



Introductory Guide

Emerging Technology Adoption Readiness Index 2026

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1. Introduction

Based on the decision of the Council of Ministers No. (418) dated 25/07/1442AH, issued with the approval to organize the Digital Government Authority, and with reference to Paragraphs (5) and (10) of Article (4) of its Regulation, which stipulate that one of the Authority's powers and responsibilities is to "the Authority shall issue the measurements, indicators, tools, and reports to measure the performance of government entities and their capabilities in the field of digital government, and the satisfaction of the beneficiary thereof", and "Provide support to government entities regarding digital government services, to adopt and enable emerging technologies".

As an extension of the role of the Digital Government Authority (DGA) in effectively supporting and empowering government entities to explore the potential offered by emerging technologies and to employ them optimally in order to achieve national objectives sustainably and realize the desired impact, the Authority has developed the second edition of the introductory guide for the **"Emerging Technology Adoption Readiness Index."** This edition introduces the Index and its objectives, as well as its current methodology, which is based on a set of capabilities, elements, and criteria through which the readiness of entities to adopt emerging technologies is assessed. It also highlights trending technologies and their applications—such as Artificial Intelligence, which is one of the most widely adopted technologies in the government sector. Furthermore, the guide presents the criteria for selecting the targeted entities in this year's Index, the evaluation mechanisms, and the readiness levels by which the targeted entities are classified.

2. Objectives of the Guide

This guide aims to provide the necessary support for government entities to enhance their readiness in adopting emerging technologies through the following:

- Presenting a unified framework for the mechanism assessing the readiness of government entities to adopt emerging technologies, in alignment with international best practices and benchmarking studies.
- Contributing to improving the readiness of government entities to adopt emerging technologies by applying the framework presented in this document and reviewing leading emerging technologies.
- Promoting transparency and enabling government entities to gain a comprehensive understanding of the methodology, including its capabilities, elements, and standards.

3. Scope of the Guide

This introductory guide presents the scope and content of the Emerging Technology Adoption Readiness Index 2026 (fourth cycle). It outlines the concept of emerging technology adoption and highlights the latest global trends in this field—most notably artificial intelligence (AI). The guide also provides an overview of the Index, its objectives, and the key terms and definitions related to its core components. In addition, it explains the Index's methodology and overall framework, including the adopted capabilities, elements, and standards. It further identifies the targeted government entities and the criteria for their selection, as well as the approved assessment stages and mechanisms and the readiness levels by which entities will be classified.

4. Targeted audience

This guide targets specific government entities, including digital transformation leaders and departments responsible for adopting emerging technologies, research, innovation, and artificial intelligence. It also addresses the private sector entities that operate or are responsible for managing activities related to emerging technologies within government entities.

5. Guide Overview

5.1 Emerging Technologies Adoption Concept

Emerging technologies adoption refer to technologies that provide solutions, ideas, or methods that introduce innovative and creative approaches to performing tasks. These technologies offer greater efficiency, improved quality, or faster execution compared to traditional methods currently in use. Examples of emerging technologies include:



5.2 Top 10 Emerging Technology Trends for 2025

The table below highlights the ten key emerging technology trends expected to have a significant impact across various sectors, as predicted by Gartner.

#	Trends	Description
1	Trust, Risk, and Security Management for AI (AI TRISM)	A set of tools that enhance trust by identifying, mitigating, and proactively managing risks during AI application adoption.
2	Continuous Threat Exposure Management	Continuously detects and prioritizes the most critical threats to organizations for effective and ongoing risk management.
3	Sustainable Technologies	They refer to digital solutions that contribute positively to environmental, social, and governance (ESG) objectives.
4	Platform Engineering	An emerging technological approach that accelerates application development and business value realization through unified, automated tools and consistent environments, aiming at enhancing developer efficiency and productivity.
5	AI-Enhanced Development	AI-enhanced development integrates AI technologies into key activities throughout the software development lifecycle to improve efficiency and outcome.

