

A New Model for Environmental Health & Safety Integration™

Daring to Reach an EHS Ideal

By Charles Redinger, Ph.D.

Through my work with Environmental Health & Safety (EHS) management system design, measurement, and implementation,¹ I have observed that the implementation of a formal EHS management system does not necessarily maximize EHS performance. Implementation of a formal system is a valuable and necessary step to achieving higher performance, but to reach top performance, or even a performance ideal,² there is “further east to go.”

For the past several years I have been intrigued with this gap, that is, how can an organization achieve higher levels of EHS performance, even if it appears that they have a solid management system in place?

With this question in mind during my organizational consulting and research, and post-doctoral work at the MIT Sloan School of Management, I have identified what appears to be a way to reach a new State-of-the-Art³ in EHS performance. The key issue, or distinction I’ve identified is EHS Integration™.⁴ That is, the full and complete integration of EHS functions⁵ in an organization, well beyond what is commonly thought of from a program or system implementation perspective.

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Redinger was instrumental in the initiation and completion of the important EHS management system standards-development work done by the International Labour Organization (ILO) and the American National Standards Institute. His management system models have been used throughout the world by governmental agencies, standards-developers, researchers, and private organizations including the European Agency for Safety and Health at Work, OSHA, the U.S. Department of Defense, and the Singapore Ministry of Manpower.

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1. *Implementation*. To put into practical effect; carry out. To supply with implements. To bring into existence.
2. *Ideal*. One seen as a standard or model of perfection or excellence. An ultimate object of endeavor; a goal. An honorable or worthy principle or aim.
3. *State-of-the-art*. The highest level of development, as of a device, technique, or scientific field, achieved at a particular time.
4. *Integration*. The act or process of integrating. The state of becoming integrated. The organization or the psychological or social traits and tendencies of a personality into a harmonious whole. Integrate. To make whole by bringing all parts together; unify. To join with something else; unite.
5. *EHS Functions*. All policies, procedures, protocols, best-practices, programs, systems, professionals, work groups, teams, and departments in an organization related to EHS.

This work has been spurred by my ongoing commitment to find the “Holy Grail” for EHS performance. It sounds a bit goofy to say it this way, but it does reflect my deep commitment to environmental and occupational health, where human well-being inside and outside of the fence line can be maximized. The EHS Integration™ model and methodology presented here is based on observations of a wide range of organizations and in depth research on organizational effectiveness. In this work I’ve observed that organizations struggle to:

- » Define EHS performance objectives and goals, and wrestle with a tension between ideals and what is perceived as “realistic;”
- » Generate ways to achieve the objectives and goals, especially when it appears they are not realistic;
- » Develop metrics to measure the objectives, and again, especially when the objectives and goals are “outside the box.”

The working hypothesis used in the development of the EHS Integration™ model and methodology is:

When EHS functions are fully and completely integrated throughout an organization, an EHS performance ideal can be achieved.

Several interesting questions arise from this. One of the first is, when planning, do EHS professionals and their colleagues really think about EHS ideals? This comes up when talking about sus-

tainability issues – or on the OHS side – efforts to reach zero injuries and illness. Another question is, when we think of an ideal for EHS performance, how do we define the ideal? Some other questions are, what does full and complete EHS integration mean? What would it look like? How would you know it when it happened? How would you achieve it?

An EHS Ideal

Before proceeding to present the EHS Integration™ model and the Seven Steps to EHS Integration™, a quick discussion about the term EHS ideal is necessary. To discuss an ideal can be tricky. These discussions, or when we think about this, can bring up strong cynicism and resignation because of a belief that an ideal cannot be achieved. When setting EHS performance goals, we are often confronted with this tension between a performance ideal and what is thought of as being practical or reasonable. This is seen when setting goals for zero injuries, where in a way this has to be the goal, but many EHS professionals secretly, or not so secretly, don’t believe achieving zero is possible.

