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What Auditors Want

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Themes

- What we are
- What we do
- What we need
- Why we need it
- What you get in exchange
- A better way?

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About IRMA

- Information Risk Management & ***Assurance*** SG
- The oldest specialist group in the BCS
- Officially recognised in 1965, but in existence since 1962
- Previously the Information Risk Management & ***Audit*** SG
- Before that we were the ***Auditing By Computer*** SG

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Some Views of Audit

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Our View!

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What We Do

- Primary
  - Provide ***assurance*** that IT is well controlled, is adequately performing and is providing value for money
- Secondary
  - ***Assist*** in developing well controlled business solutions

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Governance v Assurance

- IT Governance
  - The leadership, structure, relationships, processes and monitoring that ensure IT sustains & extends the enterprise's strategies & objectives by adding value while managing associated risk
- Assurance
  - The provision of a statement that inspires confidence:
    - A guarantee or pledge
    - Freedom from doubt
    - Certainty

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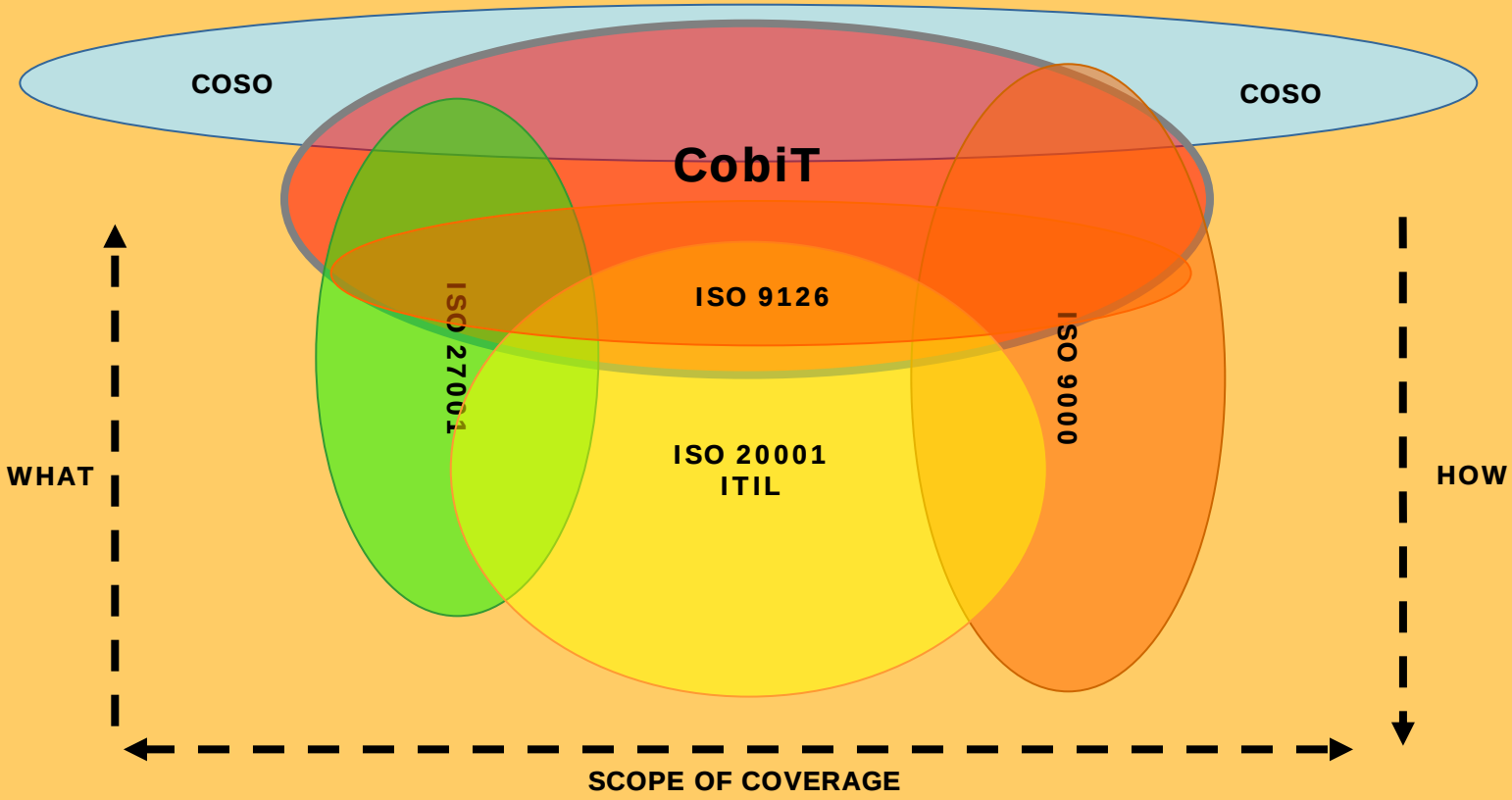
The APG

- Deals with developments in programming languages, environments and techniques
- New stuff
- New risks
- New assurance requirements

