

INTELLECTUAL CAPITAL MANAGEMENT

A Strategic Approach to Create, Extract and Release Long Term Sustainable Value

General Assembly Annual Meeting
The Arab Federation of Engineering Industries
Damascus, Syrian Arab Republic
7th June 2009

Dr Gordon McConnachie
Chief Technology Officer APICC Hong Kong SAR
Coordinator Association of IC Practitioners
Consultant and Mentor in IC
gordon@gmconnachie.com
www.gmconnachie.com
www.apicc.asia
www.iaicp.org
Cellphone +-66-9923-5110



Key Points

- 1. ICM: SKILLS TO HELP COMPANIES SURVIVE THE PRESENT ECONOMIC CRISIS AND SELECT WINNING APPROACHES FOR LONG TERM VALUE GROWTH IN A MODERN KNOWLEDGE RICH ECONOMY.**
- 2. I KNOW ICM WORKS WELL BUT MY TASK TODAY IS TO SHOW YOU THAT IT CAN WORK WELL FOR YOU.**

MY OBJECTIVES

- To inform you on ICM and the power it has in making money in a business
- To catalyse thought and change
- To challenge *you* to decide on new initiatives

YOUR EXPECTATIONS?

- To hear of approaches which can be practically applied now to alleviate current problems but can also be applied longer term to promote high level performance.
- To hear of how this has already been done successfully by others.
- To receive information on how you can begin today.

AN ECONOMY OF SCARCITY

Powerful Questions

- Given recent events which led to the global financial crisis and the resulting recession, we may be forgiven if at first glance we think the business rules have changed. Is this really the case or have these recent events which have affected so many people simply reminded us of the fundamental rules of doing business?
- What are the best approaches for short term survival and success, and for long term value growth?

AN ECONOMY OF PLENTY

“Knowledge is like light. Weightless and intangible, it can easily travel the world, enlightening the lives of people everywhere. Yet billions of people still live in the darkness of poverty – unnecessarily”.

World Bank, 1998

“ICM is designed to permit knowledge to be used in just this positive way”.

Gordon McConnachie, 2009

OUR WORLD TODAY

- We live in a short term crisis which is a wake up call for the Future.
- Future is a globalised, networked, knowledge rich economy.
- Future issues include expanding world population, energy availability, environmental issues and education issues.
- The world changes before our eyes and challenges conventional wisdom: we must be ready to accept and benefit from these new challenge for the benefit of all people.

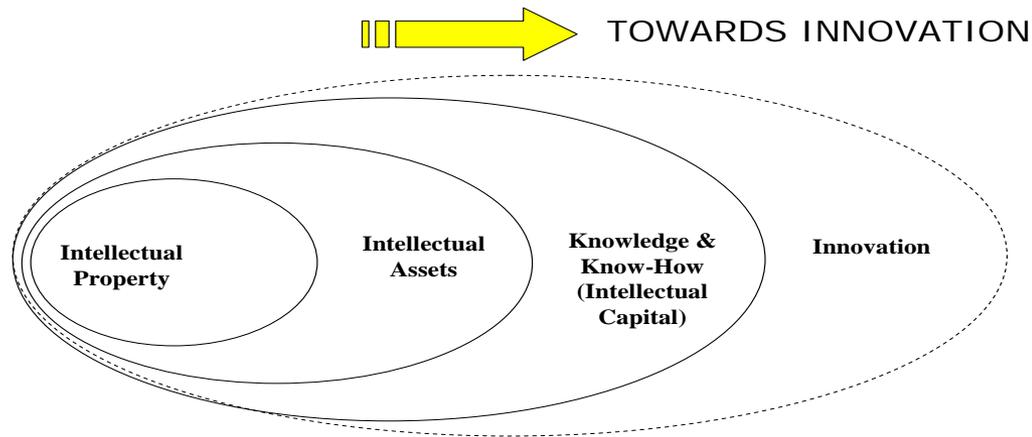
ICM

GATHERING THE SHORT TERM LOW HANGING
FRUIT AND BUILDING A SUSTAINABLE VALUE
ORGANISATION.



Intellectual Capital Management

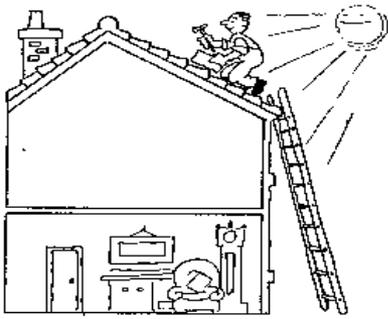
Another View of Intellectual Capital



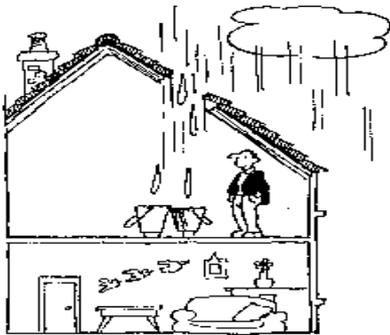
© Alan Lung, CEO APICC and
Gordon McConnachie CTO APICC
www.apicc.asia

- Managing the entire knowledge base of the organization in line with the (business) plan in order to create, extract and release value in a controlled and sustainable manner.
- “The **foundation on which knowledge economies of the world are built** and a fundamental business management tool enterprises need to harness “, Alan Lung, CEO APICC, October 2008.