Table (1): Top 10 Emerging Technology Trends for 2025

#	Trends	Description
6	Industrial Cloud Platforms	Industrial cloud platforms are designed to meet the specific needs and address the unique challenges of vertical industries. These industries represent specialized sectors focused on catering to the demands of specific markets with distinct requirements and challenges that general solutions cannot adequately address.
7	Smart Applications	AI-powered smart applications that utilize data from transactions and external sources to enhance output quality and improve user experience.
8	Democratization of GenAI	Making advanced generative AI technologies accessible to a broader audience, not just experts. The goal is to simplify the use of these tools, making them easy to use for individuals, businesses, and developers without requiring deep AI knowledge, enabling them to innovate and solve problems in new ways.
9	Workforce Augmentation	It integrates and augments the workforce by connecting the physical and digital worlds for employees through advanced technologies, and thereby enhancing the overall employee experience, fostering collaboration, and promoting innovation within the organization.
10	Automated Customers	Automated customers as non-human entities that independently handle electronic transactions, such as purchasing goods and services.

Table (1): Top 10 Emerging Technology Trends for 2025

The importance of monitoring emerging technology trends lies in assessing their impact on business strategies and identifying mechanisms to integrate these technologies into the entity’s future plans to effectively achieve its objectives. These emerging technologies reflect transformations that may reshape businesses and define new pathways for economic and social development if utilized and applied optimally.

5.3 Emerging Technology Adoption Readiness Index

The “Emerging Technologies Adoption Readiness Index” is an annual assessment that tracks the progress of government entities in adopting emerging technologies such as artificial intelligence, blockchain, and the Internet of Things. The Index aims to support government entities in improving the performance of public services, accomplishing tasks efficiently, and facilitate beneficiary interaction with government services. It also contributes to realizing the expected benefits through successful integration with emerging technologies and understand the capabilities required to explore, identify, and align these technologies with internal priorities and stakeholder needs. Additionally, the index helps entities comprehend the steps involved in testing technologies and evaluating their outcomes, and thereby facilitating their effective integration into business plans and strategies.

5.4 Objectives of the Emerging Technology Adoption Readiness Index

This Guide aims to provide the necessary support to the government entities to enhance their readiness for adopting emerging technologies, by:



Contributing to achieve the strategic objectives of Digital Government:

The Index contributes to achieving national targets by enhancing innovation efficiency in government services through improving the technological readiness of various sectors and beneficiaries.



Supporting government entities in their journey to adopt Emerging Technologies:

The Index helps government entities understand the current state compared to the optimal target for adopting emerging technologies. Enhancing this can be done at the level of each entity by aligning these technologies with their needs and organizational goals. Accordingly, action plans are developed to measure the readiness of these entities, ensuring the maximum strategic and sustainable utilization of these technologies in the long term.



Accelerating the realization of benefits from Emerging Technologies:

The Index is based on an organized methodology aimed at enhancing the readiness and maturity of entities to adopt emerging technologies. This contributes to accelerating the achievement of desired benefits through the use of these technologies, which provide innovative solutions that positively impact the satisfaction of beneficiaries with the services provided.

Figure (1): Objectives of the Emerging Technologies Adoption Readiness Index

5.5 Emerging Technology Adoption Readiness Index Methodology for 2026

The Authority has developed the methodology of the “Emerging Technology Adoption Readiness Index” over previous cycles by reviewing the overall framework of the Index with the aim of continuous improvement — as ongoing development is one of the key characteristics of emerging technologies. These technologies contribute to empowering entities to achieve added value that extends beyond initial investments, by reducing costs, enhancing efficiency, improving beneficiary satisfaction, and delivering unique experiences that meet their evolving needs. In its fourth cycle, the Index includes (4) main capabilities, (12) elements, and (25) criteria. Through this cycle, the Authority seeks to expand the scope of entities included in the assessment, in order to provide a broader and more comprehensive view of the performance levels of government entities in adopting emerging technologies.

