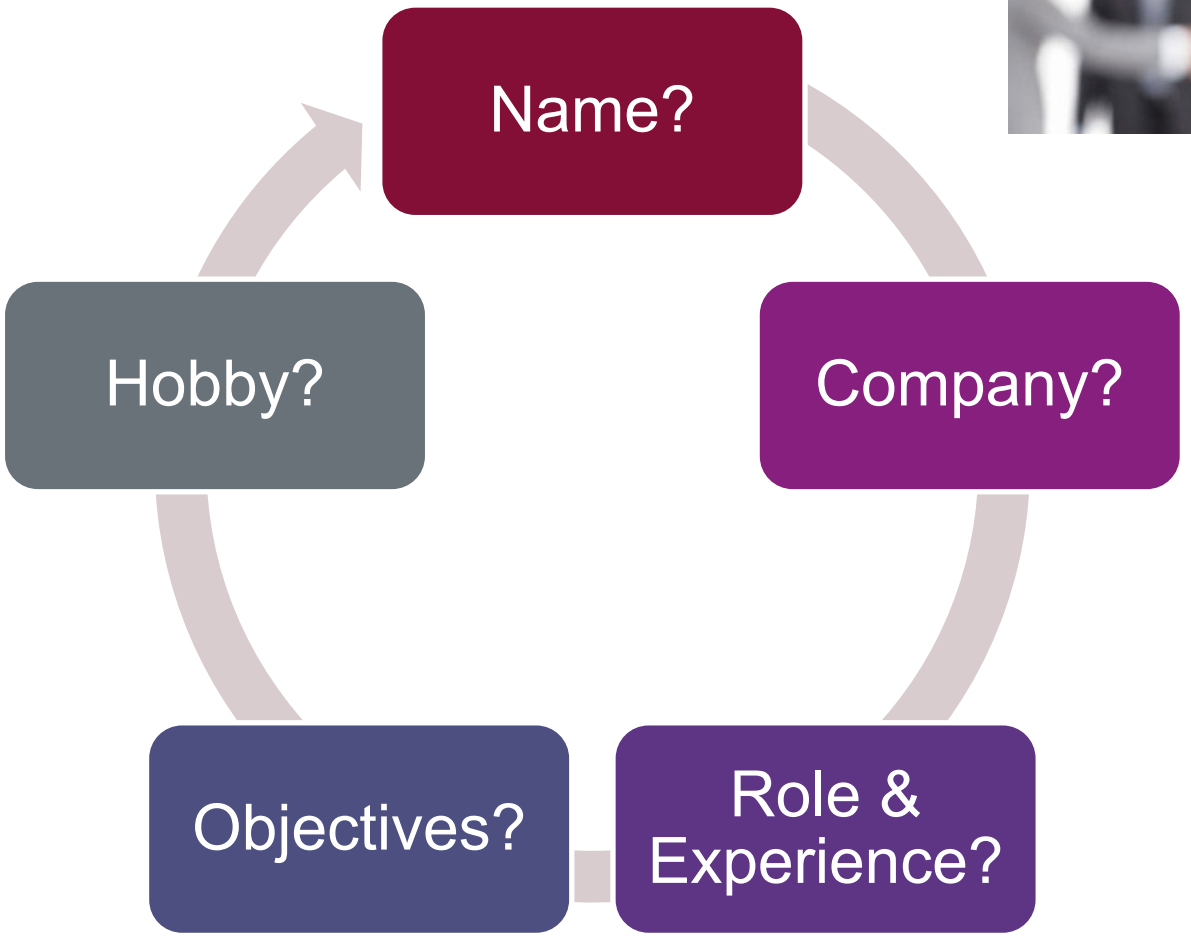
COBIT 2019

Preparation Course for Foundation Certification

Introduce Yourself!!!



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Training Logistics

Cobit 2019 Foundation Preparation Course

Course Content

Chapter 1: Introduction
Chapter 2: Cobit 2019 Framework Presentation
Chapter 3: Cobit 2019 Principles
Chapter 4: Governance Systems and Components
Chapter 5: Governance and Management Objectives
Chapter 6: Performance Management
Chapter 7: Designing a Tailored Governance System
Chapter 8: Getting started with Cobit: making the case
Chapter 9: Implementing Enterprise Governance Over IT
Chapter 10: Wrap-Up

Chapter 1
Introduction

Chapter 1

Course Content

- ✓ Course Description
- ✓ Learning Objectives
- ✓ Intended Audience
- ✓ Course Chapters
- ✓ Exam Requirements

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Course Learning Objectives

Points checked at the exam!!!

- ✓ Recognize the **target audience** of COBIT 2019.
- ✓ Recognize the **context, benefits and key reasons** COBIT is used as an information and technology governance framework.
- ✓ Recognize the **descriptions and purposes of the COBIT product** architecture.
- ✓ Recall the **alignment of COBIT with other applicable frameworks**, standards and bodies of knowledge.
- ✓ Understand and describe the governance **"system" and governance "framework" principles**.
- ✓ Describe the **components of a governance system**.
- ✓ Understand the overall structure and contents of the **Goals Cascade**.
- ✓ Recall the **40 Governance and Management Objectives and their purpose** statements.
- ✓ Understand the **relationship between Governance and Management Objectives** and Governance Components.
- ✓ Differentiate COBIT based performance management using **maturity and capability** perspectives.
- ✓ Discover **how to design a tailored governance system** using COBIT.
- ✓ Explain the key points of the **COBIT business case**.
- ✓ Understand and recall the **phases of the COBIT implementation** approach.
- ✓ Describe the **relationships between the COBIT Design and Implementation Guides**.
- ✓ Prepare for the COBIT 2019 Foundation exam.

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Target Audience

Stakeholder	Benefit of COBIT
Internal Stakeholders	
Boards	Provides insights on how to get value from the use of I&T and explains relevant board responsibilities
Executive Management	Provides guidance on how to organize and monitor performance of I&T across the enterprise
Business Managers	Helps to understand how to obtain the I&T solutions enterprises require and how best to exploit new technology for new strategic opportunities
IT Managers	Provides guidance on how best to build and structure the IT department, manage performance of IT, run an efficient and effective IT operation, control IT costs, align IT strategy to business priorities, etc.
Assurance Providers	Helps to manage dependency on external service providers, get assurance over IT, and ensure the existence of an effective and efficient system of internal controls
Risk Management	Helps to ensure the identification and management of all IT-related risk
External Stakeholders	
Regulators	Helps to ensure the enterprise is compliant with applicable rules and regulations and has the right governance system in place to manage and sustain compliance
Business Partners	Helps to ensure that a business partner's operations are secure, reliable and compliant with applicable rules and regulations
IT Vendors	Helps to ensure that an IT vendor's operations are secure, reliable and compliant with applicable rules and regulations

Course Content

Module 1
- Course Introduction

Module 2
- Framework Introduction

Module 3
- Principles

Module 4
- Governance System and Components

Module 5
- Governance and Management Objectives

Module 6
- Performance Management

Module 7
- Designing a Tailored Governance System

Module 8
- Business Case

Module 9
- Implementation

Module 10
- Closing

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Exam Requirements

COBIT 2019 Foundation

- ✓ Online proctored exam
- ✓ **75 multiple-choice questions**
- ✓ Closed-book
- ✓ One correct answer for each question, using **3 choices (A, B or C)**
- ✓ **2-hours** duration
- ✓ Pass rate is **65%** or 49 correct answers out of 75
- ✓ No food, no drink no pause no toilet…
- ✓ Special Certification Package:
  - ✓ 1 Voucher for Official Cobit 2019 Foundation Certification Online
  - ✓ 1 Additional Sample Exam
  - ✓ 1 “Aide-memoire” Cobit 2019 with key concepts & definition to memorize

	Module	Percent of Total Questions
1	Framework Introduction	12%
2	Principles	13%
3	Governance System and Components	30%
4	Governance and Management Objectives	23%
5	Performance Management	4%
6	Designing a Tailored Governance System	7%
7	Business Case	3%
8	Implementation	8%

Chapter 2
COBIT 2019 Framework Presentation

Chapter 2: Cobit 2019 Framework Presentation

Course content

Topics

- ✓ Enterprise Governance of I&T
- ✓ COBIT as an I&T Framework
- ✓ Intended Audience for the COBIT 2019 Framework
- ✓ COBIT Format and Product Architecture
- ✓ COBIT and Other Standards
- ✓ Training and Certification

Learning Objectives

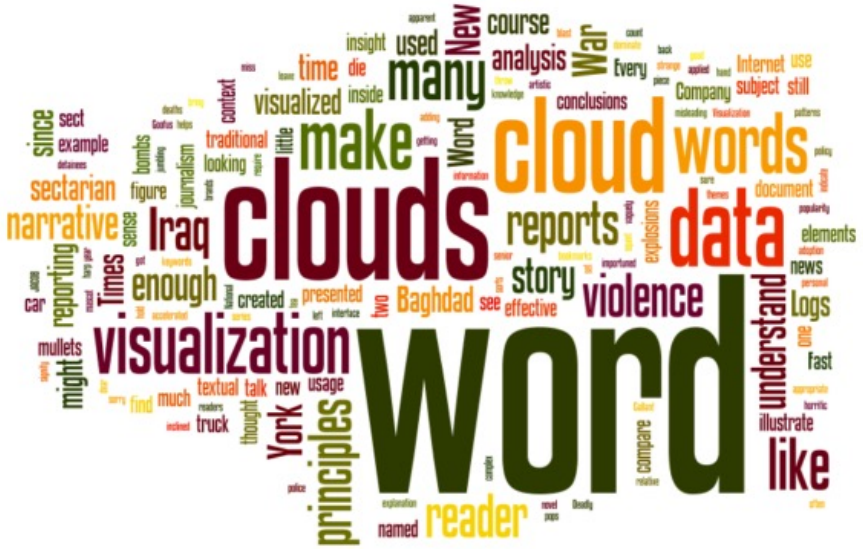
- ✓ Recognize the target audience of COBIT 2019.
- ✓ Recognize the context, benefits and key reasons COBIT is used as an information and technology governance framework.
- ✓ Recognize the descriptions and purposes of the COBIT product architecture.
- ✓ Recall the alignment of COBIT with other applicable frameworks, standards and bodies of knowledge.
- ✓ Prepare for the COBIT 2019 Foundation exam.

GROUP EXERCISE

From your perspective

What does Governance means to you?

Find 10 words to define this concept



Enterprise Governance of Information and Technology

EGIT

In the light of **digital transformation**, information and technology (I&T) have become crucial in the support, **sustainability and growth of enterprises**.

- ✓ Previously, governing boards and senior management could **delegate, ignore or avoid I&T-related decisions**.
- ✓ In most sectors and industries, such attitudes are now **ill-advised**.
- ✓ Digitized enterprises are increasingly **dependent** on I&T for survival and growth.
- ✓ **Stakeholder value creation** is often driven by a high degree of **digitization** in **new business** models, **efficient** processes, successful **innovation**, etc…

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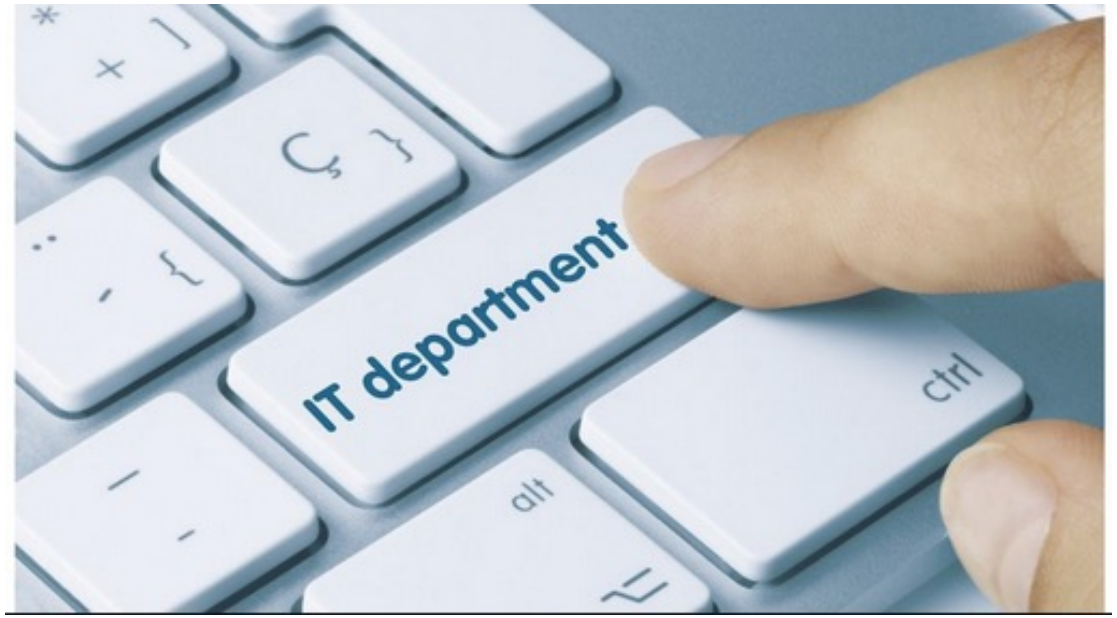
IT versus I&T

"IT" refers to the organizational **department** with the main responsibility **for technology**.

COBIT 2019 focuses on the governance of information AND technology **(I&T).**

The framework:

- ✓ recognizes that information and technology may reside **outside of the traditional IT department**.
- ✓ encompasses all information and technology the enterprise generates, processes and uses to achieve its goals as well as the technology to support that throughout the enterprise.



Enterprise Governance of Information and Technology

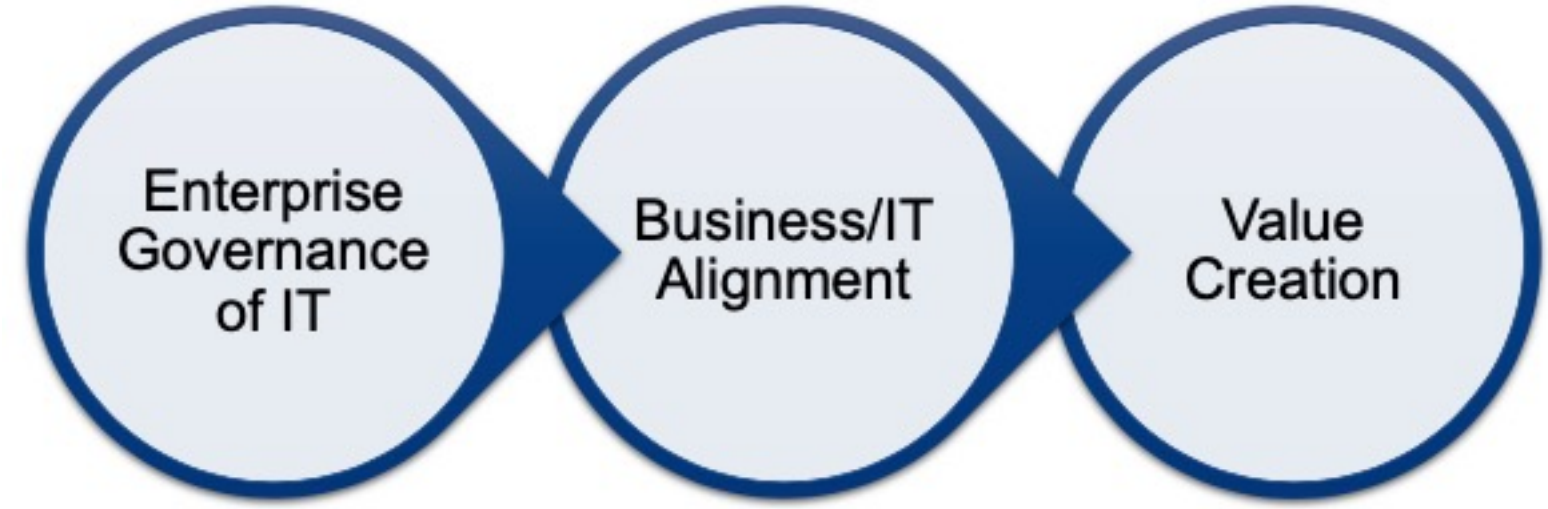
EGIT

Given the centrality of I&T for enterprise risk management and value generation, a specific focus on **Enterprise Governance of Information and Technology (EGIT)** has arisen over the last two decades.

- ✓ EGIT is an **integral part of corporate governance**.
- ✓ Exercised by the board that oversees the definition and implementation of processes, structures and relational mechanisms.
- ✓ Enables both business and IT people to execute their responsibilities in support of business/IT alignment.
- ✓ Enables creation of business value from I&T-enabled business investments.

Enterprise Governance of Information and Technology

The Context of EGIT



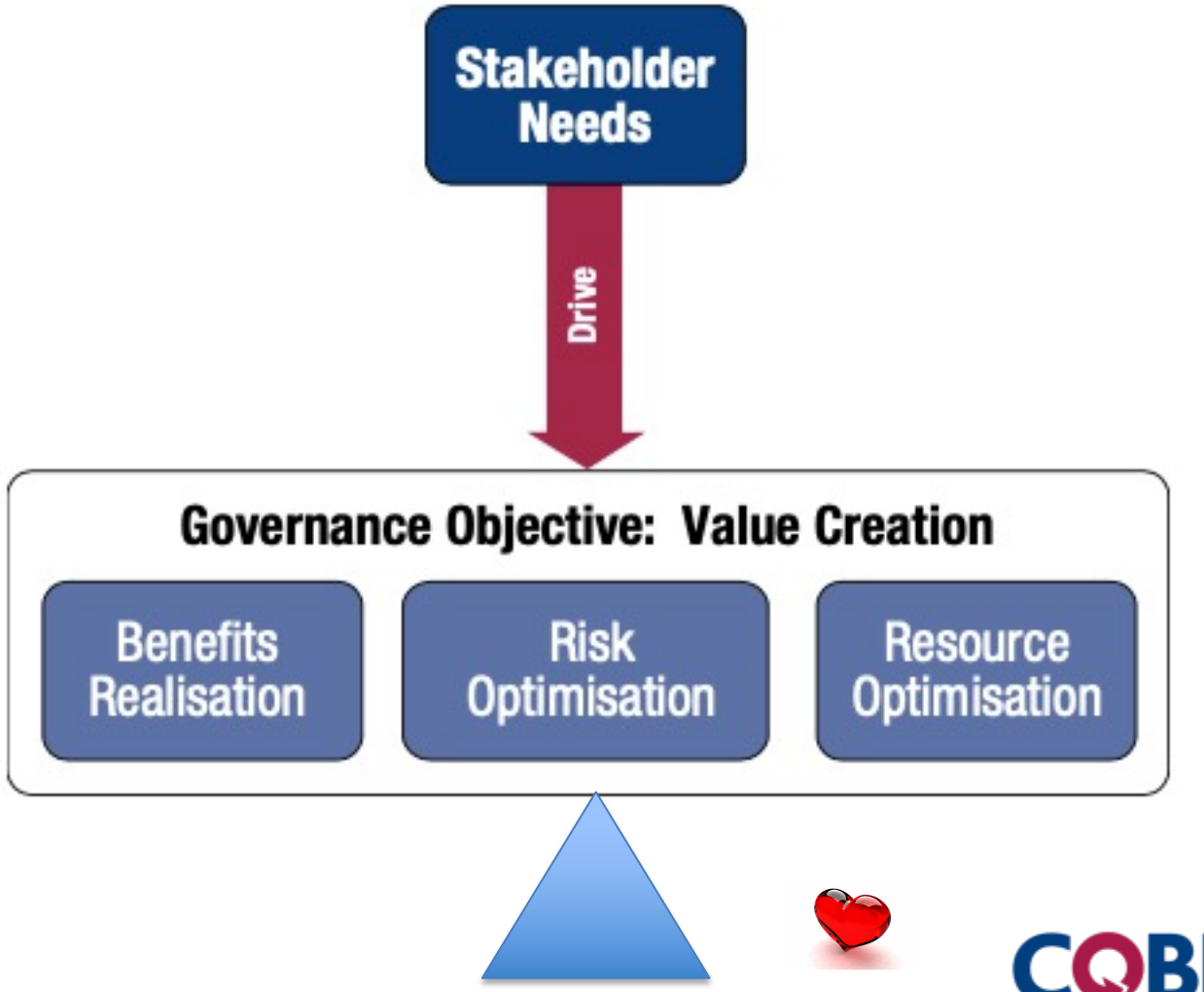
Good governance leads to alignment, which leads to value creation.

Benefits of I&T Governance

Balance between Benefits, Risk & Resource

Fundamentally, EGIT is concerned with value delivery from digital transformation and the mitigation of business risk that results from digital transformation. More specifically, three main **outcomes** can be expected after successful adoption of EGIT:

- ✓ **Benefits realization**
- ✓ **Risk optimization**
- ✓ **Resource optimization**



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EGIT Example

Example of Benefits

In a large case study of an international airline company, EGIT's benefits were demonstrated to include:

- ✓ Lower IT-related continuity costs
- ✓ Increased IT-enabled innovation capacity
- ✓ Increased alignment between digital investments and business goals and strategy
- ✓ Increased trust between business and IT
- ✓ A shift toward a "value mindset" around digital assets

Cobit as an I&T Framework

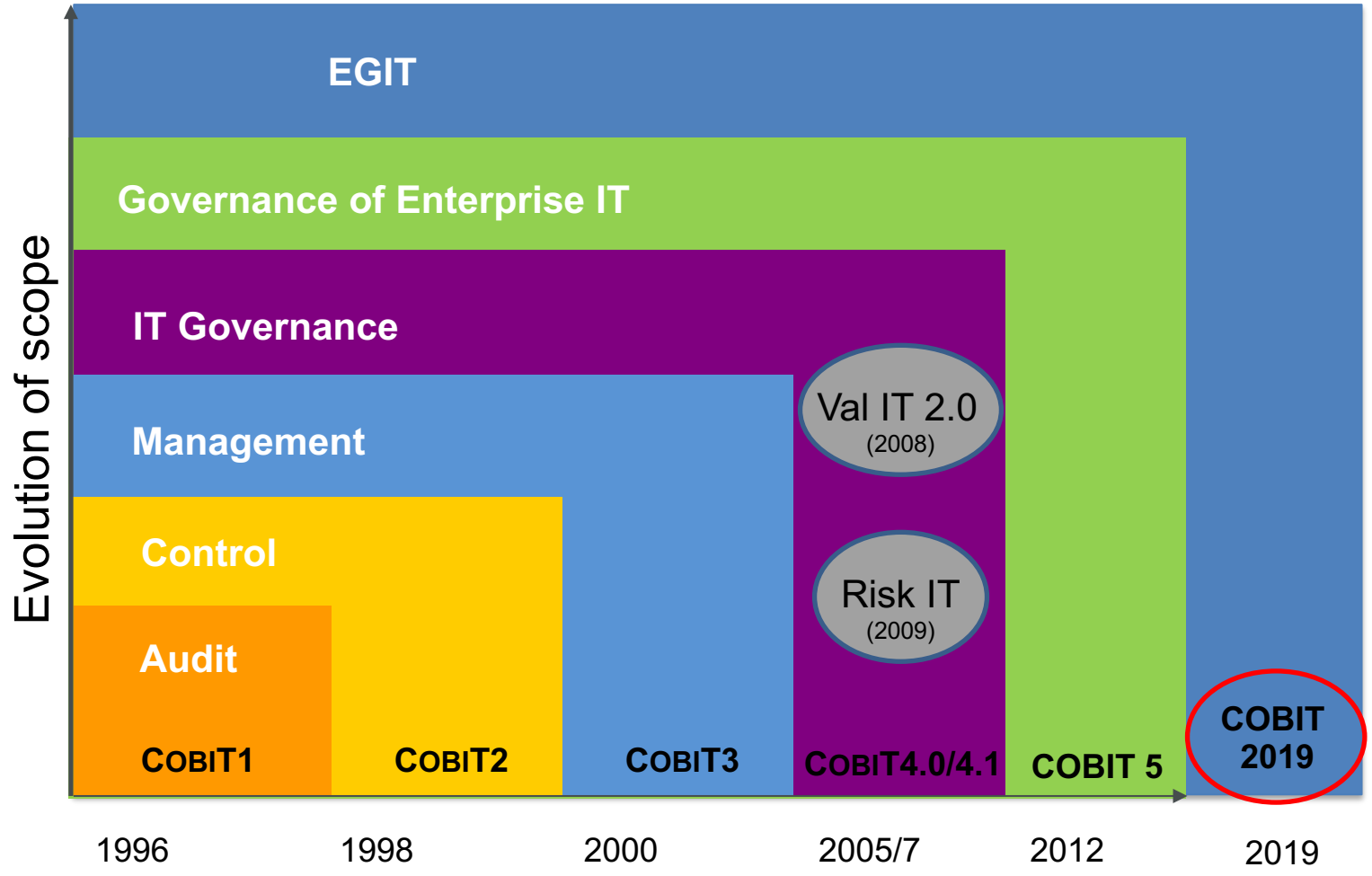
History

Over the years, best-practice frameworks have been developed and promoted to assist in in understanding, designing and implementing EGIT.

COBIT 2019 builds on and integrates more than 25 years of development in this field.

From its foundation in the IT audit community, COBIT has developed into a broader and more comprehensive I&T governance and management framework.

COBIT continues to establish itself as a generally accepted framework for I&T governance.



Internal Stakeholders

Stakeholder	Benefit of COBIT
Internal Stakeholders	
Boards	Provides insights on how to get value from the use of I&T and explains relevant board responsibilities
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External Stakeholders

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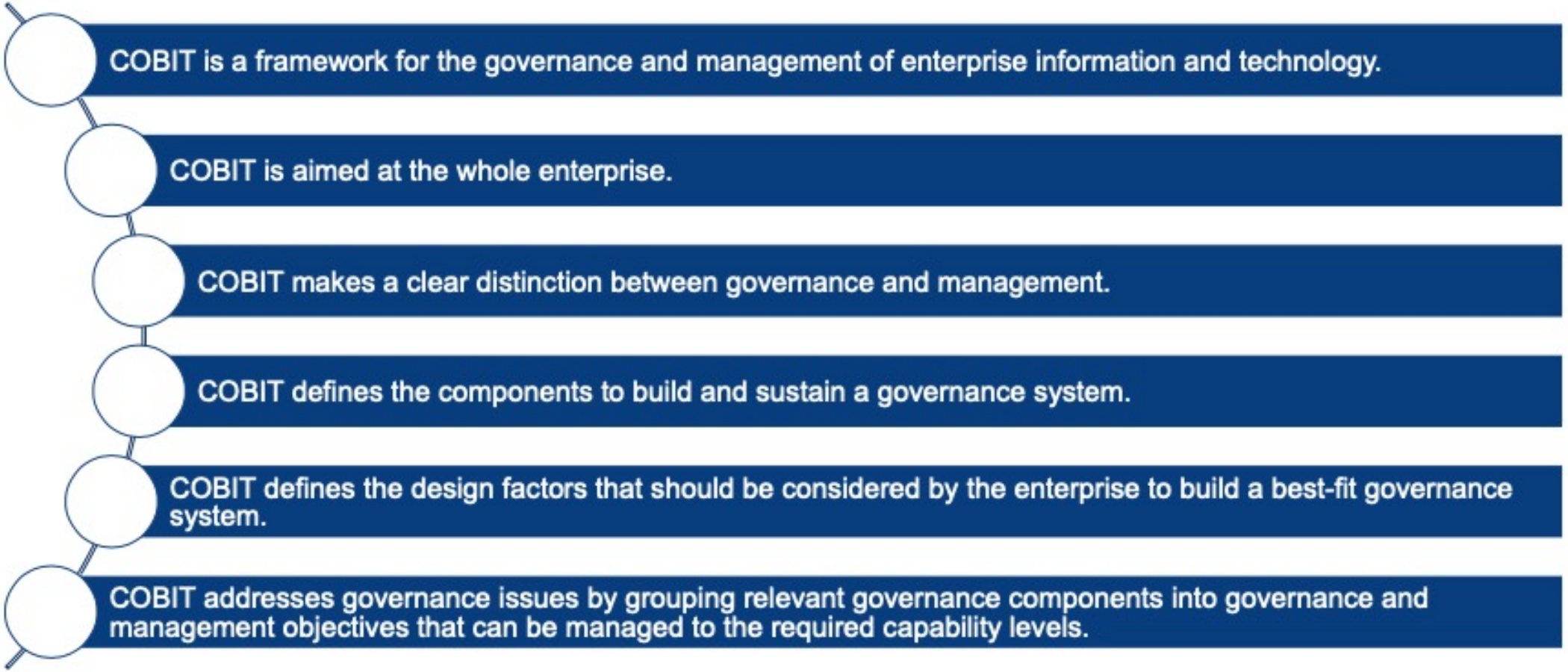
What is Cobit 2019?



WHAT COBIT IS NOT…

- COBIT is not a full description of the whole IT environment of an enterprise.
- COBIT is not a framework to organize business processes.
- COBIT is not an (IT-)technical framework to manage all technology.
- COBIT does not make or prescribe any IT-related decisions.

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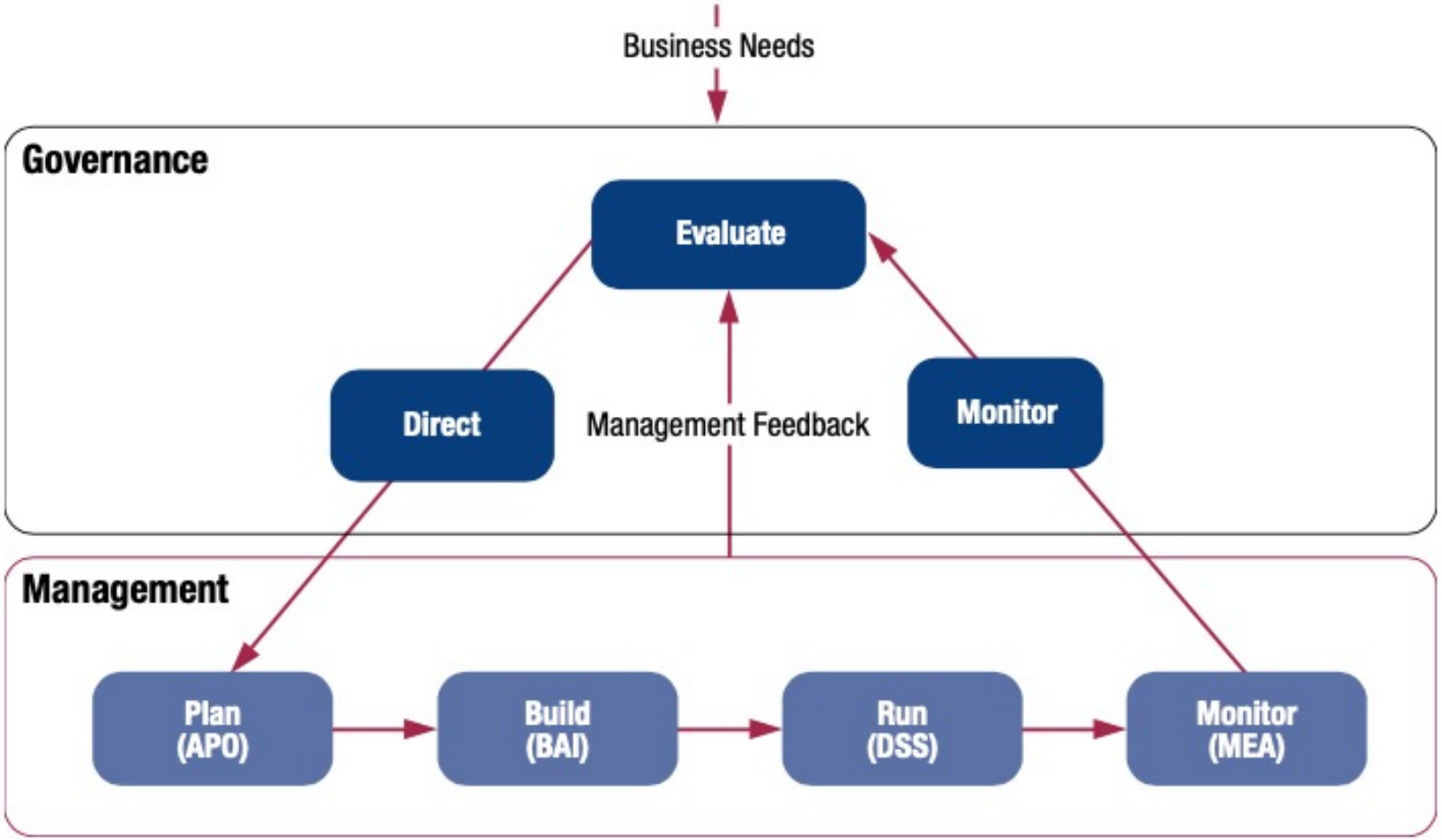
Governance versus Management (1/3)

The COBIT framework makes a clear distinction between governance and management. These two disciplines encompass **different activities**, require **different organizational structures** and serve **different purposes**.

What would you describe as the difference between governance and management?