Ultimately ... it's about jobs and wealth creation



THE PRO-ACTIVE MANAGER

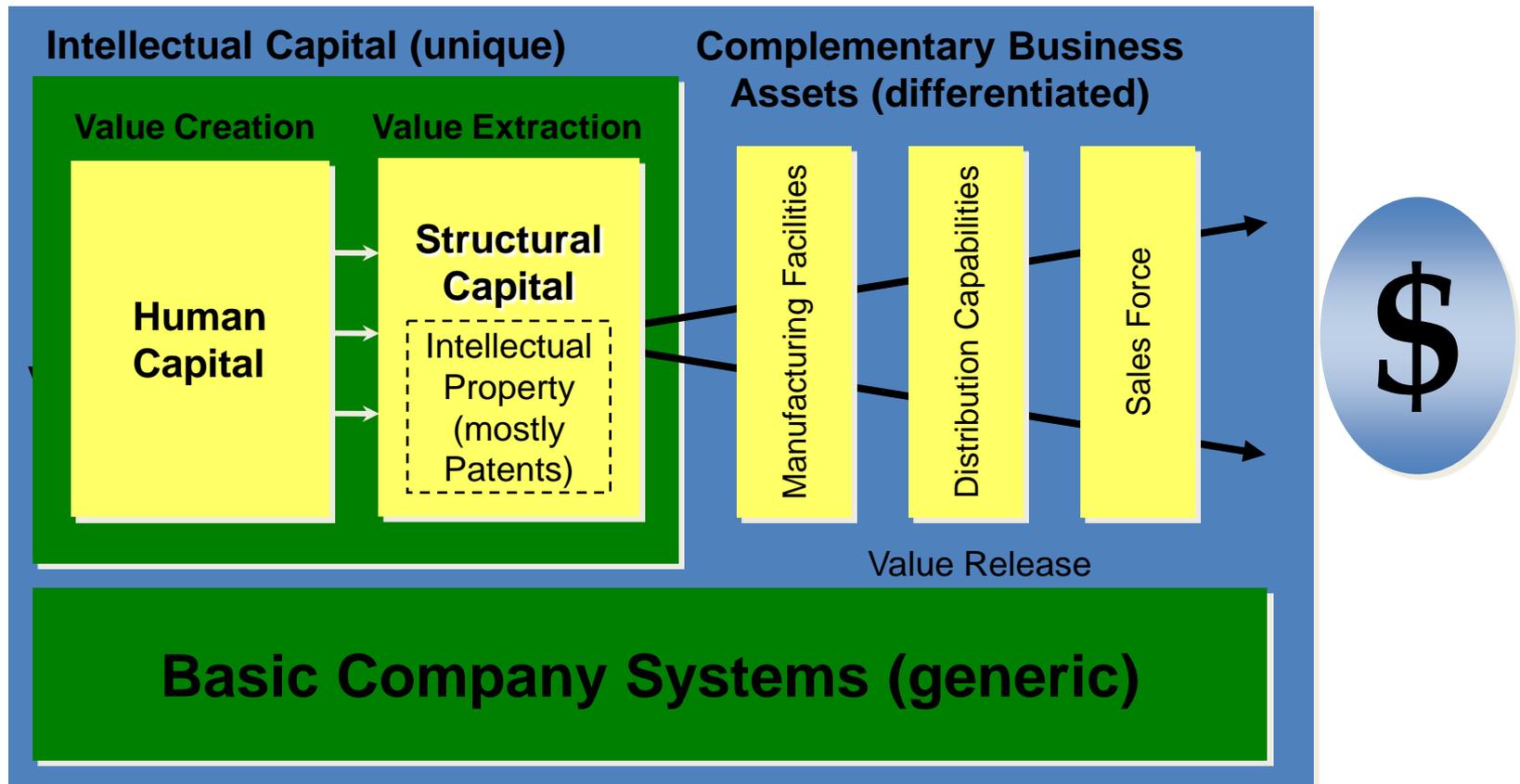


THE REACTIVE MANAGER

- “Creation” of and “Value Extraction” from Intellectual Capital (IC/IA/IP)
- “Micro-economic” tactics to achieve “Macro-economics objectives”
- “Passive” (IP Protection alone) to “Proactive” IP Strategy

Source: Meeting and presentation to Academy for Macroeconomic Research, National Development and Reform Commission, China, May 2006

The Interaction of Intangible and Tangible Assets to Create Earnings



ICM Holistic Process

First know Mission, Vision, Strategy then apply:

1. Value Creation
2. Value Extraction
3. Value Release



This needs clear vision, clear path and excellent application and marketing. It is hard work and requires sponsorship at the highest level. ICM is like an oasis.

