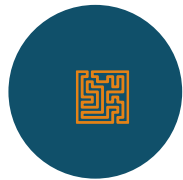Ministry of Digital Economy and Entrepreneurship

# Strategic Direction (2021-2025)

SOCIAL MEDIA

# Content
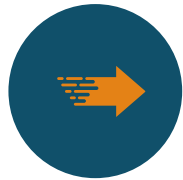
- Vision
- Key Performance Indicators
- Challenges
- Strategy Enablers
- Moving Forward
- Timelines
- Services
- Data & Infrastructure
- Digital Payment
- Policies & Strategies
- Entrepreneurial Ecosystem
- Youth, Technology & Jobs
- Governance & Change Management
- Connectivity

# Digital Transformation – Key Performance Indicators by 2025

## 01
**Improve Citizen Experience,** Innovative Centralized Service Platform, Reaching 80% citizen satisfaction rate

## 02
**Improve Jordan position** in digital economy regionally & globally
Top 3 regionally
Top 35 globally

## 03
**Economic Growth**
Improve direct contribution to GDP from X% to 7-8%

## 04
**Limit Corruption Space to minimum** by digitizing 100% of governmental services

## 05
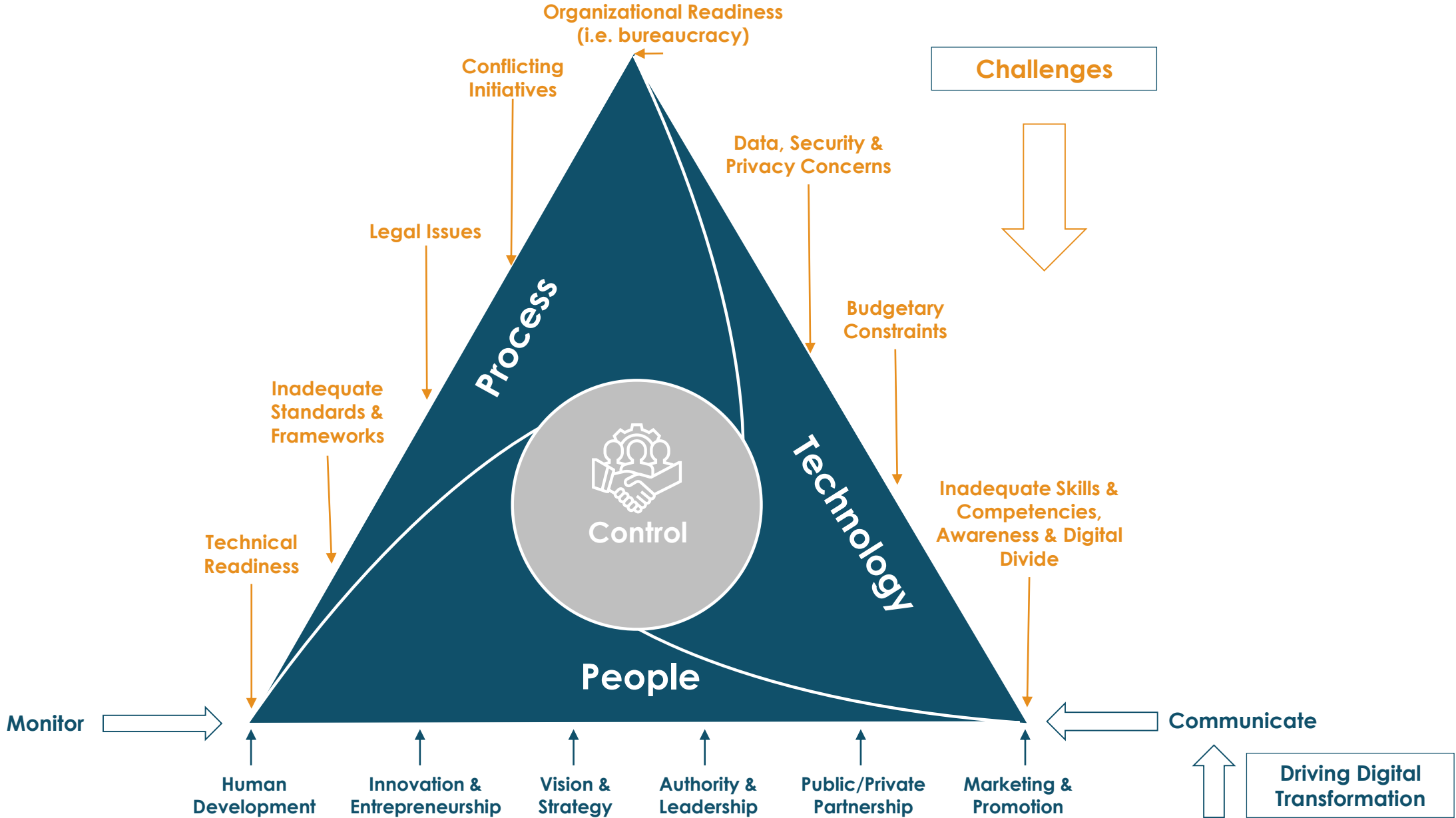**Cost Optimisation** in saving the government expenditure by 150M

## 06
**Create Jobs**
YTJ 30K jobs after 5 years
Internships 5K after 5 years
Entrepreneurs 15K jobs

## 07
**Increase Connectivity**
100% Government – FTTH
70% Business - FTTH
50% Households – FTTH
60% OF 5G Coverage

# Driving Digital Transformation and Challenges

# Strategy Enablers

| | |
|---|---|
| **Digital Infrastructure** | 5G, IoT, AI, Cybersecurity, Blockchain, Open Source, Cloud, Data Centers, e-Payment, Disaster Recovery (DR) Sites, APIs, Digital Identity, Broadband Internet, National Optical Fiber, Secure Government Network |
| **Digital Government Services** | Interactive Service Platform, Once Only Principle, Simple & Fast Services, Leaving No One Behind, Digital by Default |
| **Data** | National Information System, Classification of Government Data, Personal Data Protection, Open Government Data) |
| **Youth, Technology & Jobs** | Support Provision of Digital skills, Support Expansion of Digital Sector & Digital Government Services |
| **Innovation & Partnership with Private Sector** | Ministry of Health, Department of Land and Survey, Income and Tax Department, Ministry of Higher Education & Scientific Research, National Broadband Network |
| **E-Participation** | e-Information, e-Consultation, e-Decision Making |
| **Change Management & Human Resources** | Awareness, Capacity Building, Reinforcement, Participation, Knowledge Development |
| **Management of Government Resources** | Centralized Government ERP Solution |

