Telecommunications Regulatory Authority

The National Plan for UAE Smart Government Goals

January 2015

Dubai, United Arab Emirates

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FOREWORD BY DIRECTOR GENERAL

In the name of God and under the leadership of His Highness Khalifa bin Zayed Al Nahyan, the UAE Smart Government continues to look forward to the future of information technology, enabling our Government to achieve the National Vision 2021 goals of a united and prosperous nation. Transitioning from a regionally recognized eGovernment to a world leading Smart Government will be part of that vision.

We have worked with federal and local government agencies as key partners to define a Smart Government roadmap that sets the plan for evolving our services and technology infrastructure into an integrated environment that creates an intuitive user experience for our people.

The National Plan for UAE Smart Government Goals will direct our efforts over the coming years to create a Smart Government personalized for constituents and guide our journey toward making services smart for people's happiness. Our strategic pillars of People, Government, Knowledge, and Innovation will support this vision.

Thank you for your support; we look forward to the shared joint successes in our path toward a Smart Government and prosperous nation.

Sincerely,

Director General, UAE Smart Government

FOREWORD BY TRA BOARD

In the name of God and under the leadership of His Highness Khalifa bin Zayed Al Nahyan, the Higher Committee of the Telecommunications Regulatory Authority (TRA) is pleased to support the National Plan for UAE Smart Government Goals.

We feel it is a critical part of achieving our ultimate goals as a nation, and we look forward to the successes from our shared work against this plan. Thank you.

Sincerely,

TRA Board Chairman

INTRODUCTION TO THE NATIONAL PLAN

UAE Vision 2021 and the ICT 2021 Sector Strategy

UAE is witnessing a journey of transformation as a leader among nations. In May 2013 His Highness (HH) Sheikh Mohammed Bin Rashid Al Maktoum, UAE Vice President, Prime Minister, and Ruler of Dubai, announced the start of an ambitious and one-of-a-kind effort—UAE's transition to Smart Government. This effort created a huge wave of positive change and advancement across the nation. It prompted government entities to consider updating strategies and plans and to put more effort toward modernizing their capabilities and services.

UAE Smart Government is a cornerstone to this nationwide effort. Ever since HH Sheikh Mohammed announced the transition to Smart Government, a number of national initiatives were launched to enable government entities transformation and support them on this exciting journey of change. This has contributed greatly to the quick advancement and progress toward smarter government services, people, and technologies.

Soon after the HH announcement of the Smart Government Initiative, a committee was formed to oversee and drive the required transformation across the country. H.E. Mohammed Abdullah Al Gergawi, Minister of Cabinet Affairs was appointed as the Chairman of the committee that included members from Prime Minister's Office, Telecommunications Regulatory Authority, Du, Etisalat, and ICT Fund.

TRA was tasked by the higher committee to lead the development of the National Plan for UAE Smart Government Goals. The goal is to continue enabling and supporting government entities that are directing change while harnessing the benefits of technology to achieve uniform and consistent transformation. No one will be left behind!

The National Plan for UAE Smart Government Goals was initiated in 2014 in alignment with the national direction embodied in UAE Vision 2021, the UAE National Agenda, and the Information and Communications Technology (ICT) Sector Strategy, as noted in Figure 1.
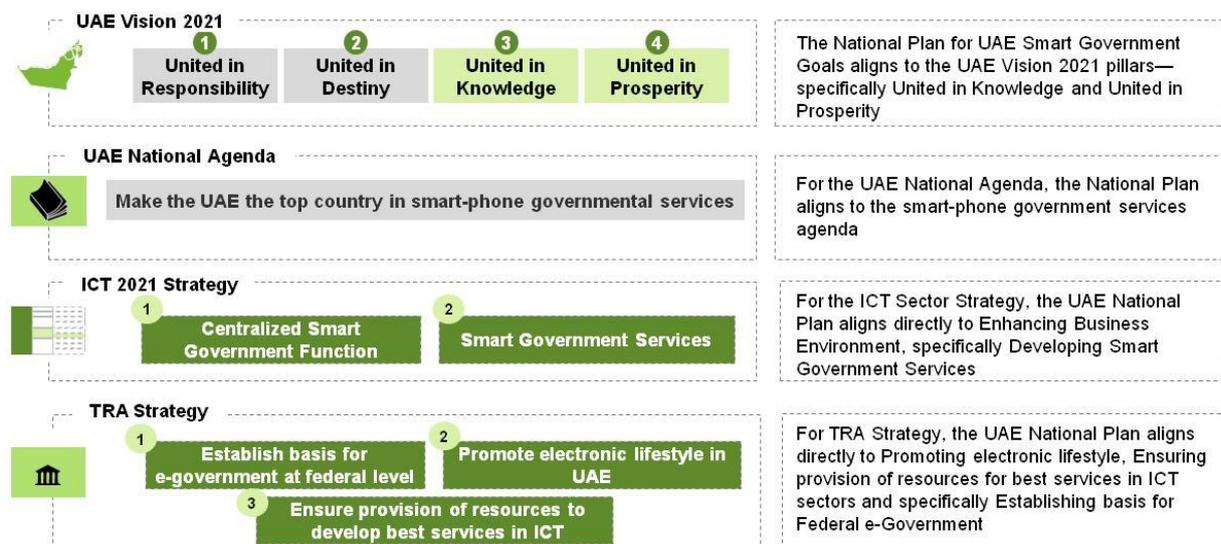

Figure 1: National Plan Alignment

The collective set of initiatives and supporting components of the plan enable entities to transform services in a unified, harmonized manner. As depicted in Figure 2, the current landscape of UAE Government identifies several opportunity areas:

Various transformation approaches and methods exist.