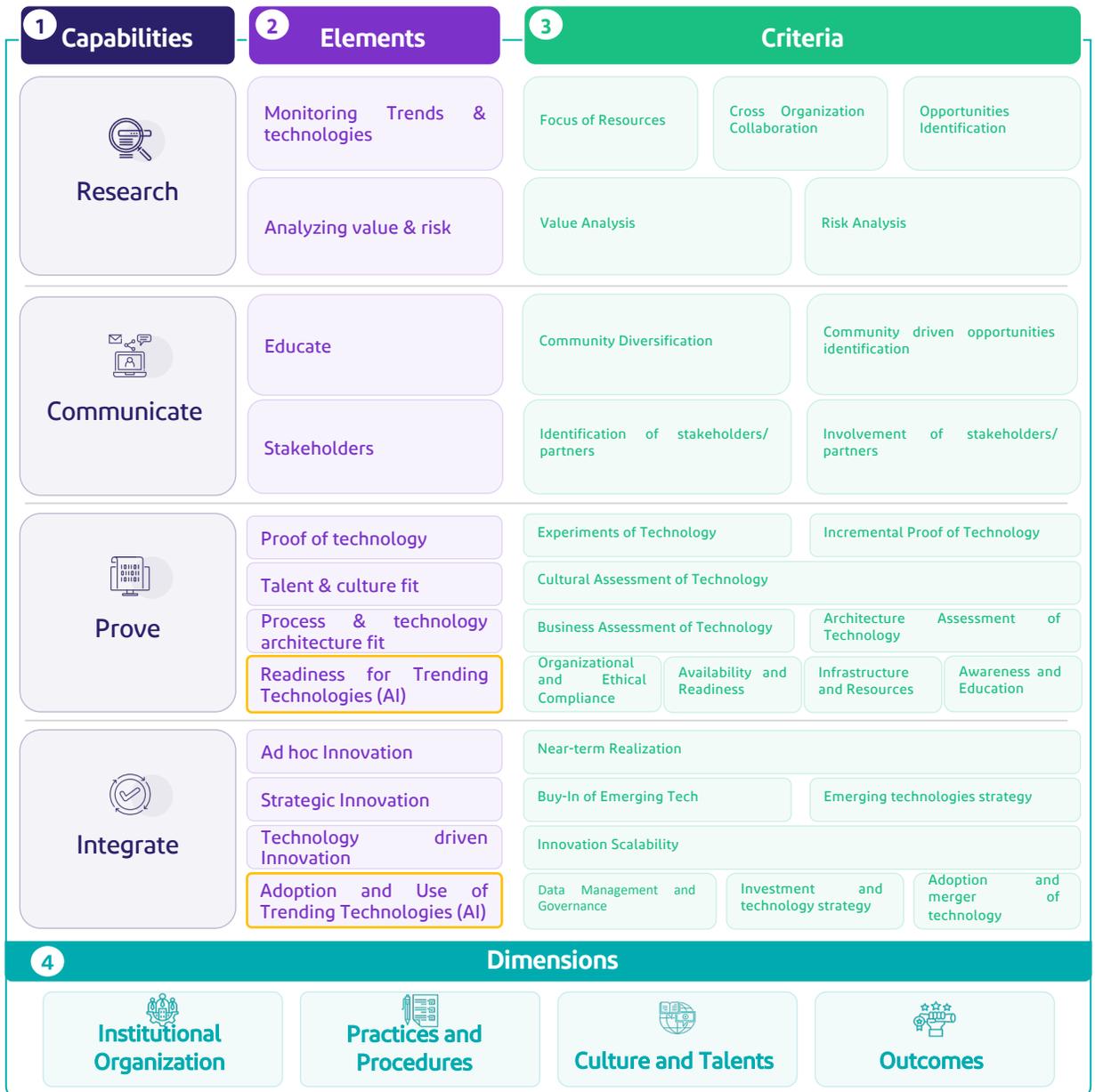
5.5.1 Enhancements to the Methodology for 2026

In line with modern national trends, best practices, and relevant international indicators, the Authority worked in the fourth cycle of the index to update the index methodology and evaluation framework through several activities, most notably; reformulating some criteria and merging some of them. The development of the methodology also included updating the elements of the capabilities of Prove and Integrate to include elements that focus on evaluating the readiness to adopt and use trending technologies, such as artificial intelligence, the speed of adoption, and the impact of such adoption on improving operational efficiency. This enhancement aims to provide a more comprehensive and accurate perspective on the adoption of artificial intelligence and other emerging technologies across various sectors.

