

A Knowledge Innovation Kaleidoscope

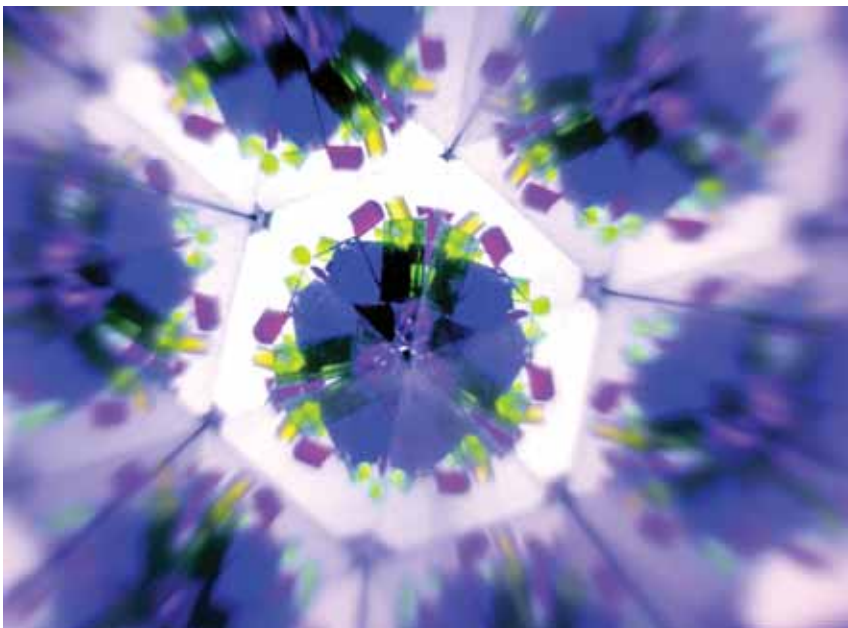
KM Coming of Age

Change is anything but predictable. Every dimension of the management enterprise has been transforming – moving towards an integration of performance measures, behavioral outcomes and technology to support collaboration required in 21st Century management. No longer can changes be viewed exclusively. It is the compounding effect – similar to the completely new images in a kaleidoscope – which must be taken into consideration as an organization charts its new direction. Once these forces are understood and embraced, they can become linchpins for the process rather than hindrances to success.

*In the memory of man, no invention, and no work,
whether addressed to the imagination or to the understanding,
ever produced such an effect.*

*A universal mania for the instrument seized all classes,
from the lowest to the highest,
from the most ignorant to the most learned,
and every person not only felt, but expressed the feeling
that a new pleasure had been added to their existence.*

ii Kaleidoscopic Renaissance¹



Imagine for a moment that you are peering through a kaleidoscope, with many vibrant colors of glass, elaborate pearls and a variety of precious metals – silver, gold and copper. As you turn the barrel, the images change shape...a little. You turn the barrel again the same amount and the image changes again...a little. Then, you touch it ever so slightly and the entire image takes a new form. For some reason, the combination of your movement and the natural laws of physics have changed the reflection...forever. At that moment, you realize that you cannot return to the previous shape and you must move forward.

Similarly, enterprises have undergone unprecedented change. Some adjustments have been by design; the remainder has naturally evolved. Each has had an impact on the other. Some adjustments – however carefully constructed – have not produced anticipated results. In many instances, the reverse effects may have occurred. Then, there are those times when the unexpected just happens and you cannot seem to trace the roots of a successful venture. Who would have predicted the success of Google, E-Bay, I-Phone or The orb-like Tata Nano – even a few years ago? These are breakthroughs of sorts – the effect of a multiplicity of factors which, coming together, produce a certain result.

Breakthroughs can come in the form of a research discovery which so catapults the application possibilities that even current R&D seems obsolete. It can be in the form of a market acceptance which demands more of the technology than product engineers

¹ Baker, Cozy. *Kaleidoscope Renaissance*. Annapolis, MD: Beechcliff Books (1993), Pgs. 11-12.

ever imagined. It can come in the form of a managerial set of experiences during which the collective insights of a team produce something far beyond what any combination of individuals might otherwise have designed. I would argue, these developments are also the result of excellent Knowledge Management (KM) practices and programs ñ developed over the last two decades ñ that have been employed from the strategic technology investments to the shop floor.

Fifth Generation Management practices must be knowledge-based. Systems must be collaborative ñ not competitive or even cooperative and the focus upon the entire innovation system must include suppliers, distributors and other stakeholders including cus-

tomers and even competitors. Such strategic business innovation systems operate amidst kaleidoscopic change, the dynamics of which will accelerate over time. (See Exhibit I)

Business performance will be measured in terms of intellectual assets and the ability to create and apply new ideas in a volatile marketplace. Symbiotic learning networks ñ electronic and human ñ are as essential to day-to-day operations as they are to business strategy formulation.

