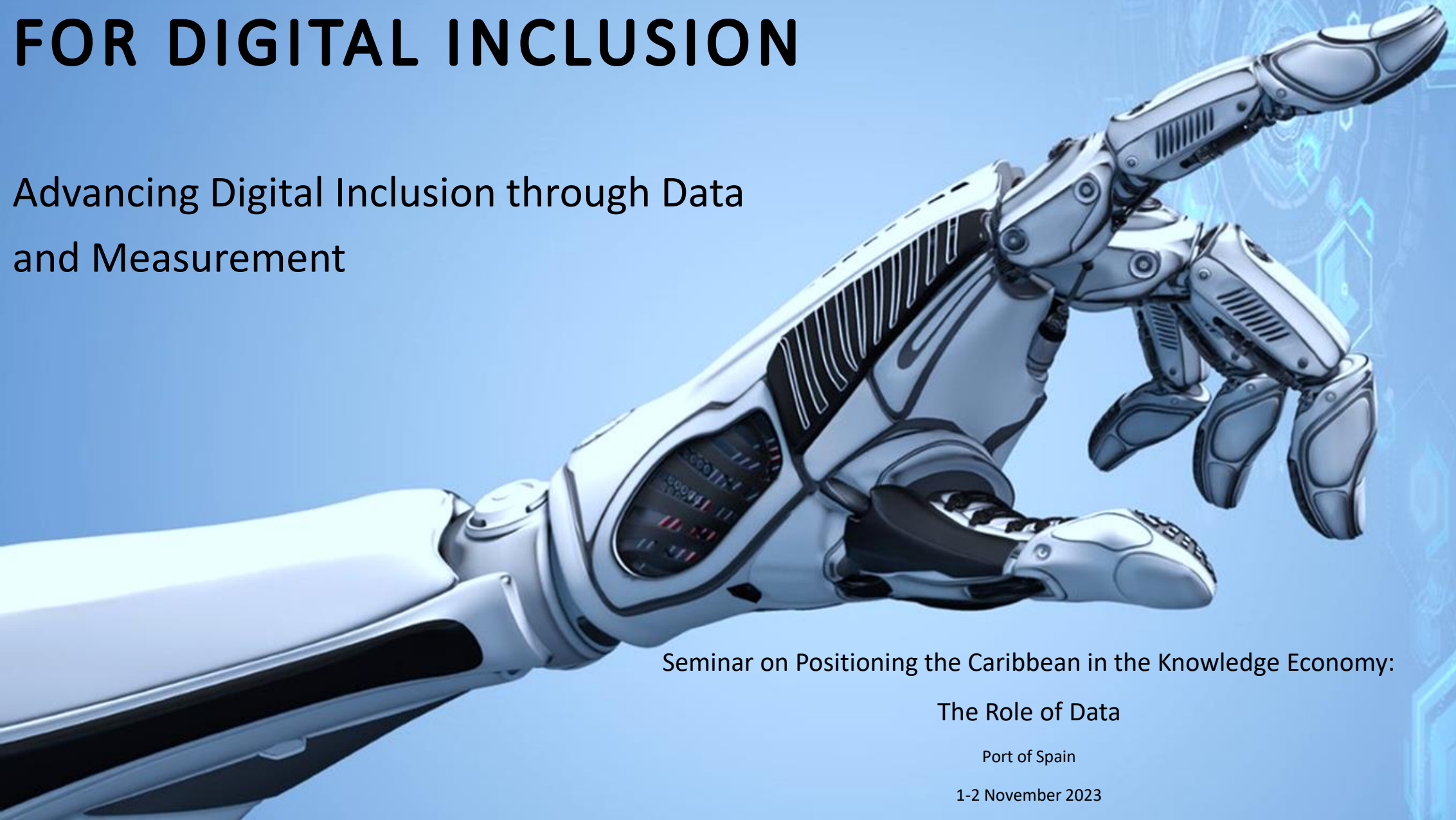


DATA COLLECTION AND ANALYSIS FOR DIGITAL INCLUSION

Advancing Digital Inclusion through Data
and Measurement



Seminar on Positioning the Caribbean in the Knowledge Economy:

The Role of Data

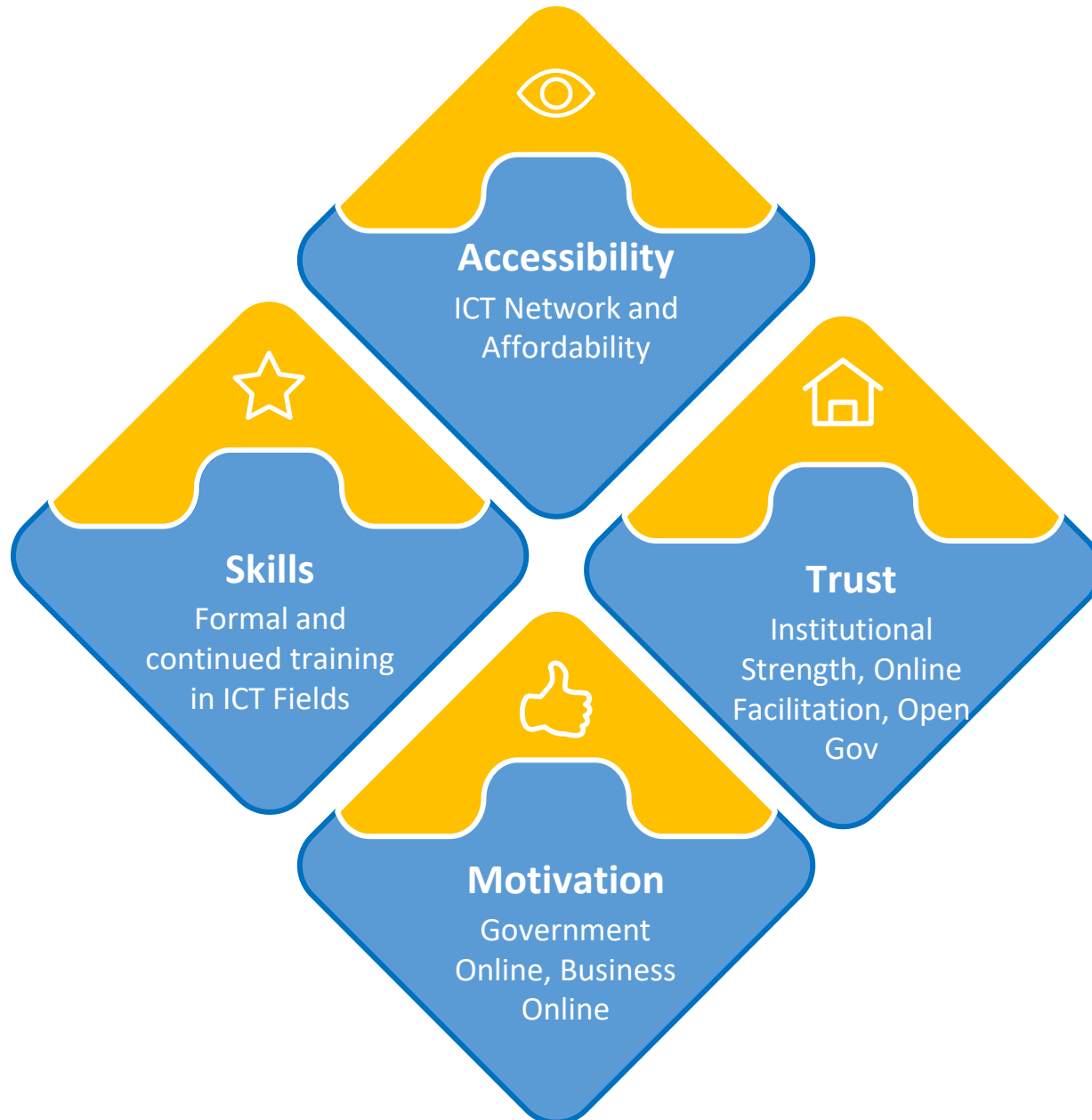
Port of Spain

1-2 November 2023

CONTENT

- Overview of the dimensions of Digital Inclusion
- Overview of ECLAC's 2022 study into Digital Inclusion's consideration in Caribbean digital development strategies
- Overview of Priority List of indicators to measure Digital Inclusion
- Overview of the 2023 Working Paper on existing indicators
- Strategies to treat with data gaps
- Introduction to opportunities to support closing the data gap

