

"Viva le architects with revolting thoughts".

WWISA – Wellington  
31 May 2004.

Mark Carroll  
Microsoft New Zealand

# Disclaimer

- ✍ Views and opinions expressed in this presentation do not necessarily reflect those of Microsoft New Zealand or WWISA
- ✍ This presenter has been known to have unusual views in the past.
- ✍ The 'Surgeon General' has determined that revolutionary activities can be hazardous to your health.

# Why is an Enterprise Architecture ?

- ✍ In Simple terms – it is still about Time, Cost & Quality
- ✍ 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
- ✍ Most criteria apply in Public sector - just using different language or 'reversal' the criteria.

# Architecting to Constructing

## Strategic planning quadrant

Architecting

### Strategic Determinants

- Keep Competitors out
- Keep Customers loyal
- Better Value (Change the Revenue to profit equation)
- Keep supply costs in check
- Widen product/service offerings

## Tactical planning quadrant

### Core Technologies

COM, Windows, Lotus, .Net, Web services

### Core approaches

Buy not build.  
Outcome driven

### Core Processes

SDLC  
Project Methodologies  
Change Management

Construction

## Project Quadrant

Business case

Implementation

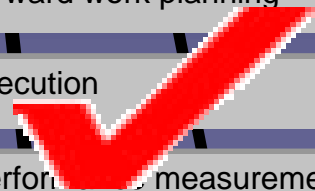
Post Implementation reviews

## Operational quadrant

Forward work planning

Execution

Performance measurement



What is the best construction approach for implementing architectures longer term



[F1]

# What are the key concepts in AA thinking

Three key concepts.....

✍ Tiers - Height, Strata, levels, context

✍ Components - Substance, process

✍ Reuse - Simplicity, efficiency, timeliness

# Mapping AA key thinking to Business Structure for EA

## ✍ AA Thinking

✍ Tiers

✍ UI, Data etc

✍ Components

✍ Objects

✍ Reuse

✍ Libraries, SDKS,  
Frameworks



## ✍ EA Business Thinking

✍ Tiers

✍ Strategic, Tactical,  
Operational

✍ Components

✍ Departments, Divisions,  
Regions, TEAMS

✍ Reuse

✍ Standards, Process  
templates

# Reverse mapping – AA think to EA Business think

✍ Just as IT is evolving to embrace business arguably the reverse is also occurring. This is being driven by the impact of new technologies such as the internet; Teams are the objects of the new organisation. They too are recombinant and modular. To perform any fixed task, they are invariably less efficient than the hard-wired division of labour of the traditional hierarchy. But as the richness/reach trade-off shifts that static inefficiency costs less, and as the pace of competition accelerates, their superior adaptability counts for more.

Evans & Wurster, Blown to Bits, Harvard Business school Press 2000

# AA think affecting the EA Business think – a new trend

✍ If Evans & Wurster are correct then perhaps the Applications approach is not so much a ‘stretching’ rather it is a more contemporary approach; Teams are the objects of the new organisation. They too are recombinant and modular. To perform any fixed task, they are invariably less efficient than the hard-wired division of labour of the traditional hierarchy. But as the richness/reach trade-off shifts that static inefficiency costs less, and as the pace of competition accelerates, their superior adaptability counts for more.