5.5.2 Framework of Emerging Technology Adoption Readiness Index 2026

The DGA has developed the framework for the Emerging Technologies Adoption Readiness Index for government entities, which consists of:

- 1 Capabilities:** Representing (4) key capabilities.
- 2 Elements:** Consisting of (12) elements branching from the main capabilities.
- 3 Criteria:** Encompassing (25) criteria derived from these elements.
- 4 Dimensions:** Including (4) cross dimensions applicable to all components of the framework.



Focusing on Trending technologies

Figure (2): Framework of Emerging Technology Adoption Readiness Index

First: Capabilities

#	Capabilities	Description
1	Research	Due to the rapid rate of change, it is essential to allocate resources to the wide monitoring of several forms of trends, such as those involving beneficiaries, competitors, markets, or technologies, as well as the information technology that allows each of these types of trends. In addition, it is crucial that researchers work together across their organizations and with partners to capture these patterns, identify possibilities for each developing technology, and then allocate each opportunity to either the short or long term.
2	Communicate	Emerging Technology research cannot survive for long without clear and consistent lines of communication, such as slide shows or reports, in which targets and results of technology trend analysis are presented in a simplified manner to the recipient. It is necessary to direct the appropriate information toward the appropriate audience on the one hand and to differentiate the process of providing general education in order to engage stakeholders from the practice of providing particular communication in order to pursue investment on the other hand.
3	Prove	In order to express an opportunity in a way that is persuasive to others, it needs the knowledge and expertise that can only be obtained via actual hands-on experiments. With the aid of the “prove capability,” the entity will not only be able to determine whether or not the technology is ready to meet the requirements but also whether or not the entity is ready for the technology.
4	Integrate	Innovations that are strategic in nature are those that pursue medium/long-term emerging technology opportunities that align with the entity's broad objectives. This capability assesses how well the entity is equipped to operationalize emerging technologies on large scales in a way that supports the strategic objectives while also being economical and practical in its implementation.

Table (2): Index Capabilities

Second: Elements

Elements		Description
First Capability: Research		
1	Monitoring Trends and technologies	Track several types of trends (customer, competitor, market, or technology) and emerging technologies that enable them.
2	Analyzing value and risk	Intensifying exploration and analysis of emerging technology opportunities by documenting a broad set of potential benefits and risks
Second Capability: Communicate		
3	Educate	Expanding the target audience and conveying the results of research that aims to transfer knowledge and stimulate participation.
4	Stakeholders	Identifying the target stakeholders through research efforts with the aim of committing to invest towards specific outcomes.
Third Capability: Prove		
5	Proof of technology	Perform hands on demonstrations and deeper technology experiments to evaluate an emerging technology opportunity that has one or more potential sponsors.
6	Talent and culture fit	Take an inside out look at how ready the organization's culture and available talent pool is to absorb the capabilities of a new technology.
7	Process and technology architecture fit	Evaluate the process change and architecture change costs that might be necessary to take advantage of an emerging technology opportunity.
8	Readiness for Trending Technologies (AI)	Assessing the entity's readiness to adopt AI applications, including: assessing the current infrastructure, workforce skills, and available resources; to ensure integration of technologies, reduce challenges, and enable the entity to innovate and grow.
Fourth Capability: Integrate		
9	Ad hoc innovation	Integrate emerging technology research and evaluation outputs into the ad hoc innovation work that is taking place everywhere within the entity.
10	Strategic innovation	Integrate emerging technology research and evaluation into strategic innovation efforts.
11	Technology driven innovation	Support the evolution of emerging technology opportunities into technology driven innovation work made possible by emerging technology and changing customer needs.
12	Adoption and Use of Trending Technologies (AI)	Measure the level of adoption and use of AI, track integration into operations, speed and extent of adoption, and impact on efficiency and competitiveness. User engagement should also be assessed to ensure alignment with long-term goals.

