Digital Economy for Africa Initiative

Every African Individual, Business and Government to be Digitally Enabled by 2030
Digital Economy for Africa

- Digital Economy & Africa's development
  - Overview of the DE4A initiative
  - DE4A Approach to Digital Infrastructure
  - DE4A Approach to Digital Platforms
  - DE4A Approach to Digital Financial Services
  - DE4A Approach to Digital Skills
  - DE4A Approach to Digital Entrepreneurship
  - The Case for a Single Digital Market
  - How to get there?
Africa’s Digital Evolution Has Been Impressive, But Gradual Evolution Is No Longer Sufficient

Over last 5 years, entrepreneurship ecosystem, through incubators, accelerators and tech hubs, has grown 10-fold in Africa. SS Africa has the highest % of mobile money use in any region, showing that there are opportunities for leapfrogging with new financial technology.

North Africa Egypt and Djibouti have strong international connectivity links
Digital economy can unlock new pathways for inclusive growth, innovation, job creation, service delivery, and poverty reduction in Africa

• The continent has made great strides in mobile connectivity; however, it still lags the rest of the world in access to broadband.
  - Only 27 percent of Africa’s population has access to the internet,
  - few citizens have digital IDs,
  - businesses are slowly adopting digital technologies, and
  - only few governments are investing strategically in developing digital infrastructure, services, skills, and entrepreneurship.

• The digital transformation of Africa would foster economic growth and reduce poverty.
  - It has the potential to create more jobs, encourage entrepreneurship among the youth, increase farmers’ productivity, bring more women into the labor force, and create markets.
  - Reaching the Digital Economy Transformation Initiative targets would raise growth per capita by 1.5 percentage points per year and reduce the poverty headcount by 0.7 percentage point per year.
  - The potential growth benefits and poverty reduction effects are larger in Sub-Saharan Africa, and especially among fragile countries.
  - When complemented with appropriate human capital investments, these effects could more than double.

• Access to broadband is critical but not sufficient to materialize these digital dividends. The digital economy also requires a strong analog foundation, consisting of regulations that create:
  - a vibrant business climate and let firms leverage digital technologies to compete and innovate;
  - skills that allow workers, entrepreneurs, and government officials to seize opportunities in the digital world; and
  - accountable institutions that use the internet to empower citizens.
Digital Economy & Africa's development

Overview of the DE4A initiative

DE4A Approach to Digital Infrastructure
DE4A Approach to Digital Platforms
DE4A Approach to Digital Financial Services
DE4A Approach to Digital Skills
DE4A Approach to Digital Entrepreneurship
The Case for a Single Digital Market
How to get there?
DE4A initiative: the importance of adopting an ecosystem approach to reach Digital Economy

### Approach principles

<table>
<thead>
<tr>
<th>Comprehensive</th>
<th>Taking an ecosystem approach that looks at supply and demand and defies a narrow silo approach in defining the requisite elements and foundations for digital economy.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transformative</td>
<td>Aiming at a very different scale of ambition beyond incremental ‘islands’ of success.</td>
</tr>
<tr>
<td>Inclusive</td>
<td>Digital Economy for ‘everyone, in every place, and at all times’ creating equal access to opportunities and dealing with risks of exclusions.</td>
</tr>
<tr>
<td>Homegrown</td>
<td>based on Africa’s realities and unleashing the African spirit of enterprise to have more homegrown digital content and solutions, while embracing what is good and relevant from outside the continent.</td>
</tr>
<tr>
<td>Collaborative</td>
<td>dealing with the digital economy requires a different flexible ‘mindset’ requiring different type of collaboration among countries, among sectors and among Public and private players, facilitation, retooling and encouraging risk taking.</td>
</tr>
</tbody>
</table>

### Digital Economy foundations

- **APPLICATIONS LIKELY TO DEVELOP ONCE THE FOUNDATIONAL ELEMENTS ARE IN PLACE:**
  - GOVTECH applications
  - E-COMMERCE
  - OPEN BANKING: non-banks offer tailored services
  - DATA LOCKERS to access selected services

