

FAQs

How does MODAF help to ensure Model Coherency?

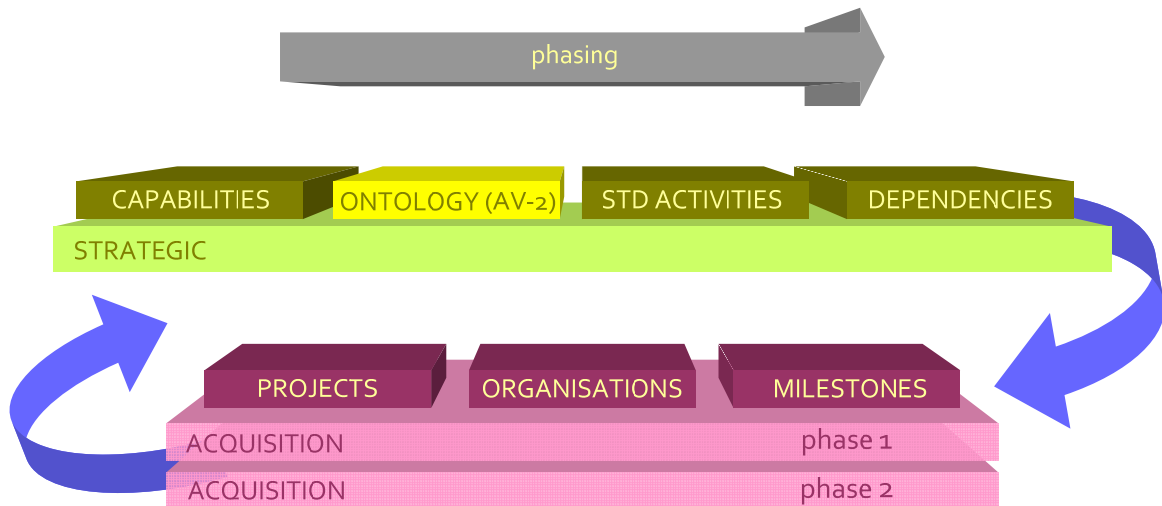
The MOD Architectural Framework has been designed to be highly integrated. Key to this is the role played by the MODAF Meta-Model. Integration has been achieved at the view presentation level and the data level.

Because an architectural description is inevitably multi-faceted, modelling coherence is an essential ingredient of the model-driven development approach. The framework supports the achievement of modelling coherence in a number of ways that are described in this article.

Temporal Coherence

The framework has a much richer temporal component than other architectural frameworks because the representation of time (in the enterprise sense) is addressed by two viewpoints, the Strategic and Acquisition Viewpoints, that are unique to MODAF.

Temporal coherence is based on integration of these two viewpoints, which is illustrated below.



The time dimension in the Strategic Viewpoint represents the fundamental time dimension of the Enterprise; this is normally measured in years and may have a span of several decades with a granularity of perhaps several years.

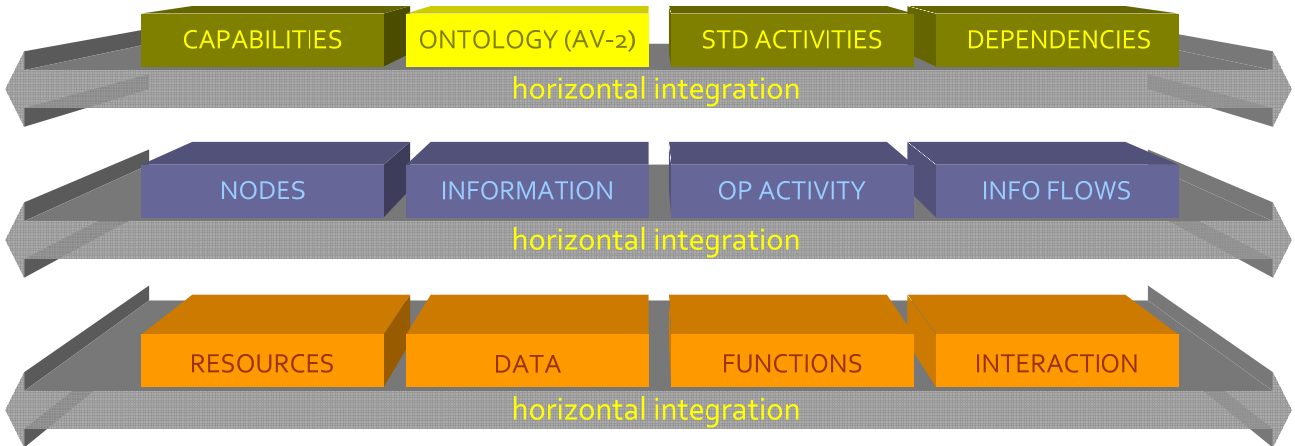
The time dimension in the Acquisition Viewpoint may have nearly as broad a scale as that of the strategic Viewpoint but is finer grained. Time gradations of interest may be months or years.

