

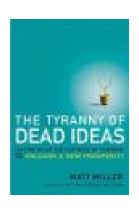
Benchmarking Innovation Policies of Leading Countries

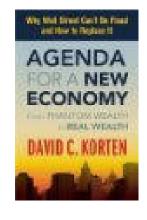


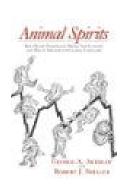
28 September 2009
Debra M. Amidon
Founder and CEO
ENTOVATION International Ltd.



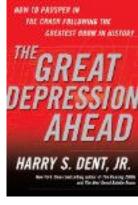
Today: New Economics Books – Any Good News?!





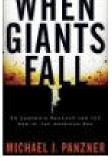


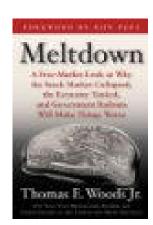


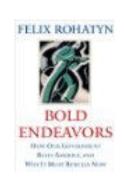


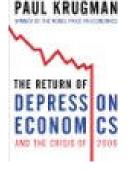


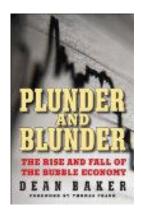
ENTOVATION

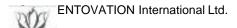












Why the Trapeze Parable?



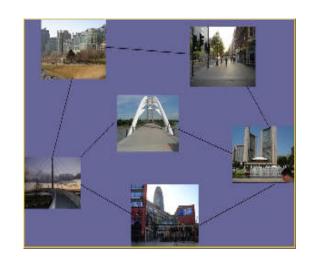




http://video.about.com/adventuretravel/Trapeze-School.htm http://www.newyork.trapezeschool.com







Welcome to the KIZ World

"Thirty years ago, 80 special economic zones (SEZs) in 30 countries generated barely \$6B in exports and employed about 1M people. Today, 3,000 SEZs operate in 120 countries and account for \$600B+ in exports and 50M in direct jobs."

- The World Bank (2006)



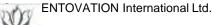
Explicit Study of KIZ: Phase I – Background





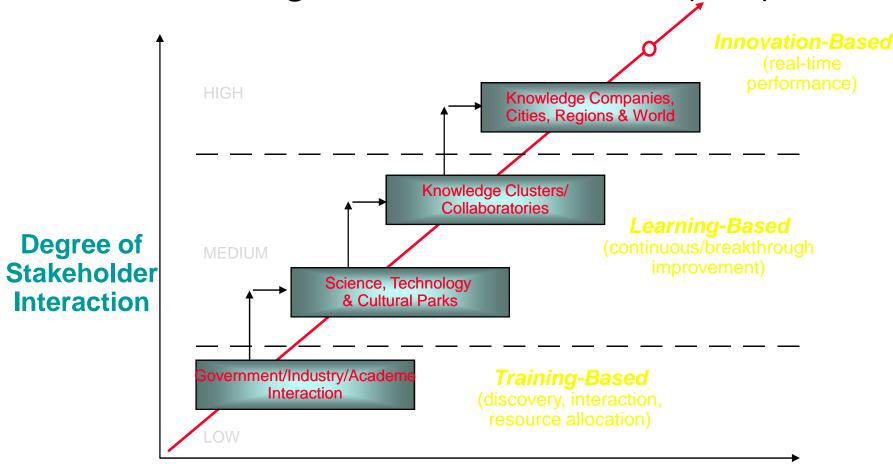
www.inthekzone.com





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Formation of Knowledge Innovation Zones (KIZ)



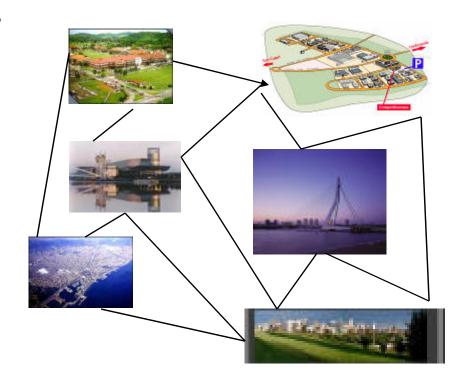
Sustainability Intensity



A Knowledge Innovation® Zone (KIZ)