Doing work on defining individual and organizational EHS ideals is a component of the Seven Steps to EHS Integration™ presented here. In looking at this issue, we are able to identify where our vision as EHS professionals might be diminished.

In the development of the model and methodology presented here, interviews

were held with a wide range of EHS professionals in varied industries. When asked how they would define an EHS ideal in their organization, some of the responses were:

- » People think about actions. They ask for help. They know when to ask questions.
- » Folk on the shop/plant floor know that their actions have consequences, they know when to initiate the help chain.
- » There are no adverse effects.
- » People talk about EHS without being asked.
- » Not about Zero, but there is a Zero mindset.
- » No associates hurt.

When asked how they would define an ideal for EHS Integration, some of the responses were:

- » There is intellectual curiosity across the organization, EHS comes from all sides.
- » EHS is just part of doing business, it is not siloed.
- » EHS is a deliberative process throughout the organization. People are thinking about it, almost like a fault tree analysis.

What EHS Integration is Not

Another tricky point when thinking about EHS integration is the concept of EHS Functions disappearing or going away. In a sense, when we think generally about the integration of things, a phenomenon that occurs is the diminishing or disappearing of boundaries. To an extent, that is the case in the work presented here. But, care must be taken not to suggest

that EHS Functions will disappear and go away. A danger is that when EHS performance improves as EHS Functions become more integrated, senior management support and resources will be cut. This has always been a challenge in EHS management since rewards are based on non-events. The solution to this lies in the development of strategic partnerships in the organization and designing ways to continually demonstrate value for the EHS Function, even in the face of zero events.

AN EHS INTEGRATION™ MODEL & PERFORMANCE CONTINUUM

EHS Functions are often described in terms of levels of maturity. These can also be called stages of development, levels of development, and so on. It's common to describe these levels or stages with numerical ranks, such as from 1 to 3 or 5, where level or stage 1 represents the lowest level of maturity or development and the highest level represents a high degree of maturity.

The EHS Integration™ model presented here also presents a continuum of EHS Function maturity. This continuum is called an EHS Integration Continuum, with seven levels (Figure No. 1).

Implementation Dimension

- Level I Basic Compliance in Progress
- Level II Basic Compliance Handled
- Level III Moving Beyond Compliance
- Level IV Beyond Compliance Approach Attained

Integration Dimension

- Level V EHS Team Integration
- Level VI Integration in the Organization
- Level VII State-of-the-Art

The seven levels are organized in two groups. The first is called the "Implementation Dimension"⁶ or Traditional Implementation. The second is called the "Integration Dimension."

The Implementation Dimension

In this dimension, compliance with regulations or conformance with non-governmental standards is the dominant theme.

EHS Functions and actions can be characterized as compliance-based or driven, and can be described as primarily reactive. Performance measurement tends to focus on trailing indicators.

