

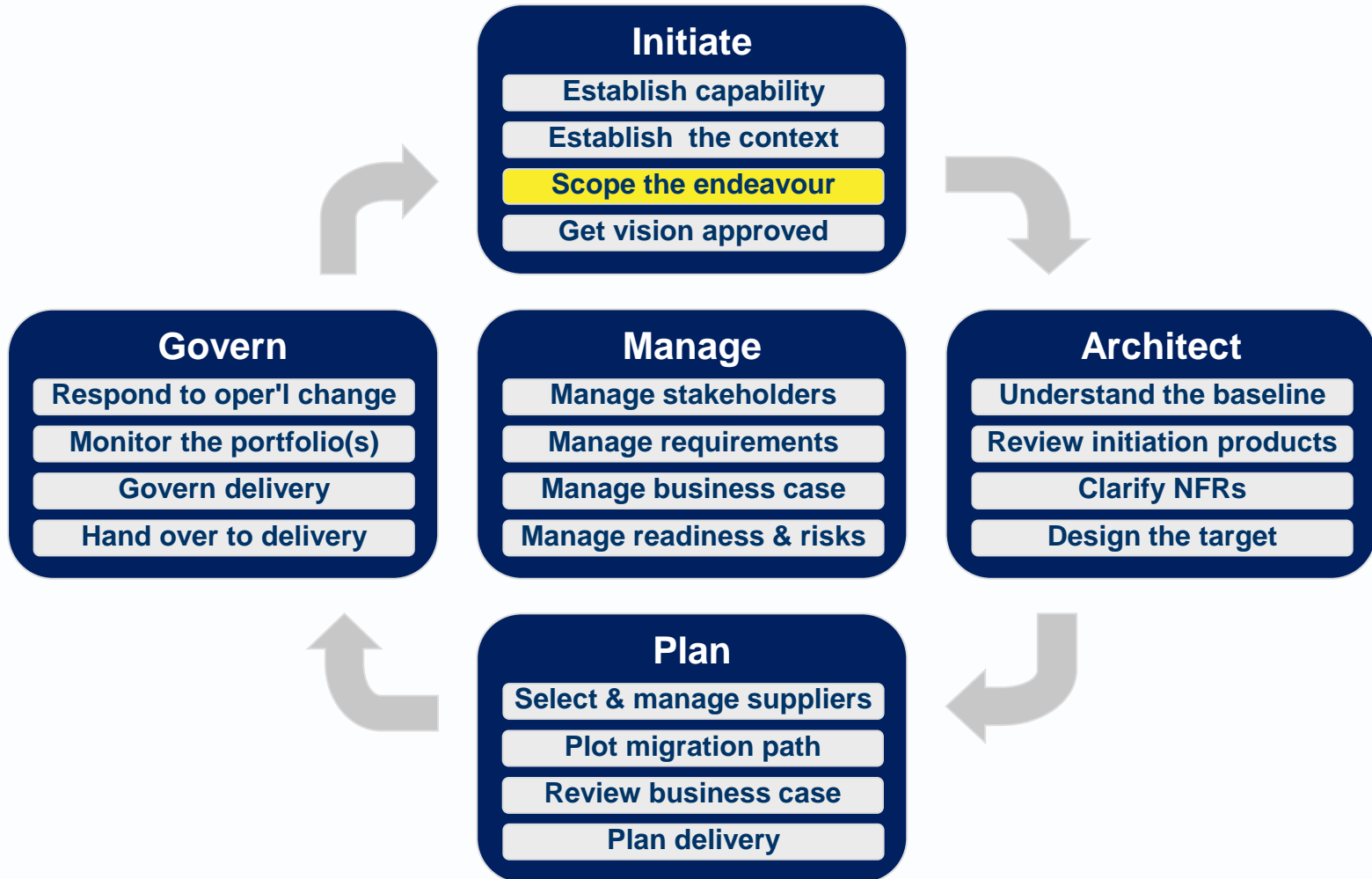
Avancier Methods (AM)