Table (3): Index Elements

Third: Criteria

Elements		Criteria		Description
First Capability: Research				
1	Monitoring Trends and technologies	1	Focus of Resources	Organization's commitment to emerging technology research and trend analysis by evaluating the level of resource allocation, collaboration with external sources, and the extent to which the organization is free to explore opportunities beyond the core business line, which supports the organizations in staying informed about trends, identify relevant opportunities and potentially gain a competitive advantage in their industry.
		2	Cross Organization Collaboration	Ability to foster collaboration and gather insights from various stakeholders within the organization by collaborating across various parts of the organization to gain a comprehensive understanding of the factors influencing the operations and make informed decisions.
		3	Opportunities Identification	Ability to leverage trend analysis and emerging technology research for opportunity identification by analyzing trends in emerging technologies to proactively identify opportunities that foster innovation and growth through the categorization of into short, medium and long term opportunities.
2	Analysing Value and Risks	4	Value Analysis	Maturity in an organization's analysis of the potential value derived from implementing emerging technology opportunities that consider both immediate and broader value implications that would lead to more informed decision making and resource allocation.
		5	Risk Analysis	Maturity in an organization's risk evaluation process when it comes to emerging technologies by evaluating the ability to assess risks in a comprehensive and formal manner, considering potential challenges, drawbacks, and negative impacts associated with the adoption and implementation of emerging technologies.
Second Capability: Communicate				
3	Educate	6	Community Diversification	Maturity in an organization's engagement and distribution of emerging technology research findings by evaluating the ability to involve and communicate with stakeholders from various areas, fostering collaboration, knowledge sharing, and informed decision making.
		7	Community driven opportunities identification	Ability to educate and engage stakeholders through emerging technology education efforts to drive new research activities and identify potential opportunities related to emerging technologies.
4	Stakeholders	8	Identification of stakeholders/ partners	Ability to communicate and present business cases related to emerging technologies to stakeholders and potential partners/stakeholders, by evaluating the ability to quantify the value, benefits, and potential outcomes of these business cases.
		9	Involvement of stakeholders/ partners	Maturity of the entity's engagement with potential partners regarding research results and efforts by establishing regular communication channels, sharing findings, and showcasing progress to potential partners.

Table (4): Index Criteria

Third: Criteria

Elements		Criteria		Description
Third Capability: Prove				
5	Proof of technology	10	Experiments of Technology	Maturity in an organization's approach to exploring and validating emerging technology opportunities by evaluating the organization's commitment to practical experimentation, hands on technology work, and formalized processes aimed at proving the potential benefits of these emerging technologies, which can be leveraged so that organizations can gain insights, assess feasibility, and make informed decisions regarding their adoption and implementation.
		11	Incremental Proof of Technology	Organization's approach to proofs of technology and the ability to embrace an iterative and adaptable mindset, continuously learning from collected results and adjusting their approach based on new insights.
6	Talent and culture fit	12	Cultural Assessment of Technology	Ability to consider and evaluate the cultural and talent implications of emerging technologies by evaluating the organization's capacity to identify potential challenges and opportunities arising from the cultural and talent aspects and make informed decisions regarding the feasibility and practicality of pursuing specific opportunities.
7	Process and technology architecture fit	13	Business Assessment of Technology	Ability to analyze the implications of emerging technologies on business operations, processes, and cost factors by evaluating the organization's capacity to understand the potential impact of technology driven changes, including operational and financial considerations, and integrate these findings into a business case refinement process which ensures a comprehensive evaluation of the potential benefits, challenges, and costs associated with adopting emerging technologies.
		14	Architecture Assessment of Technology	Ability to analyze and evaluate the architectural impact of emerging technologies by assessing the organization's capacity to measure the compatibility, scalability, and maintenance considerations related to technology integration and estimating the associated costs.
8	Readiness for Trending Technologies (AI)	15	Organizational and Ethical Compliance	Effectively manage organizational and ethical risks associated with adopting new technologies by assessing and addressing potential risks, proactively responding to technological requirements, and developing and implementing processes in a sustainable manner.
		16	Availability and Readiness	Assess the availability, relevance, and quality of data for training and deploying AI technologies. This assessment includes verifying the entity's ability to access the necessary data for adopting AI technologies, evaluating the quality and quantity of available data, and determining the extent to which the data is organized and structured appropriately for AI analysis and processing.
		17	Infrastructure and Resources	Measure the readiness level of infrastructure and available resources for adopting AI technologies within organizations. This evaluation includes verifying the availability of necessary hardware and software for AI implementation, as well as assessing the level of investment in AI-specific infrastructure and resources

