

Practical Considerations in Measuring Sustainability Performance

By
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Greening of Industry Conference
Achieving Integration of Sustainability into Work, Thought and Action---
Types, Tools and Techniques
Cardiff, Wales

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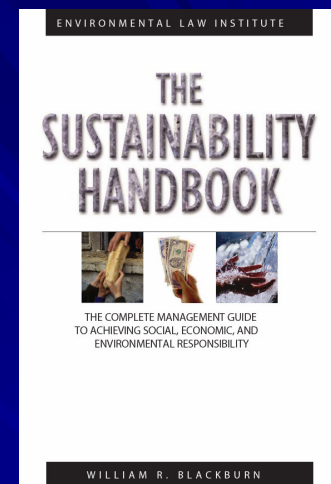
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Based on new book from the
Environmental Law Institute
(late summer):

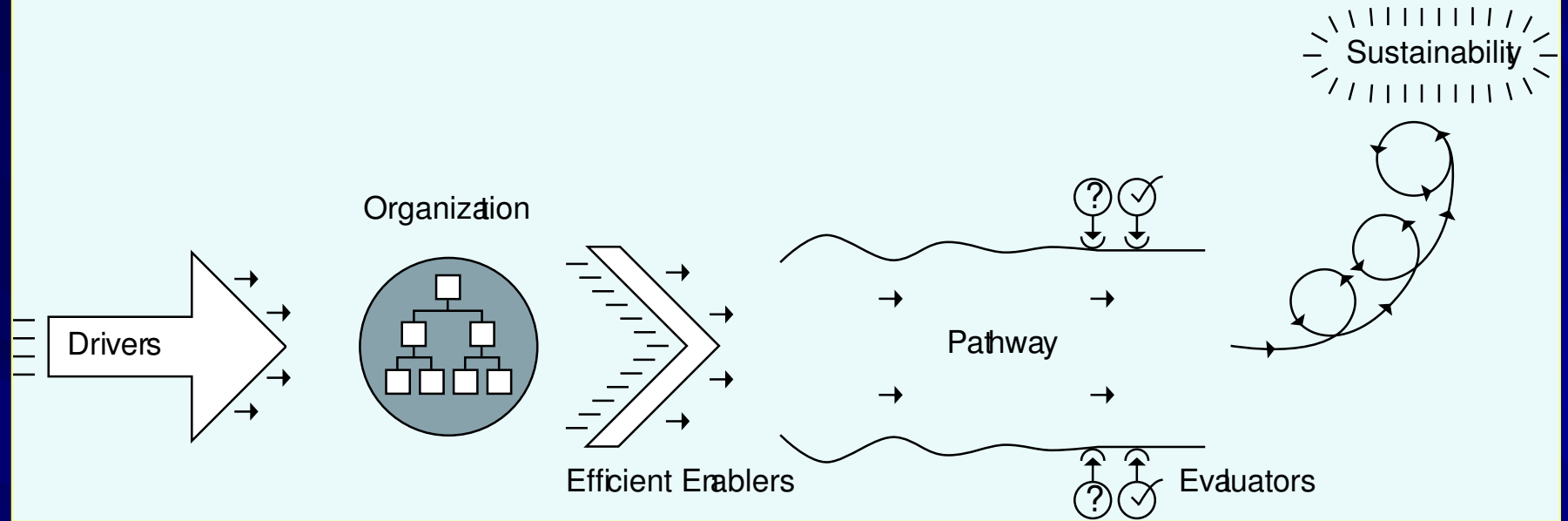


The Sustainability Handbook—

*The Complete Management Guide to Achieving
Social, Economic and Environmental Responsibility*

(Reserve book at www.WBlackburnConsulting.com)

Figure 4.1 Sustainability Operating System (S.O.S.)



The Drivers.	The Efficient Enablers	The Pathway	The Evaluators
<p>A champion/leader</p> <p>Approach for selling management on sustainability</p> <p>Accountability mechanisms</p>	<p>Organizational structure</p> <p>Deployment and integration</p>	<p>Vision and policy</p> <p>Operating system standards</p> <p>Strategic planning for aligned priorities</p>	<p>Indicators and goals</p> <p>Measuring and reporting progress</p> <p>Stakeholder engagement and feedback</p>

Practical Considerations in Measuring Sustainability Performance

- Goal and indicator concepts
- Types of goals; setting goals
- Types of indicators; selecting indicators
- Use of complementary goals and indicators

What is the difference among indicators, metrics, and goals?

