 3rd phases of the project relate to Greer's Planning actions. Because planning contribute such a crucial role to project success, it take up 14 out of the 20 steps in Greer's model. Kerzner described general planning as determining what should be done, by whom, and by when, in which order, or how to fulfil the assigned responsibility within allocated time and budget. [5. Kerzner] To do effective project planning the following information requirements must at least be obtained:

- Statement of Work (SOW) – a narrative description of the work required for the project.
- Project specifications – a list of specifications that are used for man-hour, equipment and material estimates.
- Milestone schedules – the project start and end dates as well as any other milestones such as review meetings, prototype deliverables or report hand-ins.
- Work Breakdown Structure (WBS) – is a product oriented family tree subdivision of the hardware, services and data required to deliver the end product. This is structured in accordance with the way the work will be performed and reflect how costs and data will be summarised.

The operational phase speaks to Greer's Executing and Controlling actions. This is the part of the project where everything is happening and it is vital the proper management takes place in terms of measuring, evaluating, and correcting:

- *Measuring* is done through formal and informal reports by determining the degree to which progress is made towards the objective.
- *Evaluating* is done by determining the cause of deviations from planned performance, and ways to act on these deviations.
- *Correcting* is done by taking control action to correct an unfavourable trend.

In addition it is extremely necessary to manage the project team during this phase. Probert remarked the primary reason for non-success of a project is the failure to generate team spirit within

the project team, and the lack of experienced project managers. [31. Probert] He suggested to ensure effective team working during project execution, the following conditions must be addressed:

- Team selection – A project team has to be built and cannot simply be made up of random elements thrown together, thus initial selection is one of the more important aspects of management.
- Team ownership – The team must be capable of taking ownership of all aspects of the project including scheduling, design, costs, and the power to make changes and accept specification changes.
- Team structure – Effectively each member of the core team is a project leader within his own discipline, and must contribute and manage their own area of expertise.
- Team customers – Normally there are two customers: the 'real' customer and the company management. The project manager is the main point of contact with these customers.
- Team support – Senior management must be seen to back the team. Preferably one senior person should act as champion / coach to review project status and help the team with generic problems within the company.

The final phase focuses on closing the project off and separating the team. It is necessary that project do not drag on, mainly because of the cost involved and boredom that sets in. With regard to progress reporting Probert warn that the 90% rule must be avoided: everything proceeds as planned up to 90%, then progress gets stuck while spend continue at normal rate. Progress meetings can also have around 20 occurrences before boredom sets in.

As mentioned before, the lifecycle phases mentioned in the previous paragraph were generic project lifecycles that were deducted from system lifecycles. These lifecycle phases will obviously differ for various types of projects. The table 6-2 indicate the different lifecycle phases for various industry related projects [5. Kerzner & 16. Gemini].

| Engineering | Manufacturing | Computer Programming | Construction | BPR |
|---|---|---|---|---|
| • Start-up<br>• Definition<br>• Main<br>• Termination | • Formation<br>• Build-up<br>• Production<br>• Phase-out<br>• Final audit | • Conceptual<br>• Planning<br>• Definition and design<br>• Implementation<br>• Conversion | • Planning, data gathering and procedures<br>• Studies and basic engineering<br>• Major review<br>• Detail engineering<br>• Detail engineering/ construction overlap<br>• Construction<br>• Testing and commissioning | • Opportunity identification<br>• Project design and costing<br>• Detail process analysis<br>• Process redesign<br>• Implementation<br>• Embedding and sustaining |

*Table 6-2 Life-Cycle phase definitions [5. Kerzner 1996 & 16. Gemini]*

As can be seen, even though these life-cycles differ, all these examples go though a cycle of project initiation, project planning and operation, and project finalisation. Making use of the life-cycle approach for BPR projects in particular is critical to managing the projects. The BPR project life-cycle phases relates directly to the BPR methodology, thus the methodology have to be understood thoroughly to be able to manage the project.

### 6.3.3 Controlling and measuring project progress

The ultimate objective of Project Management is to utilise available resources to achieve the project goal, while maintaining an optimum balance of time, cost and technical performance

#### *6.3.3.1 Elements of Project Management*

As mentioned earlier, to do effective project planning, a SOW, project specifications, milestone schedules and a WBS must clearly be defined. Projects are managed according to these elements.

A project starts out as a **Statement Of Work (SOW).** This is a written description of the objectives to be achieved, a proposed schedule with start and finish dates, performance measures in terms of budget and completion steps (milestones), and written reports supplied.

**Project Specifications** can be seen as standards for pricing out a proposal. It is the project element that depend on engineering inputs, both from the customer and suppliers/contractors, to ensure that proper standards are identified to which the project deliverables must comply. Defining of these standards provide an indication of the efforts, and thus costs required for the project. This ensures no surprises for a customer downstream.

**Milestones** are specific events to be reached at certain points in time. The date when the project must be completed is obviously the most important milestone. To ensure though that this milestone will be reached, preliminary milestones must be put in place that will help to measure the progress of the project. How time schedules with milestones are measured, will be discussed in the next section under project controlling techniques.

After the objective, time, costs, and project team are specified, a **Work Breakdown Structure (WBS)** has to be done. WBS is a subdivision of the objective into smaller and smaller pieces, which clearly defines the objective in its totality and contributes to its understanding and success. The WBS usually has the following structure:

1. Project
    2. Tasks
        3. Sub-tasks
            4. Work Packages

Tasks and sub-tasks are used to subdivide a project into more manageable pieces.

A work package is a group of activities which is combined and assigned to a single organisational unit. Such a work package in itself provides a description of what needs to be done, the dates when it will start and end, its budget and its measures of performance. [45. Siemens AG]

### 6.3.3.2 *Project Controlling Techniques*

The main factors that usually have to be controlled via project management are resources, which are tied to costs, and time schedules. Popular time orientated techniques to measure progress against time, are Gantt charts, PERT and CPM.

Gantt charts are visual bar charts, which show both the amount of time and the sequence of activities that have to be performed. The picture below is an example of an Gantt chart.

