

Enterprise Mapping & Decision Support – Helping MoD Manage its Combat Air Capability

Ed Aubrey ISMOR, August 2012

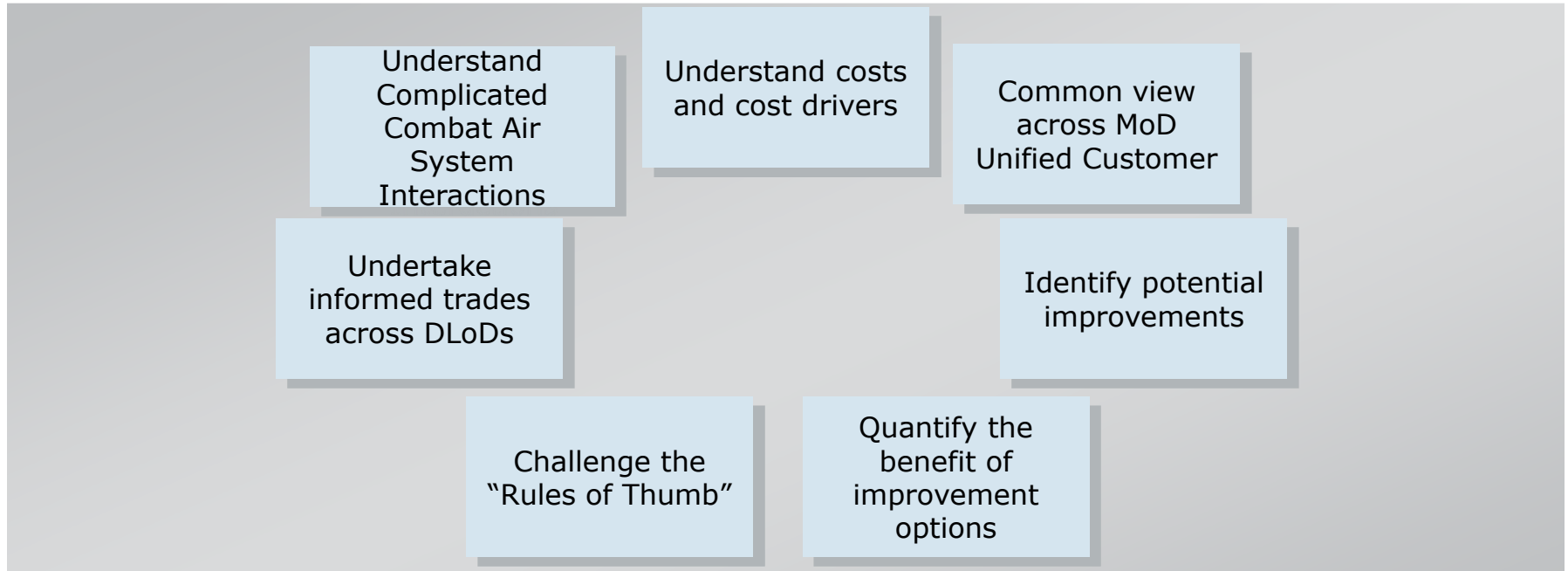


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- Enterprise Maps & Activity Cycles
- Cost Cityscape
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Need for Combat Air Decision Support

Need to deliver fit for purpose and affordable Combat Air Capability



Combat Air Decision Support

Approach

- Combat Air PB asked CORDA, supported by Dstl to develop a decision support approach, and present it at the April Board

