

Absoft White Paper

Cost containment through managing offshore returns

Björn Harzer
Absoft Limited

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Executive summary

As operating costs in the upstream oil and gas sector continue to rise, particularly in mature provinces such as the North Sea, where the increasingly technological nature of oil and gas extraction is further complicated by outside influences such as the prevailing barrel price, companies are turning to process optimisation as a means of cost containment.

The upstream oil and gas industry has a sophisticated and financially demanding supply chain and it must get better at understanding how to generate value, create efficiency and improve productivity in this area.

This paper focuses on offshore returns management as an often overlooked area of the supply chain, which suffers from significant value leakage and where substantial cost savings can therefore be made.

In Absoft's experience, by improving the offshore returns management process companies can make stock balance sheet reductions of up to 15%, while stock usage can increase by between 5 and 10%. At the same time, rental costs can fall by 5 to 10%.

The key to achieving these types of savings is to understand and address the underlying issues involving process, technology and people.

In this paper Absoft provides an outline of the key areas that lead to failures in the offshore returns management process and offers a tried and tested framework for the design and implementation of a process optimisation initiative.

With the correct processes, clearly defined responsibilities and business systems which support these, it is Absoft's conclusion that a business can improve and automate its entire offshore returns process.

Enhancing this with clear performance indicators which henceforth can be monitored, analysed and followed up with the business will allow for continuous process improvements.

From this, a company can expect to see:

- Reduced expenditure and accurate cost reporting on job
- Quick job closure through clear guidelines for decision making
- Efficient processes in logistics and warehouse
- Proactive reduction of excess stock
- Reduced storage costs
- Higher utilisation of toolkits

Introduction

The challenge

According to a recent survey conducted by Ernst & Young¹ cost containment remains one of the top three priorities for the global oil and gas sector.

This is due to a number of factors, not least the fact that operating environments for oil and gas companies have become more complex, posing multiple physical challenges (resulting from, for instance, deepwater drilling, Arctic exploration and production and exploration of mature provinces such as the North Sea). Cyclical changes such as the cost of raw materials and the barrel price also impact on cost sensitivity.

The survey shows that, in response to rising costs, the most frequently reported initiative for oil and gas companies was to adopt process optimisation and embedding of controls.

Naturally, when embarking on any process optimisation or cost control exercise it is important that businesses focus on the areas of spend where they are masters of their own destiny. The upstream oil and gas industry has a sophisticated and financially demanding supply chain, which presents many opportunities to improve productivity and generate value.

In Absoft's experience, one specific area within the upstream supply chain which consistently suffers from inefficiency is the offshore returns process. Production, exploration and projects staff are instinctively focussed on getting the job done on time and to budget – less emphasis is often placed on what happens to surplus materials and equipment to be returned onshore.

While improving management of returns processes may not be an obvious place to start to look for cost savings, poor management of offshore returns processes can in fact amount to significant value leakage.

This manifests itself in numerous ways such as stock piling of goods, poor stock turnover, repurchasing of items available in stock, additional transportation costs and hire charges for rental equipments that have been incorrectly returned and scrapping of fit-for-purpose or repairable equipment.

By optimising the returns process startling cost savings can be achieved. As an example, businesses can achieve stock balance sheet reductions of up to 15%, while stock usage can increase by between 5 and 10%. At the same time, rental costs can fall by 5 to 10% indicating improved utilisation rates and increased efficiency in the return of vendor owned equipment (with no impact to on-going production or maintenance operations).

¹ Turn risks and opportunities into results, exploring the top 10 risks and opportunities for global organizations, oil and gas sector, Ernst & Young 2011.

Absoft proposition for managing the offshore returns process in the upstream oil and gas sector

The causes of an inefficient offshore returns process

To achieve the savings just mentioned an organisation must first understand the causes of poor offshore returns management.