All participants in the innovation system are self-motivating and responsible for creating new knowledge as a way of contributing value to the corporation and customers.

Managers will learn to monitor the ñflow of knowledgeñ with the same

rigor as they previously managed the flow of capital, parts and materials. Information technology, with sophisticated computer and communications systems, will embody knowledge processing capabilities which learn and feed forward intelligence to all participants throughout the enterprise. Knowledge is the asset to be managed and a new focus upon customer success provides a progressive way to together innovate a future.

In 20 short years, an agenda that was in the minds and hearts of a few has become the dominant theme of deliberations for the new Millennium. Knowledge ñ often defined in terms of Intellectual Capital² ñ is clearly the source of new economic wealth. Innovation is the process by which that

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Her Network includes the internationally recognized ENTOVATION 100 of Global Leadership with 160 members from 62 countries. Her own specialties include knowledge management, e-learning networks, customer innovation, and enterprise transformation. She’s been featured in notable biographical publications such as *The International Book of Honor* and *the Woman of the Decade*.

She has presented extensively in as many as 35 nations throughout the North and South America, Eastern and Western Europe, Asia, Australia and South Africa and the Middle East. Her interviews have appeared in global media, such as *Ottawa Citizen*, *Innovacion*, *Singapore Business Times*, *Effective Executive*, *CORDIS* – the EU Press, and the *Arab News*.

Debra was featured along with ten Nobel Laureates in the “Festival of Thinkers” held in Abu Dhabi hosted by the Crowned Prince, and subsequent presentations in Dubai and Bahrain. Her certification program has been instructed through the Ministries of Egypt and courses downlinked throughout Saudi Arabia. She is a founding member of the Arab Knowledge Economy Association (AKEA).

In India, her articles have been published in many ICFAI publications, including an interview for *Effective Executive*. This month, her training program on Knowledge Innovation® was sponsored by MindTree Consulting and the Confederation of Indian Industry (CII).

In addition, her counsel has been sought by *Fortune* 50 and world-ranked sustainable companies as well as other diverse organizations.

Her background spans Higher Education Administration (as the 1st female associate dean at Babson College); state government (as the Assistant Secretary of Education for the Commonwealth of Massachusetts); and 12 years of industrial management (in the Office of the President of



Digital Equipment Corporation) where she established the 1st industrial-strength management systems research organization in the world.

She has authored many seminal books published in many languages, such as *Innovation Strategy for the Knowledge Economy: The Ken Awakening* (1997) and *The Innovation SuperHighway* (2003) which has been called “the breakthrough innovation book of the decade” and selected by the European Union KnowledgeBoard as the book of the month.

When she visited Beijing in 1998, her books were translated into Chinese. This fall, she will release a three-volume co-edited trilogy, *Knowledge Economics: Principles, Practices and Policies* published by Tartu University Press (Estonia) featuring 27 authors from 14 countries.

Debra holds degrees from Boston University, Columbia University and the Massachusetts Institute of Technology where she was an Alfred P Sloan Fellow.

Debra has been referred by her peers as “Drucker operationalized” and the “Deming for innovation management”. Her ENTOVATION Network is intended to create collaborative advantage to provide a foundation for economic sustainability, stakeholder innovation and world peace.

² The concept ñIntellectual Capitalñ was first published by Amidon in 1987 ñ <http://www.entovation.com/EN2POLis-Manag-Knowledge-Asset-21Century.pdf>.

**Exhibit I
5th Generation Innovation***

	Performance	Structure	People	Process	Technology
I. Technology Transfer	<ul style="list-style-type: none"> Quantitative Tabulations 	<ul style="list-style-type: none"> Functionally-Driven 	<ul style="list-style-type: none"> Technology-push Skill Dependent 	<ul style="list-style-type: none"> Linear Sequential Transactional 	<ul style="list-style-type: none"> Data-Based
II. Technology Exchange	<ul style="list-style-type: none"> Qualitative Quid pro quo 	<ul style="list-style-type: none"> Functionally Interconnected 	<ul style="list-style-type: none"> Market-Pull Relationship Dependent 	<ul style="list-style-type: none"> Dual Communication Mutual Exchange 	<ul style="list-style-type: none"> Information-Based
III. Knowledge Exchange	<ul style="list-style-type: none"> Qualitative Quid pro quo 	<ul style="list-style-type: none"> Decentralized Local Autonomy 	<ul style="list-style-type: none"> Push-Pull Balance Learning Process 	<ul style="list-style-type: none"> Cross-Function Communication Change-Oriented 	<ul style="list-style-type: none"> Knowledge-Based
IV. Knowledge Management	<ul style="list-style-type: none"> Productivity Partner Satisfaction 	<ul style="list-style-type: none"> Centralized Command and Control 	<ul style="list-style-type: none"> Role Definition Accountability 	<ul style="list-style-type: none"> Integrated Interaction Transformation 	<ul style="list-style-type: none"> Collective Knowledge-Based
V. Knowledge Innovation	<ul style="list-style-type: none"> Investment Strategy Partner Success 	<ul style="list-style-type: none"> Distributed Networks Multiple, Dynamic Modes 	<ul style="list-style-type: none"> Self-Managing System Empowerment 	<ul style="list-style-type: none"> Real-Time Global Learning Symbiotic 	<ul style="list-style-type: none"> Intelligent Knowledge Processors