Understand

Formulate

Evaluate

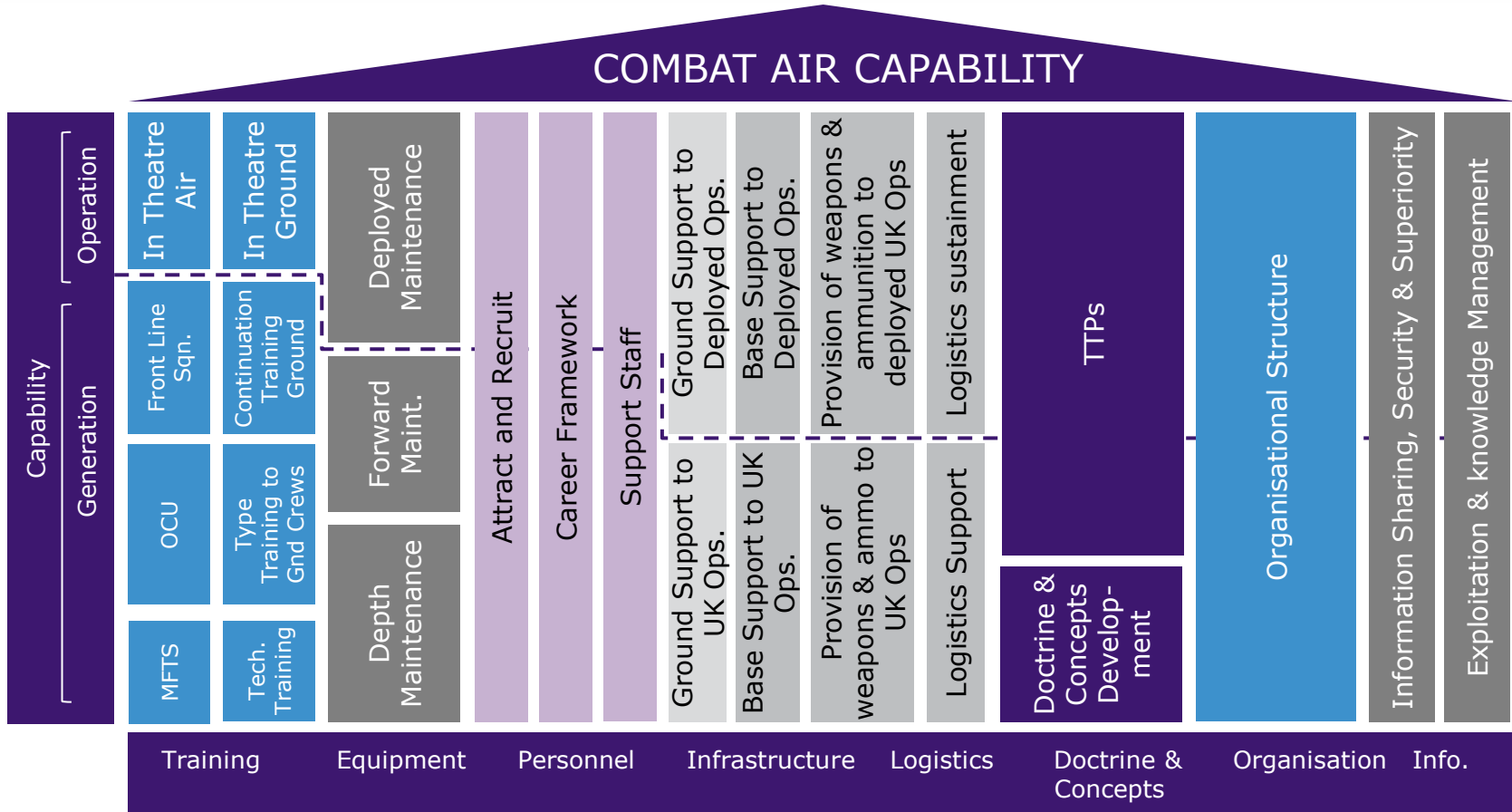
Understand the cost and value of activities within combat air, and the risks, issues and opportunities

Formulate questions for further investigation and "what-if" options for improvement

Evaluate the benefit of different options and decide which should be taken forward