A world-wide phenomenon

- Physical Geography –
 Knowledge Park,
 Region, Corridor,
 Internet Village,
 Innovation Nation...
- Industry Geography Companies, Clusters, Collaboratories
- Cyber Geography –
 Virtual Space



KNOWLEDGE INNOVATION ZONES - A WORKING TAXONOMY A. Knowledge Economy Centric Visions City Of Knowledge Knowledge City Knowledge Ring City Of Knowledge Ideopolis Industry Knowledge Economy Knowledge Knowledge Society Knowledge Harbour Knowledge Port Initiative Neighbourhood Knowledge Village Knowledge District Knowledge Estate Knowledge Town Knowledge Region Knowledge Zone Knowledge Oasis Knowledge Valley Knowledge Island Knowledge Pearl Intellectual Capital Knowledge Hub Knowledge Cluster Knowledge Capital Knowledge Metropolis Knowledge Land Megalopolis Megacity Learning City Knowledge Nation Knowledge Sector Knowledge Polis Education City Kognopolis Knowledge Coast **B. Creative Economy Centric Visions** City Of Culture Idea City Creative City Creative Region Creative District Creative Coast Creative Cluster City Of The Arts Creative Town C. Techno (ICT) Centric Visions Smart City Smart Community Intelligent City Teleport Telecity Wired City Digital City Electronic City ICT Park Science City Info City Technopolis Science Park E-City Innovation City (Information City) Future Polis New Century City Knowledge Park Silicon Valley Biopolis (Futuropolis) Ecocity Nano City E-Tropolis Aerotropolis D. Idealistic & Utopian Visions City Of The Future City Of The Next Century "Future" Ville (eg. Auroraville) H2PIA E. Virtual Knowledge Cities Cyber City Virtual Village Knowledge Grid Knowledge Gateway Virtual Knowledge City EN2POLIS

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KNOWLEDGE INNOVATION ZONES

A Sampler



Insights abound...

The: Timedons Winy of Building

Christopher Rhemoder



www.inthekzone.com









Manuel Castells

MONEY PROPERTY

CREATING

ENNOVATION

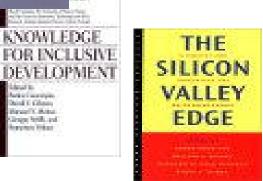
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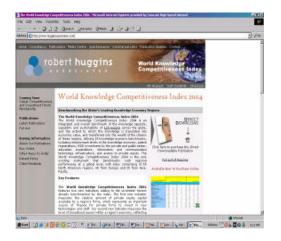




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Some KIZs are better than others...





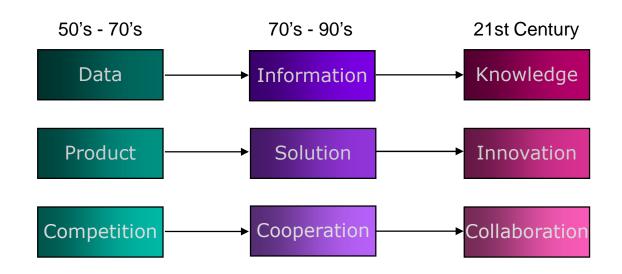




See Handout for specific examples...

3 Laws of Knowledge Dynamics





- **Knowledge** in the form of Intellectual Capital (IC) is a multiplier of economic wealth.
- Innovation Value is created when knowledge moves from origin to the point of highest need or opportunity.
- **Collaboration** for mutual leverage provides best utilization of tangible and intangible resources.