DIMENSIONS OF DIGITAL INCLUSION

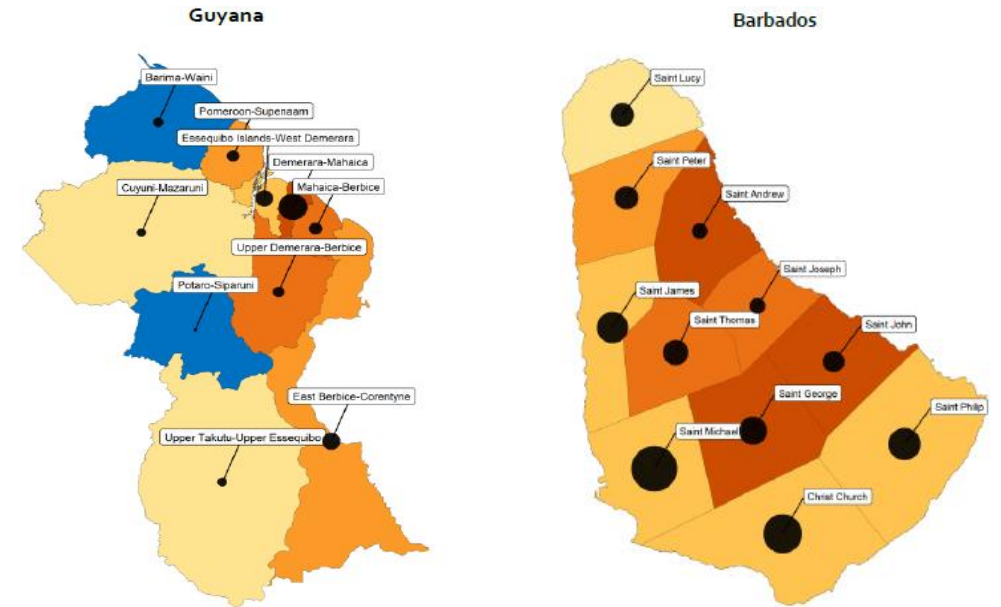


- There are four (4) major dimensions of Digital Inclusion
- One cross-cutting context
Inclusivity of the dimensions for susceptible groups including:
 - Women & girls
 - Children
 - Differently-abled
 - Aged
 - Indigenous peoples

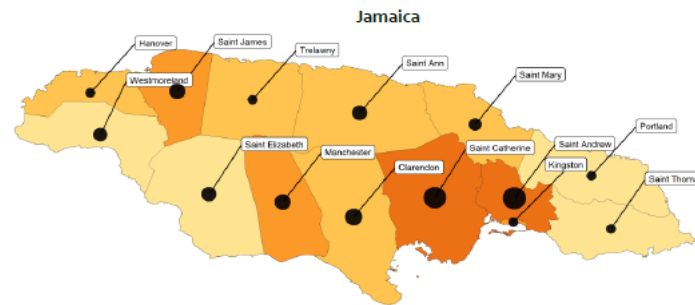
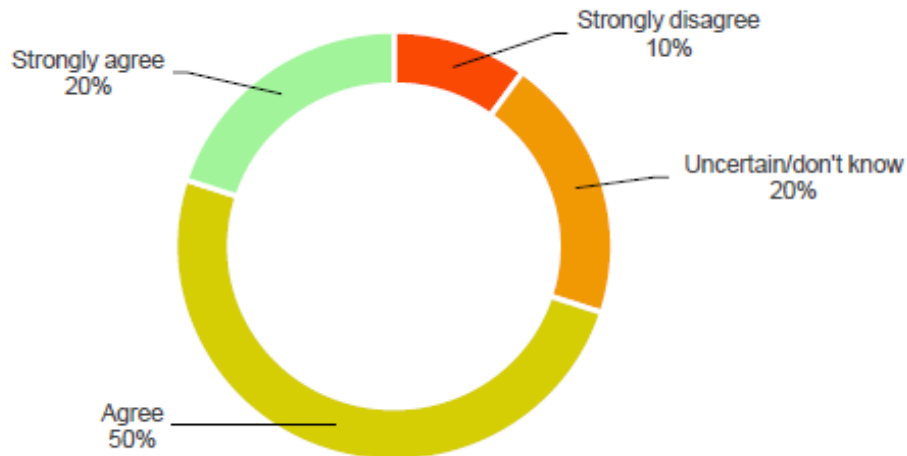
REFLECTIONS ON DIGITAL INCLUSION DIMENSIONS