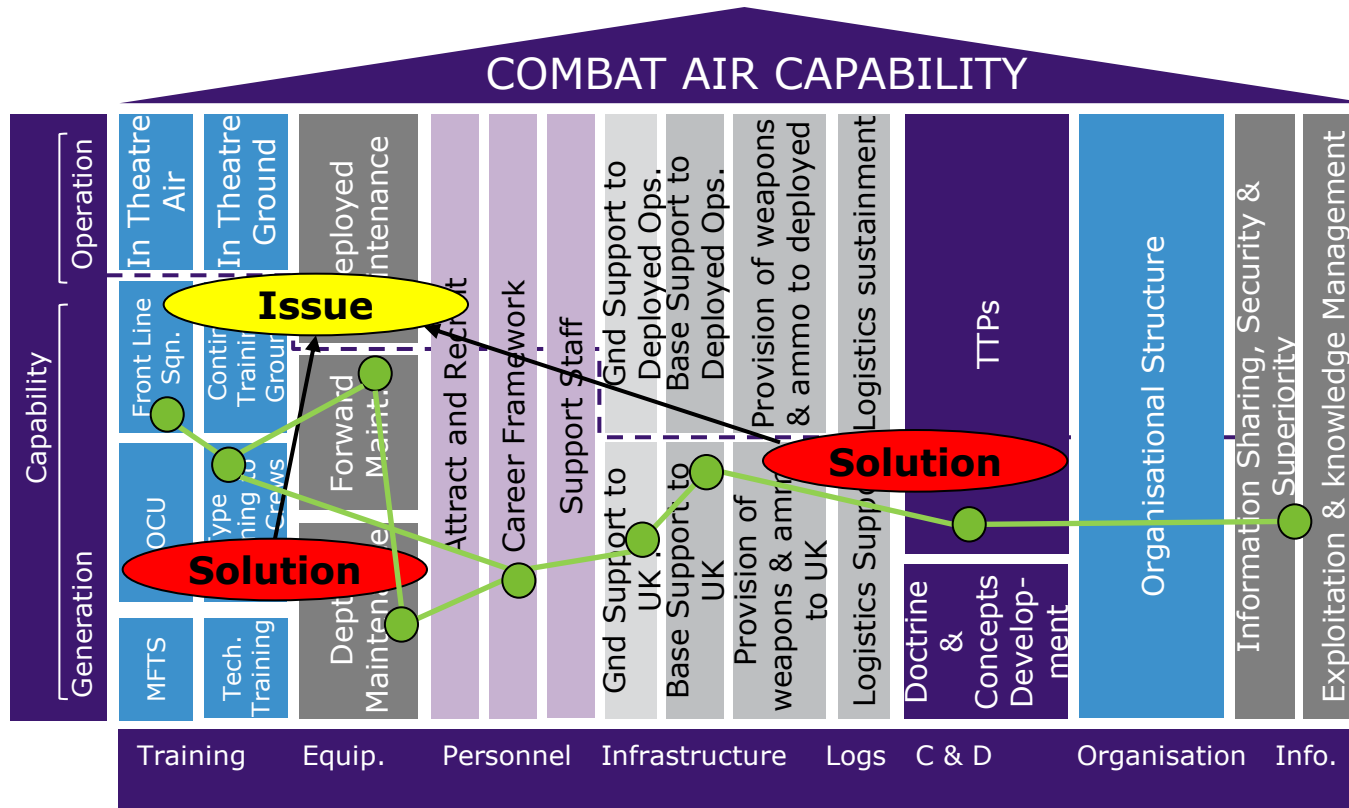
- Combat Air Enterprise Map & "Proof of Concept" Toolset developed

What is an Enterprise Map?



“An Enterprise Map is a graphical breakdown of the key activities required to support a complex/complicated multi-organisational enterprise achieve its goals”

