

# STRATEGIC PLANNING AND GOVERNANCE FOR THE PARETO OPTIMUM<sup>1</sup>

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**ABSTRACT.** Strategic Planning is an essential corporate and government task which has increased in importance with the acceleration of global change over the past two decades. The theory of Strategic Planning is provided. Strategic Planning is the most complex and sensitive function undertaken by an organization. It creates destiny. But how does leadership know which strategies and goals to select? This concept paper answers that question with the Vilfredo Pareto Optimum which describes any strategy, policy, or decision that results in many being better off and none worse off.

A future space settlement “*Overview Governance*” model is provided as an illustration. A hypothesis is included that the multitude of companies that failed during the October 2008 economic meltdown would have reduced the probability of catastrophic failure for their employees, stockholders and clients had they previously understood and adopted the Pareto Optimum.

The conclusions in this paper are: 1) Sustaining business success in today’s dynamics is leadership’s number one challenge; 2) Achieving the Pareto Optimum will require a merging of Management Science, Quality Sciences and Policy Sciences; 3) Its much easier to prescribe a Pareto Optimum than to achieve it; and 4) The costs of the resources leadership needs to pursue the Pareto Optimum will be insignificant compared to the benefits created.

**KEYWORDS:** Strategic Planning Theory, The Pareto Optimum, Space Settlement Governance, Quality Sciences, Policy Sciences, Capacity to Govern,

## STRATEGIC PLANNING THEORY<sup>2</sup>

**Strategic Planning, done right, provides the greatest possible insurance *against* failure and *for* long term organizational success.**

A rudderless ship has small chance of survival in rough weather. I believe that the four characteristics of modern society: NOVELTY, COMPLEXITY, UNCERTAINTY, and ADVERSITY make Strategic Planning no longer the sole province of major corporations and the military services. Strategic Planning is for every public agency, private company, non-profit organization, or even families and individuals. Done right, it provides the greatest possible insurance against costly failures and for long term success. Some general theory of Strategic Planning will set the stage for focusing on The Pareto Optimum as a needed priority goal.

The General theory for the strategic planning process is outlined in Figure 1.



Figure 1 *The Strategic Planning Process*

The steps in the Strategic Planning Process, Figure 1, seem to be in a logical sequence beginning with values, proceeding through research and analysis to the creation of alternatives, then to a decision conference, writing the final plan, and, finally, to implementing the plan, evaluating it, and making improvements. You will discover that the process in actuality does not neatly track through those steps. All of the steps must be accomplished, but they do not occur linearly one after the other. Several steps will be in progress simultaneously. You will feel at times that the process has reversed, gone in seemingly endless cycles, or even stopped at various roadblocks.

**Strategic Planning creates a new destiny for the firm, school, agency, military service, church, foundation, or corporation. It will be the most complex and sensitive function undertaken by your organization. The process will seem messy - or even impossible - as it must be undertaken by the very people who carry the greatest responsibility for current operations. Your strategic planning committee should be composed of your top performers, managers, leaders, and thinkers. All of those professionals are already overloaded. The challenges are many. The effort is necessary. The rewards can be huge.**

**The next ten sections will describe very briefly what happens in each step of the strategic planning process.**

### **VALUES ANALYSIS**

**Values are principles or things preferred. Two essential questions to answer in strategic planning are: “Who are we?” and “Where should we go in the future?” When a consensus is reached on those two questions the basic preferences of the organization are determined.**

**If it becomes impossible to reach a consensus on “What we truly believe and prefer” a self-destructive diverse opinion undercurrent will override the process from the beginning and a great amount of time, energy, and resources will be expended on research toward goals that are in conflict with the real values held.**

**A simple example may help. I was asked to help an arts organization to decide on programs for the next year or two at a Board of Directors meeting. I listened for an hour as board members argued for their various pet programs. There was no agreement and the frustration level was obviously rising. At that point I asked them to postpone discussions of individual programs and for each board member to state briefly what he/she deeply believed to be the primary mission of the group. That took thirty minutes and demonstrated that there was general agreement on the basic values of the organization. I then asked them to come to agreement on the Board’s three top values. That was easily done. Then I suggested that they now link their future programs to those three values. Fifteen minutes later the meeting ended with agreement on programs.**

**Don’t be misled by that simple illustration to thinking that solving an organization’s strategic planning needs can be done that easily. In my example there were no values conflicts and no values compromises required by members of the board. They were just starting with the trees instead of the forest.**

**A more typical example was when La Sierra University, in Riverside, California, began its strategic planning process in 1992 after its separation from Loma Linda University. I facilitated Ideas Unlimited<sup>3</sup> workshops with groups of faculty, administrators, students, alumni, and the Board of Trustees with the goal of building an initial values data base. The targeting I used asked the groups to write their sincerely held preferences for the long range future of La Sierra University. That values data base became a reference for the next three**

years of research, discussions and analysis which resulted in the Board approved 1995 Strategic Plan for the University

We must know our core values to create a valid strategic plan.

