

Green ROI

The Green Scorecard: Measuring the ROI in Sustainability Initiatives

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When the issue of global warming first surfaced in the 1980s, it stirred up much debate and concern. However, business leaders resisted the issue of global warming, expecting they would have to pay a lot of money to address the problems causing it. While most agreed that climate change was occurring, views differed regarding its origins, and finding solutions was not a priority to the business world at large.

Today, most (if not all) organizational leaders recognize that climate change is a problem, and some are making attempts to solve it, resulting in a wave of sustainability and environmental projects. However, too many organizations are currently caught in what may be called a green slump, struggling to engage in green projects and making far less progress than is required.

From an organizational perspective, going green offers employees, contractors, volunteers, and citizens the opportunity to influence the green movement through involvement and contribution. The challenge is to create the correct approach to involve these people—one that includes teaching, convincing, communicating, enabling, supporting, and encouraging participation in the process. And, most of all, a process must be in place to measure success with impact and ROI.

Why Organizations Are Investing in Green*

- Brand or image
- Cost savings
- Competitive advantage
- Employee satisfaction, morale, or retention
- Product, service, or market innovation
- Business or process innovation
- New sources of revenue or cash flow
- Effective risk management
- Shareholder relations

Notes:

- ◇ Unfortunately, cost savings is a distant second.
- ◇ Eighty percent of green initiatives will deliver a positive ROI, if implemented properly.
- ◇ The other 20 % are required by regulation.

**Various MIT studies*

Green ROI Offers

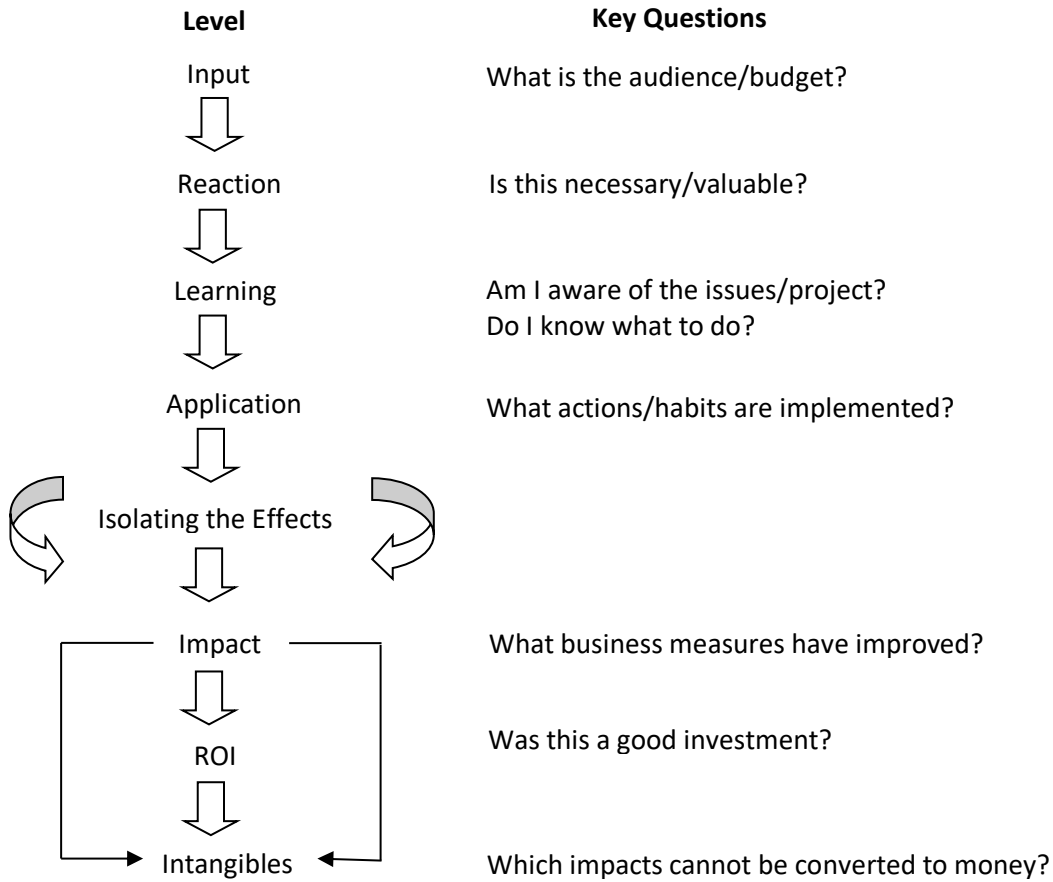
- A proven methodology to evaluate the success of all programs and projects
- A balanced profile of success that represents the viewpoints of many stakeholders
- A results-based methodology to ensure that the projects are successful
- A process improvement system that shifts the focus from evaluating the performance of those involved to improving the process to make the projects more successful
- A set of standards for a CEO- and CFO-friendly evaluation process