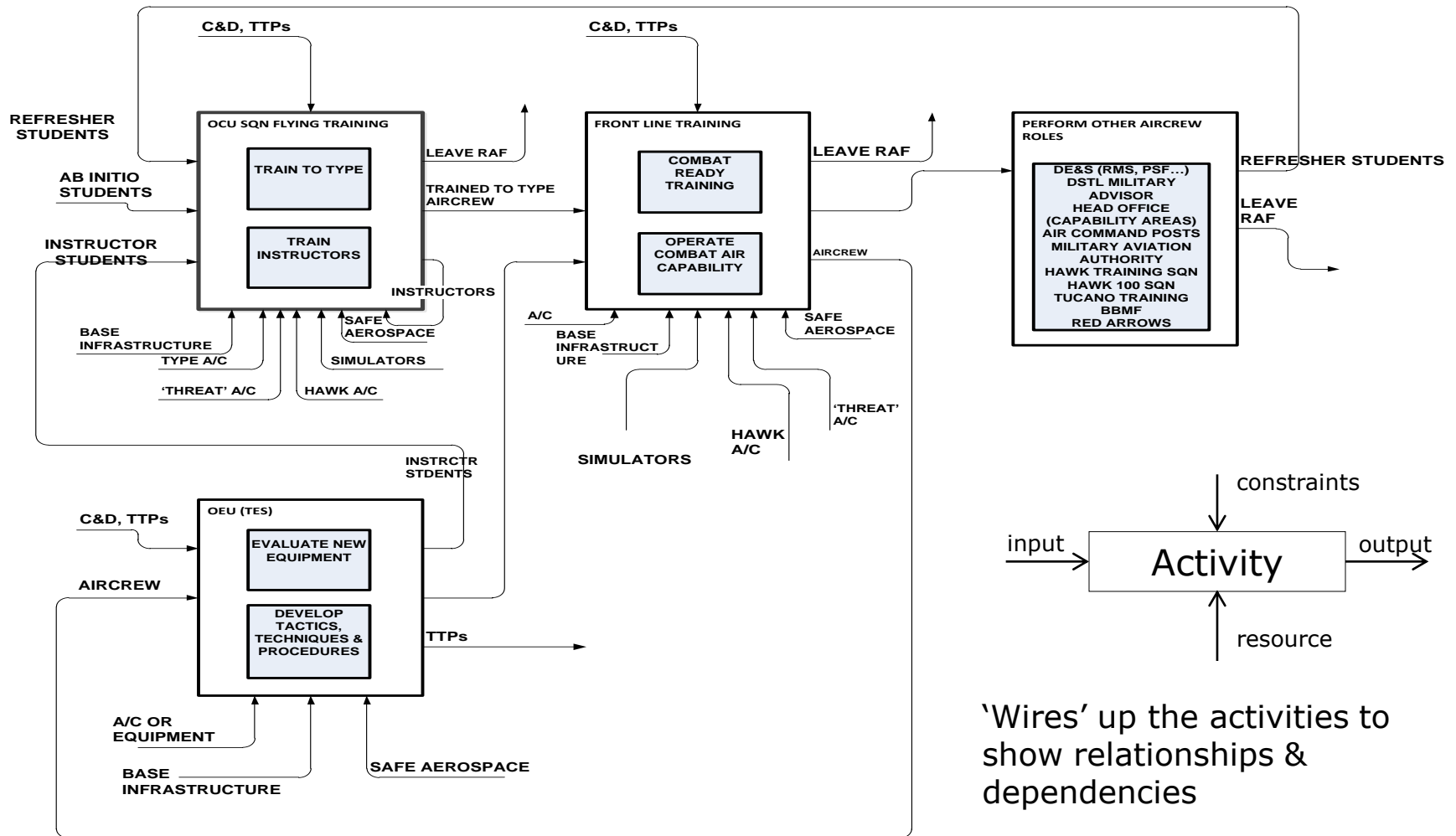
Enterprise Mapping – Developing a common understanding



- > What are the main activities and what are they aiming to achieve?
- > How do the activities relate to one another?
- > What is the balance of cost across activities and the DLoDs?
- > What are the risks and how are they mitigated?
- > Where are there opportunities to improve the Enterprise?

