



*MITA's role in the*

Digital Transformation  
of  
Maltese Public Administration

ITAPA 2019 International Congress

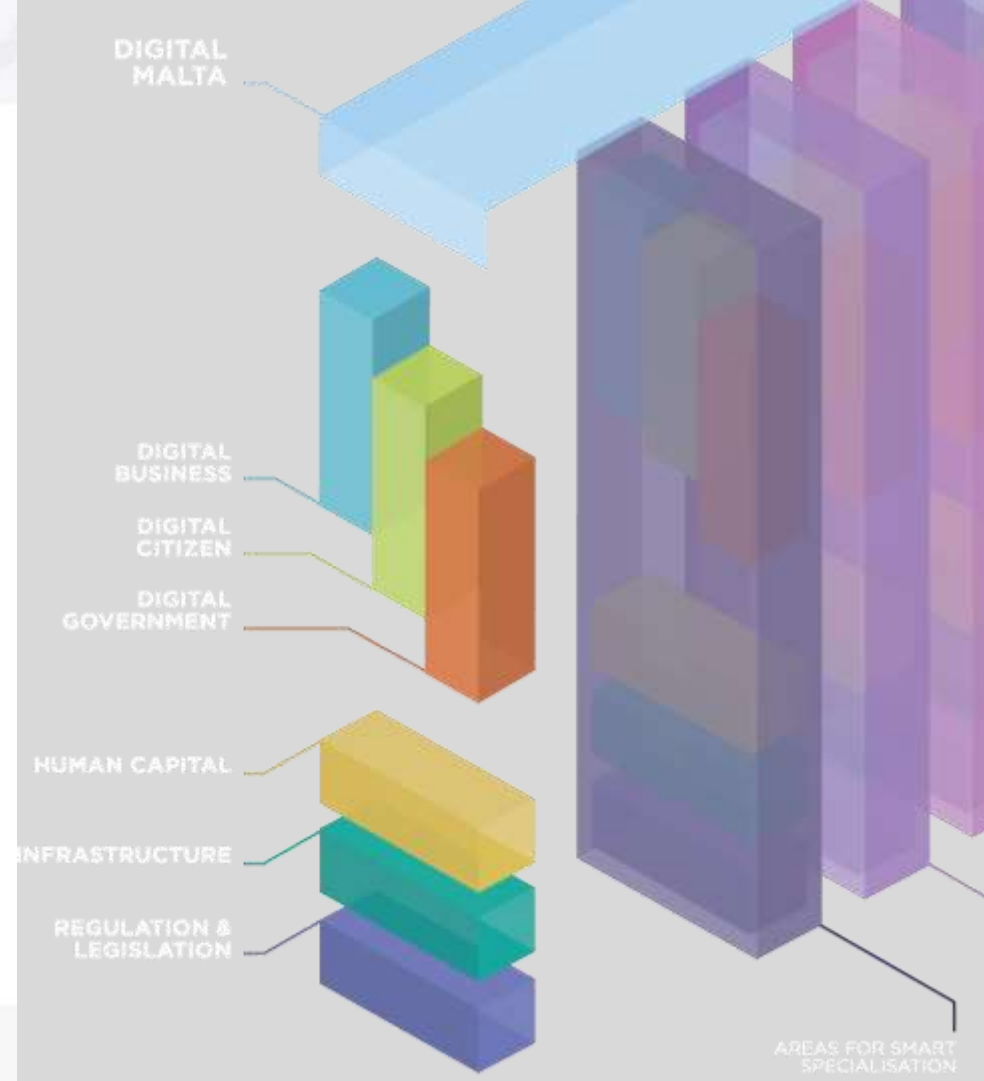
*12<sup>th</sup> November 2019*

*Emanuel Darmanin*  
*Head, Strategy & Business*

# Digital Malta

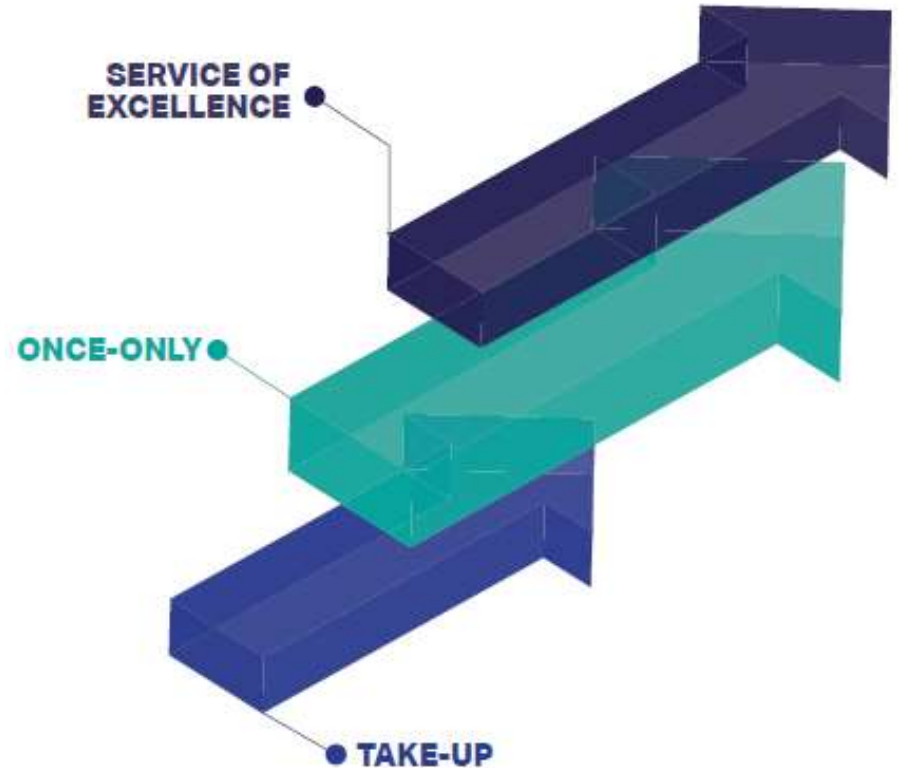
*“Malta will prosper as a digitally-enabled nation in all sectors of society.”*

*2014 - 2020*



# Mapping Tomorrow

*“A Public Administration  
Empowered  
by  
Digital transformation”  
2019 - 2021*