INITIATE

Scope the endeavour

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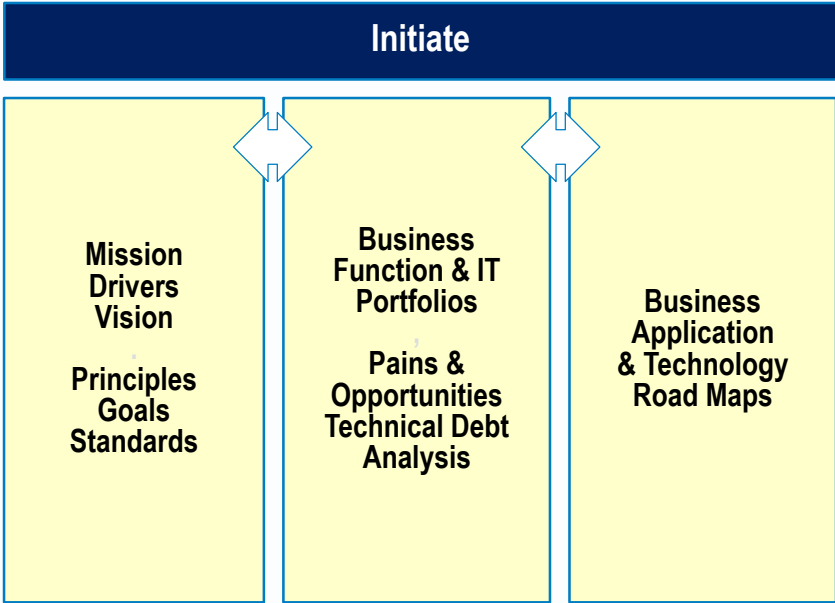
Scope the Endeavour (AM level 2)



Scope the Endeavour (EA level)

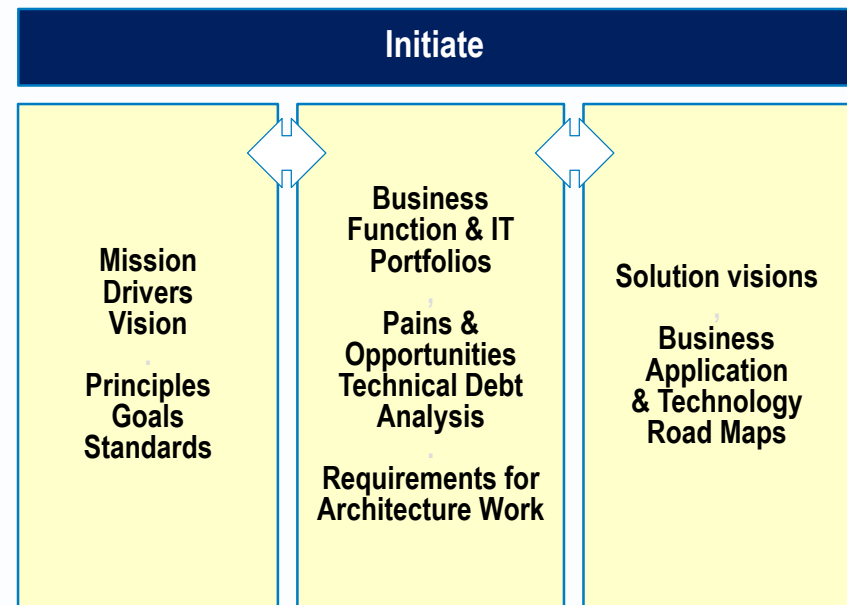
1. Define portfolios
 - Business functions
 - Applications
 - Technologies
2. Analyse portfolios
 - Pains
 - Opportunities
 - Technical debt
3. Define road maps
 - Business functions
 - Applications
 - Technologies

See EA level products and techniques



Scope the Endeavour (Solution level)

1. Identify stakeholders
2. Identify requirements for architecture work
3. Identify constraints (time, money, resources etc.)
4. Agree a solution vision
5. Scope in several ways
6. Plan the “architecture project”

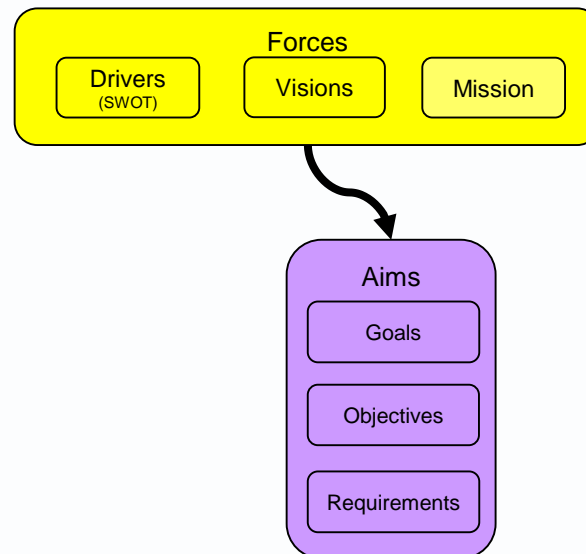


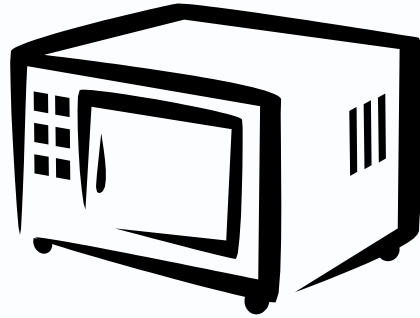
1 Identify stakeholders

**See stakeholder
management technique**

2 Identify requirements for architecture work

- ▶ Enterprise leaders respond to drivers by defining aims
 - e.g. define expansion goals to ward off competition.
- ▶ As they cascade downwards, broad and high level aims are hierarchically decomposed into narrower and more detailed aims.
 - A lower level aim can support more than one higher level aim – so it is not a strict hierarchy.