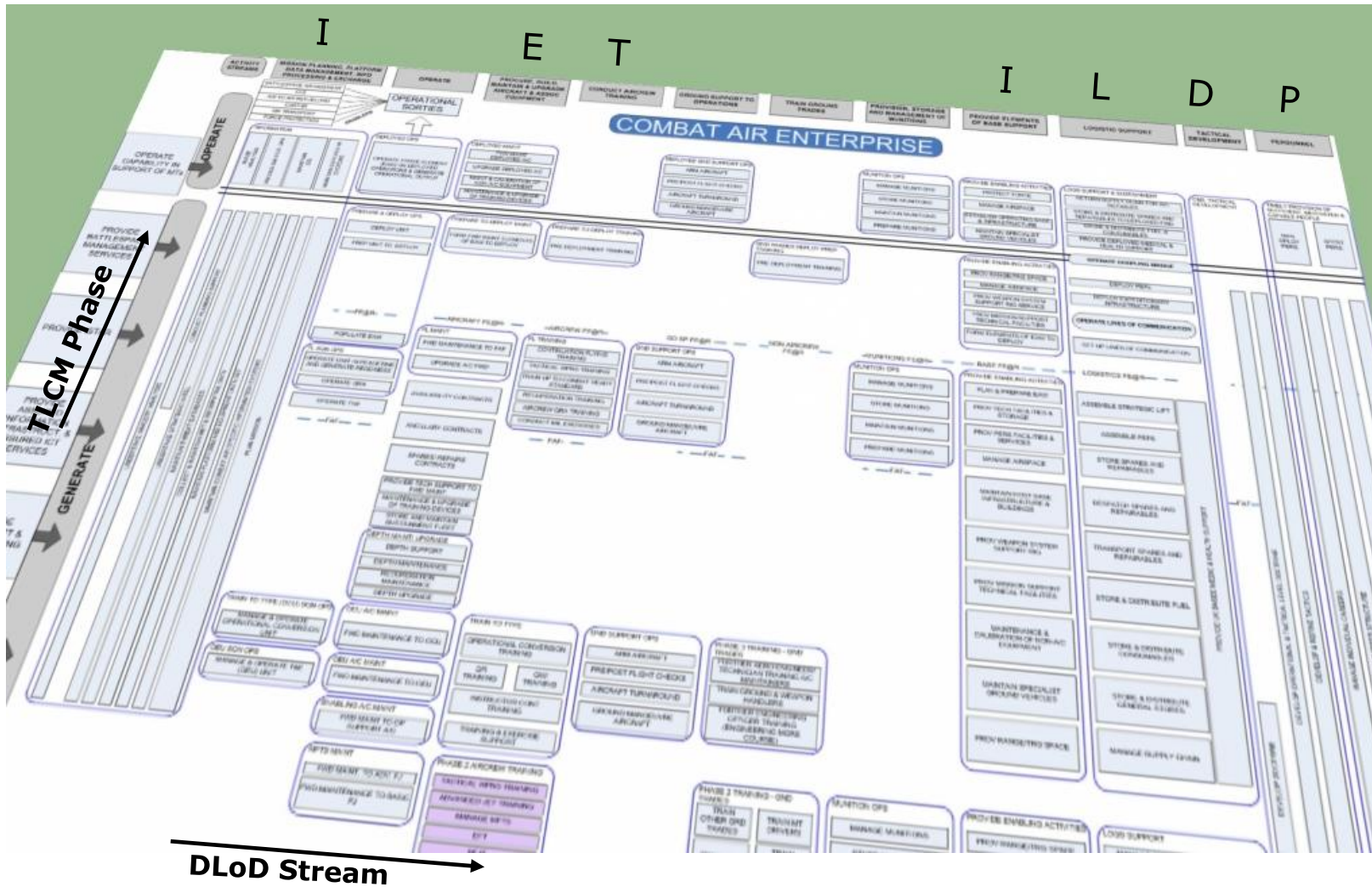
> Considers activities across the stages of TLCM & DLoDs