As is so often the case, there is not one single root cause of inefficiency in the process. The challenges involved in managing the process efficiently are centred on effectively understanding and addressing issues involving process, technology and people:

- **Process**

It is frequently the case that documentation of existing processes and procedures is out of date and sometimes even non-existent. Fundamentally, in many instances there is no commonly agreed and understood offshore returns process.

Whilst the focus of activities is naturally placed on completing projects on time and in budget, the business often overlooks critical 'project closing' tasks and fails to measure project managers and technical authorities against the completion of returns and investment recovery.

For example:

- Handover of complete task list for service & repairs and spare part bill of materials (BOMs) of commissioned equipments
- Analysis of stocking requirements for new spares and obsolete spares after a commission/decommission
- Usage decision for fabrications after projects and explorations

- **Technology**

Even when the documentation does exist, often the business is struggling with internal IT systems which are simply not up to the job of running an integrated, cost efficient returns process. Different parts of the business in different locations commonly use disparate IT systems, with key tasks carried out off system in packages such as Excel. This scenario results in a lack of visibility of accurate, up to date information across the organisation.

- **People**

Process and technology failures contribute to and are exacerbated by failures of coordination between the people involved in the offshore returns process.

Within all organisations there is an on-going struggle between the different departments in the value chain. All too often offshore personnel do not tell onshore what is to be done with returned goods and the service functions do not provide offshore sites with accurate information on stocks or goods status because returns have not been registered.

The steps to optimising the offshore returns process

Having considered the issues that result in inefficiencies and increase cost, the next step is to consider what measures an organisation must take in order to achieve the savings mentioned earlier. The following steps are a high level guideline for any business improvement activity.

1. Analyse the business process and define the business case

Where is the need for improvement? What are the short comings? What are the root causes? What is the value case for a change?

2. Define the improved process

Design a process which addresses the short comings

3. Build the improved process

4. Implement and run the improved process

Train the organisation and give them the tools to maintain the new process.

The diagram below encapsulates Absoft's recommended process improvement methodology:

1. Analyse the business process and define the business case

The first step is often to justify that action is required. Absoft has helped many organisations to develop the business case proving that the investment they might choose to make in optimising the offshore returns process will typically be repaid many times over.

At this stage the existing business processes are analysed to identify shortcomings and the root causes of these.

The current process can be visualised by using the 'swimming lane' approach (see diagram: Mapping of current processes on page 5) where one axis represents the business functions or departments and the other axis the process steps for one or more particular process.

