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# Using Archimate to Deliver MODAF Views

Peter Bryant

Enterprise Architecture Consultant

Roke Manor Research Ltd

**BCS Enterprise Architecture  
Specialist Group**  
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#BCS  
#BCSEASG  
#EASG2018AC

[www.bcs.org](http://www.bcs.org)

## Background

### **Peter Bryant**

- Roke (May 2017); ex Logica/CGI
- Former co-chair INCOSE AWG
- Involved in development of MODAF v1.1 (1st website - now in national digital archives!)
- Certified in Archimate v3, 2017

### **Roke Advisory Services**

- Deliver high quality advice to clients faced with complex, technology-led, business transformation needs, offering support throughout the change lifecycle
- EA + business analysis, capability assessment, operational analysis and systems engineering
- Complementing Roke's traditional strength in innovative engineering

### **Roke Manor Research**

- A leading UK advanced technology, engineering and advisory services business
- We enable our clients to maximise their investments in science and technology, helping them deliver what matters most to them
- Established Advisory Service Line, 2017

### **MOD Design as a Service**

- 2017 competition led to selection of Atkins, Roke & PeopleSource as partners to MOD in DaaS
- MOD teams can call off design & assurance services
- DaaS will provide impetus to changes in architecture approach within MOD, complementing technical architecture changes (DaaP)

## Problem Statement

- MOD has recently adopted open frameworks to support defence architecture development (TOGAF, Archimate)
- Many previous architectures modelled in MODAF
- Challenge is to understand how to go about remodelling a MODAF architecture model using the Archimate v3 modelling language
- *A ‘thought experiment’ rather than a customer funded task; Roke was interested to understand what strengths of MODAF might get lost in translation to Archimate as well as what value Archimate could add to defence architecture modelling – presentation aims to identify some of these lessons*

## Structure of presentation

- General overlap
- Specific areas of interest: Nodes, Platforms, Capability Configurations (if time), Timeline Views

# General comments

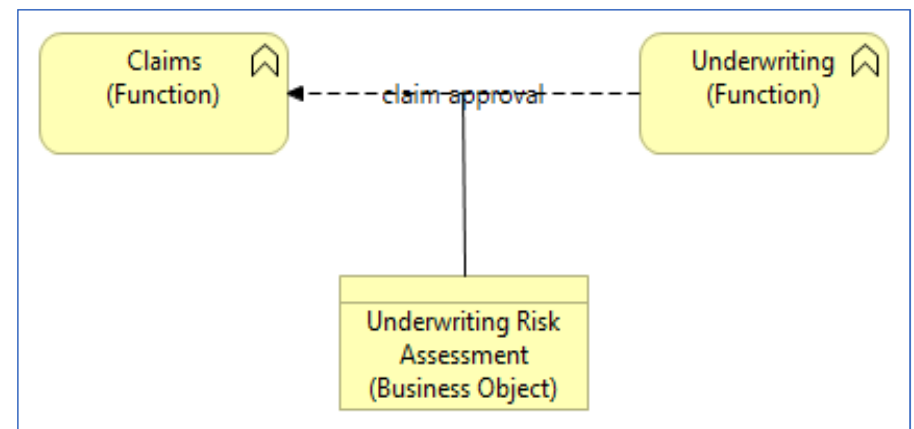
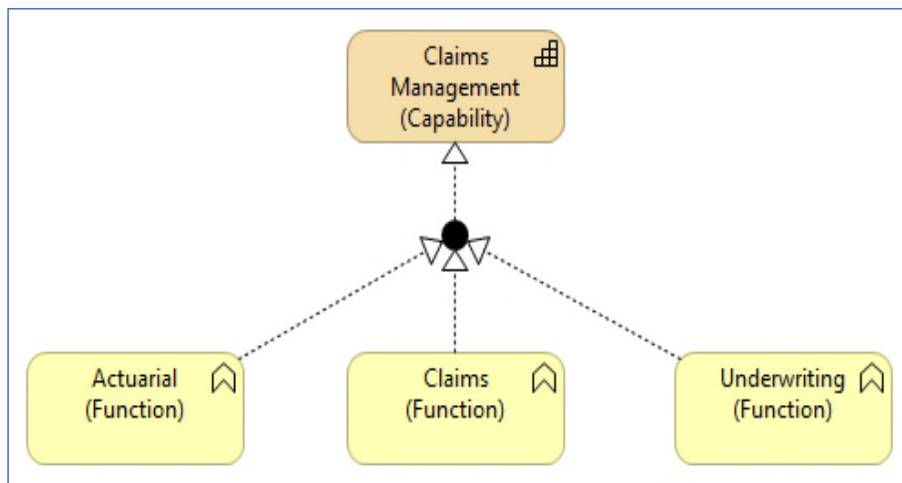
- In summary, there appear to be no barriers to applying Archimate to generate most of the MODAF views
  - There are some MODAF concepts where community agreement (or MOD directive) would be needed to ensure that translation is done consistently e.g.
    - Resource
    - Node
  - A small number of MODAF views are at a level of modelling below that which Archimate normally addresses, e.g. SV-10
  - Archimate more clearly delineates IT services and equipment from other types of equipment (e.g. rolling stock)
  - Services are better integrated within Archimate

