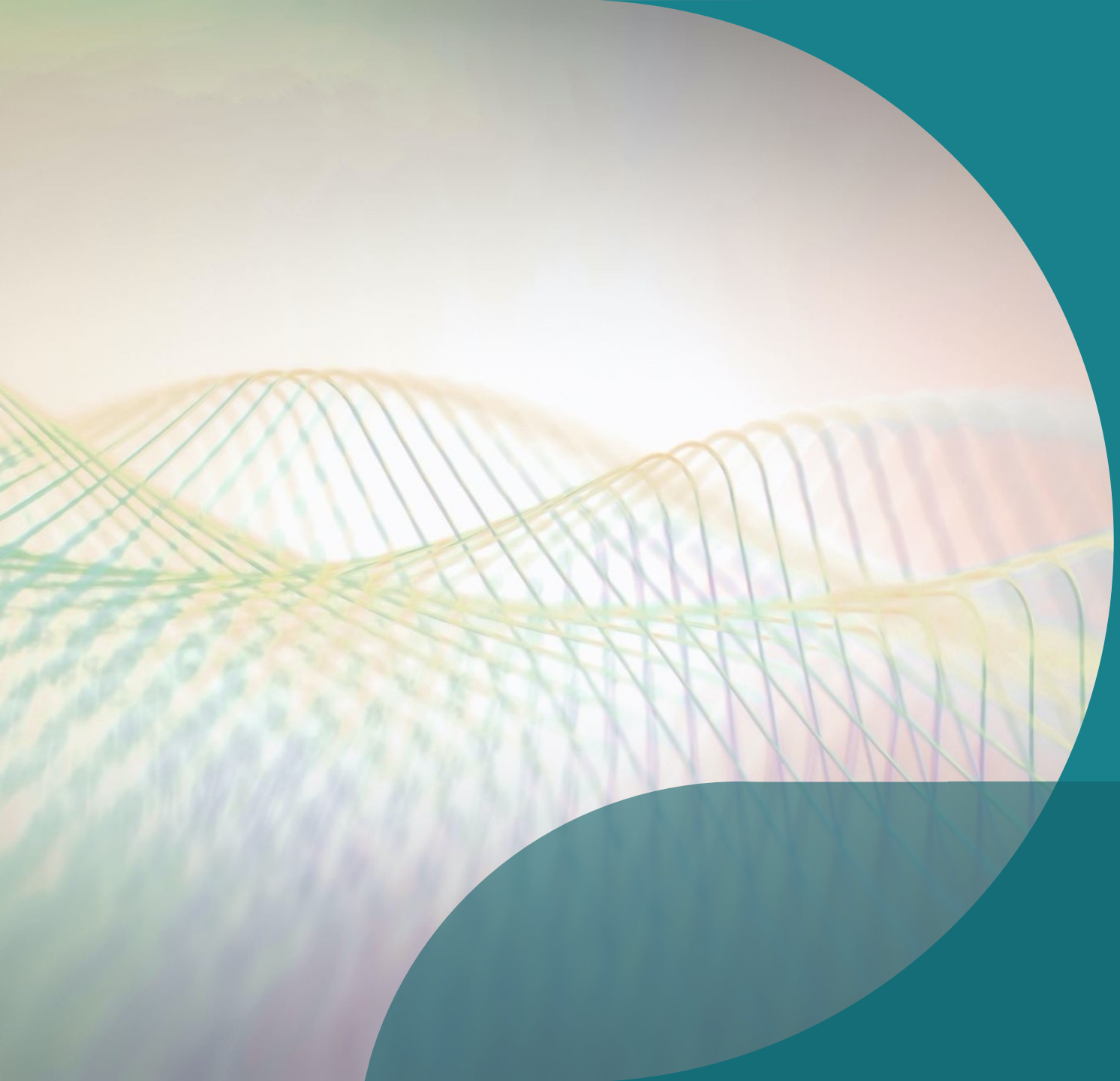
Key Policy Challenges for e-Health in Africa

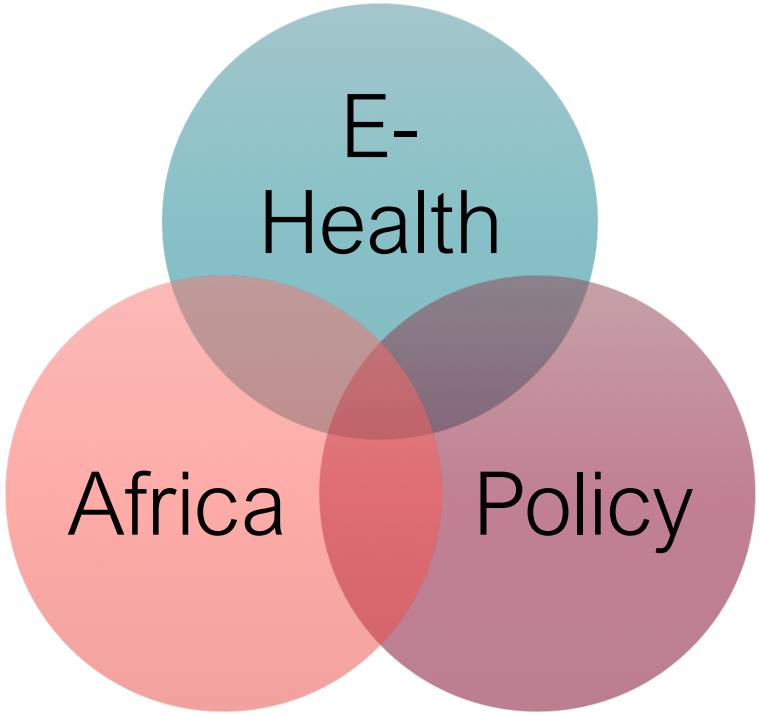


Franciose Mukeshimana Photo: Time magazine

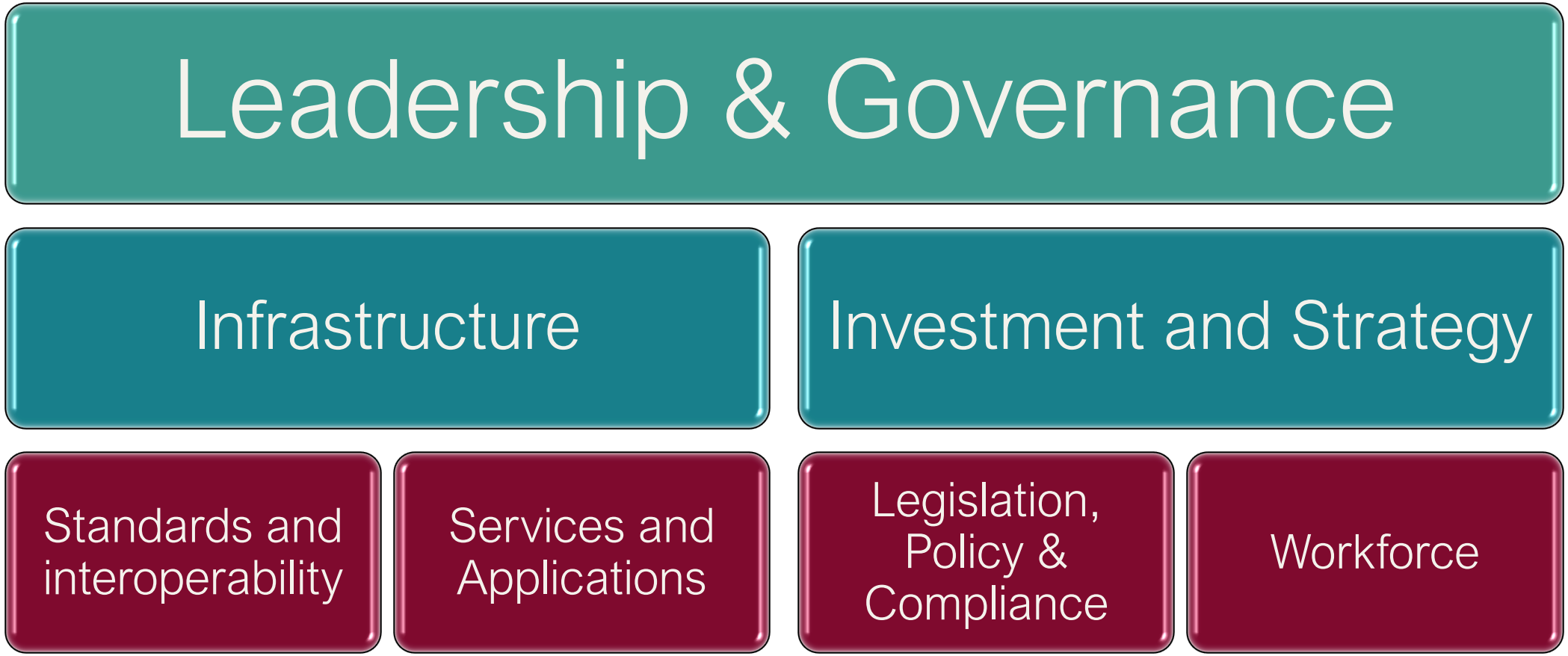
Outline

- e-Health: Building blocs
- Africa: a unique context
- Policy making or politics?

- 10 T of Digital Health in Africa
  - ConnecT
  - EducaTe
  - Innovate
  - CoordinaTe
  - InvesT
  - PromoTe
  - RegulaTe
  - ProtecT
  - TrusT
  - QuiT



E-Health: A Reference Architecture



Adapted from WHO National eHealth strategy toolkit - https://apps.who.int/iris/handle/10665/75211

