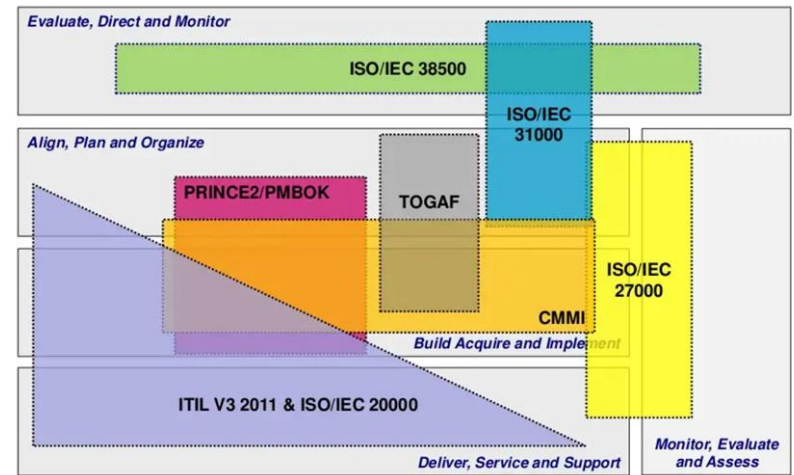
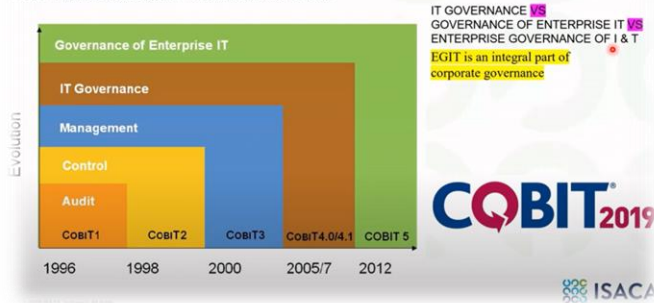


Pertemuan 4

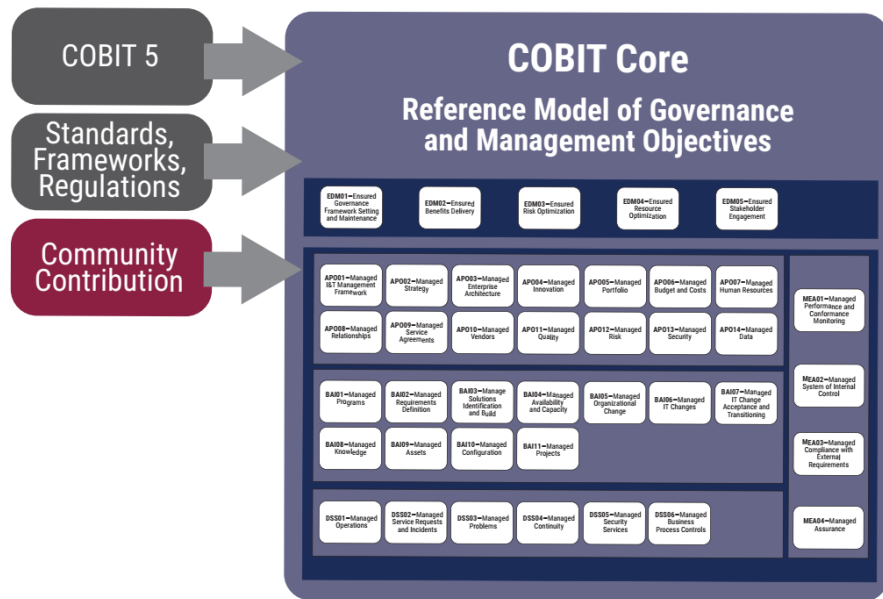
Penggunaan COBIT sebagai Framework Tata Kelola

Governance Tata Kelola



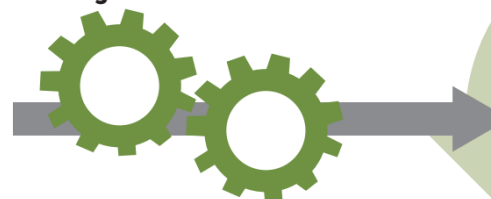
Inputs to COBIT® 2019

COBIT® 2019



- Enterprise strategy
- Enterprise goals
- Enterprise size
- Role of IT
- Sourcing model for IT
- Compliance requirements
- Etc.

Design Factors



Focus Area

- SME
- Security
- Risk
- DevOps
- Etc.

