

### **Stuart Macgregor**

The Open Group EA Forum Johannesburg and Cape Town 27 & 28 August 2014

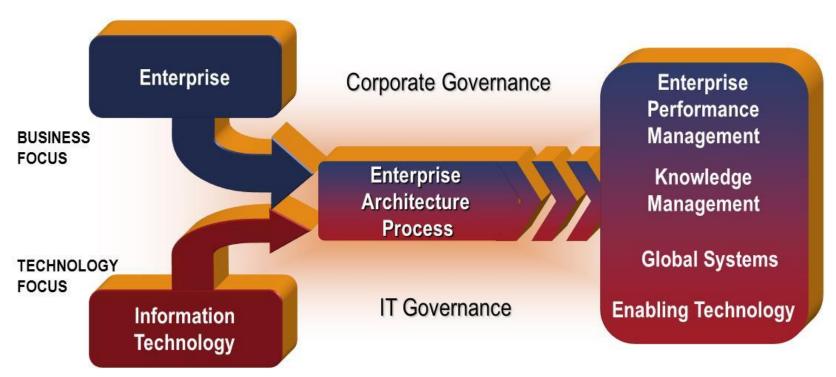


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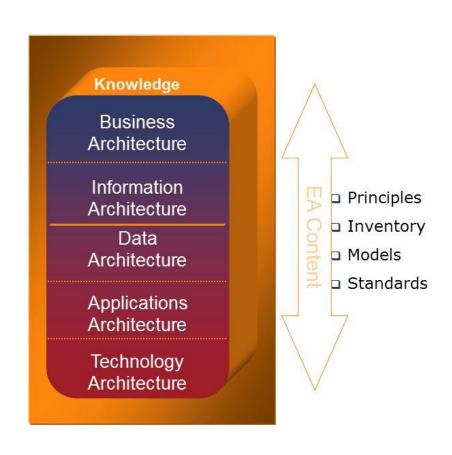
#### **Enterprise Architecture is a Strategic Imperative**

Enterprise Architecture is required to transform a legacy of fragmented applications, organisational structures and processes (both manual and automated) into an integrated environment with optimised processes that are responsive to change and the delivery of the business strategy.

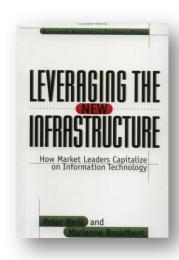


### **Enterprise Architecture Domains**

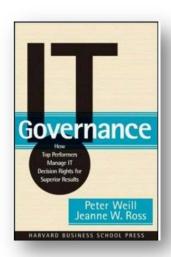
- Consists of current and future state models
- Is implemented through the Enterprise:
  - Business Architecture,
  - Information Architecture,
  - Data Architecture,
  - Applications portfolio, and
  - Enterprise-wide technical architecture
- Provides organizations with the ability to conduct impact assessments, analyze alternative scenarios and implement appropriate strategies
- (Re-)Defines the business design for sustainable competitive advantage



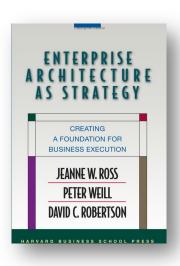
#### **Roads leading to Enterprise Architecture**







June 2004



August 2006

"In 1995 we started our study of enterprise architecture – we just did not know it. At the time we thought we were studying information technology infrastructure transformations. In 1998 we thought we were studying enterprise system implementations. In 2000 it was e-business. But sometime in 2000, we recognized that each of these studies examined basically the same thing: **Enterprise Architecture**"

#### The Governance Regime

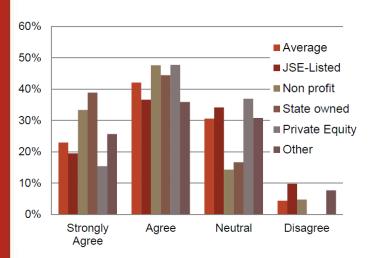
The King III Report is based on an "apply or explain" basis. This enables companies to operate for the purposes for which they were intended, without being bound to follow standards which are, by

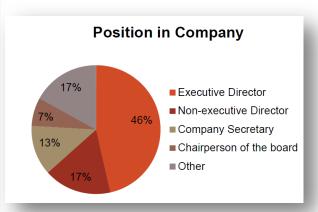
nature, inflexible.