* Rogers Debra M Amidon. "The Challenge of 5th Generation R&D: Virtual Learning." *Research-Technology Management Journal*. Washington, DC: Industrial Research Institute (July, 1996). pp. 33-34.

wealth is converted into action in products, services or initiatives. Although activities can be based at the level of the group, function, enterprise, or nation, ultimately real value is in what flows between the borders in creating collaborative advantage.

Knowledge is valuable; but knowledge operationalized is more valuable. Innovation is the heartbeat of knowledge flow. Innovation is how value is created from the creation and application of new and reused ideas. Innovation is where inspiration and action meet to create value. There are three definitions that provide a grounding of understanding:

➤ **Knowledge-Based Economy**

An economy where organizations and people innovate knowledge of existing and new or more effectively to enhance economic growth and collaboration.

➤ **Knowledge Innovation³**

The creation, evolution, exchange and application of new ideas into marketable goods and services for the success of an enterprise, the vitality of a nation is

economy, and the advancement of society.

➤ **Knowledge Innovation Zone**

A geographic region, product/service/industry segment or community of practice in which knowledge flows from the point of origin to the point of need or opportunity to improve economic performance and socio-political well-being. A zone of innovation can be any type of enterprise in profit or non profit. It can be defined as a company, a sector, a geographic region or virtual community and can include stakeholders in depending upon the intended scope of reach.

The variables for sustainability in economics, education, environment and more are interdependent. Similarly, we represent nations that are treasured for their diversity, but true value is discovered in the collective in what we have to offer one another. All innovation begins with the individual within who lay intuition, intellect and imagination. Innovation is a call to action, for only when knowledge is acted upon there is a benefit to society.

The dramatic effects of the acceleration of technology in its receptivity and promise are providing an infrastructure within which our knowledge can be created, shared and applied in real-time.

Terms such as Web 2.0, Serious Gaming and notions of Singularity were not even in the management nomenclature 5 years ago in never mind on the cover of *BusinessWeek* and the focus of workshops in corners of the Globe, such as Muscat, Oman, which hosted the World Summit for Innovation and Entrepreneurship (WSIE) in 2006.

How does one manage in such an environment subject to so many interdependent variables in known and unknown? In some respects, effective leaders seem to revel in the wonder of it all, control what they are able and leave the rest to human and Mother Nature. This is the essence of a dynamic global economy in constant motion, shaping and being reshaped by daily and strategic decision making at every economic level. As described by Margaret Wheatley: amidst the apparent chaos, there is a natural order of things. Patterns emerge from which we can discern the next step forward. She speaks of "the constant weaving of relationships...energies that merge and change...a ballet of chaos and order, of change and stability, as two complementary aspects in the process of growth."⁴

Innovation Agenda (Finally) on the Radar Chart

We've all become actors in the exploration of the new innovation frontier.

It is about innovation. It has always been about innovation; but it has taken some time for the knowledge community in infant as it is in to acknowledge the importance of the innovation system rather than merely accounting for intangible variables or cultivating knowledge-sharing networks and communities. Knowledge-sharing to what end? How does one chart the interdependence of perfor-

³ Knowledge Innovation is a registered trademark of ENTOVATION International Ltd.

⁴ Wheatley Margaret J. *Leadership and the New Science: Learning about Organization from an Orderly Universe*. San Francisco, CA: Berrett-Koehler Publishers. (1992) Pgs. 20-21.