# Viewpoint-Layer comparison

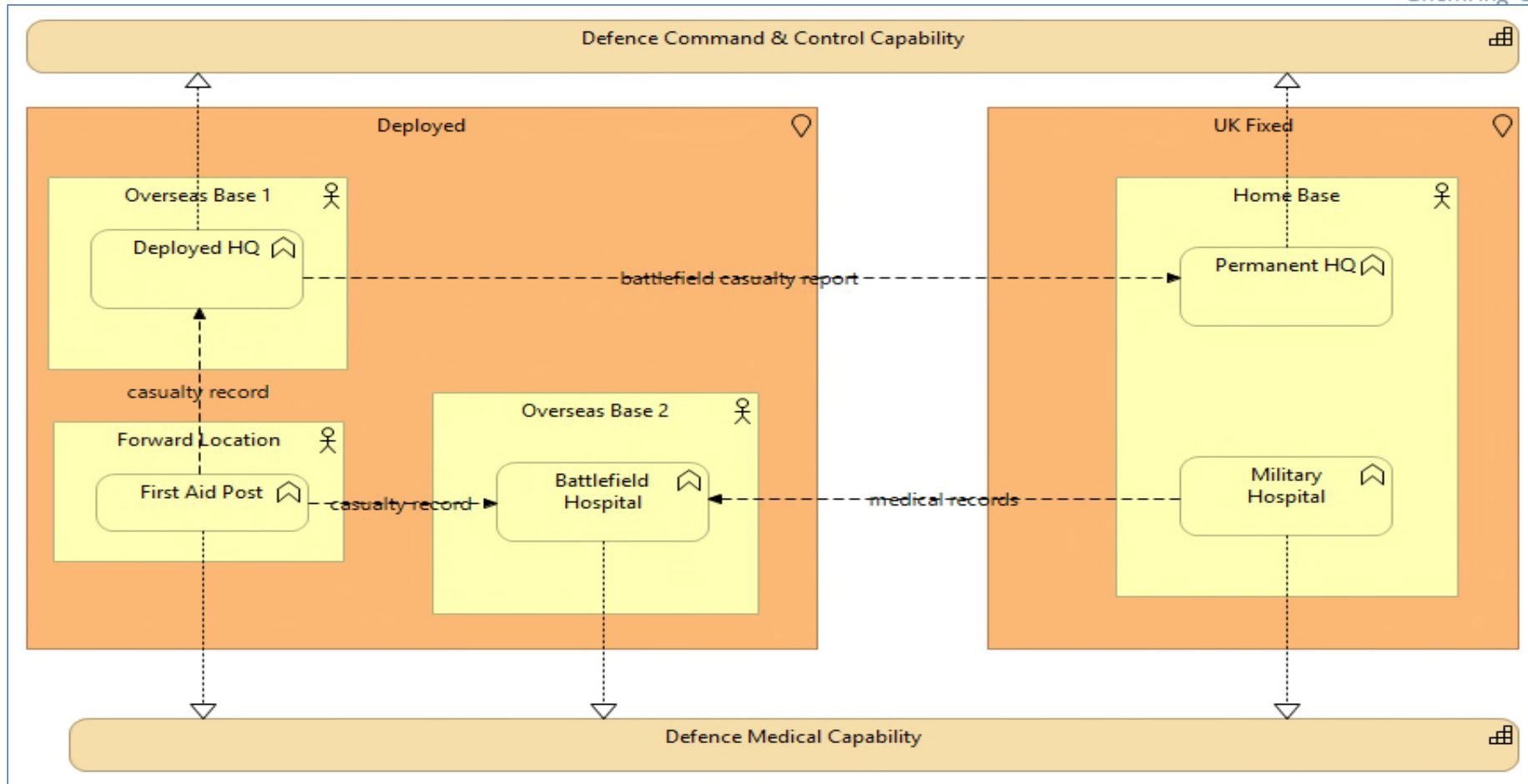
MODAF Viewpoint	Archimate Layer
Strategic	Strategy & Motivation
Operational	Business
System	Application + Technology + Physical
Technical	Motivation (covers requirements + standards + more)
Acquisition	Implementation & Migration
Service	Business, Application, Technology (taking a service perspective within each)