# Moving Forward
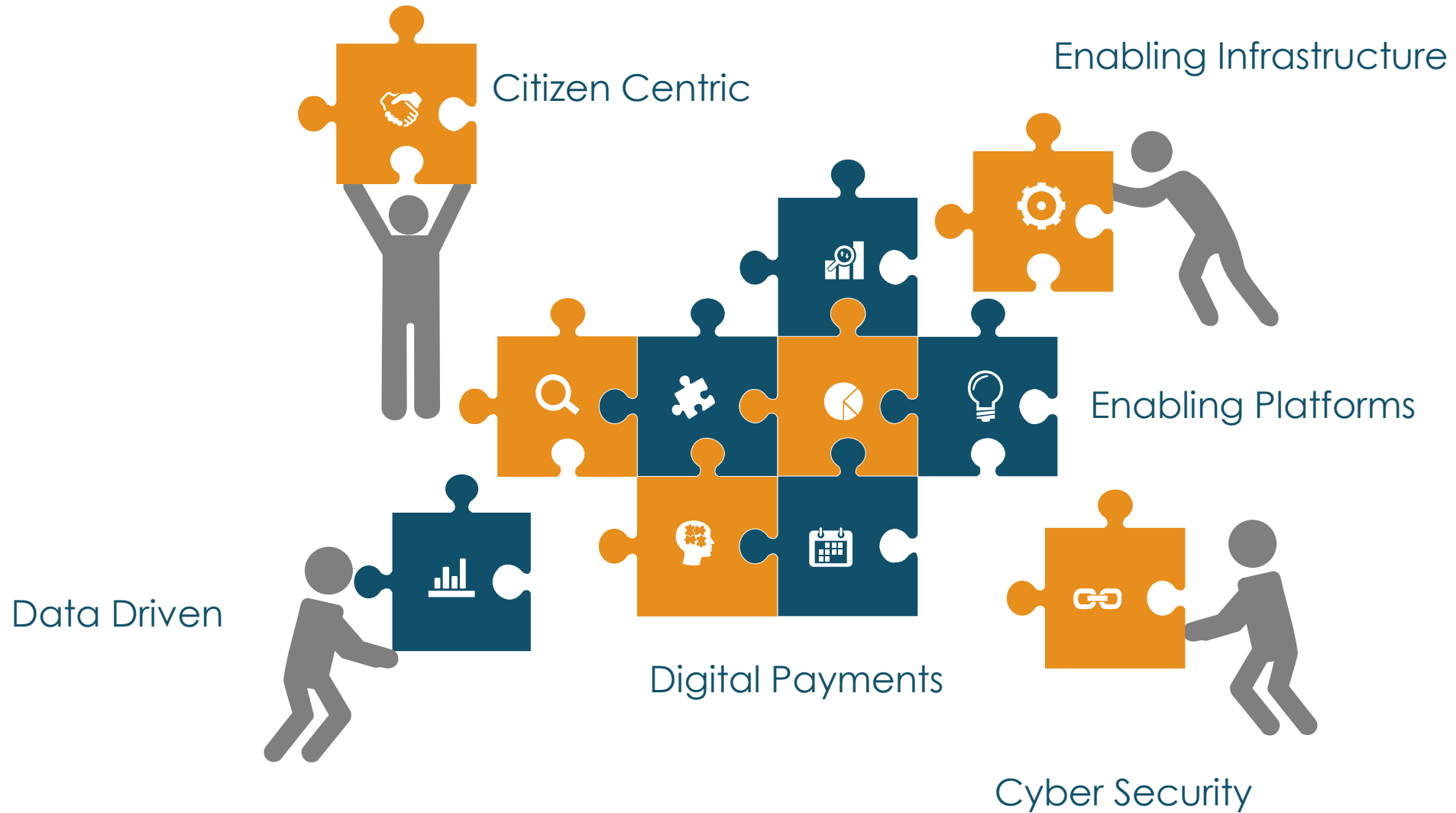
# Digital Transformation – Citizen Centric

# Digital Transformation – Moving forward

**Digital Transformation**
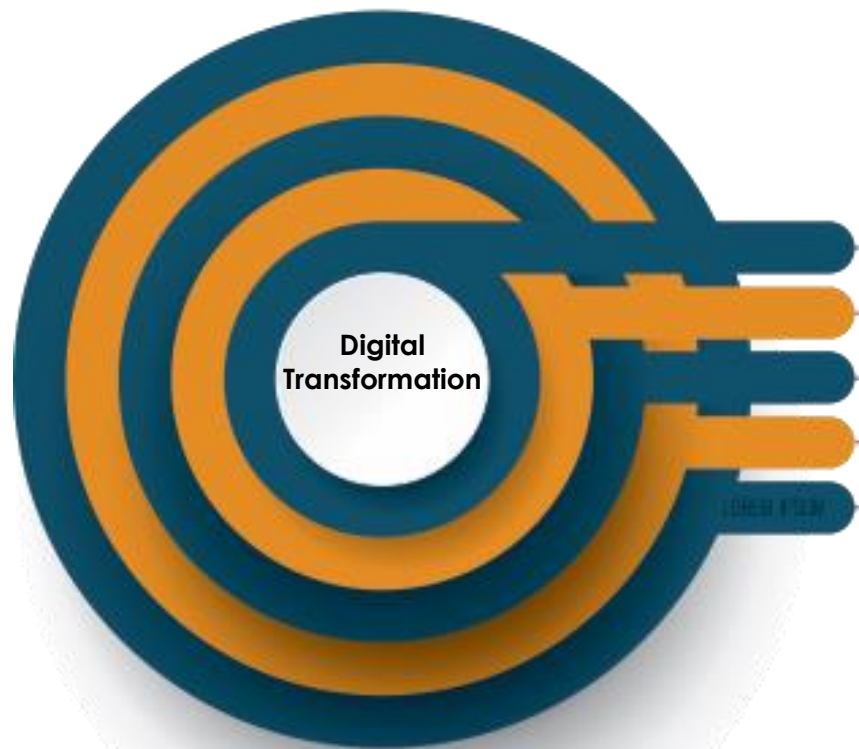
**01**
- National Digital Transformation Strategy
- Implementation Plan, Defined Services & Demands Prioritise & Measurable Outcomes

**02**
- One middleware providing common services and capabilities connected to Government Service Portal (SANAD & Web Portal)
- Digital Identity. digital-signature & Digital Payments Transformation

**03**
- Unified Digital Core & Infrastructure: Data Centre, Cloud & API Switch, Data Analytic
- Revision of Regulatory Framework & Policies

**04**
- Work with strategic partners (PPP or BOT) to accelerate, ensure continuity and strong technology support, lower cost and higher quality

**05**
- Unified National Standard and Digital Core

# The Digital Transformation Timelines

**2**

**1**

**Year 2021**
- Collect data to prioritize the services and do the assessment of existing e-services
- Finalize enabling policies and procedures inline international best practices
- Launching final version of national digital transformation strategy and implementation plan in coordination with all stakeholders
- Start the digitization of payments
- Enhance the Digital Infrastructure
- Complete the Digital ID & start onboarding process
- Completion of YTJ 2021 implementation plan (full details in YTJ plan)

**Year 2021-2022**
- Plan and complete Government Service Portal (SANAD & Web Portal) as a service platform
- Start onboarding all services on Government Service Portal (SANAD & Web Portal) for integrated governmental entities such as DLS, ISTD & PSD /DLVD)
- Complete the digital payments transformation
- Complete all required legislations such as the Personal Data Protection Laws
- Implement & setup the main data center, disaster recovery centers 1 & 2
- Complete the implementation to be digital at core
- Complete of onboarding X% of citizens
- Review progress reports, analytics, lessons learnt & program outcomes
- 5G as main requirement
- NBN project completion
- Government data centralization

**Year 2022 – 2023**
- Complete % of the implementation plan
- Create X number of jobs
- Reach X% in digital onboarding
- Attract $... Of investments
- Contribute to economical growth by X%
- Citizens starting to recognize and feel the impact
- Jordan in the top 5 countries regionally and recognized globally.
- Export growth by X%
- Number of companies increase by X%
- Number of sustainable startup increase by X%
- Complete government data centralization
- Active decision making support through data mining analytics and use of AI and Machine learning
- Launching 5G

**4**

**3**

**Year 2023-2025**
- Continue to optimize, develop from the lessons learnt and build on achievements
- Review the strategy and the plan to fill any GAPs

**End of 2025**
- Project Closer
- Reaching the set of KPIs and achieving the agreed upon objectives
- Launching the continuation and sustainability plan moving forward

**5**

# Emerging technologies

**Emerging technologies**

- 5th Generation — 5G
- AI
- Open source
- Cyber Security
- Block Chain
- IoT
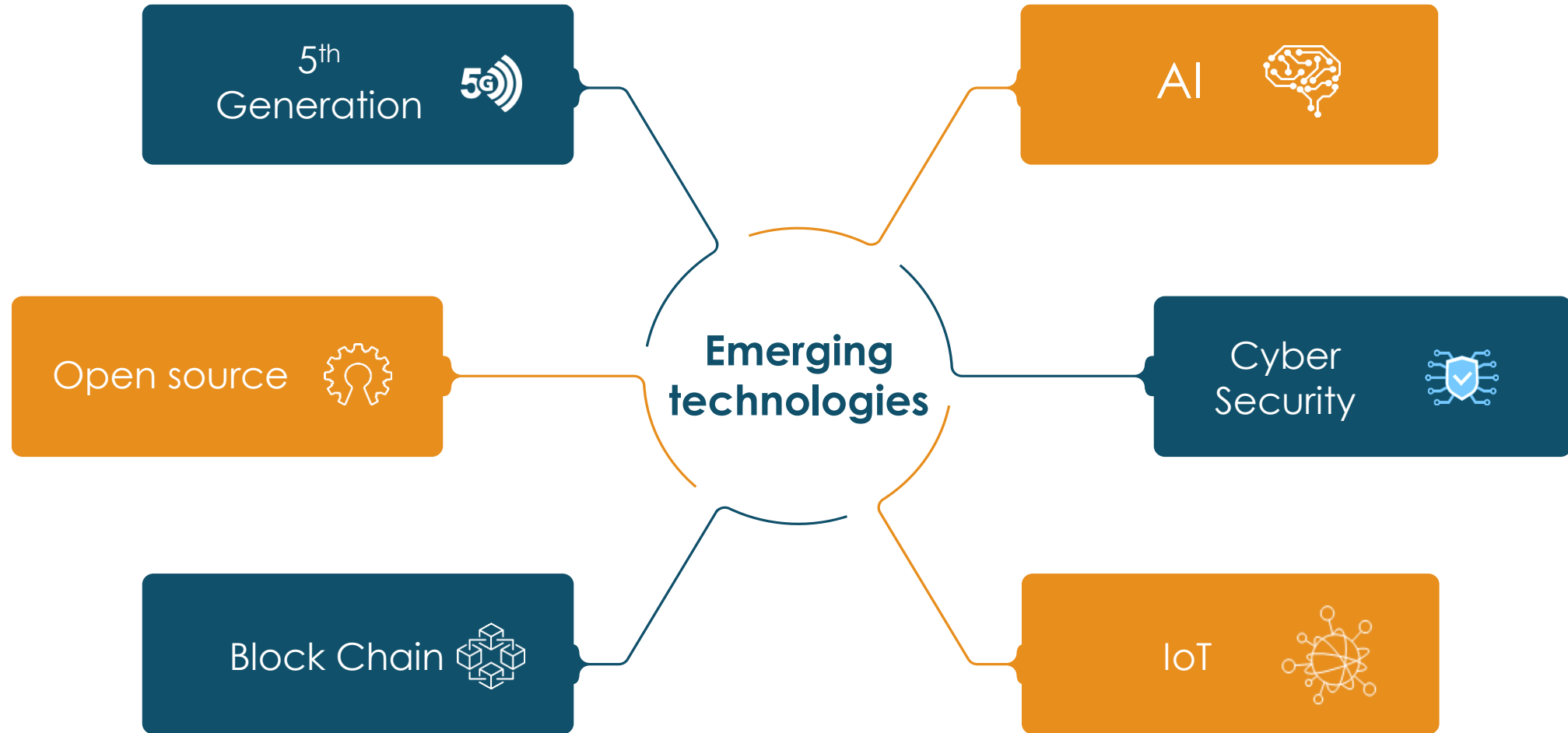
# Services Automation Overview