### TASK FORCE CREATION

Information requirements are so large for strategic planning that research and analysis teams are created. There are other reasons for creating these task forces. Since everyone is impacted by the results of strategic planning, the widest possible participation in the process is needed. When strategic planning efforts are completed it is not uncommon for participants to conclude that the process of interactive communications across functions of the school, company, or agency were as valuable an outcome as the written plan. The cross-department learning to reach consensus on destiny-of-the-firm type decisions produced a new environment of mutual understanding.

The eight task forces that are usually formed are shown in Figure 2. The use of task forces is a powerful brainpower accelerator for strategic planning and serves the function of consensus-building within your strategic planning committee. Active participation by people representing every constituency in your organization and every part of your system brings the necessary expertise and viewpoints to bear on problems. It serves an even more important function of moving the outcomes of your planning process closer to being a “*Pareto Optimum*.” The name comes from the late 19<sup>th</sup> Century Italian scholar and author, Vilfredo Pareto. A Pareto Optimum is achieved when a strategy, policy, or decision results in many people being better off and none being worse off than before. That’s rarely achieved in strategic planning for complex organizations where change usually benefits some and hurts others. But keeping the Pareto Optimum as a goal for decision making will stimulate your planning process to search for ways to avoid hurting people. When you reduce the numbers of those disadvantaged you raise the percentage of those supporting the changes and thus the probabilities of successful implementation. The next section takes a deeper look into The Pareto Optimum.



Figure 2, *Strategic Planning Task Forces*

## DOCUMENT PAST PERFORMANCE

What sort of performance needs to be documented for strategic planning? The general answer is that you must satisfy your strategic planning committee that you have fully described your system's capabilities, strengths and weaknesses. This is the beginning of the "Internal Analysis" required for strategic planning. The basic goal for any strategic planning is to match internal capabilities with external opportunities. That model is presented in Figure 3.



Figure 3 *The Basic Strategic Planning Model*

When valid financial statements are available past economic performance can be evaluated through ratio analysis using three to five years of performance compared with similar organizations, competitors, and industry averages to determine strengths and limitations. That data should be supplemented by information on human resources (skills and experience), programs, production, productivity, facilities, and technology position.

## PROJECT FUTURE EXTERNAL ENVIRONMENT

Future forecasting has become increasingly difficult with the acceleration of change in local, national, and global environments. Since strategic planning creates long-range destiny type decisions and goals for the organization, future forecasting uncertainties must be appreciated although the requirement cannot be ignored. Your analysis should estimate which variables will remain stable and which will change (and in which direction with what speed). Growth situations, resources, markets, and constraints should be projected. Perhaps the most important part of your future external environment analysis will be the consideration of paradigm changes and major discontinuities in trends.

A note on selecting a future time period for your analysis. Businesses rarely do analysis for more than five years. But the nature of the business will dictate what time period should be used. I'm working in the United States Space Development Community<sup>4</sup>. Space systems have huge economic, social and political impact on the Earth's global nations and systems. Space projects must consider long term research, planning and implementation. For instance,

the best current study of the world energy needs shows that without developing space based solar power systems the world's energy needs cannot be met in the second half of the 21<sup>st</sup> Century. Strategic Planning by relevant solar energy corporations needs to project analysis out to 2100. <sup>5</sup>

### **ASSESS INTERNAL CAPABILITIES & RESOURCES**

The skills, knowledge, motivation and creativity of your people plus your investment in personnel development should be documented. The property, plant and equipment; assets and investment position; finance position; communications and technology; process flows; profitability; waste reduction programs; research & development strengths; resources available through the Board of Directors; customer satisfaction; and retention programs should be included in the analysis. Current liabilities, long-term debt, legal actions, and stockholders' equity should also be assessed. This analysis allows you to build a profile of organizational strengths and limitations.

