

EA Top Down Approach

Richard Williams – formerly MOE TISSL now
NZPOST Enterprise Architect

Mark Carroll – Architect Advisor for Microsoft

TISSL Overview

- Tertiary Information Systems and Sector Liaison (TISSL);
- A business unit within the Ministry of Education so approach had to reference the wider Ministry of Education Enterprise architecture guidelines (in progress);
- Responsible for the interface with tertiary education providers and other govt agencies in areas concerned with stewardship of information within an overall tertiary information system approach. This includes:
 - co-ordinating the information needs of government's tertiary education agencies,
 - overview of integrated information systems,
 - managing the ways in which data is returned from tertiary providers to the Ministry, and making this data accessible to both internal and external clients.

Business Drivers

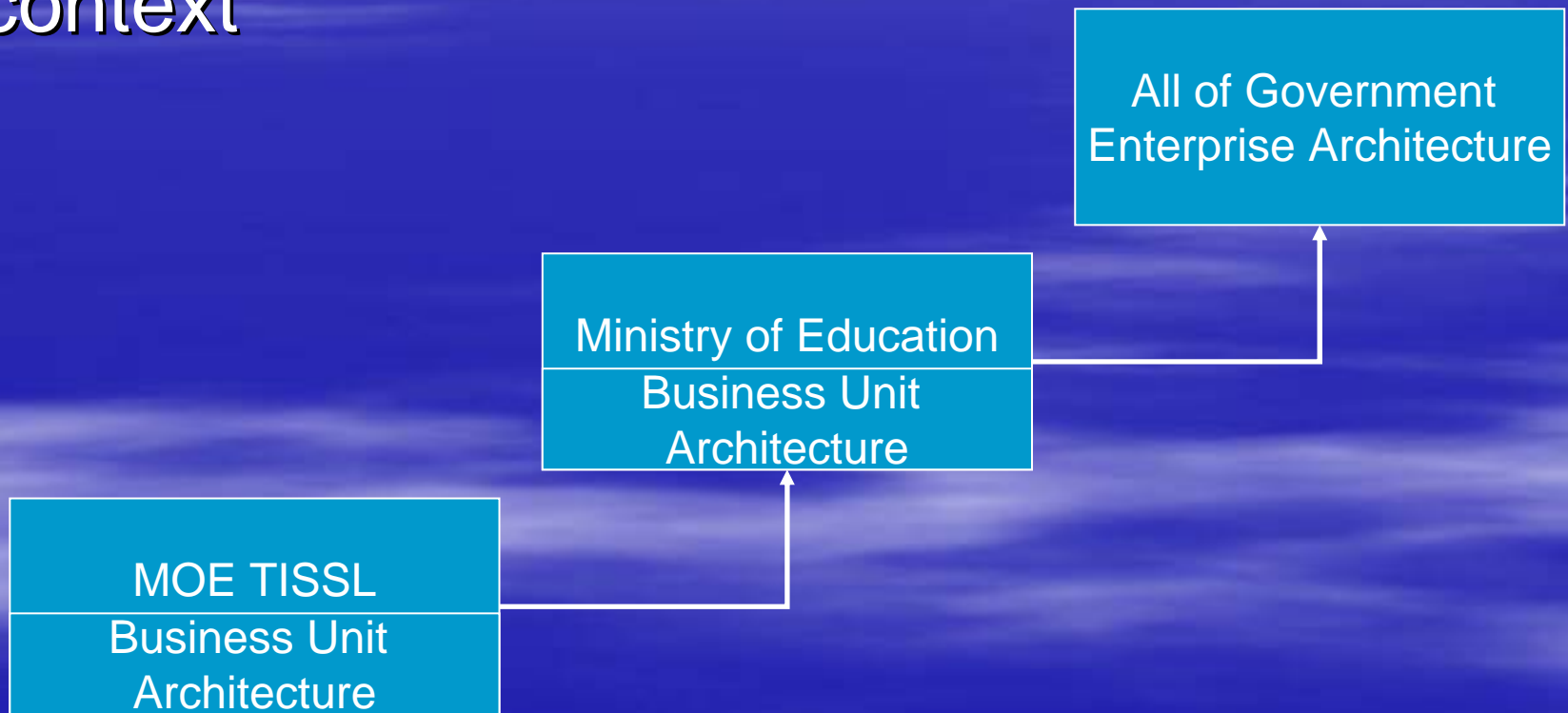
- In June of 2004 a team of 4 people were charged by the MOE TISSL business unit owner with the task of creating a 'communicative' first steps business unit architecture for TISSL. The key goals were;
 - Establish the basis of business unit architecture for the organisation;
 - Capture the existing architectural artefacts and place them in a structure that provided context and preserved their content;
 - Use an approach that had been proven elsewhere;
 - The approach had to be useful for employees with limited understanding of architecture