Example Activity Cycle

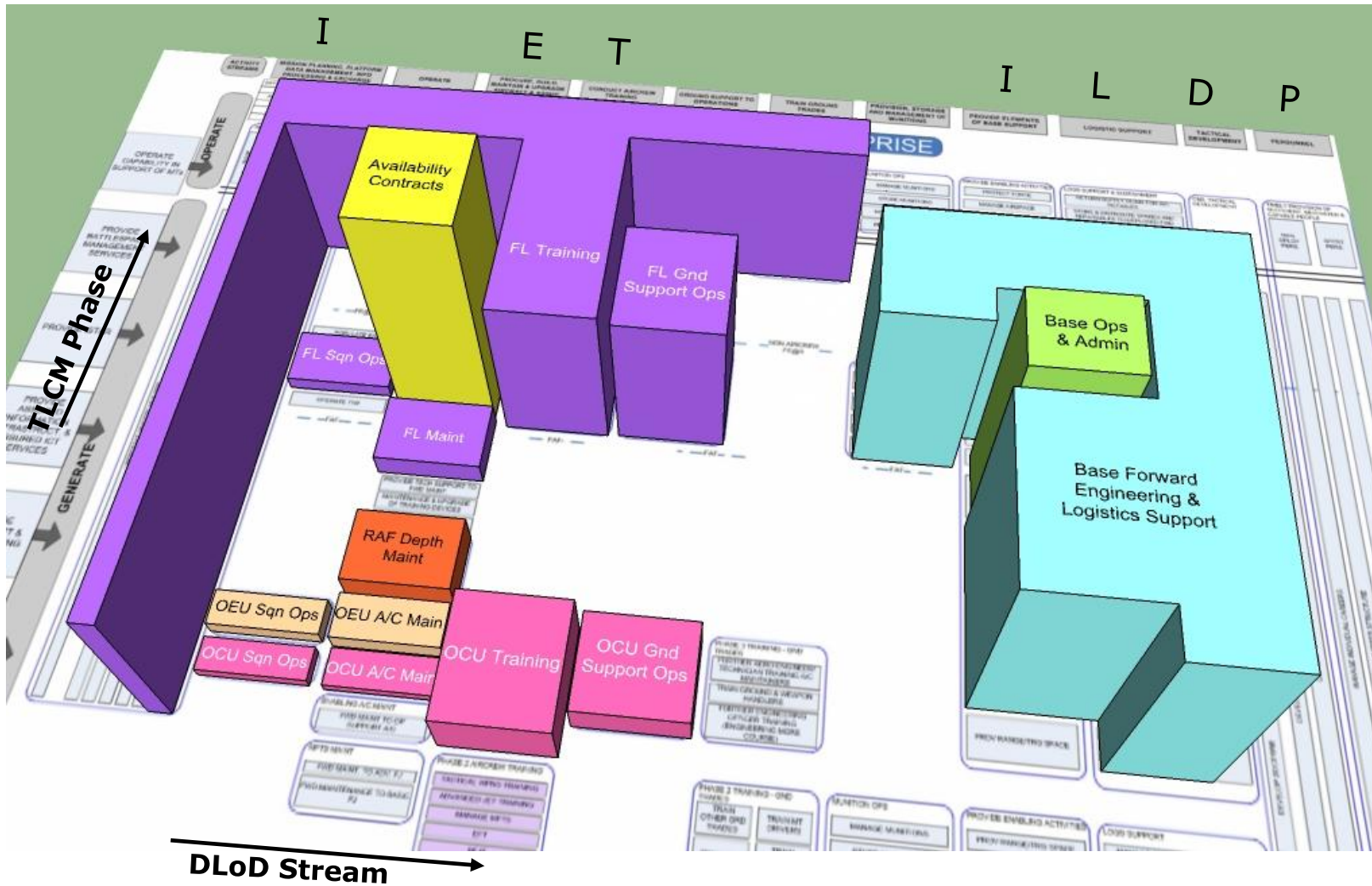


'Wires' up the activities to show relationships & dependencies

Understanding Costs - Cityscape

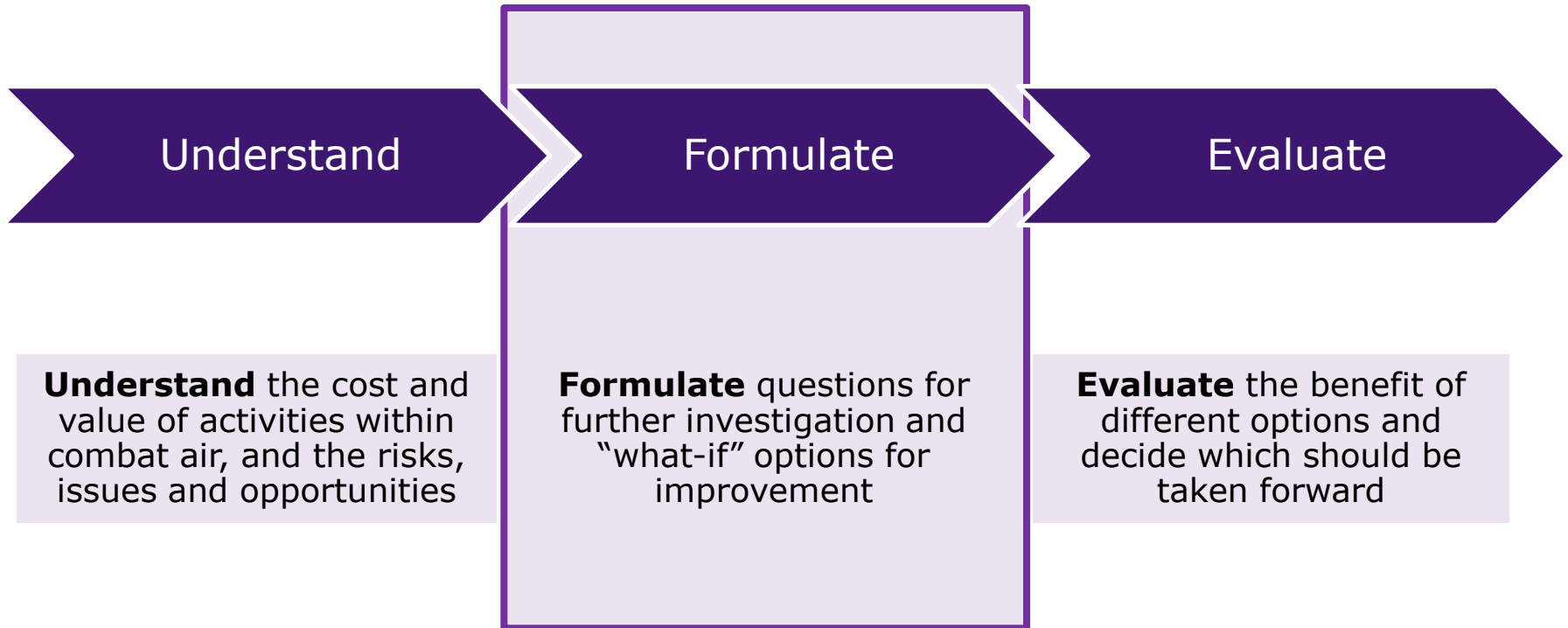


Understanding Costs - Cityscape



NB. Data is illustrative

Approach



What-if Analysis

Aircrew Training chosen as an example area for analysis

Aircrew training at FL Sqn

Allocation of aircrew to FL Sqn, OCU and other posts

TLCM Phase

DLoD Stream

Aircrew & instructor training at the OCU