Accessibility

- Aligned to traditional infrastructural focus of the Digital Divide;
- Data sets historically collected by Regulators/Administrators reported to ITU and other UN agencies
- Universal Service Frameworks across the region geared to treat with Accessibility challenges.



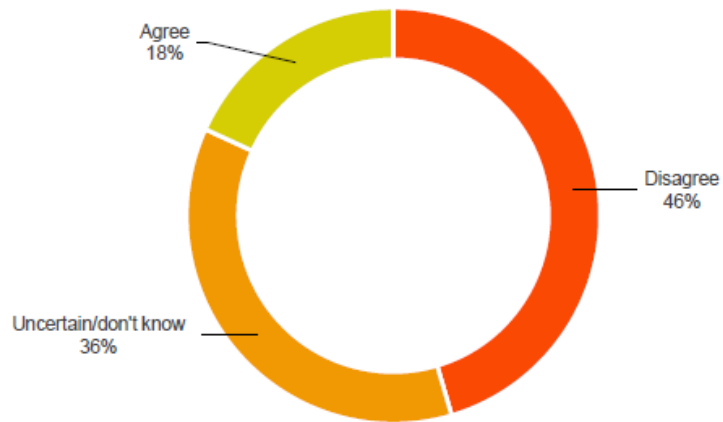
Connectivity providers are aware of connectivity gaps^{a,b}



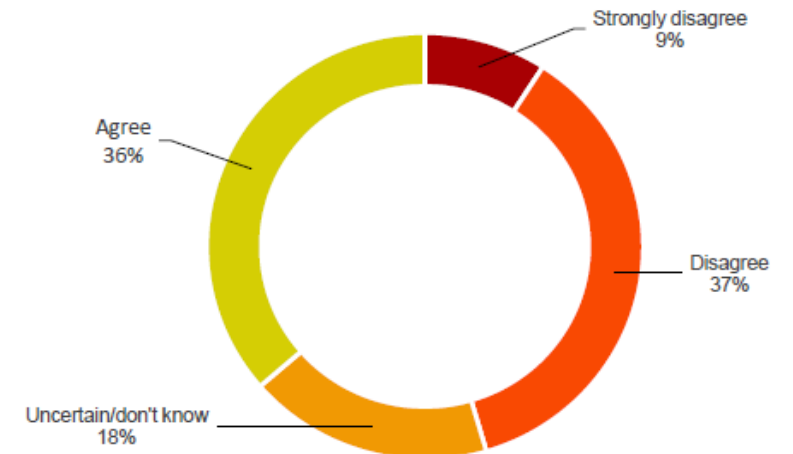
REFLECTIONS ON DIGITAL INCLUSION DIMENSIONS

- Skills Training and Human Capacity Development
 - E-Participation
 - Qualitative assessment suggested that use of Social Media tools provided limited application of e-Participation opportunities
- Digital Transformation of the Public Sector for Trust & Motivation
 - Qualitative assessments suggested infusion of ICT equipment was not accompanied by redefinition of work to maximise the impact of ICTs.
 - Lack of implementation of key institutions (such as Information Commissioners) and frameworks (FOIA) a consistent challenge throughout the region.

