Avancier Methods
Motivation Elements

Directives: Principles, Policies and Rules

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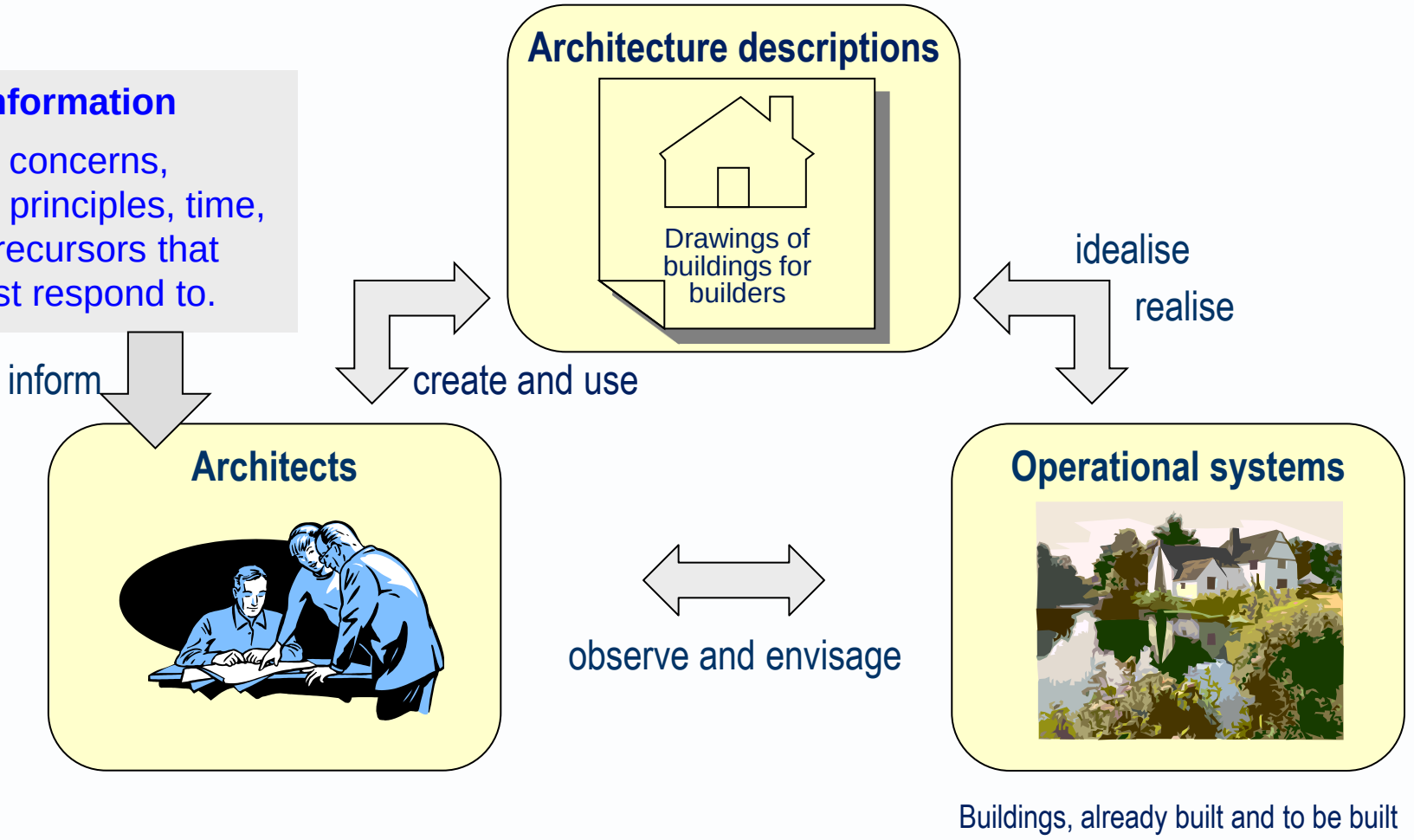
Architects are concerned with context and motivations

Contextual information

Stakeholders, concerns, requirements, principles, time, cost etc. All precursors that architects must respond to.



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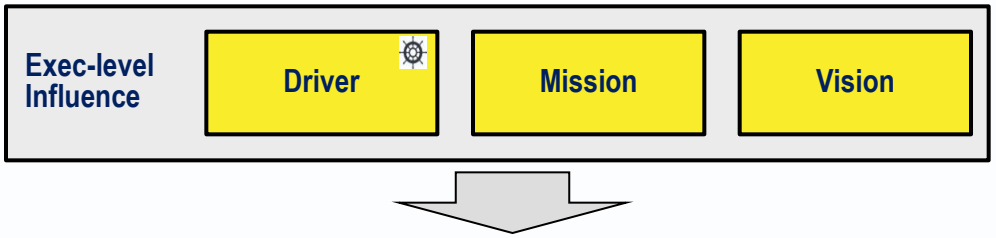
How to make sense of this messy requirements and constraints space?