Figure 7.3
Approximate Depiction of Relationship Among
Indicators, Goals, Metrics, Initiatives, and Descriptions

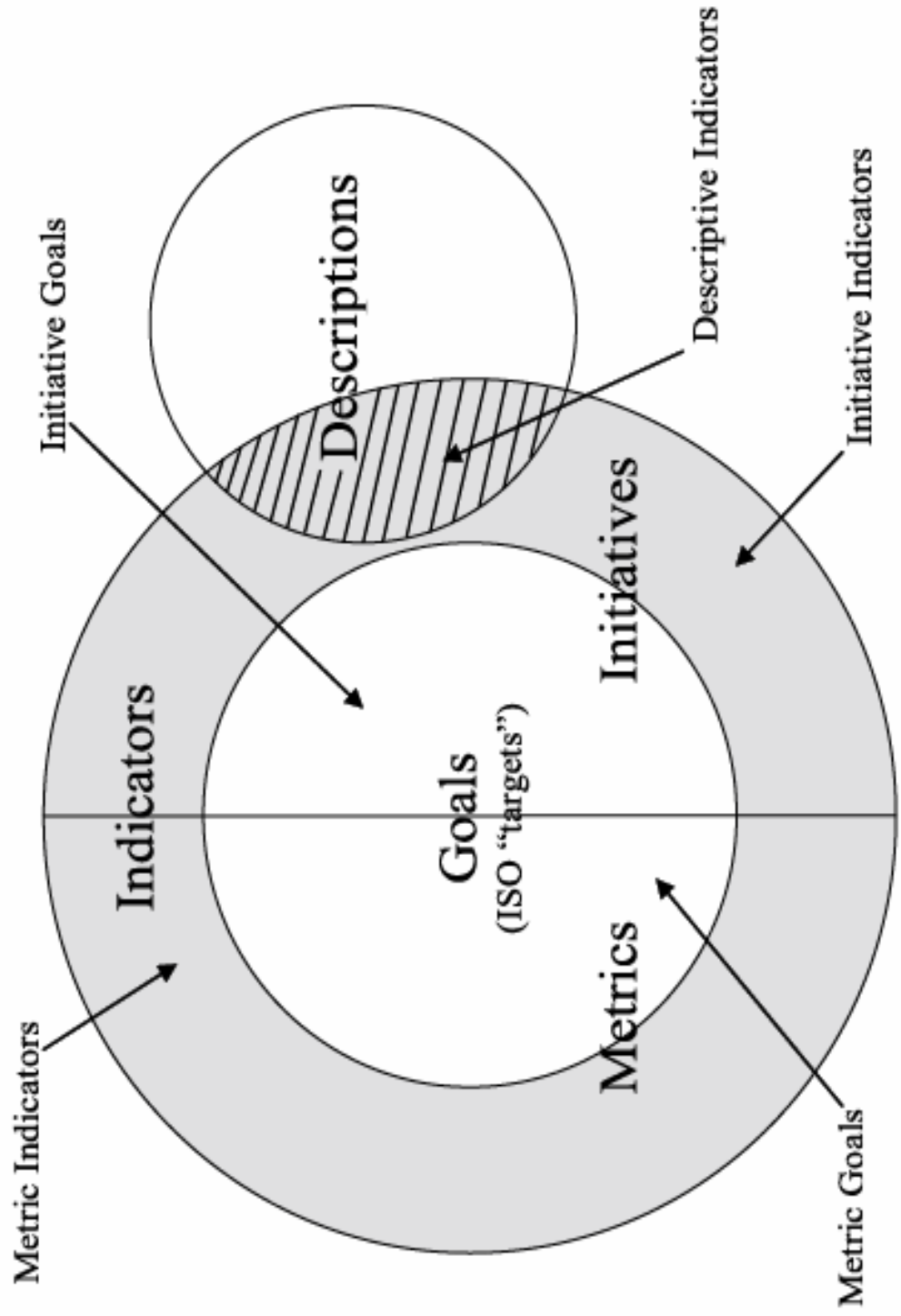
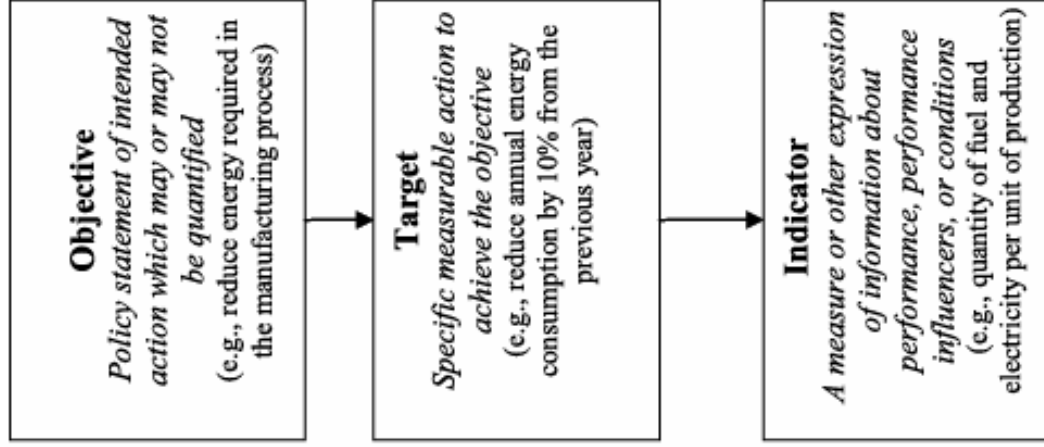


