

IN SIDE NOVATION

Looking from the Inside-Out

Dr. Alex Bennet and Dr. Rajat Baisya

'INside INnovation' is a compelling exploration into the multifaceted world of innovation. With a diverse array of articles that vary from narrative storytelling to research-based analysis, this book covers perspectives from individuals, companies, public organizations, and even entire nations. Each article, unique in its approach, becomes an integral piece of a larger puzzle. While every piece offers its own stand-alone insight, collectively, they form a nuanced and comprehensive view of what innovation means and how it can be effectively implemented. A valuable resource for those seeking to understand the complexities of innovation, 'INside INnovation' offers multiple entry points for readers of diverse backgrounds and interests. It is an enlightening read that invites us to expand our understanding of innovation from various angles.

- Dr. Moria Levy, CEO, ROM Global, Israel

*Today, it is widely accepted that **Innovation** is the engine for the survival and growth of mankind. In this book, two well-known Management Science thought leaders, Drs. Bennet and Baisya, have assembled several leading practitioners of innovation to share their stories: as innovation has morphed from an "Inside-Out" activity to an "Outside-In" task. The editors have succeeded in including delightful and insightful stories from successful innovators – a scientist, an organizational guru and author, and an artist – who share the passions that have driven their success. And then, looking from the inside out, readers are provided the opportunity to evaluate their own organizations against the Most Innovative Knowledge Organization (MIKE) international study program and awards criteria: thus, engaging their own innovative juices. This is a must-read book for anyone whose job responsibilities include even a sliver of innovation management.*

**- Dr. Arindam Bose, Director and Science & Technology Committee
Chair of Dyadic International, Inc.; Member of the US National
Academy of Engineering (NAE)**

Knowledge management, along with its focus on managing intangible assets, hasn't always been easy to grasp, especially given today's vast array of complex, fast-changing, global business ecosystems. Innovation management is equally, if not more, challenging. Throw AI/machine learning, agility, digitalization, and other recent disruptions into the mix, and it can seem overwhelming, even frightening. Not to worry, Drs. Alex Bennet and Rajat Baisya have assembled the very best team of experts in these varied disciplines and have woven them together into a coherent whole in a way that's both understandable and actionable, including case studies. The end result: a reliable guide to leading innovation at the team, enterprise, national, regional and global levels.

- Dr. Arthur J. Murray, Applied Knowledge Sciences, Inc., USA

Bennet and Baisya have compiled an extraordinarily useful collection of case studies and personal reflections demonstrating the value proposition of experiential and reflective learning. It should provide an incredible instrument for teaching and learning. In most of my university courses I employed reflective blogs, personal reflection journals, and reflection essays to tease from the learners their insights into the experiential learning activities and case studies throughout the topics under investigation. The ABCs reflection exercises were a means for the learners to describe their experience in terms of Affect ("how I feel"), Behavior ("how I behave differently"), and Cognition ("what I know now that I did not know before"). This model was based upon the Spiritual Exercises of St. Ignatius Loyola, a method I acquired in my novitiate days when I felt called to the clergy.

This compilation of case studies and reflections collected and presented by Bennet and Baisya reflect the inherent qualities and characteristics of spiritual reflection. In fact, words with the root "spirit" and "soul" occur 40 times in the text—an unusual frequency considering that the case studies reflect the praxis and academic roots of innovation and creativity. Bennet and Baisya have stimulated our imagination with lessons learned and personal insights such that we are nudged to perceive innovation and creativity in terms of enlightenment. If you teach others, then this text will provide many semesters of savvy discernment for your learners.

- **Dr. Michael J.D. Sutton, Fellow of the Business Excellence Institute, USA; Retired Graduate and Doctoral Professor/Coach/Mentor; Author of *Document Management for the Enterprise***

A collection of articles and case studies connecting the topics of innovation, knowledge creation and learning in a creative way. This practical book inspires and invites the readers to make sense of innovation in their own context.

- **Dr. Bonnie Cheuk, Senior Director, Global Talent and Development in AstraZeneca, UK**

Innovation is essential for the survival and growth of organizations and individuals. This book provides a comprehensive and practical guide to leading innovation at the team, enterprise, national, regional, and global levels. It explores the evolution of innovation from an "inside-out" activity to an "outside-in" task, and provides insights from leading businesses and innovators. The book also includes a framework for evaluating organizations against the Most Innovative Knowledge Organization (MIKE) international study program and awards criteria. Overall, this book is a must-read for anyone whose job responsibilities include even a sliver of innovation management.

- **Sunil Dravida, Global Head of Real-World Data Center of Excellence, Takeda, USA. Author of *Real-World Evidence in the Pharmaceutical Landscape***

This book is a masterpiece on the subject “INSide INnovation”, a concept not always fully understood and often considered as a poor substitute to “Outside-in INnovation”. It strongly makes the point that “inside innovation” and “innovation from outside” are additive rather than alternative approaches for organizations to enhance their competitiveness through innovation. The book is nicely structured and the contributions from a galaxy of authors from various parts of the world, representing some of the leading universities and management consulting firms, are well presented. While some chapters have been written in a case study format, a reader can also find anecdotal evidence and storytelling formats followed in the book to make it appealing to the readers. The discussion on the innovation journey from MAKE (Most Admired Knowledge Enterprise) to MIKE (Most Innovative Knowledge Enterprise) is very fascinating. The chapter titles in the book are highly mesmerizing and catch readers’ attention. The illustrations in the form of pictures and images, apart from block diagrams and schematics, drawn from the personal insights of the authors, enhance the value of the book for a typical reader. The divergence of contributions by several authors in their own inimitable style and comprehensively covering all relevant aspects of “inside innovation” make the book invaluable. I would strongly recommend this book to academicians, students, industry professionals and even Government organizations to get a first-hand account of what “INSide INnovation” is all about.

It has been a wonderful opportunity for me to go through the manuscript and pen down my thoughts as I read it. I congratulate the editors, Dr. Alex Bennet and Dr. Rajat Baisya, as well as all the authors of various chapters for collectively bringing out this masterpiece.

**- Prof. (Dr.) Surinder Batra, Former Dean (Academics) & Professor,
Institute of Management Technology, Ghaziabad, India**

This book provides an integrated way of thinking that touches on the essence of innovation, looking at various aspects of different case studies with all authors’ personal reflections and insights from both the outside-in approach (in the second section) and the inside-out approach (in the third section). Alvin Toffler once said, “Change is the process by which the future invades our lives.” This book will give you a good taste of what that cocktail of bullets looks like in the authors’ head and that ‘A-ha’ moment for you to stay relevant in today’s, as Dr. Alex puts it, CUCA (change, uncertainty, complexity, and anxiety) world. The authors in this book have helped me stay motivated and changed my life for the better. If you approach the following pages as an inquisitive learner and a creative innovator, they might change yours. Keep your mind open and stay agile.

- Dr. Cheng Gong, MIKE Award Coordinator; Founder of Infinite Knowledge; Associate Professor at Yunnan University of Finance and Economics, Knowledge Management and Innovation Management, China

In a time when the advancements in Artificial Intelligence seem to question our capacity for creative work, this book reminds us that innovation is not just a combinatory algorithm but a rich and complex set of entangled human and organizational processes. Innovation is (still) the realm of human beings, and here we can find new and insightful perspectives on putting it to the use of humankind.

- Dr. Milton de Sousa, Associate Professor at the Nova School of Business & Economics, Nova University Lisbon, Portugal; Author of *Meaningful Leadership*

*The world is ablaze with innovation; rediscovery is literally at the heart of every human endeavor and in INside INnovation: Looking from the Inside-Out, Drs. Bennet and Baisya, with their international colleagues, unwrap our inner capacities for reinvention. They reveal our innermost drive to create the new new thing. We are travelers on an endless journey of making our civilizations and Earth better off and they want us to learn, know, and live what the brilliance of Leonardo da Vinci proclaims "Where the spirit does not work with the hand, there is no art." In our times, Arthur Koestler, in his encyclopedic 15-year work *The Act of Creation*, offers of his theory of creativity "What I am hoping for is that it will be found to contain a shadowy pattern of truth, and that it may stimulate those who search for unity in the diverse manifestations of human thought and emotion." Now, as Alex introduces us in their Preface into the inner world of our souls' quests for innovation, she opens the "quantum door of creativity". In this vivid diary of innovation experiences, we may connect with her, Rajat and the others in that dimension.*

- Robert Turner, coauthor of *Rebloomng the Knowledge Movement: Democratization of the Organization and Unleashing the Human Mind: A Consilience Approach to Managing Self*, and explorer par excellence of the human spirit and families, USA

IN **SIDE** **NOVATION**

Looking from the Inside Out

Dr. Alex Bennet and Dr. Rajat Baisya
(Editors)

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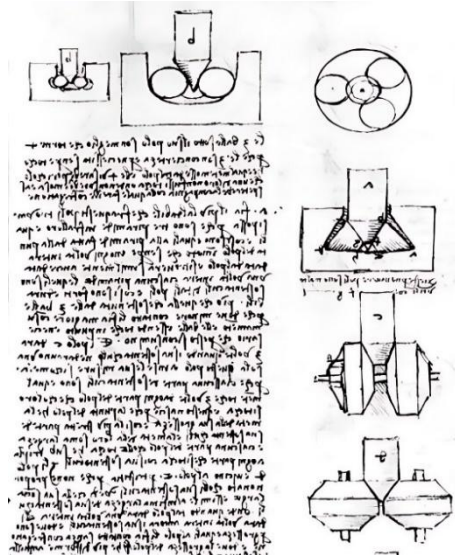
Appreciation to the authors who have opened their minds and hearts to us and shared their reflections and insights in this book, to Leif Edvinsson for the Prelude, to Massimo Pregolato for the Foreword, and to the creators and innovators around the world who hold the future of humanity in their minds.

Prologue

It is a great honor to write the Prologue to this book and its topic at the nexus of Science, Humanity, Spiritual Capital, and Innovation. I started to work on this topic at PATS Centre in Cambridge, UK in 1976. I was very inspired and guided by many great colleagues in the scientific context of the Cambridge culture. Later on, in the 1990's, I pioneered a lab for organizational prototyping at Skandia, Sweden – perhaps the World's First Future Center, now replicated globally, with some 50 Future Centers in Japan alone! In between, there were a lot of experiences and insights.

For me, the root of the Inno INSIDE might have started even earlier, most likely when, as a young scholarship student, I came to UCB-University of California, Berkeley. That's where I *learned to think*. Where did you learn to think? We might learn by having a look at the book called *How to Learn to Think like Leonardi da Vinci*. Among others, he made prototyping an art, a scientific art, like the innovative furniture enterprise IKEA design, now celebrating 80 years of Inno. Leonardo also looked for the INSIDE. In his famous painting Mona Lisa, we tend to look for the hidden smile. Intentionally, it might have been a part of his skill to work with what he called *Sfumo*, the shadow, in this case the mouth angle. *Sapre Vedere* was Leonardo's motto, i.e., *learning to see*.

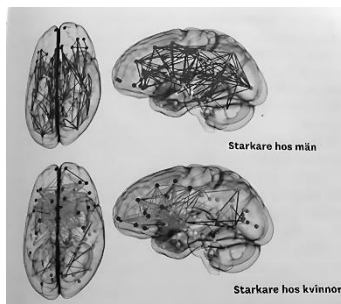
So, learn to explore deeper into the hidden assets of our world. What is the smell of the Future? In this inspiring and comprehensive book, looking from the inside out, you can find many knowledge navigational approaches to apply. How can you play with the senses to enhance the Aha's? In wine taxonomy, it might be through the bouquet. Tiramisu might have given you a cheer up. This also conveys the meaning of the words “lift up”, initially invented some 50 years ago in Italy, by mistake. Often, this is a step to learn. Look at the website of Brilliant Failures Institute developed by Dr. Prof. Paul Isker, who is also the



Origin of ball bearing (500-year-old basis for SKF industry and Volvo spin out). [Source: Leonardo's idea book]

founder of ABN Amro Bank future Center, labeled Dialogus House (<https://www.amazon.se/-/en/Paul-Louis-Iske/dp/9047012313>). In our Skandia Future Center, we prototyped with the smell impact, and found that a smell of familiar harmony gave trust to the Inno Culture, reducing fear to explore the unknown.

The neuroscience of today can assist us in many navigational ways. One of the neuroscientists in Sweden wanted to understand the way his daughters processed thought. He applied MRI brain scanning and got very illuminating bench learning images showing an appealing pattern of female brain processing versus male processing. The male thought processing pattern is mostly linear, but the female pattern is mostly going across, encompassing in nature.



Dr. Markus Heilig, University of Linköping, Sweden (see ref below).

What is most typical for your thought processing? At UCB we trained our brain processing. Continuous re-paradigming. How can today ChatGPT, CAS or AI assist us in that pioneering process? In innovating?

One of the most critical areas of Futurizing is perhaps today in Life and Health Science and Space Science. These are areas where we are outside the comfort box, but with need for our inside brain to navigate us. A final word of insight from my experience: Human Capital needs to be multiplied by so-called Structural Capital. See more in my book *Corporate Longitude* cited below.

Happy Living your Future, and writing your own Epilogue to this book.

Leif Edvinsson, *Professor Emeritus, Sweden and Hong Kong*
The World's First Professor on Intellectual Capital
Awarded as Brain of the Year by Brain Trust in UK
Funding Chairman, The New Club of Paris
[Academia, UK, 2023: 40,000 references]

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Preface

Alex Bennet

Professor, IKI-SEA, Bangkok University, Thailand

Director, Mountain Quest Institute, USA

We are primarily experiential learners. When David Kolb's model emerged in 1984, it expanded on the early work of John Dewey, Kurt Lewin, and Jean Piaget, all based on cognitive psychology and educational theories developed from the outside-in, largely through behavioral observation and experimentation. In 1998, Russ Vince, a Professor of Leadership and Change at the University of Bath, pointed out that the theory did not adequately consider the impact of power relationships such as social status, gender, and cultural influence, nor did it take into account the role of the unconscious.

As we entered the 21st century, the creation and sophistication of brain measurement instrumentation such as functional magnetic resonance imaging (fMRI), the electroencephalograph (EEG), and transcranial magnetic stimulation (TMS) offered the opportunity to look at brain activity from the inside-out. In 2002, biologist Michael Kull, a student of David Kolb, offered the first expansion of Kolb's model, suggesting the learning cycle arises naturally from the structure of the brain, with direct relationships between the four modes of thinking (concrete experience, reflective observation, abstract conceptualization, and active experimentation).

In 2010, after spending a decade researching experiential learning through the expanding lens of neuroscience, nuclear physicist David Bennet – taking a consilience approach that recognized the human as an integrated, biological and complex system entangled across the physical, mental, emotional, and spiritual dimensions – developed an expanded experiential learning model called the Intelligent Complex Adaptive Learning System, which is the human (Bennet et al., 2020, 2022). This emergent theory brings the role of the environment into the experiential learning experience, adds a fifth mode of social engagement both in terms of social support and social interaction, and builds the model around the core of the conscious and unconscious Self.

Now that we could see what was actually happening inside the brain, through neuroscience we discovered that all information has an emotional tag – we could not judge or make decisions if this were not true – and that physical mechanisms have developed in our brain to enable us to learn through social

interactions, whether virtual or in person, with each of us actually seeking out affectively attuned others to learn from. We began to better understand cognitive mimicry and the power of mirror neurons to facilitate neural resonance between observed actions and the actual execution of those actions. When the goals of others are understood and a resonance occurs, exposure to other's creativity and innovation promotes those patterns within ourselves.

As the relationship between the human and experiential learning began to unfold, educational institutions embraced this understanding, although it had long been contended that we could not only learn from our personal experiences, but from others' experiences. By the end of the last century, case studies had become the learning approach of choice in higher education, even as "reality" television gained a foothold – and expanded – in the entertainment industry. Today, case studies and personal experiences remain an important way of teaching and learning – as well as a research approach – in today's educational system.

During the early growth of humanity, the idea of ideas wasn't really valued. It took hundreds, thousands, maybe even millions of years before civilization realized that *it must value ideas* to improve the world we live in. Then, in the middle of the 20th century, then-General Eisenhower, running for U.S. President, was recorded as saying: "I want new ideas. I don't know what the future has in store for me, but if I am called to a high position of responsibility, I will want new ideas." This same recognition was happening around the world. It didn't take long before creative thinking and the resultant innovation became a prized and profit-producing possession for individuals, organizations, and countries.

And today, in an ever-rising cycle of learning and the proliferation of new ideas expanding from the knowledge movement, innovation has become a core capability of organizational success and sustainability. In keeping with the educational value of case studies and case examples, there are *many* books made up of cases focused on innovative organizations and innovation within organizations. These provide valuable learning experiences as writers, looking from the outside in, usually through a variety of research approaches including observation, interviews, and review of extant data, "objectively" share what has been learned. However, just as early experiential learning models were unable to explore learning from the inside out, historic case studies have relied largely on what can be observed through behaviors and actions, as well as the results from those behaviors and actions. While these are certainly important in validating and valuing innovation, and aid in cognitive mimicry, they do not get

to the root of the *why* and *what*, the drivers for bringing creative ideas into reality, for innovating.

Often, for those few to whom an idea just appears and who are able to grab hold of it and innovate, success proves ego-building. It is THEIR idea, something they just knew would be successful, and it is. They've got their hand on the pulse of the customer! Yet, when second and third attempts do not take off, there is increasing recognition of the importance of understanding what OTHERS' need and want. This, of course, requires the development of humility and empathy. Humility at the individual level means having an accurate view of yourself, neither too high nor too low, knowing your abilities as well as your strengths and weaknesses. When focused at the interpersonal level, humility is being other-oriented, focused and engaging beyond self. This provides a willingness to listen and learn from others' ideas. Empathy takes this a bit further, the concept of experiencing the inner life of another. Developing empathy includes knowing the needs and wants of others, and taking those into consideration in your decisions and actions. From these brief descriptions, it is easy to see why humility and empathy are so important to those who travel the path of innovation. As together we explore innovation from the inside out, you will discover these characteristics in the thoughts and actions of our successful innovators as they share their personal journeys.

This book is focused on the human qualities that drive innovation. It contains case studies and personal innovator reflections which provide powerful lessons about the drivers of success, turning creative ideas into innovative ideas, the *what* and *why* leading to the *how* diverse human resources are applied to create innovative designs, processes and products. Looking at innovation from the inside out does not negate the power of the objective stance. Rather, it is additive, offering the advantage of the author's and innovator's thoughts and feelings based on extensive life experiences in the knowledge domains of focus right along with more objective mental observations. This approach explores the energies, the passions, that push us forward to bring creative ideas into reality.

There are four sections in this book. In **Section I**, "Innovation Themes", the authors explore their areas of passion around innovation and, along the way, provide multiple case examples while inserting their personal reflections and insights. This section begins with exploring "The Age of Agile Innovation" as seen through the eyes of a practitioner with 35 years of experience leading teams to innovative solutions in Aerospace and high technology firms. Chapter 2 recognizes that the transformation of creativity into innovation is the result of

the leader's values as reflected in mindset, culture, practices, and processes. Focusing on culture, the author demonstrates through multiple case examples of leading thought leaders the interconnected components that support emergence of what she describes as the "Kingdom Innovative Culture". Chapter 3 focuses on process innovation, combining the Jobs-to-be-Done methodology, Conjoint Analysis, and Design Thinking to provide an innovative approach for customer segmentation, what the author describes as "Planning on Customer Engagement in the Digital Era".

In **Section II**, similar to historical precedence, four case studies written objectively, from the outside in, are included. However, the authors – who are a mix of highly-experienced consultants and academics, all of whom have worked internationally and are intimately engaged with innovation – are asked to use their expertise and knowing to include their subjective reflections and insights where appropriate. This section begins with Tata Power Company Limited. As the largest integrated company in India, the name TATA rings with the flavor of innovation and excellence. As early TATA Group Chairman, JRD Tata, used to say, "If you want excellence, you must aim at perfection." Striving for this perfection, he built the foundation for inculcating, imbibing, and translating this passion into a culture of innovation. In contrast, in the second Section II chapter a long-time self-employed practitioner explores the heart and soul of "organic innovation" in a small business, what he describes as a bespoke boutique that has added to the rebirth of Cleveland. The third case study in Section II explores the critical and innovative agro-industrial productivity underway at the National Institute of Molecular Biology and Biotechnology (BIOTECH), University of the Philippines Los Banos (UPLB). It takes a close look at the drivers, competencies, organizational elements, and individual influencers that enable the visible and economic success of BIOTECH. The final case study in Section II focuses on process innovation, exploring science & technology policy and diplomacy for innovation and competitiveness in developing countries, using India as a case study.

Section III turns this approach around 180 degrees. Enter the inner world of successful innovators, those who have opened the quantum door of creativity to manifest something new, something exciting, something useful, moving their dreams into reality. The three chapters in this section gift us with the unique opportunity to get inside the lives, minds, and hearts of innovators who have already achieved – and continue to achieve – success in their endeavors. Among these international innovators, we have a collaborative community builder (in Australia), a solid-state physicist (in Romania and Spain), and a coach/artist (in Belarus), all three of whom are authors as well. In essence, they were asked to share their innovation journey – the *what* and *why* of innovation – from the

inside-out. How did the ideas happen? What is it that motivated them to bring those ideas to fruition? Crossing the sphere of the physical, mental, emotional, and spiritual human, these self-reflective stories, entangled with *objective* insights, pull the reader into the self-dialogue.