Lesson: Archimate's Motivation Layer provides a rich description language for stakeholder motivations, goals, requirements etc.

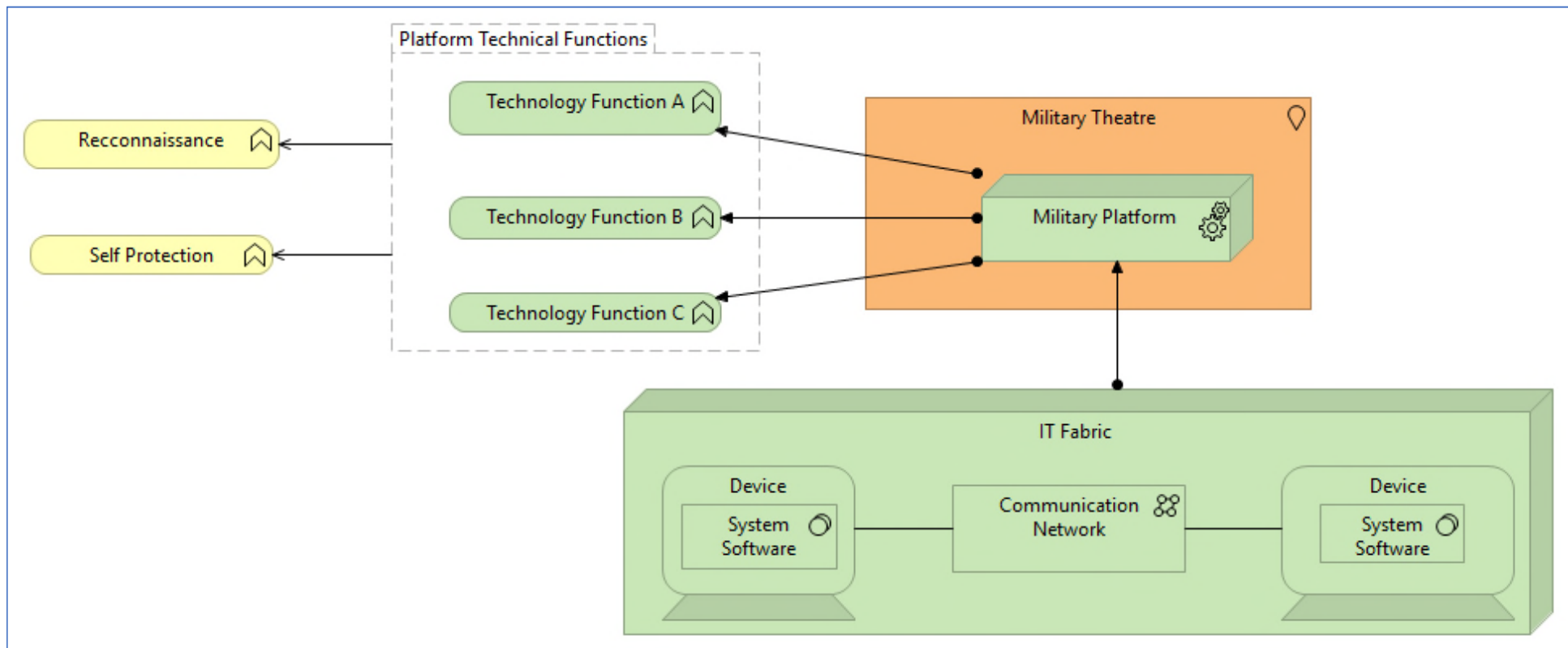
# MODAF OV-2 (operational nodes)