Figure 7.4
Relationship Among Environmental Objectives, Targets
and Indicators Under ISO 14001/ 14004



Other Types of Goals

- Multi-year goals
 - Collective directional goals
 - Zero goals
- Implied goals

**What factors should be
considered in setting
sustainability goals?**

Considerations in Setting Sustainability Goals

- Part of strategic planning, furthering the desired objective
- Not too many, not too few
- SMART: simple, measurable, achievable, relevant, time-based
- Clear and elevating

Considerations in Setting Sustainability Goals—cont'd

- Stakeholder support
- Resistant to gamesmanship, illusory results
- Clear accountability mechanisms, administrative roles (guidance, reporting, etc.)

How do you set reasonable values for metric goals ?

Setting Values of Metric Goals

- Historical rate of improvement
- Internal or external benchmarking
- Impact of planned projects
- Roll-up estimates from business units
- Expert estimate

Other Types of Sustainability Indicators

■ ISO 14031

- Condition indicators
- Performance indicators
 - Operational (primary desired outcome)
 - Management (supportive elements such as cost, personnel, training, audits, maintenance, etc.)

■ Leading vs. lagging indicators

■ Absolute vs. ratio metrics

[intensities (lbs./unit), efficiencies (units/lb.), etc.]

■ Indexes

Calculating a Performance Index Score

Progress Measures	Performance Level										Calculations			
	1	2	3	4	5	6	7	8	9	10	Actual Value	Level x Wt.= Score		
Recordable Injury Rate	≥1.20	1.10	1.00	.90	.80	.70	.60	.50	.40	.30	.55	7	30	210
Wastewater Exceedances	≥9	8	7	6	5	4	3	2	1	0	0	10	25	250
% Staff Trained on Diversity	≤55	60	65	70	75	80	85	90	95	100	83	6	20	120
Budget Performance (% Favorable)	≤-4	-2	0	2	4	6	8	10	12	≥14	-1	2	25	50
Source: Eastman Kodak			Base-line				Goal				Stretch Goal	Total=	100	630 of 1000

What factors should be considered
in selecting sustainability indicators
(other than goals)?

Selecting Sustainability Indicators

Threshold measurement questions

- Who?
- What?
- When?
- Where?
- Why?
- How burdensome?