Tailored Enterprise Governance System for Information and Technology

- Priority governance and management objectives
- Specific guidance from focus areas
- Target capability and performance management guidance

COBIT Core Publications

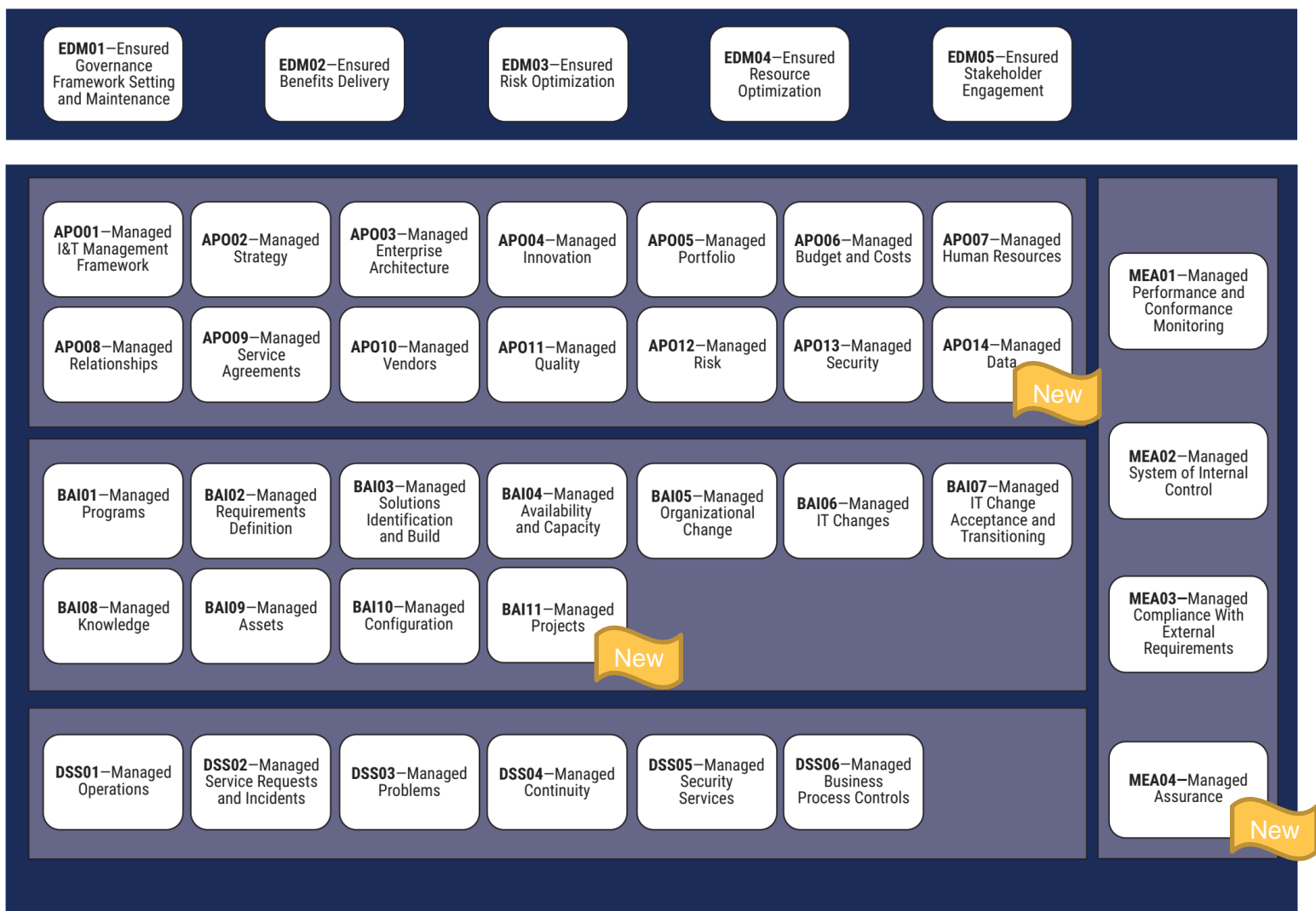
COBIT® 2019 Framework:
Introduction and Methodology

