Governments could focus more on improving interconnectivity and interoperability in future GovTech initiatives (2022 GTMI result)

High demand for implementation-oriented advice on Interoperability

How-to-Note on Interoperability

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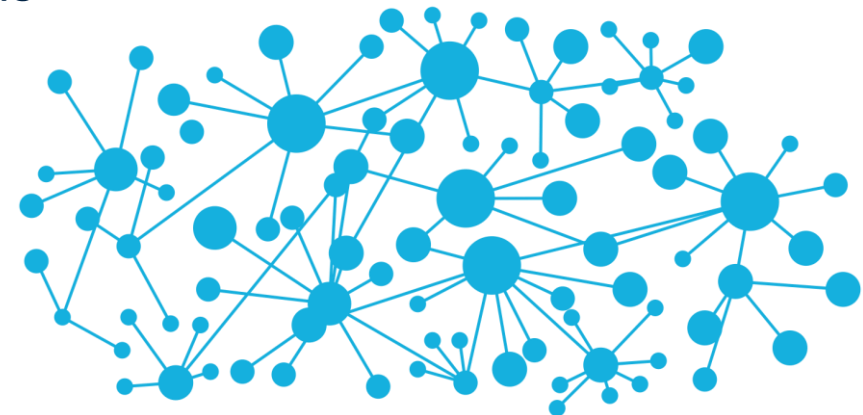
Benefited from the Interoperability Working Group

Table of Contents

1. **What** is Interoperability (Introduction)
2. **Why** Interoperability Matters
3. Setting the right policy and organizational conditions (**How**)
4. Implementing digital interoperability (**How**)

GOVERNANCE

EQUITABLE GROWTH, FINANCE & INSTITUTIONS INSIGHT

Interoperability
Towards a Data-Driven Public Sector

What is Interoperability?

Interoperability in the public sector is about enabling connections:

- between ministries, departments, agencies, sectors, government levels and countries

- through data, information systems, legal agreements, organizational processes and shared values and customs
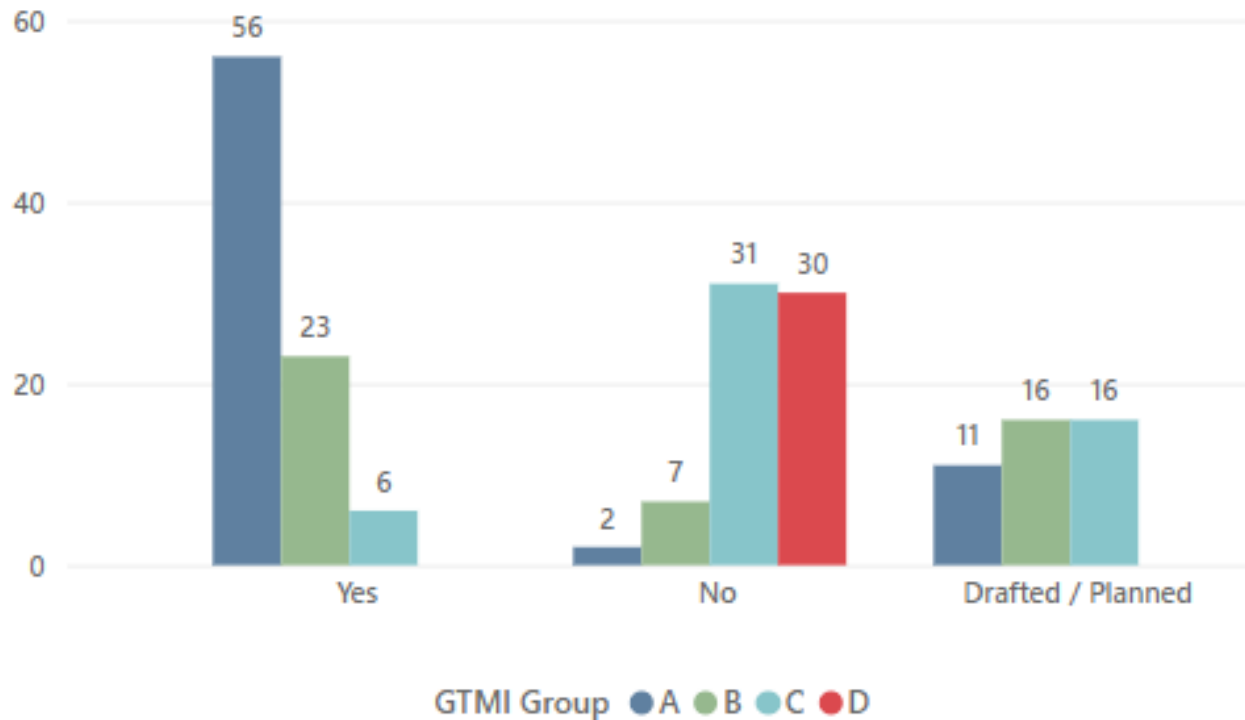
What is Interoperability?

