



E Squared UK Ltd

Study in the use of BPM to increase profits

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Introduction

One of the most difficult aspects of Business Process Management (BPM) is its sheer breadth of application. Its ability to improve operational effectiveness, efficiency and agility along with the subcategories of compliance, quality management, training improvement, operational analysis, data management and process automation are often its own worst enemy. Many people find this scope bewildering and scarcely believable.

With this in mind, we have written the following case study. Based very closely on a real life study: a current client of E Squared and an active Qmap user, its aims are as follows:

- To demonstrate the combined power of BPM methodology and specialist BPM software in improving operational effectiveness. In this case the particular measure of effectiveness improvement is a specific profit increase.
- To explain in detail, how a successful business efficiency improvement project can be structured and managed to achieve both quantitative financial and qualitative behavioural targets. The financial target is a 15% profit increase; the behavioural target is improved quality compliance and contract reporting.
- To provide a source of help for you and your organisation should you wish to run such a project yourself. In addition to the explanation of the structuring of this particular project, E Squared provides a BPM Planning and Modelling service which can be used to create highly viable BPM project plans underpinned by detailed cost/benefit analyses similar to those shown in this study. Details are provided in the final section headed "Further help".

To protect confidentiality, financial, sectoral and structural details have been changed but the percentage improvements shown are very representative of real returns seen by the paper's consulting contributors in this and similar projects over the years.

The case study is written in three parts. The Situation describes the company and its aims from the BPM project: profit increase. The Roll Out Programme, which also cover three phases, describes what actually happened and why. The final part describes the results: in terms of costs and benefits.

As with all the papers in this series, we wish to provide insight and provoke thought in an easily-digestible form. Due to the detail involved, this paper may take slightly longer than our target 15 minute read-time but we hope you find the additional detail valuable. As usual, it will be supported by follow up webinars, discussions groups and accessible international expertise provided through E Squared's new BPM Knowledge Centre. This, which will be launched after the issue of the final white paper in this series, will be exclusively available through the E Squared website. Details on its content and accessibility will be published on our blog at www.bpmblog.co.uk and announced through our Twitter account www.twitter.com/esquaredgroup.

Executive Summary

A medium sized construction company needs to increase profit by 15% and initiates a business improvement programme, focusing on processes to do so.

The programme is broken down into three phases of: process clarity, effectiveness optimisation and performance management. In this case study we follow the programme over an 18 month period and report the results, which are:

- Profits rise relatively steadily and reach the 15% improvement target in month 16.
- By month 18, the programme has generated £1.9m of new net cash
- The internal rate of return on the programme levels out at an ongoing rate of 76%.

In this case study we look in detail at these results and how they were achieved.

Situation

A £400m turnover national construction company which employs 350 staff in 4 regional branches and a number of customer sites needs to improve its profits by 15%. The Operations Director recognises that despite a number of previous initiatives to improve effectiveness, there is still a huge way to go and profits are in single figures. Whilst the company is good at winning sales, project delivery is poor. All too often vital procedures are not followed and customers complain that there is little consistency across the organisation: each team does it their way and that often leads to costly delays and mistakes.

The Operations Director decides to initiate a business improvement programme. Its aims are to:

- Clarify and communicate the operationally critical processes so that everyone in the organisation works in a consistent, coherent and operationally aligned way;
- Optimise effectiveness so that every employee has all of the relevant information he or she needs to do their job, right at their fingertips;
- Measure, improve and communicate contract delivery so that at any point in time the company's management and its customers are working to a single version of the truth.

The business improvement programme is rolled out in several phases. Qmap Studio is chosen as the tool to capture, improve and manage its processes and to provide a common point for performance reporting.

Roll Out Programme

Phase 1: Process Clarification and Communication

In this phase, the company:

- Maps out all of the processes and sub-processes across its Value Chain in 6 months;
- Uses Qmap Studio to capture processes in 50% of the time and with 50% fewer staff than they expected using Visio.
- Enables business experts from across the organisation to validate and amend the processes without having to attend meetings or leave their place of work.

Month 1

The project starts with a pilot to capture the current Design and Development process as it is run at each of the four branches. Two Process Authors are appointed per office: one to convert existing Word-based procedures and Visio diagrams into process maps and the other to create any additional or missing processes from scratch. The Branch Manager at each office is given the responsibility of approving the processes for accuracy and validity, a task which he initially delegates to his Foreman, asking for comments and amendments on each process created.

The team discover that the process breaks down into 182 sub-processes. Based on their previous experience of using Microsoft Visio, the team expect these to take at least 30 days to create and 2 additional staff in each office; 8 in all, are put on standby to speed up the work. However once the team start to use Qmap Studio and they find that procedures and Visio diagrams can be converted to processes with one click, they realise that the additional staff will not be required. The first drafts are completed in just 5 days and with approvals from the line managers coming in at a rate of 15 per day, the whole of the pilot, including final amendments, completes in just 3 weeks.

