UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

Commission on
Science and Technology for Development

Data Governance for Development

From asymmetry to equitable stewardship

CSTD 2026-2027 Intersessional panel

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Data Governance for Development

From asymmetry to equitable stewardship

I. Structural asymmetries and challenges in data governance

II. National approaches to data governance for development

III. International approaches to data governance for development

IV. Recommendations

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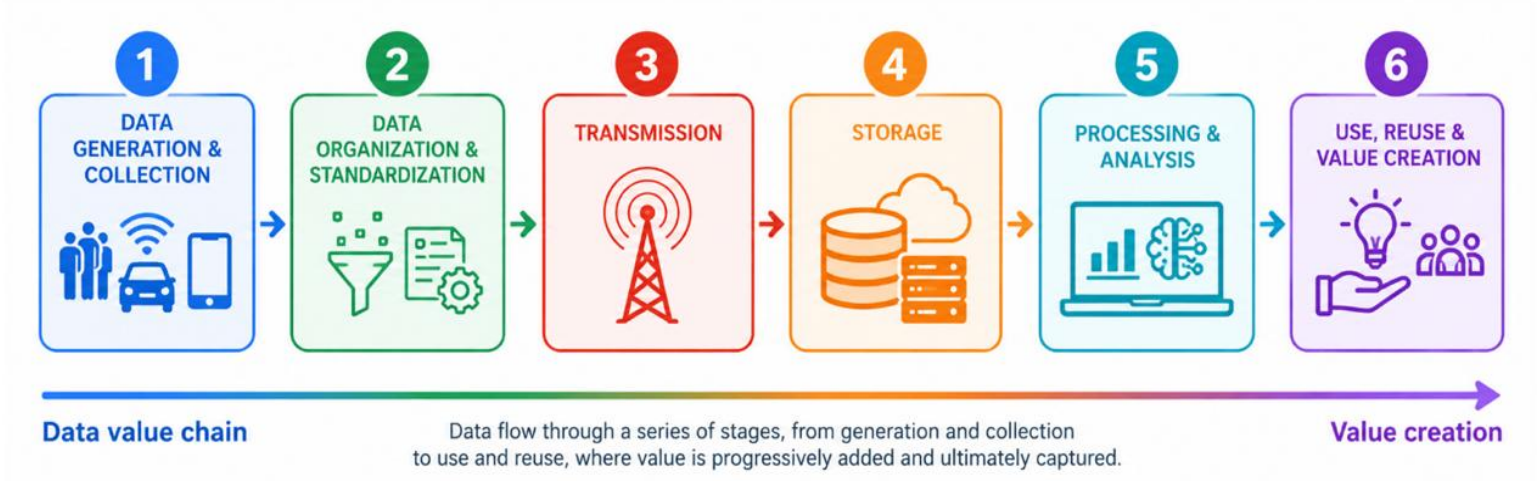
Structural asymmetries and challenges in data governance

Gaps in:

- Infrastructure and computing capacity,
- Human skills and institutional capacity, as well as
- Legal and regulatory frameworks

The data value chain focuses on the processes through which data are transformed into social and economic value.