Feature: US



SAN JOSE IS THE WORLD'S MOST KNOWLEDGE COMPETITIVE ECONOMY"

World Knowledge Competitiveness Index (WKCI)

- published by Robert Huggins Associates



Research Technology Park











IDEAS Boston



The Boston History Collaborative

The Innovation Odyssey - 400 Years

The Boston Foundation

The Boston Indicators Report

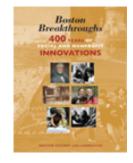
- Creativity and Innovation: Bridge to the Future
- The Wisdom of our Choices Indicators of Progress, Change and Sustainability
- The Massachusetts Technology Collaborative 2003 Indicators

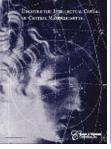
Metro Future

The Boston Historical Society 'Venture Philanthropy'

The Colleges of Worcester Consortium's Intellectual Capital Impact Study



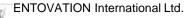








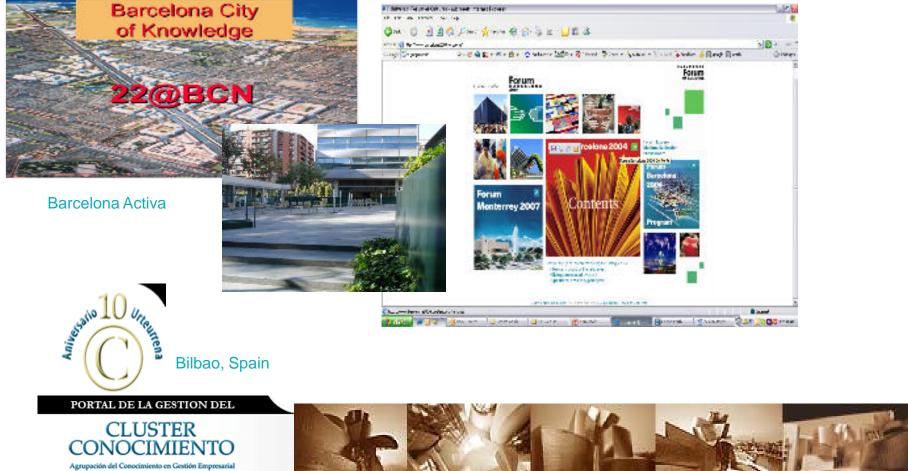
A journey...



ENTOVATION

Feature: Europe







ENTOVATION

Enpresa Kudeaketarako Ezagutzaren Cluster Elkartea

Feature: Africa

"Progress through partnership. Progress through people."



Knowledge economy initiatives – is South Africa on board?

"In today's knowledge-driven economy, countries can no longer depend on natural resources alone to be globally competitive. Rather, the knowledge and resourcefulness of its people and its rate of innovation as a fundamental source of economic growth is what sets a country apart."



Scheduled to be the 1st wireless country in the world.



Feature: Asia



Yokohama: A City With Its Eyes on the Future



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Island City – Fukuowa, Asia and the rest of the world

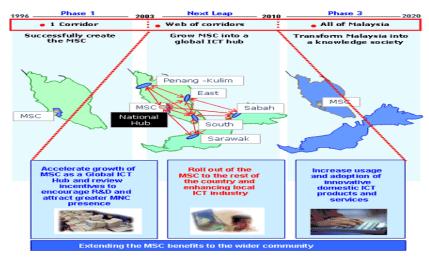
Historical City—a monor only of two future.

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Malaysia Innovation Corridor



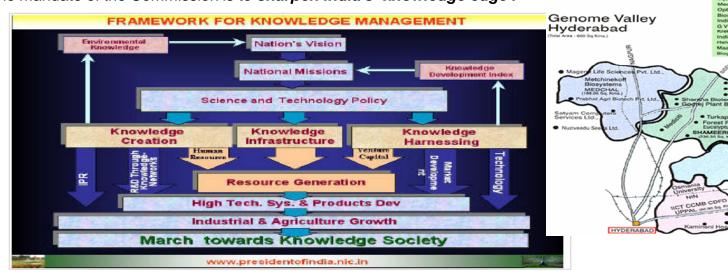
Incheon, South Korea - Virtual Models





Feature: India

"The Commission will advise the Prime Minister on matters relating to institutions of knowledge production, knowledge use and knowledge dissemination. The mandate of the Commission is to **sharpen India**'s 'knowledge edge'.