And can be used with projects involving:

- | | |
|-----------------------------|------------------------------|
| • Energy savings | • Waste management solutions |
| • Green energy | • Green training programs |
| • Water conservation | • Sustainable food |
| • Green technology | • Deforestation |
| • Green meetings and events | • Green innovations |
| • Air pollution | • Green marketing |
| | • Green workplaces |

Notes:

Chain of Value for Green Projects



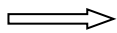
Shifting the Investment Strategies

Strategies for Investing in Green

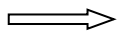
- Avoid the investment.
- Invest the minimum.
- Invest with the rest.
- Invest until it hurts.
- Invest when there is payoff.*

*Desired state

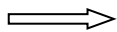
Strategy 1 move to Strategy 2



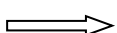
Strategy 2 move to Strategy 3, 5



Strategy 3 move to Strategy 5

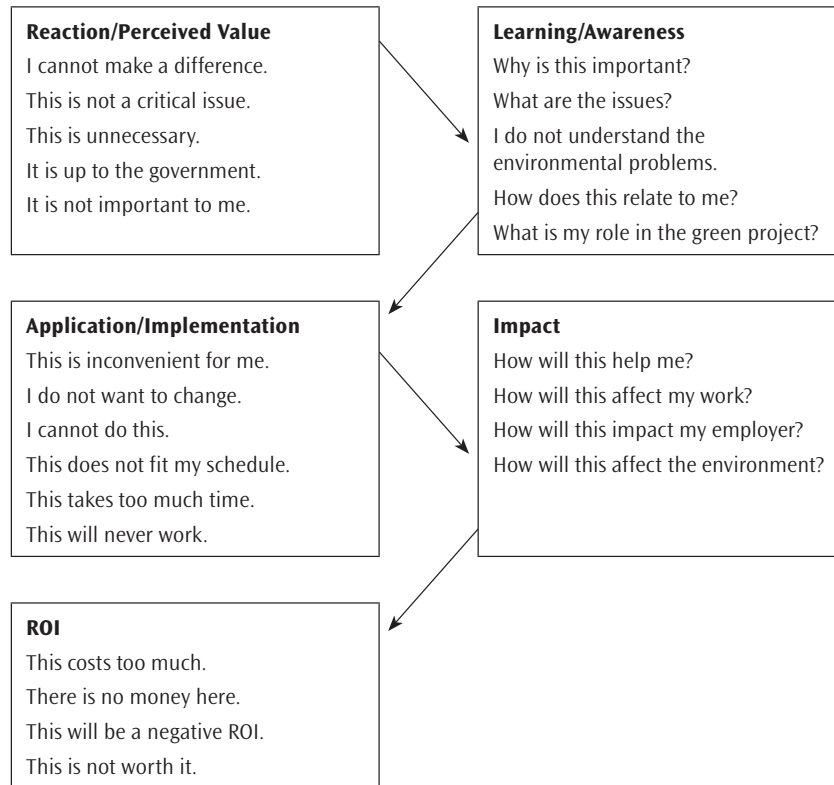


Strategy 4 move to Strategy 5

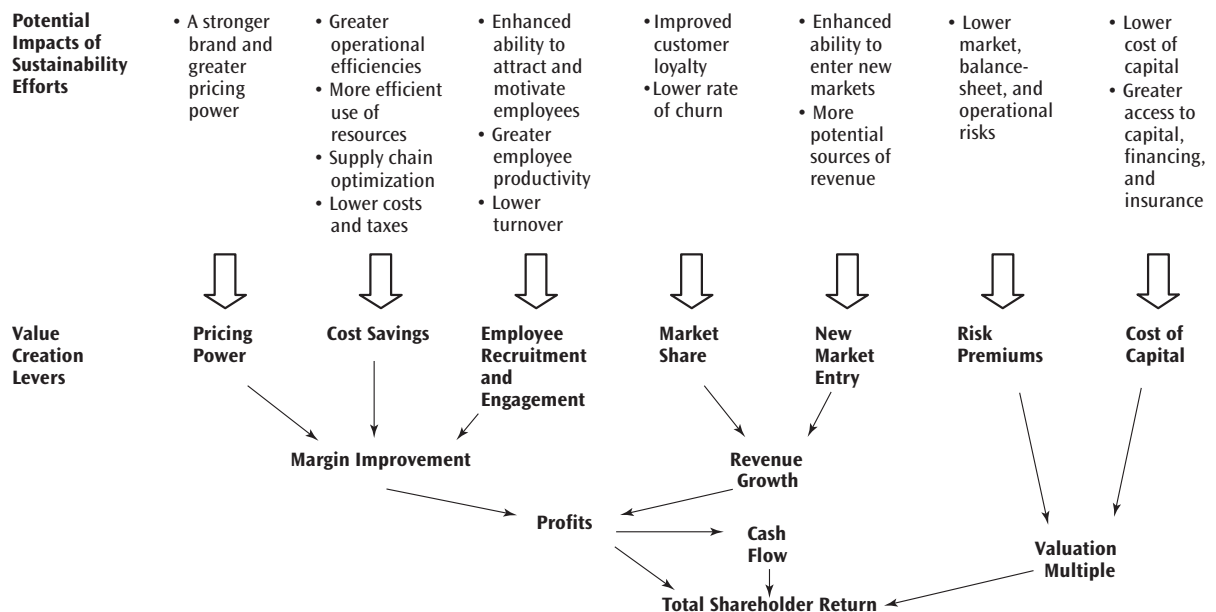


Notes:

The Green Killers



How Sustainability Affects Value Creation



Green Revolution

The Environmental Issues

We can make a difference

Exercise

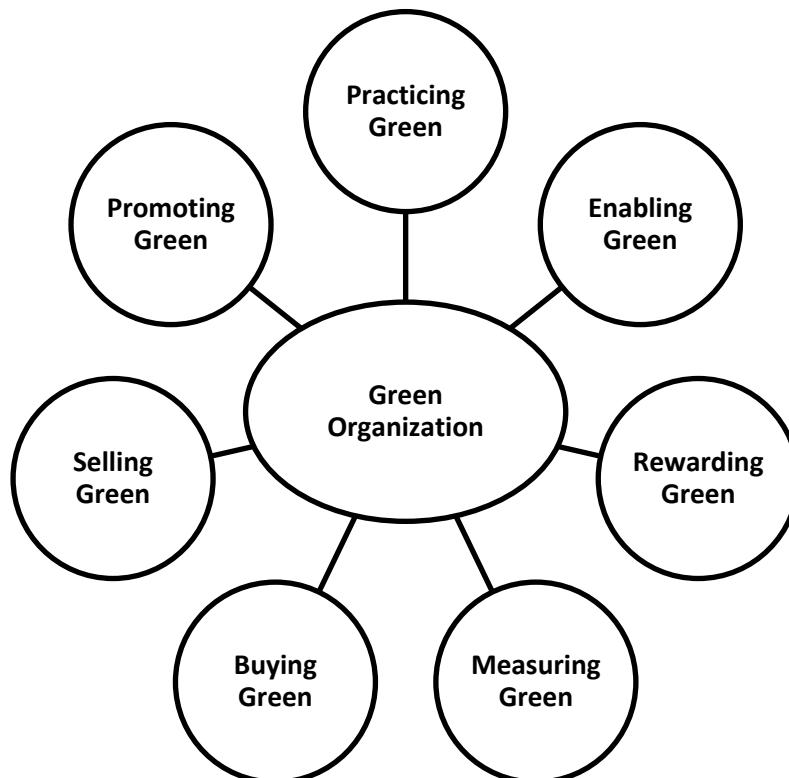


What are you doing to help the enviroment?