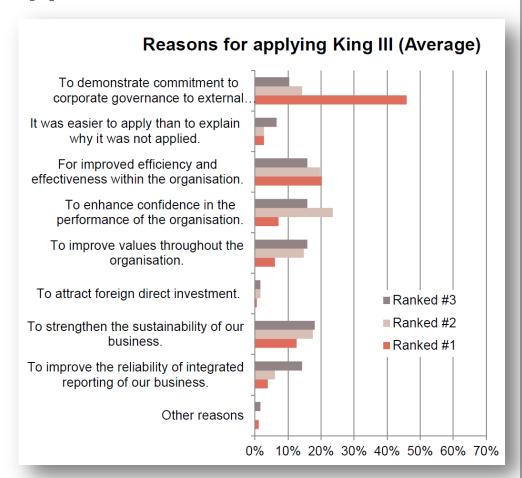


- In the USA, the Sarbanes-Oxley Act was on a "comply or else" basis. This forced all companies to comply and made no provision for extraordinary circumstances.
  - It is estimated that the implementation of the provisions of the Sarbanes-Oxley Act has cost the USA, US\$264 billion since 2002.

### King III added value to the organisation that outweighs the costs and effort of application

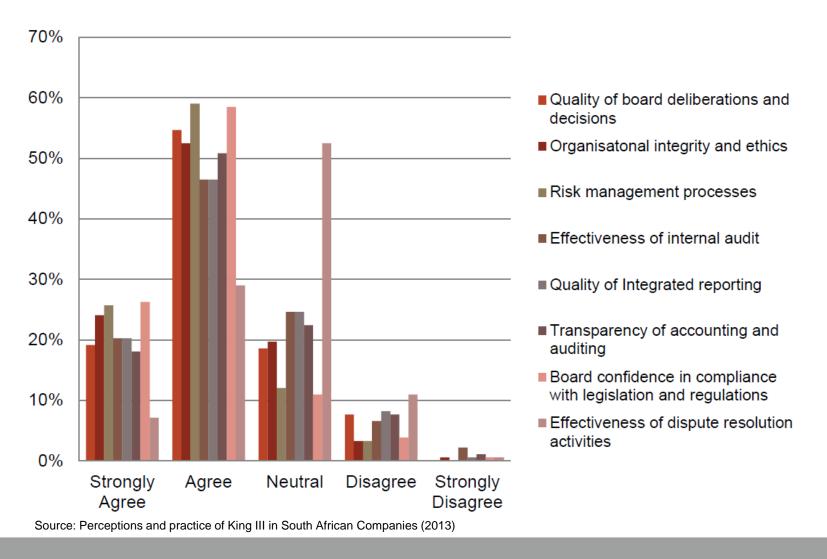




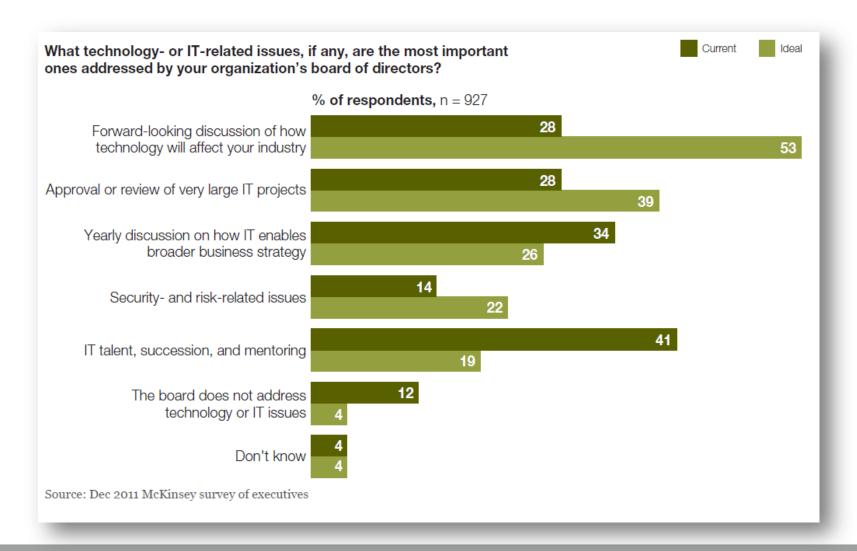


Source: Perceptions and practice of King III in South African Companies (2013)

