



Empowering Innovation in Saudi Arabia's Public Sector

March, 2025

EXECUTIVE SUMMARY

This white paper outlines the critical role of building innovation capability within Saudi Arabia's public sector as a cornerstone of Vision 2030. It highlights key achievements, identifies challenges, and provides strategies for leveraging innovation to drive economic, social, and governmental transformation.



Table of Contents

Key Findings & Recommendations	04
Section 1 Introduction	06
Section 2 Understanding Innovation Capability In The Public Sector	09
Section 3 The Case For Capability Building In Saudi Arabia's Public Sector	11
Section 4 Innovation Process Overview & Role Of AI	14
Section 5 Challenges & Barriers	17
Section 6 Strategies For Building Innovation Capability	20
Section 7 Case Studies And Examples	23
Section 8 Measuring & Evaluating The Innovation Capability	29
Section 9 Conclusion	31
Section 10 References & Appendix	34



Key Findings

- Saudi Arabia is on the way to reducing its oil dependency by enhancing innovation across public and private sectors. Key focus areas include digital infrastructure, AI, and cybersecurity, with the aim of creating a globally competitive, knowledge-based economy.
- Innovation is helping to improve quality of life and empower women and youth in Saudi society by promoting initiatives in education, healthcare, and digital infrastructure. Major initiatives like The Mohammed Bin Salman Foundation's (MISK) Impact Accelerator Program exemplifies efforts to enhance operational capability in youth-focused non-profits organizations.
- Through initiatives like regulatory sandboxes and fintech hubs, innovation streamlines services, promotes citizen engagement, and supports Vision 2030's digital transformation goals, including smart cities and e-governance. The Ministry of Communications and Information Technology (MCIT) aims to enhance digital infrastructure, supporting various sectors including e-commerce and healthcare.
- Innovation capability within the public sector is built on several foundational pillars such as leadership and governance, organizational culture and mindset, institutional capabilities and infrastructure, as well as collaboration and partnerships.
- With the establishment of innovation labs such as CODE innovation network, Saudi Accelerated Innovation Laboratory (SAIL), and by developing Special Economic Zones (SEZs), public sector is playing a crucial role in encouraging innovation and affecting industries such as logistics, maritime, energy, tourism and others.
- The benefits of building innovation capability in the public sector includes improved service delivery, enhanced citizen engagement, and attractive local and international business investments in the region.
- There are some key barriers such as resistance to change, skills shortages, limited budget, lack of clear policies and insufficient ICT infrastructure hampering building innovation capability process.
- However, there are some key strategies for enhancing innovation capability include promoting a culture of innovation, investing in digital talent, establishing innovation labs, and strengthening partnerships with private and academic entities.
- Establishment of Saudi Data and Artificial Intelligence Authority (SDAIA), and Digital Government Authority (DGA) by the Saudi government are notable examples of their successful innovation initiatives, and some major projects such as NEOM and the Red sea projects reiterate the example of public sector commitment towards embracing innovation.
- Assessing innovation capability through KPIs such as budget allocation for innovation, process efficiency, and impact metrics (e.g., cost savings and contribution to national goals) is necessary to highlight the progress towards Vision 2030 innovation goals, identify scope of improvement, and ensure accountability.



Recommendations

- Streamline bureaucratic processes to reduce innovation barriers.
- Embrace digital transformation and establish more innovation labs and accelerators.
- Expand global partnerships for skill transfer and collaborative research.
- Build culture of innovation.
- Measure progress using KPIs like training investments, process efficiency, and impact metrics.



Objective of the White Paper

The study explores the critical role of capability building for innovation in public sector by highlighting its significance in driving economic diversification, social development, and government effectiveness.

It aims to outline the benefits of fostering innovation capability, provide a comprehensive understanding of innovation in the public sector, and present effective strategies to strengthen innovation capabilities, aligning with Saudi's development goals.

This publication is part of TAM's Public Engagement and elaborates on the outcomes of previous work carried out by TAM through their offerings, including accelerators, bootcamps, incubators, and innovation labs, in support of the Saudi government's strategic initiative of capability building in the innovation domain.

The background of the page features a large, semi-transparent blue circle. Inside this circle, there are two hands reaching towards each other, one from the top left and one from the bottom right. The hands are slightly out of focus. Scattered around the hands are several out-of-focus, glowing circles in shades of blue and purple, resembling bokeh lights. The overall color palette is dominated by deep blues and purples, with a black background outside the blue circle.

Section 1

Introduction

Building Innovation Capability in Saudi Arabia's Public Sector

Capability building for innovation focuses on equipping government institutions with the skills, tools, and frameworks needed to generate and implement new ideas, processes, and technologies that can enhance service delivery, policymaking, and administrative functions. This involves promoting a culture of innovation, developing human capital through training and education, and integrating advanced technologies like artificial intelligence (AI) and data analytics into public services.

Saudi Arabia is making significant investments to develop a robust innovation ecosystem aimed at driving digital transformation within its public sector. This initiative is part of a broader strategy, Vision 2030.

Saudi Arabia's Vision 2030 is a transformative strategic framework aimed at reducing the Kingdom's dependence on oil, diversifying the economy, and developing public services across sectors like health, education, infrastructure, and tourism.

It prioritizes a knowledge-based economy led by innovation, entrepreneurship, and digital transformation, positioning Saudi Arabia for global competitiveness. This strategic vision centers around three key themes: A Vibrant Society, A Thriving Economy, and An Ambitious Nation.

Innovation's Impact on Economy, Society, and Governance

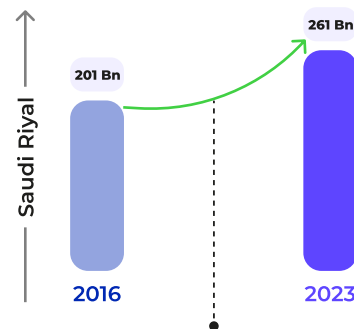
Innovation plays a critical role in driving economic diversification, social development, and government effectiveness which is undergoing transformative changes to achieve long-term sustainability and resilience.