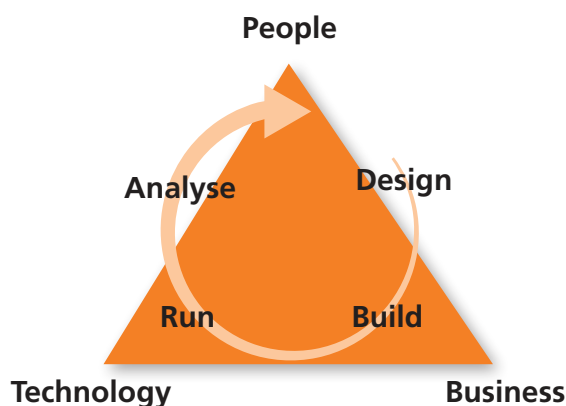


Figure 1 – Process improvement methodology

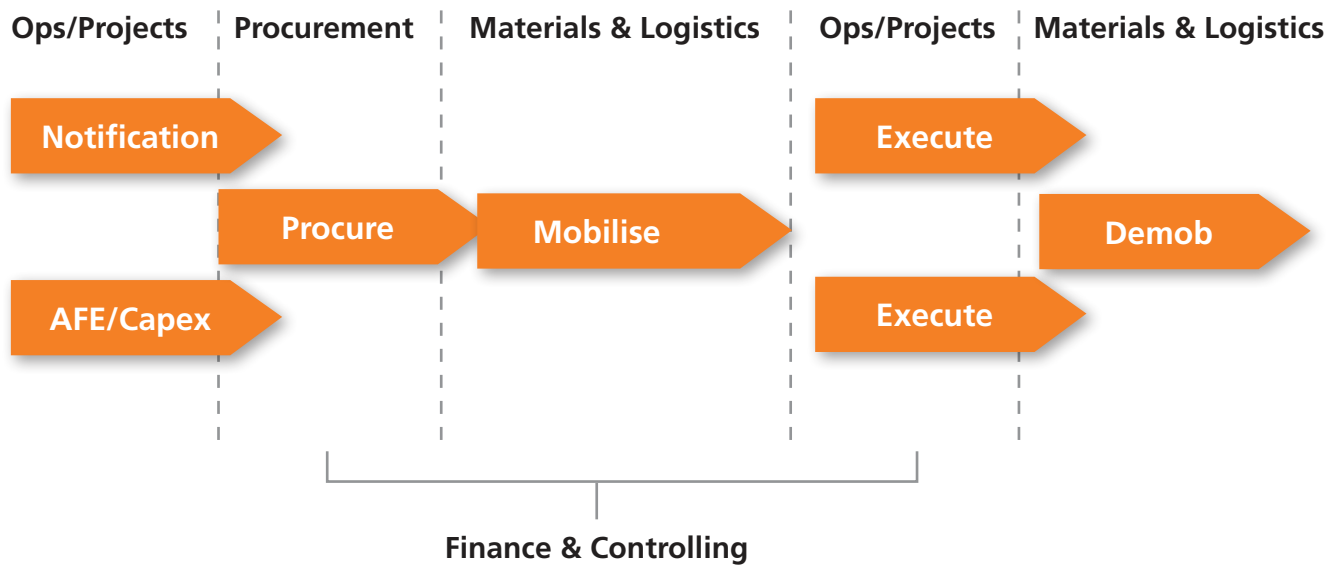


Figure 2 – Mapping of current processes

This mapping exercise allows the business to see the 'as-is' procedures with the underlying information flow. Once this is completed it becomes obvious where information is not passed on efficiently.

2. Define the improved process

Once the project is established, the next step is to define an integrated returns process which will support the organisation in managing mobilisation and demobilisation of tools, consumables and vendor items.

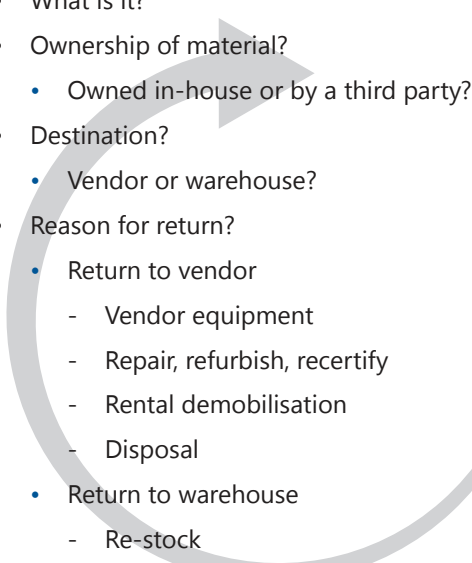
With the 'as is' processes mapped out the business can derive what is required to fix the issues and define the 'to-be' process including what actions are required to implement it. These can include re-training of personnel, closure of system gaps and automation of workflow amongst other tasks.

3. Build the improved process

No project to transform and improve the business will be fully successful unless everyone in the business accepts responsibility for their part in the overall process.

In this example of offshore returns, it becomes apparent that whoever initiates a process ultimately has the responsibility to provide the right information down the process chain.

