

# James A Robertson and Associates Effective Strategic Business Solutions



## *Why your ERP is NOT delivering and how to fix IT*

*The Real Issues in World Class ERP  
and the Critical Factors for ERP  
Investment Success*

**Dr James Robertson PrEng**

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## 1. Context and Definitions



# IT / ERP versus bridges



Engineers do NOT design bridges to stand up



**They design them NOT to fall down**



**Engineer against failure**

# Vision



**Angus Struan Robertson**

# Experiencing failure



# Motivating quotes



- 
1. ***“You produce exceptional high value outcomes in ridiculously short time frames at ridiculously low cost”***
  2. ***“You transformed what would have been a pedestrian, poorly thought out system, into an ERP that is already functional and will ultimately transform our analytics and IT offensive capabilities” - Robert Priebatsch, CEO African Sales Company”, Robert Priebatsch, Chief Executive, African Sales Company***
  3. ***“You have provided some key pieces of my jigsaw puzzle, now I understand why ERP Implementations are failing”***
  4. **All sorts of opposition**

# Some historical context



1. Insects and butterflies
2. Cataloguing -- punch cards
3. Defence Force filing system
4. Military quick attack – combat planning
5. Strategy development
6. ERP and other IT projects which produced exceptional outcomes
7. Pulse measurements on many highly sub-optimal ERP and other implementations
8. Some heavy opposition
9. and some in-depth analysis





# E.R.P. -- An industry in crisis



**"19 out of 20 E.R.P. (business system) Implementations do NOT deliver what was promised"**

# Extreme failures



1. Seven years and half a billion dollars -- international chemicals company
2. \$400 million -- multinational shoe corporation
3. Major supermarket chain -- \$195 million



“Creating an IT Watchdog for the Board by Assembling an I.T. Oversight Committee” by Professor Rossouw von Solms of Nelson Mandela Metropolitan University at the IT Governance and Strategy Summit

# Decisions are NO better



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***"Attendees of Gartner's Business Intelligence Summit in London last month were not surprised to hear that most enterprises are still failing to use business intelligence (BI) strategically. Gartner's survey of over 1300 CIOs returned some unimpressive findings about the state of BI implementations: Gartner's vice president of research summed up the situation nicely by saying: "Most organisations are not making better decisions than they did five years go."***

## **BUSINESS INTELLIGENCE**

**Article published in Computer Business Review Africa May 2005 published by Network Times.**

# Context: Information Technology Governance defined by King



1. Governance = Care!
2. How does this company make money? What are our competitors doing?  
What can destroy our business? More satisfied employees. More Capital.
3. I.T. -- should we take something like COBIT and enforce or have certified managers?
4. Board is responsible for I.T. Systems and does it have effective control, part and parcel of strategic view.
5. Ultimate responsibility is business success. Balance conformance and performance. Legislation is NOT the recipe for good governance.  
Increased cost of running the business.

Presentation on "I.T. Governance" to the I.T. Governance and Strategy Summit on 22 August 2006 by Professor Mervyn King SC, former High Court Judge and author of the King reports on Corporate Governance. Free hand notes taken by J Robertson during the presentation.

# Context: Information Technology Governance

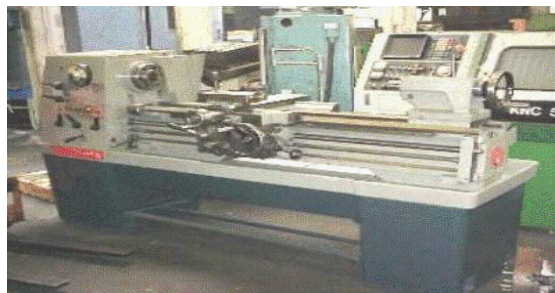


1. “This [I.T.] is an area where boards of directors will be named in stockholder suits”
2. “Senior management is not engaged enough in strategic information technology decisions and situations that could put the company at risk.”
3. “Information systems could cause the next outbreak of Enron-like corporate scandals.”
4. “I.T. is the next corporate disaster waiting to happen”

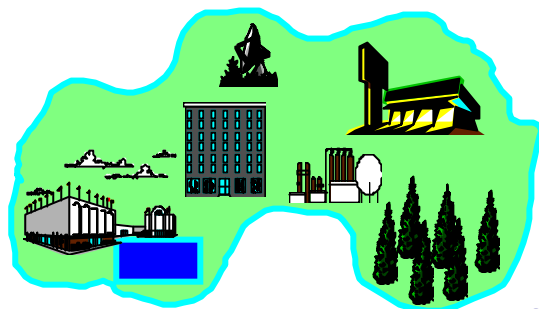


“Creating an IT Watchdog for the Board by Assembling an I.T. Oversight Committee” presented to the I.T. Governance and Strategy Summit by Professor Rossouw von Solms of Nelson Mandela Metropolitan University quoting Richard Nolan of Harvard Business School in Harvard Business Review