Directives

Aims

Guidelines

Principles

Goals

Standards

Policies

Constraints

Objectives

Rules

Requirements

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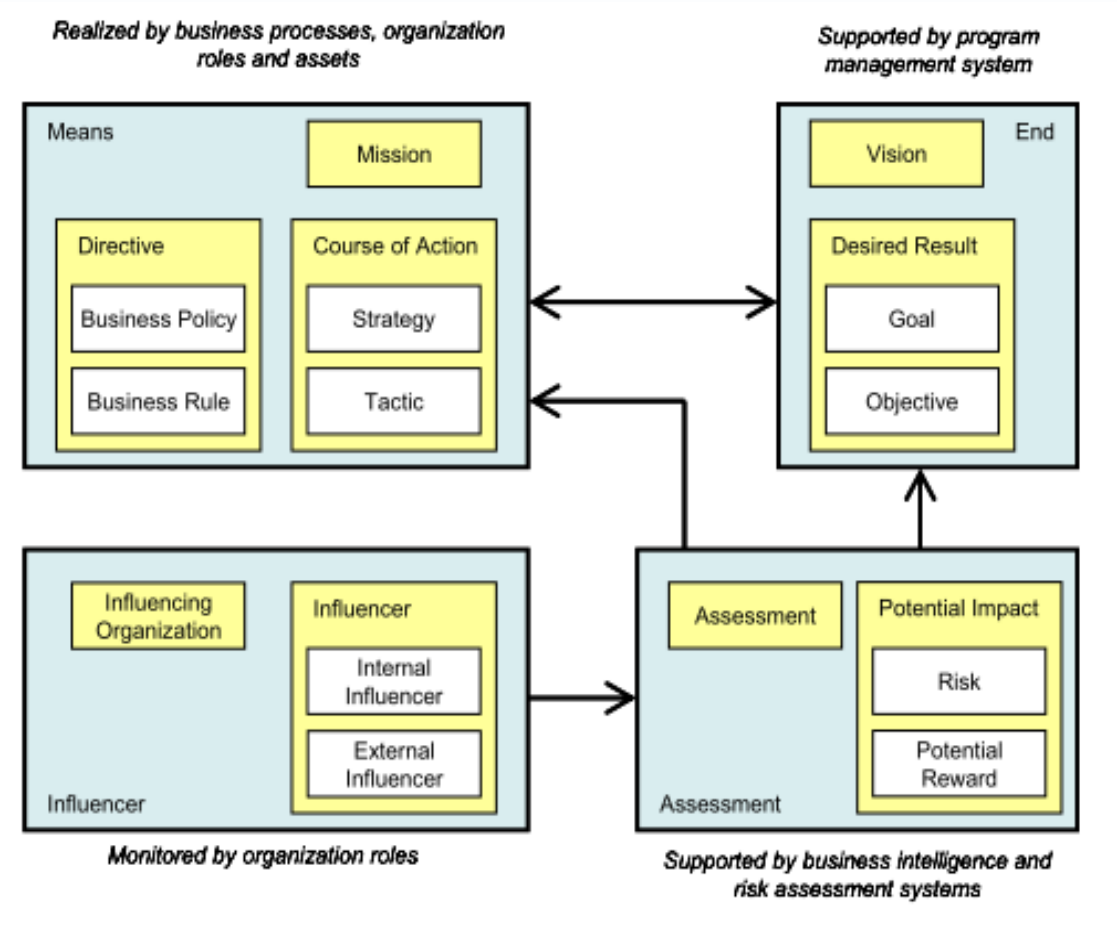
We studied the OMG's Business Motivation Model



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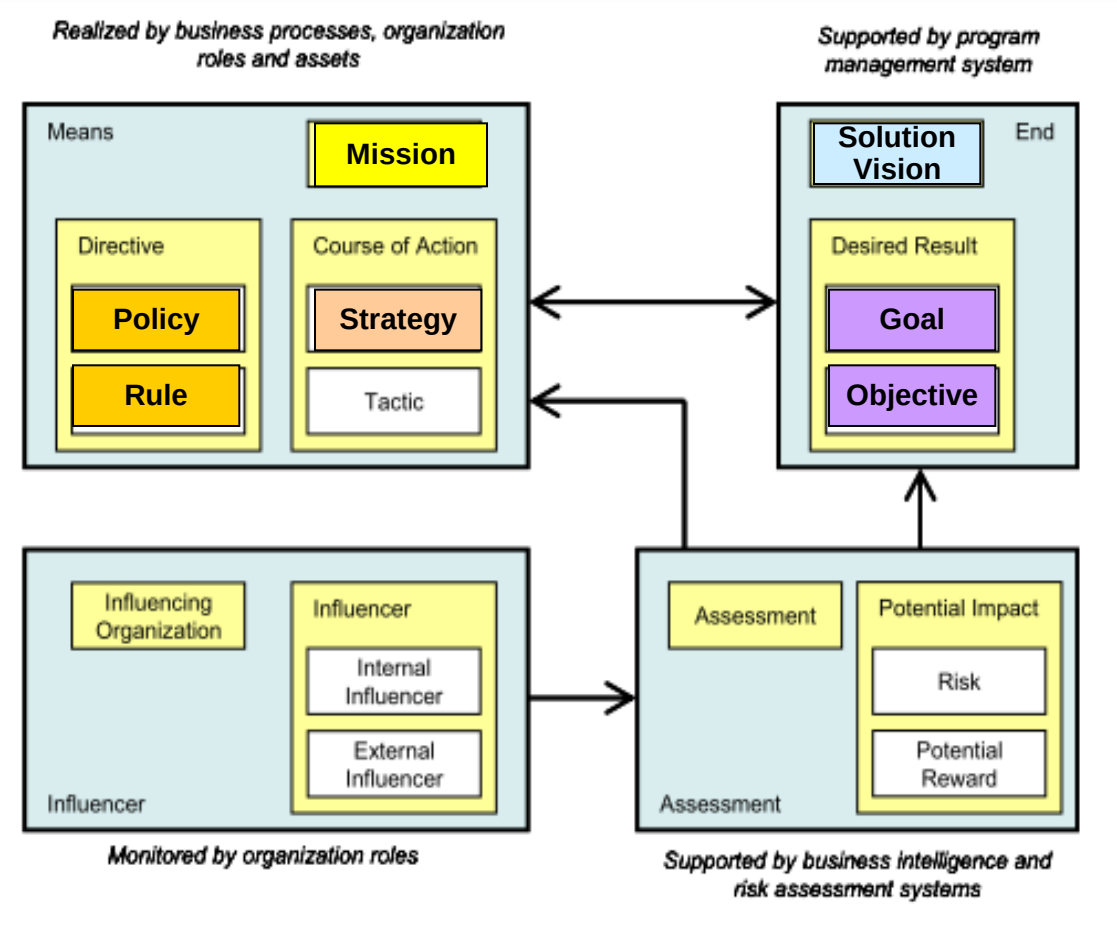
We aligned the BMM with other sources



