IBM Innovation 09

Shared Architecture Modelling in a Large Enterprise

Donne Carter,
Solution Architect
National Australia Bank
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Intro

- Presenter - Donne Carter

- IT at NAB for 13 years. Currently Solution Architect

- Working for Tech Service Hub

- In 2007 we had;

  - Complex Architecture

  - High investment spend

  - Low reuse

  - Disparate repositories

  - Multiple diagramming tools

  - No diagramming standard

  - High reliance on SMEs

- Enter, the Shared Architecture Model…

Agenda – Shared Architecture Model

- What is it?
- What has NAB achieved?
- Benefits
- Future Aspirations
- Tips for success

What is it?

Domains

Systems

Projects

Metadata Repository

Diagrams

Documents
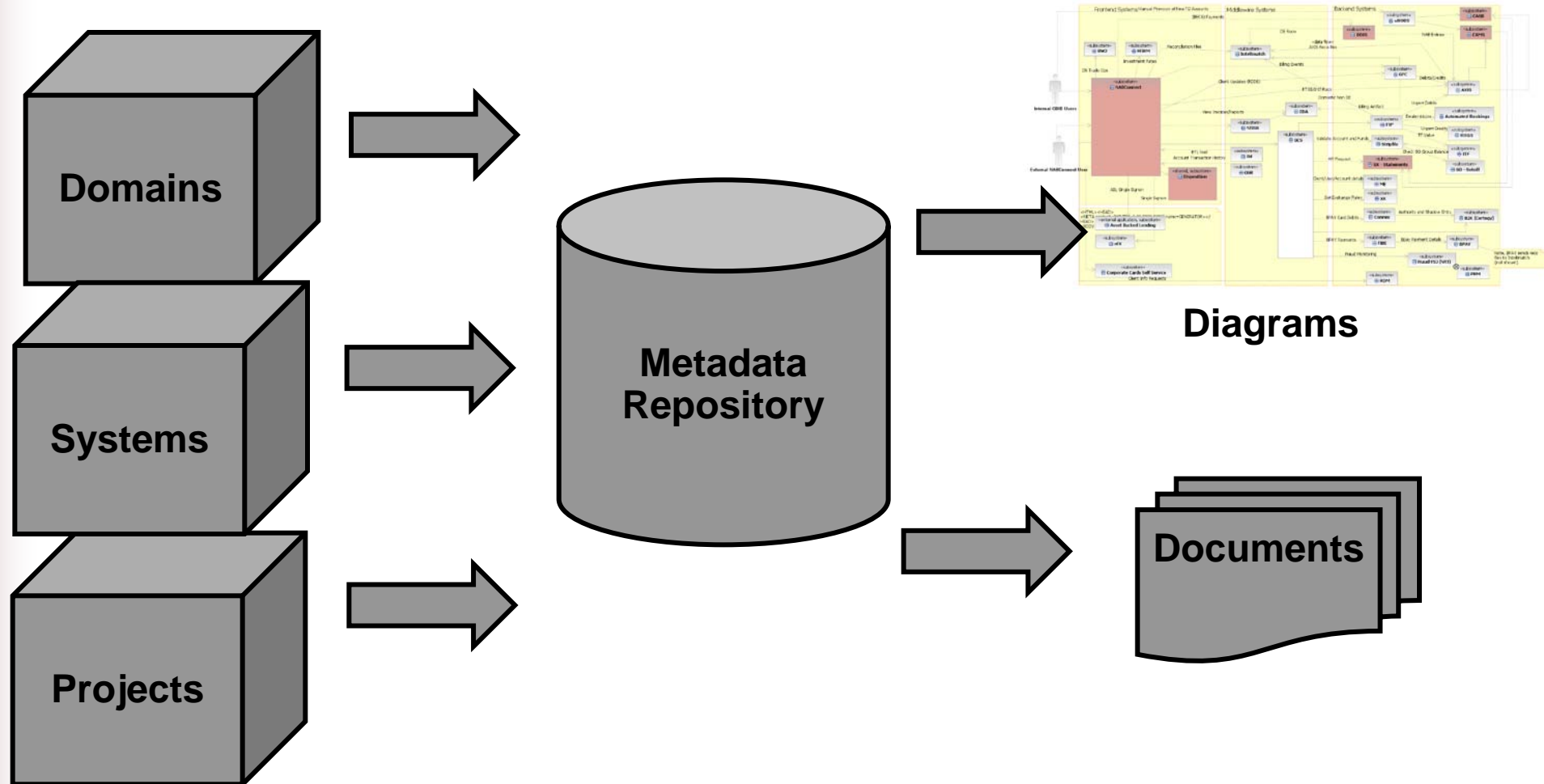
What is it (cont)
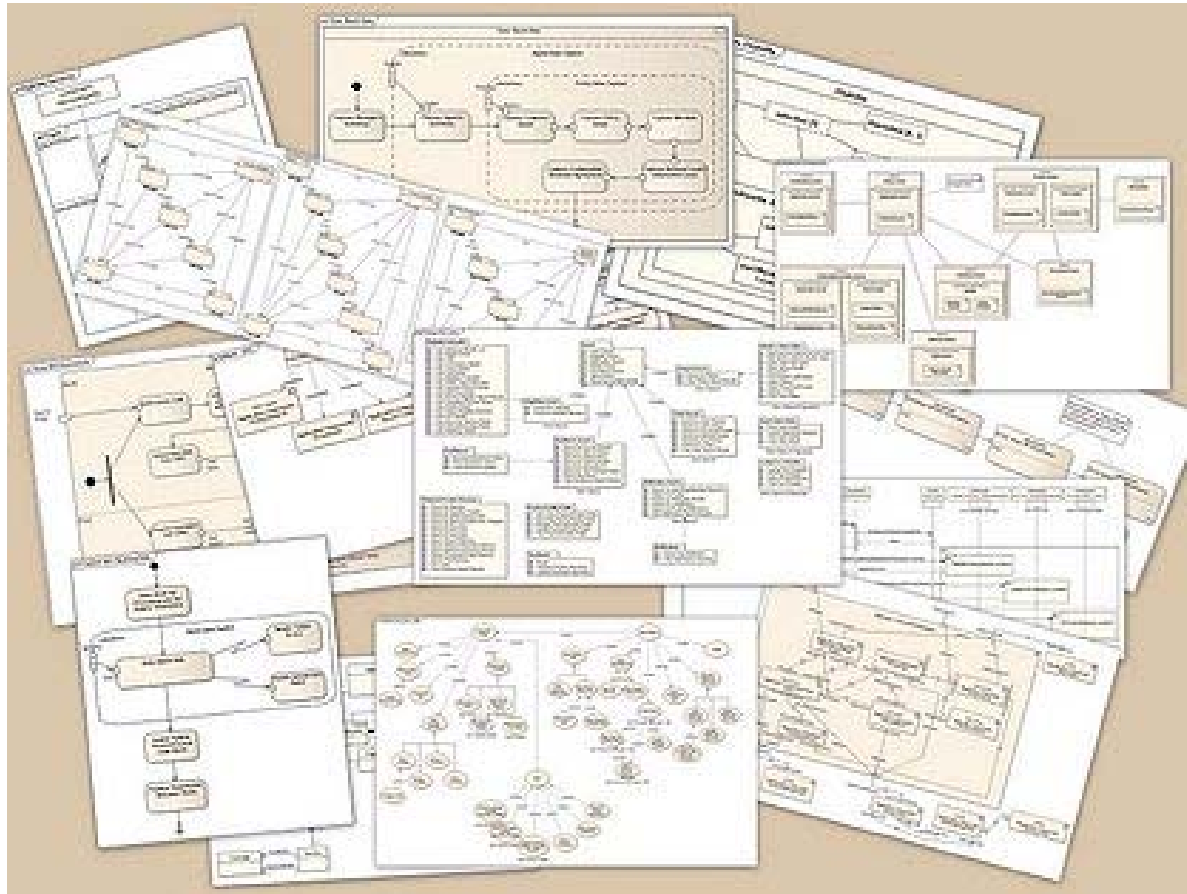
- Shared & Central
- Enterprise Wide
- Has levels of abstraction

What is it (cont)