ICM

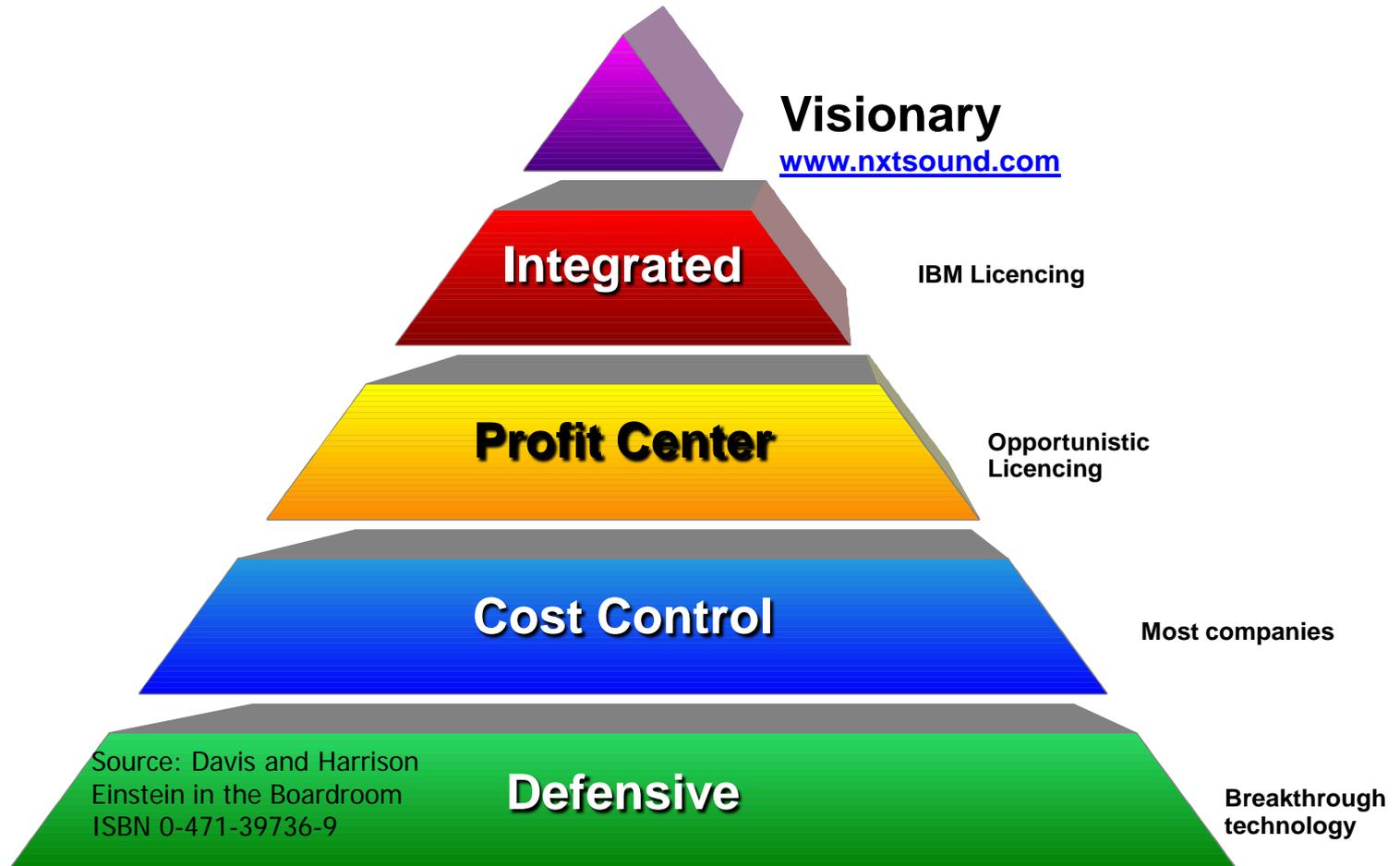
How to do it!

1. Business Mission, Vision, Strategy, Opportunities.
2. Inventory of IC Assets (IP, Know-How, People).
3. Select Assets needed for opportunity.
4. IC Statement & Gap Analysis of Missing Assets.
5. Build Asset Portfolio and Create Product or Service or Solve Problem to Extract Value.
6. Select best Value Release Route.
7. Develop Product/Service and Place in Market.
8. Measure, Refocus and Refine your Approach.
9. Keep it simple: make work easy for people: give freedom to employees to innovate & develop.

