

# TARGET STATE ANALYSIS REPORT

## KUWAIT DATA MAP

NOVEMBER 2020

# Contents

01

Executive Summary

02

Introduction

03

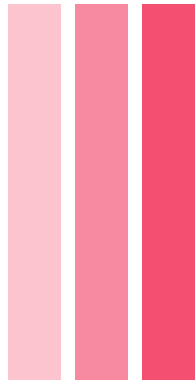
Data Ecosystem Gaps &  
Analysis

04

Setting the Desired State (Change  
Agenda)

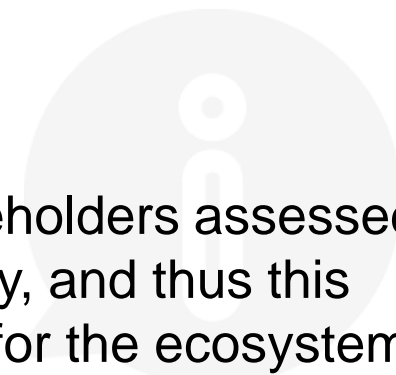
05

Recommendations



## **DISCLAIMER**

The level of performance of the stakeholders assessed in this engagement varies significantly, and thus this report lists the gaps and target state for the ecosystem and is no way a reflection of individual organizations.





# Executive Summary

# 01

The main objectives of the project are to understand and map the current state of data in Kuwait and to develop an implementation roadmap in line with KFAS's strategy cycles, which requires the completion of three key stages. Currently we are at the second stage

## Kuwait Data Map Project

### 0. Develop the Project Charter

- Finetune and revise project objectives and scope to ensure the delivery of maximum value
- Detail the workplan with clear activities and milestones
- Mobilize the team and resources

### 1. Assess the Current State: Where are we now?

- Identify best-practice countries and learn from their success stories in managing and regulating data
- Understand the data ecosystem in Kuwait by identifying data custodians, beneficiaries, and the interactions between them
- Identify current initiatives tackling data and clarify their status

### 2. Identify Existing Gaps: Where do we want to be?

- **Detail and analyze the gaps in the data ecosystem**
- **Develop a detailed change agenda that will take Kuwait from current to desired state**
- **Develop localized recommendations to bridge the gaps based on international best practices**

*Current Stage*

### 3. Recommend Next Steps: How do we get there?

- Clarify the roles and responsibilities of relevant stakeholders
- Identify initiatives to be taken to improve the data ecosystem (i.e. collection, consolidation, analytics, etc.)
- Launch the engagement and communication plan

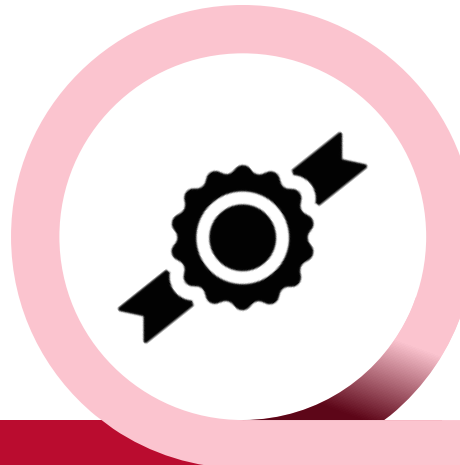
The purpose of the Target State Analysis Report is to assess the gaps in the current data ecosystem in Kuwait and define the desired state...

## Objectives of the Target State Analysis Report



**01**

Pinpoint Kuwait's data ecosystem gaps based on the Current State Assessment outputs



**02**

Extract global and regional best practices from the Benchmark Report to base the assessment of identified gaps against

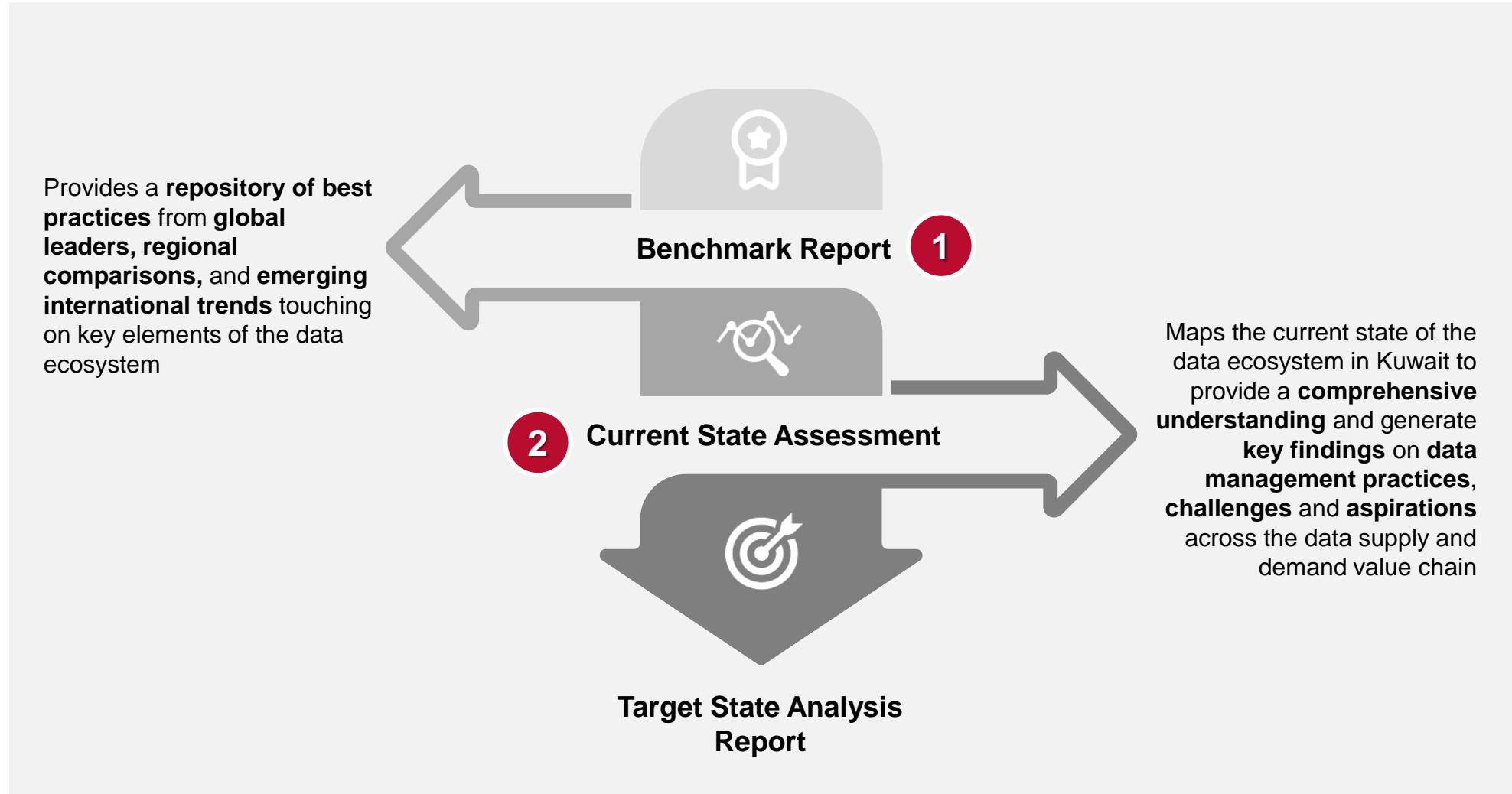


**03**

Bridge the gaps via adapting best practices to Kuwait's data ecosystem and develop recommendations for the 'to be' state

... By utilizing the best practice outputs and key findings of the Benchmark Report and Current State Assessment respectively to provide the inputs

### Inputs to the Target State Analysis Report



... Then analyzing these inputs and consolidating all the identified outputs across three sections in order to bridge highlighted gaps and outline Kuwait's data development journey

## Target State Components

### DATA ECOSYSTEM GAPS



01

Presenting the identified data ecosystem gaps according to the data value chain and their analysis against best practices.

### TARGET STATE



02

Drawing a data ecosystem maturity model for Kuwait and defining a change agenda to reach the desired target state. This section also includes the development of a proposed governance model for national data management.

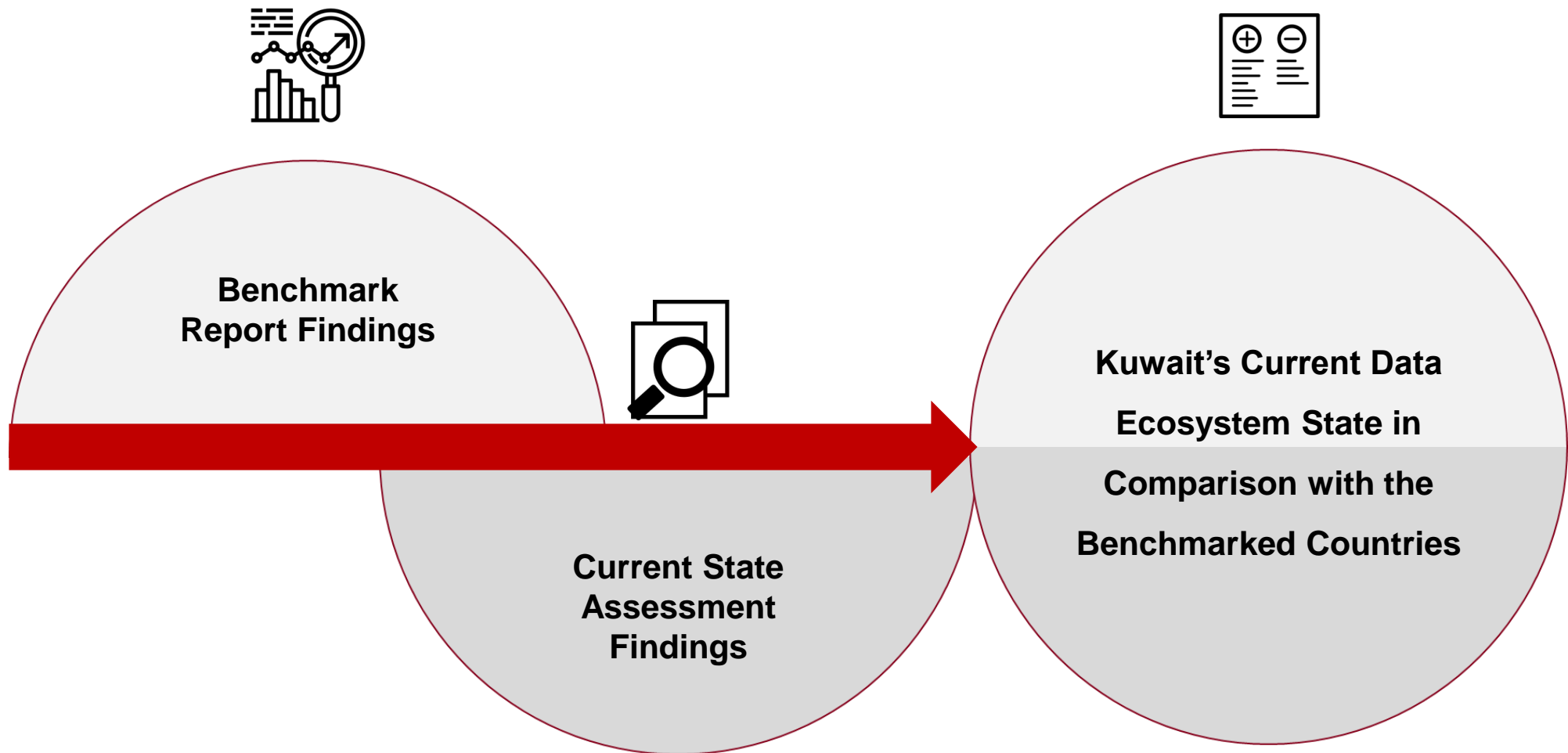
### RECOMMENDATIONS



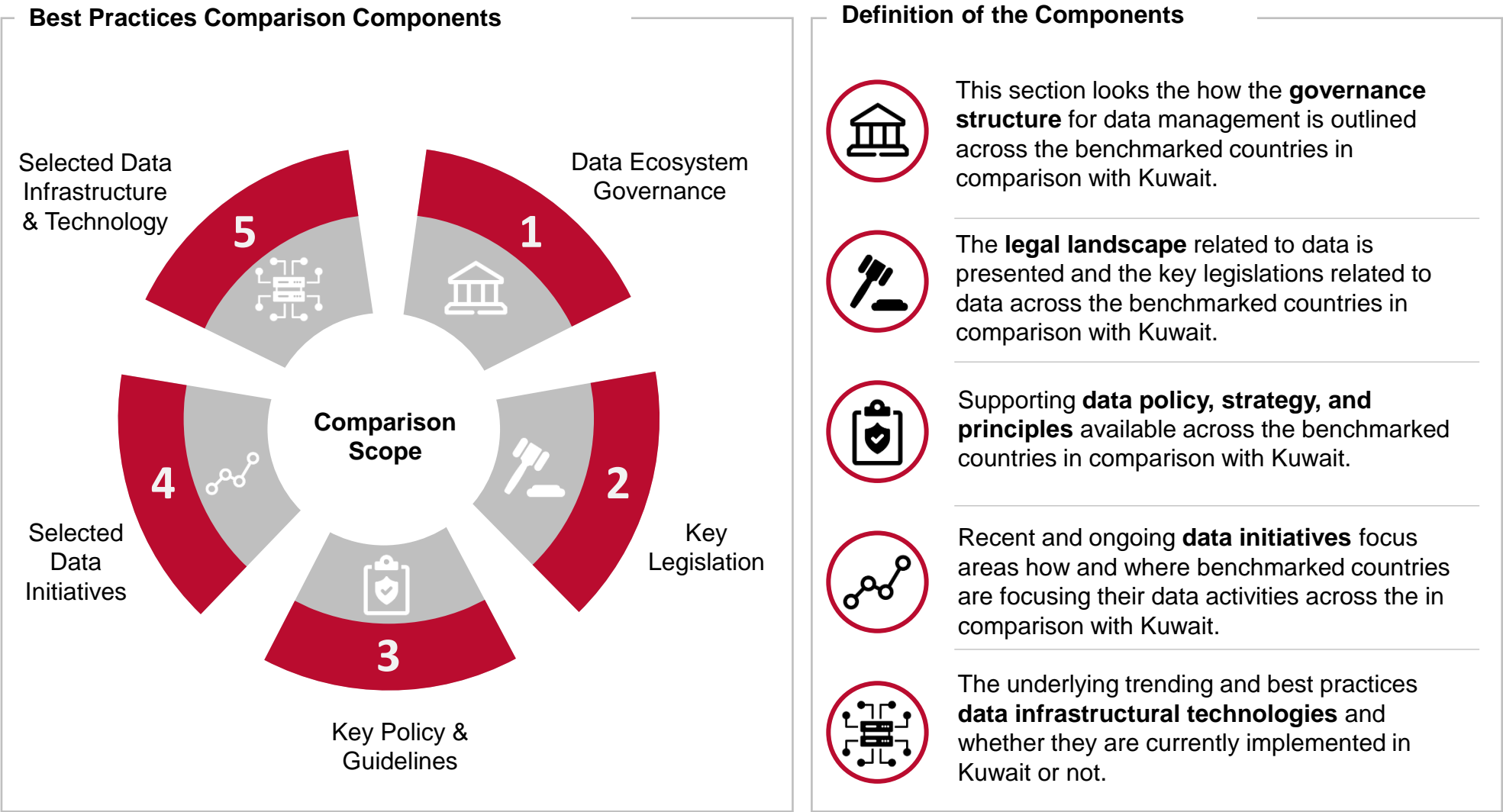
03

Consolidating recommendations across the different dimensions of the data ecosystem to be translated into concrete initiatives in the implementation roadmap.

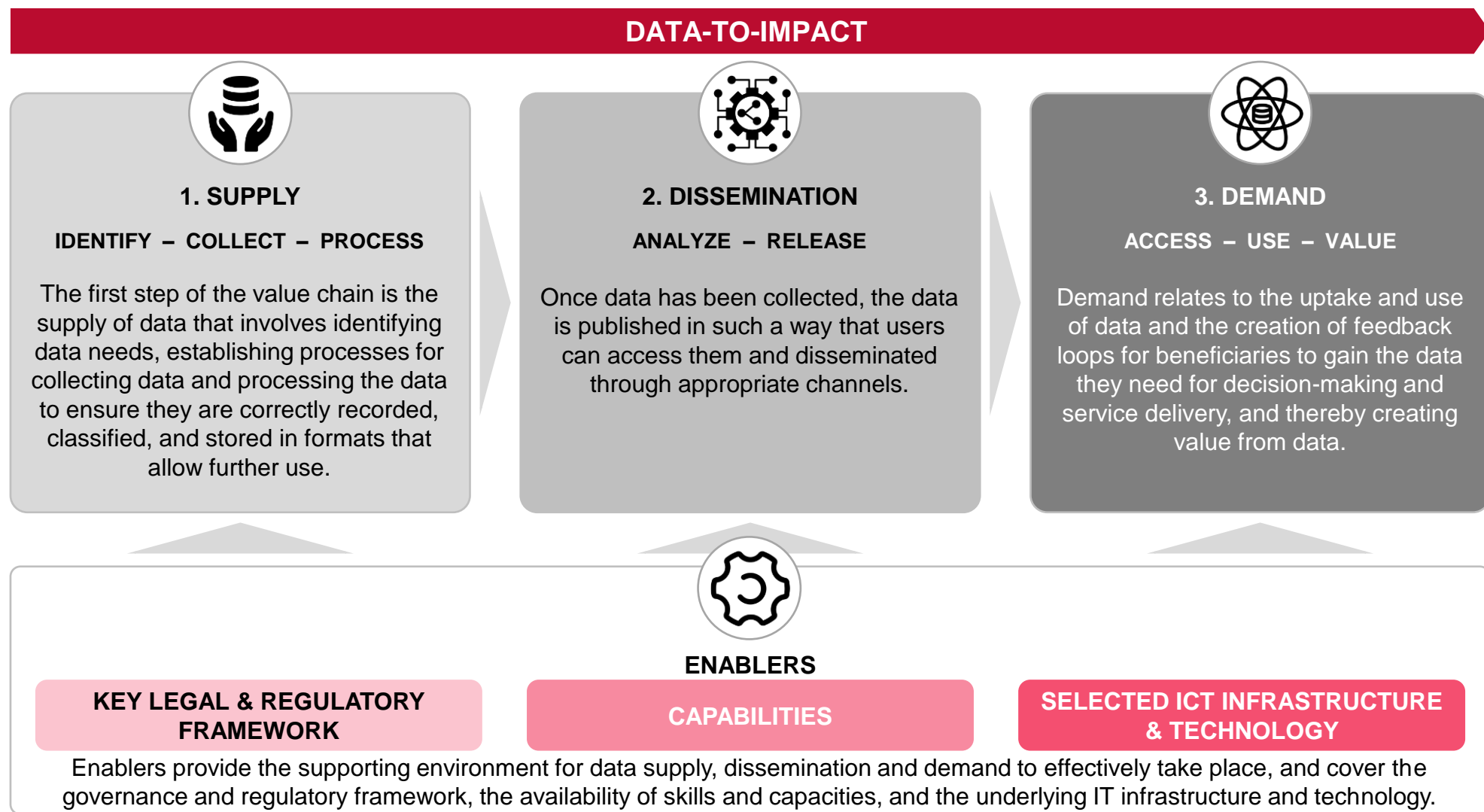
In order to utilize the findings of the benchmark report, and the current state assessment report, we conducted a comparison between the benchmarked countries' practices against Kuwait's...



...the comparison is based on the 5 components which were used in the benchmark and current state assessment reports...