The time-based views within these Viewpoints (specifically StV-3 and AcV-2) need to be considered together if Enterprise goals are to be met. StV-3 provides a time-based representation of capability phasing. AcV-2 provides a timeline at the programme or project level. Matching these up is important if the strategic planning aspiration to realise capability at the enterprise level at a particular time is going to be fulfilled through action at the project level. AcV-2 can be used to perform programme synchronisation actions that manage the risks associated with the co-ordination of a related set of capability deliveries. But StV-3 is needed to ensure that the overall programme of capability delivery actually meets the longer term aspirations of the Enterprise.

In addition to the views in the Strategic and Acquisition Viewpoints, there are also a small number of views looking at evolution at the system level including SV-8 (system evolution), technology forecast (SV-9) and standards forecast (TV-2). The timescales used in these views should mirror those in StV-3 or AcV-2 depending upon the scale of the evolution timeline.

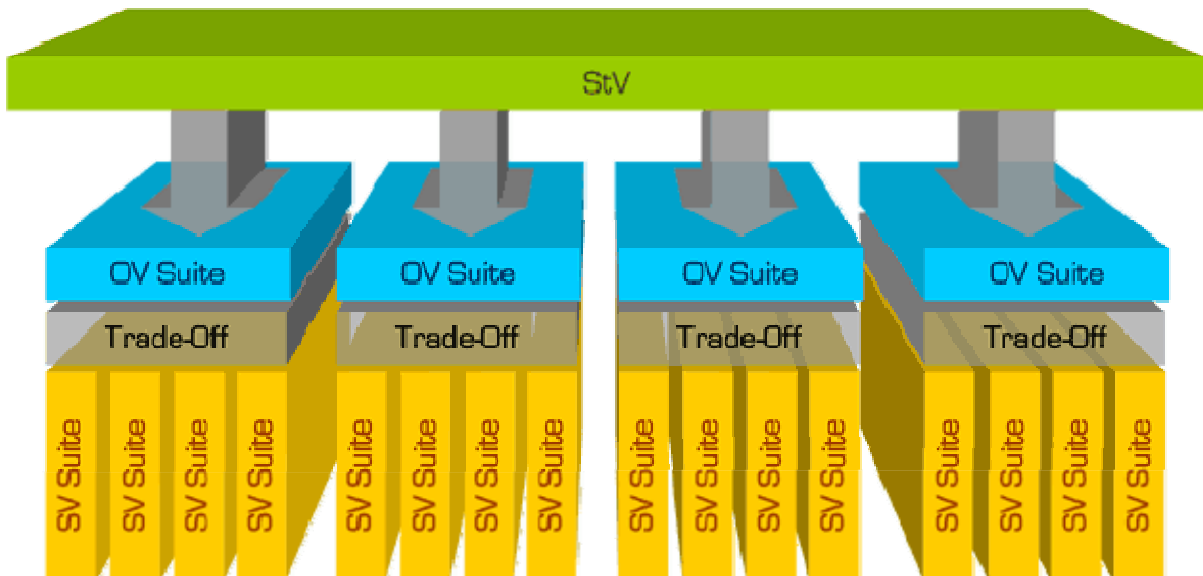
Horizontal Integration

Horizontal integration refers to the achievement of modelling coherence within a Viewpoint (or modelling layer). This is based on the support to view production provided by a coherent set of data objects underpinned by the MODAF Meta-Model. This is illustrated below.