In **Section IV**, we again shift our focus, with the intent of introducing and providing a resource for organizations seeking excellence as an innovative knowledge enterprise. We explore the characteristics attributed to an innovative knowledge enterprise through the international study and awards program that began in 1997 with the Most Admired Knowledge Enterprise (MAKE). Emerging from the success of the MAKE, The Most Admired Knowledge Cities (MAKCi) awards and study program was established in 2006. Then, after 20 years of success, in 2018 the MAKE morphed into the MIKE, the Most Innovative Knowledge Enterprise (MIKE), which continues today as the international benchmark. Consistent with the title of this book, looking from the inside out, the first chapter in this section is written by the lead of the first government MAKE award winner, with REFLECTIONS added by the founders and leaders of each of these international programs. Seeking an in-depth look at excellence in the innovative enterprise of today, the second Section IV chapter is written by the first Coordinator of the MIKE award, who details the MIKE approach and analyzes early award-winners, providing a benchmark for the organizations today. The third Section IV chapter is supplemental material which provides the questions that are asked of applications, reflecting the substance of the eight intellectual capital elements of the MIKE criteria. These criteria serve as a cutting-edge self-discovery tool that has been adopted internationally across national and cultural environments. This supplemental chapter also includes a listing of MIKE winners from 2018 through 2022, offering potential benchmarking and benchlearning opportunities.

As the economic innovation imperative increases at the center of the knowledge economy with its hyper competition drive, the search deepens and widens for new ways to think differently. *INside INnovation* cuts a wide swath through new territory with the inside out perspective and insights. This moves way beyond a paradigm shift, truly gearing the reader for putting on a different thinking cap, to look within and embrace the powerful personal resources available to each of us to create and innovate.

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Looking from the Inside Out

Foreword

This book emphasizes a truly novel way of exploring human beings and human society, focusing on introspection of the inner – inside world, on complex yet explicit inner thoughts, which ultimately manifest in explicit effects in the external – outer world, revealing the intimate relationship between the cause-motivation pair and the obtained results. The common thread throughout this process is learning. This personal mode of perception and adaptation to reality is not only inevitable in the interaction with the external and internal reality, but is also a useful and powerful tool for a proper adjustment of internal resources and for directing thoughts towards making the right choices and orientations in life.

Distinct from many other studies present in the literature, which are mainly focused on the role of society, human growth, and the development of conscious personality, this book primarily aims to place the human being at the center of society. Exploring one's own intimate personality through personal creative contributions will participate to the progress of society and bring it closer to reality through new ideas and innovative ways of self-development and growth. This process has direct implications on the educational system, and the use of illustrative models of creativity will lead to the growth of the community itself.

An illustrative mode brings real-life characters into the spotlight, with their own way of thinking, passions, and lived experiences. This mode naturally has a much more significant impact on those who are willing and ready to learn from real-life experiences rather than generic references mediated by society as if it were an impersonal and shapeless entity, often unable to truly stimulate the imagination and emotions of the learner. Instead, the learner will actively participate in constructing their own personality and that of the society they live in.

By joining those who have the desire to learn, every reader can become the hero, the protagonist of a real journey, even if experienced by others, but which can become their own life path, inspired by the models and principles proposed, with real possibilities of success in monitoring the trajectory of their professional life.

Within the pages of this volume, there are examples of living beings who not only exist in their own reality with a great sense of purpose in life and career but also share significant aspects of their existence in a passionate style,

resonating deeply with the reader's own life. The readers can choose, among these "living narratives", the examples that can guide their own life and behavior. This "living" contact with reality, as narrated by others, is not just a source of useful information but also a way to connect, learn, understand, and adapt.

The multitude and various facets of today's reality, sometimes confusing or compared with one's own reality (daily worries and existential problems), along with personal beliefs, culture, and traditions, make this world a continuous and dynamic source of uncertainty and concerns. This applies not only at an individual level but also on a societal level, where society is called upon to detect, analyze, and find the most appropriate ways to neutralize negative effects and solve global problems.

The contact with wisdom derived from the experiences of others, adapted and/or integrated into one's cognitive system (individual thought and wisdom), as this volume aims to demonstrate, has the special merit of adding a welcome impulse to both individual and general wisdom, always and everywhere, for both younger and older generations.

The diversity of today's world is increasingly confronted with globalization. This is reflected in the attitudes, behaviors, and projects of every individual. The significant development of communication media, smartphones, and the internet close people, make the process of adaptation even more necessary, sometimes conflicting with inherited personal or collective habits and behaviors. Internal conflicts should be resolved using the universal solvent known as "communication." Communication with oneself is inherently limited if new and appropriate forms of communication are not included. This book serves as a valuable source because the connection with a variety of examples communicating their experiences creates a field of possibilities wide enough to become a new channel for thoughts and orientations (based on concrete arguments) that may not necessarily align with one's personal view but serve as alternatives, whether accepted or not.

Therefore, this volume also provides a basis for discussion, proposing open topics and thought-provoking questions, thus validating the usefulness of such an approach. While comparison alone may not solve problems, communication and learning, along with the exploration of new solutions, are always welcome. The call for learning and communication facilitates the path of collaboration and removes conflicts and divisions. In our global world, accepting diversity is a good way to better understand life and the implicit effects of interactions. The various examples presented in this book once again provide an opportunity for open access to this commendable option.

The narrative style, directed from within towards the outside or vice versa in specific cases, effectively becomes a dialogue between the author and themselves, introducing objective or subjective facts and reflections. This allows the reader to become an active and effective participant in this dialogue, rather than merely acting as a passive observer. From each piece of life narrated, the reader will grasp a part of their own learning and add their conclusions to their personal learning journey.

It is up to the reader, then, to desire to learn from the experiences of others, according to their inner calling and the conditions of their local life in society. This book is a lively flame and a vibrant call to learning and intelligent adaptation, benefiting oneself and the society one lives in, constantly in motion.

Prof. Dr. Massimo Pregnolato
University of Pavia, Italy



Looking from the Inside Out

SECTION IV:

MIKE: A Tool for Expanding Innovation

We've always known that recognition and awards programs provide powerful incentives for organizational change, knowledge productivity, and innovation. However, the Most Innovative Knowledge Enterprise awards and research program offers far more than an incentive. It serves as a diagnostic tool for assessing and improving practices in enterprises, a basis for international benchmarking, and a vehicle for providing a context-rich data pool for guiding innovation research.

In Chapter 11, this section offers a history of the MIKE, beginning with the MAKE (Most Admired Knowledge Enterprise) which for 20 years served as a measure of success and offered learning opportunities in the Knowledge Management arena. From the MAKE award emerged the MAKCi award and research study, which focused on knowledge-based development in cities. And from these rich successes, with recognition of the need for and power of innovation, the focus shifted to the Most Innovative Knowledge Enterprise (the MIKE). Along the way, the author shares her personal experience with the MAKE, and the originators of the MAKE and MAKCi, a participant in the development of the MIKE, and the new coordinator for the MIKE international award all provide reflections on the process. This chapter also includes a timeline from the MAKE to the MIKE.

In Chapter 12, the first coordinator for the MIKE Award provides an in-depth analysis of the program and its early winners to set a benchmark for future winners. This chapter includes a listing of 2018-2022 Global MIKE Award winners. In Chapter 13, the current coordinator for the MIKE Award offers perspectives on the effective use of the MIKE Award criteria.

The Innovative Journey from the MAKE to the MIKE by Alex Bennet with Reflections from Rory Chase, Eric Tsui, Francisco Javier Carrillo, and Vincent Ribi  re

The Most Admired Knowledge Enterprise (MAKE) Awards founded by Rory Chase, who was also the founding and managing editor of the *Journal of Knowledge Management*, provided the opportunity for Rory to simultaneously stay connected to thought leaders and new developments in the knowledge field

around the world. From the viewpoint of the author, the US Department of the Navy and Singapore Armed Forces are used as examples of MAKE award winners in 2002 and 2010, respectively. The highly successful MAKE awards were expanded upon in November 2006 with the birthing of the Most Admired Knowledge City Enterprise (MAKCi) awards aimed at identifying and recognizing communities around the world who were successfully furthering their knowledge-based development capabilities. This program continued until arrival of the pandemic. All of this set the stage for emergence of the MIKE, which – recognizing the power and necessity of innovation in today’s climate – continues in the tradition of the MAKE with a focus on the Most Innovative Knowledge Enterprise.

Exploring the Depth of the MIKE: An Intellectual Capital Practice-Based Study Program by WB Lee with Reflection from Eric Tsui

In Chapter 12, the Most Innovative Knowledge Enterprise (MIKE) award, which emerged in 1998, provides a framework for intellectual capital practice-based innovation. Apart from recognizing the achievement of organizations, the MIKE Award serves as a diagnosis tool for improving innovation practice in enterprises, a basis for an international benchmarking study, and as a context-rich data pool for designing innovation research. This chapter dives into the structure and purpose of the award, and then, as an example, explores the findings of the first Global MIKE study in 1999, which sets a benchmark for future studies. Along the way several reflections and insights are provided, and an array of specific good practices are also shared.

The Global MIKE Award: Striving for Excellence by Vincent Ribiére

Chapter 13 offers personal experience and perspectives on why organizations should view the MIKE criteria as a self-evaluation instrument, as a benchmark and/or even as a path to ISO certification if they’re contemplating participation in the MIKE Award process. This chapter specifically links the MIKE criteria to ISO 30401 Standard Components, ISO 30401 Knowledge Management Standards, ISO 56002 Standard Components, and ISO 56002 Innovation Management Standards.

This section is followed by **Chapter 14: Conclusion** which revisits the power of case studies and reflection through the eyes of the chapter authors.

CHAPTER 11

The Innovative Journey from the MAKE to the MIKE

Alex Bennet

IKI-SEA, Bangkok University, Thailand, and Mountain Quest Institute, USA

with Reflections from Rory Chase (UK), Eric Tsui (Hong Kong),
Francisco Javier Carrillo (Mexico), and Vincent Ribi  re (Thailand)

ABSTRACT

The Most Admired Knowledge Enterprise (MAKE) Awards founded by Rory Chase, who was also the founding and managing editor of the *Journal of Knowledge Management*, provided the opportunity for Rory to simultaneously stay connected to thought leaders and new developments in the knowledge field around the world. From the viewpoint of the author, the U.S. Department of the Navy and Singapore Armed Forces are used as examples of MAKE award winners in 2002 and 2010, respectively. The highly successful MAKE awards were expanded upon in November 2006 with the birthing of the Most Admired Knowledge City Enterprise (MAKCi) awards aimed at identifying and recognizing communities around the world who were successfully furthering their knowledge-based development capabilities. This program continued until arrival of the pandemic. All of this set the stage for emergence of the MIKE, which – recognizing the power and necessity of innovation in today’s climate – continues in the tradition of the MAKE with a focus on the Most Innovative Knowledge Enterprise.

Keywords: MAKE, MAKCi, MIKE, capital systems, knowledge-based development, knowledge cities, knowledge management, innovation

INTRODUCTION

In the beginning – long before the Most Innovative Knowledge Enterprise (MIKE) award came into being – the Most Admired Knowledge Enterprise (MAKE) award served to spread the value of intellectual capital in support of decision-making and innovation across government and private organizations around the world. It was 1997, and the term “Knowledge Management” still

tingled with historic concepts of “management” and the emerging power of technology. Quick to climb onboard, it was revealed that a handful of business sectors were at the forefront of knowledge creation and sharing; these sectors were chemicals, computers, electronics and electrical equipment, oil and gas, pharmaceuticals and professional services. Across those sectors, the top twenty 1998 honorees recognized for world-class accomplishments were Lucent Technologies, Intel, Monsanto, Ernst & Young, Xerox, Arthur Andersen, Hewlett-Packard, IBM, Microsoft, 3M, Nokia, Buckman Laboratories, Skandia, General Electric, Andersen Consulting, Sun Microsystems, Pfizer, Siemens, Chevron, and BP Amoco. Many of these names will be familiar to most of you. The journey had begun.

This chapter starts with a little bit of history, leading up to creation of the MAKE award and study, then taking a deeper look at the criteria, and examples the U.S. Department of the Navy and Singapore Armed Forces as MAKE winners. We then explore the MAKCi award and its framework before moving to the MIKE and its positioning today. Along the way, we are honored to have reflections and insights provided by the founders and leaders of these international programs. Chapter 13 at the end of this section provides the detailed Most Innovative Knowledge Enterprise (MIKE) criteria.

THE MOST ADMIRER KNOWLEDGE ENTERPRISE

The intent of the MAKE was never to revere knowledge management as the end-all game or movement, nor to treat it as a lauded “flavor of the day” as occurred with TQM and BPR. Rather, it was to bring into conscious awareness the importance and power of intellectual capital, which had languished as the human mind focused on numerical and technological solutions to organizational issues and challenges. The pendulum had swung too far to the left. This is not the political left which will immediately come to mind because of the volatile current environment, but the neuroanatomy “left”, that is, the workings of the mind/brain that we typically credit with the left hemisphere. Humanity had largely forgotten to be human, a holistic being encompassing the physical, mental, emotional and spiritual, and having the capacity – and capability – to access ever-increasing amounts of information, creating knowledge and coupling that knowledge with creative juices to emerge ripe decisions and innovative solutions to organizational, national, and global challenges.

At the helm of the MAKE process was Rory L. Chase, the Managing Director of Teleos in the UK, who was also serving (from 1997 to 2016) as the Editor of the *Journal of Knowledge Management* (JKM), published quarterly

from 1997 to 2001, then five times a year in 2002 and 2003, then six times a year from 2004 to 2017, and now is published almost monthly. Rory attributes this to the “growing interest in the subject”, although he also notes that while in the 1980s and 1990s KM was a practitioner-led subject, that after 2000 it increasingly became an academic subject with less real-world application. This balance between practice and theory has become entangled as academics have side consulting practices, and practitioners move into academia. In other words, at some level there ceased to be a distinction between the two. This is not surprising since we now understand from Neuroscience that humans create an internal “theory” – continuously being updated – which drives their actions. Analogously, the journal was dedicated to bringing the latest research *and* practices related to the field into the hands and minds of academia, business, and government.

From its early beginnings, the specific focus of the journal was on identifying and highlighting successful knowledge strategies and theories, and their application to real-world situations. Rory Chase was particularly suited to this task. While early in his career he was editor for a number of academic journals, in the 1990’s he was Managing Director of a British company which specialized in practitioner magazines on a number of business and manufacturing subjects, and had both a book publishing division and a conference division. Consistent with Rory’s focus, the emphasis of these publications and activities was assisting real-world practitioners to improve management techniques and processes. In the late 1990’s the magazine publishing division was purchased by the academic publisher Emerald, which over time converted the practitioner magazines into academic journals. At that time, Rory was contracted by Emerald as Editor of both *JKM* and the *Journal of Intellectual Capital*, which continued until his retirement.

As founding and managing editor, Rory was simultaneously passionate and impartial when it came to what had priority when there were difficult decisions to make. However, he made them the KM way. Choices were made collaboratively, *using the strategies and techniques of the field to explore value and progress in the field*. The peer reviewers themselves were thought leaders and practitioners around the world who wore a diversity of labels such as cognitive, behavioral and social scientists, anthropologists, psychologists, human resources, organizational development specialists and educators, all of whom were in the very midst of the knowledge movement, but not bound or limited by a specific definition of the field. This is because the field of knowledge engages many disciplines, all necessary to address the role that

knowledge plays in individual lives and organizations. Further, those reviewers are knowledgers (seekers of specific knowledge solutions) who stretch far beyond the UK and USA to include – at one point in time but shifting over the years – Austria, Denmark, Germany, Hong Kong, Israel, Italy, Japan, Mexico, Singapore, Spain, Sweden, Switzerland, Thailand, and The Netherlands. As can be seen, Rory's dual relationship as the lead for both JKM and the MAKE Award study program provided the opportunity to stay connected to thought leaders and new developments in KM around the world. In retirement, no doubt a rich book is forthcoming in this regard. Meanwhile, Rory Chase himself tells us the story from his unique perspective as the creator of MAKE.

Reflection on the MAKE by Rory Chase, Managing Director, Teleos, and creator of MAKE.

During the 1980s and early 1990s, businesses across the globe were introducing, and adapting, numerous management tools and techniques to improve efficiency and productivity. At first these efforts were focused on manufacturing processes, but an increasing number of service organizations, both in the commercial and public sectors, demanded better ways to manage their activities.

During this time efforts focused mainly on implementing management and quality tools and techniques, such as Benchmarking, Kaizen, Six Sigma and Quality Circles. But by the early 1990s, it had become apparent that these individual efforts were not producing the desired results. Rather than a silo approach to improving productivity, a few organizations attempted to integrate their efforts into something that ultimately would be called “Total Quality Management” (TQM). However, TQM did not deliver the desired improvements, especially in non-manufacturing areas. By the early 1990s, a few leading companies began experimenting with a new concept – “Knowledge Management” (KM). Companies, including BP, Buckman Laboratories, Chaparral Steel, CIBC and Xerox, were early proponents of KM (sometimes referred to as a “Knowledge Management System” or KMS).

As happens often when new management approaches are introduced, books, magazine articles and conferences on KM began to appear. Large consulting companies as well as other leading organizations, including the American Productivity & Quality Center (APQC) and The Benchmarking Exchange (TBE) in the United States, began to offer services to help companies create enterprise-wide KM organizations.

In 1997, after starting the *Journal of Knowledge Management*, it soon became apparent that no single KM (or KMS) approach was meeting the needs of both manufacturing and service firms, let alone those organizations in the public sector. During 1997-1998, I examined a number of current KM approaches and as a result created the Most Admired Knowledge Enterprises (MAKE) framework for delivering a world-class, integrated KM organizational approach.

The MAKE framework consisted of eight knowledge performance dimensions, which are the visible drivers of intellectual capital creation in knowledge-driven enterprises:

- creating and sustaining an enterprise knowledge-driven culture,
- developing knowledge workers through senior management leadership,
- creating and delivering knowledge-based products/services/solutions,
- maximizing enterprise intellectual capital,
- creating and sustaining an environment for collaborative knowledge sharing,
- creating and sustaining a learning organization,
- creating value based on stakeholder knowledge, and
- transforming enterprise knowledge into shareholder/stakeholder value.

Each of these eight knowledge performance dimensions is made up of dozens of knowledge processes and sub-processes – over 150 knowledge processes in total. Taken together, they form a holistic ‘picture’ of the knowledge-driven enterprise. A diagram of the MAKE framework is Figure 11-1. The MAKE research based on this framework provides an accurate guide to identifying those enterprises which are creating intellectual capital faster than their competitors and cross-sector peers.

The Teleos-made MAKE framework was made public in 1998, and soon organizations around the world were implementing it. Much to my surprise, organizations also wanted to compare themselves to each other to determine their rate of success in improving their KM capabilities. This led to The Most Admired Knowledge Enterprises (MAKE) Studies and Awards, recognizing those organizations which were leaders in transforming enterprise knowledge into stakeholder value.

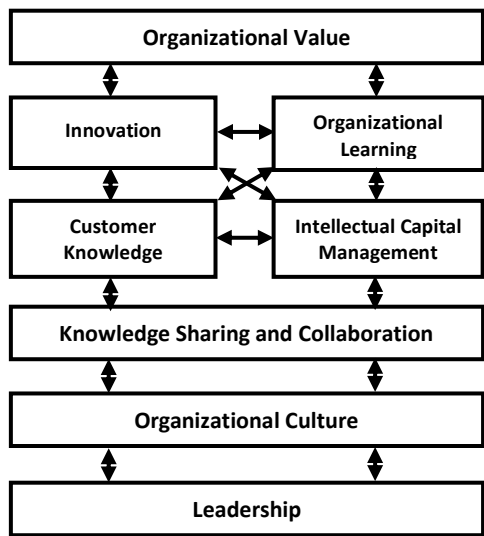


Figure 11-1. Most Admired Knowledge enterprises (MAKE) Framework ©Teleos (used with permission)

Over the next several years, the MAKE studies and awards expanded from an annual Global study to include yearly MAKE studies and awards for regions and individual countries. Ultimately, besides the global MAKE study and awards (Parent Organization and Independent Operating Unit), there were regional MAKE studies conducted for the Americas (North, Central, and South America), Asia and Europe (including the Middle East and North Africa), as well as national MAKE studies and awards for a number of countries, ranging from Brazil, China and Hong Kong to India, Indonesia, Iran and Russia. A panel of experts in knowledge management / innovation / intellectual capital / organizational learning, etc., and *Fortune Global 500* senior executives nominated and ranked organizations against the MAKE framework, the visible drivers of intellectual capital creation in knowledge-driven enterprises.

Selecting MAKE Winners

Organizations could not apply or nominate themselves; the MAKE expert panel nominated organizations. There was no cost involved to nominees, finalists or winners in the global and regional MAKE studies. However, there was a cost to participate in the national MAKE studies.

There were two categories for the **Global MAKE Awards**: (1) *Parent Organization: Group or Holding organization*, including all companies /

divisions / business units / agencies, etc., of public and private enterprises; and (2) *Individual Operating Unit: Individual company / division / business unit / agency of a public or private enterprise.* (Note: while any number of Individual Operating Units could be nominated for this Global MAKE Award, only the top two IOUs (by total composite score) from any one enterprise would be recognized as a Global IOU MAKE Winner.)

There was a single category for the **Regional MAKE Awards**: Individual company / division / business unit / agency. While any number of Individual Operating Units could be nominated for a regional MAKE Award, only the top two IOUs (by total composite score) from any one enterprise could be recognized as a regional MAKE Winner. (Note: where applicable, organizations could participate in their country's national MAKE study in order to be eligible to participate in their regional MAKE study).

