Smart Data Strategy

Unlocking the Potential of Data

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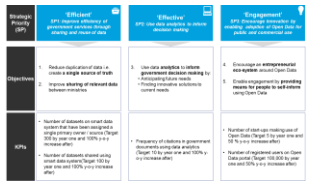
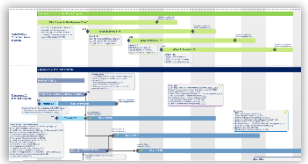
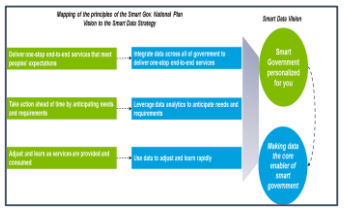
Smart Data Strategy Approach

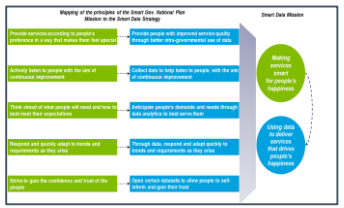
Steps	Step 1 : *Develop Vision, Mission and Strategic Priorities*	Step 2 : *Develop Objectives & supporting KPIs*	Step 3: *Define supporting Initiatives & projects*	Step 4: *Prioritize the projects*	Step 5: *Detail the Implementation Roadmap**
Inputs	• *Smart Gov. National Plan* • *International Benchmarks from UK, European Union, Singapore, Australia*	• *UAE National Vision 2021* • *Smart Gov. National Plan* • *UAE ICT Plan 2018* • *UAE Innovation Strategy 2021* • *Smart Data Project Charter*	• *Operating Model layers* • *Current State Assessment* • *International Benchmarks*	• *Impact on Smart Data Strategic Priorities*	• *Rationale, objective, benefits, outcomes* • *Risk, probability, impact and mitigation* • *Indicative costs* • *Timelines* • *RACI matrix, FTE*
Sample Output	**Mission, Vision and Strategic Priorities**	**Objectives & KPIs** 	**Mapping & breakdown of initiatives**	**Prioritization framework**	**Roadmap** 

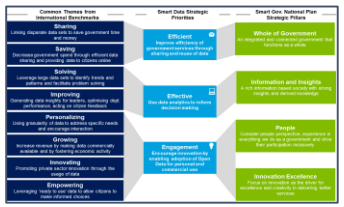
* Presented in another document

Smart Data Vision, Mission and Strategic Priorities Approach

Steps	**Step 1a :** *Determine Smart Data Vision*	**Step 1b :** *Determine Smart Data Mission*	**Step 1c:** *Determine Strategic Priorities*
Inputs	• *Map against Smart Government National Plan Vision*	• *Map against Smart Government National Plan Mission*	• *Use benchmarked countries to identify common themes* • *Map across Smart Government Strategic Pillars*
Output	**Smart Data Vision**	**Smart Data Mission**	**Smart Data Strategic Priorities**



