

# Planning and Running Digital Transformation Programs



**Mohammad Ali Shalan**

DIGITAL TRANSFORMATION GREEN BELT, CXO THRIVE,  
PMP, PMI-RMP, CISA, CGEIT, CRISC, CRMA,  
ITIL & CSX-FUNDAMENTALS



What is Digital Transformation?

**Digital Business Transformation is a Journey**  
**to Adopt and Deploy**  
**Digital Technologies and Business Models**  
**to Quantifiably Improve Business**  
**Performance**

<https://transformationfiles.com/masshalan>



1/11/2023



Mohammad Shaban@ 2022

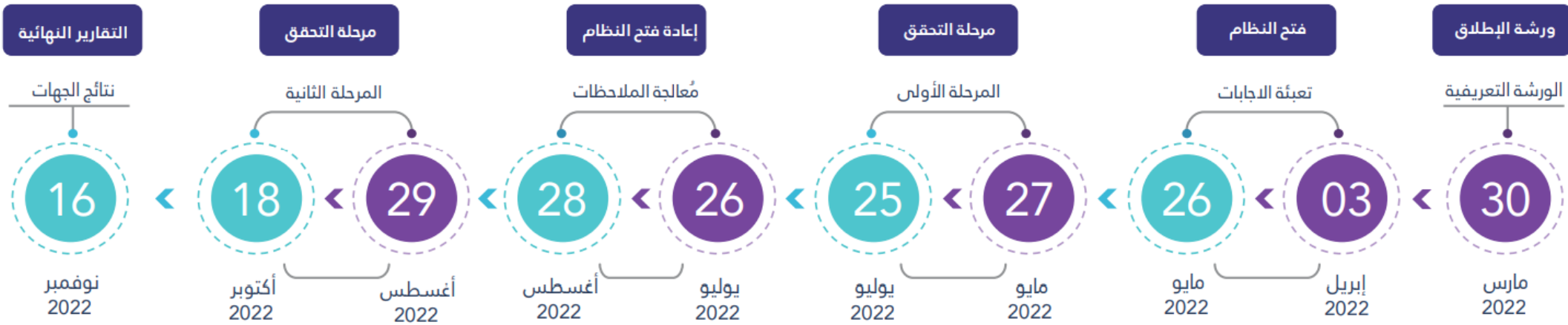


# The 10<sup>th</sup> Digital Transformation Report by DGA

## أعلى الجهات الحكومية تقدماً



# The 10<sup>th</sup> Digital Transformation Report by DGA



## مفهوم التحول الرقمي

تحويل نماذج الأعمال وتطويرها بشكل استراتيجي، لتكون نماذج رقمية مستندة على بيانات وتقنيات وشبكات الاتصال.

# Digital Transformation is Blurring the Lines



## Digital

Technologies based on computer, electronics and communication sciences, which make use of the increasing volume of information and connectedness of physical resources.



## Physical

Technologies based on basic properties of materials, energy, forces of nature and their interactions.



## Biological

Technologies based on biological aspects, including, but not limited to: biological systems and living organisms (or derivatives thereof), to make products and processes for specific uses.