Exhibit II
Migration to Innovation Strategy
Migration Opportunities

	Business Planning	Innovation Strategy
Mapping	<ul style="list-style-type: none"> Facilitates the optimization of financial resources to maximize business goals; extrapolation of past performance, product/marketing and benchmarking. 	<ul style="list-style-type: none"> Facilitates the innovation of broadened goals – knowledge being a renewable resource; process is a learning system for the creation, conversion and commercialization of ideas.
Scaling	<ul style="list-style-type: none"> Appraisal based upon valuation with generally accepted financial principles; documents where you have been. 	<ul style="list-style-type: none"> Appraisal based upon both financial and intellectual capital – managerial standards; points where you are going.
Compass	<ul style="list-style-type: none"> Based upon classifying costs – labor, material and overhead; has a direct impact on the efficiency of the business. 	<ul style="list-style-type: none"> Based upon knowledge/learning indicators – organization memory, knowledge – sharing, partnering; has direct impact on performance and productive growth.

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mance, behavior and technology? This is the question. It is not the knowledge that gets created as much as how it is put into action – shared or applied – however that might be defined. Now, Chief Knowledge Officers (CKOs) have morphed into Chief Innovation Officers – the new CIOs.

Our top leadership has evolved from a past in which command-and-control was the managerial order of the day. Many are trying to manage organizations in dynamic business environments with 50 year old management technology. These concepts may be quite foreign and very difficult to justify. How does one create a rationale and business plan for an unserved market and unarticulated needs? The fundamental market changes of uncertainty have changed the core role of executive leadership into one of trust, learning and inspired vision.

Historically, good managers were able to create a high quality product or family of products, identify the potential market, develop a strategy and leverage of results. The current kaleidoscopic environment prohibits such simple, linear successes. Amidst such dramatic change, organizations must create ways to manage stability and

change – simultaneously according to the management philosopher Henry Mintzberg.

We live in an interdependent world. Independence is no longer a viable managerial option. Similarly, changes do not occur in a vacuum. One change has an automatic effect on another series of variables, and subsequently is effected by those changes – usually in unexpected ways.

Reality is that there are hundreds – maybe thousands – of key variables which are integral to the survival of an enterprise. Leadership in the Knowledge Economy is different from the industrial or even information economies. It is an economy in which the innovation capacity of every human being, enterprise and nation is fully engaged. It is an economy in which culture and heritage are respected, commonalities are more important than differences, and aspirations can be shared across boundaries.

It is an economy that demands a fundamental new mindset and common language to harness the capabilities of a global, networked world. Success begins with a calibration of current state, articulation of future state

and the gap analysis of initiatives to guarantee leadership positioning. Ideally, it connects initiatives – across functions, product specifications, markets and geographies – to harness the intellectual capital and intangible assets of the enterprise in ways that are cost-effective, efficient and result in impact.

Migrating from Business Planning to Innovation Strategy

A strategy is a deliberate plan of action and the leadership capability to see the plan through to execution. An innovation strategy is similar to a road map in that it outlines where an enterprise is to go, and organizes the resources to get there. However, there may be no perfect map; and the measuring devices may not be as accurate. A competitor may change the whole landscape even before we reach goals.

Key to developing an innovation strategy is looking at knowledge – especially new knowledge – as a resource. Knowledge and innovation are the key players in the path of progress. An innovation strategy is also distinct from business planning. For instance business planning is an analytic routine based on the tacit assumption of continuation of current situation (status quo). Innovation strategy, on the other hand, is a synthetic practice based on innovation and uncertainty – something which capitalizes upon the effects of a kaleidoscopic economy.

The first step for an effective innovation strategy is to make the process explicit. It is that simple and that complex at the same time. If the process is not managed systematically, it is left to serendipity. Most organizations expect innovation from R&D, the function where new ideas are funded. With a global and interdependent perspective of the enterprise, ideas can and must come from every function and external stakeholders. (See Exhibit II)

A geographic Atlas⁵ provides a systematic presentation of the World –

⁵ The Knowledge Innovation Atlas was a concept developed with Dr. Darius Mahdjoubi and published in the 2000 *Handbook for Business Strategy* (1999). For a summary of the article, see: <http://www.entovation.com/whatsnew/atlas1.htm>

part of it ñ on a flat surface, although the earth is a globe. It provides a methodology needed for planning and implementing travel. It is generally considered a comprehensive resource of the world, as we might know it today. Usually, it consists of three distinct, albeit interrelated, parts: Mapping for organizing commonalties; Scaling to provide measurement and relational information; and a Compass for direction.

Shortly after the astronauts of Apollo 17 reached the moon, the world awakened to a new perspective of bringing a vision into reality. It required more collaboration and faith than anyone previously dared to dream. Results were wondrous ñ beyond expectations. Similarly, executives today are caught in a quandary. They can continue to utilize the tried-and-true methodologies (unsuited for today's economic environment) or they can experiment with the unknown and venture forth with management initiatives that project innovation, creativity and responsible risk. New assumptions⁶ have formed:

1. Knowledge is the primary driver of innovation ñ not technology.
2. The value of human potential can and should be linked to economic results.
3. It is a system dynamic ñ not a cause-effect value chain ñ that is operating.