There was a single category for the **National MAKE Awards**: Individual company / division / business unit / agency. The nomination and selection process for the national MAKE studies, administered by organizations working with Teleos, was designed to meet national requirements and could vary slightly from country to country. In addition, there could be a cost to participate in the national MAKE studies. Each year the top national MAKE Winners automatically became eligible to participate in their regional MAKE study. (Note: where applicable, organizations could participate in their country's national MAKE study in order to be eligible to participate in their regional MAKE study).

Methodology

The Most Admired Knowledge Enterprises (MAKE) research program was based upon the Delphi research technique – a perception-based forecasting tool. The Delphi methodology involved a panel of individuals who had expert knowledge of a specific subject or issue. The panel was asked a series of specific questions over several rounds. After each round of responses, individual opinions were shared, allowing each panel member to learn what the other experts thought. Discovering other experts' opinions helped to reinforce those in agreement, and to influence those who did not initially agree to possibly consider other factors. In the next round, the experts revised their estimates, and the process was repeated, usually for no more than three or four rounds. The Delphi method promoted unbiased exchanges of ideas and discussion and usually resulted in a convergence of opinion. It was one of the best approaches to forecasting long-range trends and opinion.

The MAKE Winners were selected by a panel of *Fortune Global 500* senior executives and experts in knowledge management / innovation / intellectual capital / organizational learning, etc. The size of the MAKE panels ranged from several hundred individuals in the national / regional MAKE studies to 3,000 individuals in the global MAKE study. The *Fortune Global 500* senior executives participating in the MAKE research were aware of the strengths and weaknesses of competitors and peers across the eight knowledge dimensions based mainly on their knowledge of organizational strategic performance. On the other hand, the experts in knowledge management / innovation / intellectual capital / organizational learning, etc., tended to have a greater understanding of enterprise knowledge strategies and best practices at the knowledge process level. Therefore, the two components of the MAKE panel complimented each other.

MAKE studies began in February of each year and MAKE Winners were announced beginning each July. In the MAKE study there were three rounds of consensus building. In the first round, MAKE panel members identified and nominated possible MAKE enterprises. (Organizations could not self-nominate themselves. Only MAKE expert panel members nominated an organization.) In the second round, each member of the MAKE expert panel selected a maximum of three organizations from the list of nominations. Those organizations selected by at least 5% of the MAKE expert panel were recognized as MAKE Finalists. In the third and final round, the MAKE Finalists were measured against each of the eight knowledge performance dimensions. Based on personal experiences and all available public information, MAKE panel members ranked the MAKE Finalists against each of the 8 MAKE performance dimensions on a scale of 1 (poor) to 10 (excellent). The top MAKE Finalists by total composite score were recognized as MAKE Winners.

MAKE researchers examined what influenced the MAKE expert panel's perceptions of knowledge-driven enterprises. The main factors included:

- Personal experience – this was especially true for *Fortune Global 500* senior executives.
- National and international awards and other forms of independent recognition.
- Membership in recognized best practice networks and associations, such as APQC and The KNOW Network.
- Articles, reports and case studies appearing in respected business and specialist publications.

- Senior executives making public statements (annual reports, analysts' meetings, conferences, etc.) regarding their organization's knowledge-driven strategies and activities.
- Managers and practitioners speaking and writing about their organization's knowledge strategy, approach and initiatives.
- Organizational marketing of the enterprise as a knowledge enterprise.
- Organizational promotion and marketing of its knowledge-based goods/services/solutions.

The MAKE panel of experts had access to the following financial and non-financial metrics during their deliberations (some metrics were available only for for-profit, publicly listed organizations): return on revenues; return on assets; 10-year total shareholder return; value added; R&D expenditure as a percent of sales; innovation capability; change in total brand value; best employer, reputation, etc.; environmental sustainability; corporate social responsibility; corporate governance; comparison with other most admired studies, etc.

After 20 annual MAKE studies, it was found that organizations pursuing a knowledge-driven enterprise strategy out-performed their peers by a significant degree. For example, nearly 70% of the MAKE Winners invested above their business sector average in research and development. And, the 10-year total shareholder return for MAKE Winners was over *twice* that of their peers. For other metrics, MAKE Winners usually appeared at the top of the list, whether Value Added, best employer, most respected, or leader in their sector.

Unless an organization demonstrated a holistic, knowledge-driven strategy aligned to the enterprise business strategy, it was very difficult to become a MAKE Finalist. And, once an organization was a MAKE Finalist, it then required exceptional organizational knowledge-driven capabilities to be recognized as a MAKE Winner. The ultimate accolade was to become a MAKE Hall of Fame Winner – organizations that had been a MAKE Finalist for the past five consecutive years (demonstrating a holistic approach to organizational excellence).

In 2017 the MAKE studies came to an end. The world had changed and so had the needs of the business and public sectors. In the 1990s, KM was practitioner-led. However, by the 2010s, KM had become mainly a theoretical academic subject. The needs of business and industry in the 21st century had shifted to other competitive requirements, such as improving innovation

capabilities. As the annual MAKE studies ended, new ways of measuring organizational ‘success’ appeared, such as the Most Innovative Knowledge Enterprises (MIKE) Awards. The MIKE Awards build upon the original Most Admired Knowledge Enterprise (MAKE) studies. The first MIKE Awards were presented in 2019.

INSIGHT by Rory Chase: One of the reasons I founded the MAKE Award in 1998 was to encourage both business and public sector organizations to adopt KM practices through a comprehensive enterprise-wide KM strategy (rather than viewing KM as isolated processes). Perhaps the emphasis on comprehensive enterprise-wide KM strategies is one of the lasting legacies of the KM movement.

CONSIDERING THE MAKE DIMENSIONS

From the viewpoint of the organization, each of the eight MAKE dimensions had various sub-elements that provided guidance to KM academics and practitioners – many of whom were evaluators in the MAKE process – as to what that specific dimension entailed. For example, a knowledge-driven culture included developing a knowledge-driven enterprise vision and strategy, knowing your core competencies (which are knowledge assets), designing a knowledge-driven structure, and creating a knowledge-based human resources strategy, as well as developing and managing enterprise knowledge values, behaviors, and processes. While leadership entailed the recognized organizational elements of providing support (financial and non-financial), training, and rewards systems, it also brought in the critical “people” elements, that is, a leadership style encouraging the creation, acquisition, sharing, and application of knowledge to create enterprise value, and encouraging and supporting an enterprise knowledge strategy and approach.

Delivering and developing knowledge-based products/services/solutions engages the importance of an enterprise innovation strategy, which includes idea generation, the transfer of ideas to the “point of action”, and measuring the value of knowledge creation and innovation. This brings an interesting anecdote to mind. In the U.S. Department of the Navy (DON), when supporting implementation of various KM system technology solutions, we would first survey department personnel to assess their expectations. Amazingly, but in hindsight very understandable, for one group we had the results shown in Figure 11-2 below.

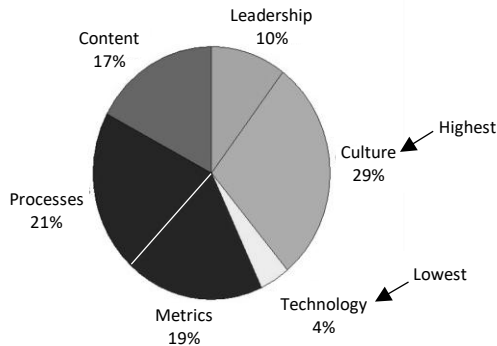


Figure 11-2. Results of survey in preparation for implementing a knowledge system in DON.

While a supportive technology solution had been pursued and was being implemented, what can be seen in Figure 2 is that the over 200 people surveyed felt that the culture and processes being addressed were most critical to success, and that *metrics were more important than the content that was in the system!* So it is with many organizational cultures in today's world. As the old adage says, "what gets measured gets done". Recognizing this, we quickly began to measure for the future rather than the past, that is, focusing on the how and what that could move us toward our future goals, whether the processes to do so were currently in place or not – and when those metrics were low, processes were quickly put in place to correct that issue.

Maximizing enterprise intellectual capital entails developing a strategy, training, managing and measuring, and protecting knowledge assets. Creating an environment for collaborative knowledge sharing was critical, and a great many research studies and master-level and PhD theses have been produced in this area! This entails the capture, categorization and use of knowledge; knowledge mapping and auditing; identifying and accessing internal and external expertise; and creating systematic mechanisms for sharing both internal and external knowledge and good practices, which entails integrating technology platforms and developing and supporting communities of practice.

Creating a learning organization as an important dimension should not come as a surprise. It would be difficult to talk about learning without talking about knowledge, that which is learned. Likewise, it would be impossible to talk about creating and sharing knowledge without considering the how's and why's of learning. And neither learning nor knowledge would mean anything separated from people – those who learn, those who create, leverage, and use

knowledge. Knowledge is the *human* capacity potential and actual to take effective action (“justified true belief”), at least for now. Likewise, learning can be considered the creation and acquisition of potential and actual ability for *people* to take effective action, or in other words, the creation of knowledge.

Learning is a dynamic process that manifests itself in the continually changing nature of organizations, exemplified by innovation, collaboration, and culture shifts – especially during times of change, uncertainty, and external challenge. While the term organizational learning is often used to refer to group learning, it may refer to individual learning within the organization, the entire organization as a collective body, or anywhere in between. Building on this understanding, organizational learning could be considered the capacity of the organization to acquire the knowledge necessary to survive and compete in its environment.

This MAKE award dimension moved the focus from individual learning to organizational learning in its largest definition, including developing a technology infrastructure, learning strategy, and partnering for accelerated learning as well as embedding learning methodologies, tools, techniques, coaching, and mentoring. All this laid the foundation for providing self-learning opportunities and recognizing the need for knowledge in a CUCA world, that is, accelerating Change, rising Uncertainty, and increasing Complexity combined with the human response of Anxiety.

Two dimensions relate to stakeholders. The first, delivering value based on stakeholder knowledge, included developing a stakeholder value strategy, stakeholder value profiles and maps, and tools and techniques to extract value from stakeholder knowledge, as well as measuring changes in the stakeholder value chain. The second, transforming enterprise knowledge into stakeholder value, emerges from many of the same concepts with a focus on communicating and reporting to stakeholders on knowledge-based value creation.

A MAKE AWARD FOR DON

In 2002, based on “the strength of its knowledge management strategy and program”, the U.S. Department of the Navy – the first public sector organization to receive the award – became a North American MAKE Winner, specifically noted for the leadership of its knowledge-based programs and initiatives, and its emphasis on organizational learning. According to Teleos, these companies, dedicated to creating shareholder value through innovation and knowledge management out-performed their competitors more than 2:1. And, as Rory Chase pointed out in the news release that year, “These MAKE

Winners have been recognized as North American leaders in the new knowledge economy.”

While receipt of this visible recognition provided external validation of the effectiveness of the extensive program underway in the DON, the benefit to the Navy and Marine Corps had already been recognized and acknowledged at the highest levels of the organization. As the Secretary of the Navy wrote later that year, the innovative enterprise knowledge technology and information management efforts had “transformed the DON as it entered into the 21st century”.

At the San Francisco Braintrust 2003 knowledge summit, Seth Kahan interviewed Rory Chase, exploring trends in the knowledge field. Chase noted that in the late 1990’s KM practices had merged into change and transformation practices, and that many of the MAKE organizations were using KM as a change mechanism. Such was the case in the DON. Then-Secretary of the Navy Gordon R. England acknowledged that the extensive KM effort was a vital force multiplier function that effected unequalled advances in DON operations by infusing innovative business practices and *acting as a catalyst for change*. The bottom line was that these innovative change efforts “reduced costs, increased operational effectiveness, and improved the quality of life of our Sailors, Marines, and civilians.” (Secretary of the Navy, November 20, 2002)

In May 2005, following a case study of The World Bank and finding that when their first Chief Knowledge Officer (CKO) left that organization there was a decline in the effectiveness of KM, the international KM magazine *Inside Knowledge* decided to see what happened in the DON when *their* CKO had left. When the former DON CKO was asked that question, rather than answer, the researcher was told to choose for themselves and contact three different levels of the Navy: a ship, a uniformed shore support facility, and a civilian admin function. When the researcher had done that, the former CKO would be glad to answer any questions. Upon completion of this research, the magazine published a front-page featured DON case study titled “The Art of War: Empowering Front-Line Decision Making”. Then-editor Simon Lelic took the occasion to write the following editorial note at the front of the volume:

This month’s cover story details what can confidently be described as the most comprehensive and far-reaching knowledge-management initiative ever attempted anywhere in the world ... KM has ... become a fundamental aspect of the way the US Department of the Navy operates ... From the highest to the lowest ranks, from the corridors of Washington, DC to the

front line of military engagement, there is a prevailing understanding that knowledge, and by extension knowledge management, is everyone's business.

This was not a one-time finding. In 2001, Larry Prusak, then-executive director of IBM's Institute for Knowledge Management in Cambridge, Massachusetts, wrote "The Navy has gone full-speed ahead in adapting knowledge practices and processes. There is no company in the world anywhere near it in scope ... and it's a very balanced endeavor. They are talking about people, technology and social relationships that make things work." That same year *Computer World* wrote in an article titled "Charting a Knowledge Management Course" that "The military's knowledge management programs are so comprehensive in fact, that the private sector can learn much from them, from more effective ways to apply IT to new ways of teaching."

Repeatedly the question was asked, how is the DON doing this? As an aside, there was one interesting occasion where a four-star officer in the Department of the Army asked the DON CKO why she thought the Army wasn't doing as well as the Navy in the implementation of knowledge management. Following that question, he stated quite bluntly, "I ordered them to do it!" Fortunately, out of necessity, the Navy command structure operates somewhat differently than the Army. When ships are at sea, most decisions must be made at the "point of action" (MAKE Dimension 3), and if there is a battle group, it serves as a community with interaction across functional areas when an issue emerges (MAKE Dimension 5), which both contribute to developing a knowledge-based culture (MAKE Dimension 1).

Yes, there is high social capital in play. Yes, admirals at the highest level of the organization recognized the innate value of knowledge and innovation and became visible champions. Yes, there was a focused and complex strategy with senior leadership and funding support. And yes, there was a hierarchy of KM communities of practice that crisscrossed the breadth of the Department. But another answer could also easily be, **because every dimension of the MAKE criteria was fully in play.** THIS IS THE POWER OF THE MAKE PROCESS, AND NOW THE MIKE, surfacing and making visible what is working – the related processes and results – and then sharing what is learned around the world.

Little wonder that Rory Chase's double hatting as Founding Editor of the *Journal of Knowledge Management* powerfully facilitated the spread of successful KM practices. Yes, the MAKE award validated the DON's extraordinary efforts in the knowledge movement, and facilitated the sharing of

what was learned. Experience and learning emerge *know-what* and *know-how*, which are the gifts that keeps on giving. For example, Singapore Armed Forces, who benchmarked with the DON CKO office over several years, continued that relationship with the CKO after she retired and moved into research, consulting, and teaching, providing the opportunity to continue that sharing and learning. When Teleos, in association with The KNOW Network, established the Global Individual Operating Unit (IOU) Most Admired Knowledge Enterprise (MAKE) research program in 2010, Singapore Armed Forces (SAF) was ready. The IOU MAKE recognized agencies and departments that are part of a larger enterprise for creating shareholder/stakeholder wealth and transforming new and existing enterprise knowledge into superior products, services and solutions. By 2012 SAF was a two-time Global IOU MAKE Winner and was named the overall Global IOU MAKE Winner, placing first for creating a knowledge-driven organizational culture and developing knowledge leaders and workers. See Figure 11-3.

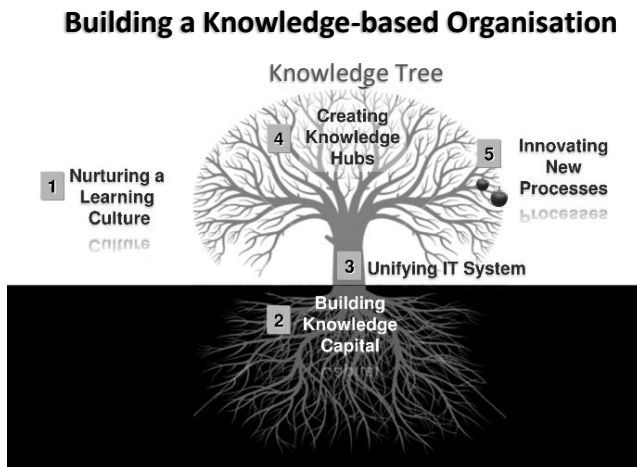


Figure 11-3. In 2012 Brigadier General Shiang Long Lee, Singapore Armed Forces, an overall Global IOU MAKE Winner, shared the SAF approach to building a knowledge-based organization.

Reflection by Eric Tsui, Hong Kong Polytechnic University

Since Rory Chase (CEO of Teleos) launched the MAKE award in 1998, many large organizations worldwide have entered and won this prestigious award. Through seminars, site visits and more, good practices in knowledge

harnessing, retention, sharing and transfer, design and deployment of Knowledge Management systems were widely shared. Furthermore, these sharings also encouraged more firms to plan and commence their Knowledge Management journey. The MAKE award was so successful and popular that over the years it grew into different levels – global (i.e., worldwide), regional (MENA, Asia), country (Japan, Iran) and even city (Hong Kong). Besides its success in industry, the MAKE award also contributed to the teaching and learning of the Knowledge Management discipline. Writeups of MAKE award winners are often used as case studies for model references as well as discussions by students (both undergraduate and postgraduate) learning about Knowledge Management.

Though the MAKE award steadily gained support, it was felt that, especially in Asia, it was principally supported by a small number of large organizations; the take up by small to medium sized enterprises (SMEs) was sluggish. The reality is that although knowledge is an infinitely renewal resource, the focus of many organizations – especially SMEs – was and is still at the operational level. To these organizations, operational efficiency, product leadership, and customer intimacy are the core criteria to generate competitive advantage.

By the turn of the last century, the world and many industries had stepped into the Fourth Industrial Revolution (I4.0). For organizations to excel in a I4.0 world, not only do they need to pursue the three above-mentioned value propositions (operational efficiency, product leadership and customer intimacy) but they also need to generate new value creation and new markets, which is often achieved by the introduction of new business models delivering products and services that yield refreshing and superior customer experience.

Insight: It is evident that collective wisdom, learning and innovation hold the key for organizations to enhance its capabilities and excel in an I4.0 world.

THE MAKCi

The strong knowledge movement facilitated in organizations around the world was not all that was happening. The roots being planted through the MAKE process were bearing new fruit. In November 2006, Teleos (led by Rory Chase) and the World Capital Institute (led by Francisco Javier Carrillo) partnered to birth the MAKCi process, conveying the move from Knowledge Management to Knowledge Based Development (KBD) (Carillo, 2007) as well as the evolution of Knowledge Cities.

Building on the MAKE approach, the Most Admired Knowledge City Enterprise (MAKCi) awards aimed to identify and recognize those communities around the world successfully furthering their KBD (knowledge-based development) capabilities under the flag of Knowledge Cities (Carrillo, 2002, 2006; Carrillo et al., 2014). The MAKCi consultation was mainly a community space to build collective knowledge (in terms of capital system indicators) contributing to the understanding of KCs (Garcia, 2008, 2021; Passerini & Wu, 2008; Liu & Xu, 2009; Wong, 2010; González & Carrillo, 2012; Gessner et al., 2019). Awards were presented each year at the Knowledge Cities World Summit (KCWS) until the COVID pandemic in 2020.

Reflection by Rory Chase: Javier impressed me with his emphasis on knowledge to improve humanity and his generosity in sharing his knowledge and experiences. Early on I appointed Javier as Associate Editor of *Journal of Knowledge Management*. His support through the World Capital Institute helped expand MAKE to regions and countries. I was very pleased when he suggested joining forces and creating the Most Admired Knowledge Cities (MAKCi) Award expanding on the MAKE framework.

The MAKCi Capital Systems Framework

The MAKCi framework is based on a taxonomy developed by faculty and students of The Center for Knowledge Systems and the Knowledge Capital Institute, an effort led by University of Manchester and MIK-Spain Professor F. J. Carrillo. This Capital Systems Framework consists of eight identified urban capitals which combine both traditional and knowledge-based resources to achieve sustainable development of urban communities, a value-production system that is complete, consistent and homogeneous. The major capital categories are focused on identity, intelligence, financial, relational, human individual, human collective, instrumental-material, and instrumental-knowledge.

While the Capital System Framework is extensive and detailed, we will lightly touch on elements falling into the area of each capital. *Identity Capital* includes not just the name and evolution of the city, but the city's inheritance in terms of historical, archaeological, political, geographic, relational and economic aspects. It also includes current distinctiveness and offerings, both as a residence and destination, as well as a sense of purpose, city brand, differentiators, and attractiveness. *Intelligence Capital* deals with the city's systemic capability to sense, make sense of, and respond to events significant

to the city's welfare and future. *Relational Capital* has extensive elements including both internal (culture, economics, stability, human rights, wealth distribution, equality, diversity and tolerance, safety, transparency, and more) and external (imaging, networking, consulates, alliances, and more). *Financial Capital* includes macro-indicators as well as public accounts.