Economic Diversification

Innovation is essential to diversify economic activities, and by investing in new technologies, industries, and services, the country can develop alternative revenue streams.

By 2023, Saudi Arabia's non-oil revenue increased by 30% to SAR 261 billion, up from SAR 201 billion in 2016, primarily due to economic diversification efforts, introduction of VAT in 2018, and various other fiscal reforms¹.

Vision 2030 has led to a significant increase in non-oil revenue.



A **30% growth**, spurred by the introduction of VAT in 2018 and other fiscal reforms¹

Sources: [Saudi Arabia Vision 2030: Key Progress Facts](#)

Innovation strengthens a thriving entrepreneurial ecosystem by encouraging small and medium enterprises (SMEs) to develop products and services. For instance, SEA Ventures is a key government initiative that drives economic diversification by promoting entrepreneurship, supporting tech-driven innovation, and creating new industries. It accelerates startup development, empowers SMEs, generates employment, and attracts foreign investment.

108% SME Growth Since the launch of Vision 2030

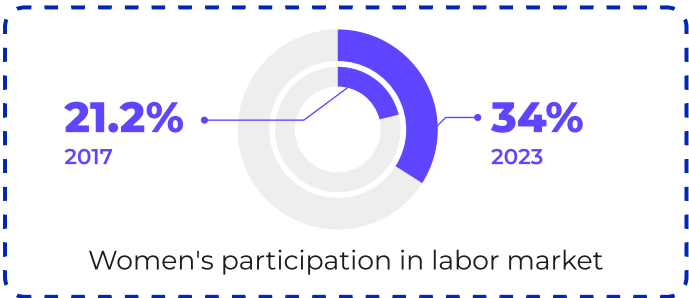
Sources: [Vision 2030 Annual Report](#)



Social Development

By promoting initiatives in education, healthcare, and digital infrastructure, innovation is helping to improve quality of life and empower women and youth.

As a result of innovative thought process, targeted programs such as Wusool providing transportation to women employed in the private sector, and the Qurrah program establishing childcare centres for working women, women participation in the labor market has increased. In 2023, the participation rate rose to 34.2% from 21.2% in 2017.



Sources: [HSI Article](#)

Further, The Mohammed Bin Salman Foundation's (MISK) Impact Accelerator Program is designed to help youth-focused non-profit organizations expand their reach and enhance operational capability for greater social impact.

Government Effectiveness

Innovation empowers citizens by making government services more accessible and responsive, encouraging individual responsibility, and enabling people to take an active role in shaping their future.

Government is encouraging innovation by implementing initiatives like regulatory sandboxes and fintech hubs, allowing startups and tech companies to test products in a controlled environment while ensuring regulatory compliance.

Ministry of Communications and Information Technology (MCIT) aims to build a cutting-edge digital infrastructure that supports Vision 2030's digital transformation goals in e-commerce, digital education, healthcare, smart cities, national data and e-government services.



Sources: [Vision2030 Annual Report](#)

Section 2

Understanding Innovation Capability in the Public Sector



Innovation capability within the public sector is essential, and it enables government institutions to adopt, create and sustain innovative practices and solutions that effectively address current and emerging challenges.

Capability is built on several foundational pillars such as leadership and governance, organizational culture and mindset, institutional capabilities and infrastructure, as well as collaboration and partnerships.



Leadership and Governance

Leadership in the public sector sets a strategic direction that prioritizes innovation. Effective leaders and governance structures create an environment where innovation thrives, ensuring alignment with national goals. The Hajj Hackathon, organized under the guidance of Saudi leadership, fostered a collaborative culture by involving global participants to innovate solutions for pilgrims.



Organizational Culture and Mindset

A supportive organizational culture advances creativity, adaptability, and collaboration, enabling public institutions to improve services and respond to challenges. The Digital Government Authority (DGA) plays a key role by promoting digital excellence and supporting government entities in their digital transformations, enhancing interactions with citizens and businesses.



Institutional Capabilities and Infrastructure

The Government focuses on developing robust institutional capabilities and infrastructure by establishing innovation hubs like King Abdullah University of Science and Technology (KAUST) and Prince Mohammed bin Salman University for Digital Sciences and Technology to drive forward-thinking research and development.



Collaboration and Partnerships

Collaboration between public institutions and various stakeholders is vital for nurturing a knowledge-sharing ecosystem. The Misk Foundation plays a key role here, partnering with both local and international institutions to develop youth's competencies in business, culture, and technology. These partnerships facilitate access to crucial resources and expertise, helping young individuals gain the required skills.

Section 3

The Case for Capability Building in Saudi Arabia's Public Sector



The Role of the Public Sector in Driving Innovation and Supporting Key Industries

The public sector is playing a crucial role in fostering innovation and catalyzing the growth of key industries by implementing advanced processes & solutions through the establishment of innovation labs & SEZs as stated below:



Innovation Labs

- **CODE Innovation Network**, launched by the MCIT supports digital entrepreneurship by promoting innovative business models and connecting clients with expert engineers and technicians through various events and programs.
- **Saudi Accelerated Innovation Laboratory (SAIL)**, owned by Saudi Aramco, focuses on creating a global ecosystem that brings together industry leaders, academic institutions, and startups to drive digital R&D, develop new solutions and address global challenges.
- **Human Capability Initiative**, a global cooperative platform, unifies international efforts to enhance human capabilities by addressing skills, education, talent, and technology while bringing together policymakers, thought leaders, & entrepreneurs to foster collaboration, resilience and innovative solutions².