4. A prosperous future is based increasingly on interdependence, interaction and collaboration.
5. It is the flow of knowledge that must be visualized, monitored and incentivized.

Integration of knowledge as an interdependent variable into conventional business methodologies creates a dynamic no less dramatic as the shifting from a flat earth view of the world to a global view. Initially, the world was seen as 2-dimensional ñ similar to how many business managers perceive their business environment today. Design a market matrix, create a balance sheet and manage the process in a simple methodical linear mode. Build the better mousetrap and the market will beat a path to your door.

Similarly, Business Planning is the current representation of the process and plans necessary to position a particular enterprise with competitive advantage in a particular industry or region of the world. It provides a methodology to define business plans usually based upon a product/market portfolio.

In contrast, a 3-dimensional global view capitalizes upon the dynamics of the multiple effects of what we describe as a kaleidoscopic economy. It is not the speed of change of a variable, or the speed of change of multiple variables. It is the compounding

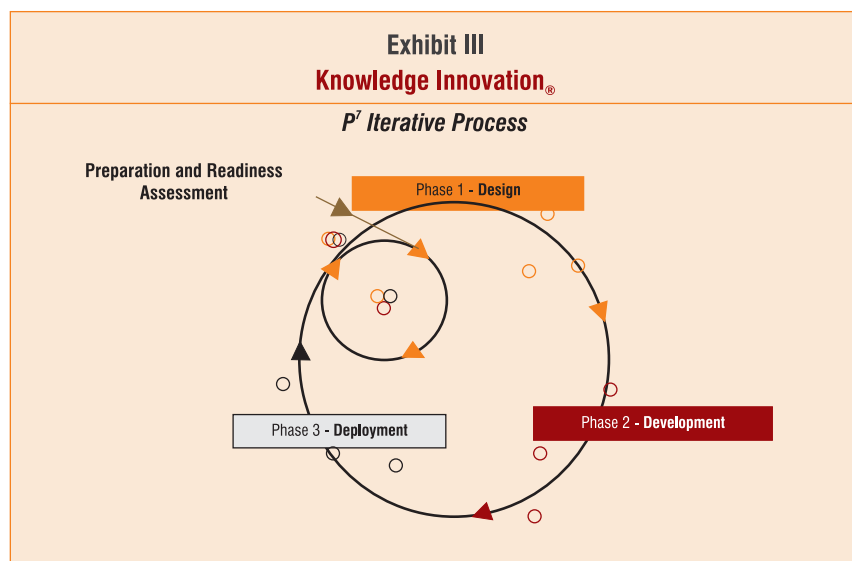
effect of the speed of change of multiple variables creating a business environment that is difficult to understand, much less to manage. The challenge is not to make existing businesses bigger; it is to create new businesses. It is not to evolve existing technologies as much as it is to envision products and services, which meet the unarticulated needs of customers or an unserved market and to do so ahead of the competition. Today, the market operates with a system dynamic we do not yet understand.

Knowledge Innovation ñ In Action

We need not leave the management of the process to serendipity. Given the negative results of downsizing, stock market paranoia and global economic instability, we need to manage the innovation environment more than ever. However, it is more a function of creating the conditions within which innovation can occur ñ where ideas flow into and within the system and are converted into viable products and services that create value. Create the playground, determine the players, cultivate interaction and mind the results.

