



SEE  
WHAT  
OTHERS  
CAN'T™



# Esri in Africa

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**1.2**  
**Billion**  
people

## Size & Population

- Most of the world's leading economies can fit within Africa's footprint
- 1.2 billion people and growing
- Mega cities becoming the norm

FRANCE

GERMANY

SPAIN

ITALY

USA

INDIA

CHINA

JAPAN

UK

**25%**  
share of global  
population growth

**7**  
mega-cities





# Economic Growth Center

- \$2.2 trillion GDP
- Continued growth impacted by global trade fluctuations
- 11% rise in foreign investment

**\$2.2**  
Trillion  
GDP

**6**

of the world's fastest  
growing economies

Senegal

Cote D'Ivoire

Ghana

Ethiopia

Rwanda

Tanzania



# Ease of doing Business

- 5 of 10 most improved countries in the World Bank's Ease of Doing Business
- Diversified economies
- The new African Continental Free Trade Agreement will enlarge access to markets

**30%**

growth in mobile payments

Cote D'Ivoire

Togo

Djibouti

Kenya

Rwanda

**400**

companies with revenue over \$1bn



# Technology & Innovation

- Sub-Saharan Africa is fastest growing region of mobile subscribers (4.6% CAGR)
- ICT related industries will foster regional trade, integration and economic growth