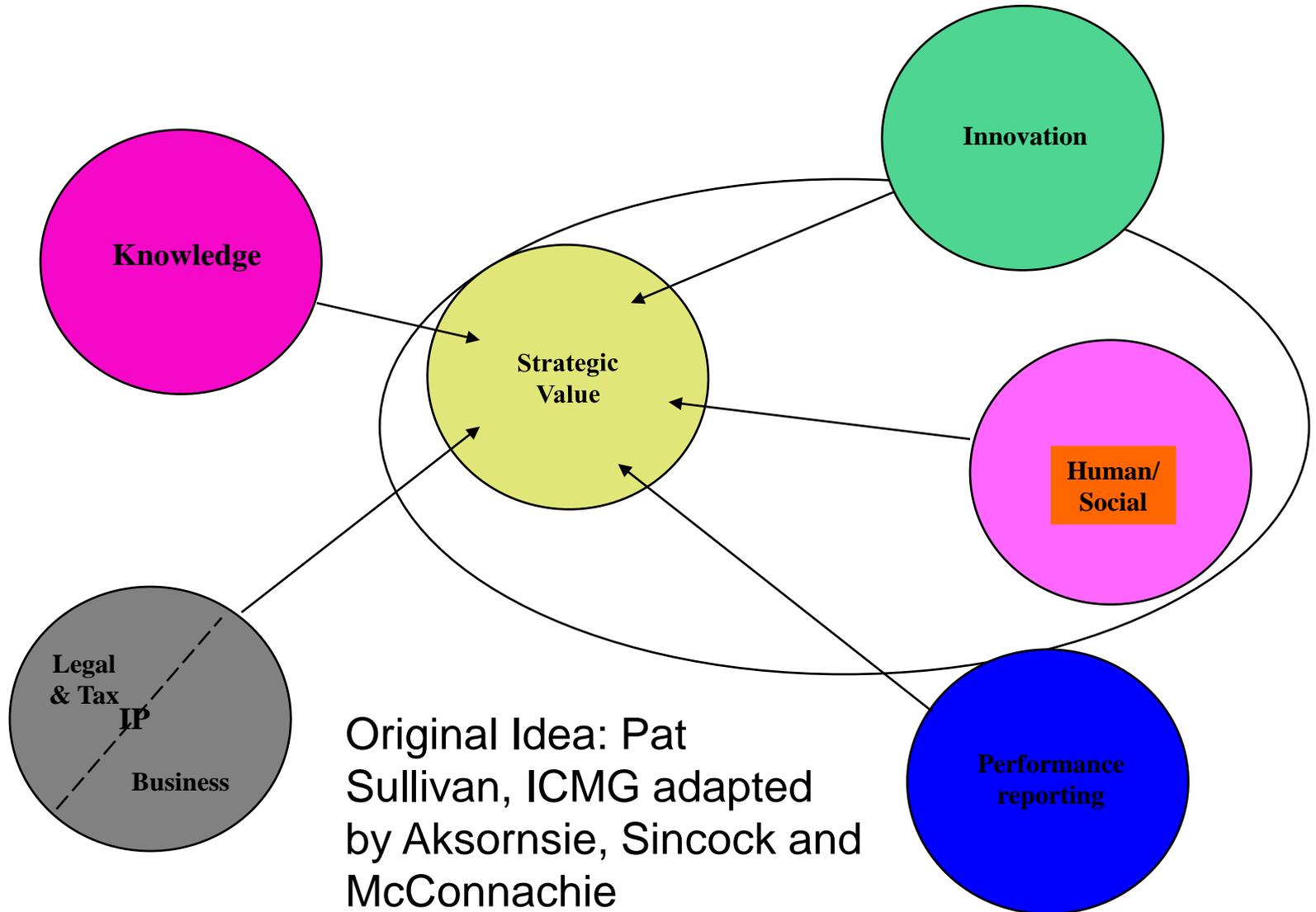
PERSPECTIVE ON ICM

- ICM is not new.
- ICM is simply converting assets to value-streams using good management
- All companies practice ICM to a certain extent
- ***Systematic*** practice of ICM in an inclusive culture is a **new and developing competence** fit for purpose in the knowledge rich economy

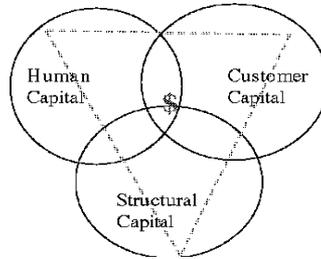
The IC Management Hierarchy



Value from IC Perspectives



Intellectual Capital

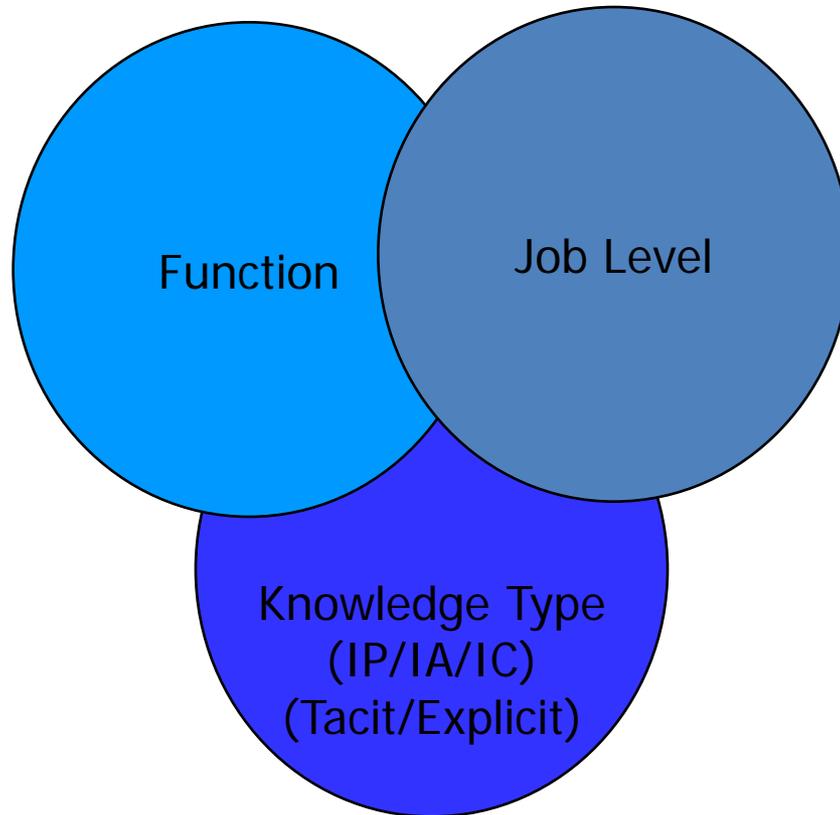


© Petrash, Sullivan, Edvinsson, et al.

- “All knowledge, tacit and explicit, in an organisation which has the ability to create value.”
- A driver of sustainable development in the knowledge age.
- Human Capital + Structural Capital + An Empowered Staff.

The Arabian Knowledge Economy Association (AKEA) is a not-for-profit organization that promotes knowledge/learning, intellectual capital, entrepreneurship, innovation, seed funding and research and technology leading to economic growth and sustainable development through fostering linkages across the Arab World and between the Arab World and other regions, be they the West (USA, Western Europe), East Asia (Japan, China, Korea), South Asia (India), *et.al.* www.akeame.com

Managing Knowledge Flux



How well do you source, nurture, manage, grow, leverage and deploy knowledge in your Company?
Who are the Knowledge Carriers?
How are they rewarded?
How are ALL employees involved?

