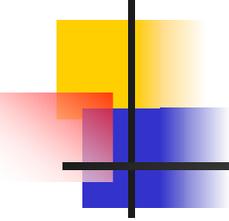




# Performance-Based Safety©

Modern Measurement for Modern Times

CSHEMA 2006  
Anaheim, California  
July 15-20, 2006



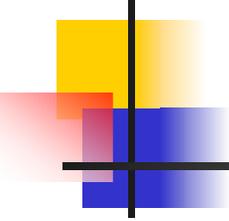
## Safety Measurement Rationale

---

“ If You Don't Know Where You Are Going, Chances Are You Will End Up Somewhere Else” Yogi Berra

If you're not keeping score, it's just practice

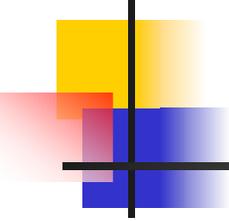
Ronald D. Snee



# Why Measure?

---

- In the absence of an adequate and appropriate measurement system, it's virtually impossible to (intentionally) improve 'any' business process, including safety performance.
- Measuring badly can be worse than not measuring at all



# Establishing Performance Measures

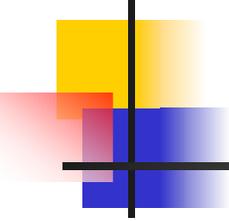
---

Each organization must create and communicate performance measures that reflect its unique strategy.

**Dr. Robert S. Kaplan, Harvard Business School**

There is no one right way to do it. Each organization must determine its own "right way".

**Dan Petersen: Techniques of Safety Management, 3rd Edition, ASSE,**



# History of Performance Indicators for OHS

## Typical Measures

---

**Conventional** : Lost time injury rates, Frequency and severity rates, fatalities, first aid cases, etc.

("reactive" or "lagging" indicators sometimes referred to as 'safety statistics')

**Modern**: Performance to standards or benchmarks, positive measures of health and safety (ie: number of audits, scores of audits, behavioral observations, goals and targets achieved against those set, perception surveys)

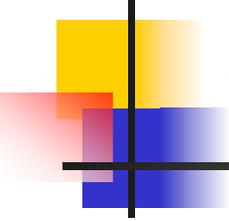
**Sometimes know as leading indicators**

# Leading Indicators (Upstream)

Leading indicators are the performance drivers that communicate how outcome measures are to be achieved.

Robert S. Kaplan and  
David P. Norton,  
*The Balanced Scorecard*

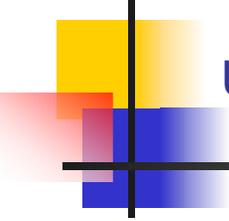




# Why Leading Indicators?

---

- Although leading indicators are sometimes more difficult to define and measure, they provide a vital input to leaders in an organisation to assure them that complacency is being avoided and that continuous improvement is being sought.
- In very safety conscious organisations, a mixture of proactive and reactive indicators will be measured and trends followed with keen, but not impracticable targets set to drive improvement.



# The Safety Scorecard

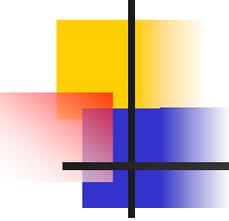
Using Multiple Measures to Judge Safety System Effectiveness

Occupational Hazards - 05/01/2001

---

- 1. The effectiveness of safety programs cannot be measured by the more traditional factors in successful programs (injury rates, etc.)
- 2. A better measure of safety program effectiveness is the response from the entire organization to questions about the quality of the *safety management systems*, which have an effect on human behavior relating to safety.
- "I cannot stress enough the importance of having a clearly identified H&S program against which goals can be established at all levels of the organization, and people held accountable for before-the-fact measures of injury and illness prevention."

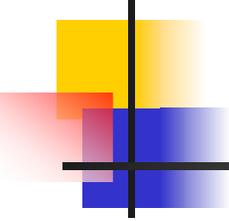
**(Gene Earnest, former safety director for Proctor&Gamble USA)**



# The Challenge



- Proactive measures are more difficult to set and measure, however organisations usually develop greater maturity in measuring performance as a result of such measures becoming progressively more of a focus.



## Consider: Variables that consistently relate to lower injury rates

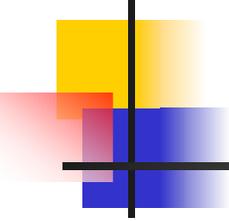
---

### A participatory management style and culture that includes:

1. Empowerment of workers in key decision areas
2. Autonomy and control over work
3. Encouraging the long term commitment of the workforce
4. Good working relationship between management and workers

### An organizational philosophy on OH&S which includes

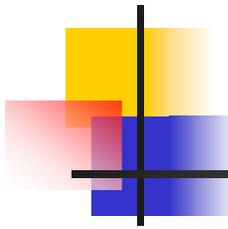
1. Delegation of safety activities to workers
2. Active participation of top management
3. Regular safety audits

- 
- 
- Monitoring at risk behavior and worker/work practices
  - Having continuous and regular safety training
  - Employee health screening
  - Regular evaluation of occupational hazards
  - Good housekeeping, safety maintenance and controls on machinery

*Does your safety management system characterize these variables?*

*Better still, how do you measure them?*

And even better still, if you measure, how do you evaluate their effectiveness?