# MODAF OV-2 (defence example)

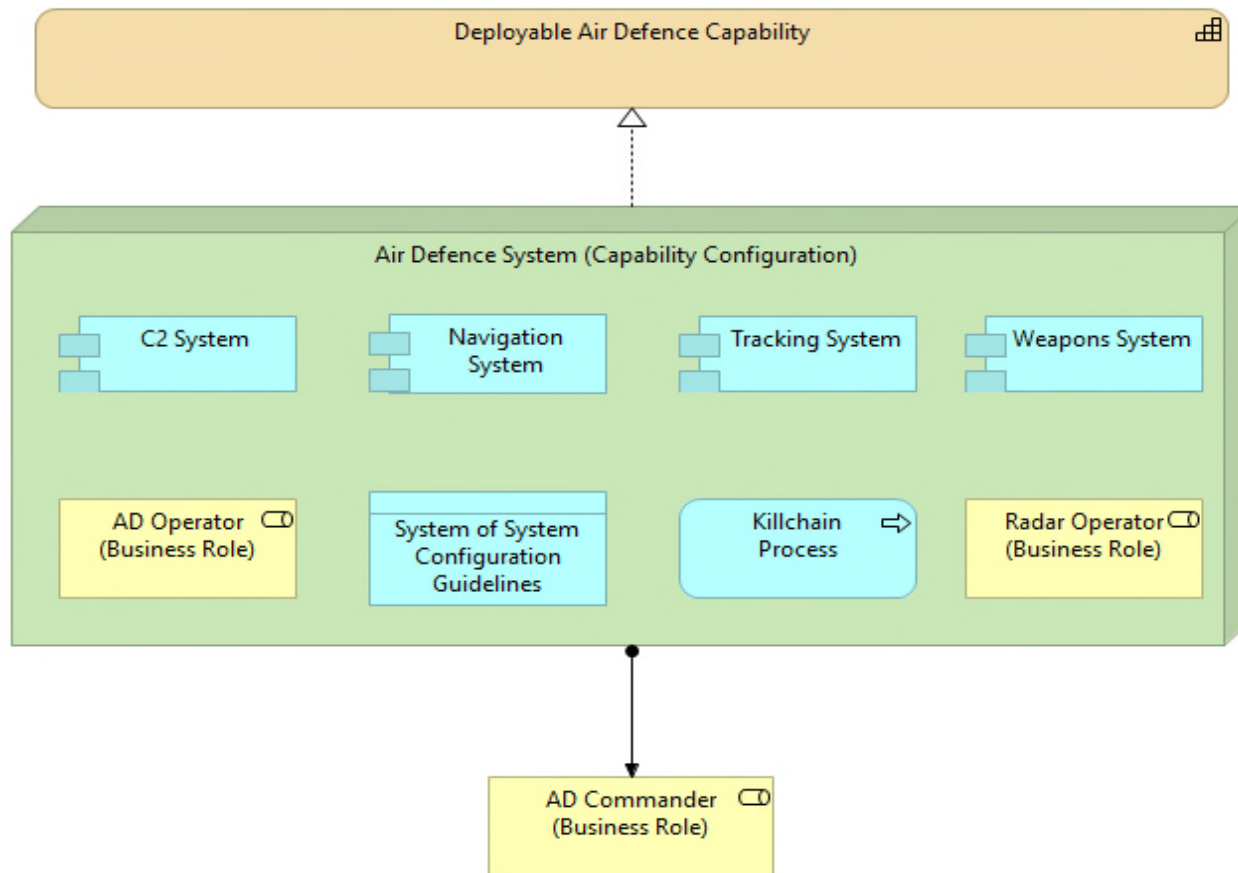


# Platforms and nodes



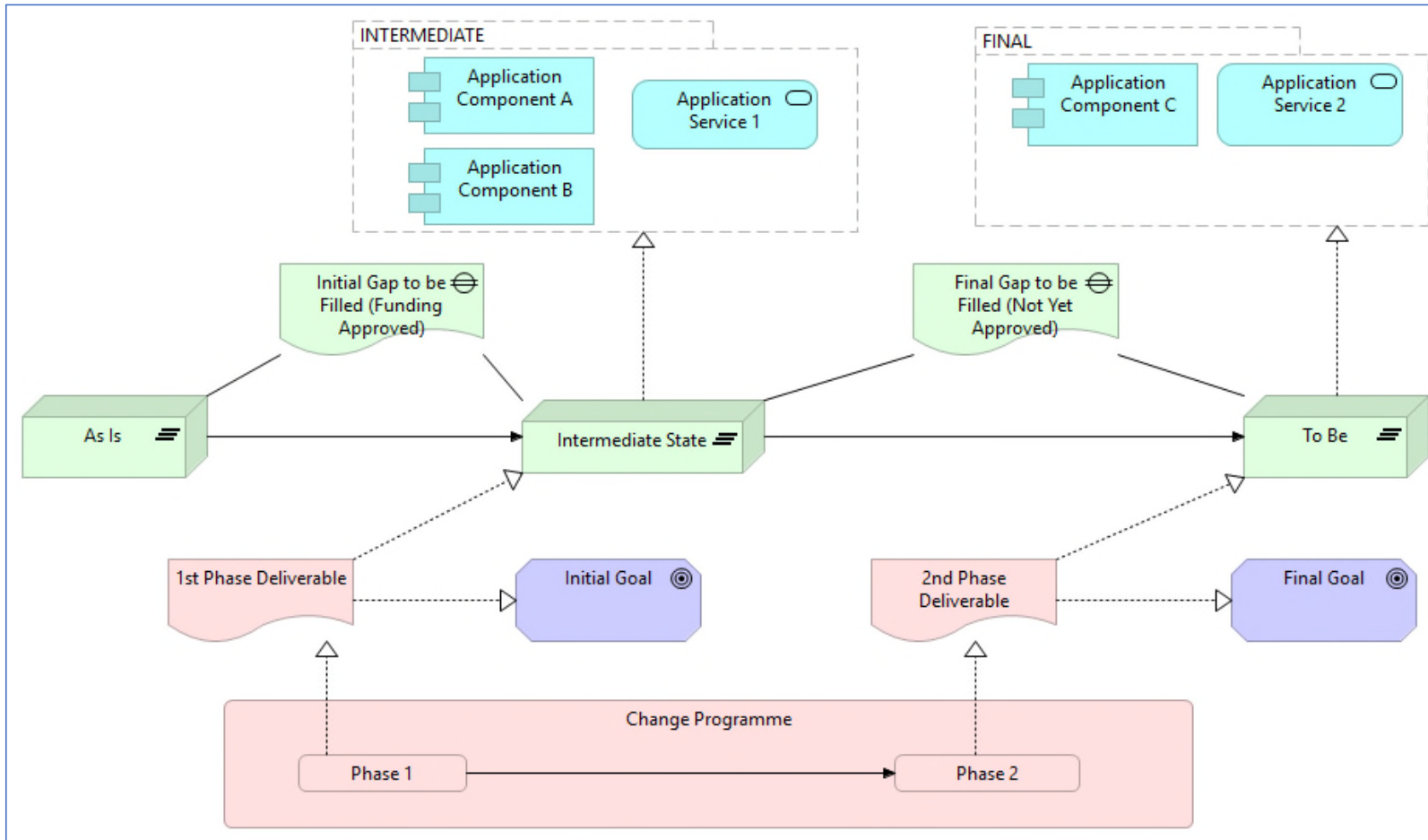


# Capability Configuration



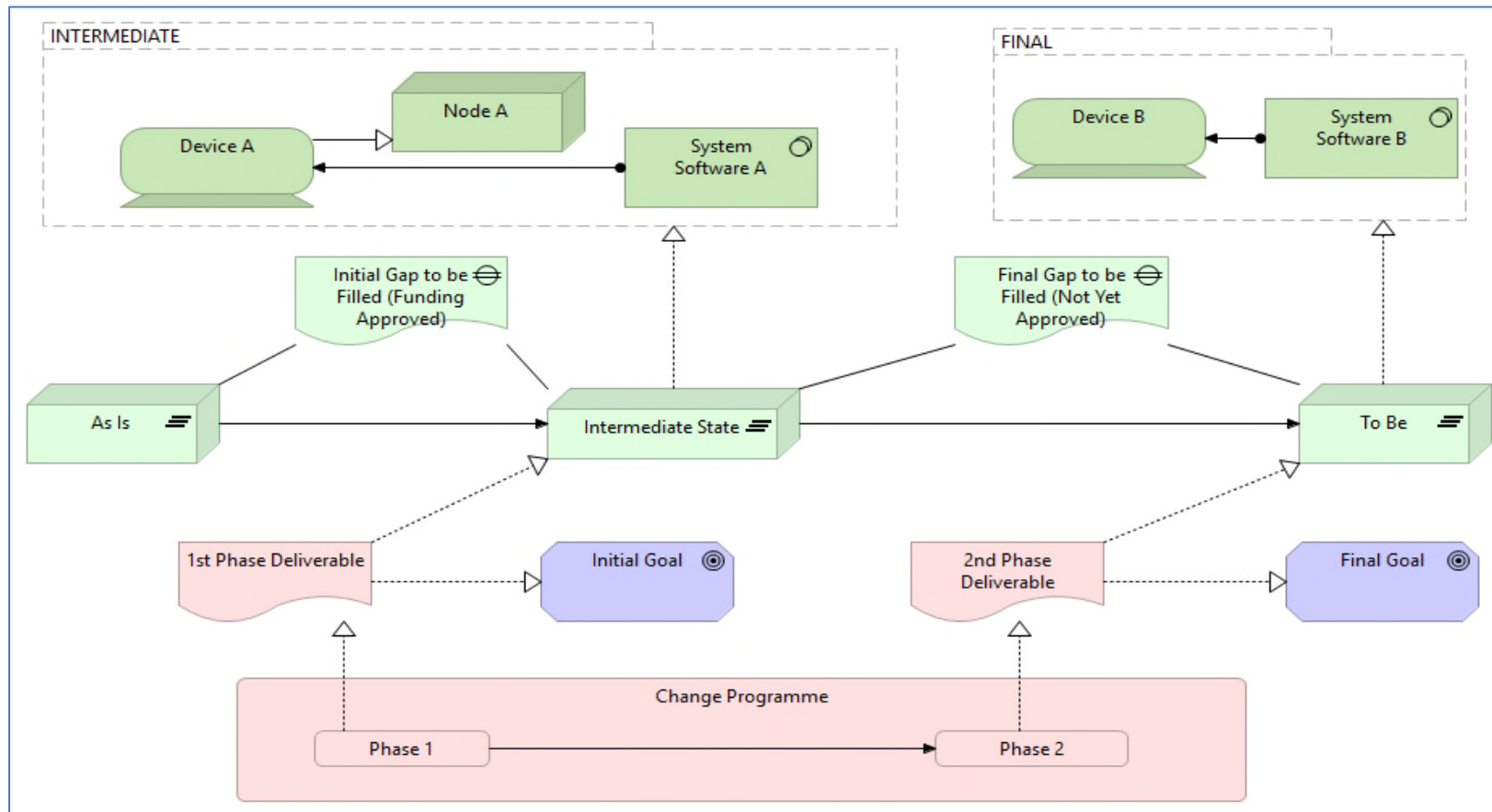
## Timeline Views (1)

} **Business  
Delivery  
Artefacts**



## Timeline Views (2)

} **Technical  
Delivery  
Artefacts**



# Conclusions & Key Lessons

- Archimate can be used to represent MODAF views; there are some choices that need to be made around translation of key concepts
- Arguably using Archimate improves modelling practice because it is an intrinsically better designed language (compared to M3)
- Most effective practice we believe will come from embracing:
  - Accepting that operational nodes are behaviours within a logical model
  - Careful distinctions between platforms and nodes
  - The versatility of Archimate Nodes (recognising that Capability Configurations are implementation constructs at heart)
  - The power of Archimate Implementation & Migration views, fulfilling the increasingly important technique of roadmapping with Enterprise Architectures
- In general the Business Layer provides a rich context for the technical architecture design (e.g. business processes and collaborations)