The data value chain is used as the analytical framework

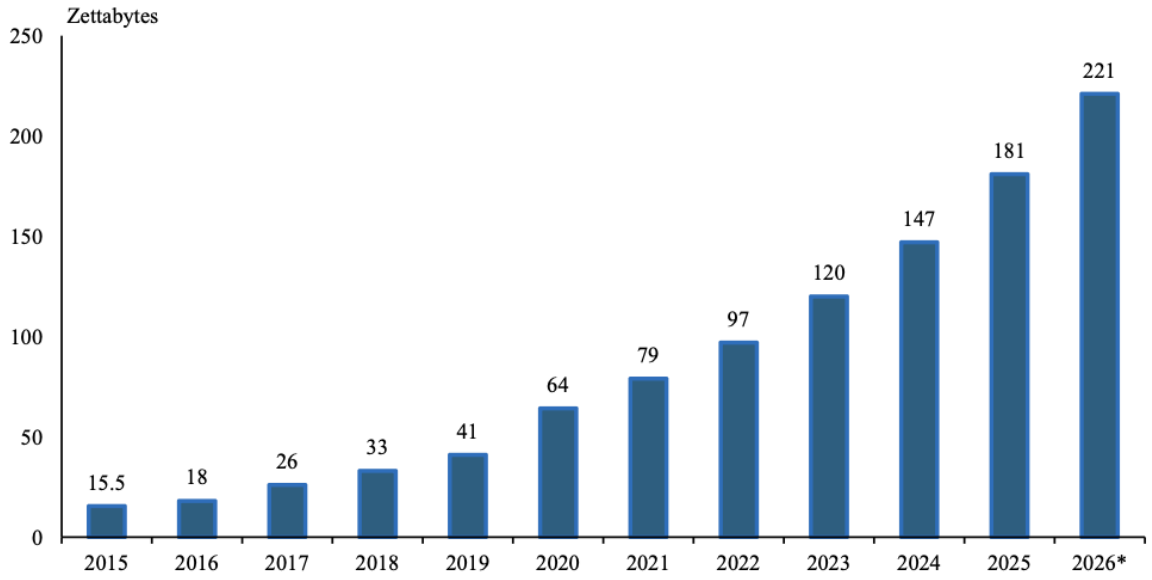


Source: UNCTAD.

Increased data creation and use

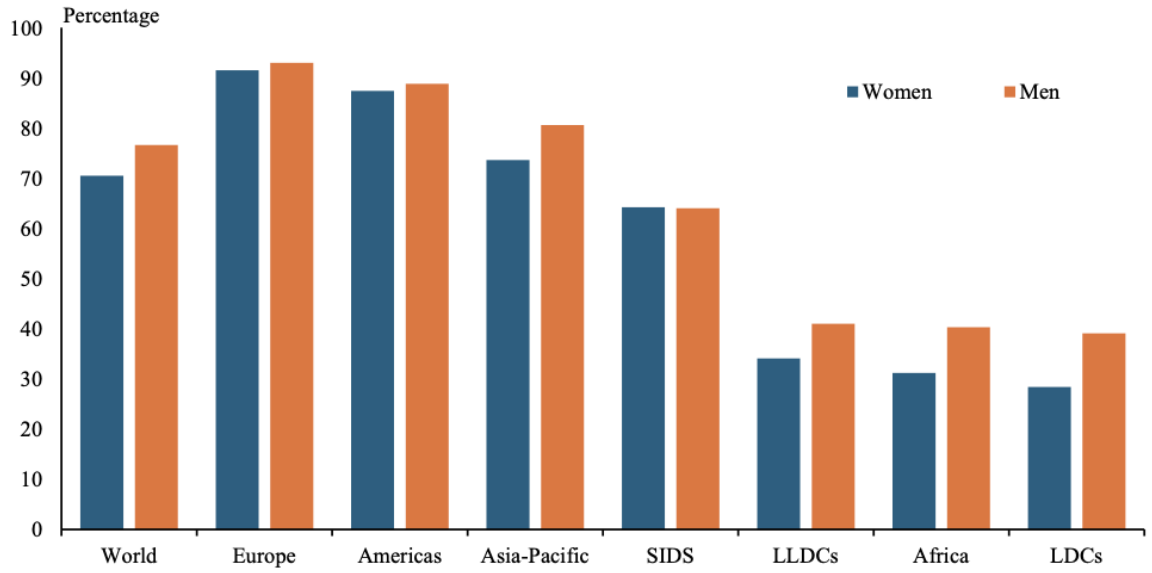
Global volume of data expand fourteenfold over eleven years