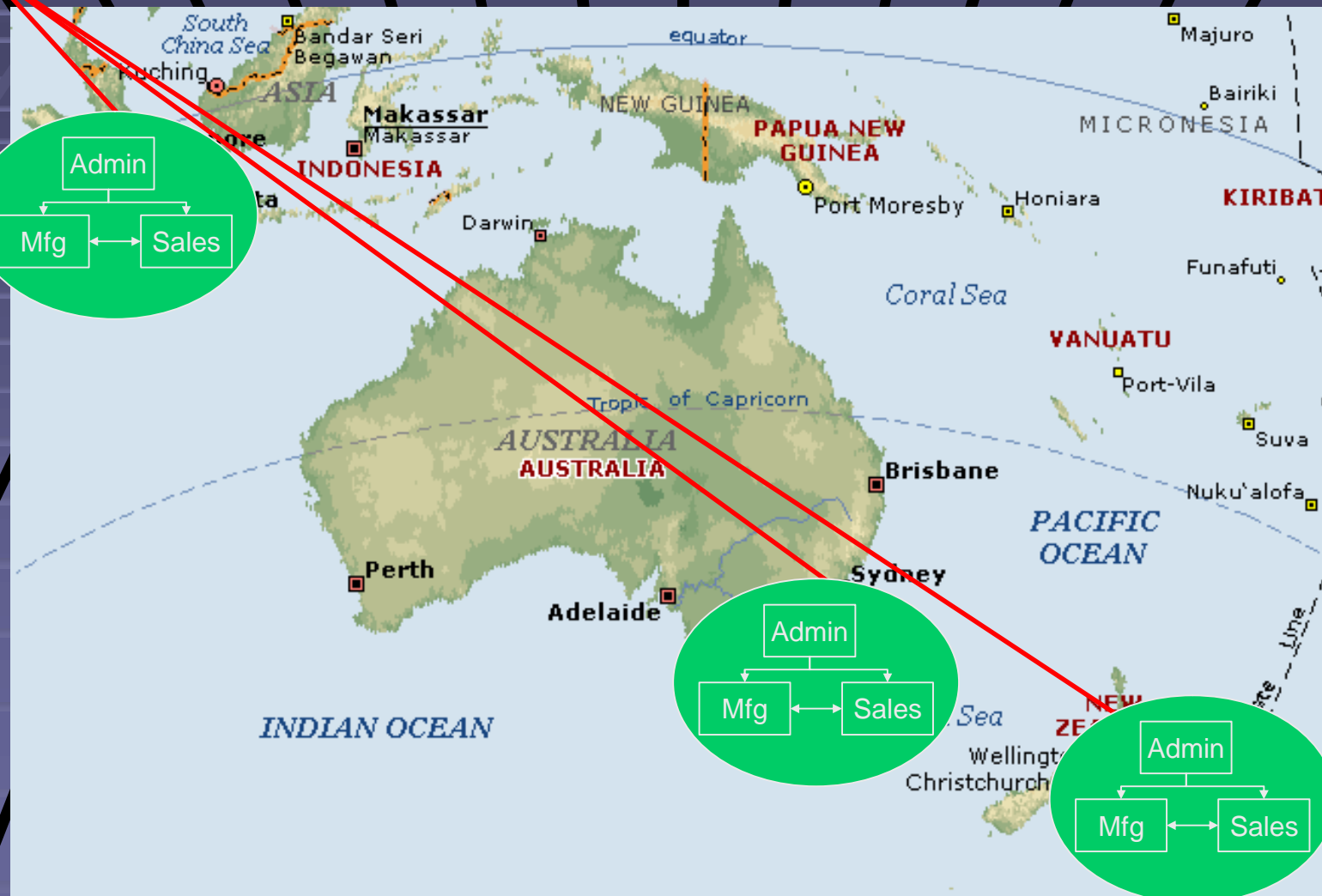
Hard wired division of Labour refers to the principles of specialisation of labour as first introduced by Adam Smith in the late 17<sup>th</sup> century and then adopted by early management thinkers such as Fayol.

Henry Ford implemented this thinking in the assembly line and supervision structures.