### **COMPARE PERFORMANCE WITH TOP PERFORMER AND AVERAGE OF THE COMPETITION**

Your goal should be the achievement of superior performance defined as three to five times average performance. Top performers in an industry are doing things well. We need to know what those things are and whether we can apply them to our situation. We need to know industry averages to compare with our system's performance. Performance is evaluated using profitability, revenue generation, finance generation, investment position, and cost position. Above all, we want to continually evaluate to determine if performance is consistent with our values, neutral to them, or in conflict with them for both our internal operations and our external dealings with customers and constituents. A valid Vision Statement and Mission Statement are prerequisites to making that kind of performance evaluation. For organizations without a past culture of strategic planning the Vision and Mission Statements may be outdated or completely missing.

### **CREATE ALTERNATIVE STRATEGIES & GOALS**

Your Strategic Planning Committee should develop alternative strategies and goals because of a universal phenomenon involved with organizational decision making which is that top decision makers want options. They are suspicious when given only one choice to approve or disapprove. Since strategic planning is a top priority task the best and most experienced people from the different departments will be selected to serve on the committee and to create alternatives. These are the busiest people already carrying the greatest responsibility in the company, agency, university, church or foundation which always creates overload situations.

Committee members work in task forces. We want a systems approach. The closer an organization comes to making destiny type decisions the greater is the intellectual attention of leadership. The decision making cluster needs alternative strategies, with their associated impacts, risks and uncertainties projected to make good choices. The "*Decision Conference*"

is where those alternatives get concentrated attention. This paper concentrates on identifying The Pareto Optimum as a priority goal. A potential complete set of alternatives will not be addressed.

### **SCHEDULE A DECISION CONFERENCE**

Strategic Planning in complex organizations often takes months or even years. By definition strategic plans are normally for five years, with annual reviews, while operational plans are for one to three years. Coincidentally La Sierra University and the University of Southern California both began strategic planning in 1992. And both universities took almost three years before the plan was completed and approved by respective Boards of Trustees. Corporations, government agencies, and private entities will usually aim to complete strategic planning in less than one year. Don't be misled by outside consultants who claim they can facilitate your organization's strategic planning at a weekend retreat. You will regret the results.

When all parties of the planning process have completed their research, or when events in the environment force closure, the *Decision Conference* is scheduled. In attendance should be the decision cluster (i.e. President, CEO, Vice Presidents, Department Heads), the members of the Strategic Planning Committee, and any other system constituents whose inputs will be important. The Chair of the Strategic Planning and Task Force Leaders present the following in summary briefings:

- \* *Draft new Vision and Mission Statements*
- \* *The results of their research and analysis*
- \* *Priority Recommended Strategies, Goals, and Objectives*
- \* *Impacts of those alternatives (projected benefits and costs)*
- \* *Recommendations for decisions by leadership*

Discussions and debates occur. The Decision Conference often takes two or three days for the issues to be thoroughly covered and a consensus to be reached. If basic conflicts occur within the decision cluster, the Strategic Planning Committee may be directed to accomplish new research and analysis to be presented at a second decision conference. This process continues until agreement is reached on strategic directions and associated objectives for the firm. Contingency strategies should be identified if assumptions and projections of the planning process prove to be inaccurate.

## **FINALIZE THE PLAN**

The final written plan is accomplished under the supervision of the Chair of the Strategic Planning Committee and should contain:

- \* *Vision Statement*
- \* *Mission Statement*
- \* *Major Strategic Decisions*
- \* *Priority and Alternative Goals and Objectives*
- \* *Programs and Courses of Action with Assignment of Responsibilities*
- \* *Resource Allocations and Projected Financial Statements*

## **IMPLEMENT, EVALUATE, IMPROVE THE PLAN**

Completion of the Strategic Plan is a major milestone for the organization. In my judgment, however, it represents only 50% of the total planning effort. Implementing the plan, evaluating that implementation, and subsequent revisions of the plan represent the other 50%. There are two reasons driving that conclusion.

**The first** lies in the four characteristics of our age: Complexity, Novelty, Uncertainty, and Adversity. Unless we are very lucky, one or more of those characteristics will cause us to rethink some part of the plan. That reason has its origin from your system environment. **The second** reason stems from internal system functioning. Even though we make every effort at participative involvement in the strategic planning process, when provisions of the plan are implemented it affects everyone in the organization. Some people in the system may object, rebel, or even sabotage parts of the plan that they see as a threat to them personally or to their department or function. Planning responsibility lies primarily with leadership. Putting the plan to work requires everyone's cooperation. Not everyone will be enthusiastic about putting the plan to work if the Pareto Optimum has not been achieved.