Global volume of data created, captured, copied and consumed, 2015-2026



But regional and gender imbalance persist

Share of women and men using the Internet, 2025

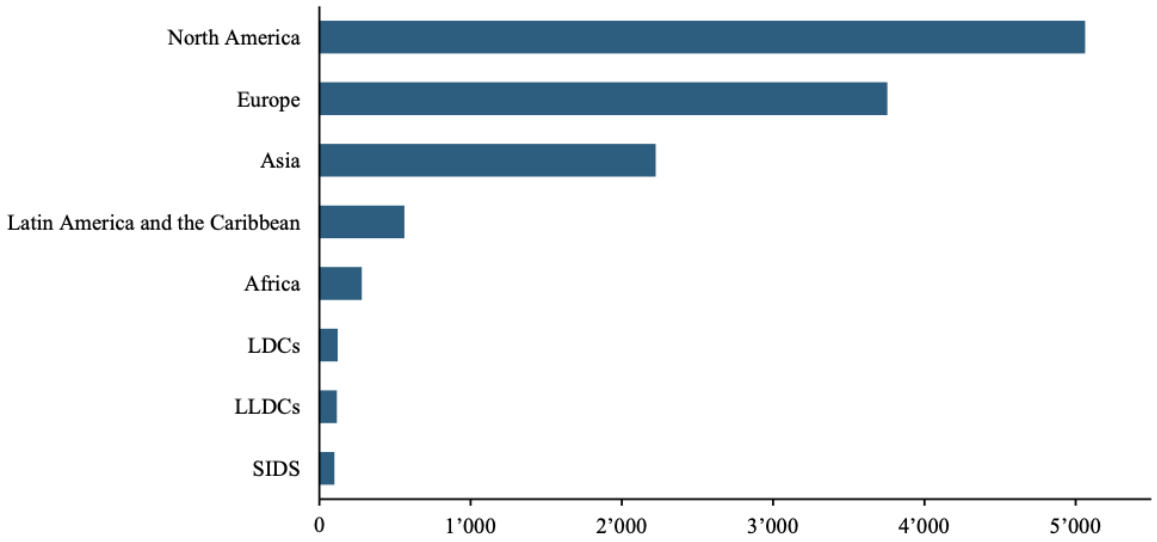


Sources: Statista and ITU.

Infrastructure and skill gaps in storage, transmission and processing capacity

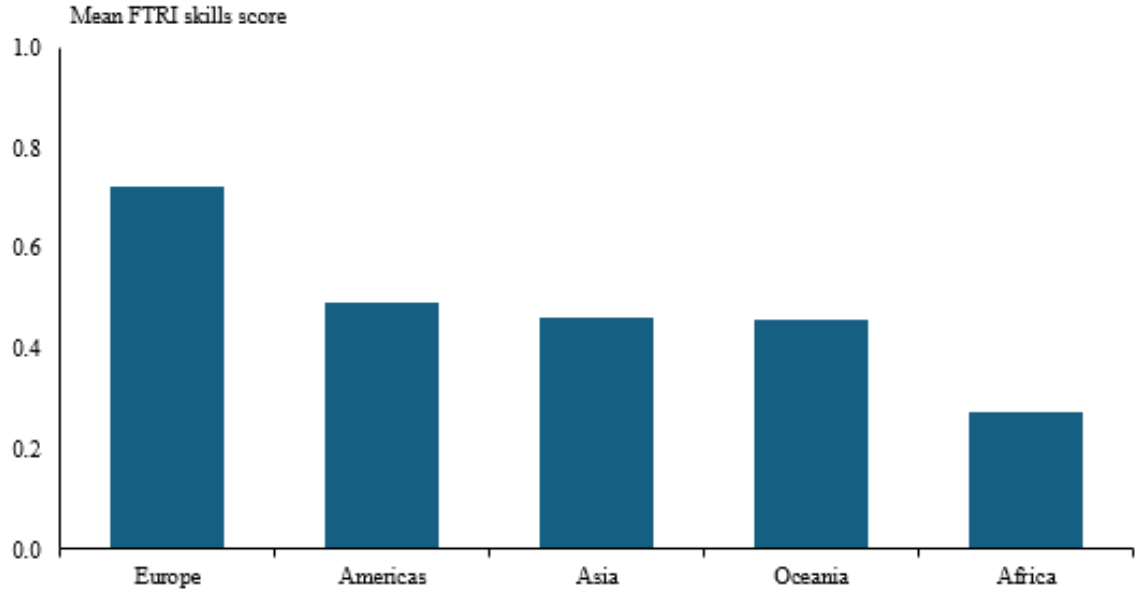
Despite increase in investment in data centres, the geographic distribution is imbalance