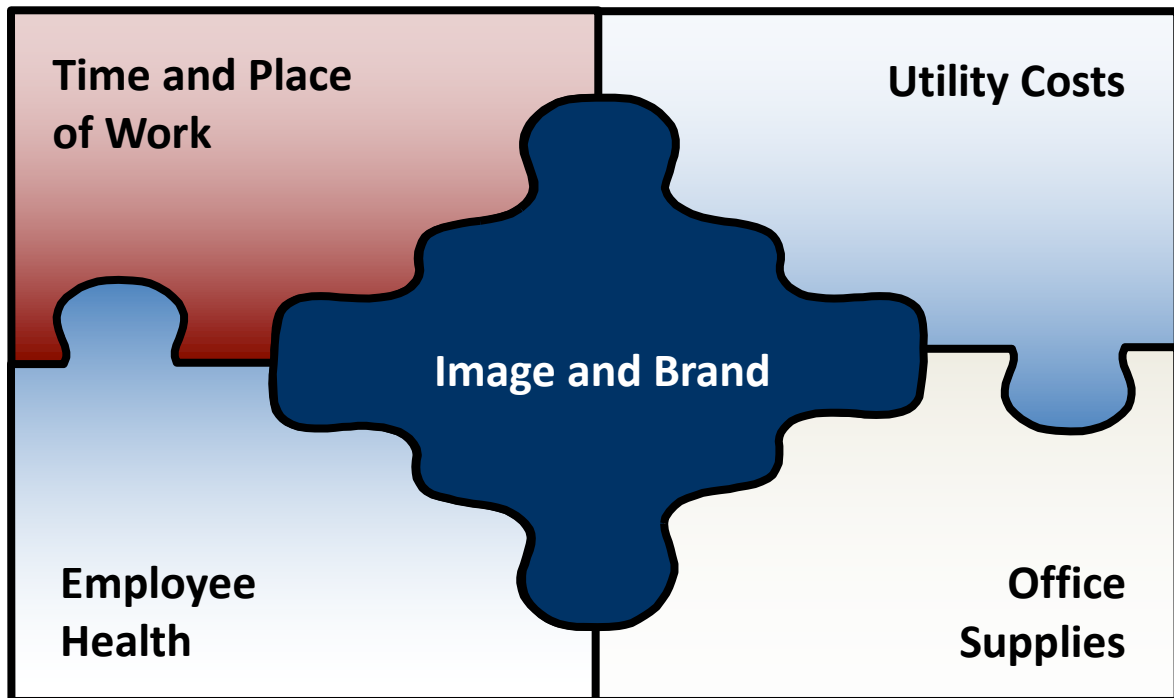
What should you do?

- Green cities
- Green organizations
- Green buildings
- Green workplaces
- Green meetings
- Green energy
- Green technology