IC SHORT TERM BENEFIT

Agile Teams

- Identify critical opportunities/ problems
 - Assemble skills and assets to address
 - Create concepts of solutions (VC)
 - Scope out these to developed offerings (VE)
 - Place these in the market (VR)
- VC , VE, VR = Value Creation, Extraction and Release.

IC MEDIUM + LONG TERM BENEFIT

Agile Teams

- Identify opportunities / problems
- Maintain prioritised list for actions
- Assemble skills and assets to address
- Create concepts of solutions (VC)
- Scope out these to developed offerings (VE)
- Place these in the market (VR)
- ***Institutionalise practices in culture of organisation***

CASE STUDIES

Track Record

- ***China: Clear Choice for the Knowledge Economy.***
- ***Dow Chemical Created an ICM culture.***
- ***Royal Bank of Scotland innovation.***
- ***Toyota search for continuous excellence.***
- QuinetiQ[®] appointed an ICM Director.
- NXT practiced sharp IAM practices.
- Skandia (Sweden) developed a Future Centre.
- Communities of practice have developed.
- Governments now support ICM into SMEs,
...all leading to major successes.

The ICM Gathering - USA

The ICM Gathering is a group of approximately 30 companies that are currently managing their Intellectual Capital. Established in January, 1995, the group meets three times a year and focuses on Benchmarking Best Practices around the area of value extraction.

- Member companies include:

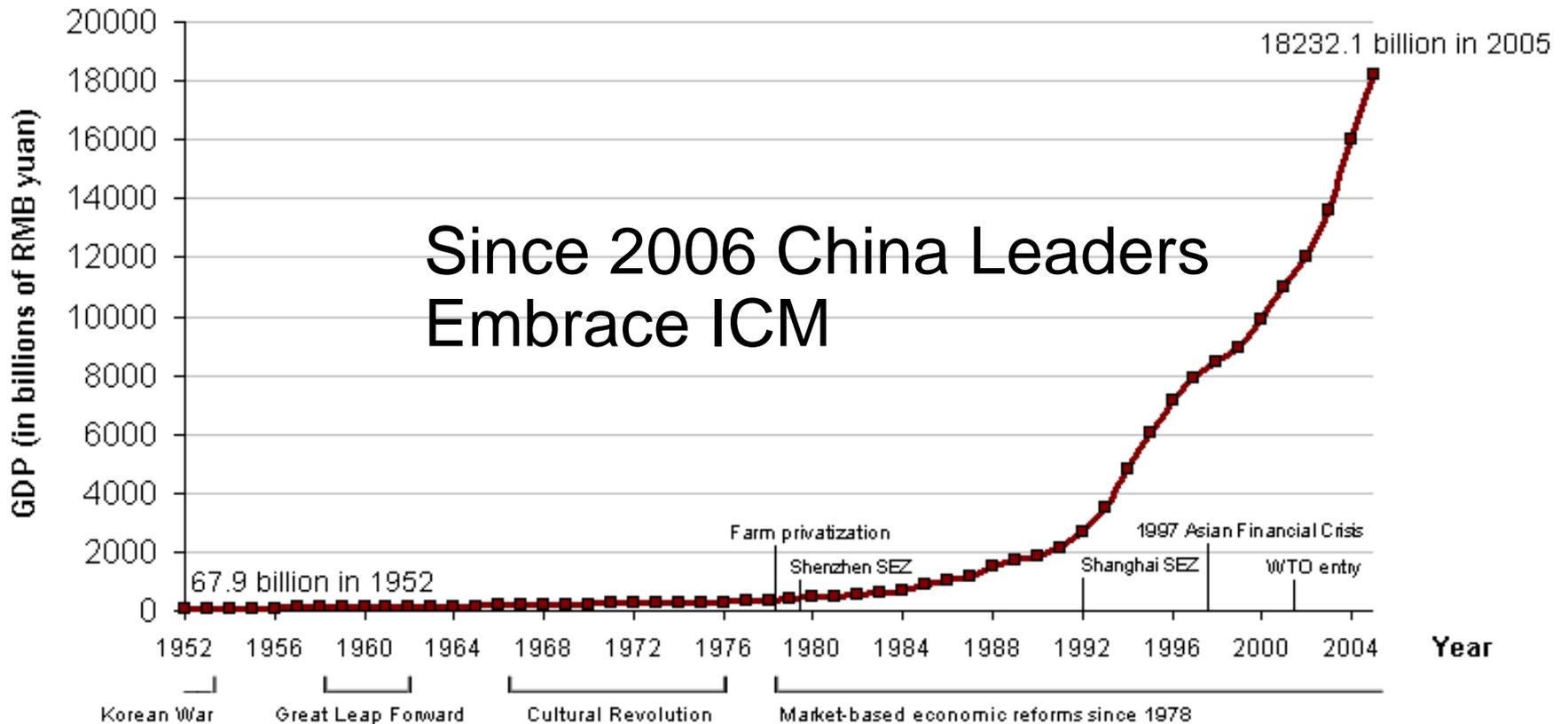


CASE STUDY

CHINA

China's Economic Growth Since 1978

People's Republic of China's Nominal Gross Domestic Product (GDP) Between 1952 to 2005



Since 2006 China Leaders Embrace ICM

Visit to Beijing in May 2006: AMR-NDRC, SIPO & NSA

(Academy of
Macroeconomic
Research of National
Development and
Reform Commission,
State Intellectual
Property Office and
National School of
Administration)



Pat Sullivan , Leif Edvinsson, Gordon McConnachie and Alan Lung at State Intellectual Property Office, Beijing, China (May 2006)

How much IC is inside the Airbus 380?

How much IC must
China acquire to
build such aircraft?