Number of data centres per region and country groups, mid-2026



Shortages of specialized personnel remain a constraint in many countries

Frontier Technology Readiness Index – Skills by region, 2024

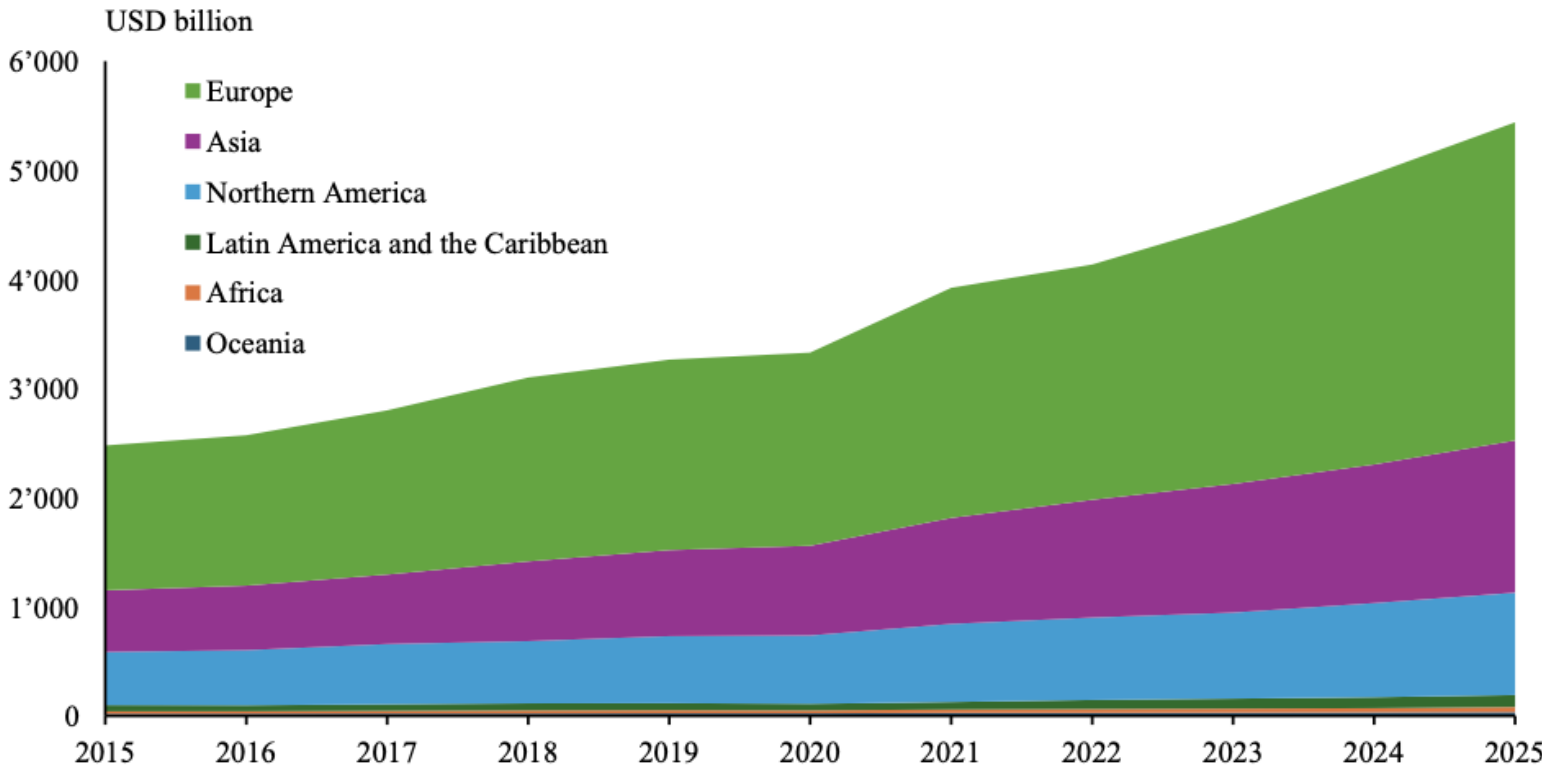


Source: UNCTAD calculations.

Unequal capacity to use data and capture value

- Global exports of digitally deliverable services have grown significantly
- Europe, Asia and Northern America dominate, capturing most of the export value
- Africa and Latin America and the Caribbean account for relatively small shares