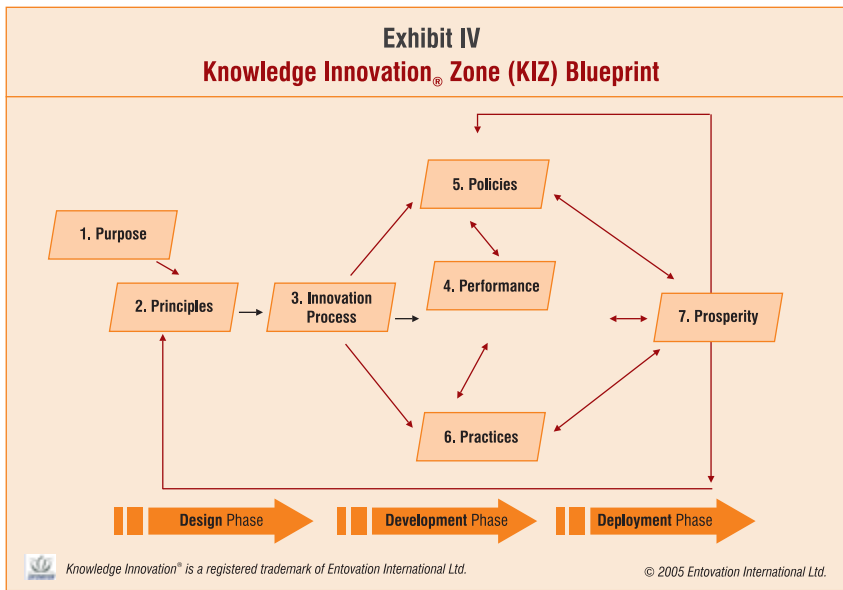
The P⁷ KIZ Assessment is a social systems design methodology to manage programs from concept through full-scale implementation. Knowledge, as the asset of abundance to be managed, has a magnifying effect as represented in the P⁷ (i.e., P to the 7th power). P⁷ targets the flow of knowledge with a new mindset and systematic assessment process based upon inspiration, insight and interaction. Value is created when knowledge is in motion. P⁷ is an inquiry and application system ñ an iterative process ñ building upon the interdependence of three major phases: Design, Development and Deployment ñ each with pre-work and instructional materials. (See Exhibit III)

With USAID Funds, the ENTOVATION methodology was



⁶ Assumptions defined as a collective discussion in a meeting for the Society of Management Accountants of Canada (1998).

Exhibit IV
Knowledge Innovation[®] Zone (KIZ) Blueprint



used across the Ministries of Egypt via the administration of the Regional Information Technology and Software Engineering Center (RITSEC) and virtually facilitated through Eurofocus International Consultants based in Germany. Results⁷ produced a Proof-of-Concept and included how 120 high potentials in 8 cohorts generated: 32 group Knowledge InnovationÆ projects; 160 innovative and viable ideas; 320 small projects. 15 Knowledge InnovationÆ trained high potentials developed: 5 viable Knowledge InnovationÆ Strategy funding proposals and are moving them into incubation. Examples include:

- İ National Knowledge Innovation Network
- İ Empowerment of youth through employment
- İ National Cooperation Centre
- İ Public-Private Partnership
- İ SMART Centres for Youth
- İ Investors' Guide
- İ Enhancing SME competitiveness
- İ Commercializing The Unit of Feasibility Studies
- İ Empowerment of Women
- İ The National Council for Egyptian Expatriates (NCEE)
- İ Leaders of the Future
- İ Leading EGAS to the Knowledge Innovation Era

- İ Tourist Data Integration System
- İ Narrowing the Gap between NRC and the Business Sector.

Early stages of the innovation process are fundamental to successful implementation. The selection of the innovation management team includes stakeholder, including sponsors and champions. Time is taken to clarify overall purpose and mission, envisioning the project/program, training the team and setting guidelines for interaction. The goals are to create a strong strategy for success with selected and invited members, set criteria for working together, state open or objective outcomes, and get a grounding of purpose to work together.

The P7 Blueprint operates more as a value system of activity than a chain of activities or events. For our purpose, the P⁷ diagram (Exhibit III) illustrates some of the connections: Purpose, Principles, Process, Performance, Policies, Practice and Prosperity through Stakeholder Innovation.

Each P segment includes a Guidebook with specific objectives, reference material, case examples, tools for analysis and in some cases instructional tools. Together, they represent a system for high-performance and sustainable innovation in the Knowledge Economy.

1. Purpose

The Triple Knowledge Lens (TKL) is the foundation for a new mindset on how to view the operations of an enterprise ñ geographic, company or virtual. It is holistic, integrated and complete. The TKL is the balanced triangulation of successful and sustainable results across the knowledge-based economy (business and commerce), the knowledge-based society (people, communities and culture), and the knowledge-based infrastructure (organization, technology and environment). The emerging trends range from the war for talent, effect of networks, new business models for commerce and delivery, virtualization of markets, globalization, the value of visualization, and zones of innovation.

The **intent** is to have a shared understanding the trends of the Knowledge Economy and determining the TKL implications for the enterprise.

2. Principles

Ten prevalent KIZ principles ñ carefully researched with intelligence analytics ñ can be used as guideposts into the future from economic abundance, to knowledge fusion and the knowledge technology grid. A Knowledge Fundamentals Architecture (KFA) enables the development of a strategic direction and a common language to define a shared vision, understand the value system, and establish new mindsets and standards of operational excellence. Five architectural domains (performance, structure, people process and technology) allow executives to explore new financial and non-financial performance, socio-cultural development, people trust-building, the innovation process and literacy of technology.