Special Economic Zones (SEZs)

Saudi Arabia has established its first five SEZs, each designed with unique commercial regulations tailored to specific industry sectors. These zones aim to promote economic diversification and establish the Kingdom as a global hub in the following key industries:

- **Maritime and Offshore:** The Ras Al-Khair Special Economic Zone focuses on attracting investments in maritime and offshore industries, offering opportunities for growth and access to global markets.
- **Logistics:** Another SEZ is designed to boost the logistics sector, leveraging the nation's strategic geographic location to enhance global trade flows.
- **Technology and Innovation:** Other zones are oriented towards technology and innovation, attracting tech giants and startups alike, encouraging an environment of technological advancement and digital transformation.



Key Industries Supported by Public Sector Innovation

- **Energy and Petrochemicals:** Driven by giants like Saudi Aramco, the sector is transitioning towards more sustainable practices and incorporating advanced technologies to enhance efficiency.
- **Technology and Telecommunications:** Supported by initiatives like the CODE Innovation Network, this sector is rapidly expanding with a focus on digital transformation and cybersecurity.
- **Tourism and Entertainment:** With initiatives to increase tourism, this sector is seeing significant investment in infrastructure & cultural projects.

Through these focused efforts in innovation labs and SEZs, the public sector is not only enhancing its service delivery but also significantly contributing to the growth and diversification of its economy. This approach positions KSA as a leader in both regional and global markets, harnessing innovation as a key driver for development.

Benefits of Building Innovation Capability in Saudi Arabia's Public Sector

Enhancing innovation capability within the public sector has far-reaching benefits that contribute to improved service delivery, citizen engagement, and economic growth. By adopting innovative practices, public institutions can become more efficient, adaptive, and responsive, ultimately supporting the nation's overall development goals.



Improved Service Delivery

The public sector is advancing its innovation capabilities to provide high-quality, efficient, and citizen-centric services. A notable initiative is the centralized payment system, SADAD, launched by the Saudi Arabian Monetary Agency (SAMA).

SADAD simplifies and accelerates electronic payments for bills and financial dues across Saudi banks, enhancing the financial infrastructure and user experience significantly.

It streamlines transactions across all banking channels in the nation, promoting financial inclusion and digital literacy.



Enhancing Citizen Engagement

The public sector is dedicated to empowering active citizen participation to improve public services and nurture a culture of innovation. One such initiative under this objective is MISK Innovation Initiative.

- **Misk Innovation Initiative:** Supported by the Misk Foundation, this program aims to inspire innovation and entrepreneurship among youth. It offers skill development, support for innovative solutions, and resources for sustainable business creation, contributing to economic and social transformation.



Attracting Investment

The establishment of innovation hubs and SEZs encourages local and international businesses to invest in the region. These zones promote collaboration between startups, corporations, and research institutions, driving economic diversification beyond oil dependency.

Ras al-Khair Special Economic Zone positioned as a prime destination for maritime and offshore industries, offers the following substantial incentives to attract investment:

- **Tax Incentives**
Permanent 0% withholding tax on repatriation of profits, and 5% corporate income tax for up to 20 years.
- **Regulatory Benefits**
Flexible regulations regarding foreign talent and 0% VAT on intra-zone transactions.
- **Customs and Levy Advantages**
0% customs duties deferral and expat levy exemption for zone employees and their families.

These incentives not only bolster investment in key sectors but also enhance KSA's appeal as a global hub for logistics and future-oriented industries.



Overall Impact

By enhancing service delivery, encouraging citizen engagement, and attracting investment, the public sector is significantly boosting its capability for innovation. These efforts not only support the nation's transformation but also position it as a leading example of how innovation can drive comprehensive national development. This strategic approach ensures that it remains competitive in the global economy, attractive to investors, and responsive to the needs and aspirations of its citizens.

Section 4

Innovation Process Overview & Role of AI



Gated Innovation Process & Role of AI



Hackathons

A collaborative platform to spur the genesis of innovative ideas by harnessing the collective intelligence and creativity of diverse participants.

Pillars

Collaborative Ideation

Facilitates the synthesis of diverse perspectives, creating a fertile ground for breakthrough innovations.

Creative Problem Solving

Encourages the pursuit of novel solutions to complex challenges, driving forward-thinking developments.

Crowdsourcing Expertise

Leverages the wide-ranging skills and insights of participants to enrich the ideation process.

AI Disruption

Insight Generation

Advanced AI algorithms analyze extensive datasets to unearth underlying patterns and high-impact opportunities for innovation.

Automated Ideation

AI systems enhance traditional brainstorming by generating and refining idea proposals, increasing the breadth and depth of creative output.

Bootcamps

These intensive development sessions transform selected ideas into tangible prototypes, guided by expert insights and bolstered by cutting-edge technology.

Pillars

Expert Guidance

Draws on deep domain knowledge to steer prototype development along optimal trajectories.

Skill Enhancement

Amplifies the technical and strategic capabilities of participants, preparing them for complex innovation challenges.

Resource Allocation

Provides critical access to advanced tools and methodologies essential for sophisticated prototype creation.

AI Disruption

Virtual Mentorship

AI-driven platforms offer real-time, scenario-based guidance and adjustments, personalizing the learning and development journey.

Prototyping Automation

Utilizes AI to streamline the prototype refinement process, significantly reducing development cycles and enhancing precision.

Gated Innovation Process & Role of AI

Testing and Feedback

This phase evaluates the prototype's viability and alignment with market needs through structured testing and iterative feedback loops.

Pillars

Feedback Integration

Systematically incorporates user feedback to refine and optimize product features.

Market Testing

Implements strategic pilot tests to rigorously assess market receptivity and readiness.

Iterative Development

Facilitates rapid iterations based on real-world data, ensuring the product evolves in alignment with market demands.

AI Disruption

Predictive Market Analytics

Employs sophisticated AI models to forecast market trends and product adoption, informing strategic adjustments.

User Engagement Analysis

Advanced analytics dissect user interactions, enabling targeted enhancements and improved user experiences.

Accelerators & Strategic Partnerships

Securing funding to propel large-scale deployment and commercialization.