Exports of digitally deliverable services, 2015-2025

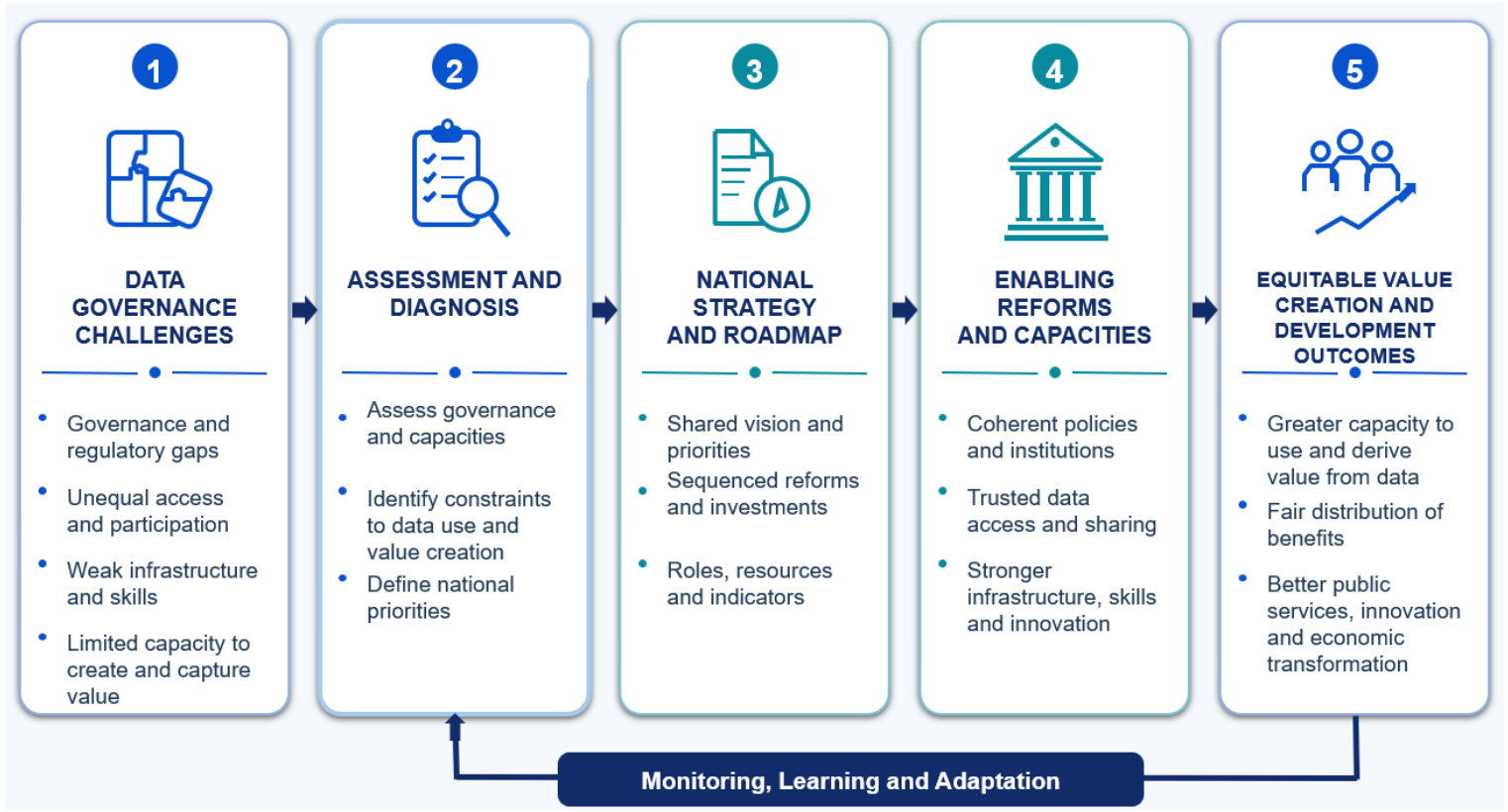


Source: UNCTADStat.

Differing governance capacities across the data value chains

- Effective governance requires regulatory frameworks, institutional capacity, coordination and implementation
- National and regional data governance strategies can help align policies, institutions and priorities
- Data governance assessments can identify gaps, evaluate capacities and establish national priorities