Human Individual Capital covers an extensive set of individual endowments (ethnic diversity, health and nutrition, and socio-economic considerations) and intellectual capacities and competencies, including educational and learning opportunities. *Human Collective Capital* is described from an organic viewpoint (demographic structure, public health) and an intellectual viewpoint which is not only knowledge-based but includes emotional and cultural collective capacities (cultural heritage, socio-economic environment, evolutionary capacities, entrepreneurship, and innovation). *Instrumental-Material Capital* is the physical-based means of production (geographic, environmental, and urban and productive infrastructure). *Instrumental-Intangible Capital* is the social organization structure (social innovation systems, civil organization systems) and information and telecommunications functional capacities (information platforms, knowledge bases, and systems).

Reflection on the Capital Systems Framework by Francisco Javier Carrillo

The dominant model in capturing intellectual capital dimensions includes three categories: human, structural, and relational capital (Stewart, 1996; Magrassi, 2002). These categories correspond with an inductive phase in the configuration of a taxonomy and a corresponding explanatory level (Carrillo, 2002). The Capital Systems Model supporting the MAKCi process aims at capturing a complete and consistent – as well as practical – set of value dimensions. Hence, the taxonomy should comprise as few proto-categories as possible, cover all possible cases, and make sure that the inclusion of one does not contradict any other. Additionally, all empirically documented subcategories should be able to hierarchically nest within previously identified categories. Fulfilling these requirements allows for the inclusion of all possible instances in addition to identifying general attributes as well as specific attributes distinguishing each category. A capital system is meaningful to the extent it mirrors actual communities: "... the goal is not so much to create a certain final set of technical indicators, as it is to engage a range of stakeholders in society in discussions about what it is that we value ..." (Garnåsjordet et al., 2012, p. 330). A Capital System can be the base of an *economy of what matters* (Carrillo, 2022).

In short, the set of attributes of a capital system:

- i. Constitutes a homogeneous value whole. A capital system denotes a culture.
- ii. Cannot be reduced to any of its constituent parts (financial capital cannot express the whole).
- iii. Every capital expresses a value dimension of its own and is exchangeable with others through correspondence rules.

From the above, the definition follows: *a capital system is a universe of collective preference orders within a system of human activity*. It includes those elements that stakeholders acknowledge as valuable at all levels of analysis: individual, organizational, social, and global. Each category disaggregates into successive subcategories, each highlighting a distinctive value function. Each holds a negative (liability) or positive (asset) sign relative to the direction in which it operates on the whole system. Table 1 includes definitions for major capital orders.

Table 1. *A taxonomy of capitals.*

Capital System Universe of value orders of collective preference	Metacapital <i>Multiplicative (divisive)</i>	Referential <i>Structure:</i> rules of belonging	Identity Auto-significance	Capacity to differentiate value elements belonging into the system and to consequently adjusting action
			Intelligence Also-significance	Capacity to identify significant agents and events in the system and responding accordingly
		Articulating <i>Function:</i> rules of relationship	Monetary Exchange	Capacity to represent and exchange value elements
			Relational Bonding	Capacity to establish and develop bonds with significant others
	Productive <i>Additive (subtractive)</i>			Input Natural services, cultural heritage, and exogenous value
				Agential Capacity to perform value-increasing actions
				Instrumental Capacity to leverage the performance of value-increasing actions
				Output Cumulative addition to or subtraction from a system

Based on the former analysis, the following assumptions summarize the rationale for a capital system:

- i. Production functions are inherent to all value systems. They convey the system's ability to achieve and sustain value balance.
- ii. All production functions involve an input, an agent, an instrument, and a product. These are *productive capitals*. All forms of value systems require productive capitals.
- iii. Meta-capitals were developed throughout history to multiply the value-generating capability of productive capitals. With the advent of currencies, productive capitals could be represented and exchanged, increasing their spatial and temporal potential.
- iv. Two major forms of meta-capital are involved in knowledge-based production. *Referential meta-capital* multiplies the effectiveness and efficiency of the system by providing focus, thus diminishing error, through increasingly precise internal and external feedback. It includes *identity and intelligence capitals*. *Articulating meta-capital* multiplies the system's productivity by providing cohesion, thus diminishing transaction costs and redundancies. It includes *financial and relational capital*.

By accurately and consistently capturing the capital system of any given entity its *value blueprint* is represented, i.e., the state of the system with reference to its ideal state (homeostasis in living systems). Such ideal state is one where each of value element exists just in the right proportion to achieving full balance. Hence, value systems are unique, as unique are personalities or cultures. Therefore, capital systems are as diverse as the multiplicity of systems amenable to a singular description. This would apply to every individual, organization, and society.

Insight from Carrillo: By emphasizing meta-productive values, we begin to comprehend that no single form of value has primacy: It is only the degree of equilibrium of *all* value elements (whatever their relative weights) that becomes an ideal for actual value systems.

The Process

The MAKCi award process moved annually through six clear stages: Preparation, Consultation, Data Analysis, Report Elaboration, Award Delivery, and Wrap-Up. The MAKCi exercise cornerstone was the Delphi consultation with an appointed panel of experts, which was convened annually. Participants interacted with researchers and practitioners from a wide range of disciplines, regions, nationalities, and cultures through a virtual platform. Beforehand, city

representatives, policymakers, as well as local stakeholders of each candidate city are invited to develop a profile of the city based on a survey that compiles relevant and internationally comparable indicators.

In 2007 – and then again in 2008 – Singapore was named as the Most Admired Knowledge City. This was largely due to Singapore’s ability to identify, transfer, adapt, and apply the best knowledge from around the world in support of the city-state’s vision to develop into a vibrant and robust global hub of knowledge-driven industries with emphasis on technology, innovation, and capabilities. The knowledge work focused on values and leadership underway in Singapore’s military organization – the Singapore Armed Forces (SAF) introduced above as the Global MAKE IOU Winner was cited in support of Singapore’s nomination. Singapore had increasingly become committed to developing a knowledge-based economy (KBE) over the past decade, and although initially hesitant to be called out as a world leader, they were the clear leader.

Reflection from Bennet: The knowledge and learning occurring in military organizations is entangled with the knowledge and learning of the country it serves, both in terms of individuals moving through the military setting and back into society, and the military organization’s larger knowledge contributions made in service to its citizens (Bennet et al., 2009). The movement of knowledge from the military to the private and public sectors enhances the growth of knowledge-based development, which is accelerated as the military organization takes on increased roles (and knowledge and learning) in the international arena. Further, special conditions exist in Singapore privileging the transfer of military knowledge capabilities into the wider society and amplifying their effect. These include the small overall population, universal male conscription, early retirement and career paths into public or government-linked company sectors, and the significant size of the government-linked company sector in Singapore’s economy. Therefore, it is clear that the aggressive commitment to KM that built up through a number of years to recognition of SAF as a Global MAKE IOU Winner and in the MAKCi process the recognition of Singapore as the leading knowledge city in the world are entangled. Singapore has continued to receive recognition and awards in this regard, including in 2019 being called out by the World Economic Forum as the smartest city in the world.

Carrillo Continuing: Fourteen editions of the MAKCi were completed, with over 50 city profiles obtained in each of the four categories: emerging

clustered city region, emerging knowledge city, knowledge city region and knowledge metropolis. Across the continents, cities were recognized for their knowledge-based initiatives, with award presentations regularly held at each year's Knowledge Cities World Summit (KCWS) until the COVID pandemic in 2020. A dedicated website provides a listing of annual KCWS hosting cities, MAKCi winners by category, and city profiles. See <https://makci.org> Over its active existence, the MAKCi program was under the executive direction of Dr. Blanca Garcia. As the years passed and more and more cities participated in the process, the focus on innovation became more prevalent. As new knowledge cities began to thrive while a number of established cities in Western cultures struggled to maintain their competitiveness, it became clear that innovation was critical to sustainability. Meanwhile, the MAKCi process provided statistical data which enabled "planners, politicians, economists and business and social leaders to create robust, viable strategies and approaches for enhanced urban design and development" (Chase, 2009).

In 2018 the focus of the MAKCi was widened by adding concerns with socio-environmental justice and knowledge for the Anthropocene (Carrillo & Koch, 2021). The framework has been further adapted since 2020 to directly account for the degree of city preparedness for the climate crisis (Carrillo & Garner, 2021). KCWS still meets annually as a virtual conference.

Reflection from Carrillo: In rebelling against social and climate injustice, I find knowledge the best tool to overcome those. This is exacerbated by the existential threats posed by the climate emergency. I want to contribute to creating a Knowledge for the Anthropocene, to help cities to be best prepared for the climate crisis.

THE MIKE

After closing of the MAKE Awards Study, a global study group with John Dumay from Macquarie University as the chair and WB Lee from The Hong Kong Polytechnic University as the coordinator was formed to continue and build upon the MAKE framework, taking the study to a new dimension. The result is the Most Innovative Knowledge Enterprise (MIKE) Award, which was announced by Rory Chase in December 2017. An in-depth treatment of the MIKE awards study from its inception in 2018 through 2021 titled "Exploring the Depth of the MIKE: An Intellectual Capital Practice-Based Study Program" by WB Lee is the focus of the following chapter. Figure 13-4 shows a timeline from MAKE to MIKE.

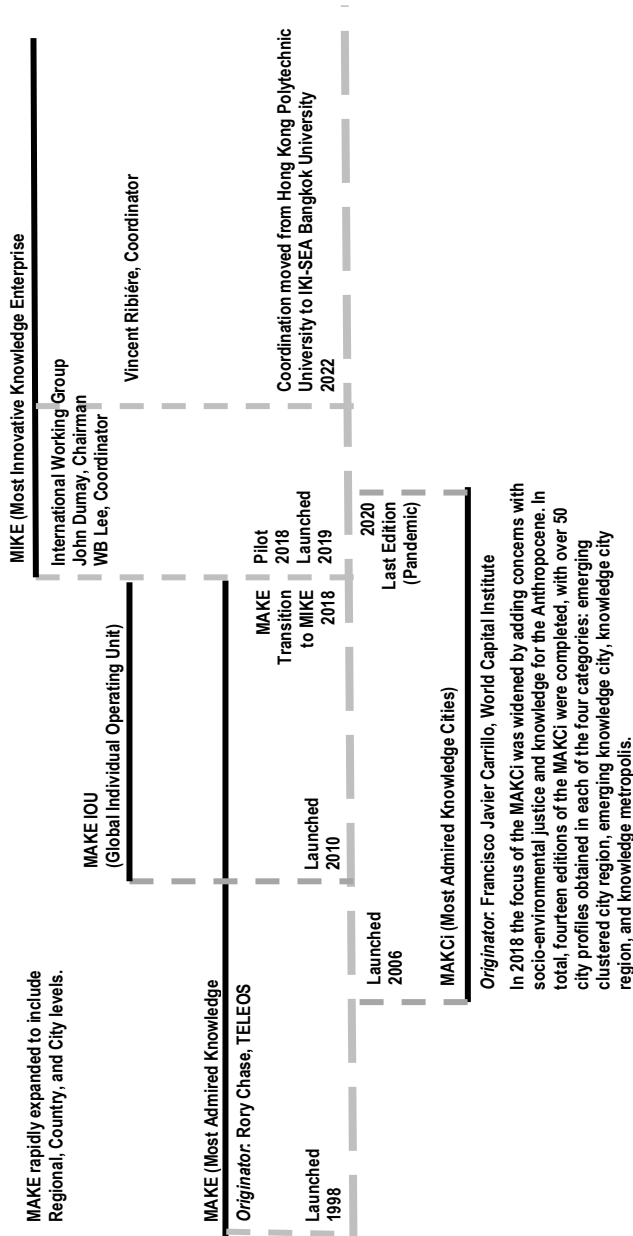


Figure 13-4. Timeline from the MAKE to the MIKE.

Birth of the Thailand and Southeast Asia MIKE Awards

Since 2010, the Institute for Knowledge and Innovation Southeast Asia (IKI-SEA) at Bangkok University, has been closely collaborating with the KMIRC (recently renamed BAKE, which stands for Behavior and Knowledge Engineering research Center) unit of the Hong Kong Polytechnic University. Both the Thai and Hong Kong centers of excellence have similar objectives to promote and support Asian organizations to excel in their KM and Innovation Management initiatives. While the KMIRC was engaged with the MAKE award for many years and led to the transition to the MIKE award, the IKI-SEA had not been involved in award recognitions.

In 2019, Dr. Vincent Ribi  re was invited to become an international committee member in assessing the Global MIKE Award applications. This awoke in him the desire to offer the award in Thailand to organizations excelling in KM and Innovation Management. After submitting his candidacy for being the Thailand host of the MIKE award, the IKI-SEA was approved to start offering the country-level award, with the IKI-SEA team launching the Thailand MIKE Award in 2020. The first year four Thai organizations applied and two were selected to compete in the Global MIKE Award with both receiving awards, one with the highest distinction of prestigious Global MIKE Award winner (Bank of Ayudhya Public Company Limited, Krungsri). In 2021, eight Thai organizations applied and three were selected to compete in the Global MIKE and were all rewarded.

In 2022, the IKI-SEA team decided, with the support of the Global MIKE Management team, to expand its reach to the 11 countries of the Southeast Asia region (Brunei, Burma (Myanmar), Cambodia, Indonesia, Timor-Leste, Laos, Malaysia, the Philippines, Singapore, Thailand and Vietnam). Ten organizations applied to the newly created SEA MIKE award and five were selected and rewarded at the Global MIKE Award level; among them, two received the highest distinction of prestigious Global MIKE Award winner (PTT Exploration and Production Public Company Limited (PTTEP) from Thailand, and Telkom Indonesia from Indonesia). Additional information about the Southeast Asia MIKE Award can be found at www.seamikeaward.org.

Reflection by Vincent Ribi  re: I was personally delighted to hear that an “I” was introduced to the MAKE award, since I always strongly believed that the fields of knowledge management and innovation management have to work hand in hand. When the Institute for Knowledge and Innovation was created at the George Washington University (GWU) in 2001, it was originally called Institute for Knowledge Management (IKM). After a few years it was

renamed the Institute for Knowledge and Innovation (IKI) since its members rapidly realized the intrinsic linkages and values between both disciplines.

When I created the Southeast Asia branch of the KIK (IKI-SEA) in Bangkok in 2008, there was no doubt that innovation would rapidly become one of the main selling points for KM in Asia. In 2011, I created the PhD in Knowledge and Innovation Management at Bangkok University that has been very successful, and which globally remains one of its kind.

Innovation doesn't come in a vacuum, it comes from re-using, re-arranging and adapting existing knowledge to create new products, services, processes, business models ... Knowledge is the raw material for innovation. So, by properly and systematically managing knowledge, organizations have the raw materials to convert into innovation. This knowledge is not only internal knowledge, but also external knowledge that needs to be identified and properly absorbed to generate value. The sub-field of open-innovation very well reflects the inbound and outbound flows of knowledge required for innovation to happen.

To come back to the MIKE award, it was very refreshing and satisfying to see that global recognition would now be made to organizations which systematically master both disciplines and I, for sure, wanted to be part of such a movement to help organizations learn from each other and further excel in these disciplines. After preaching the value of managing knowledge for more than 20 years, it is a great satisfaction to see organizations finally institutionalizing such practices. Good things come to those who wait!

Insight: Knowledge and innovation are the essence of evolution, and are intertwined to the point where they are merging into one single word: *lknowvation*.

Questions for Reflection

- What is the potential value to your organization by striving towards achieving these awards?
- What current efforts are underway that move you toward becoming recognized as a world-class innovative enterprise?
- What ideas are floating around your organization could help you achieve this goal?
- How can you ensure organizational support of these new ideas?

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Rory Chase is an international consultant, author and researcher in the development and implementation of knowledge management and intellectual capital strategies and approaches. Born in the United States, he graduated from Bradley University with a BA (with honors) in physics. He then gained a Master's degree in Information Science from Indiana University. Rory started his business career in 1973 at P. R. Mallory Inc. (Duracell Batteries). Between 1974-1986 he worked within the R&D group at Cincinnati Milacron Inc. In 1986, Rory Chase moved to England and joined IFS International Ltd., a UK-based business publisher and information services provider. Between 1986-1998, he served in several publishing and management positions, including Managing Director with overall operational responsibility for IFS. Rory Chase was Founding Editor of the *Journal of Knowledge Management* and the *Journal of Intellectual Capital*. In 1998, he established Teleos, an independent research firm and from 1998 to 2017 he conducted the internationally recognized Most Admired Knowledge Enterprises (MAKE) Awards program. He is the author of *Creating a Knowledge Management Business Strategy* and the *Most Admired Knowledge Enterprises Report*. He retired in 2018.

Francisco Javier Carrillo. Knowledge has been Javier's passion throughout his life. He published his first book on the subject in 1981, before carrying out MSc and PhD studies at the London School of Economics and King's College, London. In 1989 he founded the Center for Knowledge Systems at Tecnológico de Monterrey, Mexico, conducting over 100 consultancy projects in several countries throughout 30 years, alongside R&D. He is founder and President of the World Capital Institute. Currently, he is Emeritus Professor of Knowledge Based Development and Editor of the *International Journal of Knowledge Based Development*. His views on knowledge are condensed in the recent volume *A Modern Guide to Knowledge. From Knowledge Societies to Knowledge in the Anthropocene*. As Javier shares, "I believe knowledge to be the main leverage to the human potential. I also believe knowledge to be the portal to love."

Eric Tsui is the Associate Director of the Behaviour and Knowledge Engineering (BAKE) Research Centre and works as a Senior Educational Development Officer in the Educational Development Centre at The Hong Kong Polytechnic University. In 2015-2023, he served as the Regional Editor of the Journal of Knowledge Management and has led and delivered a Master Knowledge Management program for over 15 years. Eric has also championed many technology-enhanced teaching and learning projects and is a crusader of blended learning at the university. His research interests include Knowledge Management technologies, blended learning, cloud services, and

collaborations. Eric is the leader of a Professional Certificate program that consists of two Massive Open Online Courses (MOOCs) on edX that cover the topics of Knowledge Management, Big Data, and Industry 4.0. Professor Tsui is an honorary advisor in Knowledge Management to two Hong Kong Government departments, and he provides consultancy and professional services to numerous private organizations and NGOs in Hong Kong, Singapore, Malaysia, Thailand, Australia, Japan, and Brunei. He holds B.Sc. (Hons.), PhD, and MBA qualifications. A recipient of many Knowledge Management and E-Learning international awards, including the Knowledge Management Award for Excellence in 2021, Professor Tsui was twice listed as an exemplary/outstanding academic in PolyU's Annual Reports in the last 7 years.

Vincent Ribi re is an enthusiastic and creative International Professor, Public Speaker, and Consultant with a passion for helping organizations solve their organizational knowledge and innovation management challenges. He has more than 20 years of experience in the field of KM. He obtained his PhD in Knowledge Management from the George Washington University and is the Founder and Managing Director of the Institute for Knowledge and Innovation Southeast Asia (IKI-SEA), a center of Excellence at Bangkok University. He is also the founder and Program Director of the PhD in Knowledge Management and Innovation Management (Ph.D. KIM) at Bangkok University. Vincent runs the Southeast Asia and the Global Most Innovative and Knowledge Enterprise Award (MIKE Award). He is regularly invited to deliver keynote speeches and workshops at various international professional and academic conferences, and is the author of numerous academic publications. Vincent is the recipient of the "Knowledge Management Award 2022" (Individual Award) from the Knowledge Management Austria and Knowledge for Development Partnership (KM4DP) in recognition of his pioneering and outstanding accomplishments in the field. He was also awarded the KM Leadership Award (2014), listed among the top 100 thought leaders in Knowledge Management (2021), and received the Lifetime Academic Achievement Award (2022) by the International Institute for Applied Knowledge Management (IIAKM).

CHAPTER 12

Exploring the Depth of the MIKE: An Intellectual Capital Practice-Based Study Program

WB Lee

with Reflection by Eric Tsui

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ABSTRACT

The Most Innovative Knowledge Enterprise (MIKE) award, which emerged in 2018, provides a framework for intellectual capital practice-based innovation. Apart from recognizing the achievement of organizations, the MIKE Award serves as a diagnosis tool for improving innovation practice in enterprises, a basis for an international benchmarking study, and as a context-rich data pool for designing innovation research. This paper dives into the structure and purpose of the award, and then, as an example, explores the findings of the first Global MIKE study in 2019, which sets a benchmark for future studies. Along the way several reflections and insights are provided, and an array of specific good practices are also shared.

Keywords: MAKE, MIKE, intellectual capital, Knowledge Management, practice-based innovation, good practices, benchmarking

INTRODUCTION

Since its birth in 1998, the Most Admired Knowledge Enterprise (MAKE) award, the precursor to the MIKE award, witnessed a progressive maturing of knowledge management, which enabled the listing of successful companies and organizations worldwide as benchmarks. The Global MAKE research is based on the Delphi methodology. This technique uses an expert panel's perceptual knowledge to identify and examine critical issues – in the case of the Global MAKE study to identify those organizations which are leaders in the 21st century knowledge economy. Through several iterations, a consensus was developed among the panel's experts. It is this consensus of expert opinion which provided the validity to the Delphi and Global MAKE study results. Due

to the retirement of Rory Chase of Teleos, he announced the successful completion of this Global MAKE Award and Study in December 2017.

After closing of the MAKE Study, a global study group (with John Dumay from Macquarie University as the chair and WB Lee from The Hong Kong Polytechnic University as the coordinator) was formed to continue and build upon the MAKE framework to take the study to a new dimension. The result is the Most Innovative Knowledge Enterprise (MIKE) Award, which was announced by Rory Chase in December 2017.