"Tomorrow's societies will be knowledge societies.

Tomorrow's markets will be knowledge markets.

Tomorrow's wars will be fought not by the conventional weapons.

They will be fought in the knowledge markets with the new weapons called information and knowledge." - R. A. Mashelkar, Economics of Knowledge











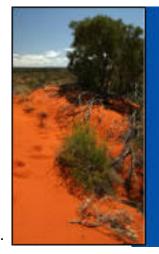
Feature: Down Under





Building networks and partnerships across Australia to create and economic and socially sustainable future.

A national research network linking local and indigenous and local knowledge with science and education to improve desert livelihoods.





New Zealand: Catching the Knowledge Wave





Feature: Middle East



Dubai Knowledge Village



Abu Dhabi - CERT



Knowledge Oasis Muscat (KOM) - Oman

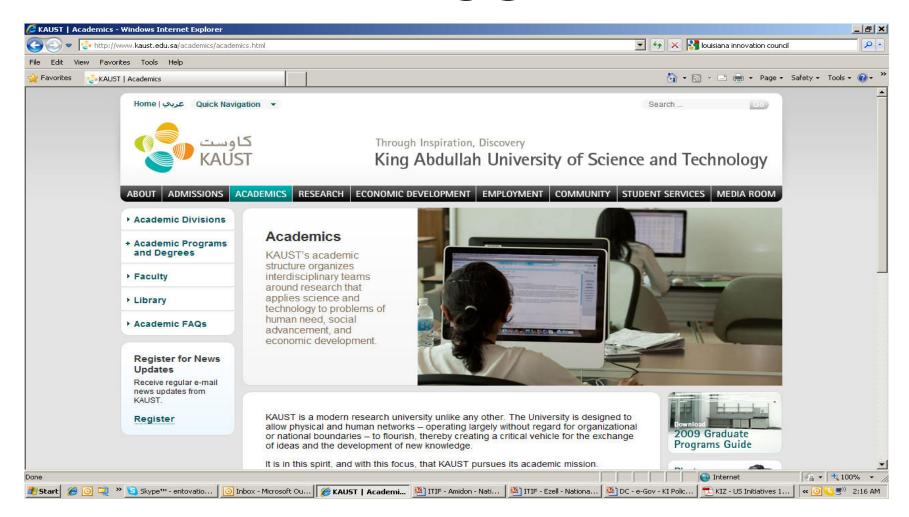






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KAUST



National Innovation Ecology



External Indicators Inventory

Examples Of Available Statistical Sources	What They Measure	Knowledge Economy & Business	Knowledge Society, Community, & Culture	Knowledge Organization, Infrastructure, & Environment
Indicators	8.	Where They 6	lan De Applied	
World Economic Forum	Global Competitiveness ReportIndex Network Readiness Reports	•	•	•
United Nations	Millemium Coals Statistical Databases		-	
UNIDO World Bank	Competitive Industrial Porformance (CIP) index Knowledge Assessment Methodology (KAM)	•		
OECD	 Science, Technology, dt. Industry Scoreboard 	•) i	•
UNESCO Milkon Instituto	Report On The Knowledge Society Cultural statistics Various Reports		•	
Robert Huggins Associates	WKCI -World Knowledge Competitiveness Index	•		
Boos Allon Hamilton Regional Indexes Country Statistical Agencies	O Global Innovation 1,000 O eg. The Silicon Valley Indox O eg. Statistics Canada	:		:
City Assertal Reports	og, Boston Foundation Indicators Toronto Melbourne	•	•	•
European Union EUROSTAT IMD Business School (Lauszame)	OTrend Chart-Innovation Policy in Europe OFintepean Innovation Scoreboard Various Euro-Indicators O World Competitioners Yearbook	-	•	•
WIPO - World Intellectual Property Organization	Industrial Property Statistics	•		•
ip10 The Economist - Intelligence Unit	O The Patent Scorecard Innovation Awards O Quality Of Life Index	:		:

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External Indicators Inventory (cont'd)