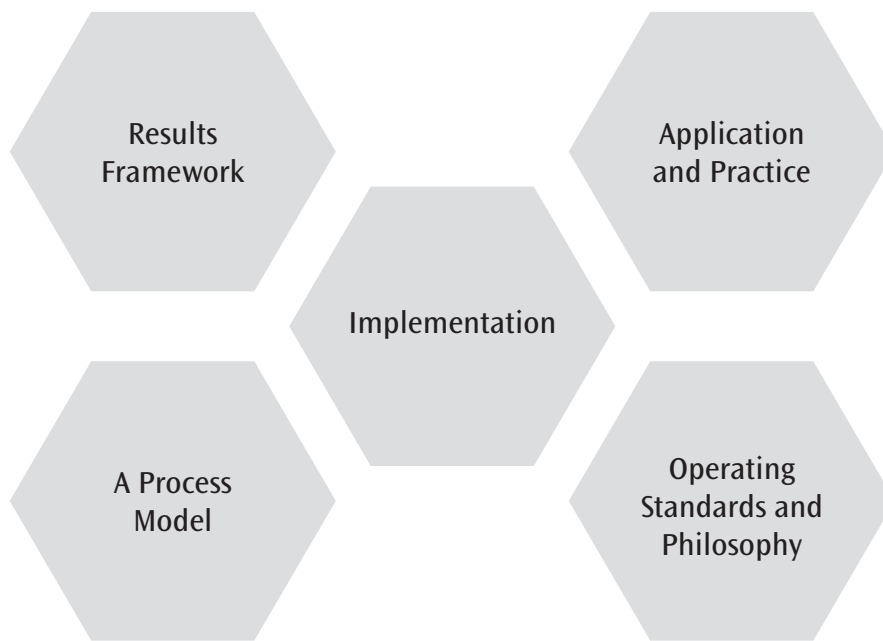
Becoming a Green Organization



Making a Green Workplace



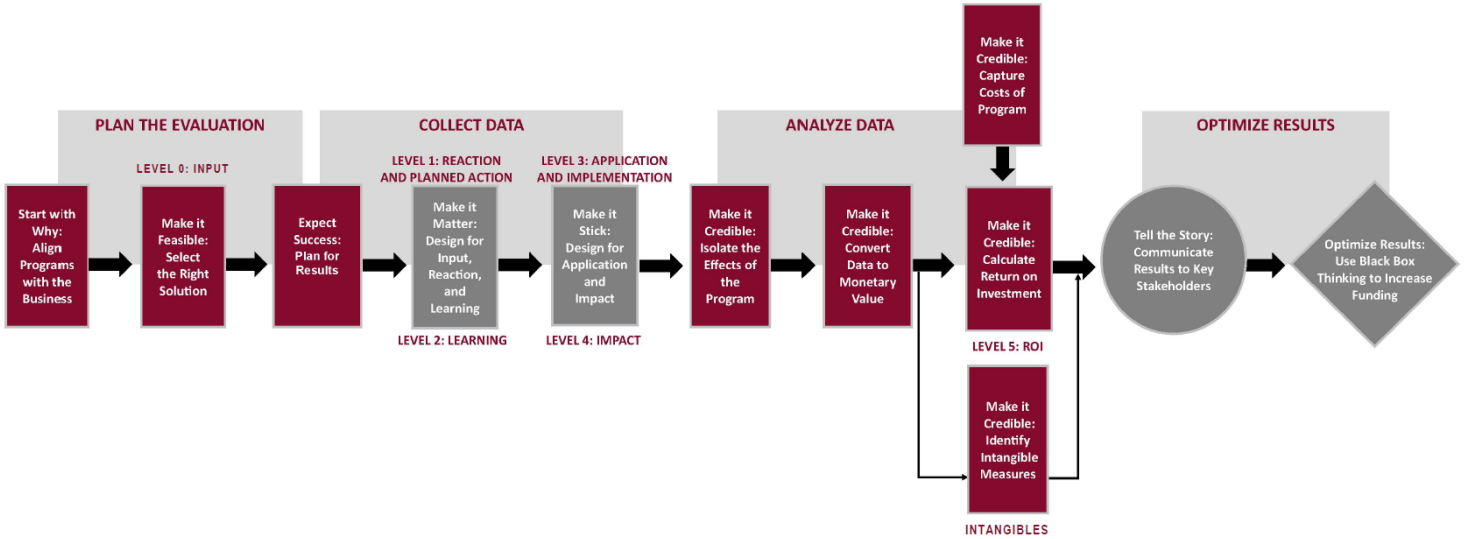
The Key Components of the ROI Methodology®



