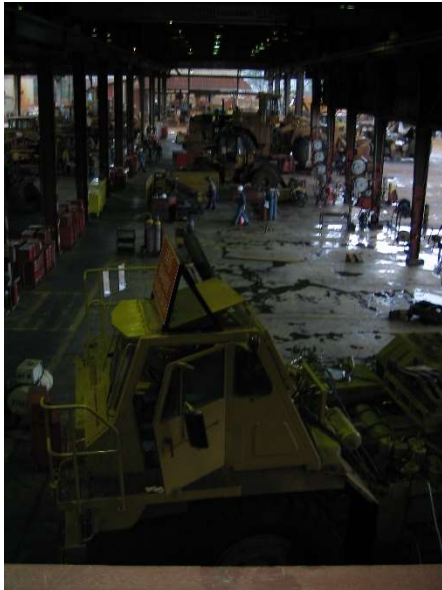


## Asset Management Standards

### Global Mining Company



In this case study the customer is one of the world's largest gold mining companies with operations at 18 mines, mostly gold, around the world on four continents. Annual revenues are roughly \$10 billion.

#### Situation

The company, founded some 40 years ago, has grown largely through acquisition of large mining companies, with mines of various sizes and scales, having both underground and surface operations. Most mines comprise at least one mining operation, underground, surface or both, and an ore processing plant that produces the product destined for further processing at refineries. Some mines produce gold, some copper and some produce a mix. As in any mining company, operations are asset intensive and the assets take a beating. Maintenance costs can easily reach roughly half of the operating (all in sustaining) costs

of the operation.

In this case the customer had a variety of maintenance and asset care standards, the result of the amalgamation of various companies into one over the years. Some standards were better than others and many of the mines did not follow the standards very closely. Day-to-day operational considerations had kept the emphasis at the mines on production. Maintenance and reliability were not given a high priority in most operations. They also had a corporate Asset Management Office (AMO) with several full time staff engineers and several positions filled part time by senior maintenance personnel from some of the mines. They functioned well as a team, but had limited impact on the performance in the mines.

#### Solution

This engagement involved several separate activities and leveraged our experience with one of the larger companies that had been acquired and was now a part of this one.

The original work with one of the acquired companies, was to build an Asset Management Standard for use across their 17 mining operations worldwide. That company realized the value that could be extracted from the reliable operation of their mobile mining fleets and processing plants and they wanted to be one of the lowest cost producers in the industry. We build a set of standards from scratch, including a pictorial model that would be used in rolling it out. Much of the content was based on the book, "Uptime – Strategies for Excellence in Maintenance Management", albeit with more detail and presented in a more granular (detailed format). The effort had full executive support with a Vice President as program manager and the President as sponsor. We had a clear mandate, high level goals to be achieved, a project charter and specific deliverables. The work was accomplished with a team

comprising head office process improvement leadership and mine maintenance leadership from around the world. After roughly 9 months of writing, editing and getting agreement it was ready for roll-out. We visited all operational mines to present the standards, explain their use and help the sites develop their own plans for implementation. Key metrics were used to monitor progress and results and they were reflected in the Mine General Managers' performance evaluations. That project achieved what it set out to achieve and set the company up to be one of the industry's top performers.

Nearly 6 years later, that company was bought and several of its mines became the centerpieces in an even larger global play. The acquiring company also saw the benefit in the standards that had helped move its newly acquired mines to such high performance. They built yet another set of standards inspired in part by the earlier work. Implementation of standards was left in the hands of the mines (as before), but the corporate level sponsorship was shifted from a senior executive position (the President) to a Director of Asset Management. The Director had no real authority with respect to decisions at the mines and was now effectively an internal consultant with a small department that was well on its way to becoming reactive to demands from the mines, rather than leading the continuation of what had been proven to be a successful initiative. We were called to help out.

We took some inspiration for our approach from the international standards in Asset Management (ISO 55000, 55001 and 55002), that were then quite new. We gather the corporate AMO team and developed policy and strategy. Published corporate goals were used as the starting point and we converted those to actions using a method from Lean Manufacturing known as Hoshin Kanri. Strategy in hand, it was then time to tackle the standards.

The standards were quite sound but did need a bit of editing to align with the new strategy. We worked with the customer on that editing and alignment effort. In all, more than a dozen standards were revised. Given the large number of operating mines and various organizational structures, mines were struggling with how to comply when their various roles and structures didn't easily adapt to the standards. We then set out to define and refine a corporate competency matrix that included all the positions by title, from all the mines. This gave everyone a cross reference from their job/role to the competencies they should have and should be developing to ahead in their careers.

Implementation was still left in the mines' hands. In the meantime, the mines drifted further away from earlier standards and performance was suffering. Costs per ounce were climbing. Cost cutting measures took their toll on the AMO and at the mines. Now staffed very lean, the standards and competency framework were largely set aside, only a few of the mines actually used them any longer, but those mines demonstrated consistently higher levels of performance.

## Reflection and Results

This particular case study reveals a number of project wins and early success and also a longer term disappointment. Reflecting on those we can see that the presence of standards alone, does not assure they will be used. In the original project, top level sponsorship and very clear mechanisms for holding Mine General Managers to account had worked. By having clearly defined roles at the top and by paying attention to the implementation and results, the needed governance mechanisms were able to sustain performance. In fact performance was so good that the company became prime take-over target – not because it was a bargain, but because it was a high performer.

Following the merger, that governance was lost as responsibility was passed down the corporate ladder and accountability largely removed. Performance fell, except where individual Mine General Managers sustain pressure and stuck to the standards.

The corporate efforts were well intended, but essentially failed at execution and sustainment. Rolling out a set of very good standards didn't produce results. Accountability of the Mine General Managers for results was lacking, except in the general sense. There was nothing specific to this program that had a demonstrated good track record. Lagging performance resulted in higher costs per unit output at a time when commodity prices were sagging. The inevitable finance led cost cutting initiative decimated the AMO and removed all but the informal collaboration of its previous members at the mines. Results continued to sag.

While this case study is a mixed one – some success and some failure, it contains valuable lessons on implementation and governance that we incorporate into our work with all our clients. A great deal of that insight is shared in various articles in our blog and in the way we now work. Our entire customer engagement and delivery model has changed to ensure we take advantage of some very expensive lessons.

### To learn more

We believe that a good set of standards, agreed across the organization, can drive substantial benefit. Coupled with a policy requiring their application, they form the basis for consistency and enhanced results. They do of course need that high level sponsorship and engagement. Talk to us about how that can be achieved.

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