Pillars

Comprehensive Risk Assessment

Evaluates the feasibility and scalability of projects

Investor Engagement

Builds trust with robust investor relations.

Commercialization Support

Assists in smooth transition to market-ready operations.

AI Disruption

Advanced Funding Analytics

Can assess risks, potential returns, and project impact.

Efficient Capital Allocation

Simplifies funding processes and speeds decisions.

Launching or Growing

This stage focuses on strategically introducing innovations into the market or scaling existing offerings, ensuring sustainable growth and market penetration.

Pillars

Market Entry Strategies

Crafts detailed market entry and scaling strategies, tailored to ensure robust market penetration and user acquisition.

Growth Management

Develops and implements growth frameworks that adapt to evolving market conditions and opportunities.

Sustainability Measures

Establishes enduring practices that support long-term operational viability and market relevance.

AI Disruption

Strategic Marketing Insights

AI-driven insights craft precise marketing strategies, optimizing engagement and conversion across targeted segments.

Customer Segmentation and Personalization

AI tools finely segment the market and tailor offerings to enhance customer satisfaction and loyalty.



TAM's Role in Driving Transformative Innovation

TAM is a trusted partner in enabling Saudi Arabia's innovation journey, with a proven track record of delivering strategic, results-driven solutions tailored to the unique needs of public sector entities. As an innovation consultancy deeply aligned with Vision 2030, TAM has developed a robust and systematic approach to empowering organisations to institutionalise innovation and drive sustainable growth.

Our methodologies are rooted in a comprehensive framework that integrates innovation into every stage of organizational development. TAM's approach focuses on creating custom solutions aligned with our clients' objectives, ensuring impactful outcomes through four key pillars: design, governance, implementation, and impact assessment.

What sets TAM apart is its multi-dimensional expertise and deep understanding of institutional innovation, making it the ideal partner for complex projects in the governmental sector. TAM's ability to merge local insights with global best practices has been demonstrated in over 35 specialized innovation projects. Notably, we've supported clients like ZATCA in building comprehensive innovation frameworks and activating cutting-edge ecosystems, setting new benchmarks for excellence.

Section 5

Challenges & Barriers

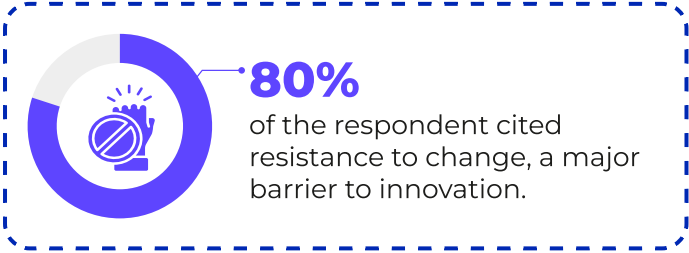


Driving innovation within the public sector comes with its unique set of challenges. Understanding these factors is crucial for effectively building innovation capability and ensuring the success of ongoing reforms.

Resistance to Change

A significant barrier is the resistance to adopting new technologies and processes. Many employees may fear job loss or feel uncomfortable transitioning from traditional methods to digital solutions, leading to inertia within organizations.

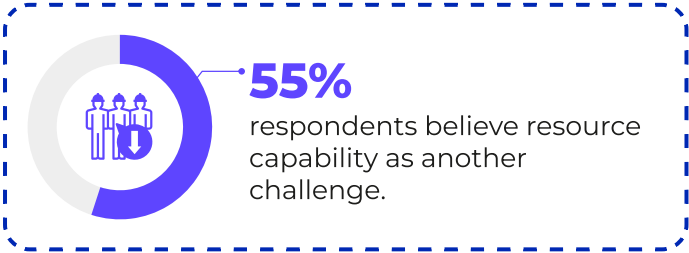
As highlighted by PwC Middle East’s survey,



Lack of Skilled Labor

There is a notable shortage of qualified personnel with the necessary skills in information technology and digital management. This gap hampers the effective implementation of innovative solutions and e-government initiatives³.

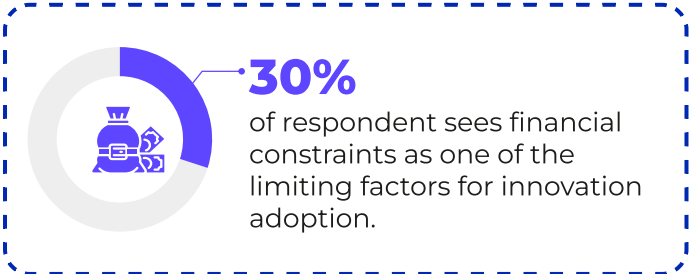
The survey indicates



Limited Budgeting for ICT

Financial barriers are significant, with many public sector entities facing constraints on their budgets for information and communications technology (ICT). High costs associated with implementing new technologies can deter innovation efforts.

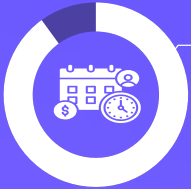
The PwC survey suggests that



Resource Availability

A lack of timely decision-making and resource allocation further complicates the ability to pursue innovative projects. Executives report that these issues slow down transformation efforts significantly.

The PwC survey suggests that



90%

of respondents indicated that resource availability and timely decision support are major barriers to transformation.

Data Security Concerns

Privacy and security issues related to data management pose significant risks, discouraging both public sector employees and citizens from fully engaging with e-government services. Addressing these is vital for building trust in digital systems

Inadequate ICT Infrastructure

Inadequate ICT Infrastructure: The existing technological infrastructure often lacks the robustness needed to support advanced digital initiatives. Issues such as unreliable internet access and insufficient hardware can hinder effective service delivery.



50%

of the PwC survey respondents see limitation in digital infrastructure as one of the barriers to innovation.

Insufficient Training Programs

Existing staff often lack adequate training in new technologies, which is essential for integrating innovative practices into their work routines. Investment in ongoing education and training is critical for enhancing workforce capabilities.

