

## 2003 Asian MAKE Study Executive Summary

The Asian Most Admired Knowledge Enterprises (MAKE) study is part of Teleos' MAKE research program. The Asian MAKE study was established in 2002 to recognize organizations founded and headquartered in Asia for their ability to leverage new as well as existing enterprise knowledge to deliver superior performance in the areas of innovation and product development, operational effectiveness and excellence in products and services.

The Asian MAKE study is based on the Delphi research methodology. This technique uses an expert panel's perceptual knowledge to identify critical issues – in the case of the Asian MAKE study to identify those Asian founded and headquartered organizations which are leaders in the new knowledge economy. Through several iterations a consensus is developed among the panel's experts. It is this consensus of expert opinion which provides the validity to the Delphi and Asian MAKE study results.

An Asian-based panel of *Fortune* Global 500 senior executives and leading knowledge management experts selects the Asian MAKE Winners. The 2003 Asian MAKE survey was sent to the chief executive officer, chief financial officer and chief technology officer/chief information officer of each of the 122 Asian-headquartered *Fortune* Global 500 companies (by sales). Additionally, 384 Asian chief knowledge officers and leading knowledge management practitioners were selected for the expert panel. Altogether, the 2003 Asian MAKE expert panel consisted of 750 members.

In the Asian MAKE study there are three rounds of consensus building. In the first round, expert panel members identify possible Asian MAKE enterprises. In the second round, each expert panel member selects a maximum of three Asian organizations from the nomination list. Those organizations selected by at least 10% of the panel are recognized as Asian MAKE Finalists.

In the third and final round, the Asian MAKE Finalists are measured against each of the eight knowledge performance dimensions which are the visible drivers of competitive advantage:

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

A total of 61 Asian organizations were nominated as 2003 Asian Most Admired Knowledge Enterprises. Out of this group, 27 organizations were recognized as 2003 Asian MAKE Finalists (see Table 1).

## 2003 Asian MAKE Finalists

Enterprise	Industry
BHP Billiton (Australia)	Mining & mineral resources
Canon (Japan)	Computers & office equipment
Dr. Reddy's Laboratories (India)	Information technology services
Eisai (Japan)	Pharmaceuticals
Fuji Xerox (Japan)	Computers & office equipment
Hitachi (Japan)	Electronics and electrical equipment
Honda Motor (Japan)	Motor vehicles
Hyundai Motors (Korea)	Motor vehicles
i-flex solutions (India)	Information technology services
Infosys Technologies (India)	Information technology services
Kao (Japan)	Household and personal products
Legend Computer (China)	Computers
LG Electronics (Korea)	Electronics and electrical equipment
Nissan Motor (Japan)	Motor vehicles
NTT Data (Japan)	Information technology services
Samsung Electronics (Korea)	Electronics and electrical equipment
Samsung SDS (Korea)	Information technology services
Satyam Computer Services (India)	Information technology services
Seven Eleven (Japan)	Retail
Singapore Airlines (Singapore)	Airlines
Sony (Japan)	Electronics and electrical equipment
Taiwan Semiconductor Manufacturing Company (Taiwan)	Semiconductors & equipment manufacturer
Tata Steel (India)	Metal fabrication
Toshiba (Japan)	Electronics and electrical equipment
Toyota Motor (Japan)	Motor vehicles
Wipro Technologies (India)	Information technology services
Woodside Energy (Australia)	Oil & gas

*Table 1: A total of 27 organizations were selected as 2003 Asian MAKE Finalists (based on nominations from at least 10% of the Asian MAKE expert panel).*

A total of 18 Asian MAKE Finalists were recognized as Asian MAKE Winners (based on the highest total composite scores). The 2003 Asian MAKE Winners are shown in Table 2 in alphabetical order.

<b>2003 Asian MAKE Winners</b>	
<b>Enterprise</b>	<b>Country</b>
BHP Billiton	Australia
Canon	Japan
Eisai	Japan
Fuji Xerox	Japan
Honda Motor	Japan
Infosys Technologies	India
Kao	Japan
LG Electronics	Korea
Nissan Motor	Japan
Samsung Electronics	Korea
Samsung SDS	Korea
Singapore Airlines	Singapore
Sony	Japan
Taiwan Semiconductor Manufacturing Company	Taiwan
Tata Steel	India
Toshiba	Japan
Toyota Motor	Japan
Wipro Technologies	India

*Table 2: 2003 Asian MAKE Winners listed in alphabetical order.*

For the second year in a row, Toyota Motor has captured the top position in the Asian MAKE study. Toyota Motor is recognized for its enterprise knowledge-driven culture, developing knowledge workers through senior management leadership, organizational learning and creating enterprise value based on customer knowledge.