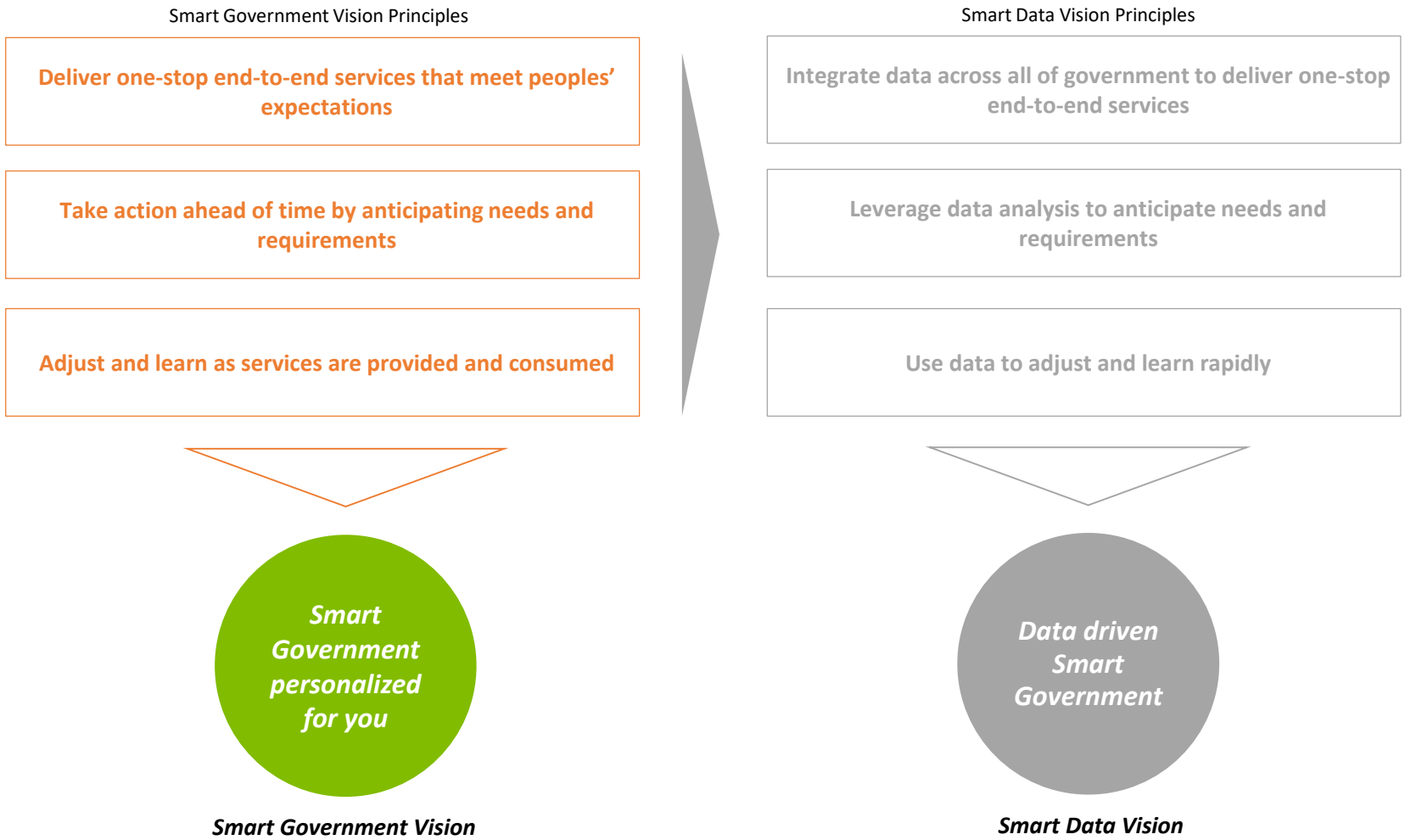




Smart Data Vision

Smart Gov. National plan Vision was leveraged to inform the Smart Data Vision

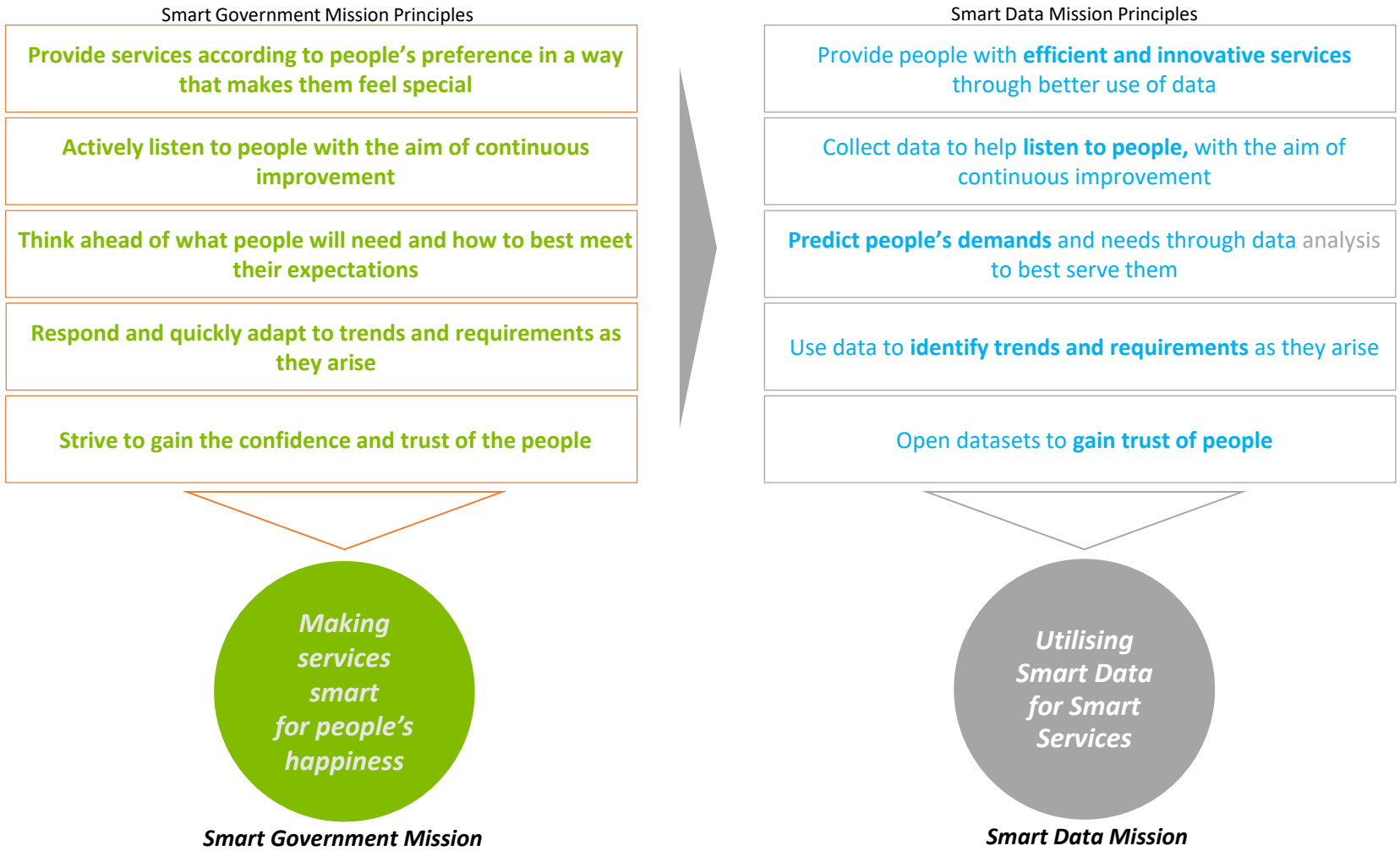
Mapping of the principles of the Smart Government National Plan Vision to the Smart Data Strategy



Smart Data Mission

Smart Gov. National plan Mission was leveraged to inform the Smart Data Mission

Mapping of the principles of the Smart Government National Plan Mission to the Smart Data Strategy



Development of the Smart Data Strategic Priorities

Smart Gov. National plan and best practice exemplars from international use cases helped to inform the Smart Data strategic priorities

Smart Government National Plan

Vision	Mission
Smart Government personalized for you	*Making services smart for people's happiness*

Strategic Pillar 1: People	Strategic Pillar 2: Government	Strategic Pillar 3: Knowledge	Strategic Pillar 4: Innovation
Strategic Objective (SO) 1: Improve Customer Satisfaction	*SO2: Increase government efficiency*	*SO3: Increase generation & sharing of knowledge using ICT*	*SO 4: Increase generation of innovation*

Common Themes from International Benchmarks

Sharing
(Linking disparate data sets to save government time and money)

Improving
(Generating data insights for leaders, optimising dept. performance, acting on citizen feedback)

Personalising
(Using granularity of data to address specific needs and encourage interaction)

Empowering
(Leveraging 'ready to use' data to allow citizens to make informed choices)

Solving
(Leverage large data sets to identify trends and patterns and facilitate problem solving)

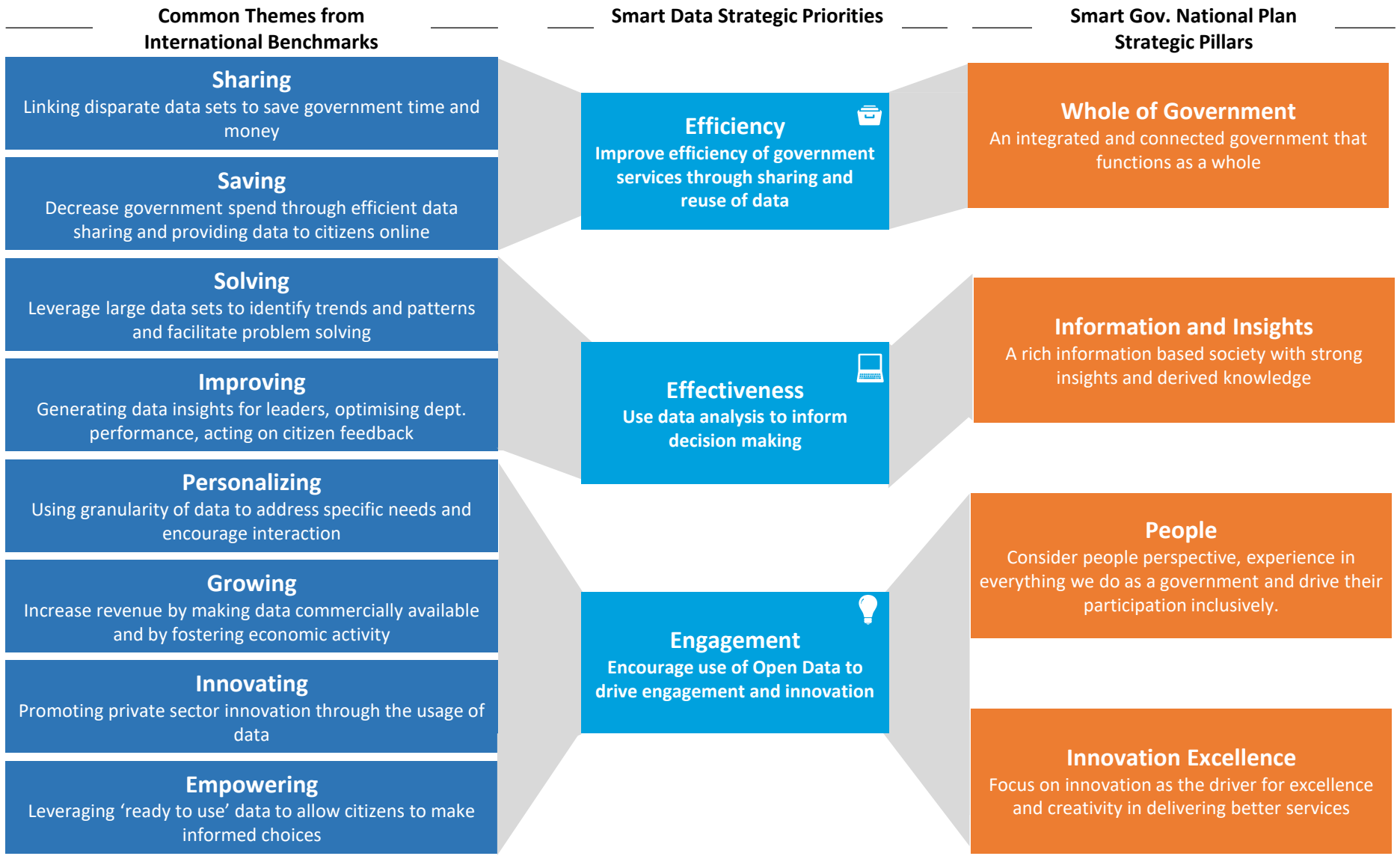
Growing
(Increase revenue by making data commercially available and by fostering economic activity)