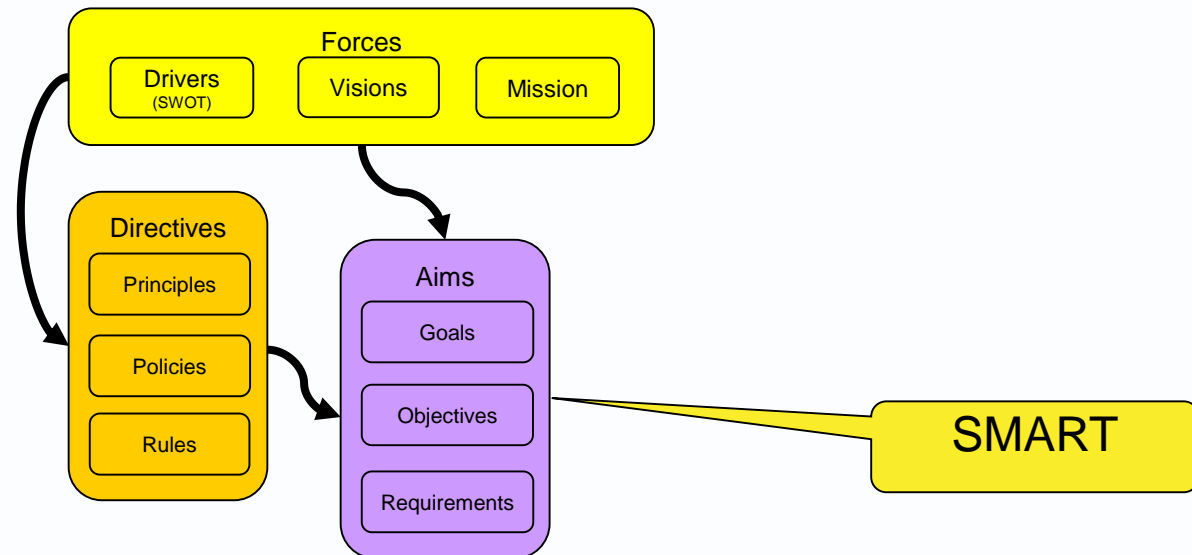


- 1 Increase microwave oven market share by end of this year
 - 1.1 **Design a microwave oven priced < 60% of the competition.**
 - 1.1.1 Undercut current cost of parts by 30%
 - 1.1.1.1 Reduce the number of controls used
 - 1.1.2 Undercut current cost of assembly by 30%
 - 1.1.3...
 - 1.2 Increase production capacity
 - 1.3...
- 2 Increase profit margin on market leading products by end of this quarter
- 3...

Turning principles into goals

▶ Some goals may derive from principles

- Principle – data security is paramount
 - Goal – in the next year, we shall have no more than 2 top-level security incidents.
- Principle – buy rather than build.
 - Goal – in the next year – at least 75% of our new application systems will be packages rather than bespoke.

