

# Commerce, E-Commerce and Systems Integration Made Simple

*It is easier to perceive error than to find truth, for the former lies on the surface and is easily seen, while the latter lies in the depth, where few are willing to search for it. Johann Wolfgang von Goethe*

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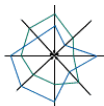
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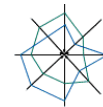
## ***I Useful, Necessary, and Valuable Systems***

*The Information Advantage* provides definition and classification relating to business systems, processes and practices. A system must do **two things** to assist in success. First, a system must produce a necessary, useful or valuable business result. Second, a system must produce sufficient information to detect its own ills so as to enrich its own effectiveness. It is this second "must do" that is much of the subject here. Management has not had the systems discipline to differentiate "worthy" from "worthless." Due to lack of a valuation technique, much of the systems investment is being and has been devoted to useful and necessary systems rather than high value systems.

## **I.1 Customer Demands and Commands**

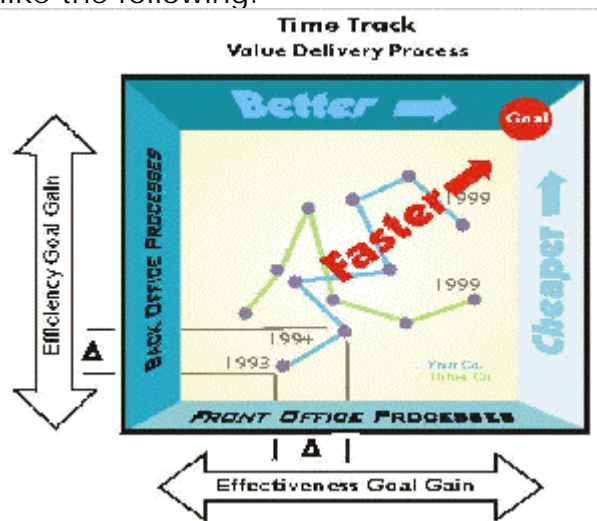
Our customers want, need, and deserve to receive Faster-Better-Cheaper electronic processing systems including e-commerce, e-tailing and e-consulting. There now exists a first time ever methodology that makes it all possible. Called Information ( Info Edges) Technique for Optimum Performance (ITOP), the method calculates the value of information systems. More than that it automatically calculates the state and status of systems integration in any enterprise. More than that it determines the state of systems integration for all our customers on a reoccurring basis. Even better than that, it determines the systems integration status of prospects that we are yet to engage.



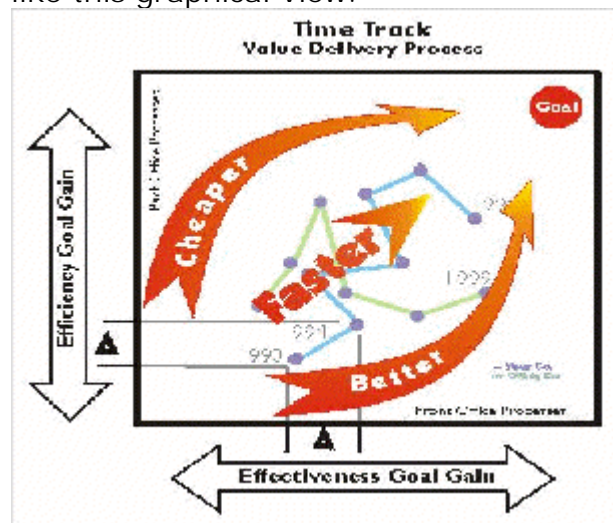


## 1.2 Value View Basis

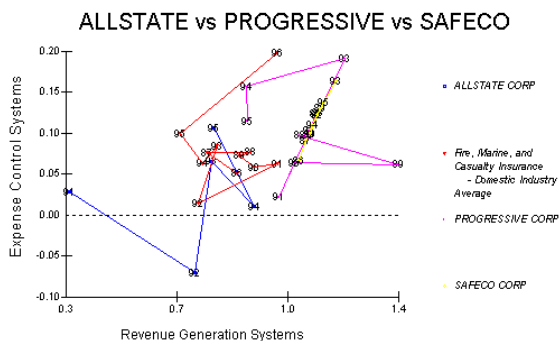
The basis of the method is the creation of better-faster-cheaper value diagrams of the corporation in question. These look like the following.