Other Factors in Selecting Sustainability Indicators

1. Relevance to objectives and decision-making
2. Scope and location of operations covered
3. Resistance to illusory results
4. Clarity

Other Factors in Selecting Sustainability Indicators --cont'd

5. Suitability for benchmarking
6. Obstacles to intended use
7. Reliability of information source

How can a various goals and indicators be used together for best effect?

Complementary Goals and Indicators

- Multiple goals to eliminate undesirable results of individual goals
- Metric, initiative, and descriptive indicators used together
- Env. & social goals linked to financial benefits

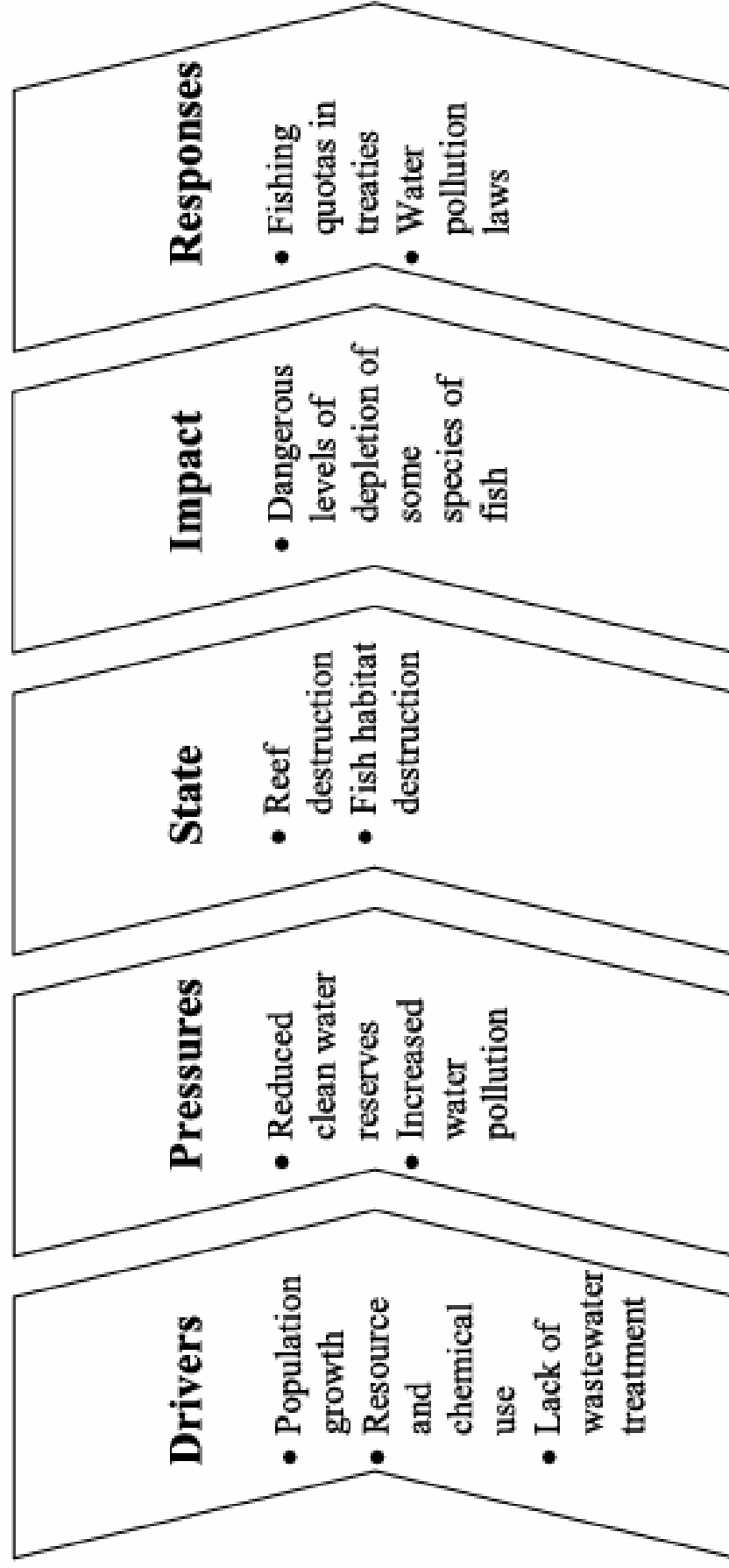
Baxter's 2005 Environmental and Safety Goals and Associated Savings Targets