Saving
(Decrease government spend through efficient data sharing and providing data to citizens online)

Innovating
(Promoting private sector innovation through the usage of data)

Smart Data Strategic Priorities

Common international themes when looked at in the UAE Smart Government context gave rise to 3 strategic priorities



Summary: Smart Data Mission, Vision and Priorities

For each of the Strategic Priorities supporting objectives were developed by assessing key national strategies and insights from consultations

Smart Government National Plan

Vision	Mission
Smart Government personalized for you	*Making services smart for people's happiness*

Strategic Pillar 1: People	Strategic Pillar 2: Government	Strategic Pillar 3: Knowledge	Strategic Pillar 4: Innovation

Smart Data Strategy

Vision	Mission
Data driven Smart Government	*Utilising Smart Data for Smart Services*

Strategic Priorities 1: Efficiency *Improve efficiency of government services through sharing and reuse of data*	Strategic Priorities 2: Effectiveness *Use data analysis to inform decision making*	Strategic Priorities 3: Engagement *Encourage use of Open Data to drive engagement and innovation*

Development of Smart Data Objectives & KPIs

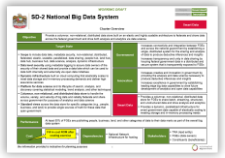
For each of the Strategic Priorities supporting objectives were developed by assessing key national strategies and insights from consultations

Smart Government National Plan

UAE National Vision 2021

UAE ICT Plan 2021

UAE Innovation Strategy 2021



Smart Data Project Charter

Questionnaires

One-on-one meetings

Efficiency

- *"Sharing of best practice with gov't ministries"* **Innovation Strategy 2021**
- *"Reduction in processing time and cost"* **Smart Government Nat Plan**
- *"Develop… standards & platforms for local and gov't entities"* **ICT Plan 2021**
- *"Develop a centralized Smart Government function"* **ICT Plan 2021**
- *"Ensure compliance with the evolution of usage and technologies"* **ICT Plan 2021**

Smart Data Objective 1
*Create a **single source of truth***

Smart Data Objective 2
*Improve **sharing of relevant data** between ministries*

Effectiveness

- *"Focus on Smart Analytics as a Priority Area"* **Smart Government Nat Plan**
- *"Principles of a Smart govt. are attentive, predictive and responsive"* **Smart Government Nat Plan**
- *"Increase satisfaction in Government services"* **Smart Government Nat Plan**

Smart Data Objective 3
*Using **data analysis** to inform government **decision-making***

Engagement

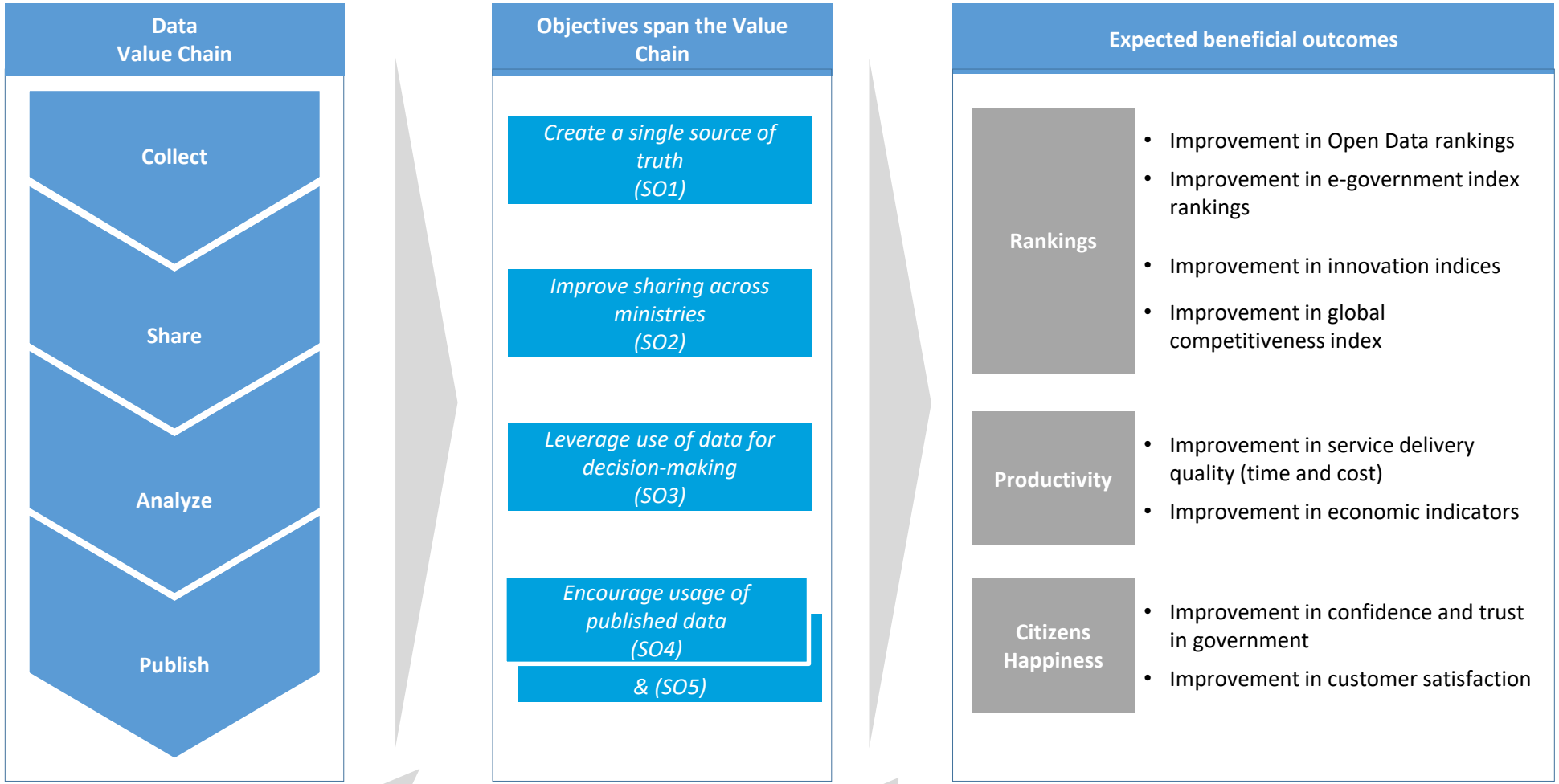
- *"Share of 'knowledge workers' in the labor force"* **UAE National Vision 2021**
- *"Increase… number of ICT startups"* **Smart Government National Plan**
- *"Encourage entrepreneurship [& public/private] partnerships"* **Innovation Strategy 2021**
- *"Setup Innovation Incubators"* **Innovation Strategy 2021**
- *"Consider people perspective, experience in everything"* **Smart Government Nat Plan**

Smart Data Objective 4
*Encourage an **entrepreneurial ecosystem** around Open Data*

Smart Data Objective 5
*Enable engagement by providing **means for people to self-inform** using Open Data*

Development of Smart Data Objectives & KPIs

Objectives identified for the Smart Data Priorities strengthen every aspect of the a data value chain and is expected to result in several beneficial outcomes



Objectives were identified to strengthen each aspect of the value chain

Strengthening the entire data value chain will result in beneficial outcomes in line with the national vision

Smart Data Objectives & KPIs

For each of the Strategic Priorities, we identified a set of objectives that support them, and how these could be measured (through KPIs)