# Financing the Journey

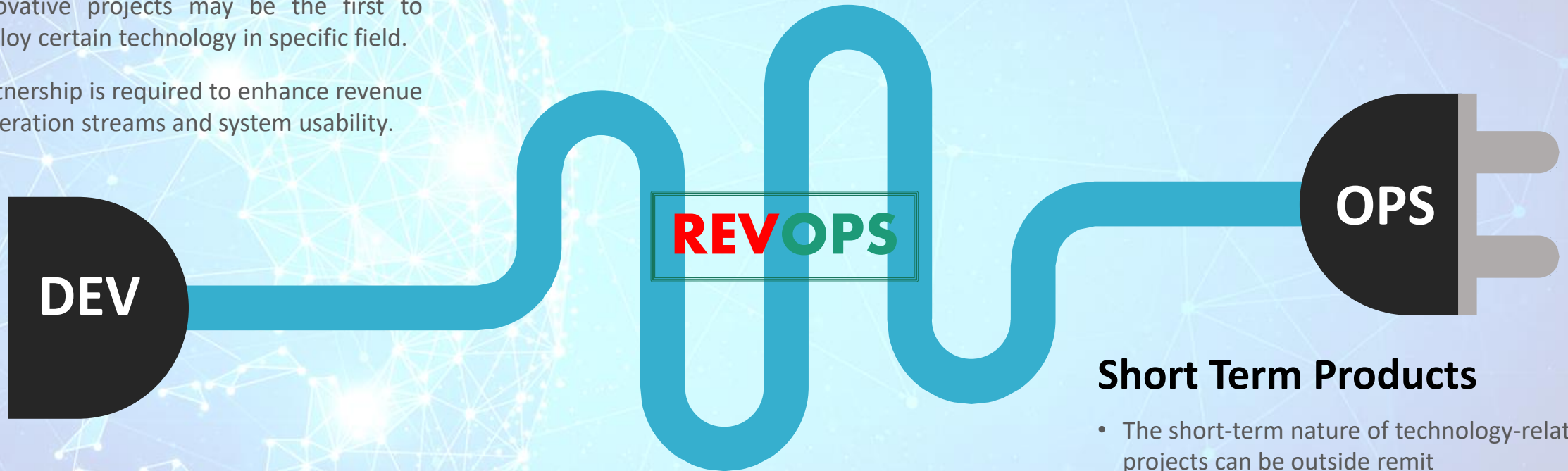
(REVOPS and DEVOPS Cycles)

## The Technology Challenge

- Innovative projects may be the first to deploy certain technology in specific field.
- Partnership is required to enhance revenue generation streams and system usability.

**Difficulty to monetize the benefits of some transformation projects**

DEV: Development  
OPS: Operations  
REV: Revenue Generation



## Short Term Products

- The short-term nature of technology-related projects can be outside remit
- Additional risk and challenges of transformation projects need to be considered.

**Projects might not have a clear path to steady revenue**

# The Inception Phase

https://www.pmi.org/disciplined-agile/inception-goals

Disciplined Agile

Register Log In

Welcome Mindset People Process Resources Training Certify Business Solutions

## The Inception Phase

The Disciplined Agile® Delivery (DAD) portion of the DA™ process tool kit includes an explicit Inception phase – sometimes called a project initiation phase, start-up phase, or iteration/sprint zero – which is conducted before Construction. The primary purpose of this phase is to do just enough work to get your team going in the right direction. You will likely need to perform some initial requirements modeling, some initial architecture modeling, some initial planning, and other organizational activities to do this. An Inception effort is required when:

- You are initiating a product team.
- You are taking a project-based approach.
- Your existing team has pivoted in a significantly different direction than what they were taking before and need to come to a common vision as to where they are now heading.

The Inception process goals are:

- Form Team
- Align with Enterprise Direction
- Explore Scope
- Identify Architecture Strategy
- Plan the Release
- Develop Test Strategy
- Develop Common Vision
- Secure Funding

## Related Resources

- Disciplined Agile Delivery Life Cycles
- Ongoing Process Goals
- Process Goals
- The Construction Phase
- The Transition Phase

Start A Digital Transformation Journey without Inception Phase Never



# Identifying The Journey's Vision and Mission



**Vision:** To rebuild “Jeddah” city as the Third best smart city in the “Kingdom”



**Mission:** Re-plan and Develop “Jeddah” as a smart resilient city using the relevant emerging technologies to build a renewed city that will achieve the major goals of all stakeholders