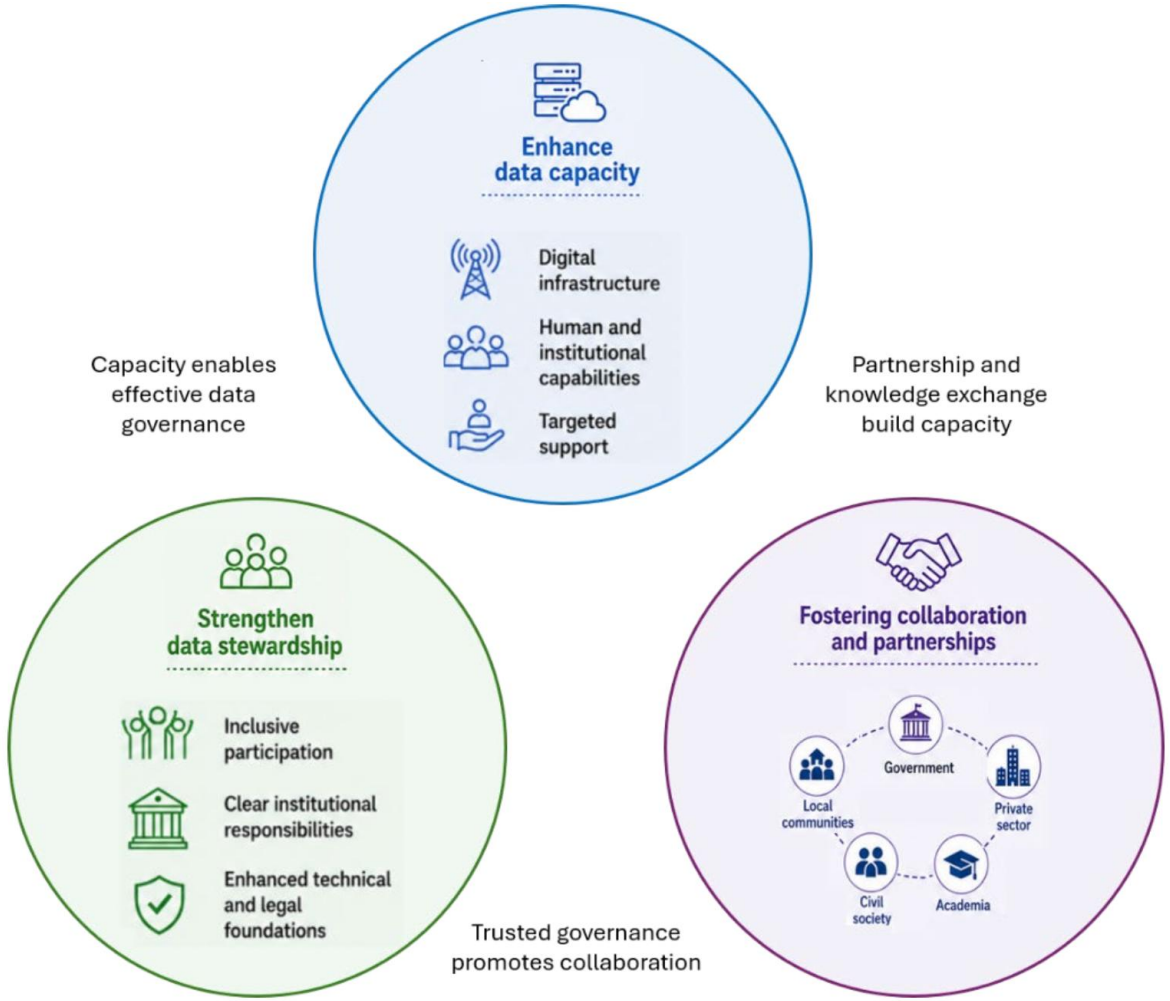
Theory of change for a data governance assessment



Source: UNCTAD.

National approaches to data governance for development

Three interrelated dimensions for advancing data governance for development



Source: UNCTAD.

Enhancing digital capacity

Developing interoperable digital public infrastructure



India
Built foundational digital public infrastructure (India Stack).

Estonia
Connected existing systems through the X-Road platform.

Latvia
Established the Data Governance and Dissemination Platform.

Burkina Faso
Developing a network of integrated citizen service centres (Zama Tchéy).

Enhancing capabilities for effective implementation and use



Chile
Combined the Atiende public service platform with digital skills support and assisted access.

Philippines
Integrated government services through the *E-Gov PH Super App* while strengthening STEM education and workforce digital capabilities.

Rwanda
Adopted a phased approach to build digital capabilities.

Promoting inclusive participation in the digital economy



The Gambia
Linked connectivity and digital services with entrepreneurship, skills training and market-access support.

Uruguay
Addressed the needs of different groups across the life course to promote digital inclusion.

Source: UNCTAD.

Strengthening data stewardship

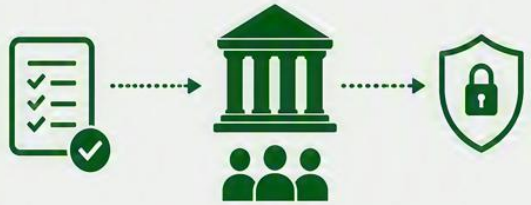
Fostering inclusive participation within data governance



New Zealand

Co-developed Data Stewardship Framework with Indigenous peoples.

Establishing clear institutional roles and governance frameworks



Mexico

Strengthened data stewardship through institutional coordination without centralizing ownership of data.

Finland

Introduced common standards and guidance for data governance through the Information Management Act and the Information Management Board.