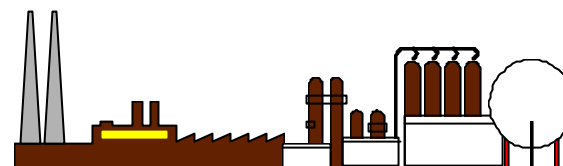
# What the board thought they were getting (metaphorically):



or



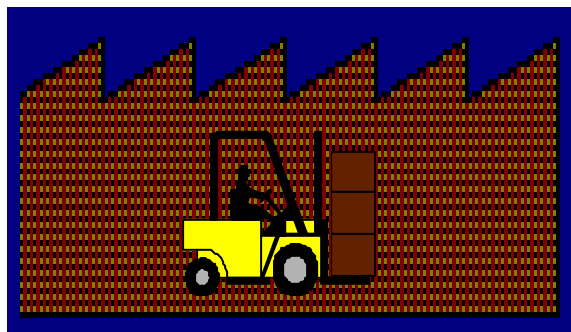
or



or



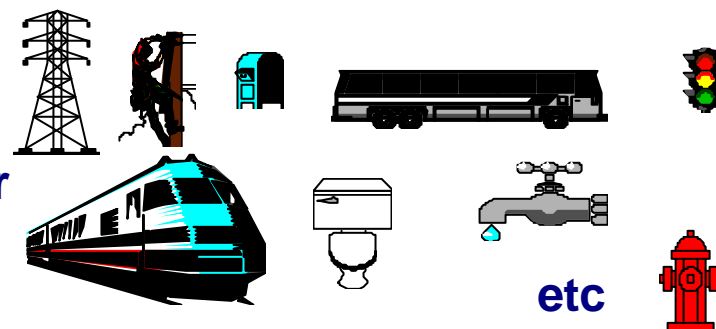
or



or



or



etc

# And what the board frequently gets (metaphorically):



**70% of I.T. Investments fail totally!  
19 out of 20 ERP implementations do  
NOT deliver what was promised**



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Y2K



# Discussion



**Does ERP constitute a THREAT to your business today?**

# Fixing ERP



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*“If you do what you have always done you will get what you always got”*

**Radical and effective NEW action is called for**

**Model the real world - Be Real**

# Positioning this presentation -- Information technology and ERP in particular can and should add value



I am passionately persuaded of the potential to use computer technology to effectively create enduring strategic value for organizations and intensely frustrated at how seldom this occurs



# Some more historical context



- 
- 1. Group consolidation system - Speer and Robertson**  
Dramatic improvement in group financial and strategic analysis
  - 2. Risk management system - Paton and Robertson**  
Substantial productivity gains (less staff)  
Dramatic analysis gains  
Significant competitive gains -- new customers
  - 3. Management information system - Barry and Robertson**  
Reduced audit time  
Improved precision  
Greatly improved management information

# What is E.R.P?



# What is E.R.P?



- 
1. “*Enterprise Resource Planning*” = ERP Systems

**Model the real world - Be Real**

# What is E.R.P?



1. *“Enterprise Resource Planning”* = ERP Systems
2. ? or ?
3. *“Integrated Business Information Systems”* = IBIS
4. = all the information *“repositories”*
  - = databases
  - = tables
  - = lists
  - = filing drawers / folders
  - = real world items that require description and management
5. + the numerical computations and other activities that are executed with the numbers (and text) stored in these repositories
6. ALL of which can be done by human beings -- including making a mess!

# What is E.R.P?



- 
1. All the information required to run the business
  2. NOT ABOUT TECHNOLOGY
  3. about content and things that people do with it
  4. including store it and never look at it again
  5. but / and it CAN? make organizations more effective and efficient?

**Model the real world - Be Real**



# Imagining the impossible: What is NOT an engineering approach?



*"any sufficiently advanced technology is indistinguishable from magic"*  
Arthur Clarke



*But computers only add 0's and 1's*



**“Restore the integrity of the number plate to fulfil its true functions which are the vehicle’s ID book and a law enforcement tool.”**



BY BALDWIN NDABA

Gauteng’s roads MEC has come out in defence of his decision to change Gauteng vehicle number plates, a move said to make speed-trapping easier.

Motorists will have to pay for new plates, starting from January.

Ignatius Jacobs came under attack from the Democratic Alliance when he declared his intention during the presentation of his budget in the Gauteng Legislature on Tuesday.

James Swart, the DA spokesperson on transport, said the system, which Jacobs admitted

## Mixed messages on new veh

was not subject to wide consultation, was likely to become another eNtuis nightmare.

Reacting to the accusations, Jacobs said: “The aim of the new intelligent number plate is to provide Gauteng with a variety of applications, to increase efficiency and effectiveness in all areas of operation, and effective law enforcement.”

Detailing what he classified as advantages, the new system would:

- Use a high integrity elec-

tronic tag to control the number plate distribution channel to combat the indiscriminate manufacture of both compliant and non-compliant plates (each plate will be unique).

- Restore the integrity of the number plate to fulfil its true functions, which are the vehicle’s ID book and a law enforcement tool.

- Prevent deviation from the set national standards.

- Prevent vehicle crime such as theft, vehicle cloning and the

false issuing of all types of vehicle documents.

- Ensure effective use of plates to spot non-compliant vehicle without inconveniencing compliant vehicles.

- Prevent the issuing of false plates and licence discs to expert stolen vehicles, a major challenge for law enforcement agencies.

- Prevent the use of false plates to disguise vehicles used in crimes.