The failure of strategic planning can have three root causes. Cause #1 and #2 will flow from the two reasons described in the previous paragraph. Cause #3 can come from what the American Policy Scientist, Herman Kahn, called "*The Butch*" -- defined as an error in basic assumptions, logic or analysis that invalidates findings reached from your research, and goes unnoticed through the decision point. Good strategic planning will prevent it.

## **JUDGING THE WORTH OF STRATEGIC PLANNING**

How do we evaluate our strategic planning efforts? Figure 4 summarizes the characteristics of good strategic planning.

**GOOD STRATEGIC PLANNING  
IS CHARACTERIZED BY:**

- Strong support of leadership
- Values analysis within a culture of evidence
- Open communications and participative discussions
- A tolerance for ambiguity
- “What if?” analysis
- “Over the horizon” thinking
- Consideration of all stakeholders
- Feasibility analysis of alternatives
- Time phasing for implementation

Figure 4, *Good Strategic Planning*

The benefits of good strategic planning can be enormous. Those benefits flow from the process involved in working toward a strategic plan as well as from the plan itself. Figure 5 depicts this truth.

**TWO MAJOR BENEFITS;  
ONE OVERALL GOAL**

- There is high value in both:  
*The Process* →   
*And The Plan*

**THE GOAL IS:**

**Superior Performance, within agreed values**

Figure 5, *Benefits and Goal of Strategic Planning*

The benefits of working through the process of strategic planning are outlined in Figure 6.

**THE VALUE OF THE PROCESS  
OF STRATEGIC PLANNING**

- New Understandings, awareness & appreciation.
- Cooperation increases; Conflict decreases.
- Negative fantasies addressed
- New administrative climate
- New decision making culture.

*Figure 6 Value of the Process of Strategic Planning*

These benefits of the strategic planning process can be huge value added events for an organization. People accustomed to thinking only about their own functional areas gain an appreciation for what happens in other areas. Coming to agreement on long-term goals for the company facilitates cooperative efforts where turf battles previously existed. Negative fantasies are the erroneous bad visions of the future that people generate when uncertainty and anxiety prevail. Going through the process of strategic planning can replace those negative fantasies with positive goals and ways to reach the goals. Doubts may still exist, but I have a philosophic approach you might consider.

*When in doubt, chose optimism, then manage wisely  
to achieve a self-fulfilling prophecy.*

Both optimism and pessimism can be self-fulfilling prophecies when faced with uncertainty. If we believe “*it can’t be done,*” and act on that belief, it’s fairly certain that our pessimism will produce a self-fulfilling prophecy. The same will occur if we chose optimism, then act to make things happen.

Creating administrative (*i.e. working*) climate is the responsibility of organizational leadership. No leadership role has more influence on success or failure than the building of a working culture that motivates people to achieve superior performance and self-development. That kind of culture can be a by-product of the strategic planning process. Similarly working through the research and analysis of strategic planning often exposes weaknesses in the decision making system of the organization. If that were the only benefit of your organization’s strategic planning, it would be worth the effort.

These benefits of the strategic planning process tend to be less obvious than the benefits which flow from the final written strategic plan which are summarized in Figure 7.



Figure 7, *The Value of the Strategic Plan*

You can easily relate those benefits to your strategic planning needs. The term “*Cost of Quality*” comes from the Quality Sciences and means the costs being borne by your organization for poor quality of policymaking, products or services.

The overall benefit we seek from strategic planning is shown in Figure 8.

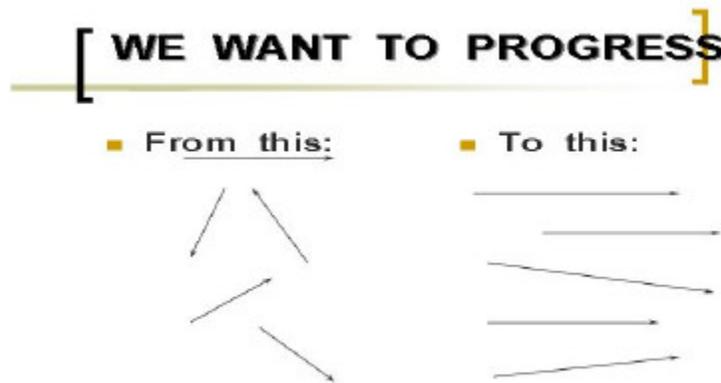


Figure 8, *Strategic Planning Overall Goal*

We want teamwork in our system to avoid the waste, costs, frustrations, setbacks, inefficiencies, and failures that occur when business degenerates to ad hoc actions jumping from one crisis to another. Coordinated strategic and operating plans which establish interrelated objectives and best courses of action to pursue a vision is a formula for excellence. Achieving that formula is one of the great challenges of leadership.