Lack of Clear Policies

There is often an absence of comprehensive policies that support the use of emerging technologies within the public sector. This includes regulations governing data usage, cybersecurity, and e-governance practices, which are essential for fostering an innovative environment^{4,5,6}.

Note: All the quantitative numbers are taken from PwC Publication 2024 Digital acceleration: Fueling the ambition for transformation success in Saudi Arabia

Section 6

Strategies for building innovation Capability



Strategies for Building Innovation Capability

Despite the challenges in developing innovation capability such as resistance to change, skill shortages, financial constraints, limited infrastructure etc., these barriers can be overcome by adopting targeted strategies.

To successfully build innovation capability, it is essential to focus on a holistic approach that addresses people, processes, technology, and collaboration. Some of the key strategies and best practices to achieve these objectives can be as mentioned below:



Promoting a Culture of Innovation

- A shift in mindset among employees can be encouraged with initiatives that promote open communication, collaboration, and risk-taking to overcome resistance to change. This can be achieved through workshops and seminars that highlight the benefits of innovation and showcase successful case studies.
- The nation's strategic vision emphasizes building a culture of innovation through leadership commitment, where frameworks enable leaders to endorse and reward innovative practices, with the Digital Government Authority (DGA) advancing digital governance and collaboration across ministries.

Steps for implementing this strategy requires

- ◆ Defining and communicating clear innovation goals
- ◆ Engaging senior leaders in activities such as "innovation days"
- ◆ Recognizing and rewarding innovative contributions
- ◆ Providing training for an innovation-friendly mindset



Investing in Talent Development

- Investment in continuous professional development can enhance competencies in digital literacy, data analytics, design thinking, and project management. This empowers public sector employees to engage proactively in innovation, not just in crises.
- The "Fuel Program" aims to train 100,000 Saudis in digital skills, supporting a continuous talent pipeline through partnerships with global institutions focused on AI, cybersecurity, and digital governance.

Steps for implementing this strategy requires

- Employing structured training in digital skills
- Offering rotational programs across departments
- Collaborating with global experts for knowledge sharing
- Establishing mentorship programs pairing experienced innovators with junior employees



Strengthening Partnerships

- Encouraging partnerships between public entities and private companies can enhance resource sharing, knowledge transfer, co-creation of innovative solutions, and thus leverage external expertise to address specific challenges faced by the public sector.
- By collaborating with entities like the United Nations and SAP, the government formalizes partnerships with the private sector and academia to incorporate global best practices in digital transformation and smart governance.

Steps for implementing this strategy requires

- Form councils with industry and academic experts
- Fund research projects addressing public sector needs
- Participate in international innovation networks
- Organize summits to foster cross-sector collaboration



Establishing Innovation Labs and Accelerators

- Significant investments in digital infrastructure can be made to support innovation initiatives by establishing dedicated spaces where government employees can experiment with new ideas and technologies.
- Initiatives like the Generative AI Accelerator (GAIA) create experimental spaces for startups and entrepreneurs to innovate in public sector contexts, providing infrastructure for testing and scaling innovative solutions.

Steps for implementing this strategy requires

- Define specific focus areas within labs for public sector challenges
- Encourage cross-agency participation
- Create sandbox environments for pilot testing
- Host collaborative sessions with private sector partners



Leveraging Technology and Data Analytics

- Technologies such as artificial intelligence (AI), blockchain, the Internet of Things (IoT), and big data analytics can be leveraged to optimize public services.
- The National Data Bank, using technologies like IoT, improves data interoperability and enables analytics-driven decision-making across government agencies, enhancing digital services and policy formulation

Steps for implementing this strategy requires

- Develop a centralized data governance strategy
- Invest in AI and ML tools for data-driven insights
- Establish ministry-specific data science teams
- Train employees in data interpretation and decision-making analytics

Section 7

Case studies and examples



Case Studies and Examples

The public sector has increasingly embraced innovation to transform its services, improve efficiency, and enhance citizen engagement. Some notable examples of successful innovation initiatives in Saudi Arabia's public sector that highlight the country's commitment to modernization and sustainable development are as mentioned below:

Saudi Data and Artificial Intelligence Authority (SDAIA)

Saudi Arabia's digital transformation centers on a series of government-led initiatives and one of the most significant one is the formation of SDAIA, which was established as the national data protection enforcement authority to oversee the nation's artificial intelligence (AI) strategy.

SDAIA has spearheaded several key projects, focusing on areas like healthcare, transportation and public safety.

Key Activities/Projects

- In collaboration with the Ministry of Health, SDAIA developed Tawakkalna app during the COVID-19 pandemic, which became a vital tool for tracking infections, issuing digital movement permits, and facilitating access to vaccination appointments.
- In conjunction with Accenture, SDAIA established the national cloud infrastructure as well as the National Data Bank, which enables secure, efficient data sharing among government entities. Accenture assisted SDAIA with AI research and development for the strategy of an Arabic natural language processing (NLP) mobile app.
- To build talent and capability in data and AI, SDAIA has collaborated with leading international academic institutions to establish training programs and scholarships. These initiatives have trained more than 45,000 professionals to elevate their data and AI skills. There are plans to train over 25,000 women over the next five years.

Key Achievements by SDAIA

Tawakkalna Platform



83Mn+ Active Users



315+ E-Services

Digital Identity (Nafath Platform)



530+ Government and private entities linked



23.6Mn+ Active Users



1.8Mn+ Digital identity verifications per day



Digital Government Authority (DGA)

The DGA is another example of Saudi Arabia's commitment to innovation in the public sector. Established in 2021, the DGA has rapidly become a cornerstone of Saudi's digital transformation efforts, focusing on enhancing government services, optimizing processes, and leveraging cutting-edge technologies to meet the needs of citizens and businesses. It guides the nation's digital transformation journey by supporting other government entities in developing, deploying, and regulating digital government services.

