

Pioneering Beyond Safety: Setting, Measuring and Assessing a Culture of Operational Excellence to Drive Outstanding Performance

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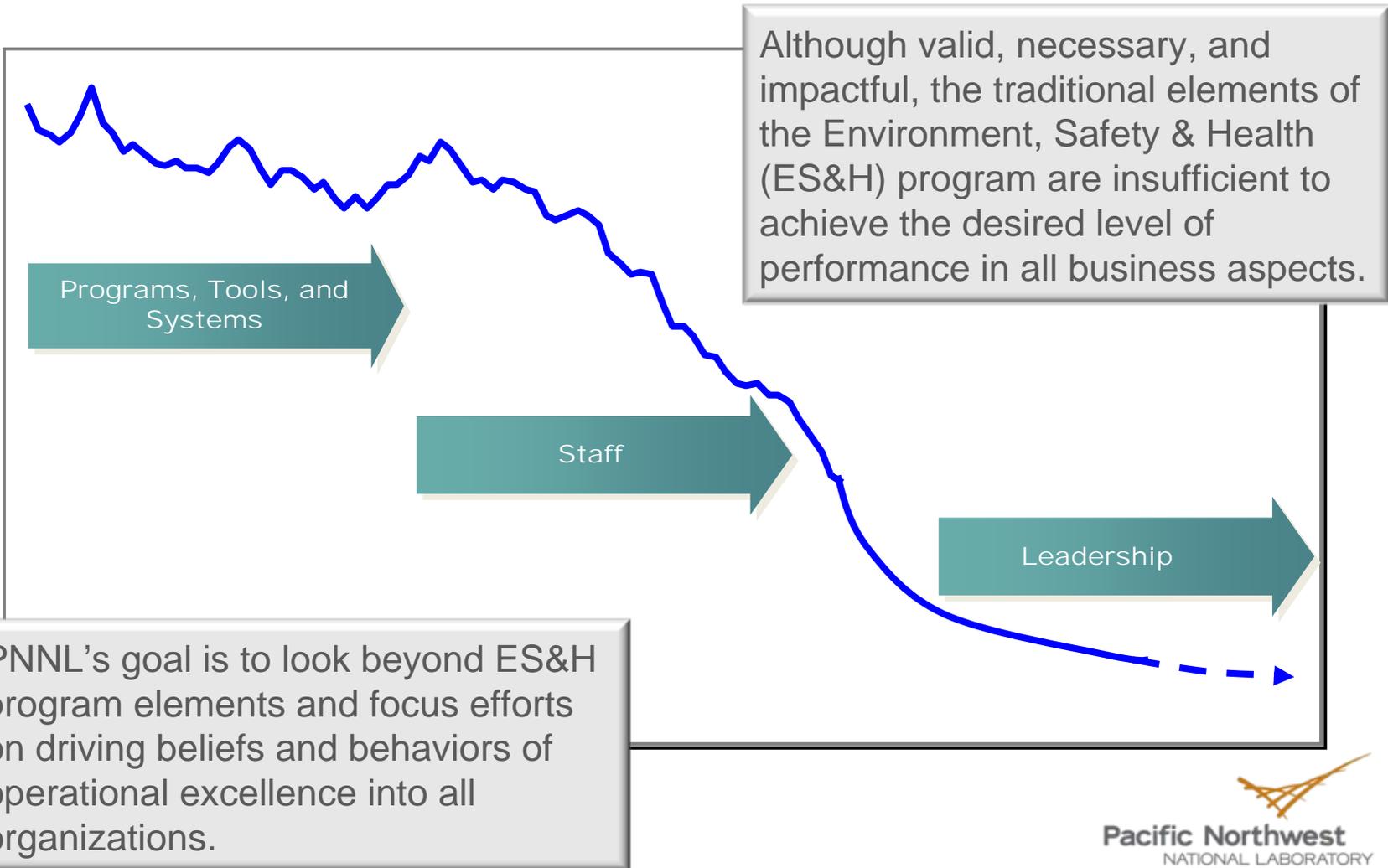
**Pacific Northwest National Laboratory
2010 DOE ISM Champions Workshop
September 2010**



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Beyond Safety



Partnership with DOE

- ▶ Notable outcome in FY 2010 Performance Evaluation and Measurement Plan (PEMP)

“PNNL demonstrates a maturing ES&H culture resulting in the prevention of impacts to S&T program activities”



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Approach Provides

- ▶ A technically justifiable process for cultural assessment and measurement.
- ▶ A holistic look at all aspects of business performance and ties directly to successful mission accomplishment.
- ▶ One Laboratory improvement strategy that is governed and sustained through the Research Operations Committee.