Figure 2: Current Situation

- Adoption of portals and mobile applications for service is increasing.
- There is a growing need for integration and information sharing.
- There is more focus on prioritizing services for modernization.

Tomorrow's UAE Government will transform into a smart environment that is characterized by the following —

- The Government transitions to smart devices as the primary access channel.
- Increased focus is placed on smart services that are predictive and pervasive.
- There is advanced use of Secure Identity across federal and local government entities.
- The infrastructure is integrated at a national level, as depicted in Figure 3.

Figure 3: National Plan Goal

The National Plan's development included scrutiny of existing mobile and electronic government strategies and plans to leverage what the Government has done and chart new domains and initiatives, opening up the possibility for further innovation and advancement toward a Smart Government. The National Plan is based on three tracks that cover strategy, roadmap, and Transformation Measurement:

1. **Smart Government Strategy:** Evaluate the current situation, generate the Assessment Report for the UAE Government and develop the Smart Government Strategy.
2. **Smart Government Roadmap:** Define the work mechanism for Smart Government along with key initiatives to generate a supporting Operating Model and Action Roadmap.
3. **Transformation Measurement Approach:** Document the process to evaluate smart transformation success.

These tracks support key roles of the UAE Smart Government and its mandate, which include —

- Provide training and awareness to various government staff.
- Provide technical guidance and support to government entities on smart and mobile applications.
- Develop shared Smart Government services and infrastructure.
- Participate in smart initiatives that are led by other government entities and provide insights.

The following sections detail the approach, baseline and benchmark findings, strategy development, and appendix, with supporting details for the roadmap initiatives.

APPROACH

METHODOLOGY OVERVIEW

An integrated five-step approach was applied to strategize, design, and build the National Plan, as depicted in *Figure* 4.

Figure 4: National Plan Development Approach

The planning approach took into consideration guiding principles that were founded on making UAE people happy. Those guiding principles were—

- Promote collaboration with all federal and local stakeholders during the strategy development process.
- Account for the maturity levels of all stakeholders by including a thorough baseline phase.
- Ensure no federal or local entity is left behind by considering previous plans and strategies from existing stakeholders.
- Focus on the goal—this is about the people of the UAE and their happiness, not just meeting international electronic/smart government measures and achieving high rankings on that basis.
- Build flexibility and adaptability into the plan to accommodate rapid changes in technology and trends.
- Elevate all entities to a more advanced state and increase collaboration amongst the diverse set of UAE stakeholders.

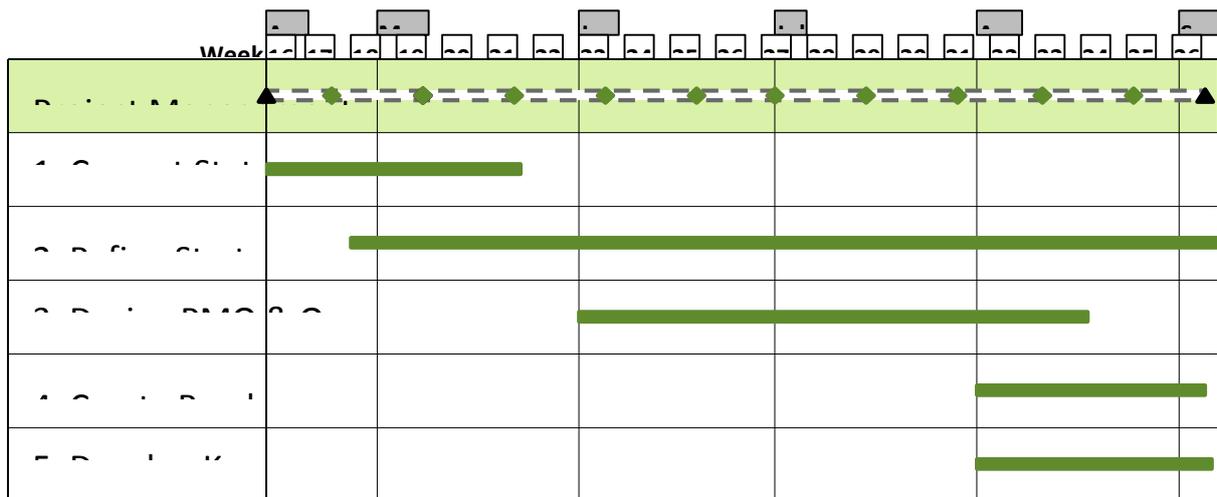A project plan outlined five activity steps from April to September of 2014, as depicted in Figure 5.

Figure 5: National Plan Development Schedule

SMART GOVERNMENT MATURITY MODEL

Maturity models are objective, independent frameworks used to evaluate entities in like terms across structured, consistent criteria, as depicted in *Figure* 6. This was crucial to use in view of the entities' varying maturity levels and the various aspects that are involved with baselining and measuring their smart transformation. This tool will be invaluable as well for steering future

transformations by leveraging consistent and proven Smart Government maturity criteria sets and frameworks.

The Smart Government Maturity Model is composed of three mutually exclusive and exhaustive dimensions with multiple subcomponents. This is the lens that enabled us to maintain clear vision and focus throughout the various stages of the National Plan's development.

