

# Africa CDC Digital Transformation strategy

## Purpose, Priorities & Partnerships – Final Consultation on Africa CDC Digital Transformation Strategy

Kigali, December 12<sup>th</sup>, 2022

Phil Nsengimana



# Contents

1. Africa CDC's Mandate
2. Why is Digital Transformation relevant to Africa CDC
3. Digital Transformation: Snapshot of the strategy development process
4. Digital Transformation: Vision and Guiding principles
5. Digital Transformation: Strategic objectives
6. Digital Transformation: Flagship initiatives



# 1 – What is Africa CDC's mandate and impact framework?

# Mission of Africa CDC

1. **Leadership:** The Africa CDC provides strategic direction and promotes public health practice within Member States through capacity building, promotion of continuous quality improvement in the delivery of public health services as well in the prevention of public health emergencies and threats.
2. **Credibility:** The Africa CDC's strongest asset is the trust it cultivates with its beneficiaries and stakeholders as a respected, evidence-based institution. It plays an important role in championing effective communication and information sharing across the continent.
3. **Ownership:** The Africa CDC is an Africa-owned institution. Member States will maintain national-level ownership of the Africa CDC simultaneously through building up and promoting their own national public health systems through direct programmatic engagement, and through an advisory role in shaping Africa CDC priorities.
4. **Delegated authority:** In the event of a public health emergency on the continent with cross border or regional implications, the Africa CDC is mandated to deploy responders, in consultation with affected Member States, to support Member States in delivering an effective response. The Africa CDC will take the appropriate steps to notify the Commission of its action at the same time
5. **Timely dissemination of information:** The Africa CDC leadership will regularly update Member States on ongoing actions and seek their support and collaboration. It shall leverage collaboration and networking to and engage Member States in strong partnerships.
6. **Transparency:** Open interaction and unimpeded information exchange between the Africa CDC and Member States is inherent in the mission of the Africa CDC.
7. **Accountability:** The Africa CDC is accountable to Member States in its approach to governance and financial administration.
8. **Value-addition:** In every strategic aim, objective, or activity, the Africa CDC should demonstrate how that initiative adds value to the public health activities of Member States.





## 2 – Why is Digital Transformation relevant to Africa CDC?

# Our continent is facing major challenges...



## Talent

Doctor-pop.: 1/5,000  
(EU: 1/250, USA:  
1/400)



**Infrastructure**  
47.7% Access to  
Electricity

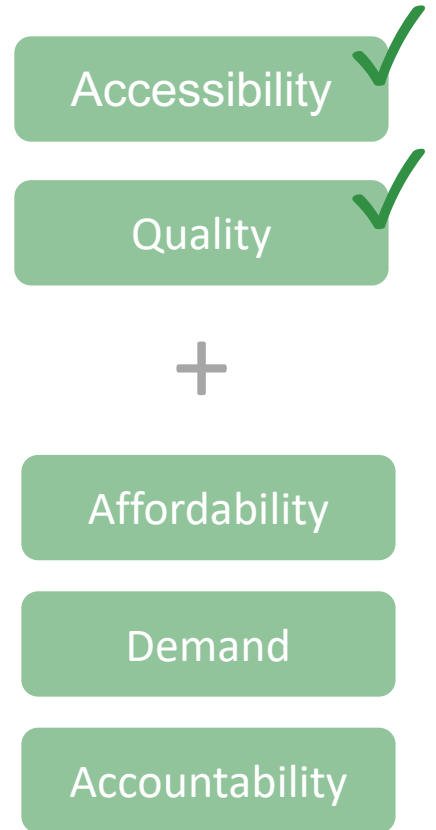
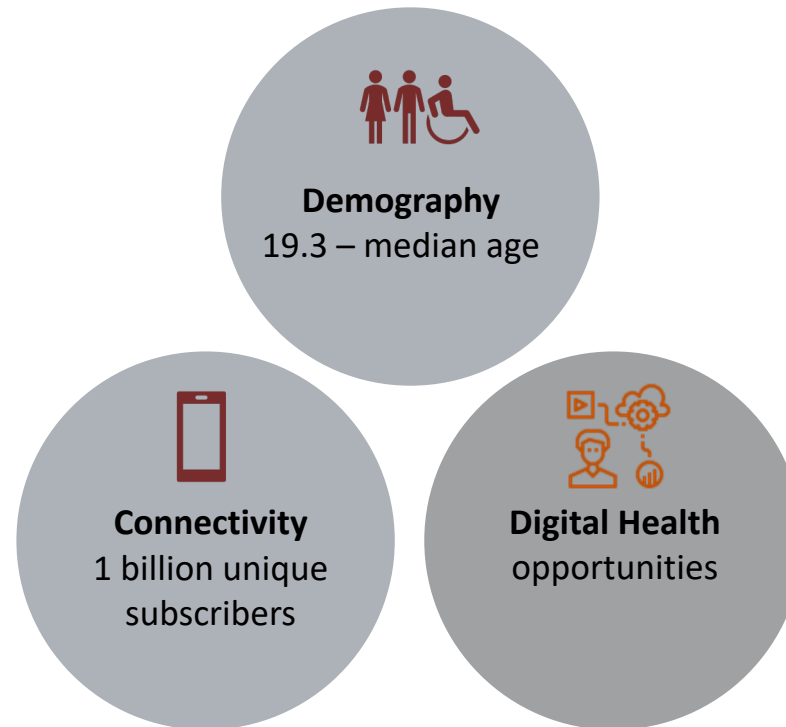