Africa: A unique context

Demography
19.3 – median age

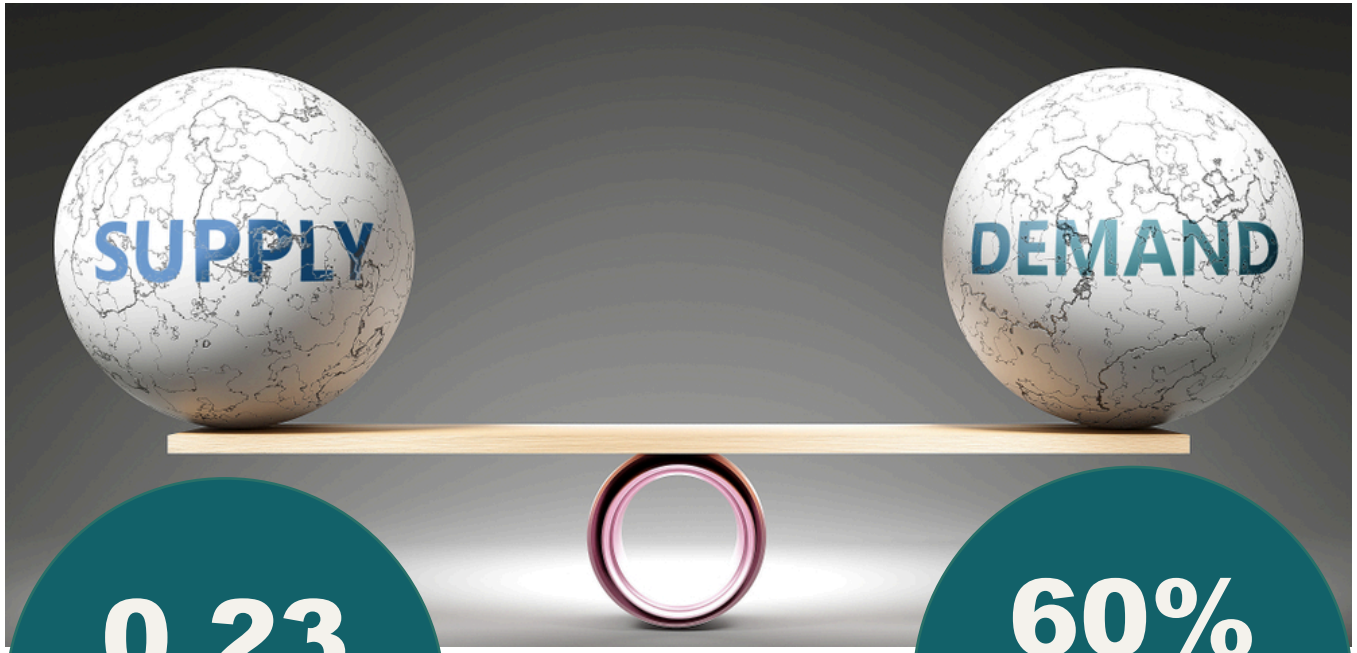
Talent
0.23 physicians per 1000 people

Infrastructure
47.7% Access to Electricity

Connectivity
45% unique mobile subscribers

Resources
$84 /year spend on health

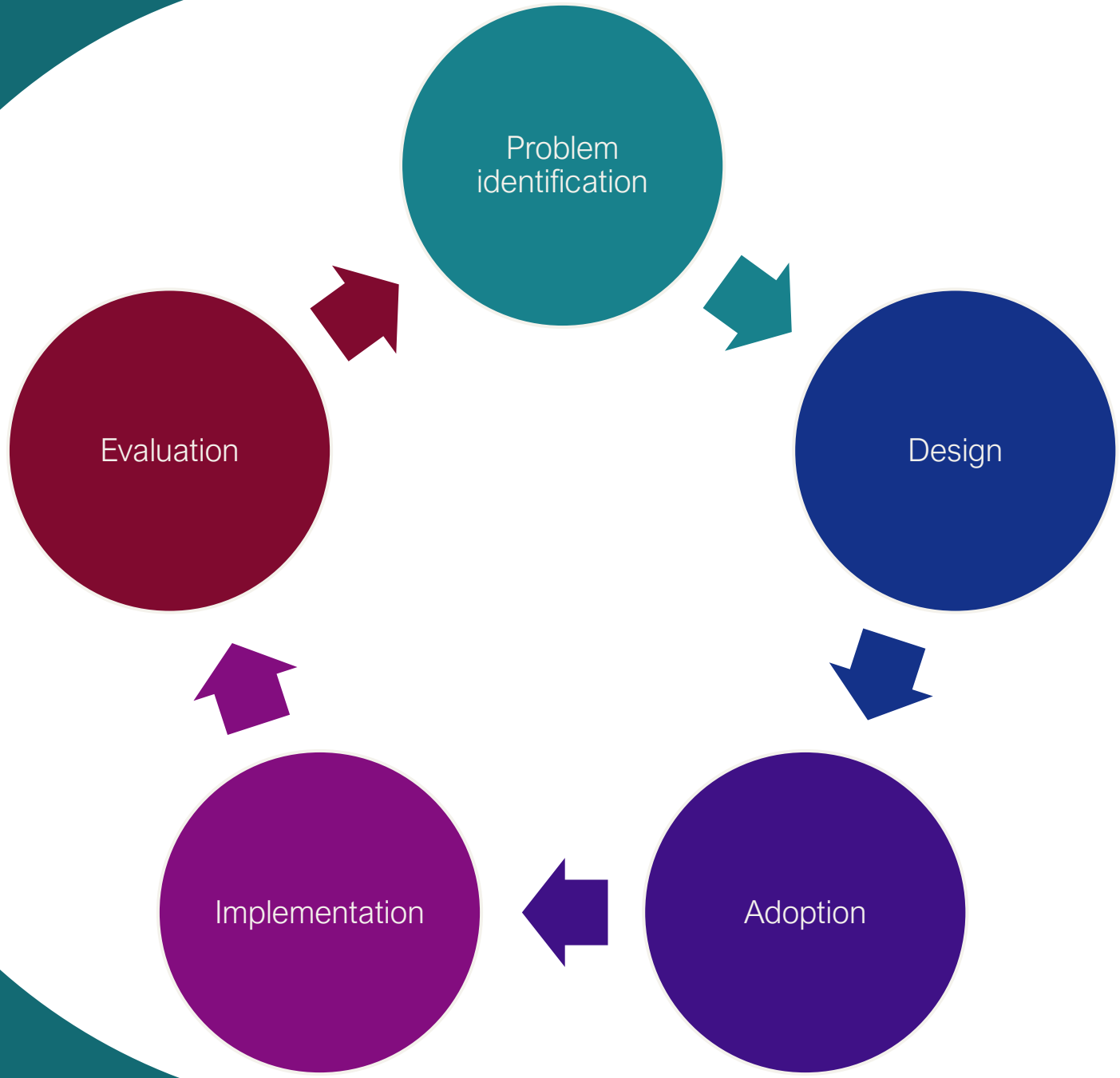
6 Million: Deficit of Health Workers by 2030



0.23
physicians per 1000

60%
Below age of 25

Leadership: 42 countries have a national eHealth strategy



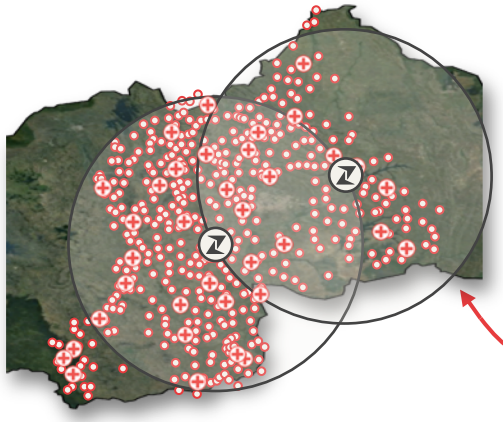
ConnecT: Lighting Africa is saving lives

- Roads: 1.75 million km
- Aviation: 260 airports
- Water & Sanitation: 61% access to drinking water
- Urbanization & Housing: 40.7% urbanization
- Healthcare facilities & equipment:
- Roads, Airports - Logistics
- Utilities: Water & sanitation
- Digital: Mobile, Internet, Platforms