- **Cross cutting areas:**
  - Strong regulatory frameworks to foster competition and MFD agenda
  - Manage risks: data privacy, cyber security
  - Opportunity to empower women and apply to FCV

---

**DIGITAL ENTREPRENEURSHIP**

**DIGITAL FINANCIAL SERVICES**

**DIGITAL INFRASTRUCTURE**

**DIGITAL SKILLS AND LITERACY**

**DIGITAL PLATFORMS**

**USAGE**
DE4A initiative: Every African individual, business and government is Digitally Enabled* by 2030

**DIGITAL INFRASTRUCTURE**
- Universal Internet network coverage
- Affordable Internet for All at less than 2% of GNI per capita
- Interim Milestone Doubling broadband connectivity by 2021

**DIGITAL SKILLS**
- All 15 year old students with basic ‘digital skills’ competencies
- 100,000 graduates in advanced digital skills programs annually

**DIGITAL PLATFORMS**
- Doubling of Online Services Index rating for all Governments
- All individuals are able to prove their identity digitally
- At least 50% of the population regularly uses the Internet to access Government or Commercial services

**DIGITAL FINANCIAL SERVICES**
- Universal Access to Digital Financial Services
- Africa-wide payments infrastructure/platform in place

**DIGITAL ENTREPRENEURSHIP**
- Tripling the number of new digitally-enabled businesses created annually (TBC)
- Financing for Venture Capital to reach .25% of GDP (TBC)

* Being "Digitally Enabled" implies having digitally-enabled access to services, markets, opportunities. The WBG’s Digital Adoption Index may be a relevant indicator for measuring this, complemented by the headline measures above for the 5 foundations
Digital Economy for Africa

- Digital Economy & Africa's development
- Overview of the DE4A initiative
- **DE4A Approach to Digital Infrastructure**
- DE4A Approach to Digital Platforms
- DE4A Approach to Digital Financial Services
- DE4A Approach to Digital Skills
- DE4A Approach to Digital Entrepreneurship
- The Case for a Single Digital Market
- How to get there?
MFD Approach: Reforms and Investments Are Necessary Across the Internet Value-Chain

Africa’s First Mile
- Most countries are now connected!
- Abundance of cable connectivity in North Africa
- WBG has been actively involved

Africa’s Middle Mile
- Fiber backbone is an unfinished agenda for both SSA and Northern Africa

Africa’s Invisible Mile
- Policy and regulatory reform
- Cybersecurity and nonvisible areas all require development

Africa’s Last Mile
- Mobile internet is available in urban areas
- Dedicated / fixed internet for schools and offices is mostly NOT available
- Internet in rural areas is NOT available
- FTTH more advanced in Northern Africa and a long way to go for SSA
Business as usual not enough for doubling of broadband target: need for regionally harmonized policies to attract investment, digital infrastructure sharing regulations, new rural technologies, and new demand side applications

- Implementing MFD/Cascade with regional approach:
  - Policy reforms to lower entry barriers, encourage competition and investment
    - Alignment/ collaboration/ common work agenda between WB and IFC.
    - Adjust risk appetite to fund certain initiatives that are commercially viable but with high risks (e.g. FCV countries).

- Modernizing regulatory frameworks:
  - Infrastructure sharing, using capacity in existing infra. networks, dig & build once- Now standard requirement for all INF Projects- Part of DPO and reflected in bidding documents.
  - Competition policy, regulations, data privacy and security.

- Deploying menu of interventions to bring digital infrastructure to rural areas:
  - Incentive-based private sector models, more affordable taxation, licenses and rights of way, considering new promising technologies while remaining technology agnostic.