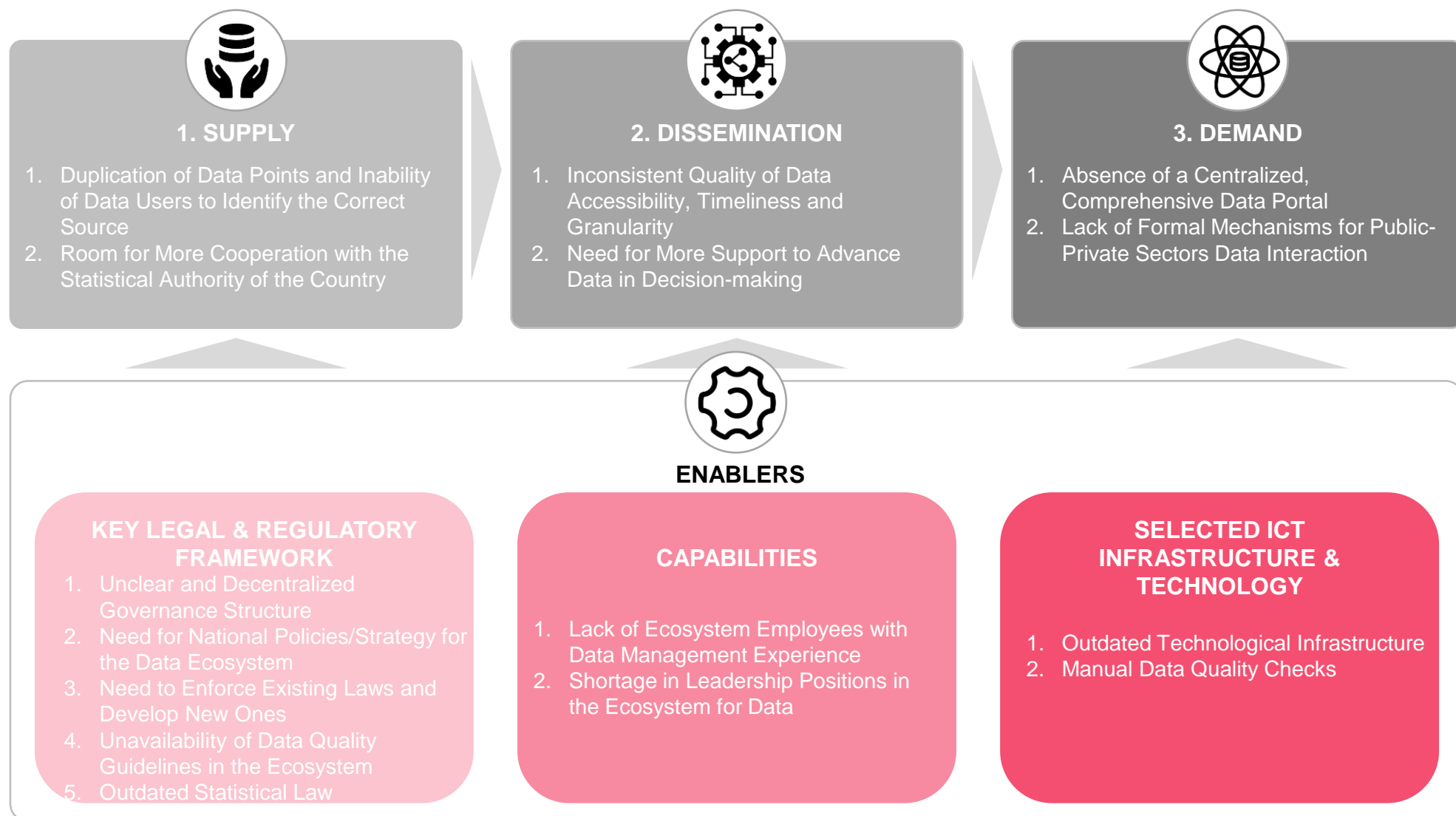


...then we defined the data ecosystem value chain components and its three key enablers which are legal and regulatory framework, capabilities and ICT infrastructure & technology...

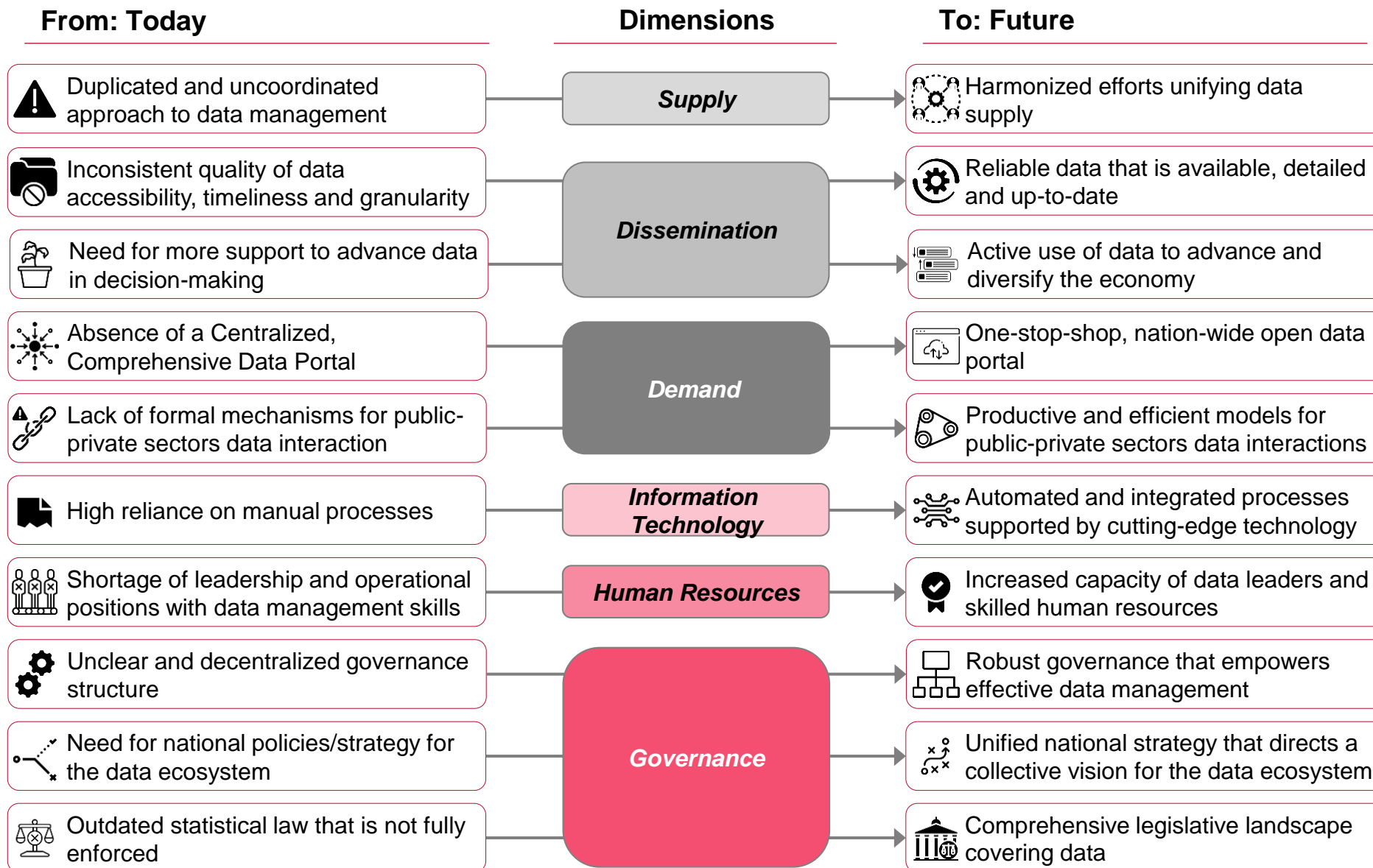


...and mapped the 15 key gaps which we have identified as outcomes of the Current State Assessment Report across the value chain...

## Gaps Found on the Data-to-Impact Value Chain

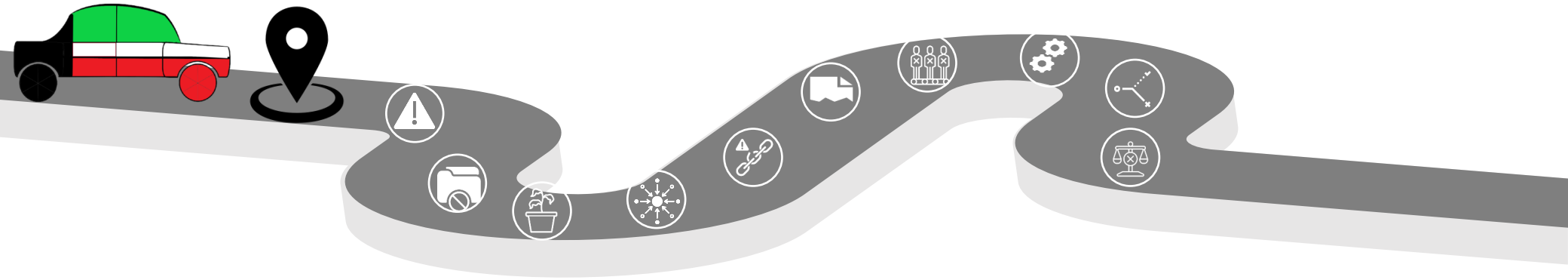


... then we developed the change agenda which reflects changes along the value chain components and assesses actual versus desired performance for Kuwait's data ecosystem...

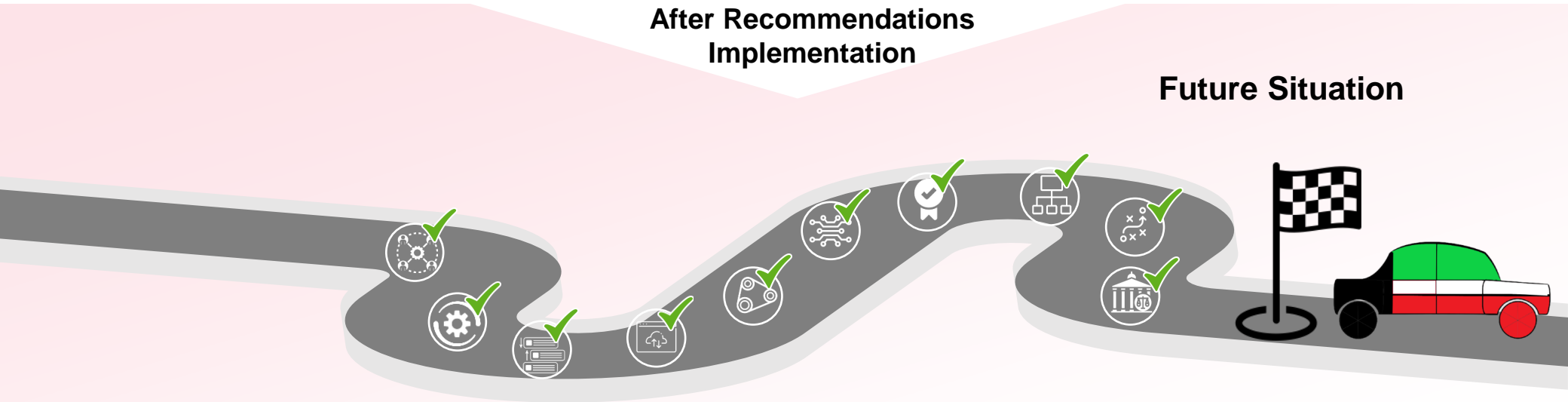


... and based on that we have developed a set of recommendations to overcome each of the current challenges to support Kuwait in achieving its desired future state

## Current Situation



## After Recommendations Implementation



## Future Situation



Introduction

02

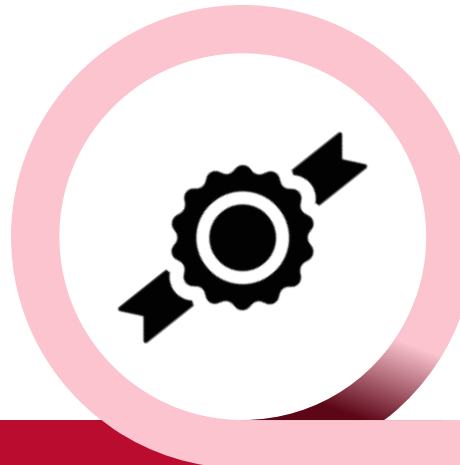
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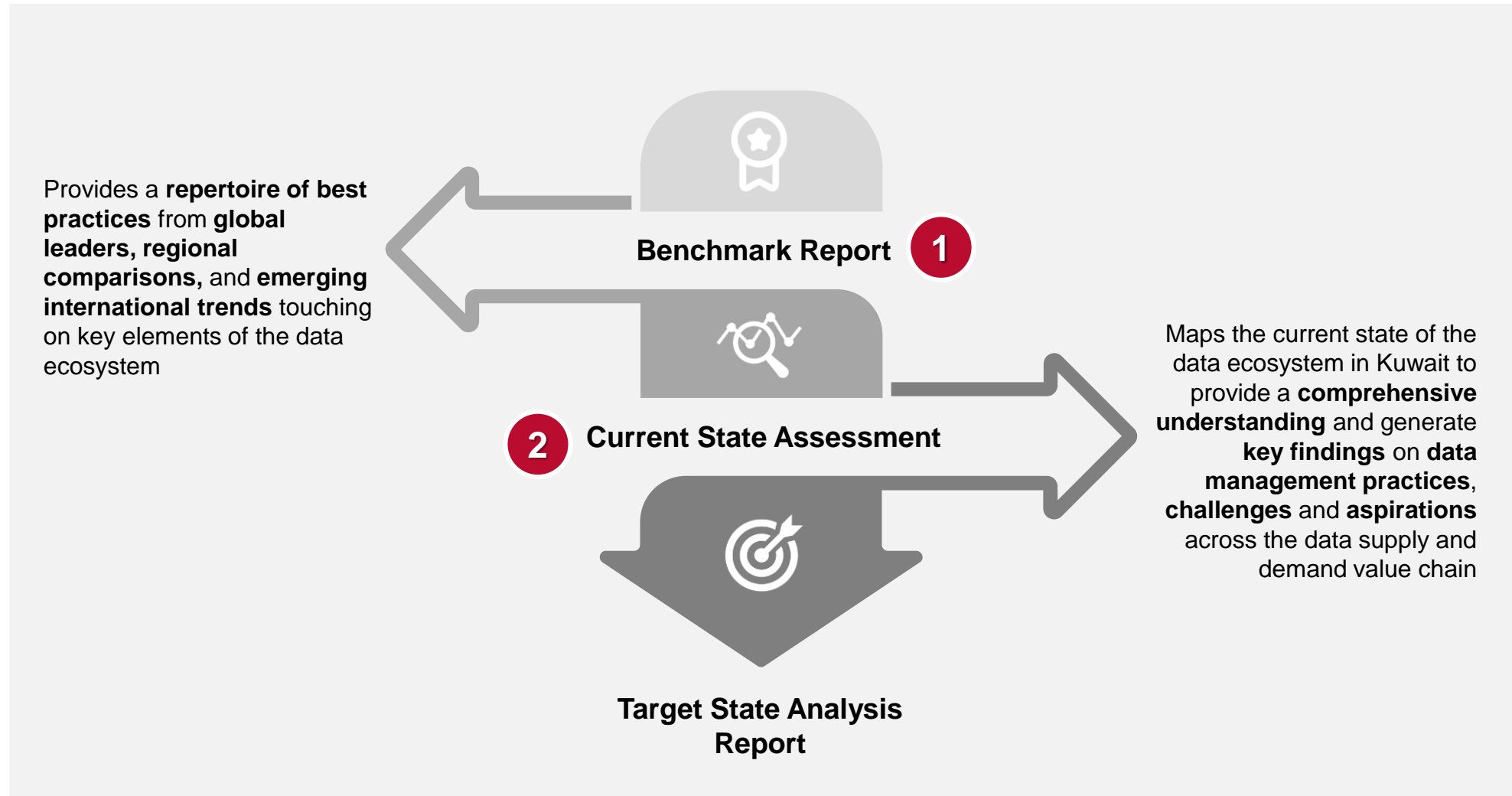


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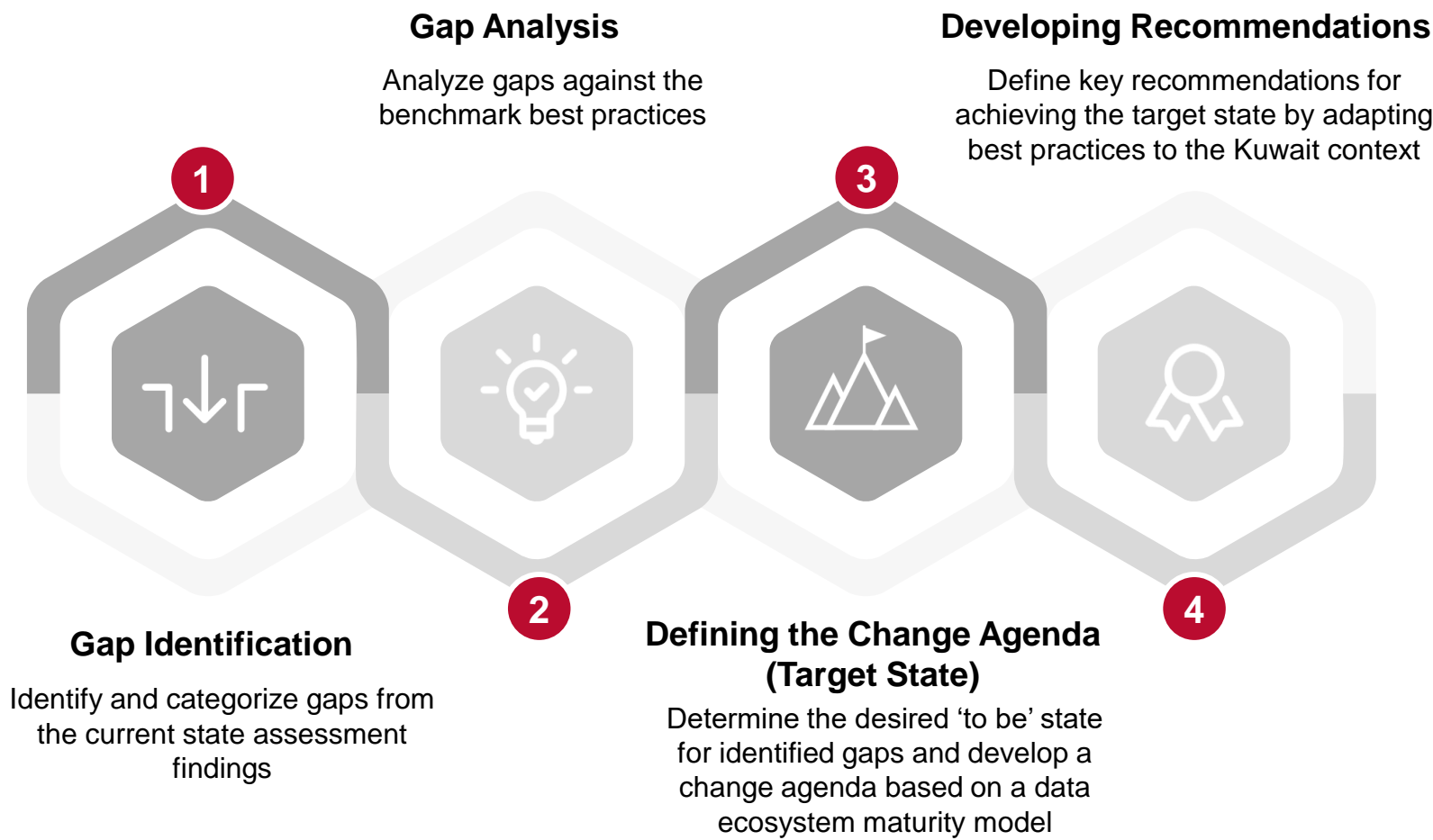
... utilizing the best practice outputs and key findings of the Benchmark Report and Current State Assessment respectively to provide the inputs

## Inputs to the Target State Analysis Report



The development of the report follows a four-step approach to identify and analyze gaps, define the desired state, and customize recommendations for Kuwait’s data ecosystem context...