Seven organizations repeated as Asian MAKE Winners: Fuji Xerox, Infosys Technologies, Kao, Samsung SDS, Sony, Taiwan Semiconductor Manufacturing Company and Toyota Motor.

Newcomers to the Asian MAKE winner's circle are: BHP Billiton, Canon, Eisai, Honda Motor, LG Electronics, Nissan Motor, Samsung Electronics, Singapore Airlines, Tata Steel, Toshiba and Wipro Technologies.

Table 3 shows the five Asian MAKE Winners which received the largest number of 2003 Asian MAKE nominations from the expert panel’s senior executives and knowledge management practitioners.

### **Enterprises Receiving Highest Number of 2003 Asian MAKE Nominations**

#### **Asian Fortune Global 500 Senior Executives**

Infosys Technologies  
Taiwan Semiconductor Manufacturing  
Tata Steel  
**Toyota Motor**  
**Wipro Technologies**

#### **CKOs and Leading KM Practitioners**

Honda Motor  
Samsung Electronics  
Sony  
**Toyota Motor**  
**Wipro Technologies**

*Table 3: Asian enterprises receiving the largest number of 2003 Asian MAKE nominations (in alphabetical order).*

Toyota Motor and Wipro Technologies appear at the top of both groups’ lists of Asian Most Admired Knowledge Enterprises.

Senior executives tend to look through the ‘lens’ of high-level strategic issues and how well organizations are meeting these challenges. The nominations from this group are influenced by strong leadership and the results of knowledge-driven metrics, such as market capitalization, expanding intellectual capital assets, customer loyalty and shareholder value.

The panel of chief knowledge officers and knowledge management experts tend to see things through the ‘lens’ of the development and implementation of enterprise approaches and strategies leading to knowledge-driven excellence in terms of superior products/services/solutions.

### **Key Findings**

There are several general observations that can be made based on the scores in the eight knowledge performance dimensions. Asian companies are making progress in creating frameworks and implementing tools, techniques and metrics to manage and report enterprise knowledge-driven strategies and initiatives.

The Asian MAKE expert panel believes that senior management teams are making progress in developing knowledge workers and transforming enterprise knowledge into world-class products/services/solutions. This is significant in light of senior executives' preoccupation with managing their organizations during a global economic down turn and era of political instability.

There is a growing recognition and emphasis on the importance of creating wealth through innovation and the delivery of knowledge-based goods/services/solutions. The 2003 Asian MAKE study confirms that organizations are successfully aligning corporate strategies with product development goals.

Besides solid knowledge-driven enterprise cultures and developing and training knowledge workers, the 2003 Asian MAKE Finalists and Winners also are world-class in the areas of collaborative knowledge sharing and organizational learning. The rapid introduction of Web-based technologies and a focus on individual- and team-based competencies have allowed Asian MAKE Winners to dramatically improve their capabilities in these two critical knowledge dimensions.

Creating an organizational learning culture is the other knowledge performance dimension where organizations are benefiting from their investment of time and resources. The 2003 Asian scores in this performance dimension show a substantial improvement when compared to earlier studies. Advances in information technology, alliances with distance learning institutions and the availability of measurement tools and techniques are enabling enterprises to deliver on their objective of creating lifetime learning organizations.

Based on the results of the 2003 Asian MAKE study, Asian firms are continuing to struggle to gain maximum value from customer knowledge. The rise of the global customer, more knowledgeable customers and Web-based electronic commerce are presenting organizations with as many problems as opportunities. In some sectors, such as retail and financial services, organizations are collecting so much information about customers that they are finding it difficult to make the best use of it in marketing and sales operations. Organizations need to focus more on the process of converting customer knowledge into wealth creation.