Source: https://www.afdb.org

The leapfrogging opportunity

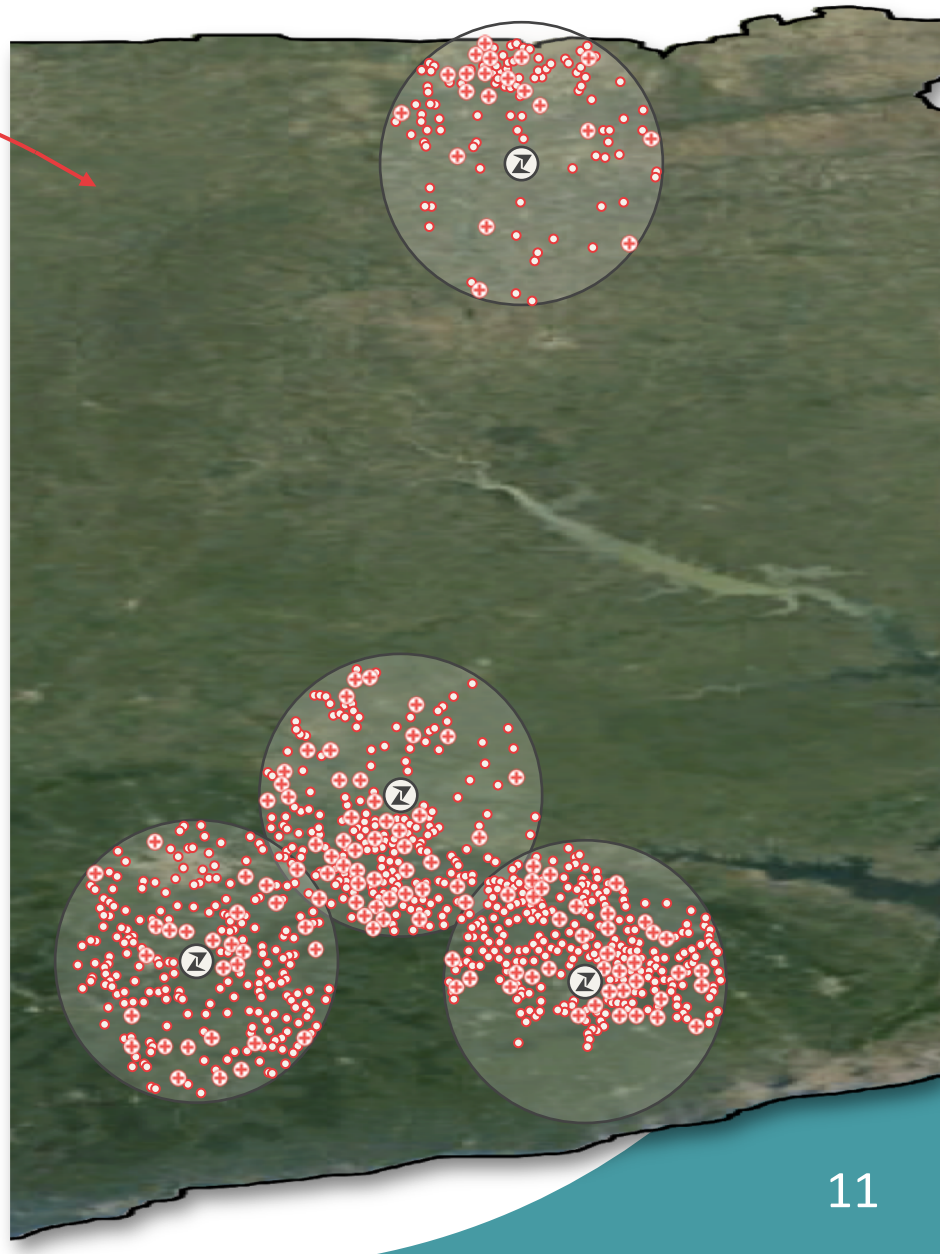
Winning the scaling challenge



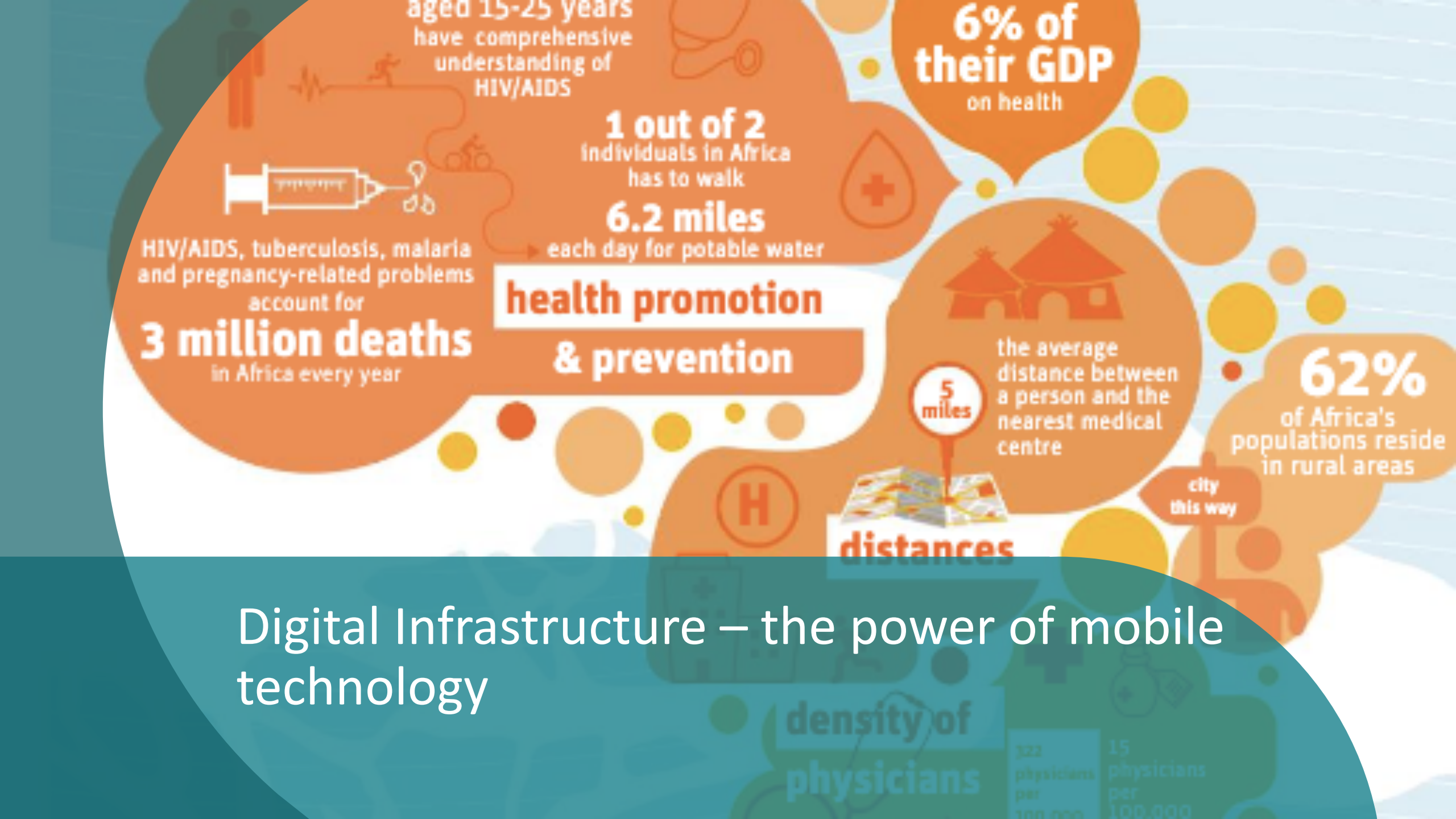
Rwanda

50 mi

Ghana

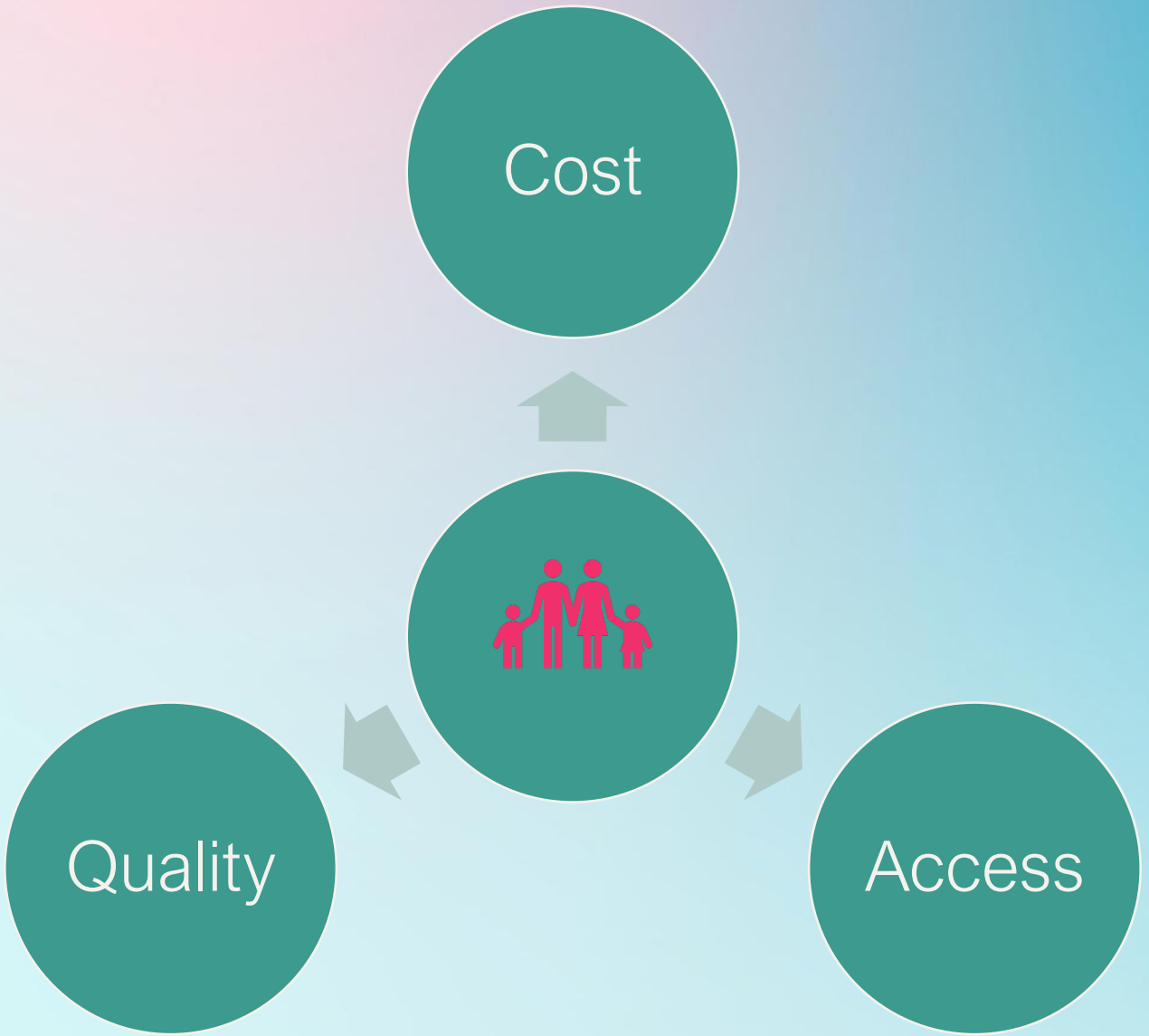


- 6 Zipline hubs (each serves area size of Connecticut)
- ~2,500 health facilities under contract
- +22M people in range
- +5M autonomous miles flown
- Largest commercial autonomous system on earth



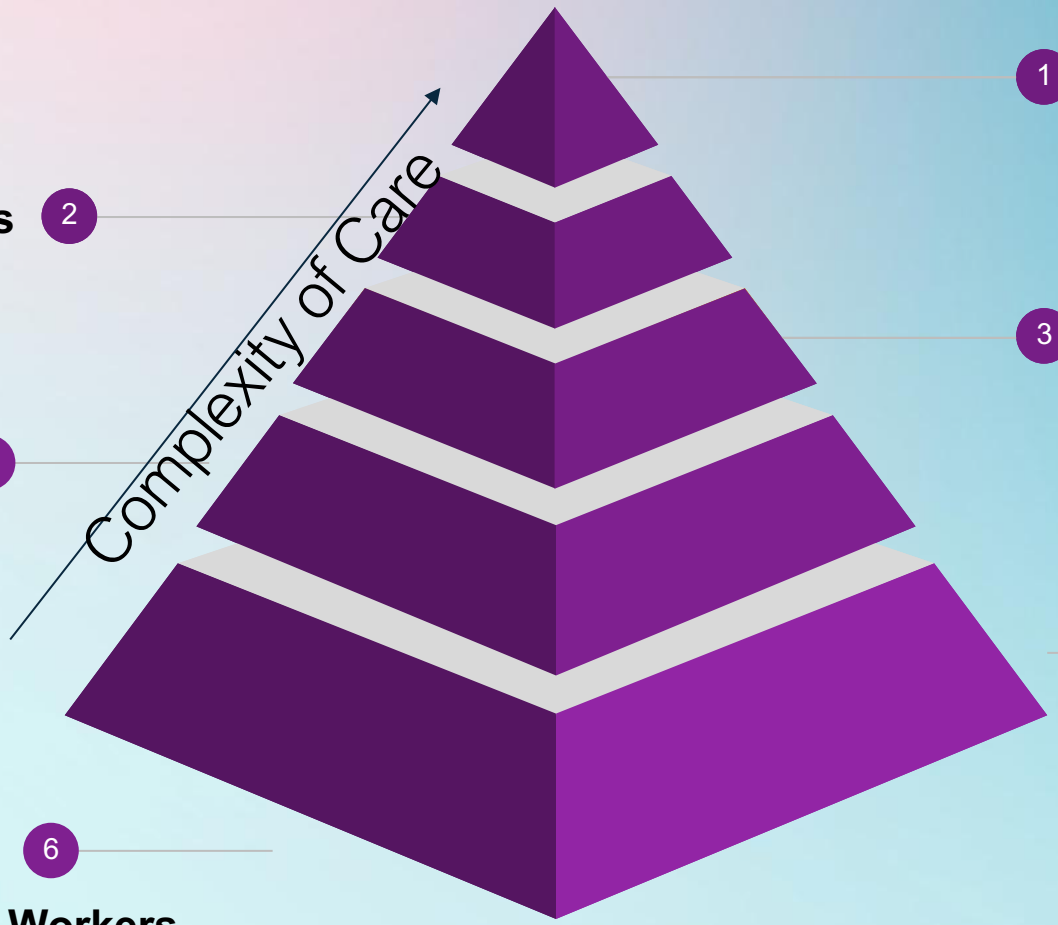
Digital Infrastructure – the power of mobile technology

babyl



© Babyl Private & Confidential

Patient journey in Physical facilities



1. MoH Referral, Teaching Hospitals
2. Provincial Hospitals
3. District Health Units/ District Hospitals.
4. Health Centers
5. Health Posts
6. Volunteer - Village Community Health Workers

© Babyl Private & Confidential

babyl

Using AI and Mobile to Empowering individuals to access quality health services

I. Patients Book an Appt using USSD “app”

II. A Triage Nurse calls the patient, 5 min triage appt.

III. If suitable for digital health, 7 min GP appt.

IV. Labs & Prescriptions sent as SMS code to be redeemed at ~500 facilities.

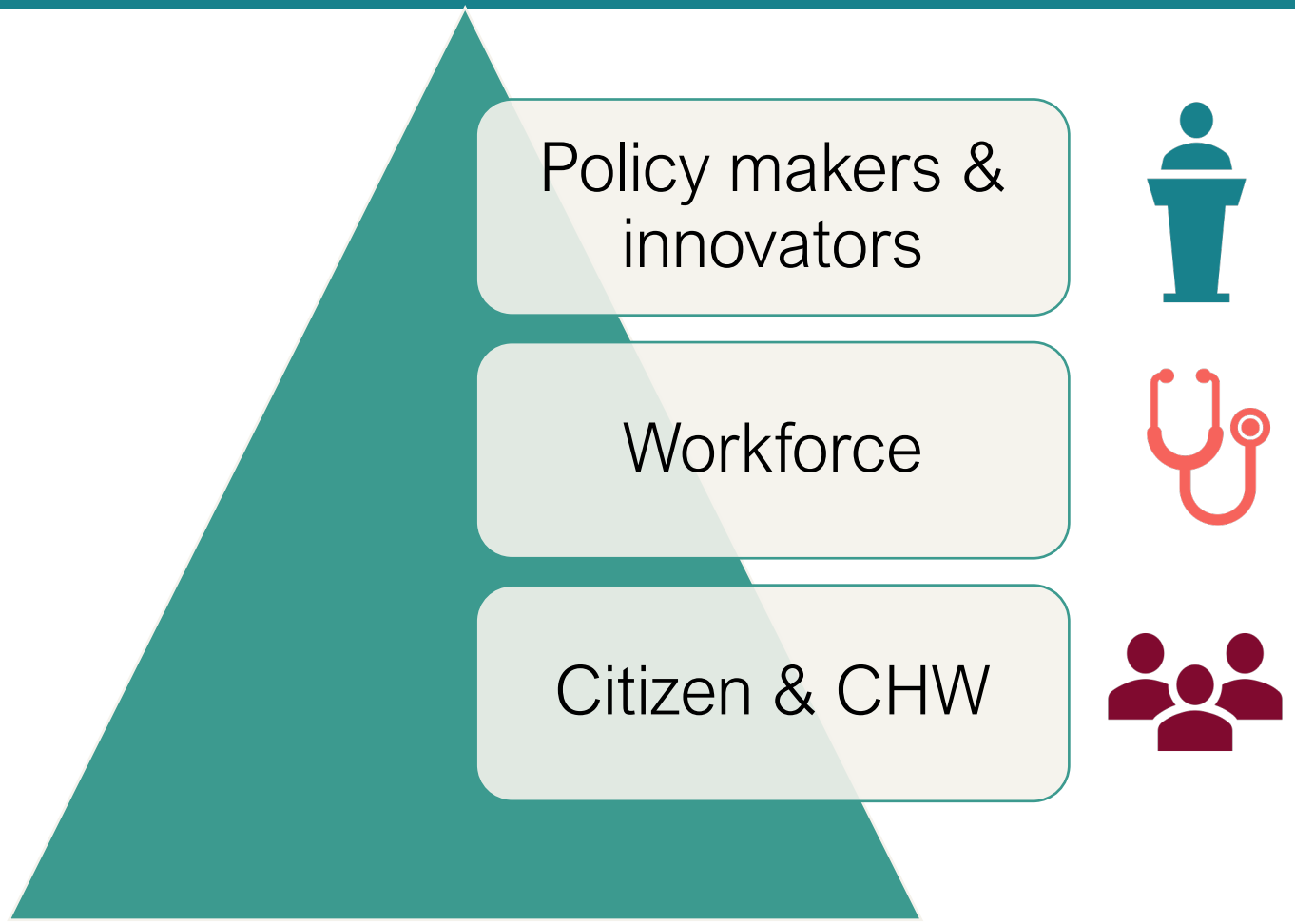
© Babyl Private & Confidential

- **2,400,000+** registered users
- **1,600,000+** medical consultations completed
- **3,000 - 3,500** consults/day
- **12,240** people trained on digital health
- **10 Year Contract** signed with the Government of Rwanda– March 2020
- Support GOR treat **Covid-19 patients**