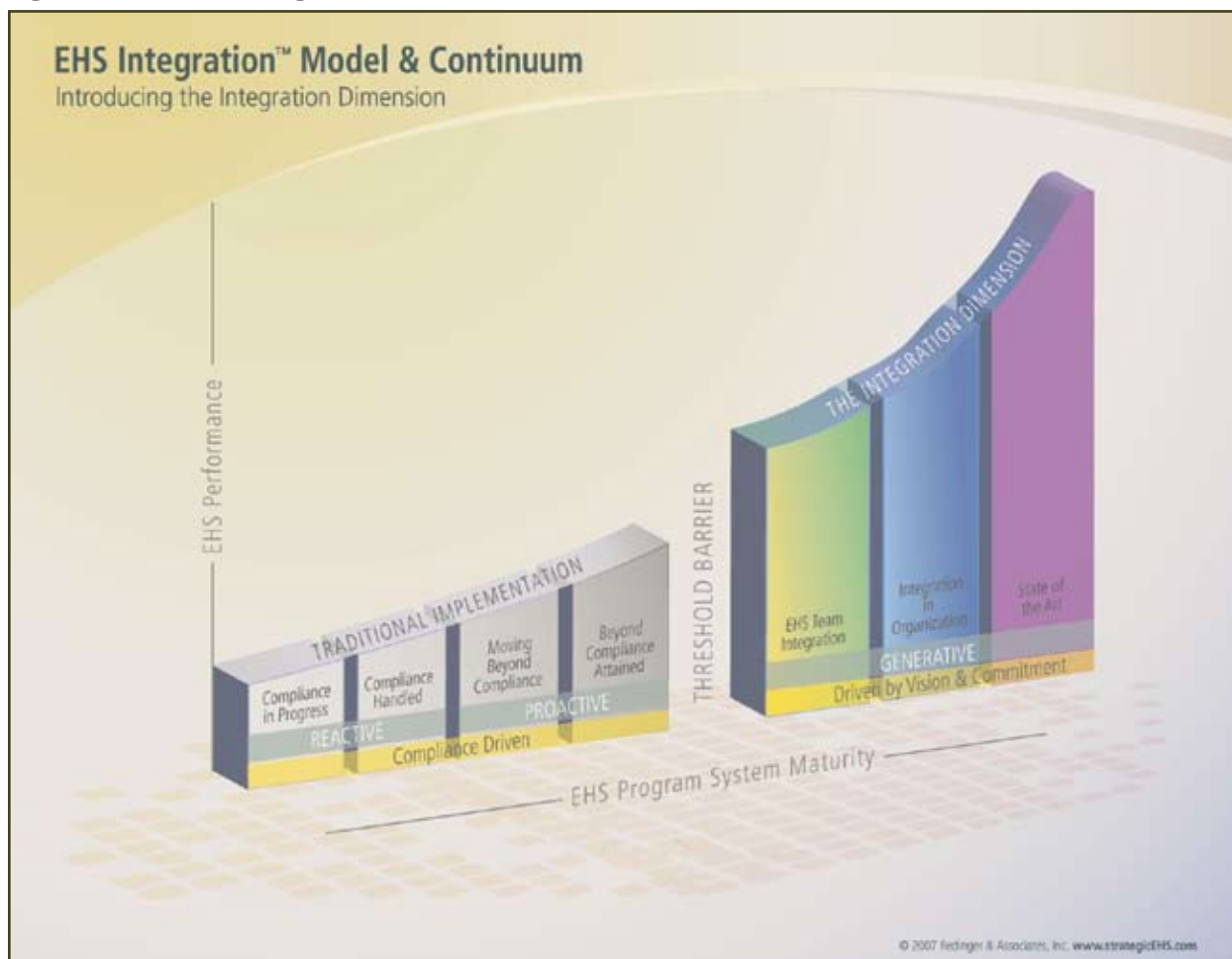
Level I – Basic Compliance in Progress

There are issues with achieving basic regulatory compliance. EHS values are not very strong in the organization. There is little to no commitment from senior management to do well in this area. The EHS Function is weak.

Level II – Basic Compliance Handled

Basic EHS regulatory compliance has been achieved. Compliance functions

Figure No. 1 – EHS Integration Model & Continuum



6. *Dimension*. A measure of spatial extent. Extent or magnitude, scope.

are operating smoothly. A regulatory agency inspection would not find any major violations.

Level III – Moving Beyond Compliance

There is a sense that better EHS performance can be achieved through means other than simply being in compliance with EHS regulations. Actions have begun to implement some sort of “beyond compliance” approach, such as an EHS management system (e.g. ISO 14001, ANSI/AIHA Z10, VPP, OHSAS 18001), six sigma, behavior based safety, etc. Many pieces, if not all of the approach could be in place and functioning in part of the organization.

Level IV – Beyond Compliance Approach Attained

All aspects of the beyond compliance approach are in place. There may be local variation, but there is generally global consistency. With a formal management system, the system has been, or could be registered or certified. The EHS Function is considered very good and competent.