Governance versus Management (2/3)

Governance ensures that:

- ✓ Stakeholder needs, conditions and options are evaluated to determine balanced, agreed-on **enterprise objectives**.
- ✓ Direction is set through **prioritization and decision making.**
- ✓ **Performance** and **compliance** are monitored against agreed-on direction and objectives.
- ✓ In most enterprises, overall governance is the responsibility of the **board of directors**, under the leadership of the **chairperson**.
- ✓ Specific governance responsibilities may be **delegated** to special organizational structures at an appropriate level, particularly **in larger, complex enterprises.**

Governance versus Management (3/3)

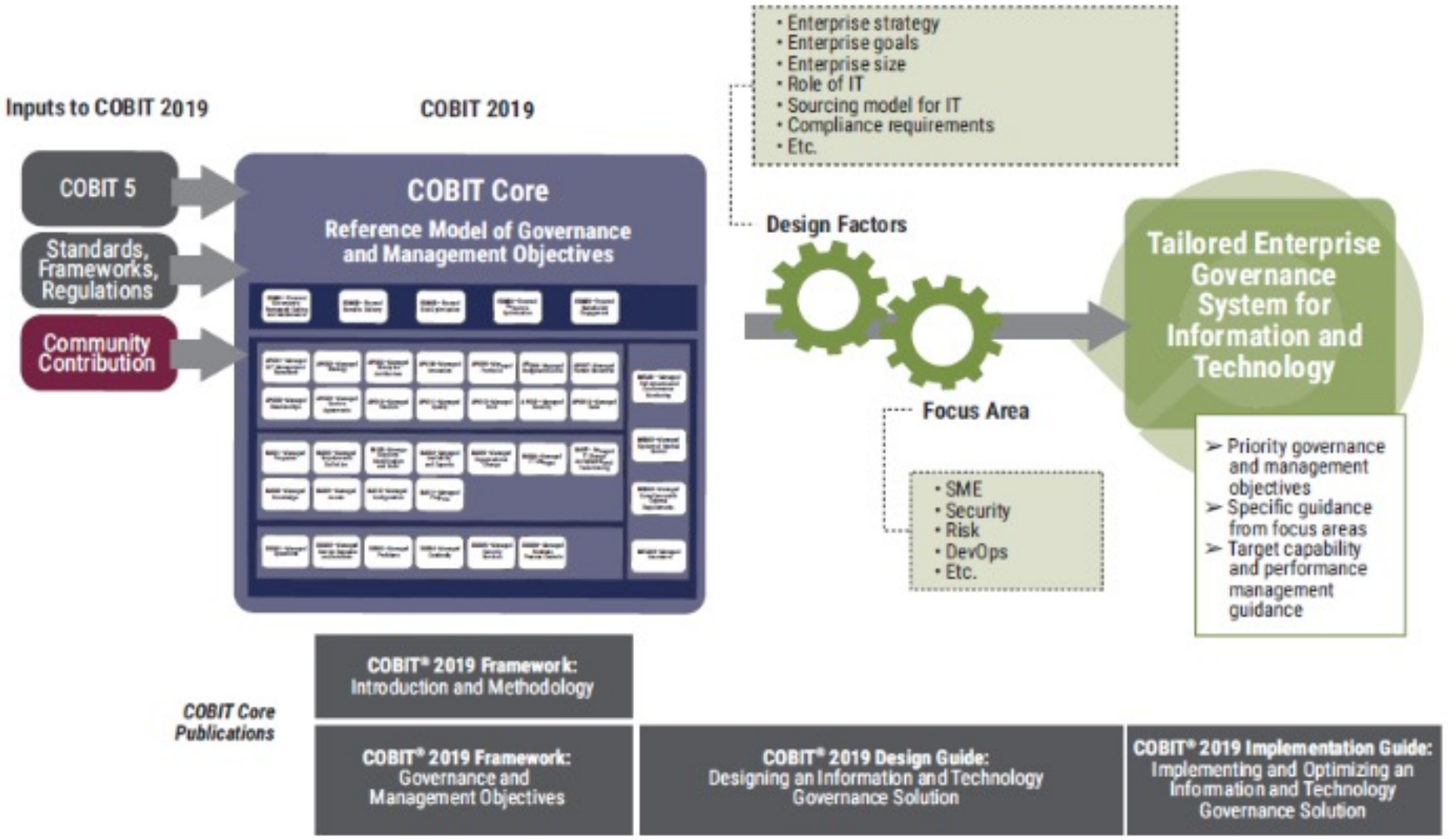
Management (Gestion)

Management **plans, builds, runs and monitors** activities, in alignment with the direction set by the governance body, to achieve the enterprise objectives.

In most enterprises, management is the responsibility of the executive management, under the leadership of the chief executive officer (CEO).

The **CIO is not a part of Governance body in order to avoid being judge & jury**

COBIT ARCHITECTURE



Major Differences between COBIT 5 and COBIT 2019 (1/2)

COBIT guidance uses the terms governance of enterprise information and technology **(GEIT),** enterprise governance of information and technology **(EGIT),** governance of IT and IT governance **(ITG)** interchangeably.

COBIT® 2019 improves on prior versions of COBIT in the following areas:

- ✓ **Flexibility and openness**
- ✓ **Currency and relevance**
- ✓ **Prescriptive application**
- ✓ **Performance management of IT**

COBIT 2019

Major Differences between COBIT 5 and COBIT 2019 (2/2)

- ✓ **Modified COBIT principles** concept to include both governance systems and governance frameworks.
- ✓ **Governance components** replace COBIT 5 **enablers**.
- ✓ New focus areas over which specific governance practices can be directed.
- ✓ **The addition of design factors**—which are used to influence the design of an enterprise's governance system.
- ✓ 40 governance and management **objectives that relate to each of the 40 updated processes** in COBIT.
- ✓ Updated goals cascade the supports the prioritization of management objectives based on enterprise goals.
- ✓ Updated performance management which includes maturity models.
- ✓ Update COBIT business case.
- ✓ New and **updated publications**.

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COBIT AND OTHER STANDARDS

A Synthesis of the best Frameworks

One of the **guiding principles** applied throughout the development of COBIT 2019 was to maintain the positioning of COBIT as an umbrella framework. This means that COBIT 2019 continues to align with a number of relevant standards, frameworks and/or regulations.

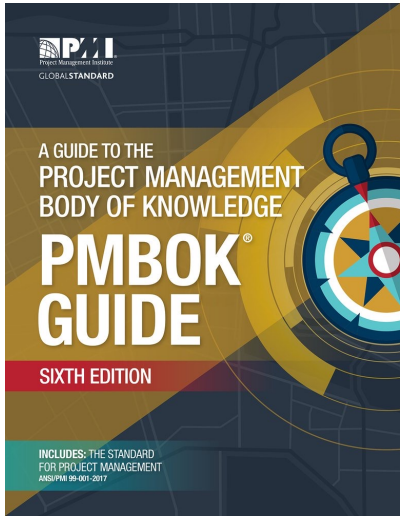
- ✓ COBIT does **not contradict** any guidance in the related standards.
- ✓ COBIT does **not copy the contents** of these related standards.
- ✓ COBIT provides **equivalent statements** or references to related guidance.

ITIL®

PRINCE2®

THE Open GROUP

TOGAF®



Information Security Management
ISO
27001
Certified

COBIT 2019

COBIT 2019 TRAINING & CERTIFICATION SCHEME

The 4 different COBIT guides

- COBIT® 2019 Framework: Introduction and Methodology
- COBIT® 2019 Framework: Governance and Management Objectives
- COBIT® 2019 Design Guide: Designing an Information and Technology Governance Solution
- COBIT® 2019 Implementation Guide: Implementing and Optimizing an Information and Technology

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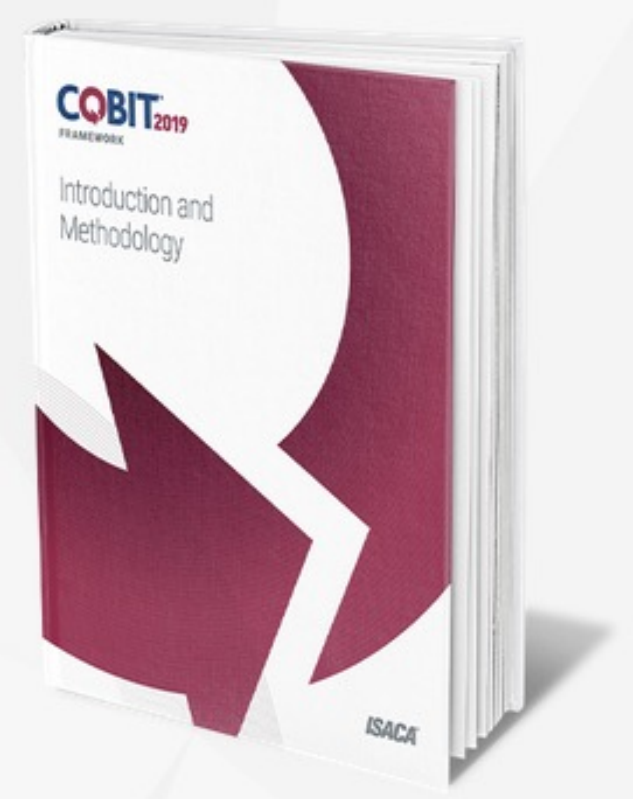
COBIT 2019 Framework

Introduction and Methodology



The heart of the COBIT framework incorporates an expanded definition of governance and updates COBIT principles while laying out the structure of the overall framework.

- ✓ New concepts are introduced and terminology is explained—the COBIT Core Model and its 40 management objectives provide the platform for establishing your governance program
- ✓ The performance management system is updated and allows the flexibility to use maturity measurements as well as capability measurements
- ✓ Introductions to design factors and focus areas offer additional practical guidance on flexible adoption of COBIT 2019, whether for specific projects or full implementation.

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COBIT 2019 Framework

Governance and Management Objectives

This publication contains a detailed description of the COBIT Core Model and its 40 governance/management objectives. Each governance/management objective and its purpose are defined and then matched up with the related process, Alignment Goals and Enterprise Goals.

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COBIT 2019 Design Guide

Designing an Information and Technology Governance Solution

This new publication fills an important need for COBIT users—how to put COBIT to practical use. It offers prescriptive how-to information for the user, such as:

- ✓ Tailoring a governance system to the enterprise's unique circumstances and context
- ✓ Defining and listing various design factors and how they relate to the new COBIT 2019 concepts
- ✓ Describing the potential impact these design factors have on implementation of a governance system, and
- ✓ Recommending workflows for creating the right-sized design for your governance system

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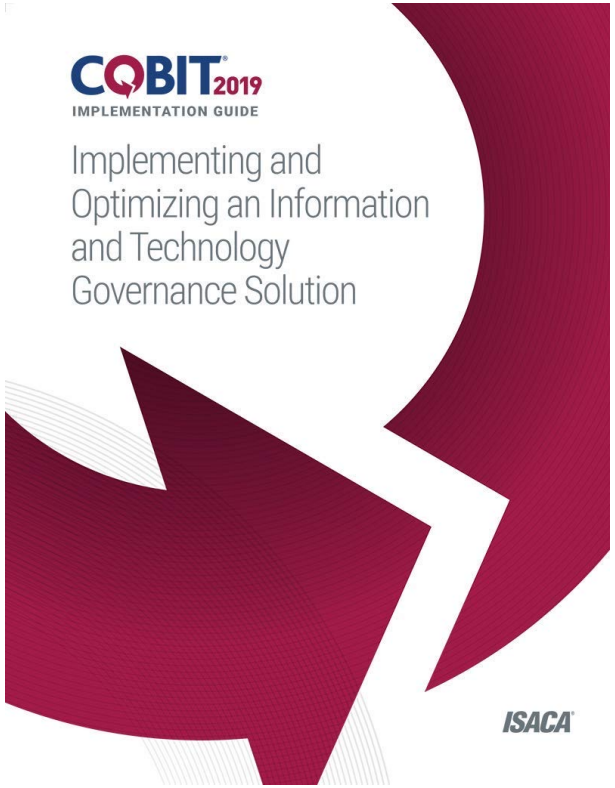
COBIT 2019 Implementation Guide

Implementing and Optimizing an Information and Technology Governance Solution



This guide is an updated version of the previous *COBIT 5 Implementation Guide*, taking a similar approach to implementation. However, the new terminology and concepts of COBIT 2019, including the design factors, are built into this guidance. When combined with the *COBIT 2019 Design Guide*, COBIT implementation has never been more practical and custom-tailored to specific governance needs.

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Group Discussion

How is EGIT implemented at your organization today?

- ✓ What are the differences between Benefits realization, Risk optimization and Resource optimization? Which one is receiving more attention?
- ✓ What other industry frameworks or standards are being used?
- ✓ How can COBIT assist in the distinction between governance and management?

COBIT 2019

Chapter 3
Cobit 2019 Principles

Chapter 3: Cobit 2019 Principles

Course Content & Learning Objectives

- ✓ Content:
  - ✓ Governance “System” Principles
  - ✓ Governance “Framework” Principles
  - ✓ Module Summary
- ✓ Learning Objectives
  - ✓ Understand and describe the governance “system” and “framework” principles
  - ✓ Prepare for the Cobit 2019 Foundation exam

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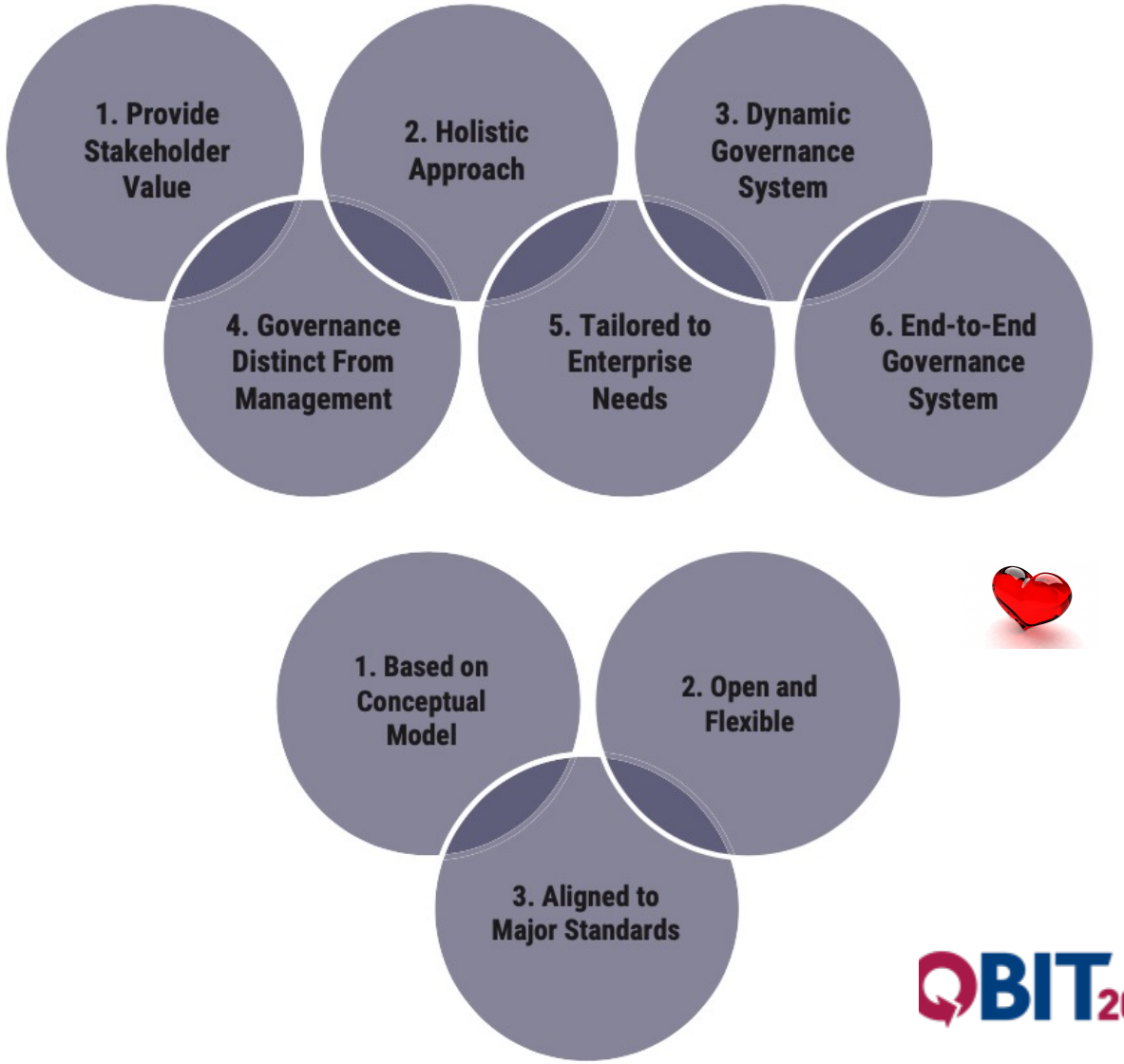
Governance Principles

Governance System + Governance Framework

COBIT® 2019 was developed based on **two sets of principles**:

- ✓ Principles that describe the core requirements of a **governance system** for enterprise information and technology.

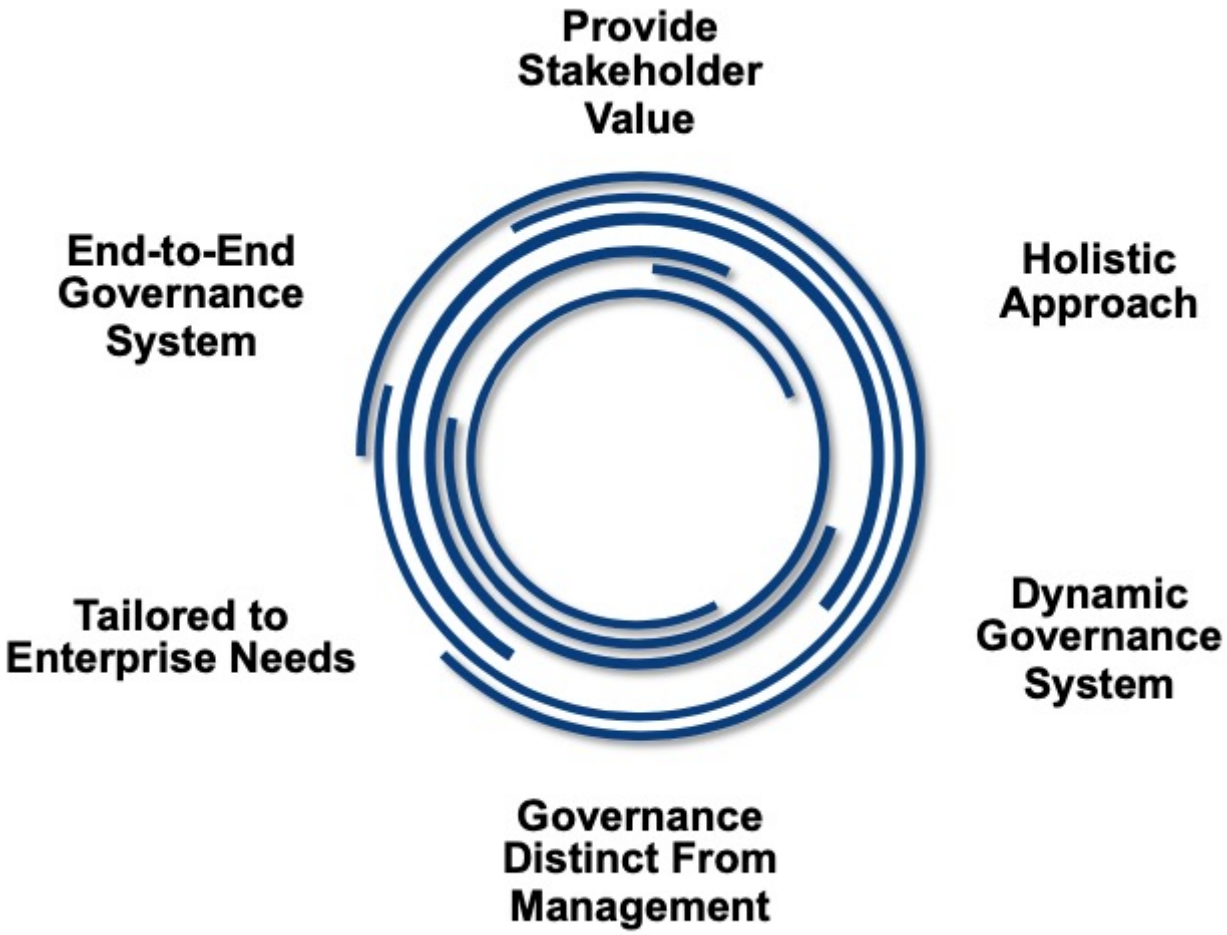
- ✓ Principles for a **governance framework** that can be used to build a governance system for the enterprise.



The 6 System Principles of COBIT

There are Six Principles for a Governance System.

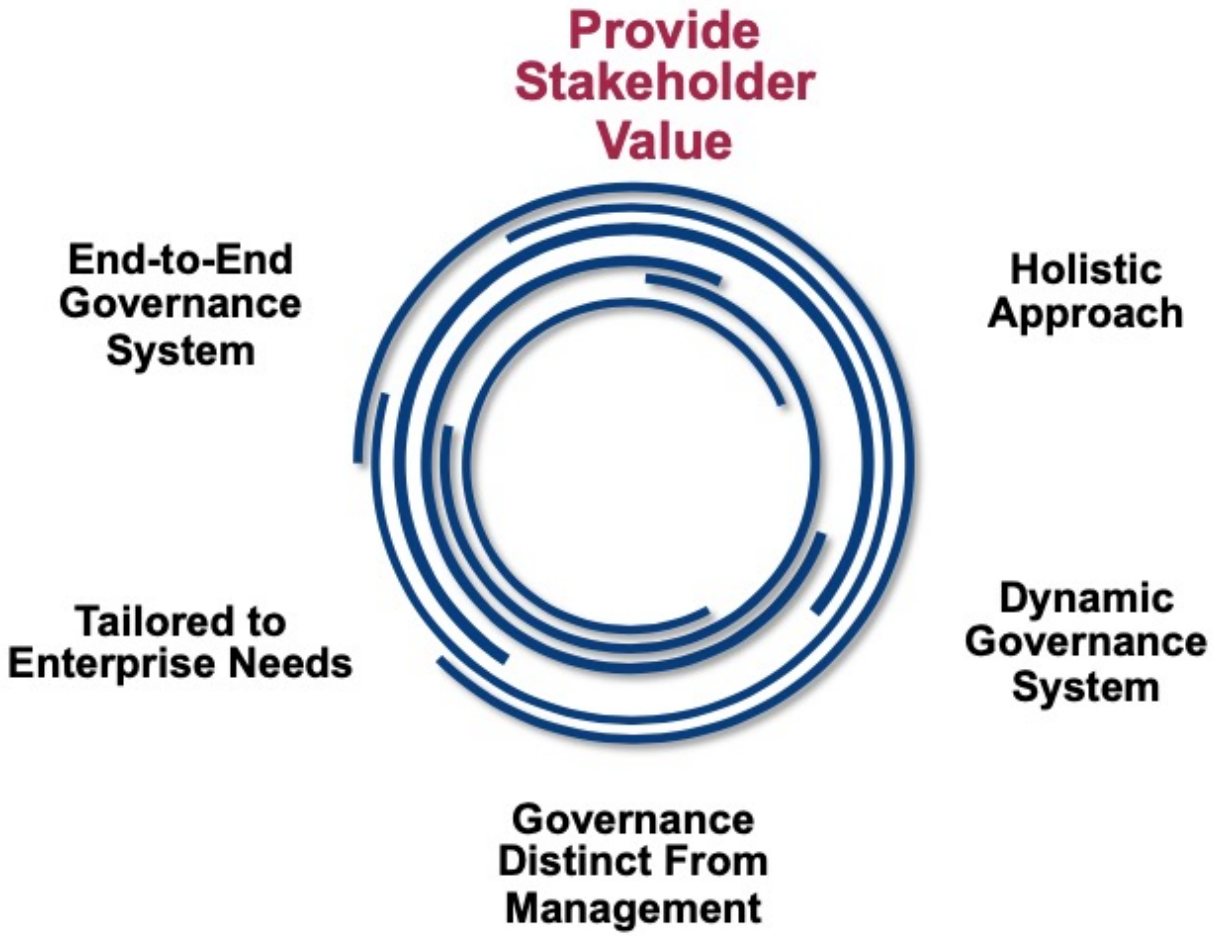
These are **the core requirements for a governance system** for enterprise information and technology.



System Principle #1

Provide Stakeholder Value

- ✓ Each enterprise needs a governance system to **satisfy stakeholder needs** and to **generate value from the use of I&T**.
- ✓ Value reflects a **balance among benefits, risks and resources**
- ✓ Enterprises need an **actionable strategy and governance system** to realize this value.



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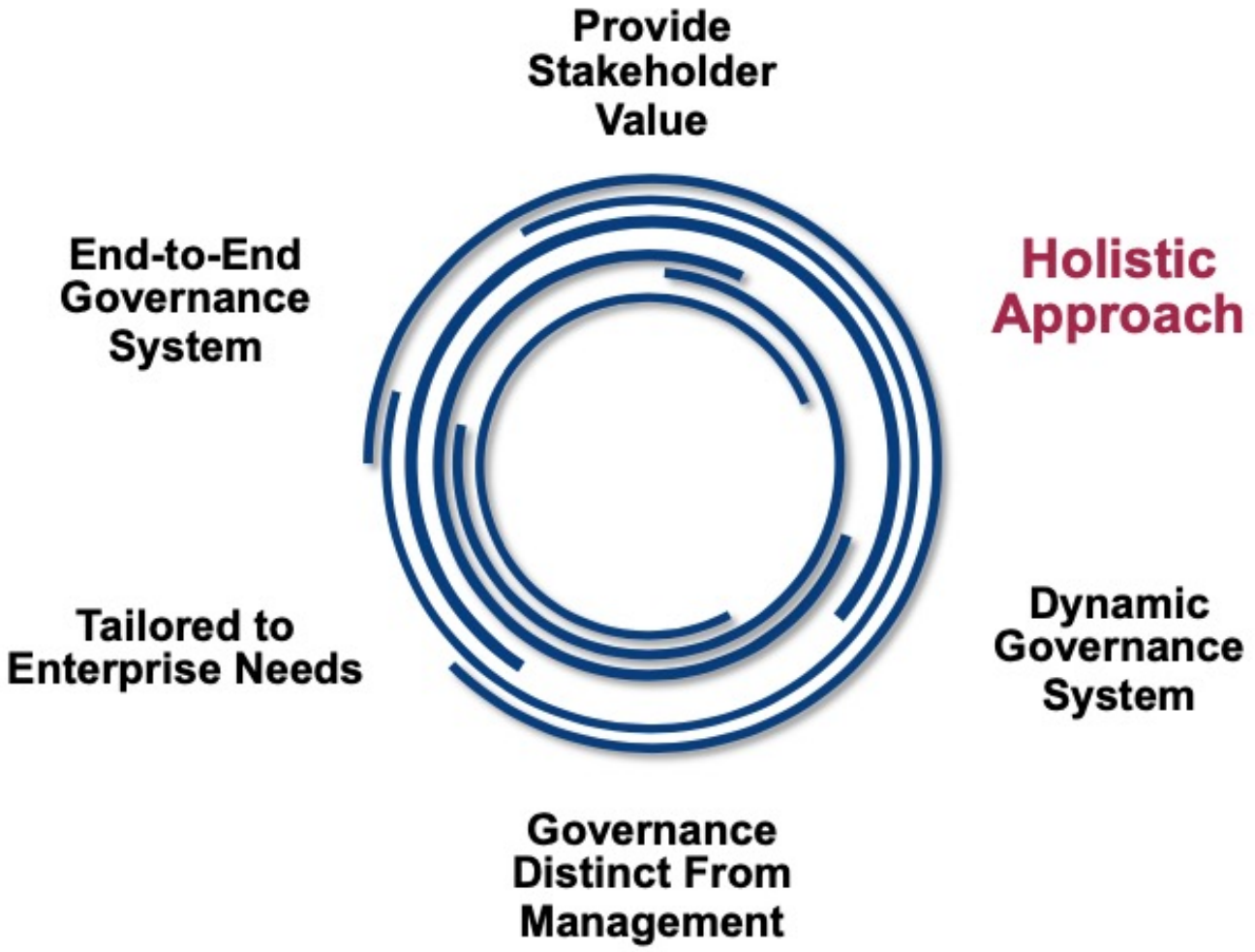
System Principle #2

Holistic Approach

A governance system for enterprise I&T is built from a number of **components** that can be of different types and that work together in a holistic way.

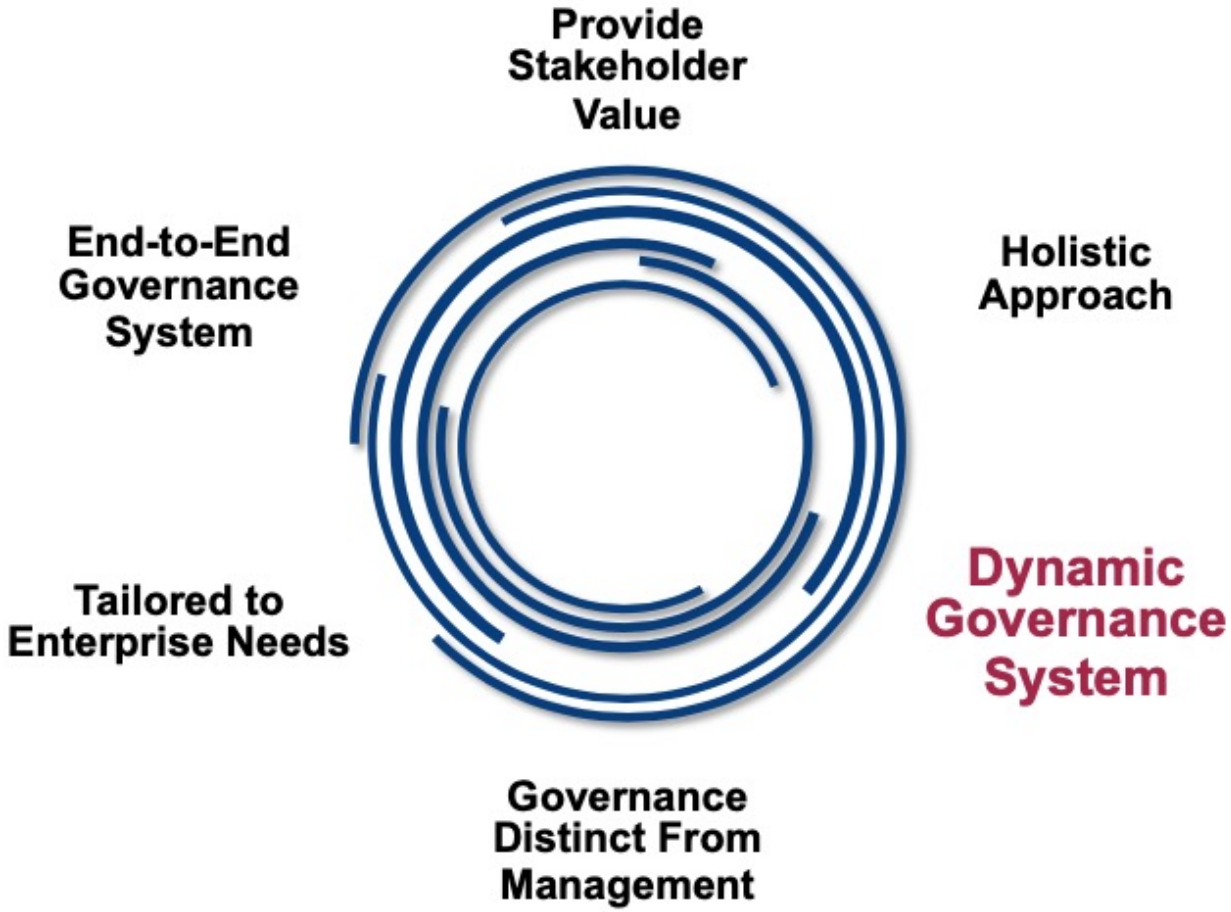
Details on the **7 Governance Components** will be developed further.



System Principle #3

Dynamic Governance System

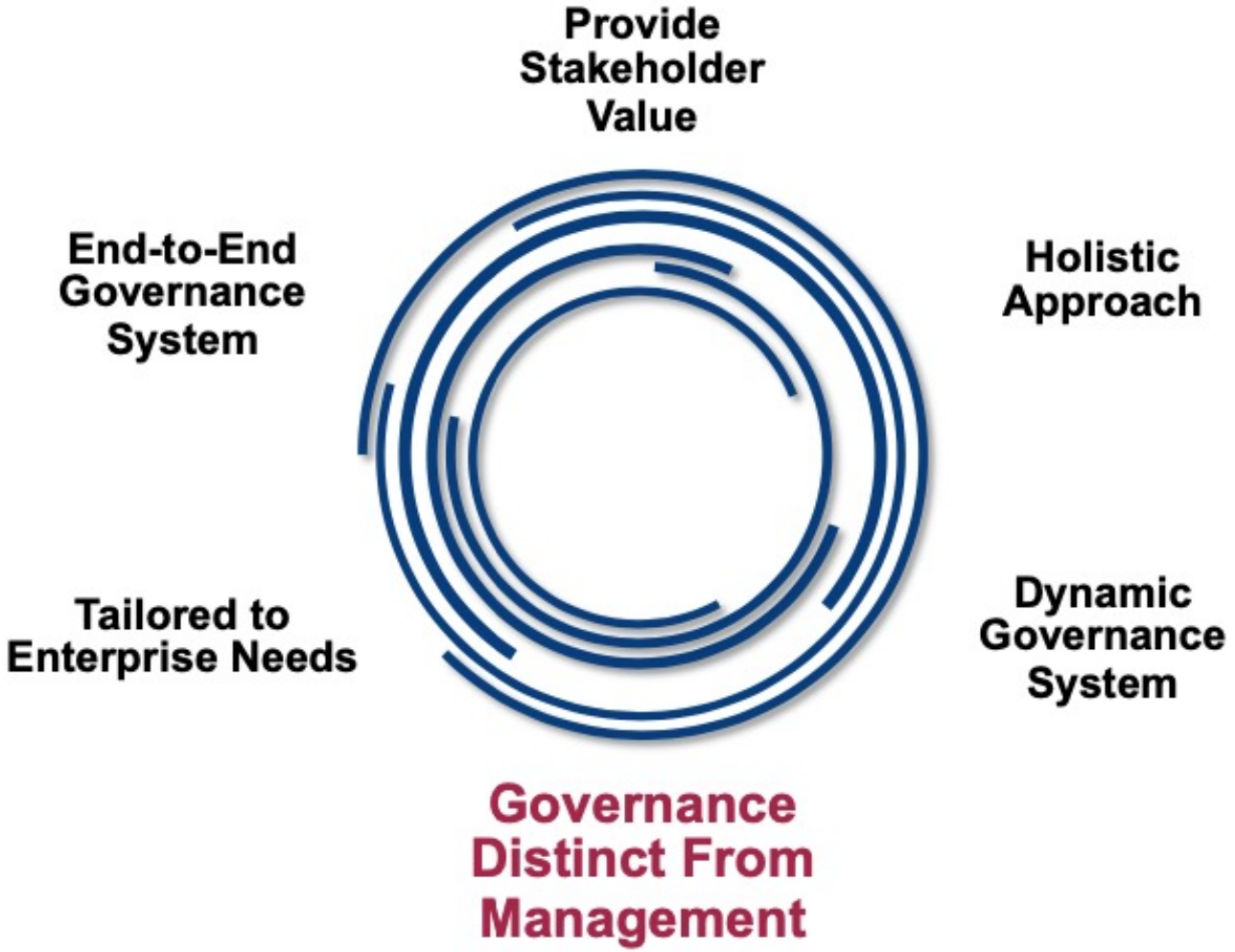
- ✓ A governance system should be **dynamic**.
- ✓ This means that each time one or more of the **design factors are changed** (e.g., a change in strategy or technology), the **impact** of these changes on the EGIT system **must be considered**.
- ✓ A dynamic view of EGIT will lead toward a viable and future-proof EGIT system.