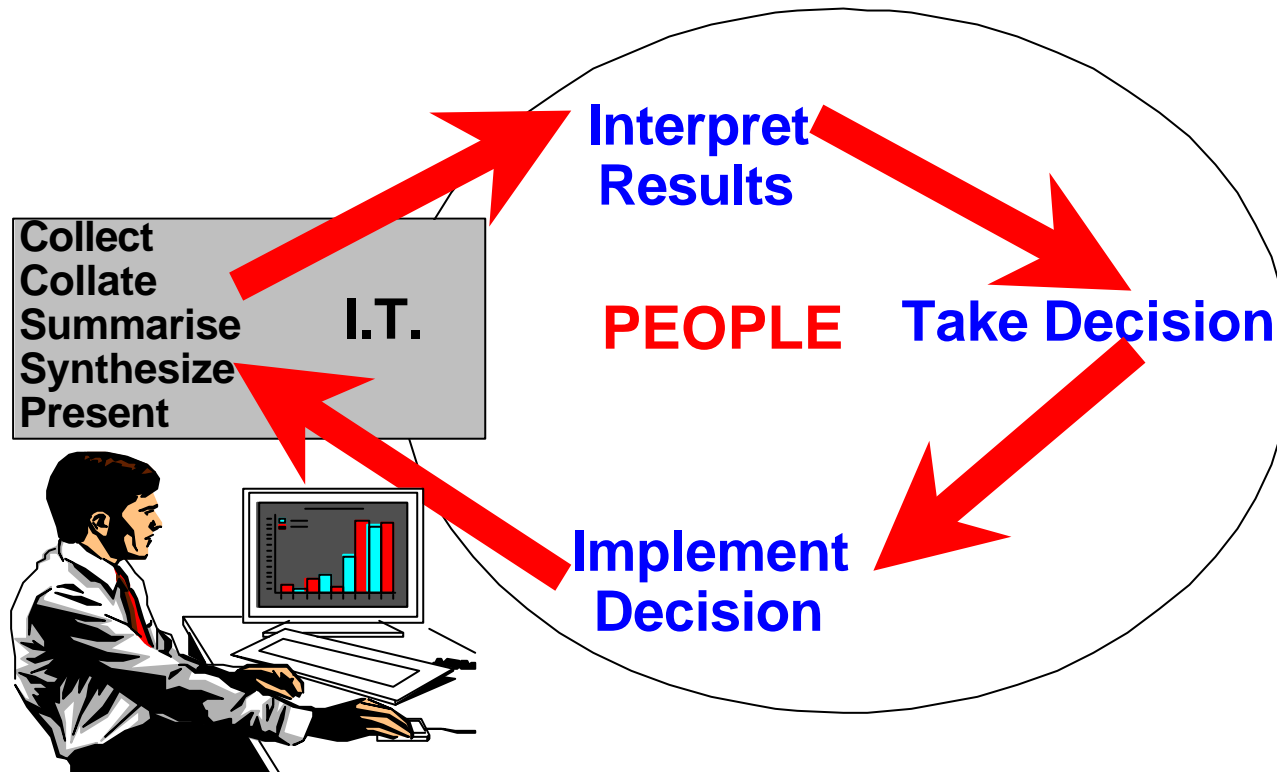
- Prevent the duplication of



# Computers versus people



## The role of computers and the role of people

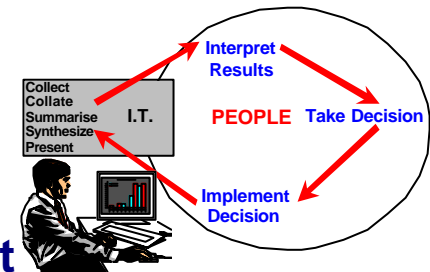


# Precision engineered strategic data taxonomies (data engineering)



## → The definition of information content

- ✓ in a way that is structurally (taxonomically) fundamentally meaningful to human beings who understand the business
- ✓ and the translation of this content into structured codes which faithfully and accurately reflect human understanding in a way that the computer can manipulate
- ✓ with minimal human intervention
- ✓ so that the computer system appears to be intelligent



# Complexity



1. **Business is extremely complex**
2. **What, why, when, how, etc**
3. **Simple to use systems accurately model REAL complexity**
4. **Internally "simple" systems that do NOT accurately reflect real complexity are DIFFICULT to use**
5. **Internally "complex" systems that reflect reality are EASY to use**

**Optimise system complexity versus ease of use - Be Real**

# Abstract cognitive complexity



Human beings can intellectually accommodate huge abstract association, interpretation and grouping -- computers can ONLY understand what is made explicit (through the data)



# Extreme complexity versus strategic simplicity

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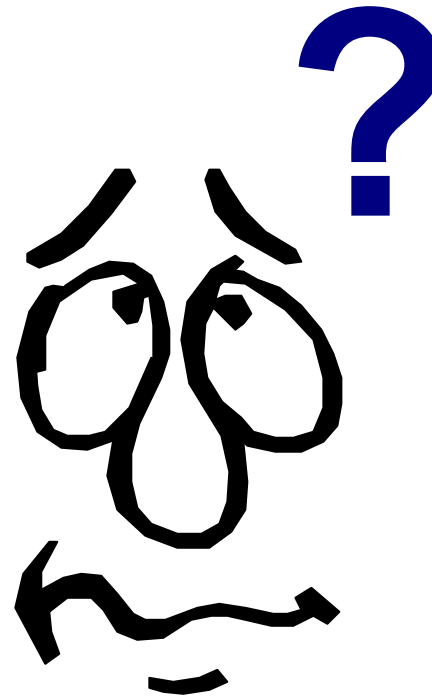
**Why it is important that software projects fail!???**