# Towards Teams – 1900 to 1980

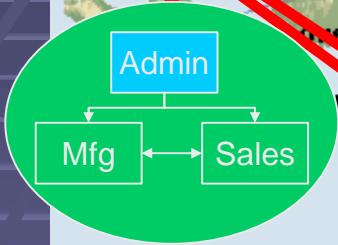


# Towards Teams – 1900 to 1980

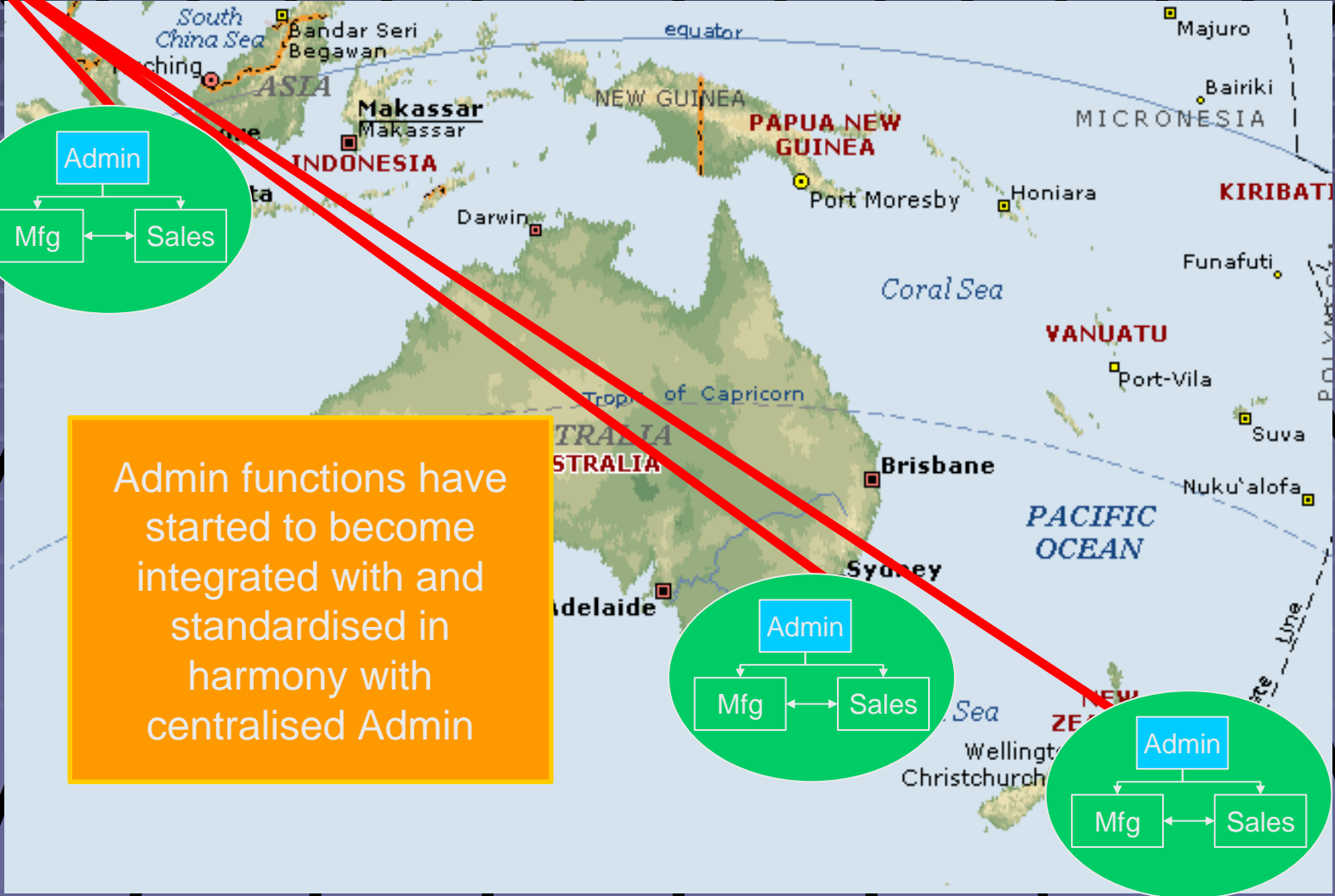
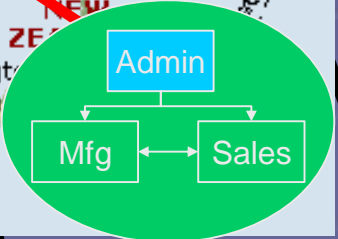
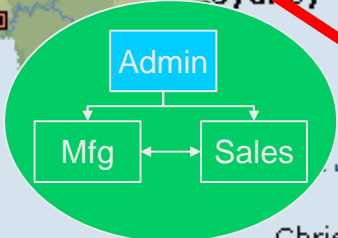