Source: QuinetiQ

CASE STUDY

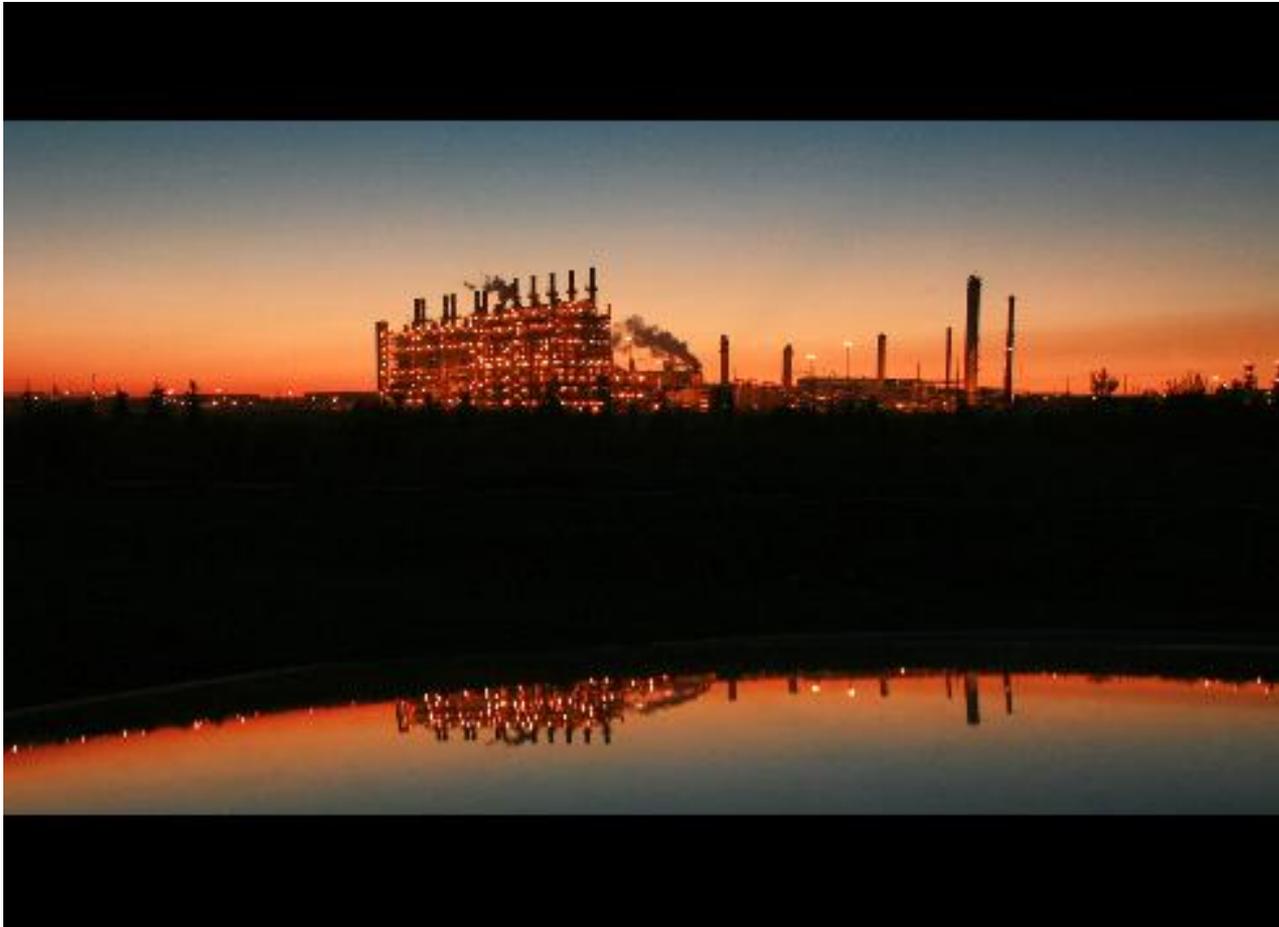
DOW CHEMICAL

Dow Chemical Freeport, TX, USA Facility



A Journey into the Past
Dow Chemical: 1990 - 2000

Here we can learn key lessons for our future



Source: Gordon McConnachie

DOW CHEMICAL

The Genesis of IAM and Licensing at Dow:

- Dow Chemical is a technology led bulk chemical company active in a mature commodity industry.
- The Intellectual Asset Management (IAM) focus at Dow is a part of the drive to be best-in-class in cost control and in renewal and development of product offering.
- The IAM focus led to the creation of a Corporate Licensing Business in 1995, formally recognising a practice in place since the 1960s and putting the spotlight on licensing as a vehicle for value generation.

Dow Chemical - Background

- Dow is a diverse environment of 16 Global Businesses in Bulk and Speciality Chemicals with 2007 Sales of US \$53 billion and Earnings of \$2.9 billion. Dow (USA) and BASF (Germany) are the largest global chemical companies. Dow recently acquired Rohm & Haas Company, a US \$10 billion sales speciality chemicals firm.
- Technology is a key component of the structural capital of the organisation and a major intellectual asset.
- This applies to Dow Chemical's classical process or engineering operations and also to its services where business processes and marketing techniques are also key tradable technology.