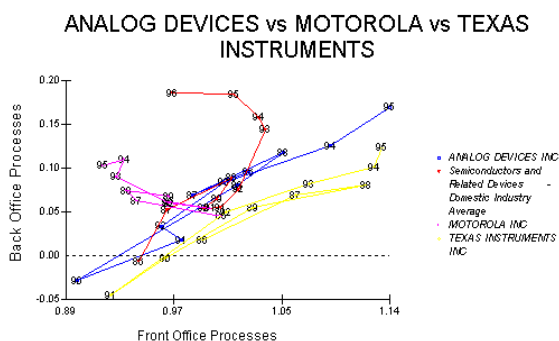
In systems engineering terms the axes of effectiveness (Better) and efficiency (Cheaper) are time tracked (Faster). It is a breakthrough to do all these simultaneously on the same diagram and do it economically. That is what the ITOP methodology accomplishes. The result is very simple and very powerful. It looks like this graphical view.



If one needs to see a real life example, here is one from the insurance industry.

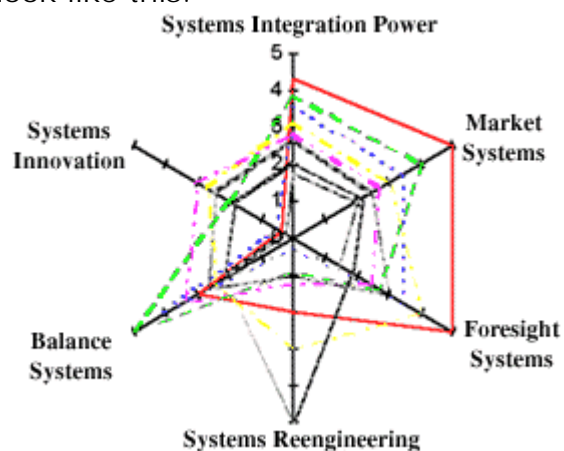


Here is one of the first ones ever created by our teams in the computer chip industry.



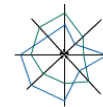
These are interesting but to be actionable one needs to be able to see exactly where the systems value is located in an enterprise and where it is not.

To refine the view, ITOP provides enterprise systems structure diagrams. At the highest level the structure diagrams look like this.



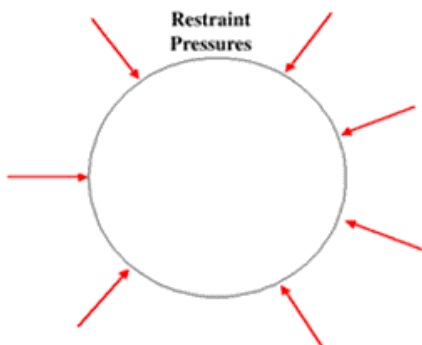
These are value creation diagrams and they are also competitive edge diagrams.



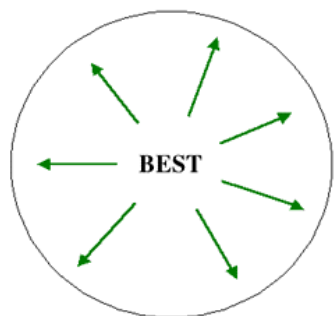


### I.3 A Bit of Background

Consider the core basis of competition. COMPETITION arises at EVERY instance where two or more parties target the same open goal (to win something contended). "Open" means that the future outcome (the winner) is not preordained or predestined.



The fact that each outcome of each competitive activity is not predestined guarantees each future win/loss outcome to be positioned squarely in a situation of risk, uncertainty and doubt. Only choice possibilities and probabilities are guaranteed. Uncertain choices come with fearful risk. Inaction, error and failure are constant undesired companions of risk and uncertainty. Competition and free choice guarantees that there are no absolute guarantees.