The criteria for the MIKE Award are based on the original MAKE framework, but with an emphasis on innovation. Based on the intellectual capital (IC) practice lens, the main factors which influence innovation performance are derived and embodied into eight revised criteria for sustaining innovation in a knowledge enterprise. Apart from recognizing the achievement of organizations, the MIKE Award serves as diagnosis tool for improving innovation practice in enterprises, a basis for an international benchmarking study, and as a context-rich data pool for designing innovation research. In this chapter, the features of the MIKE Study program and methodology are introduced, the main findings from its first formal run are highlighted, which provides a benchmark for future runs, and the research implications are discussed.

Reflection by Eric Tsui, Associate Director of BAKE

Change brings opportunities. When Rory Chase announced discontinuation of the MAKE award due to his retirement in 2018, Professor WB Lee, former director of the KM and Innovation Research Centre (KMIRC) at The Hong Kong Polytechnic University – who had been coordinating MAKE awards for Hong Kong and mainland China organisations – proposed to Rory to continue the momentum of MAKE. Taking into consideration more and more firms realize the importance of knowledge and innovation, he proposed the MIKE (Most Innovative and Knowledge Enterprise). Rory offered his support and the MIKE award was launched, firstly in Hong Kong in 2018 and since then has been launched in mainland China, Australia, Finland, Germany, India, Indonesia, Iran, Italy, Japan, New Zealand, Romania, Thailand, and the U.S. plus countries in the MENA (Middle East and North Africa) region. In addition to the MIKE award at the country level, there is also the Global MIKE award. Many new entrants compete for the MIKE award, especially organisations that excel in delivering service innovations via new business models.

In retrospect, the transition from MAKE to MIKE is a very successful and a much-needed change. During all its days, the term “MAKE” placed a very strong emphasis on the importance of many aspects of knowledge (creation, harnessing, retention, sharing, valuation, application etc.). While that is indeed very true, as knowledge is an infinitely renewal resource for any organization, the people (mostly directors and senior managers) we collaborated with had their success and experience gained from the Third Industrial Revolution (I3.0). To these people, their successes were very much based on *productivity enhancements, lowering costs and ensuring quality of products*. As such, even though they appreciate and understand the role of knowledge in generating sustainable competitive advantage, they still resort to process efficiency and maximizing uptime of their manufacturing systems and processes. ERP systems, process management systems, access databases and spreadsheets are what these people commonly focussed on (as opposed to knowledge auditing, knowledge mapping, search systems, taxonomies, collaboration systems, etc.)

By late 1990s, among others, technology advancements, highly connected networks and globalisation have accelerated the onset of the Fourth Industrial Revolution (I4.0). Corporate leaders realise that organisations cannot continue to win merely based on speed, cost and automation. Creative products, services, and even business models are needed in order to crack new markets (or significantly increase the share of an existing market). Innovation holds the key to success in the 21st century as innovation requires insights, intuition, knowledge, and creativity at the individual and group levels. It is easy and direct to articulate knowledge with creativity and innovation; successful innovation often spawns new products, services and/or new business models. It is a lot easier to preach the value and power of knowledge via the “innovation” lens. I am pleased to see that many MIKE award winners realise that their success can be traced back to the good knowledge harnessing and sharing systems (which they never referred to as knowledge management efforts) as well as culture that they bred in their organisations.

After two decades of heavy devolution both in applying and in preaching Knowledge Management, I now realise managing knowledge is very abstract and remote to many people. Instead, I now focus on illustrating the ramifications of good KM (e.g., business innovations) and help leaders and organisations to align the necessary knowledge flow and processes to achieve success.

Insight: Unlike before, I do not start with “knowledge”; I start with “harvesting the fruits of good knowledge”!!!

FEATURES OF THE MIKE STUDY PROGRAM

There are two aspects of the MIKE study: the award part and the research part. The award, apart from motivating the organizations to reflect on their innovation practices, yields a lot of context rich IC data. This pool of rich data enables researchers to conduct cross-country comparisons of innovation practices based on the input and findings of the companies and organizations competing for the award. Members of the study group are welcome to host their country MIKE Awards and join the research part.

The purpose of the MIKE Award is to:

1. Recognize the achievement of companies and organizations on their innovation performance as a result of their effort in implementing good practices in knowledge and intellectual capital management. Successful applicants will be recognized as Global MIKE 100 organizations.
2. Offer an opportunity for companies/organizations to learn from one another to enhance their practices, and provide an opportunity for the organization to conduct a self-assessment with reference to other organizations on knowledge and innovation processes.
3. Offer the opportunity for applicants to receive expert feedback from the hosting organization for their continuous improvement, and benchmark worldwide practices.
4. Offer the opportunity for organizations to join an annual networking forum with like-minded companies

There are two levels of the MIKE Award. One at the country level and one at the global level. Countries and regions with representatives joining the study group included Australia, China, Finland, Germany, Hong Kong SAR, India, Iran, Italy, Japan, MENA (Middle East and North Africa), New Zealand, and Romania. MENA countries include Lebanon, Syria, Turkey, Saudi Arabia, Egypt, United Arab Emirates, Iraq, Qatar, Jordan, Yemen, Bahrain, Kuwait, Oman, Cyprus, and Libya. The country MIKE Award is named after each of the country hosts (e.g., Indian MIKE Award). The first pilot run of the MIKE Award was held in 2018 and the first formal run was in 2019. Each country nominates their best winners (up to five) to compete for the Global MIKE award. A judging panel is formed to assess the sustainability factors leading to innovation performance. Table 12-1 shows the global MIKE Award winners from 2018 through 2022.

Table 12-1. The 20118-2022 Global MIKE Award winners.

2018	2019	2020
Afcons Infrastructure Limited	Afcons Infrastructure Limited*	Advanced Info Services Plc
BINUS University	Architectural Services Department	AFCONS INFRASTRUCTUE*
China Petroleum & Chemical Corporation (Sinopec Corp.)	BINUS University, Indonesia	ATOS MENA Region
China Southwest Architectural Design and Research Institute Corp., Ltd.	China Asset Management Co., Ltd.	Bank of Ayudhya Public Company Limited (Krungsri) [MOST OUTSTANDING WINNER]
CinnaGen Company	China Petroleum & Chemical Corporation (Sinopec Corp.)*	BINUS UNIVERSITY, INDONESIA [MOST OUTSTANDING WINNER]
CLP Power HK Ltd [MOST OUTSTANDING WINNER]	China Southwest Architectural Design and Research Institute Corp., Ltd*	China Telecom Research Institute
EY, Australia & New Zealand	CinnaGen Company*	CLP Power Hong Kong Limited*
EY, Hong Kong	CLLP Power Hong Kong Limited*	CRRC ZHUZHOU ELECTRIC O., LTD.
Faculty of Sciences, Saint-Joseph University of Beirut, Lebanon	Cognizant Technology Solutions	Dubai Municipality [MOST OUTSTANDING WINNER]
Hong Kong Correctional Services Department	EY [MOST OUTSTANDING WINNER]	Engineering Group
Hong Kong Police Force [MOST OUTSTANDING WINNER]	Far East Holding Group Co., Ltd.	EY*
Infosys Limited	Fung Academy	FINCANTIERI S.P.A.
Mindtree Ltd.	Hong Kong Correctional Services Department	Guodian Dadu River Hydropower Development Co., Lt [MOST OUTSTANDING WINNER]
NetEase Games	Infosys Limited [MOST OUTSTANDING WINNER]	Hong Kong Correctional Services Department*
Sansan, Inc.	Mobarakeh Steel Company	Hong Kong Police Force*
Wipro Limited [MOST OUTSTANDING WINNER]	NetEase Games (Guangzhou Boguan Information Technioogy Co., Ltd.)*	Nokia, Nokia Software core Services & Care, Market Services, Middle East Africa
	NKE Corporation	Nokia, Nokia Software, Cloud Services and CARE [MOST OUTSTANDING WINNER]
	Petroleum Development Oman LLC	Sino Innovation Laboratory Limited
	Sino Innovation Laboratory Limited	Sino Innovation Laboratory Limited
	Tata Chemicals	Wärtsilä Italia SpA
	Think & Act, Inc.	
	Wipro Limited*	

2021	2022
Advanced Info Services Plc*	AFCONS INFRASTRUCTURE LIMITED – India
AFCONS INFRASTRUCTURE*	Advanced Info Services Plc (AIS)* - Thailand
Aurecon [MOST OUTSTANDING WINNER]	Aurecon* - Hong Kong SAR, China
BINUS UNIVERSITY, INDONESIA	Bangkok – Thailand
Caritas Jockey Club Lok Yan School	BINUS University – Indonesia
China Life Insurance Co. LTD	Caritas Jockey Club Lok Yan School* - Hong Kong SAR, China
CLP Power Hong Kong Limited*	CCCC-FHDI Engineering Co. Ltd – China
Ernst & Young Hua Ming LLP	CLP Power Hong Kong Limited – Hong Kong SAR, China
EVEREL GROUP SPA	Dubai Municipality* - UAE
EY*	Electrical and Mechanical Services Department – Hong Kong SAR, China
Henderson Land Development Co. Ltd.	EY* - USA
Hong Kong Correctional Services Department, the government of the HKSAR*	Henderson Land Development Co. Ltd – Hong Kong SAR, China
Hong Kong Police Force, the government of the HKSAR*	Hong Kong Correctional Services Department* - Hong Kong SAR, China
International Systems Engineering & Automation Company	Hong Kong Fire Services Department* - Hong Kong SAR, China
Mobarakey Steel Company (MSC)*	Hong Kong Police Force (Hong Kong Police College)* - Hong Kong SAR, China
Nokia, Cloud & Network Services, Core Services and CARE	Metropolitan Water Authority (MWA) – Thailand
PT MRT Jakarta (Perseroda)	Nokia, Nokia Software, Core Services and CARE* - USA
PTT Exploration and Production Public Company Limited	PT MRT Jakarta (Perseroda)* - Indonesia
REVATIS SA	PTT Exploration and Production Public Company Limited (PTTEP) – Thailand
Saudi Basic Industries Corporation (SABIC)	Telkom Indonesia – Indonesia
Tencent Institute of Games [MOST OUTSTANDING WINNER]	Water Supplies Department* - Hong Kong SAR, China
Thai Union Group PCL	Yonyou – China
Water Supplies Department, The Government of the HKSA	ZTE Wired Product Operation Division - China

The assessment is discussed Sec.4 which is modified from the MAKE study tradition and built based on the intellectual framework for innovation, which is detailed below. There are two parts of the assessment: (A) the sustainability factors (in terms of eight IC practice criteria) and (B) various innovation performance indicators. In the assessment form, the host or its representative is required to give a rating of 1 to 7 (Likert scale) for each criterion and also an overall score for the innovation performance. The meaning of the rating from 1 to 7 is listed in the nomination form to avoid different interpretations of the numerical points. In Part B, the innovation performance indicators cater to the variations in different sectors from profit-oriented companies, non-government organizations, to government sectors. As each organization has its own business model, values and missions, there is not a single definition of innovation that suits all. The applicant can select the most appropriate indicators which are the most suitable to describe their innovation performance. They can choose more than one from the following list:

- New products/new services/new business models developed
- Market share/new product sales
- Patents/licenses/loyalties
- Revenues /incomes
- Customer/client satisfaction
- Prizes/awards/honors, etc.
- Patents, publications – new ideas, etc.

The details of the MIKE application form can be downloaded from <http://www.globalmikeaward.com/>

ACCESSING INNOVATION PERFORMANCE

The driving force for value creation nowadays has been identified by Schumpeter (1976) to be innovation, which is also defined by Drucker (1985) as “ the specific instrument of entrepreneurship”. Innovation is not invention but a systemic process for sustainable growth and survival in an organization (Terziovski, 2007). According to the definitions of OECD, Innovation is embodied in many forms – from products, processes, markets, to business models. Traditionally, innovation effects can be judged in many ways such as R&D expenditures, number of intellectual property rights, return on investment , etc. According to the definitions of OECD, innovation is embodied in many forms, from products, process, market to business models, and is not confined to technology per se. In industry, the trend is towards more successful

commercialization and return on investments on adoption of technology, processes and new services.

At the country level, the World Intellectual Property Office (WIPO) developed the Global Innovation Index (GII) as the average of two sub-indices. The Innovation Input Sub-Index gauges elements of the national economy, which embody innovative activities and actual evidence of innovation results grouped in five pillars, namely: institutions, human capital and research, infrastructure, market sophistication, and business sophistication. The Innovation Output Sub-Index captures actual evidence of innovation results into knowledge and technology outputs and creative outputs. At the enterprise level, Forbes lists the annual 100 World's MOST Innovative Companies. Companies are ranked by the difference between their market capitalization and the net present value of cash flows from existing businesses, which is a measure of the innovation capability. To be qualified, the company needs to have at least a market capitalization of \$10 billion. The data are obtained from open financial reports. They are also asked which areas they consider to be most impactful to their business. The fifteen areas that are ranked are technology platform, speed of adopting technology, big data analytics, new products, digital design, operation process, supporting capabilities, customer channel, extension of existing products, new services, artificial intelligence, extension of existing services, to business model and marketing.

Both the WIPO GII and the Forbes 100 Most Innovative Companies are well-known practical examples of comparing innovation performance. The GII is for nations, and Forbes for enterprises based on financial success. A lot of corporates – even banks, energy, and mining firms – are excluded as their market value is thought to be more tied to commodity price rather than innovation. However, the technology and market situation have now changed, and the success formulae which is true in the past decades is no longer valid even in the traditional sectors. One shortfall of the award is that SMEs or start-ups are excluded. Emerging firms such as Alibaba or Baidu, which started as micro-enterprises fifteen years ago, would not have been listed. Moreover, NGO or government departments are not included as these are not profit oriented organizations, despite the fact that they are the social backbone of a modern society.

Compared with Forbes, MAKE was a more open platform. Nevertheless, the emphasis on MAKE was how KM could add value to the stakeholder, and very often the revenue on investment is still an important criterion to judge for business performance. MIKE, on the other hand, puts more emphasis on how

intellectual capital, the intangible assets which is often not in the account book, can contribute to innovation practices and the success of an organization. The framework of MIKE is described below.

A FRAMEWORK OF INTELLECTUAL CAPITAL PRACTICE-BASED INNOVATION

Investigation of the link between intellectual capital and innovation capability is a challenge (Wu & Sivalogathan, 2013). Following the WIPRO GII methodology, we use both the input factors and the output effects to assess the innovation performance, but with more emphasis on the former. The most difficult issue to tackle first is to differentiate which are the input and output factors of innovation. There are many ways to measure the input and output of innovation. In some studies, IC is taken to be the input. Whereas in the others, the accumulation and building up of intellectual capital is regarded as an output, such as the relation capital which includes client relationship and market shares.

In the MIKE study, we do not adopt the traditional IC measuring and reporting paradigm, nor comparing directly the innovation performance, as there is no common ground that could be catered for diversified sectors from private public, NGO, to government institutions. No single criteria or combination of criteria can measure the innovation performance of different organizations on an equal basis. Instead of comparing output, we focus more on the input side, that is, the elements of intellectual capital in terms of practices that are most impactful to the business and can sustain systematic innovation in an organization. Therefore, a practice-based innovation model based on IC theory is adopted. IC can be regarded as a complex representation of the organizational DNA (Neilson and Fernandes, 2008). The combination and interaction of different genes – which are described as elements in human capital, structural capital, and relational capital – form a unique characteristic for each organization. Such nature of the firm can be called Intellectual Capital Complexity (ICC) (Fan and Lee, 2012).

A lot of research and investigation have been conducted to identify these critical IC elements. The findings from four separate and independent studies from Australia Dumay 2013, Finland (Marta Buenechea-Elberdin1 et al. 2016), and Hong Kong (Fang and Lee, 2017; Fan et al., 2020) were examined and the most common IC genes extracted and grouped under human capital, relation capital and structural capital. These are listed in Table 12-2. These elements are then formulated into various practices to form the eight criteria for assessment, following the approach of the previous MAKE Study.

Table 12-2. IC elements (IC genes) extracted from various IC studies.

	Australian (Dumay, 2013)	Finland (Marta Buenechea- Elberdin et al., 2017)	Canada (Fan and Lee, 2016)	Hong Kong (Fan et al., 2020)
Human Capital	Idea Based	Leadership	Knowledge Workers	Empower Employee
	Personality Driven	Strategic Competence	Transformative Leaders	-
	Capability Based	-	-	-
Relation Capital	Partner Enabled	Connectivity	Internal Social Network	Customer Centric
	Unseen Need Inspired	-	External Social Network	-
	Use Inspired	-	-	-
Structural Capital	Cultural Source	Learning Organization	Organization Innovative Culture	Strategy
	Process Based	Managing Knowledge	-	Process
	Use of Data	Exploiting Time	-	Office Environment

The pillars to support systematic innovation and value co-creation in organizations are the underlying activities described under the eight IC practices from Table 12-3. These practices contribute to the ecosystems of innovation (Figure 1). We define ecosystem as a network of relations among various actors and agents within and outside an organization. Basically, the organization *leader* creates the kind of *culture* to fulfil the capacity of its *workers* and expectations of its *users* so as to develop the required *products or services* with the input of its entire *network*, aided by the *KM systems and practices* with the use of *creative space*. It should be noted that these practices are not static and independent, but are interrelated to one another. For example, the network, the creative space, and the KM systems in place jointly provide the events and activities leading to the innovations. The innovative effort in the creative space (physical or virtual) and nurtured by the leadership and organizational culture is then embodied to the visible products and services. Leadership and organizational culture thought distinct themselves are also interrelated. We do not see IC nor innovation as an entity that could or should

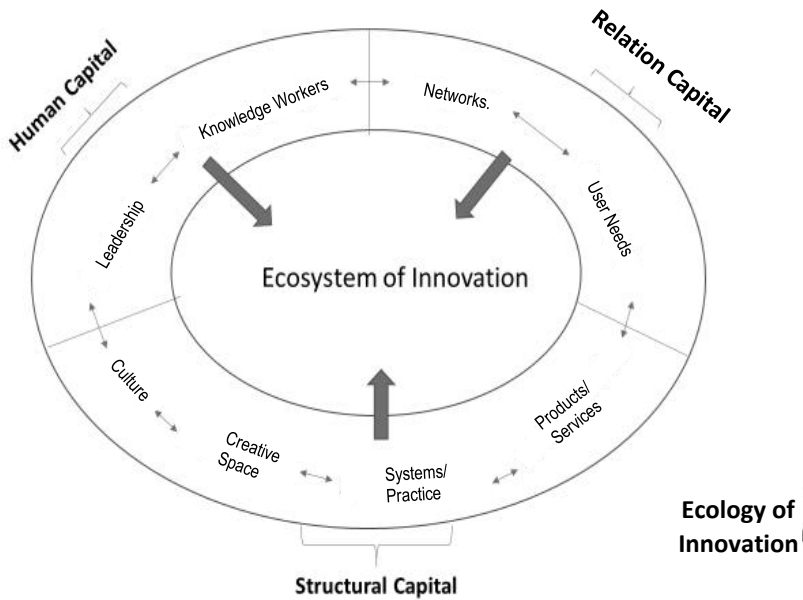
be managed per se. The role of IC and KM practitioners is to design and cultivate the ecology that is favorable for innovation. The effect of each IC practice sometimes is often not easily separable from one another in the ecosystem of innovation.

Table 12-3. Practice based criteria to sustain innovation.

	Criteria	Short Description
Human Capital	1. Empowering knowledge workers for innovation	Knowledge Workers
	2. Strategizing, visioning and transformative leadership	Leadership
Relation Capital	3. Creating client and user expectations/needs/experiences	User Needs
	4. Developing internal & external networks	Networks
Structural Capital	5. Cultivating organizational innovation culture	Culture
	6. Investing and delivering knowledge-based products/services/solutions	Products/Services
	7. Enforcing knowledge practices and systems for knowledge creation	Systems & Practices
	8. Implementing creative and virtual space to create stakeholder value	Creative Space

In conferring the MIKE award, what we are assessing is not the innovation output per se of each organization, but more the effort they have spent to sustain their business goals and aims in the form of both facts as well as narratives. The respondents are also asked to rate the relative importance of these practices and select the most important three which are most impactful to their achievement. The narrative part is of particular importance as this would give the researchers context rich data of the respondents’ activities, experience, values and success. The IC researchers of these studies can then build their own research hypothesis on the relation between IC practices and innovation, a kind of qualitative and pre-hypothesis research.

The relation between intellectual capital, its practices, and innovation is shown in Figure 1.



Reflection

My journey toward the MIKE began long ago. Frankly, I knew nothing about knowledge management two decades ago. I was trained in engineering, more precisely as a production engineer, which is what they call an industrial engineer in the US. After graduation, I started working in an American firm Ampex Ferrotec in Hong Kong, which made ferrite core memories (obsolete long times ago). In the early seventies I moved to Fairchild Instruments, who made the world's first planar transistor. The semiconductor packaging industry was a big boom in Southeast Asia during those days, employing thousands of young people in the assembly and testing lines. However, the business fluctuates much as it does today, and a company could be downsized at very short notice. Even without any knowledge of the commercial world, I could feel the rapid rise and fall of the industry like a roller coaster. Later I joined a local company which made the world's largest export of copper and aluminium flashlights to Africa, a very profitable business based on the founder's expertise in the deep drawing and extrusion forming process, the mechanics of which was drawn on his PhD thesis based in Sheffield University in the fifties. All these are knowledge-intensive industries of their kind in that era. This is just a snapshot of my personal industrial experience in the seventies. When Hong

Kong started to take off from just an entrepot and trading port to a small manufacturing hub of one of the largest export cities of textiles, plastics, toys, and watches, accumulated the industrial, managerial skills and entrepreneurship spirit preparing for its unprecedented role in southern China that has changed the world landscape of manufacturing.