# Defining the Strategic Objectives (Long and Short)





# Building the Strategic Map Pictorials

  
**Finance**

**Understand the RevOps model**

**Increase investments and Sustained funding**

  
**Customer Experience**

**Understanding the Client needs and expectations**

**Provide necessary tools to collaborate**

  
**Internal Operations**

**Transformation Management Team**

**Functional Activities**

**Social Team Competencies**

**ESG Goals checklists**

  
**Infrastructure**

**Required Enterprise Architecture**

**Cybersecurity Measures**

**Physical Infrastructure**



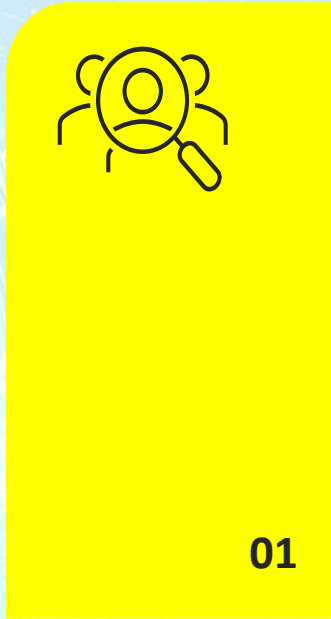


# Stakeholders Identifications

## Identification

01

- Clients and residents
- Investors
- Government
- Industrial clients




02

## Listening to Expectations


- What they are expecting
- How to listen to stakeholders

## Managing and Promising

03

- What to promise the clients
- When to decide and respond





04

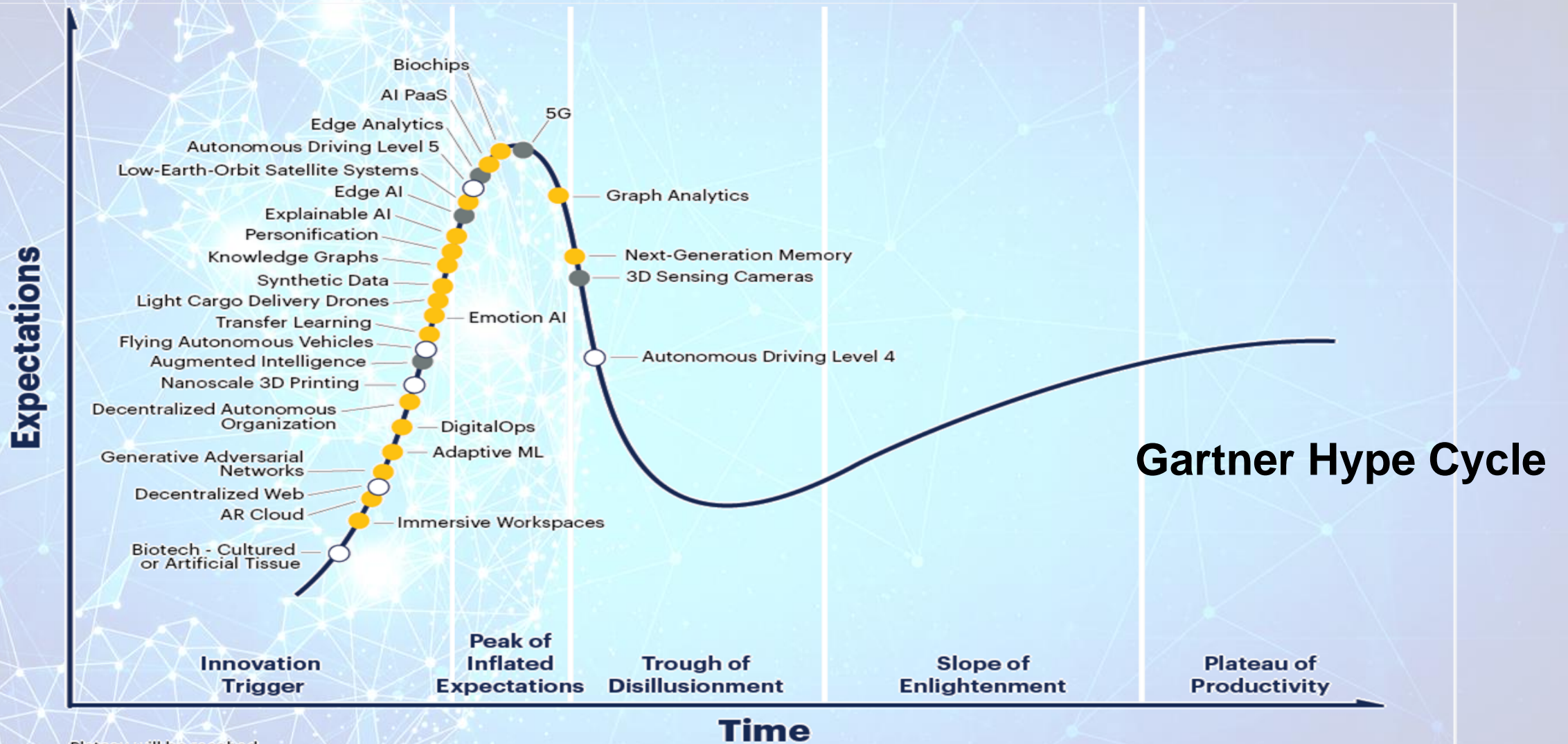
## Engagements

- How to manage the engagement with various stakeholders

**\*\* This should include Higher Management**



# Emerging technologies



Plateau will be reached:

- less than 2 years
- 2 to 5 years
- 5 to 10 years
- more than 10 years
- obsolete before plateau

As of August 2019



# Emerging Technologies (1)

 <p><b>#1</b></p> <p><b>Artificial Intelligence</b>          Ai/Machine Learning          Deep Learning</p>	 <p><b>#2</b></p> <p><b>Mobile Technologies</b>          Infrastructure, Networks          