Assurance Frameworks



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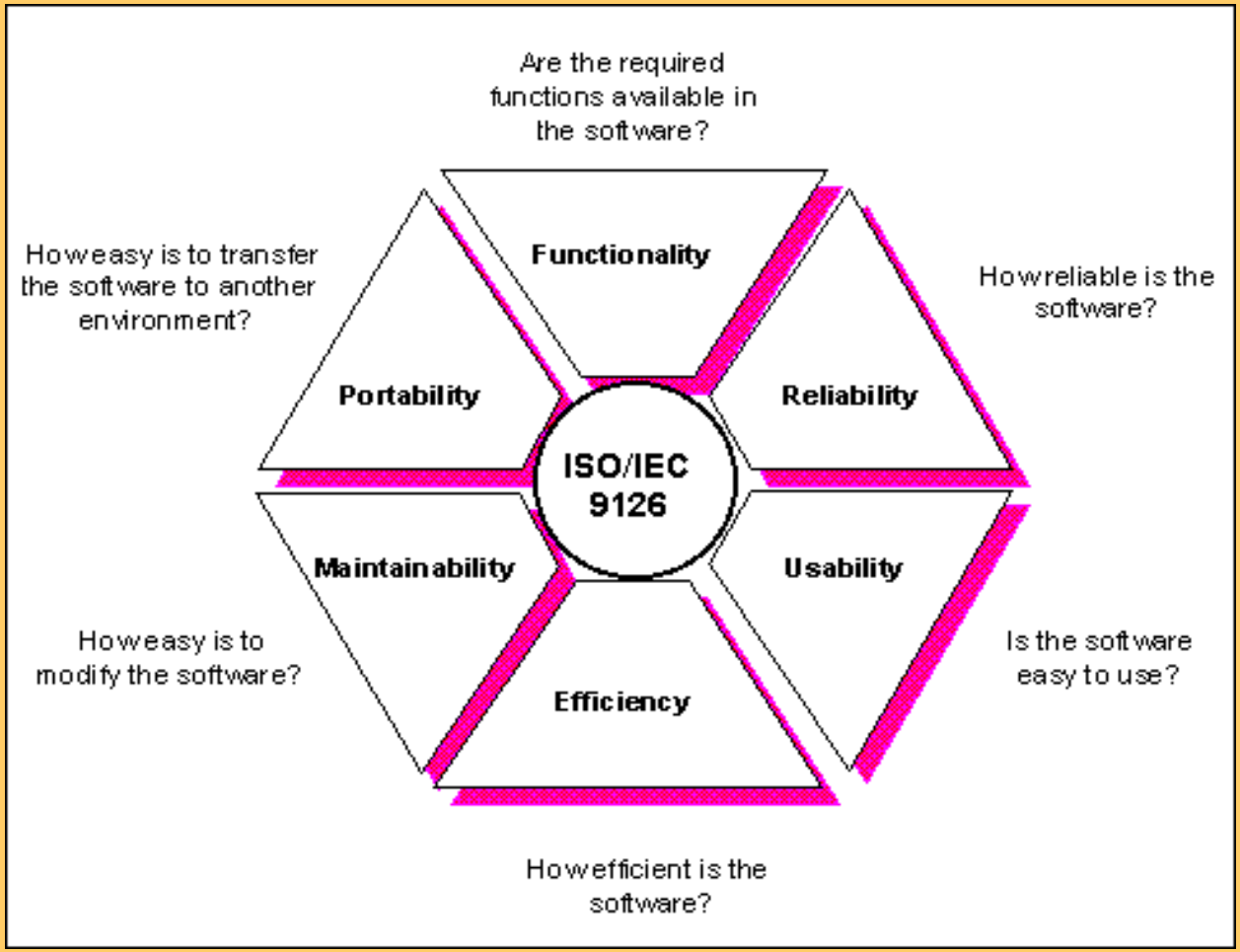
ISO 9126 Components



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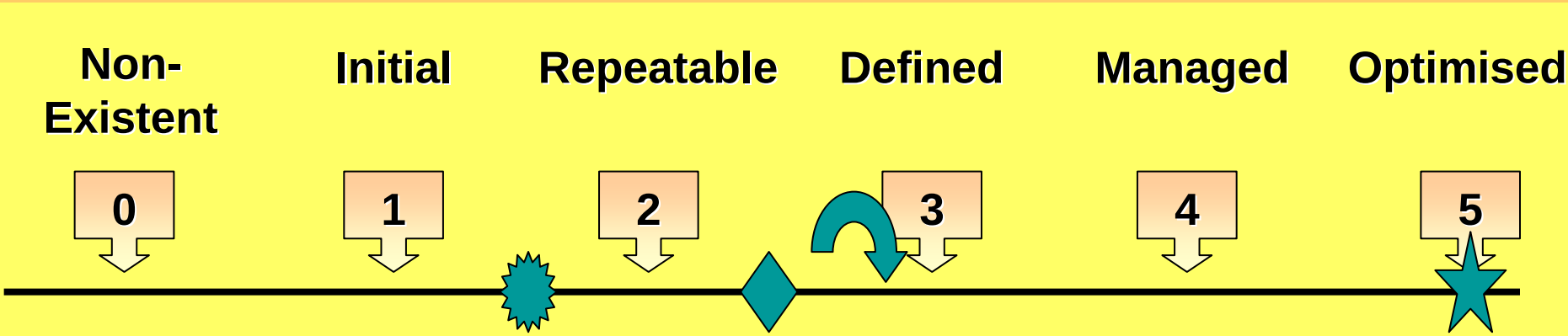
SEI Process Maturity Concept