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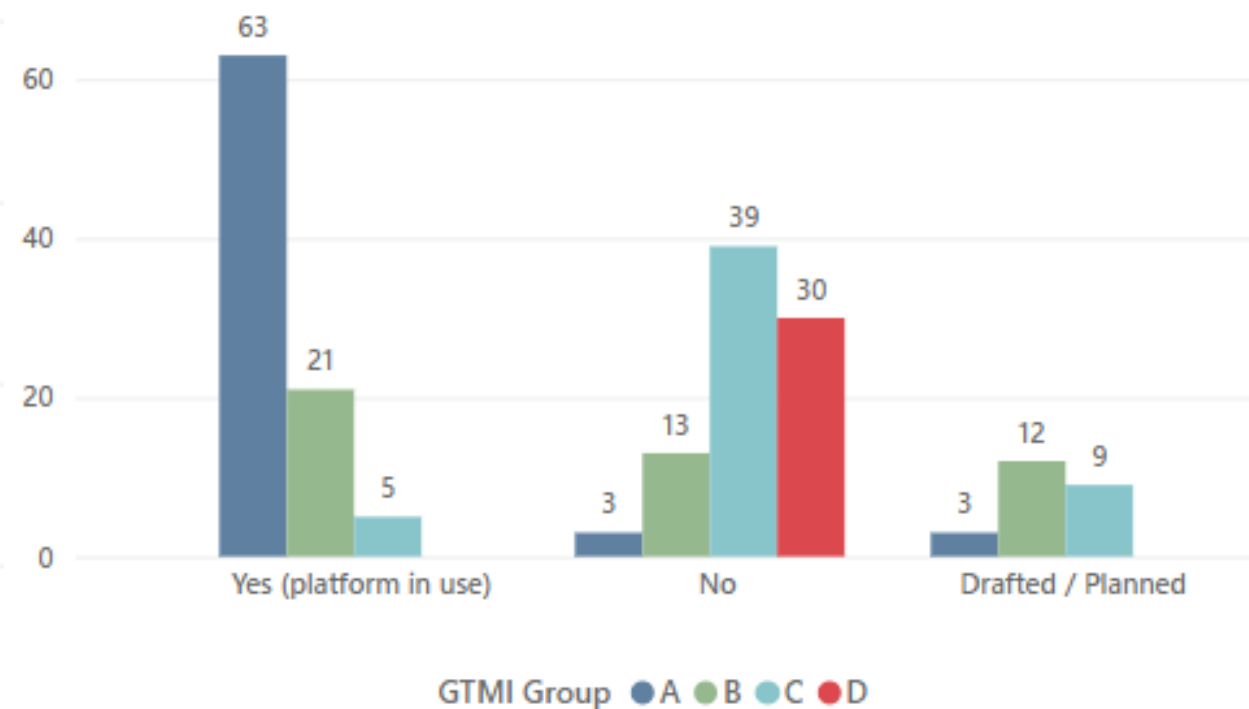## Interoperability Status by GTMI Group

Is there a Gov Interoperability Framework?

Response distribution by GTMI Groups

Is there a Gov Service Bus Platform?

Response distribution by GTMI Groups

Source: World Bank (2022) GovTech Maturity Index

Why does interoperability matter?