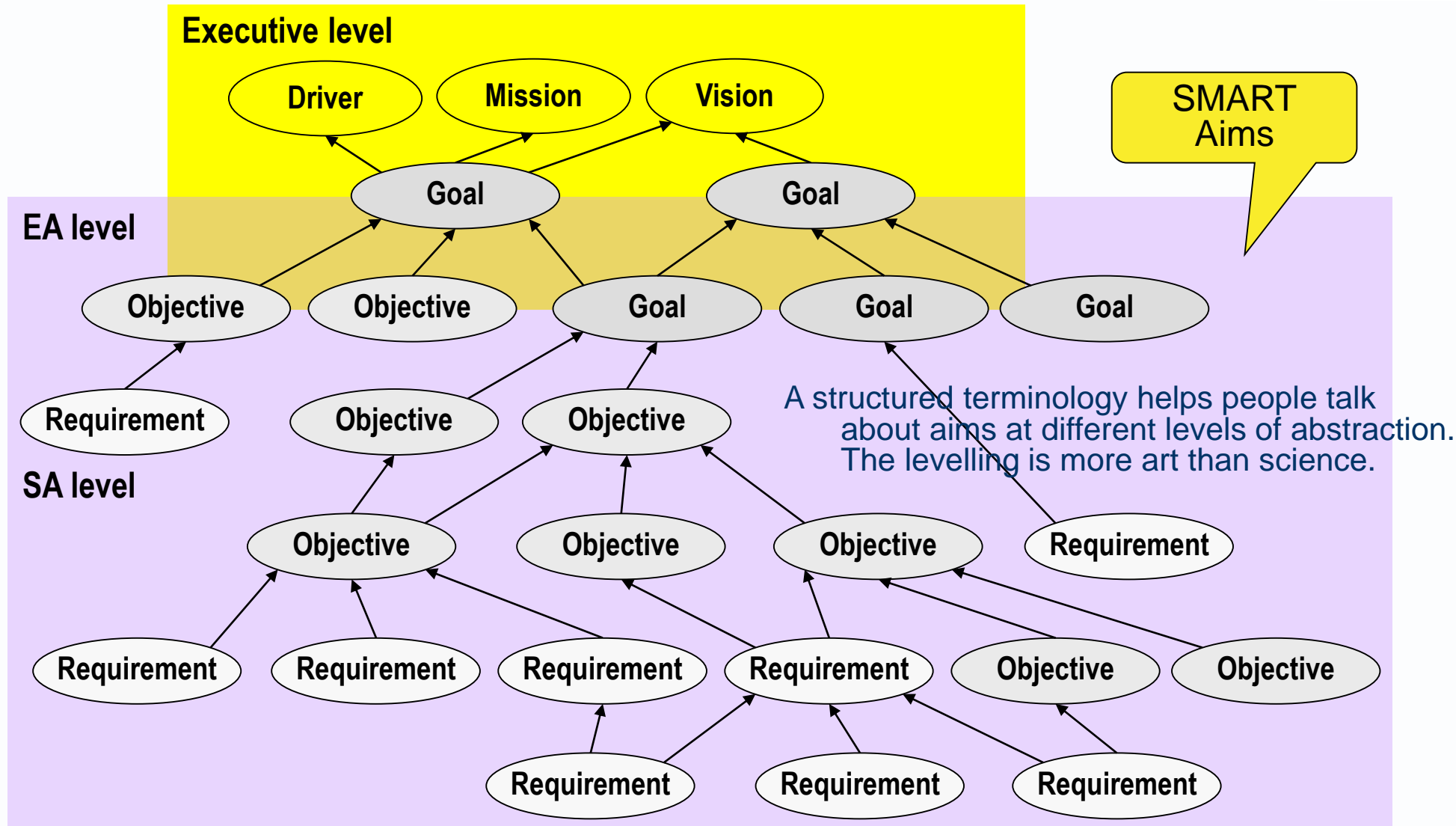


- ▶ There is a loosely structured hierarchy of aims.



- ▶ The terms can be used to differentiate levels within a given aim hierarchy.
- ▶ But there is no sharp or universally agreed distinction between aims at different levels.

Our aims hierarchy



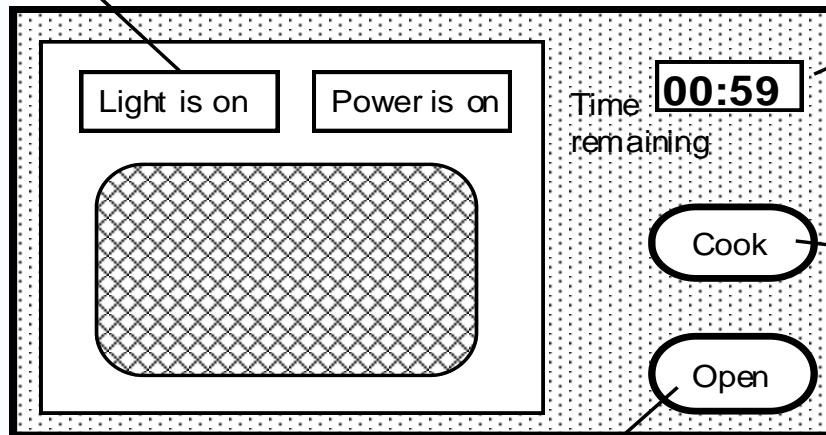
3 Identify constraints

- ▶ Identify the constraints on work to be done:
 - ▶ Time
 - ▶ Budgets
 - ▶ Resources
 - ▶ Standards
 - ▶ Regulations

4 Agree a Solution Vision

- ▶ Problem: Make a cheaper microwave oven
- ▶ Solution: The “one minute microwaver” (after Schlaer and Mellor)

The light inside the oven must be turned on while the oven is cooking (so you can see how the food is cooking) and while the door is open (so you can see to handle food and clean the oven).