### Target State Approach



... consolidating the outputs across three main sections in order to bridge highlighted gaps and outline Kuwait's data development journey

## Target State Components

### DATA ECOSYSTEM GAPS



01

Presenting the identified data ecosystem gaps according to the data value chain and their analysis against best practices.

### TARGET STATE



02

Drawing a data ecosystem maturity model for Kuwait and defining a change agenda to reach the desired target state. This section also includes the development of a proposed governance model for national data management.

### RECOMMENDATIONS



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Consolidating recommendations across the different dimensions of the data ecosystem to be translated into concrete initiatives in the implementation roadmap.

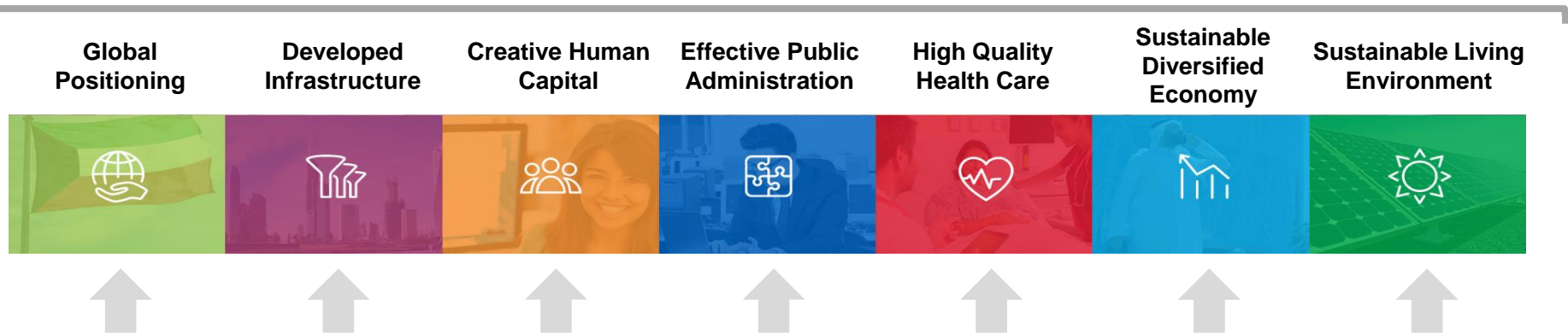


# Setting the Scene

Kuwait Vision 2035 is Kuwait's ambitious development plan that aims to transform the state into a knowledge-based economy, with innovation and data capital as core activators of the seven pillars of the plan...



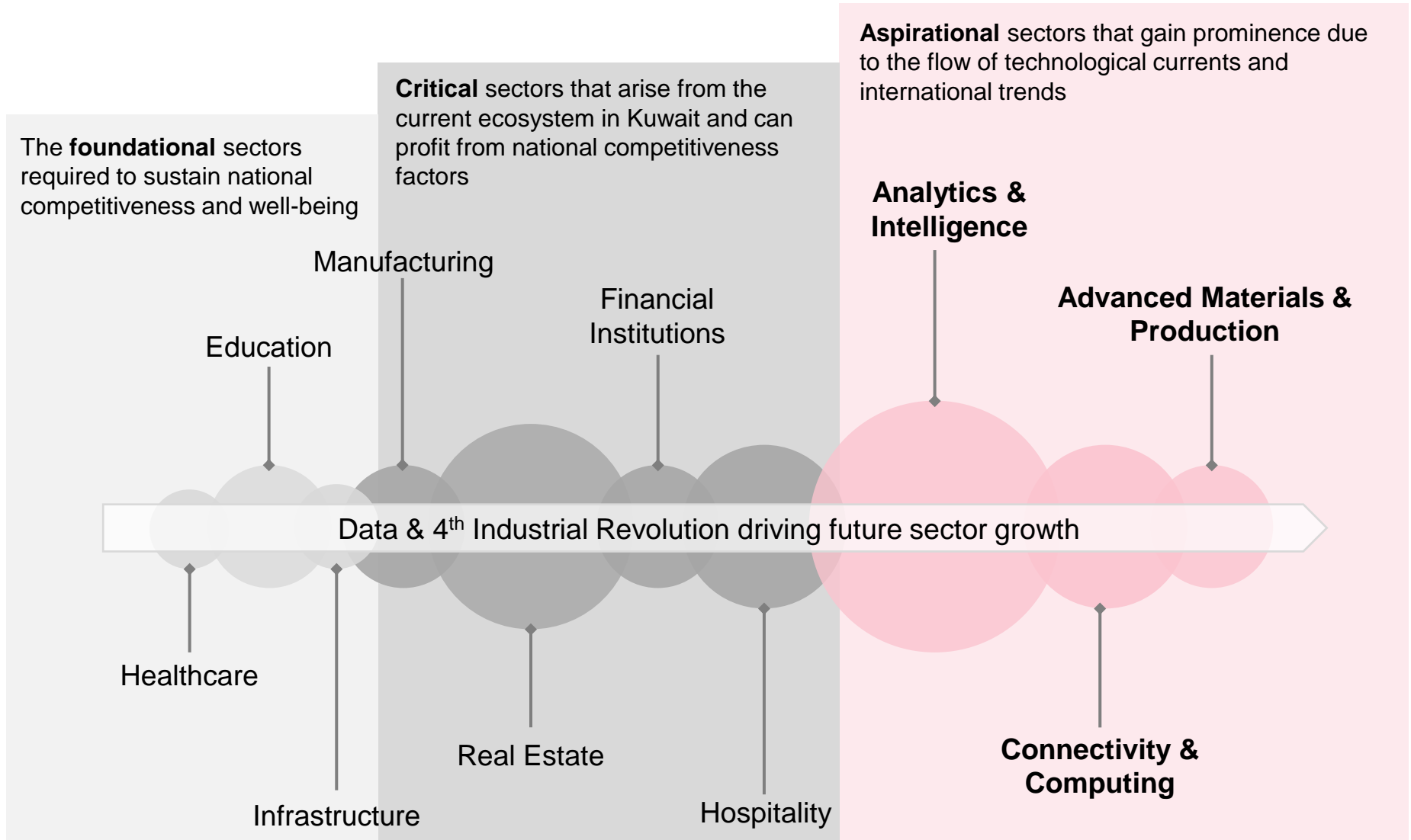
Pillars of the New Kuwait Vision 2035



Data that effectively contributes to understanding the current situation and informing decision-making to implement and achieve objectives of the development plan

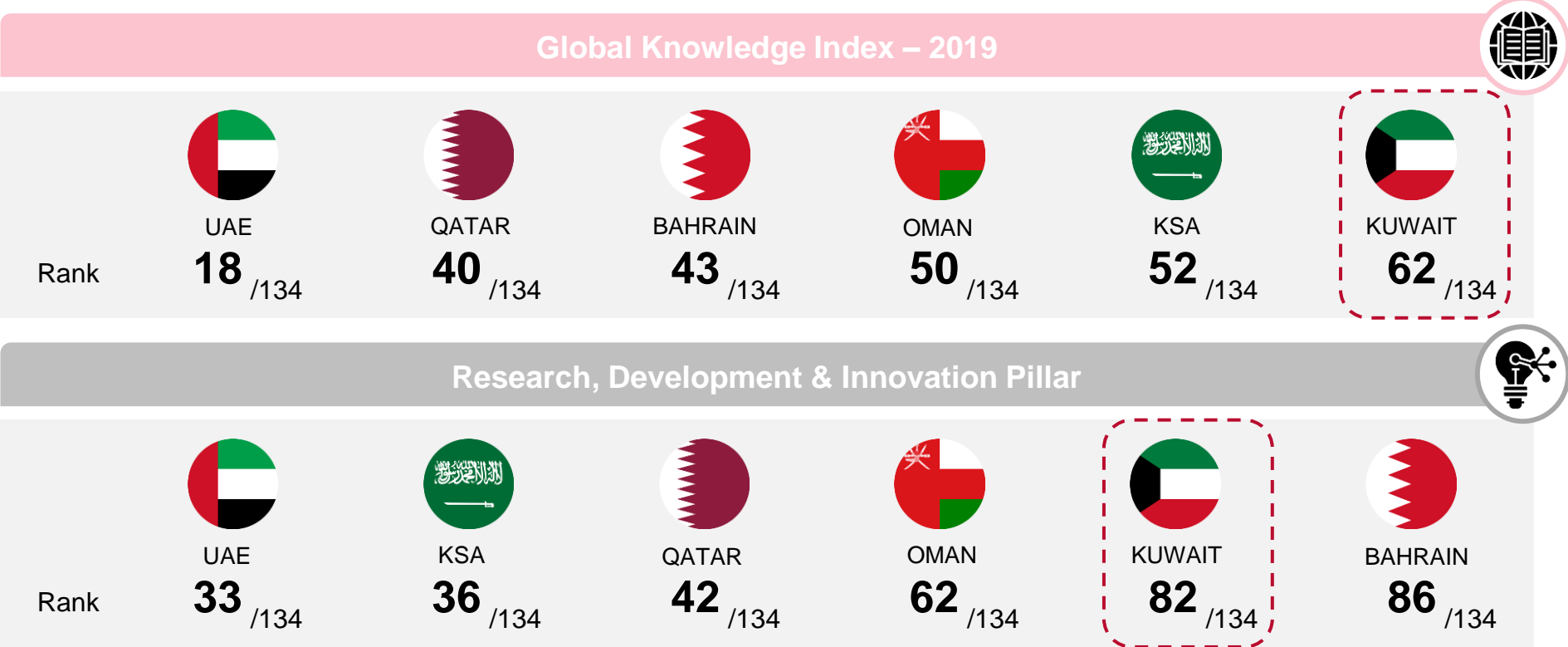
... which are also drivers of future growth sectors that build on the global currents of digitization and technology, upon which economic diversification depends

### Strategic Sector Development for Kuwait



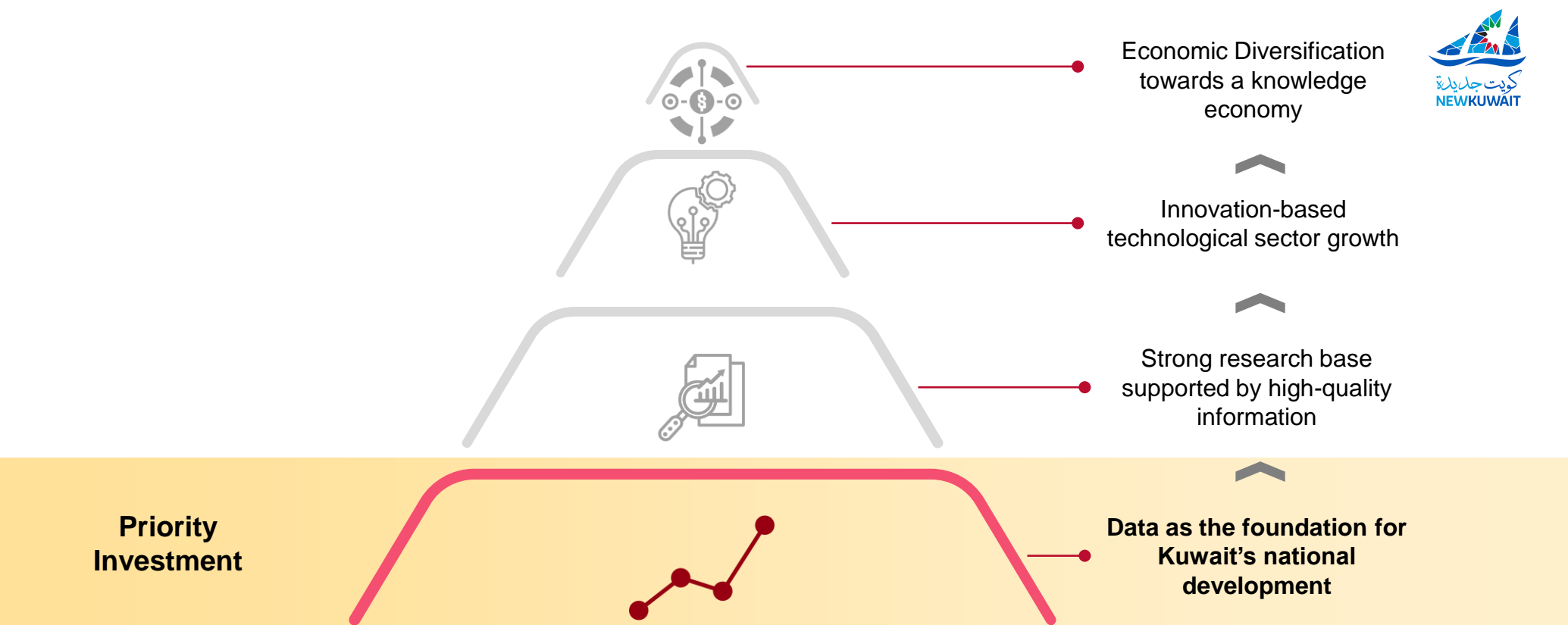
\*Size of the bubbles is not equivalent to the prominence of the sector for Kuwait and is illustrative only.

Moreover, to fuel Kuwait's transformation towards the knowledge economy and future sector growth, the role of research is pivotal to generating knowledge creation through innovation and technology development, and providing a base for evidence-based policy making



First launched in 2015 at the level of the Arab region, the **Global Knowledge Index** is a partnership between UNDP and the Mohammed Bin Rashid Al Maktoum Knowledge Foundation that now ranks 134 countries around the globe on knowledge and development, taking into consideration sectors such as vocational education, and the relation between research and innovation. **Amongst the GCC, Kuwait ranks the lowest**, particularly in the sector of research, development and innovation, marked by low public expenditure on scientific research and lack of a supportive institutional and regulatory environment. This has **significant impact on Kuwait's ability to stem quality R&D outputs**, both from a commercial and policy perspective.

Thus underpinning the knowledge economy, future sector growth, and empowering a research culture towards these ends, is the need for a strong and reliable data ecosystem that positions data as a national asset



Data is the key ingredient to producing knowledge and turning it into value, which is central to promoting Kuwait's economic diversification plans, accelerating the growth of technology sectors through research and innovation, and enhancing the use of information for decision-making at the national level.



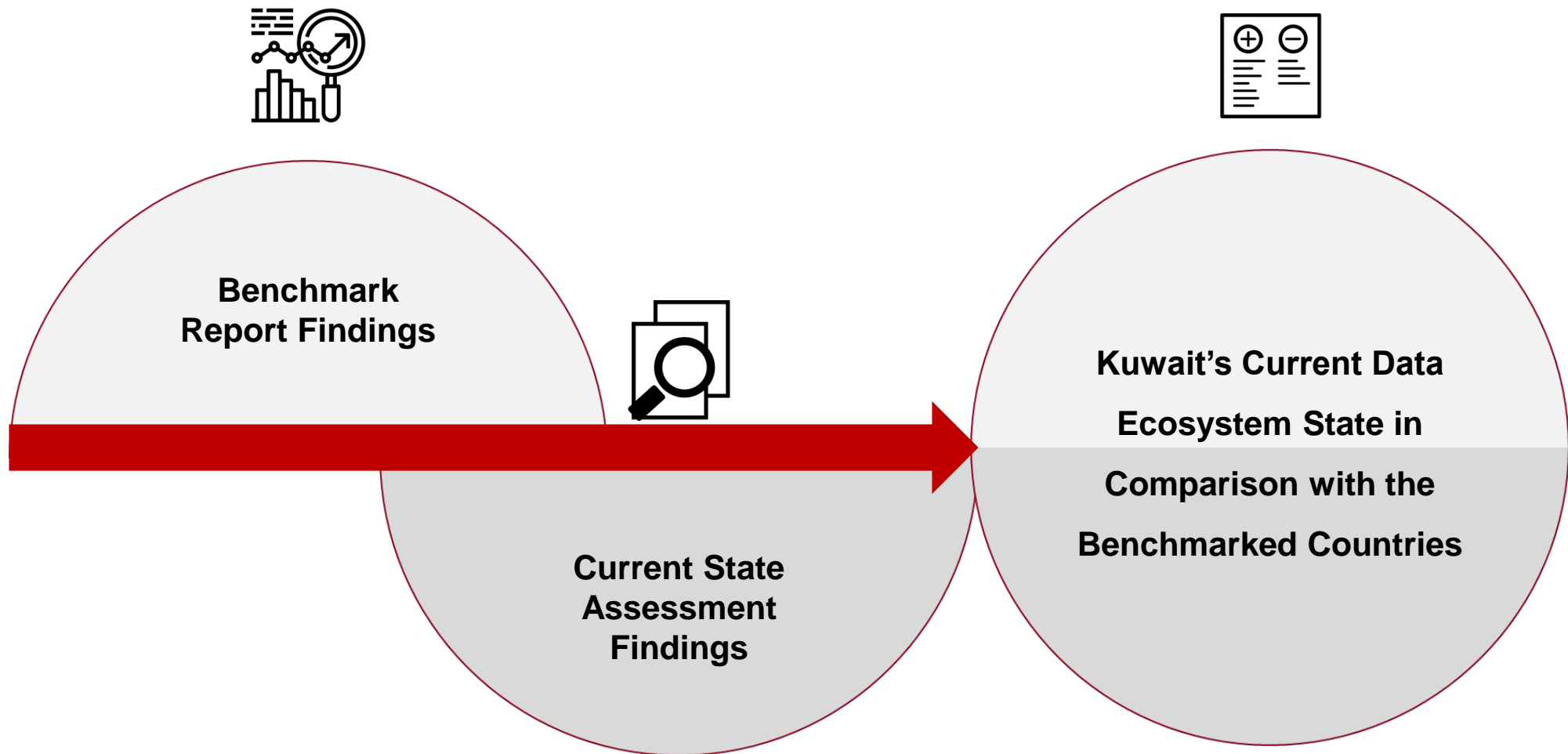
# Data Ecosystem Gaps & Analysis

# 03



# Best Practices Comparison

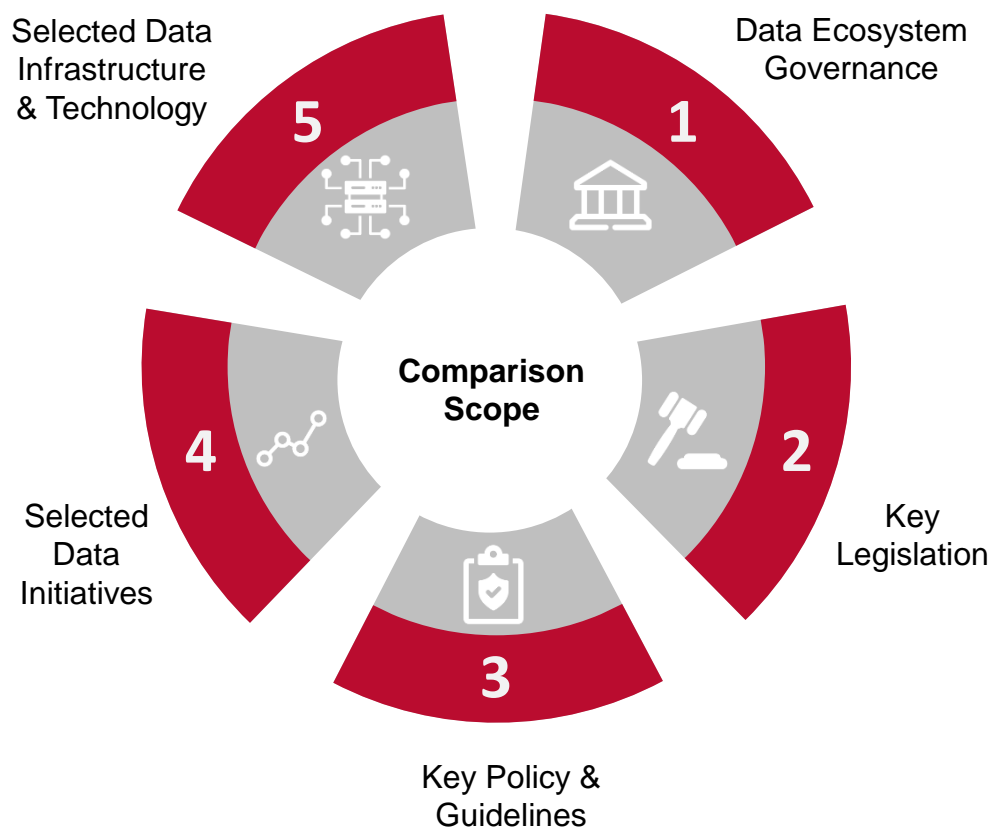
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... the comparison is based on the 5 components which were used in the benchmark and current state assessment reports...