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Levels of Organization Culture

From visible to tacit



Strategic Compass

- ▶ The PNNL Credo for Operational Excellence was established to provide a set of guiding principles that define the desired culture of operational excellence and serves as the foundation for measurement and analysis of PNNL culture.
- ▶ The credo focuses on the four themes of leadership, risk mitigation, continuous improvement and engagement.



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I Believe	I Know	I Do the Following
<p>Theme: Leadership</p> <p>Human life and health have value above all else</p>	<p>My actions set examples that ensure operational excellence and positively impact the Laboratory's reputation</p> <p>I must create an environment where open and honest inputs are encouraged and addressed fairly</p>	<p>Hold managers and individuals, including myself, accountable for our actions</p> <p>Consistently communicate performance expectations and recognize a job well done</p> <p>Visit the workplace frequently</p>
<p>Theme: Risk Mitigation</p> <p>All incidents are preventable</p> <p>Human error is inevitable; but I can reduce its likelihood and severity</p>	<p>I understand the scope of work, the associated risks and how to manage the risks</p> <p>I must act to reduce the likelihood and severity of human error to prevent incidents</p>	<p>Ensure that work is planned and there are adequate resources to do work right</p> <p>Anticipate and recognize change and reassess risks</p>
<p>Theme: Continuous Improvement</p> <p>To improve we must be innovative and learn from our experiences</p>	<p>I strive to continuously improve the way we work.</p>	<p>Incorporate feedback and learning from others to improve.</p> <p>Encourage people to make suggestions, raise issues and actively participate in resolution.</p>
<p>Theme: Engagement</p> <p>I am responsible for my own well being and for the well being of all those around me</p>	<p>We all have the authority to stop work and are expected to use it when needed</p>	<p>Actively care for the safety and welfare of myself and others</p> <p>Maintain a questioning attitude</p>

Story Telling to Reinforce Culture



- Lessons Learned
- Home
- Topics
- EHSS Topics
- General Management Topics
- Recall Notices
- Occurrence Report Listing
- Services
- New Tools and Services
- Custom Summaries
- Subscription Service
- Submit an Idea
- Administration
- Manage Articles
- Manage Comments
- View Calendar
- View Metrics
- Writer Wiki
- List of all Articles

Project team leader shares a close call caused by multitasking

Date Published: July 7, 2010 | Contact: HDI POC - Operational Excellence | Read Comments (0)

A dimension of operational excellence you may not have considered

Summary

Following a business dinner, two researchers and their client continued a spirited discussion on the walk back to the hotel. Trying to make the best of their limited time together, the group became engrossed in their conversation but were brought back to reality when one team member barely missed stepping into the path of an oncoming bus. Listen to Dave Atkinson's 2-minute description of what happened and what they learned from their experience.