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>> For citizen-centered services

>> Towards a data-driven public sector

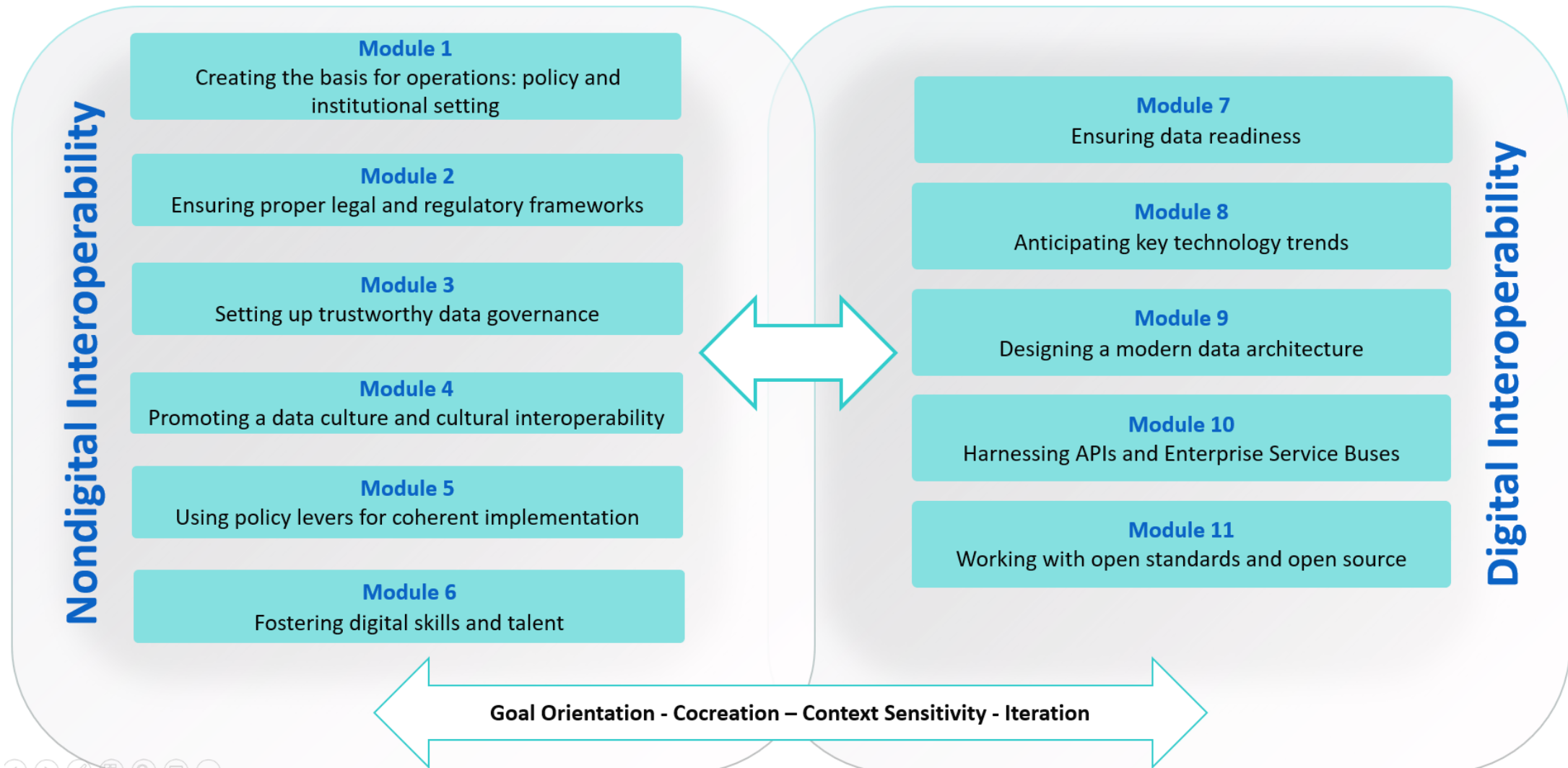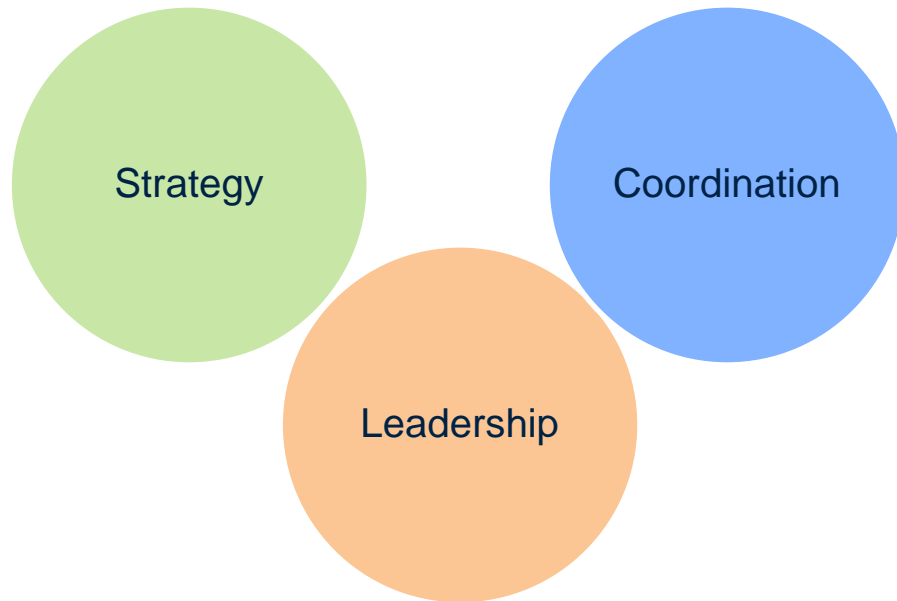|			
Efficiency gains	**Life events and once-only principle**	**Automated and proactive services**	**Omnichannel service delivery**
Transparency, accountability, and integrity	**Service composability**	**System resilience**	**Data-driven value creation**