# Towards Teams – 1980 to 1990

Admin

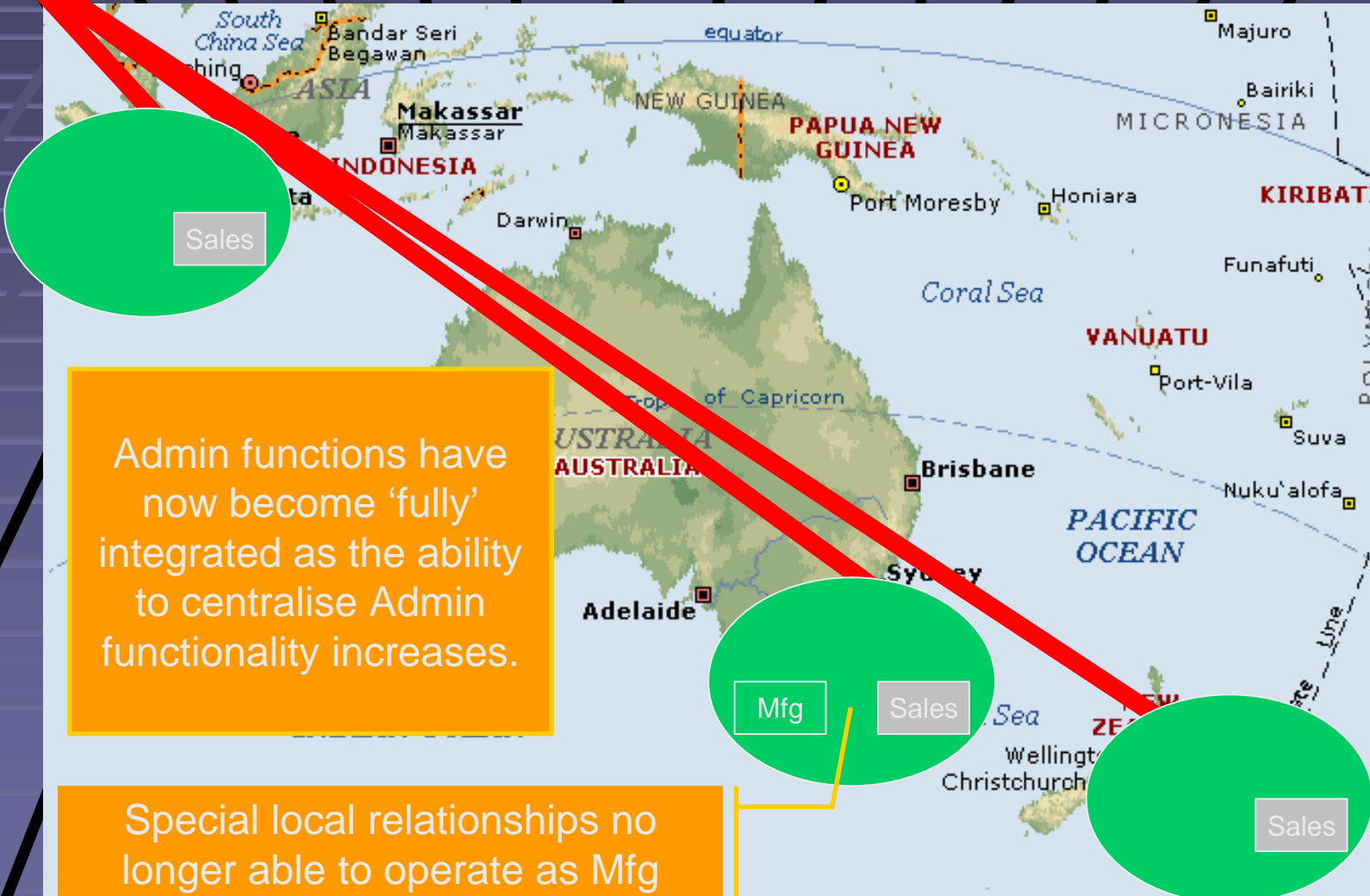


Admin functions have started to become integrated with and standardised in harmony with centralised Admin



# Towards Teams – 1990 to 2000

Admin



Sales

Admin functions have now become 'fully' integrated as the ability to centralise Admin functionality increases.

Special local relationships no longer able to operate as Mfg functions are shared

Mfg

Sales

Sales



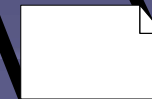
# Teams as the new objects

- ✍ Unless the sales team is working in a truly 'internationalised' market key abilities will need to be added as 'extensions' to the base of the 'Sales Business Process class'.
- ✍ The interactions between the base Sales BPC its surroundings and its local extension will work more efficiently if it is carefully predefined.

Ordering

Reporting

Forecasting



# Teams as the new objects

- ✍ To application architects some of this thinking will seem very familiar – can we think of ‘teams’ made up of processes and people as being a ‘scaled up’ form of OO ?
- ✍ Is the challenge for all Enterprise architects to learn to think in abstractions of the Team (business process class) rather than the specific technologies and approaches as may have been more the case to date ?

Ordering

Reporting

Forecasting



# Call to action

- ✍ See if you can recognise the 'team' pattern forming in your organisation.
- ✍ Help others to understand that Business Process classes are a mix of people (actors), technologies and processes but that they also in many respects follow the basic tenants of OO (eg: encapsulation, defined interfaces)
- ✍ Demonstrate to the Business the link between high level business thinking required today and what has already evolved in Applications architectures.



Questions ?