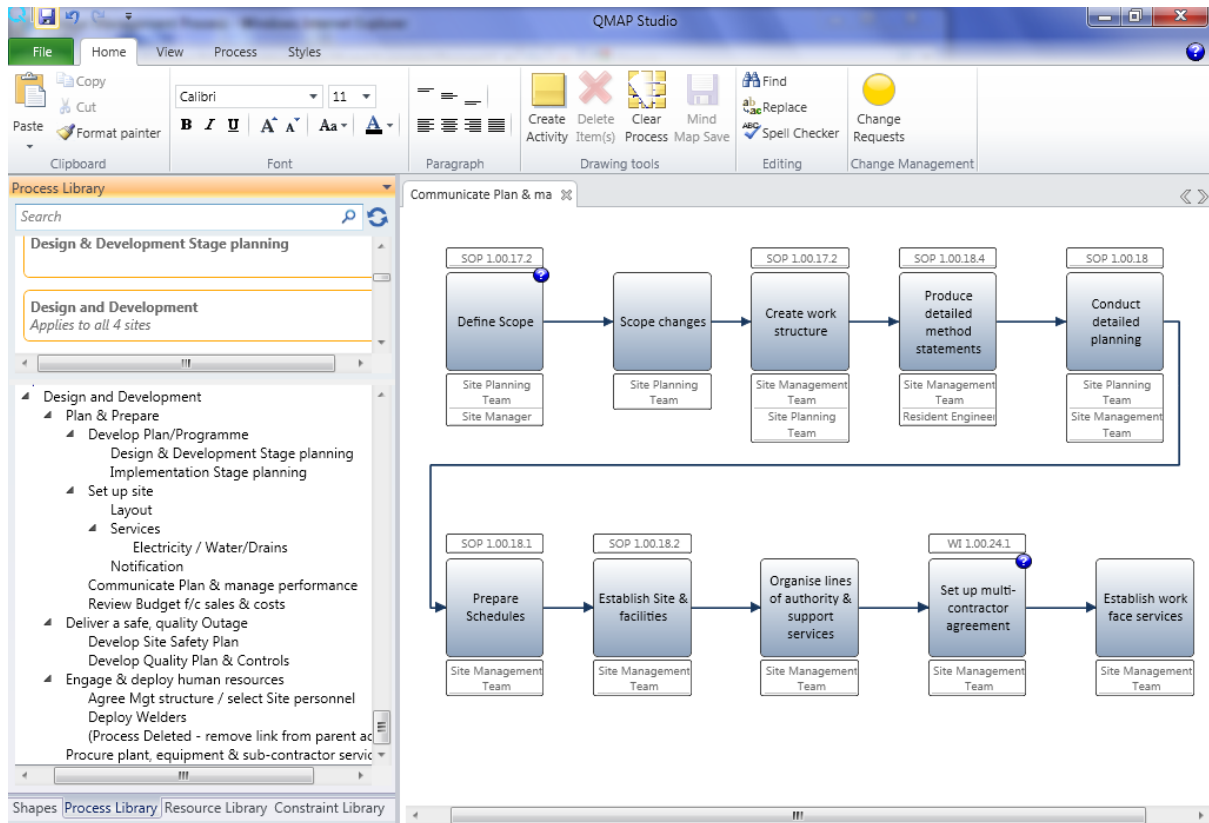


Figure 1: Creation of Design & Development processes using Qmap Studio

Month 2

Having created the Design and Development processes the team now wish to engage the staff in their validation and use, which they do using the Qmap Studio portal.

The screenshot shows the E Squared Group QMAP Studio Portal. The header includes the logo, 'E SQUARED GROUP', and a user greeting 'Welcome David [Log Out]'. The navigation menu includes: Home | Edit Process | View Process | Change Management | Options | Administration.

WELCOME TO QMAP STUDIO PORTAL
 To learn more about Qmap Studio, including support and training please visit www.qmapstudio.com.

Process Summary

Total Processes	130
Version Controlled	15

Change Requests Awaiting Completion by Author

Change Requests	5
-----------------	---

Changes Awaiting Approval

Awaiting Approval	1
My Approvals	1

BUSINESS PROCESS INFORMATION

BPM Success Factors No1: Process Ownership
 In 2008 IBM and The Register, produced a report entitled: 'BPM: lessons from the real world'. In it, the authors proposed seven factors which they discovered were critical for the successful application of Business Process Management (BPM) initiatives. In the first in a series of seven white papers, we look at the first issue proposed [...] [More](#)

Practical BPM case study
 Bernardo Tirado recently published an interesting case study on what he referred to as Business Process Re-engineering and to which we would refer as BPM. His experience of managing a process project is very common and the approach he takes, although not rocket science, is sound and practical. In many ways BPM projects are similar [...] [More](#)

Excellent article on the confusing world of BPM
 Infosys have just produced a very good article on the confusing world of Business Process Management. See <http://www.infosysblogs.com/setlabs/2010/09/>. We will be looking at this further in our series of articles on BPM. In the meantime if you need any explanations on any of the terms used, just give us a call at E Squared or [...] [More](#)

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Figure 2: Qmap Studio portal

25 key members of staff involved in the Design and Development process are equipped with Qmap Studio and asked to review a number of sub-processes for accuracy. They do this using Qmap Studio’s Change Management function; submitting change requests to the process authors who then prepare revised draft processes for formal approval (or rejection) by the line managers.