Figure #			6.6	100
Examples Of Available Statistical Cources	What They Measure	Knowledge Economy & Business	Knowledge Society, Community, & Culture	Knowledge Organization, Infrastructure, & Environmen
		Where They (In Be Applied	
Marcar Homan Resource Consulting	o Global Quality Of Living Reports/Survey	•	•	•
International Living	 Quality Of Life Ranking 	-	-	
Cultural Initiatives Silicon Valley	• Creative Community Index	•	•	•
Richard Florida	Creativity Index			
USA Center For Digital Government	Digital Cities Survey			-
W2i Intelligent Community Forum	W2i Wireless Communities Best Practices Awards Intelligent Communities & Smart 21 Awards			•
Anholt-GMI	Nation Brands Index			
Global 100 Commetitiveness Councils New Economy Index	Top Most Sutainable Corporations In The World Various Countries Reports The New Economy Index	:		
TNS-Global FORTUNE/Roper A.T. Kearney FDI Confidence Index	Global Reputation Survey Comporate Reputation Index FDI Confidence Index	:		
The International Sustainability Indicators Network Global Reporting Initiative Mader Research	Sustainability Indicators Sustainability Indicators Sustainability Indicators Report On The Arab Knowledge Economy	•	•	•
ITU - International Telecommunications Union	○ Statistics & Analysis			•
International Labour Organization (ILO) World Trade Organization	World Employment Report Global Employment Trends Labour Market Indicators Amutal International Trade statistics	•	•	
World Tourism Organization	World Tourism statistics Will International Ltd. & The KAI	•	•	•

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THE TRIPLE KNOWLEDGE LENS MODEL



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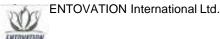


KIZ Findings: Knowledge-Based ECONOMY

Human Capital



- The KIZ Phenomenon is growing rapidly
- A dynamic and fast-growing <u>new market-space</u>
- KIZ company, country, and virtual have the potential to deliver superior <u>economic development and growth</u>.
- KIZ should become a greater <u>strategic priority</u> now.
- Regions are becoming major <u>KIZ hubs</u> in the expanding global economy.
- There is a real need for <u>performance measures</u>.
- There exists a problematic understanding and leadership gap.
- There is a significant <u>risk of failure</u> to realize targeted KIZ goals.
- To be more successful, leaders and stakeholders must adopt the right <u>KIZ mind-frame</u>.



KIZ Findings: Knowledge-Based SOCIETY

Capital

Relationship

KNOWLEDGE COMMUNITY, CULTURE, AND SOCIETY



- Explosion of KIZ company and country business development <u>incubators and accelerators</u>.
- Knowledge entrepreneurs need to know how to manage intangibles, knowledge-based design, business models, markets and IP.
- Real Estate-driven KIZ need a more balanced KIZ analysis and planning to be successful.
- Every business is now a knowledge-driven business
- KIZ clustering talent, teams, and technology have greater potential to spur economic growth.
- Creative arts and culture are now powerful economic drivers, not just a not-for-profit market niche.
- An abundant and infinite economy opens <u>vast new spaces</u> for value and wealth-creation.
- Present measuring indicators, accounting systems, heritage assets are in <u>serious need of improvement.</u>



KIZ Findings: Knowledge-Based INFRASTRUCTURE

KNOWLEDGE ORGANIZATION TECHNOLOGY & ENVIRONMENT

Structural

- Web 2.0 including widespread use of media and personal networks – exploded the use of intranets and extranets providing increased stakeholder interaction.
- There is a growing importance on <u>place branding</u>.
- ICT is a means, not an end; now intimately coupled with innovation.
- Open innovation has become the standard.
- Artfully <u>re-creating our urban landscape</u> has major economic benefits given the migration to cities.
- Sustainability reporting has had an impact on environmental initiatives and the wide acceptance thereof.
- Accelerated use of <u>mobile communications</u> has leveled the economic playing field.
- Social Network Analysis (SNA) has emerged as one of the most important tools of the Knowledge Economy for the public and private sectors.
- The era of the globalization of the individual has arrived.

