How ExxonMobil ensures systematic improvement and harmonious performance

How do you make sure that your business units pull together when your company operates in more than 200 countries? For ExxonMobil – the world's largest publicly quoted energy company – the answer is its Operations Integrity Management System which, says John Symonds, includes components that will be recognizeable to anyone familiar with ISO 9001 and ISO 14001. However, the author does not limit himself to quality or environmental management, setting management systems in a much broader business context. "My purpose," he says, "is to show how a systematic approach to management leads to clearly measurable business advantages."

Consider the range of emotions you experienced the last time you attended a concert of the music you enjoy. No doubt your spirits were lifted if players of excellence performed it. So let's just think about the process that occurred. Working for a large multi-national corporation – ExxonMobil – I'd like to develop the analogy with a large orchestra.

A conductor who insists on high standards maintains the longstanding reputation of the orchestra. All sections contain players of great competence, tuning their instruments to the leader's violin. A senior group of musicians chooses the repertoire of fine music from a library of scores that they know will appeal to long-standing patrons, but hope will also attract a new audience.

Rehearsals are driven with relentless attention to detail and repetition until all are note perfect with the inflection of interpretation meeting the conductor's vision. Another triumph is achieved at the performance, with a variety of commercial spin-offs.

Wait a minute – is this not all rather familiar?

- Clear leadership with vision.
- Commitment at all levels to align with a common standard.
- Highly competent workforce using appropriate, calibrated and well-maintained tools.
- Clearly documented requirements with defined level, quantity and time of delivery.
- Continuous improvement in achieving self-imposed standards.
- Commercial success.

A systematic approach to management leads to clearly measurable business advantages

My purpose in this article is to show how a systematic approach to management leads to clearly measurable business advantages. But we are

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not just talking quality or environmental management here. This is taking principles espoused by both the ISO 9000 and ISO 14000 series of standards to a much broader business context.

Higher synergies

When ExxonMobil Corporation was formed in December 1999, creating the world's largest publicly quoted energy company, many employees in my area were generally pleased to find more similarities than differences between the two heritage companies. Subsequent public announcements have supported these impressions by quantifying higher synergies than were expected pre-merger.

One area of difference was in management systems. Long time readers of *ISO 9000 News* (replaced in October 2001 by *ISO Management Systems*) will be aware through a number of articles of the sustained commitment of Mobil to ISO 9000, a side effect being The Mobil Survey, which lead to the highly successful ISO Survey of ISO 9000 and ISO 14000 Certificates.

The OIMS system aligns with the business operations and is not perceived to thwart them

In some parts of Mobil, effective approaches to using management systems were adopted (as described in my article, " ISO 9000 – case sensitive ", in the November/ December 1998 issue of *ISO 9000 News*). However, a key feature of Mobil was that every business unit adopted systems in the way they thought suited them best. The effects can be summarized:

- a common quality system applied in scores of different ways;
- a common EHS (environment, health and safety) system applied in scores of different ways;