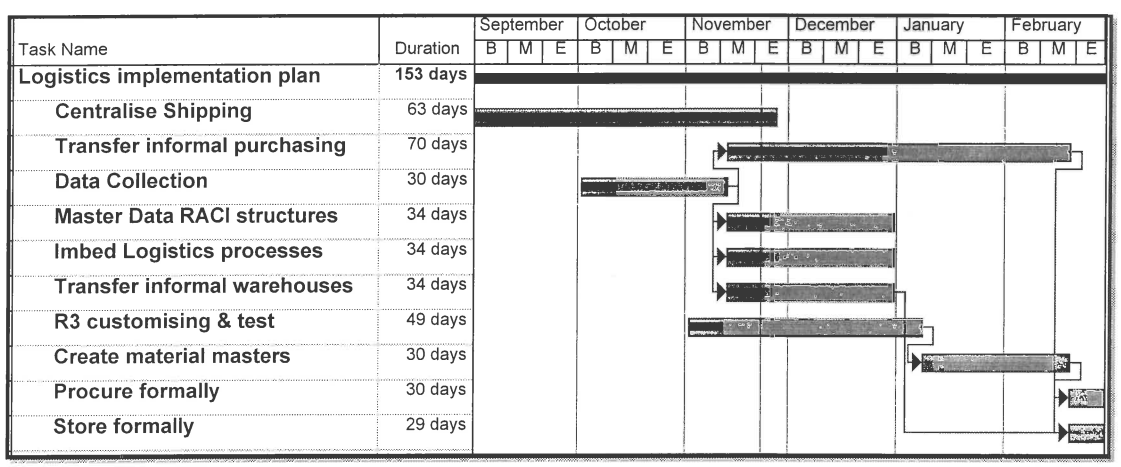


*Figure 6-1 Gantt chart example.*

Because Gantt charts focus on the timing of activities, it is the most ideal tool to measure what activities should be done at what date. It also effectively demonstrates activities that need to be performed in parallel, and the critical path activities.

PERT (Program Evaluation and Review Technique) and CPM (Critical Path Method) are both network diagram tools used to analyse, describe, plan, monitor and control project sequences. In large projects, network diagrams are the best means of co-ordinating and controlling operations. It consist of graphical representations of the logical links between activities, and illustrates the timing of all activities and their dependencies. From a network diagram, time schedules, Gantt charts and resource plans can easily be created. [45. Siemens AG]

Both the PERT and CPM techniques finds the longest time consuming path, called the critical path, in a network diagram, and focus on this critical path as a basis for planning and controlling a project. The critical path is thus the constraint that determines the minimum time needed for project completion. When using critical path scheduling, it is important for projects to have the following characteristics:

1. Well defined tasks whose completion marks the end of a project.
2. The tasks are independent, thus they can be started, stopped, and conducted separately within a sequence.
3. Tasks are ordered and must follow each other in a given sequence.

Typically construction and large engineering projects meet these criteria. Conversely the tasks of BPR projects are not well defined in terms of time, and are dependent on each other, which cause critical path scheduling to be less effective for BPR projects. Network charts are useful to identify the sequence of BPR tasks though, but usually Gantt charts are the most effective for planning BPR projects. A critical path can also be identified on a Gantt chart, but it becomes very complex if there are more that 20 to 30 activities on the chart.

#### *6.3.3.3 Configuration Management*

Configuration management is a critical tool employed to control configuration changes to projects. [5. Kerzner] It comprises of:

- Activities for defining project results in terms of components and features,
- Controlling desired changes and improvements of the results,
- Avoiding undesired and unforeseen changes,
- and documenting and archiving all job results.

This control technique is basically a orderly process for the formal review and approval of configuration changes. It requires a committee that consist of the customer, the contractor and the group initiating the change. This group have to review any suggested changes in terms of its cost, quality, is it justifiable, and what is its impact on the project. If Configuration Management is properly implemented and managed, it will provide:

- Appropriate levels of review and approval for changes.
- Focal point for suggesting and approval of change.
- Better communication of any changes to both the customer and staff.
- Ensuring better technical intelligence, no frivolous changes and reduced confusion concerning changes.
- A paper trail of the initial scope and objectives, with any subsequent changes recorded.

For BPR projects it is very important to initially define the scope of the project, and even though it is hard to quantify the deliverables, an agreement has to be reached before the project commences. This agreement is the baseline deliverable of the project, and any changes to the scope of this baseline

needs to be approved by a steering committee that consist of both the customer (organisation management) and contractor (consultants).

### 6.3.4 Management of BPR project teams

When teaming people up for a project, one of three organisational structures are usually used for project management [5. Kerzner]:

- A **pure project team** structure (nicknamed skunk works) where a self contained group works full time on the project. These type of project teams are usually for intensive projects such as BPR.
- **Functional project teams** are housed within a functional division. The team operate very much the same as normally, it is only the tasks and deliverables that distinguish operations as a project.
- **Matrix structure project teams** blend the properties of functional and pure project structures. Each project utilises people from different functional areas. The project manager decides what and when tasks will be performed, but the functional managers control which people and technologies are used. Engineering and construction type projects often utilise matrix structure project teams

For most people working in teams is different from working alone. Specialised techniques and management styles are required to help teams maintain focus and develop common understanding of issues. Team work requires a structured approach to avoid:

- Vague problem definitions
- Groups that argue and go off on tangents
- People being unhappy with the proposed solutions
- A lot of time spend with nothing accomplished
- No follow through of solutions

Successful management of teams draws the collective best from the members in a co-operative manner. This results in solutions that are implemented through action plans and commitment of the total team.

### *6.3.4.1 Structure of the project team*

As mentioned, it is often the rule that a pure project team performs BPR projects. These teams then consist of a project leader, a facilitator and team members or resources.

The project leader is accountable for the re-engineering exercise. He is also the person responsible for decision making within the team. The main roles of the team leader are to stay focused on the re-engineering activities and reinforce the efforts of the team. The ideal is to have only one dedicated project leader.

The facilitator acts as a catalyst in the group and assisted the group in working together effectively. His role is to focus on the process of re-engineering, and the context in which the re-engineering is performed. The reasoning is that the facilitator is not an expert of the processes and avoided making content contributions, but helps the team to get more done in less time by means of team building and developing other's ideas.

The team members, or resources are the process experts and have the responsibility of helping the leader with the re-engineering. They are the ones that contribute ideas and follow the action plans under the guidance of the facilitator.

### *6.3.4.2 The format of team operation*

The project team itself works in continuos loops of Plan – Do – Review, which consist of the following steps [16. Gemini]:

1. A task (such as planning a workshop) would start with a PDR meeting. All the planned activities that have to be done are discussed and written down on a flipchart. Next to each activity the person's initials who is responsible for performing the task, and the date by when it should be completed are written. Such a list of tasks with names and dates were called Next Steps. A date and time also has to be set for the next PDR meeting when these Next Steps will be reviewed.

2. The project team then have to go and do the activities, such as preparing presentations for the workshops and arranging appointments, ect.