**Resources**  
\$84 / year  
(EU: \$3,476,  
USA:\$10,921)

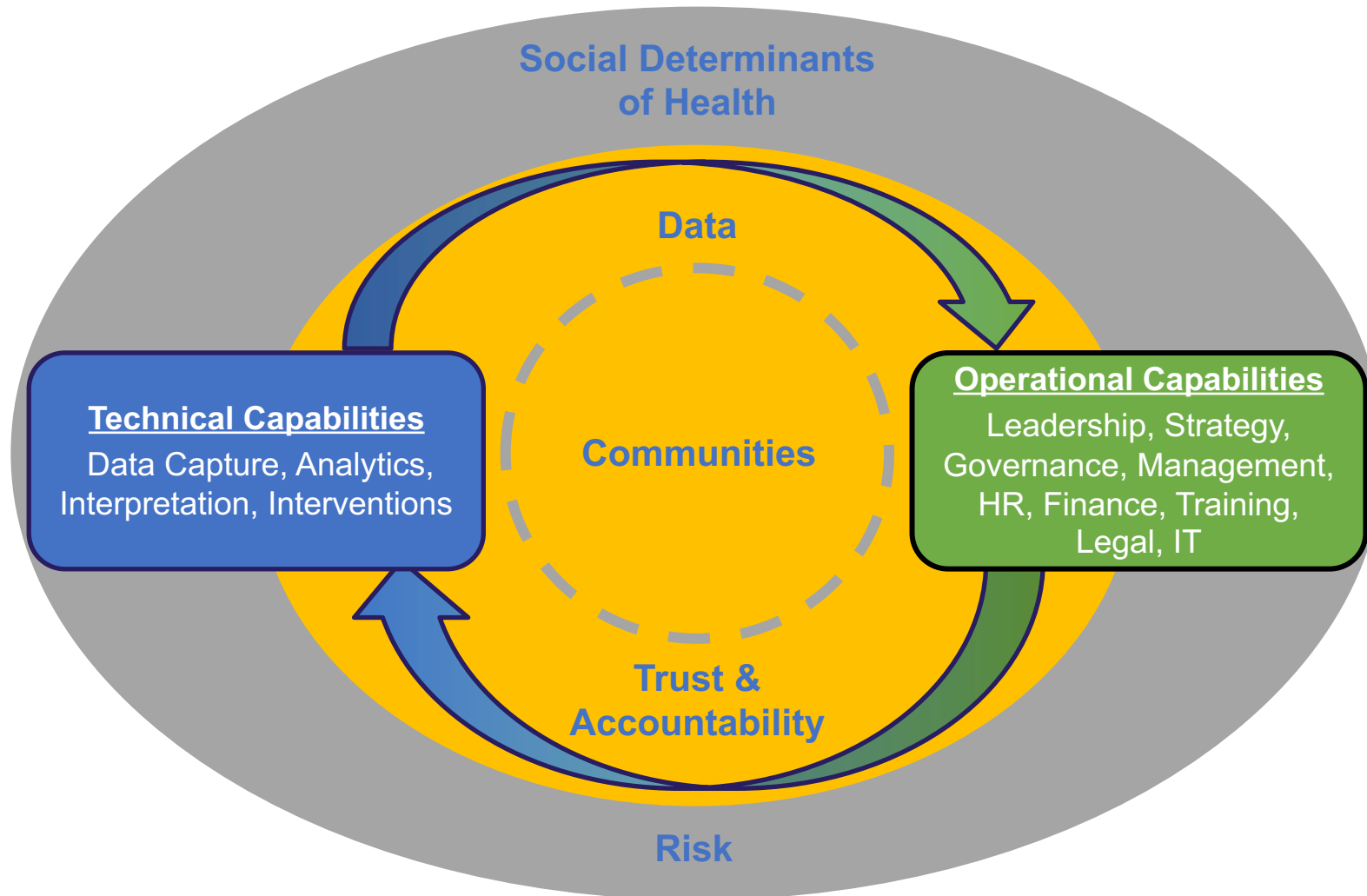
Accessibility

Quality

# ...but digital technologies can be leveraged to provide to improve health outcomes



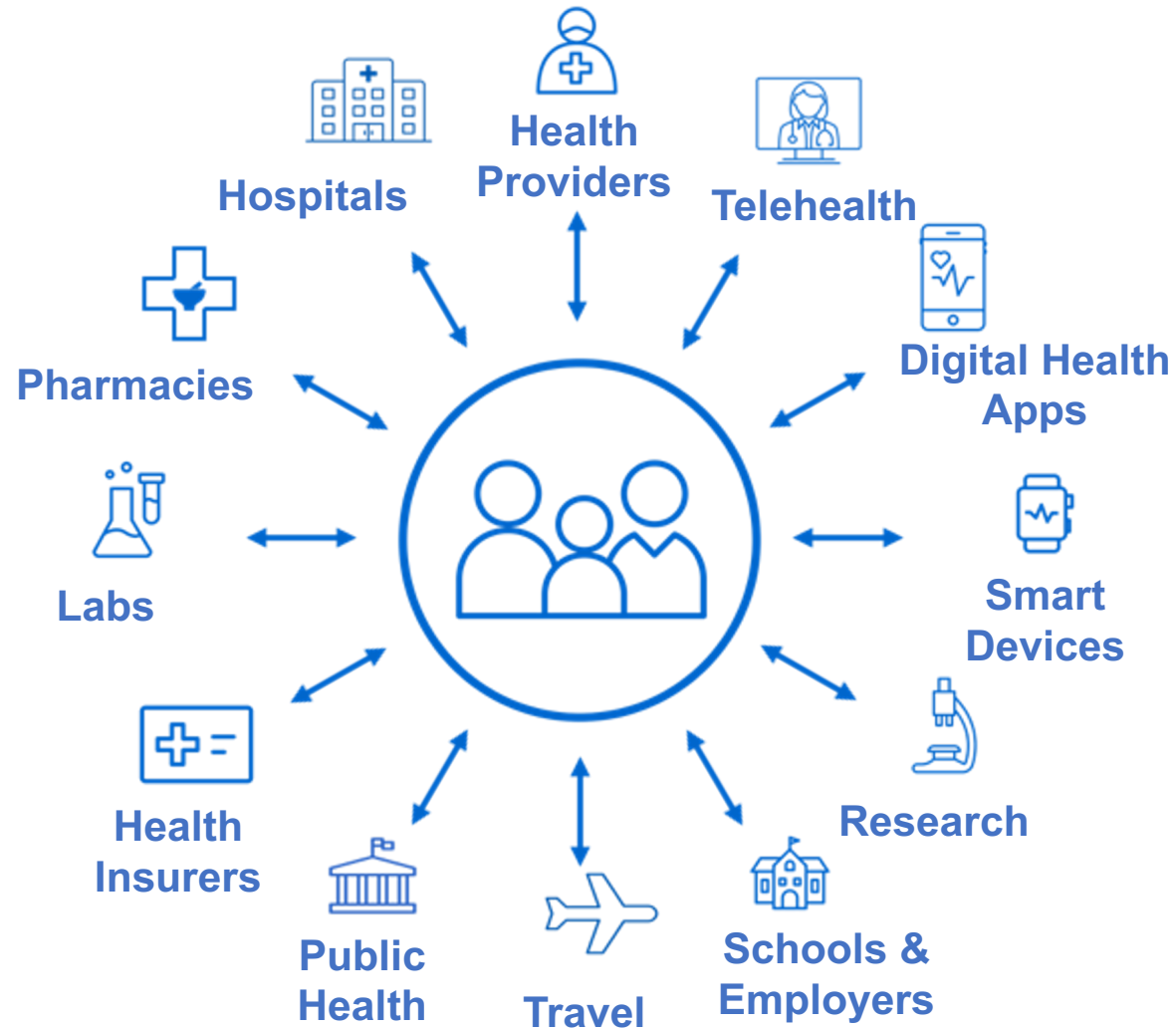
# Designing a Digital Strategy for Africa CDC is an imperative