Strengthening the technical and legal foundations of data stewardship



South Africa

Enhanced accountability for the collection, use and sharing of personal data through the Protection of Personal Information Act.

Netherlands

Embedded dedicated data stewardship across public research and data institutions to oversee the quality, documentation and management of data and guided by the FAIR principles.

Iran National Data and Information Management Act

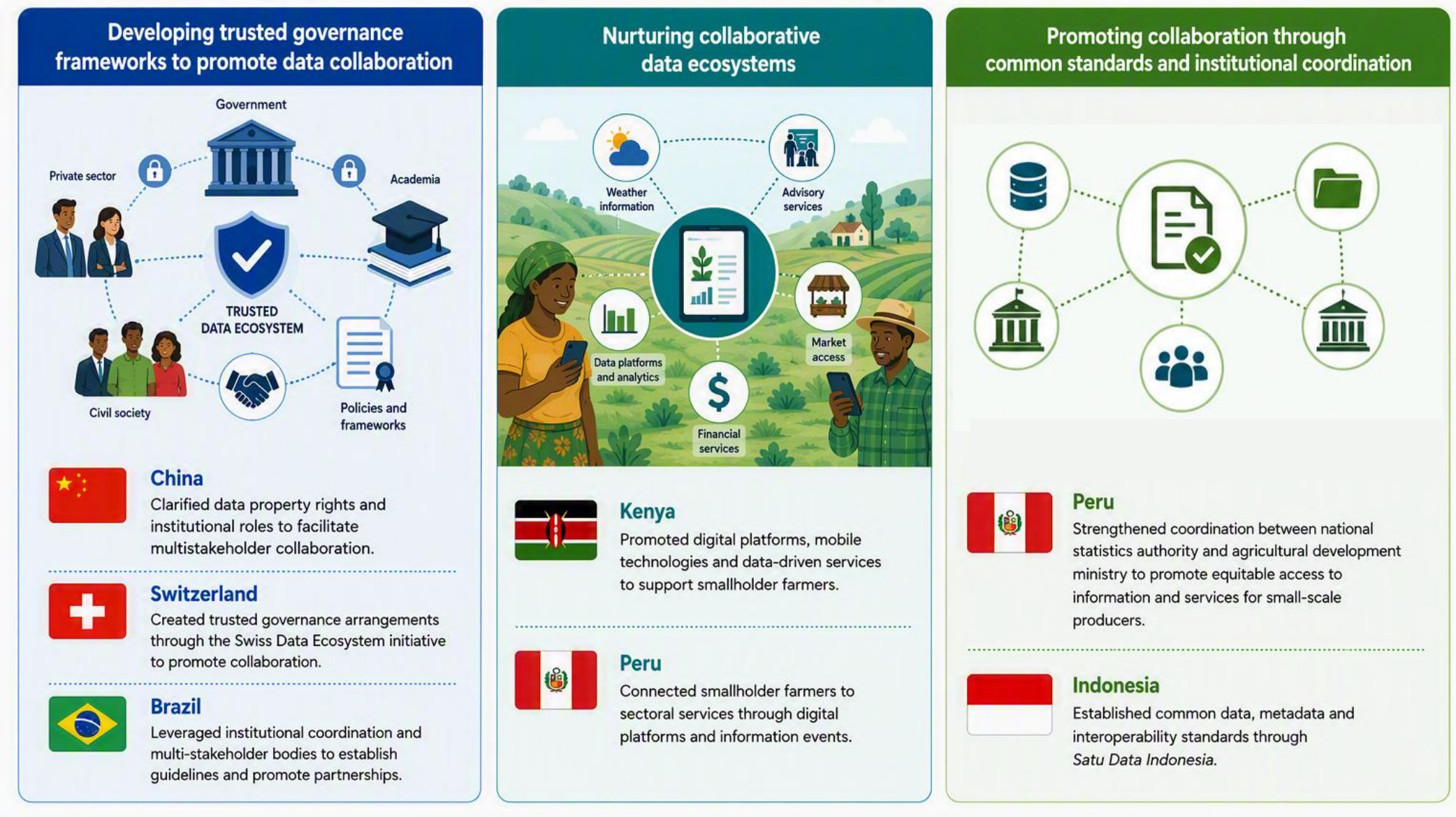
Poland EU Data Governance Act

Portugal EU Data Governance Act

United Kingdom Data Use and Access Act

Source: UNCTAD.

Fostering collaboration and partnership



Source: UNCTAD.

International cooperation in data governance for development

Promoting cross-border data flows while advancing development objectives

Facilitating responsible data sharing and use

Fostering interoperability across different development contexts

Source: UNCTAD.

Integrating development considerations into cross-border data flows

African Union

African Union Data Policy Framework

- Three-tier approach to data flows
- National policy space and development priorities
- Domestic value creation and digital industrialization

asean

ASEAN Framework on Digital Data Governance

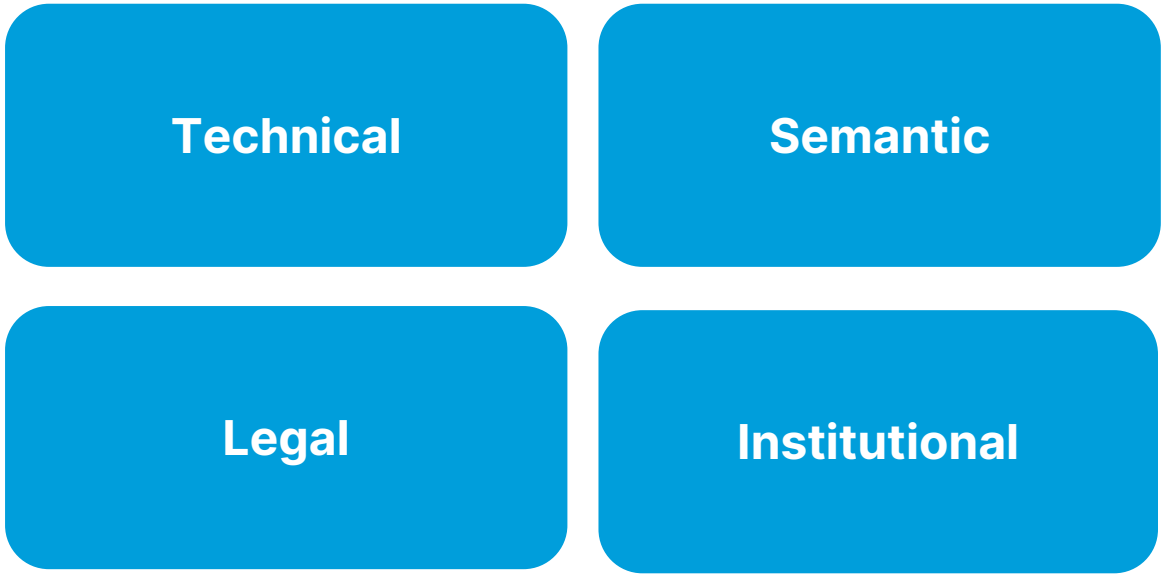
- Tiered commitments and differentiated obligations
- Regional alignment and capacity-building

Sources: African Union and ASEAN.

Promoting more responsible and equitable data sharing

Model	Key Function	Development Applicability
Data Spaces	Trusted data exchange	• Reduce transaction costs for recurring exchanges • Require advanced technical and governance capacity
Data Trusts	Protection and representation	• Strengthen bargaining power of disadvantaged groups • Depend on enforceable duties and institutional capacity
Data Commons	Shared data resources	• Facilitate reuse of non-sensitive data • Require sustained curation and quality standards
Data Cooperatives	Collective control and benefits	• Enable groups with shared interests to control and benefit from data • Require sustained participation and accountable governance

Fostering interoperability across different development contexts



Four interconnected dimensions enable data systems to work together across different regulatory and institutional contexts

Different approaches toward interoperability

- AU: Development-oriented approaches, combining common standards with capacity-building and inclusive participation
- ASEAN: Incremental convergence to accommodate diverse regulatory frameworks and levels of digital readiness
- EU: Deeper legal and institutional integration, supported by strong regulatory convergence and institutional capacity

Recommendations

Developing countries are encouraged to:

- Strengthen capacity to capture the social and economic value of data
- Promote inclusive participation in data governance
- Enhance data stewardship throughout the data lifecycle
- Develop trusted governance frameworks to promote responsible data sharing and collaboration
- Nurture inclusive data ecosystems through multi-stakeholder partnerships
- Build interoperability into data governance from the outset

The international community is advised to:

- Integrate development considerations into cross-border data flows
- Strengthen capacity-building and support for developing countries
- Promote fit-for-purpose and accountable data sharing models
- Support data contributors in capturing value from data
- Enhance international coordination and capacity for interoperability

Thank you

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