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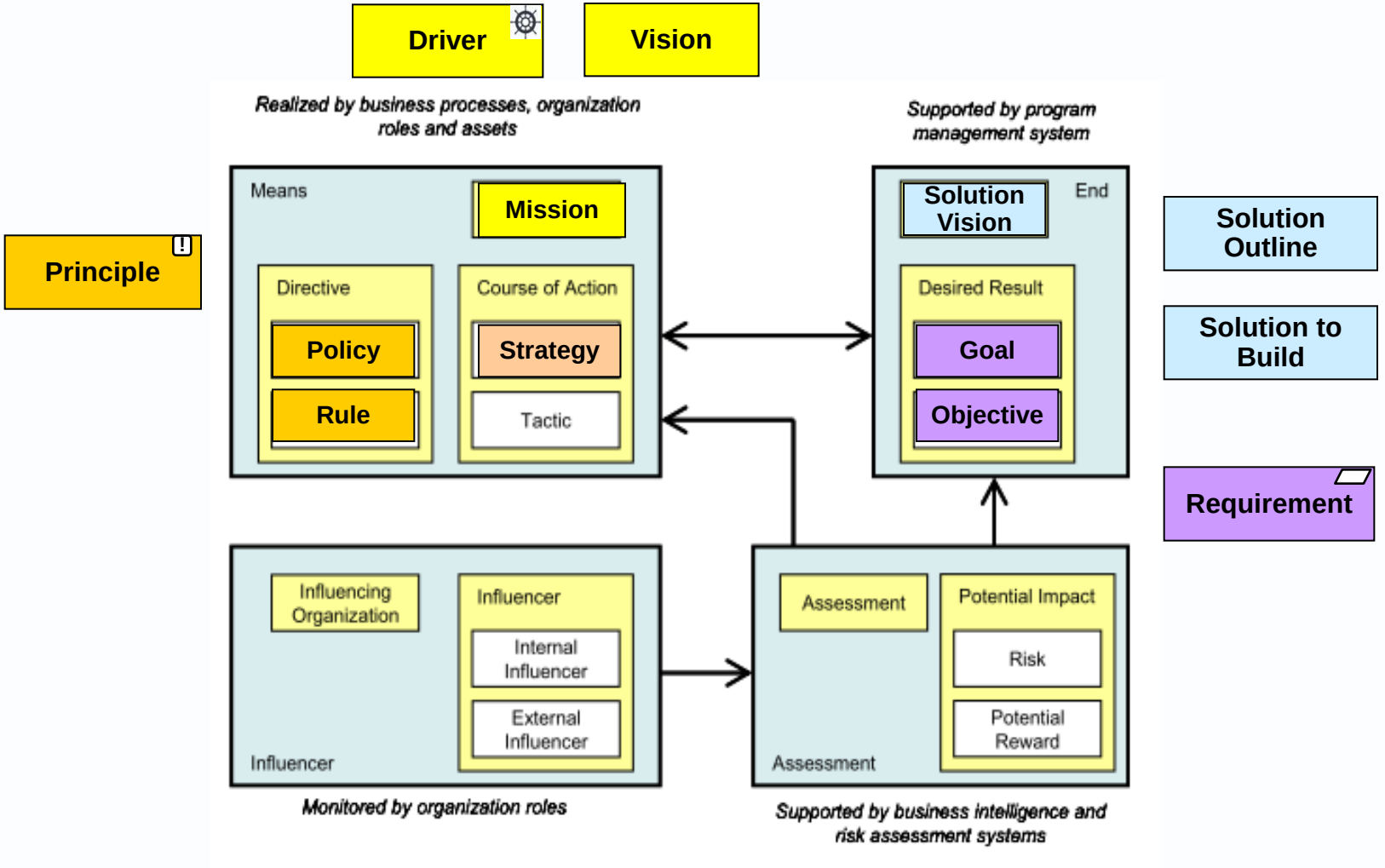
We added elements from other ArchiMate and other sources