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 Governance Solution

COBIT 2019 Core Model

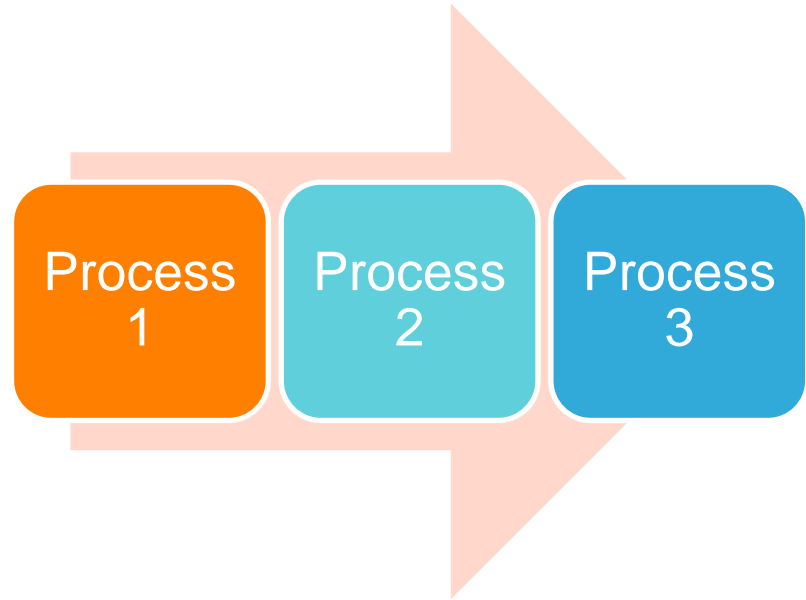


COBIT Components of Governance System



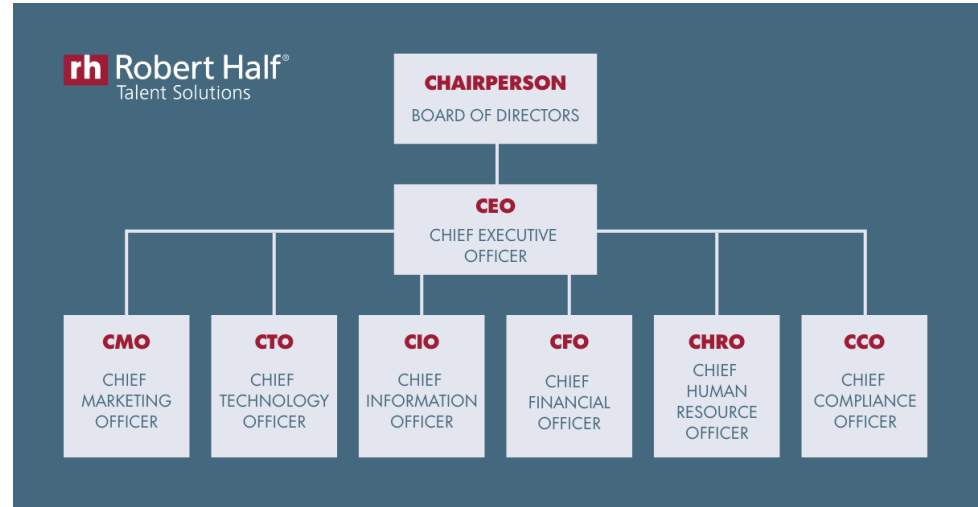
Components Governance System

Proses - kumpulan dari praktik dan aktivitas terorganisir yang memberikan output spesifik untuk mencapai tujuan dan menghasilkan luaran yang mendukung pencapaian dari semua IT-related goal.



Components Governance System

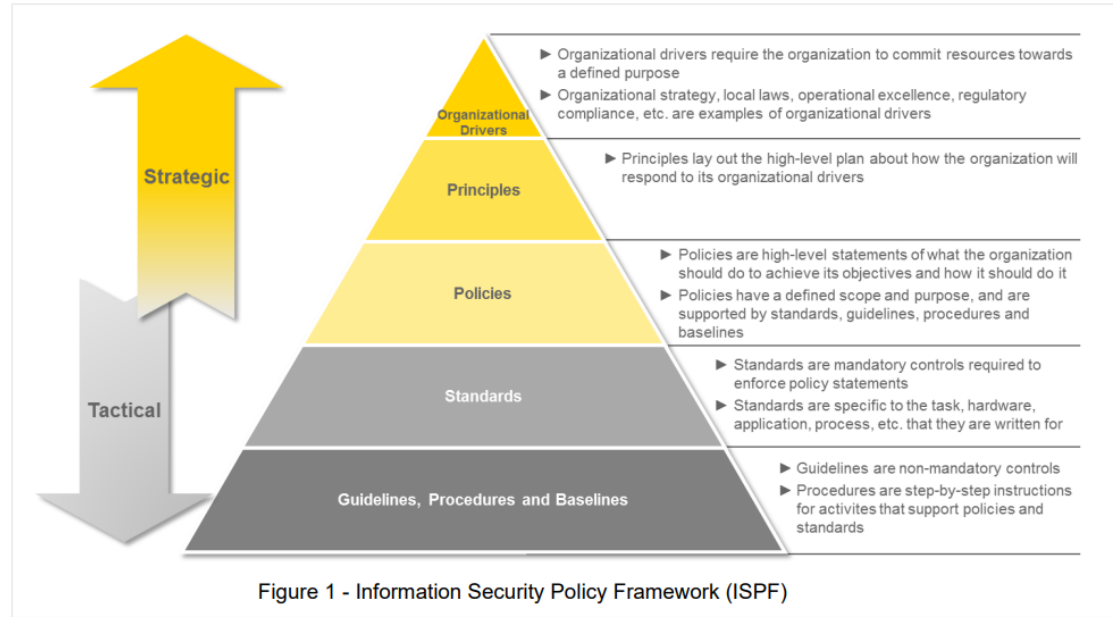
Struktur Organisasi -
entitas pengambilan
keputusan utama
dalam organisasi.