Finally, there have been small, but noticeable improvements in organizations' abilities to maximize the value of their intellectual capital and transform enterprise knowledge into shareholder wealth. Organizations are slowly coming to recognize the importance of strategically managing these performance dimensions and their efforts are beginning to pay off.

## **Knowledge-Driven Enterprises Deliver Long-Term Growth**

Business leaders, analysts and investors constantly ask: "What are the economic and competitive advantages of pursuing a business strategy based on knowledge leadership?" Based on the findings of the 2003 Asian MAKE study, the benefits of this approach are tangible and significant.

### *Market Capitalization*

Investors believe that the 2003 Asian MAKE Winners offer long-term potential due to their intellectual capital-driven wealth creation. Ten Asian MAKE Winners (56% of the organizations in this year's list) rank in the global top 1000 companies by market capitalization within their national economies.

The 2003 Asian MAKE leaders in this metric (the *Business Week* Global 1000 ranking is in parenthesis and capitalization is in billions of US dollars) are:

- Toyota Motor (26) 86.32
- Canon (89) 36.67
- Nissan Motor (94) 35.61
- Honda Motor (100) 35.11
- BHP Billiton (103) 33.65

### *Return on Assets*

Profits as a percentage of assets (Return on Assets) for the publicly traded 2003 Asian MAKE Winners were 7.9% – over seven times that of the US *Fortune* 500 company median. Leaders in this metric were Infosys Technologies, Wipro Technologies and Samsung Electronics.

### *Return on Capital Employed*

Another key knowledge metric is Return on Capital Employed (ROCE). The 2003 Asian MAKE Winners showed an average ROCE of 14.5% – compared to the *Financial Times* Asian 500 company median of 9.3%. Leaders in this metric were Wipro Technologies, Infosys Technologies, Kao and Taiwan Semiconductor Manufacturing Company.

Whether it is market capitalization, return on assets, ROCE or a variety of 'soft' metrics, the 2003 Global MAKE Winners and Finalists clearly demonstrate that adopting enterprise knowledge-driven strategies pays off – not only in the short term, but more importantly over the long term!

## **2003 Asian MAKE Winners**

### *BHP Billiton (Australia)*

BHP Billiton is a global mineral and resource extraction and processing company. The company has annual sales of \$17.5 billion and employs 35,000 people in more than 100 operations in approximately 20 countries.

The 2003 Asian MAKE panel has recognized BHP Billiton for its enterprise knowledge-driven culture, organizational learning and ability to transform enterprise knowledge into shareholder value.

### *Canon (Japan)*

Canon was established in 1937 to develop and market cameras. Today, the company has three main product lines:

- office equipment (photocopies, facsimile machines and printers for computers).
- cameras.
- optical and digital equipment.

The company employs nearly 100,000 people and has marketing and sales operations in over 100 countries. It maintains major research centers in Asia, Europe and North America.

The 2003 Asian MAKE panel has recognized Canon for its knowledge-driven corporate culture and organizational learning. Canon ranked in first place in the knowledge dimension “ability to develop and deliver knowledge-based products/services/solutions.”

### *Eisai (Japan)*

Eisai is a \$3.9 billion pharmaceutical and healthcare company competing in four major sectors: prescription pharmaceuticals, personal healthcare products, pharmaceuticals systems and equipment, and chemicals and food additives.

The 2003 Asian MAKE panel recognized Eisai for its ability to develop knowledge-based products and services. Eisai ranked in first place in the knowledge dimension “developing knowledge workers through senior management leadership.”

### *Fuji Xerox (Japan)*

Fuji Xerox was established in 1962 as a joint venture between Fuji Photo Film and Rank Xerox Ltd. Fuji Xerox has annual sales of \$8 billion and is a leading provider of document management products and services.

The 2003 Asian MAKE panel recognized Fuji Xerox for developing knowledge workers through senior management leadership, developing innovative knowledge-based products/services/solutions, and enterprise-wide knowledge sharing and collaboration. Fuji Xerox was a 2002 Asian MAKE Winner.

### *Honda Motor (Japan)*

Honda’s driving force is a never-ending quest for ‘dreams.’ Honda believes each and every available particle of ‘knowledge’ must be applied to realize these ‘dreams.’ To reach the high standard set by Honda’s dreams, the company believes not only explicit knowledge, but tacit knowledge must be respected. By fully utilizing both types of knowledge, Honda was able to deliver ‘dreams’ and satisfaction to 13 million global customers last year.