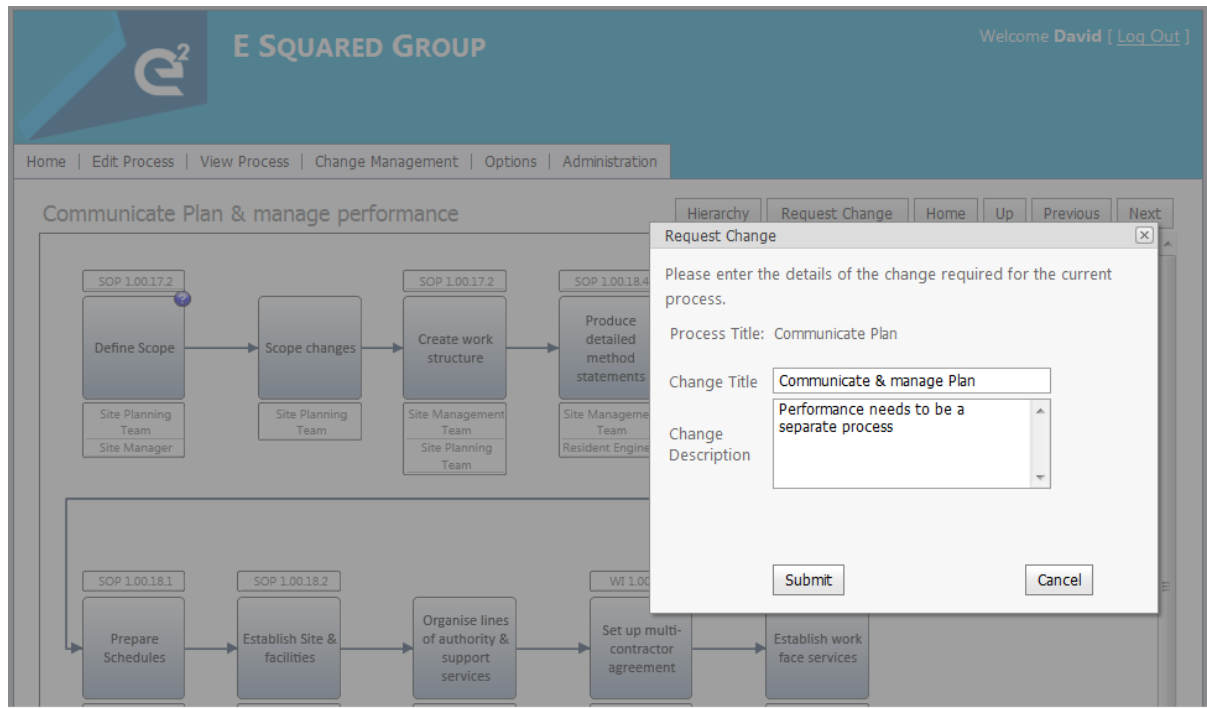


Figure 3: Change requests using Qmap Studio

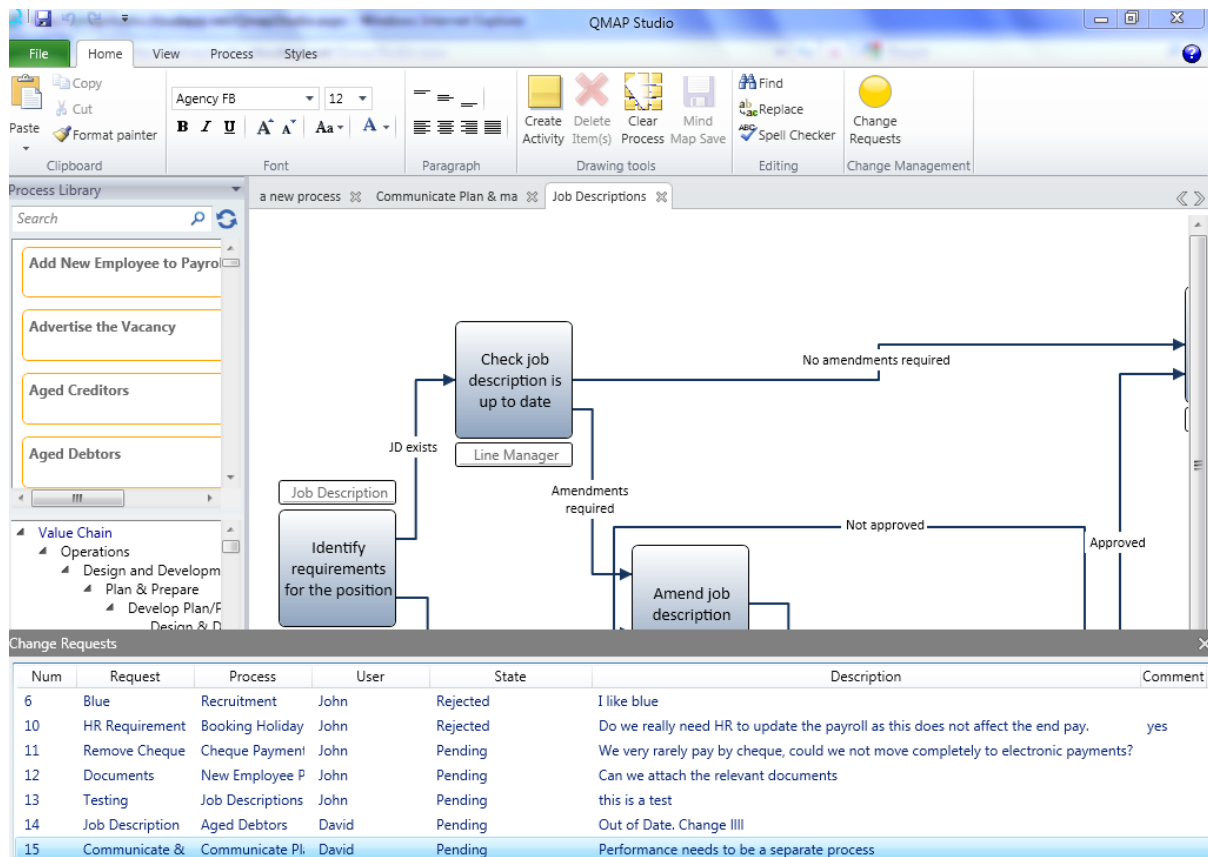


Figure 4: Change management using Qmap Studio

The result is an agreed, complete and detailed Design and Development Process ready for use across the organisation.

Months 3 and 4

The work done in Month's 1 and 2 is repeated for the four other processes which together with the Design and Development process, form the operational core of the company's value chain. They are: Opportunity Identification, Implementation, Handover and Post-Project Evaluation. With the knowledge and experience gained from the design and development pilot, the work on each of these processes is run in parallel, so that they all complete within two months.

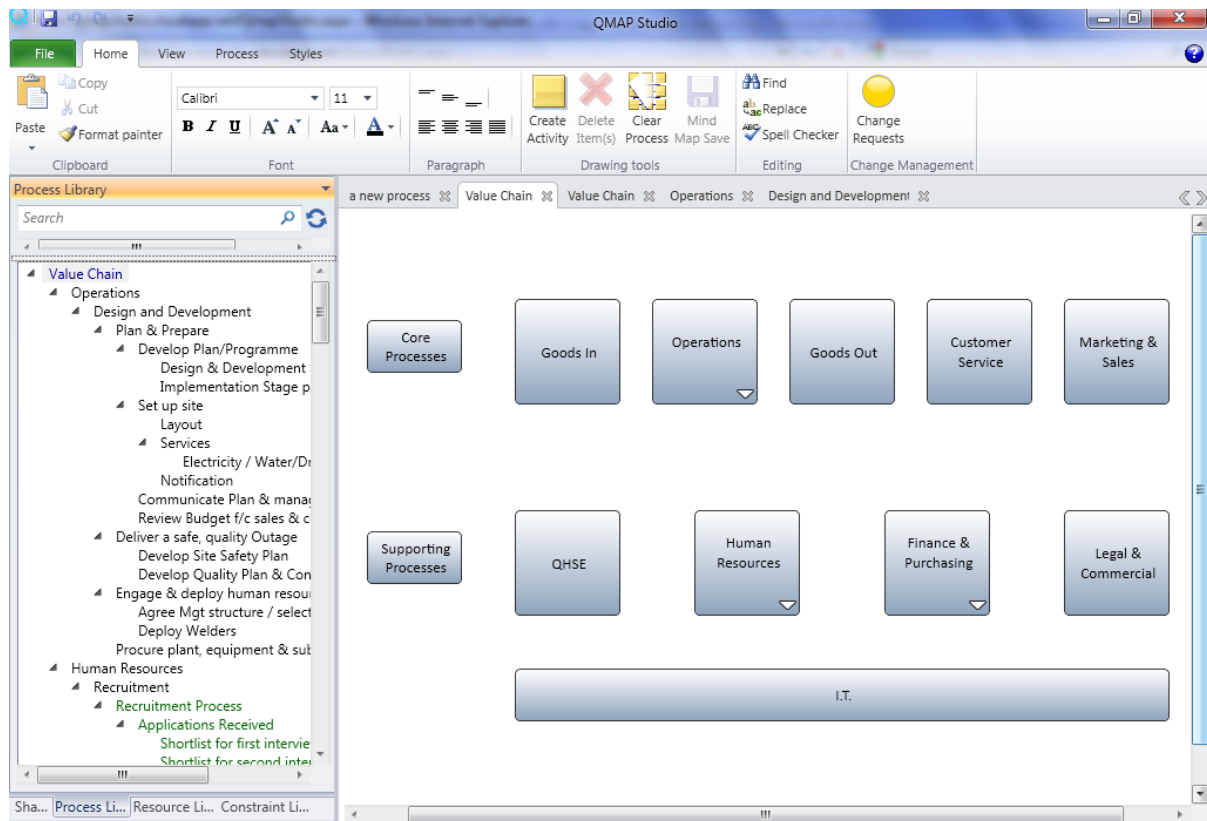


Figure 5: Top level view of the Value Chain

Using Qmap Studio's hierarchical structure enables all of the process detail at every level to be checked and where common processes exist, cross links to be created. The next stage is to add the support processes.

Months 5 and 6

Qmap Studio contains a range of reference processes for common organisational functions such as Finance and Human Resources. The company decide that the simplest, fastest and most cost-effective way to map these functions is to purchase these reference processes and customise them as required. This it does: the processes are uploaded to the company's secure Qmap Studio database and customisation takes just over a week, using the same change management principles adopted earlier.

In parallel, work starts on the remaining support processes: IT, Legal and Commercial and QHSE. They complete within 6 weeks.

The result is that in six months, the company's operational value chain along with its support processes is mapped and ready for active use. The next stage is to optimise it so that every employee has all of the information they need to conduct their job effectively, right at their fingertips.