Each dimension is composed of subcomponents with varying weights based on the Smart Government analysis, best practices, and international indices.

Figure 6: Maturity Model

Organizational Capability

Organizational capabilities are based on people, processes, tools, and governance. It touches on strategy, design, implementation, and operation capabilities the entity uses to plan and support service delivery, as shown in *Figure* 7.

Dimension	Subcomponent	Core Elements Overview	Weight
1 Organizational Capability	**1.1** Strategy	▪ Organizational planning. Strategic goals and tactical objectives. Mission concept and vision for success. Performance management and evaluation criteria. Evaluation methodology.	10%
	1.2 Resources	▪ Human capital to include competencies, qualifications, and skills. Organizational and reporting structures. Staffing resources. Education, skills, and training for staff.	25%
	1.3 Infrastructure and Tools	▪ ICT resources. Enterprise shared services. Supporting technologies. Managed and third party services.	15%
	1.4 Governance and Policy	▪ Enterprise Architecture. Information Security. Policy structure. Decision making and reporting mechanisms. Processes, procedures, and standards. Audits and compliance.	25%
	1.5 Outreach	▪ Communication or engagement plan. Interaction model. Education, skills, and training for constituents and partners. Inter-agency collaboration and knowledge sharing.	25%

Figure 7: Organization Capability Core Elements

1. Service Delivery

Service delivery emphasizes the capacity to choose high-value services, deliver services using the appropriate access channels, promote service adoption, and influence the service delivery environment, as outlined in *Figure* 8.

Dimension	Subcomponent	Core Elements Overview	Weight
2 **Service Delivery**	**2.1** Environment	▪ Legal, regulatory, and social environment. Promoting eParticipation. Advertising and branding among constituents to build awareness.	20%
	2.2 Service Catalog	▪ Breadth and depth of service catalog. Service offerings by demographic, geography, and sector. Enablement and transformation selection criteria.	40%
	2.3 Customer Focus	▪ Accessibility, functionality, and usability. Access channel strategy. Differentiation by informational, integrated, interactive, or transactional.	40%

Figure 8: Service Delivery Core Elements

2. Strategic Impact

Strategic impact refers to measuarable impact against articulated goals for service delivery, as outlined in *Figure* 9.

Dimension	Subcomponent	Core Elements Overview	Weight
3 **Strategic Impact**	**3.1** Operational Excellence	▪ Impact measured by cost, effectiveness, and efficiency of service delivery and/or government transparency. How this impact is evaluated. How Initiatives tie to this Strategic Objective.	20%
	3.2 Economic Security	▪ Impact measured by ease of doing business, economic diversity, growth, and sustainability and PPPs. How this impact is evaluated. How Initiatives tie to this Strategic Objective.	20%
	3.3 Human Capital Development	▪ Impact measured by entrepreneurship and innovation, eLiteracy and educational attainment, and/or job growth across sectors. How this impact is evaluated. How Initiatives tie to this Strategic Objective.	30%
	3.4 Quality of Life	▪ Impact measured by constituent satisfaction, healthcare availability and cost, ease of use, and/or service adoption. How this impact is evaluated. How Initiatives tie to this Strategic Objective.	30%

Figure 9: Strategic Impact Core Elements

Each maturity model dimension and respective subcomponent is evaluated against a Traditional to Smart Government Level Chart, as illustrated in *Figure* 10.
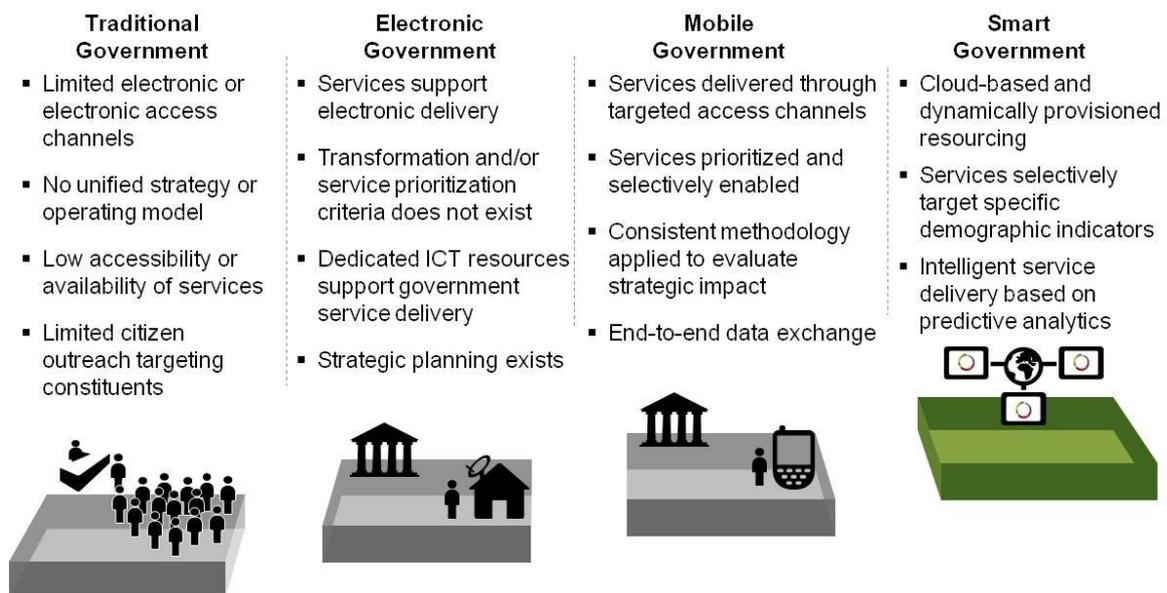