# Mapping Tomorrow – Principles

## Specific

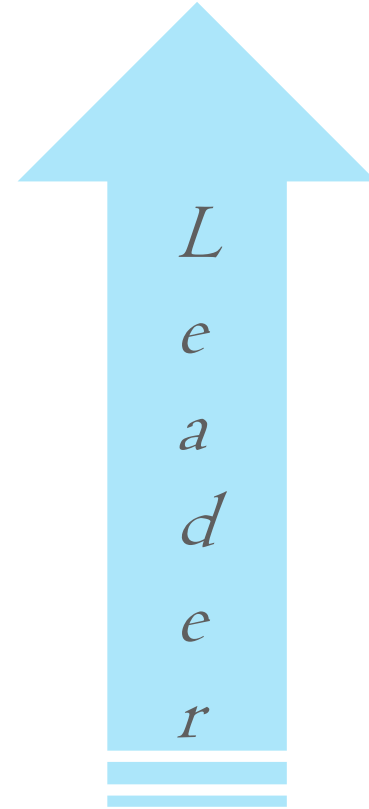
- Client-Centricity
- One Government
- Sharing and Re-use
- End-to-End Services
- Digital by Default
- Process Re-engineering

## Generic

- Trust
- Stronger Awareness
- Security and Privacy
- Agility and Continuous Improvement
- Accessibility
- Availability
- Ongoing Investment and Celebrating Success
- Interoperability and Cross-Border

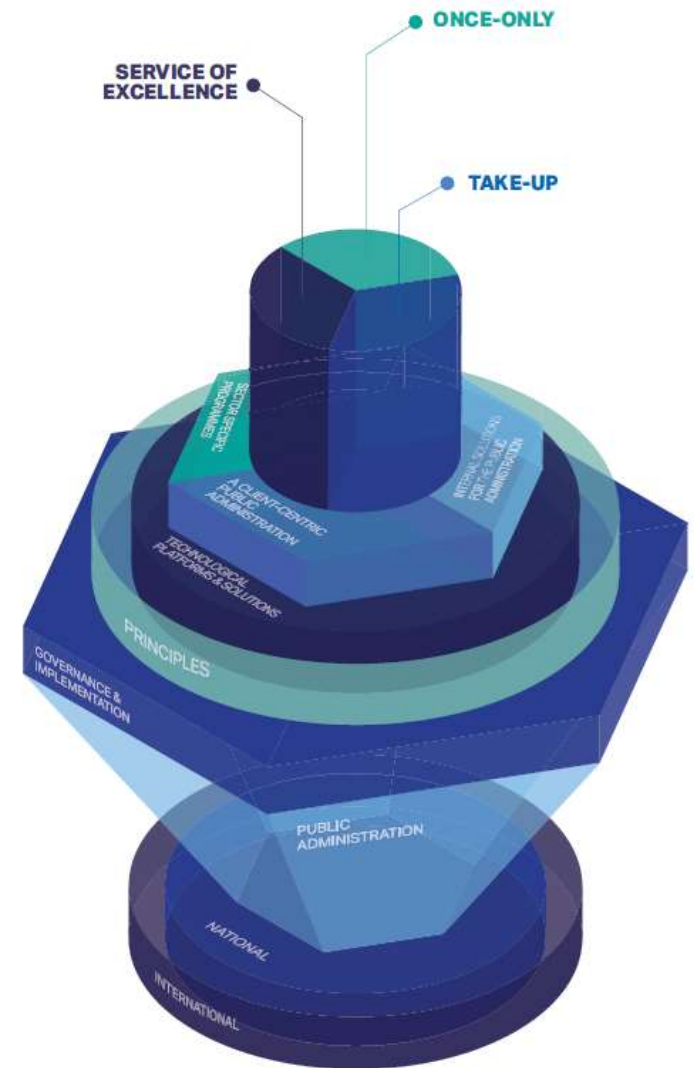
# Mapping Tomorrow – Emerging Technologies

