

AKCELL CONSULTING WHITE PAPER

Environmental Proofing is a development and organizational strategy created by [AKCELL](#) Consulting Inc.

Strategy:

The core of Environmental Proofing Strategy is to relate a company's performance and liabilities to the benefits and risks, the actions and decisions its executive staff, processes, products, and services have on the environment. These risks include competitive, social, economic, and environmental damage. The strategy is to develop processes and levers within an organization to reduce the organization's liability and risk with the long term goal of reducing harmful environmental actions that will result in damages.

The eight factors that create this risk are:

- ⇒ Government policy
- ⇒ Leadership knowledge and commitment to the environment
- ⇒ Lack of quantification of environmental baseline
- ⇒ Internal human resources environment commitment
- ⇒ Organizational strategic alignment with environmental proofing
- ⇒ Supplier alignment
- ⇒ Natural capital utilization
- ⇒ Cost of deterrence

Tactics:

The intensity of damage our environment can experience is based on the intended consequences of managerial and personal consumer decisions.

Environmental proofing seeks to improve the quality of organizational sustainability decisions on Natural Capital use and Environmental Sustainability by optimizing organizational processes that support Continual Sustainable Growth, while identifying and removing the causes of operational sustainability defects (errors) and minimizing [processes](#) and design flaws in government, [manufacturing](#), and [business processes](#).^[2] It uses a set of [quality](#) assurance methods, including [statistical methods](#), focusing on the Integrated Value Chain within the organization. Experts trained in building centers for excellence within an organization follow a defined sequence of steps to achieve quantified sustainability and profitability targets. These targets must be financial (cost reduction or profit increase), sustainable (reduction in water use and carbon), critical to the customer (price, safety, health, etc.), and reduces the impact on Natural Capital.

Environmental Proofing is a strategic and tactical review of your business strategy, tactics, and processes to identify risks and mitigation strategies.

Examples of where Environmental Proofing needs to be factored include:

1) An oil platform spill. An analyst in a company does a risk assessment calculation of the potential impact and engineering costs, and then decides how much to invest in preventative measures. However, without ensuring business and environmental congruency, engineers or managers may reduce the investment in proofing their design against failure. This is where Environmental Proofing as a discipline aides your business.

2) A government decides that managing water is not an issue and lets an industry do what it will. People die, the government is sued and people lose their lives, positions, and careers. In this case, looking at the issues and deciding to Environmentally Proof the water department would have resulted in no deaths, no issues, and millions saved.

Your organizational strategy should incorporate Environmental Proofing as a strategic alternative. Your executive and management need to review your products, services, resource utilization, and competitive strategies to ensure you are prepared to deal with the issues we face.

---end---

Environmental Proofing Operational Overview

To understand the concept of Environmental Proofing and its scope, let's look at one of the new roles that have come into existence, due to Carbon trading, that of Carbon Assessor. This role reviews carbon projects to estimate emission benefits. Environmental Proofing takes exactly the opposite approach. The goal is to assess the impact of strategy and tactics using Environmental Assurance as an integrated process. Today, we have a variety of alternatives from assessing what we cannot do to reaping the impact of what we have done. Environmental Proofing is a new discipline and profession that we need to create as a society, government, and business. AKCELL's objective is to kick start this development by detailing the strategy and identifying the processes and procedures to support it. The objective is to move Environmental and Sustainable management from a Science to an actual discipline and profession.

In almost all cases in the past, as the society changed, we have created standards to regiment and control society. We have inspectors for:

- 1) Water safety
- 2) Customs
- 3) Transportation
- 4) Health
- 5) Air Quality

However, the largest concern that we have today is that we have not developed an integrated documented process for improvement, although we have created International Organization for Standardization ([ISO](#)) Environmental Management standards.

ISO14001
ISO14004

However, for these to be effective we need to move beyond standards to developing an environmental discipline and profession for measuring, assessing, and confirming the impact of what governments and companies are doing. A standard inspector is an adjunct to the engineer to manufacturing or retail process. They are not directly involved in the business and in making decisions. The goals of Environmental Proofing and Assurance, is to move beyond that. It is to create trained engineers and staff who have the tools and the ability to interact and provide information on the most environmentally safe and sustainable process to accomplish a task. In the past, product quality was assessed based on the degree to which a product met the design standards of its quality of conformance. Today, we need to assess products and process designs based on an additional factor, their Environmental Assurance. The degree to which a company's products, processes, and plans aide and benefit the environment and sustainability. On an ad hoc basis, this has been done with a variety of

Environmental or Sustainability stamps or certificates, but none of these truly assess the actual impact.