Table (4): Index Criteria

Third: Criteria

Elements		Criteria		Description
8	Readiness for Trending Technologies (AI)	18	Awareness and Education	Assess the level of awareness of AI technologies within organizations. This includes evaluating employees' knowledge of AI technologies, determining whether the organization has provided any education or training on AI for its staff, and gauging awareness of the potential benefits and risks associated with AI technologies.
Fourth Capability: Integrate				
9	Ad hoc Innovation	19	Near-term Realization	Ability to translate emerging technology research into practical and tangible benefits for immediate business needs through identifying relevant opportunities, implementing incremental improvements, and applying emerging technologies effectively to address the pressing needs of the organization.
10	Strategic Innovation	20	Buy-In of Emerging Tech	Organization's approach to implementing emerging technologies by focusing on strategic business outcomes, willingness to invest in transformational initiatives, and the ability to recognize the long term benefits and potential impact of these technologies.
		21	Emerging technologies strategy	Determining the level of maturity in an organization's recognition and utilization of emerging technologies as a means of gaining a strategic advantage over competitors by assessing the organization's ability to identify the value and potential impact of emerging technologies in shaping their business strategy and differentiating themselves in the market.
11	Technology driven Innovation	22	Innovation Scalability	Ability to progress from small scale experiments to larger scale implementations of emerging technologies by evaluating the organization's willingness to explore and embrace the potential of emerging technologies beyond initial trials and to deploy them more extensively to drive innovation, efficiency, and strategic outcomes.
12	Adoption and Use of Trending Technologies (AI)	23	Data management and governance	Evaluate the data governance practices and data management capabilities within the organization to support effective AI adoption. This includes assessing data quality, privacy, and security, compliance measures related to AI-generated insights and predictions, adherence to ethical guidelines, data privacy regulations, and responsible AI practices throughout the AI adoption lifecycle. This standard ensures that AI technologies are developed, deployed, and used ethically and responsibly.
		24	Investment and technology strategy	Measure the level of investment and strategic planning for technology adoption within entities. This includes evaluating the proportion of the budget allocated for technology investments, determining whether the entity has a dedicated technology department, and assessing if a long-term technology strategy is in place.
		25	Adoption and merger of technology	Measure the level of technology adoption and integration within entities. This includes evaluating the proportion of operations reliant on technology and assessing how technologies are integrated into the entity's products and services.

Table (4): Index Criteria

Fourth: Dimensions



Figure (3): Index Cross-Dimensions

5.5.3 Criteria for Selecting Sectors represented and Entities participating for 2026

- 1 Diversity in the sectors of participating entities.
- 2 Variety in the nature of services provided to beneficiaries.
- 3 Ability to adopt and scale emerging technologies