Automating services on Government Service Portal for integrated ministries and other governmental entities

| | |
|---|---|
| Targeted Governmental Entities | 50 entities |
| Number of all Services | 2464 service |
| API Enabled Services | 25 Service |
| Non-API Enabled Services | 599 Service |
| Service Automation (In Progress) | 86 Service |
| Non-Automated Service (To be prioritized) | 1754 Service |

# Services - International principles related to digital transformation that are compatible with the Jordanian context:

خدمات رقمية المنشأ
(**Digital By Default**)

طلب البيانات لمرة واحدة فقط
(**Once only principle**)

منصة خدمات وتفاعلية
(**One Stop Shop**)

خدمات بسيطة وسريعة تلبي احتياجات المستفيدين وتحقق رضاهم
(**Simple, Fast & Satisfactory Services**)

خدمات شاملة لا تغفل أحد
(**Leaving no one behind**)

# Digital Transformation – Services

The Digital Transformation (DT) structure has to be a centralized Digital Transformation to achieve a citizen centric model.

## Decentralized Digital Automation

**Weaknesses**

- Automation at an Institutional Level
- Lower Productivity
- Higher Costs
- Higher Complexity **(integrations, data mining, analytics)**
- No National Standardization
- Lower Citizen Satisfaction, multiple service platforms
- Multiple Points of Failure
- Scalability Issues
- Intricate coordination
- Lacks the potential of achieving digital economy
- Reactive operating model for MoDEE

*NOW*

## Centralized Digital Transformation

**Strengths**

- Lower Costs
- Higher Reliability and Quality
- Faster Development and Innovation
- Scalable Operation
- Higher Satisfaction, single platform for citizens
- Reduced Complexity
- Unified Government Services Platform
- Powerful Digital Economy
- Proactive operating model by MoDEE
- Better control over the process and implementation plan

*MOVING FORWARD*

→ Beneficiaries are looking for decentralized services, centralized platform and simplicity

# Services
# Digital Transformation - Moving Forward Process

Collection of data is in progress with approximately 2000 services collected for analysis

Value to Citizens

Number of Transactions

Value to economy

Value of Transactions

Value to Culture

Complexity to Citizens

# Digital Transformation - Current Process

The re-engineering and automation of services are currently developed and produced at an institutional governmental level which is a decentralized Digital Transformation(DT) structure.

**Weaknesses**

- Ad-hoc E-service Selection Process
- Service Automation at an Institutional Level
- Multiple platforms and different technologies; only 80 services out of 379 automated services are integrated with the digital core architecture
- Quick wins, scalability constraints
- Multiple Points of Failure
- Higher Complexity (integrations, data mining, analytics)
- Too many gate keeper, difficult to support
- No National Standardization
- Lower Citizen Satisfaction, multiple service platforms
- Higher Costs

**NOW**

**Current Process**

**A** — Business Process Re-engineering
Different Tenders and Standards

**B** — Business Process re-Engineering
Implementation Plans Review
Different Tenders and Standards

**C** — Service Automation Process
Different Standards

**D** — Service Automation
Different Technologies

**E** — Service Testing and Launch
Different Standards

Moving Forward

# Digital Transformation - Moving Forward Process

**Government Centralized Process**

**Select a Service (Prioritised)**
1. Value and Complexity Citizens
2. Value to Economy
3. Value to Culture
4. Number and Vale of Transitions

**Business Process for re-engineering**
1. Lower Costs
2. Higher Productivity
3. Long term strategic partnership

**Rollout to Production Environment**
1. Higher Quality
2. World Class Service
3. Faster realization of outcomes

**Service Digitization Process**
1. National Standard
2. Unified approach and implementation
3. Citizen Centric

**Service Digitization**
1. Unified Platform
2. Standard Architecture & Technologies
3. Easier to support

# Services Digital Transformation Roadmap

Digital Onboarding
(Sanad and Web Portal)

Continue Assessment
and Prioritization of Non-
Automated Services

Digital Verified
Document Platform

Government Service Portal
Updated UI/UX (SANAD &
Web Portal)

**Q2/2021 – Ongoing process**

**Q3/2021**

**Q3/2021**

**Q3/2021**

Automation of API
Enabled Services

**Q4/2021**

Middleware
Implementation

**Q1/2022**

Automation of Non-
API Enabled Services

**Q2/2022**

Continue working on Citizen feedback design
that will be on all governmental portals

**Q2/2021-Q4/2022 Continuous**

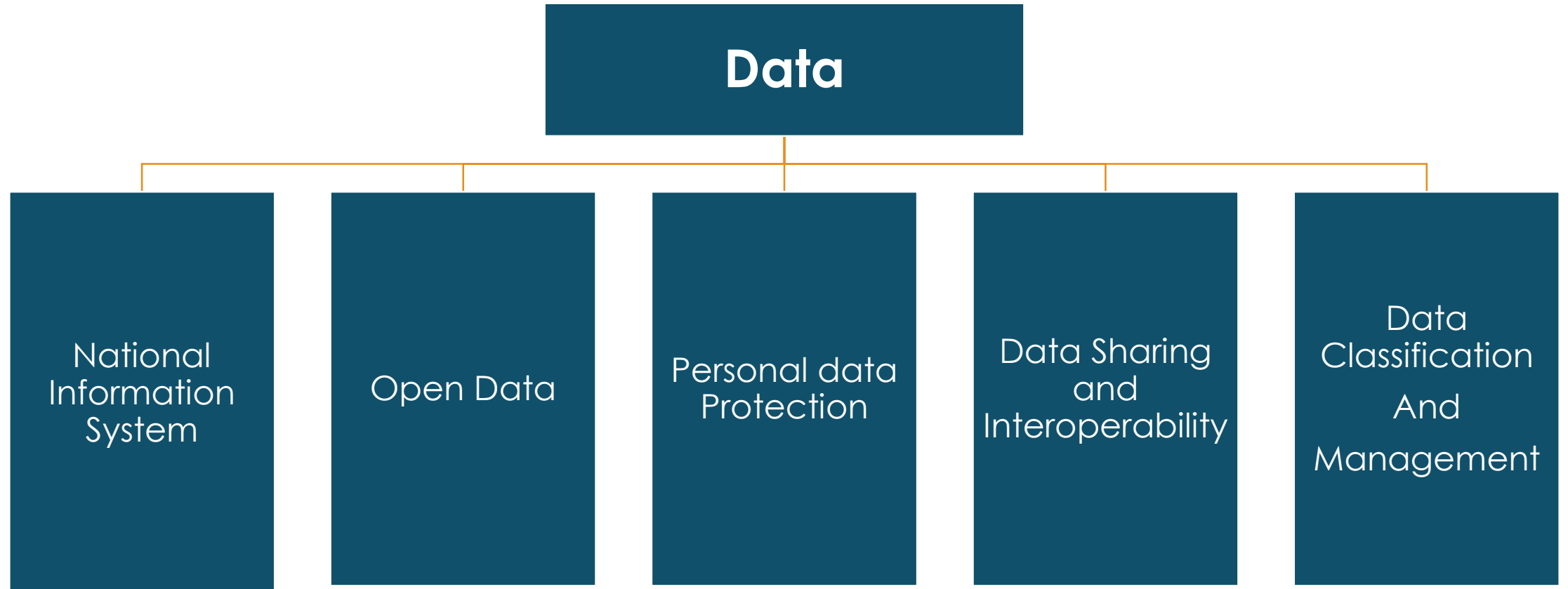| Needed Resources | Budget | Project Timeline | New Services | Renovated Old Services to be API ready |
|---|---|---|---|---|
| 7 Resources | JOD 14.25 M | 2 Years | 575 | 275 |

