7 THE IMPLEMENTATION OF THE EAM SC MODEL

7.1 THE CHALLENGE FOR ASSET INTENSIVE ORGANISATIONS

The first warning signs to asset intensive organisations that something is wrong is when headline earnings start to drop. As production is the sole revenue generator for the company it is the first to be scrutinised and receives immediate attention. Companies often make the mistake of not identifying the true cause – referred to as the root cause - for reduced production output. The problem often lies with the assets and their management. In the majority of cases where companies have problems with their assets, the current asset methodology will be a reactive or will have a sub-optimised asset management approach. Solving the problem starts with a conscious and informed decision to change from reactive to proactive asset management or to proceed on an optimisation process. Figure 19 [DNA EAM] shows the two options open to an organisation or asset manager. Maintaining a reactive management approach means that a company keeps on eroding its profits and increases expenditures to a point where the graphs meet. This is the point at which the company breaks even and starts becoming non profitable. In terms of best practices the company is moving back into the past (into a downward curve).

**Figure 19:** The Challenge to Asset Intensive Organisations

Deciding on and maintaining a proactive management approach will lead to increased profits, reduced costs and asset downtime. The graph will keep on diverging; the difference between the upper and
lower is the increased profit that an organisation makes when it follows a proactive management style. The decision to adopt a proactive asset management approach must be translated into a strategy and remain the focus of the organisation. This is an important step in becoming a world-class organisation.

7.2 THE FOUNDATION — STRATEGY, PEOPLE, PROCESS AND TECHNOLOGY

Once an organisation has decided on a proactive management approach how does it achieve the transformation? The solution starts with a solid foundation — refer figure 20 [DNA EAM] — that allows new ideas to filter through, change the organisation and transform it into a mean, lean and focused business. This foundation consists of four building blocks:

1. Strategy
2. People
3. Process
4. Technology

Figure 20: The Business Transformation Model - Strategy, People, Process and Technology

Strategy is the catalyst for change that directs the people, business processes and technology. Of vital importance to the other building blocks is the output from strategy. The output should include:

- A defined strategy.
• Defined core competence.
• Commitment to the long term.
• Exhibit a competitive obsession.
• Defined value driven goals.

The people cornerstone is referred to as the achiever of the new strategy. It presents the opportunity to:

• Restructure the organisation to reflect the strategy and the way that it wants to work.
• Communicate clearly what is required of the people.
• Provide all the tools they need.
• Inform people how the organisation defines success.

Technology is regarded as the enabler. In this domain an organisation has the opportunity to:

• Apply the correct technology to enable dramatic improvements in business opportunities.
• Improve communication across organisational boundaries both internally and externally.
• Share information instantaneously.
• Support the new way of doing business.

Processes are what sustains the business and integrates strategy with people and technology. This is the primary business integrator that:

• Aligns the business with the strategic vision.
• Ensure that people's activities add value to the products or services as perceived by the customer.
• Aligns the business with customer values (e.g. production, procurement, etc.).
• Reduces expenditure costs.
• Maximises quality and value added.
• Simplifies the way business is done.

Together they provide a company under threat with the opportunity to transform through a structured breakdown and approach as demonstrated in Figure 21 [DNA EAM].

This business integration model has been proven to work well when companies want to implement innovative ideas and business opportunities. It is the basis used by DNA EAM to assist a company wanting to transform from a reactive to proactive asset management philosophy and implement the indirect supply chain as a business opportunity.
DNA EAM — AN EXAMPLE OF THE EAM SC INTEGRATION SPECIALISTS

DNA EAM focuses on the establishment and optimisation of the indirect supply chain. Its target market are organisations that utilise capital-intensive assets (plant, property and equipment) to earn revenue and whose procurement budget is centred around purchasing M&R materials. Optimisation rules and requirements in the indirect supply chain differ substantially from that of the direct supply chain whose focus is on raw material procurement. The differentiation lies in the source of demand, on the one hand, a consumer demand, on the other, asset utilisation. In the direct supply chain, customer requirements are the main focus that drive the buy, make (production plan), store, move, and sell processes. In the indirect supply chain (maintenance plan) the main drivers are reduced cost, increased uptime, and productivity (asset- and resource utilisation) that determine the operate, buy, store, move and maintain processes. This becomes very significant when the maintenance budgets, resource and downtime costs of asset intensive organisations are considered.

With an in-depth understanding of maintenance and process optimisation DNA EAM can determine, benchmark and implement effective optimisation processes in all areas of the indirect supply chain. DNA EAM’s offering is based on packaged services with quantifiable savings, centred around work and asset management optimisation, where the focus is on asset-, demand-, resource-, and execution management. DNA EAM’s business model is based on the consult (benchmark, recommend, determine Key Performance Indicators), implement (processes, technology) and run (turnkey management)
principles, taking responsibility and sharing risk. Although DNA EAM utilises best of breed technology enablers to effect excellence in service delivery, it is not biased towards any one technology.