**600  
MILLION**

people in sub-Saharan  
Africa will have mobile  
internet by 2025

**40%**

of internet penetration

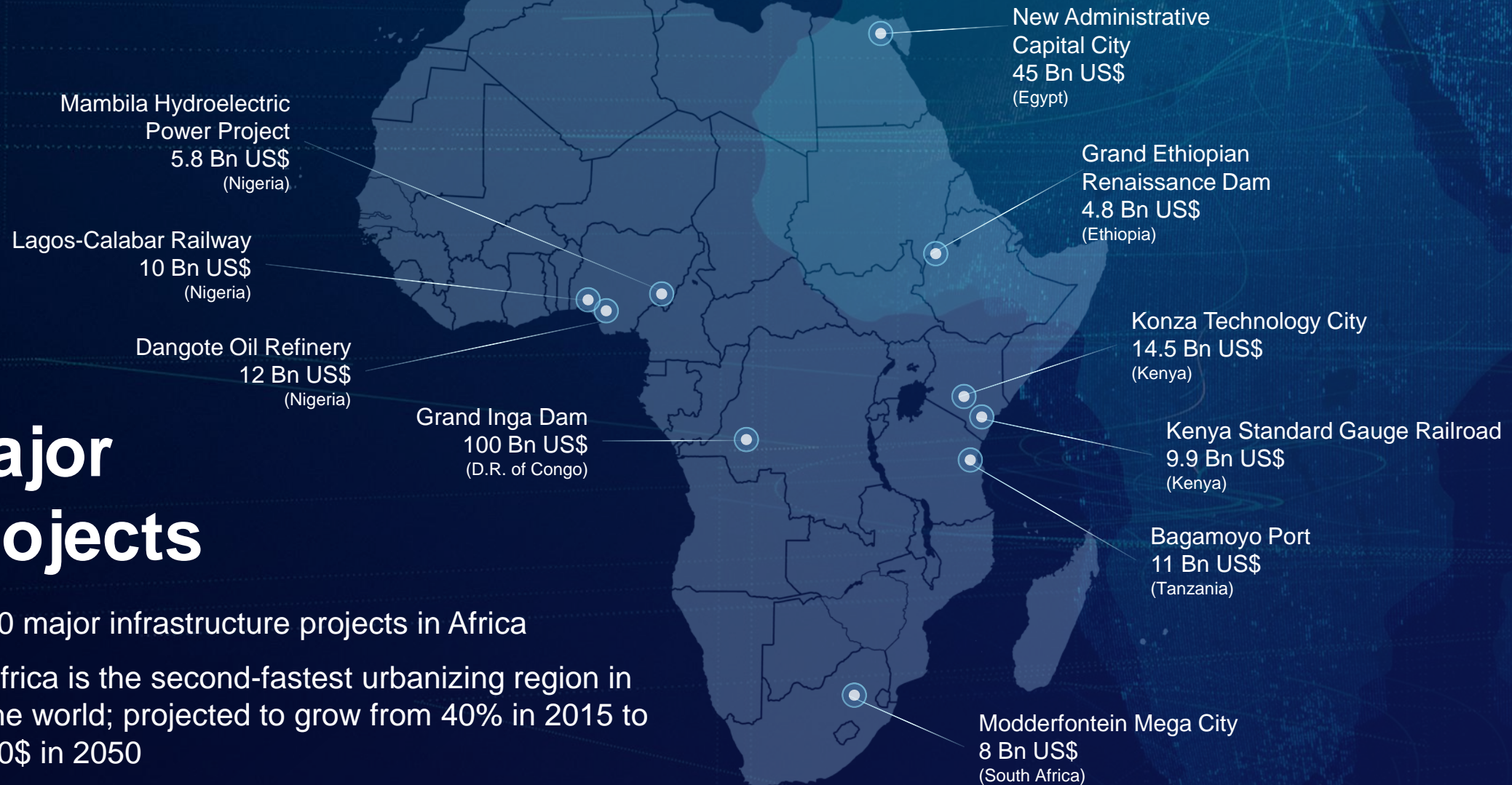
**20%**

increase of internet  
usage per year



# Major Projects

- 10 major infrastructure projects in Africa
- Africa is the second-fastest urbanizing region in the world; projected to grow from 40% in 2015 to 60% in 2050
- Increasing Smart City projects across the continent





# Major projects need to be mapped

## To plan

- Where is key from strategy to decision
- Detailed designs need real world grounding via CAD & GIS
- Overlap and duplication is not an option

## To deliver & manage

- Geographic system of engagement for stakeholders
- Continued monitoring framework

African  
Groundwater  
Resources





# Without knowing 'where', we cannot plan

## Mapped census data allows

- Better planning of services and a smart use of resources
- Foundation for international financing
- SDG monitoring

## Mega-cities need

- A Geospatial Infrastructure foundation to function and to be truly smart





# For an economy 'where' is key to growth

## Investment foundations

- Accurate land parcels and administration
- Matching demand to supply, customers to location
- Viable and connected supply chain

## National Development Plans

- Have geography at their core
- Drive SDG goals



African  
Economy  
Power





# Technology relies on location networks

## Utilities & telecommunications need

- Accurate spatial planning
- Efficient network load management
- Detailed 3D maps for 5G

## 4<sup>th</sup> Industrial Revolution powered by

- Sensors that know their location
- In continent scalable hosting
- Geospatial infrastructure



African  
Cities







# Africa's key goals to economic growth...

## ...Esri is matching these with support

Human Capital  
Development

Further Economic  
Growth

Support  
Peace &  
Stability

Greater  
Cooperation

Create  
Economies of  
Scale

Common  
Policy  
Framework

Greater  
Transparency

Develop  
Industries Across  
Borders

Cybersecurity



# The corner stone to our strategy for supporting Africa...

## ...Africa GeoPortal

### Removing barriers to entry

- Accessible tools, data & learning
- Free to access for single users
- Platform for local solutions

### Partnership led sustainability

- Funded by Esri
- Guided by stakeholders & community
- Focused on countries, organizations and communities