Photo: ExxonMobil

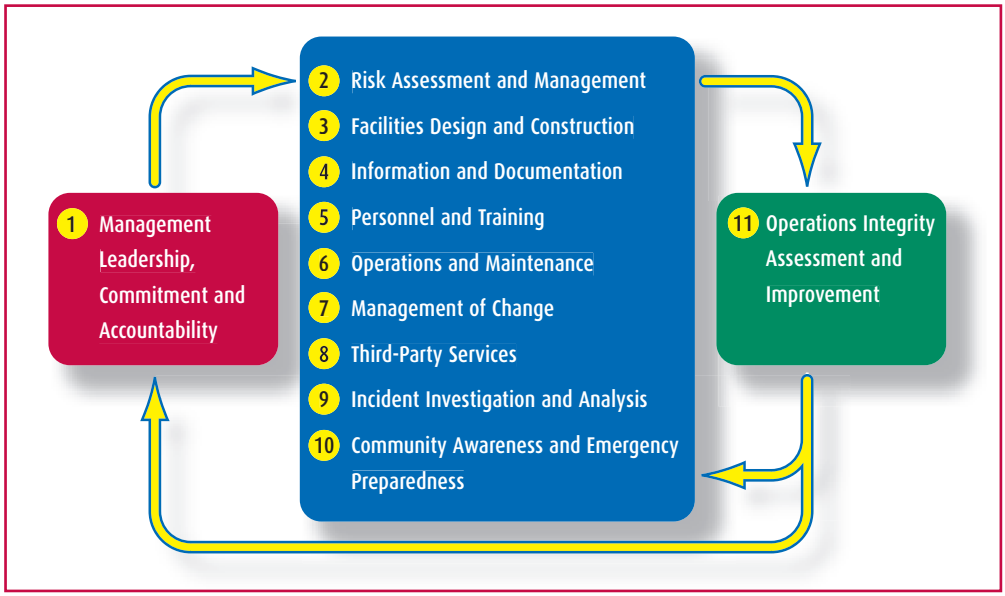

Figure 1: ExxonMobil's Operations Integrity Management System (OIMS) which is implemented by its business units in more than 200 countries (see www.exxonmobil.com/news/publications/c_she/c_index.html**).**

- external ISO 14001 certification pursued at unit level discretion;
- limited attempts to apply common procedures across businesses;
- wide variation in management system effectiveness across the corporation;
- on occasion, management system efforts were perceived to conflict with business drivers.

Notwithstanding these comments, in 1996 the CEO of Mobil set ambitious five-year stretch targets to improve EHS performance in five key areas:

- fatalities,
- employee lost time injury rate,
- contractor lost time injury rate (same as employee),
- oil spills,
- fires.

He clearly linked an expectation of step-change improvement with the use of a common EHS management system. The targets were achieved in three years. Similar significant improvements occurred when contractors across Africa were encouraged to adopt a specific transportation management system covering tank trucks used to deliver petroleum products such as gasoline.

Photo: ExxonMobil

But taken overall, the Mobil approach was like an orchestra that could achieve sublime effects on occasion with true virtuoso partnership between sections. However, it had enough off days to stop it competing with the best. We were to find out what the best was like from the inside.

Visitors to the previous Exxon Web site will have known of OIMS – the acronym stands for Operations Integrity Management System (now seen at **www.exxonmobil.com**). Just in that name, one of the Mobil frustrations is eliminated. This system aligns with the business operations and is not perceived to thwart them.

Added impetus

OIMS was born in the early 1990's. There was common sentiment in the oil industry at that time that effective management systems were needed. In fact, the Cullen Report in the United Kingdom, following the Piper Alpha disaster in the North Sea was quite specific about it. The Exxon Valdez incident gave added impetus with top level commitment in Exxon and the results achieved with OIMS over the first five years were publicly stated in an EHS report published in 1996:

- lost time incidents 60 % lower;
- number of oil spills 80 % lower and quantities spilled 95 % lower;
- significant incidents (over USD 25 000 in cost) 55 % lower.

Photo: ExxonMobil

The new ExxonMobil corporation operates in over 200 countries. OIMS is being applied in every single one

At this stage, it might be useful to try and explain the sheer size of OIMS implementation. The new ExxonMobil corporation operates in over 200 countries. OIMS is being applied in every single one. This may be in the upstream businesses such as exploration, development and production of oil, or gas marketing.

It could be in downstream refining and supply, the latter of which includes pipelines and fleets of ocean-going, coastal and inland vessels. Downstream business also includes the marketing of lubes and petroleum specialities and fuels – these reach customers worldwide in aviation, marine and all types of industry, and consumers at local retail service stations.

Chemicals operations are involved in huge polyethylene/polypropylene plants at one end of the scale to producing cling-film at the other. Other operations include engineering – for example, remediation of sites impacted by war.

Implementation on the scale just described would not have been possible with a complex approach that was difficult to understand. At first sight, the 11 elements (see Figure 1, page 43) of the OIMS approach, each having a series of expectations associated with it – 60 in all – might appear complex compared with, say, the 18 requirements of ISO 14001. However, the expectations are combined in a number of different ways to produce management systems covering different aspects of the business. These may be at a high level such as product quality, passenger and commercial vehicle transportation and so on, or at a plant level to cover areas such as safe working, maintenance of safety critical equipment etc..