7.4 **The Objective of DNA Enterprise Asset Management**

DNA EAM has 3 business objectives. They are:

1. To be the service company of choice that focuses on the optimisation and turnkey management of all aspects of work and asset management for asset intensive organisations.

2. Services that are centred around the management and optimisation of asset utilisation and resources, enabling companies to get a grip on so-called "black hole" expenses in the area of maintenance through increased visibility and planning capabilities in order to focus on core business competencies.

3. Optimisation, management and savings in the areas of logistics, supplier and procurement management (including e-procurement), inventory management, business process re-engineering, planning (operational, tactical and strategic), maintenance management, lean manufacturing, productivity management of assets and personnel.

**Figure 22:** Simplified DNA EAM Optimisation Focus

Figure 22 [DNA EAM] is a simplified version of DNA EAM objectives through optimisation and business area focus.
7.5 **The DNA EAM Business Models**

A business model is a company's core logic for creating value in a sustainable way. For profit making enterprises, that means how it makes money over a period of time – not just the most recent quarter [Anderson and Lee]. DNA EAM owns no physical assets. Instead it uses its intellectual capital to assist asset intensive organisations. DNA EAM uses three business models or a combination of the three to create revenue for both DNA EAM and the client. The business models are:

- The CONSULT business model
- The IMPLEMENT business model and
- The RUN business model

The consult business model focuses on benchmarking the current business, strategy development, solution design and technology specification and selection. The implement business model follows on with strategy, process and technology implementations, and change management. The run business model is a joint venture with the client to manage the implemented solution on turnkey principles.

![Figure 23: The DNA EAM Business Models](image)

The business models follow on each other as graphically represented in figure 23 [DNA EAM]. Each time a new opportunity is identified during the run phase it is fed back to the consult business model, implemented and managed.
7.6 DNA EAM PRICING PHILOSOPHIES

Companies that do not have the intellectual knowledge to change to a proactive asset management methodology integrated with the supply chain have the option of using a company such as DNA EAM. The business models employed by DNA EAM are progressive in nature and targets most pressing problem areas of the client or areas where the biggest gains can be realised. Savings that can be realised immediately with little effort are referred to as “low hanging fruits” or “quick hits”. As the problem areas are resolved and optimised the knowledge gained of the client’s operation will present further opportunities. And so the cycle continues. The consult and implement business models provide DNA EAM the opportunity to present the client with proof of concept and delivery, savings and new opportunities, as well as client exposure as to how DNA EAM operates. Exposure to DNA EAM human resources and work ethics often result in a continued working relationship through to the “run” business model.

![Diagram](Figure 24: DNA EAM Pricing Philosophy)

DNA EAM has a flexible pricing strategy. The consult and implement business models implies that DNA EAM’s participation is limited to a short to medium duration with a client (months). For this reason an agreed price structure is used and can be based on:

- Hourly rates.
- A fixed price for the duration of a project.
- A fixed price per deliverable.
The true test of both the consult and implement business model is the buy-in by the client company. In the run business model the value proposition is built on a “no pain no gain” principle of shared risk. Revenues are earned through the optimisation of the indirect supply chain on a gain-share principle (shared savings). The result is that if no savings are achieved there is no money to be shared. Figure 24 [DNA EAM] is a summary of the different pricing philosophies that DNA EAM uses.

A gain share approach is done under the umbrella of a joint venture, partnership or co-sourcing. The essence of gain-sharing as DNA EAM sees it is:

- Full visibility of the “as is” status using benchmarking before optimisation begins.
- No “big bang” approach but a phased approach with short-term results (refer to figure 25 [DNA EAM] for illustration).
- Any technology and services required are funded from savings or gains achieved. This means that all consulting and implementation costs will be funded from the gain share agreement.
- The sharing of savings based on a predetermined ratio.
- Gain share financial principles that copy accepted and researched gain share expenses and savings as illustrated in figure 26 [DNA EAM].
- Gain share agreements that span a period of 3 to 7 years – depending on the opportunities.

Figure 26 shows an interesting trend for gain share models. The benchmarked (red) trend line shows the increased costs with time for an identified opportunity without intervention or optimisation. This trend is established upfront through benchmarking. The gain share line (green) shows what happens to costs when a joint venture based on the gain share model start to optimise the opportunity. The transformation bubble spend reflects the financial layout on consultation, implementation and technology services. It proves that it takes money to make money. A point is reached where the gain share costs equals the benchmarked cost after which the gain share cost dips below the benchmarked costs. This savings or difference is what goes into the pot to be shared between the partners. All gain-share models have a life expectancy as the saving later becomes too small to sustain the business venture. The business relationship need not end and can continue on the basis of a cost plus profit margin payable to DNA EAM for the ongoing management of the business focus.
Figure 25: The DNA EAM Phased Approach

Figure 26: The Gain Share Principle and Pricing Strategy
7.7 DNA EAM Solution

Why would a client want to do business with DNA EAM? Benefits to a customer include but is not limited to:

- No CAPEX is required for expensive IT solutions, consultation and implementations when a gain share model is used.
- Low shared risk.
- Both companies can now focus on their core competencies.
- The gain-share principle: no results, no costs.
- Access to the skill-base of DNA EAM, DNA Supply Chains and strategic business partners.
- Enables proactive instead of reactive maintenance practices minimising downtime.
- Gain greater control over costs and assets.
- Ability to budget.
- Increased productivity and skills management.
- Win-win relationship.