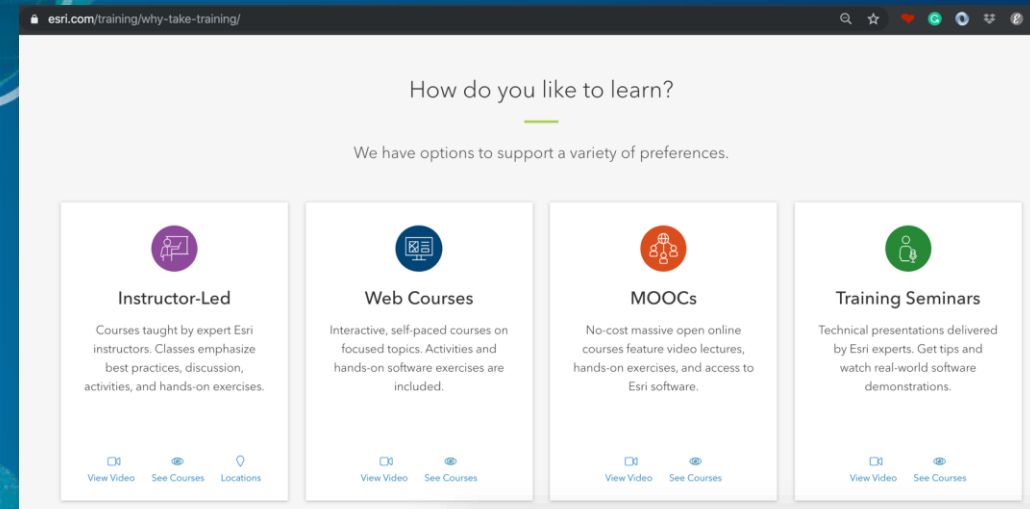
# Human Capital Development

## Support to Education

- 100 Africa Universities Programme
- Foundational research data and tools via Africa GeoPortal
- School syllabus support

## Accessible continuous learning

- Free eLearning via Africa GeoPortal
- Community gatherings and events
- Partnerships with regional bodies





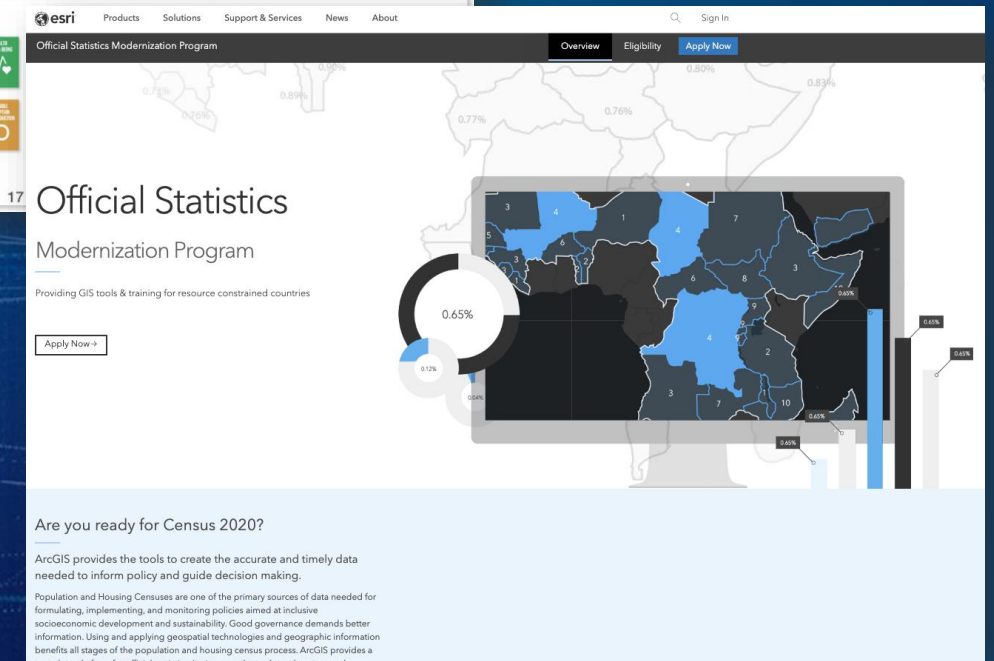
# Further Economic Growth

## Jump starts for foundational activities

- Supporting census via Statistics Modernization Grant Program
- Supporting land management via Land Administration Modernization Program

## Support to Major Decision Making

- Support to SDG.org for effective data collection and decision making
- Organization Pages on Africa GeoPortal for project coordination