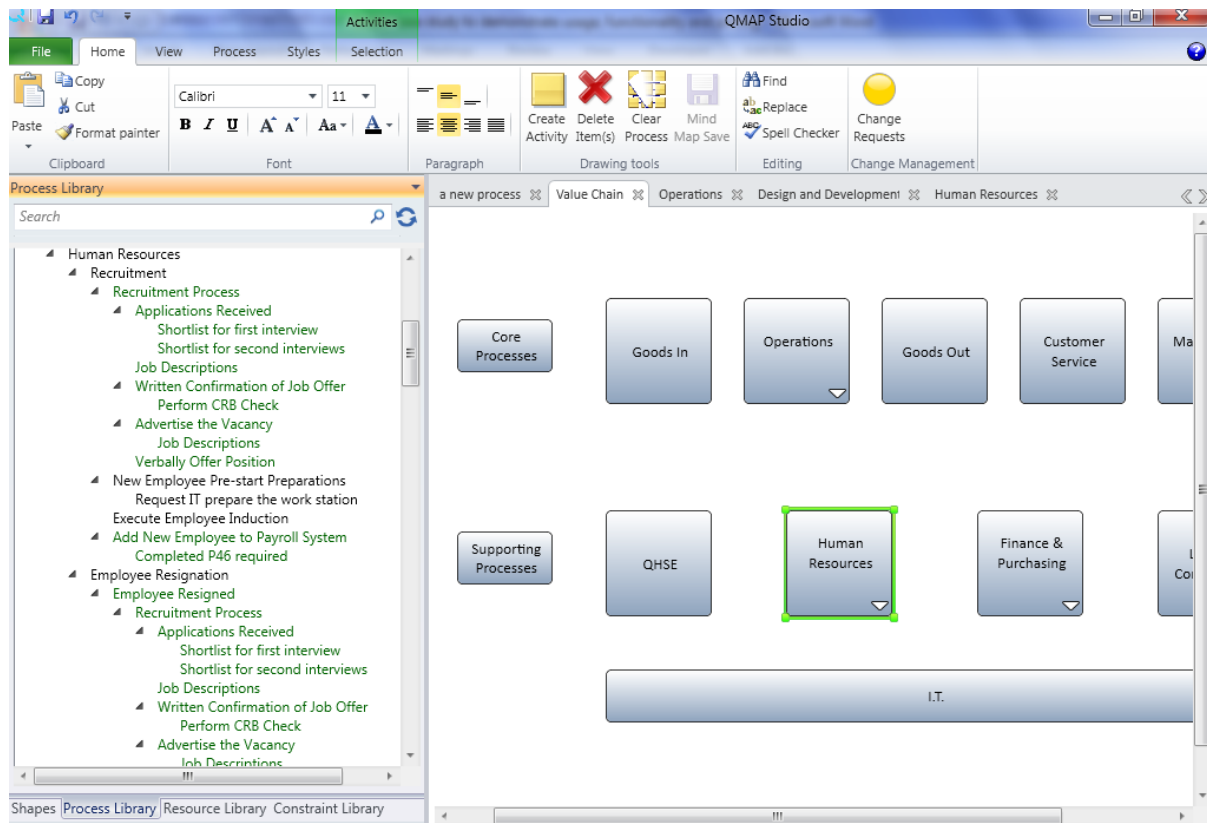


Figure 6: Top level view of imported HR reference processes

Phase 2: Effectiveness Optimisation

Qmap Studio is a powerful document and data management tool which enables any activity-specific documents, files, training materials and data sources to be made securely available to each user and controlled at the point of need. The company recognise that this combination of control, security and ease of use linked directly to individual process instructions can be used to rapidly improve its operational effectiveness. So in the second phase of the programme, it utilises this functionality across the board in the following ways.

In this phase the company:

- Brings together all of the data, documentation and work instructions required by each employee and delivers it to them on their PC desktops or their mobile devices, including iPads;
- Uses individual process activities in Qmap Studio to control access to the company's ERP and CRM systems, so that information is available with just one click.

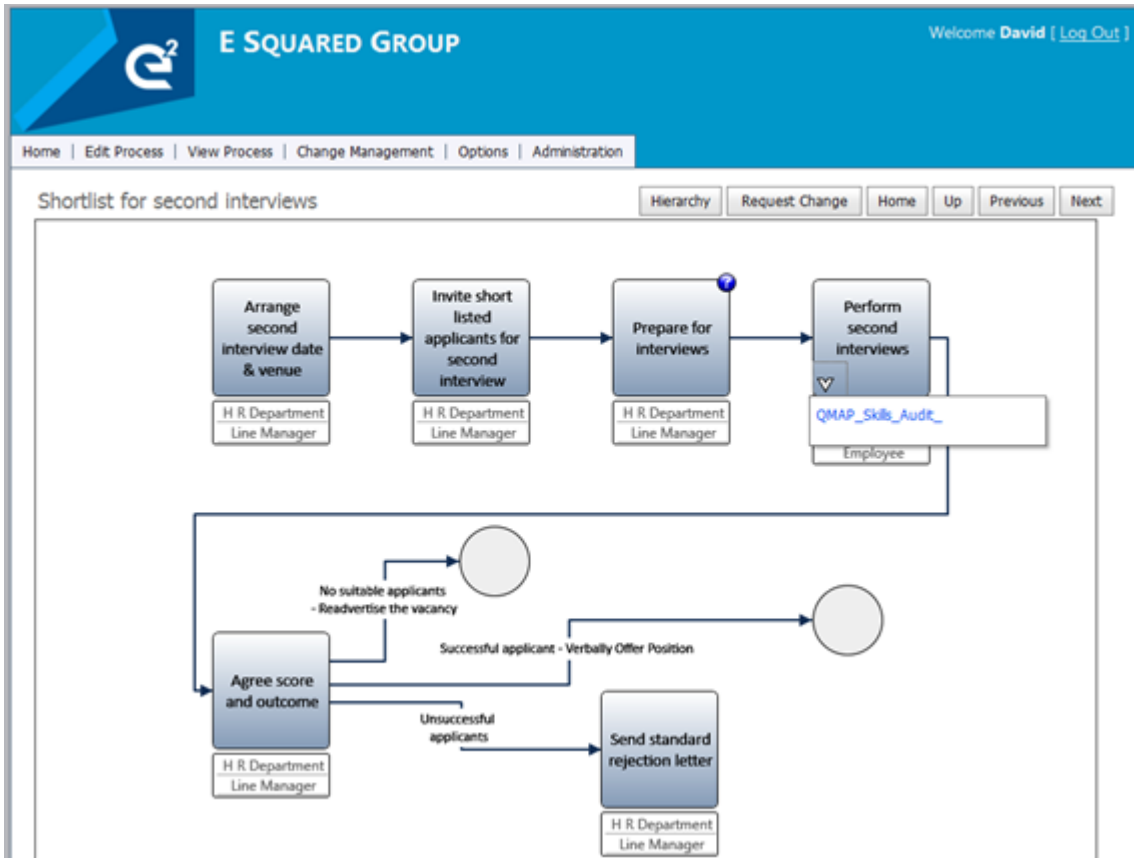


Figure 7: Process detail showing drop down document link

This figure shows a screenshot of a web browser displaying the same BPM process diagram as in Figure 7. The browser window is titled "QMAP_Skills_Audit_ - Microsoft...". The document link in the process is expanded, showing a preview of a document titled "Skills Audit: Input Screen". The document content includes:

- Qmap Skills Audit**
- 4 Inputting Answers to Questions**
- 5 Go to the Input screen (black tab) and for each question, assess compet...
- 6 Competency is rated, low to high from "No Knowledge" to "Very Compete...
- 7 Competencies can be assessed per individual, per team, per department o...
- 8
- 9
- 10 The completed Input Screen should look something like that shown below
- 11
- 12
- 13

The document preview also shows the Qmap logo and the text "Unit under Assess". The browser's taskbar at the bottom shows "Cover", "Instructions", "Scoring", and "BPM Result".