When the oven timer reaches zero, it turns off the power tube, turns off the light and sounds the beeper to tell you the food is ready.

Push the cook button while the door is open - this has no effect.

Push the cook button while the door is closed - the oven starts to cook for a minute: that is, the power and the light come on, and the timer starts counting down from sixty seconds.

Push the cook button before the timer runs down - an extra minute of cooking time is added to the timer.

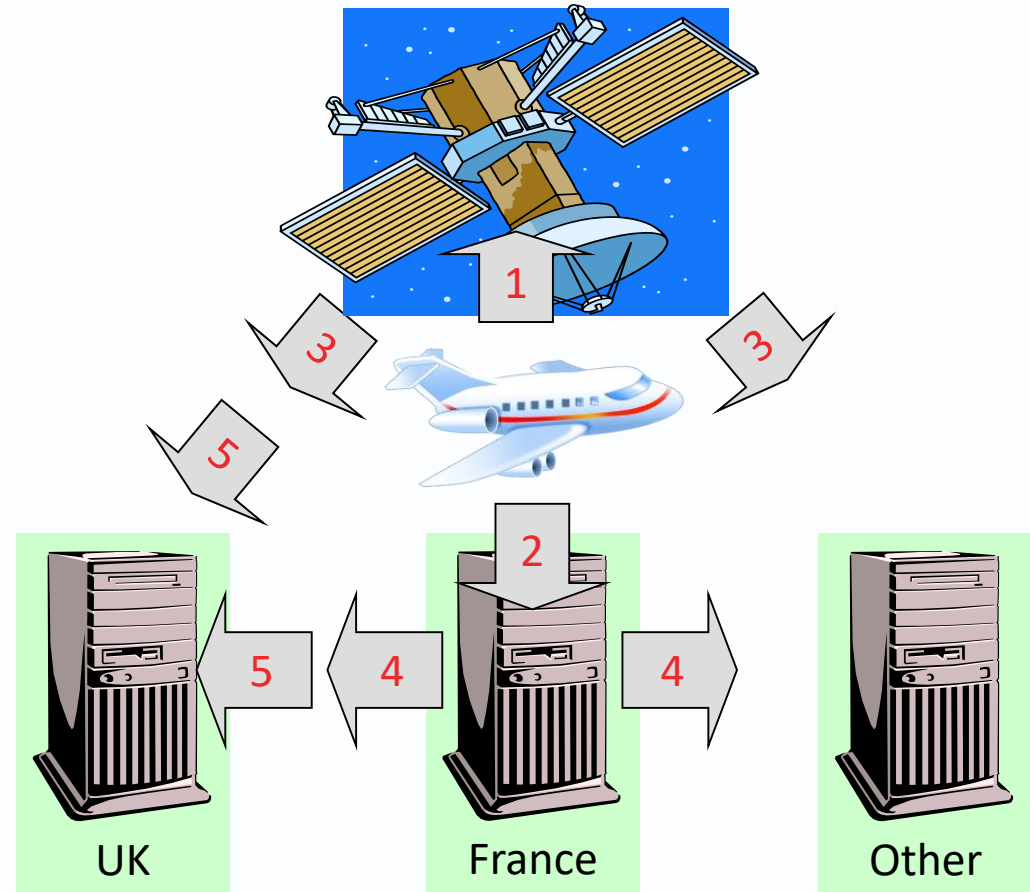
Open the door while the power is off - the light comes on. Close the door again - the light goes off.

Open the door while the power is on - the power goes off and the timer returns to zero, but the light stays on. Close the door again - the light goes off, but cooking does not restart unless you push the cook button again.

A Solution Concept/ Vision diagram

Problem: how to maintain integrity of airplane position data?

1. Airplane sends time-stamped airplane/position message to satellite
2. Airplane also sends time-stamped airplane/position message to data centre (e.g. France) of controller responsible for current air space
3. Satellite forwards the airplane/position message to UK and others
4. France forwards the airplane/position message to UK and others
5. UK receives messages
6. UK replaces airplane/position record *if time stamp of message is later than time stamp of message last processed*