## Best Practices Comparison Components



## Definition of the Components



This section looks at how the **governance structure** for data management is outlined across the benchmarked countries in comparison with Kuwait.



The **legal landscape** related to data is presented and the key legislations related to data across the benchmarked countries in comparison with Kuwait.



Supporting **data policy, strategy, and principles** available across the benchmarked countries in comparison with Kuwait.



Recent and ongoing **data initiatives** focus areas how and where benchmarked countries are focusing their data activities across the in comparison with Kuwait.



The underlying trending and best practices **data infrastructural technologies** and whether they are currently implemented in Kuwait or not.

... which helped us in identifying that Kuwait has an extremely weak governance in comparison with the best practices and what other countries are adopting...



	Practice	Description	Adopting Countries	Availability in Kuwait
	Centralized data governance under the Prime Minister's Office	Situating governance of the data ecosystem under the Prime Minister's office is important to centralize national data policy and management and signal the importance of data as a national priority		✗
	Central Data Leader role	A central data leader role such as a Chief Data Officer assures responsibility for data coordination to a single authority		✗
	Independence of data regulatory bodies	The independence of data regulatory bodies (such as France's Data Protection Authority, or the UK Statistics Regularity Authority and Center for Data Ethics and Innovation) is key to lending trustworthiness and accountability to the data system		✗
	Data champions helping in nurture an organizational culture that values data	Data champions at the entity level help to nurture an organizational culture that values data and are instrumental to promoting data use, exchange and capabilities within their organization		✗

... as we noticed Kuwait has almost none of the best-practices we have identified in the best performing countries...















	Practice	Description	Adopting Countries	Availability in Kuwait
	Cross-government data services	Cross-government services are key to providing consistent, professional standards for data functions such as analysis, statistics, digital services or the data profession		✗
	Data Advisory Councils	Data Advisory Councils are important to provide strategic oversight, expertise and cross-government alignment on public data management		✗
	National Information Security Agency	A national information security agency is important to developing a secure and reliable data environment and instilling public trust in government systems and data protection		✓ <sup>1</sup>
	Formal channel for public-private data cooperation	A formal channel for public-private data cooperation can be established through an innovation or research center and is a key gateway to facilitating private sector access to public data		✗
	Results and Delivery Unit or Analysis Function	A Unit or Function is a unique department that supports government agencies to adopt data-driven approaches and make evidence-based decisions in service delivery and policy		✗

<sup>1</sup> Currently some of these functions are being managed by CITRA

... in addition to that, Kuwait's regulatory data ecosystem needs further improvement, as it only has 1 of the 6 key best practices legislations...



	Law	Description	Adopting Countries	Availability in Kuwait
	Data Access & Use	Classifying data into different tiers, and specifying users who can access each tier		✗
	Digital Act	Facilitate the efficient realization of digital government, enhance productivity, transparency and democracy in the public administration		✗
	Privacy/Data Protection	Promote and protect the privacy of individuals and regulate how the government handle personal information		✗
	Network & System Security	facilitating utilization of information and communications networks, protecting personal information of people		✗
	Freedom of Information	Affords individuals a right to access and request information held by public authorities		✗
	Statistics	Specifies the duties and powers of the Statistician and authorizes them to collect, analyze and publish information related to the economy and society		✓









... and regarding policies, we have identified 8 key policies from the top performing countries, including strategies and guidelines related to data...



	Policy	Description	Adopting Countries	Availability in Kuwait
	National Data Strategy	A national data strategy is central to providing a coherent government-wide vision for strategic data use and management by the public sector and defining national priorities for data		✗
	Implementation Roadmap	To address data challenges and deliver on strategic objectives and policy priorities, a short- to medium-term roadmap can help to define the concrete steps to be taken		✗
	Guidelines	The production of guidelines provides support to government agencies to open, manage and use their data effectively and in accordance with professional standards		✗
	Data Policy Commitment	Stating commitments towards data in key policy papers is important to position data as a strategic national asset and hold government to account		✗

... none of which are available in Kuwait, demonstrating how Kuwait has no national strategy for the data ecosystem, nor there are guidelines for the ecosystem to follow...



Policy		Description	Adopting Countries	Availability in Kuwait
	Open Data by Default	Setting minimum provisions for 'open data by default' mandates the publication and accessibility of public data and information across government		✗
	Digital Security Strategy	A National Digital Security Strategy is useful for assessing the risks of digital transition and provides a response to building a safe and reliable technical data environment		✗
	Departmental Data Strategy	Departmental data strategies champion data management efforts at the individual entity-level and guide and direct data practices		✗
	Strategy Refresh	Periodic refresh of the country's strategic objectives and policy for data is critical to align to and incorporate new data trends		✗

... the challenges in governance, legislations and policies can explain the lack of emphasis on data initiatives in Kuwait ...















	Initiative Focus Area	Description	Adopting Countries	Availability in Kuwait
	Private Sector Data Use	Improving the open data ecosystem for government and private sector collaboration and demonstrating the value of public data		✗
	Data Analysis	Providing a platform to deliver data analysis for projects to support policy, and/or recommendations, with focusing on topics of national priority		✗
	Innovation	Supporting data for innovation, and providing funding for data-driven start-ups		✗
	Data Access & Sharing	To support the realization of data as a national asset by allowing data access, sharing and use by government, researchers and the private sector		✗
	Interactive Data Visualization Tools	Enabling users to acquire open data through Interactive tools		✓

Disclaimer: the initiatives availability in Kuwait is based on the identified initiatives from the stakeholder's engagement and the desktop research conducted

... signaling many opportunities and quick-wins for improving the ecosystem ...






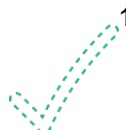

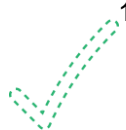

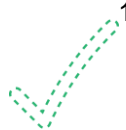

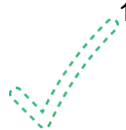
Initiative Focus Area		Description	Adopting Countries	Availability in Kuwait
	Citizen Engagement	Engaging citizens by allowing them to participate and contribute to the data ecosystem through the open data portals		
	High-Value Data Release	Support the release of high-value datasets by creating a framework to identify the characteristics of these datasets and explore citizen demand for it		
	Information Security	To build a safe and reliable data environment there is a focus on information security initiatives and developing national cyber-security strategies		
	Capabilities	Developing and fostering data capabilities and mindsets in the public sector		
	Uniformed and Centralized Data Infrastructure	Establishing a uniformed infrastructure, databases, policies and standards across all Ministries and government agencies		

Disclaimer: the initiatives availability in Kuwait is based on the identified initiatives from the stakeholder's engagement and the desktop research conducted

<sup>1</sup> Some organizations engage the citizens in their data management operations

... and improving the technological infrastructure for the whole ecosystem as well



Best Practices IT Features & Systems	Description	Implemented in Kuwait's Government
 Visualization Tools	Showcasing data using various visualization tools and options to ensure the platform is user-friendly	
 Data Analytics	Conducting automated data analytics to increase efficiency and support the decision-making process	
 Data Quality	Automated data checking and quality assurance for the collected data from the different data collection points	
 Data Storage	Storing all government data electronically depending on the data classification/ sensitivity using cloud or on premises servers	
 Data Exchange	Exchanging data easily and electronically between different government entities according to the specified authorizations	

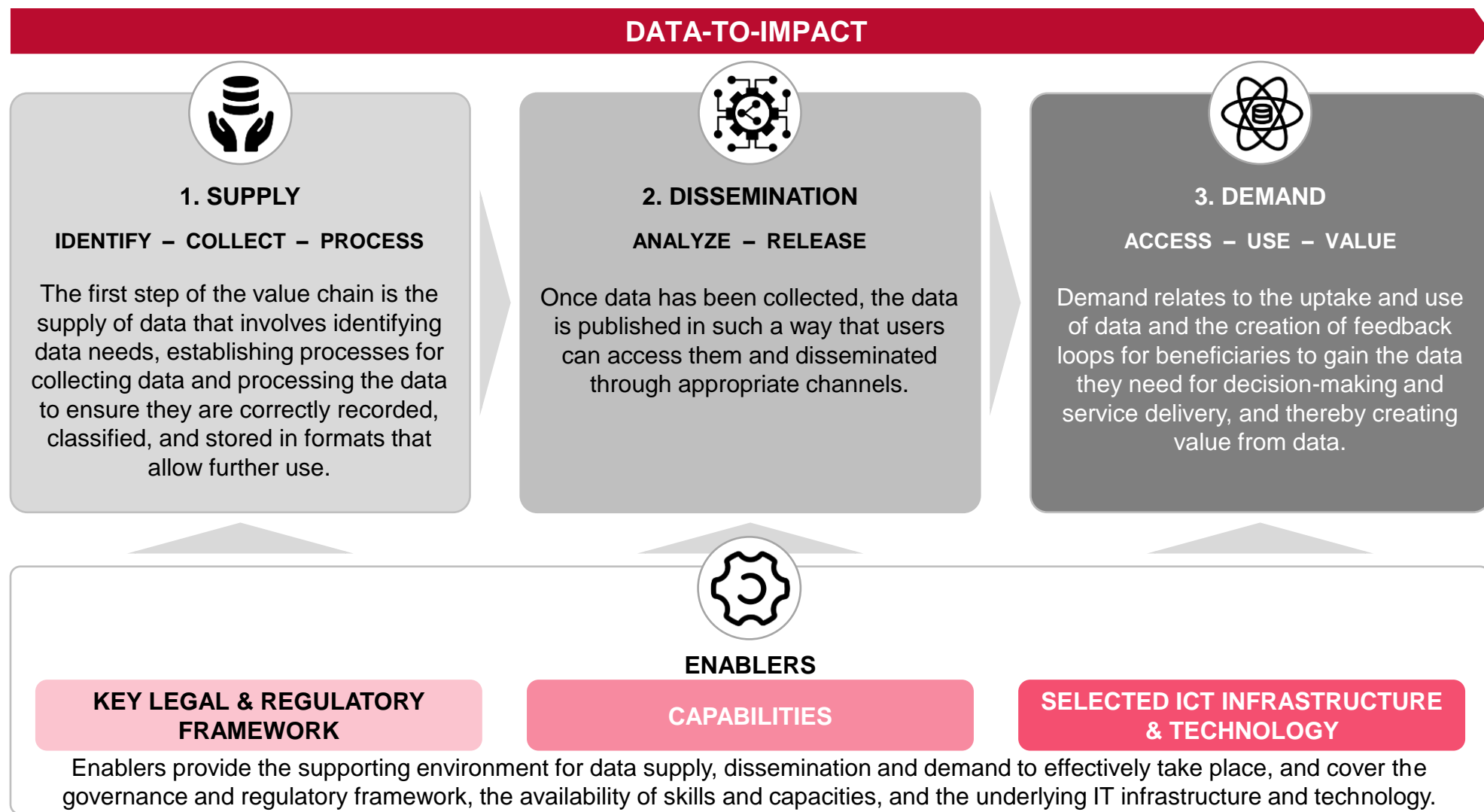
Disclaimer: The IT features implementation in Kuwait is based on stakeholder's engagements outputs and the desktop research conducted

<sup>1</sup> Some organizations utilize these best practices

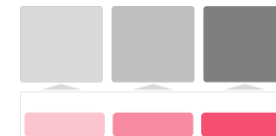


# Value Chain Gaps

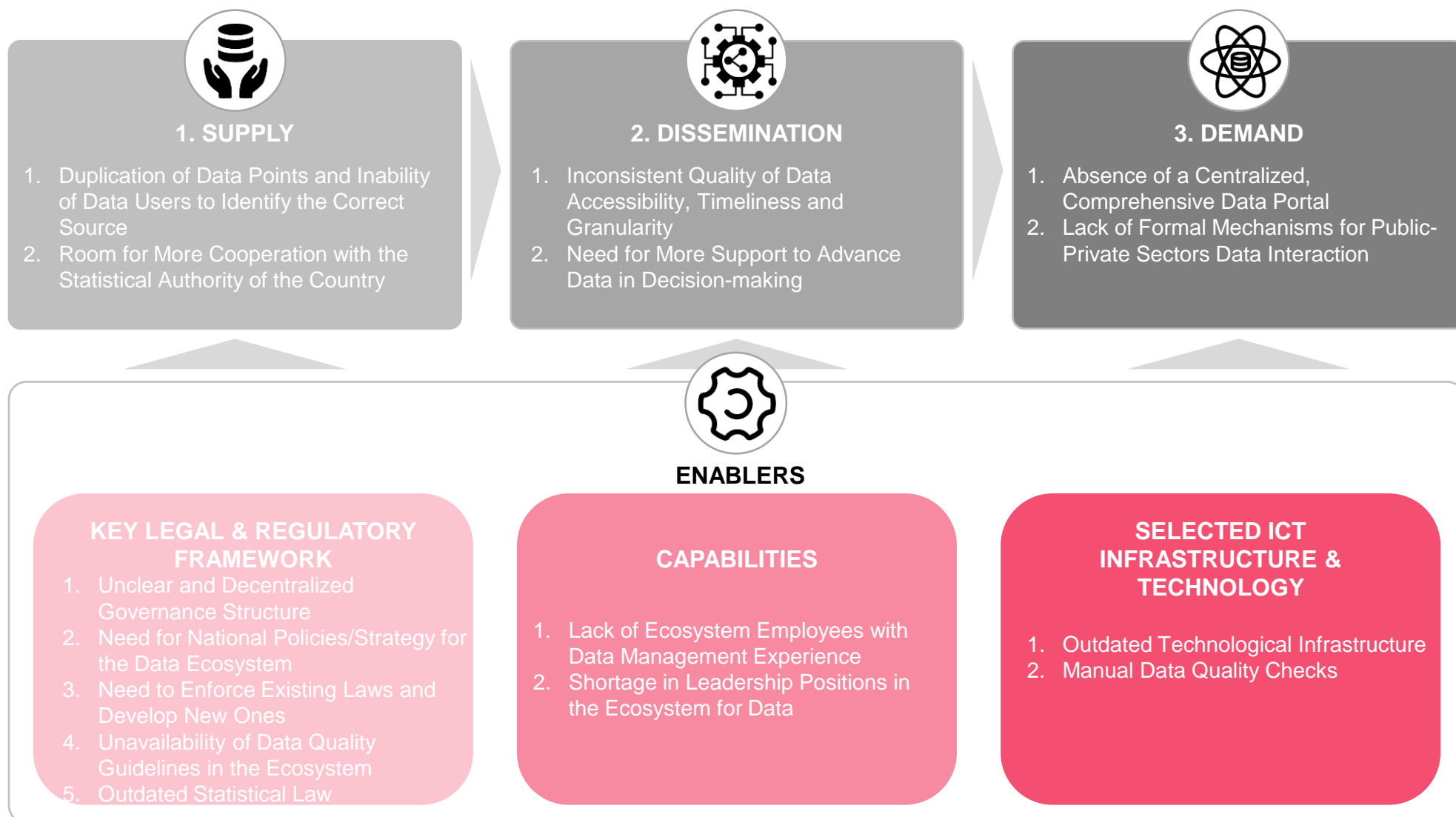
First, we defined the data ecosystem value chain components and its three key enablers which are legal and regulatory framework, capabilities and ICT infrastructure & technology...



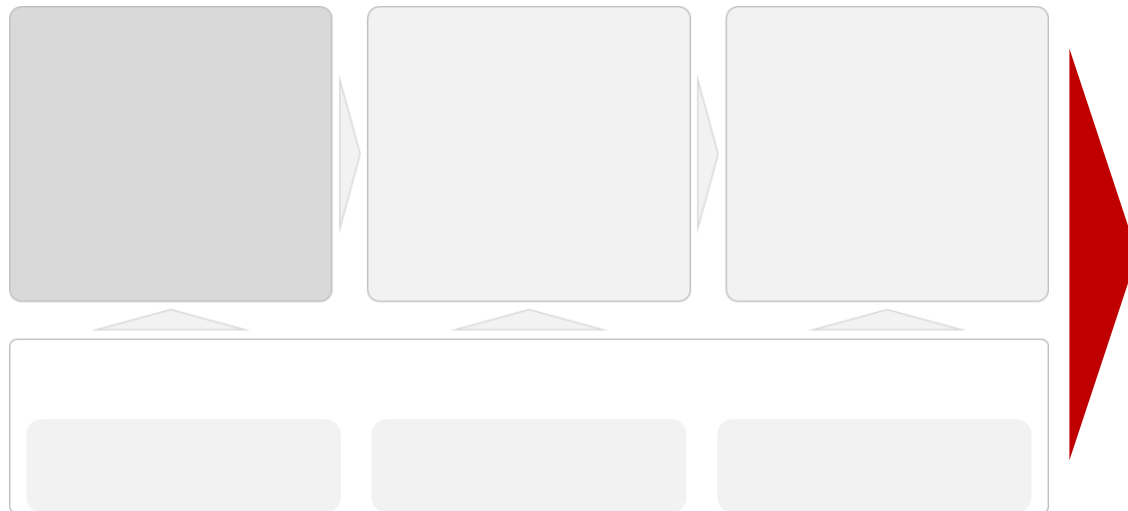
...and mapped the 15 key gaps which we have identified as outcomes of the Current State Assessment Report across the value chain



## Gaps Found on the Data-to-Impact Value Chain



# Supply Stage



## Gaps:

1. Duplication of Data Points and Inability of Data Users to Identify the Correct Source
2. Room for More Cooperation with the Statistical Authority of the Country



Incoordination between data custodians is causing data points duplication leading to several negative impacts resulting from this gap

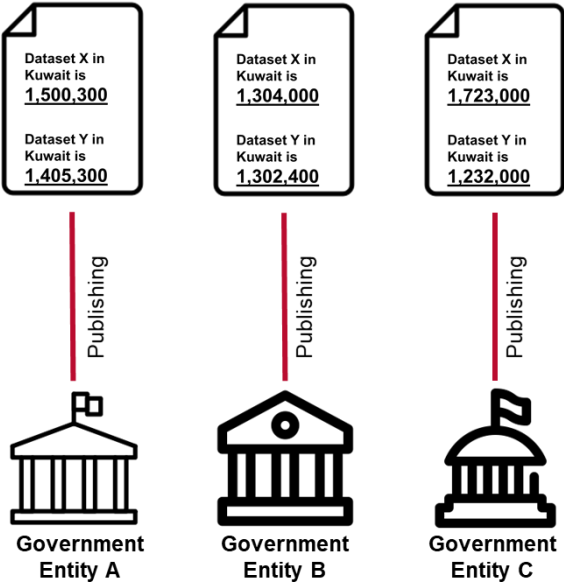


1	<b>Gap:</b>	<b>Duplication of Data Points and Inability of Data Users to Identify the Correct Source</b>	
	<b>Description:</b>	It was noticed that <b>different government entities</b> with separate mandates, are <b>collecting, analyzing and reporting on the same data points</b> across different sectors indicating for incoordination between data custodians	