- Improvements in technical capabilities require operational capabilities
- Data can drive a feedback loop
- Operational capabilities build trust and accountability
- Communities are at the center
- Risk and social determinants of health affect the system

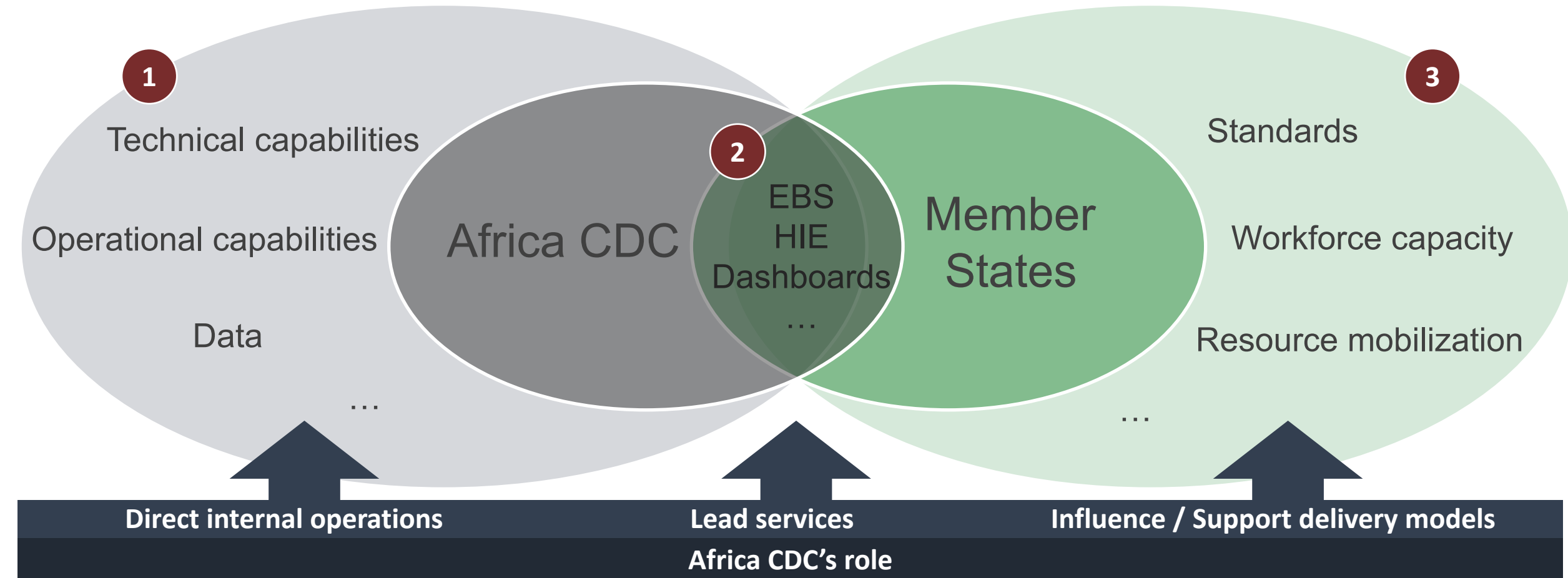


# A person-centric digital model would be relevant in our Member States

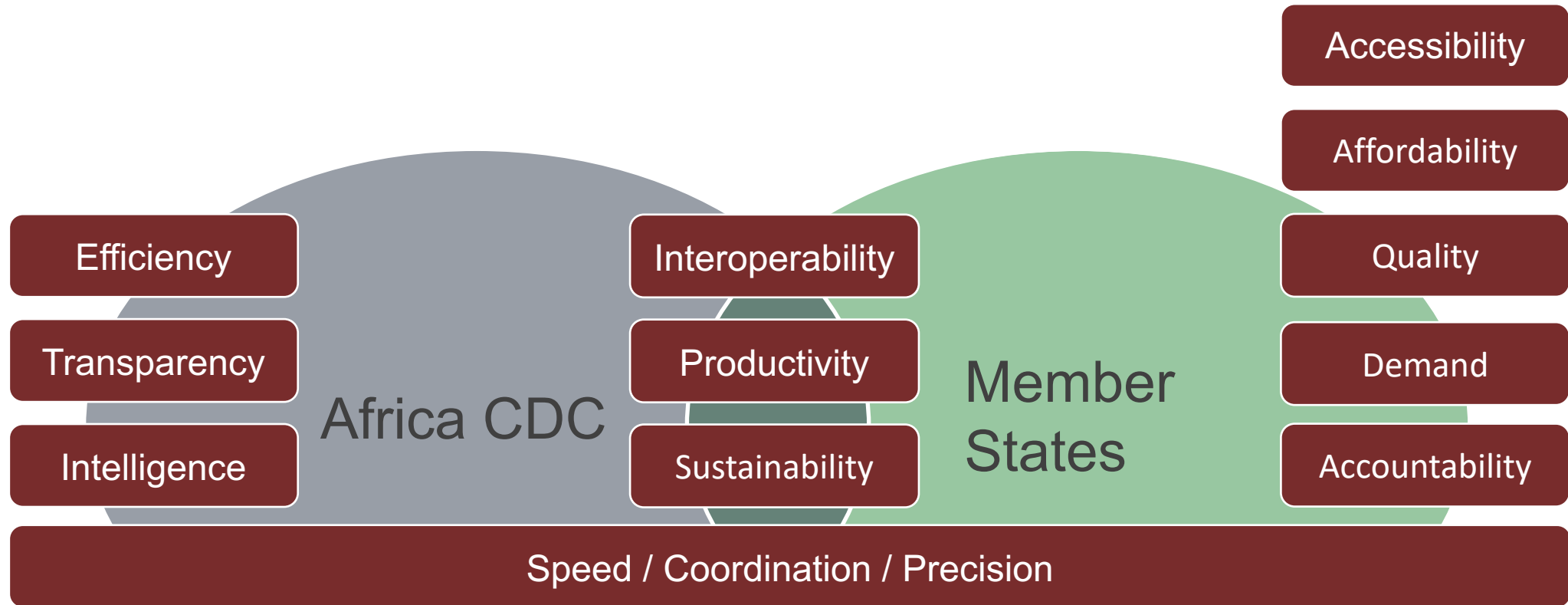


- A continent where every individual and family can access the “digital-first” health care services they need.
- Powered by open data standards, shared services and digital tools to enable the digital transformation of health care