Figure 9 summarizes the difficulties and pitfalls involved in this challenge.



Figure 9, *Strategic Planning Barriers & Pitfalls*

## THE PARETO OPTIMUM

Strategic Planning books fill Libraries. The above general theory is the summary I have found useful in teaching and consulting. Let’s now focus on the one strategic goal that leadership should not ignore in accomplishing strategic planning for its governance.

Italian philosopher, sociologist and economist, Vilfredo Frederico Damaso Pareto (1848-1923)<sup>6</sup> is best known for his contributions to income distribution and analysis of individual choice. Three of his concepts continue to be validated and extensively used today. They are his: 1) Pareto Principle; 2) The Pareto Chart; and 3) The Pareto Optimum. I’ll make brief statements on #1 and #2, then go on to his Pareto Optimum.

Vilfredo’s Pareto Principle is known better as the 80-20 Rule where research has shown that 80% of the effects result from 20% of the causes. That rule holds well for most of today’s organizations. The Pareto Chart was developed from Vilfredo Pareto writings by pioneers of the Quality Control movement after WWII. The Pareto Chart is now widely used in industry and organizational management to represent times spent performing various tasks.<sup>7</sup> It is a vertical bar graph which helps to determine which problems to solve in what order.

The Pareto Optimum, which is achieved when a policy, intervention, plan, program or decision results in making many people better off and no one worse off is my focus in this paper. It is a golden strategic principle for policymaking but is very difficult to achieve. The normal outcome of change is for some to win others to lose; which is often given the title of “Zero-Sum Game.” The Pareto Optimum searches for outcomes with no losers or a win-win.

Why is the Pareto Optimum so important? There is a simple answer. If the change proposed will have no losers, there will be no opposition to its adoption. Of course, many policy changes are in complex systems where the winners and losers are not completely evident a-priori. Often implementation of the policy is when the winners and losers became clearly identified. But complexity of any specific change does not decrease the importance of pursuing the Pareto Optimum. Even if the “no losers” cannot be one hundred percent guaranteed, keeping the goal as a corporate target will influence how the strategic planning data gathering and analysis is done. And how strategic planning is done controls its value to corporation.

What special differences are there for a corporation to work toward achieving a Pareto Optimum? It means that Dr. W. Edwards Deming’s definition of “Customer” must be used. Dr. Deming is one of the Father’s of the Quality Sciences.<sup>8</sup> When asked: “Who are our customers?” Dr. Deming would always respond: “Who gets your work?” That goes beyond the business clients and the boss. That includes all people worked with internally in the organization plus whoever outside the organization is impacted by your work. Adopting the Pareto Optimum means analyzing all those “customers” to determine who will be better off and who worse off from your proposed action. If you get a consensus from all your customers on your proposal there will be no one that will raise objections.

And how do you design a program, plan or action that will raise no objections? It’s one of the toughest and most complex jobs for leadership. Ross W. Ashby’s Law of Requisite Variety<sup>9</sup> states that coping with a message requires at least the same degree of variety as in the message itself. That Law should apply to design of a corporate governance Pareto Optimum. The future of humans settling in space is a good example of an extremely complex activity. I have designed an “Overview Governance” model for those settlements.<sup>10</sup>

The Assumptions Underlying the Concept for Overview Space Governance are:<sup>11</sup> 1) There is no governance system on Earth, or ever has been on Earth, capable of successfully transposing to space; 2) many pathologies of human nature on earth form barriers to be overcome for living in space; 3) Earth’s past governance failures provide lessons essential to learn for the future of space habitation; 4) leadership for space’s human civilizations will need concentrated education to build the capacity for *Overview Space Governance*; 5) Science (the physical, social and policy sciences), Technology, Quantum Mathematics, Management, Economics, History and Human Factors should be components of that education; 6) perpetuating and improving humanity’s values and quality of living on Earth and in space should be basic spiritual and religious reasons for the motivation for human space settlements and exploration; 7) Space societies should have governance that prevents the evils of crimes against society, mass killing, genocide, slavery, warfare and ethnic cleansing; 8) Success will depend on leadership that chooses to place top priority on the good for humanity in disregard of the complexities and the inherent barriers.