Three options for what-if analysis:

- > Develop Enterprise Map overlays, so that future scenarios can be visualised
- > Develop a toolset that models a subset of the activities & relationships within the Enterprise Map
- > Direct the use of other models/initiate studies based on Enterprise Map Analysis

Approach

Understand

Formulate

Evaluate

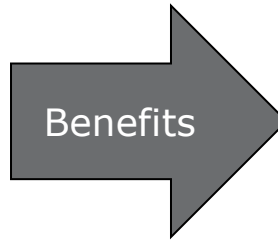
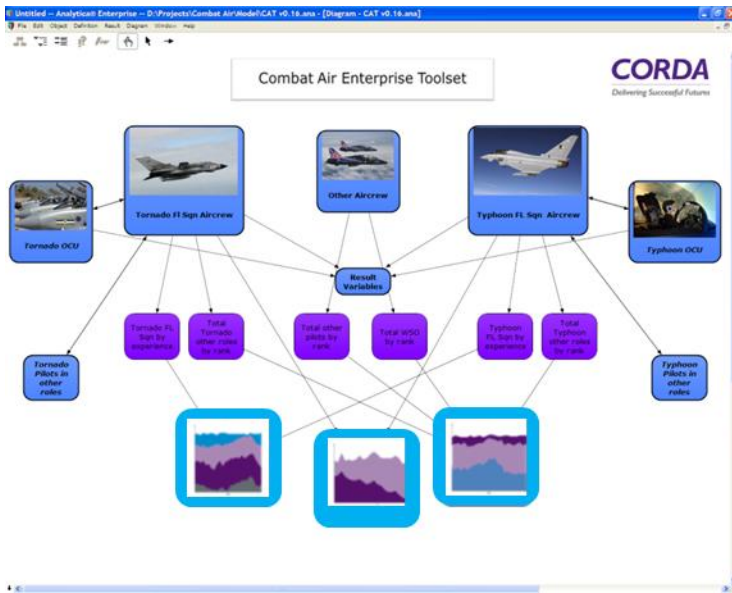
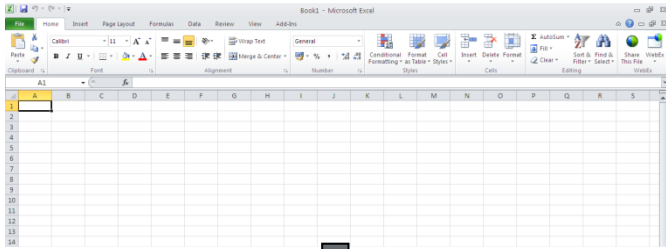
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Model Overview