3. On the next PDR meeting the flipchart with the Next Steps will be reviewed for completeness of activities. After the review of the previous Next Steps, the planning for the next activities will already be incorporated into the meeting. Thus the PDR meetings have the dual purpose of Reviewing and Planning. See the illustration below for an example of an agenda for such a PDR meeting. The flipchart of Next Steps is always a 'live' list with completed activities scratched out, and new activities added on. Such a PDR meeting is finished with capturing Benefits and Concerns (B&C's):

- Benefits being positive comments about the meeting or project progress. Benefits were always mentioned before concerns were raised.

- Concerns were issues that the team felt must be addressed. A concern was always started with the words "How to / (H2)", or "I Wish I Knew /(IWIK)".

- The concerns are then converted into Next Steps and the PDR loop continued.

| | Agenda Item | |
|---|---|---|
| 08.30 - 08.35 (5min) | Agenda Review | AC |
| 08.35 - 08.40 (5min) | Review Previous Next Steps | WB |
| 08.40 - 08.45 (5min) | Meeting Objectives | AC |
| 08.45 - 09.05 (20min) | Discuss Core Skills | PdS |
| 09.05 - 09.20 (15min) | Benefits Tracking | AL |
| 09.15 - 09.25 (5min) | Benefits & Concerns | AC |
| 09.25 - 09.30 (5min) | Next Steps | WB |

| Next Steps | | |
|---|---|---|
| • Clarify the split rule between Technology solutions and Networks - set-up meeting | DL | 20 /04 |
| • Identify people doing NE functions | WdP/RK | 22/04 |
| • Sort out issues with Carrier Telkom regarding NE functions | DL/CK/AB | 26/04 |
| • Include in pre-present: | CK / DL | |
| – Functional matrix | | |
| – Network Engineering / Technology Solutions split | | |
| – Network Engineering mission | | |
| – Network Eng. & Project Eng. Integration with Advantages / Disadvantages | | |
| • Clear out Network Engineering name with Martin Sanne | FS | 29/4 |
| • Get org chart agreement with Ray Khoza & Anthony Pickering | WdP | 30/4 |
| • Forward NE matrix, tasks & mission slides to CK/DL | WdP | 27/4 |
| • E-Mail Next Steps to meeting attendees | CK | 27/4 |

*Figure 6-2 Next Steps and Agenda examples.*

## 6.4 Managing the Sietel BPR project

### 6.4.1 The organisational structure of the Sietel BPR project

Initially seven Sietel employees and 4 consultants would have been involved in this project for 7 months. These members had to work full-time in a pure project organisation structure and were known as the BPR project team. This BPR project team was under the dual lead of a Sietel manager and a Consultant Project lead. These two project leaders were responsible for the so called project governance of this BPR project. The project team itself was also further divided into work streams, which were responsible for focussing on specific areas in the BPR process, namely:

- Benefits Tracking
- Supplier orientated processes
- Customer orientated processes
- Services processes
- IT support

The progress of this BPR project was overseen by an Executive Steering Group (ESG) which consisted of the board of senior executives. They had to provide direction and support to the project team, make decisions and remove organisational barriers. In addition each of these executives had to act as a coach to one of the sub-divided work streams. The role of being coach were to support the key initiative of the work stream by providing guidance, eliminating barriers and reviewing recommendations. These coaches had to meet with their work streams at least once a week to discuss their progress. The Steering Committee then convened every 2 weeks and each coach had to report on the progress of the work stream he was overseeing.

Within Sietel this project structure of Project Governance, with the project team sub-divided in work streams, and the ESG overseeing the progress, allowed for the dynamic management required for BPR. As deeper analysis were done of the business processes, it was realised that the project structure and the original project team had to adapt. For example, it was realised that more effort had to be spend on the re-engineering of the services processes than initially planned. Thus a work stream for services had to be formed as well, and additional resources added to the project team. Thus the project team ended up consisting of 8 Sietel employees and 5 consultants in addition to the two project leaders.

### 6.4.2 The motions of implementing teamwork for BPR.

Teamwork does not simply just happen, it has to be implemented and managed. That is why there had to be proper structures for teamwork with team leaders, facilitators and coaches within Sietel. These structures were applied for all the different types of teams that were utilised during the BPR project, which were:

- The BPR project team itself,
- Cross Functional teams that redesigned various parts of the process,
- And implementation teams, which consisted of the process owners implementing the processes.

To get these teams going, a process of team implementation had to be followed. During Sietel's BPR project a fairly generic process of team implementation was used, and only slightly altered for the various types of teams:

1. The task or opportunity for the specific team had to be identified clearly in terms of the problem process that has to be investigated, redesigned or implemented.
2. Management then had to decide the relevance of the opportunity for various areas, and who the best people would be for investigating the opportunity. Thus for each opportunity the team members, the leader, facilitator and coach had to be identified.
3. The team is onboarded with the following actions:
   - Training on all relevant techniques and tools.
   - Defining the objective, tasks and expectations from the team.
   - The team identifies their expectation from management.
   - Identification of the problem, what needs to be delivered and what are the success criteria. This is captured in a charter along with the scope of the project.
4. The team operates in continues loops of Plan-Do-Review involving the team itself, its leader and coach.
5. The progress of how the team is reaching its objective is monitored on a regular basis by means of internal PDR meetings twice a week, feedback meetings once a week with the coaches, and feedback presentations to the Steering Committee every two weeks.
6. Once the team's objective is fulfilled according to the initial opportunity and charter, feedback is given to the management and Steering Committee, and an "accomplishment permit" is requested.
7. If the Steering Committee is satisfied with the teams results and award the "accomplishment permit", the team is "disassembled', which indicate no further need of the team due to reaching of its goal.

During the BPR project the business improvement was the main benefit, but teamwork was a 'way to the mean' with the following benefits:

- Greater variety of problems could be tackled.

- Problems were exposed to a greater diversity of knowledge.
- Participation boosted morale and ownership.
- Cross functional / divisional problems could be dealt with.
- Recommendations were more likely and easier to implement than individual suggestions.
- The teams were action-oriented, optimistic, and pro-active.
- Teams got things done; they were achievement-oriented and goal focused.
- Teams were flexible and creative.

Thus except for the benefits cases from BPR in Sietel, implementing teamwork structures in Sietel also had various benefits, both tangible and intangible throughout the whole organisation.