Dr Anthony Berglas -- [Anthony@Berglas.org](mailto:Anthony@Berglas.org)

**BUT ERP projects CAN and should add value**

# What is strategy?

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# Strategy



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**Doing the right things**

# Tactics



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Doing things right

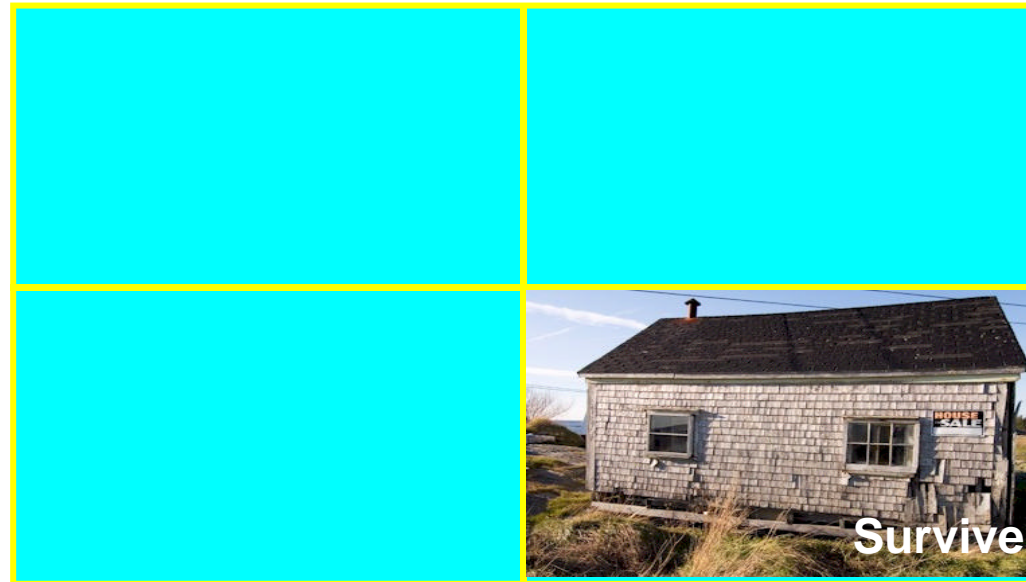
# The relationship between strategy and tactics



# The relationship between strategy and tactics



Tactics -- things right



Strategy -- doing the right things

# The relationship between strategy and tactics



**Tactics -- things right**



**Strategy -- doing the right things**

# The relationship between strategy and tactics



Tactics -- things right



Strategy -- doing the right things

# The relationship between strategy and tactics



Tactics -- things right



Strategy -- doing the right things

# Michael Porter



- 
- Strategy is the creation of a unique and valuable position involving a different set of activities
  - Strategy is making trade off's in competing, and choosing what not to do

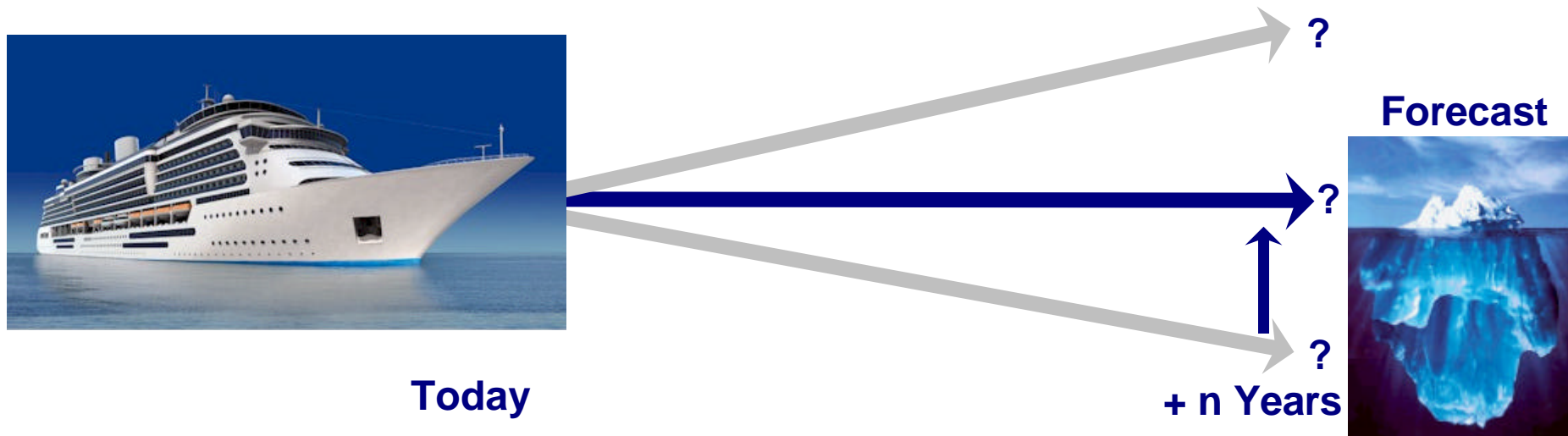
**WHAT IS NOT STRATEGY?**  
**The Internet or any technology**