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How Assurance Works

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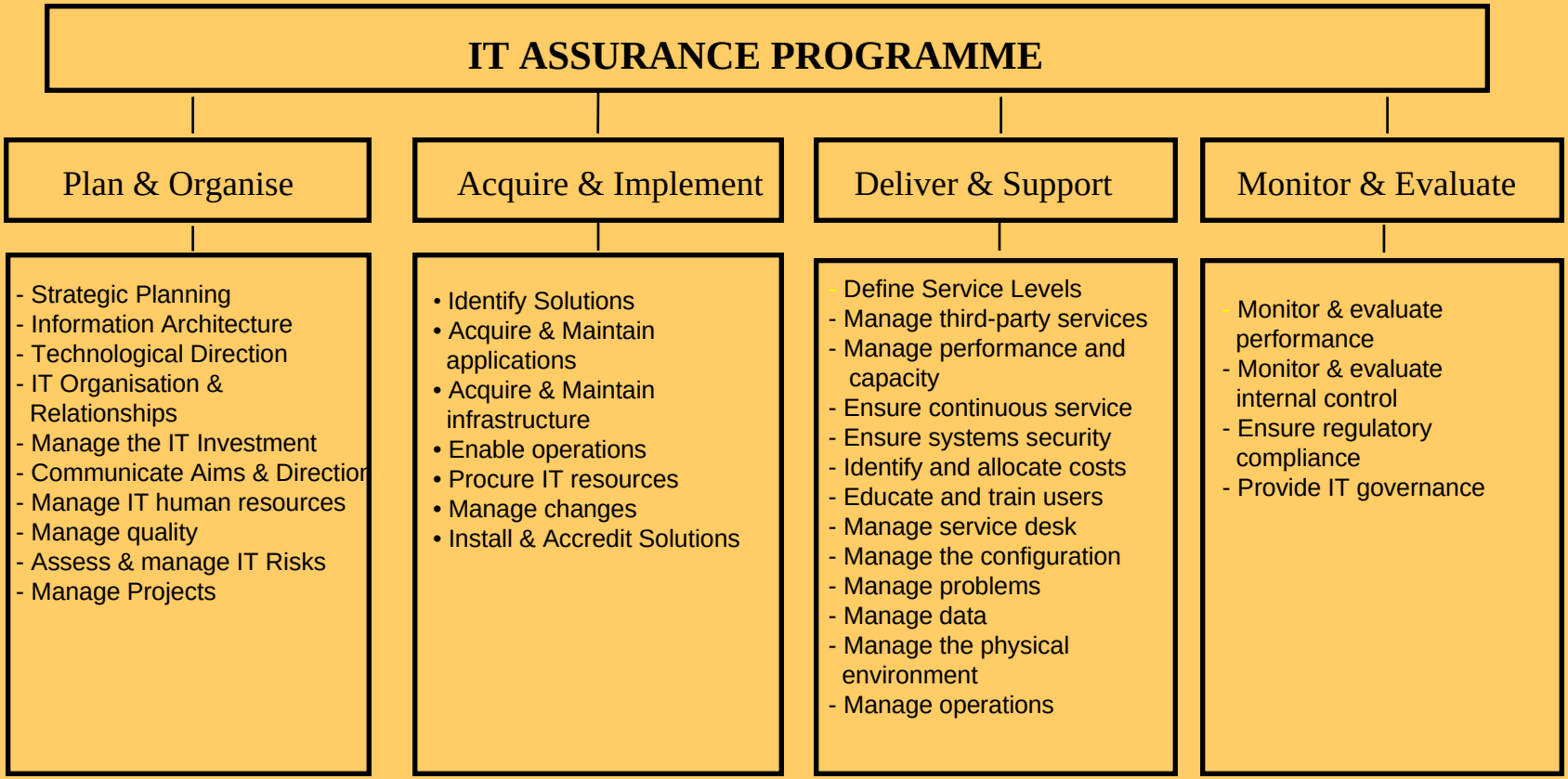
IT Processes



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Development Assurance Underpinning

- ISO 9126 (Software Product Evaluation)
- ISO 12207 (Software Life Cycle)
- ISO 15504 (Software Process Assessment)
- ISO 90001 – (Quality within the SDLC)
- ISO 20001 – (Service Delivery)
- ISO 27001 (Information Security)
- Control Objectives for IT (CobiT)