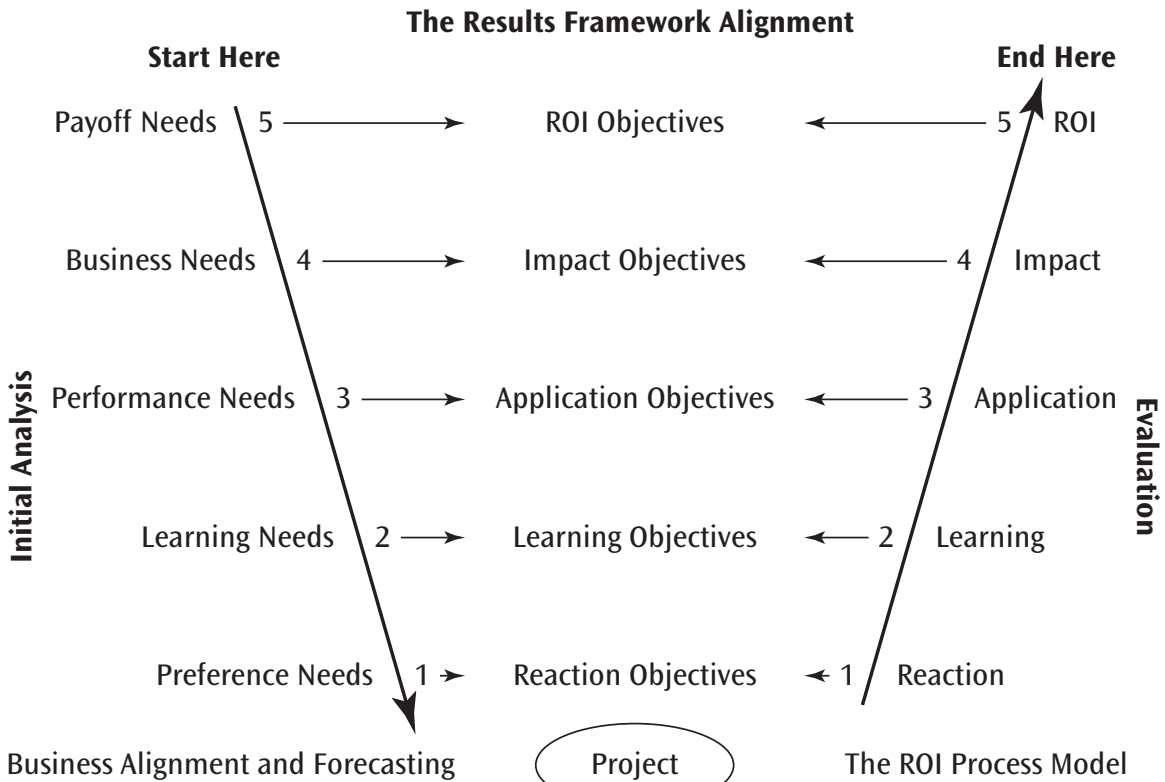
Levels and Types of Data

Level	Measurement Focus	Typical Measures
0: Inputs and Indicators 	Inputs into the project, including costs, project scope, and duration	Types of projects Number of projects Number of people Hours of involvement Cost of projects
1: Reaction and Perceived Value 	Reaction to the project, including the perceived value of the project	Relevance Importance Value Appropriateness Fairness Commitment Motivation
2: Learning and Awareness 	Acquisition of knowledge, skill, and/or information to prepare individuals to move the project forward	Skills Knowledge Capacity Competencies Confidence Awareness Attitude
3: Application and Implementation 	Use of knowledge, skill, and/or information and system support to implement the project	Extent of use Actions completed Tasks completed Frequency of use Behavior change Success with use Barriers to application Enablers to application
4: Impact 	Immediate and long-term consequences of application and implementation expressed as business measures usually contained in the records	Productivity Revenue Quality/Waste Costs Time/Efficiency CO ₂ emissions Brand Public image Customer satisfaction Employee satisfaction
5: ROI	Comparison of monetary benefits from project to the project costs	Benefit-cost ratio (BCR) ROI (percentage) Payback period

The ROI Methodology® Process



Notes:



Is the Journey Worth It?