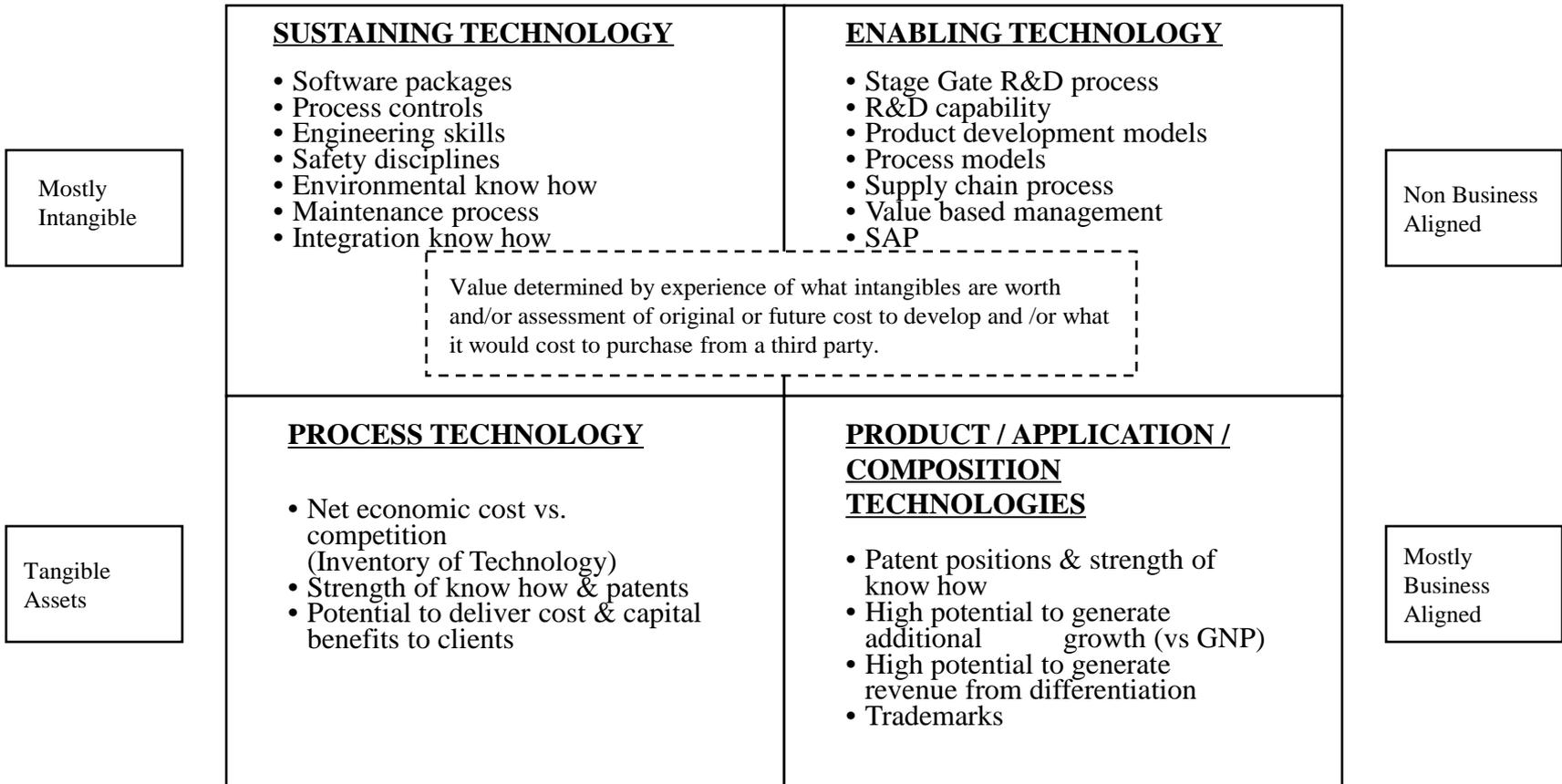
Dow Chemical - IAM and Licensing

- At Dow Chemical technology is a key component of its active Intellectual Asset Management activity which is delivering:
 - A one time \$40MM patent maintenance fees saving over life of portfolio
 - 5-fold increase in licensing income: from \$25MM to \$125 MM
 - Increased return on IA investment: new product sales growing
 - Leveraged process know-how and use of IA in JVs and sales
 - Part of the overall Value Initiative