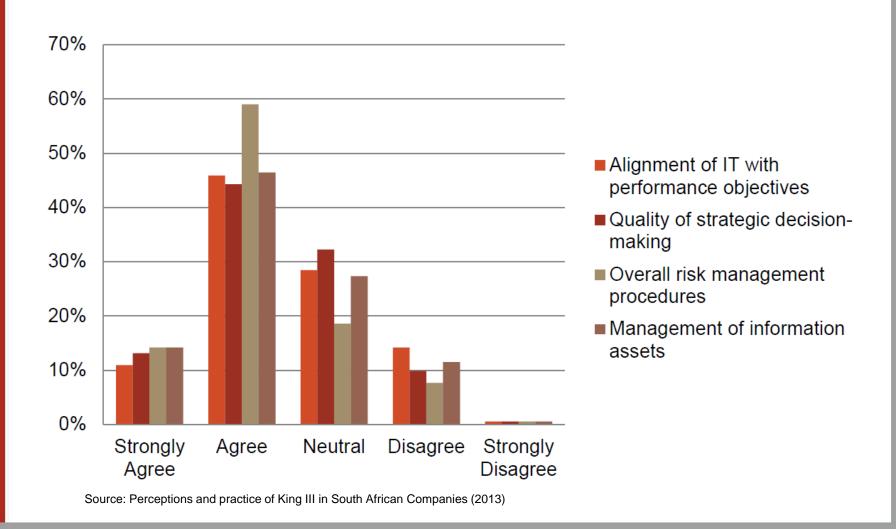
#### Improvements through application of King III



#### McKinsey: Board priorities appear to be misaligned



#### King III Survey: Improvement through IT governance



### **Business Value**

Effective IT governance is the single most important predictor of the value an organization generates from IT...

Top-performing enterprises generate returns on their IT investments up to 40% greater than their competitors.

- > They clarify business strategies and the role of IT in achieving them.
- > They measure and manage the amount spent on and the value received from IT.
- They assign accountability for the organizational changes required to benefit from new IT capabilities
- > They learn from each implementation, becoming more adept at sharing and reusing IT assets.

...but there is no single model of good corporate governance

Peter Weill and Jeanne W. Ross, IT Governance: How Top Performers Manage IT Decision Rights for Superior Results, Harvard Business School Press, 2004

# King III Report on Governance for South Africa 2009

#### Principle 5.4: The board should monitor and evaluate significant IT investments and expenditure

The company should ensure that it acquires and uses the appropriate technology, processes and people to support its business and governance requirements in a timely manner and accurately.

The level of investment in IT is significant and continues to increase and few companies would survive without appropriate IT. While there are many examples of companies generating value from investing in IT, many executives are questioning whether the business value is in proportion to the level of investment.

The board should oversee the proper value delivery of IT and should ensure that the expected return on investment from significant IT investments and projects is delivered and that the information and intellectual property contained in the information systems are protected. This can be achieved by:

Clarifying business strategies and objectives and the role of IT in achieving them;

Measuring and managing the amount spent on the value received from IT;

Assigning accountability for organisational changes required to benefit IT capabilities; and

Learning from each implementation and becoming more adept at sharing and re-using IT assets.

Good governance principles should apply to all parties in the supply chain or channel for the acquisition and disposal of IT goods or services. This applies equally to a division within a company, subsidiary or a third party.

Where the responsibility for the provision of IT goods or services has been delegated to another party (or division), all parties (including the board) remain accountable for enforcing and monitoring effective IT governance

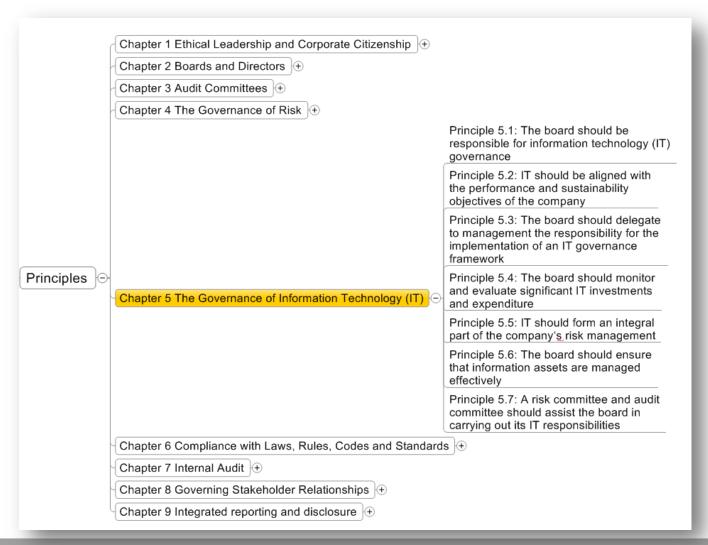
The company should obtain independent assurance on the IT governance and controls supporting outsourced IT services. This assurance should be aligned to the company's normal assurance activities under the auspices of the audit committee.