However

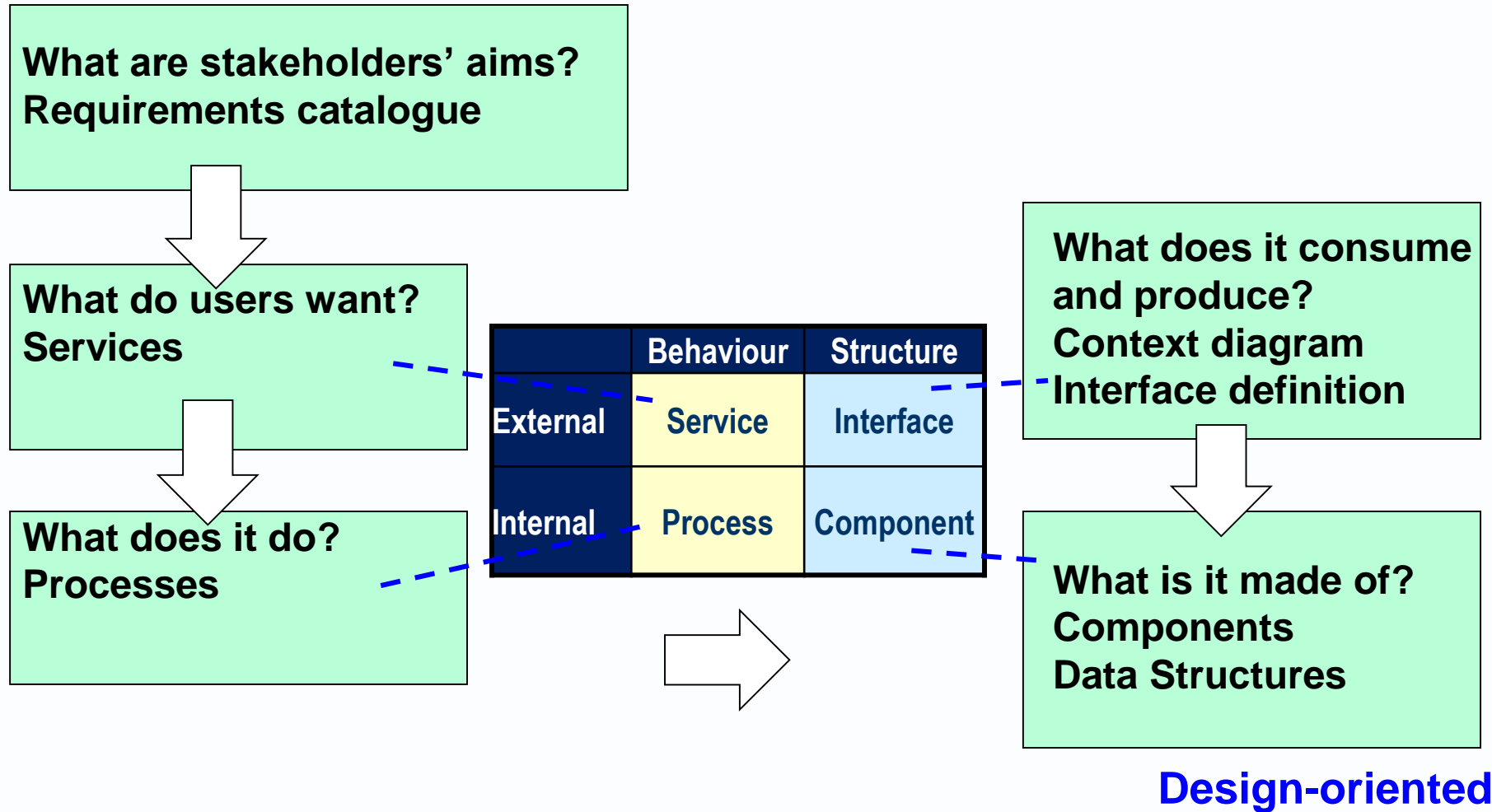
- ▶ A Solution Vision may be a relatively elaborate document.
- ▶ In effect, a first-cut Solution Outline.

5 Scope in several ways

► Define three dimensions

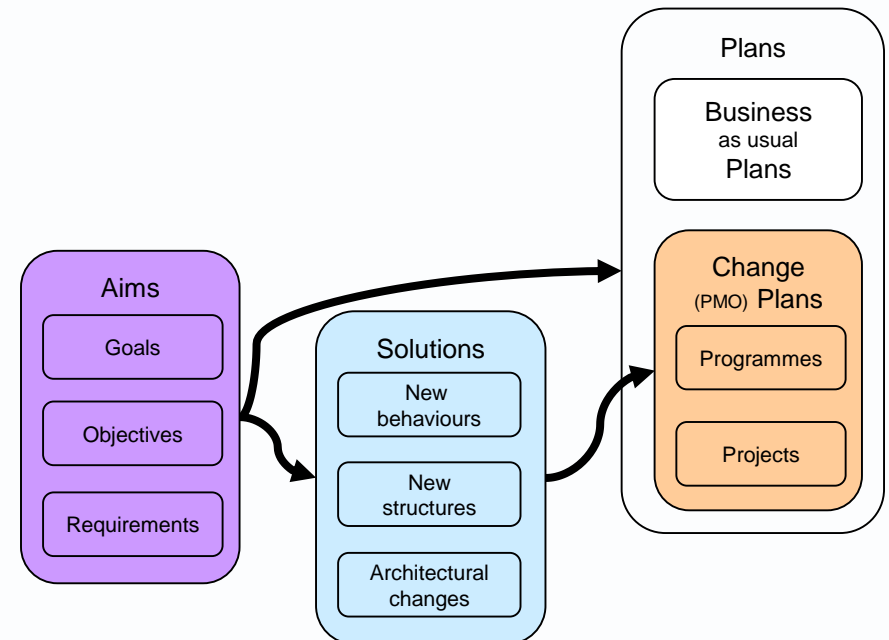
Breadth	Constraints	Depth
Size & complexity of System/project Large / Medium / Small	Time/resources to describe the system/project Little / Moderate / Lots	Level of detail reachable in descriptions/plans
Large	Little	Vacuous
Medium	Little	Sketchy
Large	Moderate	Sketchy
Medium	Moderate	Elaborate
Small	Little	Elaborate
Large	Lots	Elaborate
Small	Moderate	Fulsome
Medium	Lots	Fulsome
Small	Lots	Complete