- UML – Unified Modelling Language

A collage of UML diagrams from Wikipedia
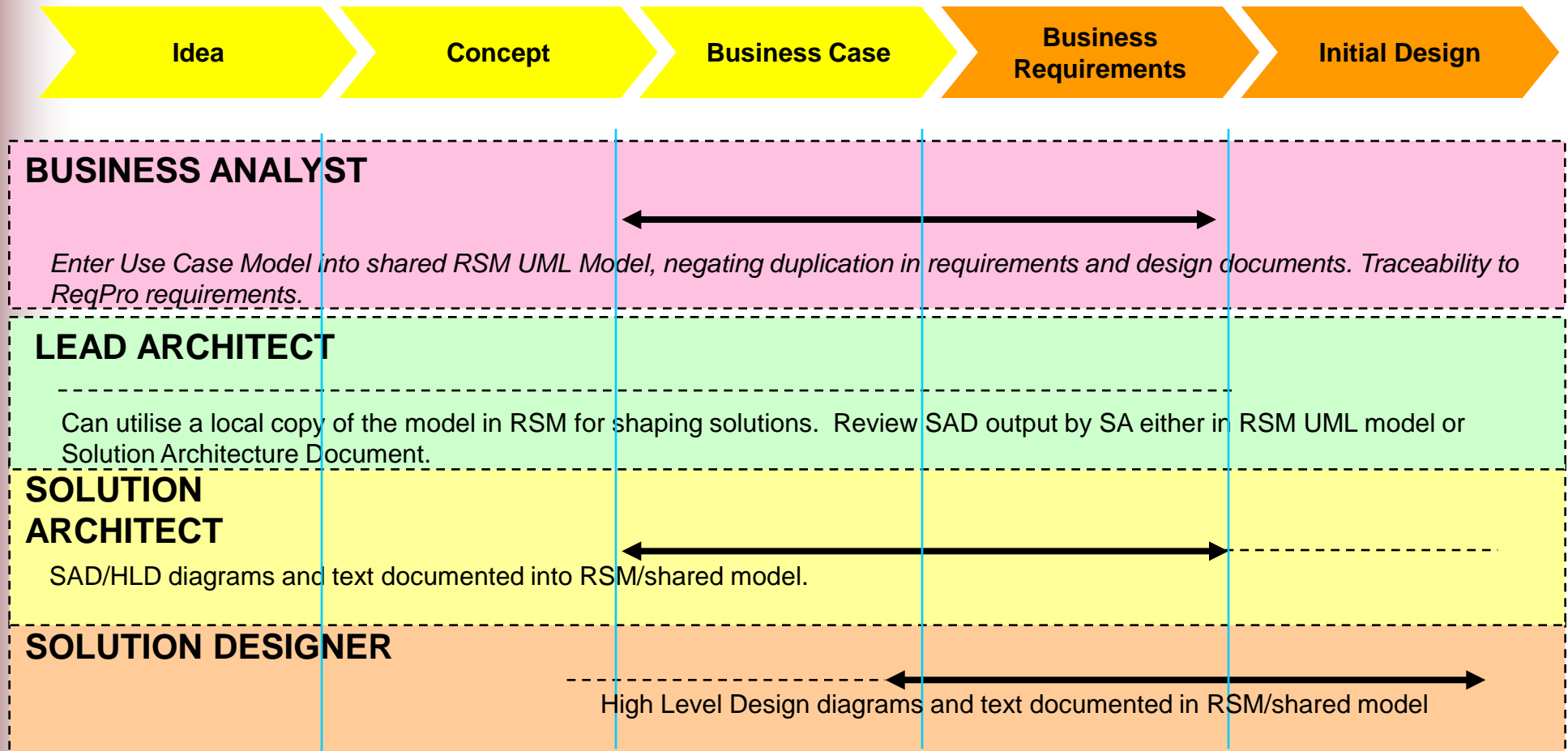
What is it (cont)

- Using RSM – IBM Rational Software Modeller
- UCM – Unified Change Management
- IBM Rational Clearcase

What is it (cont)

## Who updates the shared model?

Idea	Concept	Business Case	Business Requirements	Initial Design

BUSINESS ANALYST

Enter Use Case Model into shared RSM UML Model, negating duplication in requirements and design documents. Traceability to ReqPro requirements.

LEAD ARCHITECT

Can utilise a local copy of the model in RSM for shaping solutions. Review SAD output by SA either in RSM UML model or Solution Architecture Document.