Knowledge Innovation -

A Chinese cornerstone...



Knowledge Innovation®

in the mainstream of India...

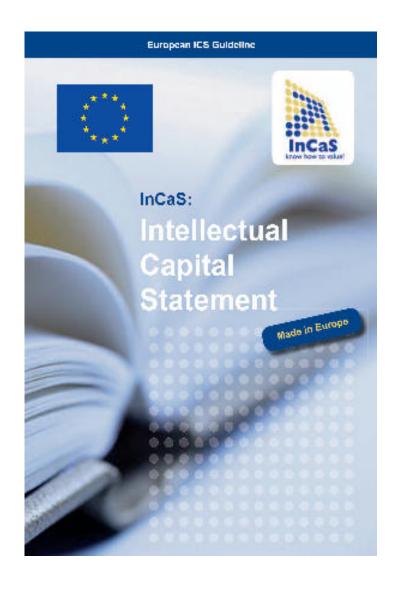
NASSCOM[®] National Association of Software and Service Companies

- ✓ Indian IT-ITES industry has grown at a <u>CAGR of over 28 per cent</u> since FY 1999-2000; industry's contribution to the national GDP has risen from 1.9 per cent in FY 1999-2000 to a projected 4.8 per cent in the current fiscal.
- ✓ <u>IT-ITES exports</u> from India grew from USD 13.3 billion in FY 2003-04 to <u>USD 18.2</u> billion in FY 2004-05.
- ✓ India's stock of foreign exchange earnings risen from USD 5.8 billion in FY1990-91 to USD139 billion in January 2006.
- ✓ Americas and Europe remain the key markets, accounting for over 90 per cent of IT-ITES exports.



"To stay in lead and increase India's share in the global market, the Indian government and IT/BPO industry need to focus on moving up the value chain by cultivating deep and enduring innovation across three dimensions -

- a) Business model innovation;
- b) Knowledge innovation; and
- c) Ecosystem innovation.



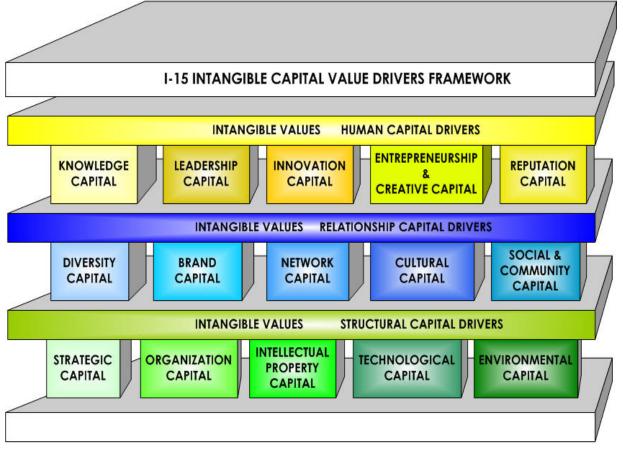
"Knowledge and Innovation have already become the major competitive advantages of many companies...

Intellectual capital (IC) forms the basis for high quality products and services as well as for organizational innovations."

- Strengthen the competitiveness and innovation potential of European organizations by systematically activating their IC.
- Establish IC Statement as an important and valuable management tool in a Knowledge-driven economy.
- Integrate and consolidate individual national approaches on ICaS on a European Level.

"Backbone of the European Economy"

KIZ P⁷ Blueprint: Performance



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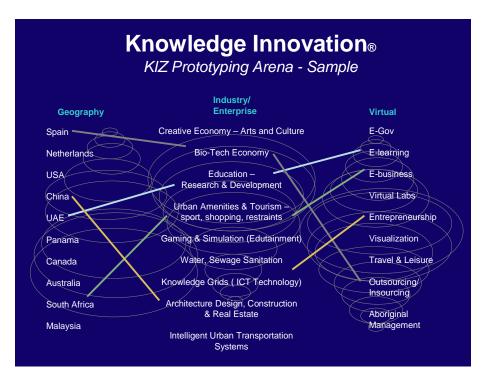
Intent: To gain an understanding of which drivers and influencing variables are most germane and - if established - would yield expected standards of results, and to put the plan in motion.