The **intent** is to examine the principles, architectural considerations and options for action-based strategies suitable for enterprise planning.

⁷ Results are all available on a public website: <http://www.mastering-exchange.com/KEN-RITSEC/RITSEC-Masterfile-Web.htm>.

3. *Process for Innovation*

The impetus for change ñ incremental and breakthrough ñ begins with innovation; and innovation begins with the individual. Value is realized when joint insights are crystallized into actionable projects and services. The Knowledge Innovation Assessment (KIA) methodology provides ten dimensions of analysis: Collaborative Process, Performance Measures, Education/Development/Incubation, Networks/Culture, Innovation Intelligence, New Products/Services, Strategic

Actions can range from creating the conditions and incentives to optimize potential futures to inspiring the imagination of sponsors for financing.

The **intent** is to gain an understanding of which drivers and influencing variables are most germane and ñ if established ñ would yield expected standards of results, and to put the plan in motion.

5. *Policies*

The flow of knowledge and intangible assets, not the flow of tech-

conferencing. This new knowledge leadership requires an understanding of the new roles and responsibilities at all levels of the organization, and a deeper understanding of how best to guide behavior with improved metrics and incentives to put into place sustainable actions. There is consensus that innovation competence more about changing behavior ñ individual and group ñ than just developing new ideas and skills. To ensure application of knowledge requires new innovative procedures at multiple levels of economy interaction.

The **intent** is for bench-learning, (i.e., learn from the best), to transfer those insights into the leadership and to be able to map and visualize the knowledge innovation gained.

There is consensus that innovation competence more about changing behavior – individual and group – than just developing new ideas and skills. To ensure application of knowledge requires new innovative procedures at multiple levels of economy interaction

Alliances, Market Image/Interface, Leadership/Governance, and Computer/Communications Technology. Plans are created with potential impact in mind.

The **intent** is to perform a systematic gap analysis of the relative strengths and weakness of the enterprise and create an integrated knowledge strategy and projects to effect high-performance.

4. *Performance*

Building upon the TKL (Step 1), executives need to identify relevant parameters of what constitutes success. Enterprises are becoming increasingly dependent upon value contributed to the bottom-line by intangible or intellectual ñ human, relational and structural variables. To realize results from ambitious plans ñ whether company, country or cluster-based ñ requires significantly improved indicators to ensure economic growth and/or regulate and streamline performance delivery. Eleven drivers include modern, intangible forms of capital: Reputation, Leadership, Innovation, Diversity, Brand, Cultural, Organizational, Technology, Network, Strategic and Knowledge Capital.

nology per se, needs to be incentivized and monitored. To enable a culture of innovation and entrepreneurship ñ whether company or industry-based ñ requires new methods of governance. Given emerging market dynamics, new guidelines are required to cultivate community networks, high levels of trust and transparency, responsible risk-taking and enterprise brand integrity. These are not the command-and-control systems of the past, but develop leadership vertically, horizontally and diagonally ñ and, for the most part, need to be considered in a local, regional and global context.

The **intent** is to revisit existing policies to stimulate more effective the knowledge-based economic and financial policies to foster human and technical communications across boundaries and result in more efficient and effective innovation practices.

6. *Practices*

Around the world, organizations are experimenting with new models of management innovations, from communities of practice to electronic (and even mobile)

7. *Prosperity*

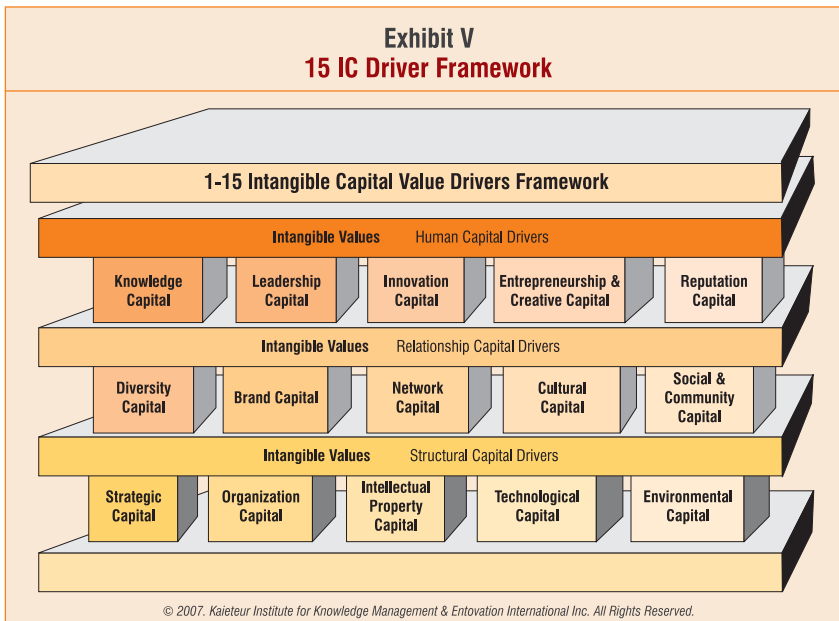
You have not innovated until your stakeholders place more demands on your invention. However, you define your constituency, you are dependent upon their success, not their satisfaction. Stakeholder interaction is more about a continuous Moebius strip relationship of creating mutual value. Once designed and developed initiatives need contact feedback and monitoring so that progress is inevitable and sustainable. Promotion takes many forms, such as verbal, print and multi-media, and should almost always be considered bi-directional. Treat customers ñ and stakeholders and competitors, for that matter ñ as sources of knowledge, rather than points for end delivery. They are partners in your future.