Key Activities/Projects

- The DGA has launched a design system, known as the "Platforms Code," aimed at standardizing interfaces across government platforms to unify digital identity. The Platforms Code is set to become the national standard for designing and developing government platform interfaces in the nation.
- It has also developed an Innovation and Emerging Technology Center that helps agencies explore new technologies like drones for medical supply transport and autonomous vehicles for logistics

Key Achievements by DGA

2018

52nd

2022

31st

Improved Saudi Arabia's ranking in digital government services

DGA's 2021 Expansive Digital Ecosystem Powering Government Services



800+ Total Government Platforms



5,000+ Digital Services Provided



1,300+ Digital Channels Available

Key projects and outcomes achieved

Some key projects highlighting the commitment of public sector towards embracing innovation to transform its services include:

Projects



NEOM

A \$500 billion mega-city project envisioned as a smart city that integrates advanced technologies and sustainable practices, it aims to be a global hub for innovation, focusing on sectors such as biotechnology, food, entertainment, and advanced manufacturing. The project emphasizes renewable energy and aims to utilize solar and wind power extensively. By attracting international partners and tech companies, NEOM is set to become a leader in green technology and innovation.

Key Innovations

- **The Line**
It is a futuristic linear city with no cars or streets, powered entirely by renewable energy and connected by AI-driven public transportation systems. It is redefining the concept of urban development and what cities of the future will look like.
- **Future of water**
NEOM is building smart water systems powered by renewable energy, delivering high-quality drinking water and recycled water across its network, while removing wastewater. Smart metering and irrigation, leakage detection, and water quality monitoring will be controlled in real time.

Impact

- Positioning Saudi Arabia as a leader in smart city development.
- Attracting global talent and investment with a model for sustainable urban living and technological integration.
- Creating several jobs and developing high-tech industries.



The Red Sea Project

It focuses on developing a luxury tourism destination along Saudi Arabia's western coast. It aims to attract international tourists while promoting environmental sustainability through eco-friendly and innovative practices. It embraces cutting-edge construction techniques to minimize environmental impact while also managing to maximize efficiency.

Key Innovations

- **Innovative Design Features**
It prioritizes architectural excellence, with use of locally sourced materials and traditional design elements, and incorporates passive cooling and natural ventilation techniques, reducing the need for artificial climate control. Further, integration of smart technologies is enhancing both sustainability and guest experience.
- **Waste Management**
Innovative waste management systems are being implemented to ensure zero waste-to-landfill. The project includes state-of-the-art recycling facilities and waste treatment plants designed to convert waste into energy, further reducing environmental impact.
- **Water Conservation**
Given the arid climate of the region, water conservation is a critical component of the project. Advanced desalination plants, powered by renewable energy, will provide fresh water, while greywater recycling systems will ensure efficient water use throughout the resorts and residential areas.

Impact

- Expected to contribute \$5.86 billion annually to the Saudi economy.
- Creation of over 70,000 jobs.
- Positioning Saudi Arabia as a global leader in sustainable tourism.

Projects



Space Innovation Ecosystem

Saudi Arabia's initiative to become a leader in space innovation aims to develop a robust ecosystem that nurtures local talent, fosters entrepreneurship, and accelerates technological advancements in the space sector. The project aligns with national priorities, enabling Saudi Arabia to compete globally in this strategically important field.

Key Innovation

TAM played a pivotal role as the lead partner, designing the program and developing a bespoke innovation roadmap for the Saudi space sector. They facilitated strategic partnerships both locally and internationally, ensuring the program's alignment with global best practices and effective stakeholder engagement.

Phased Program Structure

- **Hackathon:** Initiated with a hackathon that brought together innovators across Saudi Arabia to solve real-world space technology challenges, promoting ideation and prototype development.
- **Bootcamp:** Followed by a bootcamp where participants refined their projects into viable business models, aided by intensive workshops and mentorship on market validation and scaling.
- **Incubator:** Culminated in an incubation phase for startups, providing them with critical resources, mentorship, and connections with investors and industry leaders to facilitate commercialization and growth.

Impact

- Creation of a dynamic environment that supports the transition of startups from ideation to commercialization, enhancing global competitiveness in space technology.
- Generated numerous opportunities for local talent, empowering a new generation of Saudi innovators with the skills to tackle space exploration and technology challenges.
- Fostered collaborations that positioned Saudi Arabia as a hub for space technology and innovation, attracting global attention and investment.



ZATCA Innovation Framework

TAM significantly contributed to the institutionalization of innovation at ZATCA (Zakat, Tax, and Customs Authority) by crafting and executing a comprehensive innovation framework. The project began by benchmarking global best practices to tailor solutions that matched ZATCA's unique operational needs, aiming to establish a sustainable innovation ecosystem.

Key Innovation

TAM spearheaded the creation of an Innovation Lab, which serves as a central hub for ideation, collaboration, and experimentation within ZATCA. This facility is enhanced by robust governance structures and evaluation mechanisms that ensure the continuity and effectiveness of innovation efforts.

TAM designed a bespoke innovation roadmap that empowers ZATCA's innovation team. This roadmap involves:

- **Strategic Collaboration:** Engaging with internal teams to integrate tailored tools, systems, and methodologies.
- **Performance Measurement:** Establishing clear KPIs to gauge the effectiveness and impact of innovation initiatives, aligning them with ZATCA's broader organizational goals.
- **Tool and Methodology Implementation:** Equipping the innovation team with advanced tools and methodologies to identify opportunities, navigate challenges, and foster a culture of continuous improvement.

Impact

- Institutionalization of a culture of innovation, promoting continuous improvement and proactive problem-solving across the organization.
- Improved operational efficiency and responsiveness to changes through the adoption of innovative practices.
- Ensured that innovation efforts are in sync with ZATCA's overall strategy, supporting its long-term objectives and enhancing its capacity to adapt to future challenges.