How to prototype solutions?

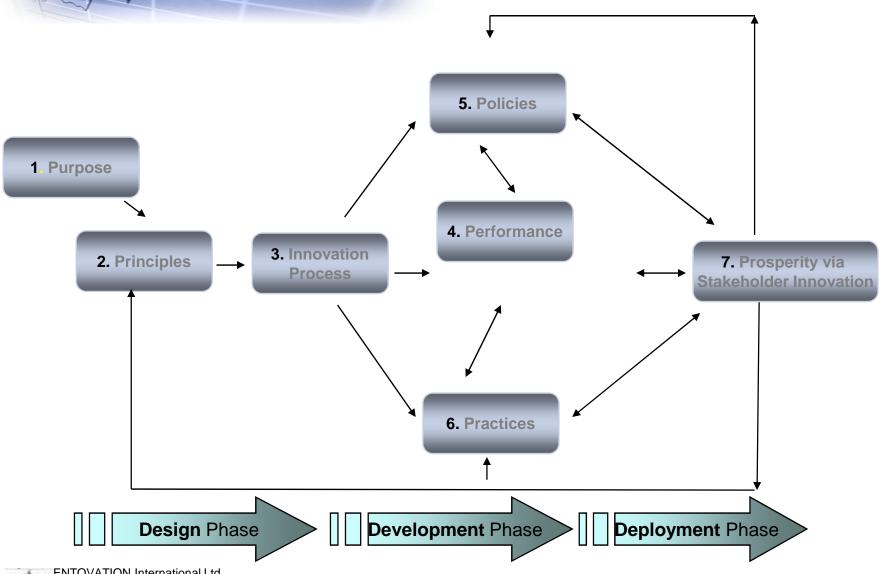
Knowledge Innovation® Zones







Knowledge Innovation_® P⁷ Blueprint



ENTOVATION International Ltd.

ENTOVATION

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

P⁷ KIZ Recommendations

- Purpose: Ground your intent in the context of global trends ideally according to an Knowledge-based Economy, Society and Infrastructure.
- Principles: Examine the foundations of vision, values and standards based upon the most accurate analysis of standards to emulate.
- Process: Perform a systematic gap analysis of the relative strengths and weakness of the enterprise resulting in an integrated knowledge strategy and projects to affect high-performance.
- Performance: Understanding which drivers and influencing variables are most germane and - if established - would yield expected results, and to put the plan in motion.
- Policies: Visit existing policies to stimulate more effective the knowledgebased economic and financial policies to foster human and technical communications across boundaries and result in more efficient and effective innovation practices.
- Practices: Establish 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.
- Prosperity: Create mechanisms to ensure constant iteration of new products and services to meet constituent needs while maintaining an innovative competitive positioning.

Questions?









"Better overall performance comes when executives, managers and professionals can actively build upon another's competencies, building trusting and dynamic relationships where their creative and innovative ideas flow freely."

Debra M. Amidon Founder and CEO ENTOVATION International Ltd.

E-mail: <u>debra@entovation.com</u>
URL: <u>www.entovation.com</u>

www.inthekzone.com

Phone: (+01) 978-988-7995





Smart Communities [San Diego, CA]	http://www.smartcommunities.org/
San Gabriel Economic Partnership [Irwindale, CA.]	http://www.valleyconnect.com/index.aspx
Cultural Initiatives Silicon Valley [San Jose, CA]	http://www.ci-sv.org/pdf/Index-2005.pdf
Chicago Metropolis 2020 [Chicago, Illinois]	http://www.chicagometropolis2020.org/
Kansas Bioscience Authority [Olathe, Kansas]	http://www.kansasbioauthority.org
Louisiana Innovation Council [Baton Rouge, LA]	http://gov.louisiana.gov/assets/docs/2009EOLouisianalnn ovationCouncil.pdf
Maine Executive Office of Innovation [Augusta, Maine]	http://www.maineinnovation.com/about_us/default.asp
Imagine Nations Group [Pasadena, Maryland]	http://www.imaginenations.org/Home.aspx
Boston World Partnerships [Boston, MA]	http://www.bostonworldpartnerships.com/
Boston Indicators Project [Boston, MA]	http://www.bostonindicators.org/IndicatorsProject/Content.aspx?id=602