© Babyl Private & Confidential

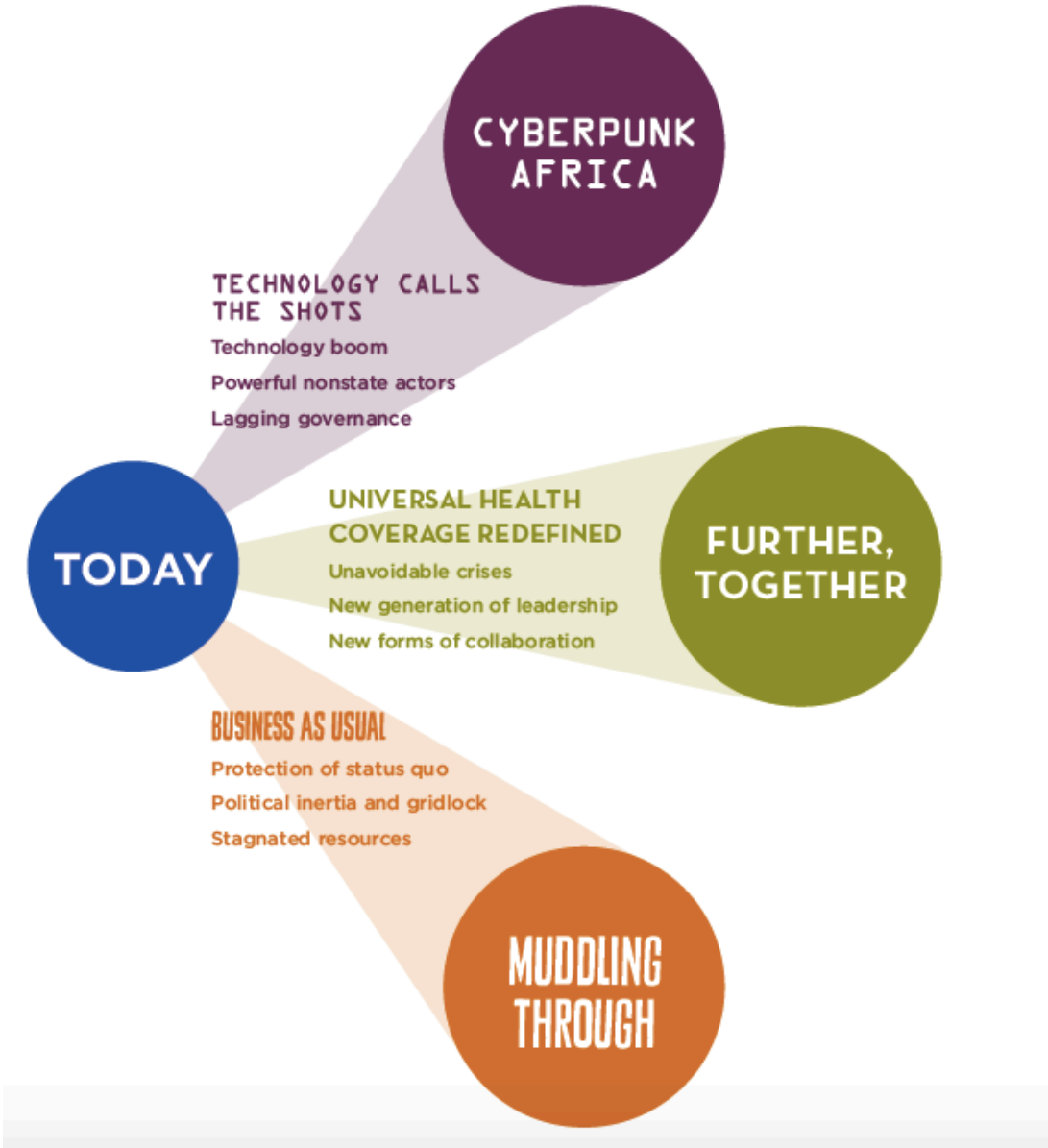
EducaTe: the talent challenge

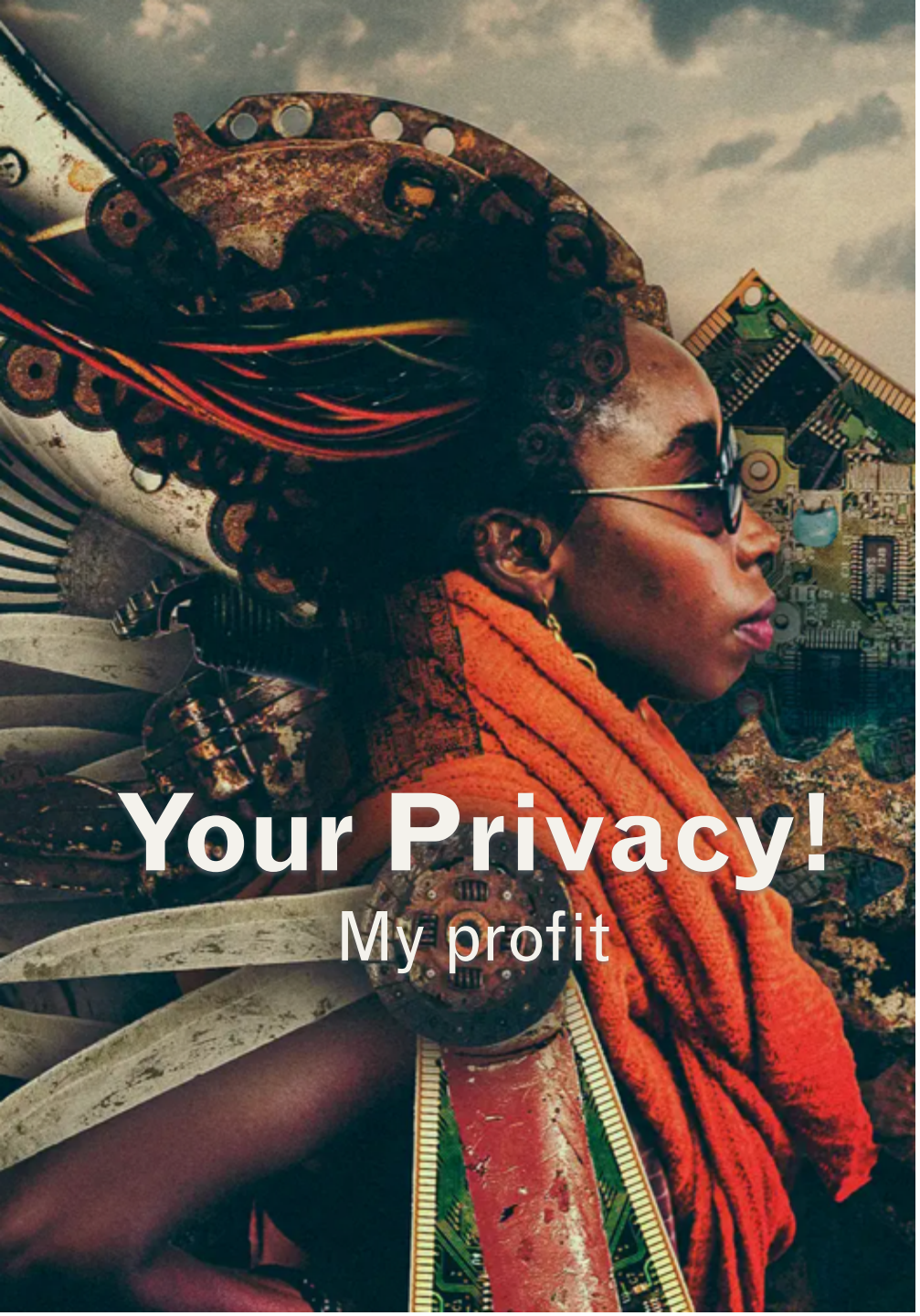
The e-Health digital talent pyramid



IntraHealth INTERNATIONAL
Because Health Workers Save Lives.

Future scenarios





CYBERPUNK AFRICA

WHO	Health data harvesters
	Formalized “gig workers” who provide part-time support
	Patients themselves aided by technologies
WHAT	Amplified capacities with AI-assisted tools
	Frequently learning and relearning skills due to technology evolution
	Providing high-quality, concierge-service for high income patients
CONDITIONS	Highly fluid health labor market with gig-economy-like sorting of workers
	Lower level of official accountability but reliance on patient reviews
	More black box diagnostic and care technologies

MUDDLING THROUGH

WHO	Existing tiers of licensed professionals with some formalized CHW
	Provisionally credentialed professionals
	Specialty clinics and care providers
WHAT	More NCD work but fragmentation continues
	Similar care as today with more tech tools
	More variability in care on the ground, even with same diagnosis
CONDITIONS	Accelerated public/private bifurcation with inequities in quality
	More expectations piled on frontline workers
	Care decision making authority shifts to insurance schemes

FURTHER, TOGETHER

WHO	Expanded set of health and well-being workers
	A large number of “enabling cadres” to support expanded services
	Indigenous healing techniques and support
WHAT	More preventive and social work and more crisis expertise
	More integrated, multi-sectoral services
	Health care tasks are shared and diffused – creating new professions
CONDITIONS	Emergence of new health leaderships beyond conventional structure
	Technological systems and greater standardization and control of care
	Borderless accelerated collaborations – dissolution of traditional boundaries