IT management should ensure that all the basic elements of appropriate project management principles are applied to all IT projects. Effective review processes by independent experts are recommended.





#### **King III - Principles**



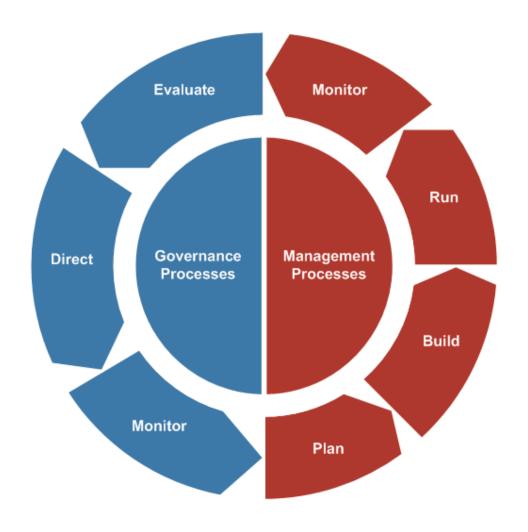
The Institute of Directors in South Africa owns the copyright in King III

#### COBIT® 5 is...



- A governance and management framework for information and related technology that starts from stakeholder needs with regard to information and technology.
- Intended for all enterprises, including non-profit and public sector.
- Designed to allow enterprises to achieve their governance and management objectives, i.e., to create optimal value from information and technology by maintaining a balance amongst realising benefits, managing risk and balancing resources.

### **Governance and Management Processes**

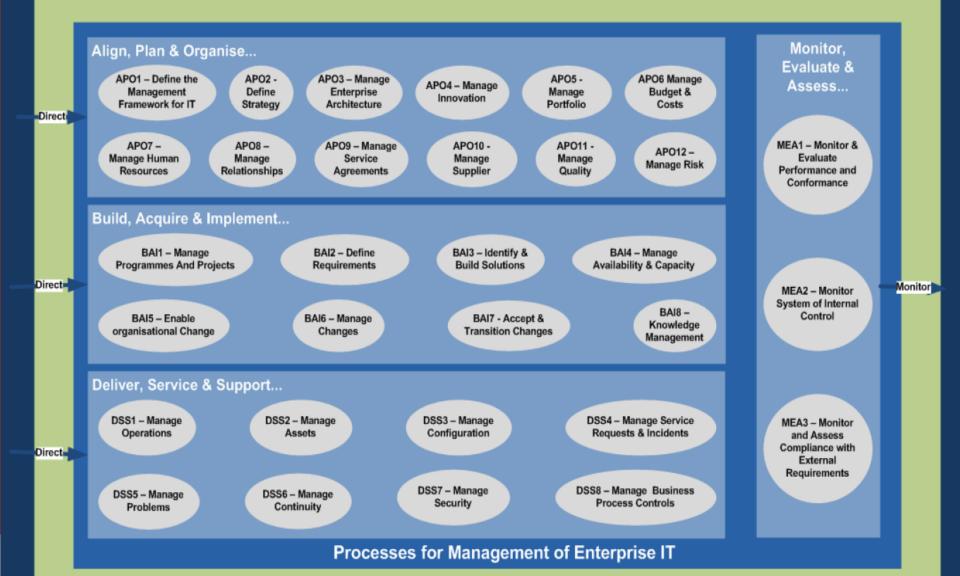




#### Evalute, Direct & Monitor

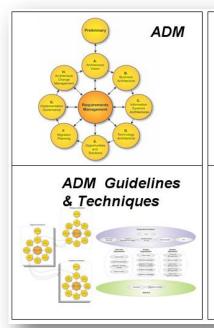
#### Processes for Governance of Enterprise IT