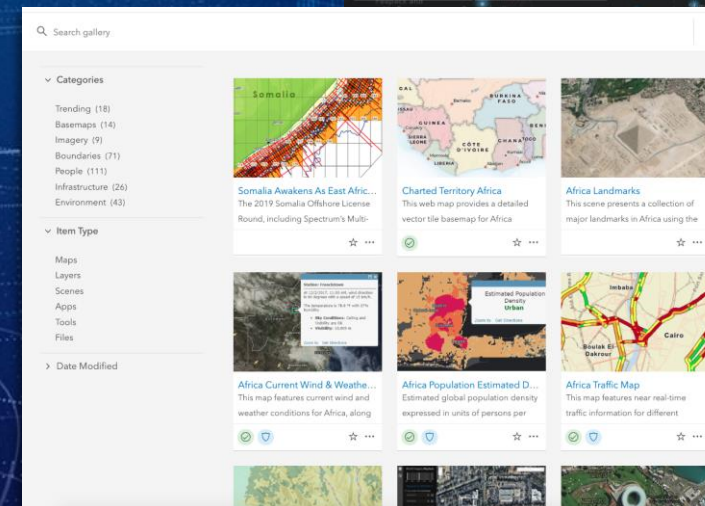
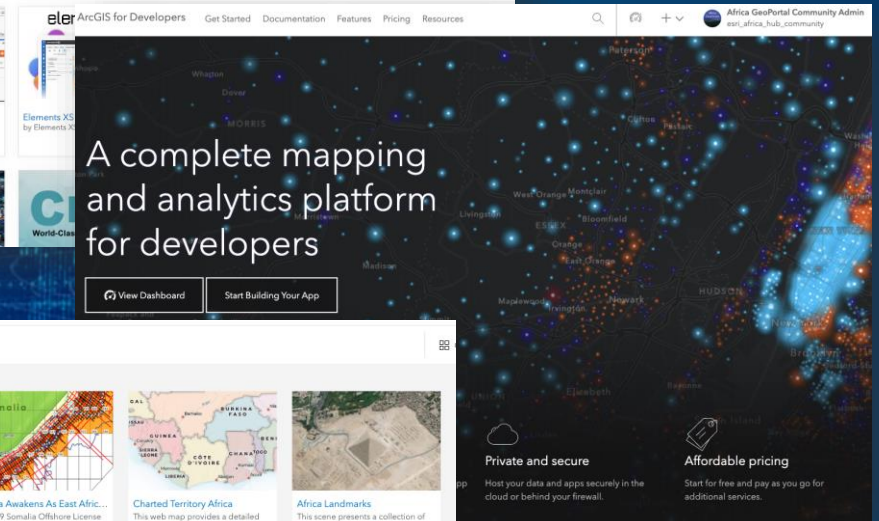
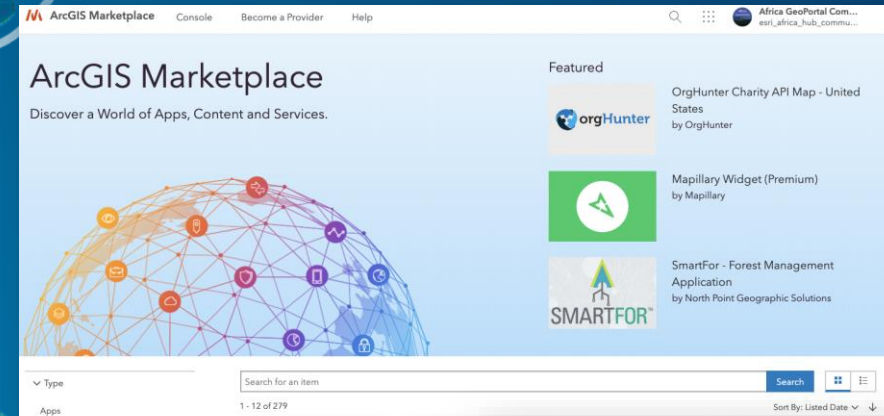
# Create Economies of Scale & Develop Industries Across Borders

## Accessible Tools & Marketplace

- Development tools for local solutions via Africa GeoPortal
- Marketplace for discovery and eCommerce of data and solutions

## Authoritative Geospatial Content

- Create once, use many times via open data on Africa GeoPortal
- Open and interoperable technology for integration