<https://www.roberthalf.co.uk/advice/c-suite/c-suite-explained-your-guide-current-and-future-exec-level-roles>

Components Governance System

Prinsip, Kebijakan,
dan Prosedur -
memberikan
panduan praktis
untuk perilaku yang
diinginkan.



<https://www.mass.gov/doc/is001-organization-of-information-security-standard-0/download>

Components Governance System

Informasi – terdapat/
tercipta di seluruh
organisasi dan
dibutuhkan untuk
efektivitas dari fungsi
sistem tata kelola TI



<https://www.elsevier.com/connect/the-information-system-supporting-research>

Components Governance System

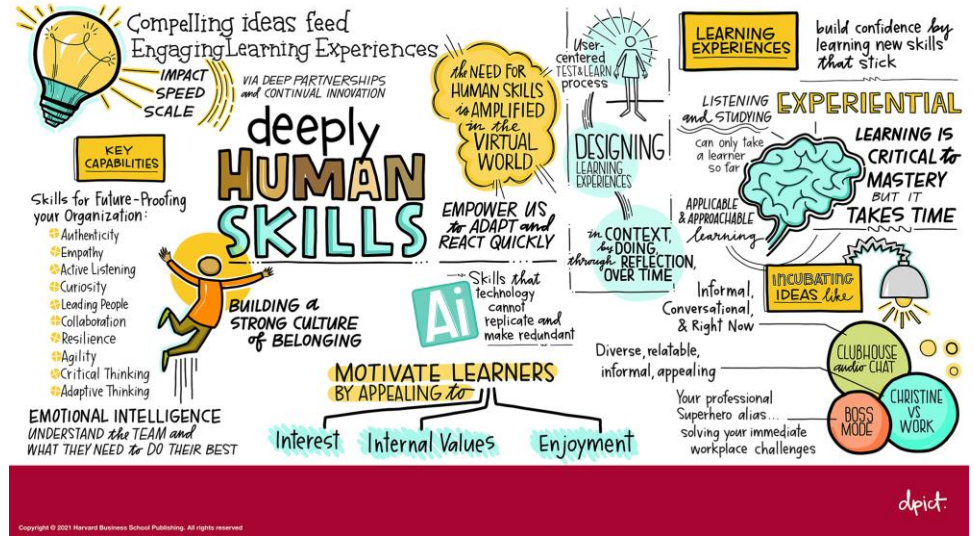
Budaya, Etika, dan Perilaku - mencakup nilai-nilai dan norma yang dianut individu dan organisasi dalam pengelolaan TI