It is typically the technician or the technical authority who has the responsibility and knowledge to make decisions about what should happen once the material is received onshore. They are therefore obliged to hand over the relevant information such as:

- What is it?
 - Ownership of material?
 - Owned in-house or by a third party?
 - Destination?
 - Vendor or warehouse?
 - Reason for return?
 - Return to vendor
 - Vendor equipment
 - Repair, refurbish, recertify
 - Rental demobilisation
 - Disposal
 - Return to warehouse
 - Re-stock
 - Temporary storage
 - Surplus/ clarification required
- 

Additionally the business needs to implement procedures to get rid of existing stock piles and avoid adding to the stock piles. During demobilisation it often happens that a subsequent use for a material is not known yet. Therefore, the business needs to define timelines and deadlines for decision making.

The idea is to work against the tendency to over-buy materials for a job by making the project managers and technical authorities responsible and accountable for deciding what to do with leftovers.

The typical outcomes of following this approach can be characterised by the three guiding principles: Reuse, Reduce, Recycle.

Outcomes in investment recovery:

- Reuse
 - Re-integration to stock with min/ max level
 - Transfer to another project
- Reduce
 - Adjustment of min/ max stock level – stock optimisation
 - Return to vendor for credit/ consignment
 - Sale to JV partners or market place
- Recycle
 - Scrap value recovery
 - Disposal (i.e. Reduction of storage costs)

This decision making process must be supported by reporting on how long materials have been idling without a decision being made and deadline monitoring must be in place, which escalates the decision process to management.

4. Implement and run the improved process

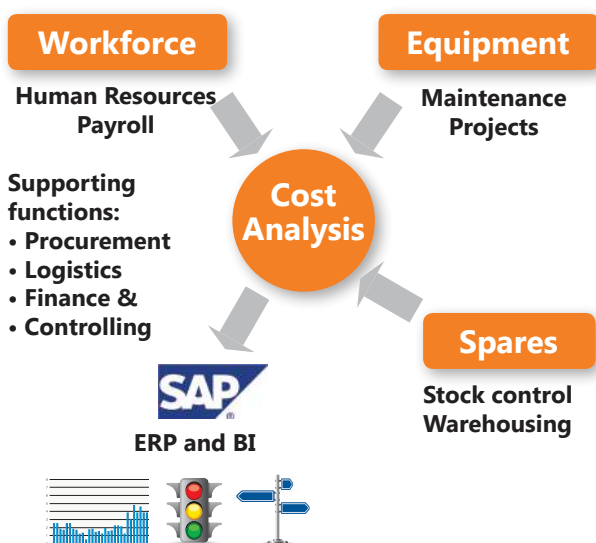
Once processes have been defined and implemented it is critical that individuals understand and take ownership of their role in these. It is also vital that appropriate technology is put in place to support both the efficiency of the new process and to enable continual monitoring and reporting.

Integrated enterprise resource planning (ERP)² systems such as SAP®, provide one consistent source of information throughout the entire organisation, enabling business processes and increasing efficiency across the board.

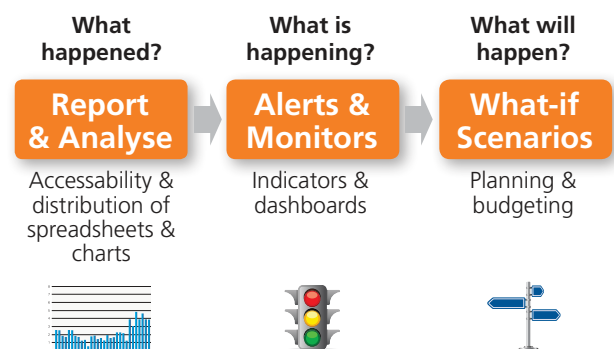
There are a multitude of options available in terms of business systems, offering various levels of integration and complexity and these must be evaluated by the business in order to determine what is appropriate for its requirements.

Where existing ERP systems are in place these can be adapted to enable the new offshore returns management process to be supported and managed in a robust and efficient manner.