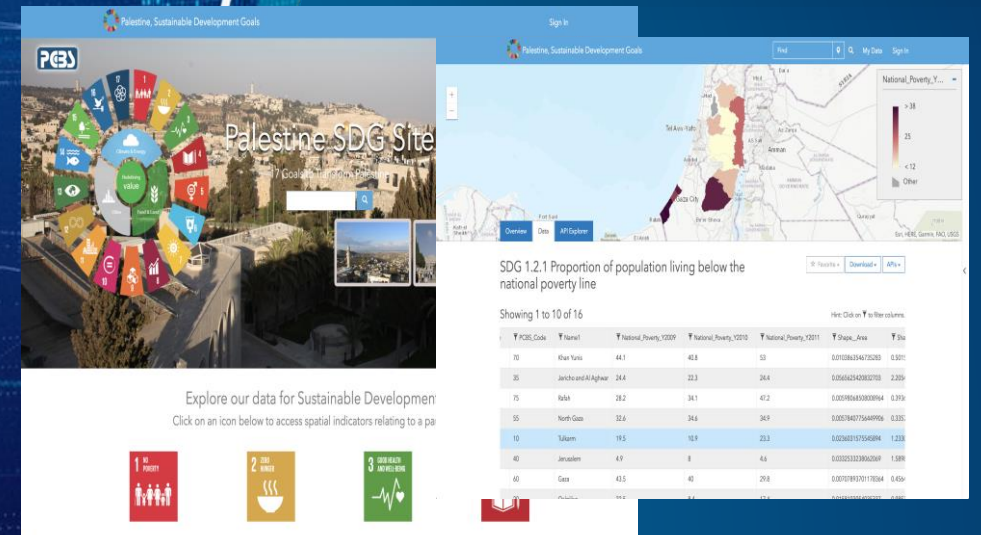
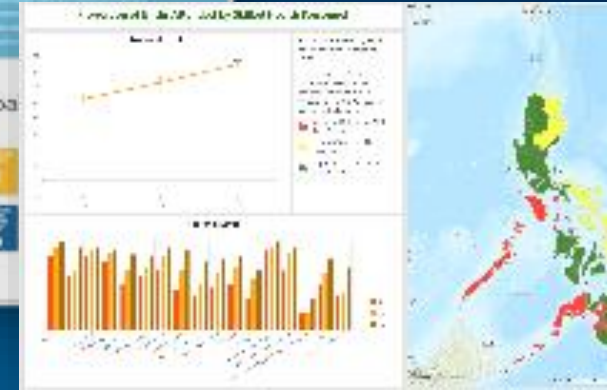
# Greater Transparency & Cooperation

## Open Data First Policy

- Portal of portals of open data via Africa GeoPortal actively curated
- All Esri held data openly available
- Jump starts for open data in any org

## National & Regional Identity

- Country and Organisation Pages on Africa GeoPortal run by you
- Shared community spaces so everyone is on the same page
- SDG.org and Country SDG Reporting Jump Starts