Requirements-oriented



6 Plan the “architecture project”

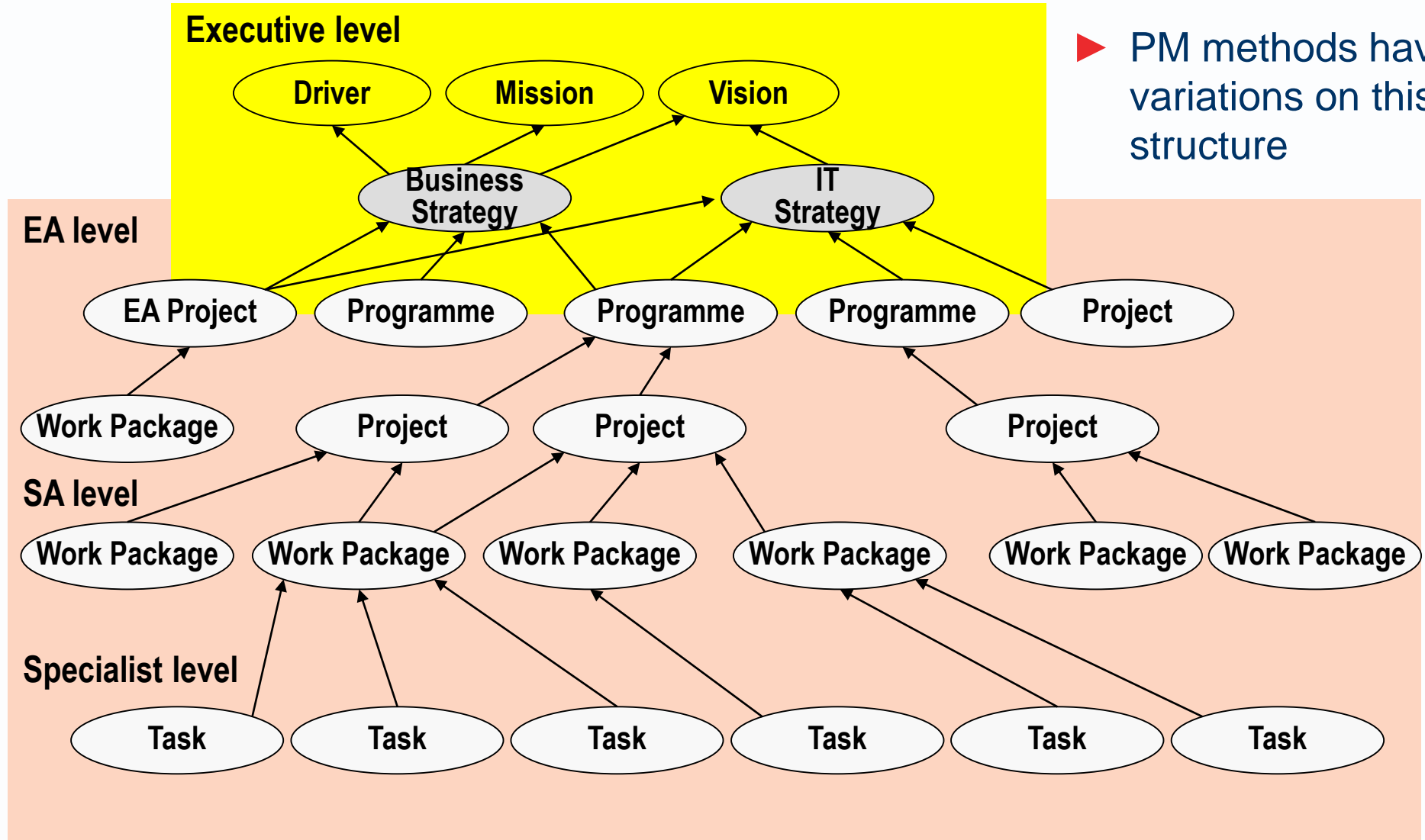
- ▶ Business-as-usual aims cascade down the management structure, as in a balanced score card approach.
- ▶ By contrast, the aims for a one off transformation travel a different route down the organisation via some kind of business change, strategy or enterprise architecture function.