After studying a Master's degree at UK and my PhD degree back to Hong Kong, I began to settle down in the academic world at The Hong Kong Polytechnic University in the Department of Manufacturing Engineering, witnessing all these rapid changes. At its golden peak during the eighties and nineties, Hong Kong employed directly and indirectly more than 8 million people in the Pearl River Delta (now called the Great Bay Area), with a population of more than that of Hong Kong itself. Literally, we have crafted a Hong Kong outside Hong Kong. This created an unprecedented scene in the transfer and movement of people, knowhow, and all sorts of capitals across the border. By 1990, over 80% of the factories in Hong Kong were relocated to mainland China, and now the contribution of direct manufacturing to Hong Kong economies is less than 1 percent. More than 90% of employees work in the service industry, one the highest among the world, and the ratio of service exports to GDP was over 40%. It was time for changes.

Within the university, these changes were reflected closely to what happened in the curriculum. Some were willing to change whereas some might not. The traditional manufacturing engineering department was thus restructured to become an Industrial and Systems Engineering discipline which offers a wide range of broad and multi-disciplinary programmes that include product engineering and marketing, enterprise engineering with management, as well as the unique Master of Science in Knowledge Management in SE Asia, and the founding of the Knowledge Management and Innovation Research Centre founded in 2007. Staff of the Centre had been building a strong KM consulting practice in both private and public sectors – not as a side line for professors and teachers, but as a kind of action learning experience for both the clients and the KM group itself. In industrial engineering, the business world is our real-world and best laboratory to learn and practice.

My interest in KM started many years ago when I accidentally attended a seminar delivered by a senior engineer from Lotus Cars, in which he presented the use of an expert system in the design of an automotive headlamp, which involved knowledge integration from many parties on body design, mould and die making, electronics, and legal compliance before a design plan could be executed. How such various knowledges can be orchestrated smoothly from different departments and territories is an essential capability of a company. My

attendance at the annual intellectual capital community event at World Bank brought me to know many well-known experts and practitioners in the field, which highlights another dimension on the subject. Nevertheless, Knowledge Management is a difficult subject to teach as well as difficult to be received by many corporates as its readiness to be cooperated into the business process is not often obvious. The fact is that although nobody will disagree on the importance of knowledge as an asset, the practice largely remains as a theory in books and papers. Our interest to promote KM continued when we introduced the Knowledge City Summit hosted at Shenzhen in the year 2009 and the China MAKE Award in China in 2011 to bring public recognition to those organisations achieving outstanding performance in KM practices.

Rory Chase, the founder of the Teleos and Knowledge Network, whom I first met in Mexico, announced the successful completion of his Global MAKE Award and Study program in December 2017. Immediately I knew, we need to build on this successful program. An International Global MIKE Study Group comprising world experts in this area was formed to continue this global study, so as to identify the good practices companies and organizations cultivate to convert their enterprise knowledge into superior products, services, and solutions based on the intellectual capital framework, to which the new dimension of innovation is added. In the Forbes 100 Most Innovative Companies program, Forbes annually lists the 100 World's MOST Innovative Companies based mainly on financial success. Companies are ranked by the difference between their market capitalization and the net present value of cash flows from existing businesses, which is a measure of their innovation capability. To be qualified, a company needs to have a market capitalization of at least \$10 billion.

In the MIKE award, we do not adopt the traditional IC measuring and reporting paradigm, nor compare it directly to innovation performance, as there is no common ground that could cater to the diversified sectors ranging from private, public, NGO, to government institutions. No single criteria or combination of criteria can measure the innovation performance of different organizations on an equal basis. So, instead of comparing the output alone, we focus on the input side, that is, the elements or genes of the intellectual capital in terms of practices and narratives that are most impactful to the business and could sustain systematic innovation in an organization. Therefore, a practice-driven innovation model based on the Intellectual Capital theory is adopted.

In reflecting back – and thanks for the opportunity – my journey in knowledge management is both a short and lengthy one, the work of which has

been summarized in my recent book *Knowledge Risks and its Mitigation: Practices and Cases*. It is short in the sense that 20 years is a short time for anyone to learn a subject in depth, but lengthy as we have almost gone from the first generation of being a technological base to develop expert systems, to the second generation of knowledge spiral creation, and then to the third generation, which puts much more emphasis on the humanistic approach to facilitate people interaction and deep dialogue. Together, all these can now focus on the more efficient use of artificial intelligence (albeit more advanced and sophisticated) to generate effective knowledge for individuals and enterprises through large language models.

Insight: Societal needs for change, as well as harmonious human collaboration, are always paramount driving forces and ingredients for achieving our next level of innovation at the individual, enterprise and national levels.

A BENCHMARK: FINDINGS OF THE 2019 GLOBAL MIKE STUDY

There are two sections of the findings below. The first section is Award and Survey Results, whereas the second section is the extract of good practices from the winners' application reports. These reports are available only to the country hosts and global winners who are willing to share.

Award and Survey Results

There were eight countries and regions in total (hereafter all refers to country sometimes for simplicity) in total participating in the 2019 Global MIKE study. These are located in China, Hong Kong SAR, India, Indonesia, Iran, Japan, Middle East and North Africa (MENA) and the United States. For Indonesia, USA and MENA, there was only one entry from each. There was no host from Indonesia or the USA, and thus the applications from these two countries were submitted directly to the Global MIKE Award Administration. Following is the list of 2019 Global MIKE Award winners (in alphabetical order):

- Afcons Infrastructure Limited*
- Architectural Services Department
- BINUS University, Indonesia
- China Asset Management Co., Ltd

- China Petroleum & Chemical Corporation (Sinopec Corp.)*
- China Southwest Architectural Design and Research Institute Corp., Ltd*
- CinnaGen Company*
- CLP Power HK Ltd*
- Cognizant Technology Solutions
- Ernest and Young (EY)
- Far East Holding Group Co., Ltd.
- Fung Academy
- Hong Kong Correctional Services Department
- Infosys Limited
- Mobarakeh Steel Company (MSC)
- NetEase Games (Guangzhou Boguan Information Technology Co., Ltd.)*
- NKE Corporation
- Petroleum Development Oman LLC
- Sino Innovation Laboratory Limited
- TATA Chemicals
- Think&Act, Inc.
- Wipro Limited*

**Past winner through revalidation and cannot compete for the Outstanding Winner of Global MIKE Award.*

The two Most Outstanding Winners of the Global MIKE Award 2019 (in alphabetical order) were EY and Infosys Limited.

In the 2019 exercise, there were a total 22 submissions, including seven cases opting for revalidation only. The Global MIKE Award winners cover diversified industrial sectors from manufacturing, construction information technology, energy consultancy, professional services to government departments and education. For simplicity, all the firms, corporates (private or public), government departments, and education institutes are referred to as organizations in this report. Their sizes range from SMEs up to very large transnational corporates. The scope of business activities of the 2019 organizations is shown in Table 12-4.

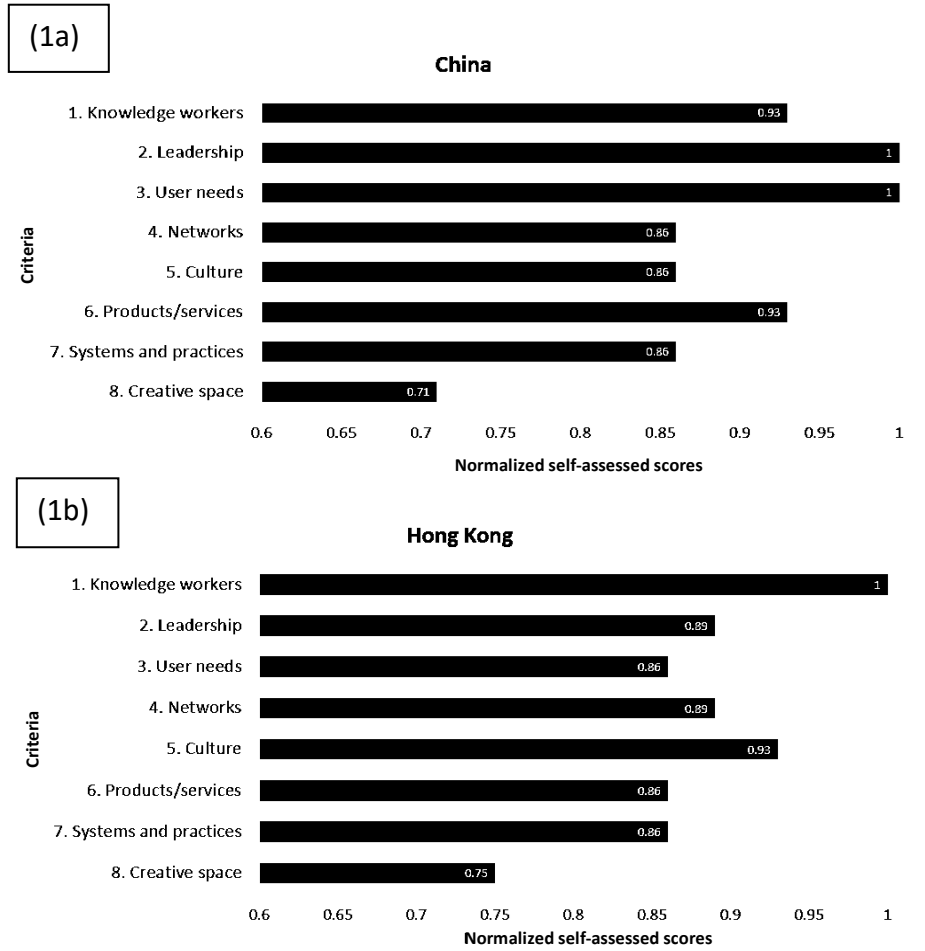
Table 12-4. Scope of business activities of the 2019 winners.

Country (No. of organizations) *in alphabetical order	Category of business	No. of employees
China (5)	Financial services	900
	Energy	30,000
	Architecture	5,000
	Manufacturing	9,336
	Telecommunication Information technology	10,000
Hong Kong (5)	Construction	1,900
	Public utilities	4,300
	Government department	6,555
	Management consultancy	42,000
	Professional services	5
India (5)	Construction	2,400
	Information technology	288,200
	Information technology consulting	236,000
	Manufacturing	4,698
	Information technology	175,000
Indonesia (1)	Education	2,286
Iran (2)	Manufacturing	656
	Manufacturing	14,350
Japan (2)	Manufacturing	150
	Social services	13
Middle East and North Africa (1)	Energy	8,500
United States (1)	Professional services	280,000+

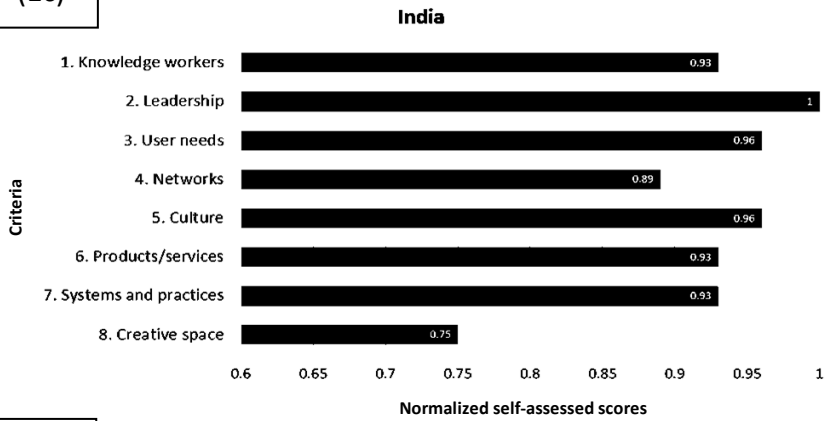
The framework of assessment is modified from the MAKE Award tradition and built based on the intellectual capital framework for innovation. There are two parts of the assessment: (A) the sustainability factors (in terms of eight criteria, see Appendix 1) and (B) various innovation indicators to be selected by the applicant organization as appropriate. For details of the

application form, please refer to Global MIKE Award website <http://www.globalmikeaward.com/>.

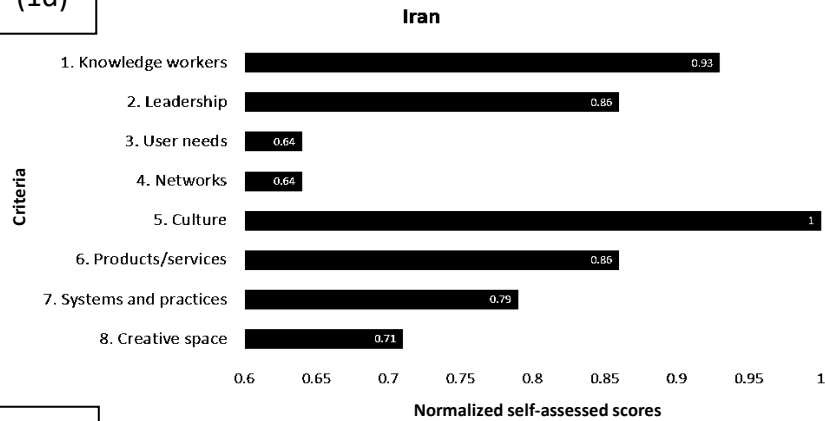
Each organization was asked to give a self-rating score in a 7-point Likert scale (from 1 to 7) on the relative importance of each of these eight criteria they think is important to the success of their organization. The rating is normalized from a 7-point Likert scale to one with a scale from 0.1 to 1 (0.1 means not important and 1 extremely important). Figure 1 (a-e) shows the average score as rated by the organization in the five countries/regions. In a country where there is no award host and there is only one direct submission, the ratings given by an individual organization would not be shown. Figure 1f, on the other hand, shows the overall average of the rating from all the global winners.



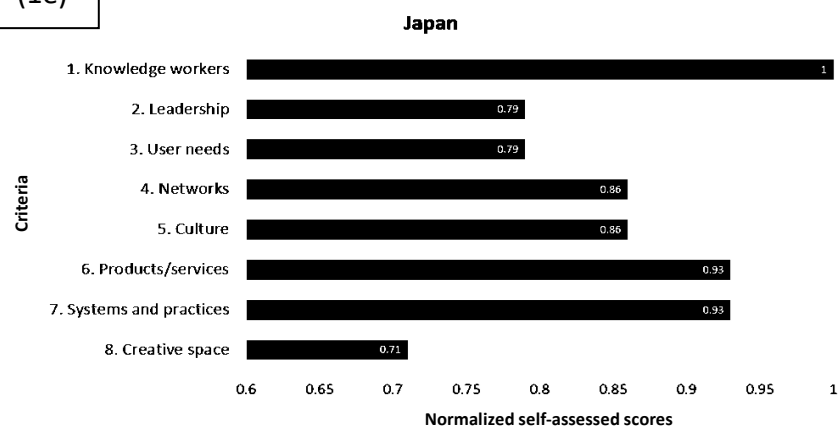
(1c)



(1d)



(1e)



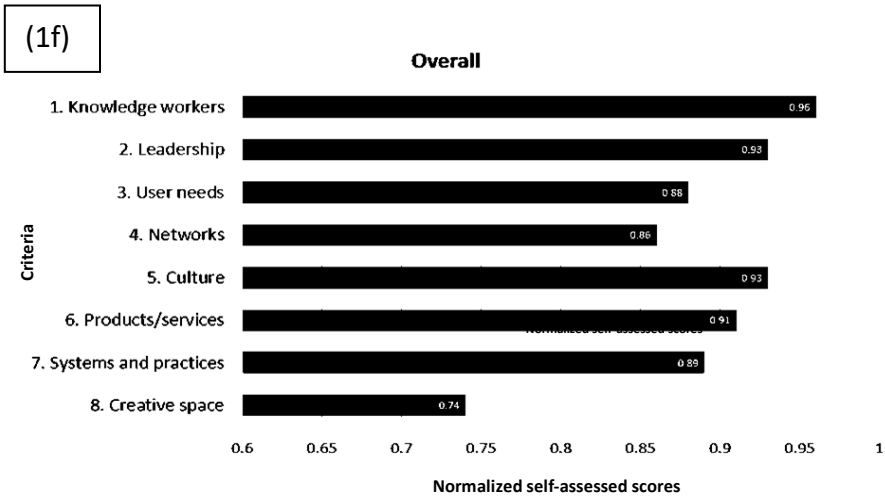
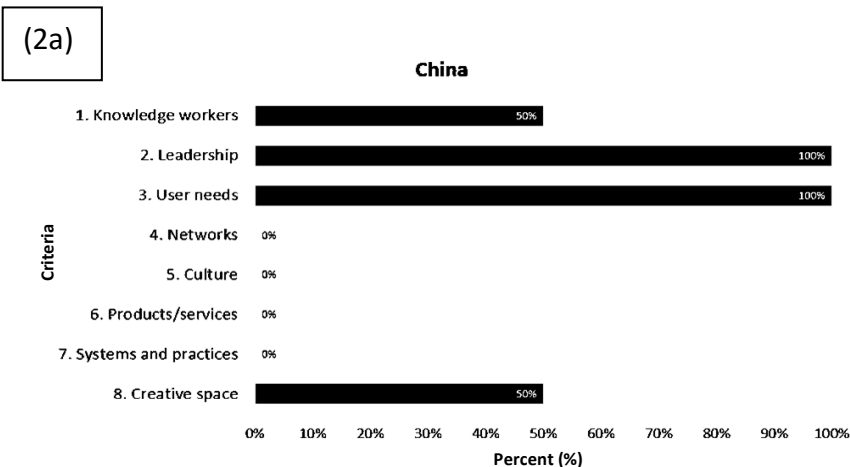
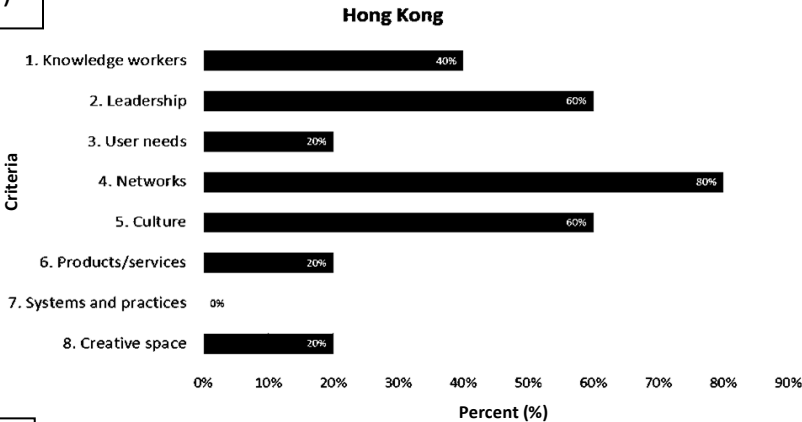


Figure 1 (a-e). The relative rating on the importance of each of the criteria averaged from winners in each country/region. (f) shows the overall average rating from winners in all countries and regions. (1 means extremely important and 0.1 means not important)

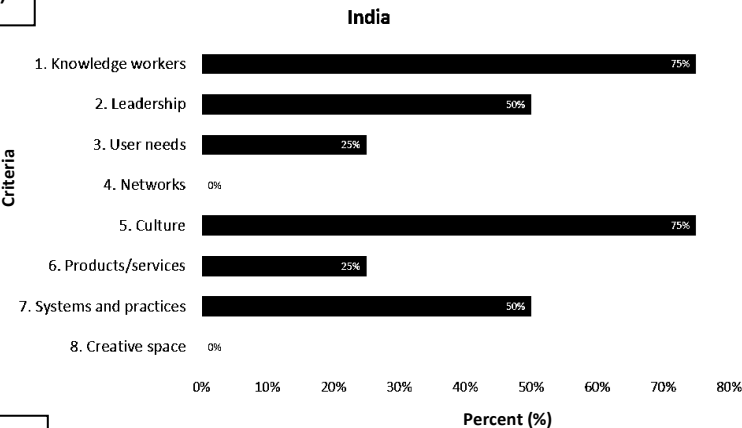
In addition, applicants were asked to pick out THREE of the eight criteria which their organizations had most performed well. The following graphs (Figure 2 a-e) show the average percentage of votes received from the winners in each of the five country/regions. Figure 2f shows the overall average percentage combined from all global winners.