## 6.5 Project Management conclusion

Project Management as a management philosophy focuses on:

- Proper identification of project scope, objectives, and deliverables.
- Thorough planning of tasks, resources and costs to accomplish project deliverables.
- Control techniques to monitor project progress.
- Situational driven management of activities, while controlling changes through configuration management.
- Special organisation structures to manage teams of resources.

These characteristics make Project Management viable for controlling and managing BPR projects.

In this chapter the life-cycle phases were also discussed, and alternatives for various types of industries were demonstrated in table 6-2. Thus it can be concluded that the project life-cycle approach can have a close relation to the BPR approach, which suggest that an integration of the two structures can help to ensure successful management of BPR exercises.

# 7 Implementation Drivers

## 7.1 Implementation Drivers Introduction

When Jack Welch became CEO of General Electric (GE) in 1981, he started a transformation process that took more than a decade, and is still continuing. He admitted that it nearly took a decade just to make his organisation understand the message of transformation. During this process he discovered and utilised some very specific implementation drivers for transformation.

To communicate his vision for GE and implementing his values, Jack Welch seized the "revolutionary's three main levers of control" as he called them, namely 'the police, the media, and the schools'. These three institutions forms the most effective means of influencing a population at large, and corporations have the own equivalents of each:

- GE's "police" were the functions of strategic operation planning and finance staffs, who reviewed every operating decision and supervised the allocation of capital.
- The "media" included everything form executives' speeches, publications in employee magazines and even corporate annual reports.
- The GE corporation's "schools" were represented by the training courses, seminars and workshops, which managers were send to annually for training.

But even after 7 years of continuously applying these three main levers, Welch realised there were still managers further down in the organisation that still did not see the need to change. These were the unimaginative, bureaucratic bosses-from-hell that demanded that fewer people still do everything and more than they used to do. They did not share Welch's values and pushed their subordinates hard to achieve earnings results. It felt to Welch that the police, media and schools had failed him and something else had to be done. The concept he came up with, he explained as follows: "We got to put the person who knows the answer to these frustrations in the front of the room. We've got to force the leaders who are not walking the talk to face up to their people". This was the start of the concept that GE called 'Work-Out'. The Work-Out program focussed on four major goals:

- **Building trust**: To benefit from employees' ideas, opportunity should be given to speak cordially without jeopardising careers.
- **Empowering employees**: The people closest to the problems usually know better than their superiors how it could be solved. It was needed to leverage the workers' knowledge and emotional energy.
- **Elimination of unnecessary work**: GE wanted higher productivity from its workers, but at the same time relief some of their stress.
- **A new paradigm for GE**: Welch wanted the whole organisation to participate in defining itself.

This approach of how Welch implemented transformation in GE is acknowledged as one of the biggest success examples in the business world. [10. Tichy]

## 7.2 Chapter Objective

In the same way as Welch focussed on certain elements to successfully transform his organisation, this chapter will explore implementation drivers for organisational re-engineering. Implementation theories from various literature studies on change management projects, re-engineering and the Balanced Scorecard successes will be reviewed. Deducting from these reviews five implementation drivers will be extracted and explained with reference to the Sietel Case Study, as well as Welch's control levers.

## 7.3 Implementation Frameworks

Professor Norman Faull, from University of Cape Town Business School, and two of his students, Nick Day and Tanja Klein, researched the characteristics of good implementation. They presented a paper [13. Faull et al] in which they stated that no matter what philosophy being implemented (TQM, BPR, Lean Production), success depend on the use and presence of certain critical success factors (CSF). Based on these CSF, Faull, Day and Klein created frameworks for implementation.

In their first framework, they refer to David Upton's course notes from Harvard Business School on "Design and implementing operational improvement strategies", which consist of seven elements that address generic questions on improvement strategies. These seven elements and questions being [34. Upton]:

| | |
|---|---|
| 1. Context and motivation | Why is the improvement initiative taking place? What is driving it? Why is the effort necessary? |
| 2. Direction and goals | On what dimensions is performance to be improved? How will this improvement be measured? What will be externally visible results? |
| 3. Focus | Where will we concentrate internally to achieve the desired goals? On what areas of the operation will the initiative focus? |
| 4. Methods and techniques | How will we achieve the desired results? What will our "toolkit" be for this improvement effort? How will we ensure the tools are available? |
| 5. Resources | What financial and human resources will be required? To what extend will external resources be needed? |
| 6. Organisation and phasing | How will the initiative be organised? What groups will it involve? Who will lead it? What will be the order of the projects tackled and when will each begin and end? |
| 7. Learning capture and leverage | How will knowledge be brought to the operation? How will what is learned in the initiative be captured? How will the achievements of this initiative be leveraged into the future projects? |

These elements form the foundation layer in Faull, Day and Klein's first conceptual framework for implementation (✣ See table 7-1) The second and third layers take the organisation's culture and

innovation track record into account and test it against the innovation (such as a new process) itself. Klein made the observation that implementation effectiveness affects future implementation. Where the first 3 layers required pre-analysis, the fourth layer relates to the actual implementation. The final layer, called the surface layer, evaluates the results evident.

| |
|---|
| 5. Evaluate the results from the implementation. Compare them with the goals set. Assess how widespread the innovation is in terms of the actual practice. Has the innovation changed the company? How has it affected the climate for future innovation? |
| 4. The implementation approach includes the project management methodology, planning and control techniques, and communication means. Are the number and quality of people assigned to the implementation, and the funding level, sufficient? |
| 3. The innovation itself needs to be assessed in terms of the findings on climate, values and history. To what extend does it fit? How radical is it as a departure from the norms? |
| 2. The organizational context for the innovation needs assessing in terms of:<br>★ climate ★ culture ★values<br>★ and the innovation track record |
| 1. The overall improvement strategy of the organisation ✣ |

*Table 7-1 First Conceptual framework for implementation [13. Faull]*

In their second conceptual framework for implementation, Faull, Day and Klein grouped related CSF under four category headings with sub-points:

1. Effective implementation requires **top management to be continuously involved** in establishing and maintaining a solid foundation on which to implement.
   - 1.1 Linking the initiative to strategies and overall company objectives (linking)
   - 1.2 Breaking down boundaries and removing obstacles (removing obstacles)
     - 1.2.1 Communicating and clarifying objectives (communicating)
     - 1.2.2 Building consensus and shared understanding (consensus)
   - 1.3 Adapting the organisation to the change process (adaptation)
   - 1.4 Appropriate resourcing of the implementation process (resourcing), including empowering adopters and implementation team (empowerment)
2. Effective implementation requires a **project management approach** to manage the procedural and administrative aspects of the initiative.
   - 2.1 Building technical competence (competence)
   - 2.2 Making use of pilot projects (pilots)
   - 2.3 Monitoring progress and planning tasks (monitoring and planning)
   - 2.4 Ensuring the procedures are well documented (documentation)
   - 2.5 Managing the design process (design)
3. Effective implementation requires an **adoption management approach** to gain the acceptance and commitment of users in the application of the initiative.
   - 3.1 Providing training, education and mentoring (training)
   - 3.2 Ensuring user involvement and participation (participation)

3.3 Providing effective feedback (feedback)

3.4 Defining roles, redeploying staff and redesigning jobs (role definition)

3.5 Allocating rewards (rewards)

3.6 Marketing the project internally (marketing) and not overstating the benefits (realistic benefits)

4. Effective implementation requires **the allocation of a unique set of human resources (project team)** that are specially equipped to execute the implementation.