At Levels III and IV, a shift begins toward more proactive actions and metrics that focus on leading indicators. At Levels III and IV, the organization begins to see things differently. A new context begins to emerge for the EHS Function. In organizational learning literature, this would be called seeing things in the “second learning loop.”⁷ In this model, as de-

scribed below, the organization begins to see things in the Integration Dimension.

Moving into the Integration Dimension can be challenging. Making this transition is a visible topic in organizational and management science literature. A number of issues have been identified about this challenge.

- » One challenge has to do with learning in general and the issues that present themselves when smart and accomplished professionals embark on developing new competencies. While counter intuitive, sometimes we resist learning new capacities.
- » Another is structural. That is, organizations are challenged when an attempt is made to modify or change existing structures. There can be resistance to this.
- » Yet another is a function of time and resources. In some organizations, people have very full plates with existing activities and can’t make the time to devote to new development work.

These and other organizational challenges present a Threshold Barrier⁸ that impedes reaching higher levels of EHS performance. This Threshold Barrier must be broken through⁹ when moving from the Implementation Dimension to the Integration Dimension. The Seven Step to EHS Integration™ presents a way to breakthrough this Threshold Barrier.

7. Argyris, C. (1992): *On Organizational Learning*. Blackwell Publishers, Inc. Cambridge, MA.

8. *Threshold*. The point that must be exceeded to begin; the outset. Barrier. A structure to bar passage. Something immaterial that obstructs or impedes. A boundary or limit. Something that holds apart.

9. *Breakthrough*. An act of overcoming or penetrating an obstacle or restriction. A major achievement or success that permits further progress. Achieving something that was previously unpredictable.

The Integration Dimension

A key difference between the Implementation and Integration Dimensions is context.¹⁰ That is, in the Integration Dimension, there is a new context for the EHS Function where actions are driven by vision and commitment and can be described as generative.^{11 12} Within this new context, central issues such as leadership, accountability, participation, and partnership take on a whole new occurring.

Level V – EHS Team Integration

The EHS professionals and team have transformed their practices to reflect a vision and mission looking from the whole. Actions are not simply proactive, but are generative, they are driven by vision and commitment. There is a new context – a new mindset – created that is not compliance-based. EHS professionals demonstrate leadership in the organization. There is full integration between traditional-compliance-based policies and procedures, and the Level IV structures. Commonly the Level IV structures have been revised or modified. The work at Level V is mostly internal to the EHS Function.

Level VI – Integration in the Organization

The EHS Function goes public with the integration work. In some ways this

looks like traditional implementation done at Level III and IV, as presented earlier. But it is different. With the new context created, the EHS team presents things differently, has a coherent framework, and develops new levels of partnerships in the organization.

Level VII – State-of-the-Art

EHS values and ethics are central to defining the company's core values and present a competitive advantage in the company's marketplace. A direct connection is seen between EHS performance and overall organizational performance. Company personnel are sought by peers as advisors on EHS issues. EHS personnel think in terms of legacy and what they are leaving behind for the next generation in their organization.

It is common that organizations that appear to be in the Integration Dimension, are still operating within an Implementation Dimension or command-and-control mindset. This phenomenon is seen a bit differently when organizations move into Levels III and IV when implementing a management system, there the implementation takes place within a compliance mindset as opposed to a systems mindset.

Some of the differences between the two dimensions are listed in Table No. 1.

10.Context. The circumstances in which an event occurs; a setting. The general condition or framework that impact performance.

11.*Generative*. Having the ability to originate, produce, or procreate.

12.An example of this is seen with benchmarking. In the Implementation Dimension, an organization benchmarks best practices to see where they rank against others. In the Integration Dimension, the organization benchmarks to learn the principles of innovation that lead to the best practices.

THE SEVEN STEP EHS INTEGRATION™

This process addresses how to move from the Implementation to the Integration Dimension. The process has seven steps that represent a mixture of technical EHS issues as well established organizational transformation concepts.

A key activity in moving into the Integration Dimension is breaking through the Threshold Barrier. This requires an examination of the EHS mindset at both the individual and collective levels. This is followed by examining and possibly revising the EHS policies and procedures to make sure that Level II - IV documents are integrated.

