

# THE STATE OF ENVIRONMENTAL PERFORMANCE TRACKING

CONTRIBUTING AUTHOR:  
JOHN FRASER, TECHNICAL MANAGER/GLOBAL SCHEME OWNER,  
ENVIRONMENT, SAI GLOBAL

*The majority of organisations are not tracking their environmental performance closely enough to satisfy evolving expectations of stakeholders. Key performance indicators simply concentrate on compliance, traditional metrics, costs and improvement projects but lack relevant reference points.*

## THE LEADERS

Compliance requirements aside, we are moving beyond environmental management into an era of environmental performance. Credit should be given to the pinnacle of industry that is collecting, aggregating and analysing large quantities of data to report its performance in externally verified corporate sustainability reports and the like. The concern is with the state of internal and external reporting in the rest of the industry:

- Metrics without reference points are misleading (i.e. past and current performance cannot be reliably compared)
- Incomplete metrics allow for leakage (i.e. an improvement in one metric can lead to lower results elsewhere)
- The success of improvement projects cannot be measured (i.e. improved results might not be attributable to the project in question)

So how are these organisations responding to such questions as “how much have we improved?”, “how come our electricity usage is going up?” and “why aren’t we getting credit for all our work?”

From 20 plus years of experience in environmental management, Fraser says they can’t. Unless the organisation is a top tier entity involved in the Global Reporting Initiative, Corporate Sustainability Reporting or the Carbon Disclosure Project such as Sherwin-Williams, Toshiba or AkzoNobel.

## CHALLENGE

There are certainly some exceptions among the vast number of organisations who exercise environmental management, like Novelis or Catalyst. But the majority simply post an ISO 14001 certificate or policy on their website. No answers to queries about environmental performance are provided. And in some cases, what is provided is misleading at best. What are we to make of a standalone statement like: “Particulate matter emissions have reduced by 29%”? Internally, the situation is better. What is available publically is not a full reflection of the data that is tracked. Still, there is a problem. Internally, with no performance data, incomplete data or data not anchored to a reference point, industry and the public can’t know if programmes are effective or not.

*Associations, regulatory agencies, NGOs, customers, public and internal stakeholders are all making efforts to maintain or improve performance.*

What’s the ROI for these efforts?

- Is a 10% improvement in GHG emissions since 2010 meaningful if acquisitions and production levels have not been taken into account?
- Is a 5% reduction in hazardous or regulated waste generation desirable if it results in an unrecognised 10% increase in solid waste to landfill?
- Is a 3% reduction in electricity consumption attributable to updating lighting if other influencing factors have not been taken into account?

## OPPORTUNITY

Environment, Health and Safety (EHS) management system standards have played a key role in advancing EHS management in industry for the last 20 years. Standards have successfully championed the strategy of ensuring that operations are under control, especially the critical ones defined by higher EHS risk. With this goal accomplished, attention is now on EHS performance.

Arguably, ISO 14064 and ISO 50001, addressing greenhouse gas emissions and energy consumption respectively, were the first large scale ISO environmental standards to tackle performance head on. They dealt with it through provisions for baselines, performance indicators and verifications. This initial foray into environmental performance was practical because these standards focus on single issues rather than broad EHS management.

We are now in an era of continual improvement in performance, rather than continual improvement of the management system.

- ISO 14001:2015 requires the organisation to monitor, measure, analyse and evaluate its environmental performance, including the criteria against which it will evaluate its performance and when communicating it shall ensure the information is consistent and reliable, and
- A recent draft of ISO 45001 requires the organisation to determine methods for monitoring, measurement, analysis and evaluation, as applicable, to ensure valid results and also to determine the criteria to evaluate its OH&S performance.

This situation presents challenges. Ideally, organisations will measure their full environmental footprint with normalised indicators anchored to baselines. The data tracking to support this measurement cannot be onerous or opaque, if it is to be sustainable.

## WAY FORWARD

Begin with indicators representing all environmental impact categories: air emissions, effluent, solid waste, recycling, hazardous or regulated waste, spills, energy use, water use, etc. Each one should be reflective of the organisation's operations. For instance, for recycling, a warehouse might only track cardboard while a large manufacturing facility might track production scrap, paper, glass, plastic, cardboard and e-waste. Next, normalising the data can enhance its value. An indicator will be more stable and reliable if distracting biases are removed. For instance, the impact of changes in production levels is often removed when calculating energy consumption because it can mask the effect of energy management improvement programs. In this scenario, energy is reported as a ratio of units of production. More complicated models can be created, but the reward might not be worth the investment.

The effort to collect the data for these metrics needs to be realistic and questions such as "should we sub-meter all units or rely on facility-wide utility energy data?" are necessary while the data trail is being assessed. Eventually, the source (e.g. an invoice or a meter), the record (e.g. log sheet, spreadsheet or database) and computations will be determined.

Lastly, how will it be presented?

- It is most common to see a series of Pareto charts, one per indicator. Individual performance trends are easily communicated as viewers are accustomed to this type of visual.
- To gauge the full performance, footprint tools such as RADAR or Spider diagrams can concurrently communicate multiple indicators.

Organisations change over time. They acquire new assets and divest of others. The conditions in which they operate change also. If an environmental indicator is to be compared to past performance, it must be comparable for the year over year trend to be meaningful. This means that a baseline year needs to be selected and may need to be adjusted periodically. If an error in reporting is found, better data becomes available, or new calculation methodologies used, then past performance should be recalculated.

If the model no longer works, instead of updating the baseline data, it may be worthwhile to pick a more representative baseline year. In fact, some organisations use a rolling baseline which is reset every year to the previous year. Selecting the average of three years (e.g. 2014 – 2016) can also make a baseline year more representative and therefore stable.

## CONCLUSION

Top tier organisations are calculating their environmental footprints and comparing their performance against baselines and more. In its entirety, this level of effort can easily be overkill for the huge number of organisations that fall under that threshold of resources and expertise.

The path forward is to take a fresh look at the current indicators, assess what is lacking and institute a new sustainable environmental performance tracking programme. An EHS Management System is the ideal framework for this endeavor.