# Digital Transformation scope covers Africa CDC's internal operations, services and Member States' delivery models



# The mission : bringing benefits at all three levels of Africa CDC's footprint



Accessibility

Affordability

Quality

Demand

Accountability

Efficiency

Transparency

Intelligence

Interoperability

Productivity

Sustainability

Africa CDC

Member States


Speed / Coordination / Precision

Direct internal operations

Lead services

Influence / Support delivery models

Africa CDC's role



**3 – Process : what have we achieved and where are we standing today ?**



# Our approach combines a bottom-up strategy design and operationalize flagship initiatives



## Project Management Office

- ✓ Digital Transformation Committee: monthly meetings
- ✓ Coordination of workstreams
- ✓ Internal communication

# Key stakeholders engagement

1

## Inception workshop: Addis, May 11-12

- Vision statement
- Values and principles
- IT governance mechanism
- Stakeholder mapping and engagement
- Potential digital initiatives
- High-level roadmap

2

## Stakeholders : Nairobi, July 5-6

- Africa CDC catalytic role in the digital space
- List of 42 DT potential projects
- Three flagship initiatives

3

## MS consultations: Nairobi, Dakar, Joburg

- Feedback on key dimensions of the DT strategy
- eHealth maturity assessment and national priorities
- Experts and decision makers to engage

4

## Private sector & academia fair

- Engage and source additional ideas
- Identification of potential partners

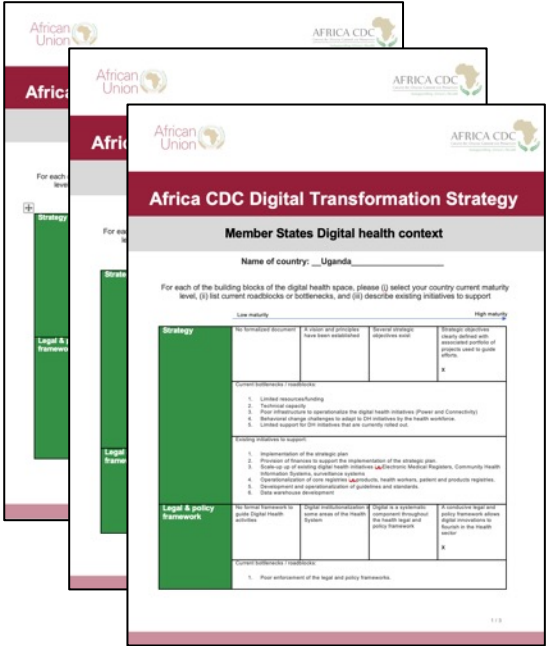
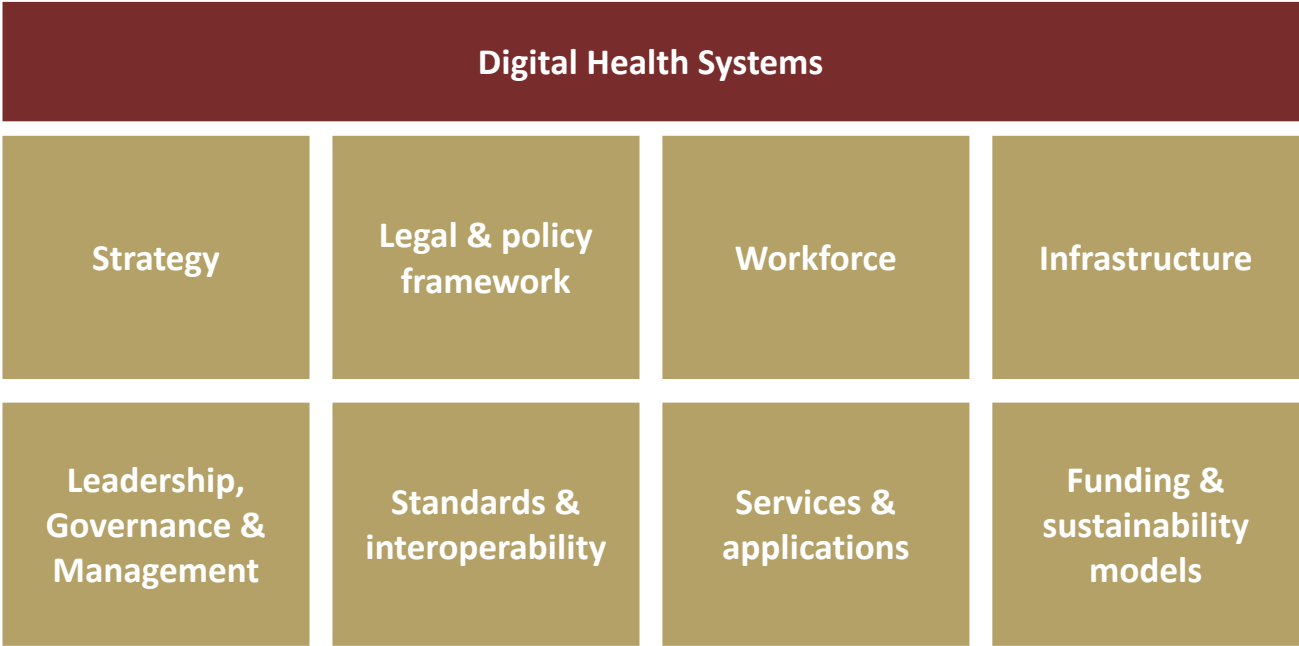
## Operationalization of flagship initiatives

- Scoping
- Drafting of concept notes and budgets
- Identification and engagement of partners
- Concrete implementation actions

## Member States consultations

- So far 27 MS have participated in workshops in Nairobi (7), Dakar (12), and Johannesburg (8).
- Other MS will have the opportunity to contribute during CPHIA and remotely

# Member States representatives assessed their country's maturity level and identified priority areas for Africa CDC support



These conversations informed the DT Strategy design, allowing the team to verify assumptions, understand national institutional arrangements, identify specific challenges and gaps, and identify contact persons at the MS level

The background image shows four laboratory staff members in a biosafety cabinet. They are wearing blue lab coats and face masks. In the foreground, there is a Thermo Scientific biosafety cabinet with its door open, revealing various laboratory equipment and supplies inside. A green semi-transparent box is overlaid on the right side of the image, containing the section header text.