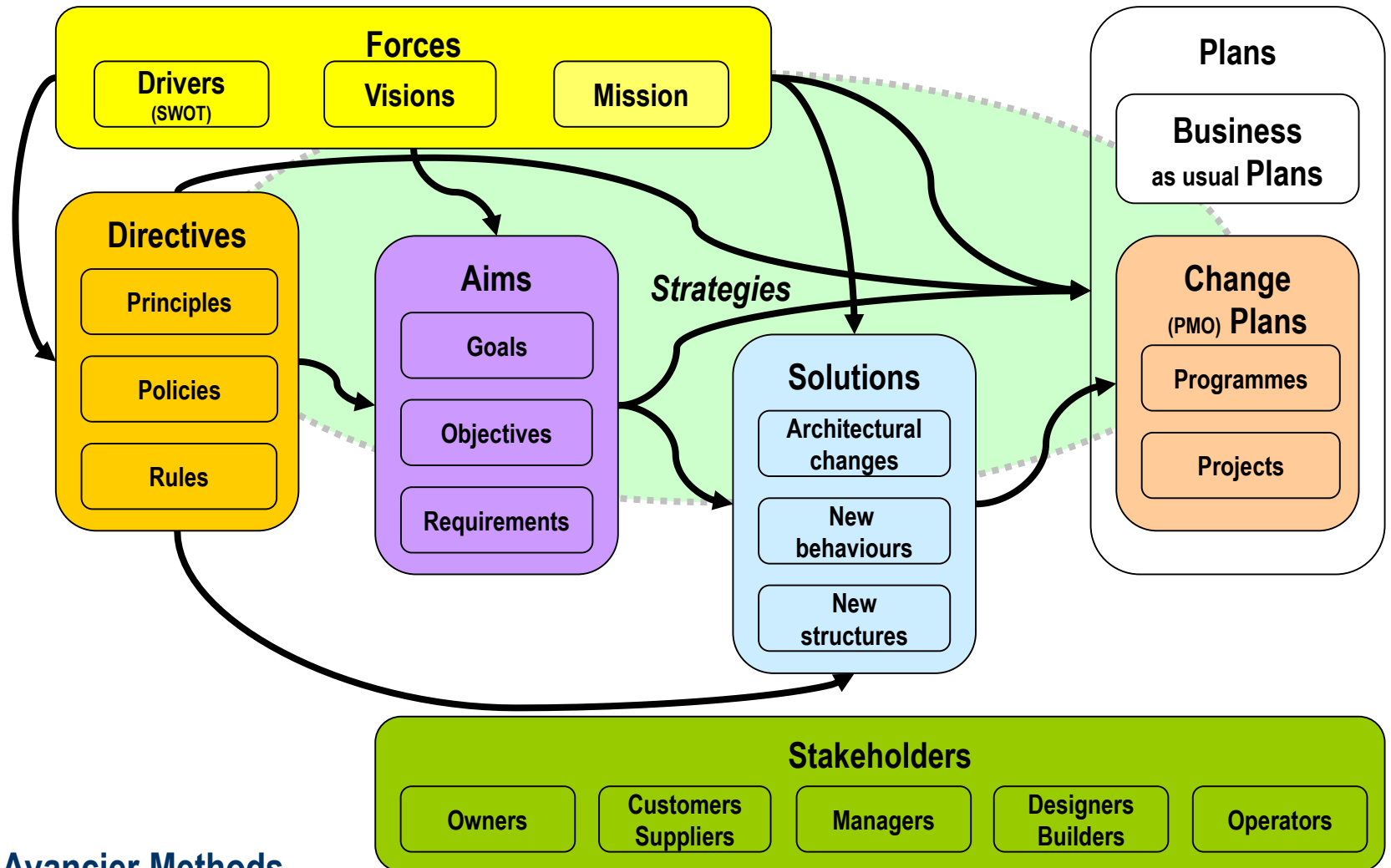
A structured terminology helps people talk about plans at different levels of abstraction. The levelling is more art than science.

A plan hierarchy

► PM methods have variations on this structure



More in other presentations



Scope the Endeavour (AM level 2)