Standards, services &amp; devices</p>	 <p><b>#3</b></p> <p><b>Mobile/Social Internet</b>          Advancements- Search/ Social/          Messaging/ Livestreams</p>	 <p><b>#4</b></p> <p><b>Blockchain</b>          Distributed Ledger Systems,          Cryptocurrencies &amp; DApps</p>	 <p><b>#5</b></p> <p><b>Big Data</b>          Apps, Infrastructure,          Technologies          + Predictive Analytics</p>
 <p><b>#6</b></p> <p><b>Automation</b>          Information,task,process,          machine,Decision &amp; Action</p>	 <p><b>#7</b></p> <p><b>Robots</b>          Cons./Comm./Indus./Robots,          Drones &amp; Autonomous Vehicles</p>	 <p><b>#8</b></p> <p><b>Immersive Media</b>          -#VR/#AR/ #MR/ 3600/          Video ? Gaming</p>	 <p><b>#9</b></p> <p><b>Internet Of Things</b>          IOS,IIoT,Sensors &amp;          wearables</p>	 <p><b>#10</b></p> <p><b>Cloud Computing</b>          SaaS,IaaS,Paas &amp;          MESH Apps</p>
 <p><b>#11</b></p> <p><b>3D Printing</b>          Additive Manufacturing &amp;          Rapid Prototyping</p>	 <p><b>#12</b></p> <p><b>CX</b>          Customer Journey, Experience          Commerce &amp; Personalization</p>	 <p><b>#13</b></p> <p><b>Energy Tech</b>          Efficiency, Energy Storage          &amp; Decentralized Grid</p>	 <p><b>#14</b></p> <p><b>Cybersecurity</b>          Security,Intelligence Detection,          Remediation &amp; Adaption</p>	 <p><b>#15</b></p> <p><b>Voice Assistants</b>          Interfaces,Chatbots &amp;Natural          language Processing</p>