Figure 8: Opened document link

Months 7 and 8

The company appoint a manager to oversee the effectiveness optimisation project and 12 Process Owners - one for each top-level process in the value chain. Using Qmap Studio as the common means to communicate all process information the project manager organises a one day workshop for the Process Owners at the company's head office. The aim is to layout, understand and agree the requirements for process and data linking so that the Process Owners can delegate the task of creating the data and document links to their teams. This they then do.

The data and document linking takes 6 weeks to complete.

Month 9

With all of the relevant data and documents now linked directly to the process activities to which they apply, the company approves the changes and makes them available to all staff. It does that in two different ways.

Firstly, for the 250 staff with access to a PC or iPad, it purchases Qmap Studio Viewer licences. Then, for the remaining 100 staff which are all based on client construction sites, the company provides secondary access to the process information through Qmap Studio's unique process to project conversion functionality: the Project Management module. Each of the three Site Manager's Qmap Studio Author licence is extended to include the Project Management module so that compliant baseline project plans can created from their relevant processes and printed off for use on site.

Phase 3: Measure, Improve and Communicate Contract Delivery

In the final phase of the project, having provided each employee with accurate, clear and concise information on how to do their job and having supported that with links to relevant additional data and documentation, the company now move to measure and manage its impact on performance. They do this by:

In this phase the company:

- Creates Key Performance Indicators so that performance measures for the critical process activities are put in place;
- Crucially installs live reporting of progress against each process activity. In this way compliance becomes dynamic and measurable for each client contract.
- Enables every member of the management team to receive specific, relevant and live progress and risk reports on the performance of their own team, so that proactive risk management can be undertaken to prevent major issues developing.

Month 10

To do this the company purchase Qmap Performance Manager and configure it to measure performance against the following criteria

- Each stage of operational value chain (i.e. the Level 1 operational processes)
- Each key task (KPI) within each process
- Each resource responsible for delivering the process
- Each of the four company branches
- Each customer contract.

Input feeds are then created between the process and the reporting system and the system is tested.

Month 11

Live performance reporting starts.

Home Administration Tasks Contracts Reports Task Completion Task Approval Change Password

LIVE TABLE EDITOR

#	id Live	User Name	Site	Contract	Task	Branch	Site Manager	Due Date	Warning Date	Submission Date	Approval	Completed	Reasons	Stage	Previous Task	Description	Discipline	id Task
Edit Delete	145		Gateshead VERT	10001	Make tea	Northern Branch	T.Charlton	26/01/2011			?	?		Implementation			Quality Engineer	3
Edit Delete	146	Tony	Gateshead VERT	10001	Task SM001	Northern Branch	T.Charlton	11/08/2010		28/07/2010	✓	✓		Opportunity Identification			Site Manager	14
Edit Delete	147	Tony	Gateshead VERT	10001	Task SM002	Northern Branch	T.Charlton	11/08/2010		28/07/2010	✓	✓		Opportunity Identification			Site Manager	15
Edit Delete	148	Tony	Gateshead VERT	10001													Site Manager	16
Edit Delete	149	Simon	Gateshead VERT	10001													Site Manager	17
Edit Delete	150	Tony	Gateshead VERT	10001													Site Manager	19
Edit Delete	151	Tony	Gateshead VERT	10001													Site Manager	20
Edit Delete	152	Tony	Gateshead VERT	10001													Site Manager	21
Edit Delete	153		Gateshead VERT	10001													Site Manager	22

Home Administration Tasks Contracts Reports Task Completion Task Approval Change Password

KEY TASK EDITOR

#	id Key Task	Task Name	Stage	Discipline	Previous Task	Description
Edit Delete	14	Task SM001	Opportunity Identification	Site Manager		
Edit Delete	15	Task SM002	Opportunity Identification	Site Manager		
Edit Delete	16	Task SM003	Design & Development	Site Manager		
Edit Delete	17	Task SM004	Design & Development	Site Manager		
Edit Delete	19	Task SM005	Implementation	Site Manager		
Edit Delete	20	Task SM006	Implementation	Site Manager		
Edit Delete	21	Task SM007	Implementation	Site Manager		
Edit Delete	22	Task SM008	Handover	Site Manager		
Edit Delete	23	Task SM009	Handover	Site Manager		
Edit Delete	24	Task SM010	Post Project Evaluation	Site Manager		

Page 1 of 8 (72 items) < Prev **[1]** 2 3 4 5 6 7 8 Next >

[New](#)

KEY TASK COMPLETION

Name:

Branch:

Site:

Contract:

Discipline:

Stage:

Task:

Description: No data to display

Not Completed Completed

Reasons:

Figure 9: KPI management using Qmap Performance Manager

Month 12 onwards

Active performance management is undertaken using the outputs from Qmap Performance Manager. Reports are produced for each of the four branches against every site contract and by each site contract to show activity by key individual.

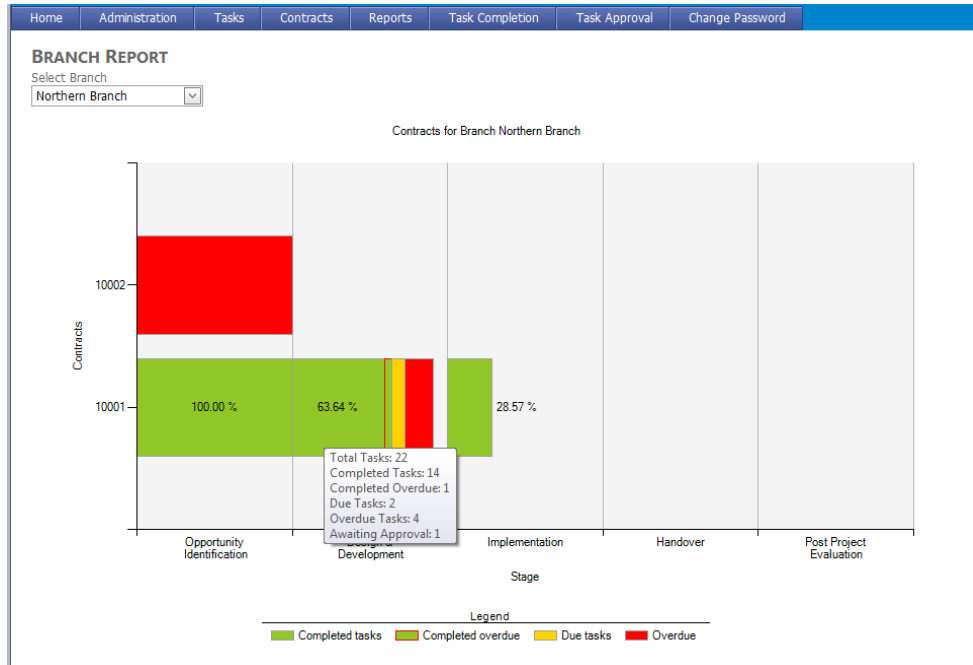
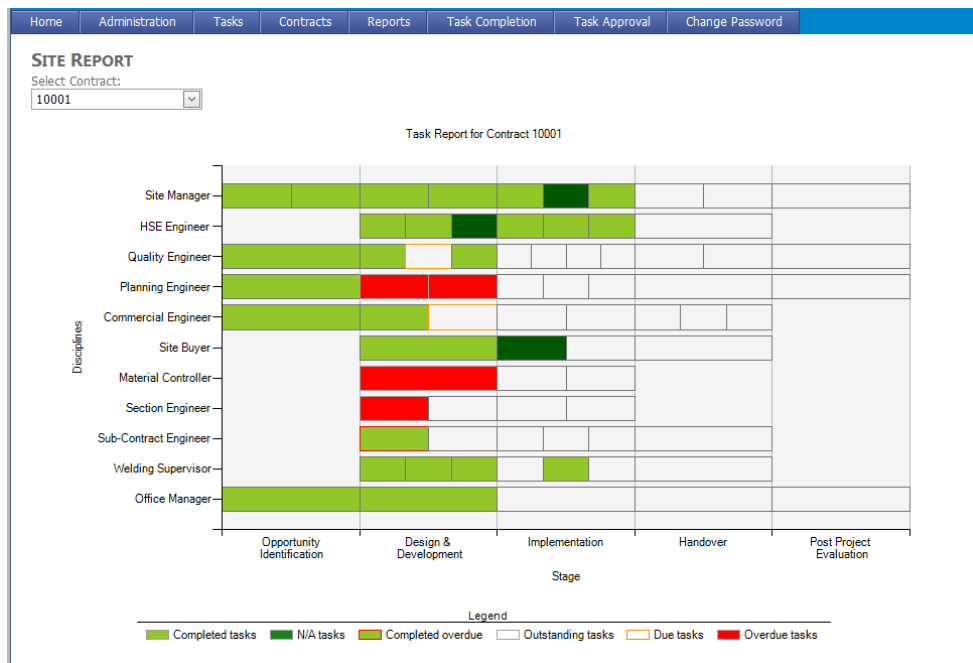