Preserved ← Health work power structure → Transformed

Harnessed

Benefits of Technology

Patchy

Muddling Through

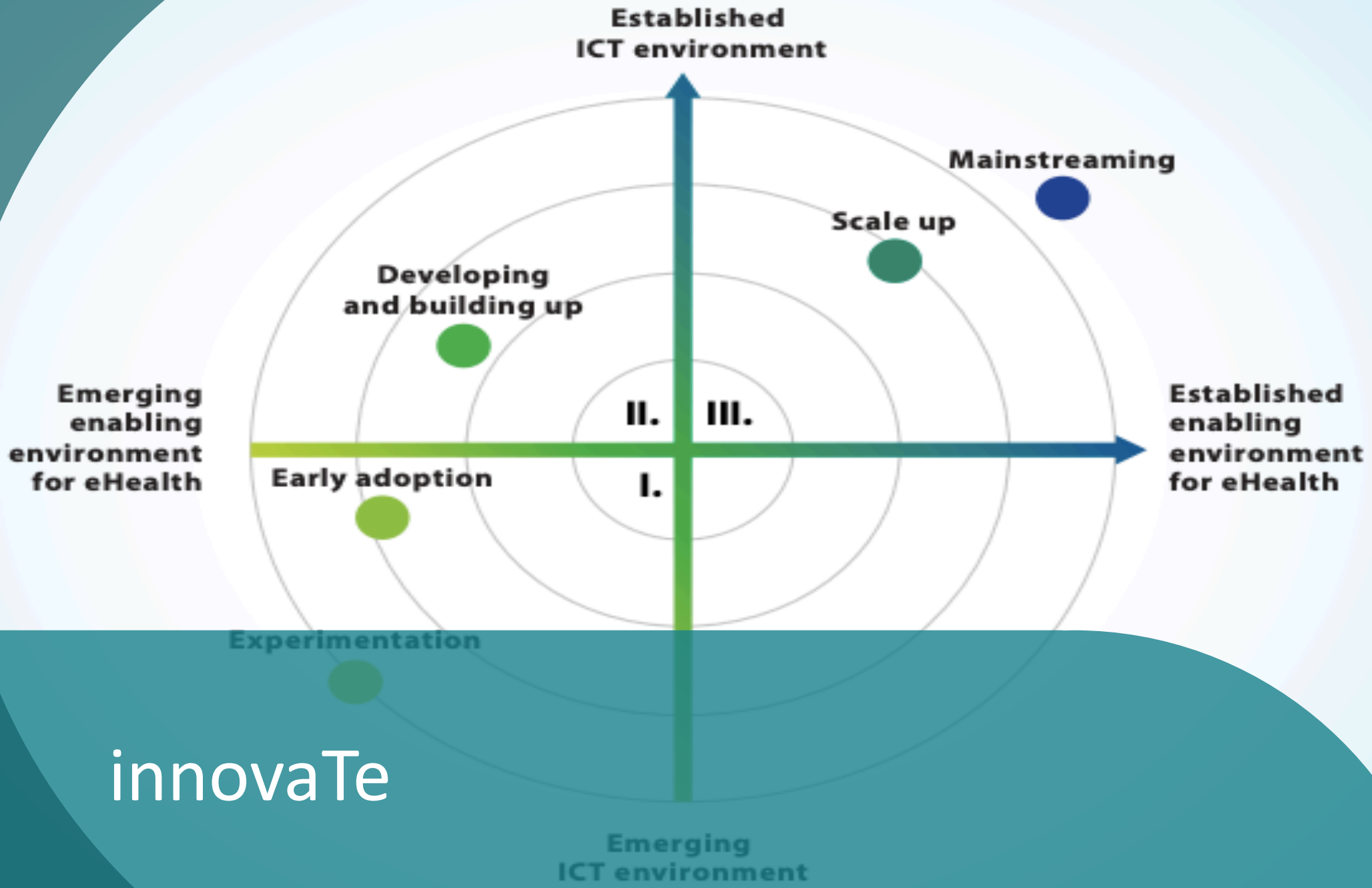
Status Quo and Patchy progress

Further, Together

Unified Africa for Health and Wellness

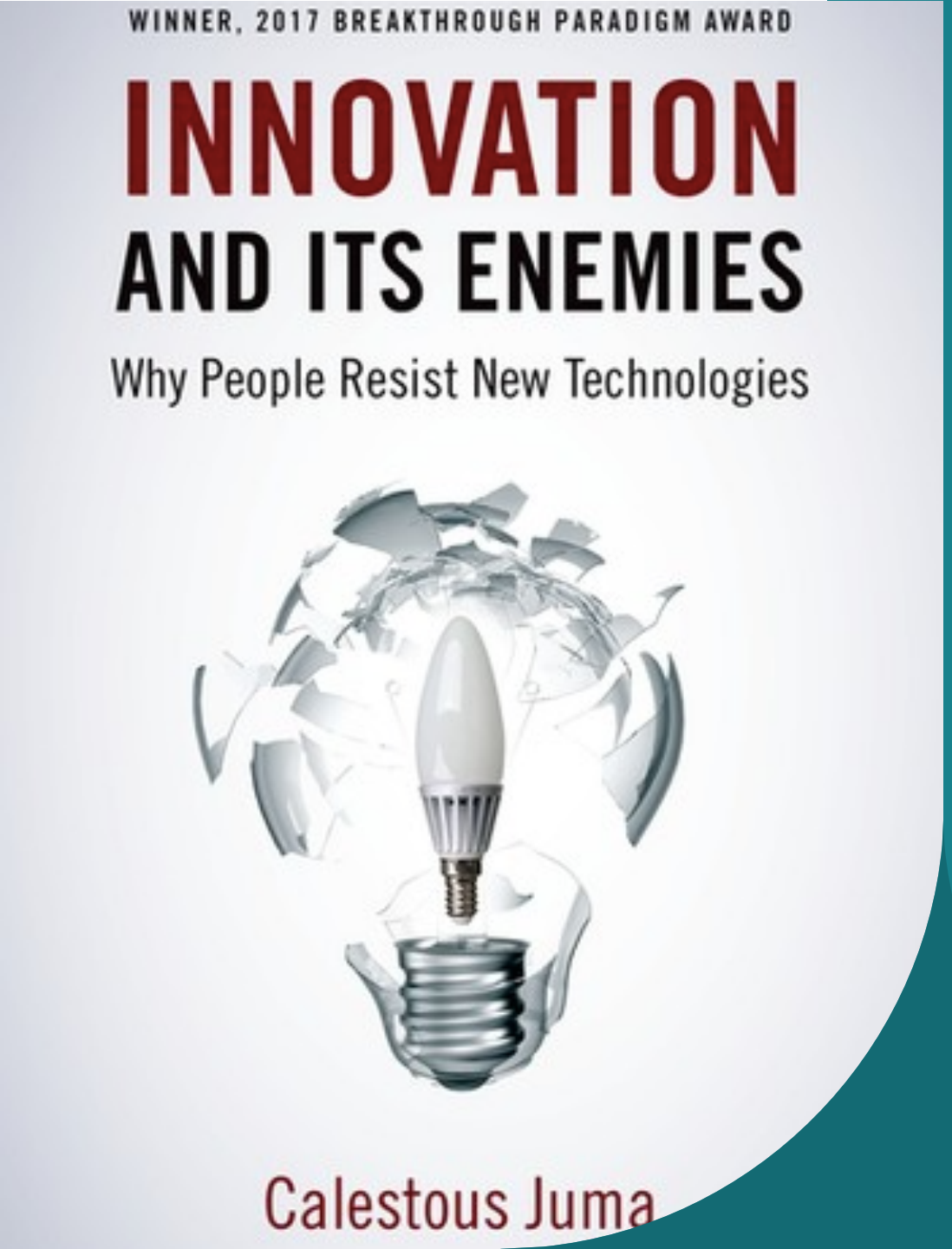
Cyberpuk Chaos

Winner takes all



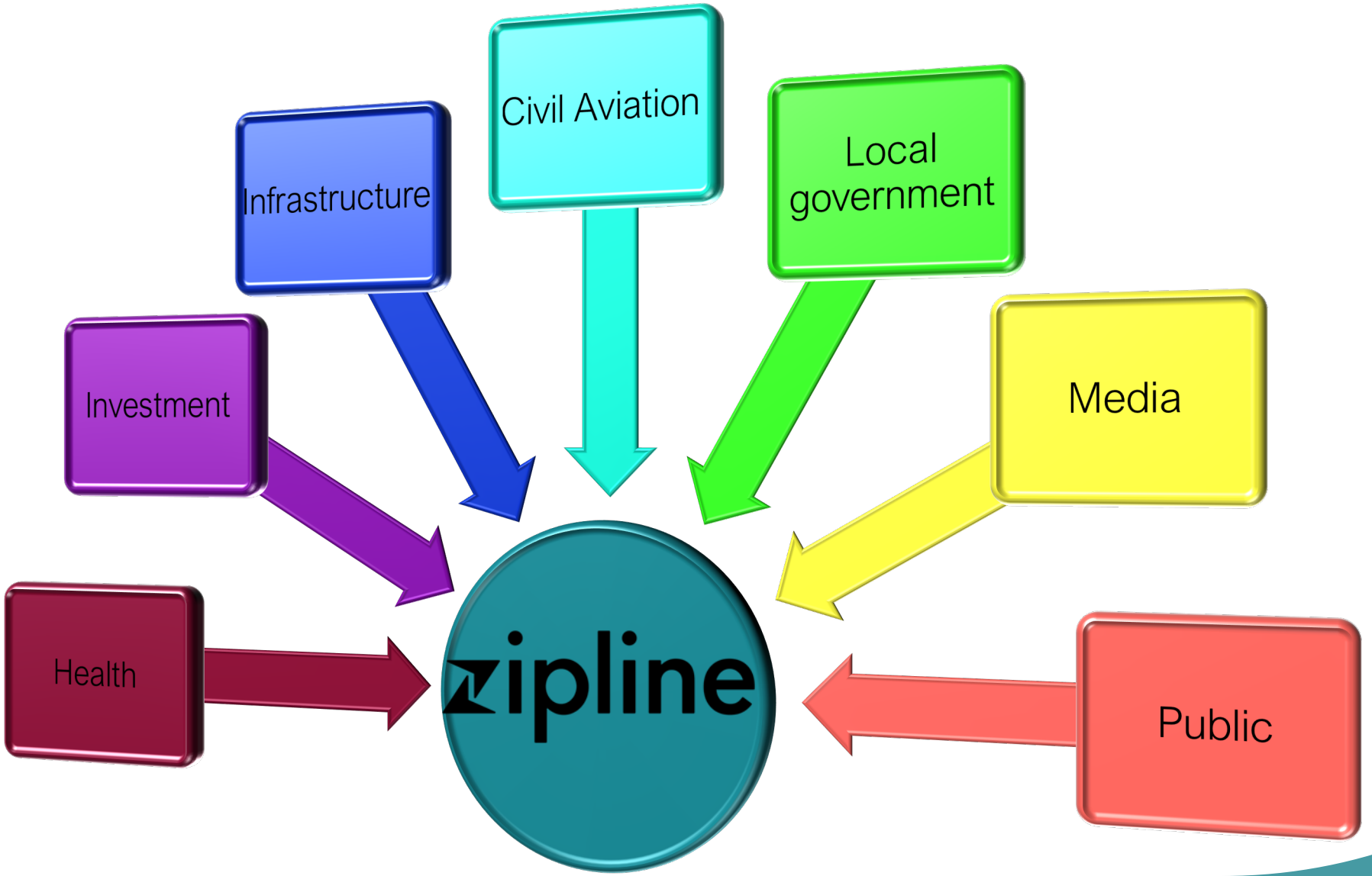
innovaTe

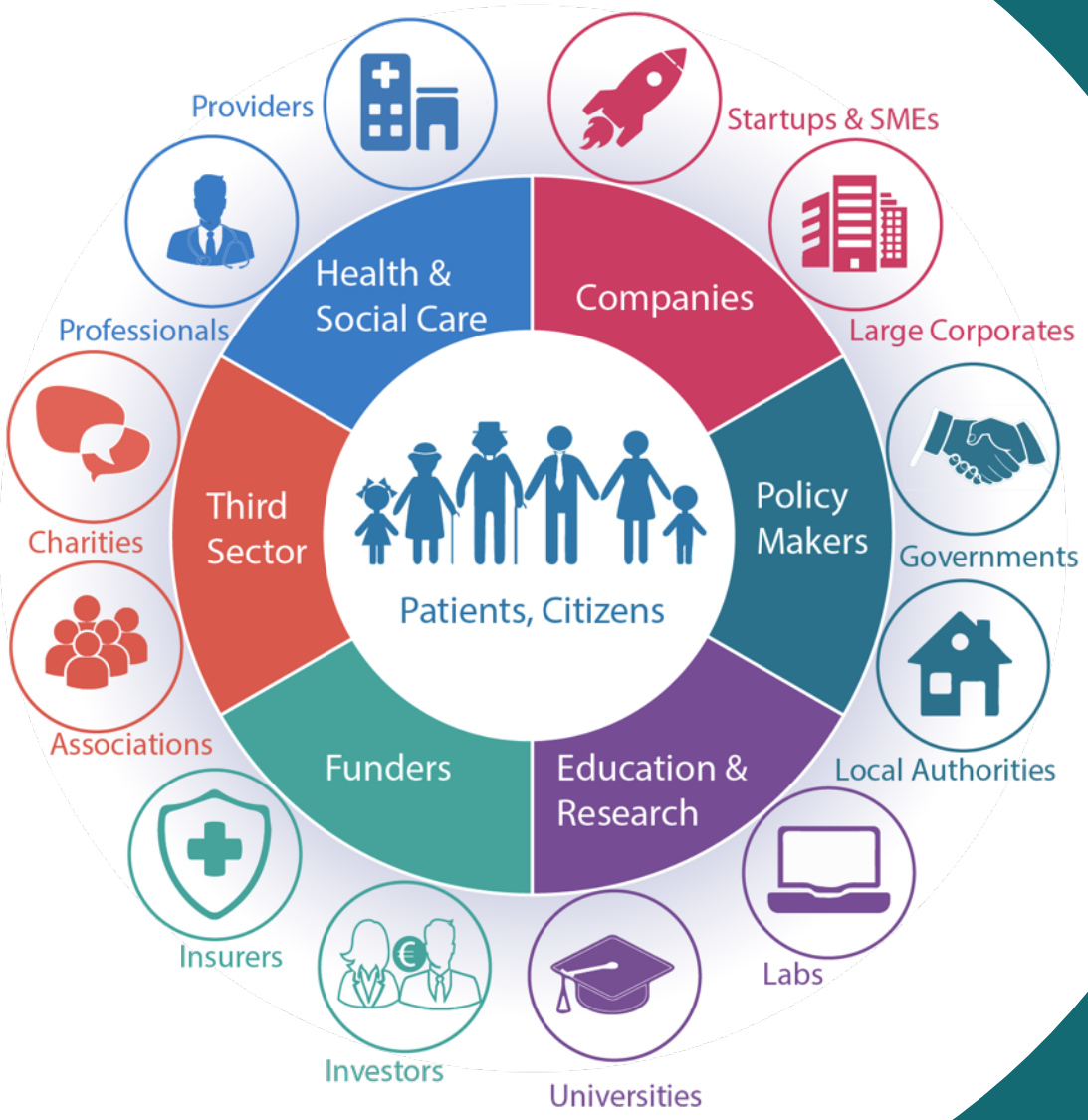
Source: https://apps.who.int/iris/bitstream/handle/10665/75211/9789241548465_eng.pdf?sequence=1&isAllowed=y



- In the United States products are safe until proven risky.
- In France products are risky until proven safe.
- In the United Kingdom products are risky even when proven safe.
- In India products are safe even when proven risky.
- In Canada products are neither safe nor risky.
- In Japan products are either safe or risky.
- In Brazil products are both safe and risky.
- In sub-Saharan Africa products are risky even if they do not exist.