4.1 Using cross-functional team-based problem solving (teams)

4.2 Being aware of users' needs (users needs)

4.3 Good interpersonal skills (interpersonal skills)

These categories of CSF were firstly measured against literature corroboration from some 16 change management gurus, and then against a case study of successful TQM implementation. Each time scores were assigned according to the strength of association with the CSF. Table 7-2 is a combination/summary of Faull, Day and Klein's related Framework tables for Literature Corroboration and Case Study results. (* Summed result)

| Frame-work Number | Keyword | Totals from Literature Corrobation | % Score from Literature Corrobation | Total from Case Study | % Score from Case Study |
|---|---|---|---|---|---|
| **1** | **Top Management Involvement** | | **33.3%** | | **46.3%** |
| 1.1 | Linking | 10 | | 1 | |
| 1.2 | Removing obsticles | 5 | | 3 | |
| 1.3 | Adaption | 3 | | 3 | |
| 1.4 | Resourcing & Empowerment | 9 | | 8* | |
| **2** | **Project Management** | | **29%** | | **4%** |
| 2.1 | Competence | 4 | | 0 | |
| 2.2 | Pilots | 3 | | 2 | |
| 2.3 | Monitoring and planning | 5 | | 0 | |
| 2.4 | Documentation | 4 | | 0 | |
| 2.5 | Design | 7 | | 0 | |
| **3** | **Adoption Management** | | **37.5%** | | **33%** |
| 3.1 | Training | 8 | | 1 | |
| 3.2 | Participation | 5 | | 2 | |
| 3.3 | Feedback | 7 | | 3 | |
| 3.4 | Role definition | 7 | | 0 | |
| 3.5 | Rewards | 5 | | 1 | |
| 3.6 | Marketing & Realistic benefits | 4 | | 6 | |
| **4** | **Project Teams** | | **50%** | | **52%** |
| 4.1 | Teams | 14 | | 6 | |
| 4.2 | User Needs | 4 | | 4 | |
| 4.3 | Interpersonal skills | 6 | | 4 | |
| 1.2.1 | Communicating | 2 | | 5 | |
| 1.2.2 | Consensus | 3 | | 2 | |

*Table 7-2 Literature Corroboration and Case study result for second implementation framework [13. Faull]*

## 7.4 Succeeding at Re-engineering

Implementing an improvement strategy, or best practices, or setting out on a path of drastically changing an organisation for the better, will always require certain spoken and unspoken rules. These rules are not for the sake of keeping up with the bureaucratic way of doing things, but to harmonise and organise all efforts towards a single goal. To prevent contradicting impression from management about organisational re-engineering, it is suggested that management (rather than the organisation) adhere to certain rules. Hammer compiled a list of common errors to be avoided in order to succeed at re-engineering. Measured against common sense, plus experience from practice, this list of errors is applicable to nearly all change management projects [4. Hammer et al]:

- *Place prior constraints on the definition of the problem and scope of the re-engineering effort.* By limiting the attention of the project, or only requiring a specific process to be re-engineered, only a small part of the problem can be addressed. Often only the effect of the problem can be addressed, and the cause of the problem is outside the scope of the project.

- *Bury BPR in the middle of the corporate agenda.* Re-engineering requires so much focussed energy, that it have to be placed at the top of the corporate agenda, or left of totally. If energy gets too distributed over too many change projects, nothing will happen.

- *Allow existing corporate cultures and management attitudes to prevent re-engineering from getting started.* If attitudes such as short-term goal orientation or top-down management structures exist, which is contradictory to BPR, it must be identified and changed.

- *Skimp on the resources devoted to re-engineering.* BPR is an effort that needs time and attention from the organisation's best people in addition to direct senior management involvement. Skimpy resources send out signals of non-importance.

- *Try to make re-engineering happen from the bottom up.* Except for the not receiving any buy-in, two additional reasons why this won't work:

  1. Middle managers and 'frontliners' can not see the total process and don't have the right perspective.

  2. No middle management has the authority to handle cross-boundary problems.

- *Attempt to re-engineer when the CEO is two years from retirement.* During and after BPR the organisation needs a CEO that is bold enough to make changes and live it.

- *Fail to distinguish BPR from other business improvement programs.* The danger is that employees will see it as another 'fad of the month' from management.

- *Assign someone who does not understand BPR to lead the effort.* Seniority and authority is not enough. Who ever leads the project needs to understand the mindset, as well as the link between operations and finance.

- *Neglect peoples values and beliefs.* A BPR project must provide reason and motivation for employees to perform well in the new processes. The new management system must also cultivate these values.

- *Try to make BPR happen without making anybody unhappy.* Re-engineering will cause people to loose or change their jobs, and cause uncomfortableness in post re-engineering jobs. Trying to keep people happy will not deliver the dramatic results BPR should.

- *Pull back when people resist making re-engineering changes.* Resistance will happen. It must be expected and not allowed to set the effort back.

- *Dissipate energy across a great many BPR projects.* Re-engineering requires sharp focus and discipline due to limited time and attention from management. Don't go for everything at once.

- *Be willing to settle for minor results.* Due to factors such as resistance to change, and achieving some (± 10%) results with no or little effort, it is tempting to settle for incremental improvements instead of dramatic results. This sin called incrementalism, leads to even more complex processes and bigger resistance to change in the long run.

- *Drag the effort out.* BPR is stressful, so don't stretch it and take to long, because people become impatient, confused and distracted.

- *Quit too early.* The first signs of problems (resistance to change), or success (minor improvements) can cause management to forego the huge pay-offs from BPR at a later stage.

- *Ignore everything except process redesign.* Management systems, such as job ratings, department structuring, management authority and labour relations, needs to be changed in line with the redesigned processes.