<https://www.raghwendra.com/blog/emerging-technologies-2019-2020-and-forever/>

# Emerging Technologies (2)

 <p><b>#16</b></p> <p><b>Nanotechnology</b> Computing, Medicine, Machines + smart Dust</p>	 <p><b>#17</b></p> <p><b>Collaborative Tech</b> Crowd, Sharing, Workplace &amp; open source Platforms &amp; Tools</p>	 <p><b>#18</b></p> <p><b>Health Tech</b> Advanced Genomics Bionics &amp; Health Care Tech.</p>	 <p><b>#19</b></p> <p><b>Human-Computer Interaction</b> Facial/Gesture Recognition, Biometrics, Gaze Tracking</p>	 <p><b>#20</b></p> <p><b>Geo-Spatial</b> Tech GIS, GPS, Mapping &amp; Remote Sensing, Scanning, Navigation</p>
 <p><b>#21</b></p> <p><b>Advanced Materials</b> Composites, Alloys, Polymers, Biomimicry, Nanomanufacturing</p>	 <p><b>#22</b></p> <p><b>New Touch Interfaces</b> Touch Screens, Haptics, 3D Touch Paper, Feedback &amp; Exoskeletons</p>	 <p><b>#23</b></p> <p><b>Wireless Power</b></p>	 <p><b>#24</b></p> <p><b>Clean Tech</b> Bio-/Enviro-Materials + Solutions sustainability, Treatment &amp; efficiency</p>	 <p><b>#25</b></p> <p><b>Quantum Computing</b> + Exascale Computing</p>
 <p><b>#26</b></p> <p><b>26 Smart Cities</b> + Infrastructure &amp; Transport</p>	 <p><b>#27</b></p> <p><b>Edge/Computing</b> + Fog Computing</p>	 <p><b>#28</b></p> <p><b>Faster, Better Internet</b> Broadband incl. fiber, 5G, Li-Fi, LPN And LoRa</p>	 <p><b>#29</b></p> <p><b>Proximity Tech</b> Beacons, RFID, Wi-Fi, Near-Field Communications &amp; Geofencing</p>	 <p><b>#30</b></p> <p><b>New Screens</b> TVs, Digital Signage, OOH, Micro LEDs &amp; Projections</p>

<https://www.raghwendra.com/blog/emerging-technologies-2019-2020-and-forever/>



# Challenge Cards

Challenge Subject	
Sector	Department/Function
Main Challenges	Suggested Resolutions