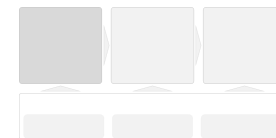
*If not tackled, gap could possibly impact:*



- 1. Data management efforts (as all these entities are reporting on the same data points)
- 2. Agreement on the source of choice for data points
- 3. Clarity of outcomes of the data points



In addition, increased cooperation with the statistical authority will have a big impact on the supply of data



2

**Gap:**

**Room for More Cooperation with the Statistical Authority of the Country**



**Description:**

Some entities are **uncooperative** with the statistical authority of the country (Central Statistical Bureau) as they don't send data on time or don't send them at all mostly because there is **no implementation for the non-cooperation penalties**



***If not tackled, gap could possibly impact:***

1. Availability of some data points for data users
2. Ability to publish a comprehensive statistical information across the different sectors
3. Ability to maintain publishing different data series of the data points
4. Ability to publish data on a frequent basis



Requesting  
Data

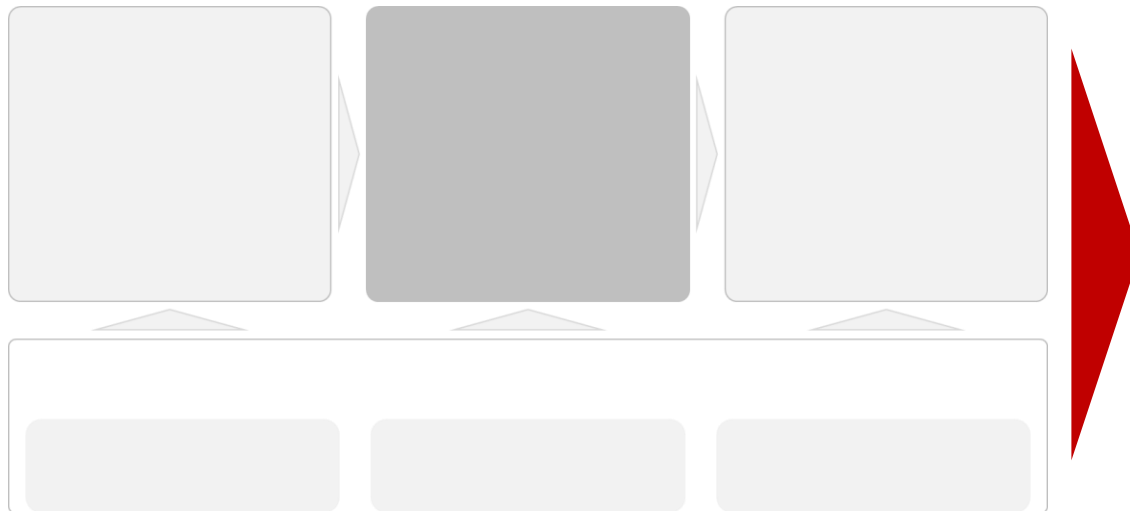


Providing  
Data



Government  
Entity

# Dissemination Stage

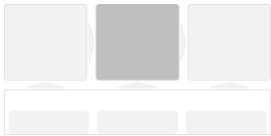


## Gap:

1. Inconsistent Quality of Data Accessibility, Timeliness and Granularity
2. Need for More Support to Advance Data in Decision-making



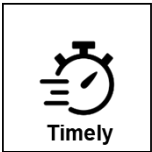
Accessibility, timeliness and granularity of published data are not consistent, causing a gap in the dissemination stage of the value chain



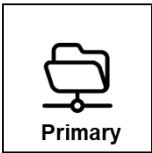
1	Gap:	Inconsistent Quality of Data Accessibility, Timeliness and Granularity	
	Description:	Three out of seven of the identified <b>data attributes</b> were classified as <b>rudimentary</b> , given that data series, frequency of publishing, methodology used, granularity of data and format of the documents published were all causing issues to data users	

*If not tackled, gap could possibly impact:*

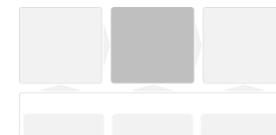
1. Data users’ ability to utilize the data for research and analysis (because data is aggregated to a high level and too general along with format of the documents published)
2. Data users’ ability to monitor/analyze data across different time series due to unavailability of data series, disrupted frequency of publishing, and inconsistent methodology used



Data Attributes



More prioritization for the data sector from the government agenda will create many opportunities that the nation can utilize



2

**Gap:**

**Need for more support to advance data in decision-making**



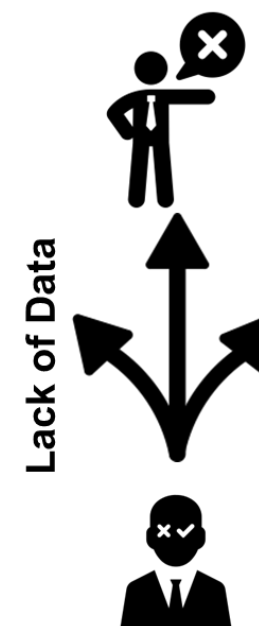
**Description:**

Most of the entities reported that there is a **huge lack of awareness on the importance of data** and what it could **generate** and how would it help **easing** the process of **decision making**

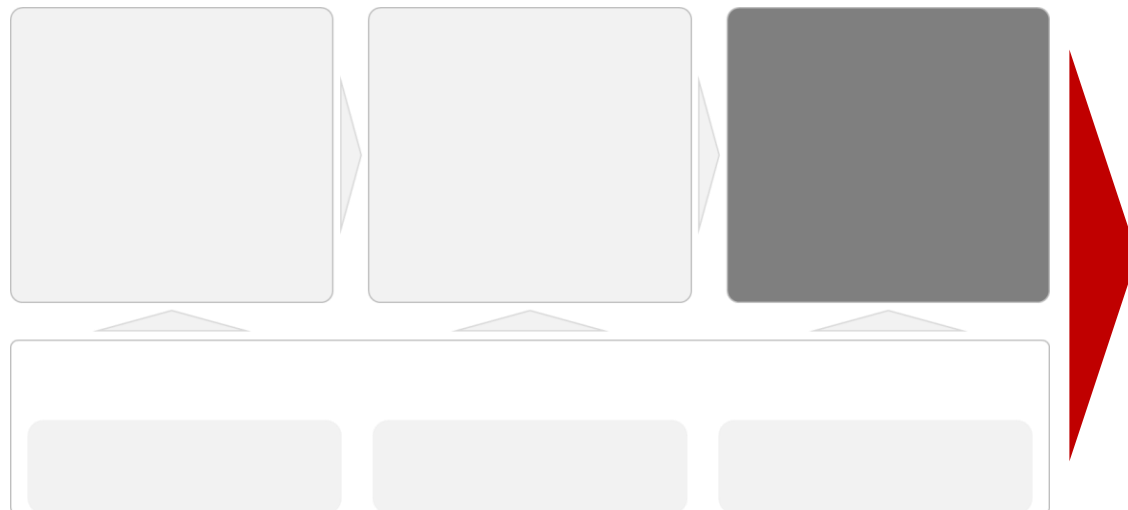


***If not tackled, gap could possibly impact:***

1. The consistency of operations in collecting, quality checking and analyzing data
2. The ability to make sound decisions (due to lack of data within the entity and on a national level)
3. The accuracy and exhaustiveness of data on the national level (hindering opportunities of national development, foreign investment, and policy and research)



# Demand Stage

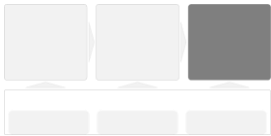


## Gaps:

1. Absence of a Centralized, Comprehensive Data Portal
2. Lack of Formal Mechanisms for Public-Private Sectors Data Interaction



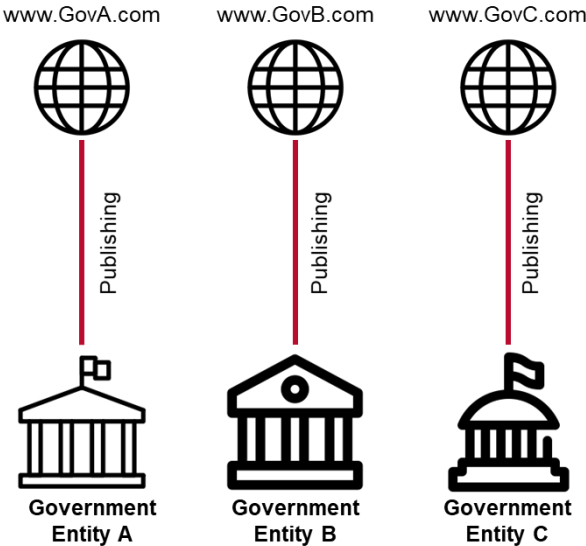
Kuwait needs a comprehensive open data portal where data users can obtain all the information they require freely and easily...



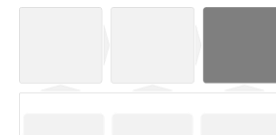
1	Gap:	Absence of a Centralized, Comprehensive Data Portal	
	Description:	Kuwait needs a <b>centralized open data portal</b> that has a comprehensive list of data sets across different sectors (as opposed to dispersed data across <b>different websites</b> )	

*If not tackled, gap could possibly impact:*

- 1. Awareness of data availability by the data users
- 2. Ease of obtaining data given that data is dispersed



... and the private sector is facing difficulties to obtain and use public data due to unintentional neglect of the government entities to their needs



2

**Gap:**

**Lack of Formal Mechanisms for Public-Private Sectors Data Interaction**



**Description:**

Most of the government entities **don't consider the private sector as key data beneficiary** for their data therefore **neglecting their data needs** and **unintentionally creating difficulties** for the private sector to use public data (data attributes, no formal mechanisms for private sector data access)



***If not tackled, gap could possibly impact:***

1. Usage and benefits of public data
2. Efficiency of searching for data
3. Utilization of business opportunities



www.Gov.com

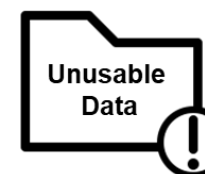


Publishing

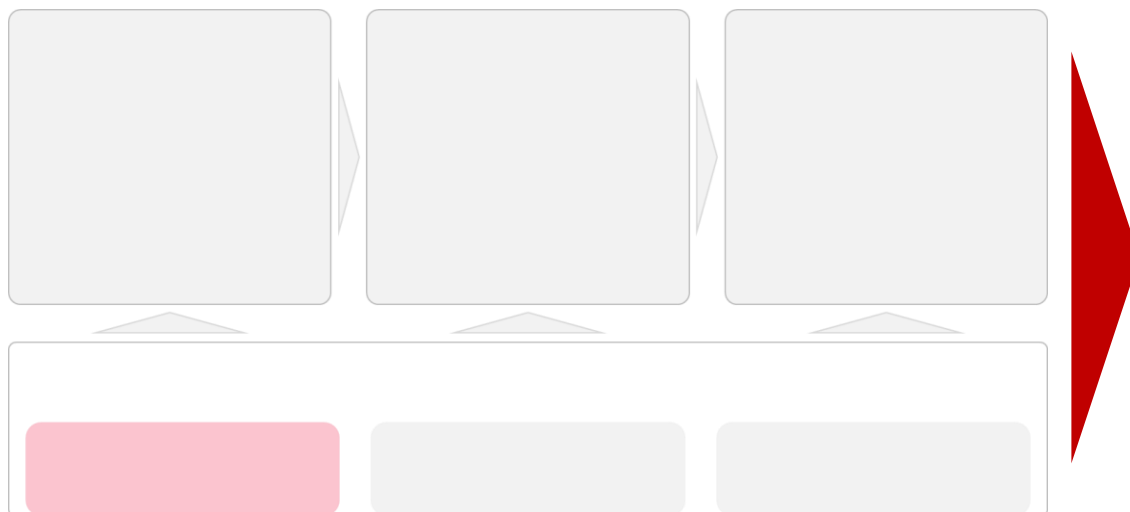


Government  
Entities

Private Sector



# Enablers - KEY LEGAL & REGULATORY FRAMEWORK

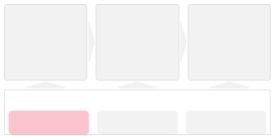


## Gaps:

1. Unclear and Decentralized Governance Structure
2. Need for National Policies/Strategy for the Data Ecosystem
3. Need to Enforce Existing Laws and Develop New Ones
4. Unavailability of Data Quality Guidelines in the Ecosystem
5. Outdated Statistical Law



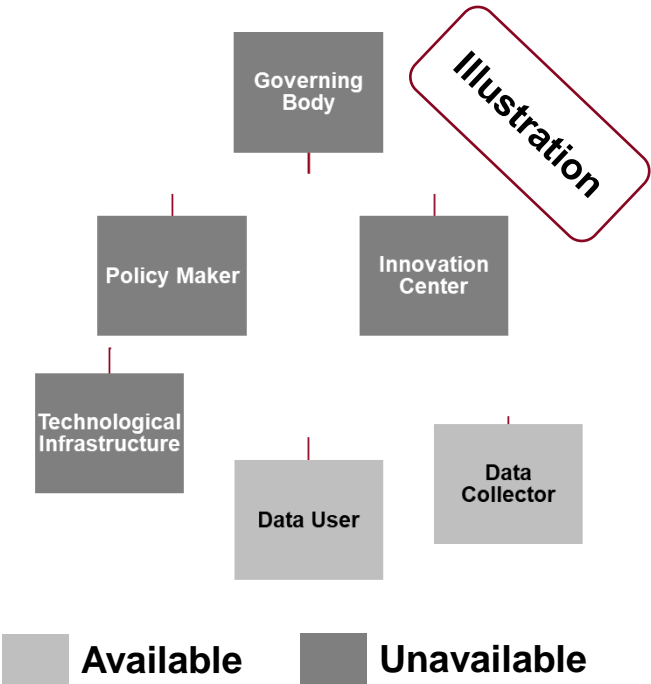
# Kuwait data ecosystem suffers from a key gap in its Governance & Regulatory Framework with a noticeable absence of a structured governance...



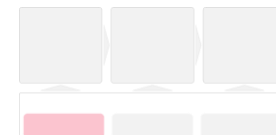
1	Gap:	Unclear and Decentralized Governance Structure		
	Description:	There is <b>no clear centralized governance structure</b> that has a <b>comprehensive coverage for all key data functions</b> . Moreover, there are various <b>missing roles</b> in the structure of the data ecosystem		

## If not tackled, gap could possibly impact:

- 1. Organized efforts and coordination across the different data custodians
- 2. Adherence to data practices
- 3. Compliance (given that there's no accountability)



... with no clear national strategy or policies organizing and coordinating the efforts related to the data management on the ecosystem level...



**2**

<b>Gap:</b>	<b>Need for National Policies/Strategy for the Data Ecosystem</b>
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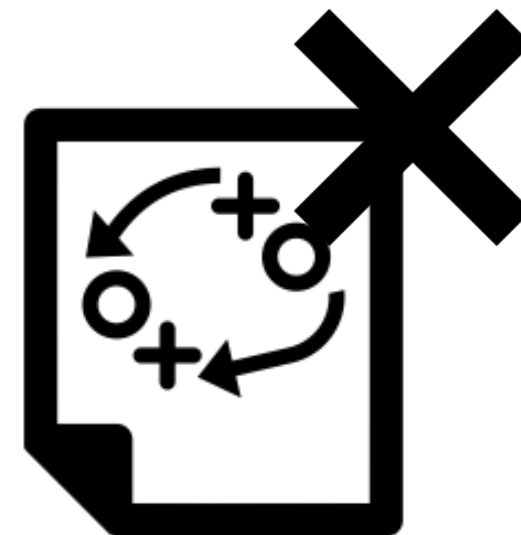
**Description:**

There are **no clear future objectives** for the data ecosystem since there is **no clear strategy or policies on a national level** related to data

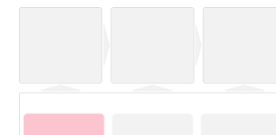


***If not tackled, gap could possibly impact:***

1. Organized efforts and coordination across the different data custodians
2. Strategic direction
3. Opportunities utilizing data
4. Unified practices and methodologies used by all the entities



... and a need to enforce existing laws and create new ones to help Kuwait excel in data practices ...



3

**Gap:**

**Need to Enforce Existing Laws and Develop New Ones**



**Description:**

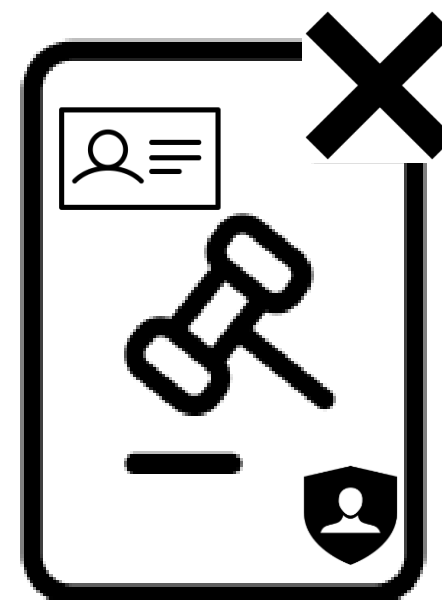
Existing laws are not fully enforced to achieve their intended goals. Moreover, **several key data laws** in Kuwait are unavailable, including laws about **data privacy, security, openness, and sharing**



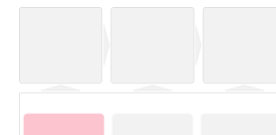
***If not tackled, gap could possibly impact:***



1. Ability to regulate data management
2. Ability to to publish data
3. Risks of publishing confidential data
4. Clarity of understanding the legality of data topics



... government entities also suffer from the unavailability of data quality guidelines in the ecosystem to conduct proper quality checks on the data collected...