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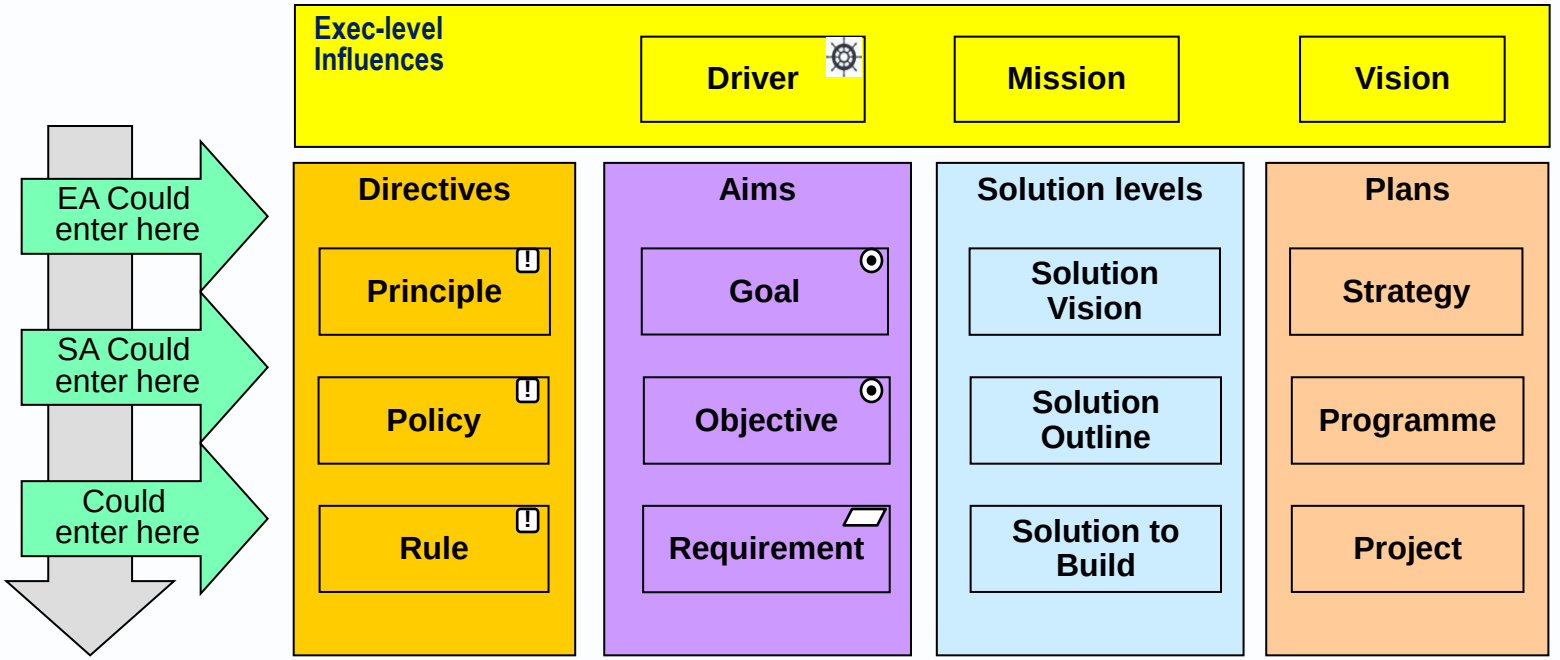
The result was this structure

- Inputs include high level aims, directives, visions and strategies.
- During architecture definition, these are decomposed and elaborated.
- So outputs include lower-level elaborations of the inputs.
- We distinguish different levels of decomposition by using different words.



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Business analysis concepts mapped to E&SA concepts

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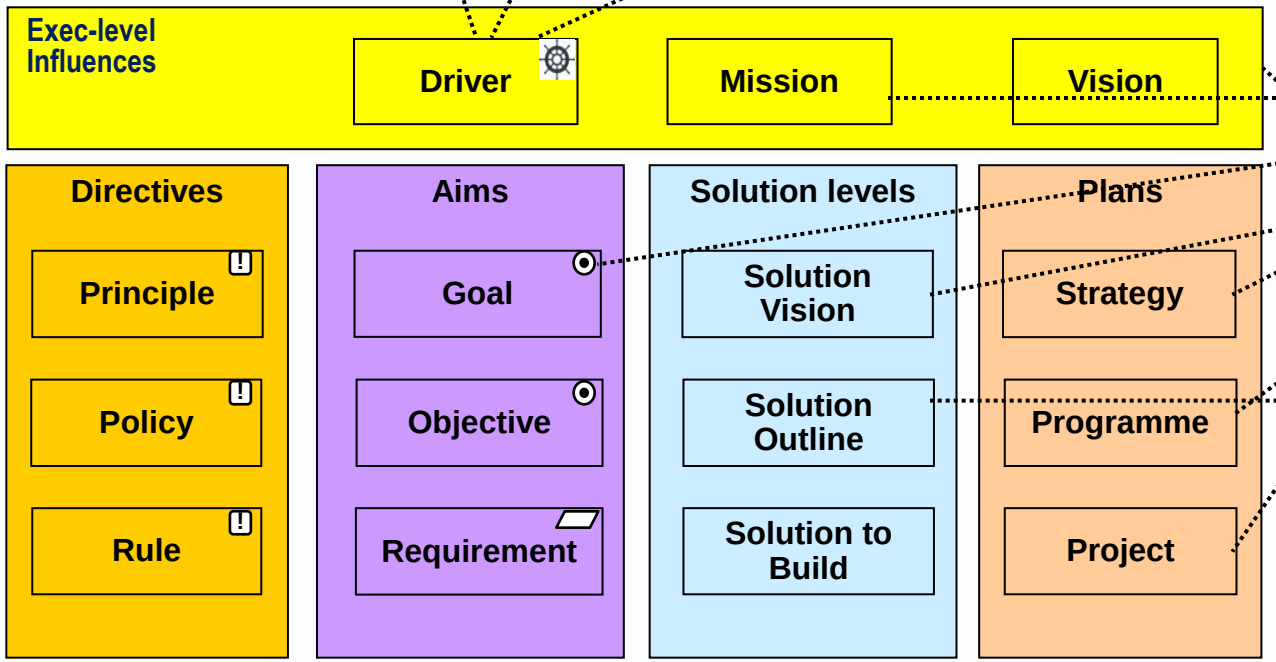
SWOT
Strengths (internal)
Weaknesses (internal)
Opportunities (external)
Threats (external)

PESTLE (external forces)
Political
Economic
Social
Technological
Legal
Environment

5-forces analysis (external forces)
Buyers
Suppliers
Competitors
New entrants
Substitute products



MOST
Mission
Objectives
Strategy
Tactics

Business activity model
Control activities
Monitoring activities
Doing activities
Enabling activities
Planning activities