Strategic Priority (SP)	‘Efficiency’ ***SP1: Improve efficiency of government services through sharing and reuse of data***		‘Effectiveness’ ***SP2: Use data analysis to inform decision making***	‘Engagement’ ***SP3: Encourage use of Open Data to drive engagement and innovation***	
Objectives	**SO1:** *Create **a single source of truth***	**SO2:** *Improve **sharing of relevant data** between FGEs*	**SO3**: *Use **data analysis** to inform government **decision making***	**SO4**: *Encourage an **entrepreneurial eco-system** around Open Data*	**SO5**: *Enable engagement by **providing means for people to self-inform** using Open Data*
KPIs	**KPI1:** % of FGEs who have been assigned as a custodian for at least one dataset relevant to its core business **KPI2:** % of the Smart Hubs that is populated	**KPI3**: % of FGEs using the Smart Hubs to deliver priority services	**KPI4**: % of FGEs with articulated use cases for decision making **KPI5:** % of FGEs using the smart analytics platform for decision making	**KPI6**: Number of online services (mobile and web) using Open Data	**KPI7**: Number of datasets published on the Open Data Portal (requested by public, approved by the SDC and of value – value assessed using the criteria in the SDF)

KPIs Targets

Description and targets for the KPIs for the next 3 years

KPI	Description	Targets*		
		Year 1	Year 2	Year 3
KPI1: % of FGEs who have been assigned as a custodian for at least one dataset relevant to its core business	• KPI will promote buy in and integration of datasets from all FGEs into the National Smart Data System.	**100%**	-	-
KPI2: % of the smart hubs that is populated	• KPI measures the completion of Smart Hubs by checking the datasets are available on the system. This is an average of all define Smart Hubs.	**25%**	**70%**	**100%**
KPI3: % of FGEs using the Smart Hubs to deliver priority services	• KPI will assess whether the published datasets are being used by the FGEs to deliver priority services.	**25%**	**70%**	**100%**
KPI4: % of FGEs with articulated use cases for decision making	• KPI will promote FGE participation in the definition of the analytics platform.	**100%**	-	-
KPI5: % of FGEs using the smart analytics platform for decision making	• KPI will measure the ongoing use of the smart analytics platform by the FGEs once it has been setup	**25%**	**70%**	**100%**
KPI6: Number of online services (mobile and web) using Open Data	• KPI measures number of services which use the APIs on the Open Data platform and are active. (Definition of active is at least one access per week)	**8**	**16**	**24**
KPI7: Number of datasets published on the Open Data Portal (requested by public, approved by the SDC and of value – value assessed using the criteria in the SDF)	• KPI will measure the publishing of datasets which have value and have been requested through an active consultation with the public.	**550**	**1100**	**1650**

Note : * Targets are initial values and not yet final

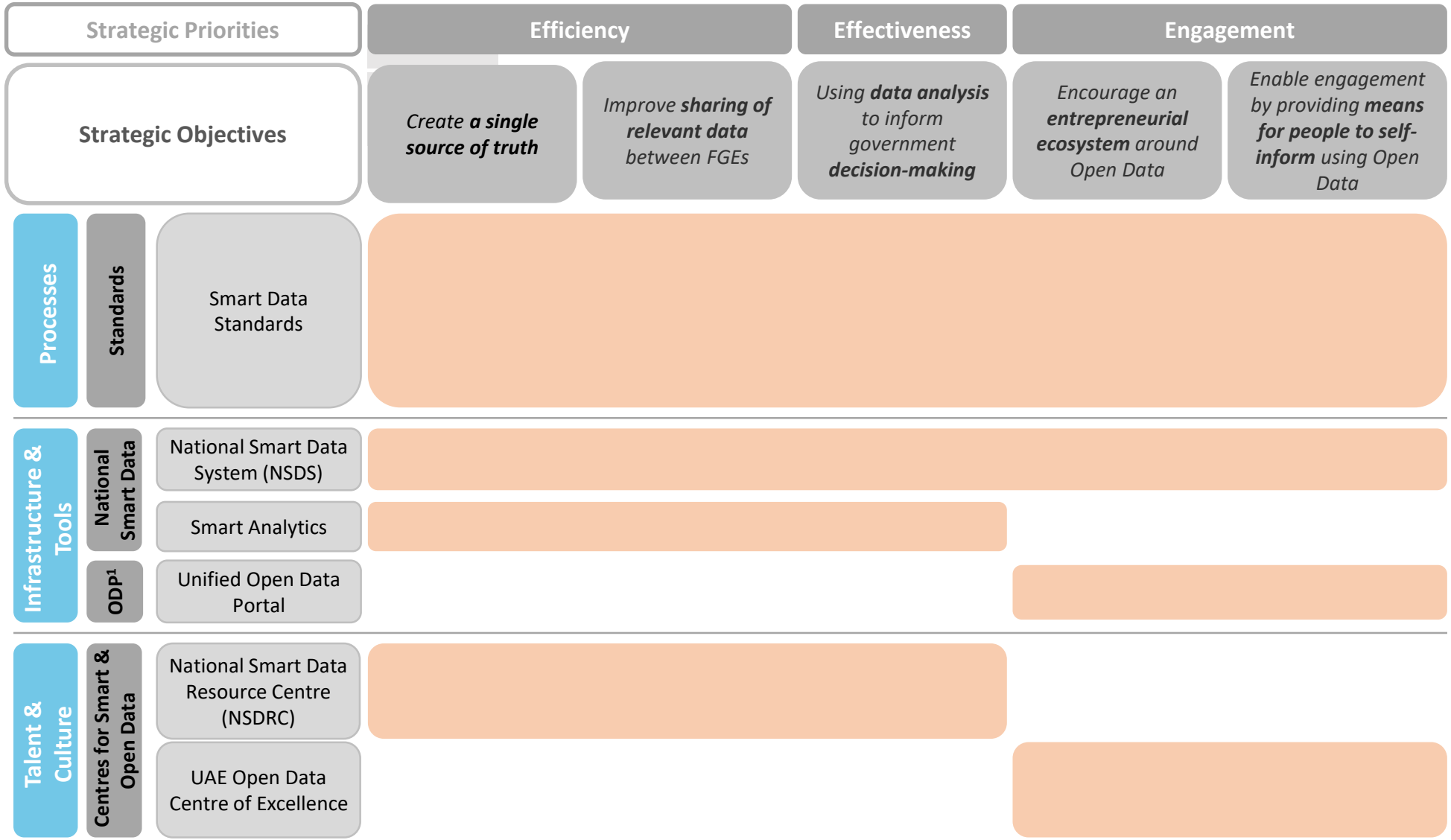
Operating model (OM) framework for the Smart Data Strategy

The Operating Model framework and the current state assessment were leveraged to define the Smart Data future target state

OM elements	Processes	Infrastructure & Tools	Talent & Culture
Key Questions	• *What standards are required to enable the strategy to be implemented?* • *How will the continued success of the program be ensured and risks actively controlled?*	• *What technology is needed to provide to support the strategy?* • *What type of architecture is required?*	• *What job roles are needed to manage the flow of data?* • *What training (knowledge/ skills) are required?* • *What mechanisms are needed to drive a culture of data in FGE?* • *What means are needed to drive Open Data use and innovation in the society*
Current State*	• Only 33% have a Big Data strategy • Only 40% have Open Data strategies • Only 30% have documented data publishing standards and specifications within a policy	• Only 22% have unstructured data; remaining use structured/semi-structured data • 67% are beginners in data platforms using only the relational type	• Most have data analytics departments but majority are staffed with only data administrators/analysts, not the technical and functional skills required • Only 22% have CIOs • 90% publish basic volume of Open Data but do not update regularly; 70% do not engage with data consumers to understand/ evaluate requirements • 72% use data analytics in critical decisions only
Target State / Expected Outcome	• Well-defined standards that covers all the aspects of the smart data implementation	• Actionable technological architecture • Systems that integrate seamlessly with the strategic principles	• Data management and analysis capability across the federal government • Availability of guidelines to support recruitment needs in ministries • An active use of Open and Smart Data • A culture of data driven behavior