# Digital Transformation - Data

## Current Situation

- Most of government data and technologies are decentralised
- The Government Digital Infrastructure is optional for government entities
- The main data centre is rented and not owned by a government entity
- The disaster recovery data centre is hosted on a government premise (NCSCM)
- The main and backup data centres are not currently being mirrored 100%
- There is no single entity owner of data
- National Broadband Network delayed and should be completed by end of 2021
- Government Private Cloud is not being fully utilized by government entities and is currently optional
- Poor utilization of the API platform and data analytics
- Government Service Portal (SANAD & Web Portal) doesn't have a roadmap and is not utilized as a single integrated services platform
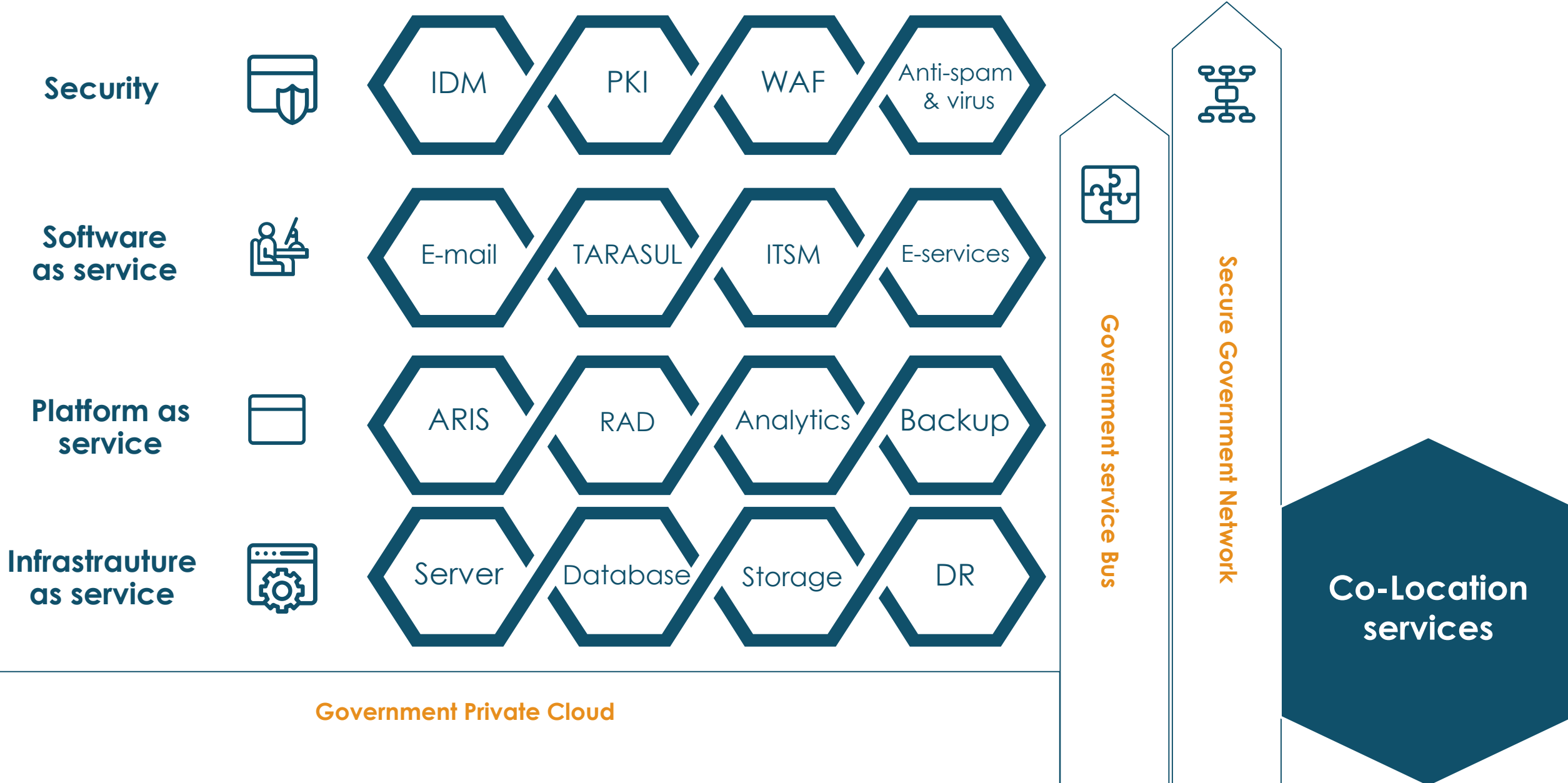
## Moving Forward

- Centralization of government digital infrastructure
- The Government Digital Infrastructure to become obligatory
- The main data centre to be re-located to a government owned premise and must follow international best practices
- The backup data centre mirroring and location to be assessed in case of major risks
- The Government Private Cloud must be utilized by all entities and a single assign a single owner of data
- The National Broadband Network must be completed by 2021
- Plan and implement a data analytical strategy to accelerate development and sustainable economical growth
- Government Service Portal (SANAD & Web Portal) to be the face of the government for all governmental services

# Data Infrastructure

**Security**

IDM | PKI | WAF | Anti-spam & virus

**Software as service**

E-mail | TARASUL | ITSM | E-services

**Platform as service**

ARIS | RAD | Analytics | Backup

**Infrastrauture as service**

Server | Database | Storage | DR

Government service Bus

Secure Government Network

Co-Location services

Government Private Cloud

# Infrastructure & Data Digital Transformation Roadmap
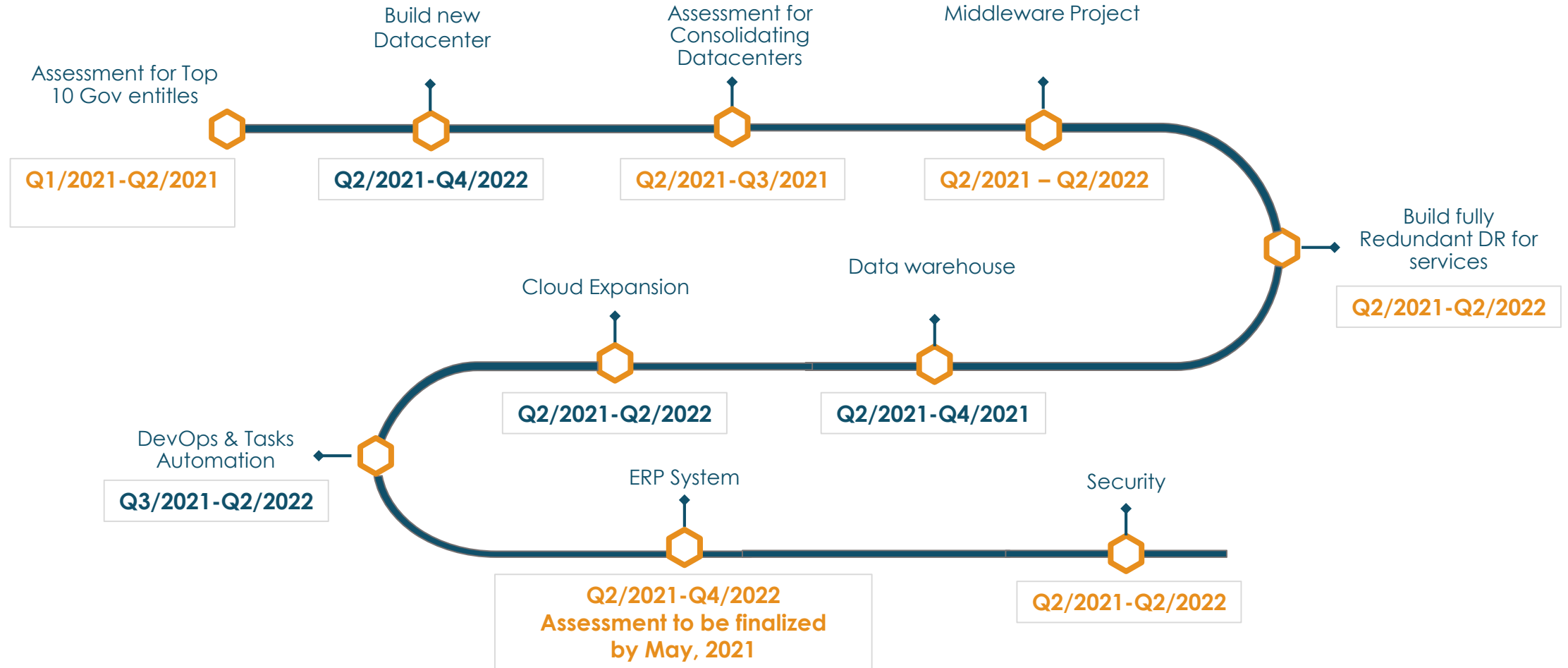
**Assessment for Top 10 Gov entitles**
Q1/2021-Q2/2021