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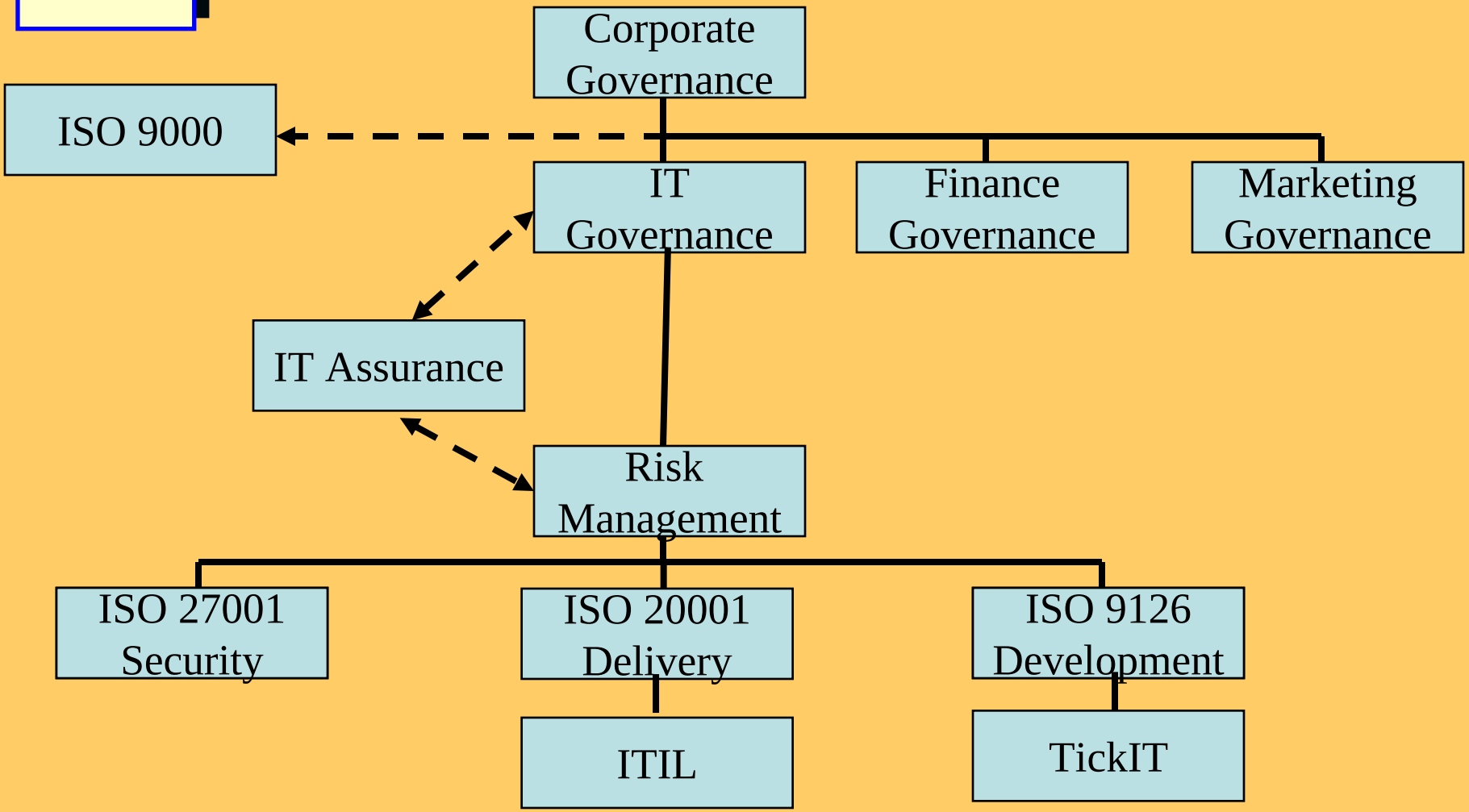
Where We Fit In



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We Have The Tools

- International standards
- Assurance processes (CobiT)
- Professionalism
  - BCS
  - ISACA
- Qualifications
  - CISA, QiCA, MIIA, PIIA, MBA, MBCS, etc.
- Computer Assisted Audit Techniques (CAATs)