Determining the Payoff

Key Questions:

- Is the problem or opportunity worth pursuing?
- Is the investment in a project or solution feasible?
- What is the likelihood of a positive ROI as well as the environmental contribution?

Obvious Payoff Opportunities

Examples of opportunities with obvious payoffs include:

- Operating costs are 47 percent higher than industry average
- Environmentally friendly rating of 3.89 on a 10-point scale
- A cost to the city of \$12,000 annually per person for landfill operation
- Noncompliance environmental fines totaling \$1.2 million, up 82 percent from last year
- Energy costs are 35 percent above benchmark figure
- Carbon emissions are 58 percent above industry average

Not-So-Obvious Payoff Opportunities

Examples of such opportunities may include:

- Becoming an environmental leader
- Becoming a green company
- Improving sustainability competencies for all managers
- Improving branding for all products
- Creating a great place to work
- Implementing green recruiting

With each of these opportunities, there is a need for more specific detail regarding the measure.

Notes:

Examples of Hard Data

Output	Quality	Costs	Time
Energy use	Failure rates	Energy costs	Cycle time
Units produced	Scrap	Supplies costs	Equipment downtime
Carbon emissions	Waste	Fuel costs	Overtime
Recycle volume	Rejects	Budget variances	On-time shipments
Items assembled	Error rates	Unit costs	Time to project completion
Money collected	Rework	Cost by account	Processing time
Items sold	Shortages	Variable costs	Supervisory time
Materials consumed	Product defects	Fixed costs	Time to proficiency
New accounts generated	Deviation from standard	Overhead costs	Adherence to schedules
Forms processed	Product failures	Project cost savings	Repair time
Inventory turnover	Inventory adjustments	Material costs	Efficiency
Applications processed	Incidents	Sales expense	Work stoppages
Tasks completed	Compliance discrepancies		Order response
Output per hour	Agency fines		Late reporting
Productivity			Lost-time days
Work backlog			
Shipments			

What would you add:

[illegible]

Examples of Soft Data

Work Habits	Customer Service	Work Climate/Satisfaction
Excessive socialization	Customer complaints	Grievances
Wasteful activities	Customer satisfaction	Discrimination charges
Visits to the dispensary	Customer dissatisfaction	Employee complaints
Violations of rules	Customer impressions	Job satisfaction
Communication breakdowns	Customer loyalty	Organization commitment
	Customer retention	Employee engagement
Initiative/ Innovation	Lost customers	Employee loyalty
Creativity	Employee Development/ Advancement	Intent to leave
Innovation	Promotions	Image
New ideas	Capability	Brand awareness
Suggestions	Intellectual capital	Reputation
New products and services	Requests for transfer	Leadership
Trademarks	Performance appraisal ratings	Social responsibility
Copyrights and patents	Readiness	Environmental friendliness
Process improvements	Networking	Social consciousness
Partnerships/alliances		External awards

What would you add:

[illegible]

Objectives Are Crucial

1. Reaction (Typical Objectives)

- This is an important issue.
- This is necessary.
- This is feasible.
- I can make a difference.
- We should do this.
- I will recommend it to others.

2. Learning (Typical Objectives)

- Identify the six features of the new green policy.
- Demonstrate the use of each new energy-saving procedure within the standard time.
- Score 75 or better on the sustainability quiz.
- Explain the value of the green initiative to a work group.
- Complete the energy-savings simulation with a score of 80 percent or greater within the thirty-minute time limit.
- Report confidence in ability to apply for assistance for weatherization.

3. Application (Typical Objectives)

- At least 99.1 percent of users will know the correct sequences after three weeks of use.
- Within two months, 10 percent of employees will submit documented suggestions for going green.
- Twenty-five percent of employees will participate in community green projects within two years.
- Forty percent of the city's population will routinely recycle two waste products in one year.
- Eighty percent of employees will use one or more of the three environmentally friendly cost-saving projects.
- Fifty percent of green conference attendees will follow up with at least one green exhibitor from the conference.