* Figures are extracted from the Data and Open Data survey results having participants from 8 FGEs, 4 Abu Dhabi Government entities and 2 Dubai Government entities

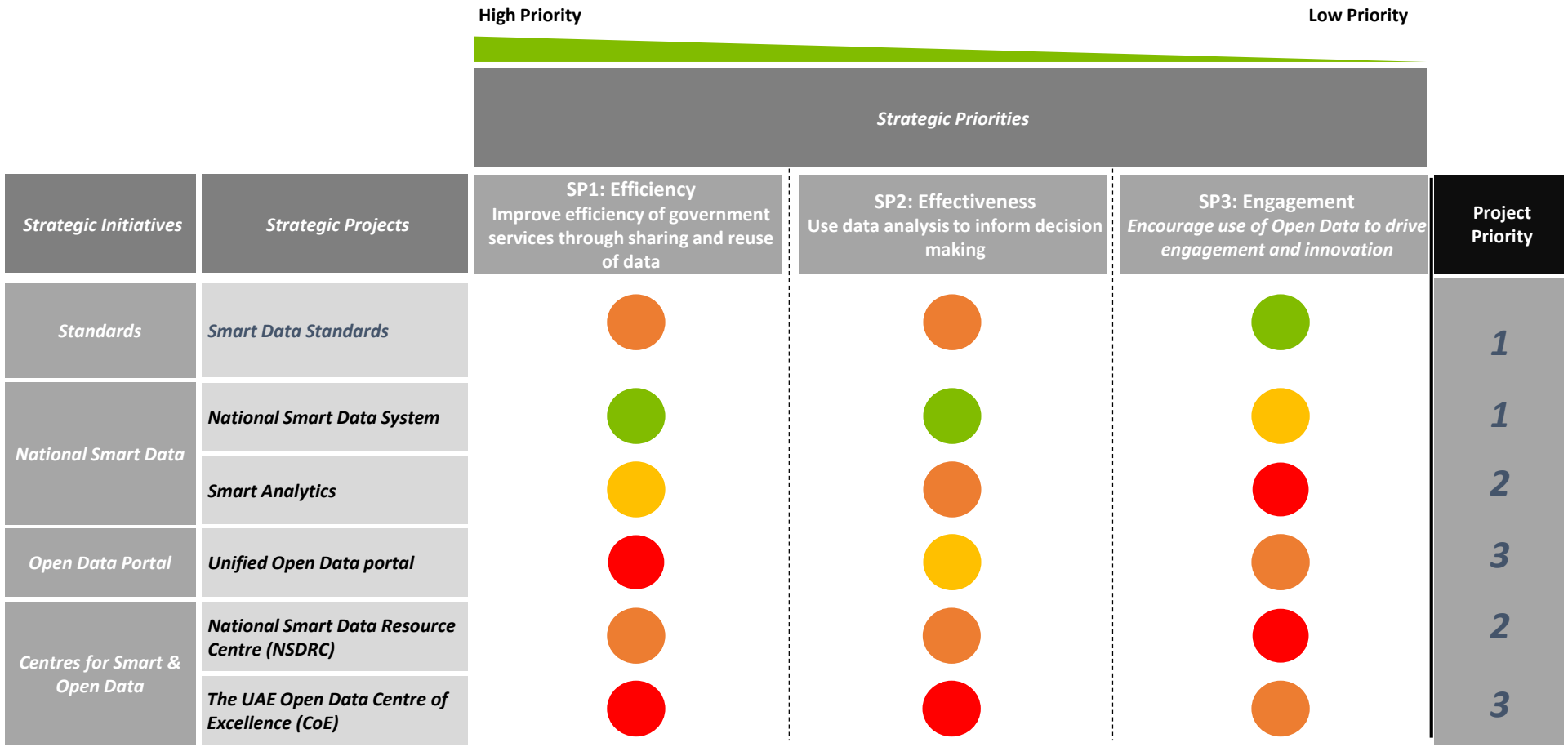
Link between the different layers of strategy



Notes: 1. ODP – Open Data Portal

Prioritization of Projects

Projects were prioritised by mapping them across strategic priorities and assess their impact on the strategic priorities defined previously



Development of Smart Data Initiatives & Projects

Standards

Initiative	Rationale	Summary of Underlying Project(s)	Rationale for UAE	International Benchmarks
			As-Is	Examples
Standards	• Creating a model that serves to address all regulatory implications of Smart Government's use of data • Development of guidelines to ensure seamless end-to-end data handling including sharing of data across government entities and the public	**Smart Data Standards** The project will ensure that the data value chain is guided by an efficient regulatory environment and will provide the necessary guidelines to produce good quality, reliable and interoperable data sets. These will include guiding principles of quality and standards of data sets, of their security and protection at different points of the infrastructure/system holding them, and of data management throughout the different levels of operations through the data value chain.	• Currently, there are no existing guidelines around data publication within FGEs and with the public	 **France:** The Government has developed a Government Open Data Handbook that details guidelines on good practices for publishing and reuse of government data. In addition, the document has been tailored to the needs of different ministries by highlighting examples of data that can be released by specific ministries.

Development of Smart Data Initiatives & Projects

Open Data Portal

Initiative	Rationale	Summary of Underlying Project(s)	Rationale for UAE	International Benchmarks
			As-Is	Examples
Open Data Portal	Enhancements to the existing government.ae: • Creating a unified hub for accessing data from multiple ministries • Providing access to the hub via mobile application • Creating tools for businesses and people to facilitate analysis of data	**Unified Open Data Portal:** Create/enhance the existing portal to become a data hub that will enable the government to extensively share data to the public. The portal will provide data exploration tools to perform data analysis by end users. It will also include a feedback mechanism to assess performance and to understand end-user requirements.	• Currently FGEs have an Open Data tab on their website. Moreover, Government.ae platform provides an access to an aggregated Open Data portal. • The portals provide a certain amount of data sets; but do not have a regular mechanism to update information and do not offer a seamless experience to citizens and businesses who want to reuse data	 **UK:** The UK Open Data portal has more than 23,000 datasets available for the public **Australia:** Australian Open Data portal has more than 5,000 datasets available for the public **Singapore:** Data.gov.sg portal has published 8,800 data sets from 60 government ministries and agencies.