System Principle #4

Governance Distinct From Management

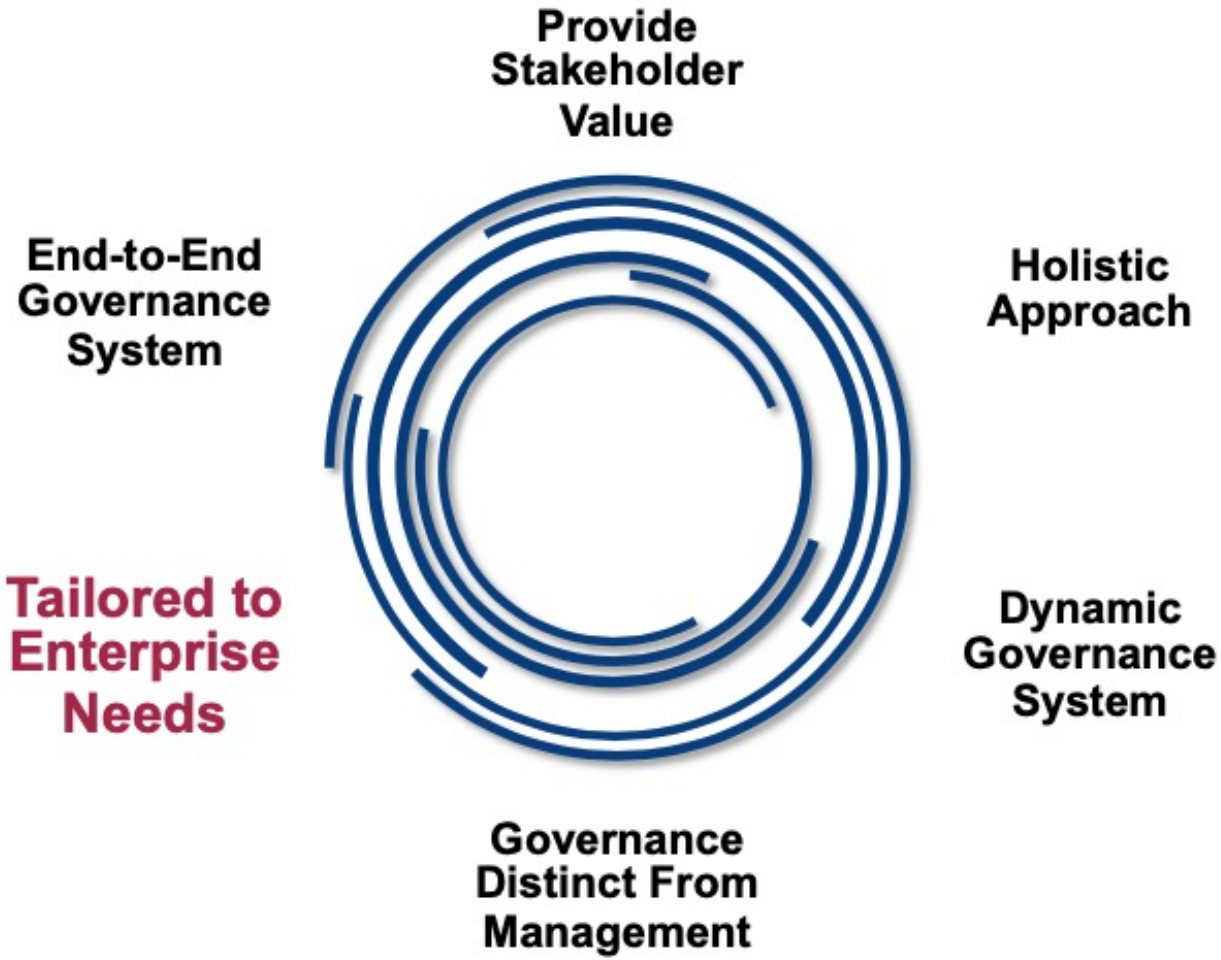
A governance system should clearly distinguish between governance and management activities and structures.



System Principle #5

Tailored to Enterprise Needs

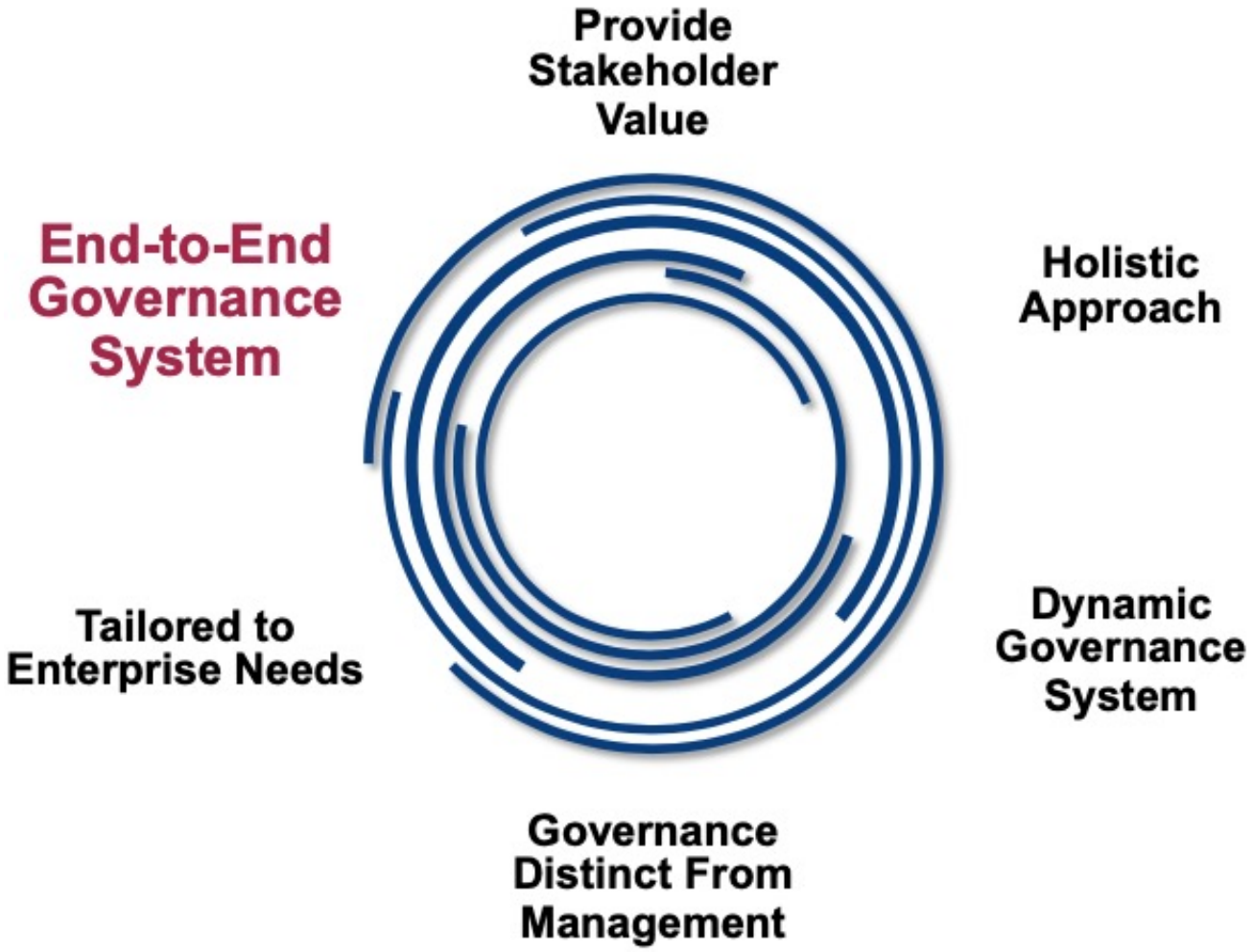
A governance system should be **customized** to the enterprise's needs, using a set of design factors as parameters to customize and prioritize the governance system components.



System Principle #6

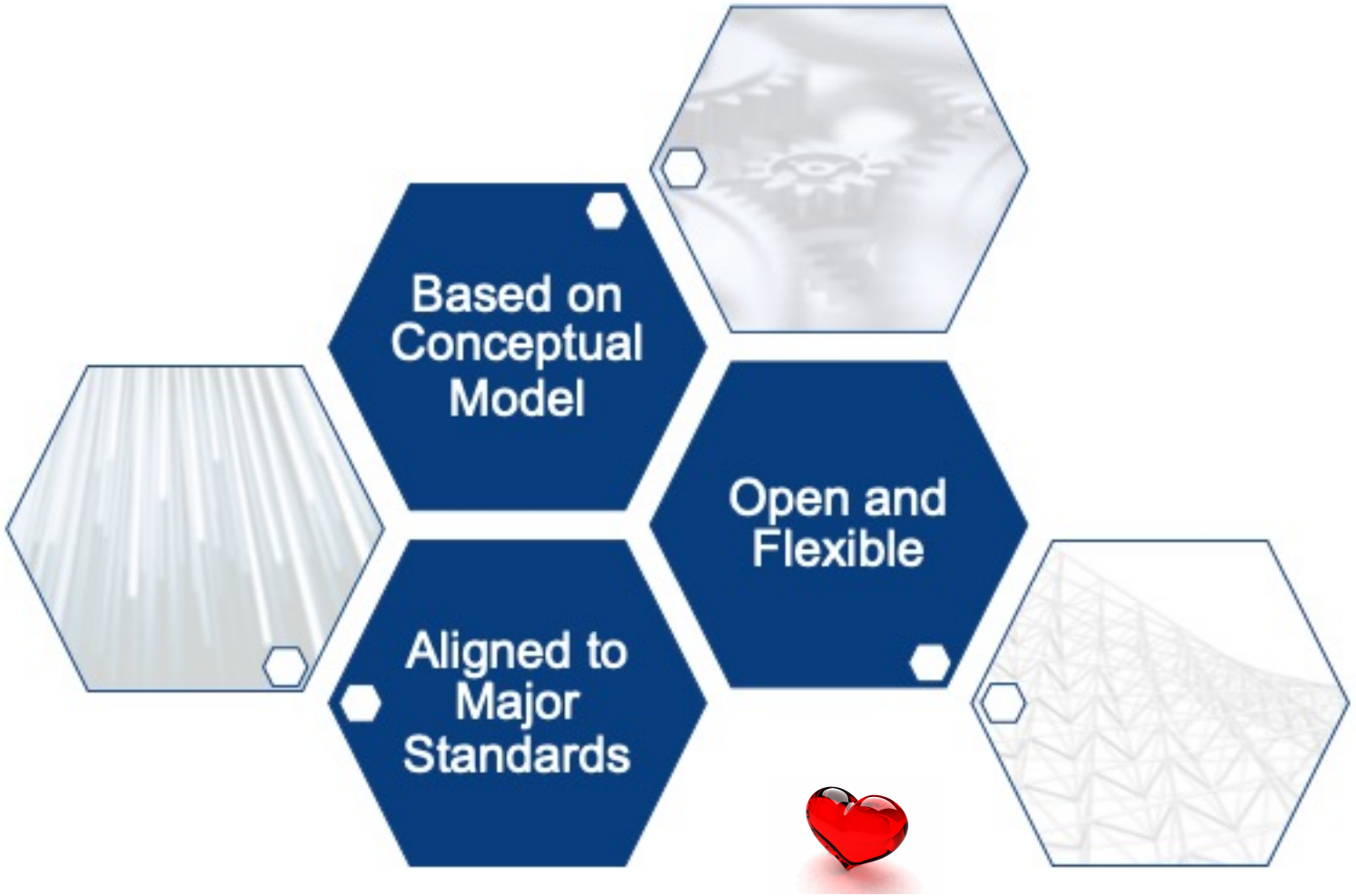
End-to-End Governance System

A governance system should cover the enterprise end to end, focusing not only on the IT function but on all technology and information processing the enterprise puts in place to achieve its goals, regardless of its location in the enterprise.



The 3 Framework Principles

The three principles of a governance framework identify the underlying principles for a governance framework that can be used to **build a governance system** for the enterprise.



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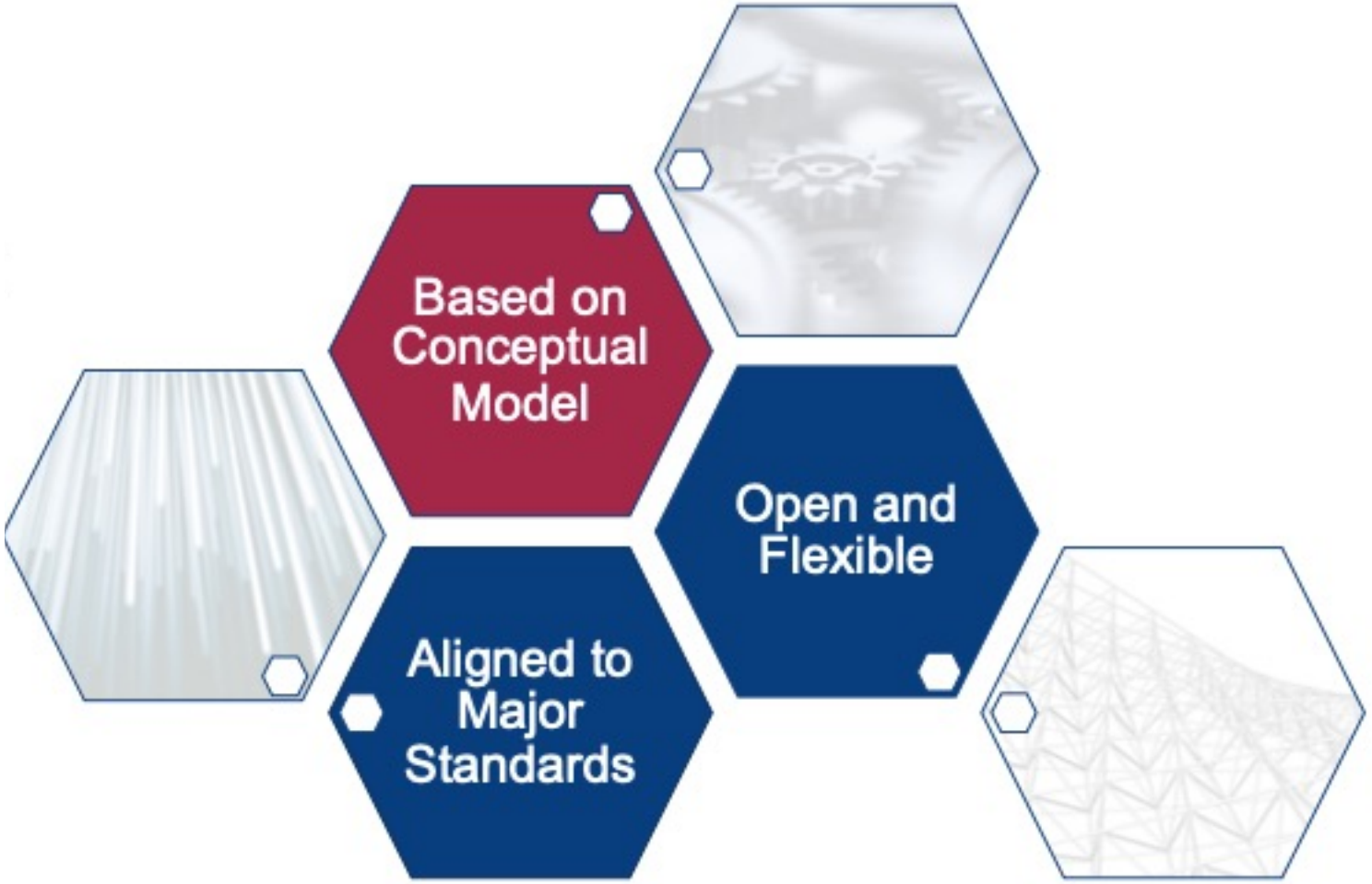
Framework Principle #1

Based on Conceptual Model

A governance framework should be based on a conceptual model, identifying the key components and relationships among components, to maximize **consistency** and allow **automation**.



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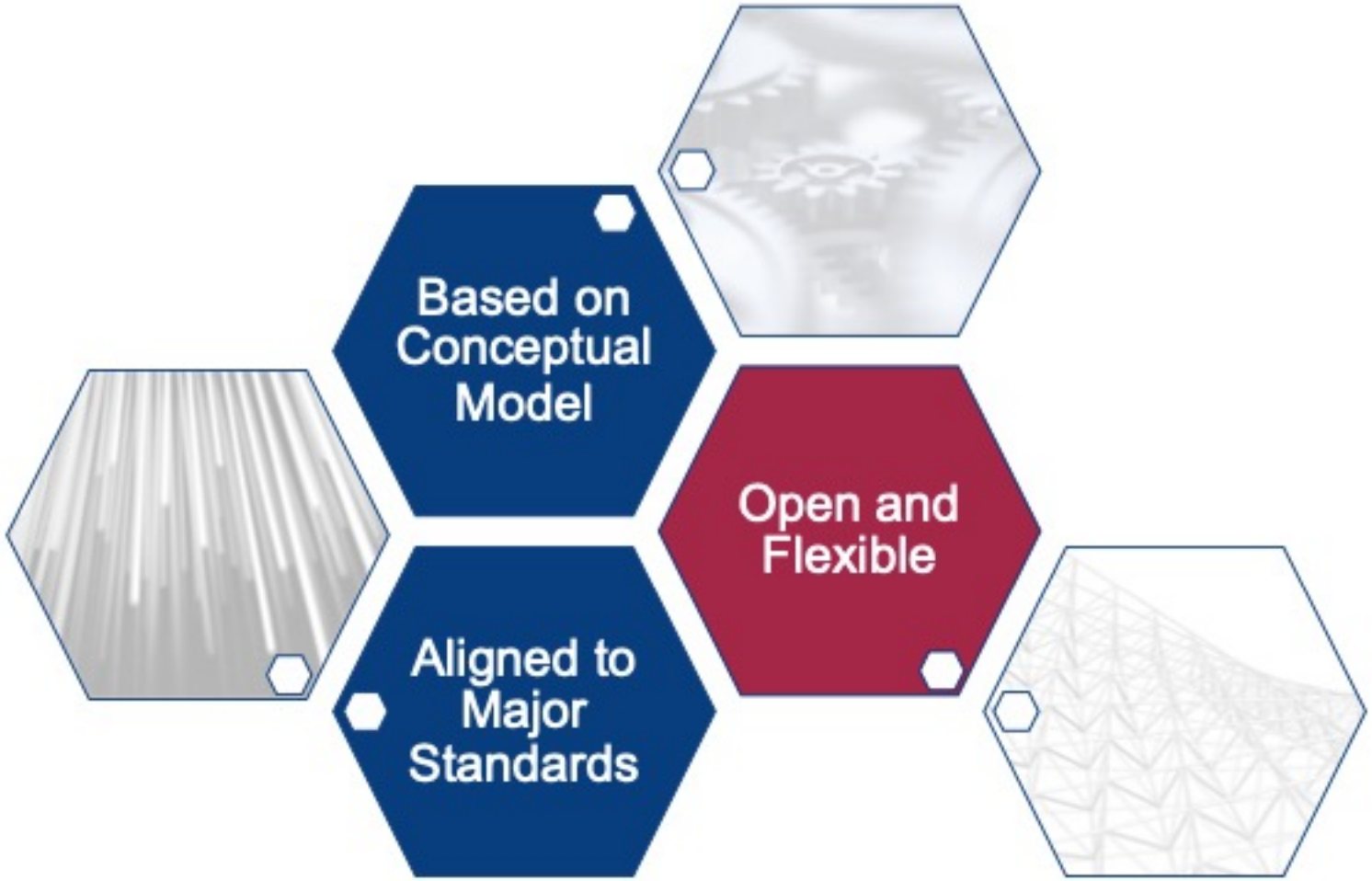
Framework Principle #2

Open and Flexible

A governance framework should be open and flexible. It should allow the addition of new content and the ability to address new issues in the most flexible way, while maintaining integrity and consistency.

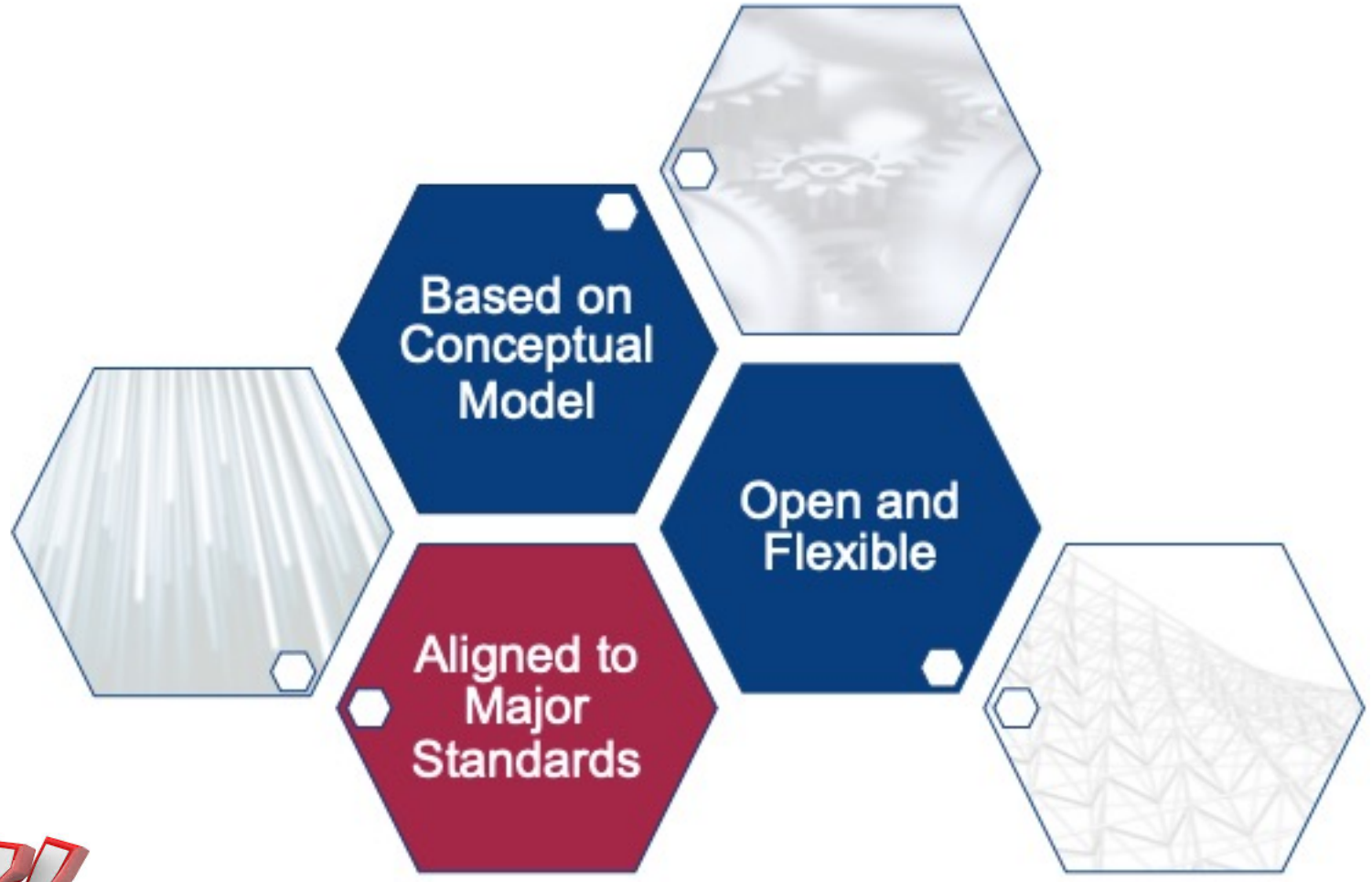


COBIT 2019

Framework Principle #3

Aligned to Major Standards

A governance framework should align to relevant major related standards, frameworks and regulations.



COBIT 2019

Chapter 4
Governance Systems and Components

Chapter 4: Governance Systems and Components

Course Content & Learning Objectives

- ✓ Content:
  - ✓ Governance and management objectives
  - ✓ Components of the governance system
  - ✓ Focus areas
  - ✓ Design factors
  - ✓ Goal cascade
- ✓ Learning Objectives
  - ✓ Understand and describe the components of a governance system
  - ✓ Understand the overall structure and contents of the Goals Cascade

COBIT 2019

Governance & Management Objectives

For information and technology to contribute to enterprise goals, a number of governance and management objectives should be achieved. Basic concepts include:

A governance or management objective always relates to one process and a series of related components of other types to help achieve the objective.

A governance objective relates to a governance process, while a management objective relates to a management process.

Governance processes typically are under the accountability of boards and executive management; management processes are the domain of senior and middle management.

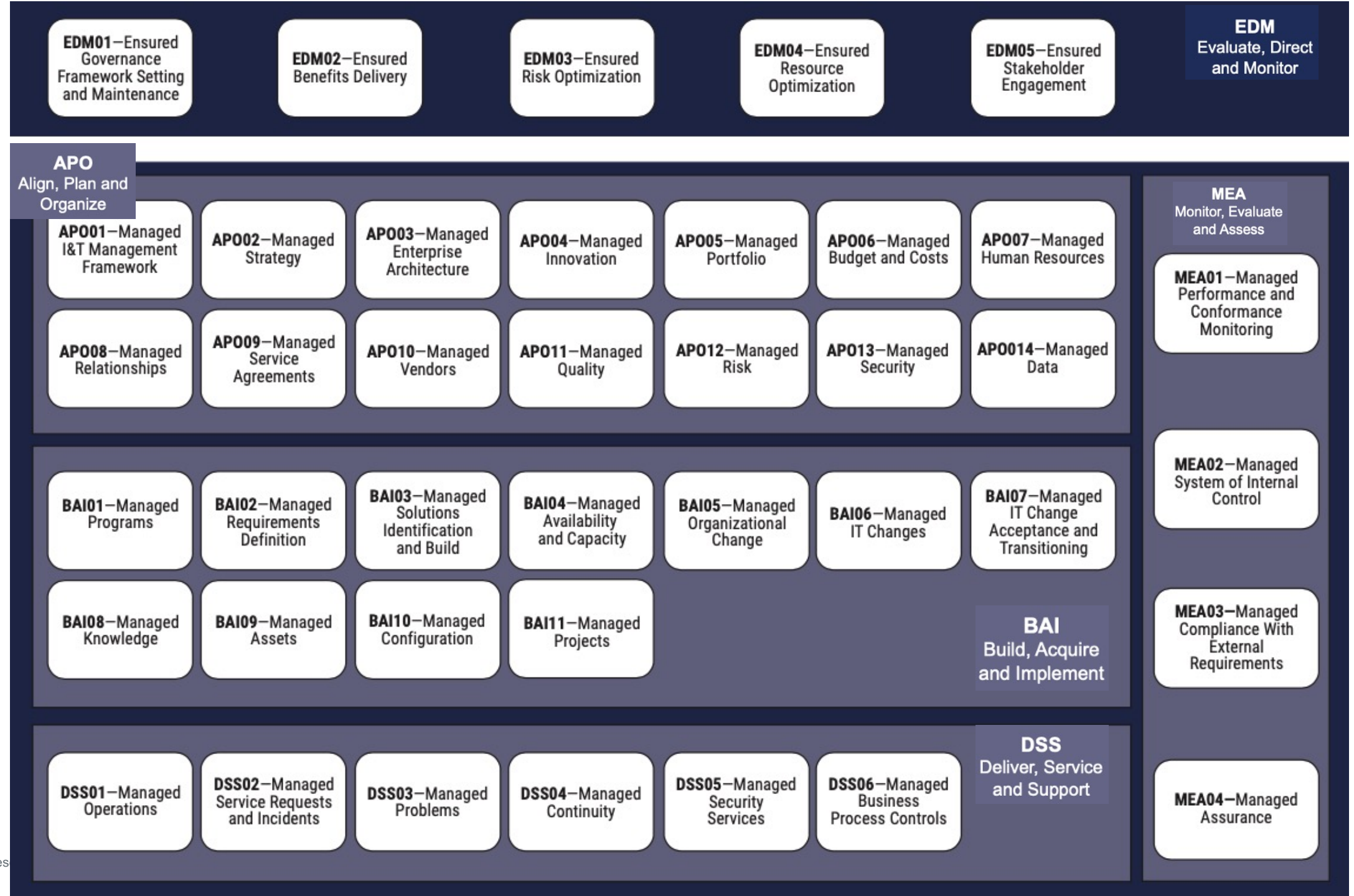
Governance & Management Objectives

5 Domains

Governance and management objectives in COBIT are grouped into five domains. The domains have names with verbs that express the key purpose and areas of activity of the objectives contained in them:

COBIT 2019

The 40 Governance & Management Objectives



The 7 COMPONENTS OF A GOVERNANCE SYSTEM

To satisfy governance and management objectives, each enterprise needs to establish, tailor and sustain a governance system built from a number of components.

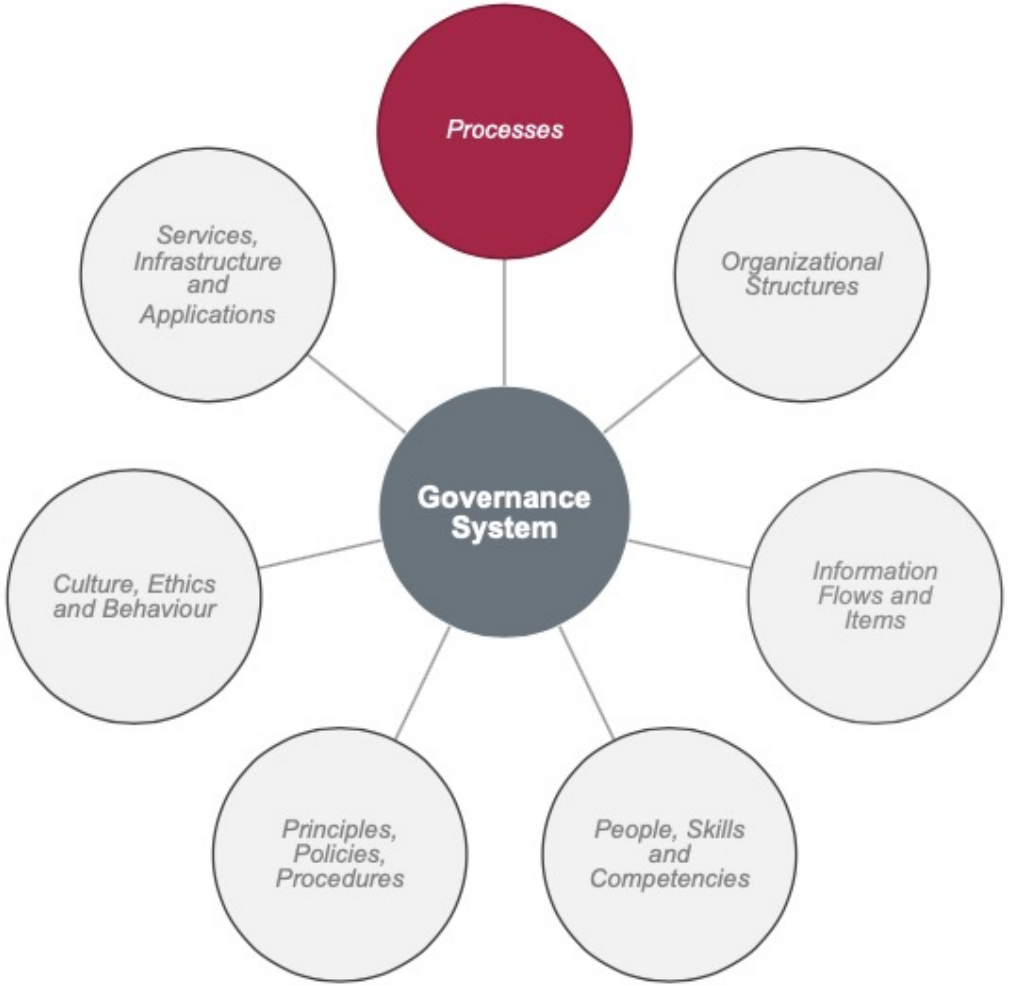
Components are factors that, individually and collectively, contribute to the good operations of the enterprise's governance system over I&T.

Components interact with each other, resulting in a holistic governance system for I&T.

Components can be of different types, the most familiar are processes.