The main areas for optimisation in the indirect supply chain have been identified as:

- Asset management.
- Production.
- Inventory management.
- Sourcing and procurement.
- Logistics.
- The M&R material demand signal.

DNA EAM uses a phased approach to optimise the indirect supply chain. Table 7 is a summary of steps used for discussion purposes. Each phase is a discipline on its own and the final work breakdown structure selected/ applied is subject to the client's requirements and areas of opportunity. EAM specialises in the optimisation of asset management. If it does not have the knowledge of a discipline it will complement its service offering with a DNA Supply Chains company that does specialise in the required discipline or use one of its strategic business partners.

DNA EAM is not technology biased but does utilise technology as business enablers to ensure excellence in service delivery. When technology is required it is carefully selected and generally follows a best of breed approach. The following technologies are utilised if and when required:

- CMMS – Computerised Maintenance Management Systems.
<table>
<thead>
<tr>
<th>PHASE</th>
<th>DNA EAM WORK BREAKDOWN STRUCTURE</th>
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<td>Phase II F</td>
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<td>Phase III</td>
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<tr>
<td>Phase X</td>
<td>General</td>
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<td></td>
<td>Project Management</td>
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**Table 7:** DNA EAM High Level Implementation Project Plan
7.8 THE DNA EAM ENGAGEMENT PROCESS

A good value proposition and client engagement process is important to win business. Figure 27 [DNA EAM] and 28 [DNA EAM] are graphical representation of the generic steps used for engagement and resourcing of projects.

Figure 27: The DNA EAM Engagement Process

The engagement process is divided into three phases; sales, engagement and the delivery phase. The sales phase qualifies a business opportunity according to the DNA EAM service delivery model (indirect supply chain) and a value proposition. A potential opportunity goes through to the engagement phase where initial contact is made with the correct people. By this time a high-level solution design has already taken place to facilitate first contact, get them interested or immediately present to the decision makers. As the possibility to do business becomes apparent a baseline establishment and benchmark can take place. Theses should be done before any contracts are signed as they have a significant role to
play in defining contract clauses and service level agreements (SLA’s). Once a contract has been signed the delivery phase starts. The delivery phase consists of a transition, transform and steady state condition. During transition, planning takes place without any business impact. In the transform state the planning done in the transition state is implemented, a scientific business / maintenance baseline is created, business objectives are incorporated into shared services infrastructures and change management takes place. The steady state allows for the bedding down of a solution, continuous refinement of the business plan, management reporting, partnership maturation and reward sharing. If new opportunities are identified they are fed back to the transform or transition state to be planned, implemented and stabilised. Figure 28 shows the DNA EAM resource involvement during the project life cycle. Most resource teams get involved and are removed at predetermined milestones. The one exception is the Project Executive, also referred to as the Project Manager that maintains continuity through the entire life of the project for obvious reasons.

**Figure 28:** DNA Resourcing Process
7.9 Conclusion

The first warning signs for asset intensive organisations that something is wrong are when headline earnings start to drop. The problem often lies with their assets and the management thereof. Solving the problem starts with a conscious and informed decision to change from reactive to proactive asset management or proceed with an optimisation and integration process.

Companies that do not have the intellectual knowledge to change to a proactive asset management methodology integrated with the supply chain have the option engaging a company such as DNA EAM. DNA EAM focuses on the establishment and optimisation of the indirect supply chain. Its target market is organisations that utilise capital-intensive assets (plant, property and equipment) to earn revenue and whose procurement cost is centred on the purchase of M&R materials. DNA EAM achieves transformation through the focus areas of strategy, people, process and technology. DNA EAM uses three business models; consult, implement, and run, or a combination of the three to create revenue for both DNA EAM and the client. The “run” business model is the most progressive business application and is based on the gain-share principle of no pain no gain or no savings, no money to be shared.

The main areas for optimisation in the indirect supply chain have been identified as asset management, production, inventory management, sourcing and procurement, logistics and the M&R material demand signal. EAM specialises in the optimisation of asset management. If it does not have the knowledge of a discipline it will complement its service offering using a DNA Supply Chains company that does specialise in the required discipline or use one of its strategic business partners.