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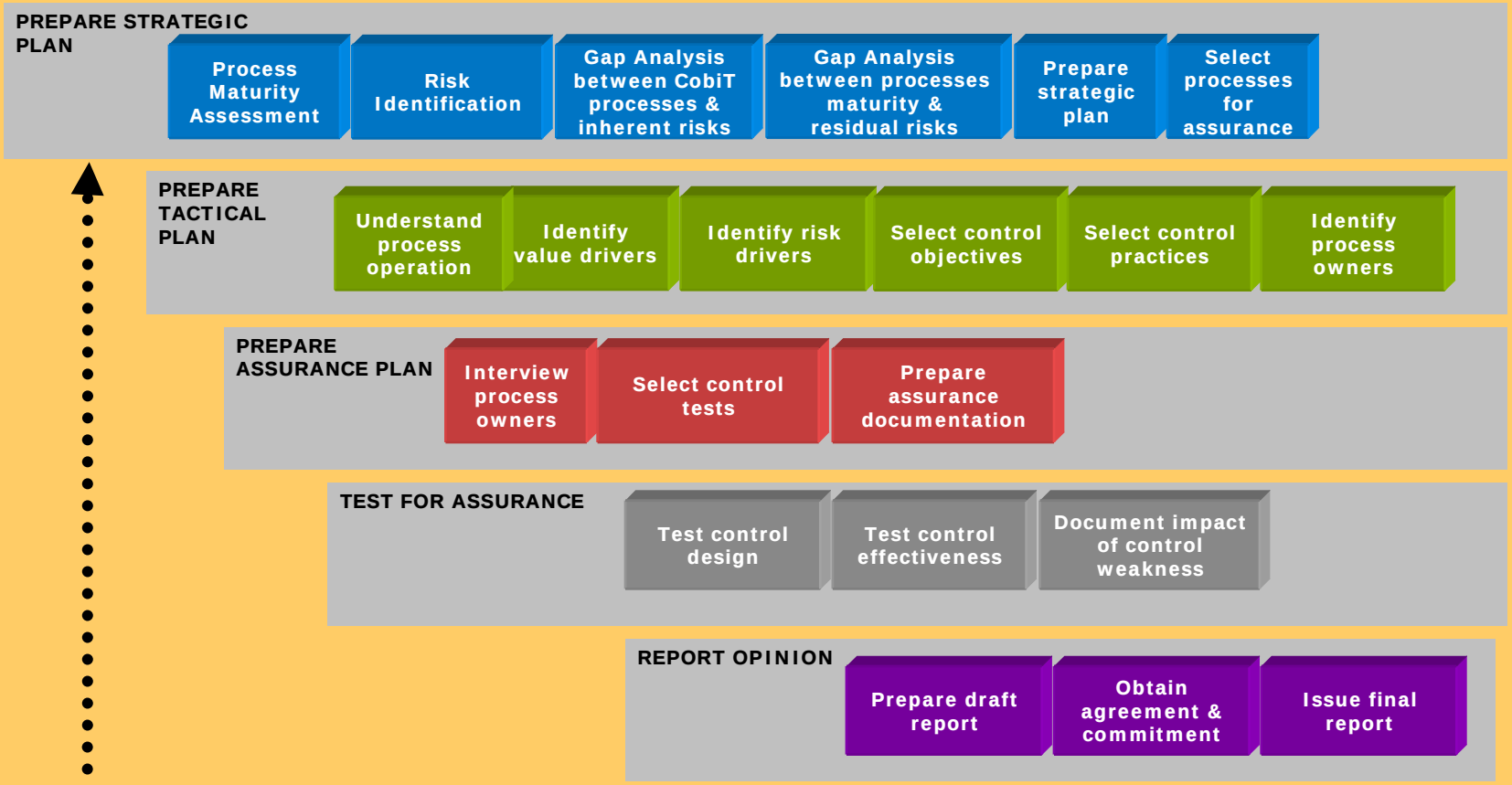
Assurance Roadmap



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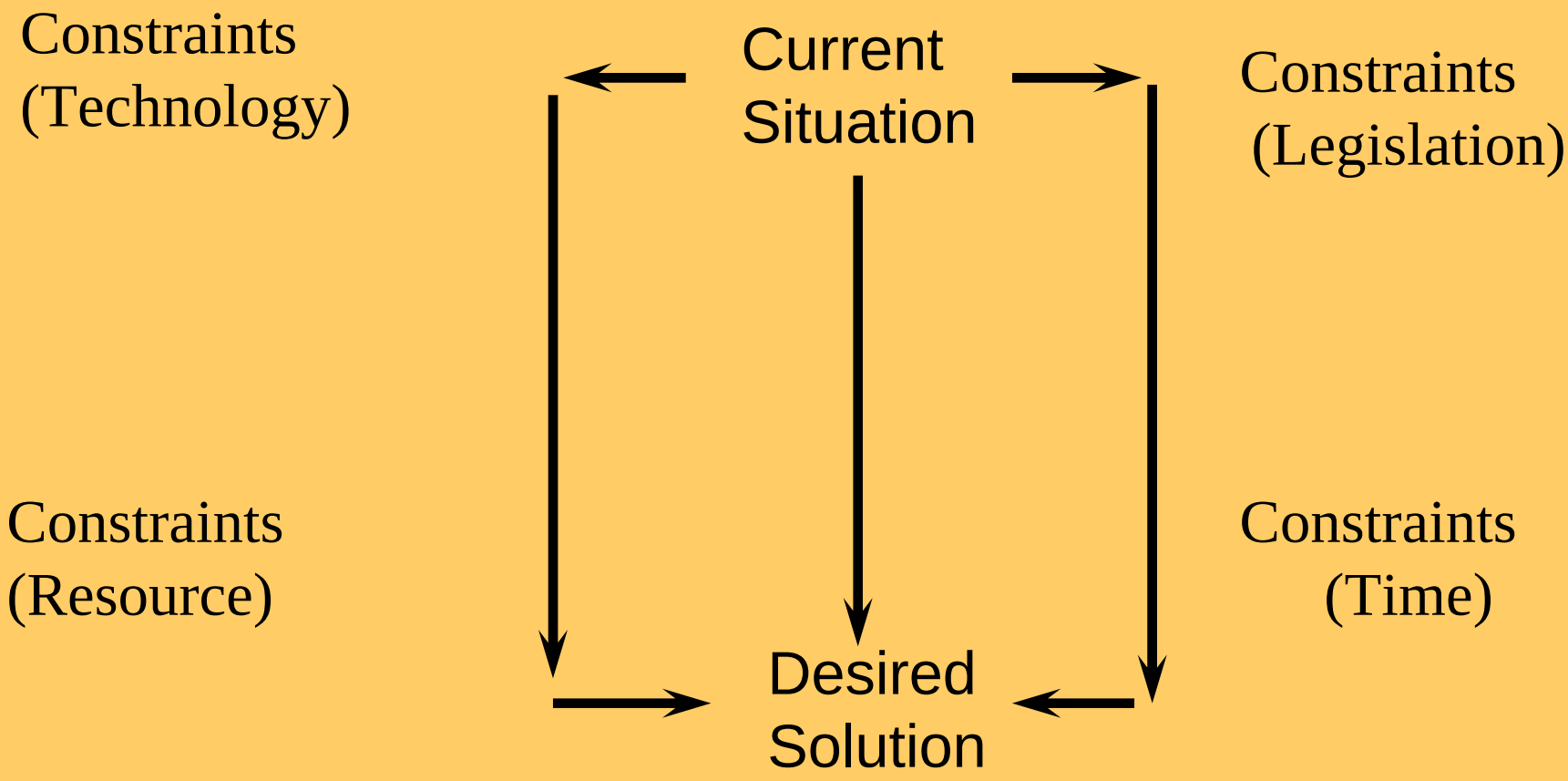
We Are Interested In