- *Not focus on business processes.* Often organisations try to focus on the implementation of philosophies, such as teamwork and empowerment, which is the consequences of re-engineered business processes.

- *Concentrate exclusively on design.* Having redesigned processes and structures does not mean an organisation is re-engineered, it has to implement these processes as well.

- *Try to fix a process instead of changing it.* Because a process is already in place, it feels more sensible to improve it than change it. Yet this leads to incrementalism, which is the path of least resistance.

Most of these rules, or warnings are applicable to Management and the BPR team. Despite this extensive list of rules, there are still a lot of other ways of causing BPR to fail. It does though set the scene for the type of approach requested to implement re-engineered processes and if the drivers of BPR continue along these lines, some type of success should be possible.

## 7.5 Balanced Scorecard implementation

During the 1990's the rise of a new management methodology were seen. The Gartner Group estimated that "at least 40% of Fortune 1000 companies will implement a new management philosophy – The Balanced Scorecard – by the year 2000". [48. US Dept. of Commerce] From an Internet search the Balanced Scorecard delivered over 4000 hits (November 1999). Being the philosophy to be implemented of our time, and standing at the end of the 90's decade, Balanced Scorecard implementation seem to be an ideal example to scrutinise for successful implementation drivers.

Professor Claude Lewy of the Free University of Amsterdam, claims that 70% of Balanced Scorecard implementation fail. Based on research of seven European companies, Professor Lewy and Lex du Mee of KPMG set down "The ten commandments of Balanced Scorecard Implementation. The Table below sets down these 10 commandments [28. McCunn et al]:

**The Ten Commandments of Balanced Scorecard Implementation**

| **Do…** | **In Other words…** |
|---|---|
| Use the scorecard as an implementation pad for strategic goals; | It can be an ideal vehicle for rolling the corporate strategy down through the organisation; |
| Ensure strategic goals are in place before the scorecard is implemented | Do not invent the strategy as you go along, or the scorecard will drive the wrong behaviour; |
| Ensure that a top-level (non-financial) sponsor backs the scorecard and that relevant line managers are committed to the project; | The scorecard project is too big to be anything other than top priority, and it should never be left to the accountants to do; |
| Implement a pilot before introducing the new scorecard; | It provides valuable lessons and avoid 'big bang' risks; |
| Carry out an 'entry review' for each business unit before implementing the scorecard. | This minimises the risk of going ahead in unfavourable circumstances and allows you to customise the project to suit your organisation's needs. |
| **Do not…** | **Because…** |
| Use the scorecard to obtain extra top down control; | People will rebel; |
| Attempt to standardise the project. The scorecard must be tailor-made; | Your organisation's strategic imperatives are unique – a ready made scorecard will not fit; |
| Underestimate the need for training and communication in using the scorecard; | Don't be fooled by the simplicity of the idea – you have to deal with the huge change it brings; |
| Seek complexity nor strive for perfection; | Avoid 'paralysis by analysis'; |
| Underestimate the extra administrative workload and cost of periodic scorecard reporting. | Gathering information for the scorecard is more time-consuming than you think. |

*Table 7-3 The 10 commandments of Balanced Scorecard [28. McCunn et al]*

Paul McCunn from KPMG, includes an eleventh commandment: do not start implementing a Balanced Scorecard unless you know what you are hoping to achieve. Implementing a balanced scorecard can have different objectives [28. McCunn]:

- **To change the way the business is run** – Managers start running their business by identifying the financial and operational factors that have the greatest effect on future profitability.
- **Create an awareness of non-financial measures** – The four standard perspectives provides a useful format to encourage managers to start thinking about the importance of non-financial measures.
- **Create a clear line of sight on the corporate objective** – A well designed scorecard helps managers link their actions and decisions to the corporate objective.
- **Communication of the business model** – Because the indicators in the scorecard are things that have to be done well if the organisation is to achieve its business goals, it helps staff to understand what makes the business tick.
- **It is a Trojan Horse for change projects** – The scorecard helps staff understand where the project is taking them and reduces uncertainty.

Managers have to be aware of these types of implications on their organisation, and should know what their exact objective is before implementing a Balanced Scorecard.

The CorVu Corporation, a supplier of an integrated suite of Enterprise Business Performance Management and Balanced Scorecard IT solutions, stated that "if the balanced scorecard has received any criticism, it is related to the effort involved in its implementation". [41. Corvu] Operation of the Balanced Scorecard requires locating and capturing performance data. This is typically a manual process and only serves to intensify the difficulty and complexity of implementation. It will also deter the continued use of the scorecard since the data will have to be regularly recaptured into the scorecard.

The Balanced Scorecard operation as a Management system, though becomes an iterative cycle and technology can be leveraged to automate this process. The ability to automate this management tool will then make it more widely available and practical, which will in turn promote acceptance of its use.

## 7.6 Main Drivers from the Sietel Experience

The previous three paragraphs have mainly discussed warnings and critical success factors for implementing new management philosophies. Each time guru authors gave lists of 'Do and Don't' rules, assuring that if implementers abide by these, their philosophy that they are trying to implement *should* be successful. But as Hammer stated "people are remarkably resourceful in finding ways to drop the ball" and abiding by the 'Do and Don't' rules will not necessarily guarantee success. [4. Hammer] Instead management must face the fact that they will make mistakes, but as long as they counter their mistakes by investing enough energy in critical success actions, implementation will be positive in its effects on the organisation.

From examining the implementation 'Do and Don't' rules in the previous three literature studies (as well as a couple of other articles from Kaplan, Kachellek, & Grover et al.), comments from these were compared with experience from the Sietel Case study. Some recurring rudiments emerged as critical success actions, or as the chapter heading implies, implementation drivers:

1. Assign appropriate ownership to re-engineered processes.
2. Campaign the objectives and later the results from re-engineering.
3. Proper planning and resourcing of the implementation phase and manage it as a business project.
4. Measure Key Performance Indicators regularly and make the result visible.
5. Utilise Information Technology tools as enablers for the new processes.

### 7.6.1 Appropriate Ownership

The need for top management commitment by this time goes without saying. Nearly each of the gurus mentioned thusfar in this dissertation stress the importance of high profile commitment. Appropriate ownership requires this commitment as a prerequisite, but goes beyond that in addressing Jack Welch's primary concern of "how to make the leaders walk the talk". [10. Tichy] This concern is addressed by assigning appropriate owners for new processes, and making them manage their new processes. Ownership has to be assigned at three levels:

1. Top management – For implementation to be successful, top management needs to ensure they have structured their organisation and aligned the strategy to accommodate the new processes. Imperatively a senior manager has to accept ownership as coach of the new process and resources that were assigned to implement and operate the new process.
2. Middle management – The manager that will be responsible for the new process in the future, must take over the ownership of the new process even before it gets implemented. No external consultant can implement a process for a manager. This new process owner must work with his

process team to implement the changes to the process, and as a group they must give feedback to their process coach.