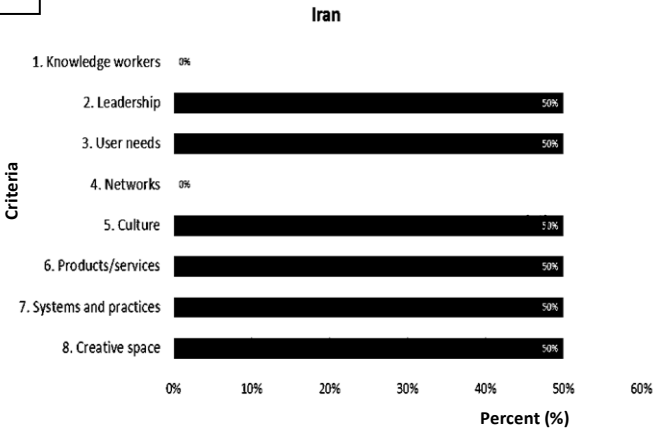
(2b)



(2c)



(2d)



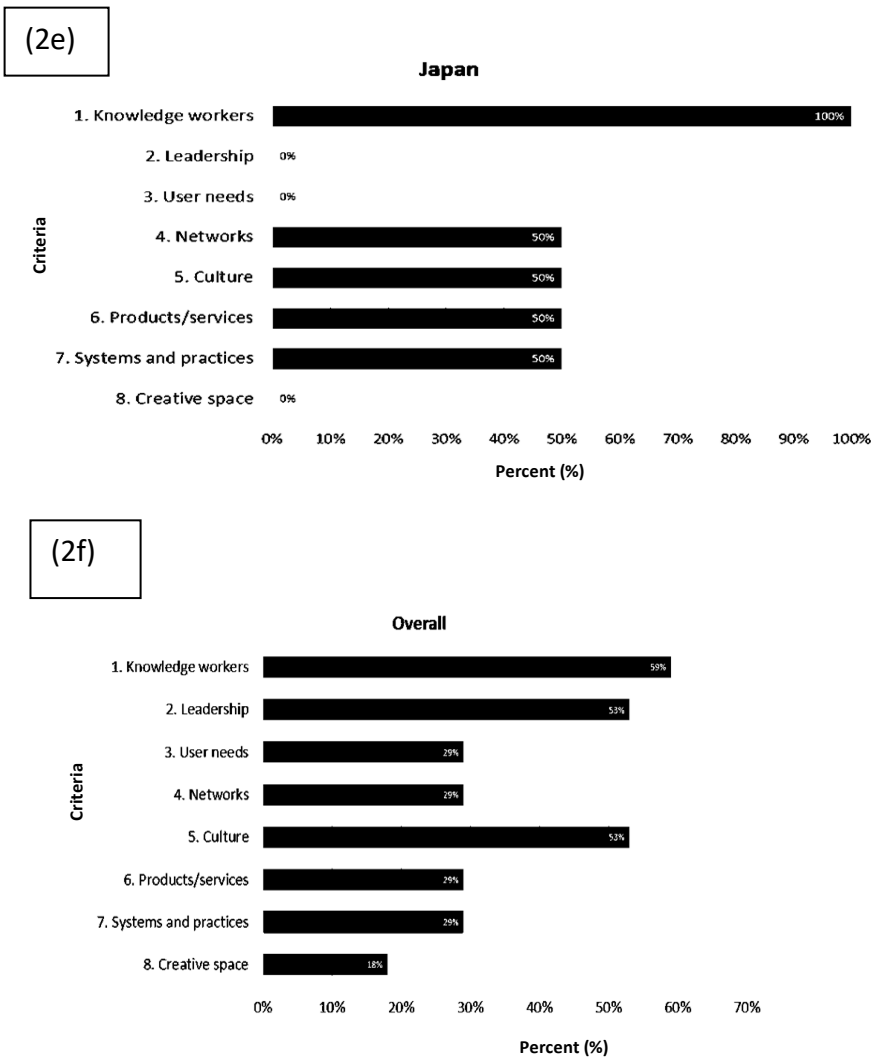
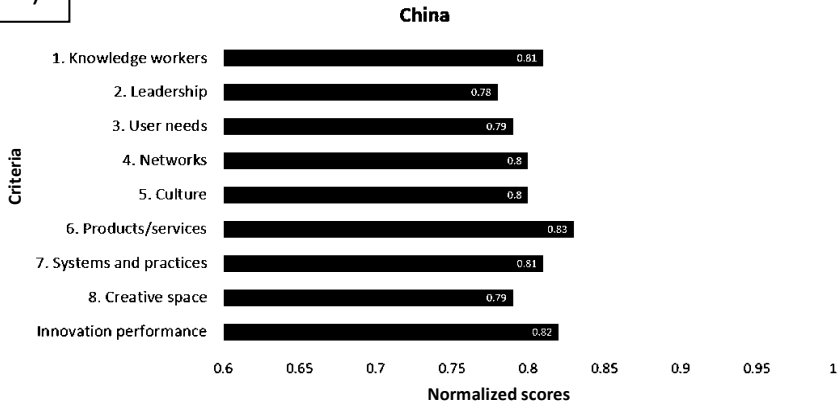


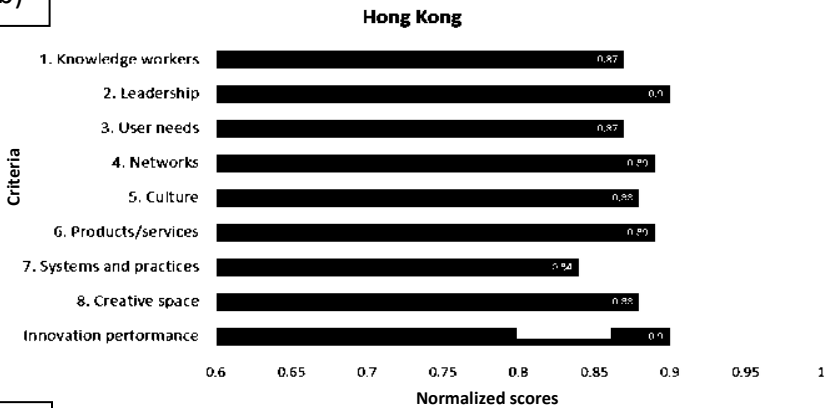
Figure 2 (a-e) percentage of votes on each criterion which the winners from each of the five hosting countries/regions consider they perform most well. (f) gives the combined percentage of votes from all global winners.

The performance of the nominees against each of the eight criteria was rated by the five country/region hosts (Figures 3 a-e). The overall average rating for all winners is shown in Figure 3f. In determining the Global MIKE Award winners, all the performance ratings are for reference only. The Global MIKE Award judging panel make their own independent assessments.

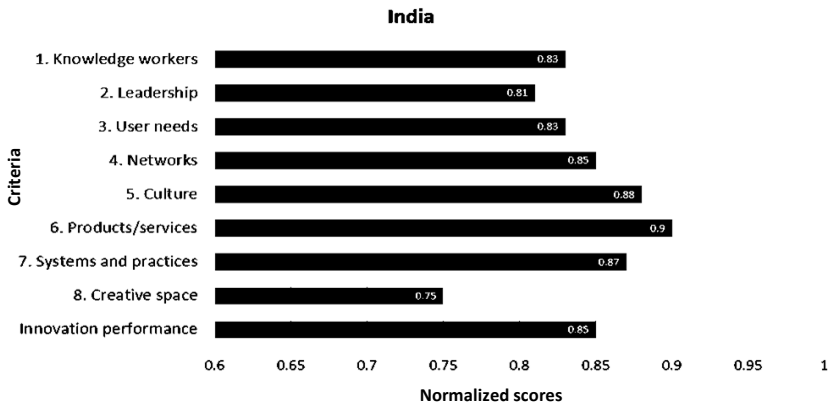
(3a)



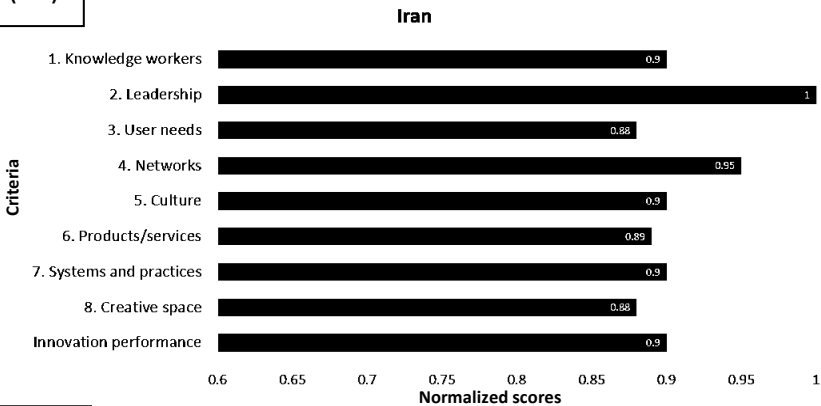
(3b)



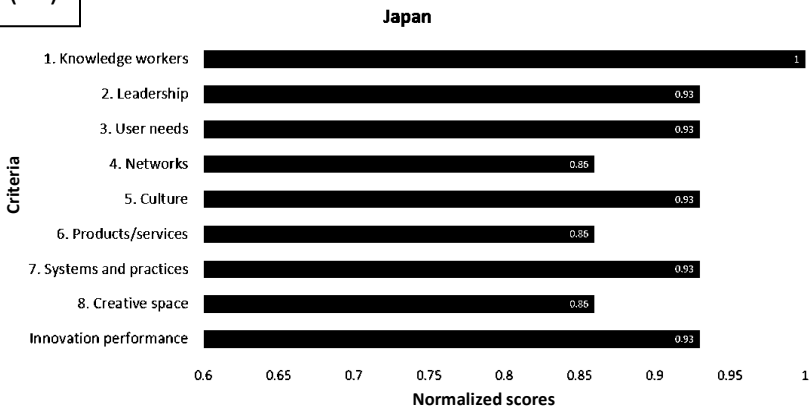
(3c)



(3d)



(3e)



(3f)

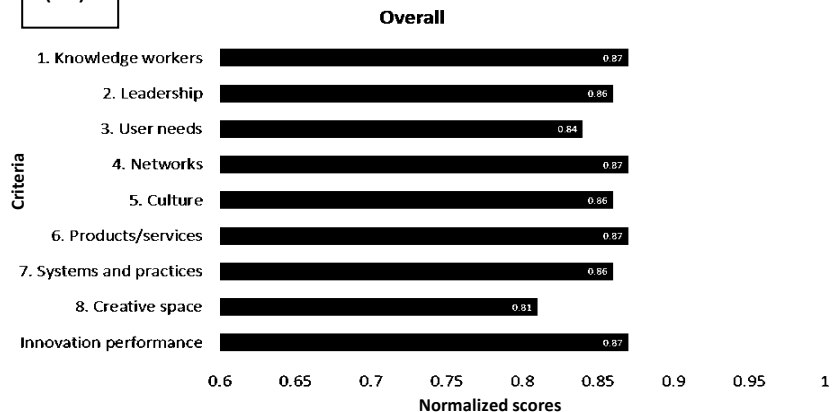


Figure 3 (a-e). Performance of organizations as rated by the country host in each country/region. (f) is the overall combined average rating for all winners (1 refers to outstanding and 0.1 means poor).

From the above survey, it can be seen that the three criteria rated as the most important by the winners from all countries except China and Japan included criteria 1 (empowering workers), criteria 2 (leadership), and criteria 5 (culture) (see Figure 1f). For China, both leadership and user needs ranked the highest in importance, followed by products/services and empowered workers (Figure 1a), whereas in Japan, the one with the highest ranking is manpower workers followed by products/services and KM systems and practices (Figure 1e). On average, these three items on importance were also rated by the country/region hosts to be the top three with the winners considering their best performance the best. The one with the lowest average ranking is criteria 8 (creative space).

One striking difference is in self-assessment of performance on the network capability between Hong Kong (all companies rated themselves high, Figure 2a) and those of India and Iran (no company rated themselves high, Figures 2c and 2d). On the overall assessment by the judges of each host, the criteria rated with the highest performance are empowered workers, leadership, culture, and products/services, but the difference is not very significant due to the averaging effect.

GOOD PRACTICES

In this section, the good practices adopted by the global winners to sustain innovation are highlighted. “Good practices” is used instead of “best practices” as the business and clients of each enterprise are different. The practices that are best for a particular sector may not have the same effect to another sector. However, there is always something that could be learnt from one another. Therefore, this section is not intended to be a comprehensive summary of the various practices reported from the winners, but rather to highlight some of the current trends of KM practices under each of the eight assessment criteria. It is noted that many of the activities addressed under each of the eight criteria are often interrelated (see Figure 1) and clear delineations are not possible. Nevertheless, some of the practices under each criterion are highlighted below:

Empowering of Knowledge Workers

Importance is attached to employees’ career development, performance evaluation and work-based learning, with a scheme to reward employees on a

periodic basis. Training alone does not empower workers, and should not be just passive learning but *simultaneously to cultivate creative ideas*. Some organizations allocate a percentage of working time each employee should spend on learning. Due to the rapid technological changes, re-skilling of employees in digital technologies is now common by providing more digital platform-oriented training. Reducing hierarchy in organization can nurture future business leaders in an organization and empower more knowledge workers.

Visioning and Leadership

Most reports refer or imply leadership on senior management. There are different levels of leadership; for example, task leaders such as project managers or section supervisors. Another kind of leadership is thought leadership (irrespective of rank) which could be shared on social media platforms. Some organizations measure the managers' leadership styles in various departments, and feedback to various managers for their improvement such as behaviour leadership competencies. Not too many organizations have a mission statement for KM or innovation. A good practice in strategizing is a vision of the future to bring different stakeholders together and to expose them to up-and-coming global trends and challenges. A question is raised: Is collaborative leadership best for SMEs or for large enterprises?

Creating User Experience

To understand the client needs and expectations of customers, various approaches such as visits to the clients' workplaces, face-to-face meetings, participating in specialized exhibitions, use of annual survey system, handling of customer complaints, regular market research are mentioned. Sharpening competence intelligence and stronger business analytical skills are needed for front line staff. Co-creating of services with clients and customers are emphasized by an increasing number of organizations, though still very few reports address the systematic deployment of service design thinking. Proof-of-concept (PoC) conducted at the lab scale (mind lab, future centre, etc) would then move on to a small-scale trial run at relevant sites as pilot.

Developing Networks

The knowledge, skills/technology, and ideas to be connected have now gone beyond corporate and industry boundaries. Collaborative innovation with

clients and users becomes common place. Networks form the backbone of a knowledge chain for organizations to tap into the community resources to run its business. General publics are reached via Web 2.0, mobile App, and mainstream social media. To meet global innovation challenge, diverse talent communities across the globe are used by large corporates to solve the big issues using blockchain, internet of things (IoT) and AI. Equally important is human-to-human contact such as locally hosted knowledge cafés, and lunch and lessons learned sessions to exchange ideas, update business developments, debate hot topics, and share challenges and successes.

Cultivating Innovation Culture

The practices reported under this criterion are very diversified and overlap with a lot of topics which could possibly appear under the other criteria as culture is a manifestation of various organizational behaviours. However, an active deployment of KM infrastructure, collaborative platforms and programs alone does not necessarily result in an effective innovation culture. An innovation culture is one some winners demonstrated with the kind of climax to think creatively, one that could be facilitated by deep and close communication or dialogue between management and staff, and among staff. Periodically assessing collaboration climax or leadership style is mentioned as a good step to demonstrate the commitment of senior management for cultural change. However, there is relatively little coverage on corporate effort to become a learning organization in order to sustain innovation.

Delivering Knowledge Products and Services

This criterion includes a description of actual services/products and methods/approaches to deliver knowledge service. For example, the use of a Service Design Thinking workshop is a good method to find out the needs of clients. Another example is creation of a Centre of Excellence (CoE) so that clients have access to the relevant expertise in the organization to co-create services and products. The ability to draw experience from one company or sector to another could also yield new service insights. For big corporations, a quick way to develop new products and services is through acquisition. New services and solutions are now frequently associated with exploitation of new technology such as robotics, human machine interfaces, smart assistants, natural language processing, augmented reality, blockchain technology, and many others. Enabling open innovation and a crowdsourcing platform is another option.

Enforcing KM Practices and Systems

Both technology-based and people-based aspects of KM practices and systems are reported to enhance innovation. Typical implementations are KM portals, a customer-oriented product data centre, and mobile phone Apps, which could facilitate activities such as CoPs, discussion forum and Wiki libraries. There is growing awareness on leveraging digital technologies from machine learning, learning analytics to AI applications. On the people side, the establishment of knowledge facilitators and knowledge ambassadors becomes common place. The enforcement of a KM code of practice, and KM metrics for measuring asset consumption and usability are in place in some organizations. Knowledge risk management has drawn attention to minimize the risk of losing key knowledge from departing staff and retired staff and job moves in a volatile market.

Implementing Creative Space

This includes both virtual/cyber space and physical space. On the self-assessment and the rating on importance, this criterion received the lowest score. Most organizations have used collaborative virtual spaces for knowledge sharing and creation, but less attention is paid to the provision of physical workplaces. The most frequent cyber space deployed to trigger creative ideas are hackathons, makeathons, ideathons, and a kind of innovation jam to solicit new ideas. On physical space, knowledge cafes, mind lab/concept lab, etc. are mentioned. We need to differentiate knowledge activities such as lessons learned, storytelling, anecdotal circles, brainstorming, etc. from implementing creative space. These are activities for knowledge sharing or creation which should be discussed under criteria 7 as KM practices, but not under this criterion.

INSIGHT: Overall, the context rich facts and narratives provide a good source of Intellectual Capital data for action research or pre-hypothesis research.

DISCUSSION AND CONCLUSION

The Global MIKE Study is a continuation of the Global MAKE Study, which is basically an assessment of the KM practices that lead to business success and return on revenue. Most of the awardees in the past were Fortune 500 firms and organizations. The relationship between KM, IC, and business success is complex as the latter could be influenced by a lot of other extrinsic factors outside the organization. On the other hand, there is a challenging question

imposed upon KM and IC practitioners on what is the desirable goal? One of the answers could be traced back to the classical work of Nonaka in his pioneering book *Knowledge Creating Company* in the early nineties. The primary mission of a company is to create knowledge. *Only through knowledge creation can a company deliver its product and services and become sustainable in the long run.*

There are many types of innovation as defined by OECD, ranging from products, process, markets to business models. No matter what kind of innovation, the underlying essence lies in the ability of employees to create knowledge and embody it in the products or services deliverable to clients and users. Instead of measuring innovation success using financial performance indicators or market share such as those used by Forbes Most Innovative Companies, we assess the sustainability factors for value co-creation and systematic innovations based on the intellectual capital lens. IC is the most critical resources for a company organization to create knowledge. In this report, the conceptual model of IC practice-based innovation is introduced. The IC practices are scrutinized from various researches done in four different countries/cities.

Instead of adapting the measuring paradigm used in most IC reporting, the competitors for the Global MIKE award are invited to describe their IC practices under each of the eight criteria in the form of narratives. This paper is not just a report on the details of the MIKE award study and its methodology, but also to show how organizations can make sense of IC narratives to create value, inform management interventions, and transform ideas into new products and services.

Questions for Reflection

- How would you assess the innovation capability of an organization?
- Are there any cultural factors which account for the difference in innovation performance among organizations in different countries?
- How would you persuade a small and medium enterprise to join the MIKE Award contest?
- How would you measure leadership?
- Which one of the eight assessment criteria is most relevant to the success of your company?

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CHAPTER 13

**The Global MIKE Award:
Striving for Excellence**

Vincent Ribi re

*IKI-SEA, Bangkok University, Thailand; Global and SEA MIKE Coordinator)***ABSTRACT**

This concluding segment on the Most Innovative Knowledge Enterprise (MIKE) Award offers personal experience and perspective on why organizations should view the MIKE criteria as a self-evaluation instrument, as a benchmark and/or even as a path to ISO certifications (Knowledge Management ISO 30401 and Innovation Management ISO 56002 standards).

Key Words: MIKE Award, MIKE Criteria, ISO 30401, ISO 56003, MIKE Benefits

In this concluding segment on the MIKE Award, I aim not to reiterate the valuable insights shared in preceding chapters. Instead, I would like to offer my personal experience and perspective on why organizations should view the MIKE criteria as a self-evaluation instrument, as a benchmark and/or even as a path to ISO certification if they're contemplating participation in the MIKE Award.

INTRODUCTION

In today's knowledge-driven economy, it is evident that the key to securing a competitive edge lies in an organization's capacity to adeptly oversee both internal and external knowledge flows. This allows them to foster innovation and adapt swiftly to unforeseen challenges. Unlike in previous economic phases where tangible assets took precedence, knowledge, an intangible asset, is now paramount. This shift presents both novel challenges and opportunities for organizations. While the importance and advantages of structured knowledge and innovation management have been advocated by scholars and industry experts for over three decades, only a handful of organizations have fully integrated these principles into their core operations. Those that have, consistently investing in making them integral to their identity, are now optimally positioned to navigate our unpredictable VUCA environment. The

Global MIKE Award celebrates such forward-thinking organizations that truly understand this imperative and take decisive action.

THE MOST INNOVATIVE KNOWLEDGE ENTERPRISE (MIKE) CRITERIA

Ten Good Reasons to Engage with the MIKE Criteria

By striving for or achieving recognition through the MIKE Award, organizations can enjoy several benefits that contribute to their effectiveness and sustainability:



Figure 1. Ten Good Reasons to Engage the MIKE Criteria

1. Benchmarking Excellence: The MIKE Award sets a high standard for knowledge and innovation management. By comparing their practices with this benchmark, organizations can identify areas of strength and areas needing improvement.

2. Recognition and Reputation: Winning or even being nominated for a prestigious award like MIKE enhances an organization's reputation. This can aid in attracting talent, investors, partners, and customers, as they will view the organization as a leader in knowledge management and innovation.

3. Employee Morale and Retention: Recognition at such platforms can boost employee morale and pride, as they feel their efforts are being acknowledged on a global stage. This can lead to increased retention and attraction of top talent.

4. Knowledge Sharing Culture: Striving for the MIKE Award encourages organizations to foster a culture of knowledge sharing and collaboration, which is essential for innovation and long-term sustainability.

5. Best Practice Insights: The MIKE Award process and associated events often provide insights into best practices and innovative approaches adopted by global leaders. Organizations can learn and adapt these practices to their unique contexts.

6. Continuous Improvement: The pursuit of such an award instills a mindset of continuous improvement. Organizations are motivated to constantly refine their knowledge management and innovation processes to stay competitive and relevant.

7. Networking Opportunities: Being associated with the MIKE Award provides opportunities for organizations to network with other leaders in the field, opening doors for collaborations, partnerships, and mutual learning.