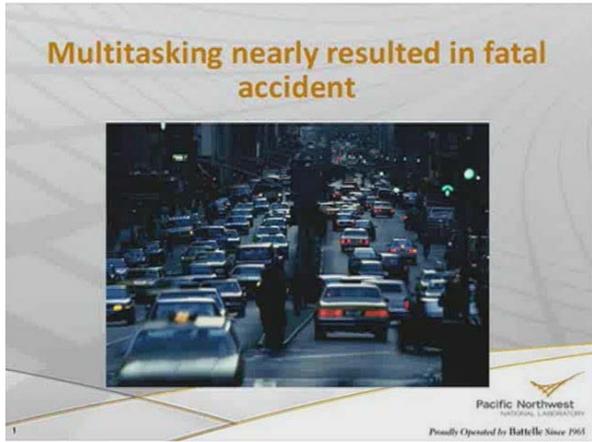
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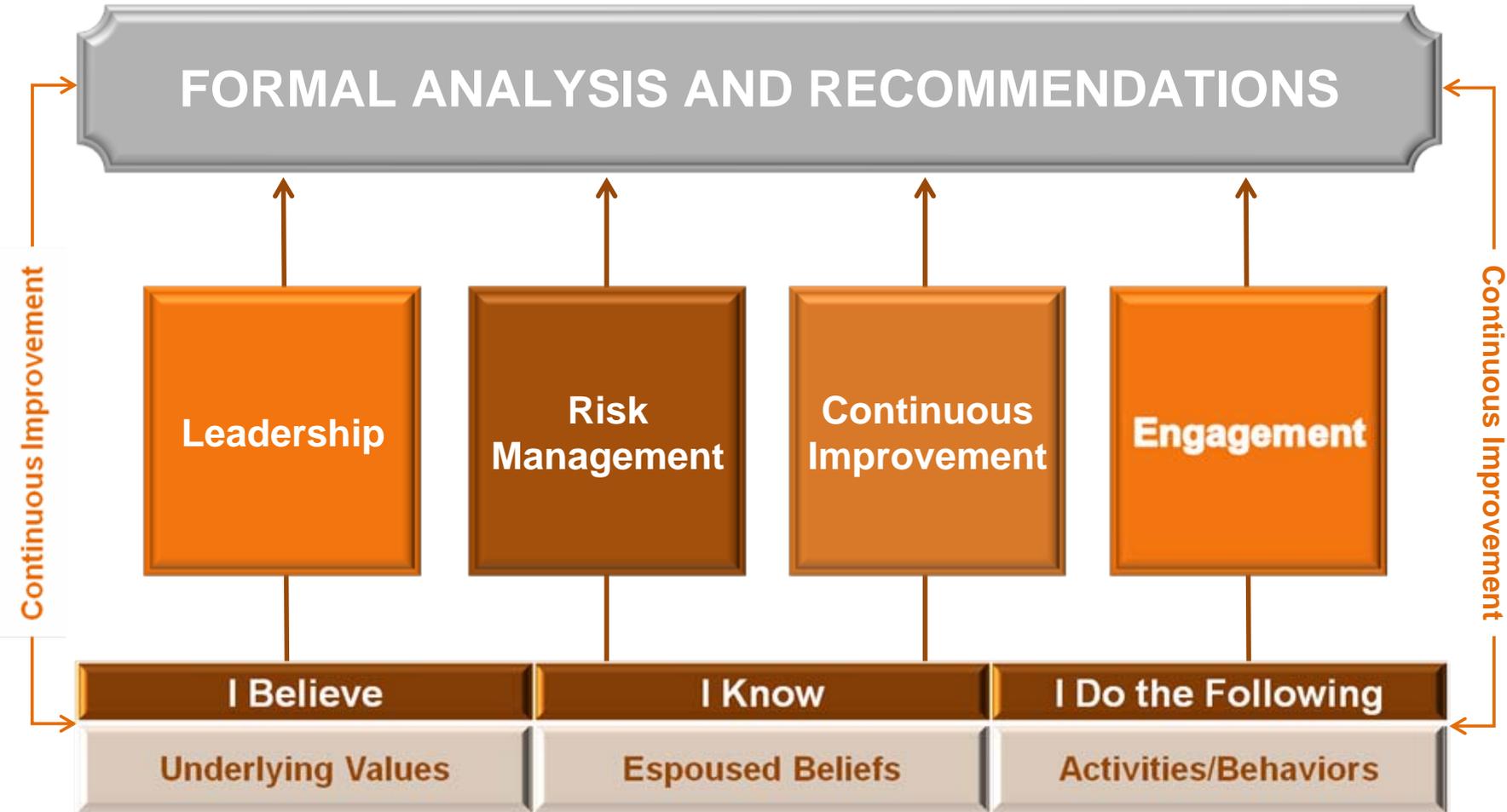
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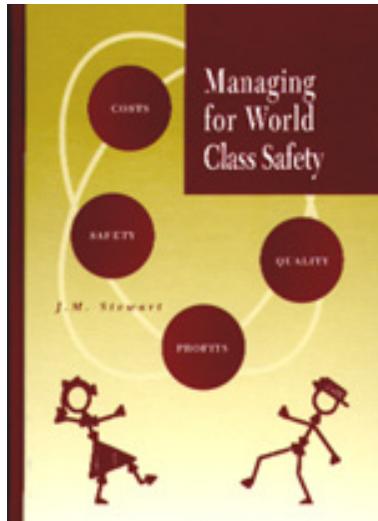
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Model for Measuring and Assessing Culture