Other Initiatives



Misk's Innovative Infrastructure Initiatives

The Misk Foundation invests in creating both physical and digital infrastructures, such as incubators and training programs. These initiatives are designed to equip youth with practical skills, innovative thinking, and provide experiences crucial for the nation's economic future.

Innovation Diwan is a program launched by Misk uses crowdsourcing to involve young people in addressing local challenges through a structured four-stage process:

Stage 1

Challenge Selection

Initially, community issues are identified as focal points for the program.



Stage 2

Bootcamps

Bootcamps are held to equip participants with skills and allow them to brainstorm potential solutions.



Stage 3

Pitching

Participants present their ideas to relevant stakeholders.



Stage 4

Solution Adoption

Selected solutions are supported for implementation with the help of partners.



The program aligns with broader goals outlined in Saudi Arabia's Vision 2030, emphasizing collaboration, forward-thinking solutions, and sustainable progress.

Best practices and lessons learned

The public sector has embarked on a transformative journey towards innovation, driven primarily by the Vision 2030 strategic frameworks, and the aforementioned initiatives and projects are a few examples supporting that common journey. Some of the best practices and lessons learned from these and other key projects are mentioned below:

Embrace Digital Transformation

Description

Centralized Platforms

Initiatives like development of the DGA demonstrates the importance of creating unified digital platforms to provide seamless, accessible government services.

AI and Automation

Leveraging AI, as seen in Tawakkalna and SDAIA other projects, enhances decision-making, service delivery, and operational efficiency.

Lessons Learned

User-Centric Design

Digital tools must be intuitive, accessible, and responsive to user needs. Regular updates based on user feedback are essential.

Integration Across Ministries

Collaboration among government departments ensures a holistic and integrated digital ecosystem.

Public-Private Partnerships Adoption

Description

Partnership

Collaborations, such as those in the Red Sea Project and Neom, highlight the value of engaging private sector expertise and investment.

Lessons Learned

Defined Roles and Accountability

Clearly defined responsibilities between public and private entities ensure successful project execution

Prioritize Sustainability

Description

Environmental Sustainability

Projects like The Line in NEOM and the Red Sea Project demonstrate a commitment to environmental sustainability through renewable energy, biodiversity conservation, and smart resource management.

Lessons Learned

Future-Oriented Planning

Integrating sustainability into project design from the start ensures long-term viability and global recognition.

Build a Culture of Innovation

Description

Innovative Mindset

MISK Foundation emphasizes youth empowerment through innovation labs, hackathons, and bootcamps, and encourages experimentation, risk-taking within government organizations leading to a mindset of continuous improvement.

Lessons Learned

Upskilling

Invest in upskilling employees and encouraging collaborative teamwork and innovative thinking.

Section 8

Measuring & Evaluating the Innovation Capability



Importance of measuring and evaluating innovation Capability

Measuring and evaluating innovation capability in the public sector is essential to determine the effectiveness of innovation initiatives and understand their impact on national goals.

Assessing innovation capability can highlight progress toward these goals, identify areas for improvement, and ensure accountability.

Demonstrating a robust framework for measuring and evaluating innovation capability in the public sector signals to potential investors that Saudi Arabia is committed to developing a stable, innovative and competitive business environment.

Relevant KPIs and metrics

Key Performance Indicators (KPIs) and Metrics for Innovation capability should comprehensively cover inputs, outputs, processes, and outcomes. Some relevant metrics include:

Investment

Budget allocation for innovation and training spending per employee

Capability Building

Number of innovation labs and percentage of employees trained

Process Efficiency

Time to implement initiatives and processes streamlined

Output & Adoption

Number of new policies / programs and user satisfaction with new services

Impact

Cost savings and contributions to national goals like sustainability and economic growth

Measurement Framework Guidance

Developing a tailored measurement framework for the public sector involves:



Defining clear objectives.



Customising KPIs to fit each organisation's unique goals.



Using a balanced mix of quantitative and qualitative metrics.



Incorporating regular monitoring for accountability.

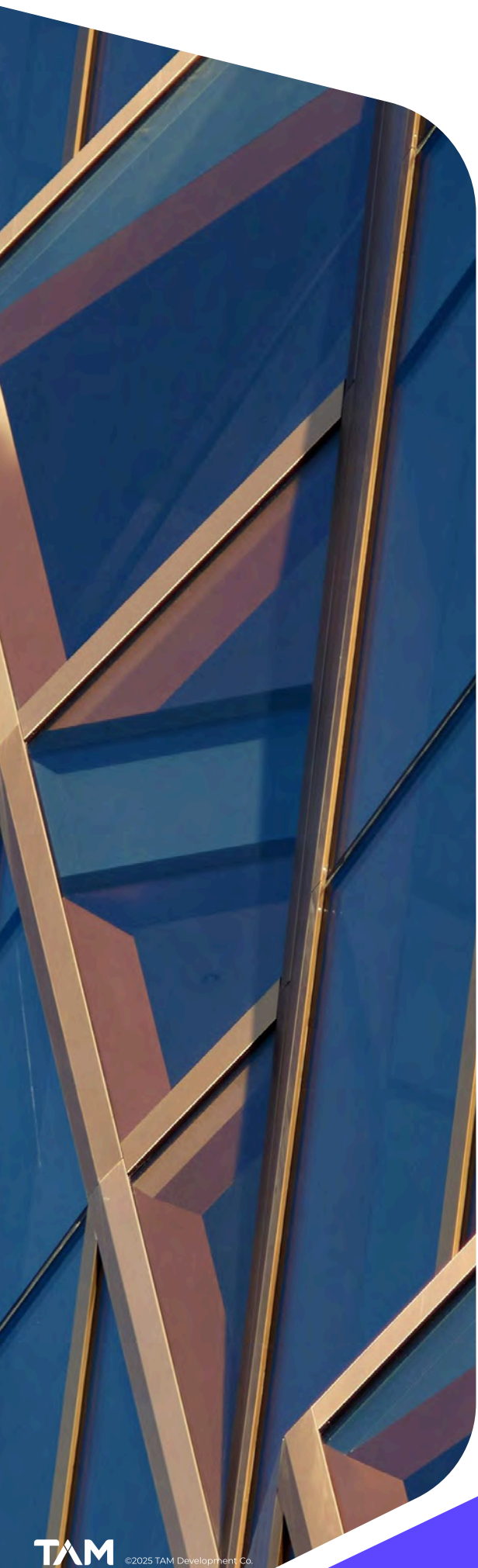


Adjusting KPIs as objectives evolve, and fostering a culture that uses data for both performance evaluation and continuous learning.