Leadership and Governance





CoordinaTe

Source: https://echalliance.com/digital-health-malta-ecosystem-gathering-20th-november-18-report/

World class universities and think tanks – talent for all of Africa

- **2,000+** students and researchers across four premier universities, wi
- **50% international students:** Carnegie Mellon University, African Leadership University, University of Rwanda, African Institute for Mathematical Sciences

Tech hub leading Rwanda's digital transformation

- **Local understanding** to develop solutions for the African market
- **Knowledge transfer** blending international companies and a robu local market of companies and startups

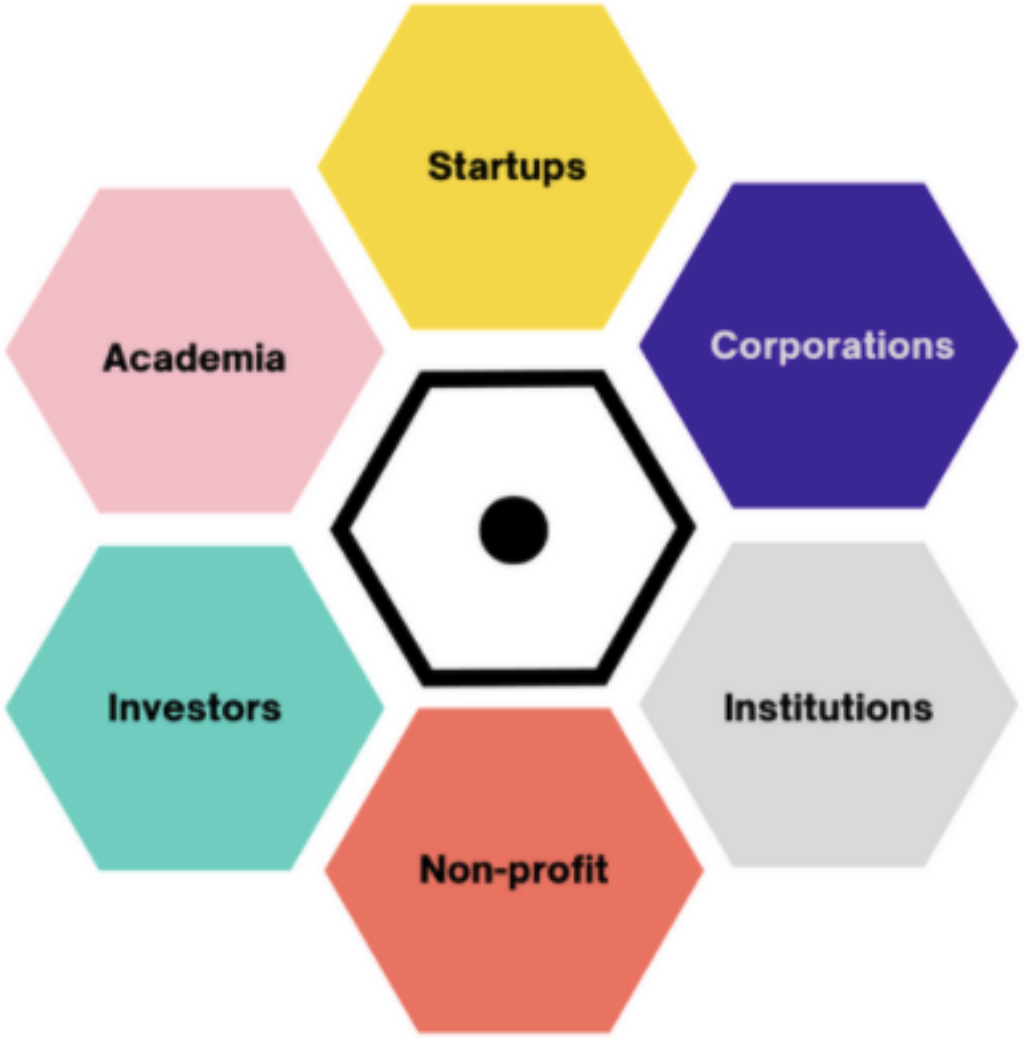
Access to agile capital and expertise

- **Rwanda Innovation Fund** to invest in early stage tech startups
- **Technology accelerators to drive the next wave of growth** (CMU, plus 2-3 private companies)

Strong GoR commitment

- **KIC as a flagship** government project in partnership with Africa50
- **Substantial investment** in infrastructure – KIC will be **a smart and green city**
- **Significant investor incentives** e.g., accelerated depreciation

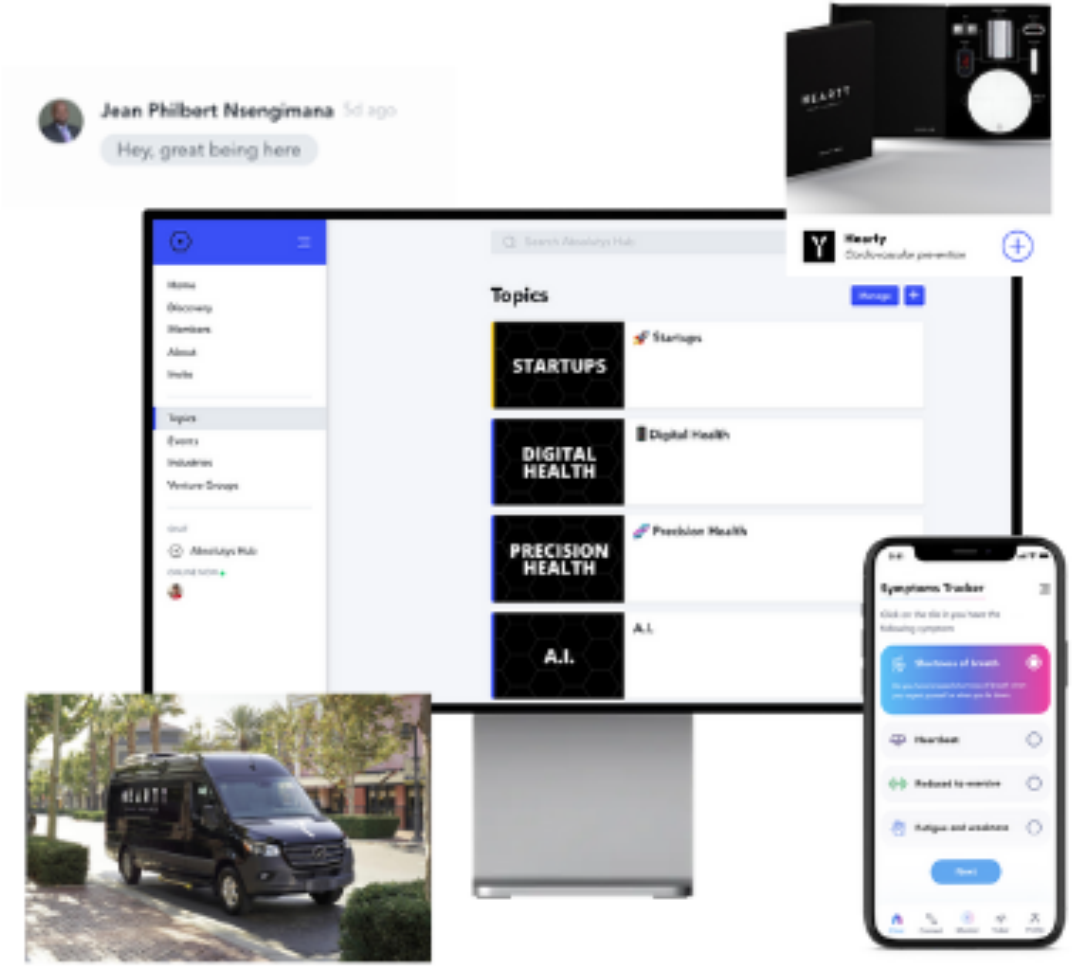
Absolutys: solving for Digital Health innovation ecosystem failure



ABSOLUTYS

The place to *build* - teams, skills, ventures

A venture building platform that partners with entrepreneurs, companies, nonprofits, and governments to build health ventures - virtually, collectively, globally

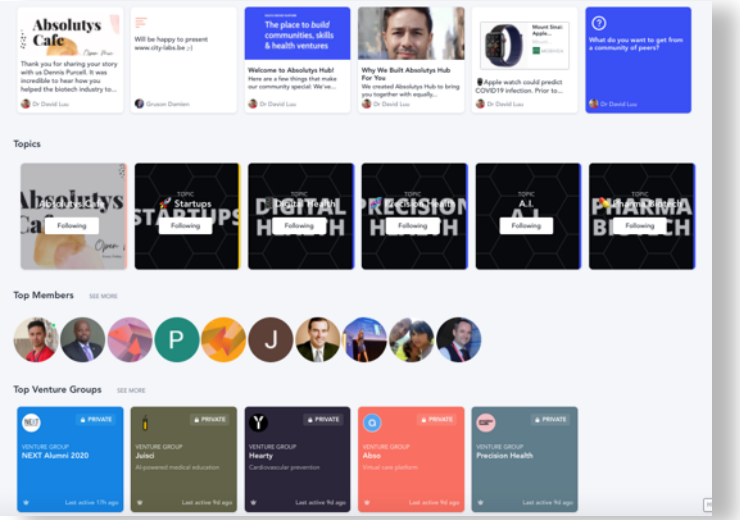


ABSOLUTYS

Venture Platform

Community Hub

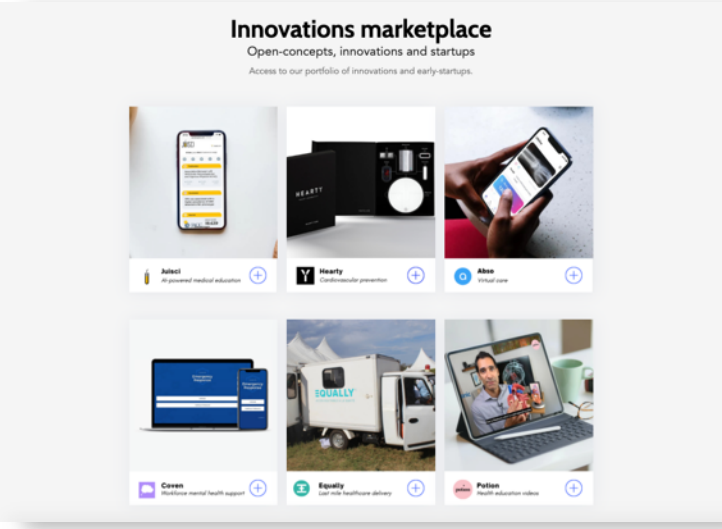
Network. Adacemy. Partnership.



+

Innovation Marketplace

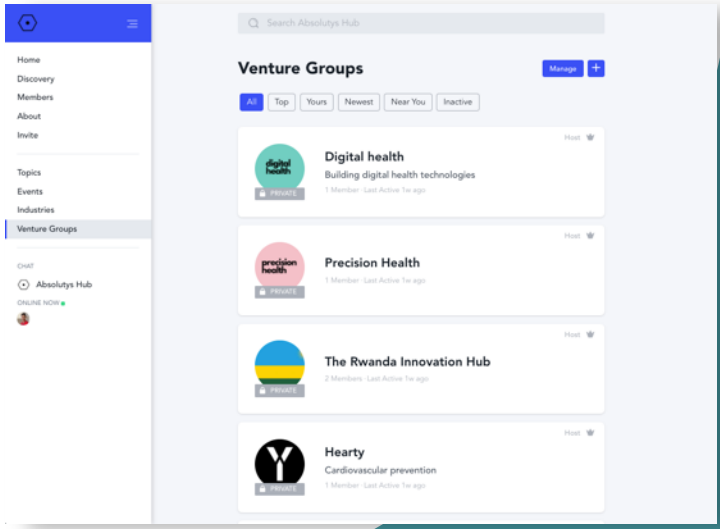
Innovations. Startups. Products



+

Startup Studio

Corporate innovation. Venture building



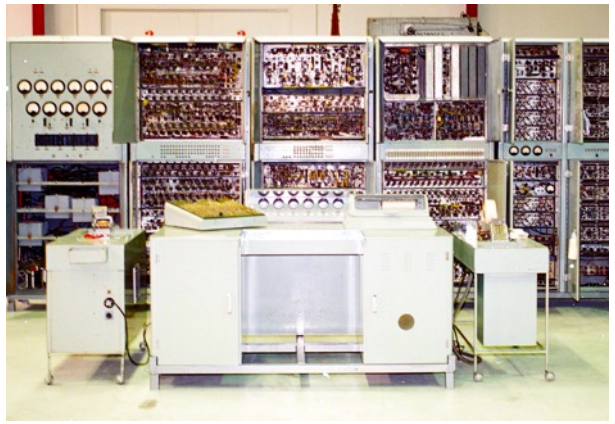
ABSOLUTYS

#INEVITABLEPROGRESS

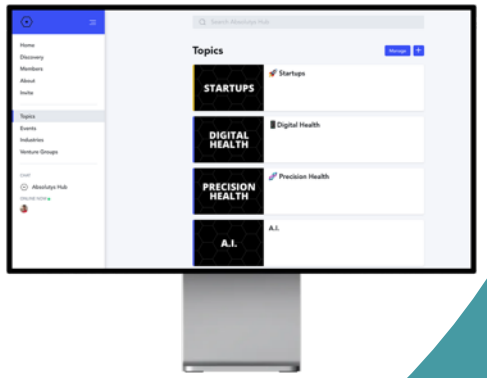
Innovations are now build in the cloud

Just like computer.