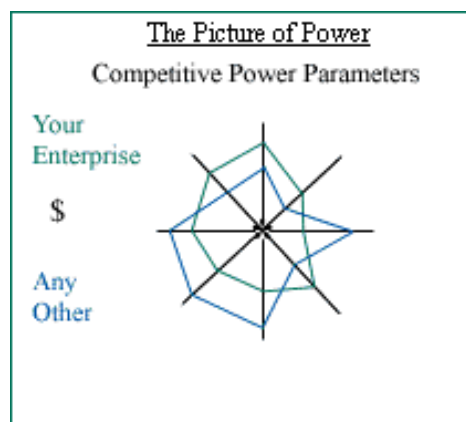
"Best" systems resist the pressures best. The ONLY enemy of risk and uncertainty in the universe is information in some form. Exceptional information is the ONLY thing in the universe that holds the power to alter the winning odds positively or

negatively. Consistent winning requires continuous favorable odds, and the single source is information. Thus, all aspects of **business performance and productivity are information based**. Proper measures and metrics form a guidance system that directs the enterprise toward the goal. Improper or missing measures causes random wandering and lackluster performance (at best). This is amplified later in the article.

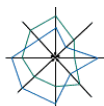
The information **content** of an enterprise or team creates various odds of winning. The odds are unequal and thus the company holding the most potent information also holds the likelihood of success. "Knowledge" and "wisdom" are alternative names for information content.

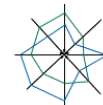
Graphically, the situation looks like the following. Better and better information yields improved likelihood of winning. In turn this creates best chances of producing the desired (goal) outcome.

Simultaneously the winning edges are being created. Other competitors and uncertainties cause the pressures from various environmental sources including nature.



Uncertainties always manifest as some sort of uncertainty in some critical topic.



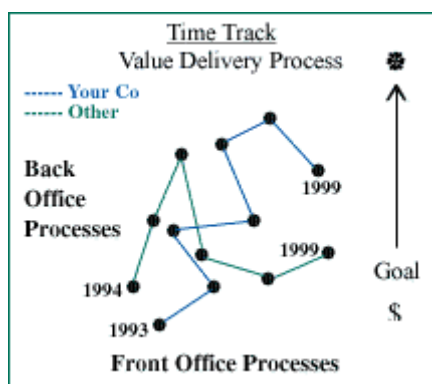


The topics may be represented by the "rays" of the sun-ray diagrams. Higher certainty is scaled to the outer edges and less certainty is located in the center. Thus, the edges are formed between any set of competing entities.

Inaction, error and failure are constant undesired companions of risk and uncertainty. This identical situation happens in all sporting events, games of risk, horseshoes, hand grenades, politics, religion and business. Except in monopolies the situation is impossible to avoid. Even in monopolies, nature is a competitor.

#### I.4 Static versus Dynamic Systems

Situations change. The amount of information changes and so do the edges. New information arrives and fills in gaps where uncertainty resided before. The result of retained information is termed knowledge (or wisdom) - to build systems that are competitive. The rate at which information becomes retained is called learning.



Each person has a learning rate for a particular topic and so does a corporation. It can hardly be otherwise because a corporation is merely a collection of people assembled to accomplish a common goal or purpose.

The existence of a target or goal permits a specific measurement of "best." Sometimes called the "utility function" in economics, the goal is typically a global business objective. Operations research, in fact, substitutes "objective function" as the term for optimizing the enterprise.

Recall that competition enters when two or more entities seek the same goal (and only one can achieve it). That is where the pressure arises.

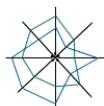
The learning of the prerequisite "winning" formula (highest odds) is constantly changing due to new events and the learning or forgetting of critical items. The time track above is a picture of organizational learning related to value delivery. Each of the "rays" has such a diagram.

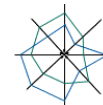
#### I.5 Advantages of Systems Value Maps

The prerequisites are now complete for a good view of the actual and of the future. The required elements are a method of calculating the success criteria among corporations (ray-diagrams) and the rate of chance of each of the system components (time-track learning diagrams). The result gives the greatest advantage that can be achieved because one sees strengths and weaknesses of prospects and competitors (Ahead of Time). One knows what is possible because the other companies are leading (for real) in particular systems. Armed with the future view, investments can be easily targeted at closing the gaps and/or extending the lead. The competitive edges are assured.