Public sector: learning and development is holistically designed.
Employees are comfortable in using digital tools and electronic information^{a,b}



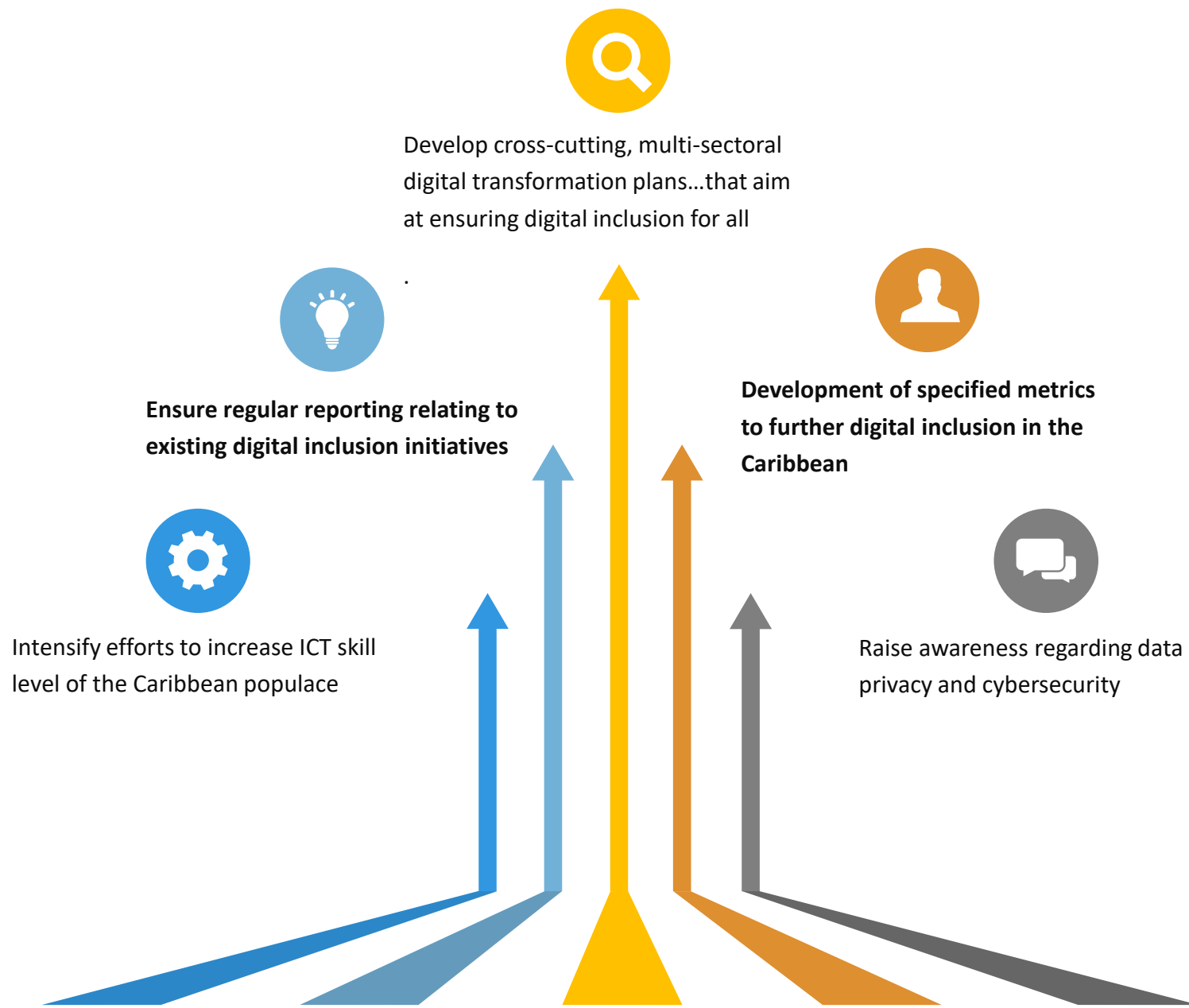
Public sector: internal learning programmes on digital skills and knowledge sharing^{a,b}



RECOMMENDATIONS FROM 2022 REGIONAL REVIEW

ECLAC undertook a 2022 Study to review the inclusion of digital inclusion within the ICT/ Digital Strategies of a cross-section of Caribbean countries.