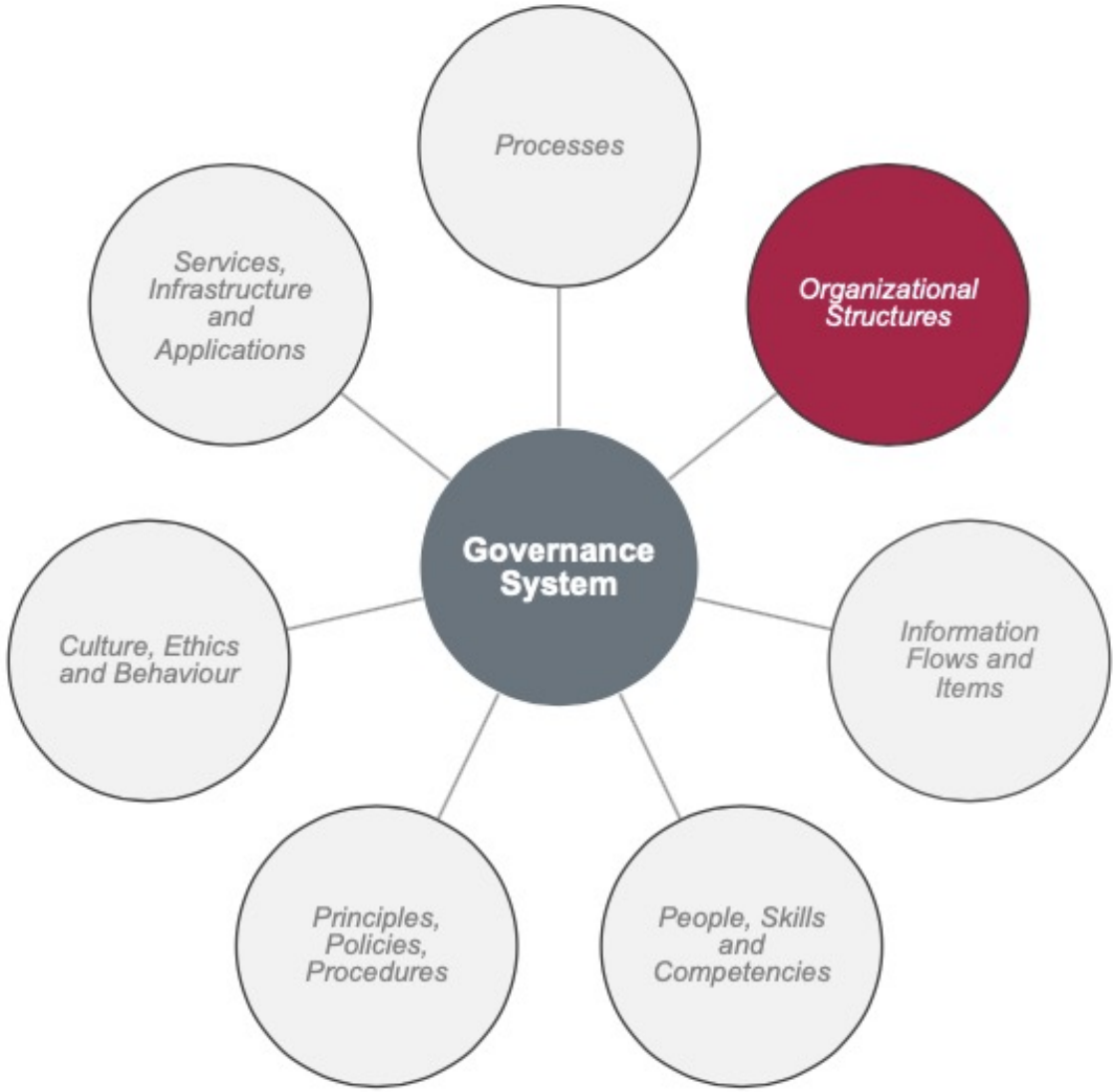
PROCESS COMPONENT

Definition of process

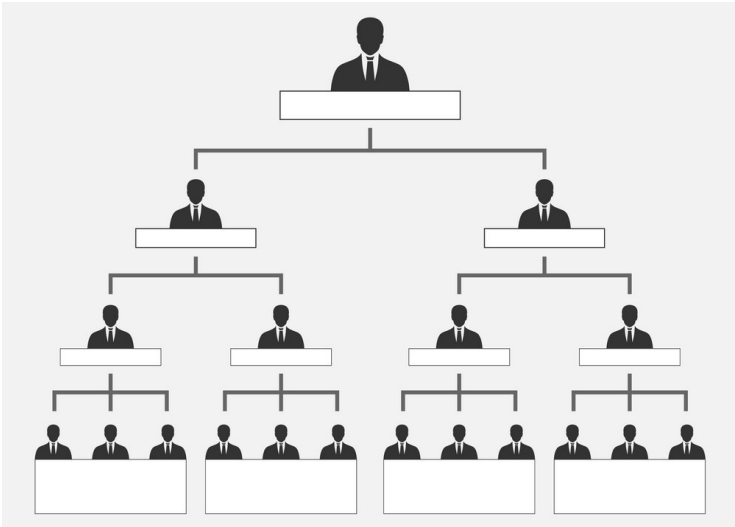


Processes describe an organized set of practices and activities to achieve certain objectives and produce a set of outputs that support achievement of overall IT-related goals.

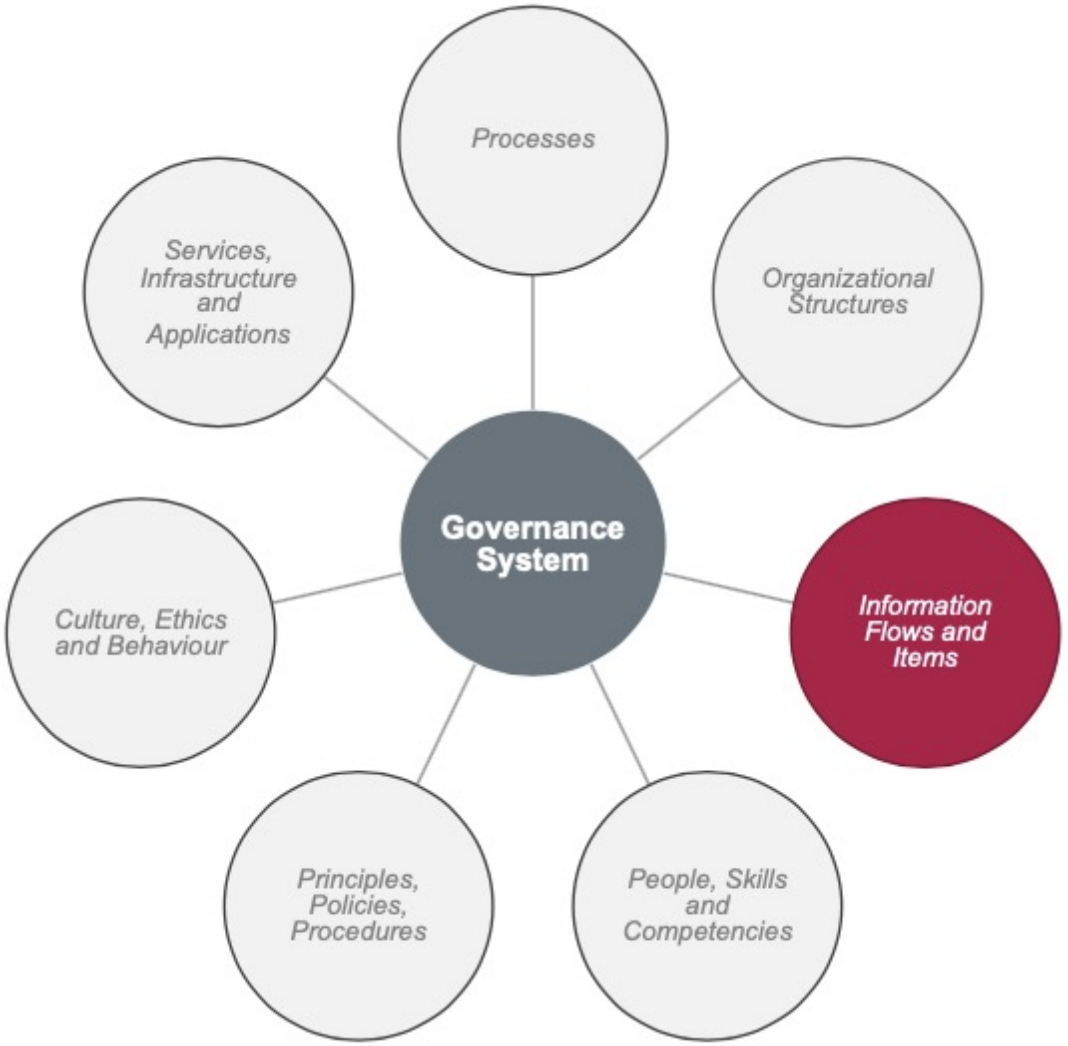
ORGANIZATIONAL STRUCTURES COMPONENT



Organizational structures are the key decision-making entities in an enterprise.

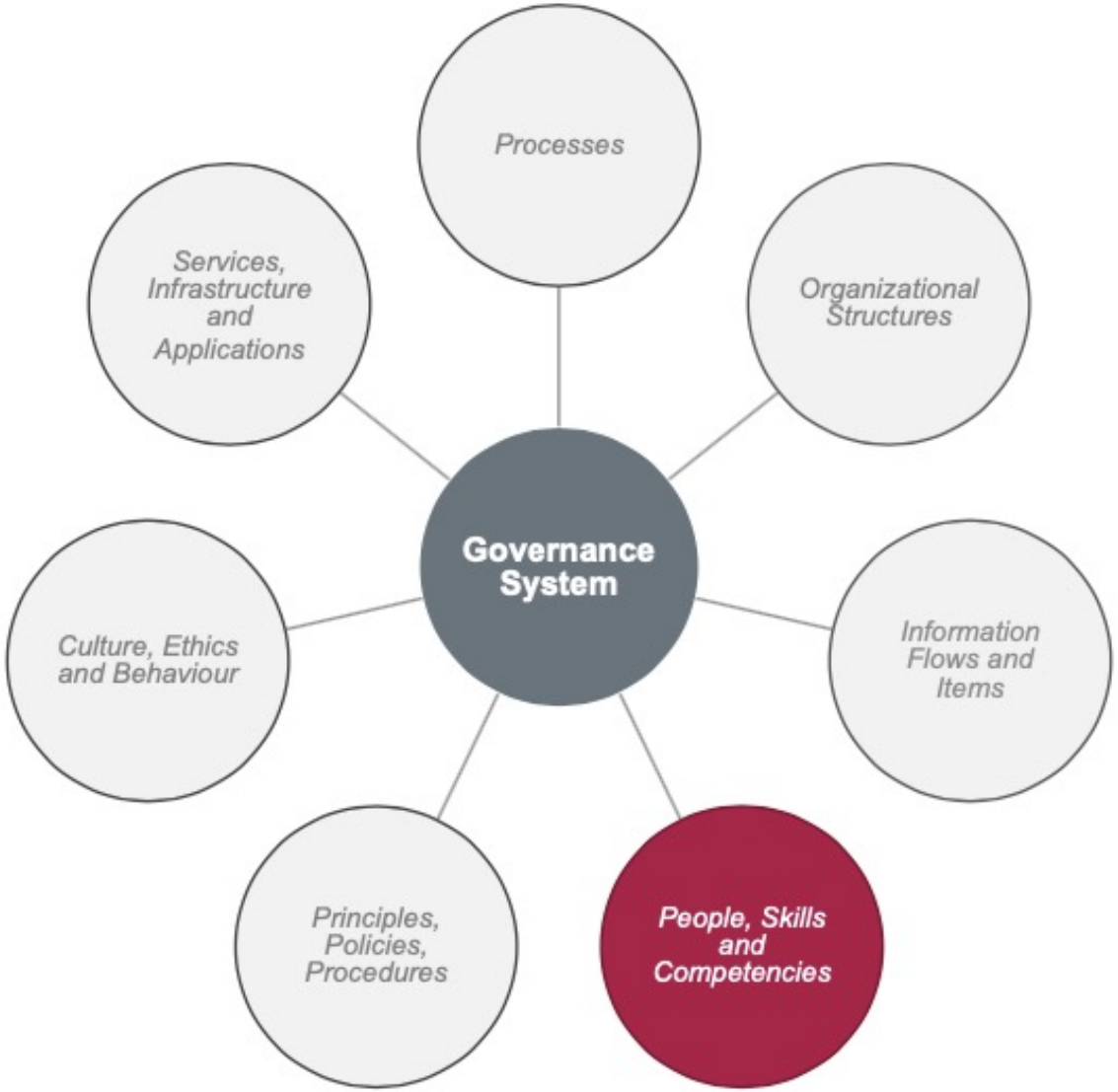


INFORMATION FLOWS AND ITEMS COMPONENT



Information is pervasive throughout any organization and includes all information produced and used by the enterprise. COBIT focuses on information required for the effective functioning of the governance system of the enterprise.

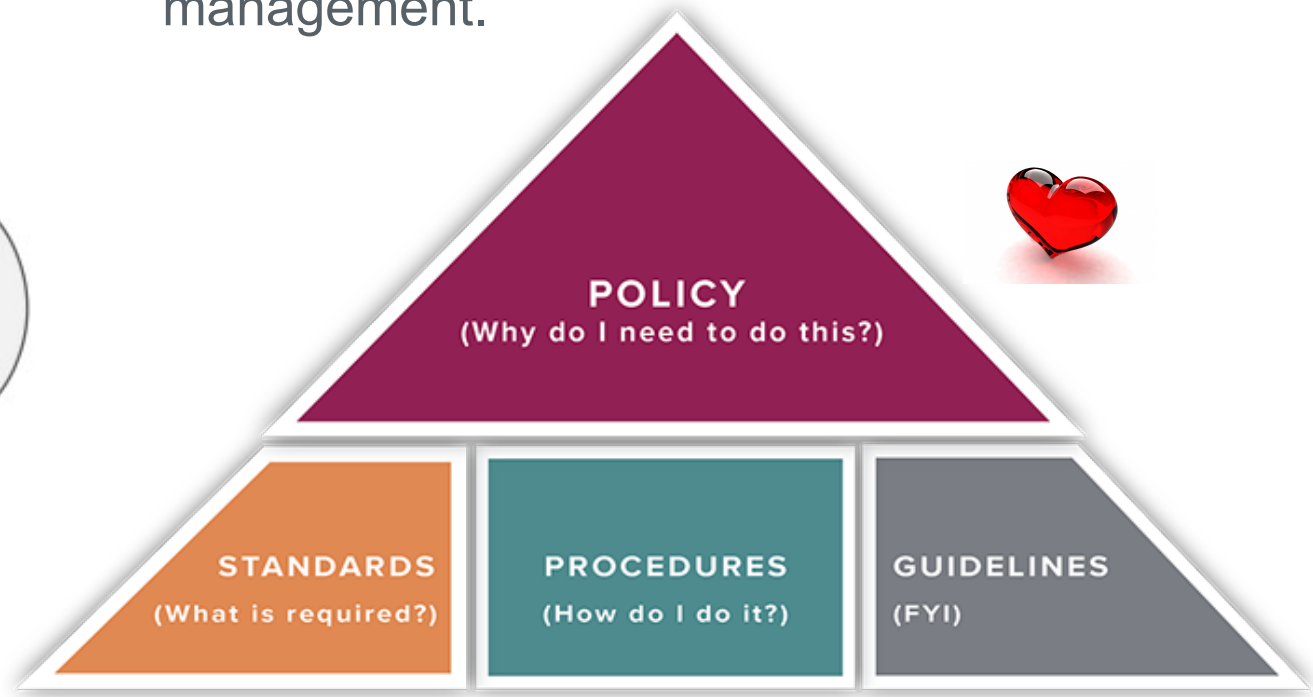
PEOPLE, SKILLS AND COMPETENCIES COMPONENT



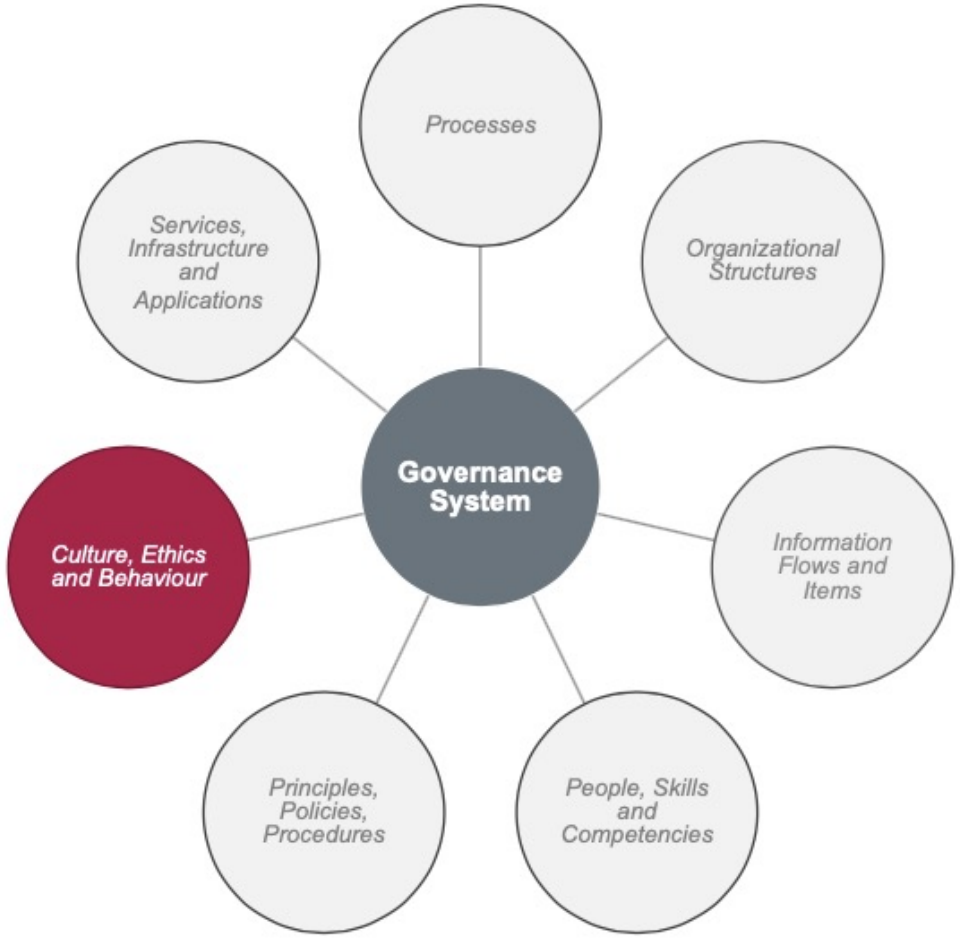
People, skills and competencies are required for good decisions, execution of corrective action and successful completion of all activities.

PRINCIPLES, POLICIES AND PROCEDURES COMPONENT

Principles, policies and procedures translate desired behavior into practical guidance for day-to-day management.



CULTURE, ETHICS AND BEHAVIOR COMPONENT



Culture, ethics and behavior of individuals and of the enterprise are often underestimated as factors in the success of governance and management activities.

SERVICES, INFRASTRUCTURES AND APPLICATIONS COMPONENT

Services, infrastructure and applications include the infrastructure, technology and applications that provide the enterprise with the governance system for I&T processing.

COMPONENTS OF A GOVERNANCE SYSTEM

Generic & customized

Generic components are described in the COBIT core model and apply in principle to **any situation**.

However, they are generic in nature and generally **need customization before being practically implemented**.

Variants are based on generic components but are **tailored** for a **specific purpose** or context within a focus area (e.g., for information security, DevOps, a particular regulation).

FOCUS AREAS

Generic component variants

A focus area describes a certain governance **topic, domain or issue** that can be addressed by a collection of governance and management objectives and their components.

Focus areas can contain a **combination of generic governance components and variants.**

The number of focus areas is **virtually unlimited**. That is what makes COBIT open-ended.

New focus **areas can be added** as required or as subject matter experts and practitioners contribute.

Examples of focus areas:

- Small and medium enterprises
- Cybersecurity
- Risk
- Cloud computing
- Privacy
- DevOps

11 DESIGN FACTORS

Definition

Design factors are **factors that can influence the design of an enterprise's governance system and position it for success in the use of I&T**.

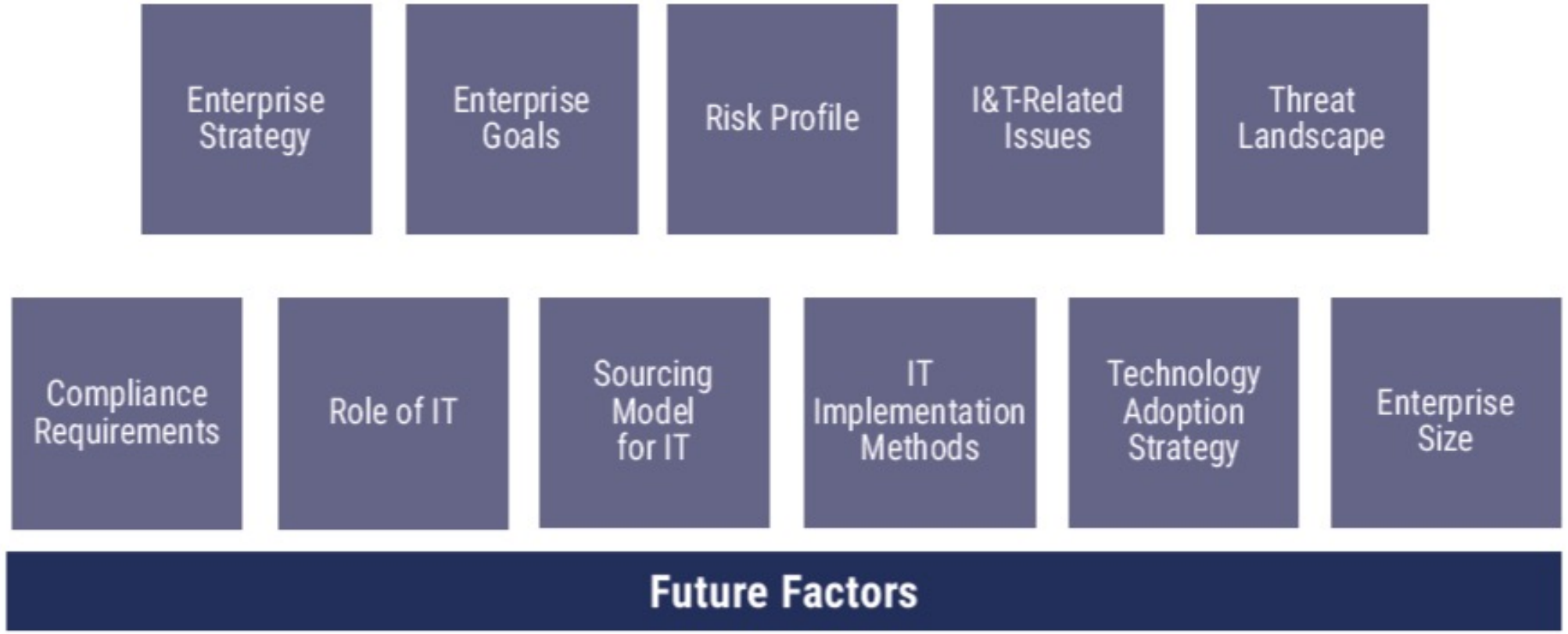
The design factors are listed here and the potential impacts they can have on the governance system are noted in Module 7, Designing a Tailored Governance System.

More information and detailed guidance on how to use the design factors for designing a governance system can be found in the **COBIT® 2019 Design Guide publication**.

Design factors include any combination of the following:

- Enterprise strategy
- Enterprise goals
- Risk profile
- IT-related issues
- Threat landscape
- Compliance requirements
- Role of IT
- Sourcing model for IT
- IT implementation methods
- Technology adoption strategy
- Enterprise size
- Future factors

THE 11 DESIGN FACTORS



DESIGN FACTOR 1: ENTERPRISE STRATEGY

Enterprises can have different strategies, which can be expressed as (a combination of) the archetypes shown below. Organizations typically have a primary strategy and, at most, one secondary strategy.

Strategy Archetype	Explanation
Growth/Acquisition	The enterprise has a focus on growing (revenues).
Innovation/Differentiation	The enterprise has a focus on offering different and/or innovative products and services to their clients.
Cost Leadership	The enterprise has a focus on short-term cost minimization.
Client Service/Stability	The enterprise has a focus on providing stable and client-oriented service.

Balanced Score Card (BSC)

The 4 dimensions

- ✓ Harvard University 1998
- ✓ 2 professors of Finance:
  - ✓ Kaplan
  - ✓ Norton
- ✓ Target:
  - ✓ Introduce Balance in Vision, Strategy and Reporting
- ✓ 4 dimensions
  - ✓ **Finance**
  - ✓ **Customer**
  - ✓ **Internal**
  - ✓ **Growth**

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DESIGN FACTOR 2: ENTERPRISE GOALS

Enterprise strategy is realized by the achievement of (a set of) enterprise goals. These goals are defined in the COBIT framework, structured along the balanced scorecard (BSC) dimensions.

Reference	Balanced Scorecard (BSC) Dimension	Enterprise Goal
EG01	Financial	Portfolio of competitive products and services
EG02	Financial	Managed business risk
EG03	Financial	Compliance with external laws and regulations
EG04	Financial	Quality of financial information
EG05	Customer	Customer-oriented service culture
EG06	Customer	Business-service continuity and availability
EG07	Customer	Quality of management information
EG08	Internal	Optimization of internal business process functionality
EG09	Internal	Optimization of business process costs
EG10	Internal	Staff skills, motivation and productivity
EG11	Internal	Compliance with internal policies
EG12	Growth	Managed digital transformation programs
EG13	Growth	Product and business innovation

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DESIGN FACTOR 3: RISK PROFILE

The risk profile identifies the sort of I&T- related risk to which the enterprise is currently exposed and indicates which areas of risk are exceeding the risk appetite.

Reference	Risk Category
1	IT investment decision making, portfolio definition and maintenance
2	Program and projects lifecycle management
3	IT cost and oversight
4	IT expertise, skills and behavior
5	Enterprise/IT architecture
6	IT operational infrastructure incidents
7	Unauthorized actions
8	Software adoption/usage problems
9	Hardware incidents
10	Software failures
11	Logical attacks (hacking, malware, etc.)
12	Third party/supplier incidents
13	Noncompliance
14	Geopolitical issues
15	Industrial action (Strikes)
16	Acts of nature
17	Technology-based innovation
18	Environmental
19	Data and information management

DESIGN FACTOR 4: I&T RELATED ISSUES

A related method for an I&T risk assessment is for the enterprise is to consider which I&T-related issues it currently faces, or, in other words, what I&T-related risk has materialized. These are the most common of such issues.

- Pain Points

Reference	Description
A	Frustration between different IT entities across the organization because of a perception of low contribution to business value
B	Frustration between business departments (i.e., the IT customer) and the IT department because of failed initiatives or a perception of low contribution to business value
C	Significant IT-related incidents, such as data loss, security breaches, project failure and application errors, linked to IT
D	Service delivery problems by the IT outsourcer(s)
E	Failures to meet IT-related regulatory or contractual requirements
F	Regular audit findings or other assessment reports about poor IT performance or reported IT quality or service problems
G	Substantial hidden and rogue IT spending, that is, IT spending by user departments outside the control of the normal IT investment decision mechanisms and approved budgets
H	Duplications or overlaps between various initiatives, or other forms of wasted resources
I	Insufficient IT resources, staff with inadequate skills or staff burnout/dissatisfaction
J	IT-enabled changes or projects frequently failing to meet business needs and delivered late or over budget
K	Reluctance by board members, executives or senior management to engage with IT, or a lack of committed business sponsorship for IT
L	Complex IT operating model and/or unclear decision mechanisms for IT-related decisions
M	Excessively high cost of IT
N	Obstructed or failed implementation of new initiatives or innovations caused by the current IT architecture and systems
O	Gap between business and technical knowledge, which leads to business users and information and/or technology specialists speaking different languages
P	Regular issues with data quality and integration of data across various sources
Q	High level of end-user computing, creating (among other problems) a lack of oversight and quality control over the applications that are being developed and put in operation
R	Business departments implementing their own information solutions with little or no involvement of the enterprise IT department[16]
S	Ignorance of and/or noncompliance with privacy regulations
T	Inability to exploit new technologies or innovate using I&T

DESIGN FACTOR 5: THREAT LANDSCAPE

The threat landscape under which the enterprise operates can be classified as shown below.

Threat Landscape	Explanation
Normal	The enterprise is operating under what are considered normal threat levels.
High	Due to its geopolitical situation, industry sector or particular profile, the enterprise is operating in a high-threat environment.

DESIGN FACTOR 6: COMPLIANCE REQUIREMENTS

The compliance requirements to which the enterprise is subject can be classified according to the categories below.

Regulatory Environment	Explanation
Low compliance requirements	The enterprise is subject to a minimal set of regular compliance requirements that are lower than average.
Normal compliance requirements	The enterprise is subject to a set of regular compliance requirements that are common across different industries.
High compliance requirements	The enterprise is subject to higher-than-average compliance requirements, most often related to industry sector or geopolitical conditions.

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DESIGN FACTOR 7: ROLE OF IT

The role of IT for the enterprise can be classified as shown below.

Role of IT	Explanation
Support	IT is not crucial for the running and continuity of the business process and services, nor for their innovation.
Factory	When IT fails, there is an immediate impact on the running and continuity of the business processes and services. However, IT is not seen as a driver for innovating business processes and services.
Turnaround	IT is seen as a driver for innovating business processes and services. At this moment, however, there is not a critical dependency on IT for the current running and continuity of the business processes and services.
Strategic	IT is critical for both running and innovating the organization's business processes and services.

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DESIGN FACTOR 8: SOURCING MODEL FOR IT

The sourcing model for IT the enterprise adopts can be classified as shown below.

Sourcing Model	Explanation
Outsourcing	The enterprise calls upon the services of a third party to provide IT services.
Cloud	The enterprise maximizes the use of the cloud for providing IT services to its users.
Insourced	The enterprise provides for its own IT staff and services.
Hybrid	A mixed model is applied, combining the other three models in varying degrees.

DESIGN FACTOR 9: IT IMPLEMENTATION METHODS

The IT implementation methods the enterprise adopts can be classified as shown below.

IT Implementation	Explanation
Agile	The enterprise uses Agile development working methods for its software development.
DevOps	The enterprise uses DevOps working methods for software building, deployment and operations.
Traditional	The enterprise uses a more classic approach to software development (waterfall) and separates software development from operations.
Hybrid	The enterprise uses a mix of traditional and modern IT implementation, often referred to as "bimodal IT."

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DESIGN FACTOR 10: TECHNOLOGY ADOPTION STRATEGY

The technology adoption strategy can be classified as shown below.

Technology Adoption Standards	Explanation
First mover	The enterprise generally adopts new technologies as early as possible and tries to gain first-mover advantage.
Follower	The enterprise typically waits for new technologies to become mainstream and proven before adopting them.
Slow adopter	The enterprise is very late with adoption of new technologies.

DESIGN FACTOR 11: ENTERPRISE SIZE

Two categories are identified for the design of an enterprise's governance system. Micro- enterprises, i.e., enterprises with fewer than 50 staff members, are not considered in this view.

Enterprise Size	Explanation
Large enterprise (Default)	Enterprise with more than 250 full-time employees (FTEs)
Small and medium enterprise	Enterprise with 50 to 250 FTEs

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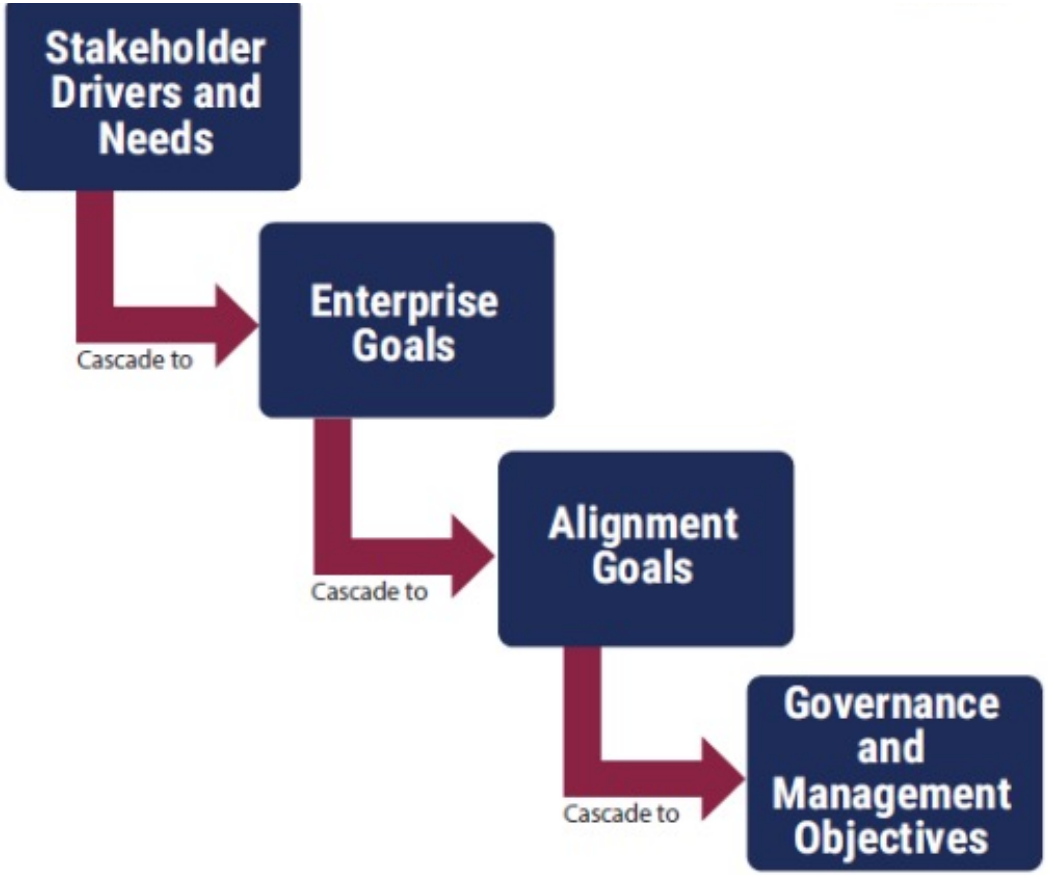
GOALS CASCADE



Alignment goals emphasize the alignment of all IT efforts with business objectives

There is a frequent misunderstanding that these goals indicate purely internal objectives of the IT department within an enterprise.

The goals cascade is covered in more detail in Module 5, Governance and Management Objectives.