The 2003 Asian MAKE panel has recognized Honda Motor for its knowledge-driven corporate culture and enterprise-wide knowledge sharing and collaboration.

*Infosys Technologies (India)*

Infosys Technologies Ltd. provides consulting and IT services to clients globally. With annual sale of \$ 750 million and over employing over 17,000 people worldwide, the company uses a low-risk Global Delivery Model (GDM) to accelerate schedules with a high degree of time and cost predictability.

The 2003 Asian MAKE panel recognized Infosys Technologies for its knowledge-driven enterprise culture, developing knowledge workers through senior management leadership, maximizing the value of its enterprise intellectual capital, and enterprise-wide knowledge sharing and collaboration. Infosys Technologies was a 2002 Asian MAKE Winner.

*Kao (Japan)*

Established in 1887, when Kao's founder Mr. Tomiro Nagase started a soap-making business in Tokyo, the company has moved from providing quality soap to become a leading manufacturer of consumer products – all designed to improve consumers' lives by promoting “cleanliness, beauty and health.”

Kao has operations in 26 countries in Asia, North America, Europe and other parts of the world. Despite the global economic recession, Kao continues to expand its businesses and in fiscal 2002 achieved the 22<sup>nd</sup> consecutive year of record operating income.

The 2003 Asian MAKE panel recognized Kao for its knowledge-driven enterprise culture, enterprise-wide knowledge sharing and collaboration, and delivering enterprise value based on customer knowledge. Kao was a 2002 Asian MAKE Winner.

*LG Electronics (Korea)*

LG Electronics (LGE) was founded in 1958 and is a major global player in electronics and telecommunications sectors, operating 72 subsidiaries with over 55,000 employees worldwide. LGE is currently strengthening core competencies to enhance its reputation as the ‘Digital Leader’ in electronic products and equipment in the digital era.

The 2003 Asian MAKE panel recognized LG Electronics for developing innovative knowledge-based products/services/solutions, maximizing the value of its enterprise intellectual capital, and transforming enterprise knowledge into shareholder value.

*Nissan Motor (Japan)*

Nissan Motor is one of Japan's ‘Big Three’ automotive manufacturers, as well as major global producer. On March 27, 1999, Nissan and France's Renault SA signed an agreement concerning a comprehensive global alliance aimed at achieving profitable growth for both companies.

Nissan announced on October 18, 1999, the Nissan Revival Plan (NRP), a comprehensive restructuring effort designed to achieve lasting profitable growth on a global level. Central to NRP was improved innovation supported by corporate knowledge sharing and collaboration.

The 2003 Asian MAKE panel has recognized Nissan Motor for its knowledge leadership, organizational learning and ability to deliver value based on customer knowledge. Nissan Motor ranked in first place in the knowledge dimension “transforming enterprise knowledge into shareholder value.”

#### *Samsung Electronics (Korea)*

Samsung Electronics was established in 1969 and adheres to a corporate philosophy of contributing to global society by offering superior goods and services. The company today is committed to achieving its vision of “leading the digital convergence revolution.”

Samsung Electronics is preparing for digital convergence by linking its stand-alone products to form networks and offer customers a total solution. To achieve this goal, the company has selected four key areas for intensive development: Home Networks, Mobile Networks, Office Networks and Core Devices (parts and components) to support those networks.

The 2003 Asian MAKE panel has recognized Samsung Electronics for organizational learning, delivering enterprise value based on customer knowledge, and transforming enterprise knowledge into shareholder value.”

#### *Samsung SDS (Korea)*

Samsung SDS, founded in 1985, provides an integrated IT service, including systems integration, systems management, consulting and networking services. The company annual sales exceed \$1.2 billion and it employs over 7,000 people.

Since 1996, Samsung SDS has been creating an organizational culture to foster knowledge sharing and collaboration among its personnel. Samsung SDS has used its own IT platform as its own knowledge management system, which has contributed to the firm’s innovation and competency in the market-place, especially the 27 Samsung affiliates, including Samsung Electronics.