# Support Peace & Stability

## Emergency Support

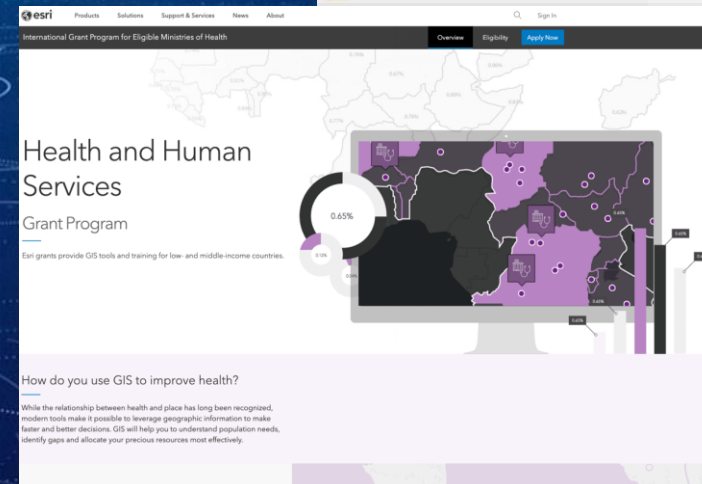
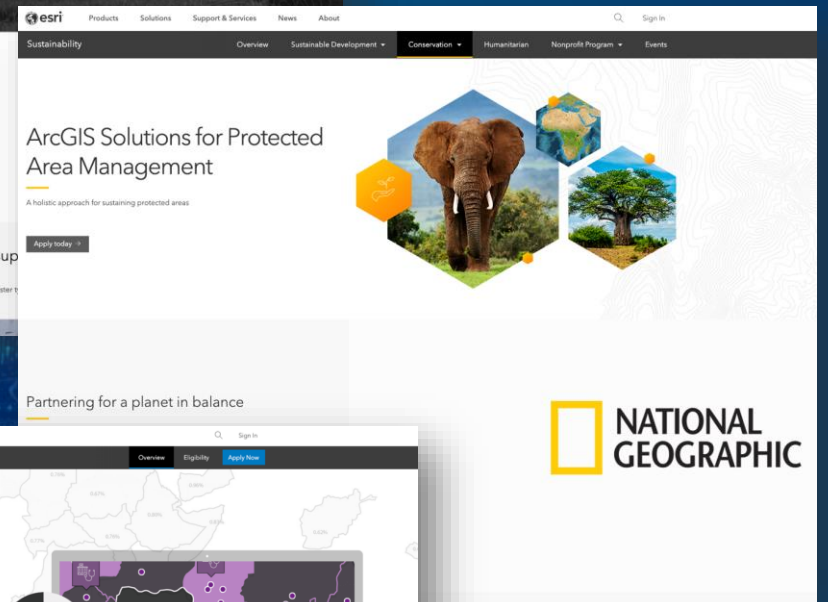
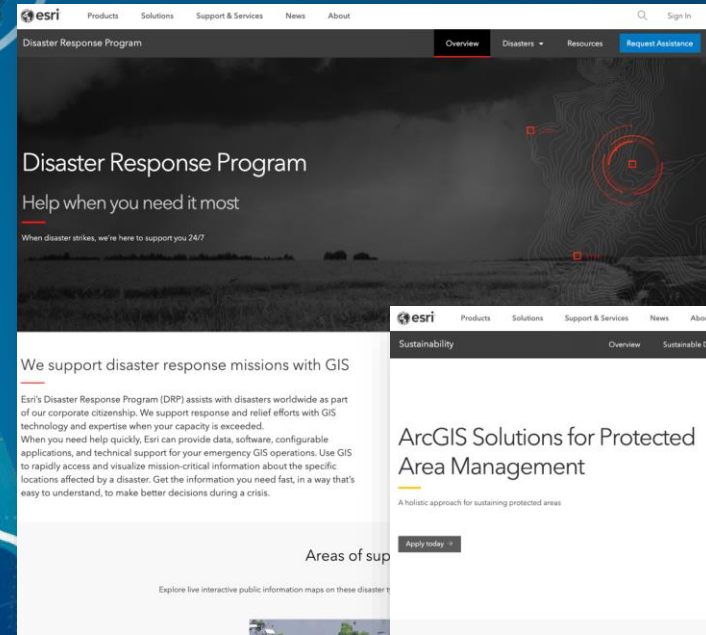
Esri Disaster Response Program for dedicated support