Traditional Government
- Limited electronic or electronic access channels
- No unified strategy or operating model
- Low accessibility or availability of services
- Limited citizen outreach targeting constituents

Electronic Government
- Services support electronic delivery
- Transformation and/or service prioritization criteria does not exist
- Dedicated ICT resources support government service delivery
- Strategic planning exists

Mobile Government
- Services delivered through targeted access channels
- Services prioritized and selectively enabled
- Consistent methodology applied to evaluate strategic impact
- End-to-end data exchange

Smart Government
- Cloud-based and dynamically provisioned resourcing
- Services selectively target specific demographic indicators
- Intelligent service delivery based on predictive analytics

Figure 10: Traditional to Smart Government Level Chart

STRATEGY DEVELOPMENT

The National plan strategy was developed utilizing a five step approach that starts with assessing the current situation of UAE Government and builds on it to establish the Smart Government Operating model, Roadmap and Transformation Measures as depicted in *Figure 11:* National Plan Development Approach.

1 Assess Current State	2 Refine Strategy	3 Create Roadmap	4 Develop Transformation Measurement	5 Design PMO and Operating Model

Figure 11: National Plan Development Approach

Step 1 - Assess Current State

Stakeholder engagement and collaboration from federal and local entities contributed to the National Plan. Several of these stakeholders are identified in *Figure* 12. From April to May 2014, Smart Government stakeholders met during collaboration sessions to understand their Smart Government agenda and current state. The project team utilized the Federal Priority Service List that was provided by the Prime Minister Office to have better informed stakeholder meetings and overall assessment. Discussions were guided as well by UAE's Smart Government Maturity Model, which shed light on all relevant aspects and details to be assessed for each interviewed stakeholder.

Planning outcomes were—

- Build on existing efforts to strengthen eGovernment and mGovernment services, driving toward a common vision.
- Develop the National Plan for UAE Smart Government Goals.
- Increase collaboration amongst the diverse set of UAE stakeholders.
- Refocus on the end consumer of smart services—the citizens and residents of UAE.

Figure 12: Stakeholders (Nonexhaustive)

The stakeholder analysis provided an understanding of the current state through research, workshops, and stakeholder data, as shown in *Figure* 13.
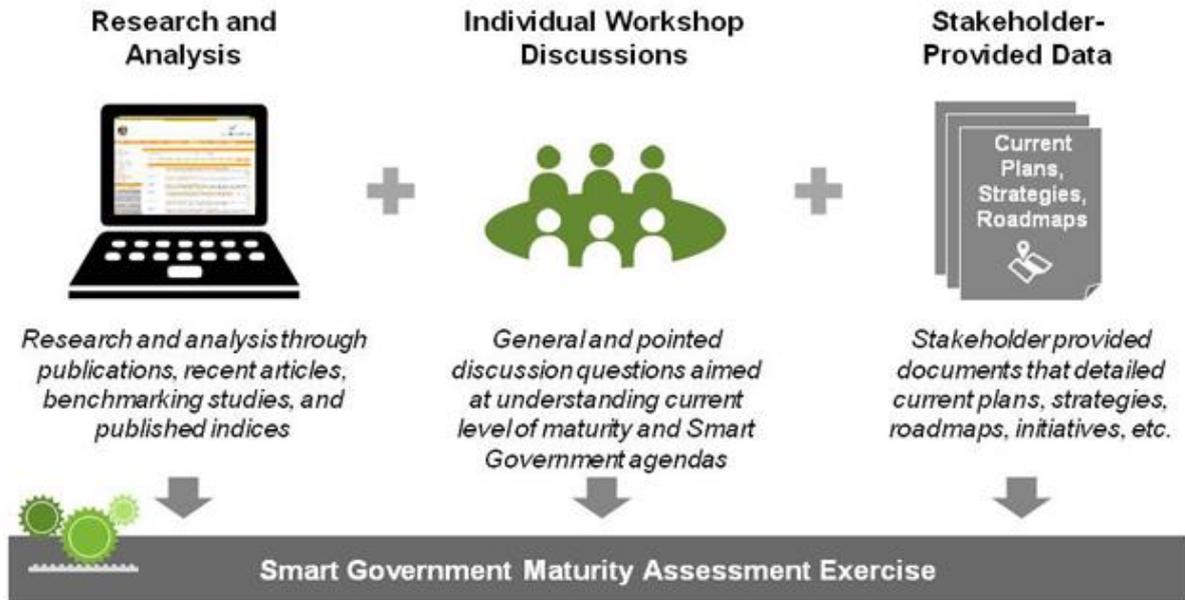
Figure 13: Stakeholder Analysis Approach

Concurrent with the baseline assessment, smart benchmarking provided insight into latest trends and experiences that can be leveraged in UAE. Benchmarks were cross-cutting — the project team looked for countries with recognized success and characteristics along with comparable statistics for various economic indicators, population sizing and recent rankings. The smart benchmarking focused on three key areas of research: smart government agendas, lessons learned and operating models. The project team also scanned for innovative projects regardless of region.