Breaking Through the Threshold Barrier

- Step 1 Understanding
- Step 2 Shifting the EHS Mindset

Integration in EHS Functions

- Step 3 New Leadership Capabilities
- Step 4 EHS Framework

Integration in the Organization

- Step 5 Going Public
- Step 6 The Art of Sustainability

Characteristics of the Implementation and Integration Dimensions

Implementation Dimension	Integration Dimension
EHS Functions viewed as a necessary burden	EHS Functions viewed as central to defining organizational values
EHS actions mostly reactive	EHS actions mostly generative
Thinly concealed cynicism	Enthusiasm, alignment on purpose
Focus on trailing metrics	Focus on leading metrics
EHS professionals viewed as an annoyance	EHS professionals viewed as strategic partners
Benchmarking done to rank and compare	Benchmarking done to learn principles
Leadership given lip service	Leadership demonstrated in actions
Mimic other organizations final EHS products	Innovate EHS products that work for the organization
Communication tends to be one way monologs. People are not heard	Robust dialog with strong listening. People are heard
Key leaders	Distributed responsibility & leaders
There are heroes	Don't need heroes
A weak or non-existent EHS vision	A strong EHS vision
Convincing culture	Contributing culture
People conform to policies and procedures	There is a commitment to the policies and procedures that demonstrates a high level of accountability

Table No. 1 – Characteristics of the Implementation and Integration Dimensions

Sustained EHS Integration

Step 7 A New State-of-the-Art Mastery
 Steps 5 and 6 resemble traditional implementation in the Implementation Dimension, but they are different. With the new context generated, things occur differently.

Step 1 – Understanding

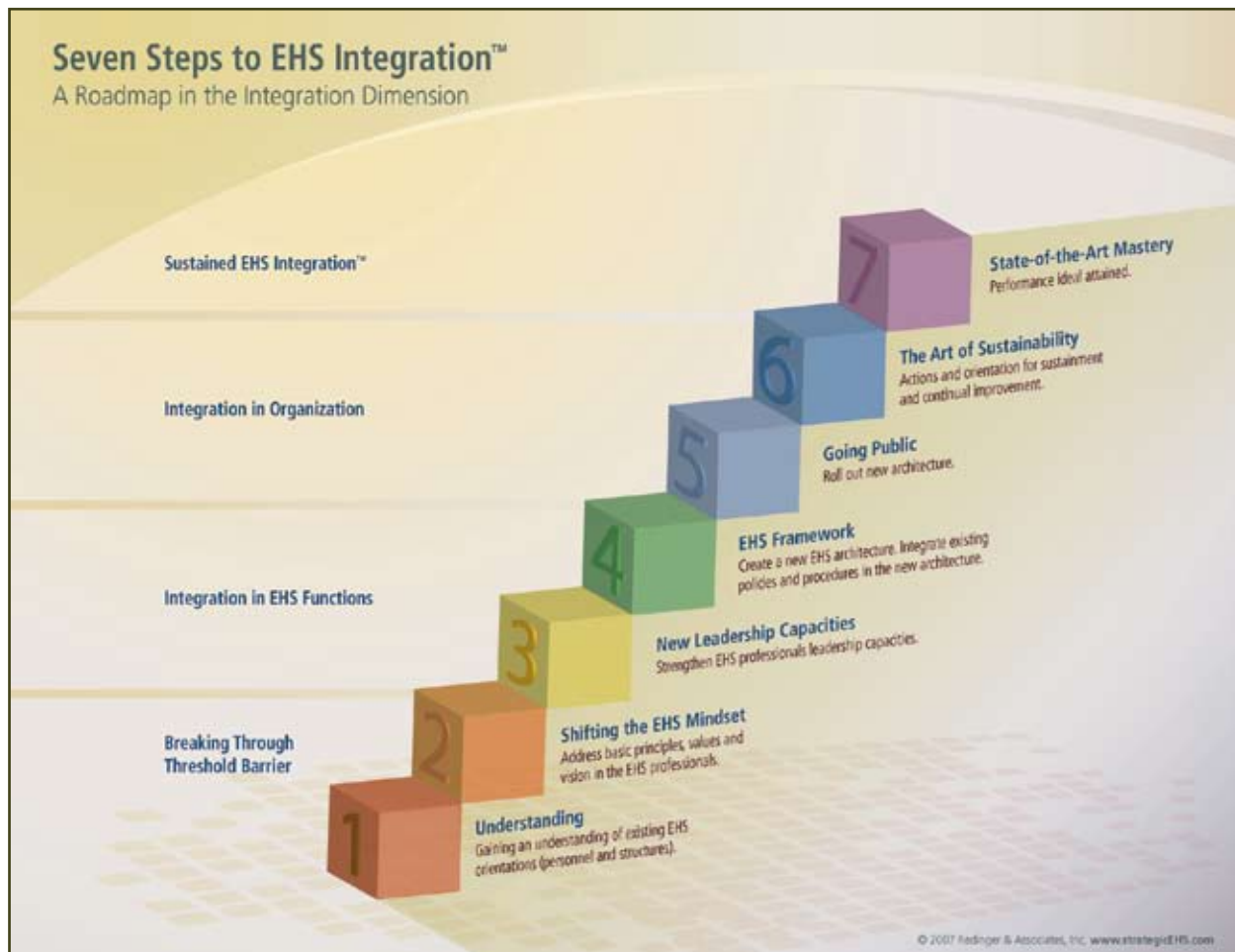
The first step focuses on the EHS professionals and team breaking through the Threshold Barrier. It is with them that the integration process really begins through an in depth inquiry on the EHS context and perspective in the organization.