- The SDLC process
- Development risk management
- Meeting customer requirements
- Providing functionality
- Ensuring performance
- Security
  - Confidentiality
  - Integrity
  - Availability
- Change management
- Testing (not just the logic)
- Quality Assurance
- Conformance with internal & external policies and standards

Reaching The Desired Solution



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Technology Developments 1970 to Present

- Single batch program
- Batch Multi-tasking
- On-line retrieval
- Real-time update
- Stand alone PCs
- Networking
- File servers & distributed processing
- Internet, Intranet & Extranet
- Palm Devices
- Phone devices
- Implants

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Sources of Development Risk

- Poor Project Management
- Bad Design
- Inferior Build
- Bad Implementation

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Traditional ‘Waterfall’ SDLC

Terms of Reference
Feasibility Study
Systems Analysis
Systems Design
Program Design
Program Coding
Testing (program/system/user)
Implementation
Maintenance

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Real Development Life Cycle

Enthusiasm

Disillusionment

Search for the Guilty

Punishment of the Innocent

Rewards for New Participants

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The Dangers

"It must be remembered that there is nothing more difficult to plan, more doubtful of success, nor more dangerous to manage, than the creation of a new institution. For the initiator has the enmity of all would profit by the preservation of the old institution and merely lukewarm defenders in those who would gain by the new one"

Machiavelli 1532

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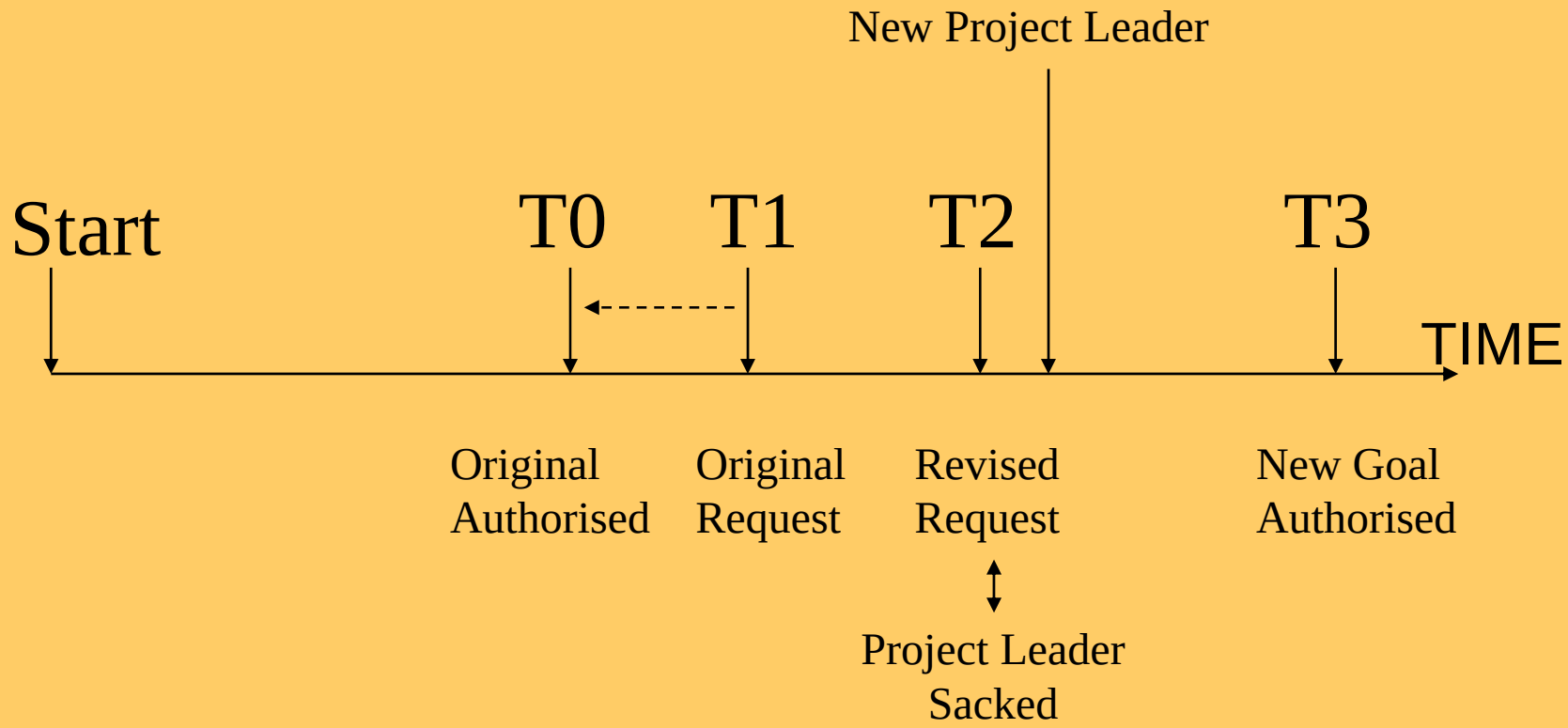
Why Rewards For New Participants?