Lessons learned and findings resulting from the smart benchmark effort further enriched the National Plan and led the project team to be better informed with a wealth of candidate ideas and experiences.
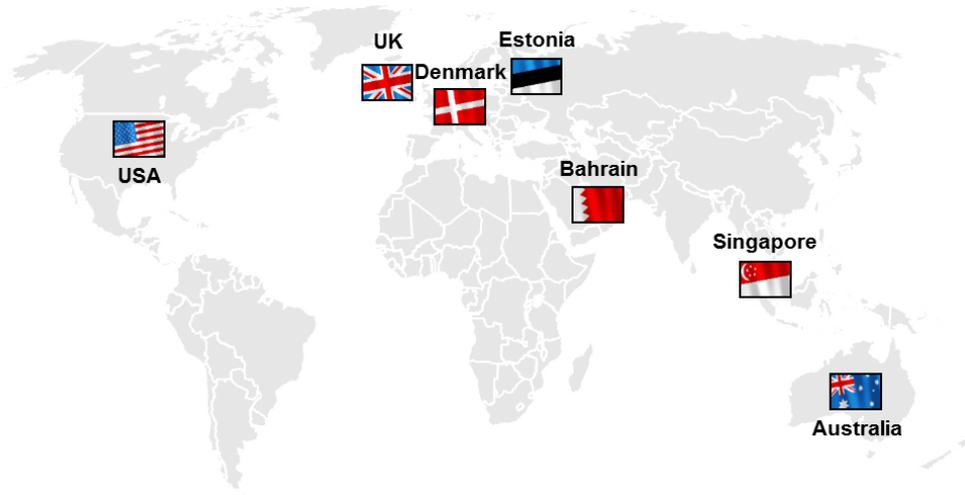

Figure 14: Benchmark Reference Countries

To ensure an accurate assessment for Whole of Government scoring, stakeholders were weighted in terms of their level of impact, as illustrated in *Figure* 15.

Figure 15: Stakeholder Profile

After finalizing the weighted scoring for individual stakeholders, the project team applied the weights to form an aggregate Whole of Government UAE assessment, as illustrated in *Figure* 16: *UAE* Whole of Government Scoring.

The Whole of Government scored in the upper *Electronic Government* level in **Organizational Capacity**. Overall, stakeholders demonstrated maturity in Resources, Infrastructure and Tools. Most entities had strategies in place but were working to align strategy refreshes with latest thinking in mobile and smart government. In conclusion, this category revealed opportunities to grow significantly in areas of policy, infrastructure, resources, and outreach.

Figure 16: UAE Whole of Government Scoring

In the **Service Delivery** category, the UAE Government scored in the *Mobile Government level*, based on prior progress toward mobility. While most entities had published and indexed service catalogues, many were informational only. Legal and regulatory frameworks to govern services along with integration of services still require further improvement.

Finally, the average score in the **Strategic Impact** category showed the UAE Government well in the *Electronic Government* level. Many entities did not have clear links between their objectives and initiatives (strategy) and impact to the environment. Clearly there is an opportunity to increase the impact and value that government services provide to customers, quality of life, and operational efficiency.

Priority areas were identified based on critical domains and aspects that the Smart Government needs to consider throughout its journey of transformation to focus efforts and ensure success. These priority areas are a rational structure for grouping and classifying all initiatives and projects that need to take place for greater consistency and benefit realization while transitioning to the next level of smart maturity. Figure 17: identifies these priority areas.

Figure 17: Priority Areas Identification

Through a number of underlying initiatives, the identified priority areas will address all of the gaps and needs that UAE Smart Government came across based on discussions with stakeholders, benchmarks against leading counties and smart governments, and other sources of input gathered during the Current State Assessment Phase. Points such as information sharing, integrated one-stop services, smart laws, and policies came up in almost every discussion, highlighting the paramount significance and pivotal role in enabling the Smart Government transformation. Details of overarching initiatives are provided under the Roadmap section of this document.

Step 2 - Refine Strategy

The National Plan was developed in alignment with the UAE National Guidance that is predicted on UAE Vision 2021, UAE National Agenda and ICT 2021 Strategy. In addition to that, interviewed Government entities smart government plans helped inform and direct the National Plan for UAE Smart Government Goals.