- Supporting demand side to increase penetration and impact:
  - Digital payments and e-commerce, work with human capital project teams on digital technologies for health and education facilities, support of government digital platforms.
Drones & Balloons

- Facebook & Google are piloting high-tech drones and balloons
- The solutions are lower-speed for short/medium term
- They help peri-urban and rural areas
- A commercial model at scale is yet to develop

Satellites

- New satellite solutions (LEO/HTS) are emerging (e.g. OneWeb)
- The solutions offer potential for higher quality and lower cost
- A commercial model at scale is yet to develop

TV White Space

- TV white space uses unlicensed wireless spectrum for internet
- Microsoft is piloting in Peru
- The solutions offer a lower-speed solution for short term
- A commercial model at scale is yet to develop

Leverage new (disruptive) developments in broadband for rural and remote areas

WBG to support business models that rely on new technologies, provided they are commercially sound and address demand needs
Ethiopia is one of the last three remaining telecom monopolies (along with neighbors Djibouti and Eritrea). State-owned EthioTel faces no competition. In June 2018, the Prime Minister announced a new program of sector reform, privatization and market liberalization. With WBG support, the Parliament passed on new Communications Proclamation, on 13 June 2019, which creates a framework for sector reform. The new Act creates a new, independent sector regulator – Ethiopian Communications Authority – which will guide the liberalization process. The Government has announced its intention to award two new full service licenses by December 2019. EthioTel is slated for partial privatization, with plans also to separate its infrastructure and services arms.

Telecom sector in Ethiopia has growth potential, esp. in mobile data and mobile money.
How to get there: Case Study 2 -- Mobilizing Finance for Development in the Union of the Comoros

**PPIAF grant (seed money)**

2012

**IDA grant**

US$72k TA grant

2013

**IBRD TA supporting IDA grant**

US$1m in national IDA and US$21m in regional IDA allocation

2014-15

**Private sector investment**

New law passed. Competitive tender for second mobile license

Telma invests US$45m in 4G mobile network and fiber backbone

2016-17

Regional operators Orange and SRR co-invest US$12m in FLY-LION3 cable with Comores Cables

2016-19

**Private sector investment**

IFC lending and IDA grant

IFC invests US$16m in Telma Comores. MIGA in negotiation. US$10m IDA Additional Financing

2017-19

**Private sector investment**

New market entry by ISP and mobile money operator. Incumbent (Comores Telecoms) invests US$31m from China Exim Bank loan to upgrade to 4.5G.

2018-19
Somalia’s fixed-line infrastructure was almost completely destroyed during the period 1990-2012 when the country had effectively no Government.

Nevertheless, private operators flourished, initially using satellite, and later using cellular mobile communications. The market is dominated by HTG (sister companies, Hormuud, Telesom and Golis).

With IFC assistance, the first international submarine cable arrived in December 2014, when Dalkom constructed a spur of the EASSy cable into Mogadishu.

Somaliland (which claims independence) is also connected through a terrestrial cable from Djibouti to Hargeisa. But elsewhere, the national backbone relies on satellite and microwave.

A new Communications Act, drafted with WBG assistance, signed by the President on 2 October 2017, creates an enabling environment for infrastructure development, and creates an independent sector regulator – National Communications Authority.
Digital Economy for Africa

- Digital Economy & Africa's development
- Overview of the DE4A initiative
- DE4A Approach to Digital Infrastructure
- **DE4A Approach to Digital Platforms**
- DE4A Approach to Digital Financial Services
- DE4A Approach to Digital Skills
- DE4A Approach to Digital Entrepreneurship
- The Case for a Single Digital Market
- How to get there?
Digital platforms provided by the public and private sector—and through hybrid models—can serve people, businesses, and government agencies in all aspects of life, including healthcare, education, commerce, tax filings, transportation, or public benefits.

By providing trusted venues and resources for digital transactions and connections, these systems, applications and services have the potential to transform the way people, governments, businesses, and civil society interact with each other.

The platform value proposition relies primarily on removing costly intermediation and transaction costs, increasing convenience, cost savings and economy of scale.

Digital platforms are the nucleus of the digital economy.
Digital ID and trust services provides verified identities, digital authentication and e-signatures for secure transactions.