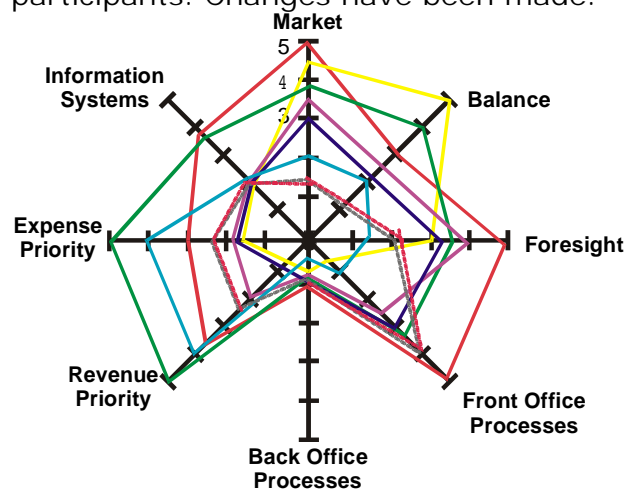
#### II Actual Case Example

The following is a real example of an edge diagram derived from eight companies competing in the petroleum refining industry. Only a subset of the edges are





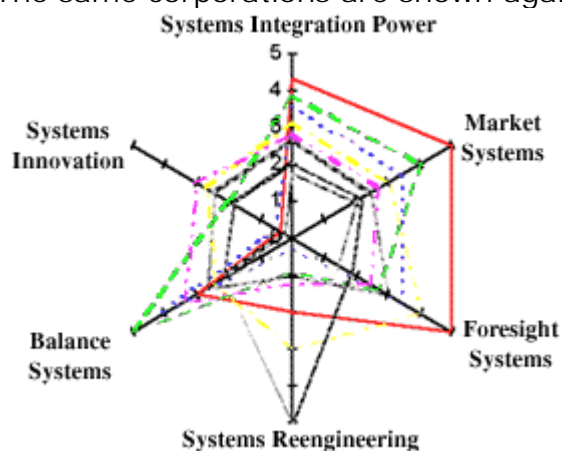
shown here. The effective date is the end of 1996 so as not to upset the participants. Changes have been made.



The companies represented are as follows.

- Lyondell Petrochemical
- EI DuPont DeMours
- Mapco Inc
- Amoco Corp (Amoco)
- Holly Corp
- Shell Oil
- Diamond Shamrock Inc
- Tosco

The picture above is actionable because it points to the corporate "teams" responsible for performance. An overall composite can be constructed by integrating the power of all the edges. The same corporations are shown again.



In essence, the combinations of diagrams constitute the "state diagrams" long

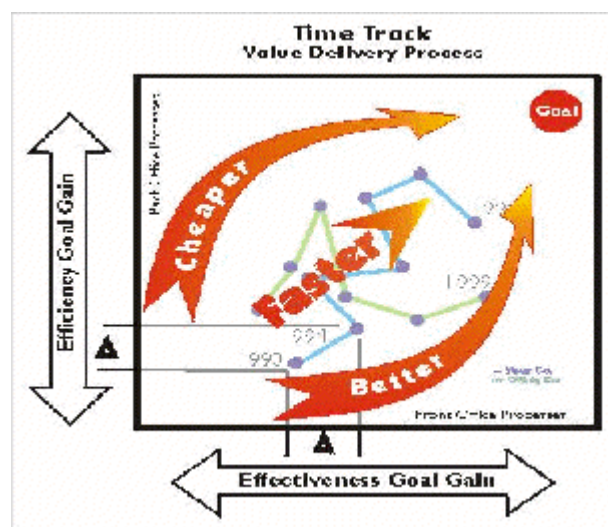
sought by the operations research field but never quantified before now.

Remember that systems support business processes and processes support people to accomplish goals. Thus the degree of alignment of systems with the business goal is also imbedded in the diagrams.

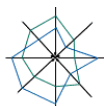
## II.1 Information Differentials - Back to Better-Faster-Cheaper

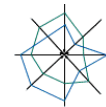
To the extent that anything, or any group or any system genuinely creates real economic value in the corporation, the value will always manifest in faster or better, or cheaper or combinations of these high worth elements.

The problem has been that measurements were incomplete (missing). The only measurement that is prominent in most corporations is "CHEAP." There has been no way to measure corporate process strength worth, "time-to" value, skill learning worth or effectiveness worth. Lots of people "talk" about such things but until now, nobody did actually did anything about it!! The talk was not walked.



This has not been possible until ITOP did it. All talk!





## II.2 Consequences of Missing Technique

How bad has the situation been before ITOP? Blindness caused "worthy" and "worthless" to look the same.

Except in circumstances of blind luck, positive or negative results are a consequence of prior decision choices. The whole of Economics instructs the rule that "return" follows investment. Missing in the teaching is the approach to see the future ahead of time to maximize the returns from each investment.

The evidence of this is well published in the literature and is also known to most from common experience. Successful reengineering of the enterprise is rare. Mc Kinsey published a factual study indicating that 60%-80% of reengineering projects utterly fail. Reengineering IS the process by which change is introduced.

Otherwise high potential methods fail because the highest return placement for investment is not visible. Investment requires an accurate future view. Biased information in the corporate guidance system causes random results. Here are a few of the historical consequences.

Systems integration management has no proper measure for the actual degree of integration, the value of systems or whether progress is being made. Missing also (except for ITOP) is the identity of the NEXT highest value system needed to compete in the marketplace.

Business practice management has no proper method of quantifying the position, strength and value of internal practices to determine which are best and which are inferior. The identity of which **next** practice replacement will yield

highest returns is invisible - Ahead of Time.

Process management (Quality) is ineffective when applied to the wrong process. Process management has no proper measure for the **next** process that will generate the highest return - Ahead of Time.

Information systems management has no proper method of determining the value of systems and which is the **next** system investment will harvest the greatest value - Ahead of Time.

Supply chain management has no proper method of determining whether the point of diminishing returns has been reached - Ahead of Time.

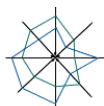
Human resource management has no proper measure for the actual organizational learning value and/or the **next** competency gaps to address - Ahead of Time.

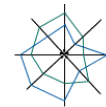
Cycle time management has no proper method of properly calculating which **next** cycle time improvement will yield highest returns - Ahead of Time.

Operations research has no proper method of measuring the actual state of optimization and the **next** highest return path - Ahead of Time.

Competitive edge management has no proper method to measure the size, position and value of corporate edges, and simultaneously the edges of competitors, suppliers, prospects and customers.

Work simplification has no proper method of determining which **next** simplified





practice will result in highest value returns. - Ahead of Time.

Financial management has no proper method of locating and quantifying the actual value creating assets of the corporation, competitor organizations and customer organizations. Financial analyses showing **next** needed value-creating assets of customers are missing.

Performance management has no proper method of identifying the degree of value delivery or which assets caused the performance. The highest **next** performance investment is blind.

Incentive management has no proper method of identifying and measuring team contribution to value creation.

Knowledge management has no proper method of quantifying the value creating knowledge locations in the corporation. More importantly, corresponding knowledge positioning of the competitor and customer organizations are missing.

Given these circumstances the task of investing in positive future outcomes is difficult for an enterprise. The outlook is not good. **One can not effectively manage what cannot be measured. It is impossible to compete against those that can.**

The comment "no method" is meant to be no proper technique satisfying the metric design criteria for unbiased measures. All of what is missing listed as "missing" above is contained in the ITOP diagrams and methodology. Recall at the outset that sustaining systems must accomplish TWO things to assist in success. First, a system must produce a necessary, useful or valuable business result. Second, a system must produce sufficient

information to detect it's own ills so as to enrich its own effectiveness.

### II.3 Optimal Tactics

Measuring and knowing the actual enterprise system integration state of a business relative to its **competitors** unfolds an optimal strategy. The basis can be simply put.

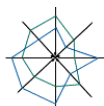
#### It's Simple!

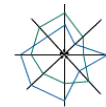
All we really need to do is:

1. **Find out** what we do that is **really valuable**.
  - 1a. **Locate** those with the HIGHEST value **next** need for what we do.
2. **Find out** what is **NOT** valuable.
3. Do, Deliver a lot of #1 & #3 (**maximize**) and little of #2 (**minimize**).

Courtesy *The Information Advantage*,  
pg. 196  
Attributed to Mr. J. Heller, Director -  
Mutual of Omaha

The implementation is elegant and simple. Integrators (internal or external) can and should periodically measure the actual degree of enterprise system integration for their enterprise and most importantly, prospects and customers. In so doing the weak and strong system components for each customer and prospect will naturally be exposed. This presents the opportunity to target precious (and limited) resources where at the largest premium. That is, the highest customer enterprise system "need" will always be in focus. It follows that home company personnel resources (both technical and business) will be working in, and learning to solve, the **highest value customer system** issues.





People and products will **continuously** be dispatched into highest internal and/or customer gain opportunity positions and building skills that are the MOST important in the marketplace. On the occasion that a customer industry should have a systemic deficiency that occurs frequently and repetitively, the opportunity arises for a "packaged" solution wherein the integrator can develop a learning curve and possibly a set of tools or programmed products/applications. In such cases a powerful core will be created that concentrates the skill base exactly at the high worth target. In fact, a pre-scan of industries will isolate whether such a possibility exists so that preparation can be made to best target the possibility. The worth of integrator resources, and economic returns can only be maximized if (and only if) resources are devoted into the areas of highest customer return. The most critical enterprise systems deficiencies of customers will typically enjoy the best funding and highest gratitude upon solution. This scenario holds the likelihood of operating with the maximum budget for addressing the biggest gain topics.

Consider the consequences of ANY other approach (whether internal or externally viewed). Assigning precious resources to random internal or customer tasks of marginal value cannot accelerate the enterprise cause. The returns will be haphazard. The fragmented learning curve leads to a huge problem of organizing and assigning resources to projects. It is common to end up with the wrong people on the wrong projects at the wrong time **learning low worth skills**. This would seem to be a recipe for failure.

### **III Why does ITOP Work?**

ITOP stands alone. Excellence is always rare. One cannot effectively manage what one cannot measure. Moreover, one cannot compete with someone that can.

To accomplish doing "**right things, RIGHT**" first requires identifying the **highest gain RIGHT THING** and doing so Ahead of Time. No other method can properly or practically locate the highest worth **next** enterprise goal gain.

The highest gain will always be located in the position of largest uncertainty, doubt and risk - **always**. Information systems including knowledge systems are the only thing in the universe that eliminates the success gaps.

None of the other management methods can simultaneously measure and compare the value creation causes in both inside and **outside organizations** ( prospects competitors, customers, etc.). A requirement for managing any approach is the ability to measure the impact value of alternative choices - Ahead of Time.

### **IV. Summary**

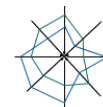
The fact remains. High worth returns **follow** investments. The guidance system (management systems) must reliably see the highest value NEXT opportunity.

To accomplish doing "right **SYSTEM, RIGHT**" first requires identifying the **highest gain RIGHT SYSTEM** and doing so Ahead of Time.

Business is a bit different from war but Sun Tzu principles apply because competition is competition. If IT were simple, everyone could do it.

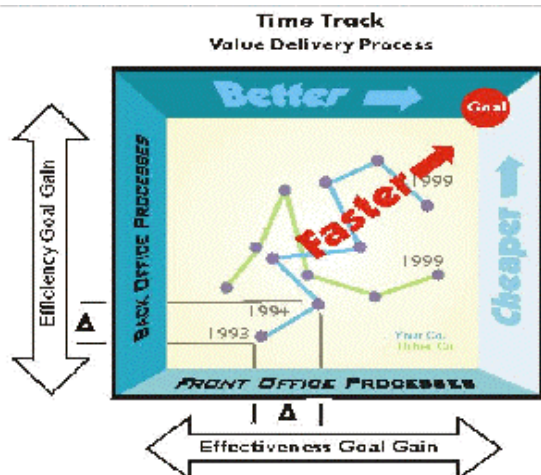
Now everyone can!





"Now an army may be likened to water, for just as flowing water avoids the heights and hastens to the lowlands, so an army avoids strength and strikes weakness."

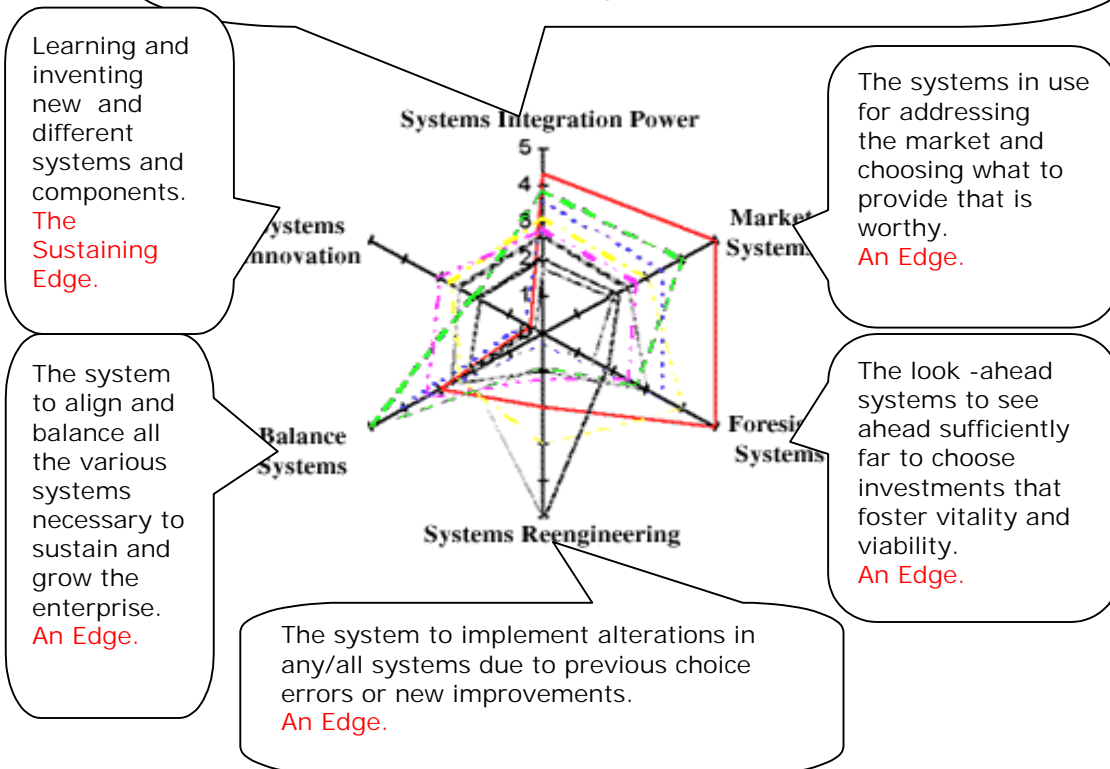
Sun Tzu - "The Art of War"



What ITOP now does is to identify the state, status, value and gaps in our customers' system integration. One can then prevent our customers from weaknesses that others attack. Timewise effective efficiency measures identify the strength of the resulting system of edges, practices, processes and learning.

IT can be made clear and simple. It's only a difference between seeing high and low worth business practices, processes and the systems that support enterprise growth of wealth and well being.

The **integrated**, total combined Power of all the Man-kind and Machine-kind systems. e.g. The Whole People Team and the machines they choose to bring and use. Included are information systems, knowledge systems, transportation systems, construction systems, systems of business conduct, systems of production, systems, problem solving systems, political systems, wellness systems, and so on. From all the universe of systems, choices are actually made and put into use. Some do it best. **Composite Edges.**



ITOP is a system that shows which systems are most valuable. THE CRITICAL system!