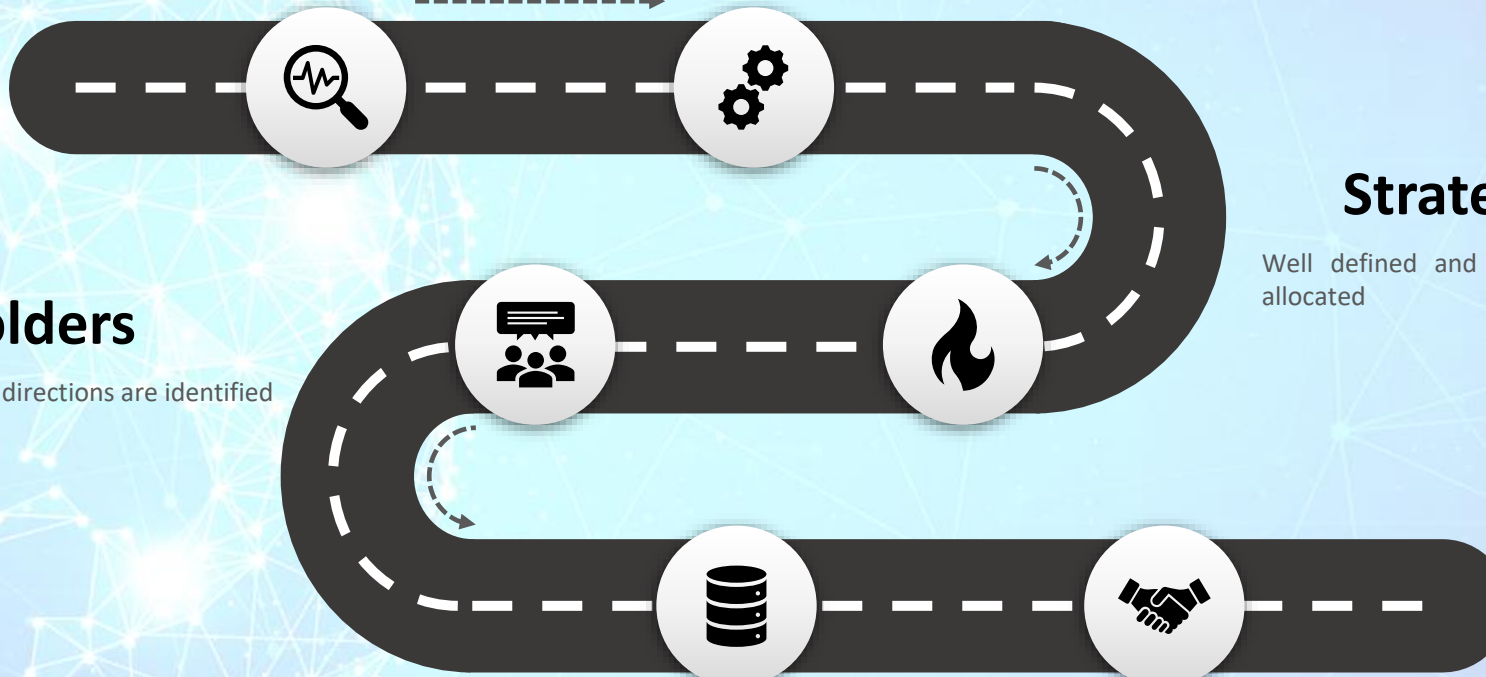
# Signs on the Road

## Mission and Vision

Prepared and Agreed

## Strategic Objectives

Identified and challenged



## Stakeholders

Engagment Models and main directions are identified

## Emerging Technology

Awarness, rsearch and selection

## Challanges

Identified and prioritized

**Never  
 Start A Digital  
 Transformation  
 Journey without  
 Inception Phase**

## Strategic Pictorials

Well defined and Sufficient resources can be allocated

- Initiatives
- Projects
- Enterprise Architecture
- Prioritizations



# Project Cards

Project Card			
Initiative			
Project #		Project Name	
Objective		Project Owner	
		Link with Goals	
		Link with KPIs	
		Additional Services	
Time Frame		Budget	

# Initiative Cards





**Details**



**Time Table**



**Financing**

**1 #**




- **Status :** New
- **% of completion :** % \*
- **Start Date :** Q1 2023
- **Finish Date:** Q2 2025
- **Expected Budget :**\*\*\* SAR
- **Additional Budget:** \* SAR
- **Total Budget :**SAR

- **Initiative Name:**
- **Initiative Goals:**
  - 1
  - 2
  - 3
- **Initiative Description**





# Preparing the list of Prioritized Initiatives and Projects

Initiative	Focus Domain	Associated KPI's	Objective	Duration	Resolved Challenge	Additional Info
Building a smart parking solution	Transportation	% of congestion reduced	Enhance the quality of life	1 Year	Congestion and Frustration	N/A
 Mile Stones						