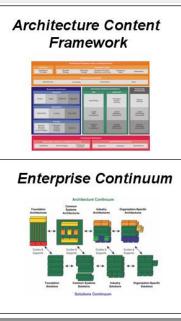
EDM1 – Set and Maintain the Governance Framework EDM2 – Ensure Value Optimisation EDM3 – Ensure Risk Optimisation EDM4 – Ensure Resource Optimisation EDM5 – Ensure Stakeholder Transparency

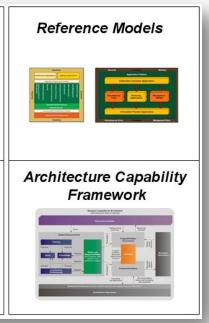


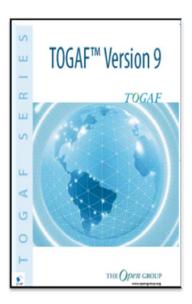
#### The Open Group Architecture Framework

TOGAF® is an architecture framework developed by The Open Group to provide the methods and tools for assisting in the acceptance, production, use and maintenance of an enterprise architecture.

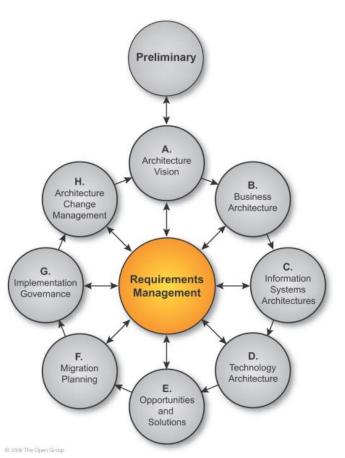


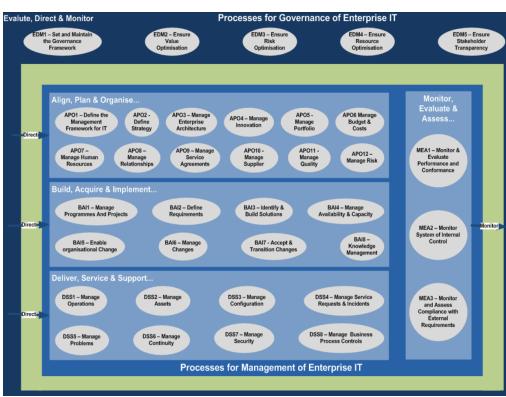




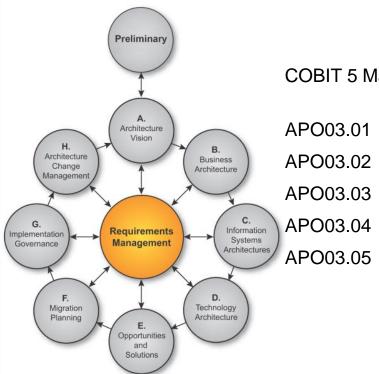


#### **Mapping COBIT 5 to TOGAF 9**





#### **Mapping COBIT 5 to TOGAF 9**



**COBIT 5 Management Practice** 

Develop the enterprise architecture vision

Define reference architecture

Select opportunities and solutions

Define architecture implementation

Provide enterprise architecture services

**TOGAF** 

H, Prelim. + A

B, C, D

Е

F

G+

Requirements

Assigning Clear Accountability...

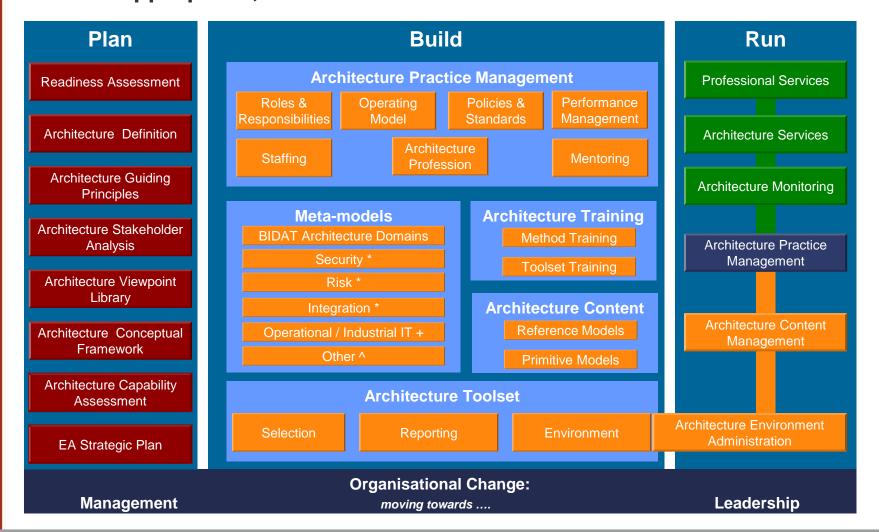
### **APO03 – Manage Enterprise Architecture - RACI**

