

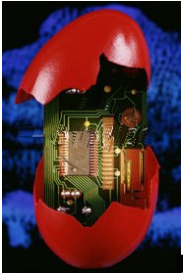
# Managing Emerging Technologies



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# Introduction

## DEFINITION

- Emerging Technologies are those that are technologically immature, or those that are mature but have not yet achieved their potential level of acceptance and market penetration

*“Managing emerging technologies represents a ‘different game’, requiring a different set of management skills, frameworks, and strategies than those used by established firms to manage existing technologies”*

*Source: Day & Schoemaker, Wharton Business School*

## DEFINITION



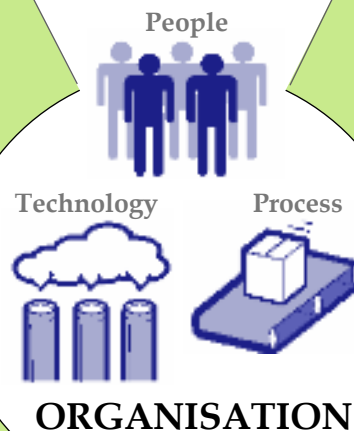
- Emerging Technologies Management is the discipline that specialises in competing and succeeding despite the high levels of risk, uncertainty and change that are associated with emerging technologies



# The Situation

## CHALLENGES FACED BY ENTERPRISES

- Emerging technologies already creating and restructuring industries
- Ambiguity and confusion around emerging technologies
- Emerging technologies require new approaches
- Emerging technologies being brought to market quicker
- Limited understanding as to how each emerging technology affects a specific enterprise/industry
- “Incumbent’s curse”



## UNMET NEEDS IN ORGANISATIONS

- Evaluation of emerging technologies
- Designing & managing alliances
  - Strategies for participating in emerging technologies
- Developing products for really new markets
  - Designing organisations to compete in emerging technologies
- Managing intellectual capital
  - Evolution of emerging-technology-based industries



# The Solution

## VISION

An aspirational expression of what is to be accomplished

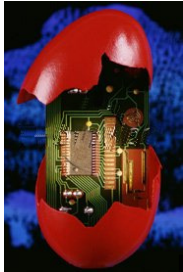
## MISSION

A precise description of what is to be done

## GOAL

A longer-term target indicating achievement of the vision

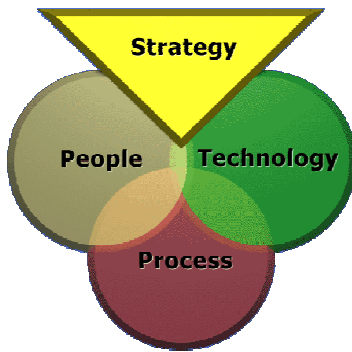
- To achieve competitive advantage / innovation through the judicious use of emerging technologies
- To sense, evaluate and apply emerging technologies to achieve business objectives
  - To determine which emerging technologies are appropriate for use by the enterprise
  - To share expertise / know-how across the enterprise for external commercialisation or internal rollout
- To develop a specialised competency within the organisation for managing emerging technologies
- To provide assistance (specialist skills and targeted research) to parts of the enterprise to successfully utilise emerging technologies



# Why Bother ?

*More than four fifths of global executives say that technology will be critical to their company's ability to adapt business models and implement strategy in the coming 5 years*

*Source: Economist Intelligence Unit, 2005*



## NEW CAPABILITIES

- Better understand the future of your industry and any potential disruptive innovations
  - Changes to the market, risk of becoming uncompetitive or redundant
- Adopt a structured approach to deal with the technological uncertainties, ambiguous market signals, and embryonic competitive structures that accompany emerging technologies



## BENEFITS

- Create new technical capabilities quicker than competitors
- Raises probability of success in identifying and capitalising on emerging technologies
- Reduces burden on the organisation and duplication of effort
- Reduce costs of existing technical infrastructure



# Delivery Of Solution

## Development of 3 stage process:

Step	Activity	Decisions Supported
1. Identifying & Understanding Emerging Technologies	<b>Researching</b>	• Whether to investigate the emerging technology or not
2. Determining Potential Impact Of Emerging Technologies	<b>Evaluating</b>	• Whether to deploy the emerging technology or not
3. Capitalising on Emerging Technologies	<b>Committing</b>	• How to deploy the emerging technology

## Role Supported:

- To drive the project and provide all necessary skills until decision to deploy
- To provide focused expertise during deployment



# Solution Differentiators

- Development of long-term perspective through internal competency
  - Continuous research rather than just a snapshot of the market
  - Lessons learned create a reinforcing learning loop
- Specifics of the industry and the organisation are taken into account
  - Both substantially affect which emerging technologies to select
- Flexibility in applying knowledge holistically or for particular lines of business
  - Can be applied to external commercialisation or internal roll-out
  - Skills transfer to other parts of the organisation