<https://blog.volkovlaw.com/2019/10/what-does-business-ethics-mean/>

Components Governance System

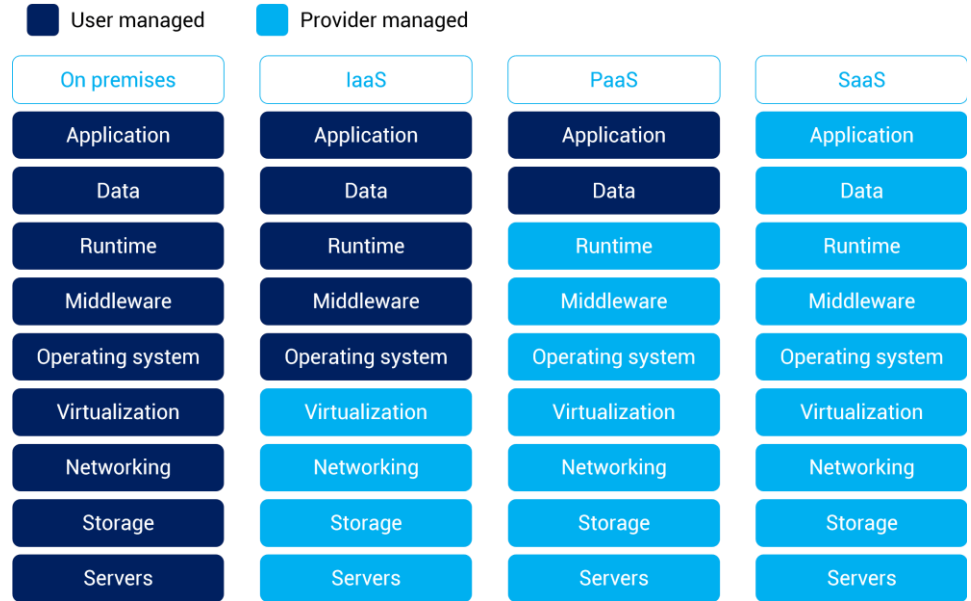
Orang, Keterampilan,
dan Kompetensi -
diperlukan untuk
mengekskusi dan
menyelesaikan semua
aktivitas TI.



<https://www.harvardbusiness.org/5-key-human-skills-to-thrive-in-the-future-digital-workplace/>

Components Governance System

Layanan, Infrastruktur,
dan Aplikasi -
memberikan
pengolahan TI ke
sistem pengelolaan
dan tata kelola.