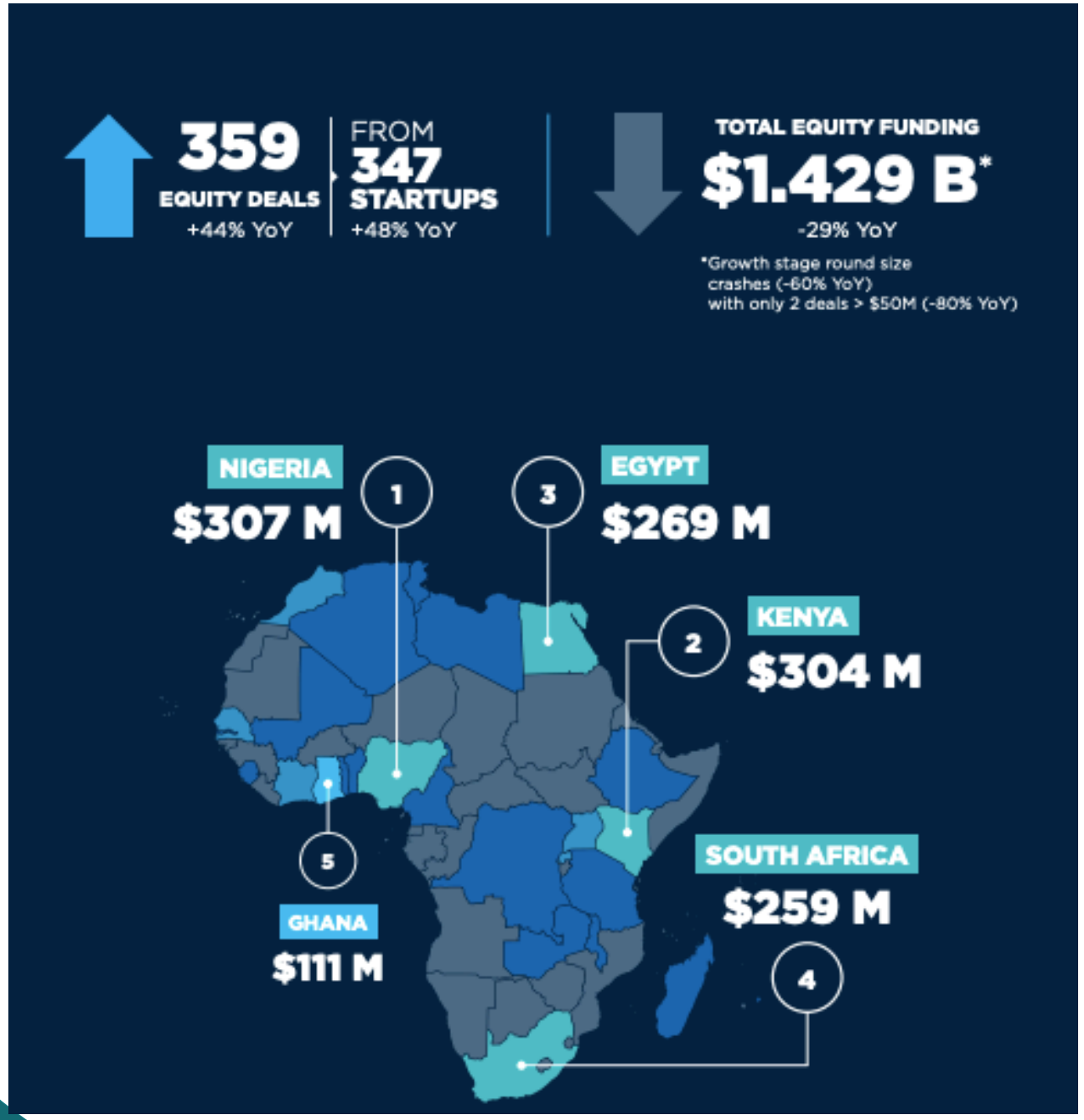
Computer



Innovation creation

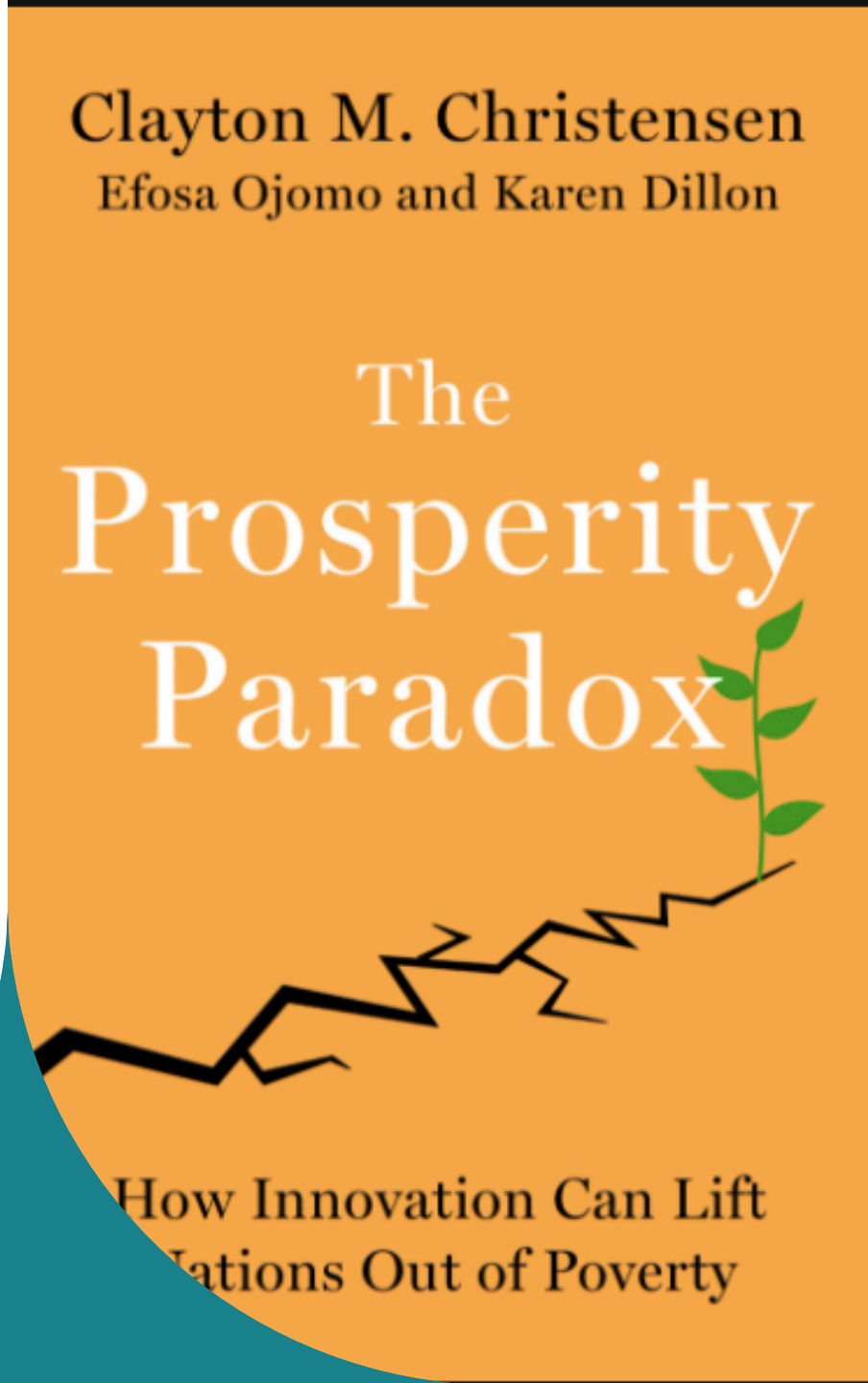


InvesT


359
EQUITY DEALS
+44% YoY
FROM
347
STARTUPS
+48% YoY
TOTAL EQUITY FUNDING
$1.429 B*
-29% YoY
*Growth stage round size crashes (-60% YoY) with only 2 deals > $50M (-80% YoY)
NIGERIA
$307 M
1
EGYPT
$269 M
3
KENYA
$304 M
2
SOUTH AFRICA
$259 M
4
GHANA
$111 M
5

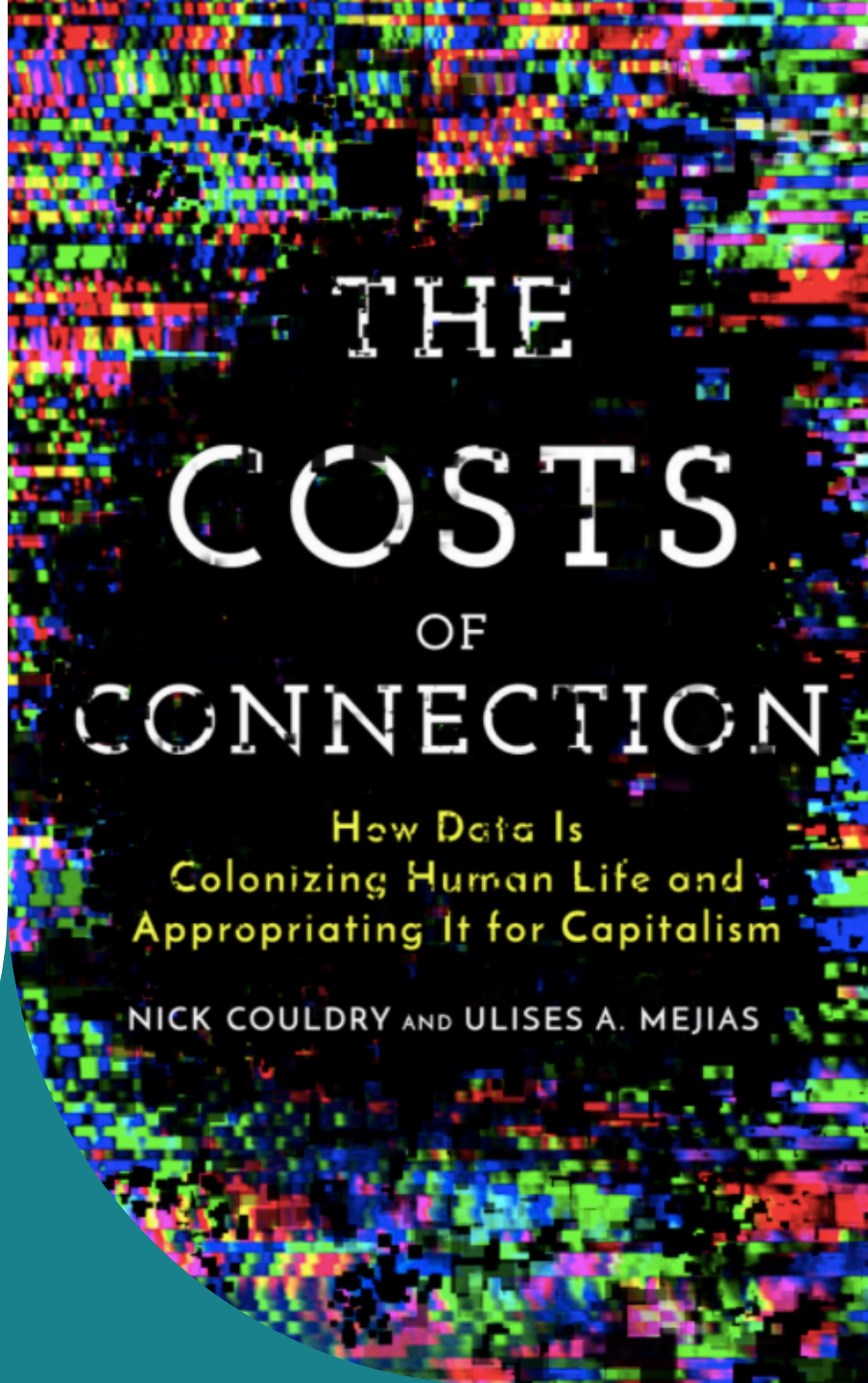
PromoTe

- **Drive** adoption and use, create demand, facilitate payments and reimbursement
- **Demonstrate** – Government to lead by example in using technology, improving the business environment.
- **Prevent** unintended consequences such as gender and rural/urban gaps.



RegulaTe

- **Foster competition: p**rovide a level playing ground for all
- Be flexible in the face of rapidly changing technologies
- **Protect:** consumers, the rights of citizen, especially the most vulnerable like children & the disabled
- **Defend** national economies against digital exploitation & colonization



- Participation
- Agency
- Choice
- Trust

The Commons Project
FOUNDATION

www.thecommonsproject.org

February 2021

Our beliefs.

We believe people have the right to derive value from their own personal information and that they alone should decide who else derives value from their data.

We respect privacy and believe that great technology products can be built and sustained in ways that don't derive value from people's data without their permission.

We believe in transparency and accountability at all levels.

We believe in equity and parity and aim to keep inclusivity at the heart of what we do. **We seek** to eliminate bias.

We endeavor to drive impact. We seek systemic change for the common good, not simply for the sake of change.

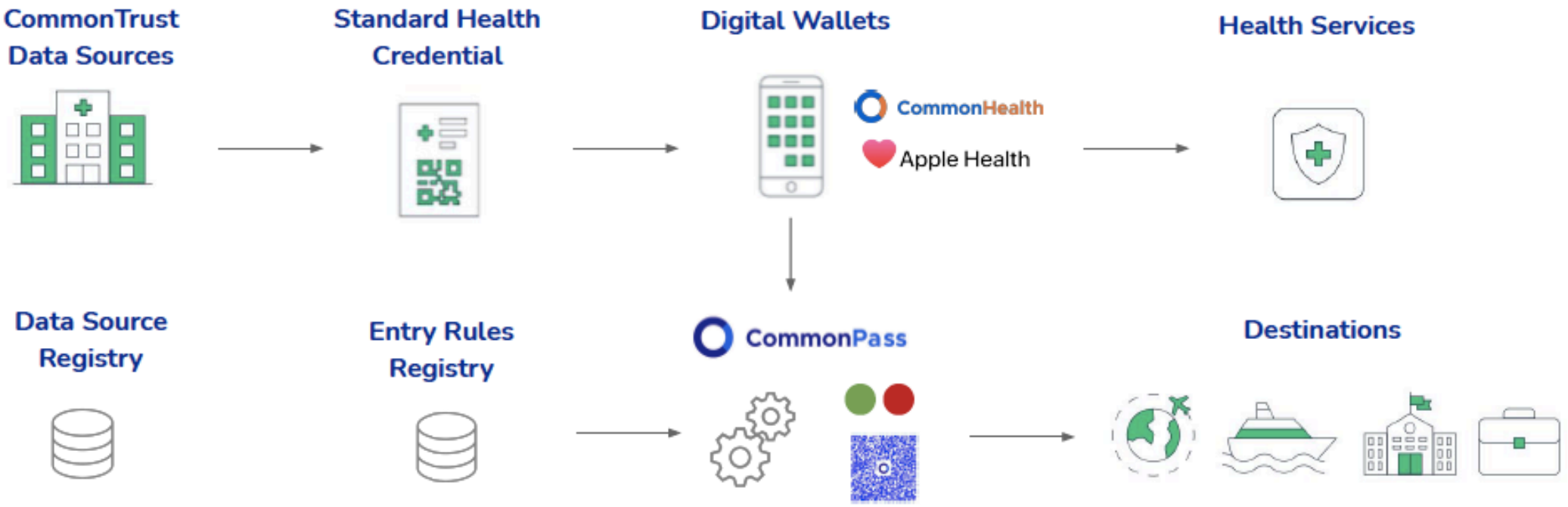
We believe that when platforms and services are built adhering to these principles, the benefit to all will be great.

CommonTrust Network

CommonHealth and CommonPass are built on the **CommonTrust Network**, a global network of public and private stakeholders committed to empowering individuals with digital access to their health information using open, interoperable standards so they can 1) protect and improve their health, and (2) demonstrate their health status to safely return to travel, work, school and life, while protecting their data privacy.

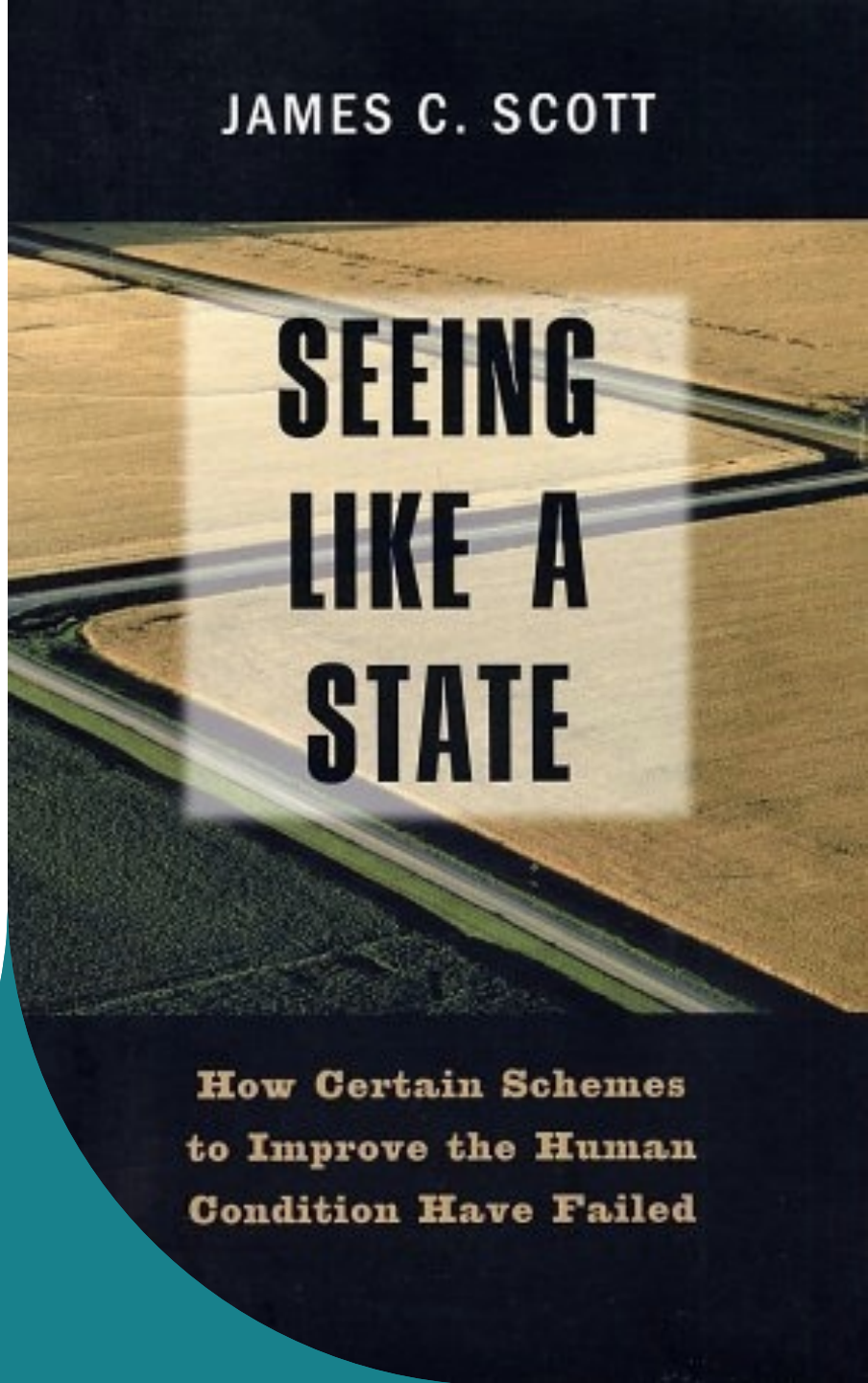
Launched in collaboration with:

WORLD ECONOMIC FORUM



QuiT

- The 10T model advocates for a lot of governmnt leadership and involvement
- This is about knowing when it's the right time to take a seat back and let the private sector and civil society drive the transformation.
- Sometimes doing nothing is more useful but also more difficult than doing something
- So, on the maturity model we saw earlier, one can add a thrird dimension to capture the role of Governments. At the early stage, Gov must be involved in availing the basic infrastructure, investing to create capacity and demand but as the business case becomes clear and innovators and corporations take over, Gov needs to be careful about competing with them and shift its focus towards policy, regulation and protection.

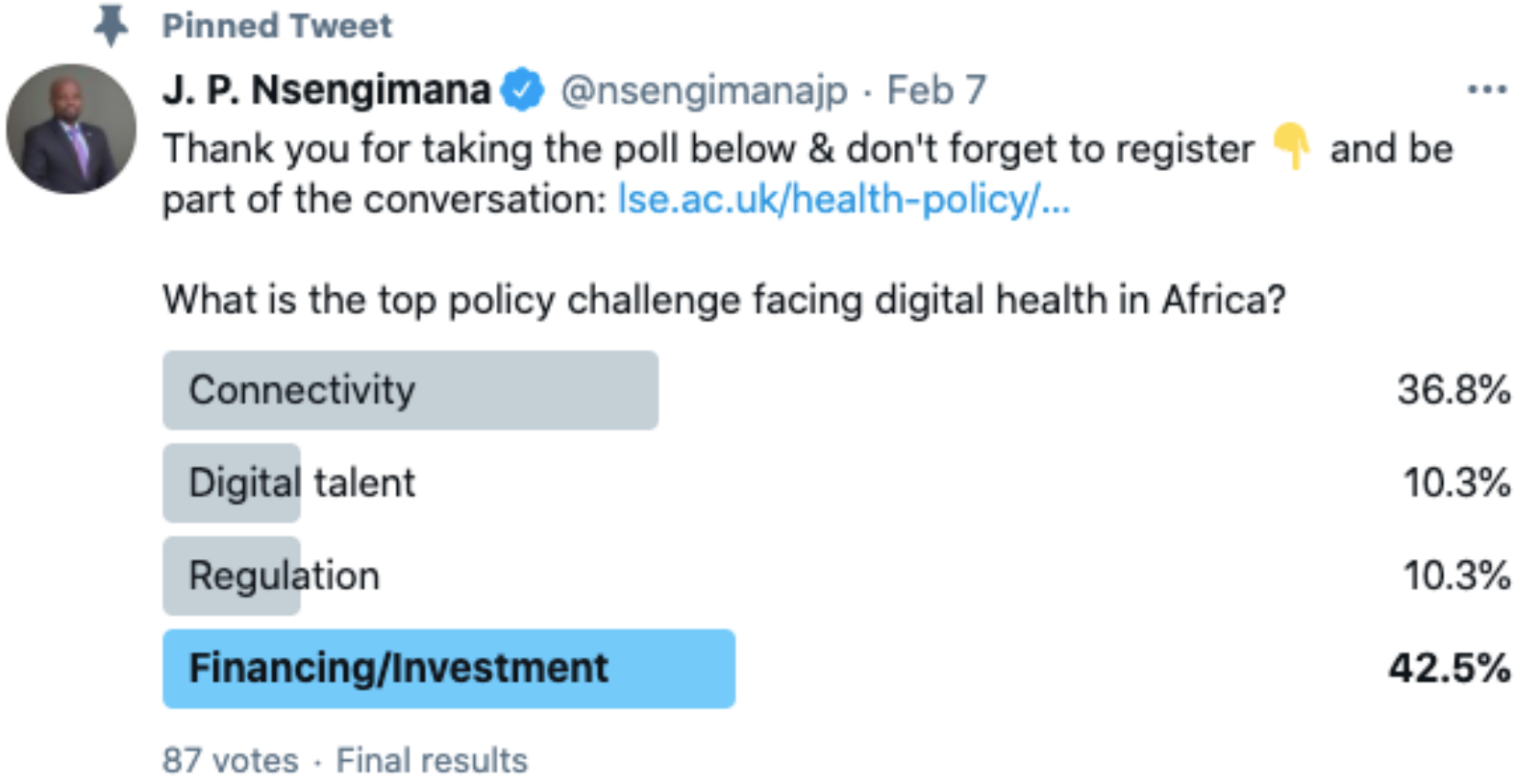


What does WHO – Afro think?

- **Strategy**: 34/47 WHO-AFRO countries had developed e-Health strategies
- **Challenges:** Funding, Governance, Data protection
- **Priorities:** Support countries to implement the e-Health strategies, involve Ministries of ICT and Telcos & Health workers Capacity Building in Digital Health.

World Health Organization

Regional Office for Africa



What does the public think?

Jean Philbert NSENGIMANA
Unlocking the full potential of technology and data for Africa's prosperity.
1w •

Thank you for taking the poll below & don't forget to register and be part of the conversation: https://lnkd.in/e-Yw3Qf

What is the top policy challenge facing digital health in Africa?

You can see how people vote. Learn more

Infrastructure / Connectivity	38%
Education / Talent / Capacity	19%
Leadership / Regulation	25%
Financing/ investment	18%

224 votes • Poll closed

What do you think?

- The 10 Challenges are interconnected.
- None of the e-health challenges is unique to Africa.
- COVID-19 has accelerated transformation but risks to drive African into a Cyberpunk.
- Africa is not a country but experiences and lessons are universaly relevant
- AfCFTA: Opportunities for better crossborder care innovation
- The window of opportunity for Leapfrogging is closing…fast.

“After all, universal health coverage is an opportunity, not a burden, in every respect” – Paul Kagame.

Thank you!