# The time dependency of strategy



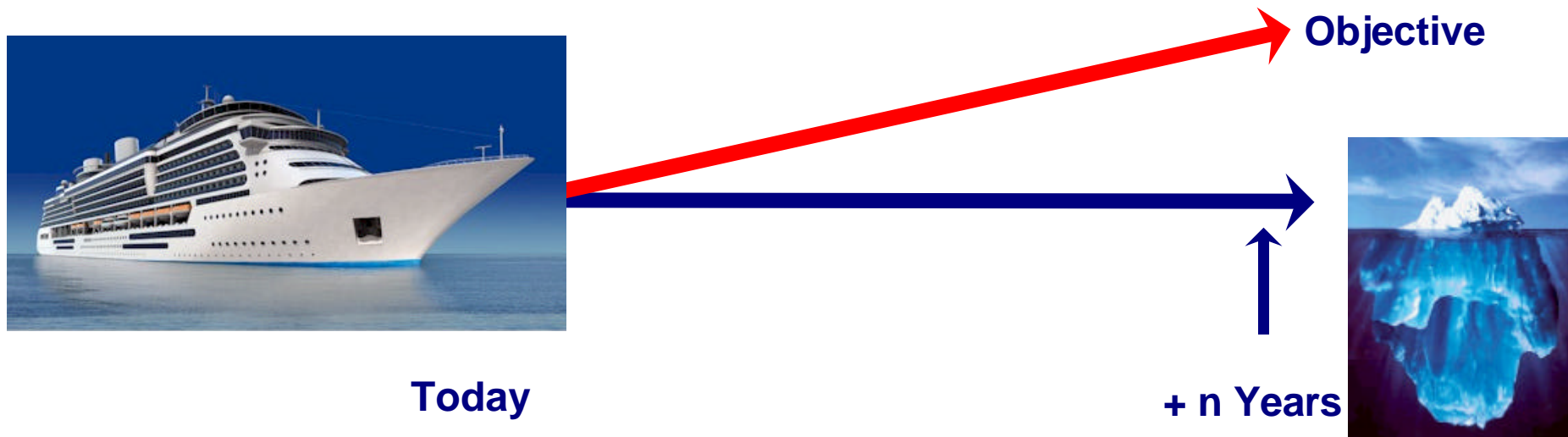
Not a forecast



# The time dependency of strategy



## Not an objective



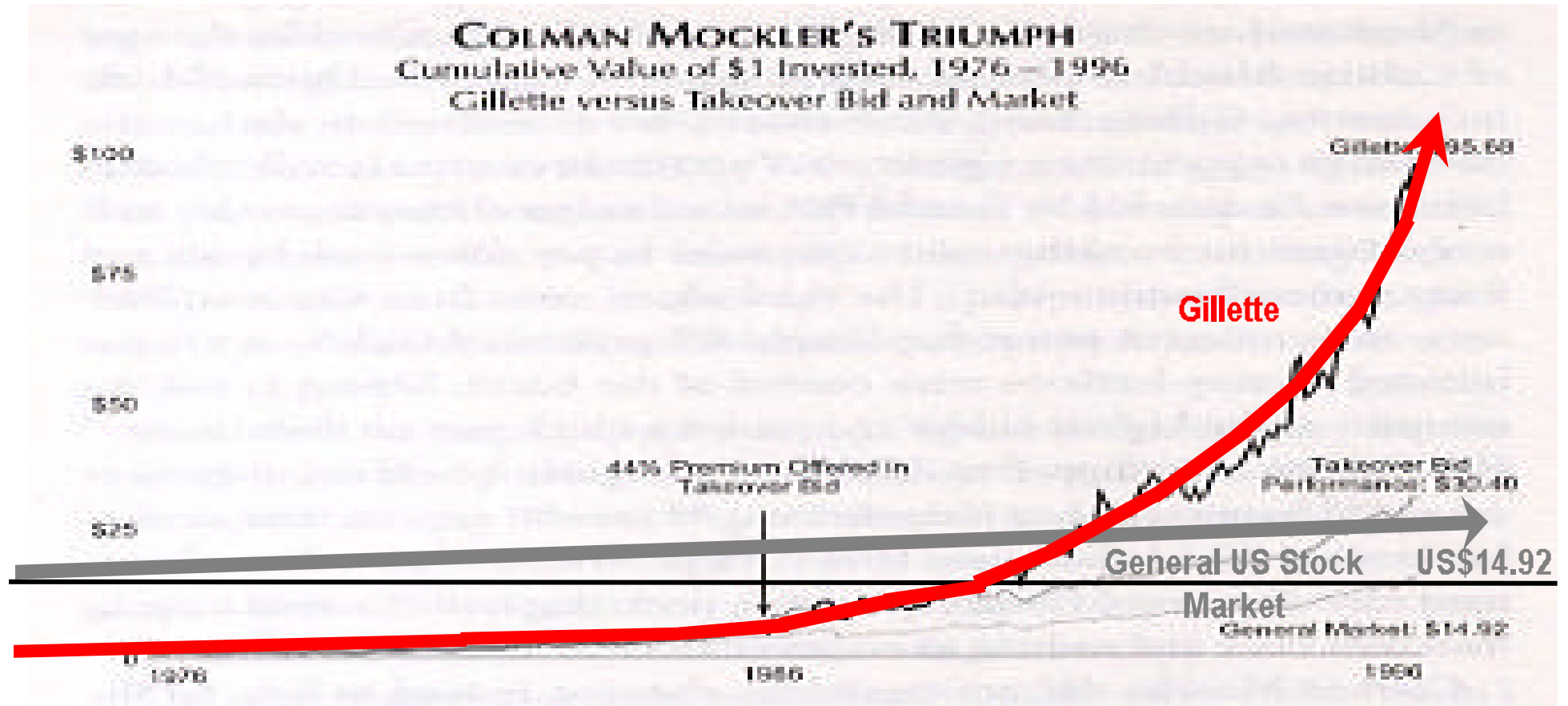
# The time dependency of strategy



## Strategic plan -- the path to competitive advantage



# The trajectory from good to great -- Gillette case study



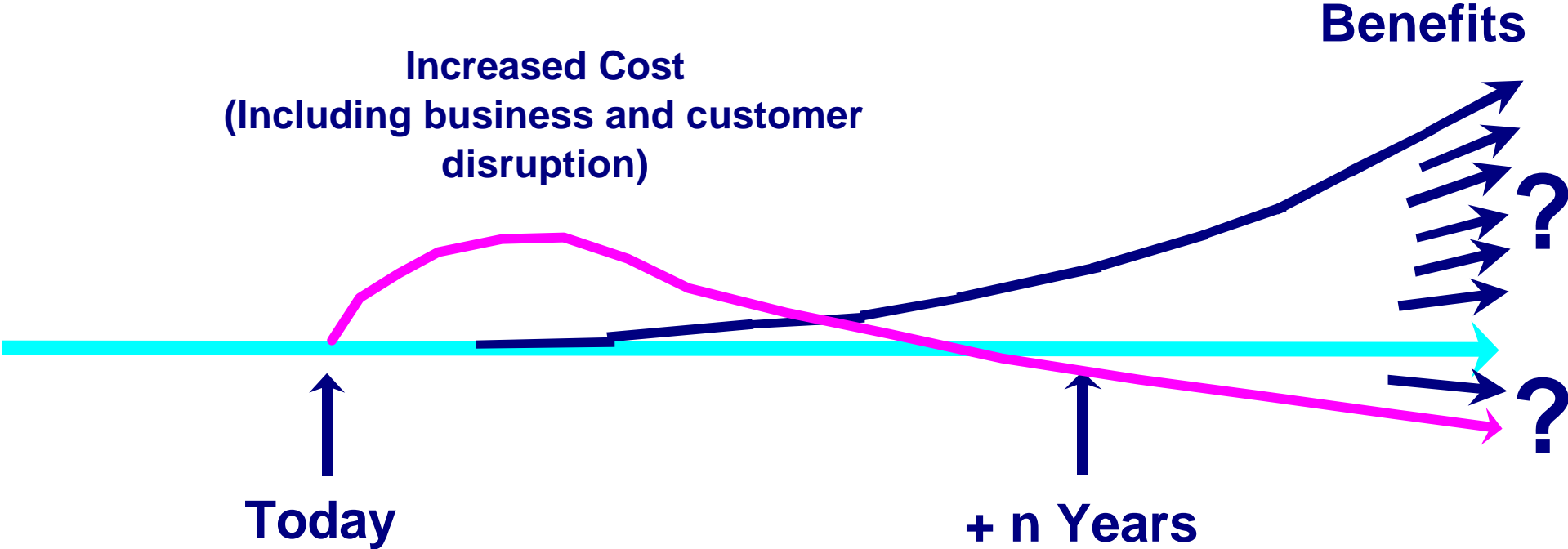
↑  
1975  
Colman Mockler Appointed  
CEO

↑  
1986  
Hostile takeover thwarted

↑  
1991  
Mockler retires

↑  
1996  
End Study

# Value delivery is NOT guaranteed



# The essence of strategy



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**The essence of strategy is integration - the ability to see in a complex holistic way**

# What is strategy?



- 
1. The essence of why an organization exists and how it thrives
  2. Vital context to I.T.
  3. I.T. failure is primarily a failure of corporate strategic capability

# Historical Differentiators



- 60's Production
- 70's Sales
- 80's Finance
- The 90's and 2000's
  - Excess supply
  - Single division cannot solve
  - A boom is unlikely!!
- Strategic Issues are Vital

*Implies a Holistic, Integrated Business Approach  
Including Effective I.T.*

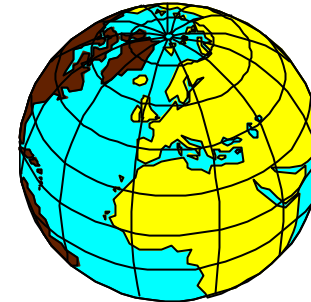
**ERP enables HUGE complexity!**



# The critical differentiators?



- **Market Focused Strategy**
- **Utilization of the Human Resource**
- **Effective Management Decision Making**