- Artificial Intelligence
- Internet of Things
- Distributed Ledger Technologies
- Business Intelligence and Analytics
- Immersive Technologies



# Mapping Tomorrow – Pillars

- A Client-Centric Public Administration
- Sector Specific Programmes
- Internal Solutions for the Public Administration
- Technological Platforms and Solutions



# Malta: The Ultimate AI Launchpad *2019 - 2030*

*Investment,  
Start-ups &  
Innovation*

*Public Sector  
Adoption*

*Private Sector  
Adoption*

*Education & Workforce*

*Legal & Ethical Framework*

*Infrastructure*

# AI & The Public Administration

- Creating an AI Powered Government
- Implementing high-profile projects:
  - Provide better services to citizens / businesses
  - Improve economic and social well-being of citizens / businesses
  - Improve the internal operations of the public administration
- Implementing policy actions to encourage procurement of smart technology-based solutions.



# AI Selected Use-Cases



Transportation



Customer Care



Education

## Specific Use-Cases within the Public Sector



Healthcare



Utilities

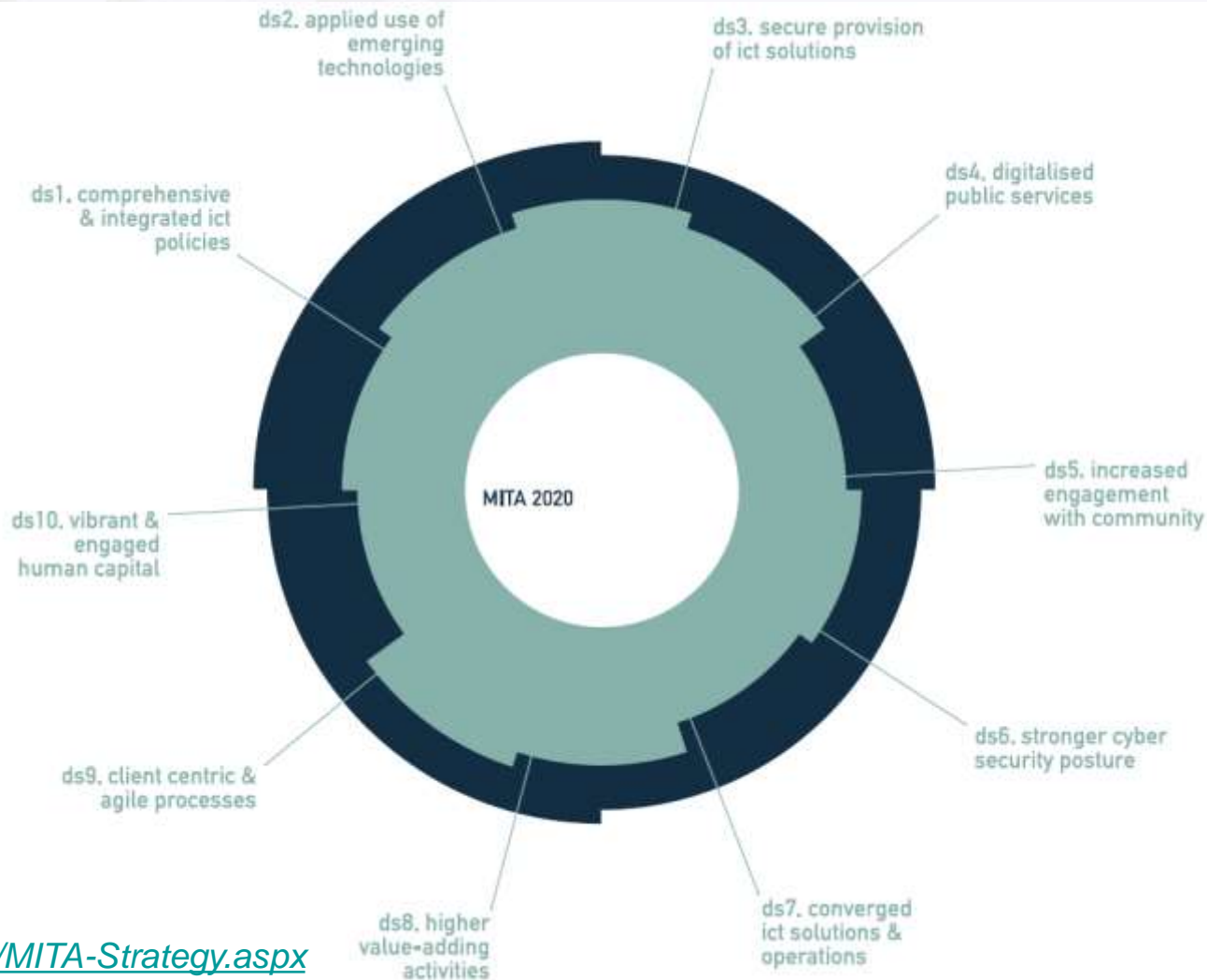


Tourism

# MITA

## *“The Digital Driver for the Transformation of Government”*

*2018 - 2020*



# MITA

- Central driver of Government's ICT policy and strategy
- Deliver and Manage IS across Government to enable reform and innovation.
- Provides the infrastructure and services to Government
- Encourage take-up of ICT in the wider economy

# MITA Technology Platforms and Solutions

- Hybrid Cloud
- Shared Platforms:
  - Workflow Solution, Collaboration, National Data Portal
  - eGov Platforms: Notifications Platform, Payment Gateway, User Authentication Services (eID)
- ICT Infrastructure and Collaboration:
  - Government Network, Email, Internet, Identity Management
  - Modern Workplace,
- Security

# MITA Hybrid Cloud

Guest  
Workload  
Resources



Web Apps



VMs



Storage  
Services



Virtual  
Networks



SQL  
DBs

Azure Portal – Developer Tools



Azure Resource Manager



Core Services

Subscriptions – RBAC – Gallery – Metrics - Usage

Additional Services

IaaS – SQL-aaS – App Platform-aaS

Foundation Services

Compute – Storage – Network – Platform Services

Hyperconverged Infrastructure

Compute

Storage

Network



Microsoft Azure Stack – MITA Hosted



Service  
Fabric  
Clusters



Web Apps



VMs



NoSQL  
DBs



API  
Management

Guest  
Workload  