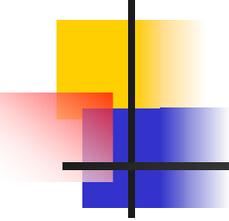


# How did we get here?

Who do we have to convince to get where we want to go?

---

- Measurement of the performance of the OH&S management system consequently requires assessment of the process involved in the management system, rather than measurement of outcomes (such as incident and accident rates)
- “Management of outcome instead of improvement of the system is destructive and is considered tampering” (Mutzko, 1989)



# Basic Safety Performance Improvement Steps

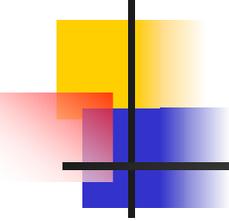
---

- 1. Undertake a strategic planning session(s) to determine what you want to measure, why, and how that information will be used
  - 2. Structure and develop your performance measurement plan. . . what will you track and how will you track it?
  - 3. Establish measures, targets or other performance benchmarks or standards
  - 4. Measure, evaluate, react, feedback
- Determine improvements or recognition opportunities, if desired

# How do you measure safety?

Don't just count injuries and illnesses

Kyle B. Dotson ISHN 04/30/2001

- 
- Focus on the effectiveness of the upstream processes put in place to control risk
  - There's power in measuring the process rather than just the results (defects, injuries)
  - This means measuring the effectiveness of management systems put in place to identify, assess, control, and continuously improve the risk profile of an organization

# The Scorecard Approach

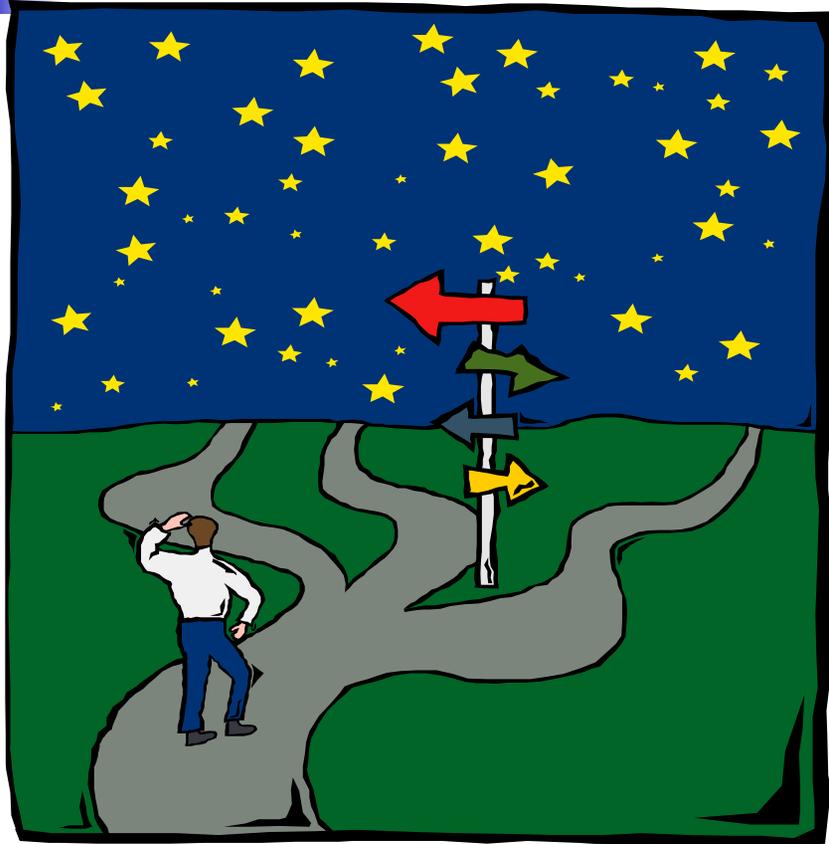
The trend today is toward multiple measures to assess safety system effectiveness



These usually include at least a balance of 5 measures:

- 1. The accident record
- 2. The audit
- 3. Perception survey results
- 4. Goals set compared to goals reached
- 5. Behavioral findings (**safe vs. unsafe work related behaviors**)

# The Challenge



“If you always do what you’ve always done, you’ll always get what you’ve always got”

Other references:

<http://siri.uvm.edu/ppt/perfmeas/>

[http://www.c2e2.org/news\\_items/performlist.htm](http://www.c2e2.org/news_items/performlist.htm)

[http://www.safetyxchange.org/article.php?id=244&cha\\_id=4](http://www.safetyxchange.org/article.php?id=244&cha_id=4)