## Conservation

- Protected Area Management grant program

## Health

- Health Services grant program for foundational activities





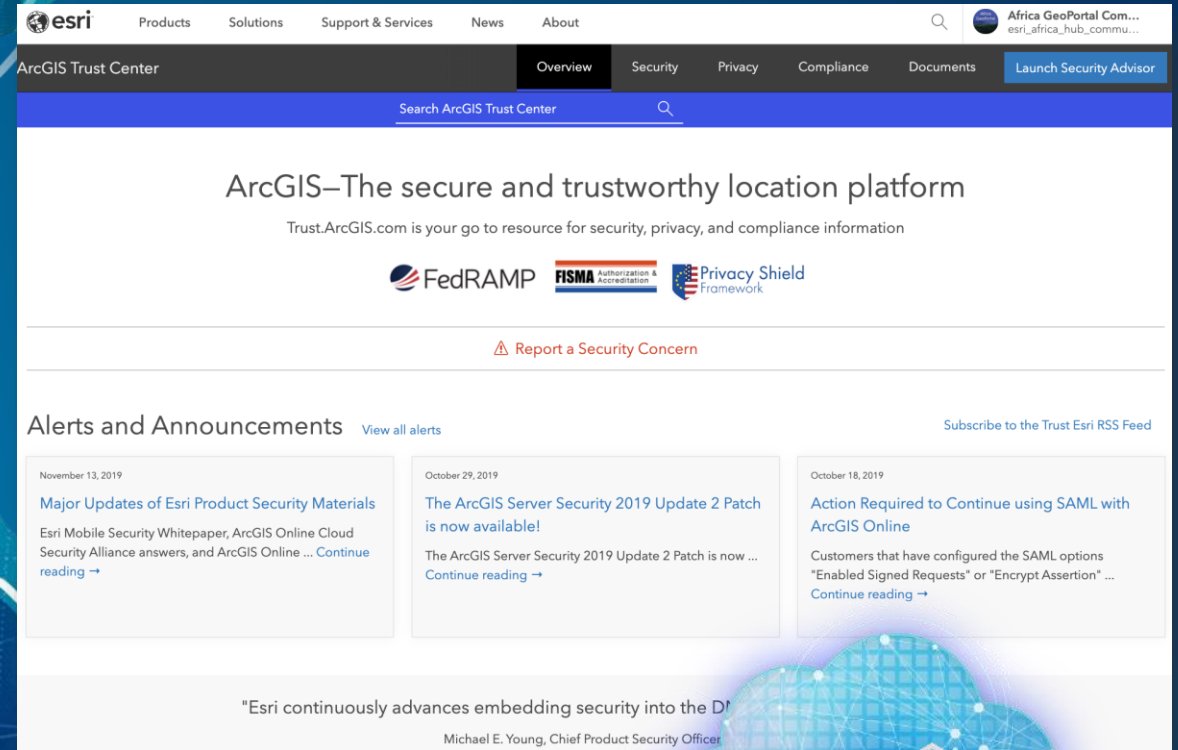
# Cybersecurity

## Secure Technology

- Continually invest ensuring security standards are in the DNA of ArcGIS to protect your work & data
- Common authoritative data

## Identity Management

- Dedicated curation team for Africa GeoPortal content
- Identity centric technology, only share what you want





**What Next?**





We've shown **Geography** Is the Science of Our World

. . . The Common Thread in African Challenges

. . . And The Key to New Opportunities

Now We Need To Act . . . Together . . .

. . . To Empower, Enable, Connect

. . . Bringing Our Efforts Together

Helping Us Understand . . .