How? The GovTech Approach to Interoperability

Nondigital Interoperability

Module 1
Creating the basis for operations: policy and institutional setting

Module 2
Ensuring proper legal and regulatory frameworks

Module 3
Setting up trustworthy data governance

Module 4
Promoting a data culture and cultural interoperability

Module 5
Using policy levers for coherent implementation

Module 6
Fostering digital skills and talent

Digital Interoperability

Module 7
Ensuring data readiness

Module 8
Anticipating key technology trends

Module 9
Designing a modern data architecture

Module 10
Harnessing APIs and Enterprise Service Buses

Module 11
Working with open standards and open source

Goal Orientation - Cocreation – Context Sensitivity - Iteration

How? Nondigital Interoperability

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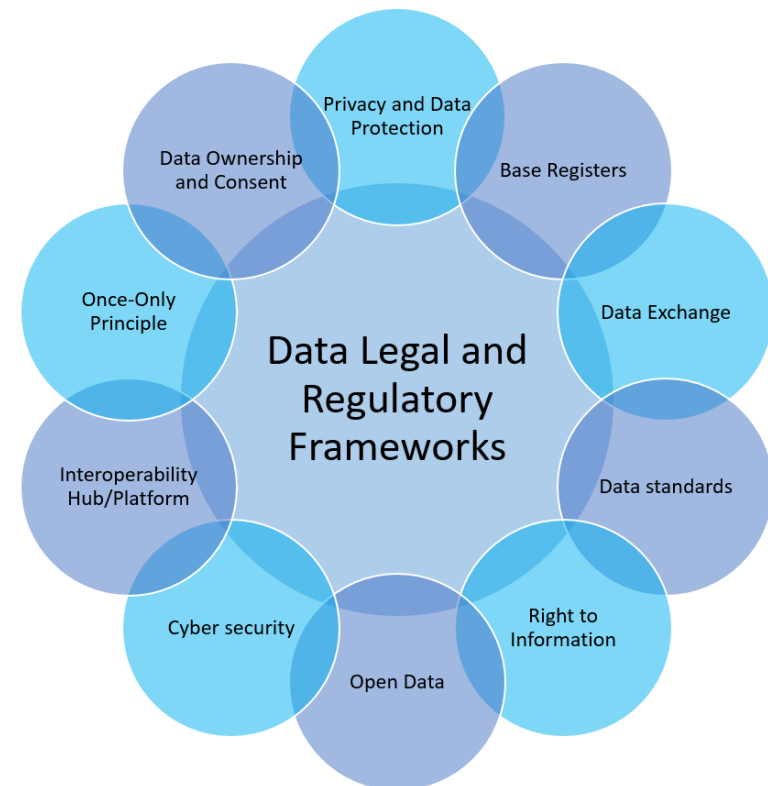**1** **Creating the Basis for Operations: Policy and Institutional Setting**