The project team engaged key stakeholders to help refine and clarify the National Plan's vision and mission statements. The team also reviewed a number of vision statements from other countries—Singapore, the United States, Hong Kong, and Bahrain—as part of the benchmark exercise.
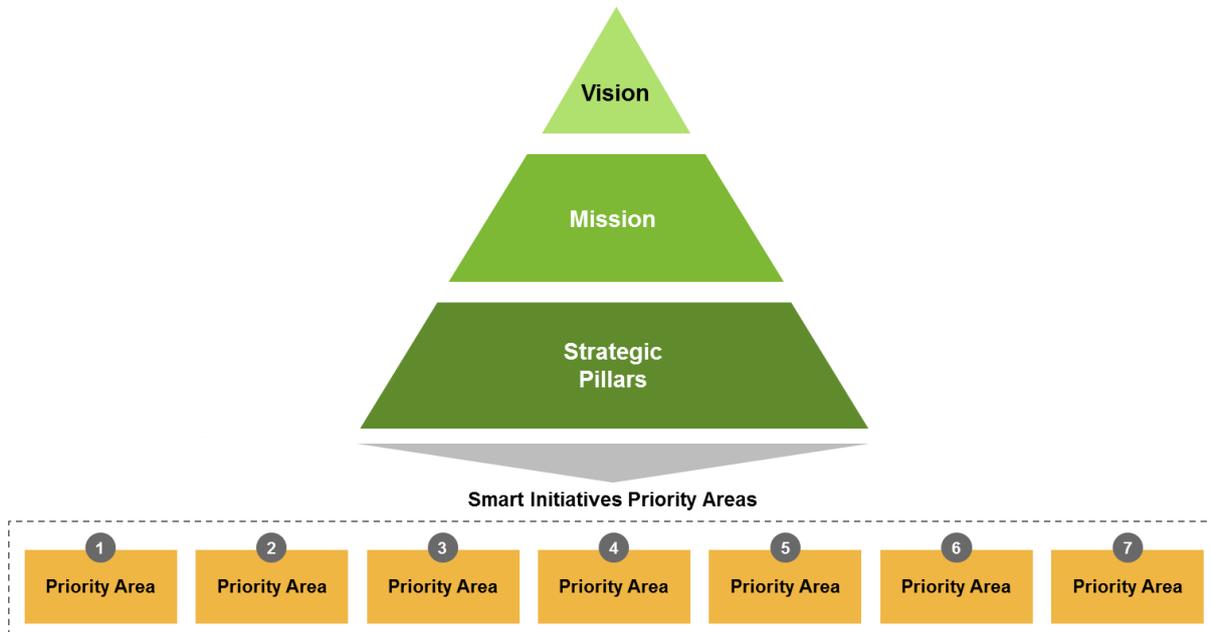
Figure 18: Vision, Mission, and Pillars Structure

Two drafts of the Smart Government vision and mission statements were developed based on discussions with the Prime Minister's Office and interviewed stakeholders. With the baseline set and the National Plan vision and mission defined, the Priority Areas were finalized to organize candidate initiatives, as depicted in Figure 18.

The project team followed a three-step process to identify, evaluate, and select initiatives. Step one identified candidate initiatives by screening concepts and ideas from multiple sources that include: Stakeholder Feedback, mGovernment Roadmap, Thought Leadership and Technology Trends.

Figure 19: Initiatives Identification

Step two evaluated the candidate initiatives against six current feasibility and potential impact criteria, as depicted in *Figure* 20.

Figure 20: Initiatives Evaluation Model

Step three plotted the evaluated initiatives against UAE Smart Government risk tolerances to select initiatives for the National Plan. A total of 22 Initiatives were prioritized for the Smart Government Roadmap. Each prioritized initiative is described by a charter composed of three sections (overview, activities, and timeline).
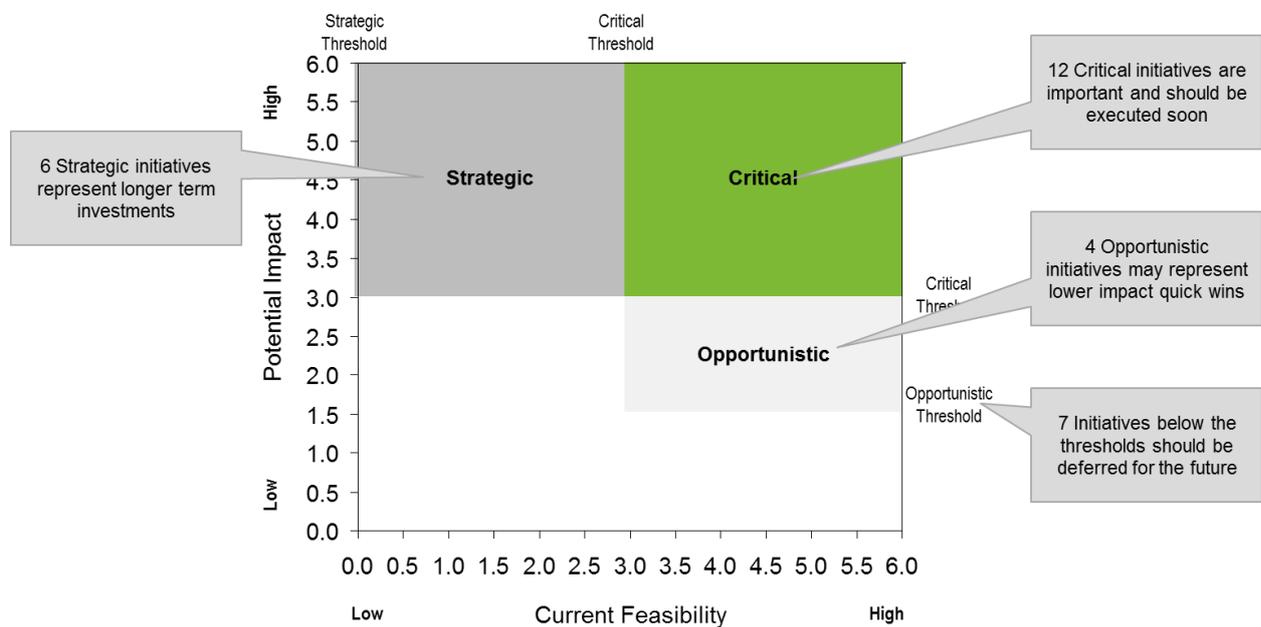

Figure 21: Initiatives Plotting Against Thresholds

Step 3 - Create Roadmap

Initiatives were sequenced based on three logical criteria—Existing, Dependencies, and Capacity/Criticality—as well as a number of assumptions to ensure initiative charters were sequenced into an achievable action plan and roadmap.