Team members

- Richard Williams – MOE TISSL now NZ POST
- Mark Carroll – Microsoft
- Mike O'Connor – MOE TISSL
- Greg Gonzalez – MOE ISG now MSD

Scalability & Autonomy Issues

- The term Enterprise Architecture is in a context



Effort & Achievement

- Approach chosen was EA Top down – a quick path to communicating Enterprise architecture proven by the Australian Bureau of Statistics (ABS);
- Business processes were mapped to IT functions to explain how IT met the demands of the business;
- The approach was tested and modified to meet the key Business Driver of Informing and educating a variety of business unit stakeholders who knew nothing about architecture;
- Effort: The team were active on a part-time basis (1 day per week) for approximately 12 weeks;
- Results:
 - ➔ the business owner was happy with outputs, for him they encapsulated many of the key IT Delivery and Business architecture elements which had only been vaguely defined before hand;
 - ➔ Third party service providers and staff all commented on the usefulness and time savings that could be achieved by using the outputs
 - ➔ Presented to and accepted by the Tertiary managers group of the Ministry of Education;
- Question How could this be ? Enterprise architecture is a major task isn't it – well yes and no and no as we will explain.

Business Unit Focus

- Business Unit Architecture – What is our business and how do we use IT to meet our business needs?
- IT is more than just using systems and building applications.
 - We have applications that work, what value does architecture provide?
- What is architecture?
 - Setting standards, mitigating risk and working within a framework.
 - Structured, consistent way to “do IT”.
- **Making sure that IT meets Business needs**

What we did – Business Architectures

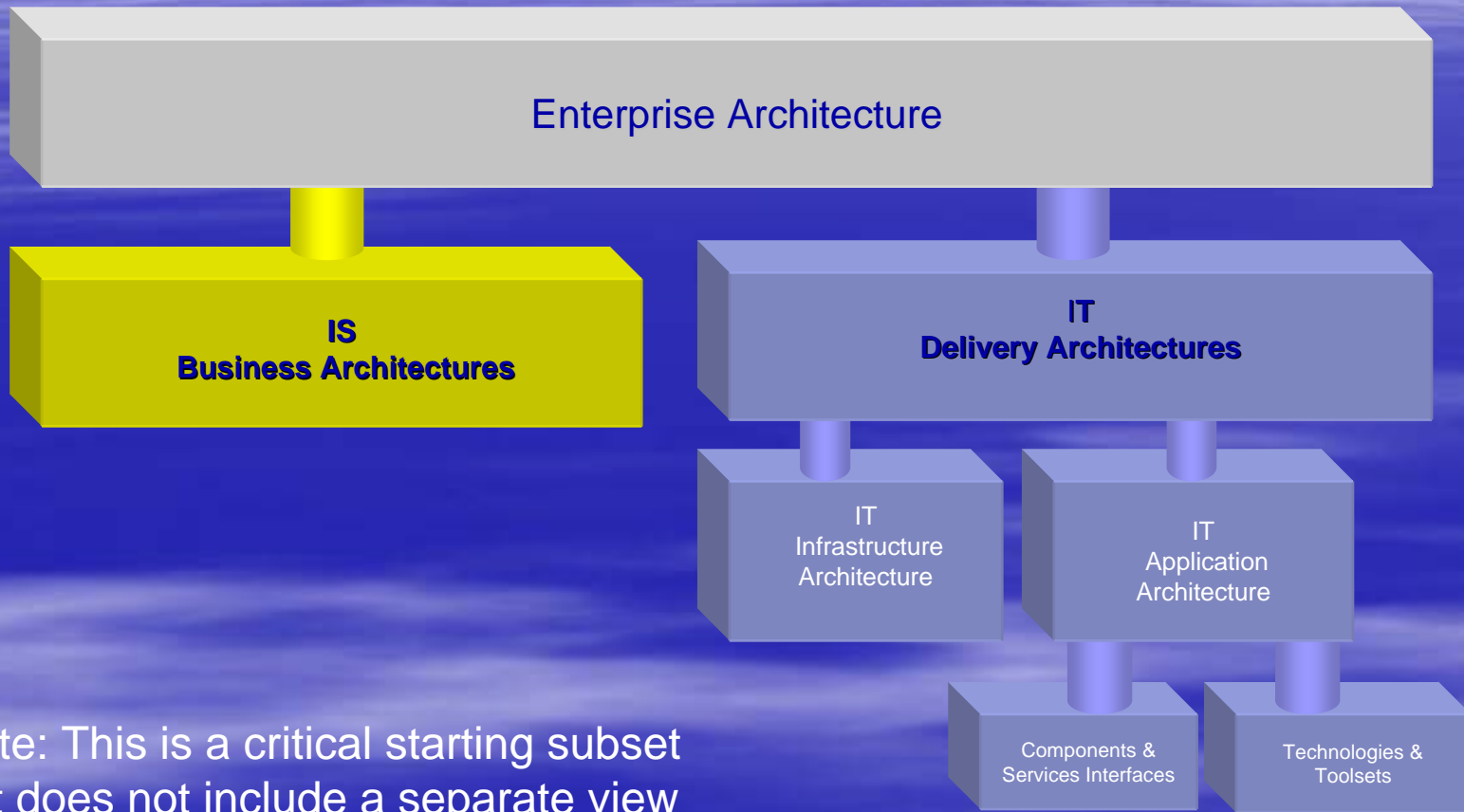
- Interviews
- Who are your customers – both internal and external
- Capability mapping – what are systems doing to meet customer needs
- Focus on Information flows