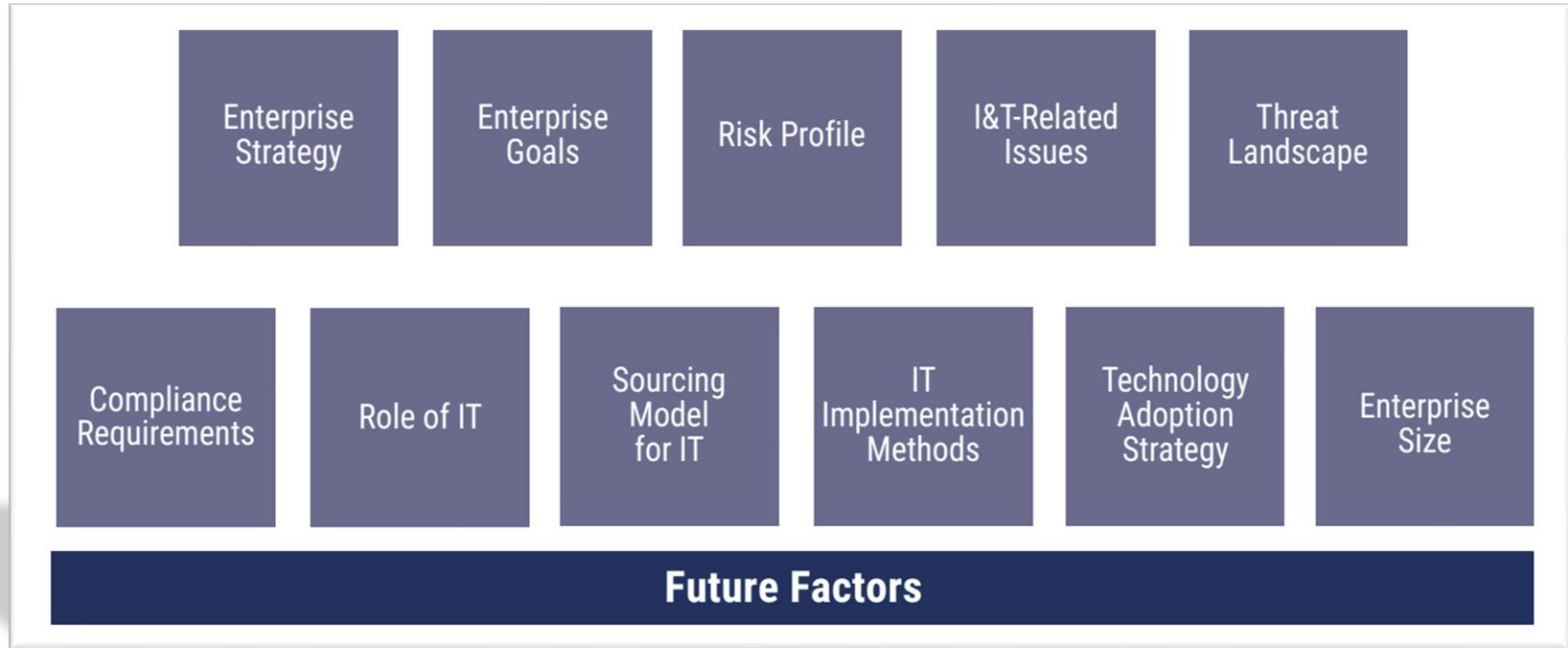
Focus Areas

Focus Area menjelaskan topik tata kelola tertentu, domain atau isu yang dapat ditangani oleh kumpulan governance dan management objectives serta komponennya

Examples of focus areas include:

- Small and Medium Enterprises,
- Cybersecurity,
- Digital Transformation,
- Cloud Computing,
- Privacy, and
- DevOps.
- Etc. (the number of focus areas is virtually unlimited. That is what makes COBIT open-ended)

11 Design Factors



DF 1 - Enterprise strategy

Figure 4.5—Enterprise Strategy Design Factor

Strategy Archetype	Explanation
Growth/Acquisition	The enterprise has a focus on growing (revenues). ¹⁰
Innovation/Differentiation	The enterprise has a focus on offering different and/or innovative products and services to their clients. ¹¹
Cost Leadership	The enterprise has a focus on short-term cost minimization. ¹²
Client Service/Stability	The enterprise has a focus on providing stable and client-oriented service. ¹³

DF 2 - Enterprise goal

Figure 4.6—Enterprise Goals Design Factor

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

DF 3 - Risk profile

Figure 4.7—Risk Profile Design Factor (IT Risk Categories)

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
16	Acts of nature
17	Technology-based innovation
18	Environmental
19	Data and information management

DF4 - I&T-Related issues

Figure 4.8—I&T-Related Issues Design Factor	
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

DF 5 - Threat Landscape

Figure 4.9—Threat Landscape Design Factor

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.

DF 6 - Compliance Requirements

Figure 4.10—Compliance Requirements Design Factor

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.

DF 7 - Role of IT

Figure 4.11—Role of IT Design Factor

Role of IT¹⁷	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.

DF 8 - Sourcing Model for IT

Figure 4.12—Sourcing Model for IT Design Factor

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.

DF 9 - IT Implementation Method

Figure 4.13—IT Implementation Methods Design Factor

IT Implementation Method	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.”

DF 10 - Technology Adoption Strategy

Figure 4.14—Technology Adoption Strategy Design Factor

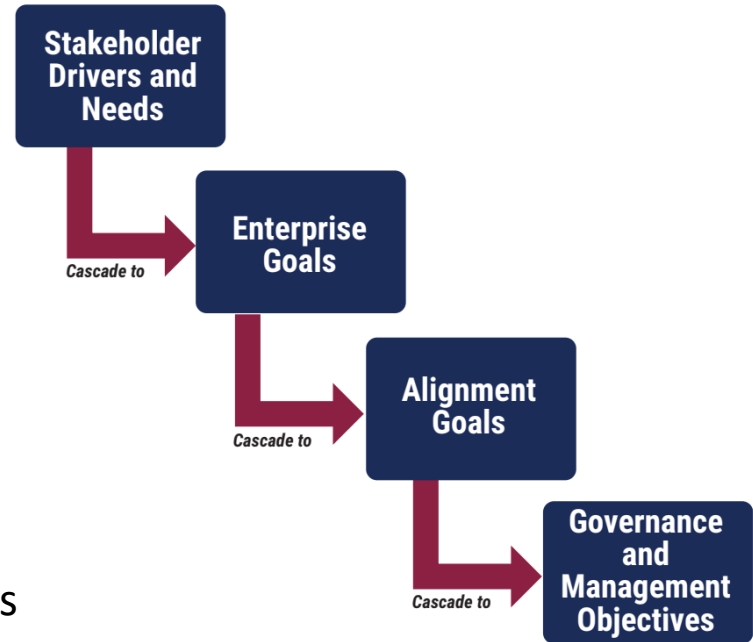
Technology Adoption Strategy	Explanation
First mover	The enterprise generally adopts new technologies as early as possible and tries to gain first-mover advantage.
Follower	The enterprise typically waits for new technologies to become mainstream and proven before adopting them.
Slow adopter	The enterprise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