Resources

Azure Portal – Developer Tools

Azure Resource Manager



Core Services

Subscriptions – RBAC – Gallery – Metrics - Usage

Additional Services

18 Categories – Web - Analytics - Identity – IoT...

Foundation Services

Compute – Storage – Network – Platform Services

Public Cloud Infrastructure

Microsoft Azure Public Cloud



3<sup>rd</sup> Party Services



# Hybrid Cloud – Characteristics...I

- Part on Premise Microsoft Azure Stack:
  - MITA Tier III Data Centre
  - MITA Secondary Data Centre
- Part on Microsoft Azure Public Cloud:
  - West-Europe
  - North-Europe

# Hybrid Cloud - Characteristics ...2

- Subscription & Pay-per-use
- On-premise Cloud vs Off-premise Cloud
- Roles:
  - MITA retains ownership
  - Supplier has contributor role
  - Access to MITA / Public Administration CIO teams
- Requires that MITA & Public Administration CIOs:
  - Are onboard

# Hybrid Cloud – Strategic Drivers

- Corporate identity - one-Government
- Horizontalization – sharing of data and resources
- Facilitates modernisation of Information Systems
- Economies of Scale
- Standardisation and Interoperability
- Self-service by Public Administration CIOs
- Disaster Recovery & Business Continuity



# Hybrid Cloud – Business Drivers

- Reduce Idle resources
- Time to Market
  - SAAS and Self Service
- Legal & Regulatory
  - GDPR
  - Sovereignty
- Demand / Supply
- Cost optimisation

# Hybrid Cloud – Technical Drivers

- Improved Performance
- Capitalise on emerging / 'latest' technologies
- Easier to upscale
- Integration to legacy systems
- Security
- Data Volume

# MITA Hybrid Cloud

## *Legacy Services*

### Middle-ware

Identity Server, API Manager, DSS



### Hosting

Web Framework, SEWS



### Data Bases

MS SQL, Informix, Oracle, MariaDB



### Virtual Machines

Windows / Linux



### Storage

File Shares



## *Hybrid Services*

### Software-as-a-Service

Azure B2C, API Management



### Platform-as-a-Service

Web App Services, AKS



### DB-as-a-Service

SQL (MS, MariaDB), NoSQL



### VM-as-a-Service

Windows / Linux + Templates



### Storage-as-a-Service

Blob, Table, File, Queue



# Security

- Security Profile:
  - SOC
  - MTCERT
- Cybersecurity:
  - Strategy
  - Awareness Campaign

- Policy
  - Legislation
  - Risk Management
  - Culture
  - Education
- 
- Civil Society
  - Public Sector
  - Private Sector





## Thank You

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