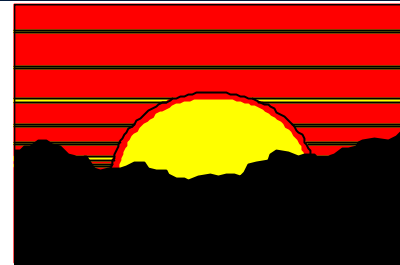
**Requires Information To Make The Right Decisions**

**World Competitiveness Report; McDonald & Others**

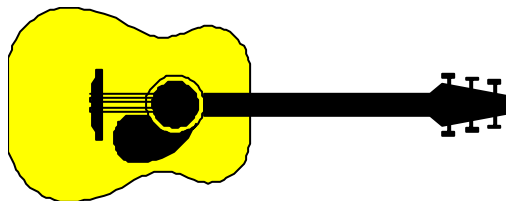
# Value



1. Experienced / defined by people
2. Intuitive / gut feel
3. Transaction = exchange of value between recipient and provider
4. NOT money / cash / finance  
Money = medium of exchange / proxy / surrogate for value



Mercedes-Benz



**= MEANS OF MEASUREMENT**

therefore easy to measure



# Economic value



1. **Money is medium of exchange**
  - Convert value into money to finance I.T. investment
2. **Economic value is essential component of value proposition**
  - Derived from other sources of value
3. **The business must use I.T. as a means to create economic value to finance the I.T. investment**

**Find ways to measure the value that REALLY generates money**



**Value is determined by the person using  
the technology NOT by the technology**



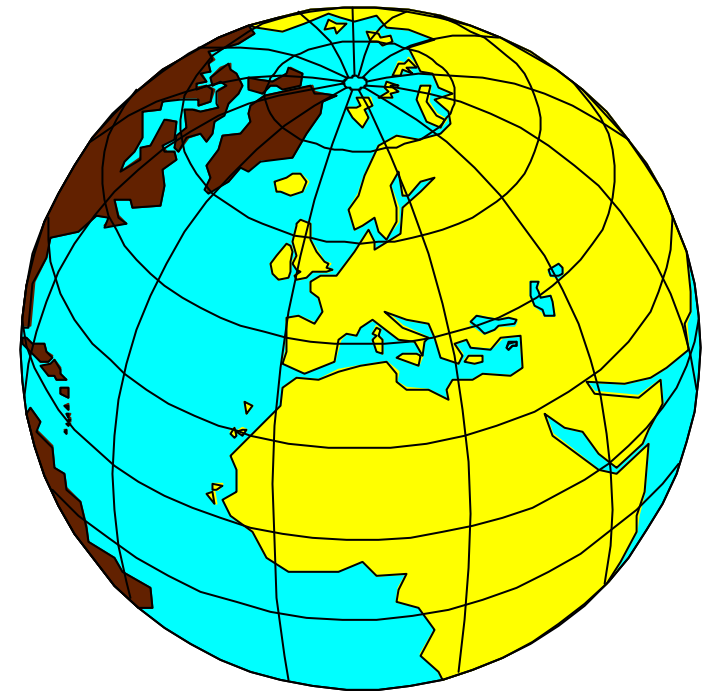
# The core objective is differentiation



The I.T. challenge:

*Getting the right information, to the right people,  
at the right time and in the right place  
in order to make the right decision!*