IT Delivery Architecture

There are five components to the IT Delivery Architecture using this approach:

- Infrastructure Architecture
- Application Architecture
- Data Architecture
- Security Architecture
- IT Governance

Context within Enterprise architecture



Note: This is a critical starting subset but does not include a separate view of Data, Governance or Security architectures which may be highly desirable depending on organisation requirements.

High Level Business Drivers

- In Strategic terms that can be linked in business drivers I like Michael Porter's criteria for IT Value determination;
 - Keep Competitors out
 - Keep Customers loyal
 - Better Value (Change the Revenue to profit equation)
 - Keep supply costs in check
 - Widen product/service offerings

Enterprise Architecture

High Level Business Drivers

- In Strategic terms that can be linked to business drivers I like Michael Porter's criteria for IT Value determination;
 - Keep Competitors out
 - Keep Customers loyal
 - Better Value (Change the Revenue to profit equation)
 - Keep supply costs in check
 - Widen product/service offerings

Enterprise Architecture

IS
Business Architectures

IT
Delivery Architectures

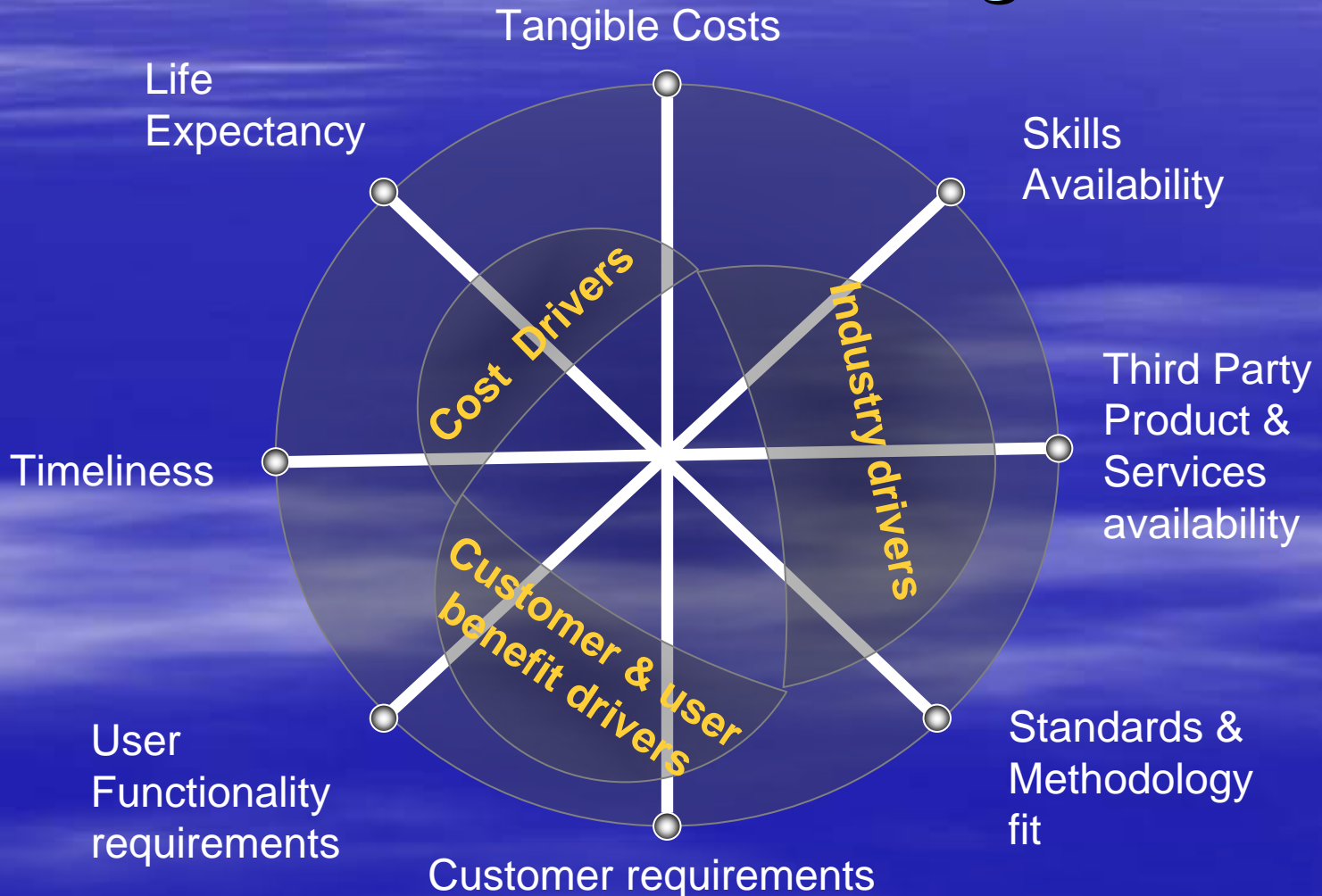
IT
Infrastructure
Architecture

IT
Application
Architecture

Components &
Services
Interfaces

Technologies &
Toolsets

Key Tactical level drivers for technology and related architecture decision making



Enterprise Architecture

High Level Business Drivers

- In Strategic terms that can be linked to business drivers I like Michael Porter's criteria for IT Value determination;
 - Keep Competitors out
 - Keep Customers loyal
 - Better Value (Change the Revenue to profit equation)
 - Keep supply costs in check
 - Widen product/service offerings

Enterprise Architecture

IS
Business Architectures

IT
Delivery Architectures

IT
Infrastructure
Architecture

IT
Application Architecture

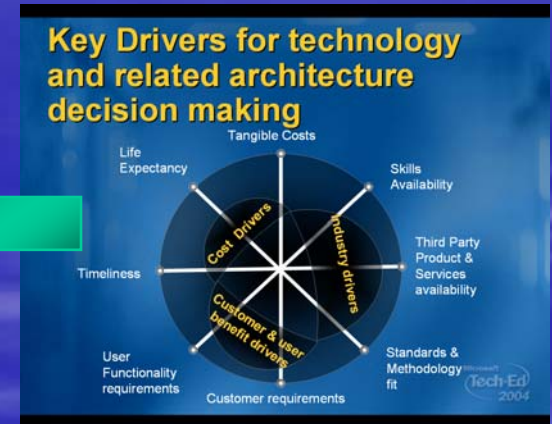
Components &
Services
Interfaces

Technologies &
Toolsets



Process in context

- The Application life cycle

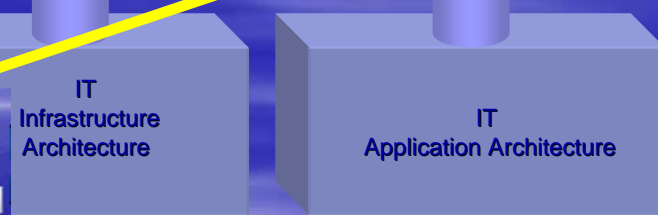
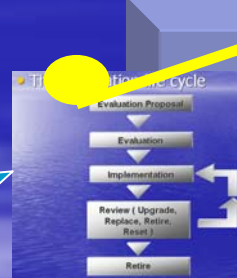