4

**Gap:**

**Unavailability of Data Quality Guidelines in the Ecosystem**



**Description:**

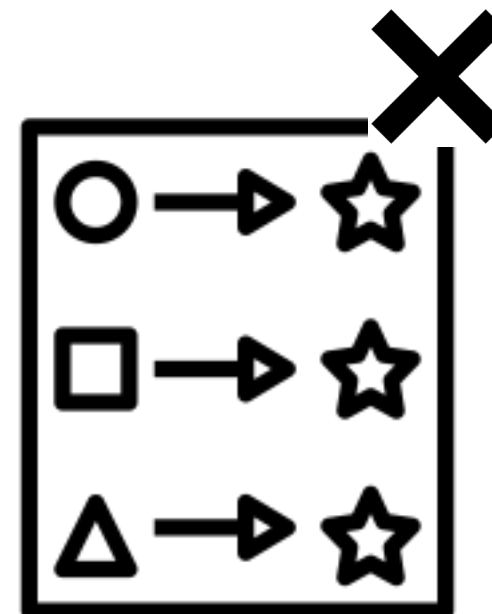
**With the exception to a few entities, most government entities in Kuwait don't have any **quality guidelines** related to data to guide them through **conducting quality checks** on any **collected data** in an **efficient, unified and professional manners****



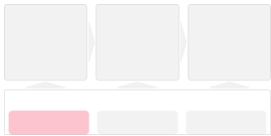
***If not tackled, gap could possibly impact:***



1. The credibility of the published data
2. The accuracy of published data
3. The efficiency of conducting data quality checks

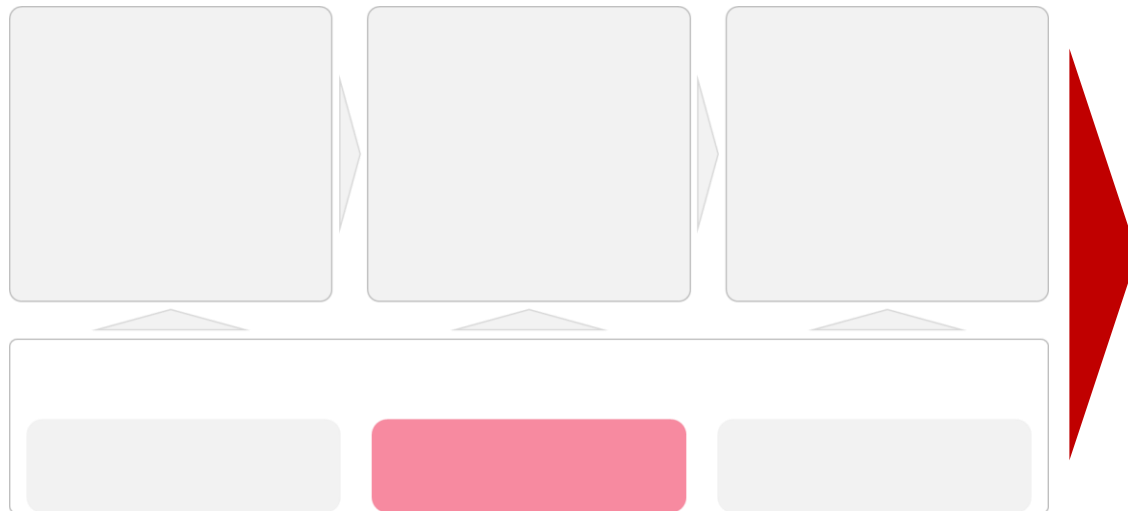


... and a non-fully activated CSB mandate due to an outdated statistical law in the country



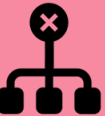
5	Gap:	Outdated Statistical Law	
	Description:	The <b>Central Statistical Bureau mandate</b> , which is the Statistical Law, was enacted in 1963 with no updates issued after that to keep up with the trends and the changes in the statistical sector	
<b><i>If not tackled, gap could possibly impact:</i></b>			
<div>1. Fully activating the role of CSB in the data ecosystem</div> <div>2. The ease of collecting and publishing statistical information by the CSB</div>			<div>!!!</div> <div></div>

# Enablers - Capabilities



## Gaps:

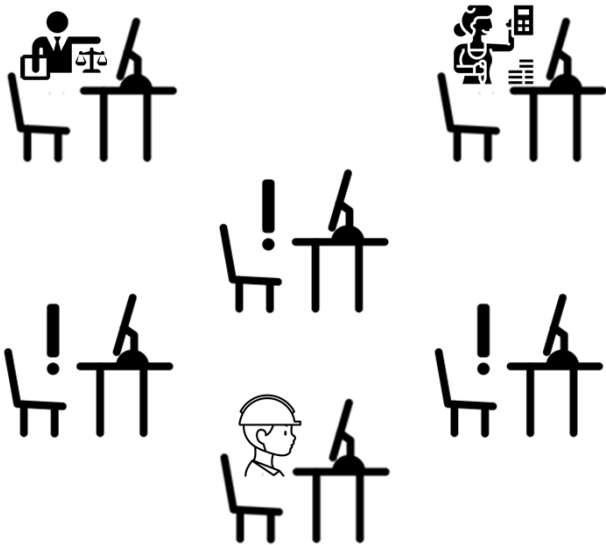
1. Lack of Ecosystem Employees with Data Management Experience
2. Shortage in Leadership Positions in the Ecosystem for Data



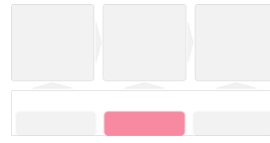
There is a huge gap in human resources in Kuwait when it comes to data, as most of the employees working in data management lack the required skills...



1	<b>Gap:</b>	<b>Lack of Ecosystem Employees with Data Management Experience</b>	
	<b>Description:</b>	<b>Many government entities have a gap in human resources in terms of having employees with proper skills especially security analysts &amp; engineers, statisticians, and analysts, along with lack of capacities such as unavailability of statistics departments</b>	
	<b><i>If not tackled, gap could possibly impact:</i></b>		
	<div><div></div><div><div>1. Training costs to train unspecialized employees</div><div>2. Quality of job performance</div><div>3. Knowledge about data management and data practices</div></div></div>		



... and on a leadership level, there is a shortage in data leadership positions which is impacting the operational level employees



2

**Gap:**

**Shortage in Leadership Positions in the Ecosystem for Data**



**Description:**

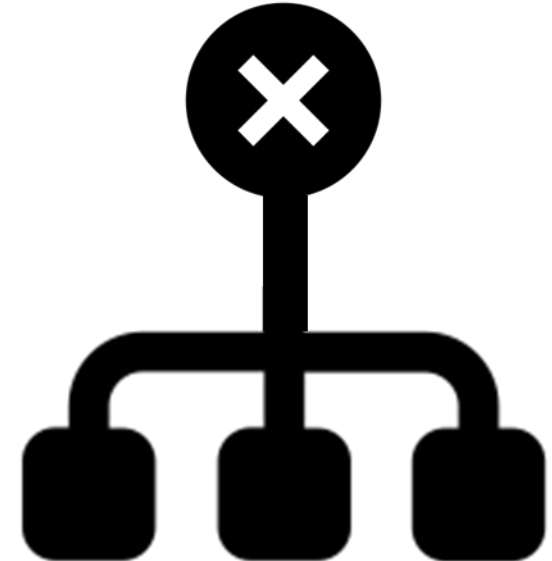
Government entities could use more leadership positions in their organizations that are **specialized in leading and transforming data** (e.g., Chief Data Officer)



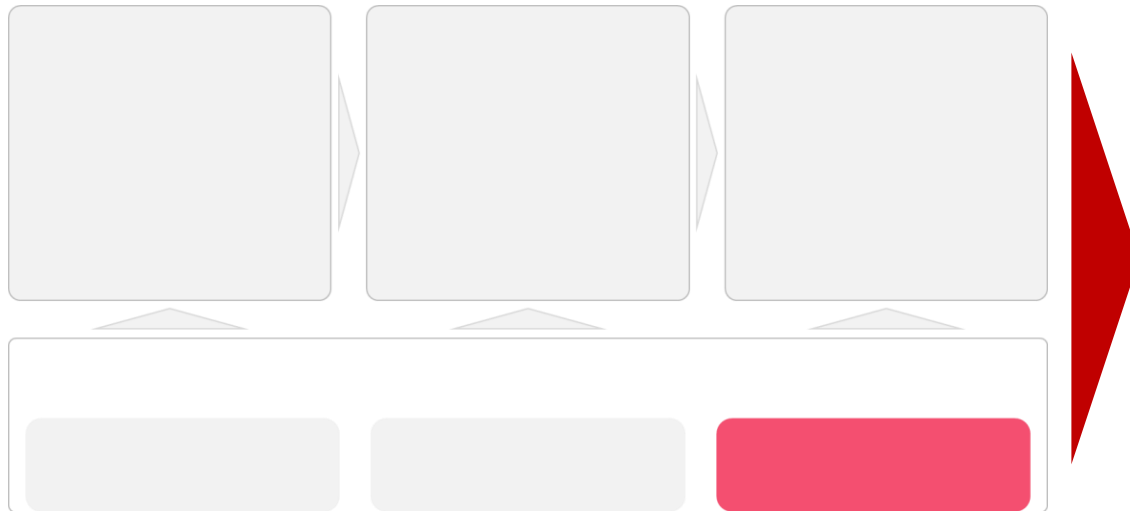
***If not tackled, gap could possibly impact:***



1. The awareness across the operational positions about the importance of data
2. Quality of job performance
3. Knowledge about data management and data practices



# Enablers - SELECTED ICT INFRASTRUCTURE & TECHNOLOGY



## Gaps:

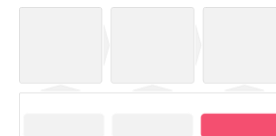
1. Outdated Technological Infrastructure



2. Manual Data Quality Checks



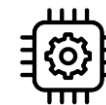
Kuwait data ecosystem suffers from an outdated technological infrastructure for data management, causing various difficulties across the value chain stages...



1

**Gap:**

**Outdated Technological Infrastructure**



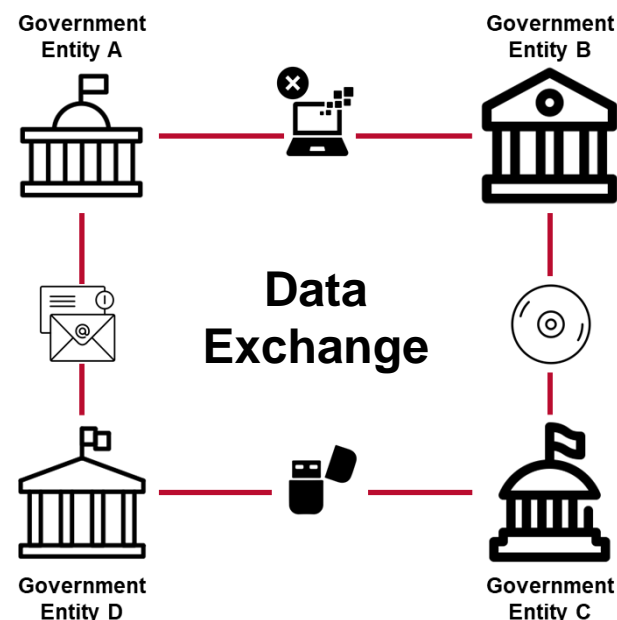
**Description:**

**Lack of technological systems to ease the data management process** including **data exchange systems** across government, as the data exchange is being done manually through **e-mails** or placed on a **USB/CD**

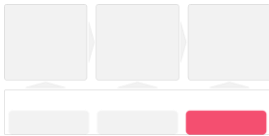





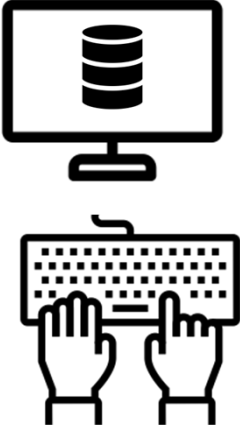
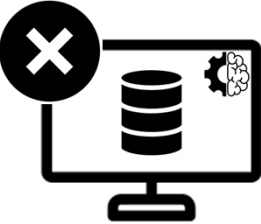
***If not tackled, gap could possibly impact:***

1. The efficiency across all the value chain components (given the outdated technological infrastructure)
2. Ease of obtaining data (given the long bureaucratic cycle)



... in addition to conduction of a manual data quality checks, indicating for outdated practices and increasing the risk of developing inaccurate data



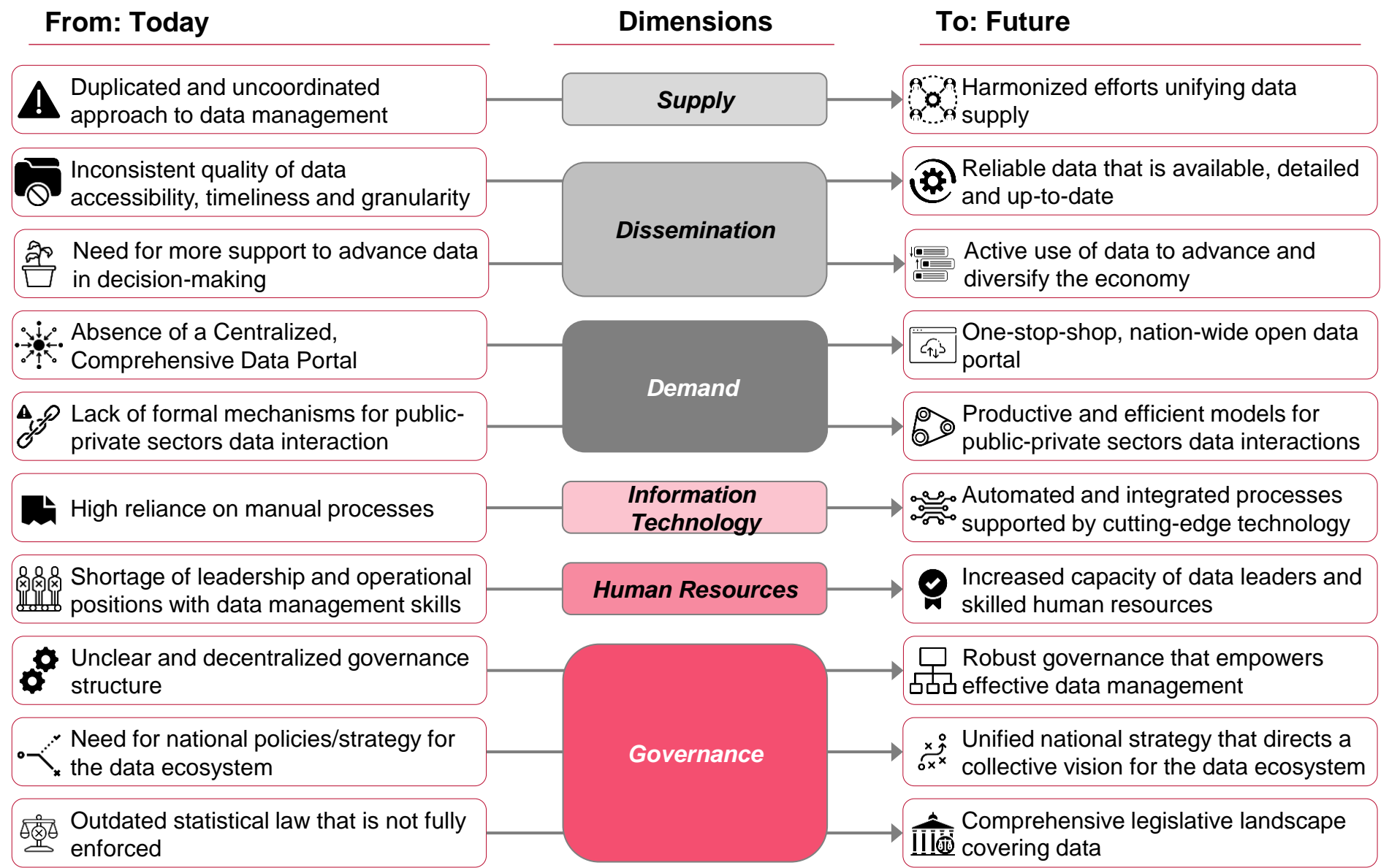
2	Gap:	Manual Data Quality Checks	
	Description:	Outdated practices for data quality as most of the entities conduct quality checks manually	
	<b><i>If not tackled, gap could possibly impact:</i></b>		
	<div><div></div><div><div><div>1. Accuracy of data (due to possible human errors)</div><div>2. Inefficiency and time consuming since there is no automation for the quality checks</div><div>3. Low credibility of data</div></div><div><div><div>Manual</div></div><div><div><div>Automated</div></div></div></div></div></div>		



**Setting the Desired  
State (Change Agenda)**

**04**

# The change agenda reflects changes along the value chain components and assesses actual versus desired performance for Kuwait's data ecosystem





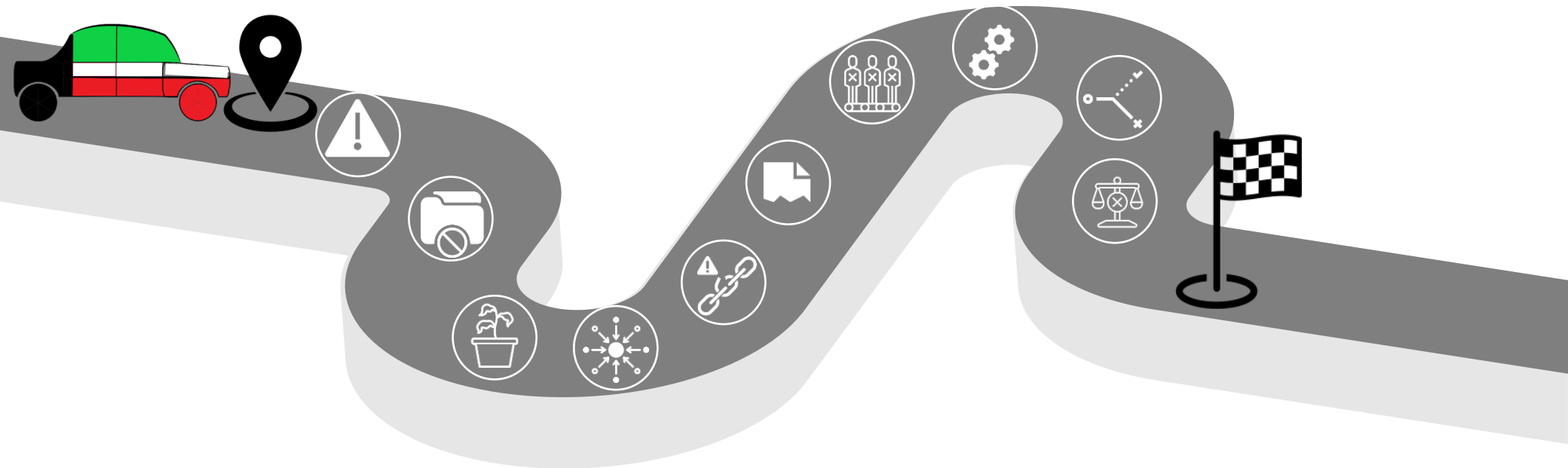
Recommendations

05

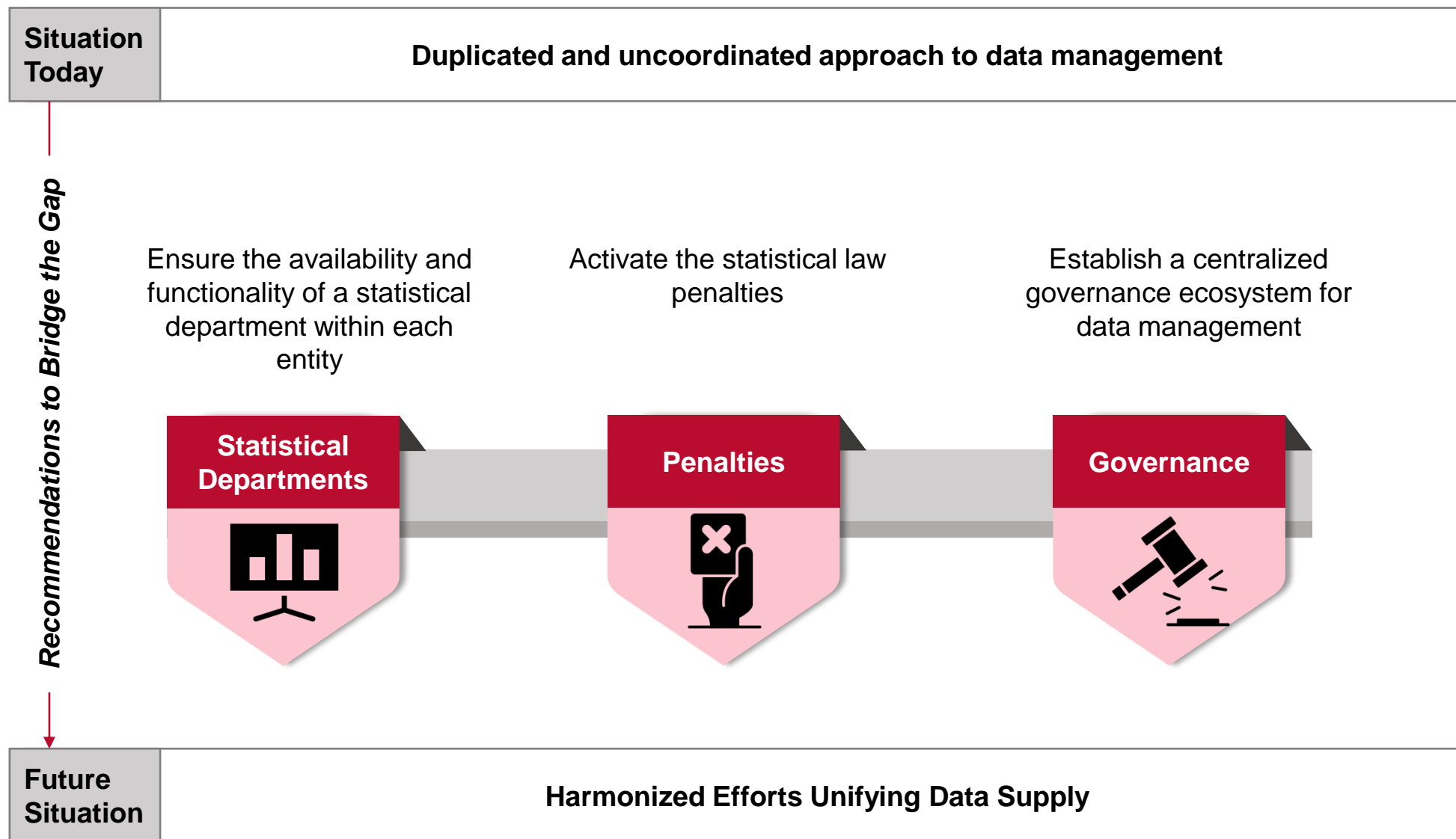
In order to achieve the desired future state of Kuwait's data ecosystem, we have developed a set of recommendations to overcome the current challenges...