Development of Smart Data Initiatives & Projects

Centres for Smart & Open Data

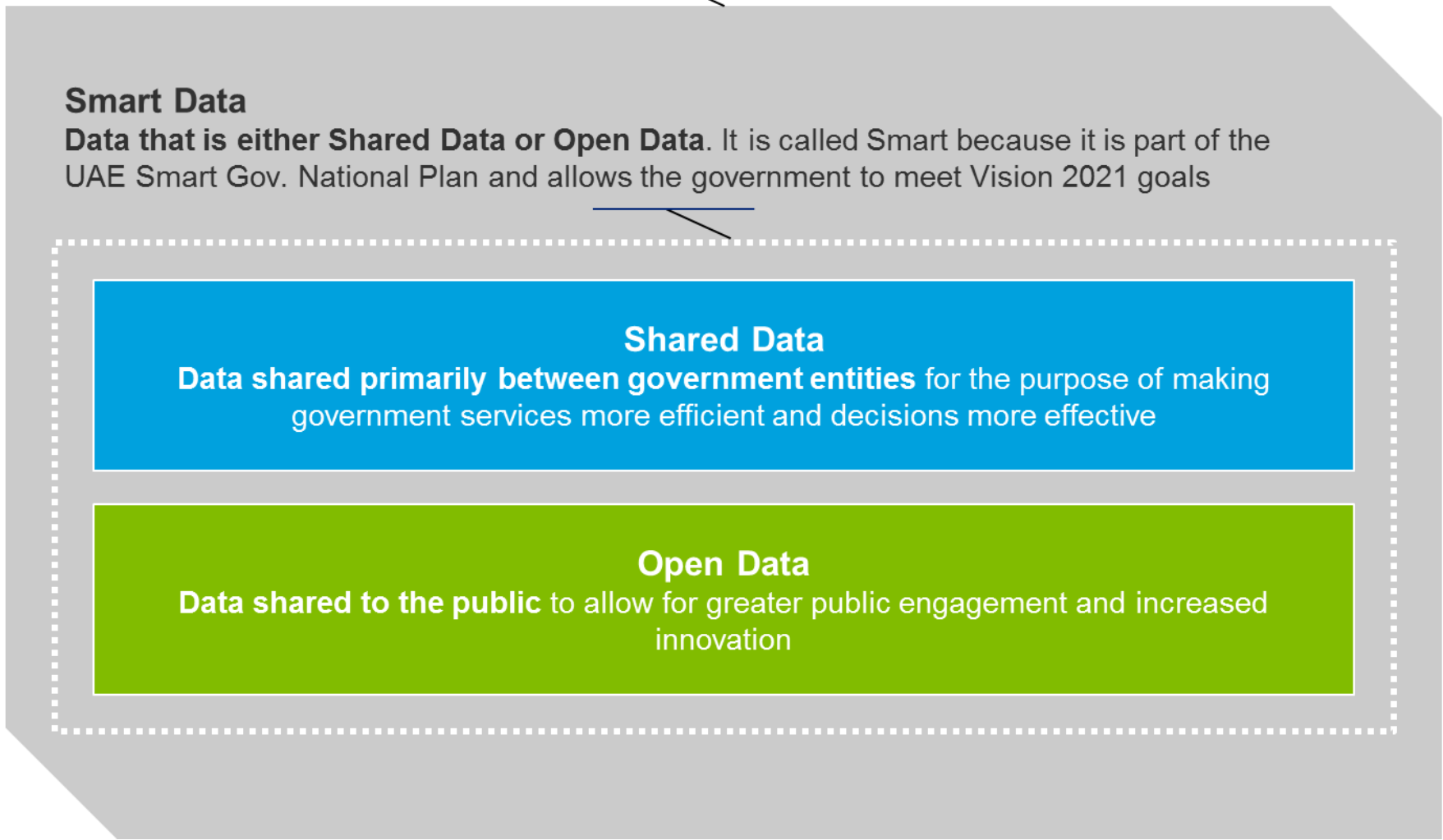
Initiative	Rationale	Summary of Underlying Project(s)	Rationale for UAE	International Benchmarks
			As-Is	Examples
Centres for Smart & Open Data	Creation of new centres to drive the systemic use of data and data analysis in UAE: • Building the required capabilities and talent within the Federal Government to drive insights from data and extract larger benefits from it • Raising awareness among the general public (citizens, businesses, NGOs, education & research institutes) about data, data analysis, and their respective benefits	**National Smart Data Resource Centre (NSDRC):** The Centre will assist FGEs, through trainings, guidance, and development programs, to drive their Smart & Open Data projects and will be in charge of using data analysis to inform policy development and enhance service delivery.	• Limited number of entities have data specialists working to leverage big data analysis. • The planned Federal CIO Model, that will provide ICT talent to FGEs might incorporate NSDRC	**UK:** The **Behavioral Insights team** is composed of data scientists helped to save millions of pounds by leveraging Big Data analytics in healthcare, transport and multiple other sectors. **Australia: The whole of Government Data Analytics Centre of Excellence** has been created to develop tools and platforms that make better use of data analytics to support better analysis of data trends, inform policy development and enhance understanding and competency across government agencies
		UAE Open Data CoE The centre will be focusing on raising awareness and interest in data among the UAE public, on enhancing collaboration between public and private entities to develop skillsets; to enhance data R&D, and encourage data innovation and corresponding economic benefits	• The existing Centre of Digital Innovation (CoDI) can incorporate the pool of data talent within the Federal Govenrment.	**Singapore:** IDA has set up a **Business Analytics Centre of Excellence** to develop local companies their analytics capabilities which has attracted a lot of interest from the private sector IDA has also launched a **training program with special courses to** ensure a ready supply of skills in data analytics and science

Appendix

Definitions and Stakeholders

Smart, Shared and Open Data definitions in the context of this project

All the data that government entities have **access** to either from government or private sources



Stakeholder Selection

We prioritized the main stakeholders according to two main criteria: Level of impact by the Smart Data Strategy and level of oversight required for successful implementation of the Strategy

* Private entities so survey might be modified for them

- Benchmarks

‘Common themes’ across government Data strategies (1/2)

Looking at a range of Public Sector Big and/or Open Data strategies we have identified a set of eight common themes across markets

Themes	Description	Examples
Sharing	In most countries, the public sector is made up of thousands of different organizations holding various data sets, often with duplication — finding ways to share and link this data together has the potential to save time and efforts for government institutions.	• UK: DVLA captures the photograph and structure digitally from the Identity and Passport Service when applying for a driving license.
Improving	Big data analysis serving as a tool for helping government organisation to understand better how they work and generate insights that leaders can act on. This could be rom analysing and optimising the performance of a specific department to gathering and acting on feedback from citizens on service delivery.	• In the UK, NHS publishing MRSA infection rates in all hospitals on data.gov.uk in “league tables” for worst hospitals led to bring down infection rates from 5,000 p.a to 1,200 p.a.
Personalising	The granularity in big data opens up new possibilities for personalising services. It is most useful when the known data relates to a users’ needs and the personalisation is done in a way that is specific for the transaction being undertaken.	• The Midata project works with businesses to give consumers better access to the electronic personal data that companies hold. Giving people greater access to electronic records of their past buying and spending habits can help them to make better buying choices.
Empowering	Opening up “ready to use”, free, large government data sets to increase transparency of government, build trust and empowering citizens to make more informed decisions.	• One of Mastodon C's projects looked at GPs' prescription data and demonstrated that, for example, the NHS could have saved more than £200 million a year if the generic version of statins had been prescribed rather than the patented version.
Solving	Unify and correlate large data sets for problem solving. Large, multi dimensional data sets can be used to identify previously hidden patterns and correlations — e.g., new insights on the underlying dynamics of a population. Data correlations with observed outcomes allows for an auditable, scientific basis for policy decision making.	• The Livehoods Project presents a new methodology for studying the dynamics, hidden structure, and character of a city on a large scale using social media and machine learning (such as tweets and check-ins).