Model inputs (Excel)



Easily extendable

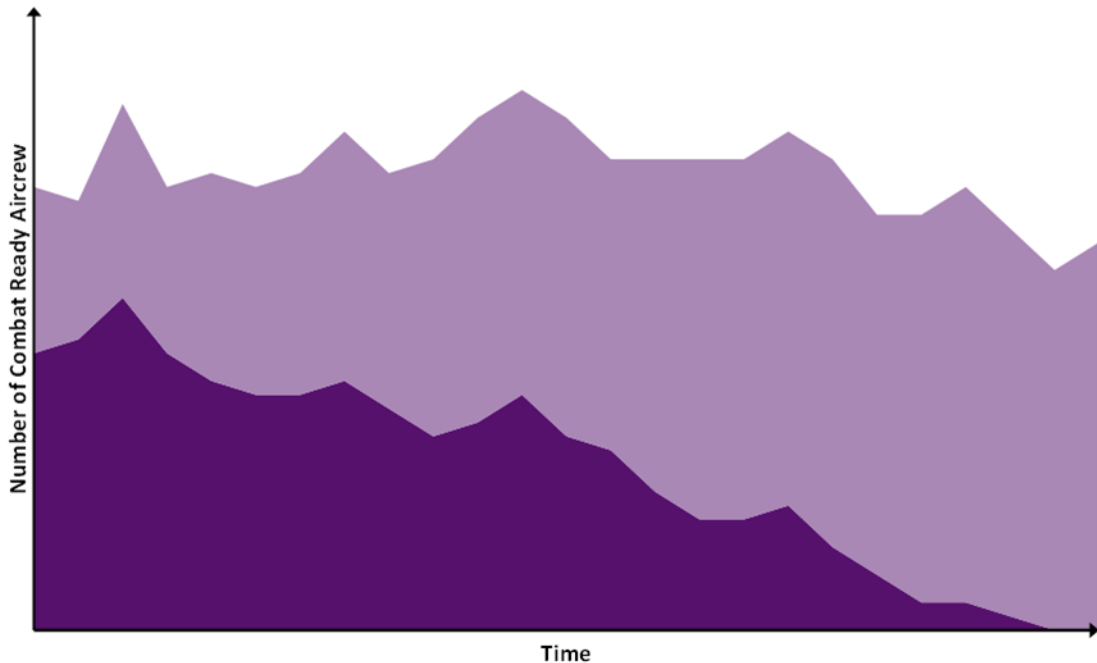
Quick to run

Represents uncertainty

Time-based input/output

Dynamic Model (Analytica)

Example Output



- Combat ready aircrew profile
- Experience profile
- Predicted Flying Hours profile

'What-if' options:

Changing tour lengths

Changing the live/synthetic blend

Changing aircrew return on service

NB. Data is illustrative

Summary

- Approach provides qualitative & quantitative insights and readily communicates key ideas/issues to key stakeholders
- Good feedback – The board can see the benefit of the approach
- Other examples of the approach include
 - UAS Cost Drivers
 - Cross-DLoD Analytical Framework