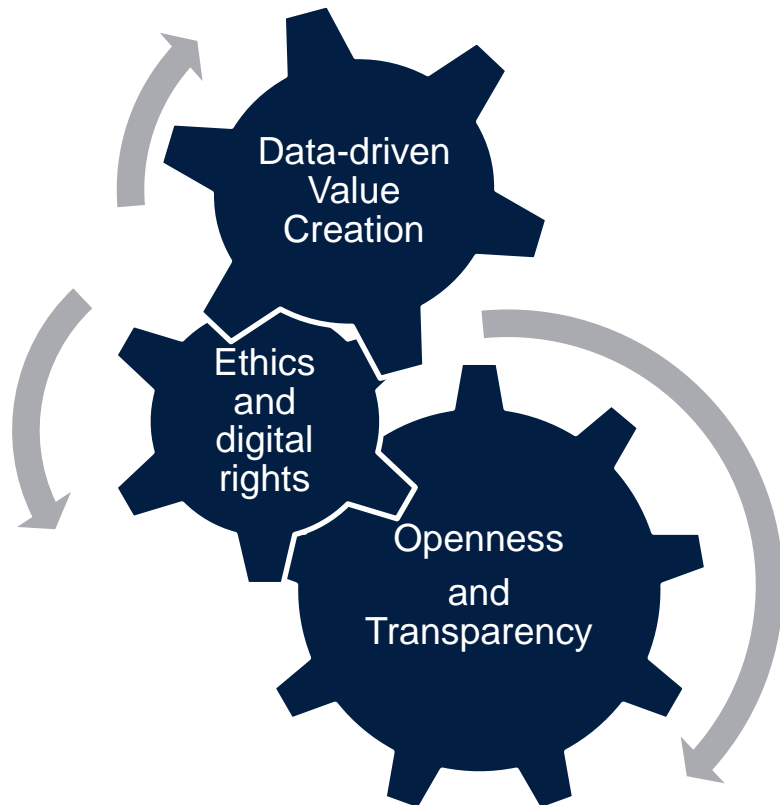**2** **Ensuring Proper Legal and Regulatory Frameworks**

Strategy

Coordination

Leadership

Privacy and Data Protection

Data Ownership and Consent

Base Registers

Once-Only Principle

Data Exchange

Interoperability Hub/Platform

Data Legal and Regulatory Frameworks

Data standards

Cyber security

Open Data

Right to Information

How? Nondigital Interoperability

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3 **Setting up Trustworthy Data Governance**

Data-driven Value Creation

Ethics and digital rights

Openness and Transparency

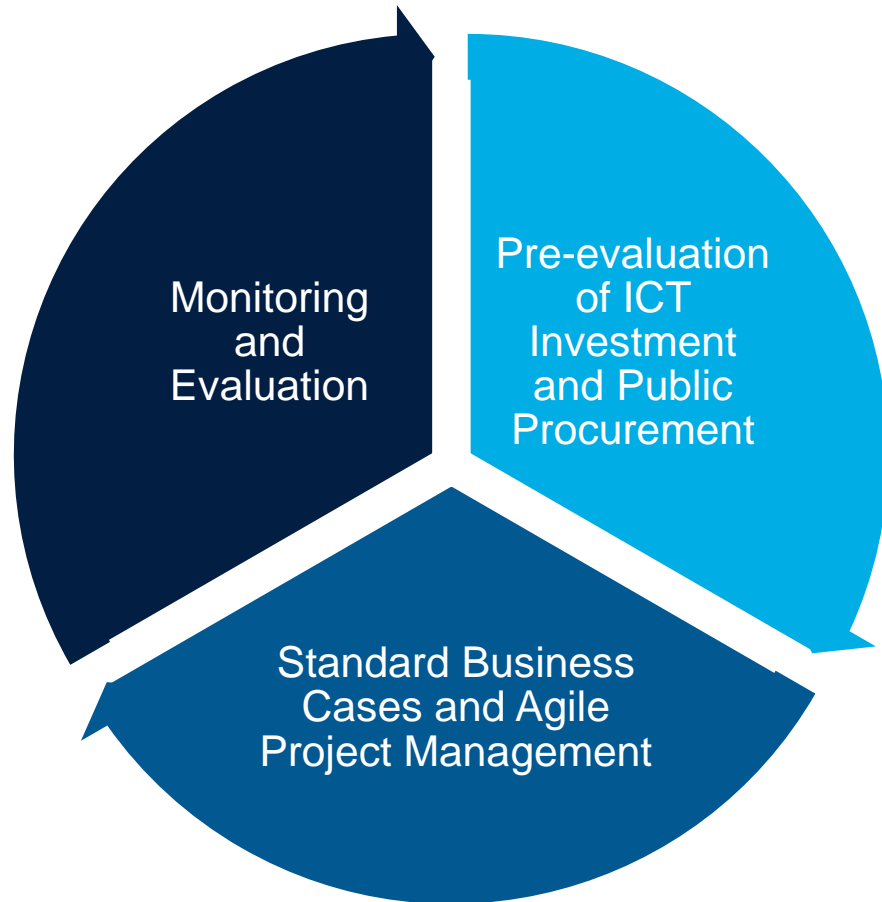**4** **Promoting Data-Driven Culture and Cultural Interoperability**