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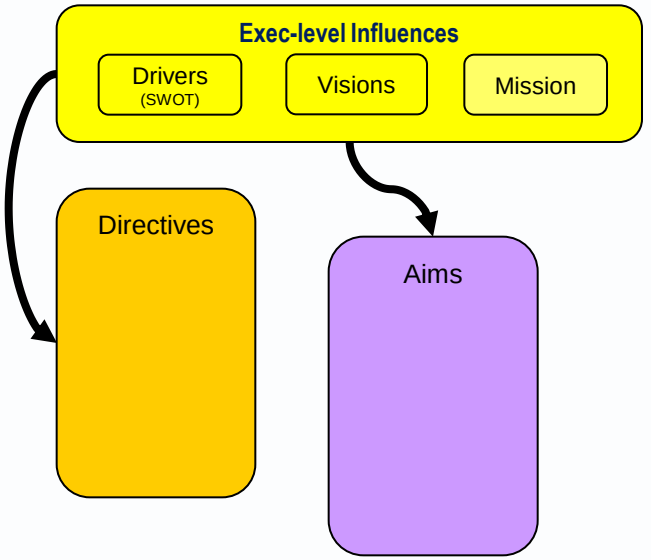
Drivers

- Drivers are pressures – external or internal - e.g.
  - changes in **customer behaviour or interest**
  - the threat of **increased competition** from a new entrant to the market.
  - **high turnover** of staff, with negative reports in leaving interviews.
  - increased media attention to **embarrassing** “loss” of citizen data.

- Drivers stimulate enterprise leaders to define aims and directives for activity.



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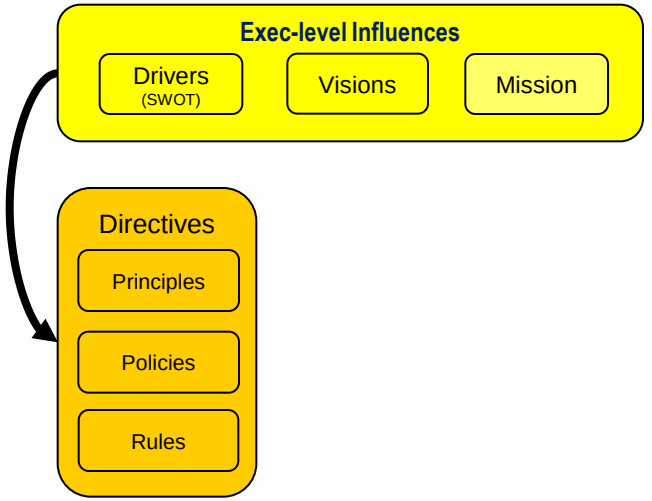
From drivers to directives

- Driver = high turnover of staff, with negative reports in leaving interviews.
- Principle = “We value our people.”

- Driver = increased media attention to embarrassing “loss” of citizen data.
- Principle = “Data security is paramount”.



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Directives

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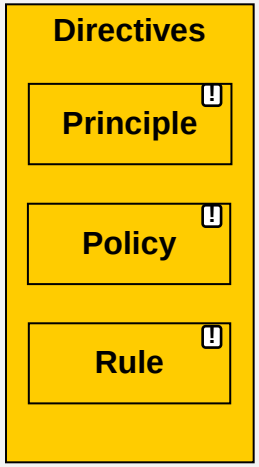
Directive



[an influence] a principle or policy, enduring and seldom amended, that steers or constrains behaviour or choices.

It may be specifiable as a data processing rule.

Directives may be arranged in a hierarchical structure in which principles are supported by lower level policies, and policies are specified as business rules.

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Directive hierarchy

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Principle 	[a directive] that is strategic and not-directly-actionable. (E.g. Waste should be minimised. Data security is paramount.)
Policy 	[a directive] that is more tactical than a principle. It may be implemented by business rules. (E.g. The public have minimal access to business data. USB ports are disabled. Messages at security level 3 are encrypted.)
Business Rule 	[a directive] that is formalised in data processing. (E.g. Access Level = Low if User Type = Public. See Process rule and Data rule for further definition.)

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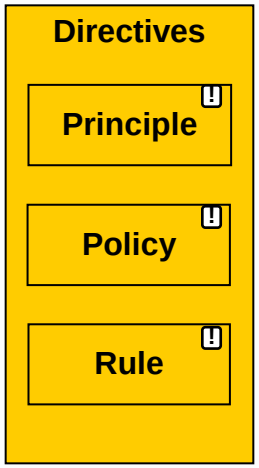
Principles example 1



- The practitioner manual has a menu of c80 principles.
- Including this example from one enterprise

- E.g. a Telco's principles
  1. Buy rather than Build
  2. Adopt a multi-tier systems architecture
  3. Minimise and manage duplication of data and system functionality
  4. Maximise the re-use and sharing of information, as far as possible
  5. Ensure clarity of systems, processes and data ownership
  6. Adopt scalable, proven technology
  7. Extend the existing application portfolio as far as possible
  8. Use point solutions only when necessary
  9. Avoid point-to-point integration by adopting a bus integration architecture
  10. Follow a component based approach to shared IT solutions
  11. Ensure a consistent user experience across multiple channels
  12. Ensure that IT initiatives are guided by business needs and priorities
  13. Ensure conformity of IT solutions to IT standards and architecture
  14. Use selective sourcing where appropriate

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Principles example 2 - USAF

Business Principles

- 1: Primacy of Principles
- 2: Maximize Benefit to the Enterprise
- 3: Information Management is Everybody's Business
- 4: Business Continuity
- 5: Common Use Applications
- 6: Compliance with Law
- 7: IT Responsibility
- 8: Protection of Intellectual Property