8. Holistic Growth: The MIKE framework doesn't only look at knowledge management in isolation. It considers how effectively knowledge is integrated with innovation, strategy, processes, and technology. This holistic view encourages organizations to develop a well-rounded approach to business growth.

9. Risk Management: Effective knowledge management practices, as recognized by awards like MIKE, ensure that organizations capture, store, and disseminate critical knowledge. This can reduce risks associated with knowledge loss (e.g., due to employee turnover) and ensures that vital information is available for decision-making.

10. Long-term Sustainability: A focus on knowledge and innovation management ensures that organizations remain adaptable and resilient in the face of change. By continuously updating their knowledge base and fostering innovation, they are better equipped to tackle future challenges and disruptions.

In essence, the MIKE Award and its associated recognition help organizations realize the importance of knowledge and innovation as critical assets. The practices and ethos associated with the award ensure that organizations are not only effective in the present but also primed for sustainable success in the future.

Global MIKE Award Criteria and ISO KM and Innovation Management Standards

Many organizations have historically viewed Knowledge Management (KM) and Innovation Management as "nice-to-have" rather than fundamental components of their strategies and operations. Often, they overlook the costs and risks of neglecting proper knowledge management. For years, a common justification was the absence of universally recognized practices or standards for managing KM and Innovation Management. They implied that perhaps these areas weren't as crucial as other domains like quality management.

However, recent advancements challenge this perspective. The introduction of the ISO 30401 standard for Knowledge Management and the ISO 56002 for Innovation Management have filled this void. These ISO standards serve as benchmark management system standards, indicating what structures should be in place. Importantly, they don't dictate the exact methods, allowing organizations the flexibility to implement practices and tools that best align with their unique culture, context, and industry.

In the following section we present what are the similarities between the Global MIKE Award criteria (provided at the end of this chapter) and both ISO standards.

Global MIKE Award and ISO 30401 Standard Components

The Global MIKE Award and the ISO 30401 Knowledge Management standard both focus on recognizing best practices in knowledge management, albeit from slightly different angles. The MIKE Award is more geared towards innovation and practical applications, while the ISO 30401 standard emphasizes system requirements for effective knowledge management. Drawing analogies between the ISO 30401 Knowledge Management Standard and the Global MIKE Award's eight criteria is a useful exercise to understand the overlap between a recognized international standard and an award's criteria for knowledge excellence.

Global MIKE Award Criteria	ISO 30401 Standard Components
1. Empowering knowledge workers for innovation.	Knowledge Management Enablers – Human Capital AND Support/Resources/Competences
2. Strategizing, visioning, and transformative leadership.	Leadership and Governance
3. Living up to customer and stakeholder expectations and needs.	Understanding the Needs and Expectations of Interested Parties
4. Developing internal & external networks and connectivity.	Internal and External Contextual Factors
5. Cultivating an organizational innovation culture	Culture and Behavior
6. Investing in knowledge-based products/services/solutions	Support and Operational Planning
7. Enforcing knowledge practices and systems for knowledge creation	Knowledge Management System
8. Implementing creative and virtual concepts / spaces to create stakeholder value	Knowledge Sharing and Application

The analogies presented earlier aren't exact parallels, but they address criteria in comparable manners. While we may not aim to strictly align the 8 MIKE Award criteria with the ISO 30401 standard, a thematic comparison could still offer insights. The table below illustrates these thematic analogies.

Criteria/Component	Global MIKE Award	ISO 30401 Knowledge Management Standards
Knowledge Creation and Acquisition	Emphasizes how organizations generate new knowledge, both internally and externally.	Talks about the need to identify and acquire internal and external knowledge.
Knowledge Sharing and Dissemination	Focuses on systems, processes, and culture that promote sharing and distribution of knowledge.	Emphasizes the importance of sharing knowledge and ensuring that it is available to those who need it.
Knowledge Utilization	Looks at how well the organization uses knowledge to create value.	Covers how knowledge is used, emphasizing the importance of applying knowledge in decision-making.
Organizational Culture and Behavior	Assesses the extent to which the organization's culture supports knowledge management and innovation.	Focuses on leadership's role in fostering a culture that values knowledge and on evaluating behavior related to knowledge management.
Leadership and Strategy	Evaluates the role of leadership in championing knowledge and innovation.	Emphasizes the leadership role in establishing a KM policy and objectives aligned with the organization's strategy.
Learning and Development	Considers how the organization supports the continuous learning and development of its employees.	Covers the monitoring and measurement of KM, including evaluating competence and promoting continual improvement.

Collaboration Tools	Examines tools, platforms, and practices that foster collaboration.	Highlights the need for appropriate technology and infrastructure for knowledge sharing and collaboration.
Measurement and Analytics	Focuses on metrics and analytics used to track knowledge and innovation impact.	Emphasizes the importance of evaluating the effectiveness of the KM system and using results for improvement.
External Engagement	Assesses how the organization engages with external stakeholders for collaborative innovation.	Stresses the significance of understanding the external context and considering the needs and expectations of external parties.
Organizational Structure and Processes	Assesses how the organization has embedded KM processes and tools to support its business processes.	ISO 30401 focuses on ensuring the KM system is integrated into the organization's governance, processes, and structure.

The primary objective of presenting these tables is to illustrate the multifaceted utility of the Global MIKE Award criteria. Not only do they serve as recognition benchmarks, but they also offer organizations a structured approach to managing their knowledge assets. By aligning their practices with these criteria, organizations can gain a comprehensive understanding of their current knowledge management capabilities. This alignment provides a clear roadmap for organizations to pinpoint areas of strength and identify potential areas of improvement, ensuring a holistic and robust approach to knowledge management.

Global MIKE Award and ISO 56002 Standard Components

The ISO 56002 is an innovation management system guideline that offers a framework for establishing, implementing, maintaining, and continually improving an innovation management system. The Global MIKE Award, as

we've established, recognizes excellence in knowledge management with a focus on innovation. Here is a table that compares the key focus areas of the ISO 56002 Standard and the criteria for the Global MIKE Award:

Global MIKE Award Criteria	ISO 56002 Standard Components
1. Empowering knowledge workers for innovation.	Context of the Organization
2. Strategizing, visioning, and transformative leadership.	Leadership and Commitment
3. Living up to customer and stakeholder expectations and needs.	Understanding Stakeholder Needs
4. Developing internal & external networks and connectivity.	Establishing Relationships
5. Cultivating an organizational innovation culture.	Culture and Behavior
6. Investing in knowledge-based products/services/solutions.	Support & Resources
7. Enforcing knowledge practices and systems for knowledge creation.	Innovation Activities & Processes
8. Implementing creative and virtual concepts/spaces to create stakeholder value.	Innovation Environments
Innovation Performance (Part B)	Performance evaluation

Again, the analogies presented earlier aren't exact parallels, but they address criteria in comparable manners. While we may not aim to strictly align the 8 MIKE Award criteria with the ISO 56002 standard, a thematic comparison could still offer insights. The table below illustrates these thematic analogies.

Criteria/Component	Global MIKE Award	ISO 56002 Innovation Management Standards
Context of the Organization	The MIKE Award emphasizes organizational knowledge and how it is positioned in the wider context, both internally and externally.	ISO 56002 discusses understanding the organization and its context, considering both internal and external issues relevant to its purpose.
Leadership and Strategy	Evaluates the role of leadership in championing knowledge and innovation, and its alignment with organizational strategy.	Highlights leadership's role in establishing the direction, alignment, and commitment in relation to the innovation management system.
Innovation Realization	The MIKE Award focuses on how knowledge leads to actual innovation in products, services, or processes.	ISO 56002 covers the innovation processes that transform ideas into solutions, emphasizing realization and exploitation.
Organizational Culture and Behavior	Assesses the organization's culture in terms of supporting knowledge management and innovation.	Focuses on creating an innovation-friendly culture, fostering open-mindedness, adaptability, and collaboration.
Collaboration Tools and Relationships	Examines tools, platforms, and practices that foster collaboration and knowledge sharing.	Stresses the importance of determining and establishing the internal and external relationships necessary for the innovation management system.

Knowledge Utilization for Innovation	Looks at how well the organization uses knowledge to create value through innovation.	Emphasizes the integration of knowledge management into innovation processes to generate value.
Measurement, Monitoring, and Review	Focuses on metrics and analytics used to track the impact of knowledge and innovation initiatives.	ISO 56002 recommends evaluating and improving the performance and effectiveness of the innovation management system through monitoring, measurement, analysis, and review.
Learning and Development	Highlights how the organization supports continuous learning and development.	ISO 56002 recognizes learning and adaptation as central to continuous improvement in innovation management.
Resources and Competencies	While MIKE might touch on this in terms of utilizing organizational knowledge, it's not explicitly its primary focus.	ISO 56002 discusses the need to determine and provide necessary resources and ensure that persons have required competencies.
Risk Management in Innovation	MIKE Award criteria consider knowledge management in the face of challenges, which includes risk handling.	ISO 56002 has a particular emphasis on identifying and addressing risks and opportunities in the innovation management process.

The primary intent behind presenting these comparative tables is to demonstrate how the Global MIKE Award criteria can guide organizations in establishing structured mechanisms for innovation. By aligning with these

criteria, organizations can gain a clearer perspective on their innovation capabilities, highlighting both their strengths and areas needing enhancement.

CONCLUSION

In summing up this series of chapters on the merits of pursuing the Global MIKE Award, it becomes evident that organizations stand to gain in multifaceted ways. Initiating the application process alone acts as a catalyst. Given the concise format required – just two A4 pages per criteria – it necessitates a deep dive into the organization's Knowledge Management and Innovation Management practices. This introspective activity, ideally involving all relevant stakeholders, fosters collaborative dialogue and offers an opportunity to bridge organizational silos. In doing so, redundancies might be uncovered, and exemplary internal practices identified.

Upon submission, invaluable feedback is received from international experts. This external perspective shines a light on both the organization's strengths and areas ripe for enhancement. The accolade of receiving the award brings with it both internal pride and external recognition—an undeniable testament to accomplishment.

Additionally, joining the ranks of the Global MIKE Award recipients grants access to a repository of award-winning applications. This provides a rich learning ground, enabling benchmarking and benchlearning against peers and extracting insights from their strategies and initiatives. Moreover, the platform curates proven practices, structured for effective assimilation, allowing organizations to adapt and implement them seamlessly.

Even for organizations already on an upward trajectory, the MIKE Award application journey promises rich insights and avenues for further growth. So why hesitate? Step up and add your name to the esteemed list of MIKE Award laureates!

APPENDIX: Global MIKE Award Criteria (8 Dimensions)

THE MIKE CRITERIA

Criteria 1 - Empowering knowledge workers for innovation

Intellectual Capital Element: Human Capital (HC)

Examples:

1.1. Talent acquisition, management & retention:

1.1.1. What initiatives make you attractive as an employer of choice of knowledge workers?

1.1.2. How do you ensure that you bring the right talents on board to execute your strategic agenda/roadmap? E.g., through cognitive assessments, internal assessment centers, headhunting, etc.

1.1.3. What is the percentage of workers in your organization with professional/ university qualifications? How does it compare to your industry standard?

1.1.4. How do you manage your talents to ensure knowledge workers' retention?

1.2. Learning and Development:

1.2.1. How is your organization developing the new knowledge needed for your workers? E.g., internal training, internal training platform, knowledge sharing sessions, seminars, workshops, site visits, etc.

1.2.2 How many days per year does your average Knowledge Worker spend in training or learning and development initiatives? How does it compare to the standard market practice?

Criteria 2 - Strategic, visionary and transformative leadership

Intellectual Capital Element: Human Capital (HC)

Examples:

2.1. Strategic core

2.1.1. What is the mission and vision of your organization?

2.1.2. What are the values of your organization?

2.1.3. To what extent does your essential strategic core (= mission, vision, values) reflect and focus on knowledge and innovation?

2.2. Executive leadership / senior management:

2.2.1. How do your leaders communicate the essential strategic core (= mission, vision, values) to internal and external stakeholders?

2.2.2. To what extent are these essential strategic parameters communicated and filled with life (animated with clear, concise, and practical messages and examples)?

2.2.3. Could you share some examples (activities and behaviors) of how some of your Senior Management Leaders showed their commitment and support for knowledge-driven and innovation initiatives and projects?

2.3. Task leadership:

2.3.1. To what extent do task leaders of your organization exhibit entrepreneurial spirit, creativity, and (pro-) action-orientation?

2.3.2. To what extent can your task leaders make autonomous decisions on how they want to approach their projects to achieve the agreed-upon results and outcomes?

Criteria 3 - Living up to customer and stakeholder expectations and needs

Intellectual Capital Element: Relational Capital (RC)

Examples:

3.1. Living up to stakeholder expectations and needs

3.1.1. Who are the shareholders of your organization? Who are the other key stakeholders?

3.1.2. How are they being informed about the work and progress of your organization?

3.1.3. What value does your organization generate for its different stakeholders (e.g., better products and services, higher profits, greater corporate social responsibility, etc.)?

3.2. Living up to customer expectations and needs

3.2.1. How does your organization keep track of changes in markets and/or customer expectations?

3.2.2. To what extent, and how frequently, does your organization conduct any customer experience and satisfaction surveys? How do you apply the findings of these surveys?

3.2.3. To what extent do you involve your customers / clients in (co-) developing new products and services?

3.2.4. How does your organization handle customer complaints? To what extent do you act upon them? To what extent do you use them as a source

of inspiration for product and service improvement throughout the organization?

Criteria 4 - Developing internal & external networks and connectivity

Intellectual Capital Element: Relational Capital (RC)

Examples:

4.1. Developing networks

4.1.1. How do you encourage and foster internal networks and intra-organizational connectivity and collaborations?

4.1.2. What are the practices to build formal/informal internal and external networks?

4.2. Knowledge flows through networks

4.2.1. How is knowledge (explicit and experiential) acquired internally (e.g., personal networks, mentoring, project team, CoP, etc.)? How do you ensure it flows to the right person at the right time in the right format?

4.2.2. How is knowledge (explicit and experiential) acquired externally (e.g., consultants, trade networks, social media, university partnerships, crowdsourcing, open innovation, inter-organizational learning, strategic alliances, etc.)? How do you ensure it flows to the right person at the right time in the right format?

4.2.3. To what extent do you follow an ecosystemic approach towards knowledge management and innovation management?

Criteria 5 - Cultivating an organizational innovation culture

Intellectual Capital Element: Structural Capital (SC) – Innovation Capital

Examples:

5.1. Knowledge exploration and absorption

5.1.1. To what extent does your culture promote the concept of the learning organization? How have you designed your organizational learning or any action learning program?

5.1.2. How do organizational practices reflect a culture of knowledge creation and sharing among colleagues?

5.1.3. To what extent does your culture encourage vivid discussions and constructive debates on organizational issues and matters?

5.1.4. How does your organization encourage exploration of new knowledge and experimentation with it?

5.2. Idea generation and implementation

5.2.1. How do organizational practices reflect a culture of idea generation and sharing among your employees?

5.2.2. What is your organizational response to failure? How does your organization respond to people/teams taking the initiative and failing in a project? How do you learn from failures?

Criteria 6 - Investing in and delivering knowledge-based products/services/solutions

Intellectual Capital Element: Structural Capital (SC) – Innovation Capital

Examples:

6.1. Investing in knowledge-based products/services/solutions

6.1.1. Does your organization as an Innovation Strategy? If so, how is it stated? Who is involved in formulating this strategy? In which way(s) does it support the overall strategy of your organization?

6.1.2. What is the percentage of your organization's annual budget devoted to innovation / Research and Development (R&D)? How does this compare to the standard in your industry?

6.1.3. On average, how many innovation projects do you conduct per year? What is the average duration of these projects (here, you can distinguish between exploration, ideation & evaluation phases and the actual implementation phase if deemed appropriate)? How much do you spend per year on your innovation projects?

6.1.4. Which of the following 10 innovation types does your organization target (select all that apply)? A description of each innovation type can be found at: <https://doblin.com/ten-types>

Share examples for the top 3 most used innovation types.

Configuration:

- ☐ Profit Model Innovation (Business Model Innovation)
- ☐ Network Innovation
- ☐ Structure Innovation
- ☐ Process Innovation

Offering:

- ☐ Product Innovation
- ☐ Product System Innovation

Experience:

- ☐ Service Innovation
- ☐ Channel Innovation
- ☐ Brand Design
- ☐ Customer Engagement (Experience Design)

6.1.5. What is the proportional mix of innovation projects (%) in your organization that targets incremental improvements, evolutionary innovations, and revolutionary innovations? Share some concrete innovation projects examples for each category.

6.1.6. What is the uniqueness of the products, services, and solutions offered by your organization? How does this add value to your customers? Provide some examples to illustrate the uniqueness of your offerings.

6.2. Delivering knowledge-based products/services/solutions

6.2.1. How have you organized Innovation Management (IM) in your organization (governance)? At which hierarchical level is the “IM office” positioned? To whom is your most senior IM Officer reporting? Do you steer your IM initiatives in a centralized or decentralized committee / coordination group?

6.2.2. How does your organization recognize opportunities to develop new products, services, and solutions needed in the near future?

6.2.3. To what extent do mechanisms exist in your organization to capture ideas, opinions, and recommendations to improve any aspect of the business?

6.2.4. In what ways does your organization structure and systematically manage the process of developing new products or services so that they are addressing the emerging market needs?

6.2.5. What processes are in place to enhance knowledge creation and innovation related to your products and services range?

Criteria 7 - Enforcing knowledge practices and systems for knowledge creation

Intellectual Capital Element: Structural Capital (SC) – Process Capital

Examples:

7.1. Strategic Knowledge Management

7.1.1. Does your organization as a Knowledge Management Strategy? If so, how is it stated? Who is involved in formulating this strategy? In which way(s) does it support the overall strategy of your organization?

7.1.2. How do you identify and map critical knowledge in your organization?

7.1.3. To what extent are you aware of any knowledge risks in your organization? What measures have you taken to mitigate or eliminate these risks from their occurrences? How do you prevent of critical or confidential knowledge from leaving or leaking from your organization?

7.1.4. How have you organized Knowledge Management in your organization (governance)? At which hierarchical level is the “KM office” positioned? To whom is your most senior KM Officer reporting? Do you steer your KM initiatives in a centralized or decentralized committee/coordination group?

7.1.5. What systematic practices and processes does your organization use for identifying and capturing knowledge (both external and internal)? And for organizing and sharing it throughout your organization?

7.2. Operational Knowledge Management

7.2.1. What are the information tools and platforms (KMS) available in your organization that support the flow of relevant information and knowledge among your employees? What is the employee usage level of your KMS system? How do you measure the success of such systems? Please share some of these metrics and results.

7.2.2. Has your organization developed any knowledge repository of your knowledge workers' skills and competencies (expertise locator)? How are knowledge workers' competencies (knowledge skills and experiences) identified, maintained, and kept up to date in this system?

7.2.3. To what extent do you use mentoring/tutoring programs for junior employees to get up to speed more rapidly? To support knowledge transfer between generations?

7.2.4. Does your organization offer/support any opportunity or channels for employees to socialize and share experiential knowledge and learn from each other? Please provide examples.

7.2.5. Does your organization offer/support any type of cross-divisional communities of practices/innovation for employees to share experiential knowledge, learn from each other and collaboratively develop solutions, new tools, etc.? Please provide examples.

Criteria 8 - Implementing creative and virtual concepts / spaces to create stakeholder value

Intellectual Capital Element: Structural Capital (SC) – Process Capital

Examples:

Describe with concrete examples to what extent your organization has adopted, implemented, and successfully used one or more of the following concepts to enhance the interactions, creativity, and learning of employees in your organization:

- Collaborative workplaces
- Smart office; Floating/mobile office
- Knowledge café, dialogue circles, etc.
- Future Centre; User Lab, Mind Lab, etc.
- Innovation jams, hackathons, joint innovation project workshops, etc.
- Others.

Provide concrete evidence and/or examples of benefits and outcomes associated with the application of one or more of these concepts.

See <https://www.globalmikeaward.com>

Author

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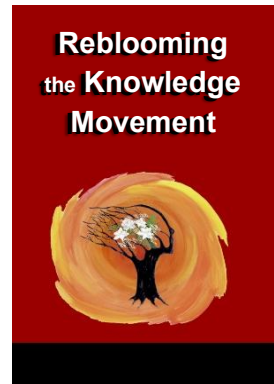
Management (Ph.D. KIM) at Bangkok University. Vincent runs the Southeast Asia and the Global Most Innovative and Knowledge Enterprise Award (MIKE Award). He is regularly invited to deliver keynote speeches and workshops at various international professional and academic conferences, and is the author of numerous academic publications. Vincent is the recipient of the “Knowledge Management Award 2022” (Individual Award) from the Knowledge Management Austria and Knowledge for Development Partnership (KM4DP) in recognition of his pioneering and outstanding accomplishments in the field. He was also awarded the KM Leadership Award (2014), listed among the top 100 thought leaders in Knowledge Management (2021), and received the Lifetime Academic Achievement Award (2022) by the International Institute for Applied Knowledge Management (IIAKM).

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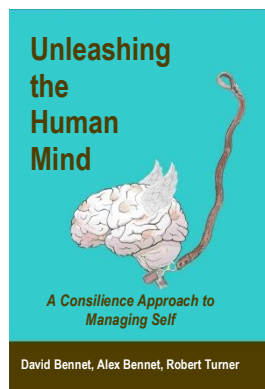
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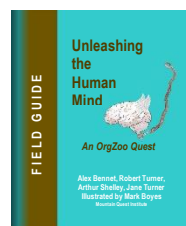
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