John Adams Innovation Institute [Westborough, MA]	http://www.masstech.org/institute2009/index.html
Initiative for a New Economy [Boston, MA]	http://www.initiativeforaneweconomy.com/about_us.html
Innovation Valley [Haverhill, MA]	http://www.ivalley.org/
Michigan Smart Zones [Lansing, MI]	http://www.michigan.org/medc/smartzones/program/
Michigan Future Inc. [Ann Arbor, MI]	http://www.michiganfuture.org/
Capital City Bioscience Corporation [St. Paul, MN]	http://www.stpaulbioscience.com/
Mississippi Technology Alliance [Ridgeland, MI]	http://www.technologyalliance.ms/index.php
Nebraska Innovation Technology Alliance [Lincoln, NE]	http://www.nizc.org/
Nebraska Innovation Park [Lincoln, NE]	http://www.unl.edu/ucomm/chancllr/nipark/
Hartford-Springfield Knowledge Corridor [CT and MA]	http://www.hartfordspringfield.com/



New England Futures [Montpelier, VT]	http://www.newenglandfutures.org
New Jersey Innovation Zones [Camden, Newark, and New Brunswick, NJ]	http://www.njeda.com/web/Aspx_pg/Templates/Pic_Text.aspx?Doc_Id=137&menuid=777&topid=718&levelid=5∣_id=730
Technology Valley [Albany, NY]	http://www.techvalley.org/
Buffalo Regional Knowledge Network [Buffalo, NY]	http://rkn.buffalo.edu
Buffalo-Niagra Enterprise	http://rkn.buffalo.edu
The Levin Institute – Globalization 101 [New York, NY]	http://www.globalization101.org/contact
Research Triangle Park Research Triangle Park Foundation Research Triangle Institute [NC]	http://www.researchtriangle.org http://www.rtp.org/main/index.php http://www.rti.org
HASTAC – Duke University [Raleigh, NC}	http://www.hastac.org
Semiconductor Research Corporation [Raleigh, NC]	http://www.src.org/
Ohio Third Frontier Project [Columbus, OH]	http://www.ohio3rdfrontier.org/index.asp



Akron Biomedical Corridor [Akron, OH]	http://www.akronbiomedicalcorridor.com
Institute For Open Economic Development Networks [Cleveland, OH]	http://www.i-open.org
Keystone Innovation Zones [Harrisburg, PA]	http://www.harrisburgregionalchamber.org/business/kiz/about_kiz.asp
Great Valley Technology Alliance (GVTA) [Wilkes-Barre, PA]	http://www.greatvalleyalliance.com/great_valley.html
Business Innovation Factory [Providence, RI]	http://www.businessinnovationfactory.com
2010 Initiative [Pierre, SD]	http://www.2010initiative.com
Technology Gateway [St. Louis. MI]	http://www.technologygateway.org/about_us.asp
Knoxville-Oak Ridge Region – Innovation Valley [Knoxville, TN]	http://www.innovationvalleypartners.com/
Institute for Capital and Creativity (IC2); Austin Technology Incubator (ATI); Austin Human Capital; Austin Angel Network	http://www.ic2.utexas.edu/ http://www.ati.utexas.edu/ http://www.austinhumancapital.com/index.html http://angelinvestinginaustin.blogspot.com/
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Innovation Research Park [VA]	http://www.irpodu.com/aboutpark/
Washington State Innovation Zone projects	http://www.governor.wa.gov/priorities/economy/innovation
Prosperity Partnership [Seattle, WA]	http://www.prosperitypartnership.org/index.htm
Wisconsin Technology Council - Vision 2020 [Madison, WI]	www.wisconsintechnologycouncil.com