Data Streams and Benchmarks



Benchmark research investigating five North American Companies that have achieved world class safety performance

The 12 Elements of Great Managing

To identify the elements of worker engagement, Gallup conducted many thousands of interviews in all kinds of organizations, at all levels, in most industries, and in many countries. These 12 statements – the Gallup Q12[®] – emerged from Gallup's pioneering research as those that best predict employee and workgroup performance.

1. I know what is expected of me at work.
2. I have the materials and equipment I need to do my work right.
3. At work, I have the opportunity to do what I do best every day.
4. In the last seven days, I have received recognition or praise for doing good work.
5. My supervisor, or someone at work, seems to care about me as a person.
6. There is someone at work who encourages my development.
7. At work, my opinions seem to count.
8. The mission or purpose of my company makes me feel my job is important.
9. My associates or fellow employees are committed to doing quality work.
10. I have a best friend at work.
11. In the last six months, someone at work has talked to me about my progress.
12. This last year, I have had opportunities at work to learn and grow.

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The Gallup Q12 database is considered the largest employee benchmark available (>5.4 million responses).



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Measuring Performance

Leadership Theme Indicators	Actual Data	"Green" Benchmark	Index*	Weight	Weighted value	"Gold" Benchmark	"Gold" Index Relative of "Green"
Safety is a core value for me (% Strongly Agree)	79%	80%	0.99	10%	0.10	94%	1.2
Safety is a core value for my immediate manager (% Strongly Agree)	79%	80%	0.99	10%	0.10	87%	1.1
At work my opinions seem to count (% Strongly Agree)	32%	33%	0.97	10%	0.10	50%	1.5
My supervisor creates an environment that is trusting and open (% Strongly Agree)	44%	57%	0.77	10%	0.08	75%	1.3
Responses to reports of hazards are timely and adequate (% Strongly Agree)	60%	43%	1.40	10%	0.14	60%	1.4
% IOPS deficiencies closed on time (% Strongly Agree)	90%	90%	1.00	13%	0.13	95%	1.1
In the last 6 months someone has talked to me about my progress (% Strongly Agree)	44%	57%	0.77	13%	0.10	73%	1.3
Management visits my workplace on a routine basis (% Strongly Agree)	38%	38%	1.00	13%	0.13	54%	1.4
My supervisor or someone at work seems to care about me as a person (% Strongly Agree)	48%	57%	0.84	10%	0.08	75%	1.3
Overall Leadership Index				100%	0.96		1.3



Analysis

- ▶ Overall, the Laboratory's already strong operational performance close to our "outstanding" goal that places the Laboratory in the top quartile of similar highly engaged companies across the country
- ▶ PNNL is on a path for continued improvement, with safety values and practices comparing favorably to the safest companies
- ▶ Several assumptions held by staff were identified as potential barriers to achieving a culture of operational excellence and needed further analysis



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Focus Groups

Identify important cultural assumptions held by Laboratory staff in the areas of:

- Balancing safety, quality, cost and productivity
- Self disclosure of errors to continuously improve
- Reward and recognition
- Leadership visibility
- Accountability