DF 11 - Enterprise Size

Figure 4.15—Enterprise Size Design Factor

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

Goals Cascade



Enterprise Goal

- 13 enterprise goals
- 13 alignment goals
- 40 governance and management objectives

Enterprise Goals

Figure 4.17—Goals Cascade: Enterprise Goals and Metrics

Reference	BSC Dimension	Enterprise Goal	Example Metrics
EG01	Financial	Portfolio of competitive products and services	<ul style="list-style-type: none">• Percent of products and services that meet or exceed targets in revenues and/or market share• Percent of products and services that meet or exceed customer satisfaction targets• Percent of products and services that provide competitive advantage• Time-to-market for new products and services
EG02	Financial	Managed business risk	<ul style="list-style-type: none">• Percent of critical business objectives and services covered by risk assessment• Ratio of significant incidents that were not identified in risk assessments vs. total incidents• Appropriate frequency of update of risk profile
EG03	Financial	Compliance with external laws and regulations	<ul style="list-style-type: none">• Cost of regulatory noncompliance, including settlements and fines• Number of regulatory noncompliance issues causing public comment or negative publicity• Number of noncompliance matters noted by regulators or supervisory authorities• Number of regulatory noncompliance issues relating to contractual agreements with business partners
EG04	Financial	Quality of financial information	<ul style="list-style-type: none">• Satisfaction survey of key stakeholders regarding the transparency, understanding and accuracy of enterprise financial information• Cost of regulatory noncompliance with finance-related regulations

Figure 4.17—Goals Cascade: Enterprise Goals and Metrics

Reference	BSC Dimension	Enterprise Goal	Example Metrics
EG05	Customer	Customer-oriented service culture	<ul style="list-style-type: none">• Number of customer service disruptions• Percent of business stakeholders satisfied that customer service delivery meets agreed levels• Number of customer complaints• Trend of customer satisfaction survey results
EG06	Customer	Business service continuity and availability	<ul style="list-style-type: none">• Number of customer service or business process interruptions causing significant incidents• Business cost of incidents• Number of business processing hours lost due to unplanned service interruptions• Percent of complaints as a function of committed service-availability targets
EG07	Customer	Quality of management information	<ul style="list-style-type: none">• Degree of board and executive management satisfaction with decision-making information• Number of incidents caused by incorrect business decisions based on inaccurate information• Time to provide supporting information to enable effective business decisions• Timeliness of management information

Figure 4.17—Goals Cascade: Enterprise Goals and Metrics (cont.)

Reference	BSC Dimension	Enterprise Goal	Example Metrics
EG08	Internal	Optimization of internal business process functionality	<ul style="list-style-type: none">● Satisfaction levels of board and executive management with business process capabilities● Satisfaction levels of customers with service delivery capabilities● Satisfaction levels of suppliers with supply chain capabilities
EG09	Internal	Optimization of business process costs	<ul style="list-style-type: none">● Ratio of cost vs. achieved service levels● Satisfaction levels of board and executive management with business processing costs
EG10	Internal	Staff skills, motivation and productivity	<ul style="list-style-type: none">● Staff productivity compared to benchmarks● Level of stakeholder satisfaction with staff expertise and skills● Percent of staff whose skills are insufficient relative to competencies required for their roles● Percent of satisfied staff
EG11	Internal	Compliance with internal policies	<ul style="list-style-type: none">● Number of incidents related to noncompliance with policy● Percent of stakeholders who understand policies● Percent of policies supported by effective standards and working practices
EG12	Growth	Managed digital transformation programs	<ul style="list-style-type: none">● Number of programs on time and within budget● Percent of stakeholders satisfied with program delivery● Percent of business transformation programs stopped● Percent of business transformation programs with regular reported status updates
EG13	Growth	Product and business innovation	<ul style="list-style-type: none">● Level of awareness and understanding of business innovation opportunities● Stakeholder satisfaction with levels of product and innovation expertise and ideas● Number of approved product and service initiatives resulting from innovative ideas