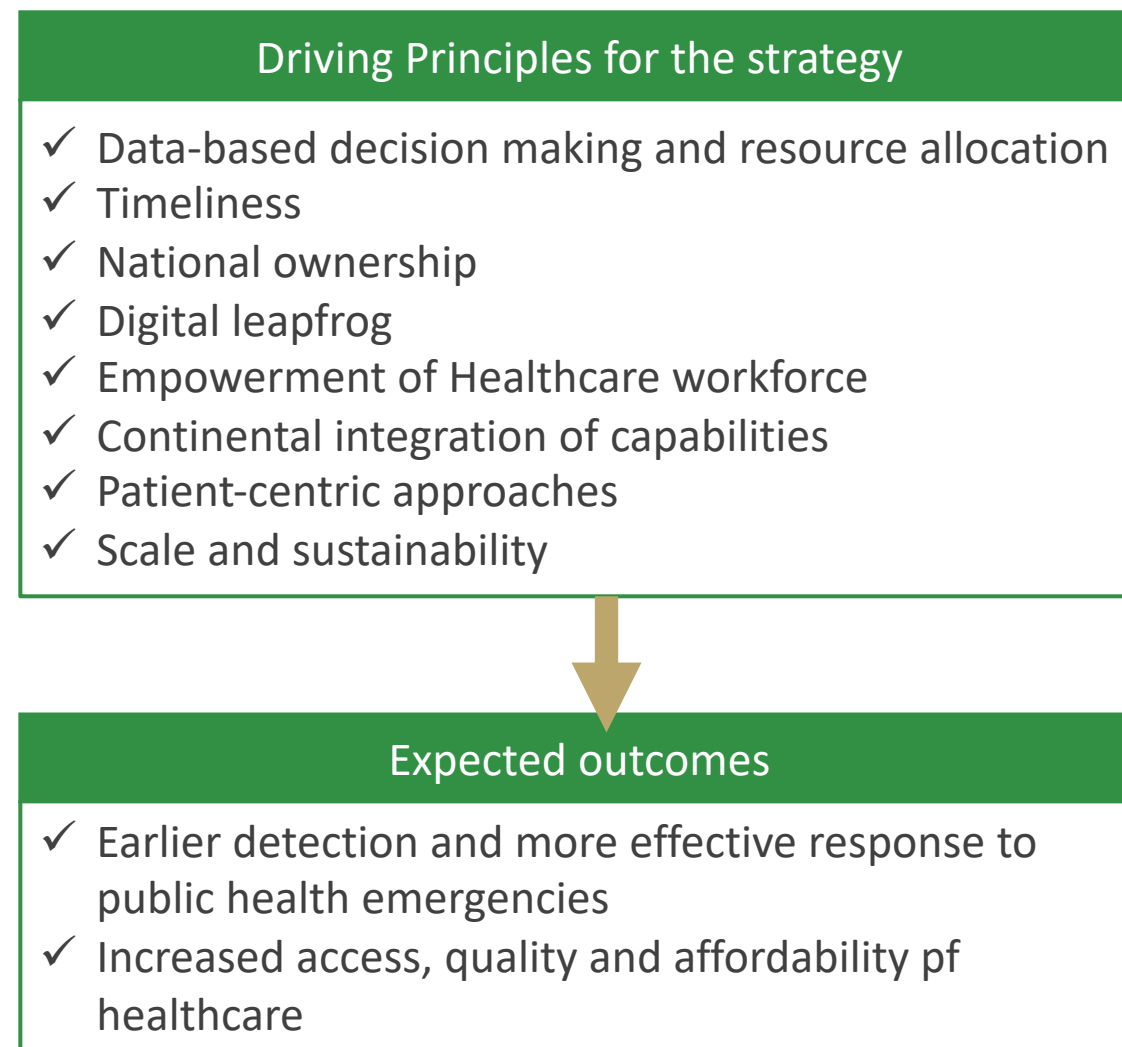
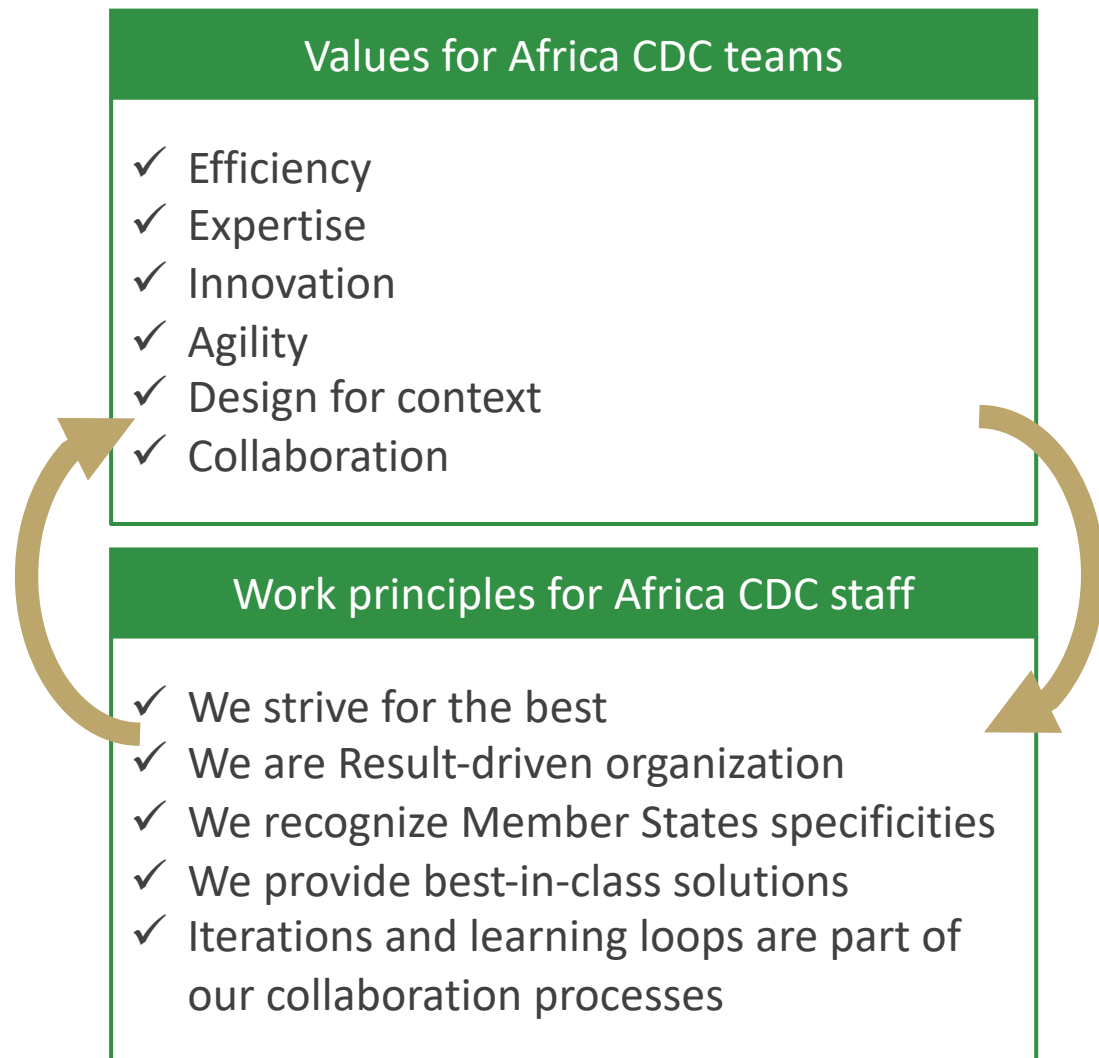
## 4 – Our Vision statement and guiding principles