The 2003 Asian MAKE panel recognized Samsung SDS for developing knowledge-based products and services, organizational learning, and transforming enterprise knowledge into shareholder value. Samsung SDS was a 2002 Asian MAKE Winner.

#### *Singapore Airlines (Singapore)*

Over the last two decades, Singapore Airlines has grown from a regional airline into one of the world’s leading passenger and cargo carriers. SIA’s route network spans over 90 cities in more than 40 countries,

The 2003 Asian MAKE panel has recognized Singapore Airlines for its knowledge-driven enterprise culture, organizational learning, and delivering enterprise value based on customer knowledge.

*Sony (Japan)*

Established in 1946, Sony is one of the world's leading manufacturers of digital consumer products. Major business lines include audio systems, video systems, televisions, information and communication equipment, electronic components, semiconductors and Internet-related products.

The 2003 Asian MAKE panel recognized Sony for its developing knowledge workers through senior management leadership, organizational learning, delivering value based on customer knowledge, and transforming enterprise knowledge into shareholder value. Sony was a 2002 Asian MAKE Winner.

*Taiwan Semiconductor Manufacturing Company (Taiwan)*

Taiwan Semiconductor Manufacturing Company (TSMC) was founded in 1987, and is the world's largest independent semiconductor foundry. TSMC posted annual sales of US \$4.8 billion in 2002 and currently employs over 14,000 people worldwide. TSMC maintains account service offices in Taiwan, North America, Europe and Japan.

The 2003 Asian MAKE panel recognized TSMC for developing knowledge workers through senior management leadership, maximizing the value of its enterprise intellectual capital, and enterprise-wide knowledge sharing and collaboration. TSMC was a 2002 Asian MAKE Winner.

*Tata Steel (India)*

Established in 1907 by its founder J. N. Tata, Tata Steel is Asia's first and India's largest integrated private sector steel company. Over the years, Tata Steel has emerged as a thriving, nimble, steel enterprise due to its ability to transform itself rapidly to meet the challenges of a highly competitive global economy and commitment to become a supplier of choice by delighting its customers with services and products.

The 2003 Asian MAKE panel has recognized Tata Steel developing knowledge workers through senior management leadership, maximizing the value of the enterprise's intellectual capital, and enterprise-wide knowledge sharing and collaboration.

*Toshiba (Japan)*

Toshiba is a \$46 billion diversified high-tech manufacturer and marketer of advanced electronic and electrical products, spanning information & communications equipment and systems, Internet-based solutions and services, electronic components and materials, power systems, industrial and social infrastructure systems, and household appliances.

The 2003 Asian MAKE panel has recognized Toshiba for its developing knowledge-based products/services/solutions and ability to transform enterprise knowledge into shareholder value. Toshiba ranked in first place in the “maximizing enterprise intellectual capital” knowledge dimension.

#### *Toyota Motor (Japan)*

Toyota is one of the world’s leading automobile manufacturers. Toyota has created a people-based enterprise culture known as the ‘Toyota Way.’ The company believes that Toyota consists of people and that developing human abilities by training, coaching or mentoring is a core responsibility of the company.

The 2003 Asian MAKE panel has recognized Toyota for its knowledge-driven enterprise culture, knowledge-based products/services, enterprise-wide knowledge sharing and collaboration, and organizational learning. Toyota Motor was a 2002 Asian MAKE Winner.

#### *Wipro Technologies (India)*

Wipro provides comprehensive IT solutions and services, including systems integration, information systems outsourcing, package implementation, software application development and maintenance, and research and development services.

The 2003 Asian MAKE panel recognized Wipro Technologies for its knowledge-driven enterprise culture, enterprise-wide knowledge sharing and collaboration, and organizational learning.

### **Final Comments**

This 2003 Asian MAKE study sets a benchmark for future Asian MAKE research. It is an invaluable baseline for measuring the progress of Asian organizations as they strive towards becoming world-class knowledge enterprises.

The Most Admired Knowledge Enterprises (MAKE) research program – consisting of the Global study as well as studies for Asia, Europe, North America and Japan – is providing practitioners and researchers with a clearer ‘picture’ of how organizations are using knowledge as a key competitive differentiator in the 21st century economy. As our understanding grows, so will our ability to manage knowledge for the benefit of the individual, the organization and society.

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