Design Requirements

Standards such as ISO, specifications, and procedures are among the documents which are the result of the implementation of many standard business processes. They are however the result of the process, and not an ongoing part of the process. Given our environmental needs, this needs to change.

The design of a product depends on its performance, and design specification for use is based on its operational requirements. This needs include the environmental utilization levels of the product and the risks associated with its use. For example, car tires have an operational or product specifications based on the number of trips, the miles or age, inflation requirements, fuel use, and operational components. The optimum speed for use for a tire may change from winter to summer. We also need to include disposal costs and after disposal impact. Presently some provinces and states charge a disposal fee; however, this does not include the ongoing impact on the environment of ground water and other pollution effects of tires.

Products need to be assessed for their mission, performance, use, and environmental impact.

Shaving cans are an example of a convenience based product. We have soaps that would cost less to ship, move, and store. However, consumers like the convenience, as they do not realize the Environmental Impact. This is an example of where understanding and sharing the impact, could drive change to other types of products that would have less environmental impact. What is, the real cost of consumers requiring canned soap and manufacturers selling it.

Key areas that are identified below must be baselined so that companies can understand, measure, and identify the actual natural capital costs:

- ⇒ Carbon footprint
- ⇒ Air particle assessment (PPM)
- ⇒ Fresh water utilization (ingress and regress)
- ⇒ Ocean and sea life utilization
- ⇒ Energy utilization
- ⇒ Land use
- ⇒ Packaging utilization
- ⇒ Resource utilization
- ⇒ Product design impact

Companies can either focus on Easy Profits or Value Profits. In keeping with measurement processes, plans need to be in place to offset the measurement via:

- ⇒ 5 year plans for each area

Source Selection

Environmental supplier selection requires a specialized trade-off analysis of the sourcing process. This is to ensure that the appropriate supplier is selected based on all required design specifications including environmental.

Environmental components should be included in Supplier's:

- ⇒ Product design review
- ⇒ Technical proposals
- ⇒ Pre-award reviews
- ⇒ Performance history
- ⇒ Future plans
- ⇒ Consumer use plans
- ⇒ Life cycle use
- ⇒ Product return plans
- ⇒ Product disposal plans

Purchasers of products from government to business then need to understand how this information should be used. To aide in this process we have written another white paper showing how to develop an Environmental Scorecard.

Product or Service Qualification

Product qualification can be done via a documented process however testing is most appropriate to ensure that the stresses of product use and movement in the Value Chain and Supply Chain align with the sourcing comments. Qualification can be done by development, acceptance or qualification

The objectives of a Product Qualification review is to provide data on the capability of the resource company, manufacturer and retailer to provide a product or service in alignment with the environmental requirements. This does not mean that the originator if the service may not change the parameters and affect the qualification it means that at a specific point in time the qualification yields a specific result.

Qualification Reporting is a key part of the process to ensure that the results are documented and validated. An example is a Carbon Footprinting activity. The results of the carbon foot printing need to be validated and confirmed. On a truck movement many sites that offer carbon calculators depend on truck size, weight locations and distance. However other factors depending on the degree of accuracy required would need to include atmospheric results, topography and weight distribution. At the start of we need to specify the level of accuracy that we are working towards.

Measurement Control

Measurement of any process is critical to evaluating its ability top perform. A company's Environmental performance product or service design characteristic and the process parameters need to be specified to be able to measure the effectiveness of the operation. This type of measure will enable a measurement evaluation of a government of business model for an enterprise.

An example is if you carbon footprint a business. You need to be able to identify the criteria on which that are based and then as you make adjustments to track the effects of altering parameters. Many companies focus on selling the soft benefits of Greening a business address such as the benefits of employee communication and aiding employees to understand Sustainability. These are key factors however without a real program designed for change companies, consumers and citizens get little real benefit.

Our goals are too:

Short Term

- ⇒ Document what this process should be
- ⇒ Identify the requirements
- ⇒ Identify assessment and certification requirements

Long Term (one year)

To be able to do so via mathematical assessment of resource, population, impacts of the utilization and application of resources using population and environmental vectors. Provide these tools on-line so consumers can assess the impact of their decisions. These tools can then provide a realistic assessment of the impact on the Environment.

AKCELL provides the right, based on this being a white paper, for public posting on Wikipedia.

Other location requesting publications should contact AKCELL, or can publish citing AKCELL..