- **Financial inclusion**
  - Removing barriers through eKYC
  - Enabling digital payments
  - Reducing risk for credit

- **Regional integration**
  - Safe & orderly migration
  - Cross-border services & payments

- **Women’s empowerment**
  - Direct payments & transfers to women in the household
  - Enforcing child marriage laws

- **Social protection**
  - Better targeting of beneficiaries
  - Eliminating leakages ‘ghosts’
  - Enable digital G2P payments

- **Health**
  - Health insurance for universal health care
  - Unique ID for healthcare delivery & tracking, incl. vaccinations

- **Education**
  - Removing barriers to enrollment
  - Improving EMIS

- **Social protection**
  - Better targeting of beneficiaries
  - Eliminating leakages ‘ghosts’
  - Enable digital G2P payments

- **Women’s empowerment**
  - Direct payments & transfers to women in the household
  - Enforcing child marriage laws

- **Regional integration**
  - Safe & orderly migration
  - Cross-border services & payments

- **Health**
  - Health insurance for universal health care
  - Unique ID for healthcare delivery & tracking, incl. vaccinations

- **Education**
  - Removing barriers to enrollment
  - Improving EMIS

- **Digital ID and trust services**

  - **INDIA:** In six years, financial inclusion increased from 35% to 80%
  - **PERU:** ID verifies beneficiaries to access universal health insurance, and enables tracking of vaccines
  - **PAKISTAN:** NADRA linked BISP payments to female head-of-household and had 12 female only enrollment centers; increased female enrollment by 100% from 2008-2014
  - **THAILAND:** Universal ID system enables stateless children to attend school

17
Digital Public Platforms

**Benefits**
- Increase people’s access to rights and services and improve their and end-to-end experiences with services
- Improve core government functions, governance and program administration
- Increase public engagement, accountability, and responsiveness
- Facilitate trade and economic integration
- Support private sector development

**Requirements**
- Design that is outcome- and context-based, user-centric, and uses open principles
- Strong legal, regulatory, and operational frameworks
- Whole-of-government approach
- Investment in digital skills and literacy
Service delivery platforms (GtoC/GtoB)
Core Government back-end systems (GtoG)
CivicTech (CtoG)

Interoperability + Shared Services

From cumbersome/costly access to services to Citizen Centric, Transparent and Accessible services

RWANDA: E-procurement verifies tax register to confirm company’s tax standing and company register against list of debarred firm

MADAGASCAR: Identified 100,000 unregistered potential tax payers following interoperability between tax and pension registers

A whole of Government & Citizen Centric Approach to Applications for Government Services, Functions and CivicTech
Digital Commercial Platforms

Opportunities

- **Reallocation of economic activity**: lower transaction costs, lower search costs, lower prices of intermediate and final goods, better quality of products and services.

- **Creation of new activities**: tap into spare physical or human capacity and identify new market niches. Thus, they create of new jobs, improve financial inclusion, and increase women labor force participation.

- **Support to government by sharing data/SMEs lifting**: (i) fighting tax evasion, (ii) making formal the informal, (iii) helping SMEs upgrade quality of their products/services and better comply with sector specific standards.

Risks

- **Growing dominance of one platform** due to indirect network effects and the “winner-takes-all” characteristic of the market.

- **Anticompetitive practices** like exclusion of competitors warrants regulator’s attention.

- **Spontaneous deregulation despite the need to build trust**. Platforms often tend to be in tension with existing regulatory frameworks.