Figure 10: Branch & Site reports from Qmap Performance Manager



Results

Costs

The costs of the project range from 0.8% to 5.0% of the additional profit generated by it. Over the 18 month period the average cost moves from 1.5% to 1.9% and towards the end of the project it is clear that costs are stabilising at 0.8% of profit generated. Both actuals and averages are shown in Figure 11.

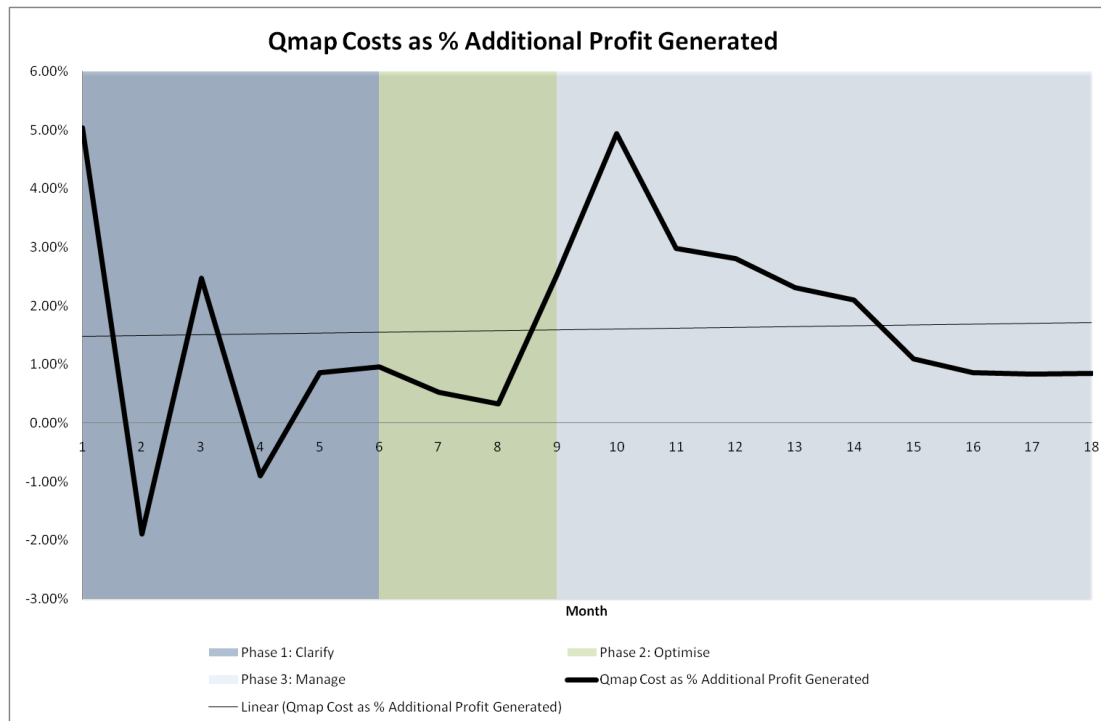


Figure 11: Qmap costs for the project shown as a proportion of profit generated

One of the ways the company minimises its roll out costs is to use Qmap Studio. Studio's modular functionality, scalability, flexible contractual terms and off-the-shelf instant availability mean that user licences can be flexed to suit the organisation's fluctuating demand, enabling it to pay for just what it needs when it needs it.

The extent of the licence variation is shown in Figure 12.

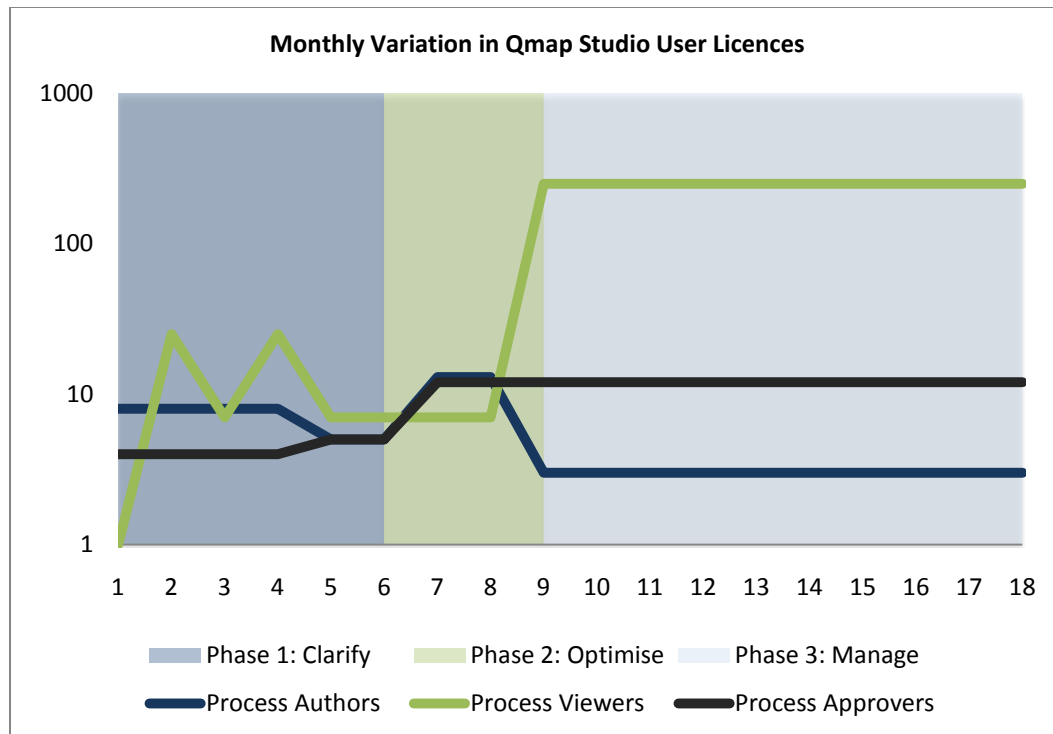


Figure 12: Qmap licence usage managed to meet precise demand

Benefits

Net Cash Flow and Return on Investment

Net (or free) cash represents the capital generated from the project after all cost have been taken into account, including the cost of capital utilised to fund it. In this case the cost of capital is 5% - approximately equal to UK Bond rates at the time. So the results shown in Figure 13 show cumulative cash directly generated from the BPM project, rising to £1.9m after 18 months, with a continual upward trend.