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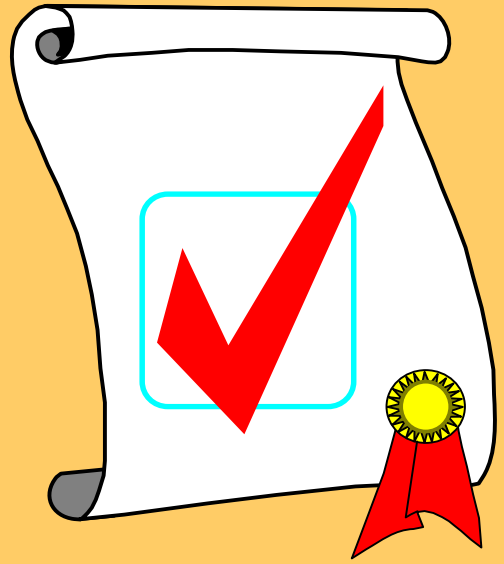
Building Quality Systems Requires Achievement of …..

- Functionality
- Performance
- Timescale
- Cost
- Maintainability



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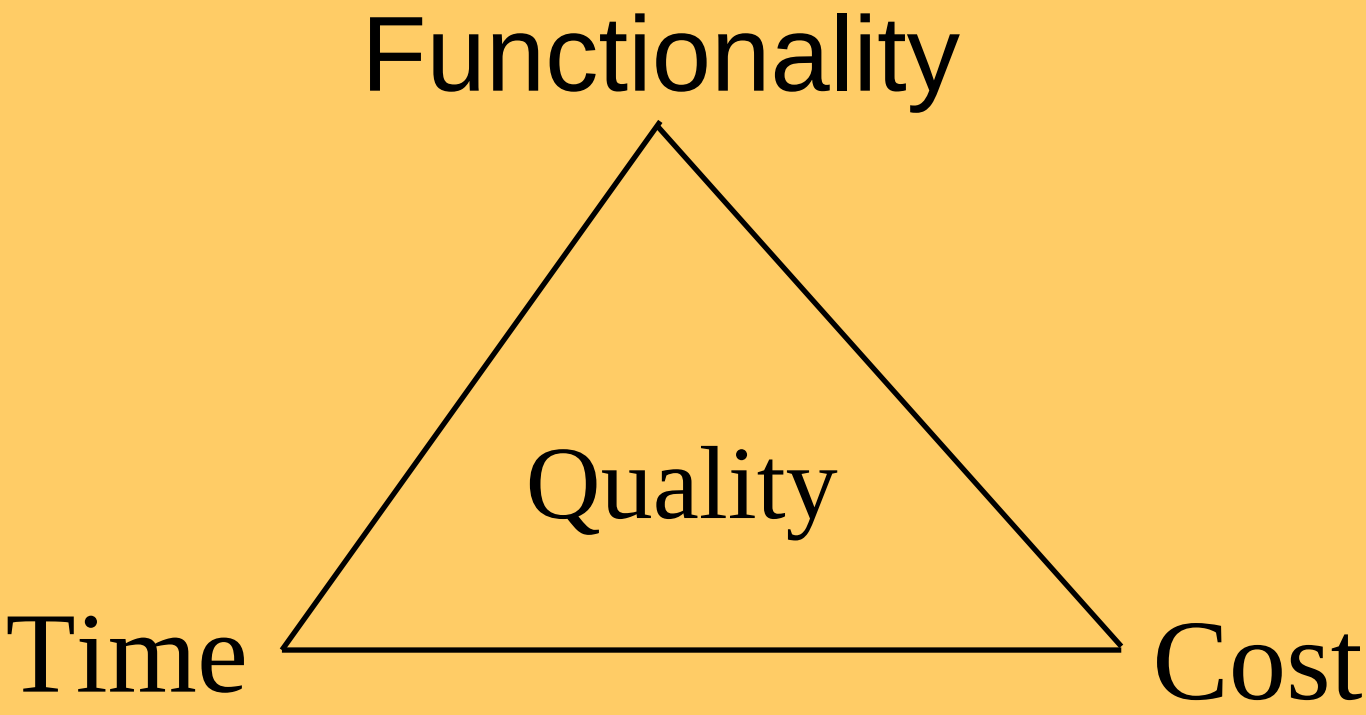
Development Constraints