4. Impact (Typical Objectives)

- Energy costs will be reduced by 30 percent at the tire plant in nine months.
- Operating costs at the foundry should decrease by 20 percent within the next calendar year.
- The average number of fully functioning department-level green projects will reach twelve by year end.
- The company-wide environmentally friendly index should increase by 2 percent during the next calendar year.
- There should be a 40 percent increase in recycling in the city during the next two years.
- Water usage at the headquarters building should decrease by 25 percent within three years.

Create a Green Organization

Sample: Blake Engineering (BE)

Level	Needs	Objectives	Evaluation	Level
5	- Help protect the environment. - Reduce costs.	Reach ROI target of 10 percent.	Compare project benefits to costs.	5
4	- Raise image as a green company. - Reduce high energy costs. - Address rising costs of operations. - Address increasing costs of materials/supplies.	- Improve image. - Reduce energy costs - Reduce materials/supplies - Reduce operating costs	- Conduct external survey. - Examine organization records.	4
3	- Increase recycling of materials. - Change consumption habits. - Use less materials and supplies. - Start making environmentally friendly choices.	- Six months after the project begins, employees will: - recycle in eight categories - alter consumption patterns - reduce usage, increase conservation - use environmentally friendly supplies	- Conduct self-assessment questionnaire. - Check recycle records. - Check records of purchasing eco-friendly products.	3
2	- Need to determine how actions affect the environment. - Need to identify specific green methods. - Need to understand environmental issues.	- All employees will learn: - environmental issues - specific green actions they can take - how to make eco-friendly choices	- Conduct self-assessment questionnaire. - Conduct environment quiz.	2
1	Ensure that employees see project as necessary, important, relevant, and feasible.	- Program receives favorable rating of 4 out of 5 on: - necessary to BE - relevant to employees - important to adhering to concepts in support of public good	Administer reaction questionnaire to all project participants.	1

Sample: OPCW

Level	Needs	Objectives	Evaluation	Level
5	- Help protect the environment - Save costs	ROI target of 10%	Project benefits compared to costs	5
4	- Reduce carbon emissions - High energy costs - Rising costs of operations	- Reduce carbon emission by ____ - Reduce energy costs by ____ - Reduce materials/supplies by ____	Organization records	4
3	- Not recycling materials - Need to change consumption habits - Need to use less materials and supplies - Not making environmentally friendly choices	- Six months after the project begins, employees will - Recycle in eight categories - Alter consumption patterns - Reduce usage, conserve - Use environmentally friendly supplies	- Self-assessment questionnaire - Recycle records - Records of purchasing eco-friendly products	3
2	- How actions effect the environment - Specific green methods - Environmental issues	- All employees will learn: - Environmental issues - Specific green actions they can take - How to make eco-friendly choices	- Self assessment questionnaire - Environment Quiz	2
1	Employees must see project as necessary, important, relevant, feasible	- Program receives favorable rating of 4 out of 5 on: - Necessary to OPCW - Relevance to OPCW - Importance of adhering concepts in support of public good	Reaction questionnaire administered to all project participants	1

Green Leadership for Results

1. Allocate appropriate resources for green projects and sustainability efforts.
2. Assign responsibilities for green projects and programs.
3. Link green projects and programs to specific business needs.
4. Address performance issues involving the key stakeholders in the project identifying the behavior that must change.
5. Understand what individuals must know how to make projects successful, addressing the specific learning needs.
6. Develop objectives for the projects at multiple levels including reaction, learning, application, impact, and yes, ROI.
7. Create expectations for success of the projects with all stakeholders involved, detailing what their role and responsibilities are for the project's success.
8. Address the barriers to the successful project early in the project so that the barriers can be removed, minimized, or diminished.
9. Establish the level of evaluation need for each project at the beginning so that participants will understand the focus.
10. Develop partnerships with key administrators and managers who can make the project successful. For many, this is the manager or the person who is the principal participant in the project.
11. Ensure that measures are taken, and the evaluation is complete with collection and analysis of a variety of types of data.
12. Communicate project results to the appropriate stakeholders as often as necessary to focus on process improvement.

Notes:
