

Towards a Data-Driven Public Sector

Interoperability How-to-Note

DATA EXCELLENCE CONFERENCE
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João Ricardo Vasconcelos
Senior Governance Specialist
GovTech - Governance Global Practice
World Bank

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A woman with dark hair, wearing a yellow ribbed sweater, is shown from the chest up, looking towards the right. She is interacting with a futuristic digital interface. The interface consists of various data visualizations, including line graphs, bar charts, and network diagrams, all rendered in a blue and white color scheme. The background is a soft, out-of-focus blue with some bokeh light effects. The overall scene conveys a sense of modern technology and data analysis.

The digital transition is here

Public governance has a fundamental role in the change underway

- 1 - **Citizen-centric public services** that are universally accessible
- 2 - **Whole-of-government** approach to digital transformation
- 3 - Simple, efficient and transparent **government systems**



Global Partners

Global Partners: Globant, Innovation Agency LITHUANIA, REASON GROUP, BEYON Connect, CAF DEVELOPMENT BANK OF LATIN AMERICA, REPUBLIC OF ESTONIA MINISTRY OF ECONOMIC AFFAIRS AND COMMUNICATIONS, AMERICAN UNIVERSITY, theLisborcouncil think tank for the 21st century, INAGE.IP, Swiss Confederation, Federal Department of Economic Affairs, Education and Research EEAR, Federal Office for Agriculture FOAG, aws, bron., BRZ, WU WIRTSCHAFTS UNIVERSITÄT WIEN VIENNA UNIVERSITY OF ECONOMICS AND BUSINESS, INFOLYTICS, Microsoft, ODC open data charter, Open Data .ch, egov. FOUNDATION, THE DIGITAL ECONOMIST, ACSSH Partnership for Excellence, 財務省 Ministry of Finance, JAPAN, citibeats, Ministère de la Transition Numérique et de la Réforme de l'Administration, UNITED NATIONS UNIVERSITY, UNU-EGOV Opening SMEs to Policy-Driven Electronic Governance, Ministry of the Interior and Safety Republic of Korea, Gobe, ama AGÊNCIA PARA A MODERNIZAÇÃO ADMINISTRATIVA, Israel National Digital Agency, WINDT Women in Digital Transformation, GOVTECH SWEDEN, Federal Ministry Republic of Austria Finance, gov.br, Federal Ministry for Economic Cooperation and Development, SDA Bocconi SCHOOL OF MANAGEMENT, GOVERNMENT TRANSFORMATION MAGAZINE, BILL & MELINDA GATES foundation, digiGOV innoHUB, TRUST VALLEY, NIA NATIONAL INFORMATION SOCIETY AGENCY, NAVER Cloud, BO SA Federal Public Service Policy & Support, INTIC Instituto Nacional de Tecnologias de Informação e Comunicação, European Commission, GOVTECH GOVERNMENT TECHNOLOGY AGENCY OF SINGAPORE, CREATIVE HQ, SICPA, MINISTRY OF FINANCE REPUBLIC OF INDONESIA, apolitical, public digital, EPFL CENTER FOR DIGITAL TRUST, MITGOV/LAB, HSLU Lucerne University of Applied Sciences and Arts, OZi, Cabinet Division, ICT DIVISION, UN OP, ETICC, GovTech Global Alliance

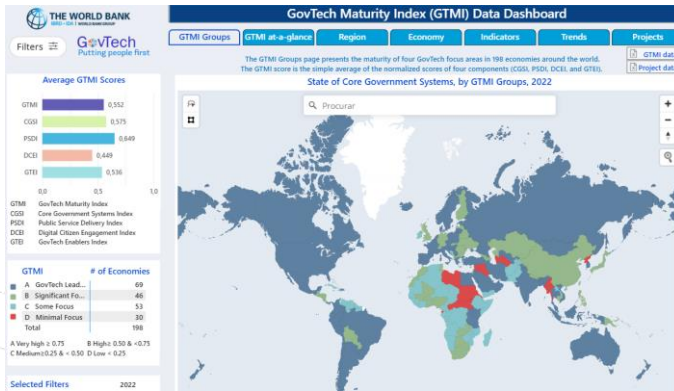


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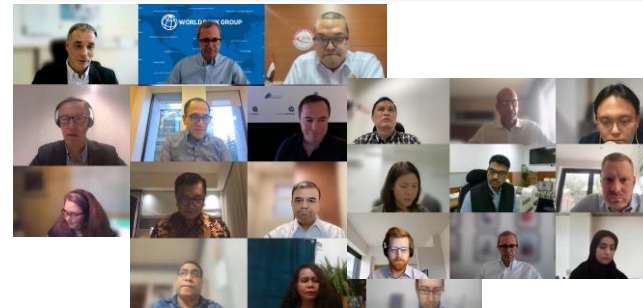
Analytical Reports and Notes



GovTech Academy



GovTech Working Groups



GovTech Innovation Lab



A Joint Initiative of the World Bank Governance Global Practice and ITS Technology & Innovation Lab



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



Benefited from the Interoperability Working Group

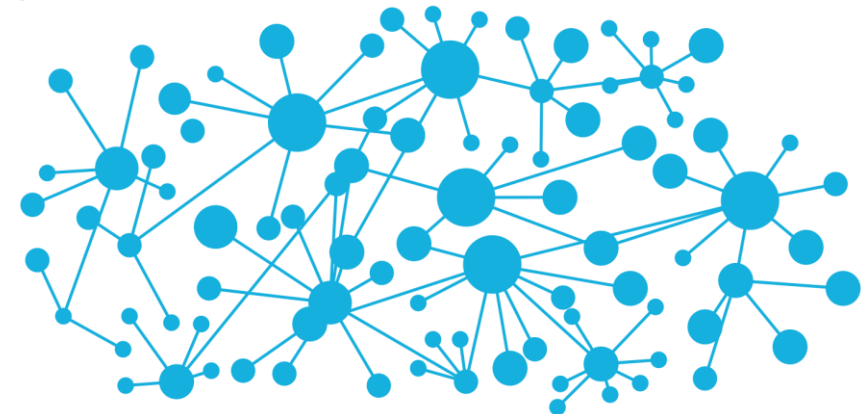
Table of Contents

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

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

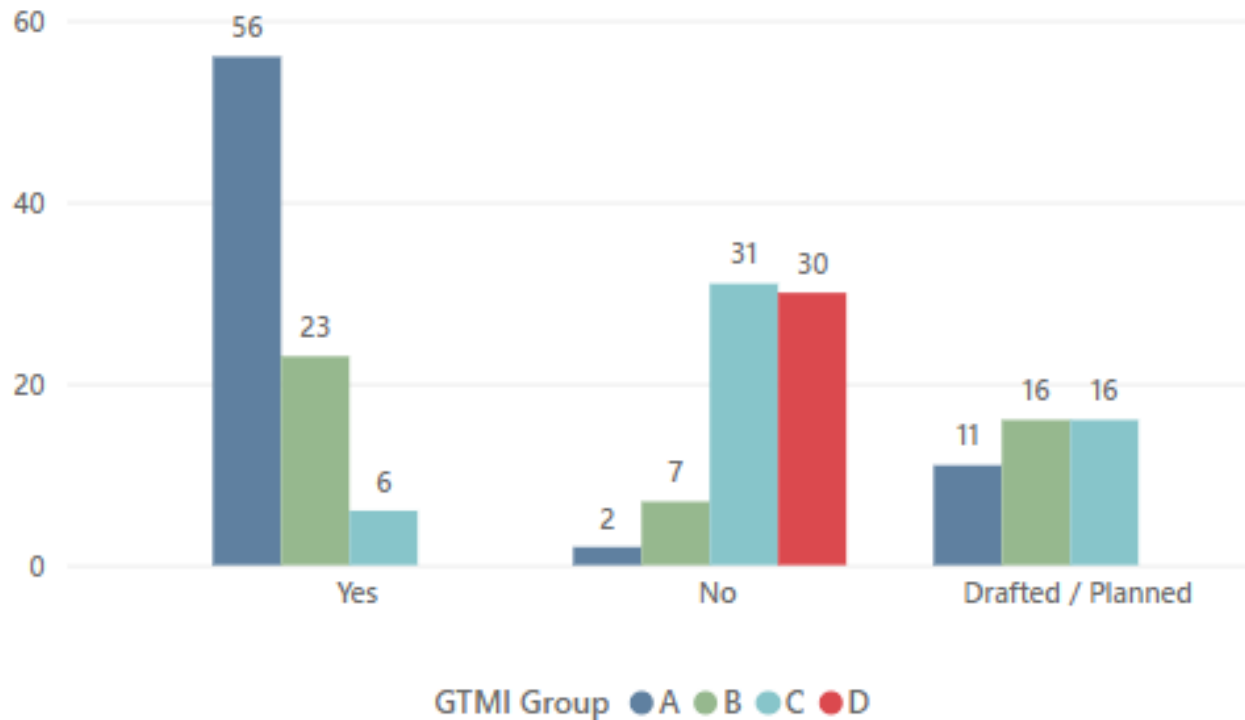


What is Interoperability?

Interoperability Status by GTMI Group

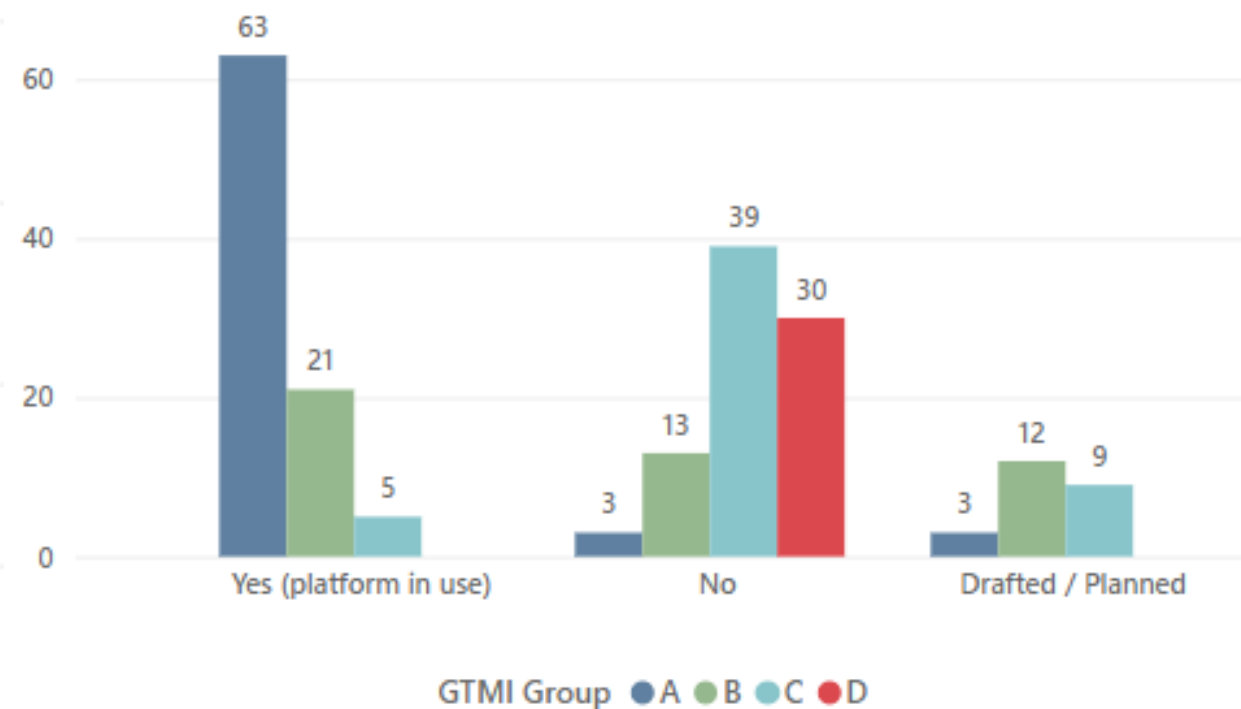
Is there a Gov Interoperability Framework?

Response distribution by GTMI Groups



Is there a Gov Service Bus Platform?

Response distribution by GTMI Groups



Why does interoperability matter?

>> 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

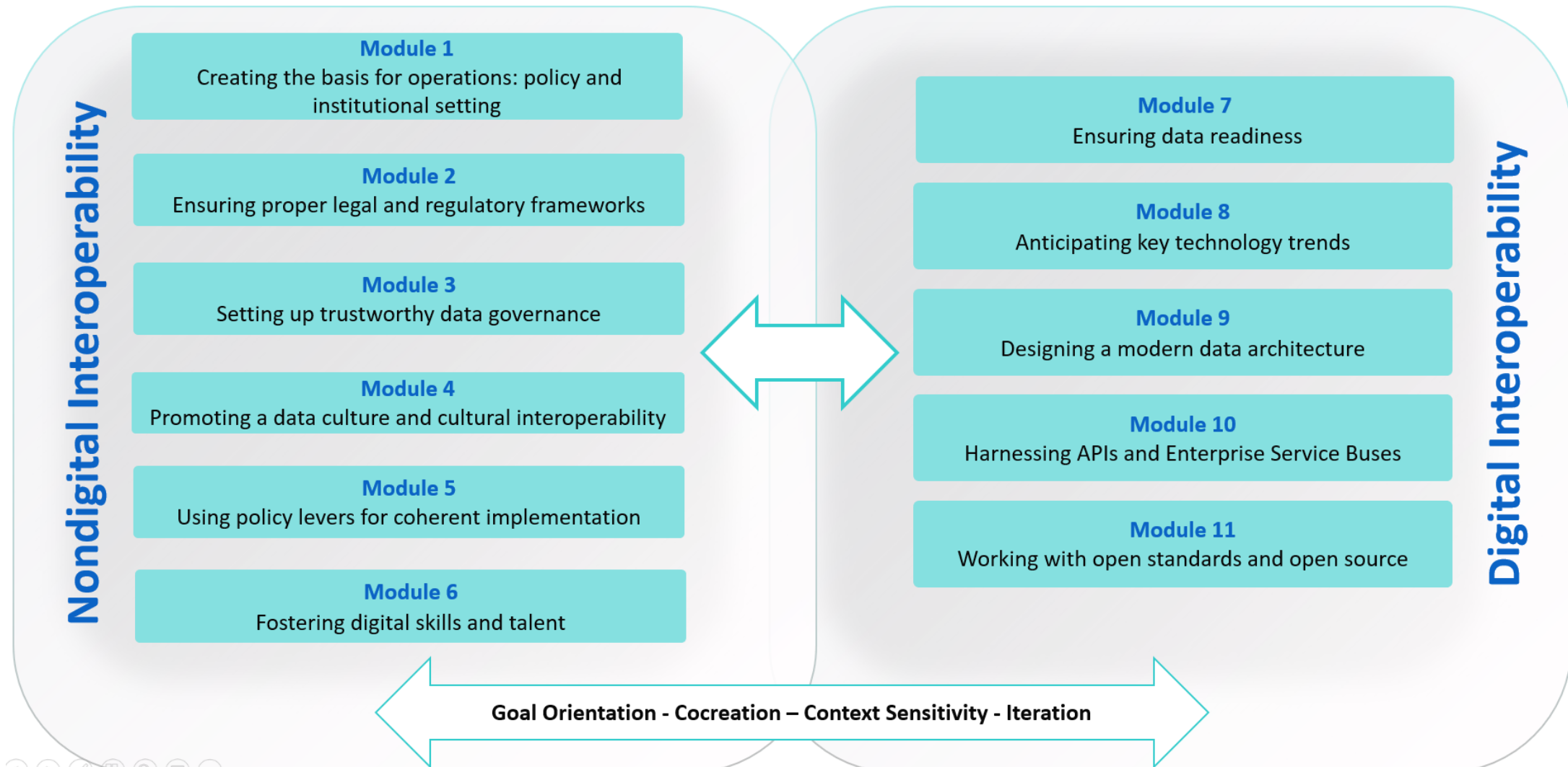
Transparency,
accountability,
and integrity

Service
composability

System resilience

Data-driven value
creation

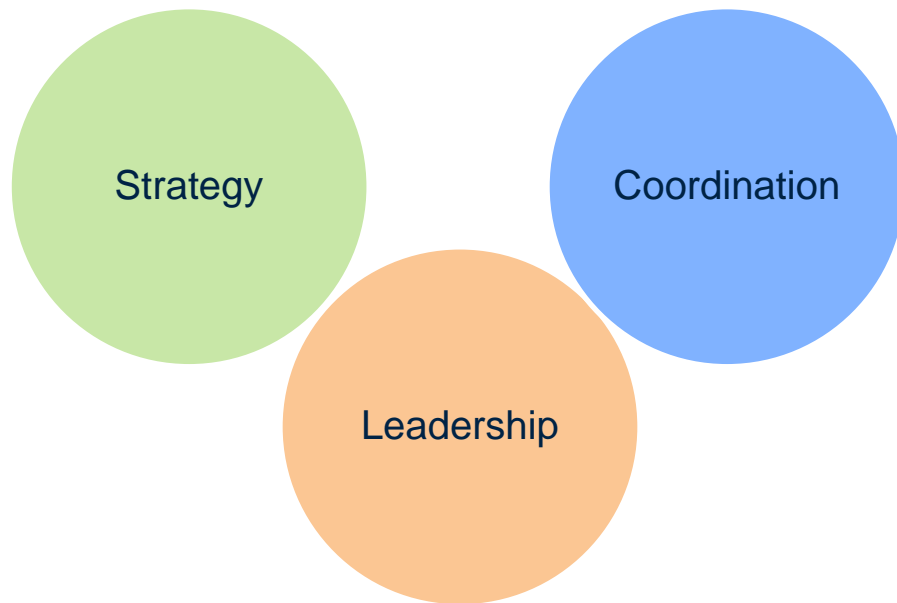
How? The GovTech Approach to Interoperability



How? Nondigital Interoperability

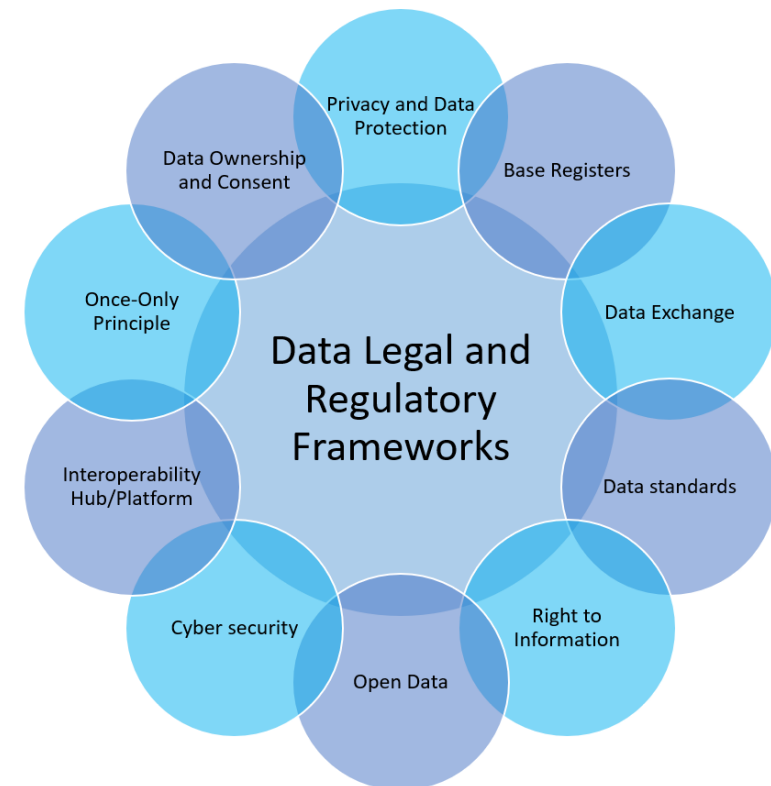
1

Creating the Basis for Operations: Policy and Institutional Setting



2

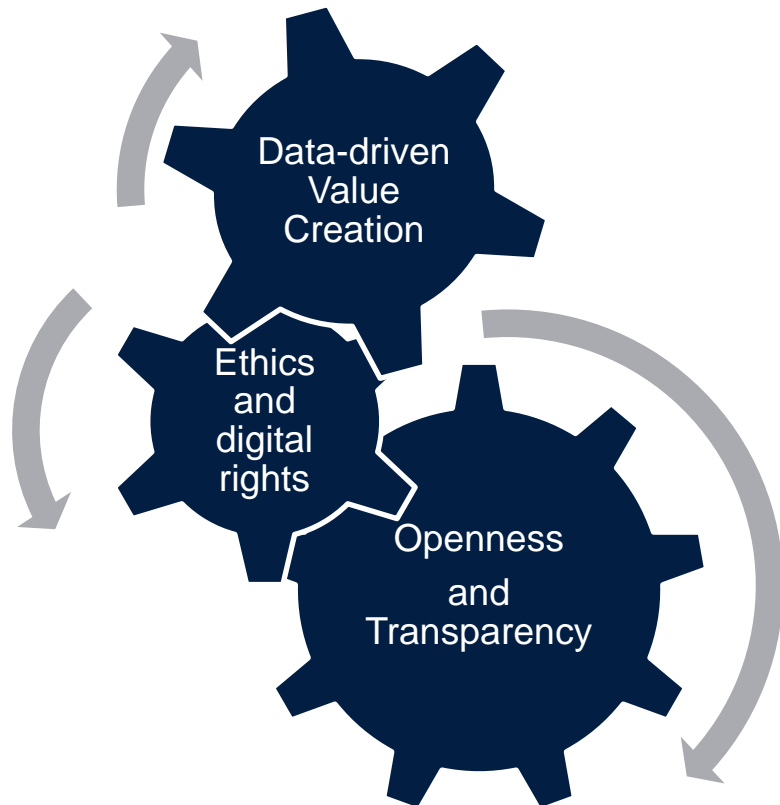
Ensuring Proper Legal and Regulatory Frameworks



How? Nondigital Interoperability

3

Setting up Trustworthy Data Governance



4

Promoting Data-Driven Culture and Cultural Interoperability

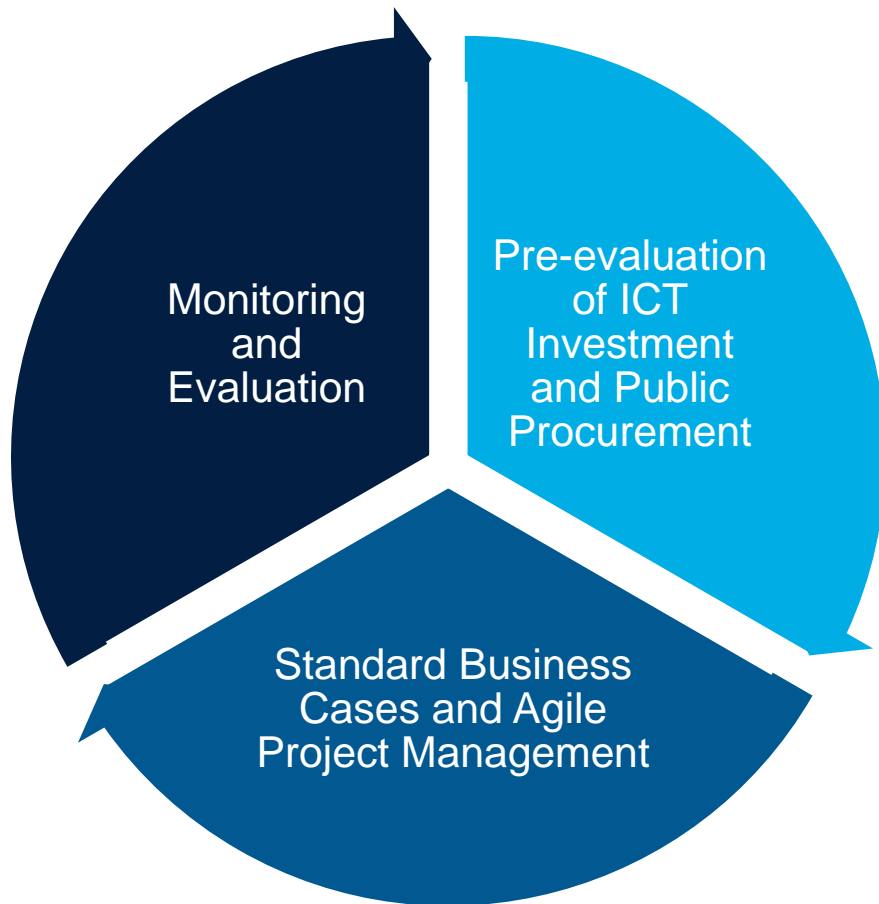
Drivers of cultural changes

- Clearly demonstrated need to implement the once-only principle (UK)
- Co-creation approach with stakeholders (Denmark)

How? Nondigital Interoperability

5

Using Policy Levers for Coherent Implementation



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:

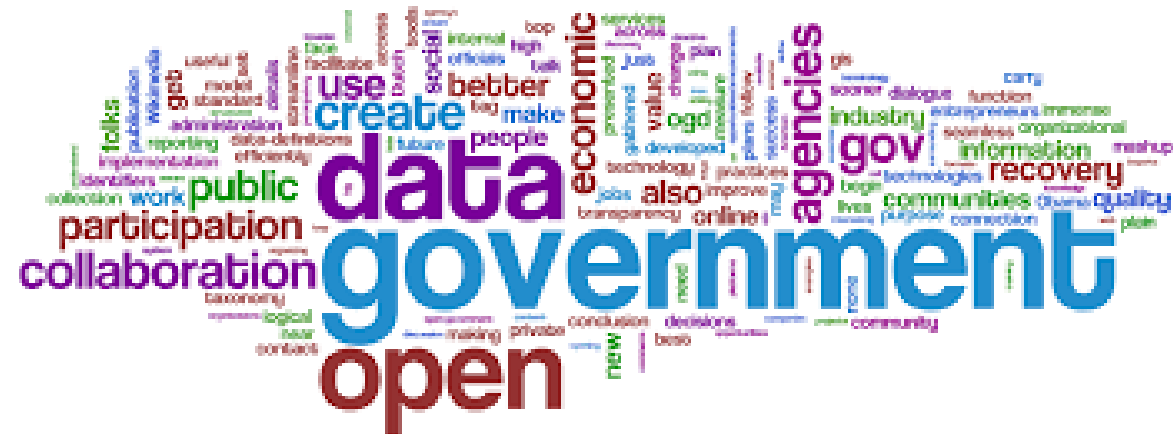
1. Experimentation and testing mindset to architectural development
2. Cross-functional teams to development of curated datasets and best practices
3. Creating data (semantic) interoperability between classifications and related governance considerations
4. Use of DataOps for data architecture development
5. Establish a data culture focus on improving Enterprise Intelligence (Knowledge capturing & sharing)

How? Digital Interoperability

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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



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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!

João Ricardo Vasconcelos

jvasconcelos@worldbank.org

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