Parameter	Reduction Target (%)	Base Year	Target 2005 Savings and Cost Avoidance (\$ million)
Air toxic emissions per unit of production	80	1996	1
Hazardous and regulated waste generation per unit of production	35	1996	4
Nonhazardous waste per unit of production	35	1996	15
Energy use (and associated greenhouse gas emissions) per unit of production	30	1996	30
Packaging materials per unit	20	1995	25
Employee work-related lost-workday cases per 200,000 work hours	60	1996)	25
Rate for all employee work-related injuries and illnesses per 200,000 work hours	50	1999}	
TOTAL			100

Complementary Goals and Indicators --cont'd.

- Indicators across supply chain
- Cause and effect indicators

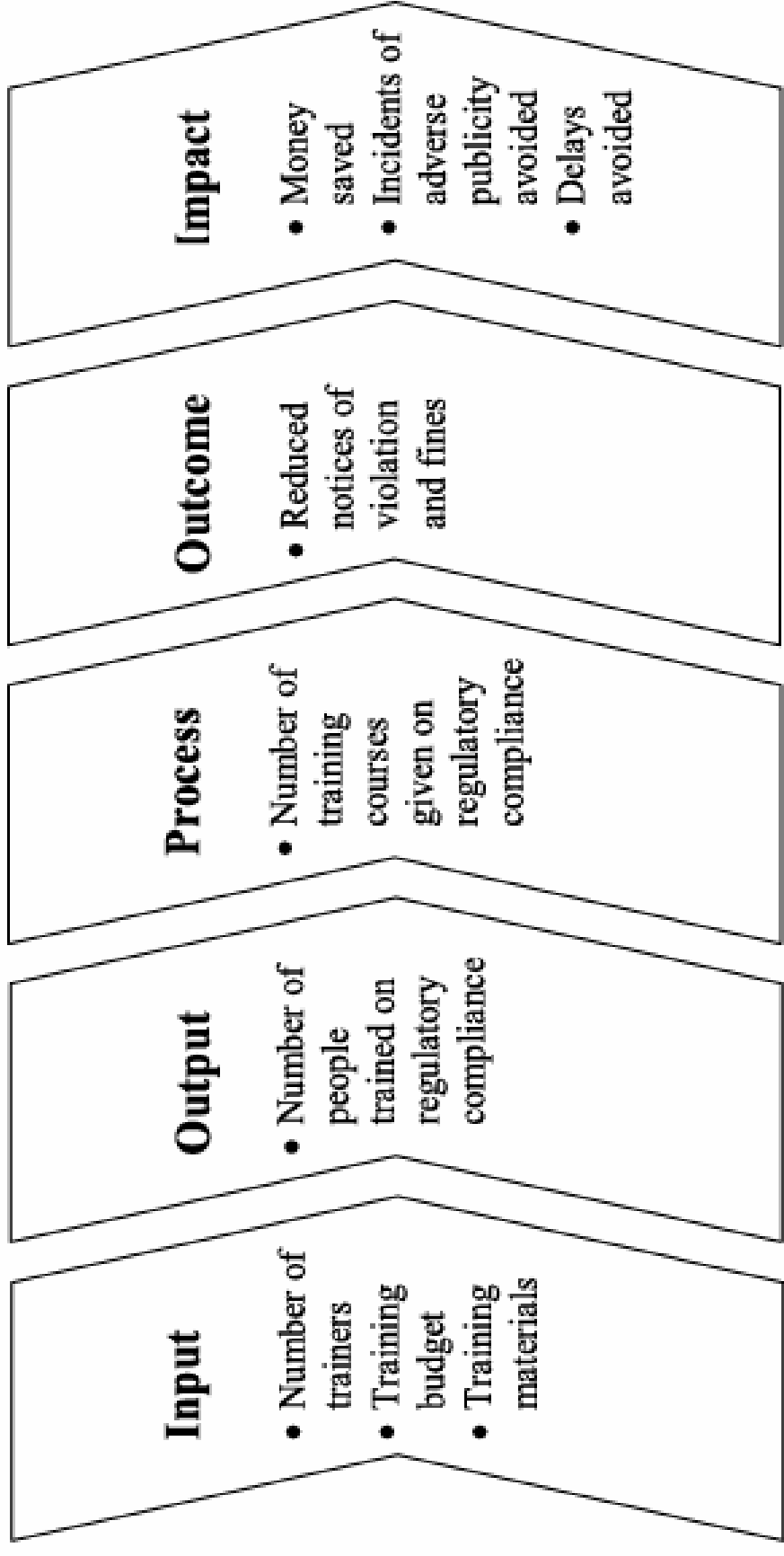
Figure 7.7
Example of Topics Covered by
DPSIR Sequence of Environmental Metrics