# **Africa CDC DT strategy: Vision Statement**

**Africa CDC works with Africa Union Member States to build nationwide and interoperable digital health systems that contribute to healthier and productive citizens of Africa**

# Africa CDC DTS: Guiding principles



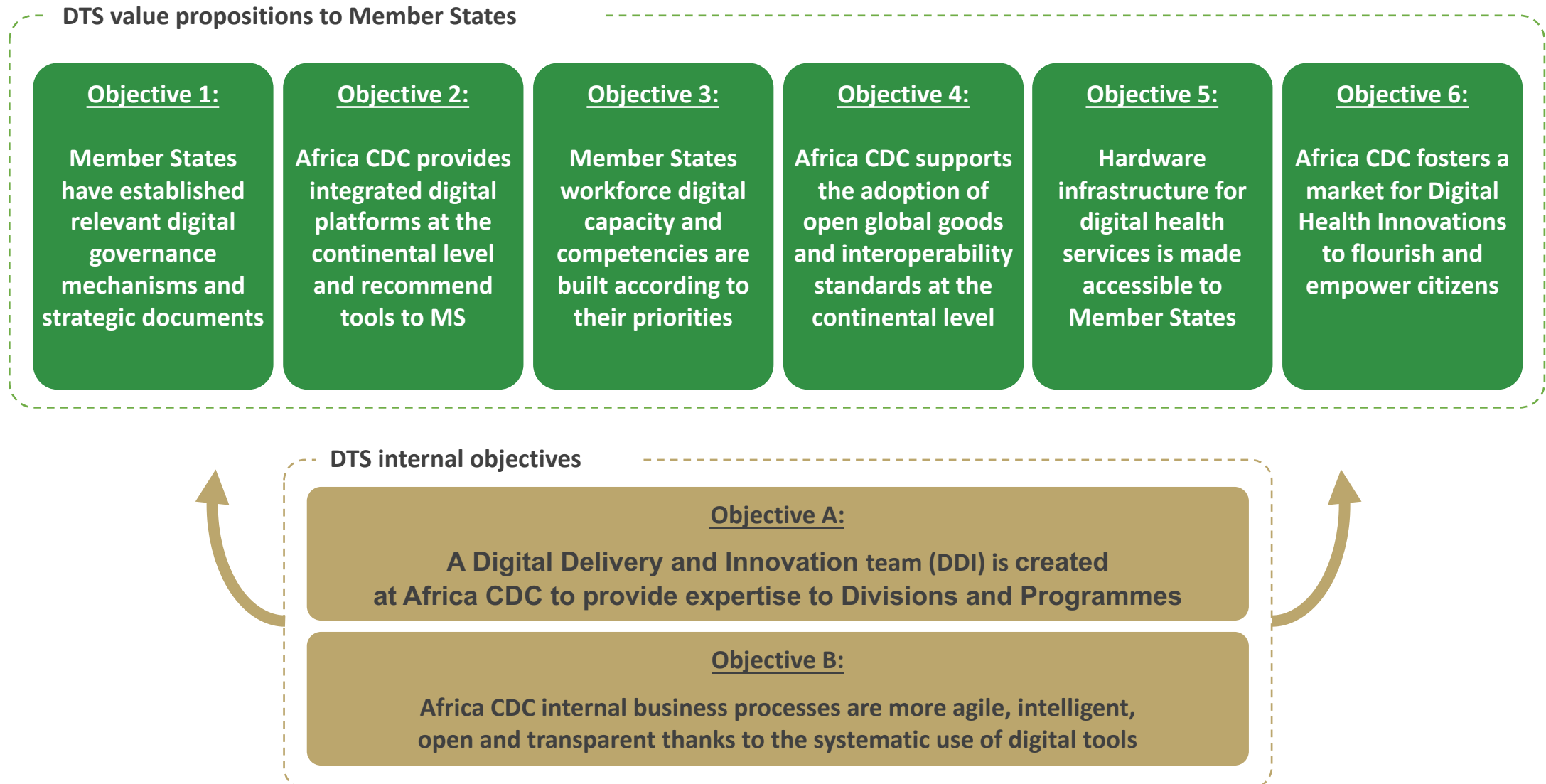


# Africa CDC DTS: Our strategic Objectives



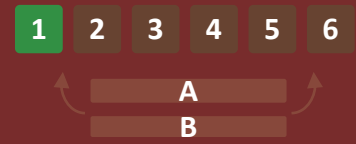


# Africa CDC Digital Transformation Strategy focuses on six strategic objectives supported by two internal objectives





# Member States have established relevant digital governance mechanisms and strategic documents



This strategic objective is a foundational one

It is based on a clear demand by a majority of Member States.

Africa CDC will leverage its unique access to African governments to support the necessary transformation alongside other partners.

- 1.1 Lead advocacy initiatives at Head of State and Minister of Health levels to discuss systemic changes associated with digital health (e.g., high-level visits, conferences) ✓
- 1.2 Support the organizational revamping of national institutions contributing to Digital Health, encouraging a higher anchoring and sufficient capacity of the leading institution (e.g., guidance, frameworks, technical assistance) ✓
- 1.3 Support active coordination of digital health efforts with partners, encouraging clear national leadership ✓
- 1.4 Support the development of national digital health strategies and actionable action plans based on SMART objectives ✓
- 1.5 Support and contribute to continental Digital Communities of Practice in order to socialize lessons learned and good practices ✓
- 1.6 Work with partners to develop and amplify a collaborative process to assess Member States Digital Health capabilities (e.g., Digital Health Index) providing a shared view on maturity levels and areas to strengthen ✓
- 1.7 Support the development of adequate legal and regulatory frameworks for digital health, including on cross-border data sharing
- 1.8 Promote the value of data collection, analytics and visualization for increased health outcomes and better accountability of workforce and decision makers

✓ Activity prioritized by Member States representatives during October 2022 Consultative workshops    ✓ Flagship initiative under development

Note: This draft list activities provides an overview of the strategic approach envisioned by Africa CDC to meet the strategic objective. It is however not finalized as (i) additional contributions are expected from Member States in December 2022 and (ii) alignment and synergies with partners will be sought in Q1 2023

# Africa CDC provides integrated digital platforms at the continental level and recommends tools to MS



This strategic objective aims at (i) closing a gap on cross-border collaboration, building on existing initiatives led by Africa CDC such as Event-based surveillance (EBS) dashboards and (ii) provide guidance on Member States for the adoption of relevant tools.