## Kuwait's Data Ecosystem

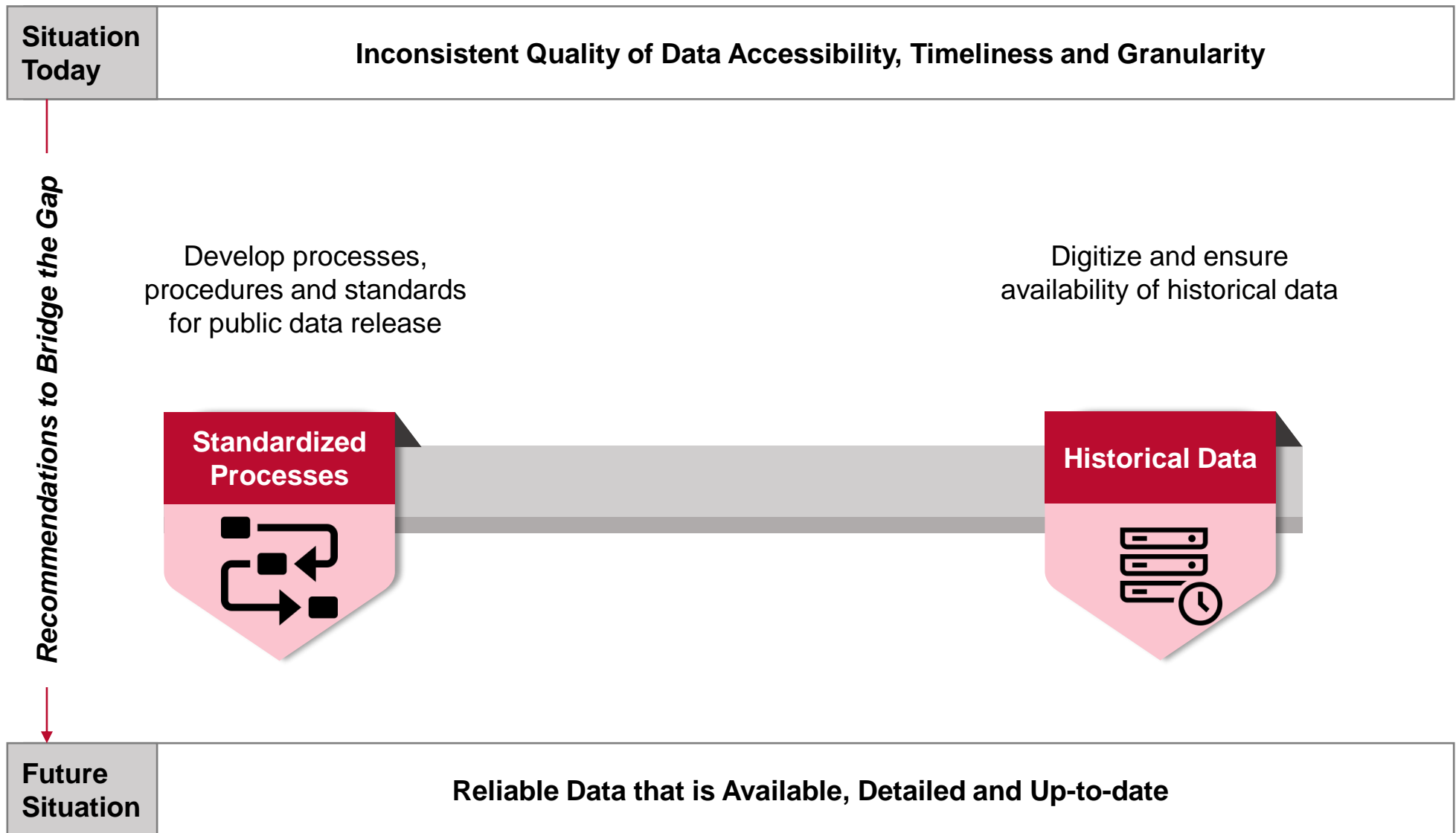
### Current Situation



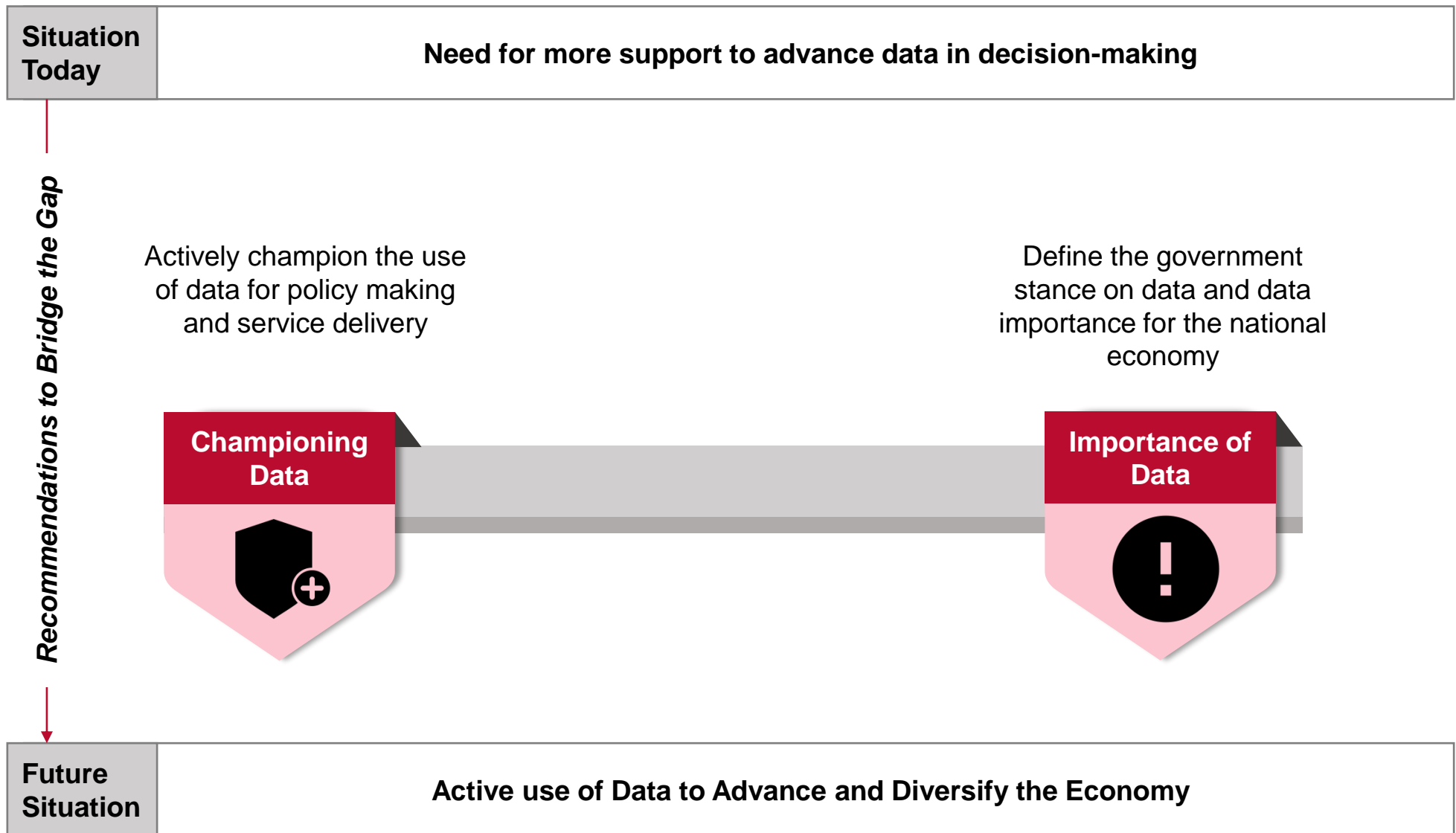
... starting with establishing a statistical department in each entity, activating the statistical law, and establishing a centralized governance...



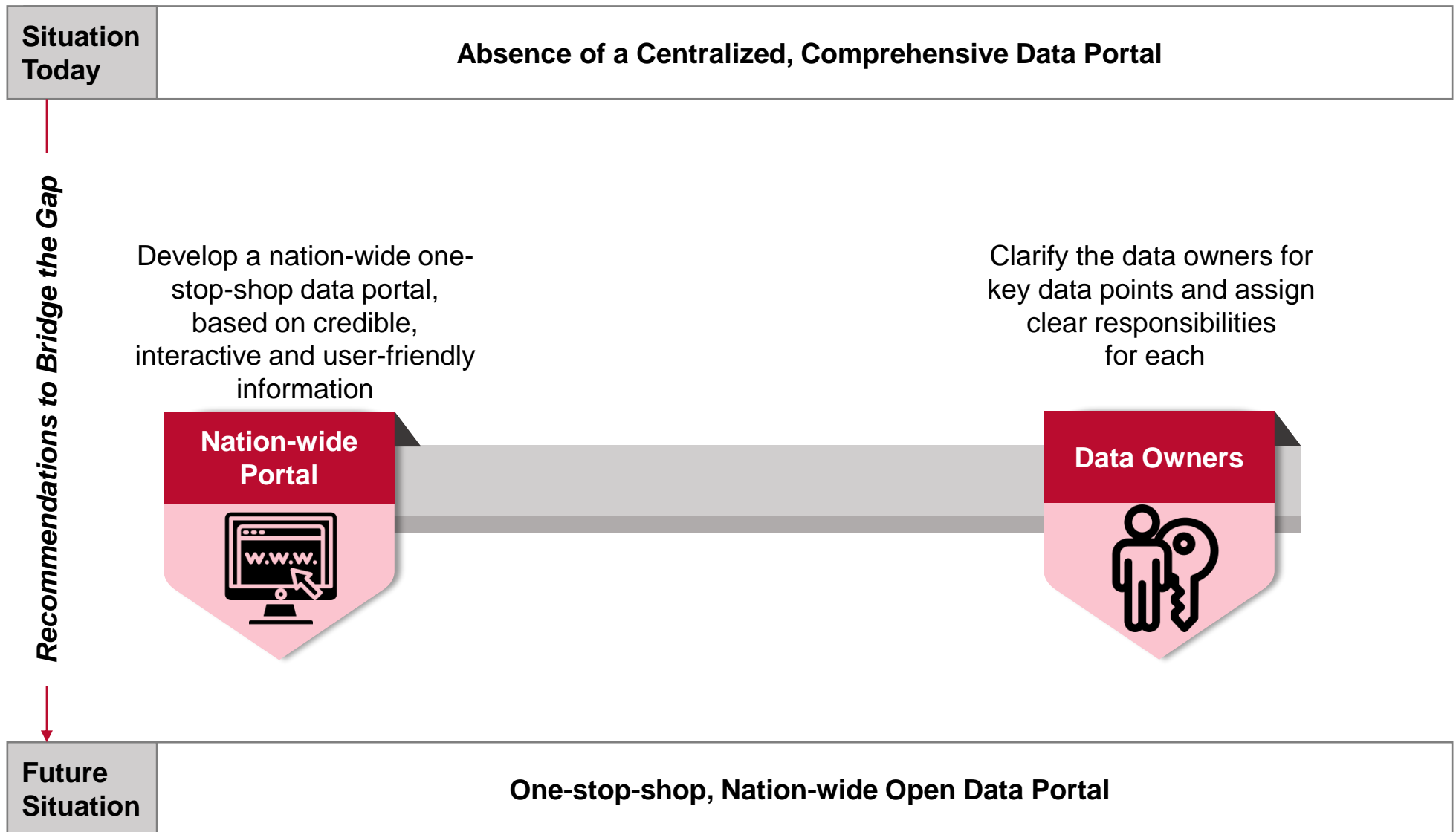
... complemented by defining a structured methodology for data dissemination, developing processes and procedures, and digitizing historical data...



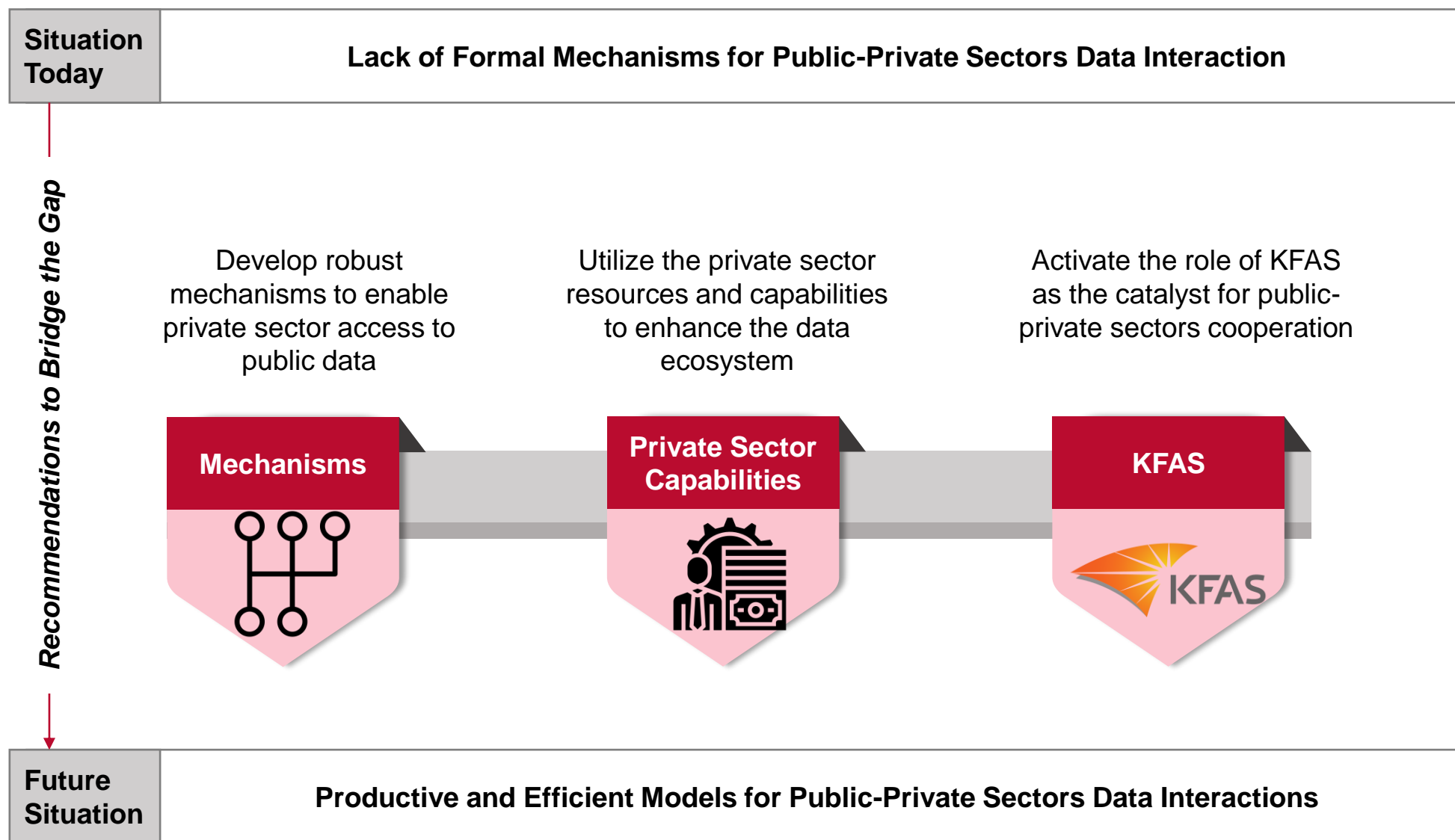
...which won't be achieved without defining the government stance on data, and actively championing the use of data by government leaders..



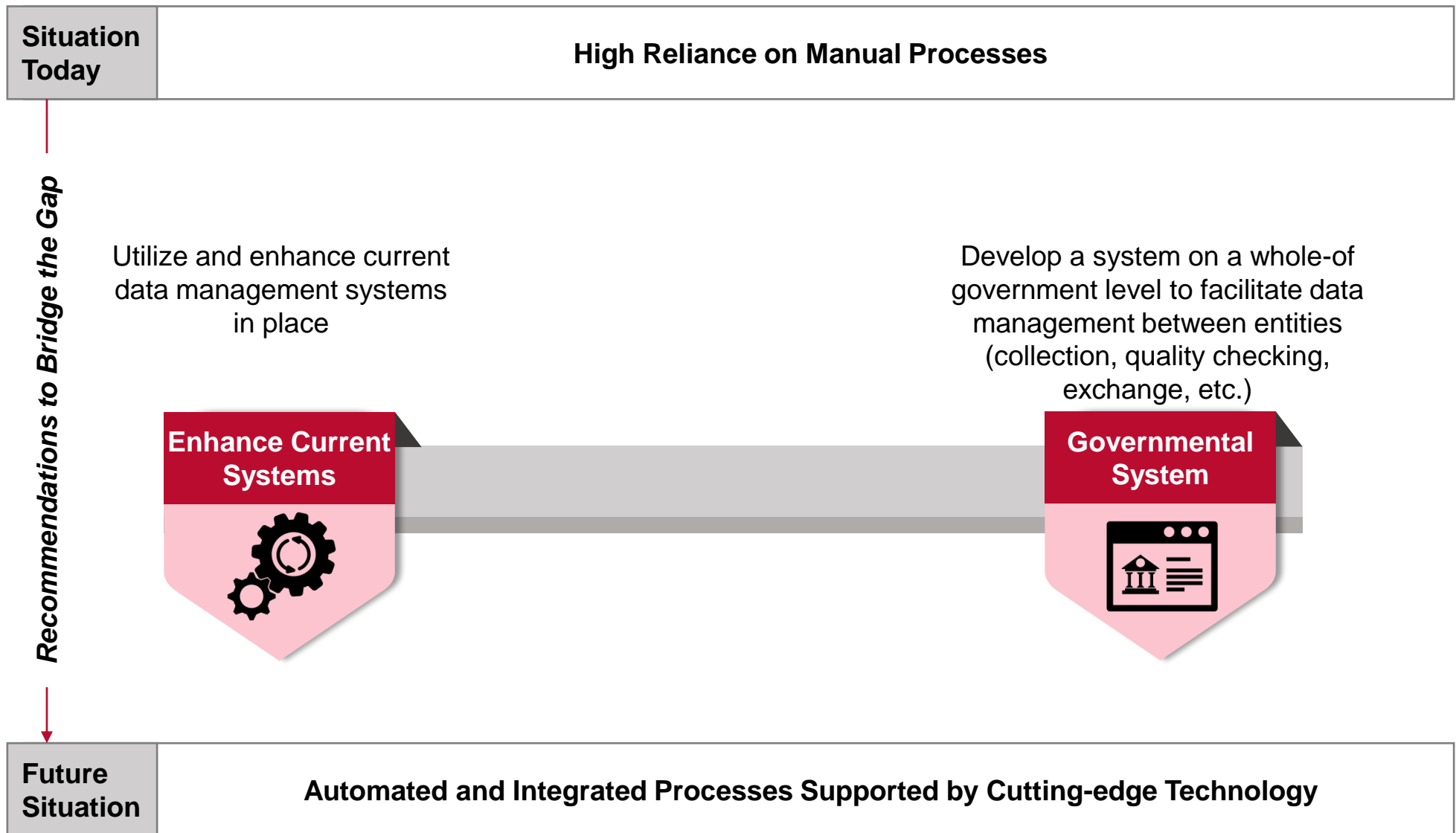
... and the critical need to develop a national open data portal for Kuwait while clarifying the data owners of each data point...