- **Use of data as a new source of market power**. The increased collection and use of data can also result in negative welfare effects if it is used to exclude rivals from the market to the detriment of consumers.
Fostering Platform Creation, Adoption, Expansion & Market Contestability

Data partnerships
- LinkedIn
- Airbnb
- Mastercard & Visa

Diagnostics, New Data, Flagship Reports
- Flagship reports to create global knowledge.
- Survey on private sector digital platforms to understand barriers for platform creation, adoption, and expansion.
- Big data initiatives

Agile and New Regulations
- Antitrust 2.0
- Consumer protection
- Data
- Sectoral regulation
- Privacy

Interventions to foster platform, creation and adoption
- Using digital tools to facilitate access to markets and scale-up the demand.
- Business Plan Competitions & Investment Readiness to facilitate access to funding

Egypt, Tunisia, Jordan, Palestine, Morocco

Global Understanding of markets

ECA, Kenya

Fostering Platform Creation, Adoption, Expansion & Market Contestability
Digital Economy for Africa

- Digital Economy & Africa's development
- Overview of the DE4A initiative
- DE4A Approach to Digital Infrastructure
- DE4A Approach to Digital Platforms

**DE4A Approach to Digital Financial Services**

- DE4A Approach to Digital Skills
- DE4A Approach to Digital Entrepreneurship
- The Case for a Single Digital Market
- How to get there?
Digital Financial Services open up opportunities in the Digital Economy

FinTech innovations and services (such as digital credit through ecommerce, P2P lending, mobile payments, and tailored products offered through APIs) are transforming the business model for reaching the un/under served.

The share of SSA adults with a mobile money account doubled since 2014—to 21%. This is the highest % of mobile money use in any region.

Half of unbanked adults in SSA (160 million) own a mobile phone, so there is significant potential growth.

28% of the unbanked in Africa indicated that a lack of ID was a barrier to opening an account.

Digitizing government payments, remittances, SME payments, and value chain payments, enables participation in the digital economy, and drives progress towards the goal of Universal Financial Access by 2020.

Source: Global Findex database.
Note: Data are displayed only for economies in Sub-Saharan Africa.
Role of Fintech in the DE4A initiative

- Transaction account and payment product design
- Readily available access points
- Awareness and financial literacy
- Leveraging large-volume recurrent payment streams

- Data-sharing platforms (e.g., credit reporting system)
- Identification infrastructures
- Core banking systems
- Automated clearing house
- Interbank payment card processing platform
- Large-value interbank gross settlement system

More people who have an account are using it for digital payments

Source: Global Findex database.
Digital Economy for Africa

- Digital Economy & Africa's development
- Overview of the DE4A initiative
- DE4A Approach to Digital Infrastructure
- DE4A Approach to Digital Platforms
- DE4A Approach to Digital Financial Services
- **DE4A Approach to Digital Skills**
- DE4A Approach to Digital Entrepreneurship
- The Case for Single Digital Market
- How to get there?
Employers across Africa note skill gaps as a major constraint to their ability to compete in the global digital economy. A shortage of technical talent impedes productivity and innovation in African businesses.

Technological adoption and innovation depend on tech-savvy skills to help drive innovation.

Enrollment in education has increased in Africa, but basic numeracy and literacy indicators remain low.

Could HCI could be expanded to cover Digital Literacy/Skills?
Digital Economy for Africa

- Digital Economy & Africa's development
- Overview of the DE4A initiative
- DE4A Approach to Digital Infrastructure
- DE4A Approach to Digital Platforms
- DE4A Approach to Digital Financial Services
- DE4A Approach to Digital Skills

- **DE4A Approach to Digital Entrepreneurship**
- The Case for a Single Digital Market
- How to get there?
African entrepreneurs are using digital technologies to create innovative solutions to development problems.

African countries have the highest Total Early-stage Entrepreneurial Index, well above developed & emerging countries.

Over last 5 years, the entrepreneurship ecosystem, through incubators, accelerators and tech hubs, has grown 10-fold in Africa.

Yet, digital entrepreneurship ecosystem in Africa is still nascent.

Entrepreneurs cite lack of access to venture finance as the biggest impediment.

Entrepreneurs operate in a weak business environment that includes unclear and complex laws and regulations, cumbersome procedures and unnecessary costs.

Growing number of Angel networks and Active Tech Hubs per 100 inhabitants. Source: GSMA 2016 Data, ITU 2016 Data.