Data

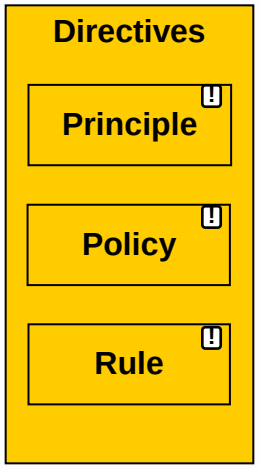
- 9: Data is an Asset
- 10: Data is Shared
- 11: Data is Accessible
- 12: Data Trustee
- 13: Common Vocabulary & Data Definitions
- 14: Data Security

Apps

- 15: Technology Independence
- 16: Ease-of-Use

Technology

- 17: Requirements-Based Change
- 18: Responsive Change Management
- 19: Control Technical Diversity
- 20: Interoperability



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Principles example 3 – a global organisation

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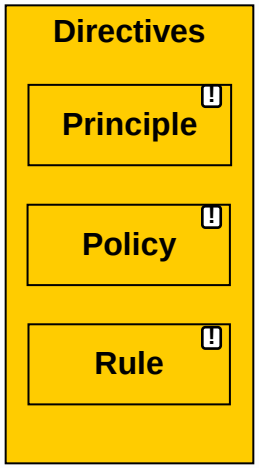
1. Separate concerns – for flexibility and maintainability
2. Build for competitive advantage / Buy for competitive parity
3. Encapsulate – for CBD and SOA
4. Loosely couple system components – for flexibility and maintainability
5. Create and use open APIs – and use EDA
6. Maintain single source of truth
7. Design for response time / latency
8. Design for graceful failure
9. Web first: design for browser and client device independence



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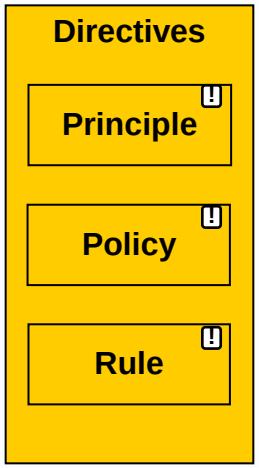
Principles

- are a tool of **governance**
- are simple statements (even aphorisms)
- define the way an organisation does or wants to operate
- reflect the goals of the organisation and the intentions of the governance board
- **reflect strengths and weaknesses**
- steer an organisation in directions compatible with strategic business and technical goals and objectives
- **are more abstract than goals; qualitative rather than quantitative**
- both aid and constrain decision making
- are useful as dispute resolvers
- **facilitate choices between design options**
- often conflict with each other, so trade-offs must be addressed.



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Principle conflicts

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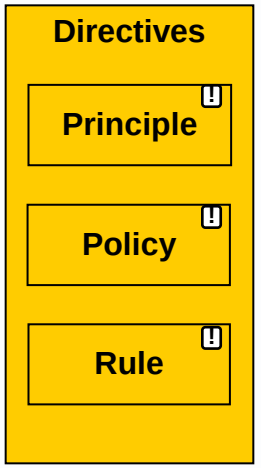
- The practitioner manual has a menu of c80 principles.
- Some are contradictory

- You may select contradictory principles provided you include in them guidance on how to choose one over another – e.g.
  - what kind of data must be secure
  - what kind of data must be accessible.



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A structured terminology for directives
helps people talk about directives at different levels of abstraction

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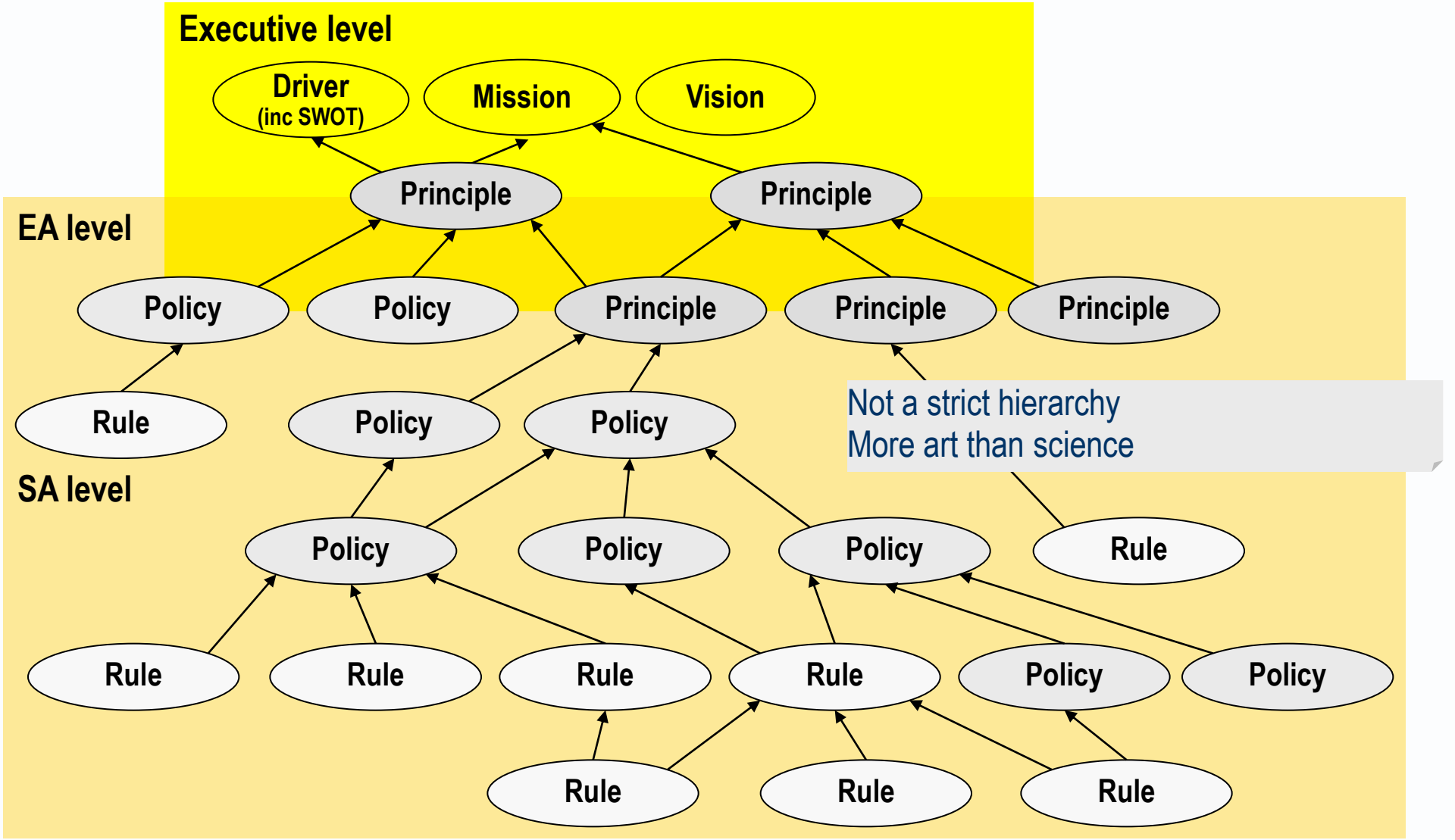