UAE Smart Government internal staff requirements were also forecasted to support the National Plan as initiatives ramp up and transition from the design, build, and implement phases to

operations. Budgetary capital and operational expenses forecast for the next 5 years was included in the National Plan as well.

A number of initiatives might be led by other Federal Government entities, considering their nature, scope, and alignment with the leading entity's mandate and business model.

Step 4 - Develop Transformation Measurement

Ensuring alignment of initiatives to the National Plan is paramount to the overall success of the Smart Government transformation. To support alignment, a smart performance management framework was developed to guide the definition of key performance indicators (KPI) for UAE's Smart Government initiatives at strategic and operational levels, as shown in *Figure* 22.

Strategic KPIs are stated under the Transformation Measurement—Strategic Measures section of this document. Operational KPIs will be developed as initiatives progress through the procure, design, build, implement, and operate phases.
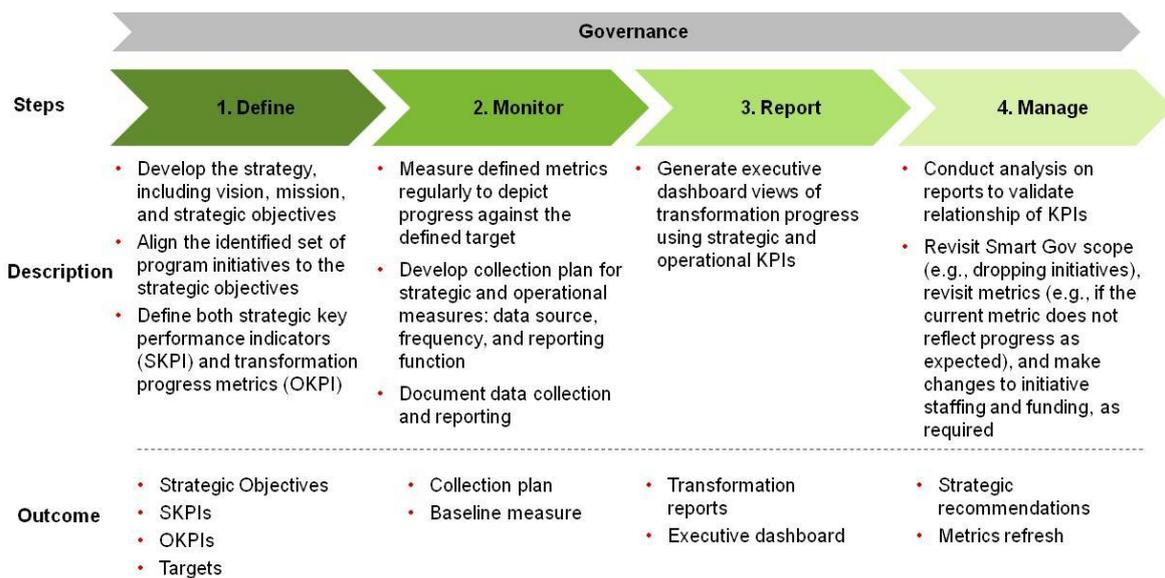

Figure 22: KPI Development Approach

Step 5 - Design Project Management Office (PMO) and Operating Model
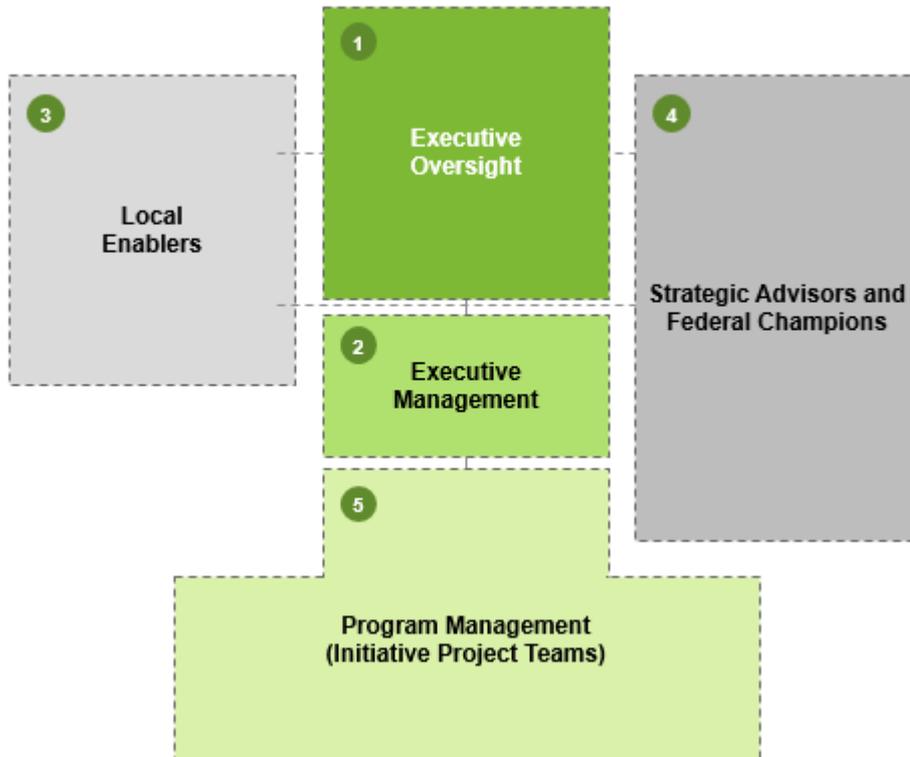
The success of the National Plan will depend on a robust operating model that engages government entities federally and locally as needed during the Smart Government Program.