Looked at another way this represents a rate of return (IRR) which in Phase 3 stabilises out to 76% as shown in Figure 14.

Achievement of Profit Target

The COO’s aim for the project is to increase profits by 15%. Figure 15 shows the gradual increase in profit over the three phases of the project and how this reaches the target in month 16, rising to 17% thereafter.

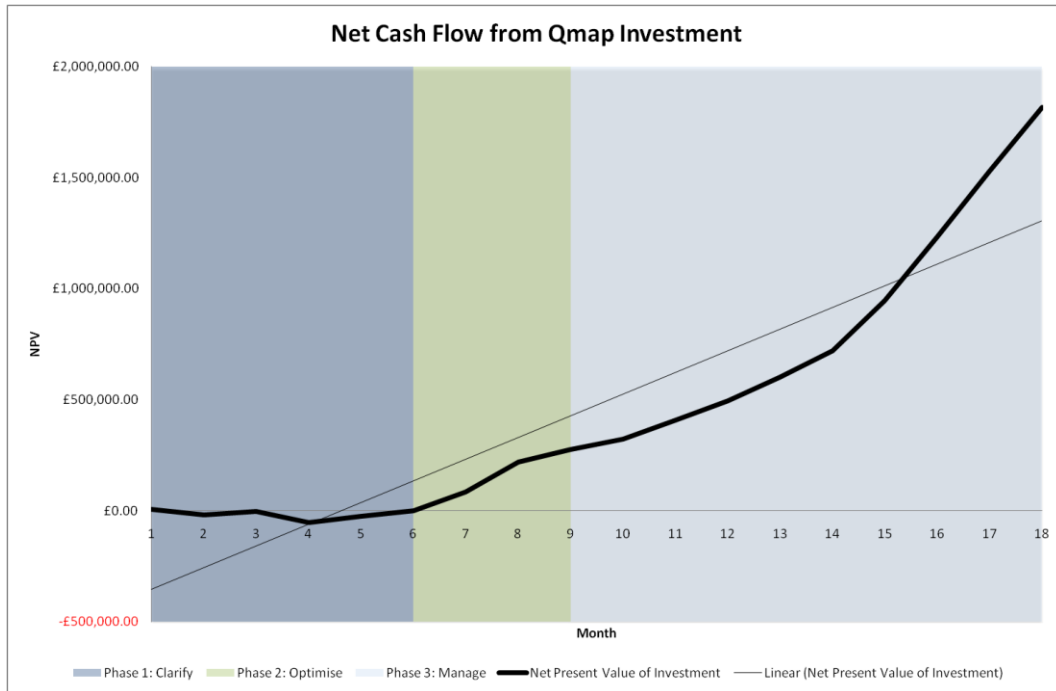


Figure 13: Cumulative net cash generated from the project

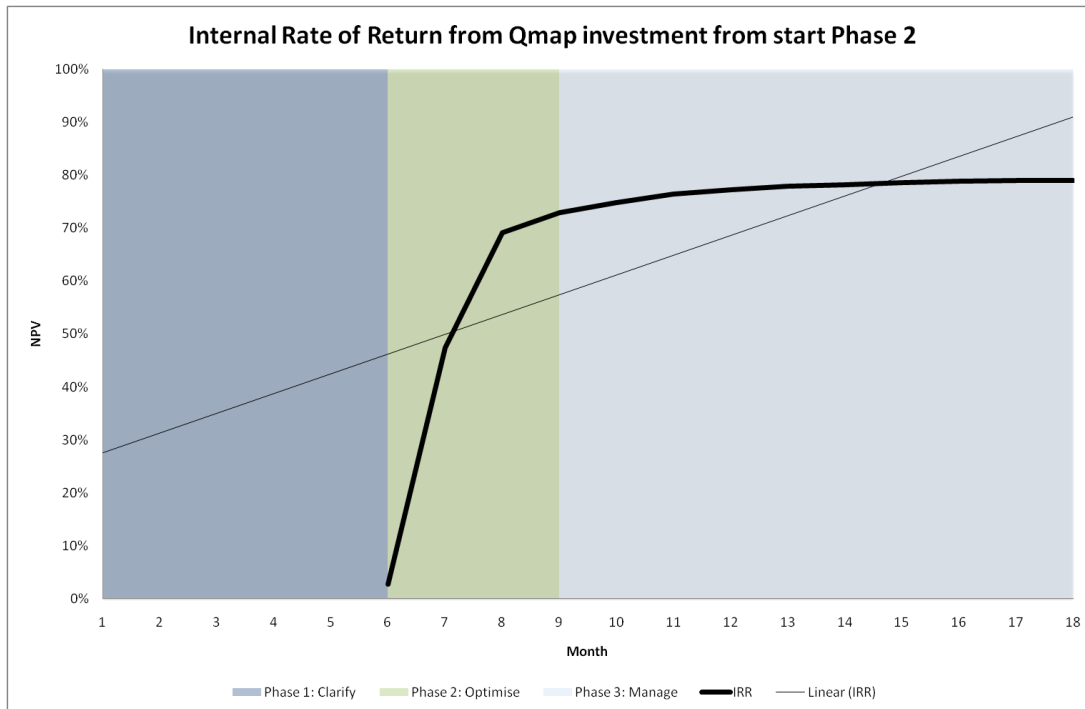


Figure 14: Return on investment

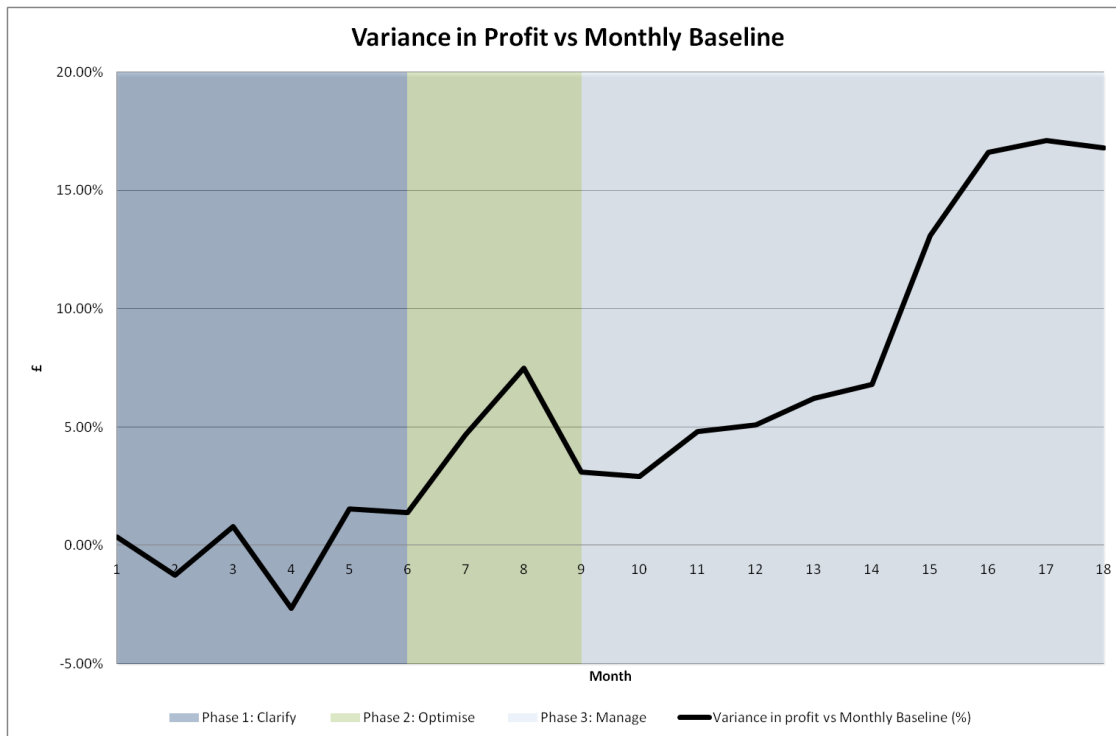


Figure 15: Achievement of profit target

Achievement of qualitative targets

At the outset the company stated that it needed to:

- Clarify and communicate the operationally critical processes so that everyone in the organisation works in a consistent, coherent and operationally aligned way;
- Optimise effectiveness so that every employee has all of the relevant information he or she needs to do their job, right at their fingertips;
- Measure, improve and communicate contract delivery so that at any point in time the company's management and its customers are working to a single version of the truth.

All of these aims have a supporting role to play in the achievement of the 15% profit increase and broadly each is achieved via the project's phasing. Phase 1 is about clarification, Phase 2 Optimisation and Phase 3 management (i.e. measuring, improving and communicating contract delivery).

Conclusions

Using a carefully planned Business Process Management programme which closely manages costs yet focuses clearly on the achievement of the primary target, the company is able to achieve and exceed its aims.

The tools clearly play a vital part: this could not be achieved with more simplistic process drawing tools. Equally given the company's tight margins, it is unlikely that a fully integrated BPM system would have enabled it to achieve the same benefits. The required capital outlay would have reduced profit even further and thus delayed or prevented the achievement of the 15% profit enhancement target.