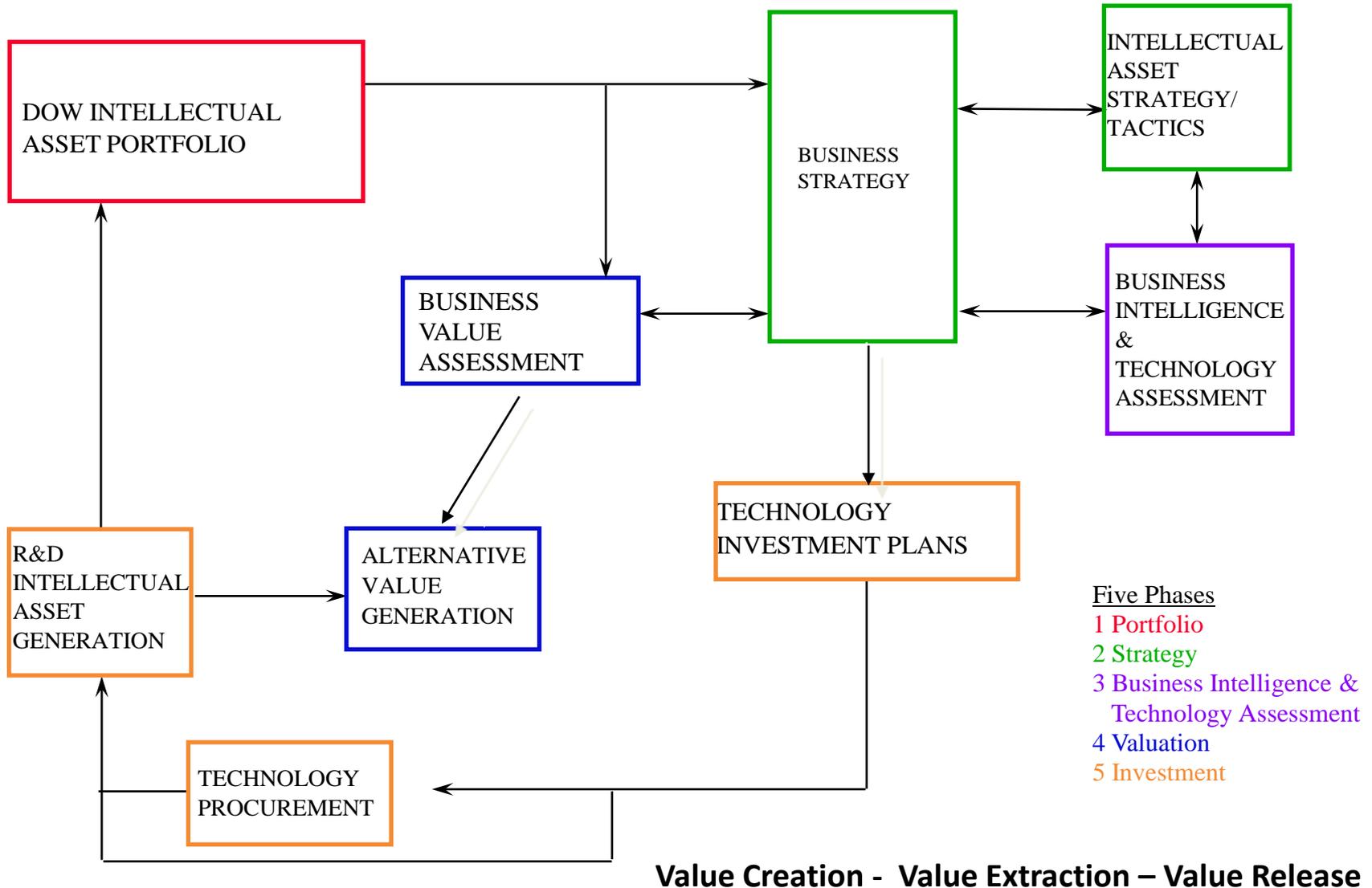
Dow Chemical - IAM and Licensing

- 1900 Chief Engineer given task to take care of innovation
- 1928 Dow Patent Department Created
- 1939 First Patent Review Committee
- 1947 Inventions Management Created as a Function.
- 1990 The Formative Years: One Business has IAM Process.
- 1993 Creation of Intellectual Asset Management Initiative.
- 1994 Internal and External Benchmarking.
- 1995 IAM Model launched: first implementation.
- 1996 IAM Process implemented: IAMs reside within Business. Valuation a complementary best practice.
- 1997 Consolidation Year: implement and implement.
- 1998 Full Service IAM: Key Know-how, Third Party and Brand Information included in Process.
- 2000 The first ICM Pilot Programme (Urethanes).

Technology Value Grid



Dow Chemical - IAM Model



Source: Dow Chemical

Dow Chemical Licensing

- Sixteen global business units, four global licensing managers, supported by a technology valuations group.
- Dow Licensing covers both in-licensing and out-licensing.
- Licence resources and needs drawn from business units, with global geographic reach and tied into IAM business process and external technology source network.
- Dual fiscal reporting both as a business and as a service to move assets belonging to the global business units.
- Dow Corporate Licensing now embodies the management of IP as a component of business strategy across the entire corporation, and generates >\$100 million income per year.

Source: Dow Chemical

CASE STUDY

Royal Bank of Scotland

Royal Bank of Scotland



Traditional and New Headquarters Buildings

CASE STUDY

TOYOTA

Toyota



A modern Toyota facility in Nagoya, Japan

A Role for Government

- To raise awareness in all companies of the value to be mined in the company IC.
- To understand the potential of mining the countrys IC and to actively realize this value.
- To provide the climate in which SME companies can identify, create, leverage and use their IC.
- To provide financial support during the transition phase in the economy to support SME.

These objectives are best realised by creating IC Centres specific for Arab Countries.

IC Centres

A focus within a country for expertise in IC made available to all companies from large to SME. The agenda of each Centre will be different.

- Scotland IA Centre: Economic Development Agenda.
- Singapore IP Academy: Educational Agenda.
- China IC Centres: China fast track into Knowledge Age.
- APICC China in Hong Kong: networking with ASEAN.
- Syrian SEBC: Economic Development.
- InHolland University Centre: Academic + Econ. Dev.
- Indonesia IC Research Centre: Academic + Econ. Dev.

Global Association of IC Practitioners

www.iaicp.org

Each Centre can learn from one another and with the help of universities and business people in China, Sweden, Thailand and The Netherlands an Association of IC Practitioners is currently being formed.

A Role for Employers' Organisations

A key role for employers' federations is to critically look at new and proven approaches such as ICM, to decide in what measure these approaches can benefit their members, and to initiate a programme to make the most valuable elements available to their members, especially small and medium sized enterprises, in co-operation with regional or national centres such as SEBC.

These objectives are best realised by creating IC Centres specific for Arab Countries and culture.

A Call to Action



The future is in your own hands.

You have the obligation to succeed for yourself, for the next generation and for your older citizens.

ICM effectively deployed is one of the keys to success.



*



Thank you for your interest and attention