| APO03 RACI Chart                                     |       |                         |                         |                         |                     |                         |                              |  |                           |                         |                    |                                    |                    |                           |                      |            |       |                           |                |                  |                    |                        |                 |                              |                             |                 |
|--|-------|-------------------------|-------------------------|-------------------------|---------------------|-------------------------|------------------------------|--|---------------------------|-------------------------|--------------------|------------------------------------|--------------------|---------------------------|----------------------|------------|-------|---------------------------|----------------|------------------|--------------------|------------------------|-----------------|------------------------------|-----------------------------|-----------------|
| Key Management Practice                              | Board | Chief Executive Officer | Chief Financial Officer | Chief Operating Officer | Business Executives | Business Process Owners | Strategy Executive Committee | Steering (Programmes/Projects) Committee | Project Management Office | Value Management Office | Chief Risk Officer | Chief Information Security Officer | Architecture Board | Enterprise Risk Committee | Head Human Resources | Compliance | Audit | Chief Information Officer | Head Architect | Head Development | Head IT Operations | Head IT Administration | Service Manager | Information Security Manager | Business Continuity Manager | Privacy Officer |
| APO03.01 Develop the enterprise architecture vision. |       | Α                       | С                       | С                       | R                   | С                       | R                            |  |                           |                         |                    | С                                  | R                  | С                         | С                    | С          | С     | R                         | R              | С                | С                  | С                      |                 | С                            |                             |                 |
| AP003.02 Define reference architecture.              |       | С                       | С                       | С                       | R                   | С                       | R                            |  |                           |                         |                    | С                                  | Α                  | С                         | С                    | С          | С     | R                         | R              | С                | С                  | С                      |                 | С                            |                             |                 |
| AP003.03 Select opportunities and solutions.         |       | Α                       | С                       | С                       | R                   | С                       | R                            |  |                           |                         |                    | С                                  | R                  | С                         | С                    | С          | С     | R                         | R              | С                | С                  | С                      |                 | С                            |                             |                 |
| AP003.04 Define architecture implementation.         |       | Α                       | С                       | R                       | С                   | С                       | R                            |  |                           |                         |                    | С                                  | R                  | С                         | С                    | С          | С     | R                         | R              | С                | С                  | С                      |                 | С                            |                             |                 |
| AP003.05 Provide enterprise architecture services.   |       | Α                       | С                       | R                       | С                   | С                       | R                            |  |                           |                         |                    | С                                  | R                  | С                         | С                    | С          | С     | R                         | R              | С                | С                  | С                      |                 | С                            |                             |                 |

# Boards appear to progress through a hierarchy of practices, with high-impact boards often employing more rigorous practices.

| Example: Stra   | tegy practices                                   | Low-<br>impact<br>boards | Moderate-<br>impact<br>boards  | High-<br>impact<br>boards |  |
|-----------------|--|--------------------------|--|---------------------------|--|
| Rigorous        | Reducing decision biases                         | <u> </u>                 | 0  | <u> </u>                  | Professional Services                    |
|                 | Evaluating resource reallocation                 | 0                        | 0  | •                         | Architecture Services                    |
|                 | Assessing value drivers                          | 0                        | 0  |                           | APO03.05                                 |
|                 | Debating strategic alternatives                  | 0                        | <u> </u>   | •                         | Provide enterprise architecture services |
|                 | Assessing portfolio synergies                    | 0                        | $\circ$  |                           |  |
|                 | Adjusting strategy, based on changing conditions | 0                        | •  | •                         |  |
|                 | Assessing whether strategy stays ahead of trends | 0                        | •  | •                         |  |
|                 | Engaging on innovation                           | •                        | •  | •                         |  |
|                 | Assessing portfolio diversification              | •                        | •  | •                         |  |
| Source: April 2 | 2013 McKinsey Survey of 772 directors on boar    |                          | <ul> <li>Practiced by majority</li> <li>Practiced by minority</li> <li>Biggest aspiration</li> </ul> |                           |  |