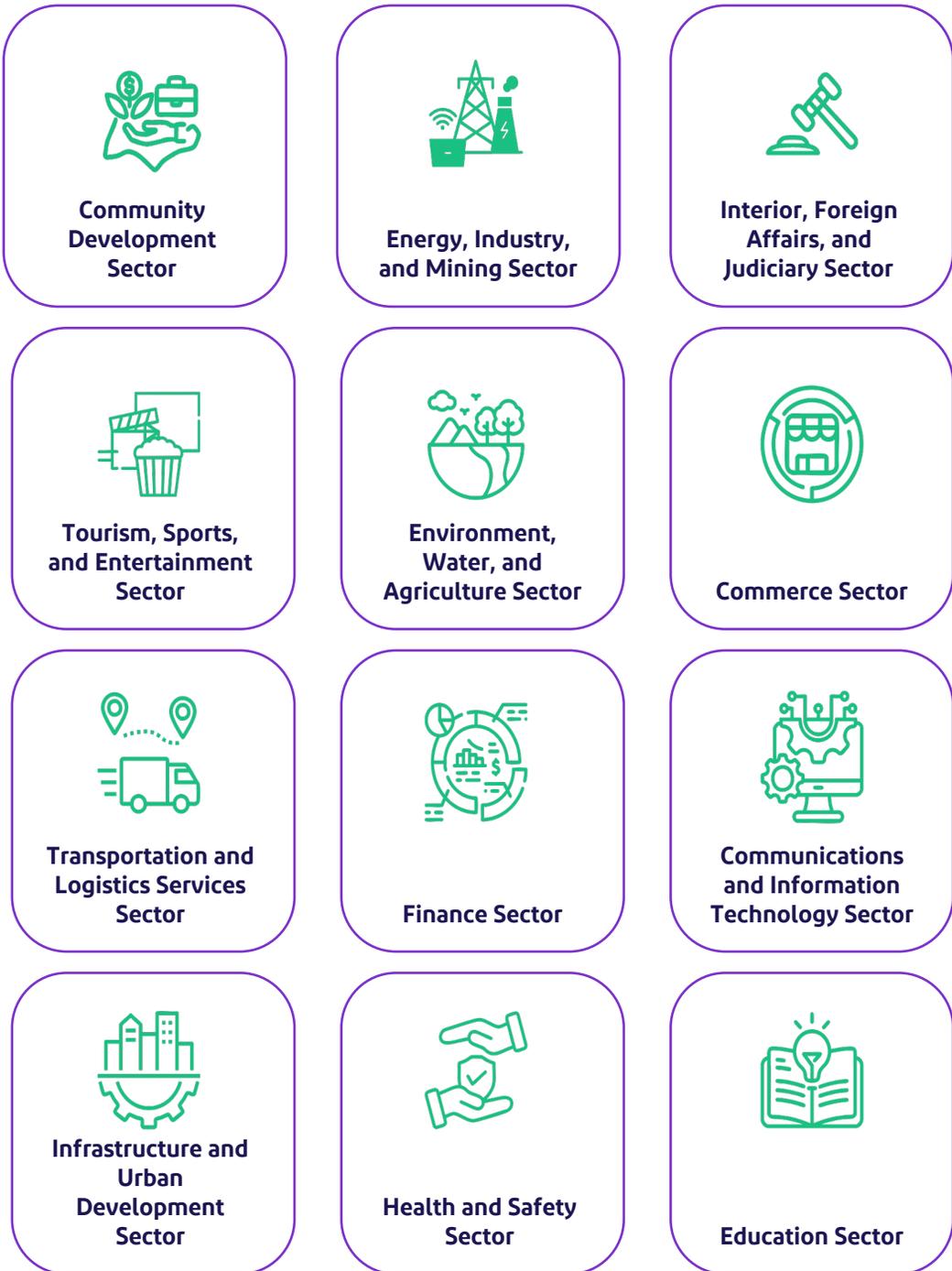


Figure (4): Targeted Sectors in 2026

5.5.4 Targeted Entities in the 2026 Index

The 2026 Index aims to assess (56) government entities, as follows:



Figure (5): Targeted Entities in Purple

5.5.5 Evaluation Mechanism of Emerging Technology Adoption Readiness Index

The Emerging Technologies Readiness Index goes through three main stages:

First Stage - Assessing the current situation:

This stage includes assessing the current situation at the level of participating entities, and determining their readiness to adopt emerging technologies. This assessment is based on the data and answers provided by participating entities through a digital questionnaire, where the focus is on the four main capabilities; which allows information to be collected more efficiently and quickly compared to traditional methods

Second Stage - Readiness Level Determination:

Evaluating the participating entity's current state during the questionnaire, the readiness percentage of the entity will be determined based on a calculated score under each of the four capabilities using the following formula:

$$\text{Readiness Level Determination} = \frac{\text{Sum of Scores in four capabilities}}{\text{Count of Dimensions}} \times 100$$

Accordingly, the readiness level of government entities is determined based on the achieved result within one of the five predefined readiness levels.