Typical business system:



There are a variety of reporting tools on the market, such as SAP® BusinessObjects™, which can be used to monitor the new process. Once trained in these, business users will have access to a variety of reporting scenarios (outlined below), which will allow them to pinpoint and analyse where improvements have occurred and where further improvements can be achieved.



- **Report & analyse** – Drill down reporting enabling detail on where the cost is incurred, broken down by nature of costs.
- **Alerts & monitors** – Alerts when cost is approaching or exceeding the budgeted or planned costs for a cost object. Use of visualizations like s-curves, traffic light dashboards to show 'healthiness' of operations and projects.
- **'What-if' scenarios** – For example this is useful in the decision making process and budgeting of an AFE/ CAPEX.

This culture of continuous improvement will benefit the organisation in the short term and lay the foundation for successful management of the offshore returns process in the long term.

² In the context of ERP, Absoft refers to a business process platform consisting broadly of integrated 'front and back office' applications for Finance, Procurement, Supply Chain, Maintenance Management, Projects, Asset Management and Human Resources.

Outcomes

With the correct processes, clearly defined responsibilities and business systems which support these, a business can improve and automate its entire offshore returns process.

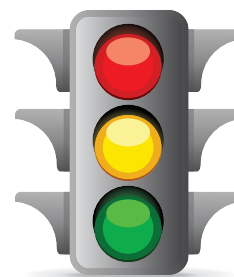
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The typical business benefits³ seen by Absoft when implementing an efficient returns process can be seen on the right:

- Stock holding
 - Stock balance sheet reduction > 10%
 - Stock value usage increase > 5%
- Stock movements
 - Stock movements doubled
 - Stock turnover increase > 20%
 - Stock coverage reduction > 20%
- Utilisation
 - Rental cost reduction > 5%



³ These figures are an aggregate of information taken from a number of projects that Absoft has undertaken and do not reflect data from any specific customer.

Conclusion

Cost pressures are strong across the oil and gas sector, with the need to control OPEX and CAPEX costs critical. Many areas are outwith the control of individual companies, but by looking at areas that can be controlled significant value can be gained. The supply chain is an obvious place to focus on given that it accounts for a significant percentage of the typical oil and gas company's cost base.

This paper has demonstrated that by examining activities in the supply chain that are frequently overlooked, such as offshore returns management, significant costs savings can be made which deliver lasting value to the business.

Absoft's advice on optimising offshore returns management centres on designing an integrated process, which manages all material flows – the mobilisation and demobilisation of materials – with appropriate decision making processes and guidelines in place, underpinned by suitable business systems and reporting tools.

In this way the business can recover costs which otherwise would be simply lost in expenditure or would have to be written off.

As operating costs continue to rise and competitive pressures increase, those companies that are prepared to look critically at their existing processes and systems and adapt and innovate where necessary will be the ones that flourish.

About Absoft

Absoft is the leading provider of SAP solutions and consultancy services to the upstream oil and gas industry in the UK and Norway.

With over 20 years' experience in delivering SAP solutions tailored to the needs of major operators and integrated oilfield service companies and with implementations in over 40 countries, Absoft has an unrivalled knowledge of global upstream oil and gas business processes.

From our offices in Aberdeen, London and Stavanger, we provide a comprehensive range of SAP services and advice, including consultancy, implementations, process improvement projects, system hosting and management, training, and support both onsite and through Absoft's UK based SAP helpdesk.

Absoft is also a SAP BusinessObjects partner providing powerful Business Intelligence solutions which bring together information from across the business for reporting, query and analysis with the aid of user friendly dashboards and visualisation tools. These give users of all levels, from the high end analyst to the casual business user, access to the information they need, when they need it.

We are proud of our track record in customer service excellence and our belief in delivering business solutions of enduring value – our first customer remains a customer more than 20 years later.

Aberdeen | London | Stavanger

T. +44 (0)1224 707088 E. info@absoft.co.uk W. www.absoft.co.uk

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