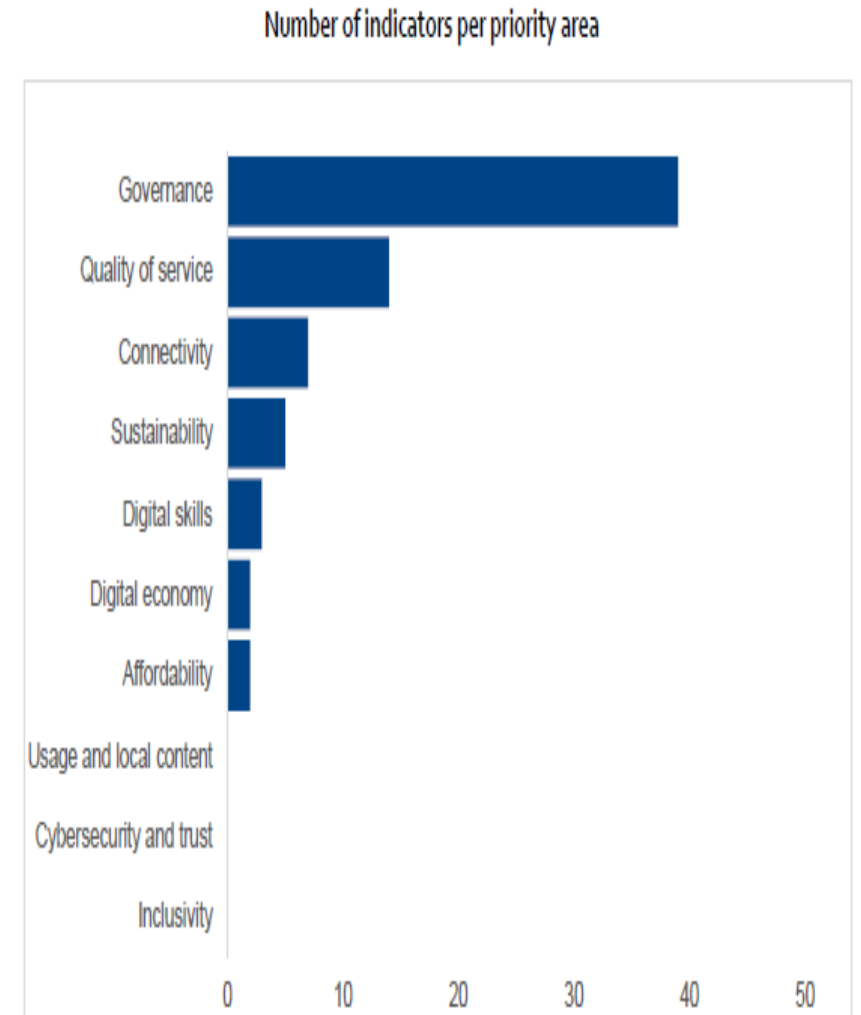
Study identified key recommendations to advance the question of digital inclusion within the region:



COMPARATIVE DATA SOURCES OF PRIORITY AREAS

Consistent themes:

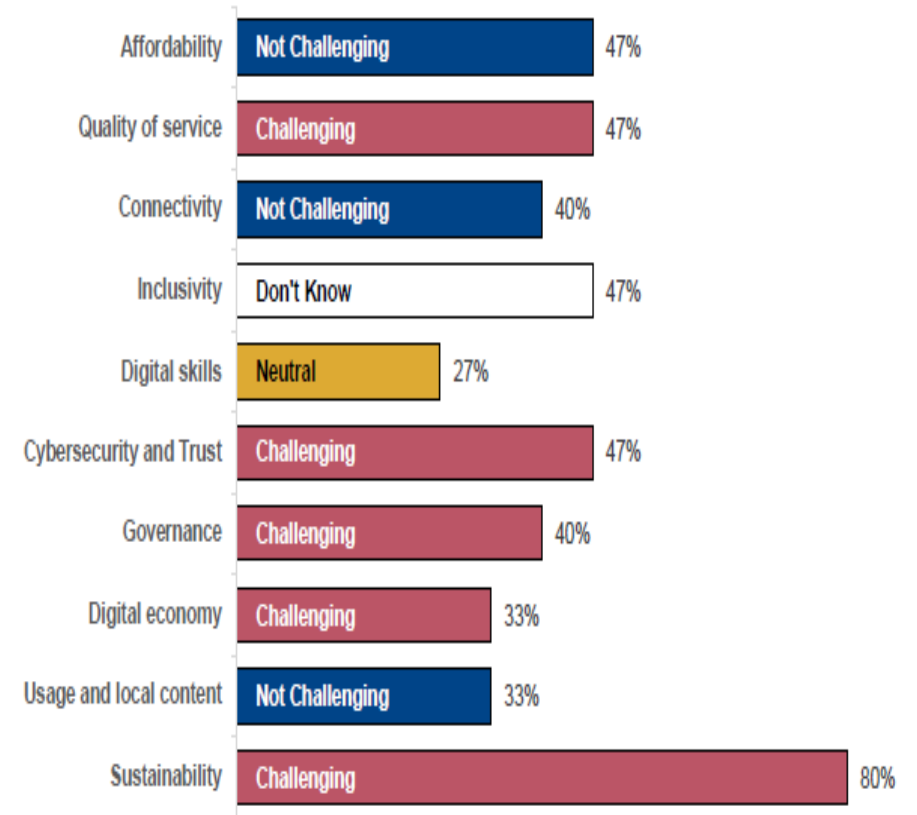
- Disparity in data availability between countries and territories within the Region
- Dimension of Access: Comparatively high data availability on governance & telecoms/ infrastructure-based metrics.
- Dimension of Skills: Data sets related to digital skills and digital economy are limited to general national statistics, providing little context into e-commerce/ e-business needs.
- Dimensions of Trust: No standardized data sets to treat with the question of cyber-security or user perception of online Trust
- Dimension of Motivation: No standardized data sets to treat with the question of local content driving engagement
- Context of inclusivity: Insufficient standardized data sets to identify trends based on Susceptible Groups and demographics across Dimensions.



COMPARATIVE DATA SOURCES OF PRIORITY AREAS

- Recency of data is a region-wide challenge
 - Data sets ranging from 5 to 18 years old
- Variances in regulatory coverage impacts the availability of data sources
 - Accessibility (telecoms) indicators are deemed readily available
 - Skills, Usage and Trust indicators are deemed challenging
 - Inclusivity dimensions to data sources are rare
- Partnership between ICT agencies and National Statistical Authorities seen as key
 - Modification of instruments and application of survey disciplines seen as key

Modal perception of the degree of challenge associated with collecting data on ICT indicators to measure each Priority Area
(Percentage of respondents)



STRATEGIES TO TREAT WITH THE DATA COLLECTION GAP

Design and conduct surveys focused on digital access, skills, and trust & motivation across different demographics (age, income, education level, rural vs. urban, etc.)

In addition to quantitative data, **conduct interviews**, focus groups, and case studies to gather qualitative insights. This can provide context and a deeper understanding of the challenges faced.



Conduct long-term studies to track changes in digital inclusion over time. This helps in evaluating the impact of interventions and policies.

Make relevant data publicly available (while respecting privacy regulations) to encourage transparency and to allow researchers, NGOs, and other stakeholders to contribute to the analysis.

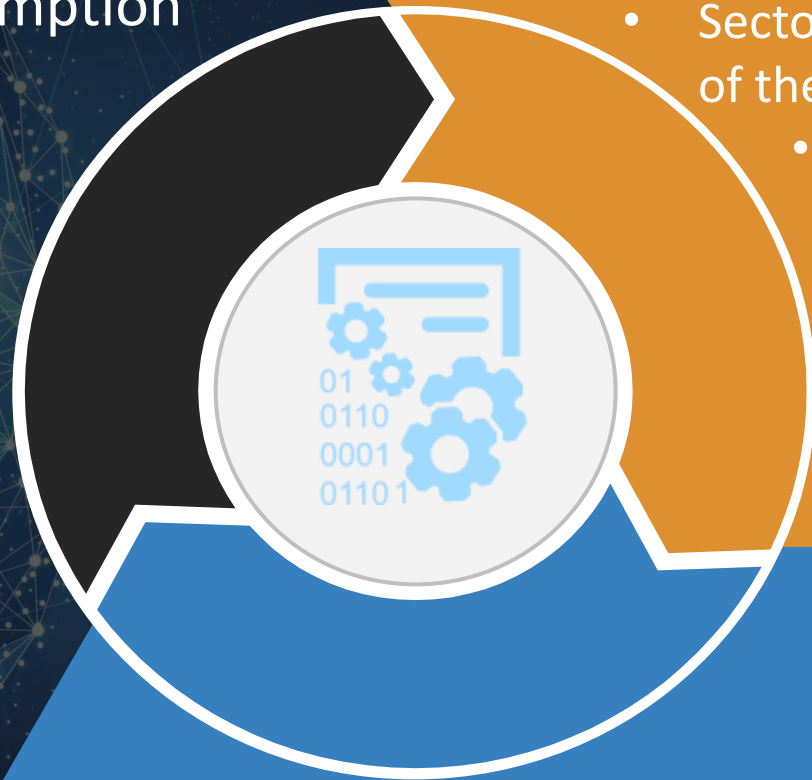
Use Geographic Information Systems to map digital inclusion results, including identifying areas with limited hard and soft access, facilitating targeting of interventions effectively.