Breaking through the Threshold Barrier requires a shift in mindset and orientation. Actions become more than just proactive, they are generative. EHS begins to be viewed as a whole that is integral to all aspects of the organization. Start with gaining an understanding of existing EHS orientations (personnel and structures).

Some Step 1 Actions Include:

- » Examination of EHS roots and how EHS Professionals know what they know.
- » Examination of how and why the EHS Professionals got into this profession.
- » Examination of how the EHS Professionals are viewed by others in their organizations.
- » Assess the strength of the relationships and partnerships, and their effectiveness.
- » Examine the level of resignation and cynicism, as a profession, as individuals.
- » Draw a map of the organization that depicts key relationships, flows of

Figure No. 2 – Seven Steps to EHS Integration



information, activity flow, and EHS product/output flows.

- » Distinguish the current momentum of the EHS Function and what's the predictable performance with no change.

Step 2 – Shifting the EHS Mindset

This term may sound spooky to some. No worries! It is a common and important issue to address in organizational work when moving to a higher performance level. Shifting the mindset refers to addressing basic principles, values and vision in the EHS professionals. Looking at where they have come from in the field, where they are going, and the difference they can make. It involves analyzing the issues examined in Step 1 to distinguish our mental models and to see how these models affect patterns of behavior, and how in turn these behaviors affect events.

This shift happens when people can examine and reveal what is present, reveal what they are seeing from the level of observation, seeing things from a different perspective. In this instance, they see new possibilities and are able to make new choices.

Some Step 2 Actions Include:

- » Distinguish the current situation (much of this was done in Step 1).
- » Develop a vision of a possible different way of operating.
- » Examine the nature of upsets.
- » Identify the characteristics of personal mastery.
- » Create something at stake.

» Gain familiarity with key organizational learning concepts.

- » Examine our relationship with ideals.
- » Learn skills in the art of self-reflection.

Step 3 – New Leadership Capabilities

Some of us have leadership fatigue! We have been hammered over the head and inundated with leadership materials and information at conferences and in our organizations. The notion of leadership in this approach is a bit different. The key point here is that to reach the highest levels of EHS Integration requires more than what the EHS professionals can do alone; we must by necessity be innovative in maximizing collaboration and communication in the organization. Some would call this the territory of leaders.