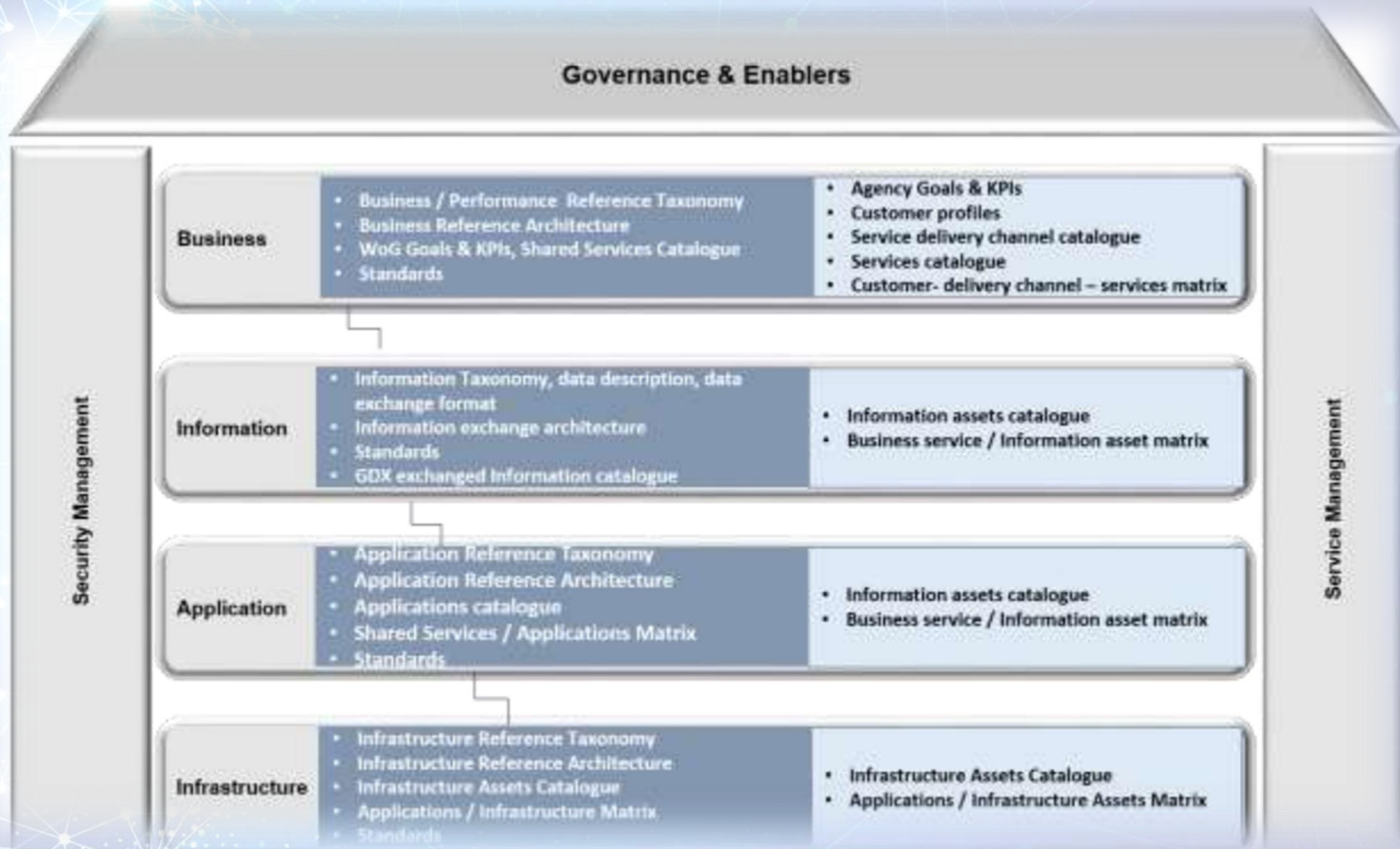
# Enterprise Architecture

- There are different types of EA frameworks, such as Zachman, FEAF (Federal EA Framework) and TOGAF (The Open Group Architecture Framework).
- The Saudi DGA (Digital Government Authority) has developed NORA (National Overall Reference Architecture)



<https://dga.gov.sa/sites/default/files/2022-08/Enterprise%20Architecture%20Establishment%20for%20Government%20Entities.pdf>