‘Common themes’ across government Big Data strategies (2/2)

Looking at a range of Public Sector Big and/or Open Data strategies we have identified a set of eight common themes across markets

Themes	Description	Examples
Innovating	Opening large government data sets brings about new business opportunities at various levels of the value chain (technology, service, etc.) and in various sectors (real estate, media etc.). Number of successful private sectors examples and emergence of “data as a service” business models	• E.g.: Open data distribute “start up” initiatives • Uber, Garmin, The Weather Channel, Brightscope etc • The infomediary sector in Spain (i.e., companies that sell on top of big data) generate above €500m annually
Saving (Cost)	Efficient sharing of select big data sets can significantly reduce the transactional costs and redundant expenditures across government agencies. In addition, providing data to citizens on line in a searchable format had a direct impact in reducing the cost of servicing	• Bristol City Council estimated that it decreased its cost of service by 15% per transaction by introducing their open data catalogue • San Francisco: $1m savings p.a. with access to real time transit data (22% fewer SF311 calls)
Growing (Revenues)	Some countries have opted to change for commercial usage of data. Governments are also benefiting from big/open data to increase tax income (indirectly through economic activity)	• China’s Open Data trading portal with various depending on data set • Spain’s Judicial Documentation center

The Australian Public Service Big Data Strategy

Improved understanding through enhanced data-analytics capability - August 2013: the strategy aims to assist agencies in achieving productivity gains, through better service delivery and policy development while ensuring the privacy of individuals remains protected

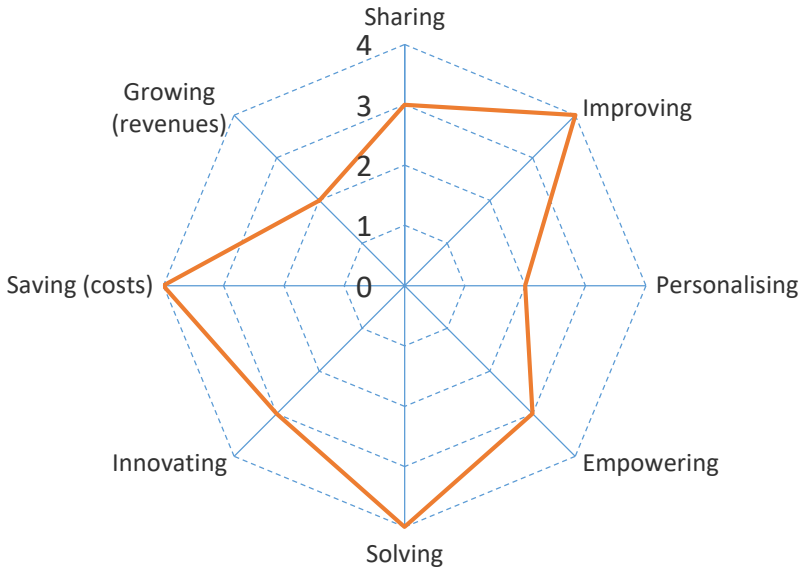
Vision/Mission

The Australian Government will use big data analytics to enhance services, deliver new services and provide better policy advice, while incorporating best practice privacy protections and leveraging existing ICT investments. The Australian Government will be a world leader in the use of big data analytics to drive efficiency, collaboration and innovation in the public sector

Strategic priorities

- Service Delivery including personalization
- Evidence based policy development
- Statistics
- Business opportunities/ innovation
- Skill development
- Productivity/ Cost improvement

Focus ranking against common priorities



Actions

Develop big data better practice guidance	Identify and report on barriers to big data analytics	Enhance skills and experience in big data analysis
Develop a guide to responsible data analytics	Develop information asset registers	Actively monitor technical advances in big data analytics

The UK Open Data White Paper

Unleashing the Potential - June 2012: Transparency is at the heart of the government agenda; opening up will empower citizens, foster innovation and reform public services

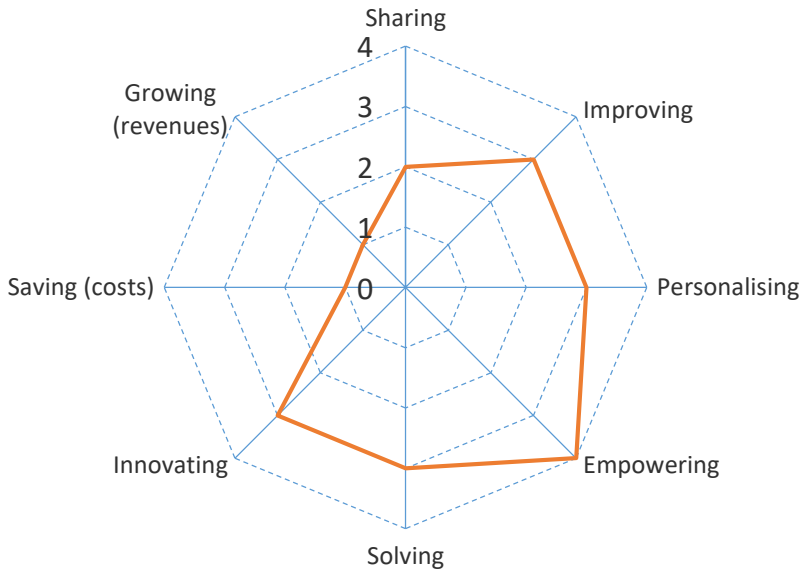
Minister's Word

"We are currently co-chairing the Open Government Partnership of 55 governments; the theme of our chairmanship is 'Transparency Drives Prosperity' – demonstrating the value of open governance to economic growth, inclusive development and improved citizen engagement and empowerment."

Strategic priorities

- Enhance Access to Data
- Build greater trust in public data
- Personalization of government services
- Efficiency of public service
- Provide raw material for innovative ventures

Focus ranking against common priorities



Actions

More Open Data; Better access to public data; Opening up access to research	Changing the culture in public sector	Strengthening rights to data; Regulating data
Strengthening data usability	Open policy making; Privacy impact assessments	Your access to your data; Breaking down the barriers

A Strategy for UK Data Capability – Seizing the Opportunity

Working in partnership with business and academia, the government has developed a shared vision for the UK's data capability, with the aim of making the UK a world leader in extracting insight and value from data for the benefit of citizens and consumers, business and academia, the public and the private sectors

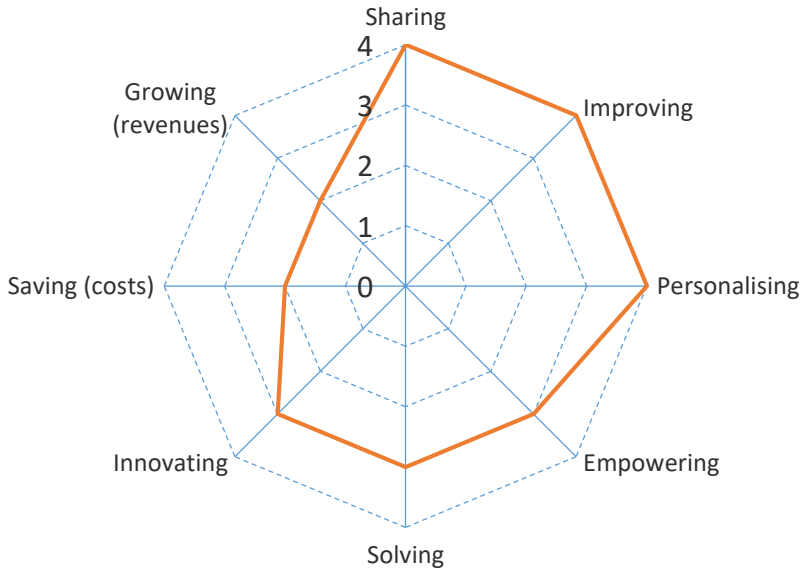
Vision/Mission

The UK is a world leader in dealing with the volume, velocity and variety of data created and analyzed every day – extracting insight and value for the benefit of citizens and consumers, business and academia, the public and the private sector through:

- A strong skills base, able to manage, analyze, interpret and communicate data
- A strategic plan for our data infrastructure across the country
- World-leading research and development, pushing frontiers and driving innovation in data science and analytics
- Ensuring that data can be accessed and shared securely, as appropriate

This is underpinned by a strong policy framework which protects and empowers citizens and supports innovation and growth – with government an exemplar of best practice and with science as a key driver of this capability.