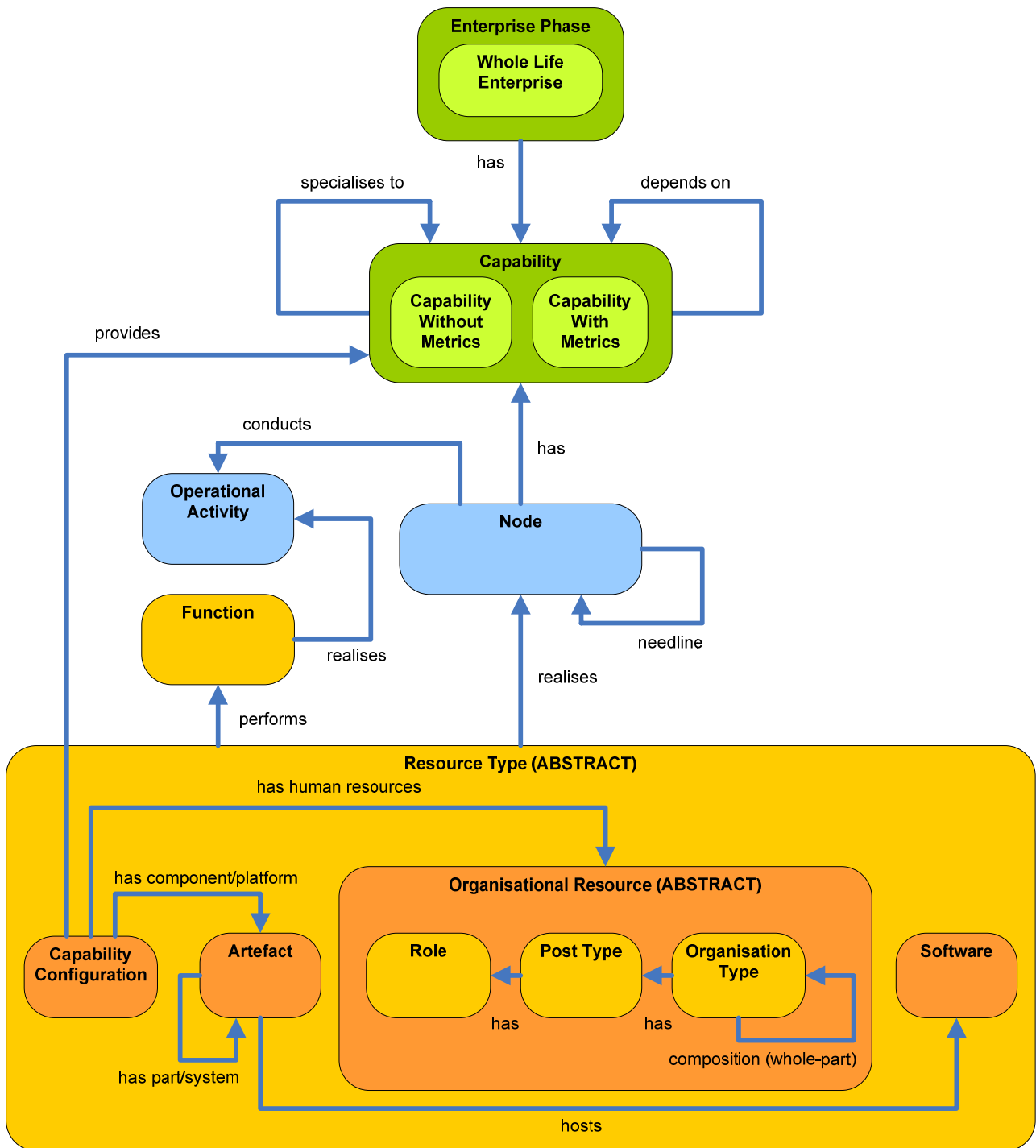


Vertical Integration

Finally vertical integration refers to the achievement of modelling coherence between Viewpoints as illustrated below.



The elements and relationships defined in the MODAF Meta-Model provide the foundation for this. The diagram below summarises the key structural and behavioural elements in the M3, and the relationships between them:



Simplified Representation of Key M3 Concepts and Relationships

Architecture Governance

While modelling coherence is supported by use of MODAF, especially use of the MODAF Meta-Model, it should be recognised that architecting within the MOD environment is inevitably a collaborative activity. This implies that architecture governance is needed to ensure success. This is the responsibility of DG Info, who is discharging this responsibility through the Enterprise Architecture programme (within which the MODAF development programme sits).

The primary elements of governance relate to the direction to the MOD community to actually use MODAF, arrangements for assurance of architecture products, and support to the MOD community

from an architectural repository (see *EA policy* – link tbd). The Meta-Model (link tbd) and MODAF Ontology (link tbd) are technical enablers that support the governance arrangements.

Disciplined application of MODAF (within the parameters prescribed by governance) through collaborative architecting is essential if the vision of NEC is to be achieved.