GOALS CASCADE –ENTERPRISE GOALS

REF	BSC DIMENSION	ENTERPRISE GOAL
EG01	Financial	Portfolio of competitive products and services
EG02	Financial	Managed business risk
EG03	Financial	Compliance with external laws and regulations
EG04	Financial	Quality of financial information
EG05	Customer	Customer-oriented service culture
EG06	Customer	Business service continuity and availability
EG07	Customer	Quality of management information

REF	BSC DIMENSION	ENTERPRISE GOAL
EG08	Internal	Optimization of internal business process functionality
EG09	Internal	Optimization of business process costs
EG10	Internal	Staff skills, motivation and productivity
EG11	Internal	Compliance with internal policies
EG12	Growth	Managed digital transformation programs
EG13	Growth	Product and business innovation

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GOALS CASCADE – ALIGNMENT GOALS

Alignment= IT

REF	BSC DIMENSION	ALIGNMENT GOAL
AG01	Financial	IT compliance and support for business compliance with external laws and regulations
AG02	Financial	Managed information- and technology-related risk
AG03	Financial	Realized benefits from information- and technology-enabled investments and services portfolio
AG04	Financial	Quality of technology-related financial information
AG05	Customer	Delivery of I&T services in line with business requirements
AG06	Customer	Agility to turn business requirements into operational solutions
AG07	Internal	Security of information, processing infrastructure and applications, and privacy

REF	BSC DIMENSION	ALIGNMENT GOAL
AG08	Internal	Enabling and supporting business processes by integrating applications and technology
AG09	Internal	Delivery of programs on time, on budget, and meeting requirements and quality standards
AG10	Internal	Quality of IT management information
AG11	Internal	IT compliance with internal policies
AG12	Learning and Growth	Competent and motivated staff with mutual understanding of technology and business
AG13	Learning and Growth	Knowledge, expertise and initiatives for business innovation

Chapter 5
Governance and Management Objectives

Chapter 5: Governance and management objectives

Course Content

- ✓ Content:
- ✓ Overview of the COBIT Core Model
  - ✓ Governance and Management Objectives Purpose statements
- ✓ Governance and Management Objectives Detailed Guidance

- ✓ Learning Objectives
  - ✓ Recall the 40 Governance and Management Objectives and their purpose statements
  - ✓ Understand the relationship between Governance and Management Objectives and Governance Components

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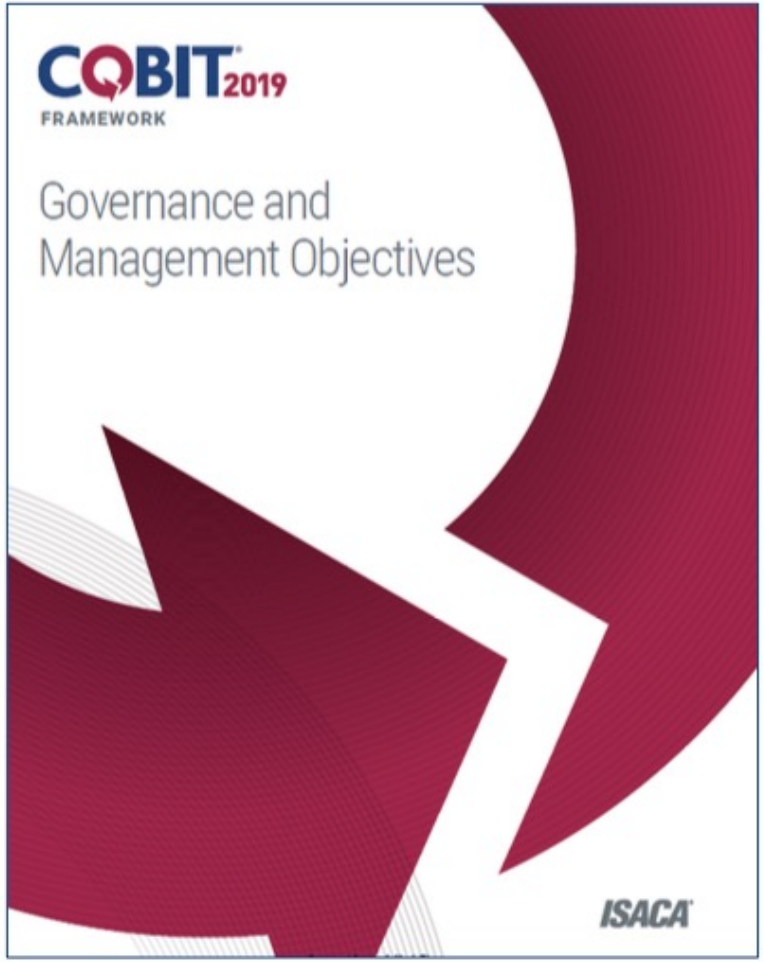
COBIT 2019 FRAMEWORK
GOVERNANCE AND MANAGEMENT OBJECTIVES PUBLICATION

This publication provides a comprehensive description of the 40-core governance and management objectives defined in the COBIT core model, the processes contained therein, other related components, and references to related guidance such as other standards and frameworks. This publication explains:

The structure that is used to detail the guidance for the 40 governance and management objectives across components.

The appendices include more detail on the mapping tables that inform the goals cascade, descriptions of organizational structures and a list of source references.



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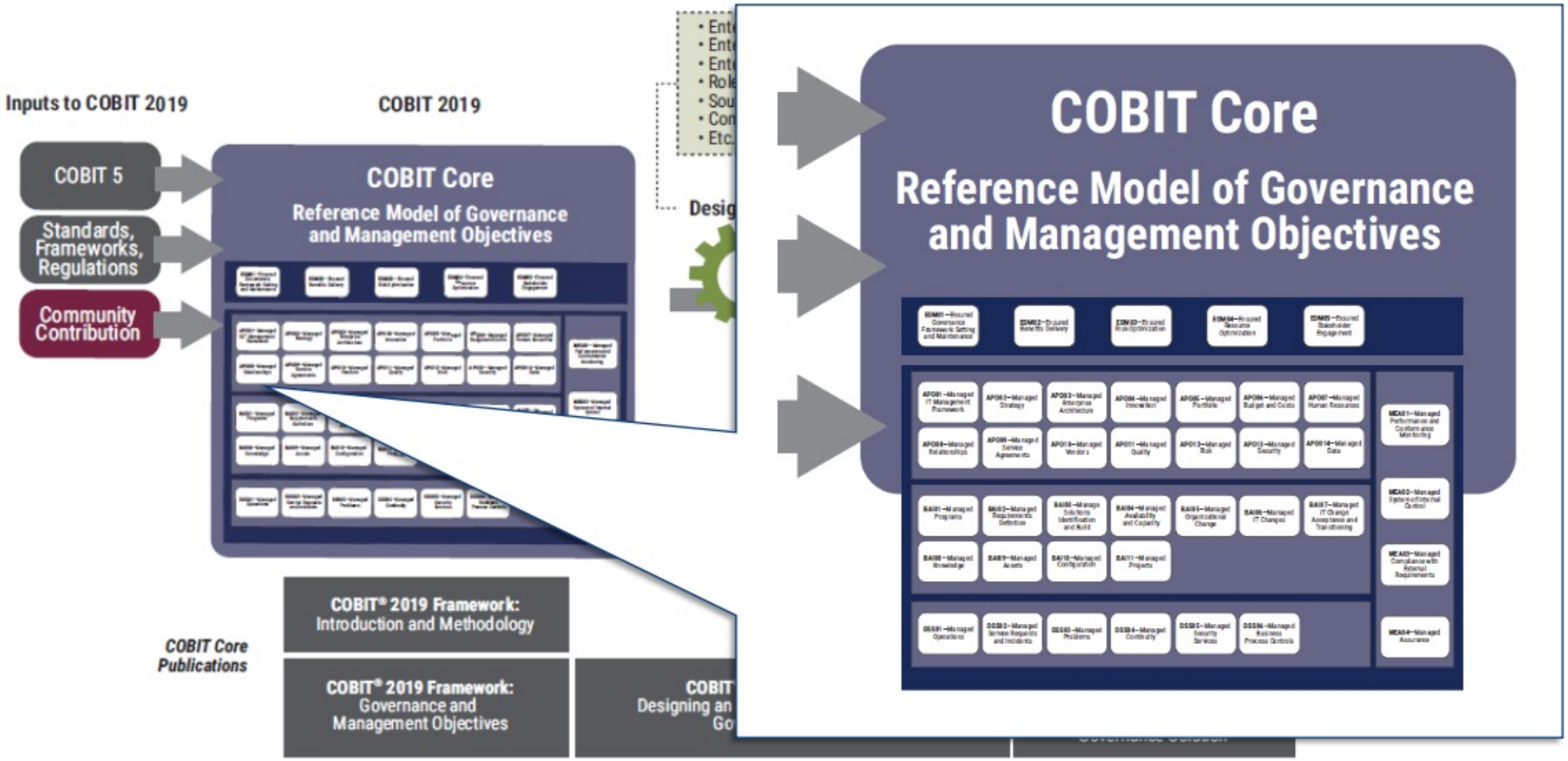
COBIT CORE MODEL



COBIT CORE MODEL

EDM: Evaluate, Direct & Monitor

Governance objectives are grouped in the **Evaluate, Direct and Monitor** (EDM) domain. In this domain, the governing body evaluates strategic options, directs senior management on the chosen strategic options and monitors the achievement of the strategy.

COBIT CORE MODEL

APO: Align, Plan and Organize

Align, Plan and Organize (APO) addresses the overall organization, strategy and supporting activities for I&T.

COBIT CORE MODEL

BAI: Build, Acquire & Implement

Build, Acquire and Implement (BAI) treats the definition, acquisition and implementation of I&T solutions and their integration in business processes.

COBIT CORE MODEL

DSS: Deliver, Service & Support

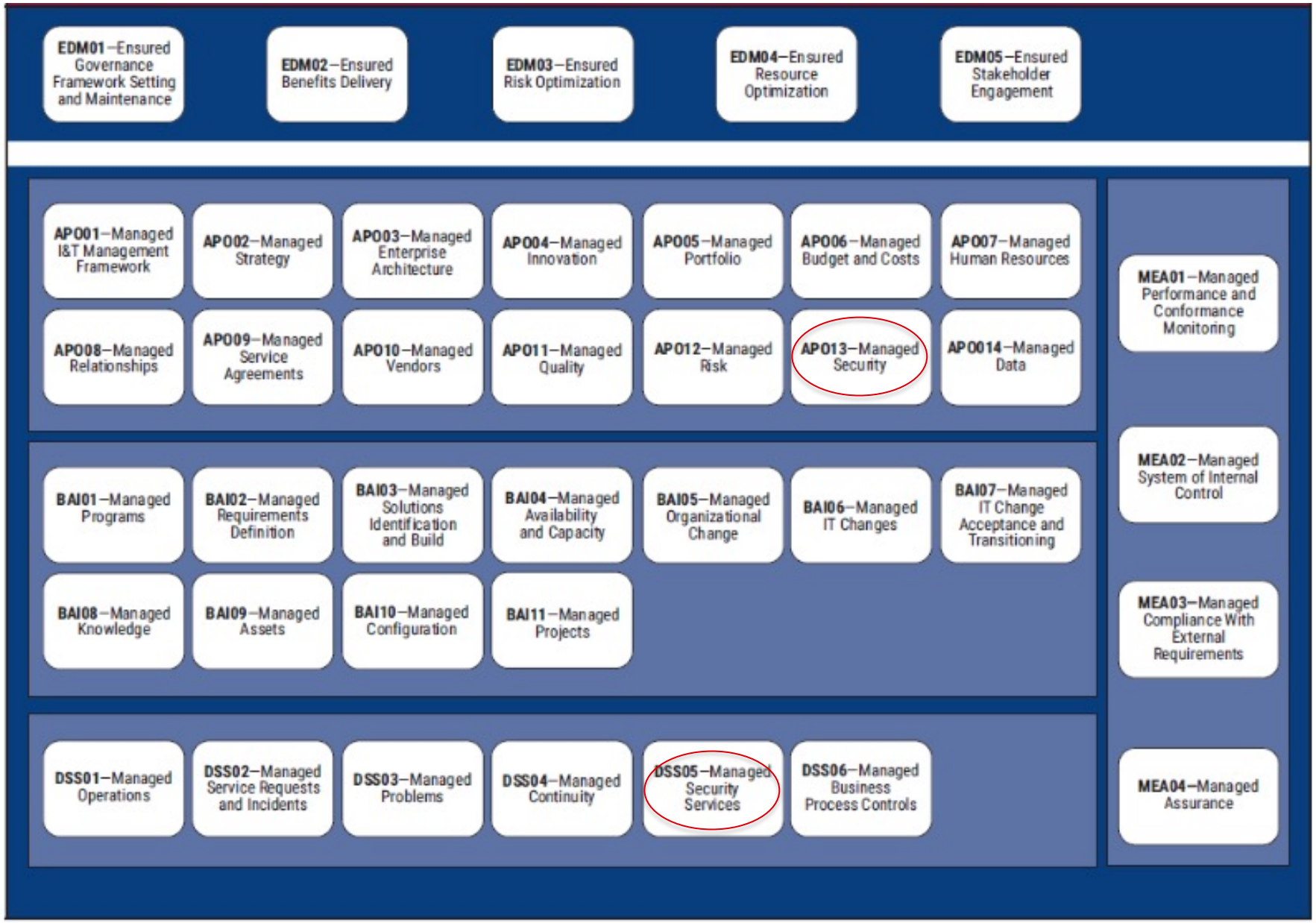
Deliver, Service and Support (DSS) addresses the operational delivery and support of I&T services, including security.

COBIT CORE MODEL

MEA: Monitor, Evaluate & Assess

Monitor, Evaluate and Assess (MEA) addresses performance monitoring and conformance of I&T with internal performance targets, internal control objectives and external requirements.

COBIT CORE MODEL



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OBJECTIVES AND PURPOSE STATEMENTS - EDM

Domain Name: Evaluate, Direct and Monitor	
Focus Area: COBIT Core Model	
Governance Objective Name	Purpose
EDM01 Ensured Governance Framework Setting and Maintenance	Provide a consistent approach integrated and aligned with the enterprise governance approach. I&T-related decisions are made in line with the enterprise's strategies and objectives and desired value is realized. To that end, ensure that I&T-related processes are overseen effectively and transparently; compliance with legal, contractual and regulatory requirements is confirmed; and the governance requirements for board members are met.
EDM02 Ensured Benefits Delivery	Secure optimal value from I&T-enabled initiatives, services and assets; cost-efficient delivery of solutions and services; and a reliable and accurate picture of costs and likely benefits so that business needs are supported effectively and efficiently.
EDM03 Ensured Risk Optimization	Ensure that I&T-related enterprise risk does not exceed the enterprise's risk appetite and risk tolerance, the impact of I&T risk to enterprise value is identified and managed, and the potential for compliance failures is minimized.
EDM04 Ensured Resource Optimization	Ensure that the resource needs of the enterprise are met in the optimal manner, I&T costs are optimized, and there is an increased likelihood of benefit realization and readiness for future change.
EDM05 Ensure Stakeholder Engagement	Ensure that stakeholders are supportive of the I&T strategy and road map, communication to stakeholders is effective and timely, and the basis for reporting is established to increase performance. Identify areas for improvement and confirm that I&T-related objectives and strategies are in line with the enterprise's strategy.

Exercice: identify keywords in each of the 5 objectives

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OBJECTIVES AND PURPOSES STATEMENTS - APO

Domain Name: Align, Plan and Organize	
Focus Area: COBIT Core Model	
Management Objective Name	Purpose
APO01 Managed I&T Management Framework	Implement a consistent management approach for enterprise governance requirements to be met, covering governance components such as management processes; organizational structures; roles and responsibilities; reliable and repeatable activities; information items; policies and procedures; skills and competencies; culture and behavior; and services, infrastructure and applications.
APO02 Managed Strategy	Support the digital transformation strategy of the organization and deliver the desired value through a road map of incremental changes. Use a holistic I&T approach, ensuring that each initiative is clearly connected to an overarching strategy. Enable change in all different aspects of the organization, from channels and processes to data, culture, skills, operating model and incentives.
APO03 Managed Enterprise Architecture	Represent the different building blocks that make up the enterprise and its interrelationships as well as the principles guiding their design and evolution over time, to enable a standard, responsive and efficient delivery of operational and strategic objectives.
APO04 Managed Innovation	Achieve competitive advantage, business innovation, improved customer experience, and improved operational effectiveness and efficiency by exploiting I&T developments and emerging technologies.
APO05 Managed Portfolio	Optimize the performance of the overall portfolio of programs in response to individual program, product and service performance and changing enterprise priorities and demand.
APO06 Managed Budget and Costs	Foster a partnership between IT and enterprise stakeholders to enable the effective and efficient use of I&T-related resources and provide transparency and accountability of the cost and business value of solutions and services. Enable the enterprise to make informed decisions regarding the use of I&T solutions and services.

OBJECTIVES AND PURPOSE STATEMENTS - APO

Domain Name: Align, Plan and Organize	
Focus Area: COBIT Core Model	
Management Objective Name	Purpose
APO07 Managed Human Resources	Optimize human resources capabilities to meet enterprise objectives.
APO08 Managed Relationships	Enable the right knowledge, skills and behaviors to create improved outcomes, increased confidence, mutual trust and effective use of resources that stimulate a productive relationship with business stakeholders.
APO09 Managed Service Agreements	Ensure that I&T products, services and service levels meet current and future enterprise needs.
APO10 Managed Vendors	Optimize available I&T capabilities to support the I&T strategy and road map, minimize the risk associated with nonperforming or noncompliant vendors, and ensure competitive pricing.
APO11 Managed Quality	Ensure consistent delivery of technology solutions and services to meet the quality requirements of the enterprise and satisfy stakeholder needs.
APO12 Managed Risk	Integrate the management of I&T-related enterprise risk with overall enterprise risk management (ERM) and balance the costs and benefits of managing I&T-related enterprise risk.
APO13 Managed Security	Keep the impact and occurrence of information security incidents within the enterprise's risk appetite levels.
APO14 Managed Data	Ensure effective utilization of the critical data assets to achieve enterprise goals and objectives.

OBJECTIVE AND PURPOSE STATEMENTS - BAI

Domain Name: Build, Acquire and Implement	
Focus Area: COBIT Core Model	
Management Objective Name	Purpose
BAI01 Managed Programs	Realize desired business value and reduce the risk of unexpected delays, costs and value erosion. To do so, improve communications to and involvement of business and end users, ensure the value and quality of program deliverables and follow up of projects within the programs, and maximize program contribution to the investment portfolio.
BAI02 Managed Requirements Definition	Create optimal solutions that meet enterprise needs while minimizing risk.
BAI03 Managed Solutions Identification and Build	Ensure agile and scalable delivery of digital products and services. Establish timely and cost-effective solutions (technology, business processes and workflows) capable of supporting enterprise strategic and operational objectives.
BAI04 Managed Availability and Capacity	Maintain service availability, efficient management of resources and optimization of system performance through prediction of future performance and capacity requirements.
BAI05 Managed Organizational Change	Prepare and commit stakeholders for business change and reduce the risk of failure.
BAI06 Managed IT Changes	Enable fast and reliable delivery of change to the business. Mitigate the risk of negatively impacting the stability or integrity of the changed environment.

OBJECTIVE AND PURPOSE STATEMENTS - BAI

Domain Name: Build, Acquire and Implement	
Focus Area: COBIT Core Model	
Management Objective Name	**Purpose**
BAI07 Managed IT Change Acceptance and Transitioning	Implement solutions safely and in line with the agreed expectations and outcomes.
BAI08 Managed Knowledge	Provide the knowledge and information required to support all staff in the governance and management of enterprise I&T and allow for informed decision making.
BAI09 Managed Assets	Account for all I&T assets and optimize the value provided by their use.
BAI10 Managed Configuration	Provide sufficient information about service assets to enable the service to be effectively managed. Assess the impact of changes and deal with service incidents.
BAI11 Managed Projects	Realize defined project outcomes and reduce the risk of unexpected delays, costs and value erosion by improving communications to and involvement of business and end users. Ensure the value and quality of project deliverables and maximize their contribution to the defined programs and investment portfolio.

OBJECTIVES AND PURPOSE STATEMENTS - DSS

Domain Name: Deliver, Service and Support	
Focus Area: COBIT Core Model	
Management Objective Name	Purpose
DSS01 Managed Operations	Deliver I&T operational product and service outcomes as planned.
DSS02 Managed Service Requests and Incidents	Achieve increased productivity and minimize disruptions through quick resolution of user queries and incidents. Assess the impact of changes and deal with service incidents. Resolve user requests and restore service in response to incidents.
DSS03 Managed Problems	Increase availability, improve service levels, reduce costs, improve customer convenience and satisfaction by reducing the number of operational problems, and identify root causes as part of problem resolution.
DSS04 Managed Continuity	Adapt rapidly, continue business operations and maintain availability of resources and information at a level acceptable to the enterprise in the event of a significant disruption (e.g., threats, opportunities, demands).
DSS05 Managed Security Services	Minimize the business impact of operational information security vulnerabilities and incidents.
DSS06 Managed Business Process Controls	Maintain information integrity and the security of information assets handled within business processes in the enterprise or its outsourced operation.

OBJECTIVE AND PURPOSE STATEMENTS - MEA

Domain Name: Monitor, Evaluate and Assess	
Focus Area: COBIT Core Model	
Management Objective Name	Purpose
MEA01 Managed Performance and Conformance Monitoring	Provide transparency of performance and conformance and drive achievement of goals.
MEA02 Managed System of Internal Control	Obtain transparency for key stakeholders on the adequacy of the system of internal controls and thus provide trust in operations, confidence in the achievement of enterprise objectives and an adequate understanding of residual risk.
MEA03 Managed Compliance With External Requirements	Ensure that the enterprise is compliant with all applicable external requirements.
MEA04 Managed Assurance	Enable the organization to design and develop efficient and effective assurance initiatives, providing guidance on planning, scoping, executing and following up on assurance reviews, using a road map based on well-accepted assurance approaches.

GOVERNANCE AND MANAGEMENT OBJECTIVES RELATIONSHIPS

Governance and Management Objectives

40 Governance and Management objectives are organized into five domains (Governance and Management Domains).

Processes

Each Governance and Management objective always relates to one process in the COBIT Core.

To satisfy Governance and Management objectives, Governance Components are identified (one of these components is Processes).

Governance Components

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GOVERNANCE AND MANAGEMENT OBJECTIVES DESCRIPTIONS

Each governance and management objective is described in the following ways:

High-level Information	Goals Cascade	Related Components	Related Guidance
• Domain name • Focus area • Governance or management objective name • description • Purpose statement	• Supported Alignment goals • Applicable Enterprise goals • Example metrics	• Processes • Organizational structures • Information flows and items • People, skills and competencies • Policies and frameworks • Culture, ethics and behavior • Services, infrastructure and applications	• Standards, frameworks and compliance requirements • Detailed reference • *Related guidance is found under each of the applicable components – this is different from COBIT 5 where this was applied only to the process level.*

HIGH-LEVEL INFORMATION

EXAMPLE BAI06 – MANAGED IT CHANGES

Domain: <NAME>Focus Area: <NAME> Governance/Management Objective: <NAME>
Description <TEXT>
Purpose <TEXT>

Domain: Build, Acquire and Implement Management Objective: BAI06 – Managed IT Changes	Focus Area: COBIT Core Model
Description	
Manage all changes in a controlled manner, including standard changes and emergency maintenance relating to business processes, applications and infrastructure. This includes change standards and procedures, impact assessment, prioritization and authorization, emergency changes, tracking, reporting, closure, and documentation.	
Purpose	
Enable fast and reliable delivery of change to the business. Mitigate the risk of negatively impacting the stability or integrity of the changed environment.	

GOALS CASCADE

EXAMPLE BAI06 – MANAGED IT CHANGES

The governance/management objective supports the achievement of a set of primary enterprise and alignment goals:			
Enterprise Goals		**Alignment Goals**	
• <EG REF> <GOAL DESCRIPTION> • <EG REF> <GOAL DESCRIPTION>		• <AG REF> <GOAL DESCRIPTION> • <AG REF> <GOAL DESCRIPTION>	
Example Metrics for Enterprise Goals		**Example Metrics for Alignment Goals**	
• <EG REF>	• <METRIC> • <METRIC>	• <AG REF>	• <METRIC> • <METRIC>
• <EG REF>	• <METRIC> • <METRIC>	• <AG REF>	• <METRIC> • <METRIC>

The management objective supports the achievement of a set of primary enterprise and alignment goals:			
Enterprise Goals		→	**Alignment Goals**	
EG01	Portfolio of competitive products and services		AG06	Agility to turn business requirements into operational solutions
Example Metrics for Enterprise Goals			**Example Metrics for Alignment Goals**	
EG01	a. Percent of products and services that meet or exceed targets in revenues and/or market share b. Percent of products and services that meet or exceed customer satisfaction targets c. Percent of products and services that provide competitive advantage d. Time to market for new products and services		AG06	a. Level of satisfaction of business executives with I&T responsiveness to new requirements b. Average time to market for new I&T-related services and applications c. Average time to turn strategic I&T objectives into agreed and approved initiatives d. Number of critical business processes supported by up-to-date infrastructure and applications

Each governance or management objective supports the achievement of alignment goals that are related to larger enterprise goals.

Alignment goals (known as IT-related goals in COBIT 5), have a primary link to a governance or management objective.

Alignment goals also support higher level enterprise goals.

Each of these types of goals also includes example metrics.

GOALS CASCADE – ENTERPRISE GOALS

REF	BSC DIMENSION	ENTERPRISE GOAL
EG01	Financial	Portfolio of competitive products and services
EG02	Financial	Managed business risk
EG03	Financial	Compliance with external laws and regulations
EG04	Financial	Quality of financial information
EG05	Customer	Customer-oriented service culture
EG06	Customer	Business service continuity and availability
EG07	Customer	Quality of management information

REF	BSC DIMENSION	ENTERPRISE GOAL
EG08	Internal	Optimization of internal business process functionality
EG09	Internal	Optimization of business process costs
EG10	Internal	Staff skills, motivation and productivity
EG11	Internal	Compliance with internal policies
EG12	Growth	Managed digital transformation programs
EG13	Growth	Product and business innovation

GOALS CASCADE – ALIGNMENT GOALS

Business <-> IT alignment

REF	BSC DIMENSION	ALIGNMENT GOAL
AG01	Financial	IT compliance and support for business compliance with external laws and regulations
AG02	Financial	Managed information- and technology-related risk
AG03	Financial	Realized benefits from information- and technology-enabled investments and services portfolio
AG04	Financial	Quality of technology-related financial information
AG05	Customer	Delivery of I&T services in line with business requirements
AG06	Customer	Agility to turn business requirements into operational solutions
AG07	Internal	Security of information, processing infrastructure and applications, and privacy

REF	BSC DIMENSION	ENTERPRISE GOAL
AG08	Internal	Enabling and supporting business processes by integrating applications and technology
AG09	Internal	Delivery of programs on time, on budget, and meeting requirements and quality standards
AG10	Internal	Quality of IT management information
AG11	Internal	IT compliance with internal policies
AG12	Learning and Growth	Competent and motivated staff with mutual understanding of technology and business
AG13	Learning and Growth	Knowledge, expertise and initiatives for business innovation

GOALS CASCADE – ENTERPRISE GOALS TO ALIGNMENT GOALS

Matrix mapping Enterprise goals with alignment goals

		EG01 Portfolio of competitive products and services	EG02 Managed business risk	EG03 Compliance with external laws and regulations	EG04 Quality of financial information	EG05 Customer-oriented service culture	EG06 Business service continuity and availability	EG07 Quality of management information	EG08 Optimization of internal business process functionality	EG09 Optimization of business process costs	EG10 Staff skills, motivation and productivity	EG11 Compliance with internal policies	EG12 Managed digital transformation programs	EG13 Product and business innovation
AG01	I&T compliance and support for business compliance with external laws and regulations		S	P								S		
AG02	Managed I&T-related risk		P				S							
AG03	Realized benefits from I&T-enabled investments and services portfolio	S				S			S	S			P	
AG04	Quality of technology-related financial information				P			P		P				
AG05	Delivery of I&T services in line with business requirements	P				S	S		S				S	
AG06	Agility to turn business requirements into operational solutions	P				S			S				S	S
AG07	Security of information, processing infrastructure and applications, and privacy		P				P							
AG08	Enabling and supporting business processes by integrating applications and technology	P				P			S		S		P	S
AG09	Delivering programs on time, on budget and meeting requirements and quality standards	P				S			S	S			P	S
AG10	Quality of I&T management information				P			P		S				
AG11	I&T compliance with internal policies		S	P								P		
AG12	Competent and motivated staff with mutual understanding of technology and business					S					P			
AG13	Knowledge, expertise and initiatives for business innovation	P		S									S	P

Keys:
P=primary
S=secondary

GOALS CASCADE – ALIGNMENT GOALS TO GOVERNANCE AND MANAGEMENT OBJECTIVES

Matrix mapping Governance & Management Objectives to alignment Goals (1/2)

		AG01	AG02	AG03	AG04	AG05	AG06	AG07	AG08	AG09	AG10	AG11	AG12	AG13
		I&T compliance and support for business compliance with external laws and regulations	Managed I&T-related risk	Realized benefits from I&T-enabled investments and services portfolio	Quality of technology-related financial information	Delivery of I&T services in line with business requirements	Agility to turn business requirements into operational solutions	Security of information, processing infrastructure and applications, and privacy	Enabling and supporting business processes by integrating applications and technology	Delivering programs on time, on budget and meeting requirements and quality standards	Quality of I&T management information	I&T compliance with internal policies	Competent and motivated staff with mutual understanding of technology and business	Knowledge, expertise and initiatives for business innovation
EDM01	Ensured governance framework setting and maintenance	P	S	P					S			S		
EDM02	Ensured benefits delivery			P		S	S		S					S
EDM03	Ensured risk optimization	S	P					P				S		
EDM04	Ensured resource optimization			S		S	S		S	P			S	
EDM05	Ensured stakeholder engagement				S						P	S		
APO01	Managed I&T management framework	S	S	P		S		S	S	S	S	P		
APO02	Managed strategy			S		S	S		P				S	S
APO03	Managed enterprise architecture			S		S	P	S	P					
APO04	Managed innovation			S			P		S				S	P
APO05	Managed portfolio			P		P	S		S	S				
APO06	Managed budget and costs			S	P					P	S			
APO07	Managed human resources			S		S				S			P	P
APO08	Managed relationships			S		P	P		S	S			P	P
APO09	Managed service agreements					P			S					
APO10	Managed vendors					P	S			S				
APO11	Managed quality			S	S	S				P	P			

Keys
P= primary
S= secondary

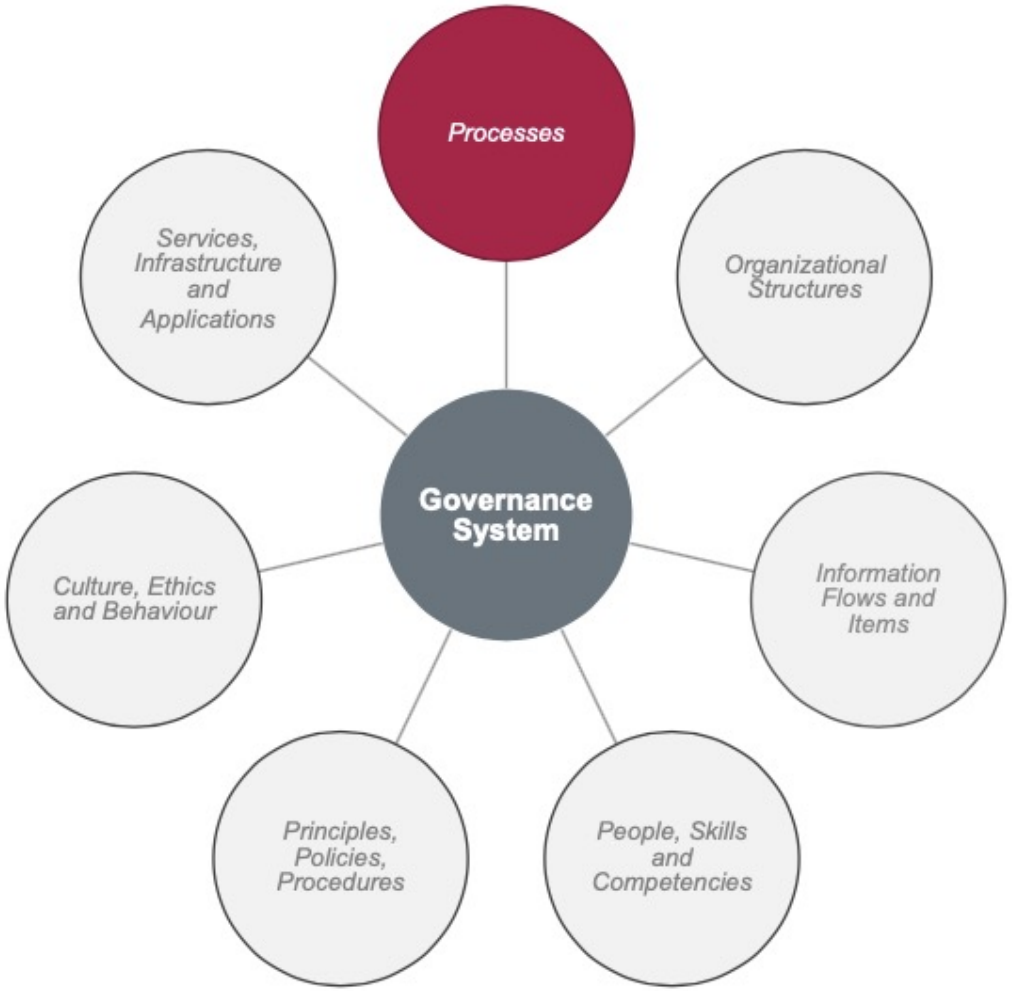
GOALS CASCADE – ALIGNMENT GOALS TO GOVERNANCE AND MANAGEMENT OBJECTIVES

Matrix mapping Governance & Management Objectives to alignment Goals (2/2)

		AG01 I&T compliance and support for business compliance with external laws and regulations	AG02 Managed I&T-related risk	AG03 Realized benefits from I&T-enabled investments and services portfolio	AG04 Quality of technology-related financial information	AG05 Delivery of I&T services in line with business requirements	AG06 Agility to turn business requirements into operational solutions	AG07 Security of information, processing infrastructure and applications, and privacy	AG08 Enabling and supporting business processes by integrating applications and technology	AG09 Delivering programs on time, on budget and meeting requirements and quality standards	AG10 Quality of I&T management information	AG11 I&T compliance with internal policies	AG12 Competent and motivated staff with mutual understanding of technology and business	AG13 Knowledge, expertise and initiatives for business innovation
APO12	Managed risk		P					P						
APO13	Managed security	S	S					P						
APO14	Managed data	S	S		S			S			P			
BAI01	Managed programs			P			S		S	P				
BAI02	Managed requirements definition			S		P	P		S	P			S	
BAI03	Managed solutions identification and build			S		P	P		S	P				
BAI04	Managed availability and capacity					P		S		S				
BAI05	Managed organizational changes			P		S	S		P	P			S	
BAI06	Managed IT changes		S			S	P		S					
BAI07	Managed IT change acceptance and transitioning		S				P			S				
BAI08	Managed knowledge			S			S		S	S			P	P
BAI09	Managed assets				P						S			
BAI10	Managed configuration					S		P						
BAI11	Managed projects			P		S	P			P				
DSS01	Managed operations					P			S					
DSS02	Managed service requests and incidents		S			P		S						
DSS03	Managed problems		S			P		S						
DSS04	Managed continuity		S			P		P						
DSS05	Managed security services	S	P			S		P				S		
DSS06	Managed business process controls		S			S		S	P			S		
MEA01	Managed performance and conformance monitoring	S		S		P				S	P	S		
MEA02	Managed system of internal control	S	S		S	S		S		S	S	P		
MEA03	Managed compliance with external requirements	P										S		
MEA04	Managed assurance	S	S		S	S		S			S	P		

Keys
P= primary
S= secondary

ALIGNMENT WITH THE 7 COMPONENTS



PROCESS COMPONENT DISPLAY

EXAMPLE BAI06 – MANAGED CHANGES

A.Component: Process		
Governance/Management Practice	**Example Metrics**	
<REF> <NAME> <DESCRIPTION>	<METRIC>	
Activities		**Capability Level**
1. <TEXT>		<NR>
2. <TEXT>		<NR>
n. <TEXT>		<NR>
Related Guidance (Standards, Frameworks, Compliance Requirements)	**Detailed Reference**	
<STANDARD NAME>	<TEXT>	
<STANDARD NAME>	<TEXT>	

A. Component: Process	
Management Practice	**Example Metrics**
BAI06.01 Evaluate, prioritize and authorize change requests. Evaluate all requests for change to determine the impact on business processes and I&T services, and to assess whether change will adversely affect the operational environment and introduce unacceptable risk. Ensure that changes are logged, prioritized, categorized, assessed, authorized, planned and scheduled.	a. Amount of rework caused by failed changes b. Percent of unsuccessful changes due to inadequate impact assessments

Activities	Capability Level
1. Use formal change requests to enable business process owners and IT to request changes to business process, infrastructure, systems or applications. Make sure that all such changes arise only through the change request management process.	2
2. Categorize all requested changes (e.g., business process, infrastructure, operating systems, networks, application systems, purchased/packaged application software) and relate affected configuration items.	
3. Prioritize all requested changes based on the business and technical requirements; resources required; and the legal, regulatory and contractual reasons for the requested change.	
4. Formally approve each change by business process owners, service managers and IT technical stakeholders, as appropriate. Changes that are low-risk and relatively frequent should be pre-approved as standard changes.	
5. Plan and schedule all approved changes.	
6. Plan and evaluate all requests in a structured fashion. Include an impact analysis on business process, infrastructure, systems and applications, business continuity plans (BCPs) and service providers to ensure that all affected components have been identified. Assess the likelihood of adversely affecting the operational environment and the risk of implementing the change. Consider security, privacy, legal, contractual and compliance implications of the requested change. Consider also inter-dependencies among changes. Involve business process owners in the assessment process, as appropriate.	3
7. Consider the impact of contracted services providers (e.g., of outsourced business processing, infrastructure, application development and shared services) on the change management process. Include integration of organizational change management processes with change management processes of service providers and the impact on contractual terms and SLAs.	