Focus ranking against common priorities



Strategic priorities

- Skilled Workforce & Data Confident Citizens
- Infrastructure, software and collaborative R&D
- Sharing and linking data securely and appropriately

Data Capability Actions

Secure a pipeline of talent & enhance gov. data capabilities	Bolster data as a career	Promote the UK data storage market overseas
Drive awareness, support, and access to e-infrastructure for businesses across six key sectors	Support R&D collaboration and work on a national network of centres in big data analytics	Promote Open Data and guidance and advice on the rights and responsibilities of data users

Singapore’s IDA's Initiatives in Data & Analytics

IDA seeks to create a vibrant Data & Analytics ecosystem in Singapore and position Singapore strategically as an international Data & Analytics Hub

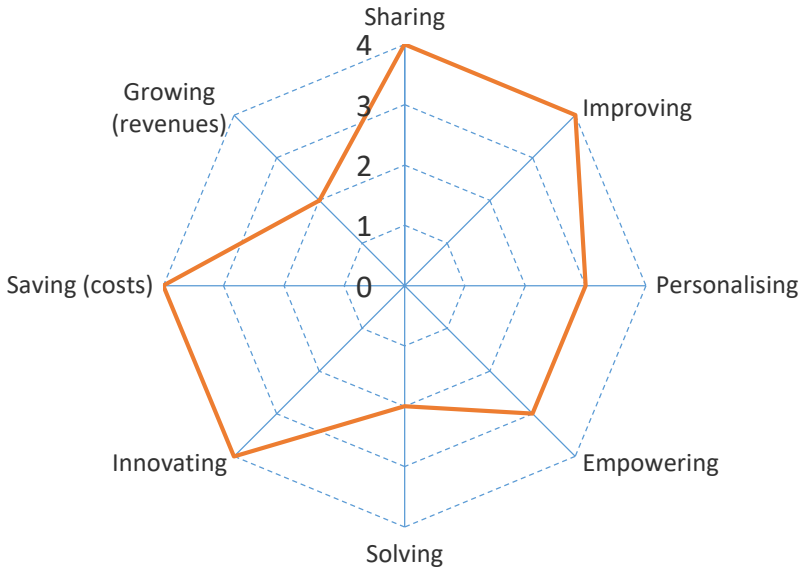
Singapore’s opportunity in Data & Analytics

Local and foreign enterprises will be able to leverage on Singapore's Data & Analytics (D&A) capabilities to apply analytics strategically, to guide business strategy and planning, as well as tactically, to optimize day-to-day business processes. Effective use of analytics will enable enterprises to remain agile and competitive in dynamic market environments, and to maximize productivity.

Strategic priorities

- **Develop capabilities to be positioned as a D&A hub**
- **Innovative application of Data & Analytics**
- **Sectorial economic competitiveness through D&A R&I**
- **Develop supporting platforms and enablers for D&A**

Focus ranking against common priorities



Thrust Actions

Industry development
- Develop innovative analytics & cloud computing products & services
- Drive regional business development

Manpower development
- Enable professional conversion
- Build Business Analytics & Cloud Computing talent and capacity

Government & Social Business Analytics (BA) Programs; BA Shared Services

SaaS Enablement; Standards Development; Data Protection Regulatory Framework

European Commission: Towards a thriving data-driven economy

The European Commission's Communication to The European Parliament, The Council, The European Economic And Social Committee and The Committee Of The Regions, 'Towards a thriving data-driven economy' – July 2014: Data is at the centre of the future knowledge economy and society

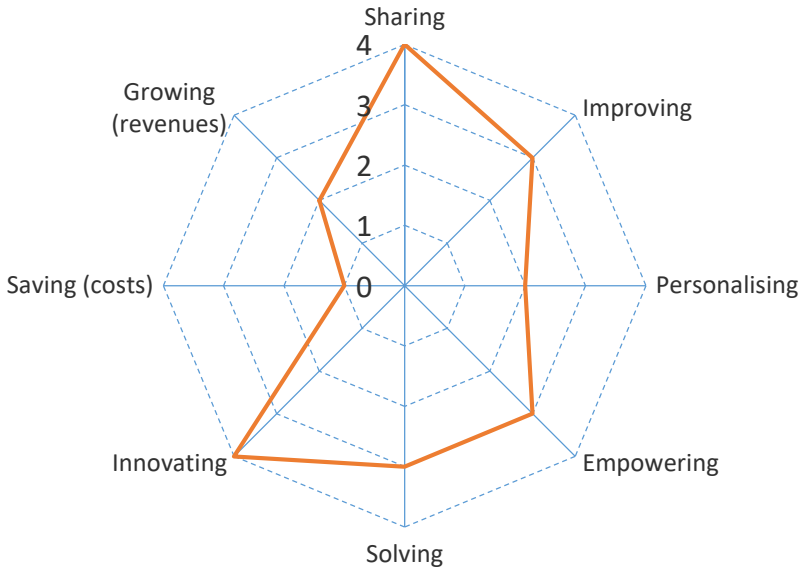
Towards a thriving data-driven EU economy

A prominent feature of a data-driven economy will be an ecosystem of different types of players interacting in a Digital Single Market, leading to more business opportunities and an increased availability of knowledge and capital, in particular for SMEs, as well as more effectively stimulating relevant research and innovation.

Strategic priorities

- Improve competitiveness, quality of public service & citizen's life
- Enabling technologies, underlying infrastructures and skills, particularly to the benefit of SMEs
- Share, use and develop its public data resources and research data infrastructure
- Public R&I – focus on related bottlenecks
- Relevant, data-friendly policies and legal framework
- Reform of EU data protection
- Digitization of public administration and services
- Bring the results of data technologies to the market

Focus ranking against common priorities



A set of initial actions

- Community Building: PPP on data; Digital Entrepreneurship; development of skill base; Data market monitoring; Sectorial priorities for R&I
- Fostering Open Data policies; Data handling tools; & New open standards
- Enabling infrastructure for a data-driven economy
- Assessing regulatory issues

Current State Assessment

Summary of survey results

Please refer to detailed survey results for full breakdown

Smart Data Objectives	Current State Assessment: Survey Questionnaires Results	Implications for the Future
Efficiency **Smart Data Objective 1** *Create a **single source of truth***	• 33% have a Big Data strategy identifying key business goals and challenges • 33% have well-defined processes for collecting & ensuring quality of Big Data • 40% have Open Data strategies identifying key business goals and challenges • 39% have defined data lifecycle management & archival policies • 56% share data with other organizations • But 61% do not have data sharing policies guiding the sharing process	• Very low ordinance of Big Data and Open Data strategies • More widespread adoption of these strategies across entities, in addition to well-defined processes for collection, lifecycle management and quality assurance of data, is recommended • Data sharing exists between entities but could be extensively improved by the adoption of improved data sharing policies in addition to nurturing a culture of utilizing existing Open Data published by other entities
Efficiency **Smart Data Objective 2** *Improve **sharing of relevant data** between ministries*		
Effectiveness **Smart Data Objective 3** *Using **data analysis** to inform government **decision-making***	• 22% extensively use data analytics • 56% have limited usage of data analytics in everyday decisions • 72% use data analytics in critical decisions only • 78% have no defined data analytics policy despite extensive use of BI tools	• Policies need to mandate the use of data analytics • BI tools exist, but they need to be extensively used to leverage data in all decision making processes
Engagement **Smart Data Objective 4** *Encourage an **entrepreneurial ecosystem** around Open Data*	• 90% publish basic volume of Open Data • 40% update published Open Data annually; 30% update quarterly • 22% of the organizations anonymize data before holding it in databases • 30% have documented data publishing standards & specifications within a policy • 50% have unclear or inexistent processes to guide the development and production of Open Data and to ensure the quality assurance of Open Data • 60% are users of Open Data published by other organizations • 70% do not engage with data consumers to understand/evaluate requirements	• A basic volume of Open Data is published • But processes need to be developed & adopted mandating the regular update of data • Data quality standards and specifications have to be defined by data owners and leveraged by all • A culture of actively leveraging Open Data in all entities and in the entrepreneurial ecosystem should be instituted
Engagement **Smart Data Objective 5** *Enable engagement by providing **means for people to self-inform** using Open Data*		

THANK YOU