SOLUTION ARCHITECT

SAD/HLD diagrams and text documented into RSM/shared model.

SOLUTION DESIGNER

High Level Design diagrams and text documented in RSM/shared model

What is it (cont)

- What is in the model?

    - 20 + Projects

    - 50 + Component Models

    - 289 Systems at domain level:

External, 19

NABCapital, 83

TSH, 160

NextGen, 14

Tops, 13
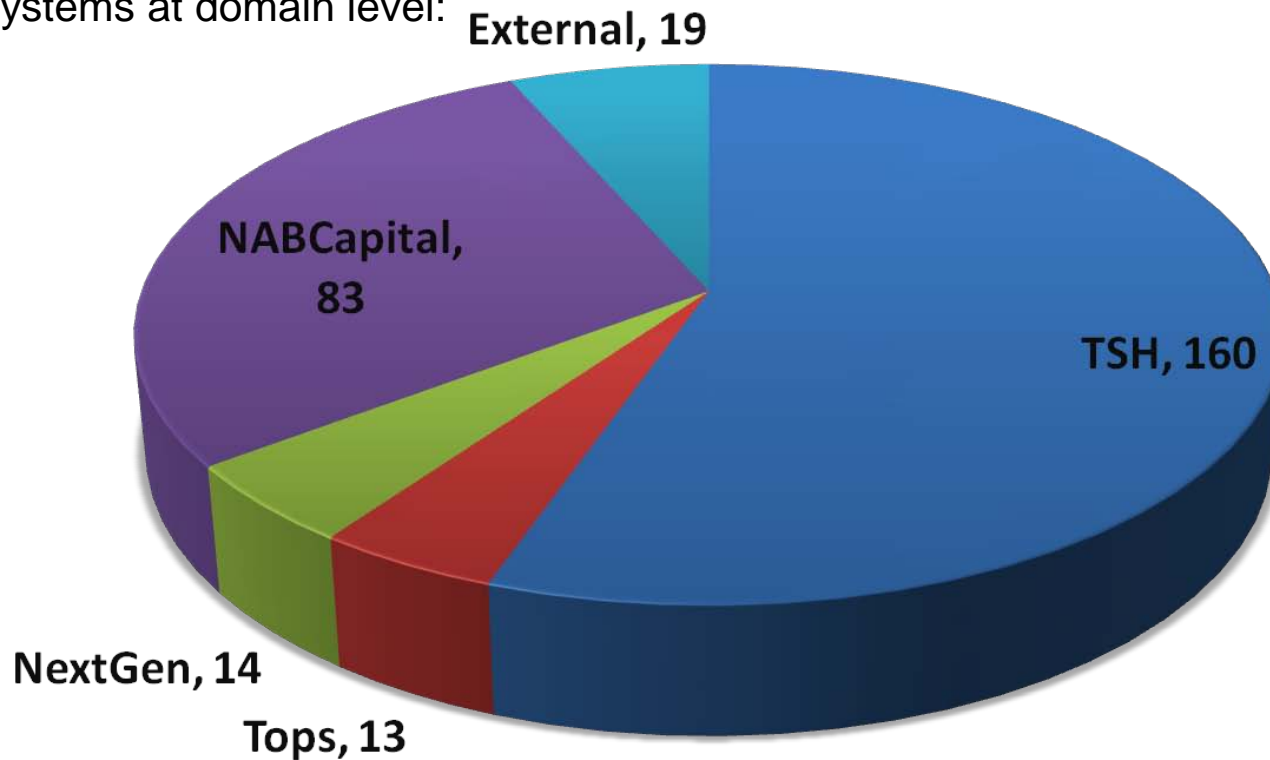
A quick demonstration

- Context diagram

- Search/Explore in browse

- Component Model

- Use Case diagram

- Sequence diagram

- Communication diagram

- Other diagrams available

- Wiki generation

- Document generation

- Service chain mapping

- Data Entities

What has NAB Achieved?

- **Modelling Workgroup Established**

Our Vision is to have;

- A quick, common, effective method for finding architecture information and for generating architecture (4+1) views for domains, systems and projects.

- A central repository of diagrams and metadata describing the TSH and the NAB's architecture.