Enterprise Architecture

High Level Business Drivers

- In Strategic terms that can be linked to business drivers I like Michael Porter's criteria for IT Value determination;
 - Keep Competitors out
 - Keep Customers loyal
 - Better Value (Change the Revenue to profit equation)
 - Keep supply costs in check
 - Widen product/service offerings

Enterprise Architecture



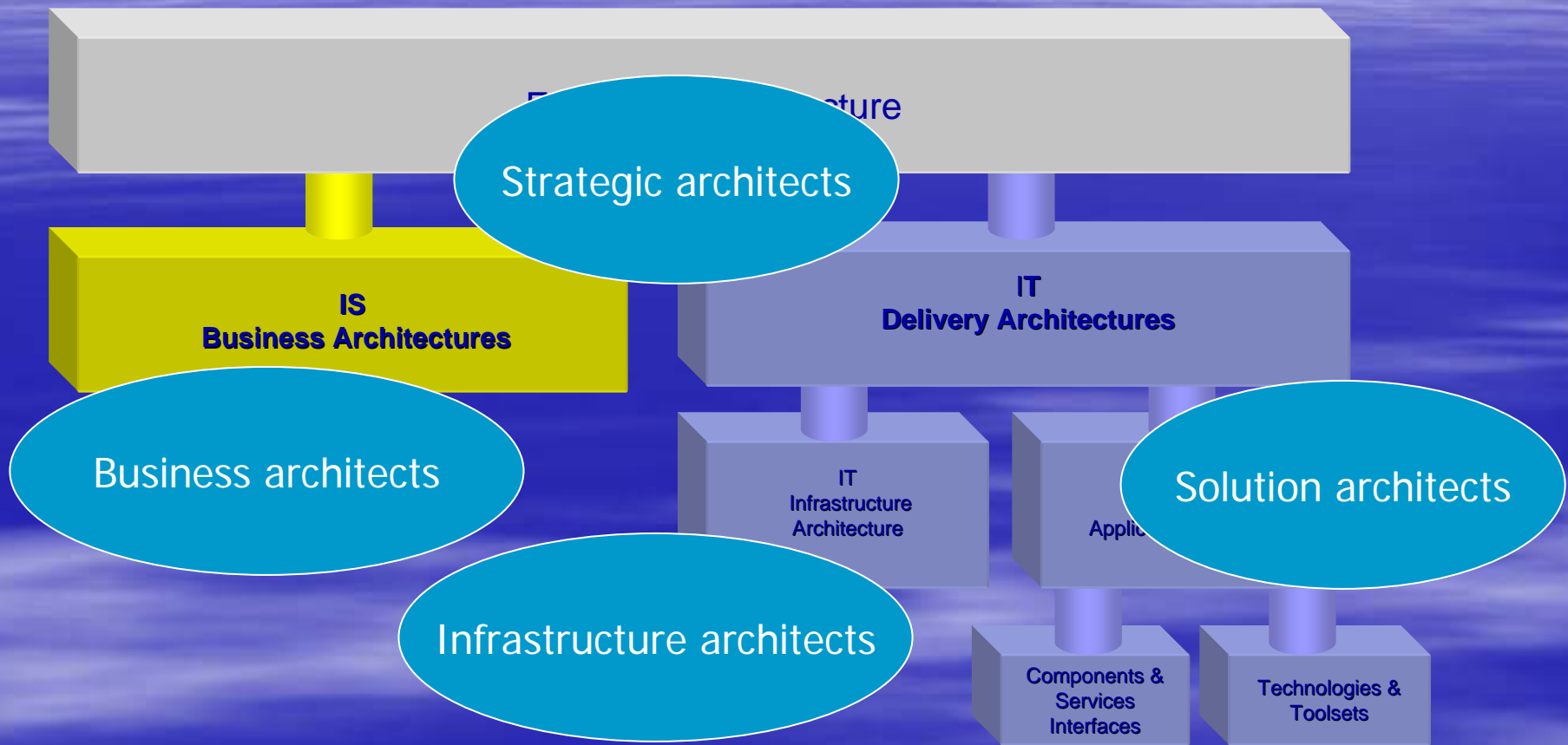
Suppose a second related process is added that uses the same tactical drivers – rather than repeat the drivers we reuse them within the context of the next layer up.

Pre-existing architecture work is not lost – it is linked to the appropriate domain so it can be found, used and developed further.