Drivers of cultural changes

- Clearly demonstrated need to implement the once-only principle (UK)

- Co-creation approach with stakeholders (Denmark)

How? Nondigital Interoperability

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5 Using Policy Levers for Coherent Implementation

- Monitoring and Evaluation
- Pre-evaluation of ICT Investment and Public Procurement
- Standard Business Cases and Agile Project Management

6 Fostering Data-Driven Digital Skills and Talent

- AI and Machine Learning
- Big data analysis
- Software and applications
- Data management
- Data visualization
- Blockchain

How? Digital Interoperability

7 **Ensuring Data Readiness**

Maturity level of data captured, and storage is critical

- Understand what data is needed?
- What is available, what do we want to do with this data.
- why and who needs to access this data?

8 **Anticipating Key Technology Trends**

Prepare for a new set of interoperability challenges, understood through the following lenses:

Technology – **People** – **Process** - **Ecosystem**

How? Digital Interoperability

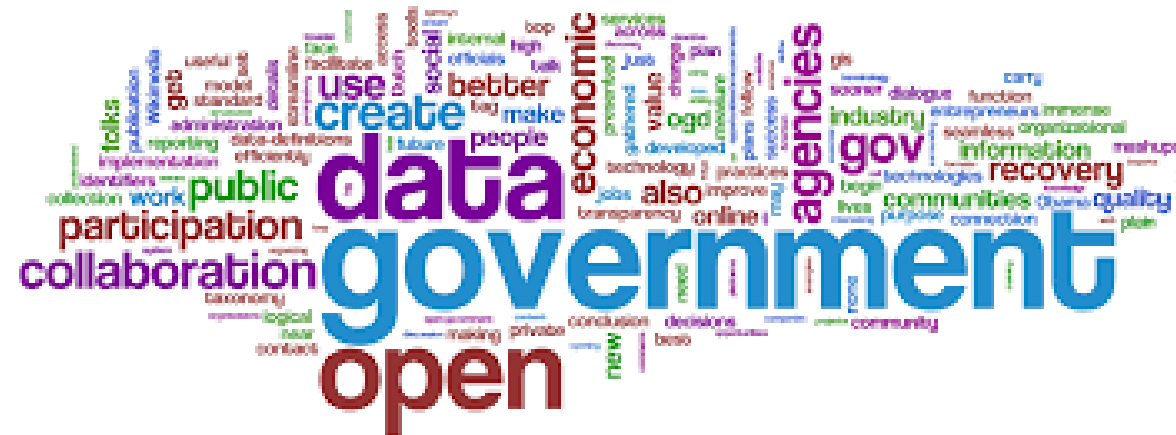**9** **Designing a Modern Data Architecture**

Foundational shifts:

1. Experimentation and testing mindset to architectural development

2. Cross-functional teams to development of curated datasets and best practices

3. Creating data (semantic) interoperability between classifications and related governance considerations

4. Use of DataOps for data architecture development

5. Establish a data culture focus on improving Enterprise Intelligence (Knowledge capturing & sharing)

How? Digital Interoperability

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10 **Harnessing APIs and Enterprise Service Buses**

APIs are a fundamental part of every effort to modernize application architectures and integration, providing essential access to application and data services

11 **Working with Open Standards and Open Source**

Mature GovTech countries are encouraged to share their code as open source and publish their standards as open standards, to the benefit of low and medium-level countries.

Key Considerations

- Critical questions for successful interoperability projects are goal-orientation, co-creation, context sensitivity, and iteration.

- Interoperability is one of the key enablers for a whole of government approach.

- A whole of government approach that covers from setting policy and organizational conditions to implementing digital interoperability is essential for sound interoperability.

- Priorities based on GovTech maturity level (Annex 1 – Checklist).

Thank you

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