CAPABILITY LEVELS

A **capability level** is assigned to all **process activities**, enabling clear definition of processes at different capability levels.

A process reaches a certain capability level as soon as all activities of that level are performed successfully.

COBIT 2019 supports a Capability Maturity Model Integration® (CMMI)-based process-capability scheme, ranging from 0 to 5.

The capability level is a measure of how well a process is implemented and performing.

This is described in Module 6, performance management.

RELATED GUIDANCE

EXAMPLE BAI06 – MANAGED CHANGES

The Related Guidance is updated in COBIT 2019 and refers to all standards, frameworks, compliance requirements and other guidance that are relevant for the process at hand.

References to other standards and guidance are included where relevant.

Detailed references cite specific chapters or sections within related guidance.

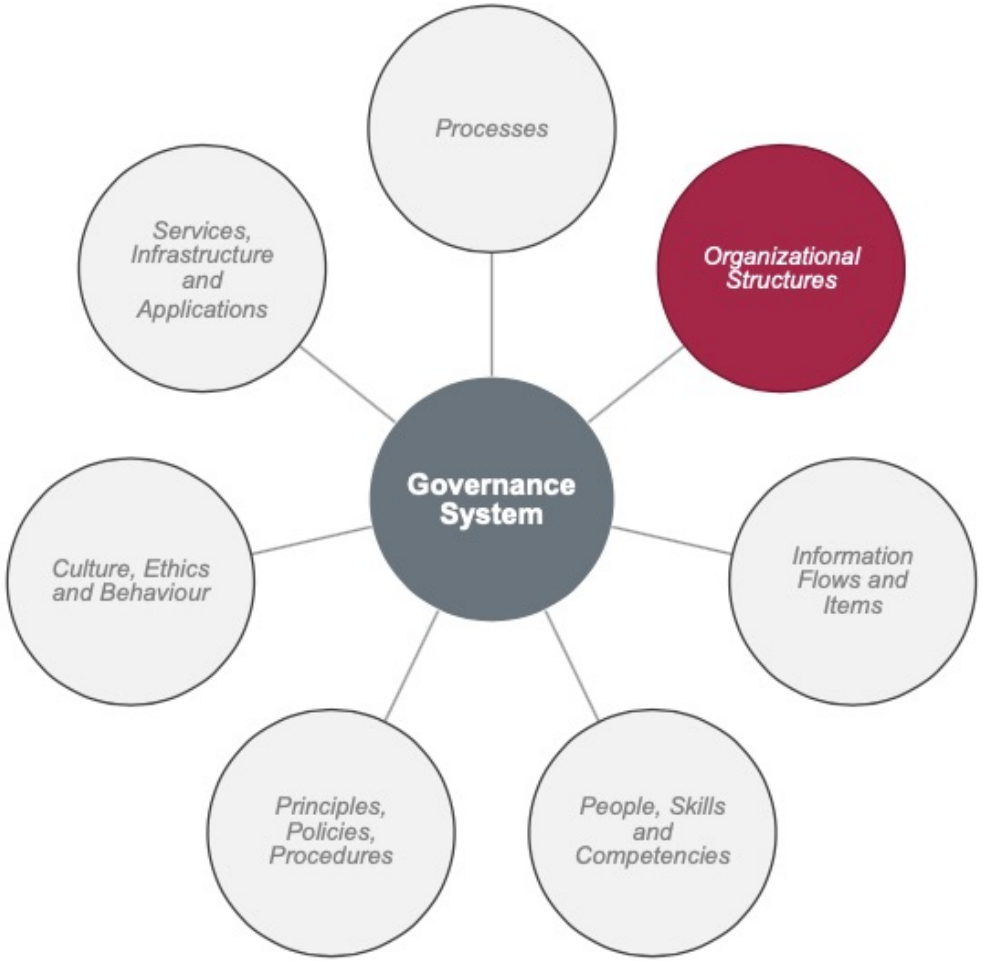
A complete list of sources for the related guidance is included in Appendix C of the Governance and Management Objectives publication.

If no “related guidance” is listed, no applicable references are known from the sources mapped.

The practitioner community is encouraged to suggest related guidance.

Related Guidance (Standards, Frameworks, Compliance Requirements)	Detailed Reference
ISF, The Standard of Good Practice for Information Security 2016	SY2.4 Change Management
ISO/IEC 20000-1:2011(E)	9.2 Change management
ITIL V3, 2011	Service Transition, 4.2 Change Management
PMBOK Guide Sixth Edition, 2017	Part 1: 4.6 Perform Integrated Change Control

ALIGNMENT WITH THE 7 COMPONENTS



ORGANIZATIONAL STRUCTURES DISPLAY

RACI

The organizational structures governance component suggests levels of responsibility and accountability for process practices.

B. Component: Organizational Structures								
Key Governance/Management Practice	Organizational Structure 1	Organizational Structure 2	Organizational Structure 3	Organizational Structure 4	Organizational Structure 5	Organizational Structure 6	Organizational Structure 7	Organizational Structure 8, etc.
<REF> <NAME>								

Related Guidance (Standards, Frameworks, Compliance Requirements)	Detailed Reference
<STANDARD NAME>	<TEXT>
<STANDARD NAME>	<TEXT>

ORGANIZATIONAL STRUCTURES DISPLAY

RACI- EXAMPLE BAI06 – MANAGED CHANGES

B. Component: Organizational Structures										
Key Management Practice	Chief Information Officer	Business Process Owners	Program Manager	Project Manager	Head Development	Head IT Operations	Service Manager	Information Security Manager	Business Continuity Manager	Privacy Officer
BAI06.01 Evaluate, prioritize and authorize change requests.	A	R			R	R	R	R	R	R
BAI06.02 Manage emergency changes.	A				R	R	R	R		R
BAI06.03 Track and report change status.	A	R	R	R	R	R	R			
BAI06.04 Close and document the changes.	A	R	R	R	R	R	R		R	

Related Guidance (Standards, Frameworks, Compliance Requirements)	Detailed Reference
No related guidance for this component	

ROLES AND ORGANIZATIONAL STRUCTURES

The following roles and organizational structures have been defined in the context of COBIT 2019:

Board

Executive Committee

Chief Executive Officer

Chief Financial Officer

Chief Operating Officer

Chief Risk Officer

Chief Information Officer

Chief Technology Officer

Chief Digital Officer

I&T Governance Board

Architecture Board

Enterprise Risk Committee

Chief Information Security Officer

Business Process Owner

Portfolio Manager

Steering (Programs/Projects) Committee

Program Manager

Project Manager

Project Management Office

Data Management Function

Head Human Resources

Relationship Manager

Head Architect

Head Development

Head IT Operations

Head IT Administration

Service Manager

Information Security Manager

Business Continuity Manager

Privacy Officer

Legal Counsel

Compliance

Audit

RACI (1/2)

RESPONSIBLE AND ACCOUNTABLE

The different levels of involvement included for these structures can be divided into responsible and accountable levels:

Responsible (R) roles take the main operational stake in fulfilling the practice and create the intended outcome. Who is getting the task done? Who drives the task?

Accountable (A) roles carry overall accountability. As a principle, accountability cannot be shared. Who accounts for the success and achievement of the task?

Enterprises should review levels of responsibility and accountability, consulted and informed, and update roles and organizational structures in the chart according to the enterprise's context, priorities and preferred terminology.

COBIT 2019

RACI (2/2)

CONSULTED AND INFORMED

Practitioners can complete charts by adding two levels of involvement for roles and organizational structures:

Consulted (C) roles provide input for the practice. **Who is providing input?**

Informed (I) roles are informed of the achievements and/or deliverables of the practice**. Who is receiving information?**

Since the attribution of consulted and informed roles depends on organizational context and priorities, they are not included in COBIT 2019.

RELATED GUIDANCE

Related Guidance (Standards, Frameworks, Compliance Requirements)	Detailed Reference
<STANDARD NAME>	<TEXT>
<STANDARD NAME>	<TEXT>

B. Component: Organizational Structures

Key Management Practice	Chief Information Officer	Business Process Owners	Program Manager	Project Manager	Head Development	Head IT Operations	Service Manager	Information Security Manager	Business Continuity Manager	Privacy Officer
BAI06.01 Evaluate, prioritize and authorize change requests.	A	R			R	R	R	R	R	R
BAI06.02 Manage emergency changes.	A				R	R	R	R		R
BAI06.03 Track and report change status.	A	R	R	R	R	R	R			
BAI06.04 Close and document the changes.	A	R	R	R	R	R	R		R	

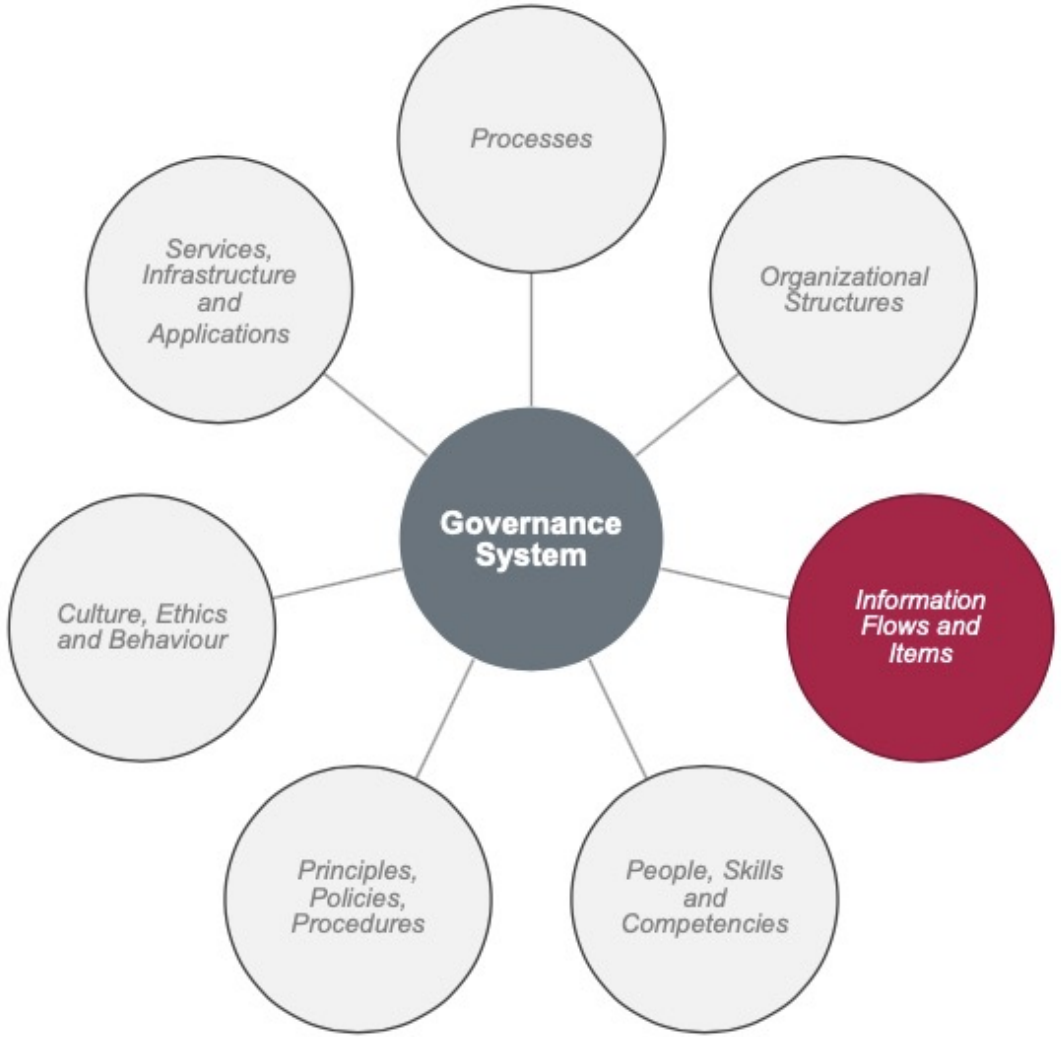
Related Guidance (Standards, Frameworks, Compliance Requirements)	Detailed Reference
No related guidance for this component	

Where relevant, references to other standards and additional guidance are included in the organizational structure components section.

COBIT 2019

ALIGNMENT WITH THE 7 COMPONENTS

INFORMATION FLOWS AND ITEMS



This component provides guidance on the information flows and items linked with

process practices. Each practice includes inputs and outputs, with indications of origin

and destination.

Each output is sent to one or a number of destinations, typically another COBIT process practice.

Outputs become inputs to their destinations.

A number of outputs have many destinations and are not listed as inputs in the target processes (for readability).

Where relevant, references to other standards and additional guidance are included in the information flows and items component.

INFORMATION FLOWS AND ITEMS COMPONENT DISPLAY

A number of outputs have many destinations (e.g., all COBIT processes or all processes within a domain).

For readability reasons, these outputs are not listed as inputs in the target processes

For some inputs/outputs, “internal” is cited as a destination if input and output are shared between activities within the same process.

Figure 3.7—Display of Information Flows and Items Component

C. Component: Information Flows and Items				
Governance/Management Practice	Inputs		Outputs	
<REF> <NAME>	From	Description	Description	To
	<REF>	<TEXT>	<TEXT>	<REF>

Related Guidance (Standards, Frameworks, Compliance Requirements)	Detailed Reference
<STANDARD NAME>	<TEXT>
<STANDARD NAME>	<TEXT>

INFORMATION FLOWS AND ITEMS

EXAMPLE BAI06 – MANAGED CHANGES

C. Component: Information Flows and Items (see also Section 3.6)				
Management Practice	**Inputs**		**Outputs**	
	From	**Description**	**Description**	**To**
BAI06.01 Evaluate, prioritize and authorize change requests.	BAI03.05	Integrated and configured solution components	Change plan and schedule	BAI07.01
	DSS02.03	Approved service requests	Approved requests for change	BAI07.01
	DSS03.03	Proposed solutions to known errors	Impact assessments	Internal
	DSS03.05	Identified sustainable solutions		
	DSS04.08	Approved changes to the plans		
	DSS06.01	Root cause analyses and recommendations		
BAI06.02 Manage emergency changes.			Post-implementation review of emergency changes	Internal
BAI06.03 Track and report change status.	BAI03.09	Record of all approved and applied change requests	Change request status reports	BAI01.06; BAI10.03
BAI06.04 Close and document the changes.			Change documentation	Internal

Related Guidance (Standards, Frameworks, Compliance Requirements)	Detailed Reference
No related guidance for this component	

ALIGNMENT WITH COMPONENTS

PEOPLE, SKILLS AND COMPETENCIES COMPONENT

This component identifies human resources and skills required to achieve the governance or management objective.

COBIT 2019 based this guidance on the Skills Framework for the Information Age (SFIA®) V6.

Other references include:

e-Competence Framework (e-CF) - A common European Framework for ICT Professionals in all industry sectors - Part 1: Framework.

The Institute of Internal Auditors' "Core Principles for the Professional Practice of Internal Auditing."

PEOPLE, SKILLS AND COMPETENCIES COMPONENT DISPLAY

EXAMPLE BAI06 – MANAGED CHANGES

Figure 3.9—Display of People, Skills and Competencies Component		
D. Component: People, Skills and Competencies		
Skill	**Related Guidance (Standards, Frameworks, Compliance Requirements)**	**Detailed Reference**
<NAME>	Skills Framework for the Information Age, V6 (SFIA 6), 2015	<SFIA CODE>
<NAME>	Skills Framework for the Information Age, V6 (SFIA 6), 2015	<SFIA CODE>

D. Component: People, Skills and Competencies		
Skill	**Related Guidance (Standards, Frameworks, Compliance Requirements)**	**Detailed Reference**
Change management	Skills Framework for the Information Age V6, 2015	CHMG
Change support	e-Competence Framework (e-CF) - A common European Framework for ICT Professionals in all industry sectors - Part 1: Framework, 2016	C. Run - C.2. Change Support

ALIGNMENT WITH COMPONENTS

PRINCIPLES, POLICIES AND PROCEDURES COMPONENT

This component provides detailed guidance on policies and procedures that are relevant for the governance or management objective.

The name of relevant policies and procedures is included, with a description of the purpose and content of the policy.

Where relevant, references to other standards and additional guidance are included in the information flows and items component.

PRINCIPLES, POLICIES AND PROCEDURES COMPONENT DISPLAY

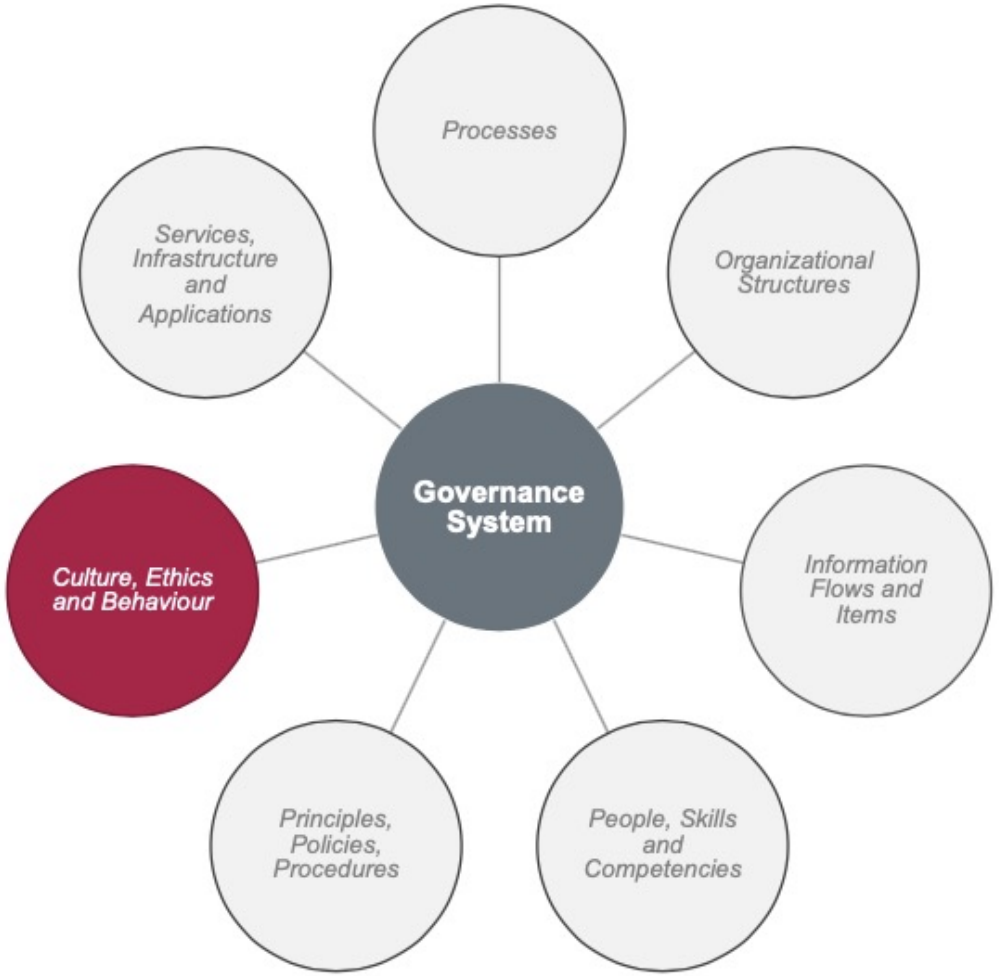
EXAMPLE BAI06 – MANAGED CHANGES

Figure 3.10—Display of Policies and Procedures Component			
E. Component: Policies and Procedures			
Relevant Policy	**Policy Description**	**Related Guidance**	**Detailed Reference**
<NAME>	<DESCRIPTION>	<STANDARD NAME>	<TEXT>

E. Component: Policies and Procedures			
Relevant Policy	**Policy Description**	**Related Guidance**	**Detailed Reference**
IT change management policy	Communicates management intent that all changes to enterprise IT are managed and implemented so as to minimize risk and impact to stakeholders. Covers in-scope assets and standard change management process.		

ALIGNMENT WITH COMPONENTS

CULTURE, ETHICS AND BEHAVIOR COMPONENT



This component provides detailed guidance on desired cultural elements within the organization that support the achievement of a governance or management objective.

The Related Guidance cites specific chapters or sections within related guidance where more information can be consulted.

Where relevant, references to other standards and additional guidance are included.

CULTURE, ETHICS AND BEHAVIOR COMPONENT DISPLAY

EXAMPLE BAI06 – MANAGED CHANGES

Figure 3.11—Display of Culture, Ethics and Behavior Component		
F. Component: Culture, Ethics and Behavior		
Key Culture Elements	**Related Guidance**	**Detailed Reference**
<NAME>	<STANDARD NAME>	<TEXT>

F. Component: Culture, Ethics and Behavior		
Key Culture Elements	**Related Guidance**	**Detailed Reference**
Leaders must create a culture of continuous improvement in IT solutions and services, recognizing that improvement requires them to understand the impact of technology change on the enterprise, its inherent risk and associated mitigation, as well as its cost. Leaders must balance the impact of change against its expected benefits and contribution to I&T strategy and enterprise objectives.		

ALIGNMENT WITH COMPONENTS

SERVICES, INFRASTRUCTURE AND SERVICES COMPONENT

This component provides detailed guidance on third-party services, types of infrastructure and categories of applications that can be applied to support the achievement of a governance or management objective.

Guidance is generic (to avoid naming specific vendors or products).

Entries provide direction for enterprises to build their governance system for I&T.

SERVICES, INFRASTRUCTURE AND SERVICES COMPONENT DISPLAY

EXAMPLE BAI06 – MANAGED CHANGES

Figure 3.12—Display of Services, Infrastructure and Applications Component
G. Component: Services, Infrastructure and Applications
<CATEGORY OF SERVICES, INFRASTRUCTURE OR APPLICATIONS>

G. Component: Services, Infrastructure and Applications
• Configuration management tools • IT change management tools

Chapter 6
Performance Management

Chapter 6: Performance Management

Course Content

- ✓ Content:
  - ✓ Performance management definition, principles and overview
  - ✓ Managing performance of processes
  - ✓ Managing Performance of Other Governance System Components

- ✓ Learning Objectives
  - ✓ Differentiate COBIT based performance management using maturity and capability perspectives

COBIT 2019

COBIT PERFORMANCE MANAGEMENT DEFINITION AND PRINCIPLES

COBIT **Performance Management** refers to how well the **governance and management system and all the components of an enterprise work**, and how they can be **improved up** to the required level.

It includes concepts and methods such as **capability levels and maturity levels.**

COBIT 2019 is based on the following principles:

- ✓ **Simple to understand and use**
- ✓ **Consistent with, and support the COBIT conceptual model**
- ✓ **Provide reliable, repeatable and relevant results**
- ✓ **Must be flexible**
- ✓ **Should support different types of assessments**

The term "COBIT Performance Management" (CPM) is used to describe these activities, and the concept is an integral part of the COBIT framework.

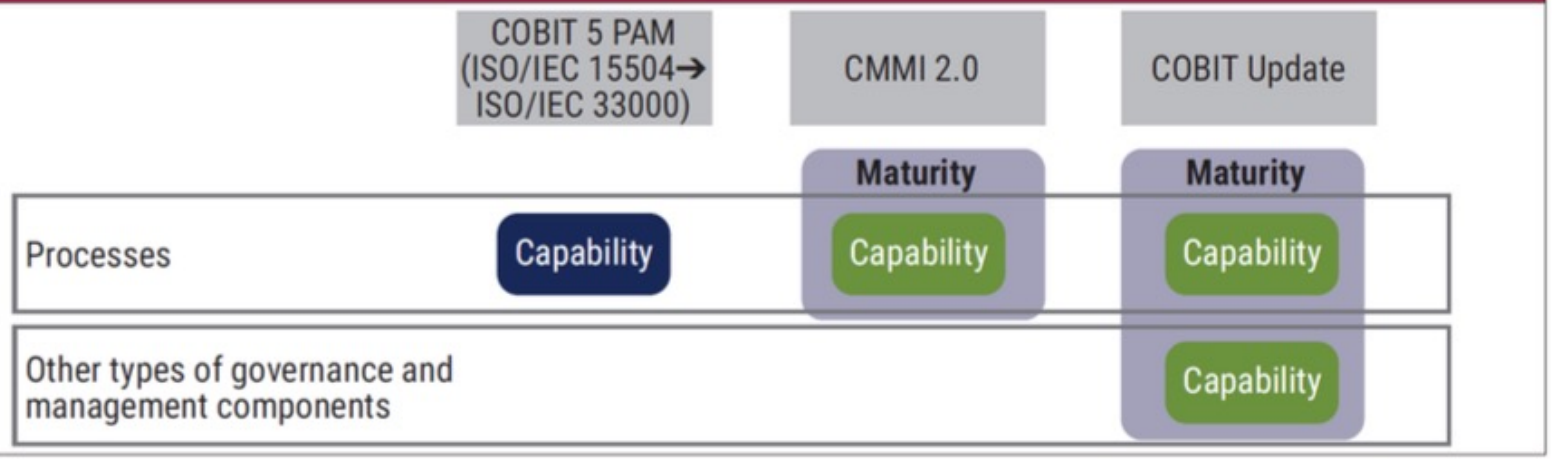
COBIT PERFORMANCE MANAGEMENT (CPM) OVERVIEW

CPM model

The CPM model largely aligns to and extends **CMMI® Development 2.0 concepts**:

- ✓ **Process activities** are associated to **capability levels**. This is included in the COBIT Framework: Governance and Management Objectives guide.
- ✓ **Other governance and management component** types (e.g., organizational structures, information) may also have capability levels defined for them in future guidance that ISACA may release.
- ✓ **Maturity levels** are associated **with focus areas** (i.e., a collection of governance and management objectives and underlying components) and will be achieved if all required capability levels are achieved.

Figure 6.1—Capability Levels

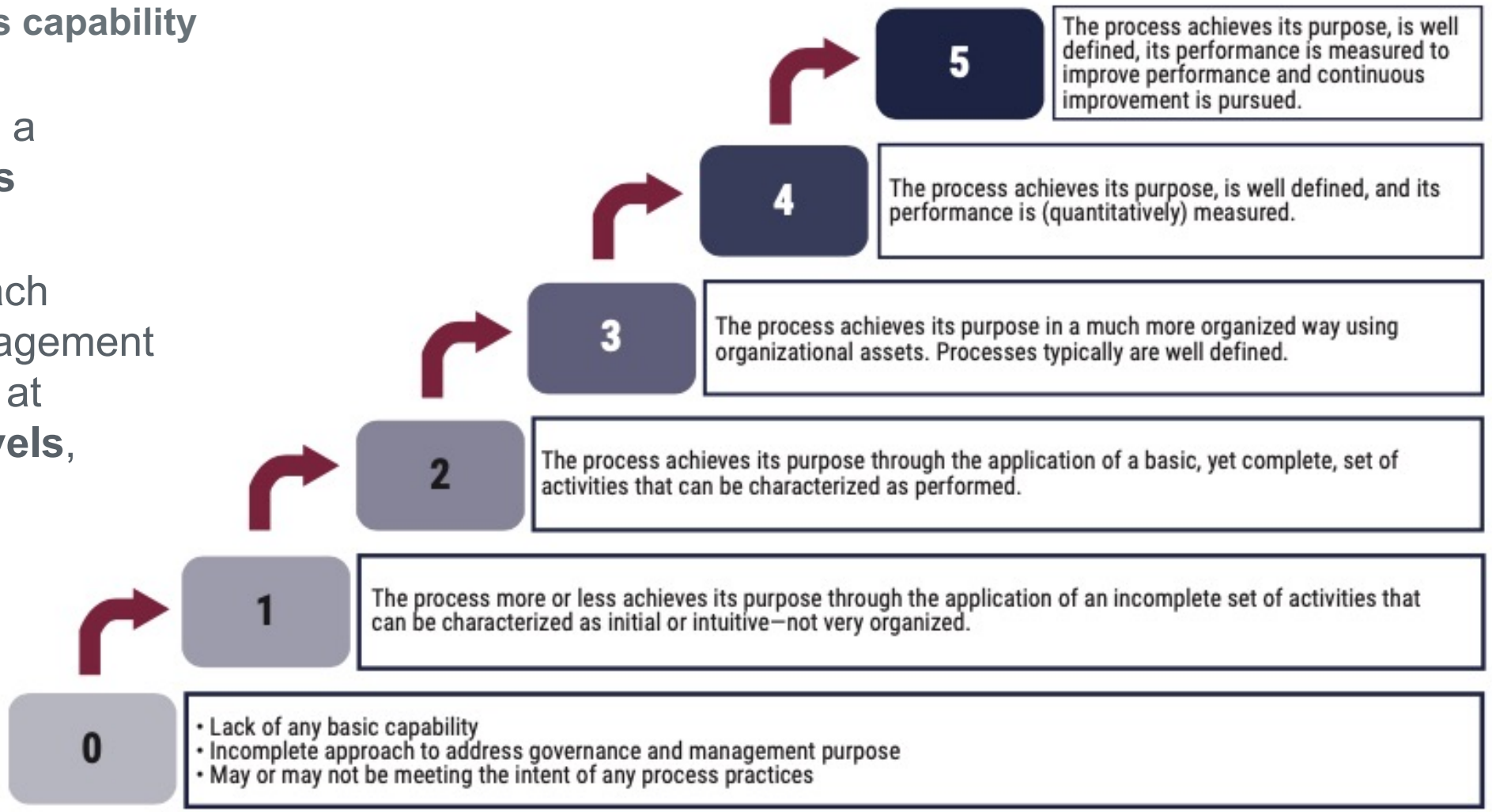


PROCESS CAPABILITY LEVELS FOR PROCESSES

The 6 levels of process capability

COBIT 2019 supports a **CMMI-based process capability scheme**.

The process within each governance and management objective can operate at various **capability levels**, ranging from 0 to 5.



RATING CAPABILITY LEVELS

- ✓ A **capability level can be achieved to varying degrees**, which can be expressed by a set of ratings. The range of available ratings **depends on the context** in which the performance assessment is made.
- ✓ **Some formal methods** leading to independent certification use a **binary pass/ fail set of ratings**.
- ✓ **Less formal methods** that are often used in performance-improvement contexts work better with a **larger range of ratings**, such as the following set:
  - ✓ **Fully—The capability level is achieved for more than 85%.**
  - ✓ **Largely—The capability level is achieved between 50% and 85%.**
  - ✓ **Partially—The capability level is achieved between 15% and 50%.**
  - ✓ **Not—The capability level is achieved less than 15%.**

  (This remains a judgment call, but it can be substantiated by the examination or assessment of the components of the enabler, such as process activities, process goals or organizational structure good practices.)