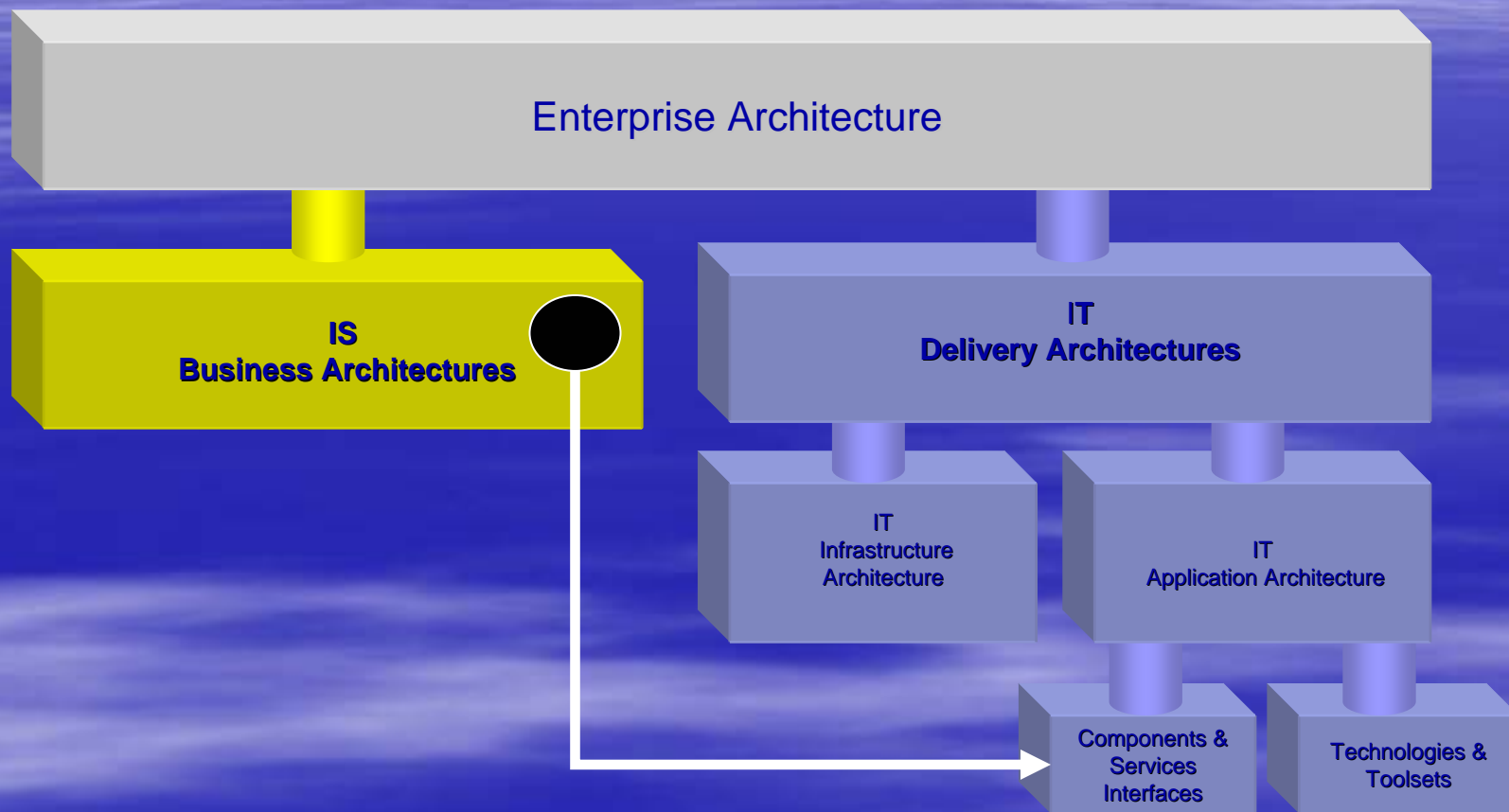
Specialist teams

- Another area of guidance, deploying specialist teams;
- Just as in building where we use different teams with different skills (eg: Plumbers, electricians) one could use specialists in teams for EA as well.

Enterprise Architecture



Getting a view on linkages within the EA – eg: SOA implementation



Conclusions

- Results of the project
 - Happy business owner;
 - Improved understanding by business partners, staff and third party service providers leading to time and cost savings;
 - Reviewed with favourable feedback by other Tertiary Managers at Ministry of Education.

- The way forward
 - Portal technology, possibly share point
 - Process mapping
 - KISS – do not over complicate this approach