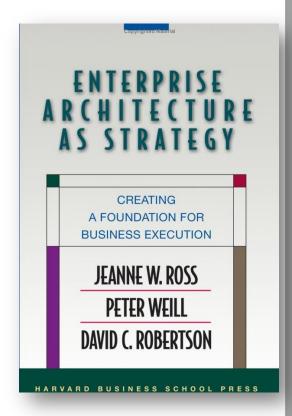
## Delivering Enterprise Architecture Services requires an EA Practice...that is business appropriate, sustainable and run *like* a business



#### **Enterprise Architecture as Competitive Advantage**

"Top-performing companies define how they will do business (an operating model) and design the processes and infrastructure critical to their current and future operations (*enterprise architecture*), which guide the evolution of their foundation for execution.

Then these smart companies exploit their foundation, embedding new initiatives to make that foundation stronger, and using it as a competitive weapon to seize new business opportunities. And what makes this capability a competitive advantage is that only a small percentage of companies do it well - we estimate 5 percent of firms or less"



August 2006

#### InfoWorld/Forrester Enterprise Architecture Awards

- Cisco: Leveraging business architecture for corporate agility
   "This EA practice has delivered tangible results that are well embedded into a large business in a highly scalable and repeatable manner."
- MasterCard: Business-centric enterprise architecture "They are an excellent example of an EA program that helps organizations find common ground for decisions and action through shared models, which become integrated into strategy and implementation."
- National Bank of Abu Dhabi: Building a global business roadmap 'EA established credibility in strategic planning, and was moved into the office of the CEO reporting to the Transformation Management Office.' This is the holy grail of enterprise architecture!"
- Yum Brands: Using innovation to focus on customers
- National Grid:

"The team's enterprise capability model has changed the way business and IT staff communicate, a key foundation for improving resource allocation and process performance."

#### Take-away

- King III added value outweighs the costs and effort of application
- A synergistic approach will further increase value and reduce cost
  - Corporate Governance
  - Enterprise Architecture Capability
  - IT Governance
- Enterprise Architecture is the linchpin between Corporate and IT Governance that could in itself become a source of competitive advantage
- This necessitates moving from "Enterprise Architecture for IT" to real Enterprise Architecture
- Organisational change management...to...change leadership is key!
- In essence, the management of intellectual capital / content (principles, models, inventory and standards) in support of Strategy, Governance, Risk & Compliance and Innovation.
- Facilitated by running the EA Practice like a business

#### References

- Perceptions and practice of King III in South African Companies
  - Compiled by Cloete Jansen van Vuuren & Jess Schulschenk March 2013
  - A joint publication of the Institute of Directors in Southern Africa and the Albert Luthuli Centre for Responsible Leadership, University of Pretoria
- IoDSA Institute of Directors in Southern Africa King III
- ISACA COBIT® 5
- The Open Group TOGAF® 9
- McKinsey Numerous papers
- Enterprise Architecture Case Studies
  - 2012 InfoWorld/Forrester Enterprise Architecture Awards
  - 2013 InfoWorld/Forrester Enterprise Architecture Awards
  - Nissan Group Uses Enterprise Architecture to Weather Perfect Storm

### **Contact Details**

Stuart Macgregor is the CEO of Real IRM and The Open Group - South Africa. Through his personal achievements, he has gained the reputation of an Enterprise Architecture and IT Governance specialist, both in South Africa and internationally. He is openly obsessed with Enterprise Architecture with a definite business bias.

Stuart is a member of John Zachman's advisory committee. He has participated in the development of both COBIT® and TOGAF® over a number of years. As the lead researcher, Stuart assisted the IT Governance Institute map COBIT to TOGAF® which was published by ISACA and The Open Group. In the role of lead consultant, he has assisted numerous organisations establish their Enterprise Architecture practices and has also used COBIT to develop IT Governance frameworks for NYSE Top 100 companies. Stuart participated in the COBIT 5 development workshops held in London and Washington.



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