**Build new Datacenter**
Q2/2021-Q4/2022

**Assessment for Consolidating Datacenters**
Q2/2021-Q3/2021

**Middleware Project**
Q2/2021 – Q2/2022

**Build fully Redundant DR for services**
Q2/2021-Q2/2022

**Cloud Expansion**
Q2/2021-Q2/2022

**Data warehouse**
Q2/2021-Q4/2021

**DevOps & Tasks Automation**
Q3/2021-Q2/2022

**ERP System**
Q2/2021-Q4/2022
Assessment to be finalized by May, 2021

**Security**
Q2/2021-Q2/2022

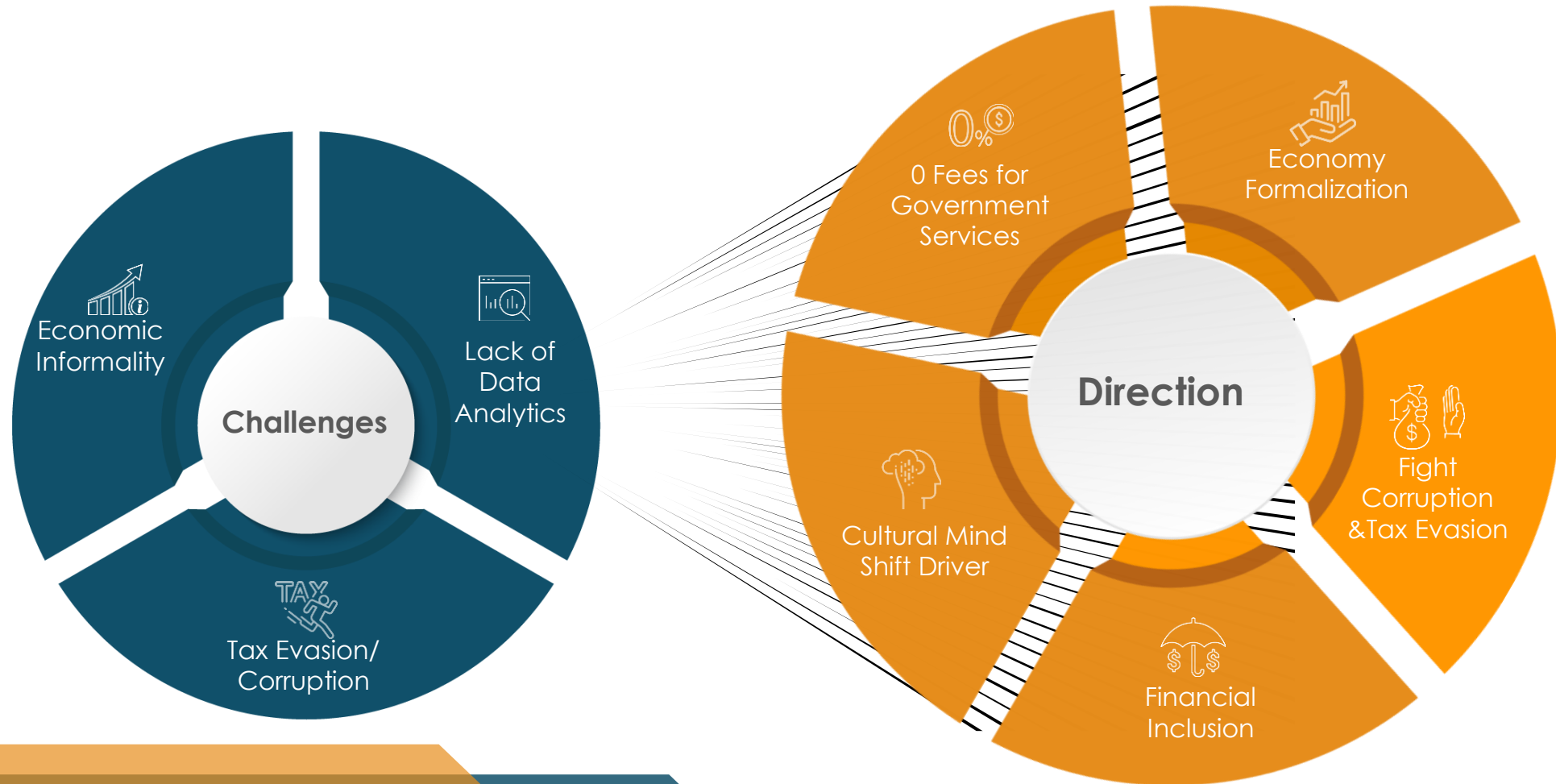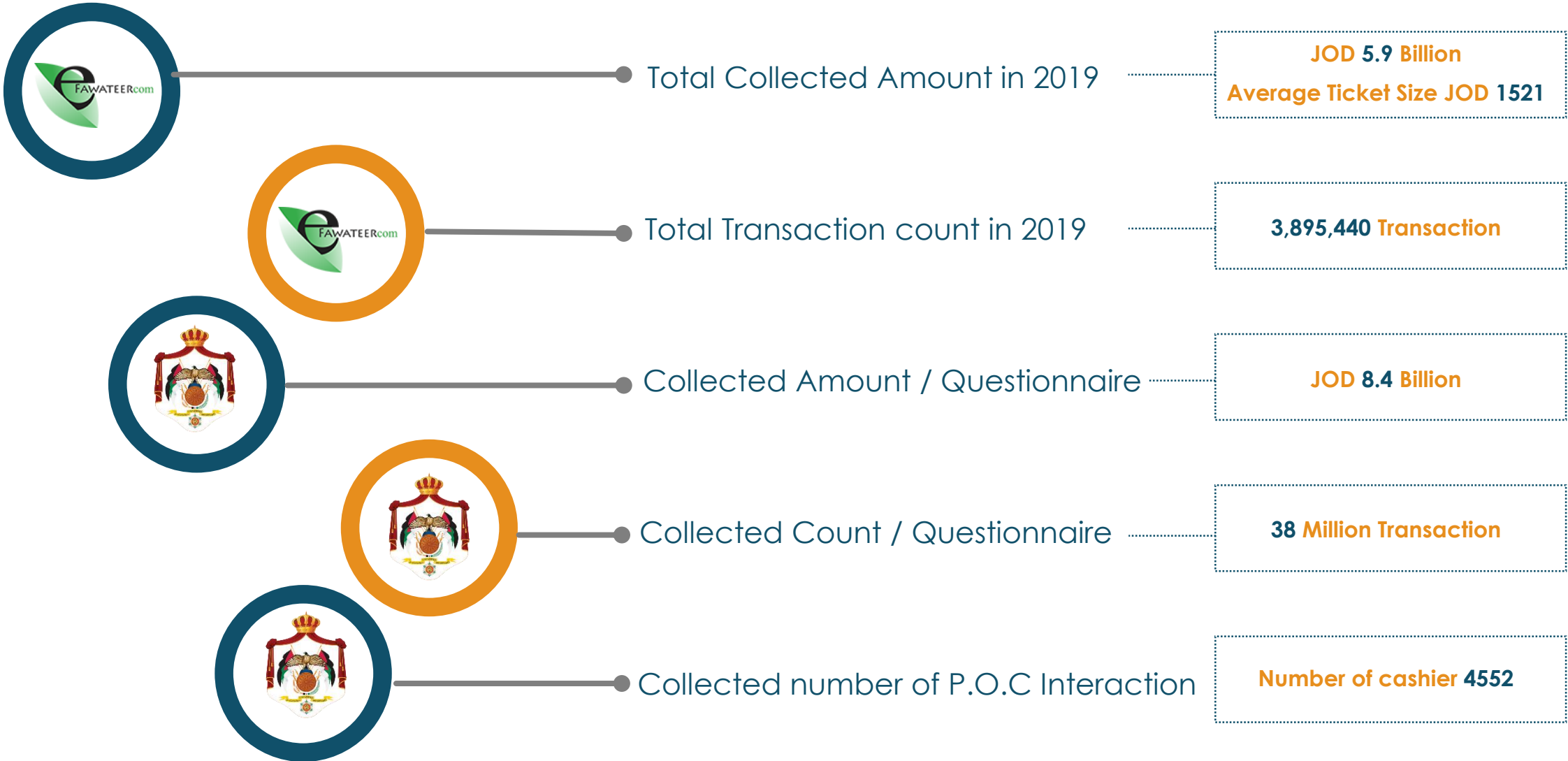| Needed Resources | Budget | Project Timeline | Main Platforms |
|---|---|---|---|
| 20 Resources | JOD 27M | 2 Years | 5 Platforms |

# Digital Payment Transformation

To create an inclusive and formalized digital economy that limits corruption, tax evasion, and lack of information