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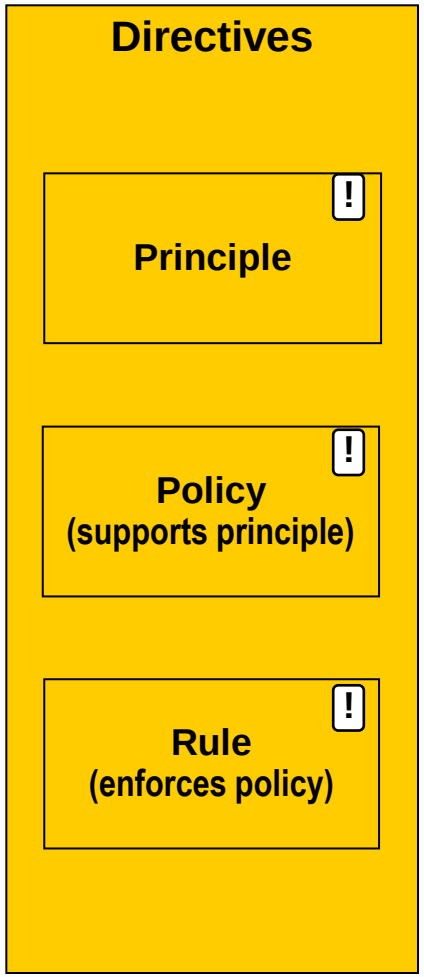
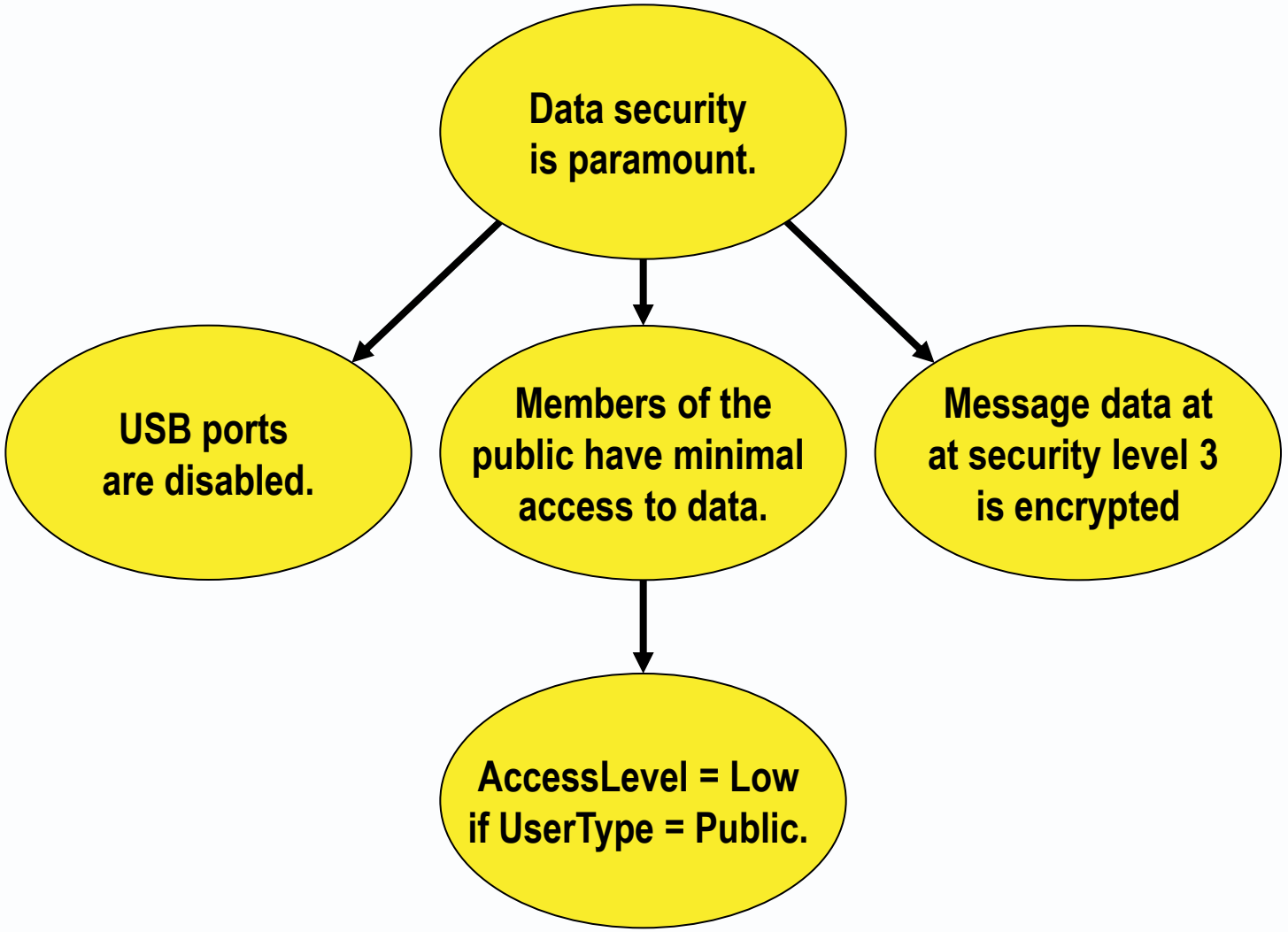
Directive hierarchy example 1