Most importantly the company knew what it wanted and planned a programme to achieve it. The phasing not only achieved the qualitative targets the company set but it was also the means to deliver the quantitative target. The investment made in Phase 1 took 6 months to bear fruit but once it did, it did so spectacularly. The rate of return of 76% is ongoing: at that rate, profits will continue to increase for some time.

Further Help

E Squared and Qmap software have a long track record of business process improvement. That is why since its introduction in 1992, Qmap is used by many of the world’s best organisations, both large and small.

But as this case study demonstrates: purchasing business improvement software is one thing: knowing how to gain the most out of it through a carefully planned and managed BPM project is quite another. It is for this reason that E Squared has recently introduced its new BPM Planning and Modelling service. This enables detailed and specific BPM project plans to be drawn up and tested for viability using our comprehensive ROI Modeller, so that when applied on the ground you can be sure the plan will work. The service starts by looking at the objectives for the project and draws on our library of outcome-specific plans to help you plan all the detail. Once planned we can help you thoroughly risk test and model the outcomes so that you have a sound and clear financial case to put to your Board.

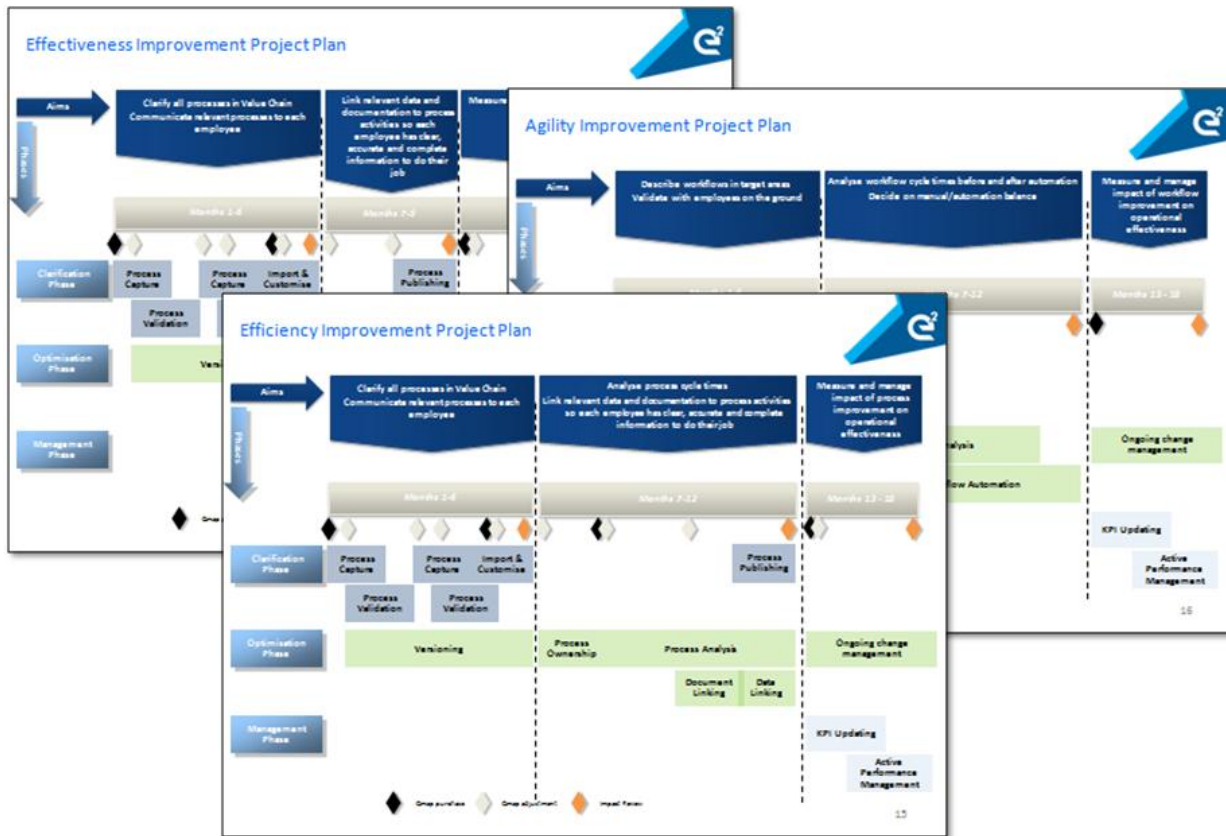


Figure 16: Sample top-level BPM project plans from the BPM Planning & Modelling service

If you would like to discuss how this might be used to help your own organisation please feel free to contact us. We should be pleased to help.