3. Operational level – The future operators of the process must also be the process team to implement the new process. This process team must understand the significance of the process in the organisation's operations and accept ownership in supplying quality products or services.

In the Sietel BPR project, implementation of the Logistics processes was considered to be most successful. The main reason for this was that the new Logistics director, who acted as coach for these processes, relieved all his managers from their day to day activities and charged them with the task of implementing the new procurement, shipping and warehousing processes. [33. Tirisano] Jack Welch affirms this behaviour in his comment: "Managers had to know how to initiate change, how to accelerate it, and how to make it stick, people who are comfortable as coaches and facilitators will be the norm at GE. And the other people won't get promoted." [10.Tichy]

### 7.6.2 Campaigning objectives and results

Firstly the objectives of BPR, and then later on early successes, needs to be communicated to the organisation to promote buy-in for the implementation of re-engineered processes. The problem with communication though, is that every organisation always seems to have problems with it (solving all communication problems is one of those objectives with a constant scope creep). Campaigns to communicate BPR objectives can start of by means of:

- Roadshows and Brown Paper Fairs about BPR objectives, how new processes look and what is implementation progress.
- Publications about the BPR project in newsletters, e-mails and on the intranet.
- Competitions and awards for participation in initiatives and even just lucky draws for attending Brown Paper Fairs.

But to make organisational buy-in successful, campaigning has to be taken even further to achieve involvement. In a way campaigning has to achieve both Welch's media and schools leverages. This can be achieved through:

- Onboard training of all employees that need to participate during re-engineering, and training process teams on the designs of new processes later on.
- Getting operators and staff to validate processes on Brown Paper Fairs.
- Inviting employees to participate in workshops and be part of teams.

Brown Paper Fairs were experienced to be the most effective campaigning tool during the Sietel BPR project. Because of its 'low-tech, high-touch' characteristic everybody could easily relate to this form of communication and easily participate ideas onto a Brown Paper. Even after the BPR project

were implemented and finished, process teams looking at new areas of improvement still requested that Brown Papers should be build to communicate ideas to the rest of the organisation.

This example stresses the fact that communication in its simplest and most consistent form is the most effective. Jack Welch [10.Tichy] explained how communication evolved in GE: "We have learned a bit about what communication is not. It is not a speech like this, or videotape. It is not a plant newspaper. Real communication is an attitude, an environment. It's the most interactive of all processes. It requires countless hours of eyeball-to-eyeball back and forth. It involves more listening than talking. It is a constant, interactive process aimed at consensus".

Campaining is not only important during the course of implementing a new process or management philosophy, but is also important to continue after implementation. If an organisation is given feedback of the success accomplished due to implementing a new strategy, it will be more willing to trust management the next time an improvement initiative is undertaken.

### 7.6.3 Planning and Resourcing the implementation phase

One of the more difficult steps during BPR is moving from design phase into implementation phase. Process teams will have a lot of wonderful To-Be designs on one hand, and related As-Is processes on the other, and the question is how to manage transition from 'As-Is' to 'To-Be'.

When implementing a new process, there can be a hundred actions to do, but starting with 99 of them will only result in chaos. The challenge is how to start off with the one right initiative that will cause successful implementation of the whole new process. As one solution to this dilemma, experts with a strong theoretical background and a good understanding of practical operation, can be used to plan implementation. These experts must have the ability to bring theory to practice, conceptualise the new process' working, and plan a road for implementation. As another solution, the best practice that will be evident in the new process must be focussed on, with the attention on activities to put the best practices into place. Where the desired best practice is a result of a re-engineered process, aim implementation planning at putting enablers in place to achieve that best practice.

The effectiveness of running a pilot can never be underestimated. Unfortunately the time planned for running pilots are often underestimated. Pilots provide valuable lessons without over exposing the organisation to risk. With the running of an R3 project schedule pilot within Sietel it was found that the success from it, was a campaign in itself for organisational wide implementation.

Another dilemma during the implementation stage of BPR is resources. The fun work of redesigning new processes is finished, more often than not the consultants flee the scene, and nobody feels like confronting the resistance-to-change to implement the new processes. Top management must be aware that it takes more energy to implement processes than to design them. Even though the implementation job is duller and slower than the creative design phase, it is more complex due to confronting organisational resistance and solving teething detail problems. This was exactly what was experienced with the implementation of the Sietel BPR project. Thirteen full time resources were

involved during the design phases, but at the beginning of the implementation phase 10 of these decided to rather do other work. Management then realised the need for more resources and the implementation team was increased to 18 full time resources. The ideal resources at this stage should be the future process owners with members from the design teams acting as consultants to implementation.

Effective Planning and Resourcing, as part of the Project Management function of implementation, will nearly automatically lead into better monitoring and control of the implementation project, which in itself is vital to successfully control the changes brought about by re-engineering. Kachellek emphasised the importance to "Control the changes (do not go too fast nor too slow)". [23. Kachellek] In addition to these Project Management functions, the importance of finalising the paper work must be stressed. Here it is a case of the well known saying: "Nothing is done until the paper work is finished". The re-engineered process or implemented philosophies need to be captured into ISO 9000 procedures to support formalised sustainability.

### 7.6.4 Visible measuring of KPI's

When designing new processes, KPI's should be designed into the processes as part of its improvement. Once operators realise that KPI's provide transparency to processes for perceiving improvement and providing top managers with better insight into operations, an effort is made to make the KPI's look good. If the process was well designed, KPI improvement and process improvement were directly related.

In Sietel KPI's form the basis of Benefits Case and Balanced Scorecard results:

- Benefits Cases indicate the EVA by the BPR project, thus the ESG management wants monthly updates on these figures. The process owners understood the connection between the KPI's they had to provide and the related EVA benefit, due to their involvement in the creation of the Benefits Cases. The better their KPI's, the better they looked towards management financially, which in turn was a reflection on their processes.

- Sietel's Balanced Scorecard is based on an Executive Dashboard that segregates into various Departmental Dashboards with each having their own KPI's. Management requires regular feedback on Dashboards varying from monthly to annually, and if process owners have problems reaching targets, reasons have to be provided. In this manner attention can be given to processes that are still not properly implemented. Unfortunately data availability is a regular concern when it comes to KPI measuring, but as part of new processes or strategies, systems to provide relevant data must also receive attention during implementation.