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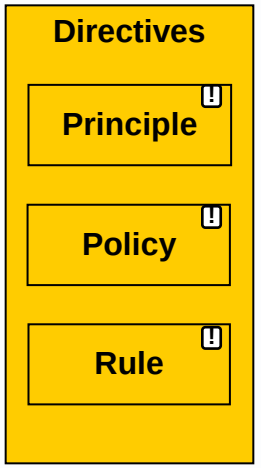
Directive hierarchy example 2



- **Principle:** Employ a skilled workforce.

- **Policies:**
  - Employ people who are experienced enough for the role they play in our organisation.
  - The experience length required for each role is defined in our job family framework.
  - The experience of a candidate is checked by a member of the HR job family.

- **Business Rules**:
  - Employable = Yes IF Experience = Enough = Yes AND HR Approval = Yes.
  - Experience = Enough IF Experience > Minimum Experience (of Role) and < Age < Pensionable Age

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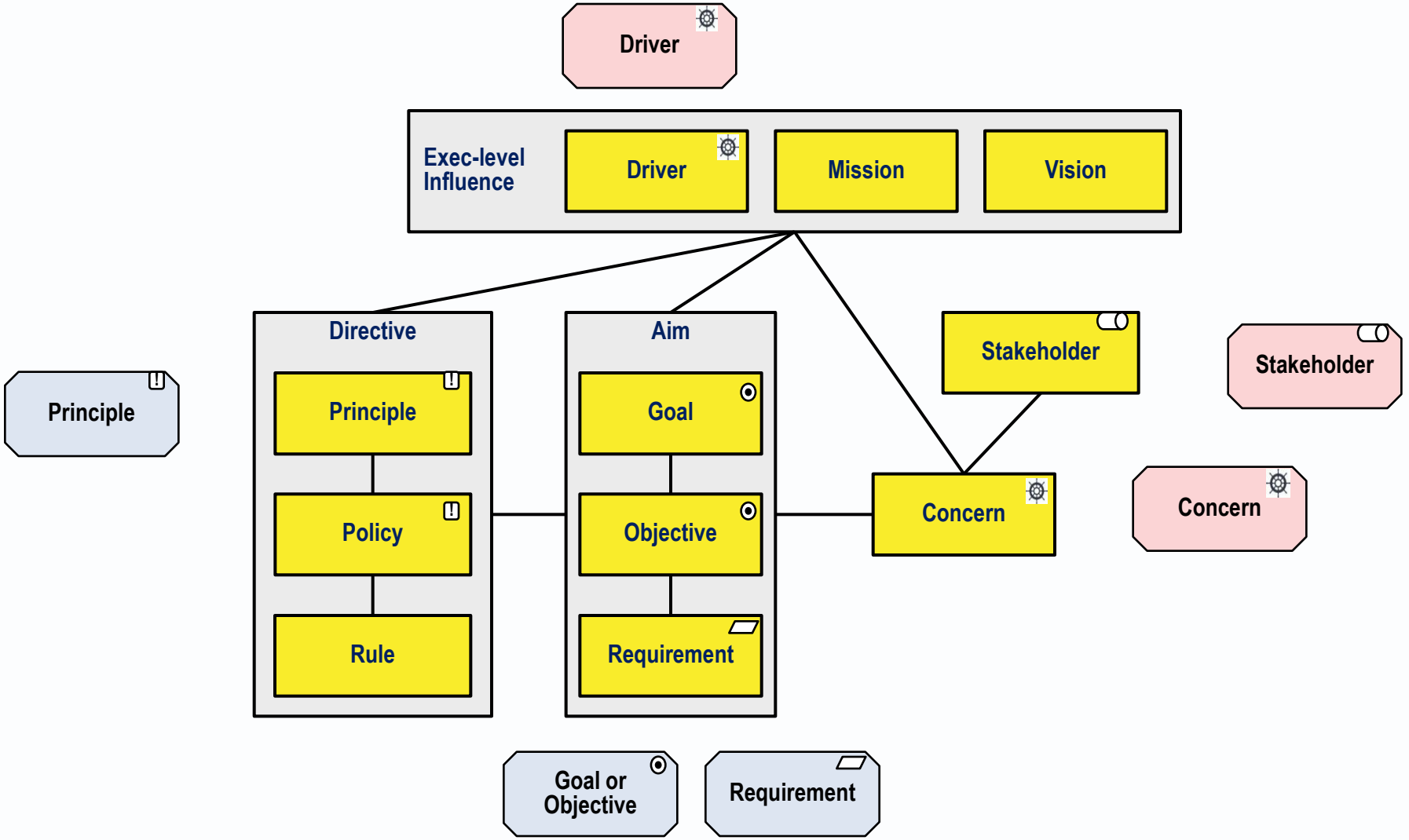
Motivation elements in AM



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