## Challenges

- Economic Informality
- Lack of Data Analytics
- Tax Evasion/ Corruption

## Direction

- 0 Fees for Government Services
- Economy Formalization
- Fight Corruption &Tax Evasion
- Financial Inclusion
- Cultural Mind Shift Driver

# Key Transactions Numbers

Total Collected Amount in 2019 — **JOD 5.9 Billion**
**Average Ticket Size JOD 1521**

Total Transaction count in 2019 — **3,895,440 Transaction**

Collected Amount / Questionnaire — **JOD 8.4 Billion**

Collected Count / Questionnaire — **38 Million Transaction**

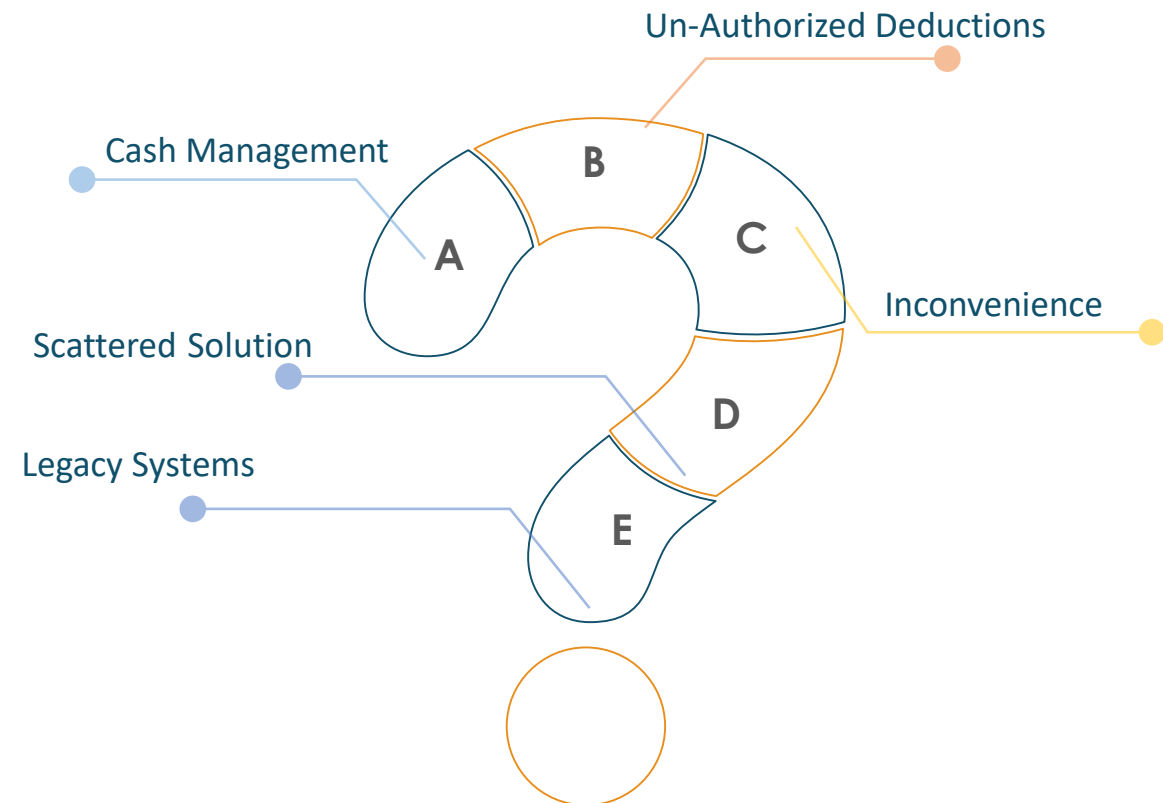Collected number of P.O.C Interaction — **Number of cashier 4552**

# Digital Transformation - Digital Payment Transformation

MoDEE is currently working on the digital payments architecture to be able to transform into a cashless government and cease receiving cash receipts. The TOR is in the final stages of being signed off to start the tender process.

## Government Benefits

- Improve Citizens Experience

- Reducing Economic Informality

- Creating New Jobs

- Eliminating the Risk of Fraud

- Making Government Payment Data more Accurate

## Current Challenges

Un-Authorized Deductions

Cash Management

B

A

C

Inconvenience

Scattered Solution

D

Legacy Systems

E

# Digital Payment Transformation

Potential Bidders will suggest the possible new design that fulfills the government of Jordan needs to achieve Digitization of Person/Business – to – Government Payments.

## CHANNELS

- eFAWATEERCOM
- MOBILE WALLETS
- Bank accounts
- CARDS
- Aggregators
- Others

## TECHNOLOGY

- eFAWATEERCOM
- MOBILE WALLETS
- Bank accounts
- CARDS
- Aggregators
- Others

## USERS

- NFC *
- DIRECT PAY
- QR CODE
- CARDS
- BIOMETRIC
- WEB / IN-APP
- KEY ENTRY

## BACK-END

- INTEGRATION
- RECONCILIATION**
- REPORTING
- APIs

## SUPPORTED SERVICES

- DEVICES
- KIOSKS
- AGENTS

* Wallets ,Physical Cards ,Bracelet...Etc.

** Clearing, Settlement, Switching, Processing , Operating...Etc..

# Digital Payment Platform - Jordan Beyond Cash Payments in 2021

National Payment Switch will be owned by the Government and operated by the private sector
The latest in payment technology will be implemented to ensure seamless citizen Journey

**Payment Channels**

**National Payment Switch**

PAY
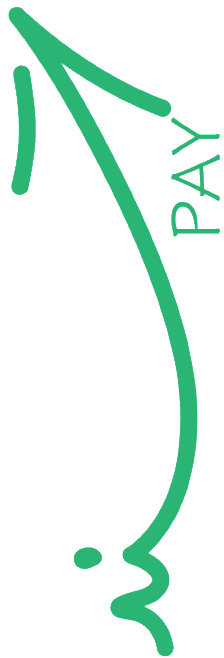
- Aggregator
- Bill Presentment (eFawateercom)
- Kiosk
- Device
- Online Payment

وزارة الاقتصاد الرقمي والريادة

CENTRAL BANK OF JORDAN

**Front – End**

**Back – End**

**Government Entities**
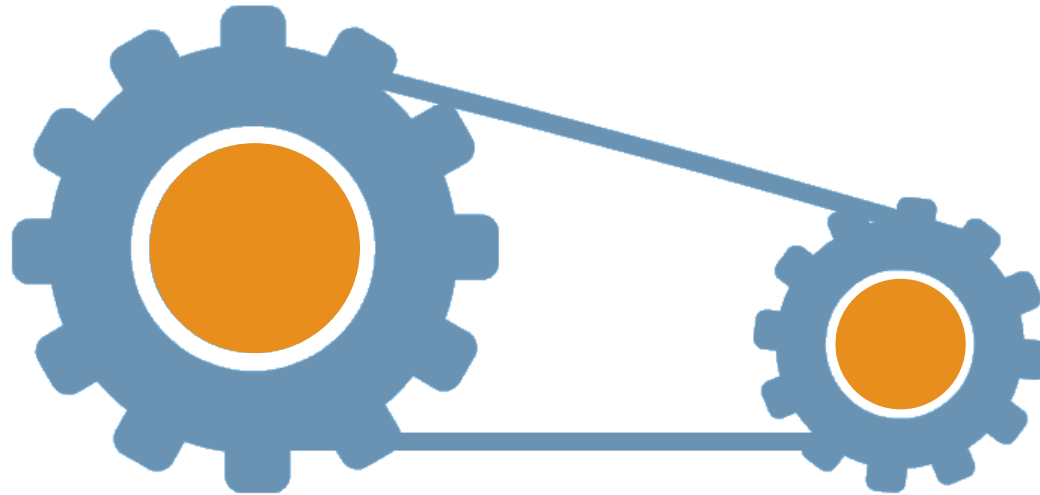
# Democratizing Payments Channels In Jordan

*National Payment Switch will be owned by the Government and operated by the private sector*

*The latest in payment technology will be implemented to ensure seamless citizen Journey*