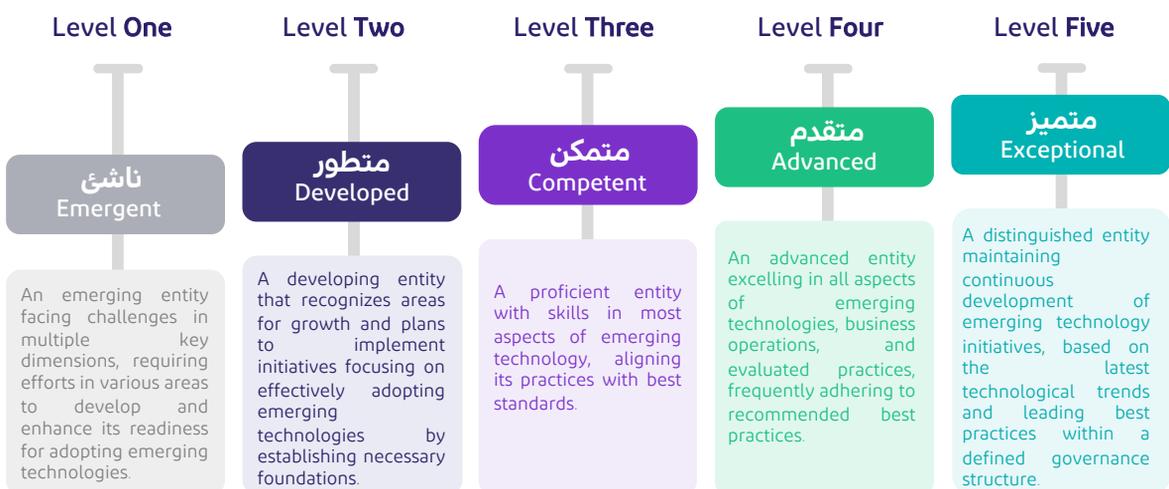


Figure (6): Index Maturity levels

Third Stage - Providing Recommendations and Action Plans for Improvement

In this stage, clear recommendations are presented, along with specific actions related to the various dimensions of the analyzed capabilities. By following this approach, the entity can utilize the results as a roadmap to transition from its current state to the next maturity level. Based on these key elements that were assessed, we can offer meaningful, tailored support to meet the entity's needs and objectives.

5.5.6 Main Phases to operate the Index Cycle

The Emerging Technology Adoption Readiness Index for the (2026) cycle operates through (5) main phases, as illustrated below:



Figure (7): Phases of the Index

6. Table of Definitions

The following terms and expressions - wherever they appear in this document - shall have the meanings indicated on the opposite side of each of them, unless the context requires otherwise:

Term	Definition
Authority	Digital Government Authority.
Digital Government	Promotes administrative, organizational, and operational processes between the various government entities in their transition to a comprehensive digital transformation to allow easy and effective access to government digital information and services.
Government Entities	Ministries, authorities, public institutions, councils, national centers, including any additional form of a public entity.
Beneficiary	Citizens, residents, visitors, government entities, private sector, and non-for-profit sector, inside or outside the KSA are required to interact with a government entity to receive any of the services offered.
Digital Transformation	Digitally and strategically transforming and developing business standards and models that would rely on data, technologies, and ICT.
Emerging Technology	Modern technologies that support the implementation of digital government activities, which have applications still under development.
Artificial Intelligence	It is a branch of computer science concerned with building smart machines capable of understanding their environment and performing tasks that require a certain level of intelligence.
Internet of Things (IoT)	A network of electronic devices, software, and sensors that allow machines to interact with each other.
Innovation	Activate the use of unconventional methods and approaches to generate innovative and practical ideas and solutions to address challenges and meet needs. These solutions should be applicable and contribute to improving and developing mechanisms for delivering digital government services in new and innovative ways.
Generative AI	Generative Artificial Intelligence is a type of AI that uses machine learning techniques and deep neural networks to simulate the human ability to create new data or original and innovative content, such as texts, images, and videos. Generative AI models can produce outputs of the same type as the input, such as text-to-text, or of a different type, such as text-to-image or text-to-video.
Proof of Concept (PoC)	The process of testing an idea under development on a small scale to demonstrate its feasibility, impact, and the transition to the initial product stage.
Blockchain	Blockchain is a shared, immutable ledger that facilitates the process of recording transactions and tracking assets in a business network.
Infrastructure	A physical system used to provide services related to the telecommunications and information technology sector, including facilities, networks and devices.
Trending Technologies	Refers to emerging technologies that have reached an advanced stage of maturity and widespread adoption across various sectors, due to their significant added value and tangible impact in enhancing service development and operational efficiency.

Table (5): Definitions

7. Table of Abbreviations

Abbreviation	Meaning
PoC	Proof of Concept.
AI TRISM	Trust, Risk, and Security Management for AI.
CTEM	Continuous Threat Exposure Management.
ESG	Environmental, Social and Governance.



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