- 2.1 Support Member States' efforts to map and assess the existing digital tools used on their ground with the objective of recommending specific digital tools to use cases and avoid proliferation ✓
- 2.2 Support the development and implementation of dashboards supporting data-based and timely decision making in surveillance at the national level ✓
- 2.3 Support the development and implementation of dashboards supporting data-based and timely decision making in preparedness activities at the national level (e.g., management of infrastructures, supply chain, volunteers)
- 2.4 Development and implementation of cross-border platforms for effective collaboration on surveillance, providing clear incentives for Member States to share information ✓
- 2.5 Support the development and implementation of digital platforms for the integration of laboratory services at the national level
- 2.6 Support the development and implementation of dashboards supporting data-based and timely decision making in preparedness activities
- 2.7 Design and implement a continental data warehouse with secure interfaces with Member States and public data sets

✓ Activity prioritized by Member States representatives during October 2022 Consultative workshops

Note: This draft list activities provides an overview of the strategic approach envisioned by Africa CDC to meet the strategic objective. It is however not finalized as (i) additional contributions are expected from Member States in December 2022 and (ii) alignment and synergies with partners will be sought in Q1 2023

# Member States workforce digital capacity and competencies are built according to their priorities



Workforce development is a pillar of Africa CDC who already leads a number of initiatives in the field.

This strategic objective aims at adding digital as a core domain of workforce development.

3.1 Support analysis of existing human capital at the Member State level in order to identify existing skills, numbers and prioritized gaps

3.2 Work with partners to develop or refine relevant training materials associated with Digital Health and ensure these training are institutionalized at the Member State level, for professional training and academic education

3.3 Partner with pan African and global networks and Communities of Practice promoting Health Informatics

3.4 Support Member states in the revision of job classifications and career paths associated with Digital Health

3.5 Launch a Health Informatics Fellowship hosted at Africa CDC in collaboration with National Public Health Institutes

✓ Activity prioritized by Member States representatives during October 2022 Consultative workshops ✓ Flagship initiative under development

Note: This draft list activities provides an overview of the strategic approach envisioned by Africa CDC to meet the strategic objective. It is however not finalized as (i) additional contributions are expected from Member States in December 2022 and (ii) alignment and synergies with partners will be sought in Q1 2023

# Africa CDC supports the adoption of open global goods and interoperability standards



The strategic objective is a prerequisite to effective cross-border collaboration at the continental level.

It was consistently ranked as a priority in Member States consultations.

4.1 Establish and participate in data governance mechanisms at the continental level to manage interoperability frameworks for various Digital Health use cases

4.2 Promote the use of digital global goods for health

4.3 Support Member States in creating and populating Health system registries including facilities, health care workers, patients ID with the appropriate data privacy and security standards

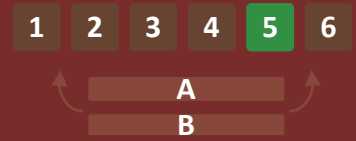
4.4 Ensure the utmost privacy and security standards to all cross-border collaborations

✓ Activity prioritized by Member States representatives during October 2022 Consultative workshops

Note: This draft list activities provides an overview of the strategic approach envisioned by Africa CDC to meet the strategic objective. It is however not finalized as (i) additional contributions are expected from Member States in December 2022 and (ii) alignment and synergies with partners will be sought in Q1 2023



# Hardware infrastructure for digital health services is made accessible to Member States



This strategic objective is a prerequisite to the scaling up of Digital Health.

Africa CDC will leverage its unique position within the African Union commission to drive meaningful investments.

5.1 Partner with major investors in Health Systems Strengthening to build a case for major investments in electrical power and connectivity

5.2 Monitor Health facilities Internet connectivity, collaborate with other sectors and the private sector to develop a menu of connectivity business models and facilitate investment discussions (HealthConnekt)

5.3 Partner with multilateral donors, development organizations, governments and network operators to fund infrastructures

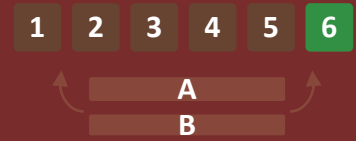
5.4 Support the development of maintenance personnel for deployment, use and maintenance of connectivity infrastructure and digital services

5.5 Guide Member States investments in secured data centers and cloud-based services

✓ Activity prioritized by Member States representatives during October 2022 Consultative workshops    ✓ Flagship initiative under development

Note: This draft list activities provides an overview of the strategic approach envisioned by Africa CDC to meet the strategic objective. It is however not finalized as (i) additional contributions are expected from Member States in December 2022 and (ii) alignment and synergies with partners will be sought in Q1 2023

# Africa CDC fosters a market for Digital Health Innovations to flourish and empower citizens



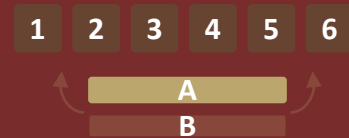
This strategic objective aims at fostering a space for innovators to address the challenges of African and global health while ensuring continental sovereignty

- 6.1. Advocate and provide Member States with guidance on creating a legal and regulatory framework that allows National Public Health Institutes, researchers and private sector to use health data in a trusted and secure way ✓
- 6.2 Provide guidance for Member States to enable their citizens to share health data across borders while meeting security and privacy standards ✓
- 6.3 Create and host digital health innovation sandboxes allowing large groups of stakeholders to build innovative digital health concepts and solutions ✓
- 6.4 Support the design and implementation of a Digital Health and Innovation Lab hosted in a pioneer Member State ✓