This operating model is illustrated in *Figure* 23.
It will—

Figure 23: Operating Model Key Components

- Ensure alignment between the National Plan's (1) vision, mission, and goals, and (2) subsequent specific priorities, initiatives, and projects across the Whole of Government
- Ensure senior leadership is kept apprised of major program risks and developments
- Integrate Smart Government initiatives across UAE into a single, coordinated, and well-managed program
- Ensure effective and efficient use of UAE's resources and talent
- Ensure stakeholders are informed of the launch and status of priorities and initiatives
- Provide accountability for delivery.

For each role in the operating model, detailed alignment, composition, role, input, meeting frequency, output, and status were highlighted.

To pressure test the operating model construct, a detailed hypothetical information flow for service modernization was put in place.

In addition, a high-level enterprise architecture (EA) to model Smart Government capabilities and interactions was designed based on one shared view. The proposed high-level EA has both near- and long-term applications to Smart Government. It will be used internally in UAE Smart Government as a first step, with the intention of rolling it out and using it as the standard channel to discuss and model any of the Smart Government capabilities that enable and support government services.

NATIONAL PLAN

The National Plan for UAE Smart Government Goals has a clear vision, mission, and strategic objectives to guide and align the supporting planned investments organized in the 5-year roadmap (that builds on what was launched in 2013 following UAE's announcement to transition to Smart Government and introduces a number of new initiatives reaching to 2018). Ultimately, the Smart Government program seeks to make government services personalized for people and increase their happiness. The mission, vision, and pillars are illustrated in *Figure* 24.
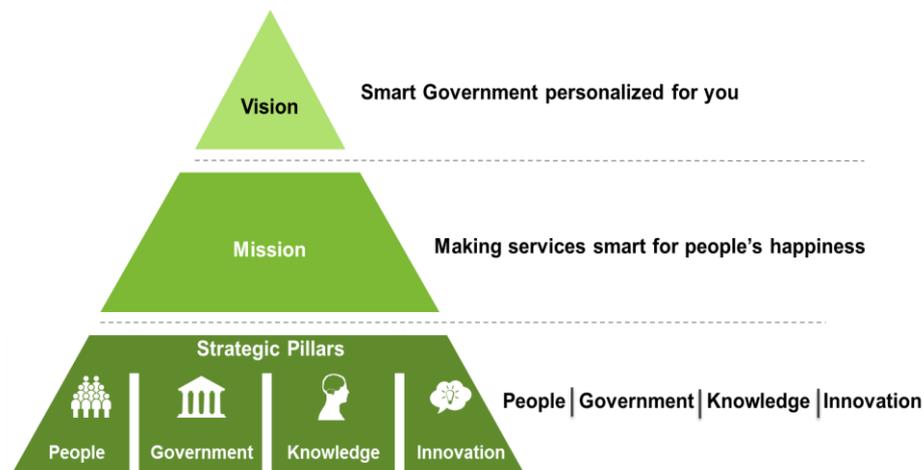

Figure 24: Smart Government Vision, Mission, and Pillars

The vision statement demonstrates that the Smart Government will make an effort to come to everyone with a personal touch. The target is a Smart Government that is—

- **Considerate**—Provide personalized services in a way that makes people feel special
- **Attentive**—Actively listens to people with the aim of continuous improvement
- **Predictive**—Anticipate what people will need and how to best meet their expectations
- **Responsive**—Respond and quickly adapt to trends and requirements as they arise
- **Trustworthy**—Strive to gain the confidence and trust of the people.

The mission statement focuses on the need to have smart services that are driven by what makes people happy. This is defined as smart services that are—

- **Pervasive**—Serve people seamlessly wherever and whenever they demand
- **Integrated**—Deliver one-stop end-to-end services that meet the public's expectations
- **Proactive**—Take action ahead of time by anticipating needs and requirements
- **Adaptive**—Adjust and learn as services are provided and consumed.

Four foundational, strategic pillars—People, Government, Knowledge, and Innovation—have been selected to guide the Government's efforts and realize the vision and mission. This will also ensure the Government—

- Considers peoples' perspectives and experiences and drives their participation inclusively
- Thinks of an integrated and connected government that functions as a whole
- Builds a rich information-based society with strong insights and derived knowledge
- Focuses on innovation as the driver for excellence and creativity in delivering better services.

To achieve its vision and mission, the National Plan defines clear strategic objectives for each of its four pillars, as depicted in Figure 25.

Pillar	Strategic Objectives	Measure and Target
👥 **People**	**Improve customer satisfaction**	Surveyed users of government smart services rate their experience as highly satisfied by 2018
🏛 **Government**	**Increase government efficiency**	Reduction in Smart Government service processing time and government operational IT costs by 2018
🔑 **Knowledge**	**Increase generation and sharing of knowledge using ICT**	Improvement in ICT knowledge development indicators by 2018
💡 **Innovation**	**Increase generation of innovation**	Improvement in the innovation indicators by 2018

Figure 25: UAE Smart Government Objectives

SMART GOVERNMENT PRIORITY AREAS

The National Plan vision, mission, and strategic objectives are realized through seven identified Priority Areas that span the entire Smart Government program requirements:

1. Smart Infrastructure
2. Smart Identity
3. Engagement and Outreach
4. Governance and Policy
5. Human Capital
6. Smart Data Analytics
7. Smart Service Modernization