Total Early-stage Entrepreneurship Index, Global Entrepreneurship Monitor

Nigeria (2013) 39.9
Ghana (2013) 26.0
Senegal (2015) 38.6
China 9.9
India 9.3
France 5.3

Digital Entrepreneurship to bring the Digital Economy to life
# Digital Entrepreneurship Ecosystem Support Policy Actions

Policies are not directly transferable; they need to be adapted to ecosystem’s local (urban/regional) needs/gaps and circumstances

<table>
<thead>
<tr>
<th>Policy Area</th>
<th>Nascent Stage</th>
<th>Advancing Stage</th>
</tr>
</thead>
</table>
| **Community:** Developing and strengthening community of entrepreneurs | • Competitions, meetups, promotion  
• Networking spaces: Co-working; Accelerators | • Scale-up spaces  
• Industry-startup labs/co-creation hubs |
| **Skills:** Increasing skills pipeline for founders and teams | • Tech and Business rapid skills trainings; bootcamps  
• Increasing university-level technology and business skills/graduates | • University-industry matching apprentices platforms  
• Advanced R&D/frontier technology centers and labs |
| **Supporting Infrastructure:** Increasing quantity and quality of accelerators and mentors | • Strengthen accelerators  
• Attraction of mentors; creating networks of mentors  
• Retention of experienced founders | • Industry open innovation and vertical accelerators  
• Increase quality and volume of experienced founder mentors |
| **Funding:** Creating and expanding seed and scale-up funding | • Creating and attracting VC funds and angel networks  
• Redirecting Corporate VCs | • Increase competition and volume at ladder of investment levels  
• Increase scale-up funding; expand public/private capital markets |

Digital Economy for Africa

- Digital Economy & Africa's development
- Overview of the DE4A initiative
- DE4A Approach to Digital Infrastructure
- DE4A Approach to Digital Platforms
- DE4A Approach to Digital Financial Services
- DE4A Approach to Digital Skills
- DE4A Approach to Digital Entrepreneurship

- The Case for a Single Digital Market

- How to get there?
Thinking Big: The Case for Digital Integration and Cooperation Towards Single Digital Market

Greater Cooperation + Market Integration to build a seamless, dynamic, and competitive regional digital ecosystem and unlock the potential of African Digital Economies
Digital Economy for Africa

- Digital Economy & Africa's development
- Overview of the DE4A initiative
- DE4A Approach to Digital Infrastructure
- DE4A Approach to Digital Platforms
- DE4A Approach to Digital Financial Services
- DE4A Approach to Digital Skills
- DE4A Approach to Digital Entrepreneurship
- The Case for a Single Digital Market
- How to get there?
How to get there: Leveraging WBG Instruments and Convening Power to ignite the DE4A initiative

Digital Reform Program:
Technical Assistance and Development Policy Operations (DPOs) at national and regional levels to address critical legal, policy and regulatory bottlenecks holding back development of the digital economy.

Digital Investment Program:
Financing to address gaps in the digital economy foundations at national level and market integration at the regional level through a Multi-Phased Approach (MPA) IPF. MFD would be emphasized to leverage private sector investments.

Thought Leadership and Donor Coordination:
Supporting development of the DE4A Initiative Action Plan and mobilizing donor support for individual elements of the plan; DE4A country diagnostics. Publication of an annual flagship DE4A report.
### All Hands on Deck: Partnerships Are Critical to Achieve the DE4A objectives

**African Union, Regional Institutions**
- Partnership at the level of Heads of State through African Union, in line with moonshot goal.
- Identifying regional champions based on commitment, demand, and potential impact.

**Private Sector Leaders**
- Google
- GSMA
- Microsoft
- Airbnb
- Andela
- Alibaba Group

**Partners**
- Bill & Melinda Gates Foundation
- AFI
- Code for Africa
- Seedstars
- UNCDF
- Norad
- FSD Africa
- JICA
- USAID