Complementary Goals and Indicators --cont'd.

- Indicators across supply chain
- Cause and effect indicators
- Indicators by stage of process

Figure 7.8
Example of a Process Sequence of Indicators
Concerning Training Programs on Regulatory Compliance



Complementary Goals and Indicators --cont'd.

- Indicators across supply chain
- Cause and effect indicators
- Indicators by stage of process
- Indicators by stage of program development

Figure 7.9
Form for Tracking Status of Development of Management System

Corporate Functional Department/ Business Unit/ Region	<u>1. Planning and Defining Requirements</u> Effective approach for defining what is to be achieved			<u>2. Implementing Requirements</u> Effective approach for implementing what is to be achieved			<u>3. Monitoring Progress</u> Effective approach for monitoring progress toward what is to be achieved			<u>4. Addressing Monitoring Results</u> Effective approach for addressing results of monitoring (corrective and preventive action planning)		
	Substan- tially in place	Partially in place	Very little in place	Substan- tially in place	Partially in place	Very little in place	Substan- tially in place	Partially in place	Very little in place	Substan- tially in place	Partially in place	Very little in place

Notes:

- 1.
- 2.
- 3.

Instructions

Review this form with personnel who are knowledgeable about the status of the SOS in the department of unit listed, and check the box under each of the four categories that best describe the status of the management system in place there. In assessing this status, consider both the breadth of the system (what portion of the business unit or department is covered) as well as the depth of the system (the average extent of development). For example a business unit with a system fully in place in only a very few of its facilities would rate the same as a system spread across all its facilities but which is only developed to very small extent. If desired a scoring system can be used with this form, for example, allocating a score of 2 for *Fully or substantially in place*, 1 for *Partially in place* and 0 for *None or very little in place*. A score of 8 would mean everything is in place as required. By multiplying 8 times the number of departments or business units to be covered, a targeted total score for the company can be identified. By comparing the sum of the scores of all the units with the total target score for the company, a percentage implementation of the system across the company can be determined.

Other ways of measuring
progress on management
systems?

Evolving Measures with Program Maturity: Occupational Safety Example

(Source: *The Measure of Success*. The Conference Board 2005)

Component Level (Stakeholder(s))	Objective(s)	Measure(s)	Economic Value	Social Value
<u>Compliance</u> (Regulators/ Shareholders)	-Avoid fines and penalties	-Compliance audits -Actual fine/penalty level	-Avoided cost	-Some increase in worker well-being?
<u>Employ "Best H&S Practices"</u> (Above + employees)	Above + -Dramatically reduce accidents -Reduced absenteeism -Improve productivity	-Accident/injury rates -Productivity -Employee satisfaction surveys	-As above + -Reduced costs - Absenteeism - Line downtime -Increased over- all productivity?	- Improved quality of work- life - Employee morale
<u>Take Programs "Outside"</u> -Other companies -Community (Above + other companies and the larger community)	All Above + -Share with other companies - Community safety improves	-Other companies rates -Feedback -Community performance (e.g. seatbelt use) -Indirect – press, ease of permitting etc.	- Little direct benefit other than above - Other companies/ community realize savings -New business opportunity?	-Fewer accidents and injuries else- where -Employee pride and morale?

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