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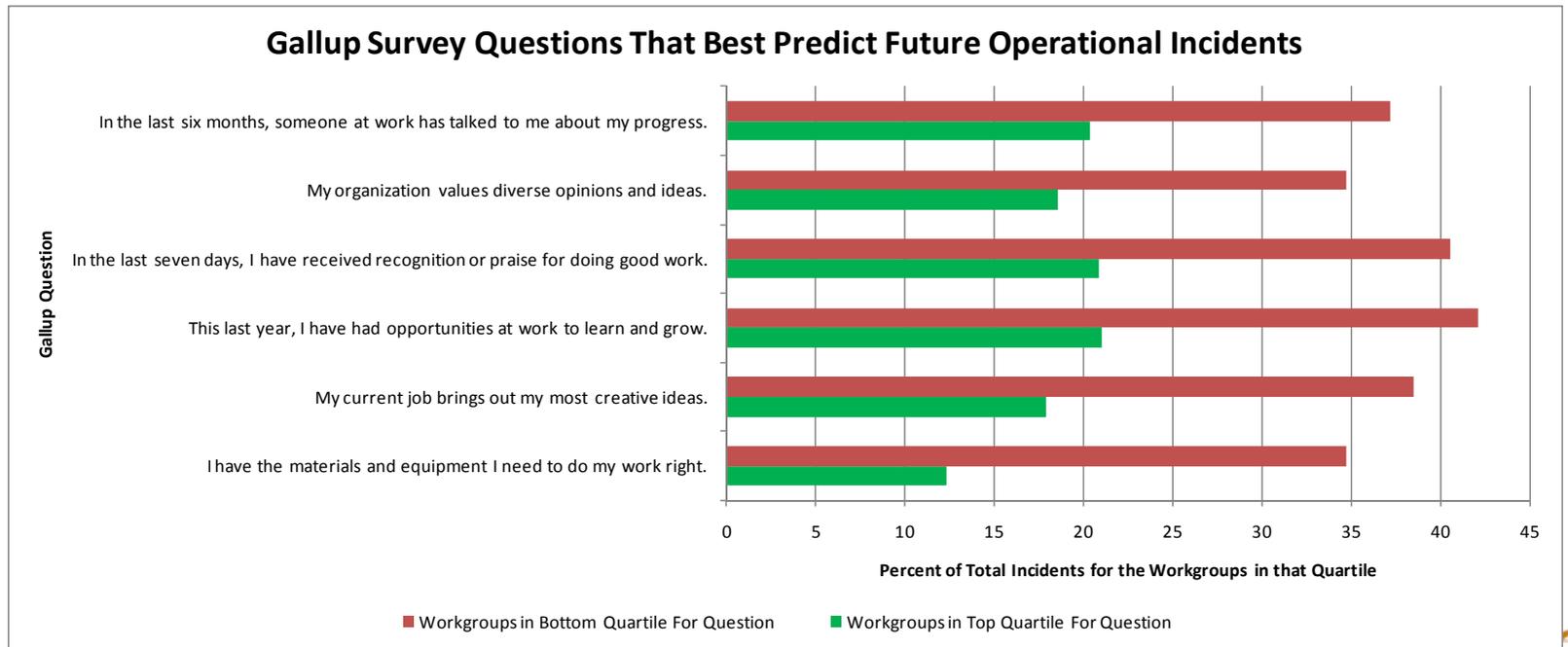
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Laboratory Level Strategy:

- ▶ Focus on strengthening behaviors to eliminate cultural barriers:
 - **Accountability:** Strategy will promote regular, insightful and personal feedback from managers to staff on their performance and begin a shift toward peer accountability
 - **Reporting:** Strategy will create an environment that encourages staff to make suggestions and raise issues.
 - **Risk Management:** Strategy will more clearly identify and communicate business risks during the planning and execution of work.

Staff Engagement Predicts/Impacts Operational Performance

Relationship between workgroup responses and the number of operational incidents at PNNL



Laboratory Level Strategy (cont):

- ▶ Take action on specific predictive elements of staff engagement



Summary

- ▶ Analyzed PNNL's operational culture using a comprehensive approach that went beyond the traditional elements of Environment, Safety & Health.
- ▶ Applied process founded on guiding principles for operational excellence that describe what staff should "believe," "know," and "do" to prevent negative impacts to science and technology program activities
- ▶ Developed strategy that will not only reduce operational incidents but also improve most other aspects of operational performance



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