Why Go? Debates over the larger question of the need for human space exploration and habitation have occurred for decades. The short answer to the question is that eventual human survival depends on building civilizations in space. Our planet’s resources are limited. There are natural and human-made threats to earth-bound people that increase in probability over time. The need for increased quality of life, and the prevention of erosion

of today's quality of life, for people on Earth demands the capture of resources known to be in space. Science and technology have advanced to make human settlements in space feasible within the 21<sup>st</sup> Century. The *Why Go?* positive answers we have. The answers to the *How?* And *When?* questions are now being formulated. The conclusion of space scholars and practitioners is that the most critical variable for humans successfully creating settlements in space is effective governance.

**Overview of Space Governance characteristics.** Since space is completely foreign to human settlement a first normative model cannot predict everything to be found in the environment and must not be irrationally optimistic or self-defeating through pessimism. Experience in the reality of space will require continual evaluation. But, as in all political-social systems, the issues of political philosophy and "*Who Gets What, When and How*"<sup>12</sup> will be fundamental. Following is the basic set of those fundamentals presented as needed for establishment through international decision-making a-priori to serious migration of people to live in space.

## **The Overview Governance Model**

**The Required Seven Characteristics are:** 1) Moral, capable and highly intelligent leadership committed to pursuit of agreed goals. Every effort must be taken to avoid motives of greed, corruption or special interest bias. A system of leadership selection based on quality, experience and wisdom will be needed. 2) Global design of the system. No single nation has the resources for this massive endeavor. The assumption that the overall goal is for the benefit of humanity precludes control by any one nation or by an elite group of nations. International collaboration will be the key with the best current examples being the European Union and the International Space Station (ISS); 3) Brainpower aggregation through international Think Tanks and Study Groups. Many of those already exist for space, but there is no global study enterprise focusing on human settlement in space. This will require innovative governance and research structures to be created on Earth for planning of the Space Migration Epoch. The United Nations Economic, Social and Cultural Organization (UNESCO) is the closest entity today with a Mission Statement related to this task. But it would need radical changes to help in the Space Settlement planning; 4) Families will be essential. On Earth the family unit has been eroding for the past few decades. In space the strengths of families will replicate their importance in the settling of the U.S. West; 5) A Code of Ethics for space settlers<sup>13</sup>. The goal of human beings to occupy space and live together in a spirit of cooperation, respect and peace needs to be prescribed by a Code of Ethics; 6) Citizens who have enlightenment in Public Affairs; 7) Democratic. History shows eventual failure for dictatorial and authoritative governance which does not progress with the will and consensus of those governed. But, democracy has its weaknesses when paralysis results from conflicting desires or catastrophic events require dramatic actions. Needed is an innovative political philosophy, structure, decision-system, legal system and enforcement tools which might be labeled "*Overview Democracy*."

**Human choices within the next two decades will determine whether the future becomes a blessing or a curse both on Earth and as science and technology allow**

settlements in Earth orbit, on the Moon, on Mars or in space-faring ship-communities that cruise the Solar System.

Space governance is an unprecedented challenge for global leadership. Thinking needs to advance from national to global to Solar System scope. There are two meta motivations that will drive it to happen: 1) An understanding of the benefits that space will bring to Earth and its people; 2) An understanding of the serious human and extra-terrestrial threats to humanity if humans remain Earth bound.

The concept of a freer, safer and more prosperous community is too abstract. Political, social and cultural changes are needed. Dr. Jonas Salk, America's famous microbiologist, gave us the concept in his 1973 book *The Survival of the Wisest*.<sup>14</sup> Jonas, in this macro sociologist work, identified Earth's society in a transition from Epoch "A" (Darwinism's survival of the fittest) to Epoch "B" (Survival of the wisest).

An important question is: *"When is the Pareto Optimum the wrong strategy?"*

Values analysis is the first step of the Strategic Planning Process (Figure 1, above). Values are principles or things preferred. If corporate leadership biases are focused on maximum gain for themselves by victimizing clients and customers they will reject the Pareto Optimum as a strategic option. If your leadership makes that decision be aware that the seed of failure has been planted. Corporate failures caused by those biases are happening in 2008 with alarming frequency.