Improvement cycle

One of the criticisms of the earlier versions of ISO 9000 was that improvement was not explicitly required; this has been corrected with the 2000 revision. Nonetheless, the way the improvement cycle has been defined is structured in a totally different way to ISO 14001. While all the ISO management systems have common features such as management review, the need for documentation and so on, these are written in a different way. In OIMS, each management system is defined in the same way with components recognizable to anyone who knows the ISO 9001 or ISO 14001 standards:

- definition of scope and objectives;
- procedures describing process steps;

- responsibilities and accountabilities;
- verification and measurement;
- feedback mechanism.

Each defined business unit will have a set of management systems that together make up their OIMS system. These are assessed internally every year. Every three years, a team drawn from outside the unit and consisting of representatives from similar businesses and functional specialists undertakes an external assessment. Such a team will always be led by a line manager of at least peer level to the manager of the assessed unit. Status of OIMS deployment is reflected in a score with external assessments calibrating the scores determined internally.

Underpinning this whole OIMS activity is a much stronger message. Any incident causing lost time through injury, a spill or various other categories is unacceptable. Every plant manager has a set of measures against which he and his team are expected to return a flawless performance. Senior management reviews the flawless scorecards monthly.

Let's summarize the basic principles that pervade all operations in ExxonMobil.

1. An uncompromising belief at the very top and proceeding through all management levels that effective OIMS application at all operating sites is the best way to achieve flawless performance.

Each management system is defined in the same way with components recognizable to anyone who knows the ISO 9001 or ISO 14001 standards

Photo: ExxonMobil

The orchestra has grown by 50 %, yet there is harmony between the various sections

2. Flawless performance in EHS and other measures covered by OIMS enables effective operations and enhances business results.
3. A common approach to management systems is engrained in all management levels in the corporation.
4. The 11 OIMS elements (see Figure 1) are simple, yet all embracing. Units develop appropriate management systems for their businesses that meet all OIMS requirements.
5. Common systems are applied across regions and for some businesses globally. With support from global networks, this allows the best procedures to be widely shared and utilized.
6. Annual scored "internal" assessments are calibrated every three years by "external" assessments led by a manager independent of the business unit assessed.
7. There is a continuing expectation of improvement in OIMS through ratings scores. Over nine years, a high degree of uniformity of effective system implementation has been achieved across the corporation.

The secret is that OIMS works. A further progress report issued for the year 2000 shows still more significant improvements:

- a further 70 % reduction in lost time injuries;
- emissions, spills and environmental excesses continue to track down;
- contractor performance results track close to those of employees;
- over 100 notable awards from 20 countries received in 1999.

In an article for ISO, the question is begged, "What about third party certification?" With a culture based on management systems, there is a lower perceived need for site by site certification. Instead, a creative business approach has been forged with Lloyds Register Quality Assurance (LRQA)[1].

In 1997, Exxon demonstrated to the satisfaction of LRQA that the OIMS system met the requirements of ISO 14001 and was effectively deployed in operating sites across the whole corporation. LRQA were therefore prepared to issue an ISO 14001 certificate of attestation to this effect. This is now being reviewed in the three-year cycle with the addition of the heritage Mobil sites, which are working hard to implement OIMS. The corporate policy towards ISO 9000 implementation is that it is decided on a unit-by-unit basis according to the needs of the business concerned.

Large investments

The first stage in any improvement programme has to be investment in safe equipment. The two reports quoted referred to very large investments over many years to bring this about.

The second stage is to have effective and well-maintained procedures. I hope this article demonstrates that wide-spread OIMS implementation has achieved this.

The third stage is to tackle human factors and behavioural elements. Various systems have been designed in ExxonMobil to tackle this and vigorous efforts are underway to implement them.

The orchestra has grown by 50 %, yet there is harmony between the various sections. I firmly believe that strong application of OIMS and the principles that underpin it are responsible for this. Indeed, we are beginning to see signs of flair and creativity thriving within the structures imposed. This can only be to the benefit of all our stakeholders – our audience.

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