COMPREHENSIVE SURVEYS & INTERVIEWS

Source of base Data Sets that can be periodically presented in various formats for consumption by various publics

The most robust mechanism for qualitative and quantitative data

- Generally centrally administered by National Statistical Authorities, and/ or Sector Regulators
 - Sector Regulator coverage of non-telecoms aspects of the sector limited throughout the Region
 - Challenges with cost and timeliness of execution
 - Requires significant resources in personnel, technology and time for data collection



Opportunities to be considered to revitalize this approach to data collection to mitigate challenges associated with traditional approaches

OPPORTUNITY: THE POTENTIAL OF PUBLIC PRIVATE PARTNERSHIPS

Public-private partnerships can significantly enhance the effectiveness of data-driven strategies for advancing digital inclusion by harnessing the strengths and resources of both sectors, leveraging innovation, and tailoring solutions to local needs.

- **Leveraging Resources:** PPPs can bring together the strengths and resources of both public and private sectors: Governments providing policy frameworks, funding and access to public infrastructure, while private sector can provide technological expertise, innovation, and investment for sustainability.
- **Scaling Up Initiatives:** The Private Sector has the ability to scale up initiatives quickly. This is particularly important in this case where currency of data is critical
- **Promoting Market-Driven Solutions tailored to Local Needs:** the design and deployment of systems that are responsive to the market, guiding both capital investment and administrative oversight
- **Risk Sharing and Collaboration:** Partnerships can tailor execution in a manner that reduces the risk to both parties' investment in the initiative.
- Partnerships can support shift in focus from infrastructural concerns, to those treating with demand drivers of both business and end users.
- Sharing of Data Sets with partners provides for wider analysis and application.

OPPORTUNITY: THE POTENTIAL OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

By harnessing the power of AI, machine learning, and big data analytics, policymakers can gain valuable insights, optimize resource allocation, and implement targeted interventions to bridge the digital divide and promote digital inclusion

- Improved Data Collection Efficiency, Data Quality and Accuracy
- Scalability and Accessibility
- Language Translation and Accessibility
- Data-driven Policy Making

It is important to note, however, that ethical considerations and privacy protections must be a central focus when implementing these technologies in data collection and analysis efforts

- Social Media and Sentiment Analysis
- Privacy Protection
- Inherent biases in the training of the AI engine

MINDFUL CONSIDERATIONS!

- Adherence to Data Protection and Privacy principles, especially important when dealing with sensitive information.
 - Informed Consent
 - Privacy and Confidentiality
 - Anonymization and De-identification
 - Transparency
- Fairness and Equity: ensure that data collection and analysis processes do not perpetuate or exacerbate existing inequalities.
- Community Engagement and Participation: Involve the communities being studied in the data collection and analysis process.
- Long-term Data Stewardship, Data Ownership and Control: there should be clear definition of who owns the data and who has control over its use. Ensure regulatory compliance to relevant regional and national laws, depending on the context of the data collection.
- Ethical Review and Oversight: Seek ethical approval from relevant institutional review boards or ethics committees, especially when dealing with sensitive or vulnerable populations.



Thank you!

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