**Assessment of Current Payment Channels**
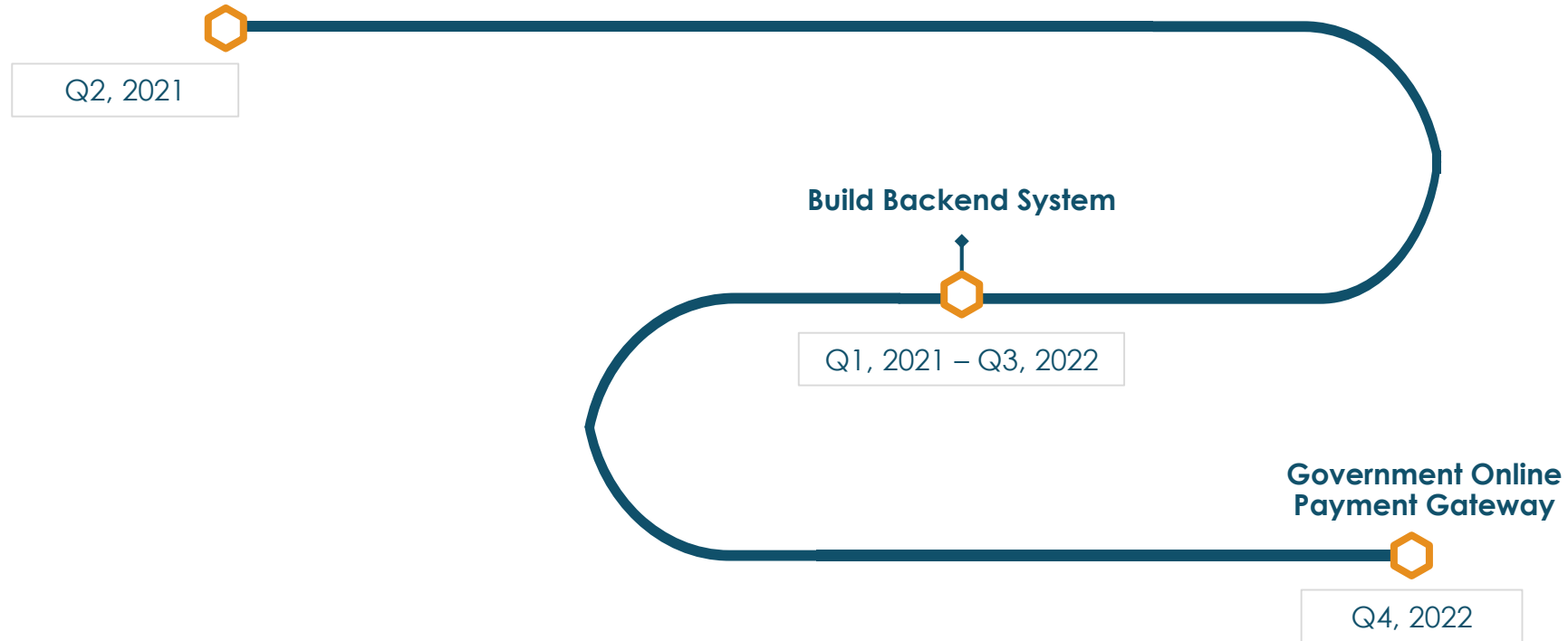
Q2, 2021

**Build Backend System**

Q1, 2021 – Q3, 2022

**Government Online Payment Gateway**

Q4, 2022

| **Needed Resources** | **Budget** | **Project Timeline** |
|---|---|---|
| 9 Resources | JOD 1.5M | 1 Years |

CBJ, YTJ, MoF, MoDEE
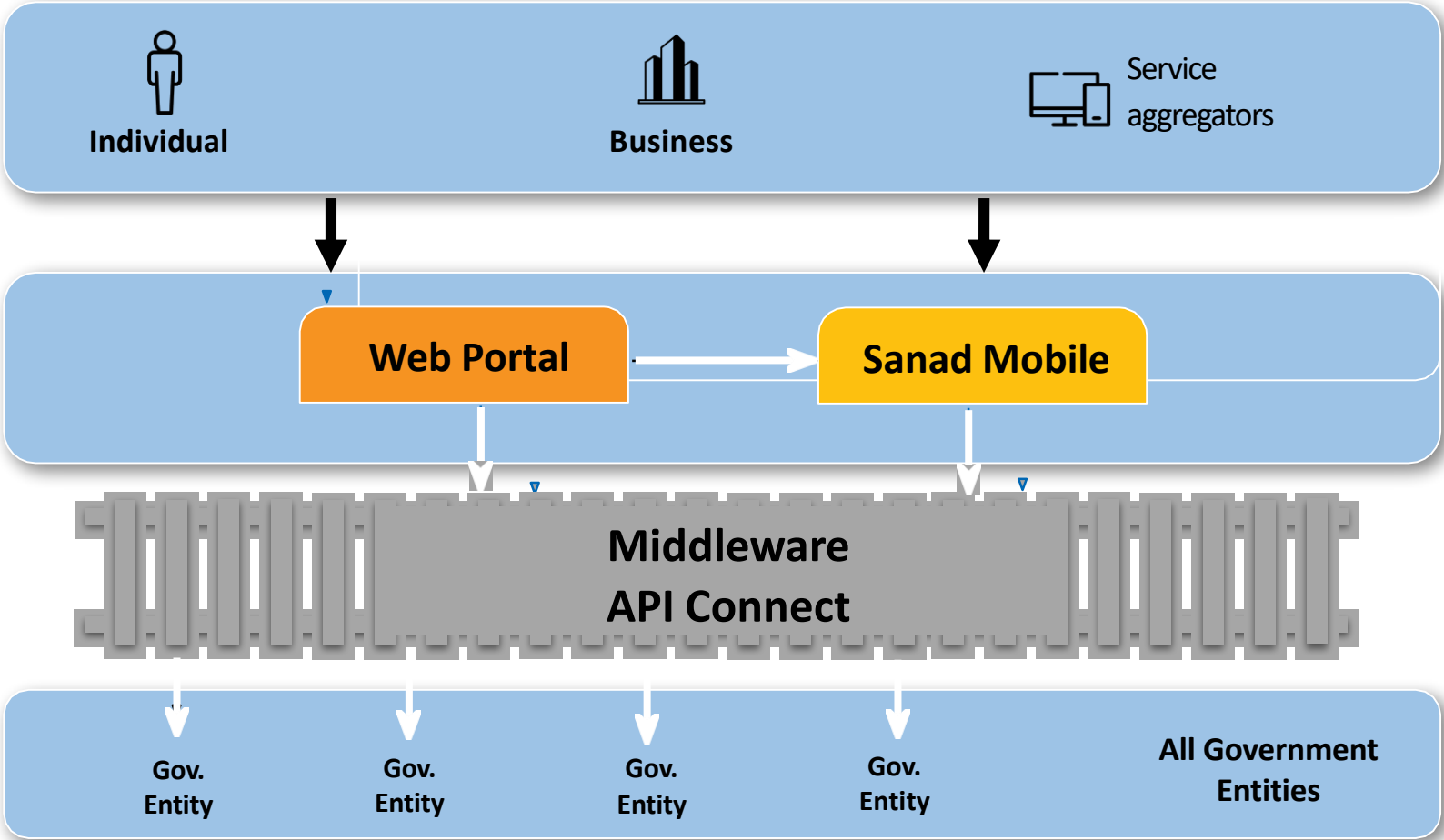
# Policies & Strategies Digital Transformation Roadmap

**Personal Data Protection Law**

**Digital Transformation Strategy and Roadmap**

Currently with LOB
Send to parliament : Q2/2021
Issuance : Q4/2021

Q1/2021 – Q2/2021

**National Information Law**

Q1/2021 – Q4/2021

**Review "Electronic Transactions Law"**

Q2/2021-Q1/2022

Q2/2021-Q3/2021

**E-Commerce Policy**

Q2/2021 – Q4/2021 (TBD)

**E-Participation Policy**

**National AI Strategy**

Q2/2021 – Q4/2021

Q1/2021 – Q4/2021
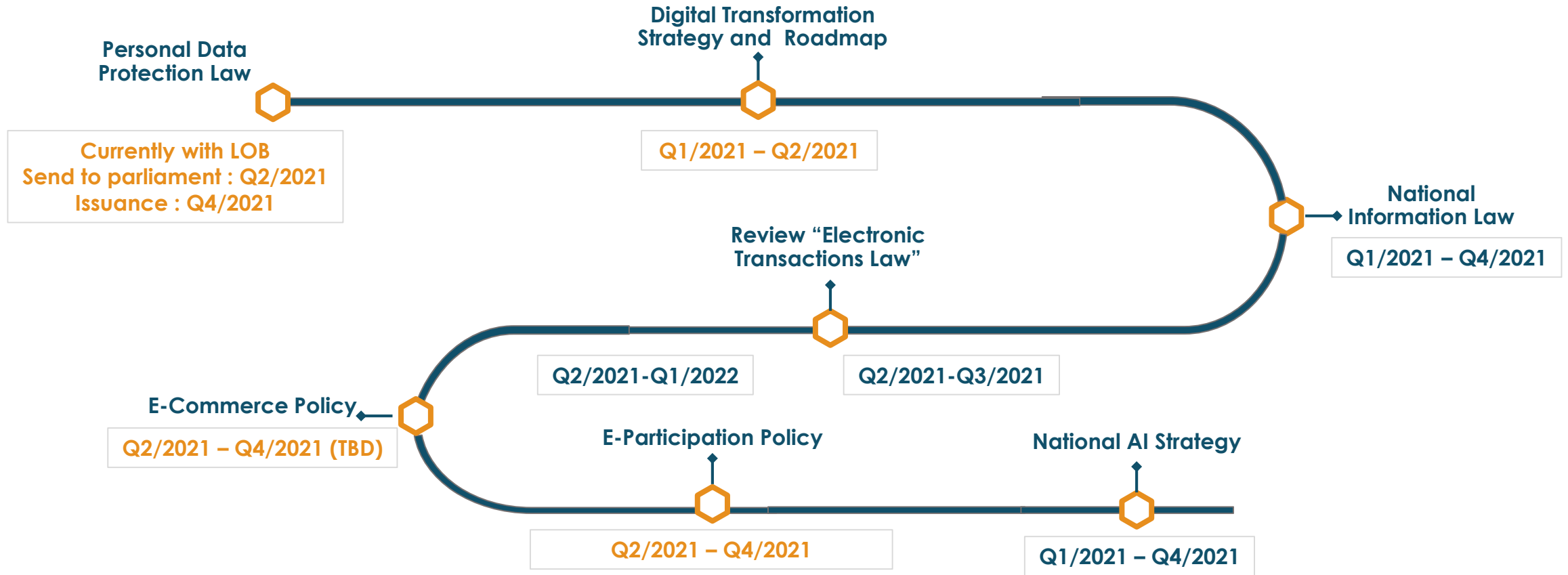
| Needed Resources | Budget | Project Timeline |
|:---:|:---:|:---:|
| 0 | 0 | 1 Years |