Alignment Goals

Figure 4.18—Goals Cascade: Alignment Goals and Metrics

Reference	IT BSC Dimension	Alignment Goal	Metrics
AG01	Financial	I&T compliance and support for business compliance with external laws and regulations	<ul style="list-style-type: none">● Cost of IT noncompliance, including settlements and fines, and the impact of reputational loss● Number of IT-related noncompliance issues reported to the board or causing public comment or embarrassment● Number of noncompliance issues relating to contractual agreements with IT service providers
AG02	Financial	Managed I&T-related risk	<ul style="list-style-type: none">● Appropriate frequency of update of risk profile● Percent of enterprise risk assessments including I&T-related risk● Number of significant I&T-related incidents that were not identified in a risk assessment
AG03	Financial	Realized benefits from I&T-enabled investments and services portfolio	<ul style="list-style-type: none">● Percent of I&T-enabled investments for which claimed benefits in the business case are met or exceeded● Percent of I&T services for which expected benefits (as stated in the service level agreements) are realized
AG04	Financial	Quality of technology-related financial information	<ul style="list-style-type: none">● Satisfaction of key stakeholders regarding the level of transparency, understanding and accuracy of IT financial information● Percent of I&T services with defined and approved operational costs and expected benefits
AG05	Customer	Delivery of I&T services in line with business requirements	<ul style="list-style-type: none">● Percent of business stakeholders satisfied that IT service delivery meets agreed service levels● Number of business disruptions due to IT service incidents● Percent of users satisfied with the quality of IT service delivery

Figure 4.18—Goals Cascade: Alignment Goals and Metrics

Reference	IT BSC Dimension	Alignment Goal	Metrics
AG06	Customer	Agility to turn business requirements into operational solutions	<ul style="list-style-type: none"> • Level of satisfaction of business executives with IT's responsiveness to new requirements • Average time-to-market for new I&T-related services and applications • Average time to turn strategic I&T objectives into an agreed and approved initiative • Number of critical business processes supported by up-to-date infrastructure and applications
AG07	Internal	Security of information, processing infrastructure and applications, and privacy	<ul style="list-style-type: none"> • Number of confidentiality incidents causing financial loss, business disruption or public embarrassment • Number of availability incidents causing financial loss, business disruption or public embarrassment • Number of integrity incidents causing financial loss, business disruption or public embarrassment
AG08	Internal	Enabling and supporting business processes by integrating applications and technology	<ul style="list-style-type: none"> • Time to execute business services or processes • Number of I&T-enabled business programs delayed or incurring additional cost due to technology integration issues • Number of business process changes that need to be delayed or reworked because of technology integration issues • Number of applications or critical infrastructures operating in silos and not integrated
AG09	Internal	Delivery of programs on time, on budget and meeting requirements and quality standards	<ul style="list-style-type: none"> • Number of programs/projects on time and within budget • Number of programs needing significant rework due to quality defects • Percent of stakeholders satisfied with program/project quality
AG10	Internal	Quality of I&T management information	<ul style="list-style-type: none"> • Level of user satisfaction with quality and timeliness and availability of I&T-related management information, taking into account available resources • Ratio and extent of erroneous business decisions in which erroneous or unavailable I&T-related information was a key factor • Percentage of information meeting quality criteria

Figure 4.18—Goals Cascade: Alignment Goals and Metrics (cont.)

Reference	IT BSC Dimension	Alignment Goal	Metrics
AG11	Internal	I&T compliance with internal policies	<ul style="list-style-type: none">● Number of incidents related to noncompliance with IT-related policies● Number of exceptions to internal policies● Frequency of policy review and update
AG12	Learning and Growth	Competent and motivated staff with mutual understanding of technology and business	<ul style="list-style-type: none">● Percent of I&T-savvy business people (i.e., those having the required knowledge and understanding of I&T to guide, direct, innovate and see opportunities of I&T for their domain of expertise)● Percent of business-savvy IT people (i.e., those having the required knowledge and understanding of relevant business domains to guide, direct, innovate and see opportunities of I&T for the business domain)● Number or percentage of business people with technology management experience
AG13	Learning and Growth	Knowledge, expertise and initiatives for business innovation	<ul style="list-style-type: none">● Level of business executive awareness and understanding of I&T innovation possibilities● Number of approved initiatives resulting from innovative I&T ideas● Number of innovation champions recognized/awarded

Tugas

Buatlah pemetaan(mapping) untuk penyesuaian/perbandingan antara COBIT 2019 dengan framework/instrument/standar lain.

Catatan:

- 1 Kelompok max 4org, diunggah pada tugas pertemuan ke 7 sebelum UAS
- Sertakan referensi dan penjelasan setiap komponen/itemnya.
- Diskusikan juga progress reportnya pada pertemuan ke 5 s.d 7 (daring)
- Khusus NIST CSF - Gunakan tools mapping ini:
<https://csrc.nist.gov/Projects/olir/derived-relationship-mapping>

ITIL4[®] - COBIT[®] 2019 Mapping

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