A major requirement for business information  
systems



# So -- What IS strategy?



1. Strategic constants

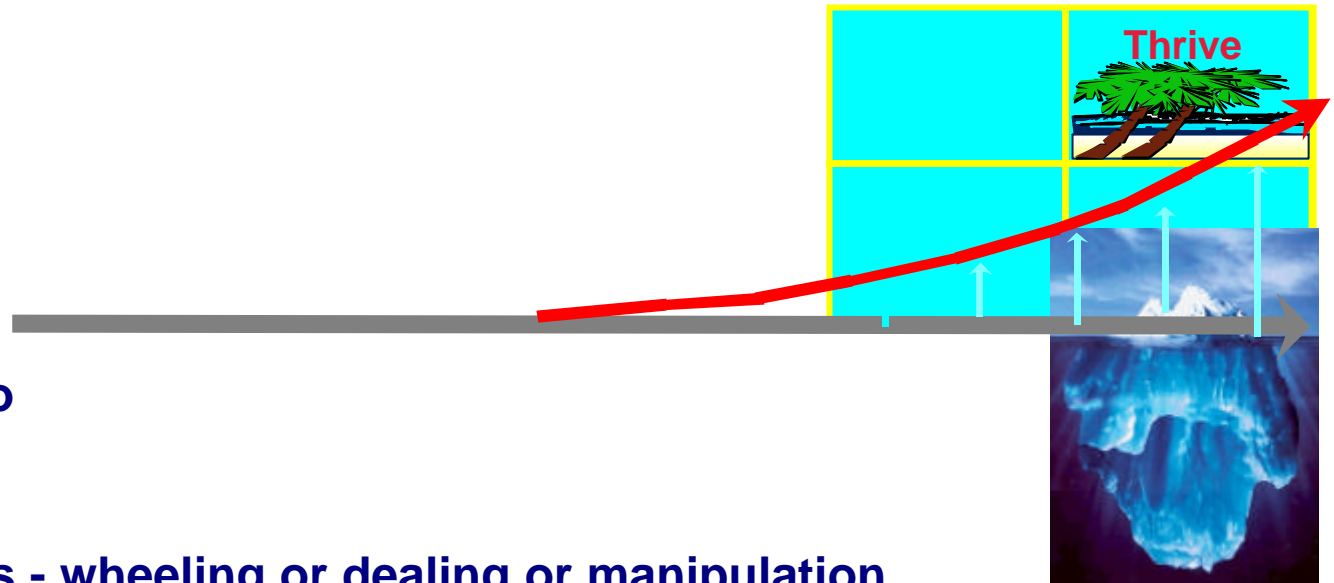
2. Strategic variables

3. Strategic Plan

4. What we will NOT do

5. NOT

- NOT Strategems - wheeling or dealing or manipulation
- NOT a way of doing things or a method or a way of running projects or operating a business
- Should NOT change every year
- NOT three days at a conference venue once a year



Core strategy is constant (Porter, Robert)

# So -- What IS strategy?



- 
6. **Multifaceted, complex, abstract, holistic**
  7. **Cognitive processes to define, describe and translate into action**
    - **Essence of the market forces**
      - **how business interacts with market to succeed**
      - **how plans to interact in the future**
    - **Impacts every facet of the organisation**

**Every organisation has markets, whether they pay for products with money or with votes or something else**

# Essential components of strategy



1. Core economic driver
2. Core human resource driver
3. Core market differentiator / value proposition / sales or marketing method
4. Core customer / market / user
5. Core asset / product / natural resource / size / growth
6. Core technology / capability / know-how / distribution
7. Essential reason the organisation exists (generally NOT profit)
8. Core values / Other

Compare:  
Pick 'n Pay  
Edgars  
Woolworths

Identify the critical factors using relative weight contribution to corporate value creation



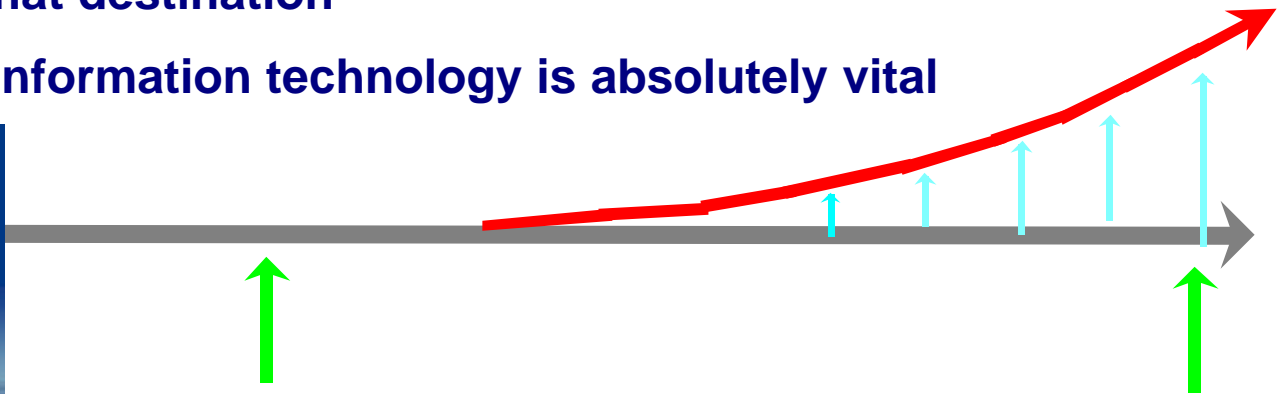
# Strategic Alignment



1. If you don't know where you are going, any road will get you there!
2. Strategic alignment is about defining where the business wants to go and then aligning all activities to support the business to reach that destination



Strategic alignment of information technology is absolutely vital



# **On what basis does one assess whether there is a high value outcome?**

---



- 1. Comprehensive data engineering**
  - 2. Appropriate fully integrated systems at data level**
  - 3. High system operational efficiency and precision**
  - 4. Strategic alignment of all operational systems**
  - 5. Integrated, holistic business operations**
  - 6. Comprehensive management information with full drill-down**
  - 7. Comprehensive strategic analysis and decision support capability**
-

# On what basis does one assess whether there is a high value outcome?



1. Comprehensive data engineering (4%)
2. Appropriate fully integrated systems at data level (1%)
3. High system operational efficiency and precision (2%)
4. Strategic alignment of all operational systems (5%)
5. Integrated, holistic business operations (3%)
6. Comprehensive management information with full drill-down (6%)
7. Comprehensive strategic analysis and decision support capability (79%)

1 to 6 are necessary in order to achieve 7 = World Class

## **Context and definitions -- conclusion**



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**These factors are essential to understanding the business context of I.T. in order for I.T. investments to succeed**

## Questions?



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**Please remember to complete the  
evaluation forms**

*Finding the missing pieces of your I.T. and strategy puzzles*