# National Cyber Security Centre (NCSC)

MoDEE recognizes the importance of having an effective cybersecurity ecosystem since a national cyberspace is a modern environment that requires systematic and comprehensive protection at the international, domestic, and sectoral levels.

The protection of information assets in the Kingdom is, therefore, crucial to ensure the security of all those who work and reside therein, create new investment opportunities, and develop businesses while increasing their effectiveness and efficiency.

The Government has issued the National Cybersecurity Strategy 2018-2023 and a set of institutional policies related to national cybersecurity.

# Jordan Computer Emergency Team (JoCERT)

MoDEE Established JoCERT in April 2018 to monitor the government network, enforce government information security policies, respond to information security threats, determine vulnerabilities and protect national critical infrastructure.

- Accountability and ownership to move to the National Cyber Security Centre.

| | |
|---|---|
| No. of Detected Breaches | **204** |
| No. of Handled Incidents | **1690** |
| No. of Log Sources | **32** |
| No. of Threat Intel. Reports | **321** |
| CERT Systems' Availability | **99.994** |
| Risk Assessments operations | **39 Entities** |
| No. Of Security Information and event management Rules | **128 Rule** |

# Digital Transformation – Entrepreneurship Ecosystem

Regulatory Framework

Funding and Finance

Local & Global Markets

Education & Training

Universities as catalysts

Digital Transformation Entrepreneurship Ecosystem

Government Policy

Mentors, advisors & support systems

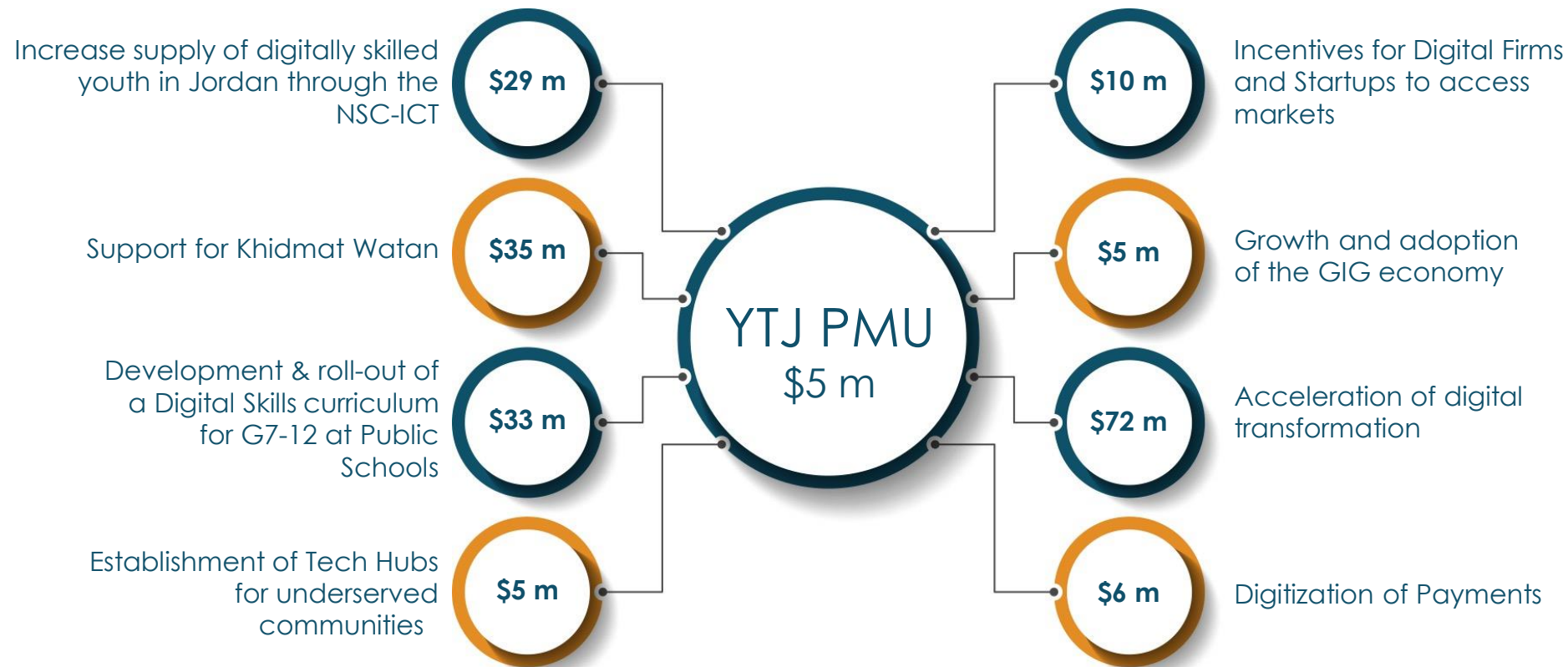Culture

Human Capital & Workforce

**Finalizing new Strategy for Entrepreneurship Ecosystem Digital Transformation is in progress

# Youth Technology and Jobs (YTJ)

YTJ project aims to support, improve digitally-enabled income opportunities and expand digitized government services in Jordan (full detailed plan is in the YTJ project documentation).

YTJ is a 200 million USD project financed by the World Bank for a period of five years.



Increase supply of digitally skilled youth in Jordan through the NSC-ICT — **$29 m**

Support for Khidmat Watan — **$35 m**

Development & roll-out of a Digital Skills curriculum for G7-12 at Public Schools — **$33 m**

Establishment of Tech Hubs for underserved communities — **$5 m**

**YTJ PMU $5 m**

**$10 m** — Incentives for Digital Firms and Startups to access markets

**$5 m** — Growth and adoption of the GIG economy

**$72 m** — Acceleration of digital transformation

**$6 m** — Digitization of Payments

# Change Management

# Digital Transformation Governance Model

## The Cabinet – Ministerial Council

- Defining national priorities
- Provide the necessary funding
- Accountability of government entities

### National Digital Transformation Committee

- Supervise the formulation of the national DTS
- Monitor the implementation of DTS projects
- Enhance PPP in digital transformation
- Review and evaluation of DT legislations
- Report progress to Council of Ministers

### Ministry of Digital Economy and Entrepreneurship

- Developing legislations for digital transformation
- digital infrastructure
- Prepare a roadmap
- Follow up on implementation with government entities

### Government entities

**Accountability**

**Monitoring and Evaluation**

**Planning**

**Execution**

**Quarterly Reports**

**Monthly Report**

# Connectivity

- Incentivize the investment in expanding and continuously upgrading telecom networks
- Review the regulatory environment to make it more supportive for investment and growth
- Support the expansion & penetration of fiber connectivity to households and businesses
- Incentivize and support the investment in 5G and its roll-out to achieve more than 50% coverage within 3 to 4 years.
- NBN PPP Project and achieve 100% connectivity for all government entities
- Telecom operators and internet providers as strategic digital transformation enablers
- Support the enhancement of the average mobile internet speed through optimal spectrum usage and licensing scheme

# Other Priorities (2021)

In addition to the list of projects and service automation initiatives, MoDEE is working on other priorities in 2021 including below shared services:

| Shared Services | Potential PPP Projects |
|---|---|
| Trasul | Ministry of Health |
| Digital Wallet | Department of Land and Survey |
| Document Management System | Income and Tax Department |
| ERP | Ministry of Higher Education & Scientific Research |
| Cloud Queueing System | National Broadband Network (NBN) |
| Modernization Hosting (DevOps) | |
| Government Customer Service Technology (Chatbot, IVR, etc.) | |

# Thank You