## **FINDINGS, CONCLUSIONS & RECOMMENDATIONS.**

It was Leonardo de Vinci (1452-1519) who made the universally true statement that *"Learning is the only thing the mind never fears, never exhausts and never regrets. It is one thing that will never fail us."* To the degree that leadership can create policies, plans and decisions that make many better off and none worse off their success over time will be assured. Exponential increases of global corporations and governments aiming for The Pareto Optimum can change macro economics, social interactions and politics for the better.

After thirty three years in university work, in both the teaching and the administration sides, I believe education is a Pareto Optimum. The students, the faculty, the administration, the staff, communities, employers and society are all better off. The ones worse off are those who are not having an educational experience.

The American Society for Quality is the world's leader in perpetuating and advancing the Quality Sciences. One of its focuses is on improving governance. Corporations and governments have the same need -- to improve their capacity to govern. Trends over the past three decades show that societal, client and customer needs have been exceeding capacity to govern both nationally and internationally. Above, I prescribed *"Overview Governance"* for humans planning extra-terrestrial settlements in space. It must be a much more efficient governance system than has been experienced on Earth. The

**Pareto Optimum will need to be a priority strategy. Humanity faces a serious challenge as we struggle into the 21<sup>st</sup> Century. Science and technology has propelled us into the digital age with exciting prospects. That same science and technology has raised the probabilities of catastrophic events that threaten humanity's future.**

**The conclusions in this paper are: 1) Sustaining business and societal success in today's dynamics is leadership's number one challenge; 2) Achieving the Pareto Optimum will require a merging of Management Science, Quality Sciences and Policy Sciences; 3) Its much easier to prescribe a Pareto Optimum than to achieve it; and 4) The costs of the resources leadership needs to pursue the Pareto Optimum will be insignificant compared to the benefits created.**

**My final conclusion is that one hundred years ago Vilfredo Pareto created a formula for success in business and government. Pursuing that formula will benefit corporations and society. Business and government failures would decline if The Pareto Optimum were more universally included in strategic planning.**

**And my final recommendation is for any leadership directing strategic planning is to put the Pareto Optimum as a priority goal.**

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<sup>2</sup> This section comes from Bob Krone's thirty years of graduate university teaching of Strategic Planning and his consulting with public and private organizations.

<sup>3</sup> See Krone, Dr. Bob and Krone, Sue (2007) *Ideas Unlimited: Capturing Global Brainpower*, Infinity Publishing.

<sup>4</sup> See [HYPERLINK "http://www.BeyondEarth.org"](http://www.BeyondEarth.org) }.

<sup>5</sup> This study, by Snead, James Michael, P.E. will be made public in 2009.

<sup>6</sup> See Wikipedia [http://en.wikipedia.org/wiki/Vilfredo\\_Pareto](http://en.wikipedia.org/wiki/Vilfredo_Pareto)

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<sup>8</sup> See Deming, W. Edwards, (1986) *Out of the Crisis*, MIT Center for Advanced Engineering Study.

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<sup>10</sup> This model is developed in Krone, Bob, Ph.D. 'Overview Governance,' in Bell, Dr. Sherry, (2009) forthcoming) *Living in Space*, Infinity Publishing,

<sup>11</sup> The Policy Sciences life works of Professor Yehezkel Dror, the Hebrew University of Jerusalem, create a major intellectual source for this 'Overview Governance' model – especially Dror's Chapter 4 in Krone, Bob, Ph.D., Editor (2006) *Beyond Earth: The Future of Humans in Space*, Apogee Space Press and his (2001) *The Capacity to Govern* London, Frank Cass Publishers. See Bob Krone, Ph.D., "Overview Governance," Chapter 3 in Sherry Bell, Ph.D., Editor, *Living in Space*, Aerospace Technology Working Group, 2009.

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<sup>13</sup> See Connor, K.T., Downing, Lawrence and Krone, Bob (2006) 'A Code of Ethics for Humans in Space,' Chapter 17 in Krone, Bob, Ph.D., Editor, (2006) *Beyond Earth: The Future of Humans in Space*, Apogee Space Press.

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<sup>14</sup> Salk, Jonas (1973) *The Survival of the Wisest*, New York: Harper and Row.