In this step, the EHS professionals identify and strengthen the skills needed to achieve higher levels of EHS Integration. Some of these skills include what would be called train-the-trainer issues because the EHS professionals will need to pass along some these skills to others in the organization.

Some Step 3 Actions Include:

- » Learning about the mechanism for generating a vision.
- » Understanding how to create alignment.
- » Developing system-thinking skills.
- » Strengthening communication skills, or conversation skills. This includes reflective conversation, critical con-

versations, and generative conversations. Also includes listening skills – examination of the ladder of inference.

- » Distinguishing what it means to be at cause.
- » Examine the art and skill of inquiry.
- » Reinforce the importance of validating people and making sure all are heard.
- » Examine the nature of collaboration.

Step 4 – EHS Framework

With the work done in the preceding steps, the EHS professionals and team will want to examine the existing EHS structures, mainly the policies and procedures. It is predictable that work will be needed to update these structures to be consistent with what has been generated in the preceding steps. Some of the work here may be residual from Levels III and IV in the EHS Integration model, where the compliance-based policies and procedures may not be fully integrated in the beyond-compliance approach framework.

It is important to get input on the EHS framework architecture from a range of functions in the organization.

Some Step 4 Actions Include:

Clean up the existing policies and procedures.

- » Make sure the policies and procedures are integrated with the organizations management system.
- » If a new architecture or organizing scheme is introduced, get input from

all operating units, especially those who have been registered/certified to an EMS or OHSMS.

- » Survey existing systems in the organization. Identify places where the EHS framework connects with the other systems. Strive for compatibility, this is a critical action. An example here is working with Human Resources if new accountability issues are introduced.
- » Strengthen policies and procedures central to EHS Integration
 - Accountability; Human Resource procedures, performance reviews, job descriptions
 - Corporate policies reflect EHS values
 - Corporate KPI's include EHS measures
 - Management of change
 - Management review and executive committee practices in reviewing EHS performance
 - Operations training
 - Product and process development and design
 - Corrective action procedures
 - Contractor management
 - Procurement practices
- » Receive robust input from operations and middle managers.
- » Examine the existing performance measurement system. It is predictable that new metrics will emerge. As needed, tune-up the audit program.

Step 5 – Going Public

This step resembles traditional implementation steps, but has a different qual-

ity in the Integration Dimension. With the work done to this point, things like partnerships and accountability have a whole new occurring. There is a foundation in place for robust collaboration and the development of new innovations.

Some Step 5 Actions Include:

Cultivating and training EHS Champions, leverage existing strong strategic partnerships in the organization.

- » Generating participation at the shop/plant floor level.
- » Developing promotion materials that present the new EHS context and framework.
- » A pilot before full rollout.
- » Assembly and training of a rollout team.
- » Seminars for senior management that presents the new EHS context.
- » Skill development throughout the organization.

Step 6 – The Art of Sustainability

Sustaining any initiative takes attention. After the initial rollout of the new EHS context and framework, the EHS professionals will work at keeping the vision and momentum going.

Some Step 6 Actions Include:

- » Maintaining alignment, on-going generation of the EHS vision.
- » Resolving breakdowns.
- » Management review.
- » Making changes as needed in the EHS context and framework.
- » Learning from breakdowns.

Step 7 – State-of-the-Art Mastery

EHS Functions are fully integrated into the organizational fabric. A performance ideal has been sustained. Commitment to a strong EHS vision is reflected in the work of all members of the organization, actions are generative. EHS values are central to defining organizational values. The organization and its EHS professionals are recognized by peers as leaders in impacting EHS performance, they are sought to be mentors to others.

Some Step 7 Actions Include:

- » Publications
- » Public speaking
- » Mentoring
- » Continual improvement □

To Learn More

If you would like to learn more about how to enter the EHS Integration Dimension, please contact us.

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