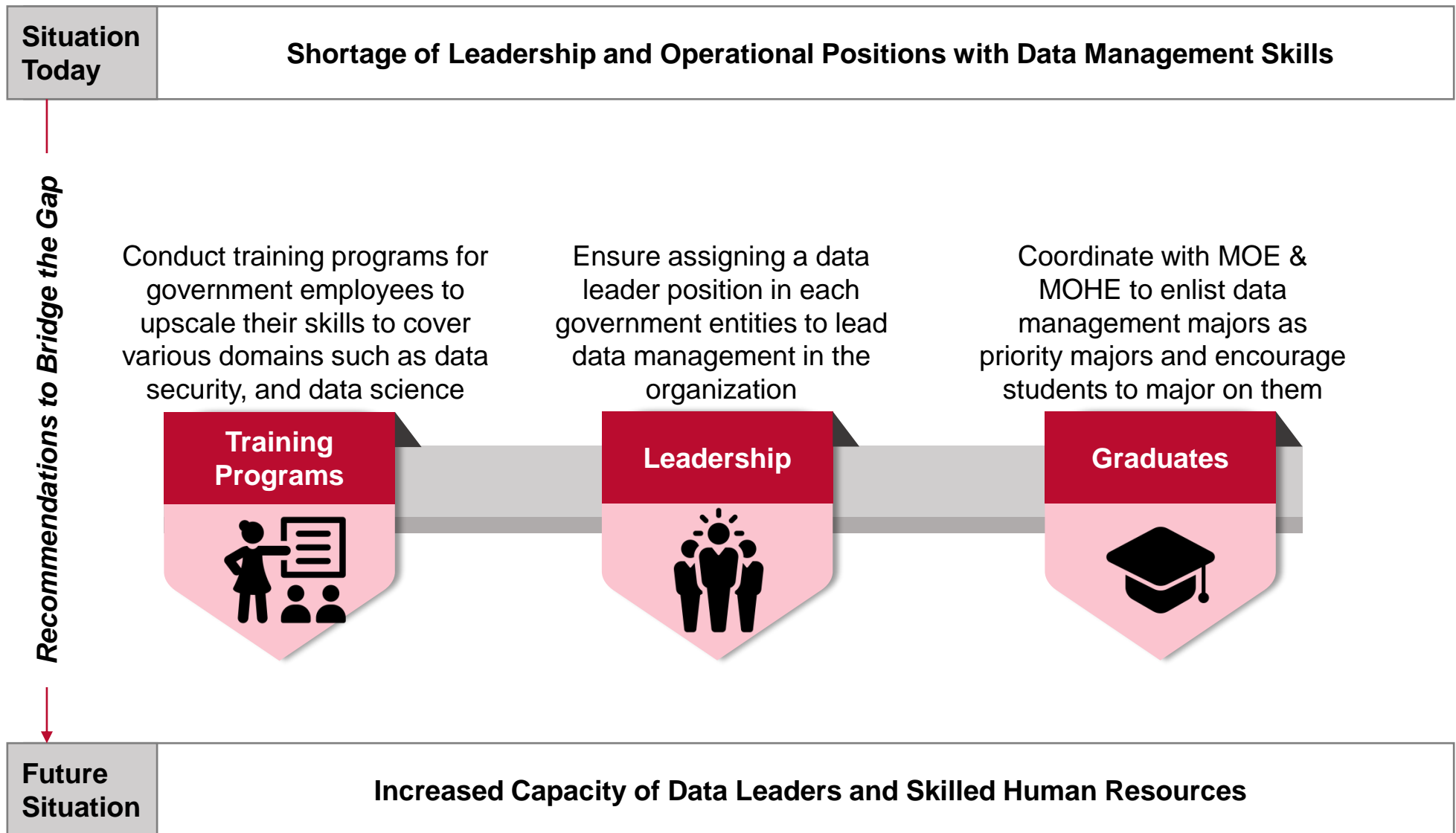
... with specifying and developing mechanisms for private sector's data access enablement, utilization of their resources and activating the role of KFAS...



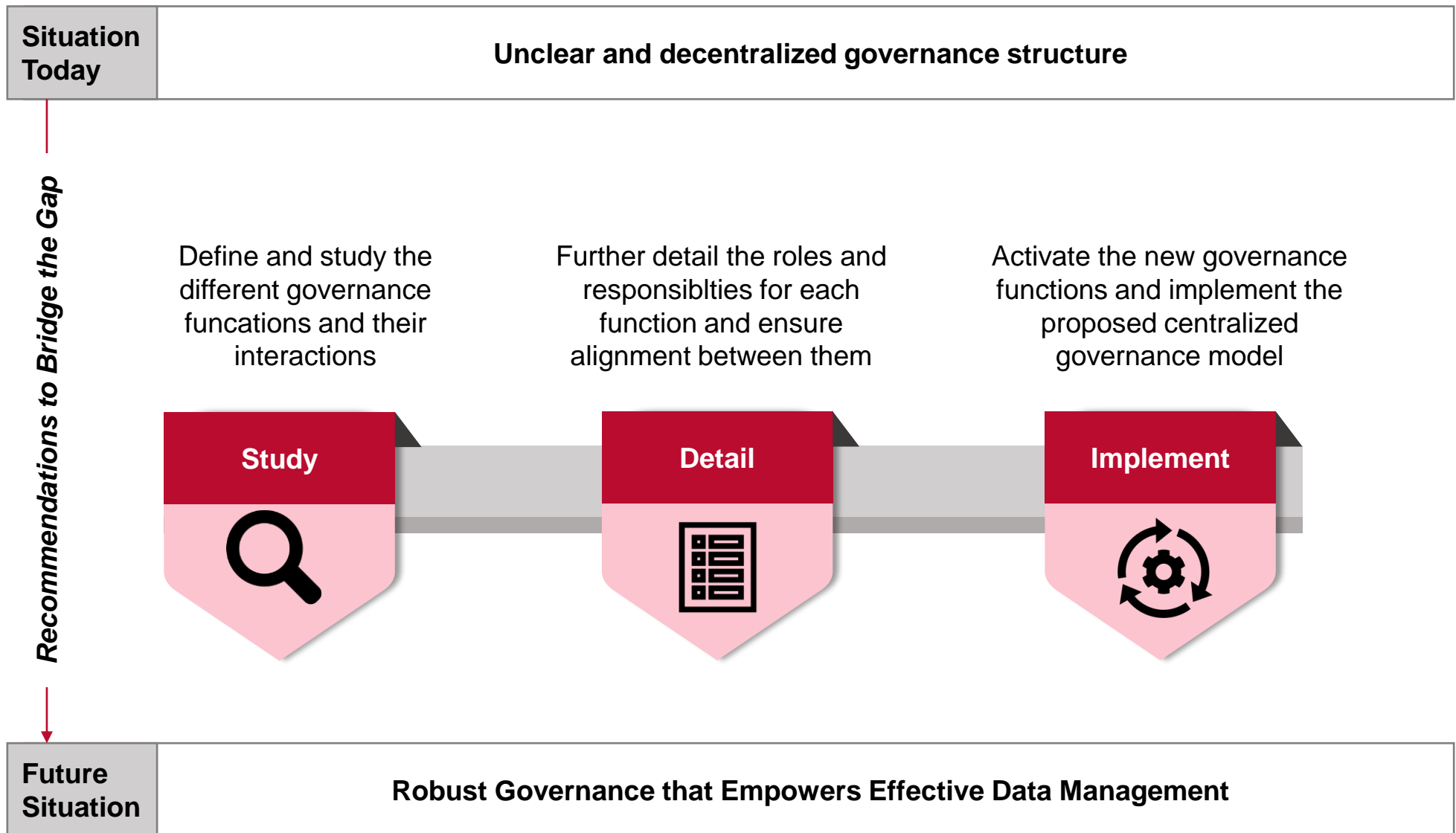
...keeping in mind the urgent need to utilize and enhance the current data management systems while developing a whole-of-government system that is line with the latest trends...



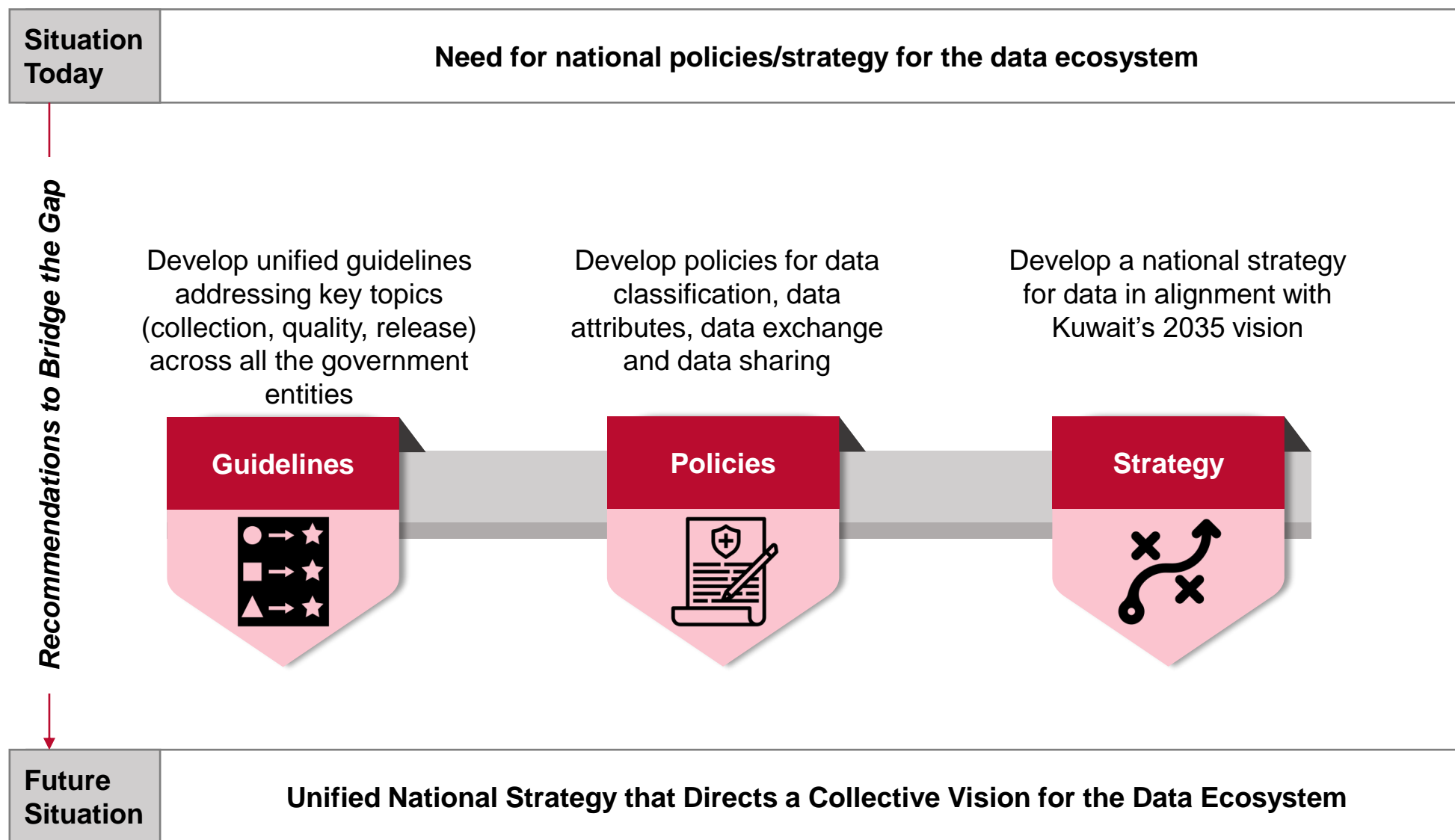
...and upskilling the available human resources by conducting training programs while ensuring the availability of leadership positions to guide data management practices ...



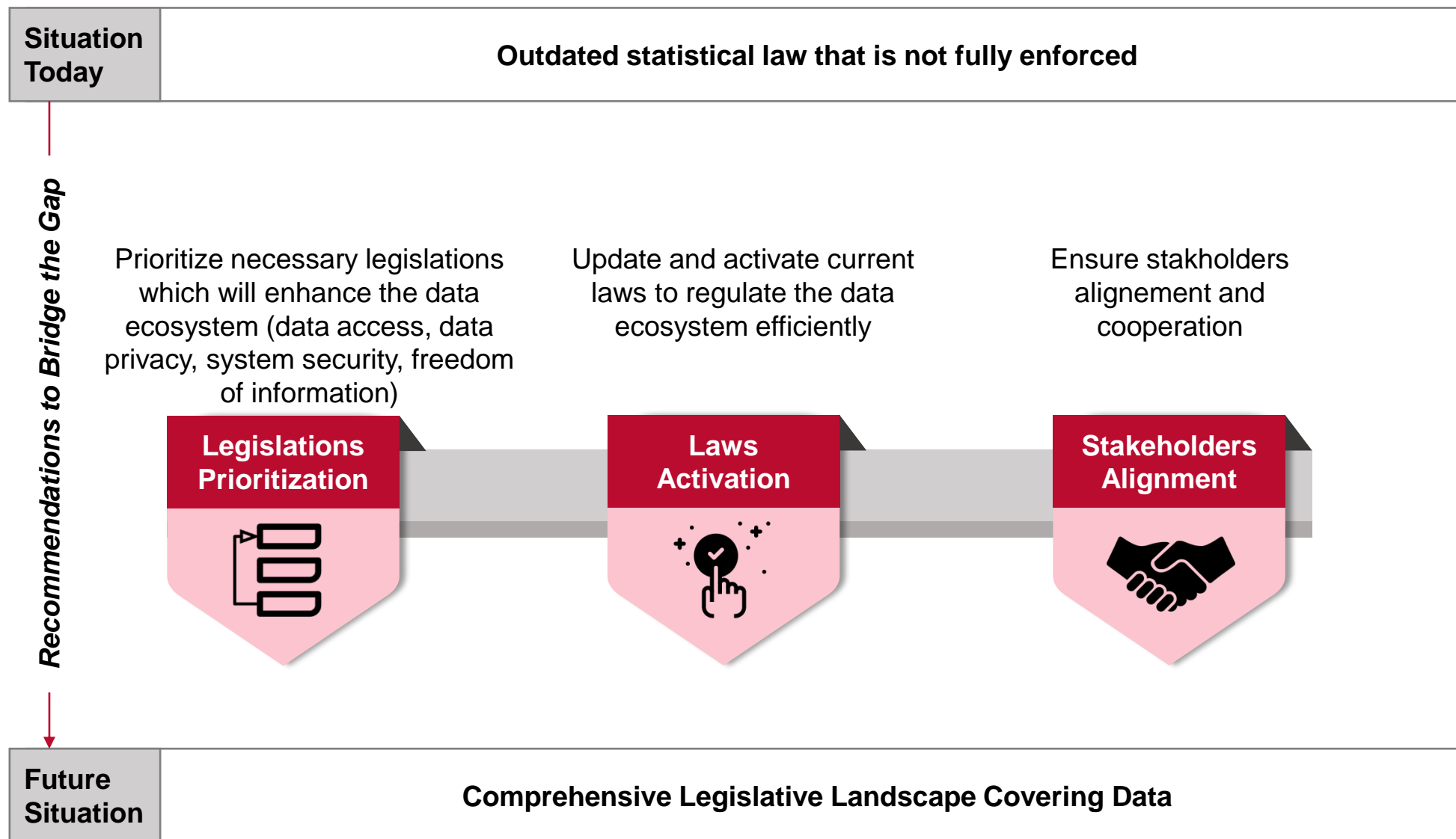
...and studying all the governance functions, detailing their roles and responsibilities then implementing proposal governance model to ensure having a robust governance...



... without neglecting the need of developing a national data strategy to guide the data management efforts, and developing guidelines and policies to fill in the current gaps...

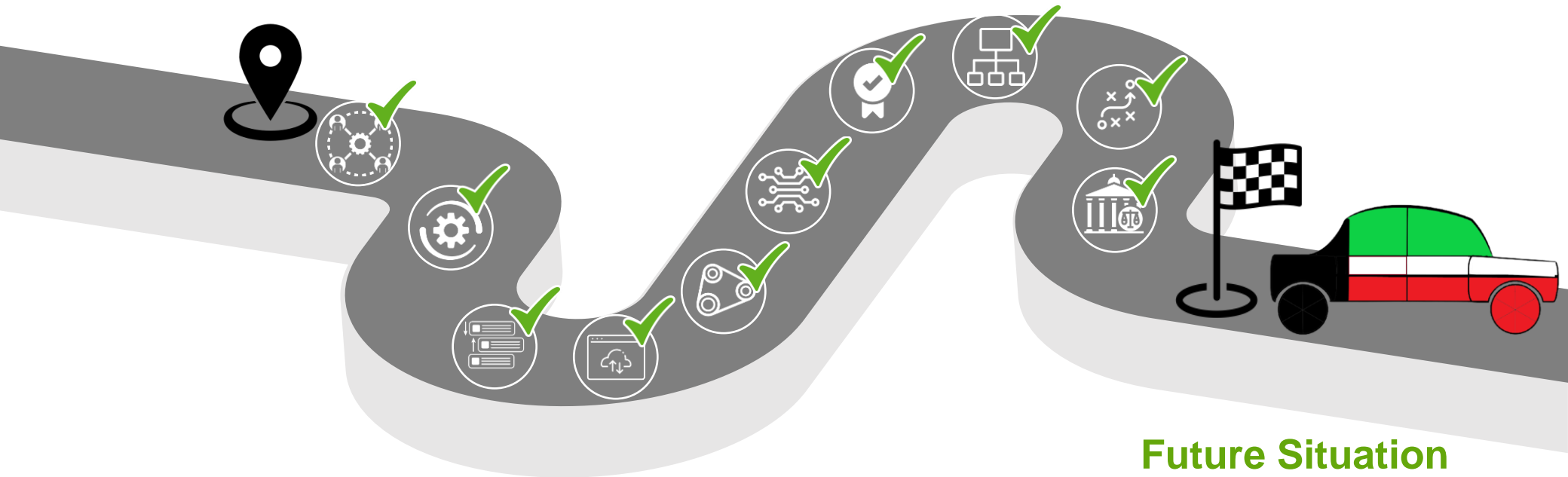


... while updating and activating current data laws, prioritizing the upcoming legislations and ensuring stakeholders alignment and cooperation



... to ensure achieving the desired future state of having an optimized data ecosystem in line with the latest trends and best practices

## Kuwait's Data Ecosystem



**Future Situation**