In the areas where management had interest in KPI's, the relevant process owners made an earnest to implement new improvements in order to improve performance.

### 7.6.5 Use IT enablers

In his initial article about re-engineering, Hammer pleaded the case to "use the power of modern information technology to radically redesigned our business process in order to achieve dramatic improvements in their performance." [21. Hammer] Now, a decade later, any type of BPR or change management exercise cannot be attempted without utilising the benefits of IT. Ironically, the opposite problem is being experienced. IT tools are often seen as "miracle solutions" that will fix all process problems, and the less known about the application, the better miracle it is. Until process owners realise what the systems actually do, then more resistance against re-engineering amounts in form of complaints about additional work the system will cause.

IT systems such as ERP, Finite Capacity Scheduling, Supply Chain and Manufacturing Process Control, or BI systems are not miracle workers. When implemented it relates more to Welch's police leverage of the revolution, than the problem solving miracles. For a system to be used as proper support to a process or strategy, workflow management must effectively be designed into the equation. Workflow can be described as the flow of information and Control in a business process. Consequently Workflow management is the efficient management of this flow of information and control in a company's business processes. [42. GFI] Figure 7-1 indicates workflow triggering in a Goods Receive process where an ERP system is used to optimise decision making. Thus the ideal is to design processes with knowledge of the intended application to be used in mind, and indicate system interaction on process designs as workflow triggers that serve as instigators for activity continuation. These workflow triggers can be identified through workflow analysis that define information and control hand-over or interventions in the business process.

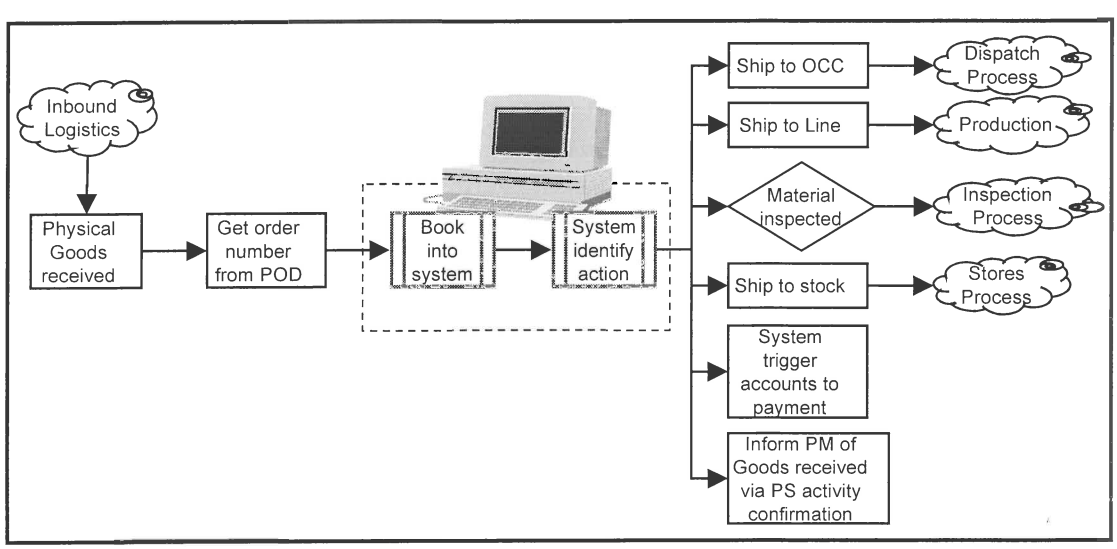


*Figure 7-1 A Goods Receive process with designed in workflow triggers*

Process implementation combined with application implementation can then be compared to moving down a one-way road. Once both are implemented there is no return to old ways of doing things, it is prevented by the system.

When procurement was centralised in Sietel, the ERP system provided leverage in terms of making people follow the centralised requisition release and procurement process. There were people who tried to misuse the system by trying to use it as a typewriter to printout purchase orders and procure outside the formal process. These culprits were oriented and trained in the process and proper use of the system, and if they did continued to misuse the system, their authorisation were simply taken away and they were forced to make use of procurement experts.

Another example of IT enablers that provides similar implementation persuasion are Business Intelligence systems that provide the ability to report critical corporate data efficiently and in real time. Based on online analytical processing (OLAP) and data warehousing, interactive reports provide selective chunks of information to decision-makers. These status reports are especially effective for KPI reporting, business performance measurement reporting and scorecard keeping. [40. Cognos]

## 7.7 Implementation Drivers Conclusion

Implementation of new processes and philosophies is not easy. It takes a lot of energy and time. The total BPR project at Sietel took 19 months, from onboarding of the first project team members until final hand over to the process owners. Nine months were spend on As-Is analysis, Should-Be modelling, creating Aspirational models, and To-Be process design phases. Ten months were spent on implementation.

This chapter reviews a few implementation strategies that was all based on critical success factors for successful implementation of either re-engineered processes or management philosophies such as the Balanced Scorecard. It suggest that successful re-engineering implementation depends on five critical success actions, or implementation drivers. Application of sufficient skill and energy to these drivers will determine BPR success:

1. **Assign appropriate ownership to re-engineered processes.**
   - At top management level.
   - At middle management level.
   - At operator level.
2. **Campaign the objectives and later the results from re-engineering.**
   - Utilise various means of communication.
   - Request employees to validate processes.
   - Involve all relevant role-players in workshops.
   - Train process owners in the new processes and philosophies.

3. **Plan and resource the implementation properly and manage it as a business project**

   - Plan implementation to start off with the *one* right action.
   - Use Best Practice causes to focus attention during implementation.
   - Run pilots to learn valuable lessons and reduce risks.
   - Ensure sufficient resource availability for implementation.

4. **Measure Key Performance Indicators regularly and make the results visible.**

   - Design process KPI's to reflect process improvement.
   - Use KPI's to measure EVA benefit of process improvement.
   - Link process KPI's to the Balanced Scorecard.

5. **Utilise Information Technology tools as enablers for the new processes.**

   - Know the IT application to be used and design its interaction as workflow triggers into the new process.
   - Concurrent process and application implementation take the organisation down a one-way path that prevents reverting back to old ways of doing things.

Instead of heading to lists of "Do this" and "Don't that" rules, and hope that the new process or philosophy will work, rather focus on making use of implementation drivers and know that the re-engineering result will be positive.