What has NAB Achieved (cont)

- Governance Meetings
  - Review
  - Manage delivery and recommending baseline
  - Ensure environment works
  - Instructions
  - Guidelines

What has NAB Achieved (cont)

- Established Structure
- Baseline Content
- Training
- Regular Mentoring

What has NAB achieved (cont)

Level of Modelling Maturity;

- **Draw** – Diagrams are drawn and re-drawn in any tool. Diagram descriptions are typed directly into documents

- **Model** – Diagrams are drawn into a modelling tool. Descriptions and relationships between components on the diagrams are stored as data in the model for later analysis and reuse. Future diagrams using those components inherit the relationships already defined.

- **Common tool** – All diagrams are authored using the same modelling tool, reducing what SA/SDs have to learn, and what TSH have to support.

- **Shared model** – Components, descriptions and relationships defined by one SA/SD can be reused by all other SA/SDs. Architecture and Design Is easily accessible by anyone with access.

2007 TBA SA&D state of maturity

Current TSH SA&D state of maturity (50% penetration)

14
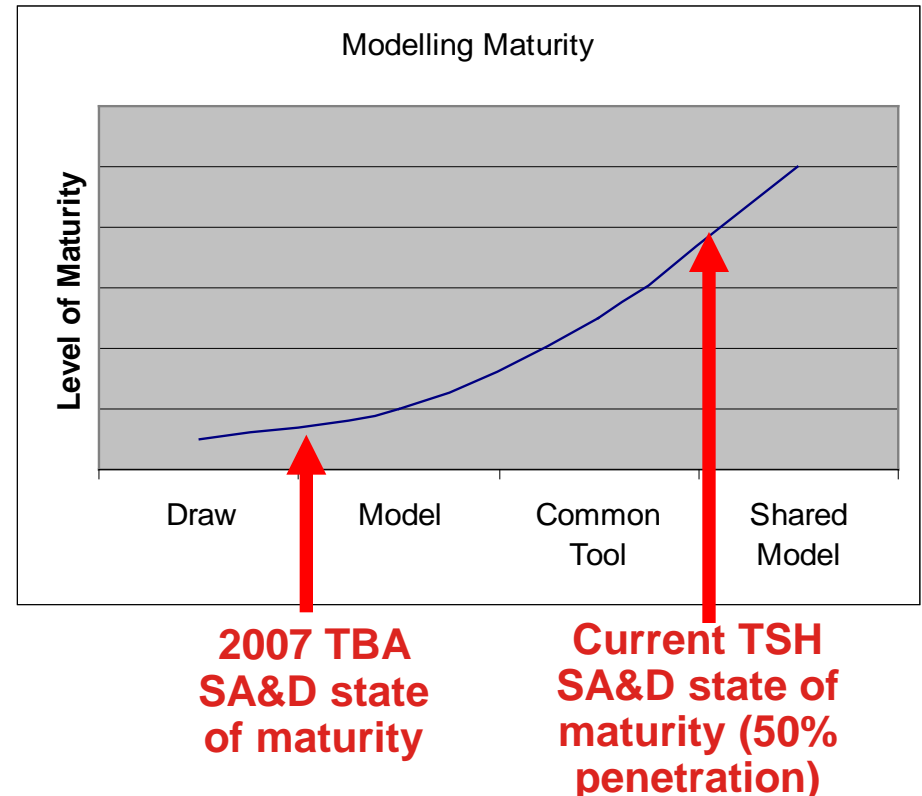
Benefits

- Re-use
  - Diagrams
  - Designs
- Faster Delivery
- Less Mistakes
- Less Rework – 10x rule
- Better Quality

Benefits (cont)

- Agility
- Maintainable
- Less SME reliance
- Analysis

- However
  - Long return on Investment
  - Requires prolonged discipline

Future Aspirations

- BA contribution - trial in progress
- Traceability
- Expand to
  - Wealth
  - Infrastructure
  - Corporate/Wholesale

Tips for success

- Fund the Governance
- Choose passionate people
- Support the environment
- Establish the Structure
- Trial Projects
- Refine Structure and Document

Tips for success (cont)

- Train your people
- Build time in your project plan
- Choose the right projects
- First projects in retrospect
- Measure your success

Final State