The **intent** is to create viable mechanisms to ensure constant iteration of new products and services to meet constituent needs and to do so while maintaining an innovative competitive positioning.

Performance Variables ñ New Capital Drivers

The heart of any innovation system is performance ñ however that might be measured. To-date, however, we mea-

Exhibit V
15 IC Driver Framework



sure what can be measured rather than what counts. Now, we have cover stories in the business press admitting, in a knowledge-based world, the traditional measures don't tell the story. Intangibles like R&D are tracked poorly, if at all. Factor them in and everything changes.⁸ United Nations major reports on Knowledge Societies admit that transformation is far more a function of the human element than the technology previously considered "manageable" in spite of the productivity paradox.

In a Knowledge Innovation Zone (KIZ) Initiative⁹, we examined the plethora of new systems under development and in various stages of application. With the KIZ Inventory of Performance Measures, we've examined programs across the World Economic Forum, the UN, The World Bank, Milken Institute, Robert Huggins Associations, Booz Allen Hamilton, Regional Indexes, City Annual Reports, EUROSTAT, WIPO, *The Economist*, to mention a few.

Together with the Kaieteur Institute of Knowledge Management (Canada), we have now developed the Triple Knowledge Lens (i.e., beyond Triple Bottom Line reporting)

⁸ Why The Economy Is A Lot Stronger Than You Think, *BusinessWeek* (2/13/06).

⁹ Visit www.inthekzone.com.

and the 15 Value Capital Drivers ñ complete with the variables that influence the drivers in a fully functioning knowledge innovation system. (Exhibit V)

From this we were able to glean how each tracked elements relate to the Knowledge-based Economy (Human Capital), Knowledge-Based Society (Relationship Capital) and Knowledge-based Infrastructure (Structural Capital). Imagine 20 years ago, Intellectual Capital (IC) was just a concept. Now, we have 150 variables that might impact intangible value.

What was only a concept has now the potential of becoming a fully-functioning global innovation system ñ the kind of performance system Jay Forrester ñ the grandfather of Systems Dynamics ñ envisioned.

The benefits of knowledge management will come through when the perspectives of information management, human learning and innovation processes, and supporting technologies are fully integrated. Now that we have a better understanding of the Knowledge Value Proposition, we must also add that the performance measurement of intellectual capital can (and should) be added to the enterprise system architecture.

These cross-organization processes should ensure streamlined

practices that provide efficient and effective planning, review and monitoring of investment strategies. Activities will cross the boundaries of functions, businesses, industries and geographies. Knowledge capability/accountability is valued more than hierarchical authority and the system enables real-time innovation and global resource optimization.

Conclusion

Moving beyond traditional business planning practices will not be easy; but the rewards will be great. Today we measure what we can measure, rather than measuring what is important. Now we underestimate the true potential of information technology, knowledge processing and worldwide communications. Today we have little sense of how to measure the true value of social capital, which is far more a function of interaction, interdependence and collaboration. To do so ñ and understand the relationship among the three ñ requires multi-dimension visioning and courageous leadership.

This kaleidoscopic Knowledge-based Economy requires a new mindset and classification schema, the scaling and measurements systems and the compass to chart new directions. Because something hasn't been done before is no reason not to innovate. We must learn to create the business plans for emerging markets. Only then will we unleash the bountiful opportunities afforded our new Millennium ñ managing knowledge as the resource of abundance, not scarcity. We will do so systematically and with renewed purpose.

Although much has been written on knowledge management and the knowledge economy, the reality is we know very little about the real implications of this inevitable transformation. One thing is certain ñ the journey into the next frontier will bring forth new value for knowledge and the innovation processes in the ways today unimagined. ☺