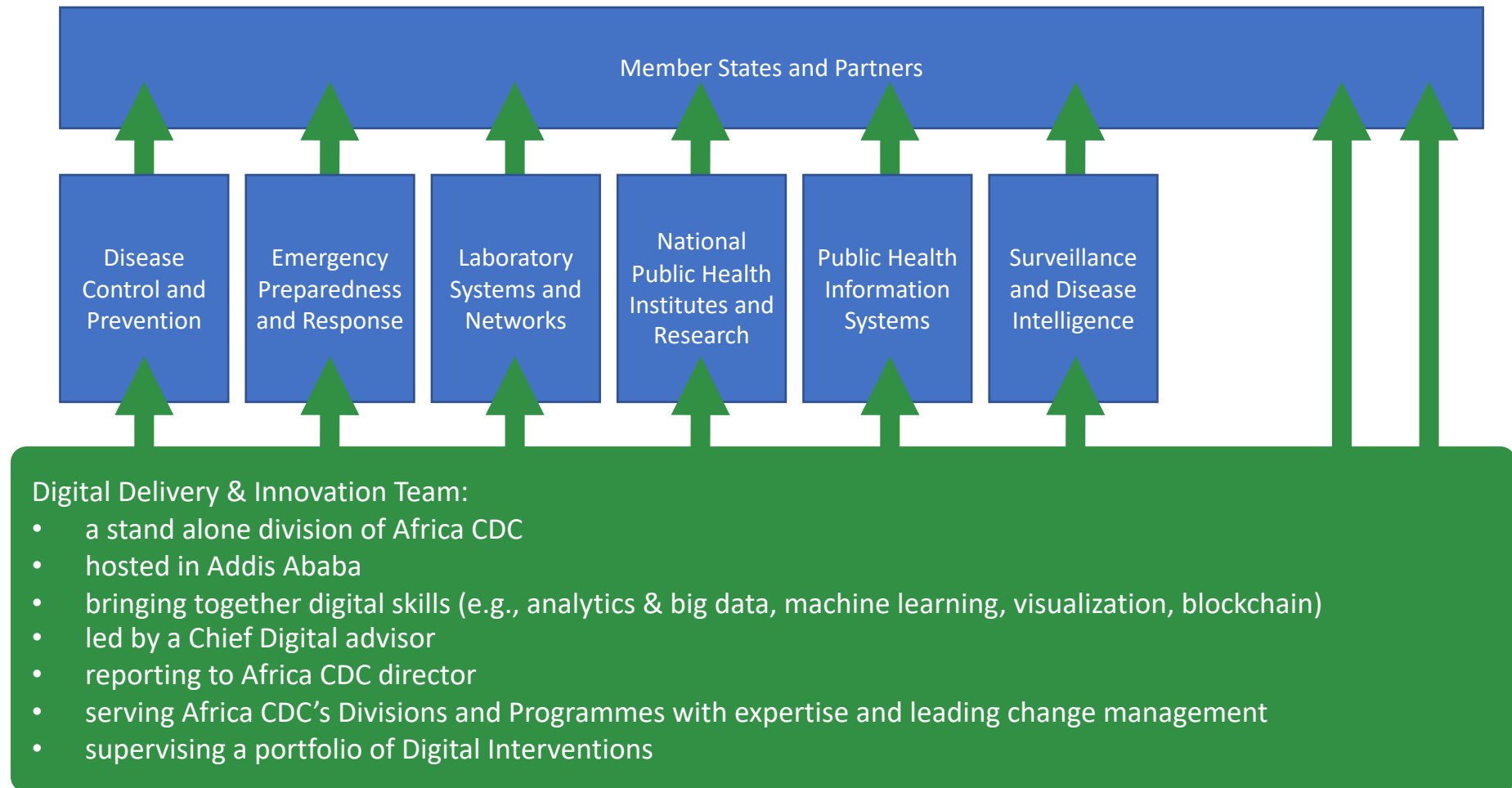
✓ Activity prioritized by Member States representatives during October 2022 Consultative workshops    ✓ Flagship initiative under development

Note: This draft list activities provides an overview of the strategic approach envisioned by Africa CDC to meet the strategic objective. It is however not finalized as (i) additional contributions are expected from Member States in December 2022 and (ii) alignment and synergies with partners will be sought in Q1 2023

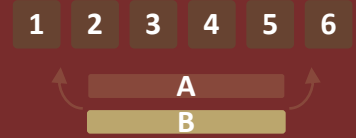
# A Digital Delivery and Innovation team is created at Africa CDC to provide expertise internally



Developing in-house leadership and expertise is a prerequisite to successfully implementing the Digital Transformation Strategy.



# Africa CDC internal business processes systematically leverage digital tools



Several business processes at Africa CDC are suboptimal (e.g., paper-based workflows, workflow delayed by the absence of an approver).

Redesigning key business processes while leveraging digital tools will improve effectiveness, timeliness, and efficiency of Africa CDC's operations.

B.1 Evaluate key business processes (e.g., financial management, human resources, procurement, travel and convening) required to conduct the work of Africa CDC, and the various models of digital service delivery which may be implemented to increase the efficiency and cost effectiveness of such processes

B.2 Recommend key process changes to reduce or eliminate redundancy in processes, reduce unnecessarily complex procedures, minimize organizational risk and ensure clear accountability of outcomes

B.3 Develop workflow documentation and business process models to be used for implementation of new procedures

B.3 Guide business process owners and key stakeholders in adopting the agreed process changes



## Flagship initiatives

# Emerging flagship initiatives

|   |  |  |   |   |  |
|---|--|--|---|---|--|
| <div>Public Health Informatics Fellowship</div> <div></div> <div><ul style="list-style-type: none"><li>• 10-15 fellows/year</li><li>• Resource mobilization (ongoing)</li><li>• <b>US CDC, UW, RTSL</b></li></ul></div> | <div>HealthConnekt Africa</div> <div></div> <div><ul style="list-style-type: none"><li>• Connect 100,000 Health Facilities and 1,000,000 Health Workers by 2030</li><li>• <b>UNICEF, Smart Africa</b></li></ul></div> | <div>Pan-African Informatics Network</div> <div></div> <div><ul style="list-style-type: none"><li>• Build a strong digital health community of practice</li><li>• <b>PATH, McGovern Foundation</b></li></ul></div> | <div>Africa HealthTech Summit</div> <div></div> <div><ul style="list-style-type: none"><li>• Elevate the role of digital in public health discourse</li><li>• <b>MCF, Novartis F, Global Fund, GIZ</b></li></ul></div> | <div>Digital Health Innovation sandbox</div> <div></div> <div><ul style="list-style-type: none"><li>• Encourage the scale up &amp; competitiveness of home grown innovation</li><li>• <b>AMREF</b></li></ul></div> | <div>African Digital Health Index</div> <div></div> <div><ul style="list-style-type: none"><li>• Collaboratively assess digital health systems and identify areas for improvement</li><li>• <b>GDHI, UNICEF</b></li></ul></div> |
|---|--|--|---|---|--|

# Immediate next steps (Q1 2023)

## Consolidate findings from Member States consultations

- **Objectives:** (i) Map out solutions to identified Digital Health Sector Challenges (ii) Identify potential projects to support
- **Approach:** draft findings, engage participants in the review process (mailing list, WhatsApp groups, etc.)

## Conduct Private Sector and Academia virtual engagement

- **Objectives:** (i) Identify digital health innovations & implementation best practices and (ii) identify projects to support
- **Approach:** define questions, use Africa CDC's online channels to disseminate, collect answers, consolidate findings, engage selected key partners 1:1

## Design Digital Delivery and Innovation Team

- **Objectives:** Build the team that will lead the implementation the strategy
- **Approach:** design target organization structure, draft TORs, define recruitment & onboarding strategy, engage potential partners.

## Finalize 2023-2027 Strategy document

- **Objectives:** (i) Validate and disseminate the final strategy and (ii) launch implementation
- **Approach:** draft document, circulate for feedback, mobilize resources, draft implementation roadmap, execute strategy



# AFRICA CDC

Centres for Disease Control and Prevention

---

Safeguarding Africa's Health