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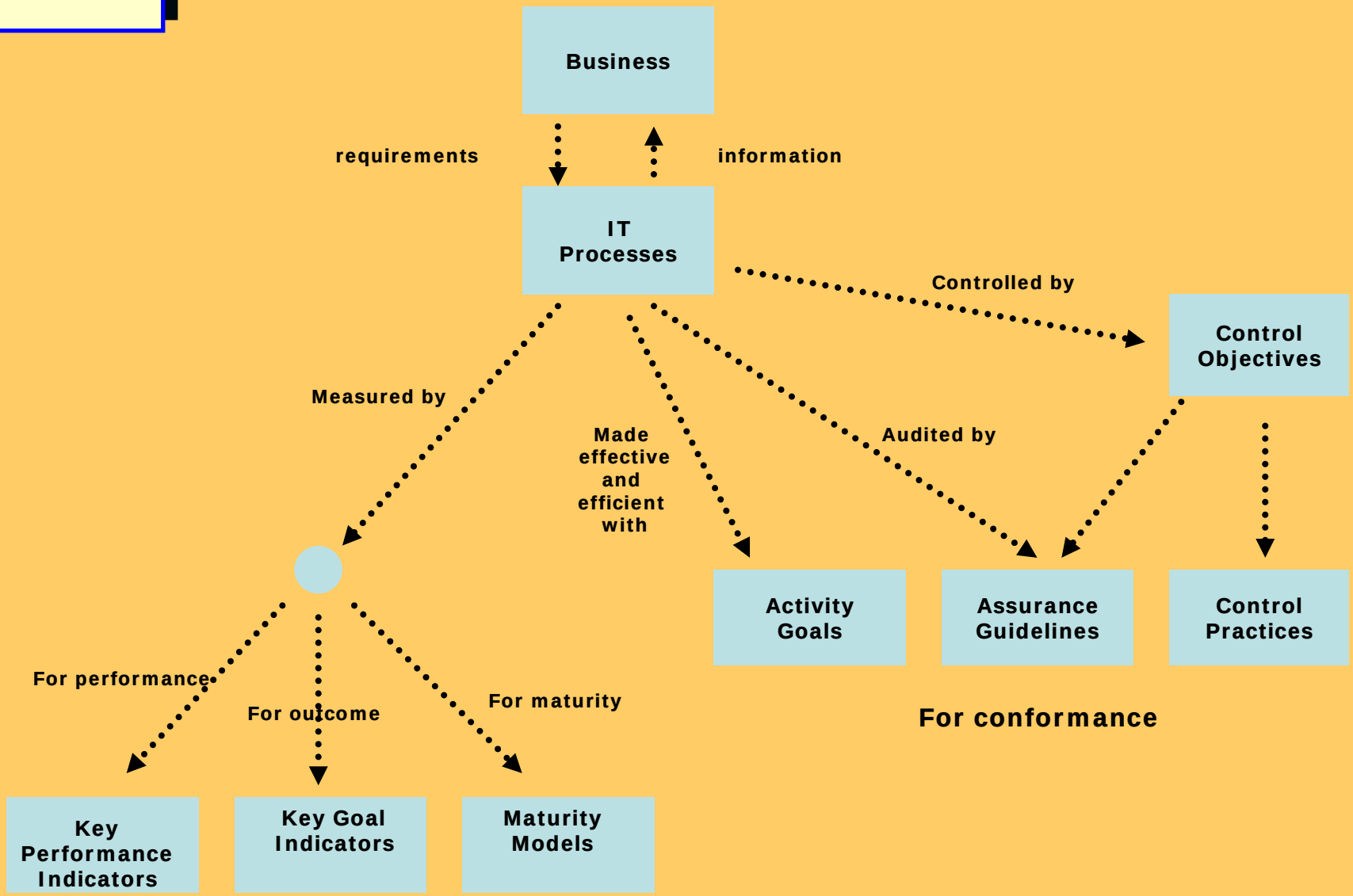
New British Aircraft Carriers

Year	Tonnage	Est. Cost
1996	35,000	£2.8 Billion
2003	50,000	£2.8 Billion
2008	65,000	£2.8 Billion

Conformance & Performance



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What We Want (Co-active Auditing)

- Audit & IT work together
- “Open book” approach
- IT understand the risks (hopefully)
- Audit understand the controls (hopefully)
- Working together provides a synergy
- Problems are identified and IT propose any required solutions

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Summary

- We want evidence that the software will:
  - Do only what it is required to do
  - Be reliable in operation
  - Be robust and handle all error conditions
  - Be suitably documented
  - Be easy to maintain
- We look at the integrity of the development process, from requirement to implementation & subsequent maintenance
- We prefer to work with developers
- Getting it right in the first place is more important than finding that it is wrong subsequently

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Questions?

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