# Enterprise Architecture

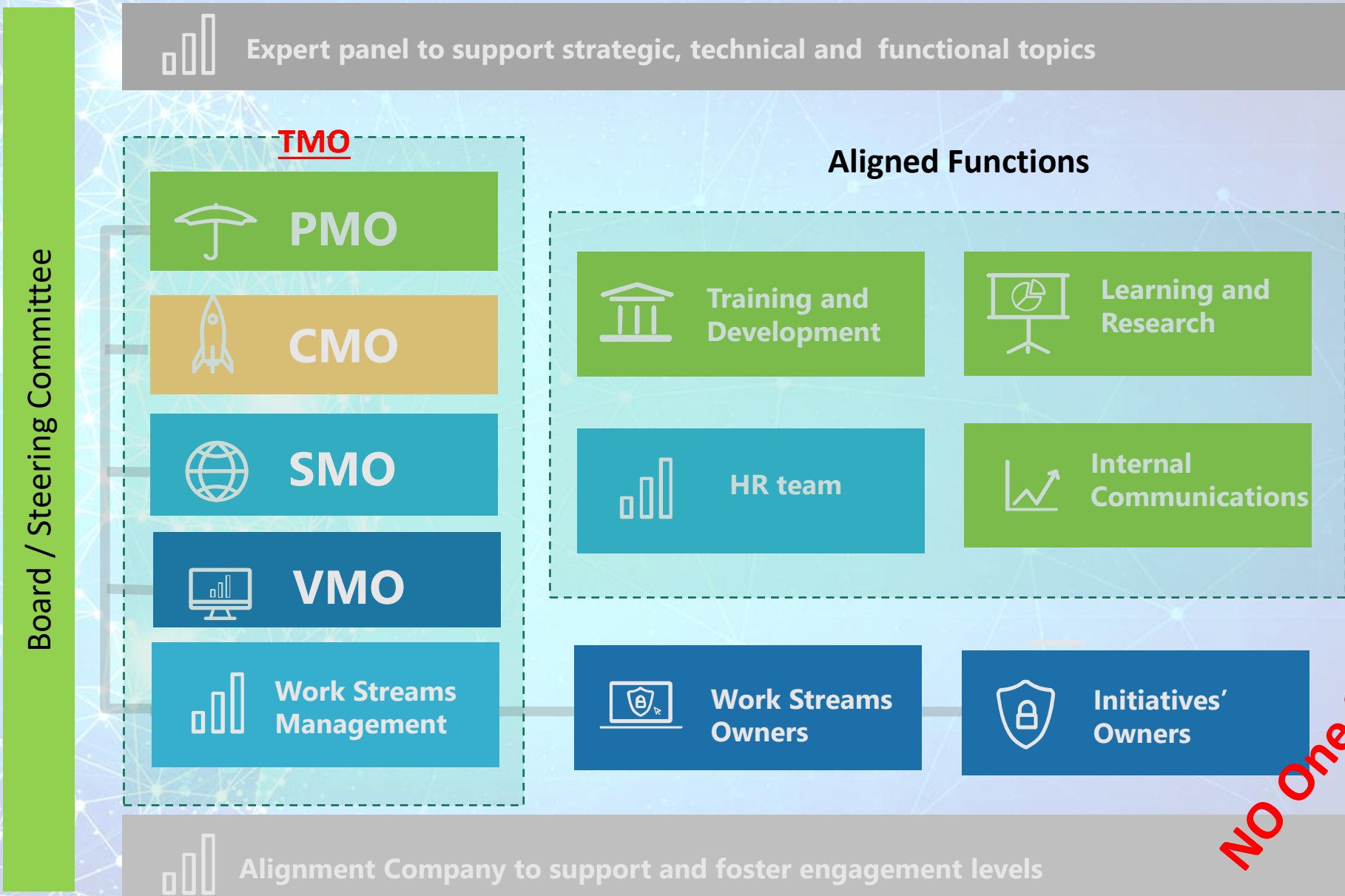


# No One Size

## One size does NOT fit all



# Organizational Structure



**NO ONE SIZE FITS ALL**

# Prioritized Projects and Distribution

## Prioritized Projects and Distribution

#	Initiative	Project	Q4-25	Q3-25	Q2-25	Q1-25	Q4-24	Q3-24	Q2-24	Q1-24	Q4-23	Q3-23	Q2-23	Q1-23
1	Initiative AA	Project A												
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														



# Digital Transformation



أهلاً  
مسهلاً  
م

  
<https://sa.linkedin.com/in/mohammadshalan>

  
<https://www.youtube.com/c/MohammadShalan>

  
[masshalan@gmail.com](mailto:masshalan@gmail.com)

  
+966 569 188 680