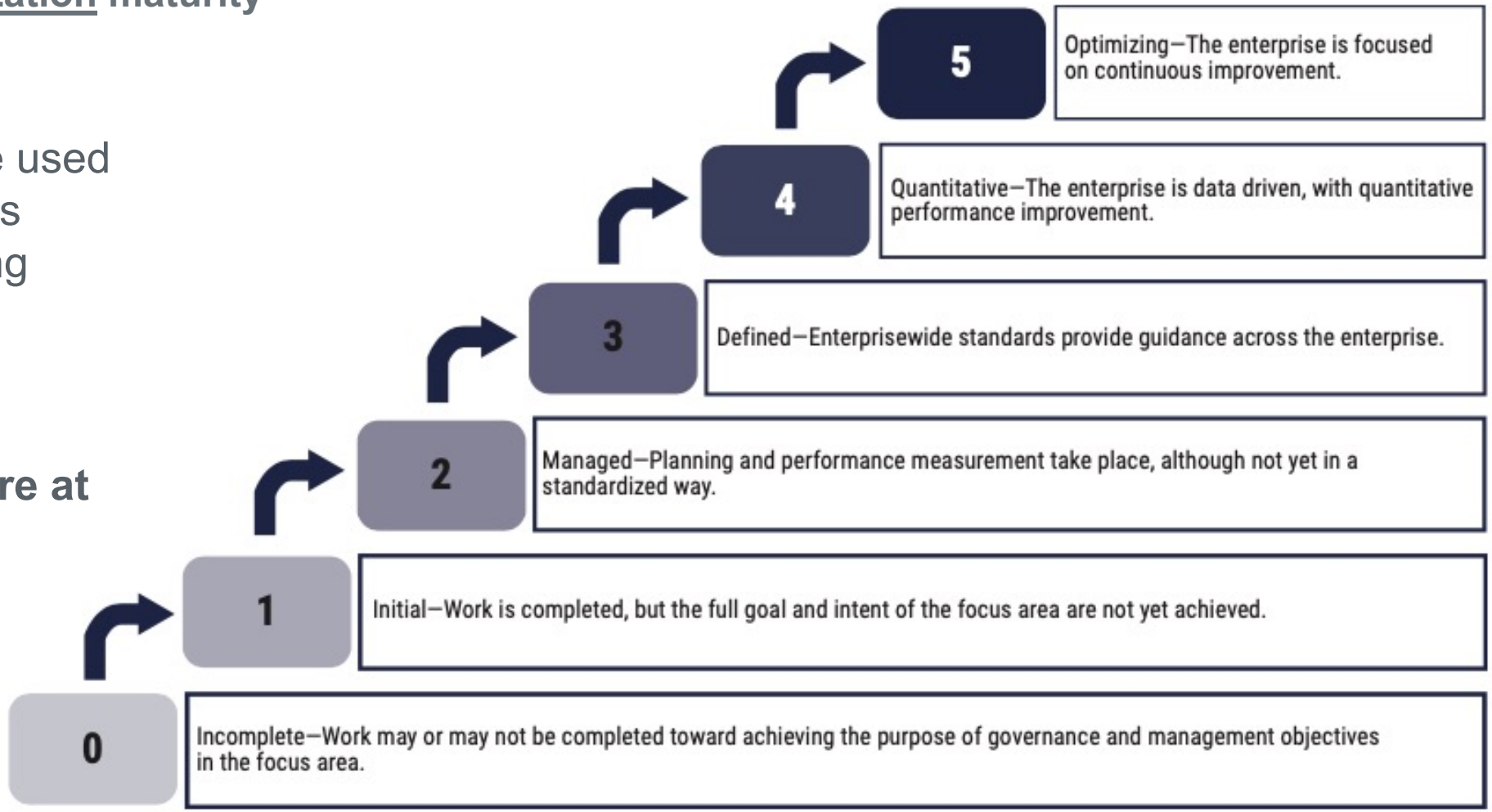
COBIT 2019

FOCUS AREA MATURITY LEVELS

The 6 levels of organization maturity

Maturity levels can be used when a **higher level** is required for expressing **performance**.

COBIT 2019 defines **maturity levels as a performance measure at the focus area level**.



MANAGING PERFORMANCE OF OTHER GOVERNANCE SYSTEM COMPONENTS

Managing the performance of other governance system components is also crucial. In the COBIT 2019 Framework publication examples are provided that include the following governance components:

- ✓ **Organizational Structures**
- ✓ **Information Items**
- ✓ **Culture and Behavior**

PERFORMANCE MANAGEMENT

ORGANIZATIONAL STRUCTURES

Although no generally accepted or formal method exists for assessing organizational structures, they can be less formally assessed according to the following criteria. For each criterion, a number of subcriteria can be defined, linked to the various capability levels. The criteria are:

- ✓ Successful execution of those process practices for which the organizational structure (or role) has accountability or responsibility (an A or an R, respectively, in a responsible-accountable- consulted-informed [RACI] chart)
- ✓ Successful application of a number of good practices for organizational structures, such as:
  - ✓ Operating principles
  - ✓ Composition
  - ✓ Span of control
  - ✓ Level of authority/decision rights
  - ✓ Delegation of authority
  - ✓ Escalation procedures

PERFORMANCE MANAGEMENT

INFORMATION ITEMS

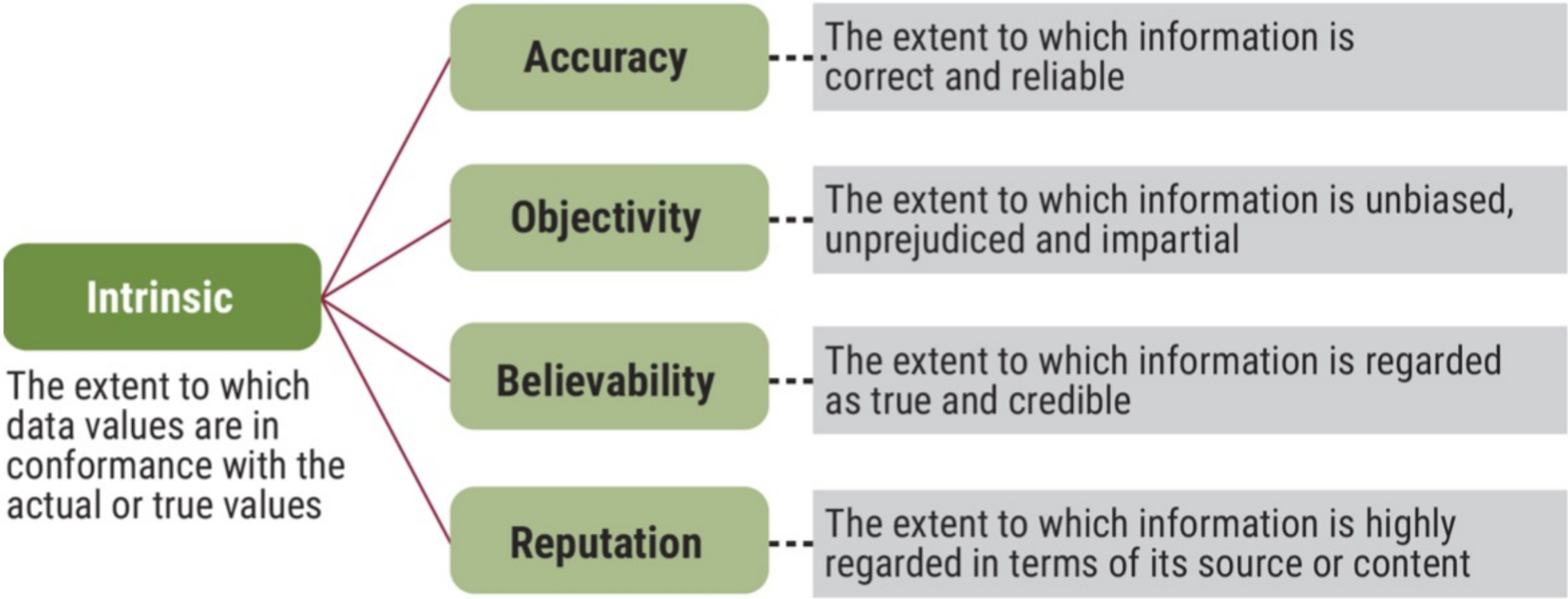
The information item component for a governance system of I&T is more or less equivalent to the process work products as described in COBIT® 2019 Framework: Governance and Management Objectives.

Although no generally accepted or formal method exists for assessing information items, they can be less formally assessed according to the information reference model first presented in COBIT® 5: Enabling Information.

This model defines three main quality criteria for information and 15 sub criteria, as illustrated on the following slides.

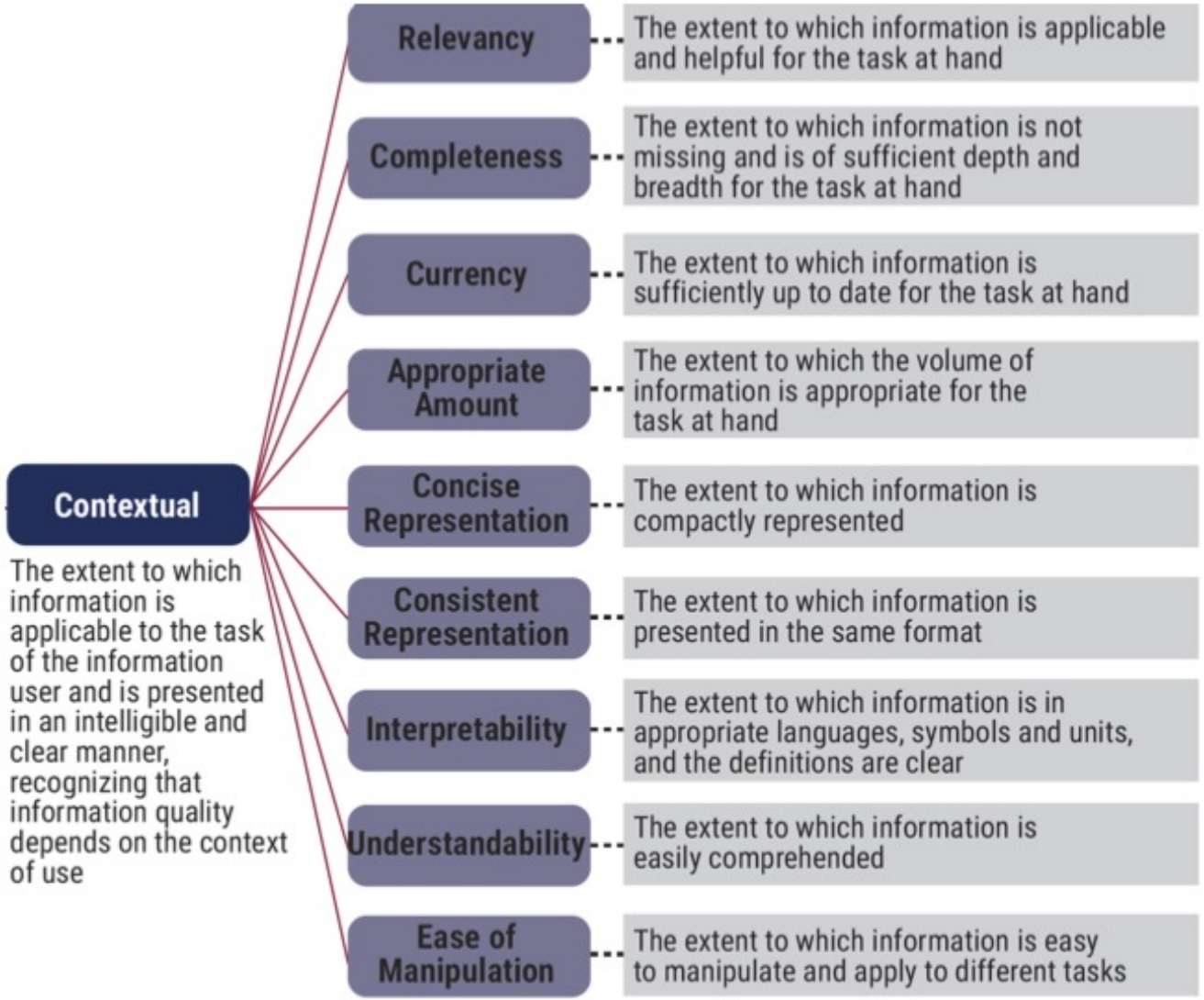
PERFORMANCE MANAGEMENT OF INFORMATION ITEMS

Intrinsic quality



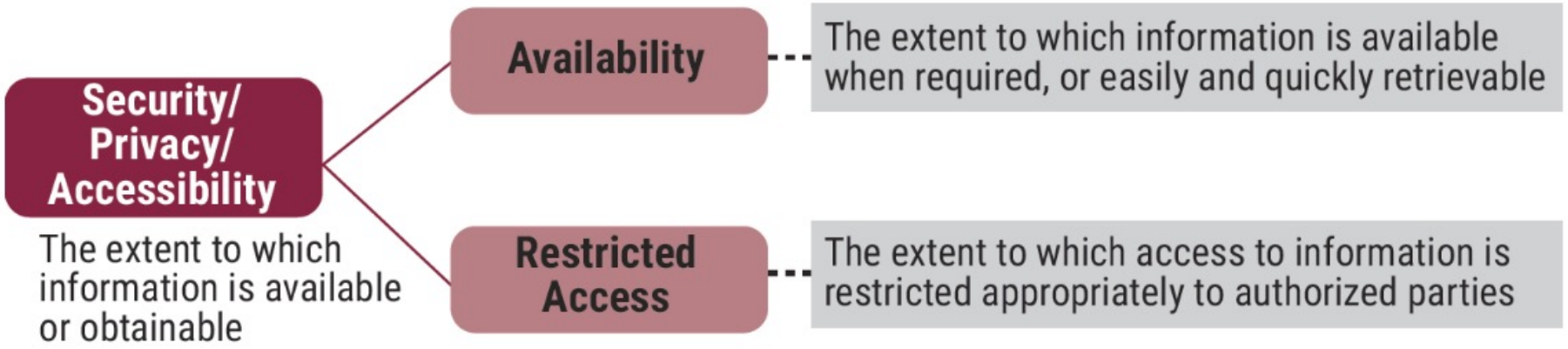
PERFORMANCE MANAGEMENT OF INFORMATION ITEMS

Contextual quality



PERFORMANCE MANAGEMENT OF INFORMATION ITEMS

Security, Privacy & Accessibility



PERFORMANCE MANAGEMENT

CULTURE AND BEHAVIOR

For the culture and behavior governance component, it should be possible to define a set of desirable (and/or undesirable) behaviors for good governance and management of IT, and to assign different levels of capability to each.

COBIT® 2019 Framework: Governance and Management Objectives defines aspects of the culture and behavior component for most objectives.

From there, it is possible to assess the extent to which these conditions or behaviors are met.

Focus area content, which will contain a more detailed set of desired behaviors, will be developed going forward.

The user is advised to consult isaca.org/cobit for the latest status and available focus area guidance.

Chapter 7
Designing a Tailored Governance System

Chapter 7: Designing a Tailored Governance System

Course Content

- ✓ Content:
  - ✓ Introduction to designing a tailored governance system
  - ✓ Impact of design factors
  - ✓ Designing a tailored system
- ✓ Learning Objectives
  - ✓ Discover how to design a tailored governance system using Cobit

INTRODUCTION TO DESIGNING A TAILORED GOVERNANCE SYSTEM

Governance over a **complex matter** like information and technology requires a multitude of components, including processes, organizational structures, information flows, behaviors, etc.

All of these need to work together in a systemic way.

For that reason we will refer to the tailored governance solution every enterprise should build as the ‘governance system for enterprise information & technology’, or ‘governance system’ in short.

THE NEED FOR TAILORING

Each enterprise is distinct in many various aspects: size, sector, regulatory landscape, threat landscape, role of IT for the organization, tactical technology related choices and others.

COBIT collectively refer to these as '**design factors**' – covered in Module 4.

Organizations should tailor their governance system to gain the most value out of their use of Information and Technology.

There is no unique governance system for enterprise Information and Technology that fits all.

Tailoring means that an enterprise starts from the COBIT Core model and applies changes to this generic framework based on the relevance and importance of a series of design factors.

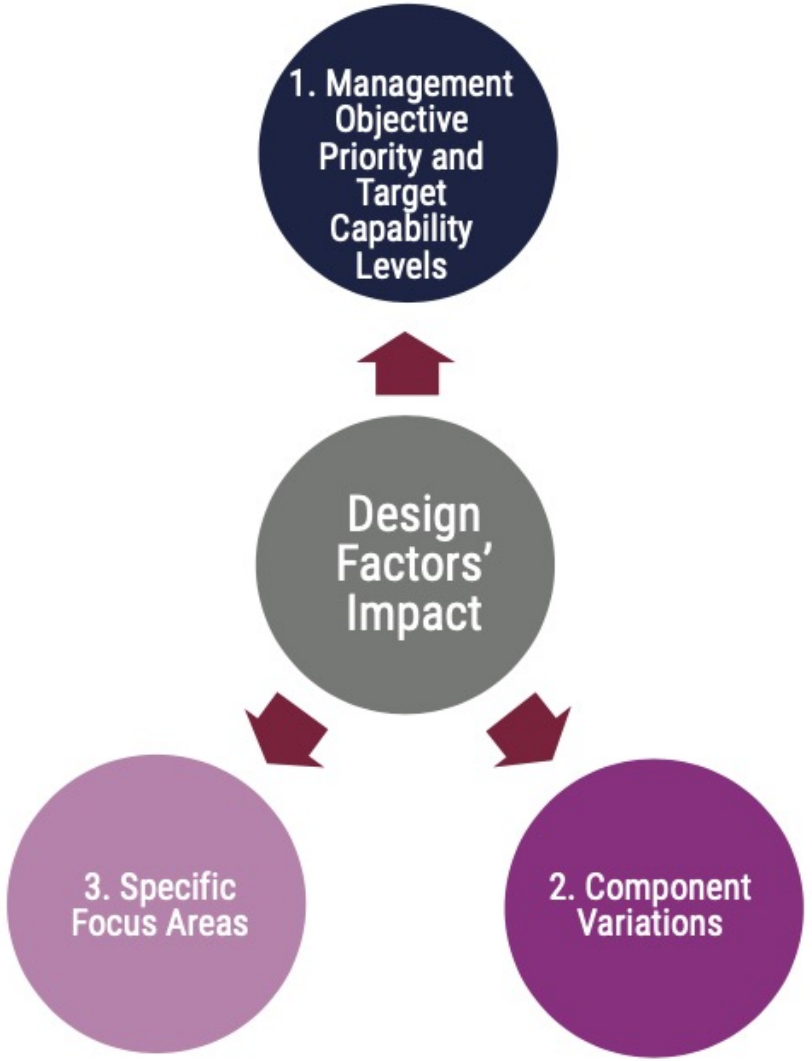
This process is called 'designing the governance system for enterprise information and technology'.

THE 11 DESIGN FACTORS

IMPACT OF DESIGN FACTORS

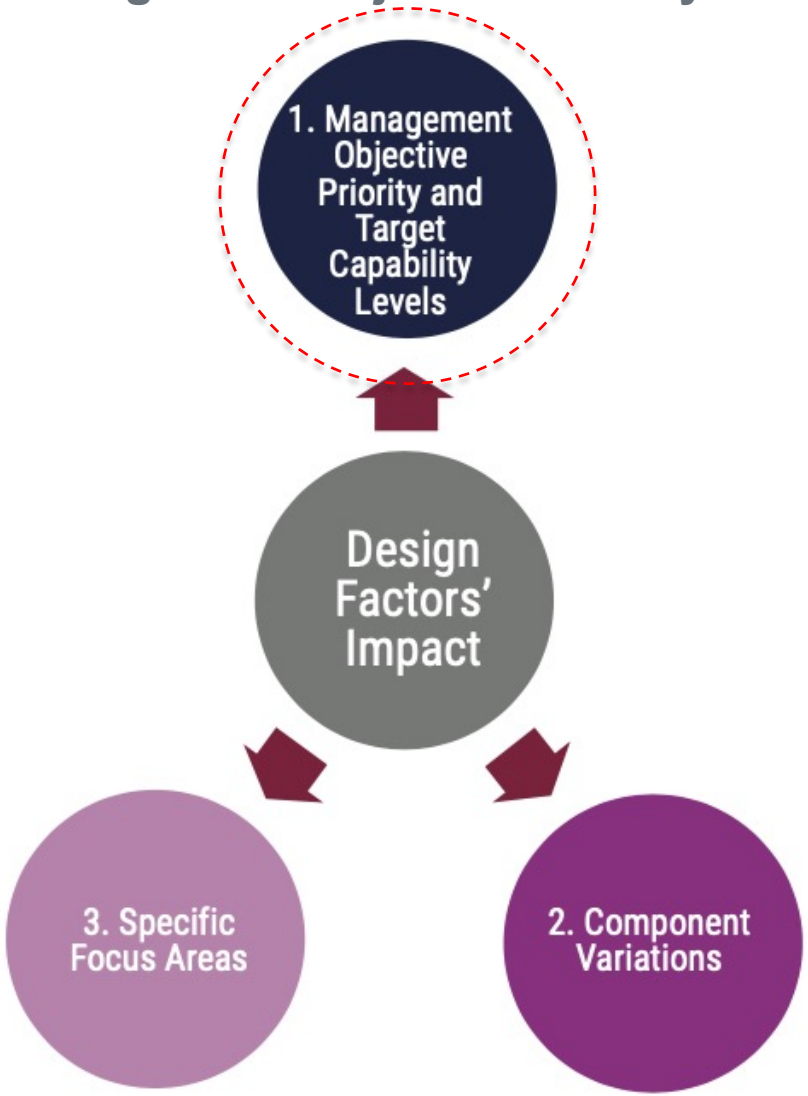
The 3 impacts

Design factors influence in different ways the tailoring of the governance system of an enterprise. There are three different types of impacts.



IMPACT OF DESIGN FACTORS

Management Objective Priority and Target Capability Levels



Design factor influence can make some governance and management objectives more important than others. In practice, this higher importance translates into setting higher target capability levels.

IMPACT OF DESIGN FACTORS

Management Objective Priority and Target Capability Levels - EXAMPLES

When an enterprise identifies the most relevant enterprise goal(s) from the enterprise goal list and applies the goals cascade, this will lead to a selection of priority management objectives. For example, when EG01 *Portfolio of competitive products and services* is ranked as very high by an enterprise, this will make management objective APO05 *Managed portfolio* an important part of this enterprise's governance system.

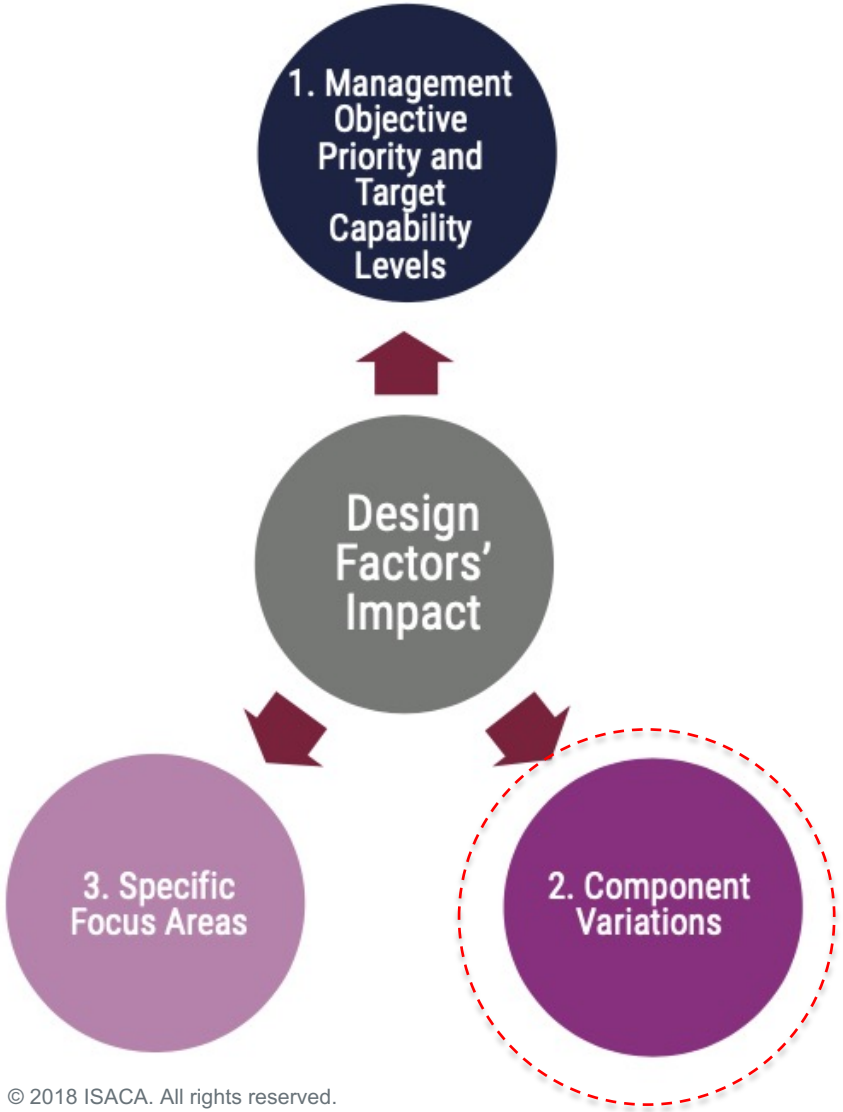
An enterprise that is very risk averse will give more priority to management objectives that aspire to govern and manage risk and security. Governance and management objectives EDM03 *Ensured risk optimization*, APO12 *Managed risk,* APO13 *Managed security* and DSS05 *Managed security services* will become important parts of that enterprise's governance system and will have higher target capability levels defined for them.

An enterprise operating within a high threat landscape will require highly capable security-related processes: APO13 *Managed security* and DSS05 *Managed security services.*

An enterprise in which the role of IT is strategic and crucial to the success of the business will require high involvement of IT-related roles in organizational structures, a thorough understanding of business by IT professionals (and vice versa), and a focus on strategic processes such as APO02 *Managed strategy* and APO08 *Managed relationships*.

IMPACT OF DESIGN FACTORS

Component Variations



Components are required to achieve governance and management objectives. Some design factors can influence the importance of one or more components or can require specific variations.

IMPACT OF DESIGN FACTORS

Components Variation - EXAMPLES

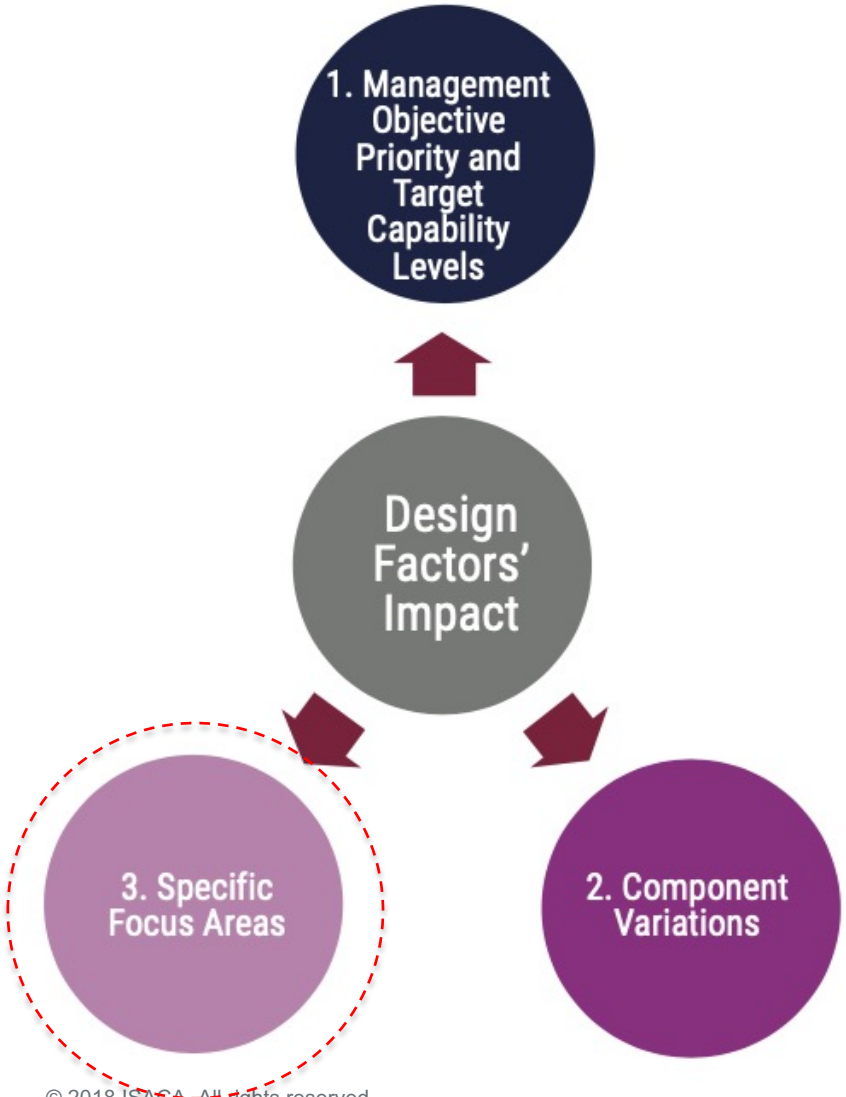
Small and medium-sized enterprises might not need the full set of roles and organizational structures as laid out in the COBIT core model, but may use a reduced set instead. This reduced set of governance and management objectives and the included components is defined in the Small and Medium Enterprise focus area (in development).

An enterprise which operates in a highly regulated environment will attribute more importance to *documented work products and policies and procedures* and to some roles, e.g. the compliance officer function.

An enterprise that uses DevOps in solution development and operations will require specific activities, organizational structures, culture, etc., focused on BAI03 *Managed solutions identification and build* and DSS01 *Managed operations*.

IMPACT OF DESIGN FACTORS

Specific Focus Areas



Some design factors, such as threat landscape, specific risk, target development methods and infrastructure set- up, will drive the need for variation of the core COBIT model content to a specific context.

IMPACT OF DESIGN FACTORS

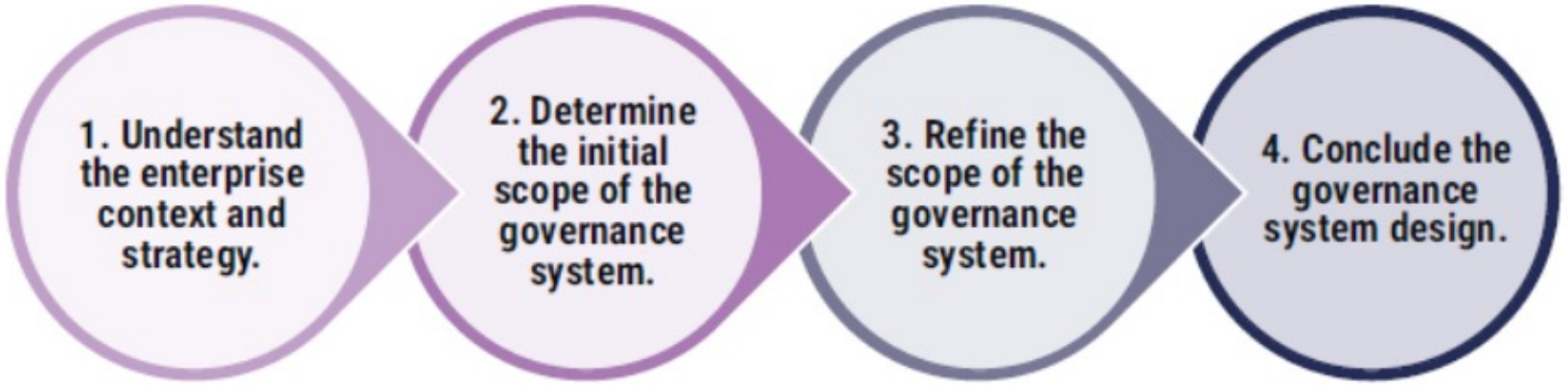
Specific Focus Areas - EXAMPLES

Enterprises adopting a DevOps approach will require a governance system that has a variant of several generic COBIT processes, described in the DevOps focus area guidance (in development) for COBIT.

Small and medium enterprises have less staff, fewer IT resources, and shorter and more direct reporting lines, and differ in many more aspects from large enterprises. For that reason, their governance system for I&T will have to be less onerous, compared to large enterprises. This is described in the SME focus area guidance of COBIT (in development).

DESIGNING A TAILORED SYSTEM

Governance System Design Workflow



Chapter 8
Getting started with Cobit: making the case

Chapter 8: Getting started with Cobit: making the case

Course Content

- ✓ Content:
  - ✓ Making a case for getting started
  - ✓ Overview of the COBIT business case
  - ✓ Example scenario
- ✓ Learning Objectives
  - ✓ Explain the key points of the COBIT business case

COBIT 2019

INTRODUCTION TO THE COBIT BUSINESS CASE

COBIT provides a nonprescriptive, generic guide to encourage preparation of a business case.

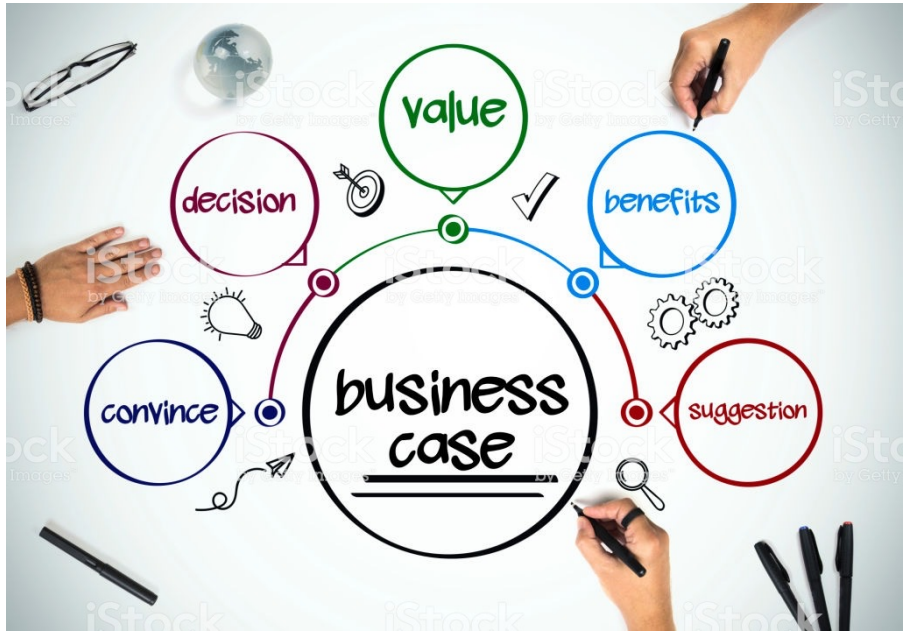
Every enterprise has its own reasons for improving EGIT and its own approach to preparing business cases.