Section 9

Conclusion





The report underscores the critical role of building innovation capability in the public sector as a foundation for achieving Vision 2030. It highlights key findings and insights, emphasizing the importance of government leadership, collaboration, and strategic investments in adopting an innovation-driven ecosystem. The transformative journey of Saudi Arabia towards a knowledge-based economy relies on initiatives that prioritize sustainability, digital transformation, and economic diversification.

Economic Diversification and Social Development

Innovation is pivotal in transitioning Saudi Arabia from an oil-dependent economy to a diversified, knowledge-based one. Key initiatives like SEA Ventures and NEOM illustrate the integration of entrepreneurship and technological advancements to foster new industries. These efforts have already resulted in a 108% growth in SMEs.

Government Effectiveness and Citizen-Centric Services

The adoption of digital transformation, as demonstrated by the Digital Government Authority (DGA) and initiatives like SADAD, has significantly enhanced government service delivery. It has improved rankings in global governance indices and streamlined public engagement highlighting the impact of such innovation-driven approaches.

Public Sector's Strategic Role in Driving Innovation

The report stresses the role of public sector in driving innovation, where the government has established foundational pillars - leadership, culture, capabilities, and partnerships - to adopt a sustainable innovation ecosystem. Projects like the Saudi Accelerated Innovation Laboratory (SAIL) and CODE Innovation Network highlight the collaboration between public and private sectors in addressing global and national challenges.

Strategic Framework for Innovation capability

The report also provides information around the gated innovation process spanning idea generation, bootcamps, incubators, accelerators, and venture capital, that provides a structured roadmap to scale innovative solutions. The integration of AI at every stage promises to disrupt traditional processes, accelerating transformative impacts.



Challenges and Opportunities

Resistance to change, skill shortages, and inadequate infrastructure remain barriers to innovation. However, opportunities abound through dedicated institutions like the Saudi Data and Artificial Intelligence Authority (SDAIA) and focused strategies in AI, digital governance, and smart city projects.

Strategies for building innovation capability

Promoting a culture of innovation, investment in talent development, establishment of innovation labs and accelerators, strengthening partnerships between public entities and private companies, and leveraging technology with data analytics plays a key role in building innovation capability and overcoming challenges in its adoption.

Best Practices and Success Models

The report identifies case studies like the Red Sea Project and Misk Innovation Diwan, which showcase scalable models of integrating sustainability, youth empowerment, and public-private partnerships. These projects demonstrate the nation's commitment to balancing technological advancement with environmental and social sustainability.

Saudi Arabia is well-positioned to lead globally in innovation-driven governance and economic transformation. Continued investment in human capital, technology, and collaborative ecosystems will ensure sustainable growth and resilience in a rapidly evolving global landscape.

About TAM

TAM is a leader in providing integrated digital solutions and strategic consulting services, helping both public and private sector clients in Saudi Arabia navigate and lead in the digital transformation landscape. We partner with our clients to conceive and implement impactful strategies that deliver sustainable results from inception through execution.

Our Services

Digital Solutions

Leveraging state-of-the-art technologies, TAM infuses digital innovation into our consulting practices, driving efficiency and success. Our approach ensures that digital solutions are not only implemented but are integrated seamlessly to enhance business performance and strategic outcomes.

Consulting Services

Utilizing a blend of design thinking, innovative practices, and extensive stakeholder engagement, TAM delivers end-to-end solutions that span the entire project lifecycle—from strategic planning to operational implementation. Our team of experts tailors each solution to meet the unique challenges and objectives of our clients, ensuring transformative impacts and measurable success.

To learn how TAM can accelerate your organization's journey towards innovation and excellence, please contact us at info@tam.sa.



Authors



Ahmed Youssef

Chief Strategy Officer and Senior Partner

Ahmed is the Chief Strategy Officer and a Partner at TAM. He has led the design and management of multiple strategic offices, accelerating the funding of high-priority Vision initiatives and overseeing impactful programs.



Mohammed Al-Hashmi

Executive Director of Innovation and Design

Mohammed is a certified trainer and consultant specializing in design thinking. He has contributed to the success of numerous private, governmental, and public sector projects, delivering strategic consulting in innovation and design with a focus on human-centered approaches.



Nouran Abdelazeem, PhD

Senior Manager of Innovation

Nouran is an experienced innovation strategist and leader. With expertise in creating and managing innovation ecosystems, she has led incubators, bootcamps, and accelerators, fostering entrepreneurship and public impact through collaborative programs and cutting-edge initiatives.

Section 10

References & Appendix

References & Appendix

- 01 <https://www.nobeltrust.com/news/saudi-arabia-vision-2030-key-progress-facts/>
- 02 <https://humancapabilityinitiative.org/en/>
- 03 <https://www.pwc.com/m1/en/media-centre/2024/digital-innovation-strategies-key-to-overcoming-challenges-in-saudi-arabia-transformation.html>
- 04 <https://www.pwc.com/m1/en/media-centre/2024/digital-innovation-strategies-key-to-overcoming-challenges-in-saudi-arabia-transformation.html>
- 05 <https://www.trade.gov/country-commercial-guides/saudi-arabia-digital-economy-0>
- 06 <https://www.emerald.com/insight/content/doi/10.1108/JIDT-09-2023-0019/full/html>