The COBIT 2019 Framework: Introduction and Methodology publication provides an example scenario.

Common business practices dictates preparing a business case to analyze and justify the initiation of a large project and/or financial investment.

THE COBIT BUSINESS CASE COMPONENTS

Table of content



Chapter 9
Implementing Enterprise Governance Over IT

Chapter 9:

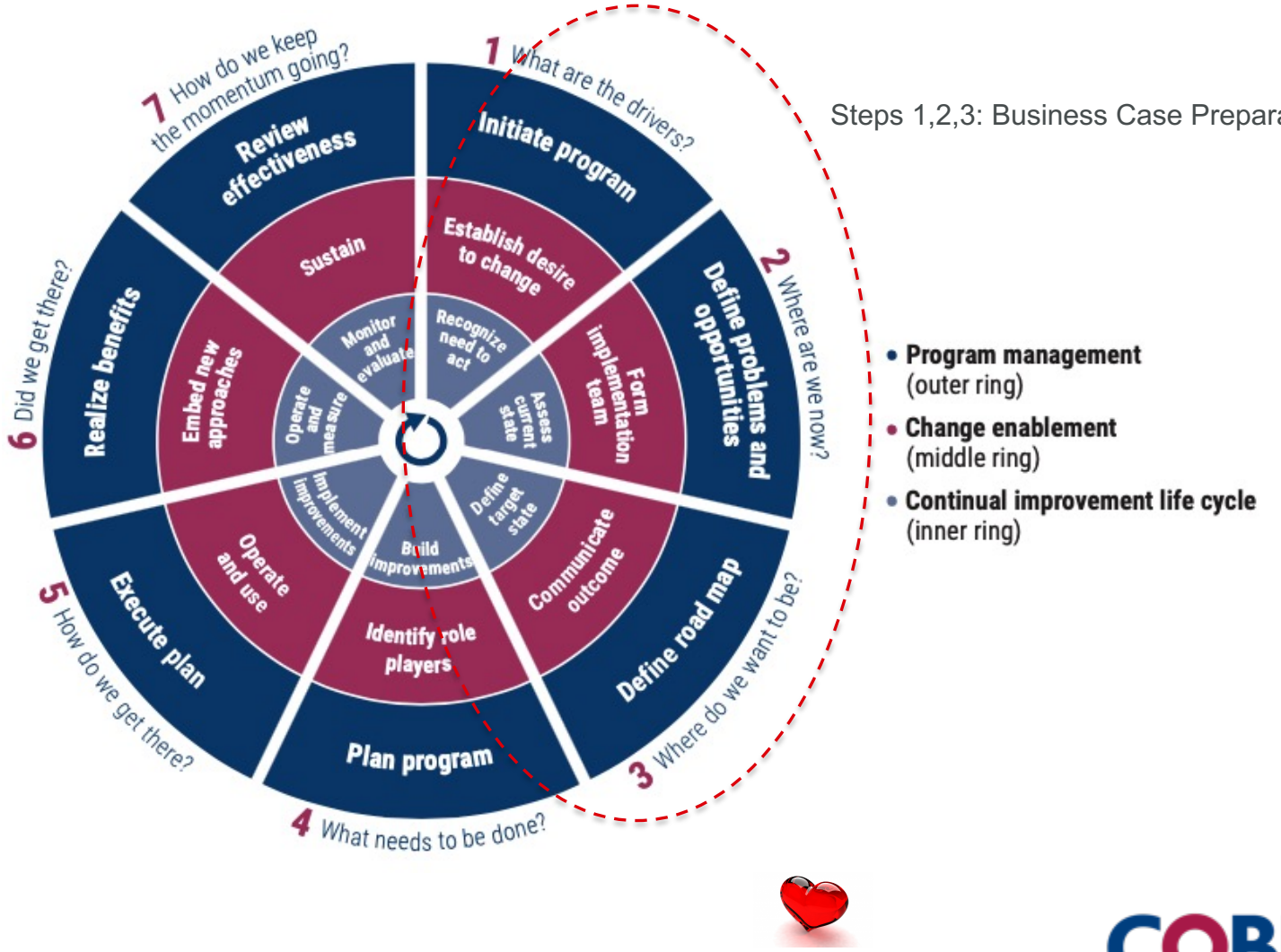
Course Content

- ✓ Content:
  - ✓ Implementation guide purpose and scope
  - ✓ Implementation phases
  - ✓ Design guide and implementation guide relationships
- ✓ Learning Objectives
  - ✓ Understand and recall the phases of the COBIT implementation approach
  - ✓ Describe the relationships between the COBIT Design and Implementation Guides

IMPLEMENTATION GUIDE PURPOSE AND SCOPE

The 3 Rings of the Implementation Lifecycle

The COBIT 2019 Implementation Guide emphasizes an enterprise-wide view of governance of I&T. It recognizes that I&T are pervasive in enterprises and that it is neither possible nor good practice to separate business and IT-related activities.



PHASE 1 WHAT ARE THE DRIVERS?

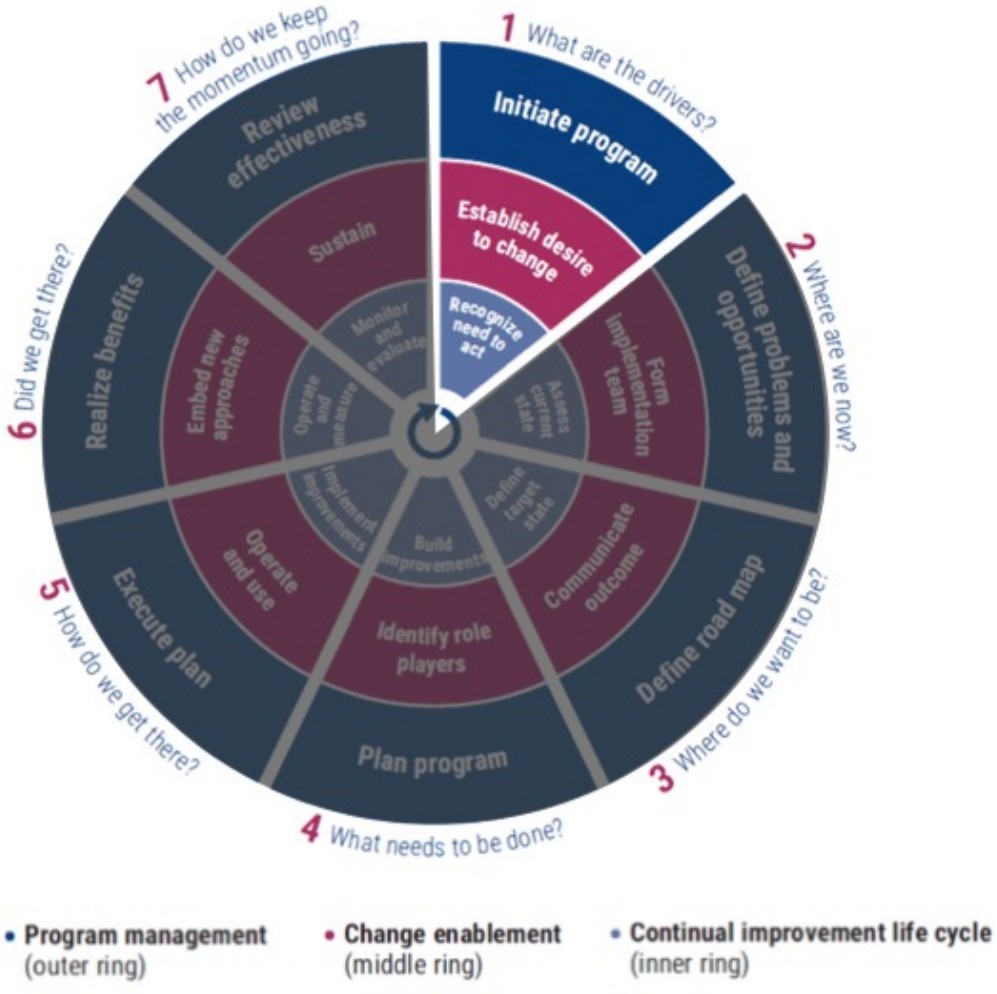
Initiate program - Desire to change - Need to act

Phase 1 of the implementation approach identifies current change drivers and creates at executive management levels a desire to change that is then expressed in an outline of a business case.

A change driver is an internal or external event, condition or key issue that serves as a stimulus for change. Events, trends (industry, market or technical), performance shortfalls, software implementations and even the goals of the enterprise can all act as change drivers.

Risk associated with implementation of the program itself is described in the business case and managed throughout the life cycle.

Preparing, maintaining and monitoring a business case are fundamental and important disciplines for justifying, supporting and then ensuring successful outcomes for any initiative, including improvement of the governance system. They ensure a continuous focus on the benefits of the program and their realization.



COBIT 2019

PHASE 2 WHERE ARE WE NOW?

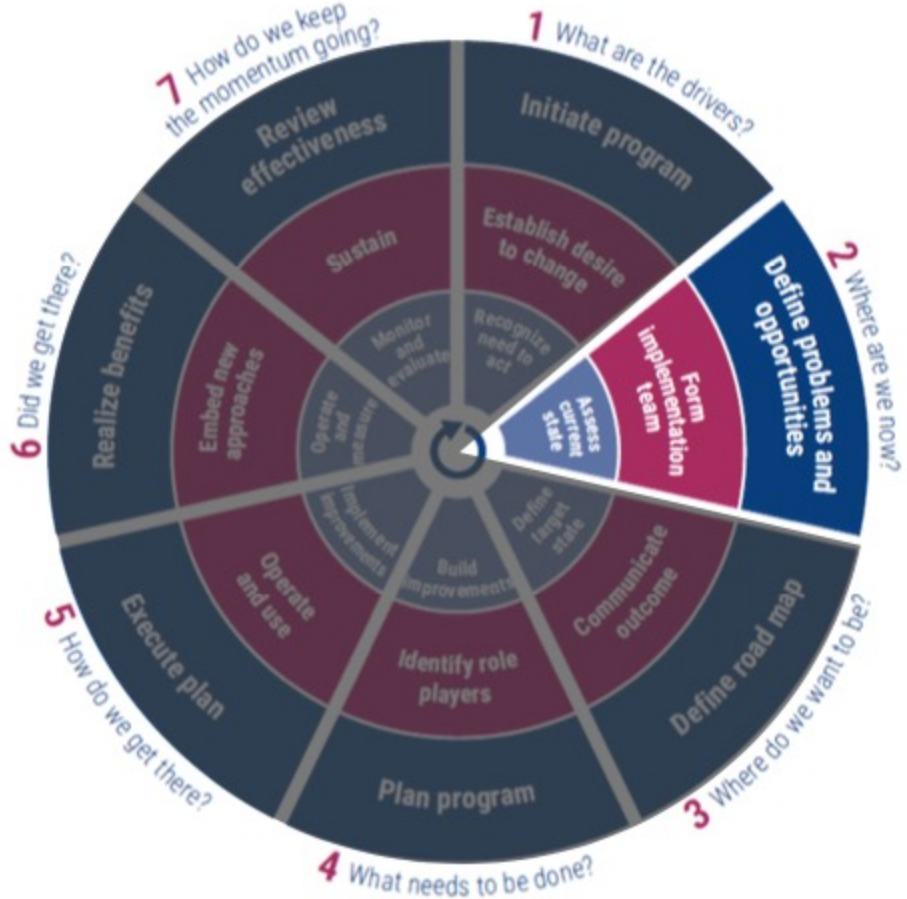
Define Problems – Implementation team – Assess state

Phase 2 aligns I&T-related objectives with enterprise strategies and risk, and prioritizes the most important enterprise goals, alignment goals and processes.

The COBIT® 2019 Design Guide provides several design factors to help with the selection.

Based on the selected enterprise and IT-related goals and other design factors, the enterprise must identify critical governance and management objectives and underlying processes that are of sufficient capability to ensure successful outcomes.

Management needs to know its current capability and where deficiencies may exist. This can be achieved by a process capability assessment of the current status of the selected processes.



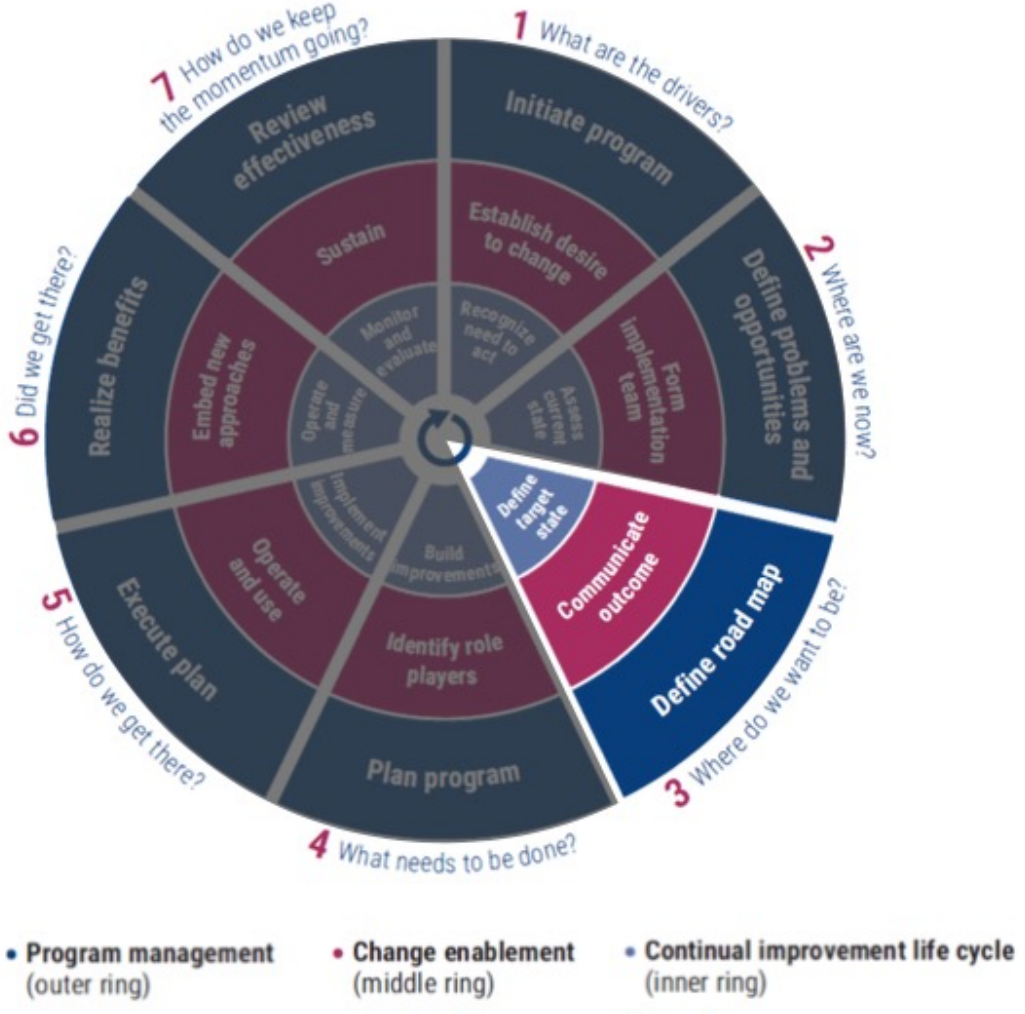
COBIT 2019

PHASE 3 WHERE DO WE WANT TO BE?

Road map – Communicate outcome – Define target state

Phase 3 sets a target for improvement followed by a gap analysis to identify potential solutions.

Some solutions will be quick wins and others more challenging, long-term tasks. Priority should be given to projects that are easier to achieve and likely to give the greatest benefit. Longer-term tasks should be broken down into manageable pieces.

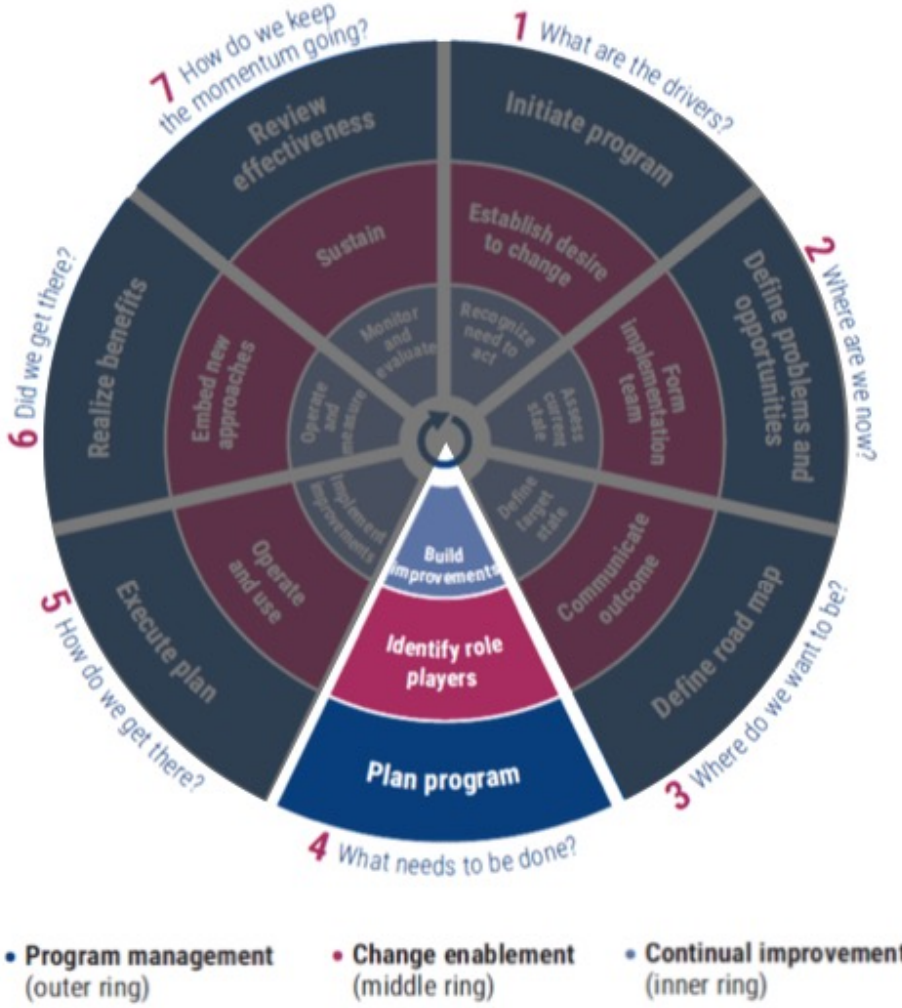


COBIT 2019

PHASE 4 WHAT NEEDS TO BE DONE?

Plan program – Identify role players – Build improvements

Phase 4 describes how to plan feasible and practical solutions by defining projects supported by justifiable business cases and a change plan for implementation. **A well-developed business case** can help ensure that the project's benefits are identified and continually monitored.



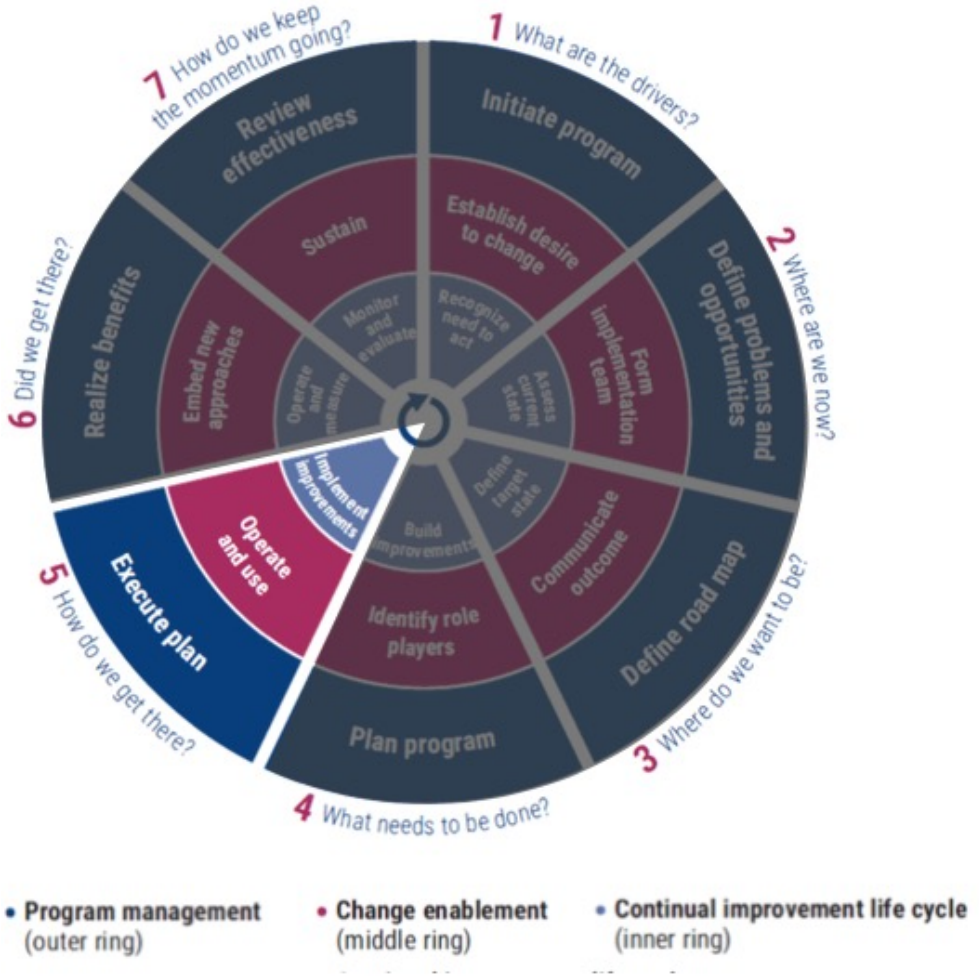
COBIT 2019

PHASE 5 HOW DO WE GET THERE?

Execute plan – Operate and use – Implement improvement

Phase 5 provides for implementing the proposed solutions via day-to-day practices and establishing measures and monitoring systems to ensure that business alignment is achieved, and performance can be measured.

Success requires engagement, awareness and communication, understanding and commitment of top management, and ownership by the affected business and IT process owners.

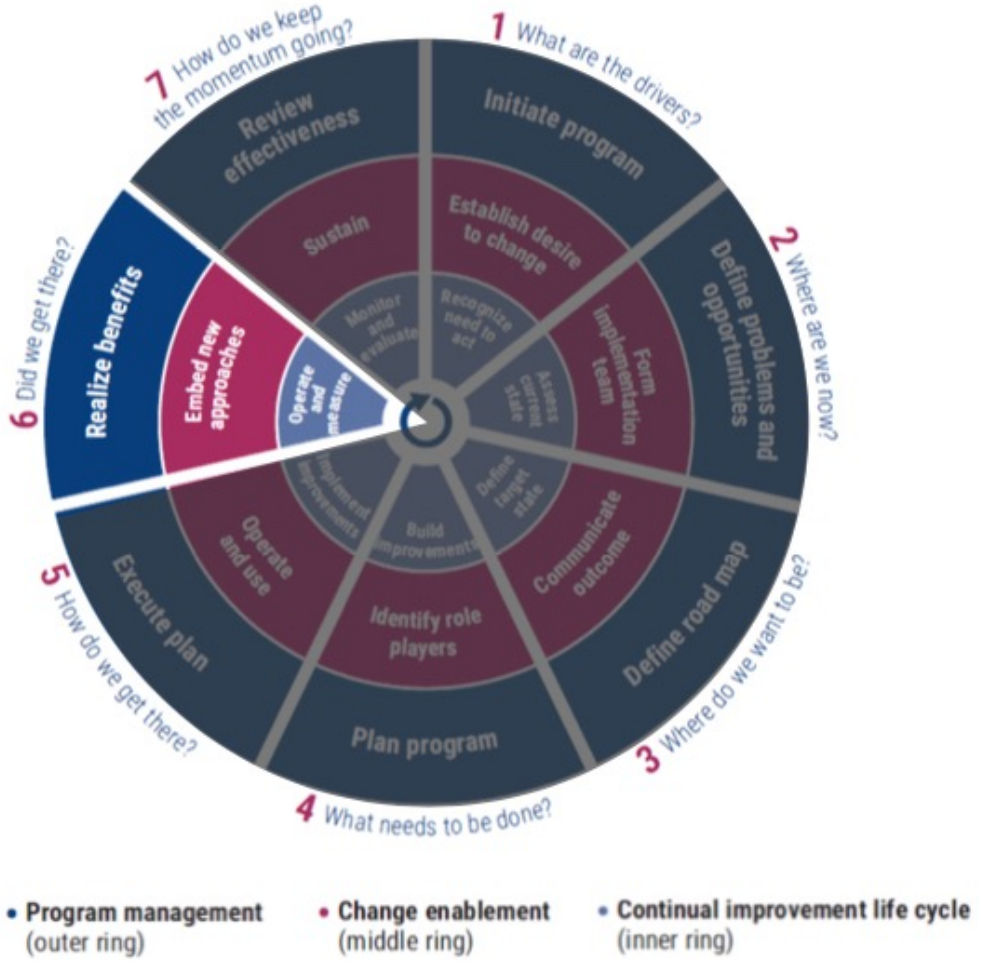


COBIT 2019

PHASE 6 DID WE GET THERE?

Realize benefits – New approach – Operate and measure

Phase 6 focuses on sustainable transition of the improved governance and management practices into normal business operations. It further focuses on monitoring achievement of the improvements using the performance metrics and expected benefits.



PHASE 7 HOW DO WE KEEP THE MOMENTUM GOING?

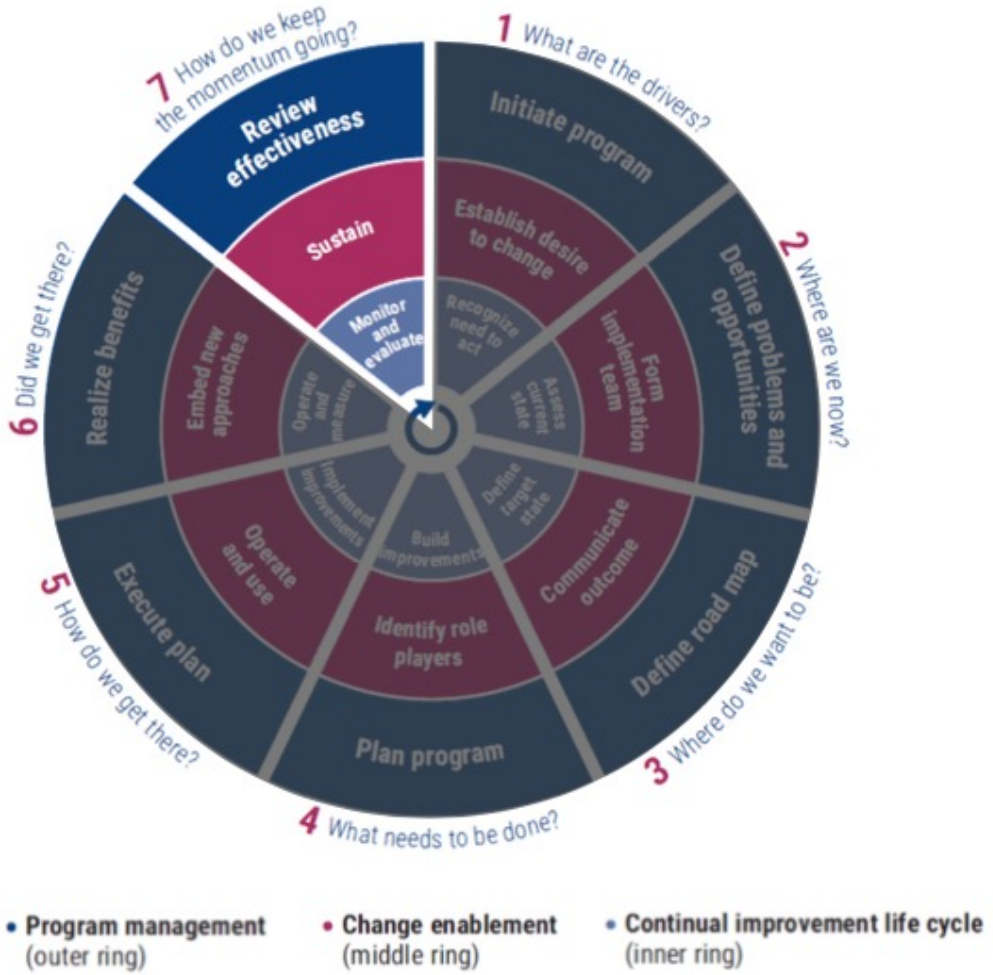
Review effectiveness – Sustain – Monitor and evaluate

Phase 7 reviews the overall success of the initiative, identifies further governance or management requirements and reinforces the need for continual improvement. It also prioritizes further opportunities to improve the governance system.

Program and project management is based on good practices and provides for checkpoints at each of the seven phases to ensure that the program's performance is on track, the business case and risk are updated, and planning for the next phase is adjusted as appropriate.

It is assumed that the enterprise's standard approach would be followed.

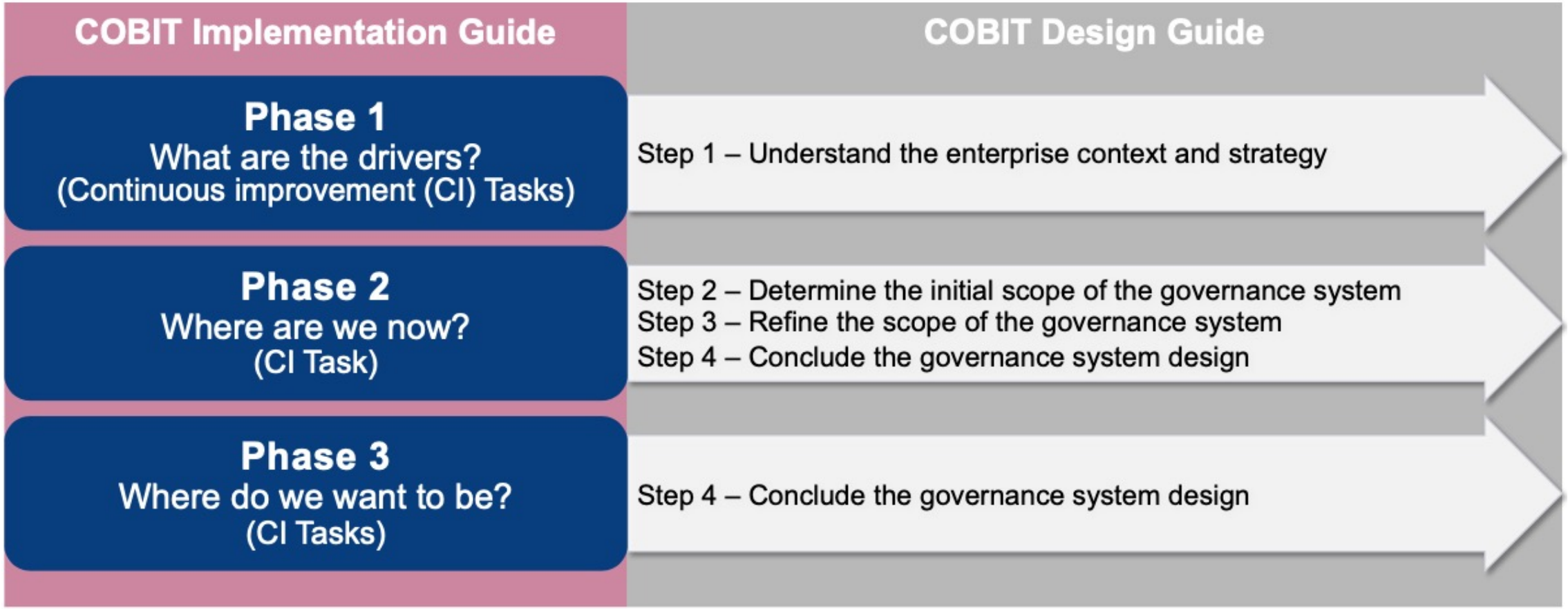
Further guidance on program and project management can also be found in COBIT management objectives BAI01 Managed programs and BAI11 Managed projects. Although reporting is not mentioned explicitly in any of the phases, it is a continual thread through all of the phases and iterations.



COBIT 2019

DESIGN GUIDE AND IMPLEMENTATION GUIDE RELATIONSHIPS

The workflow explained in the *COBIT 2019 Design Guide* elaborates a set of tasks defined in the Implementation Guide and has the following connection points:



Chapter 10
Course Wrap-up

COURSE SUMMARY

Now that you have completed the course you should be able to:

- ✓ Recognize the **context, benefits and key reasons COBIT** is used as an information and technology governance framework.
- ✓ Recognize the descriptions and **purposes of the COBIT product architecture**.
- ✓ Recall the **alignment of COBIT with other applicable frameworks, standards** and bodies of knowledge.
- ✓ Understand and describe the governance **"system" and governance "framework" principles.**
- ✓ Describe the **components of a governance system**.
- ✓ Understand the overall structure and contents of the **Goals Cascade**.
- ✓ Recall the **40 Governance and Management Objectives** and their purpose statements.
- ✓ Understand the **relationship** between Governance and Management **Objectives** and Governance **Components**.
- ✓ Differentiate COBIT based performance management using **maturity and capability** perspectives.
- ✓ Discover **how to design** a tailored governance system using COBIT.
- ✓ Explain the key points of the **COBIT business case**.
- ✓ Understand and recall **the phases of** the COBIT **implementation** approach.
- ✓ Describe the relationships between the **COBIT Design and Implementation Guides**.

COBIT 2019

Ready, Steady, Go!!!