. . . And Intelligently Respond





# Countries Geospatial Readiness Index 2019



Source: GeoBuiz 2019



# Geospatial Market in Africa: Today and Tomorrow

2018E

**\$8.26**  
Billion

2020F

**\$12.02**  
Billion

**\$6.94B** GNSS and Positioning

**\$2.28B** Earth Observation

**\$2.76B** GIS and Spatial Analytics

**\$.05B** Scanning



# Africa Needs a Nervous System

An Intelligent and Responsive Collaboration

ACADEMICS

USERS

COMMUNITIES

GOVERNMENTS

INDUSTRY

AGENCIES

Creating More Understanding

... Collaboration and  
... Action

... *Geography Is Essential*



# Foundations of a Nervous System

**Governance**

Governance  
and Institutions

Legal and  
Policy

Financial

**Technology**

Data

Innovation

Standards

**People**

Partnerships

Capacity and  
Education

Communication  
and Engagement



INTEGRATED GEOSPATIAL  
INFORMATION FRAMEWORK



# Your Work

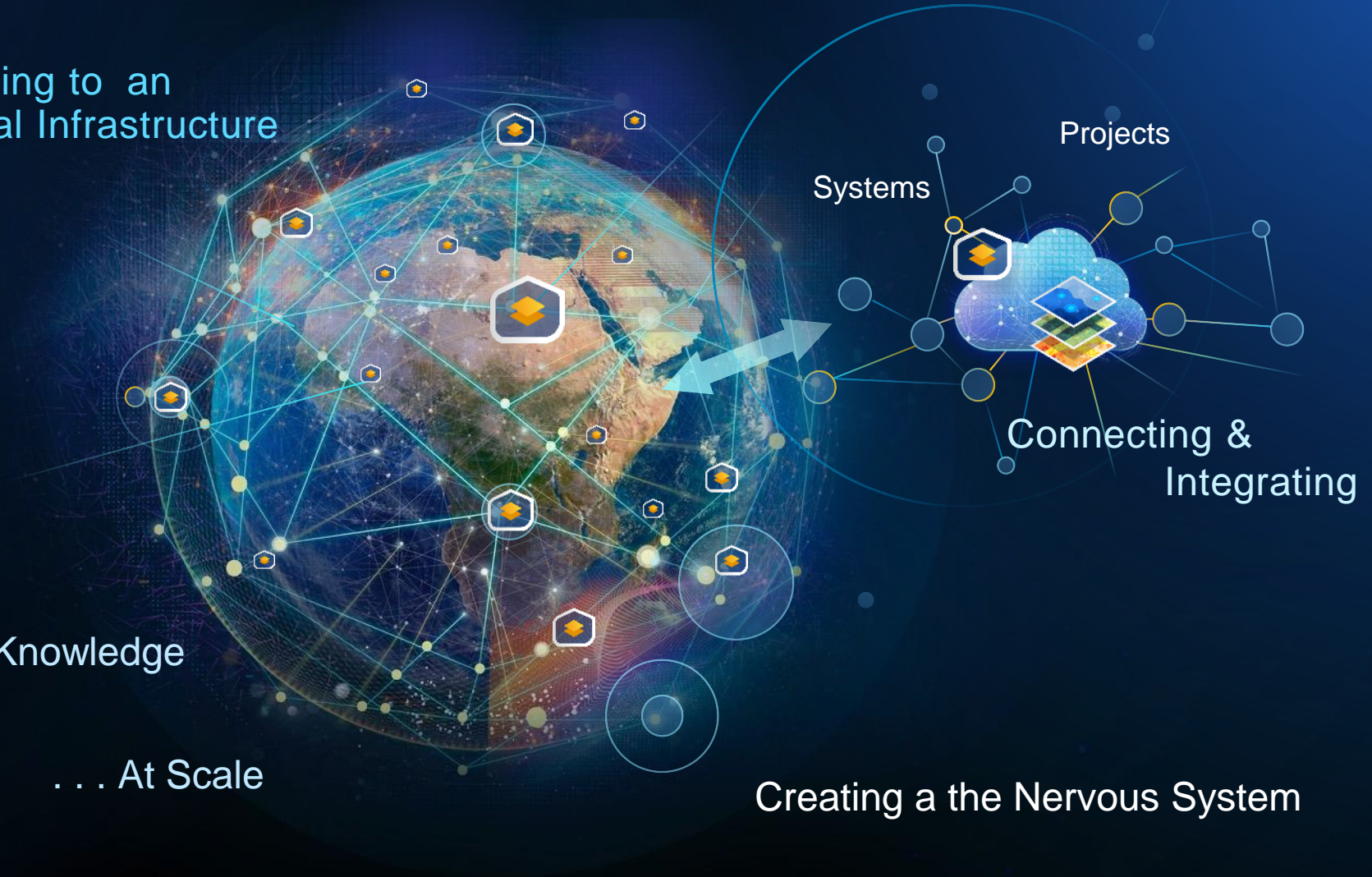
Is Already Contributing to an  
African Geospatial Infrastructure

Sharing Data, Apps  
... and Geographic Knowledge

... At Scale

Creating a the Nervous System

*A System for Understanding . . . And Collaborative Action*





# Your Work Is Essential . . .

Building an Intelligent Nervous System Is More Than Just Technology

It Will Take Leadership . . .

. . . From All of You

**ACADEMICS**

**USERS**

**GOVERNMENTS**

**AGENCIES**

**COMMUNITIES**

**INDUSTRY**

Leveraging *The Science of Where* . . .  
. . . To See What Others Can't



# Your Tasks Ahead. . .

Will Be Key In Moving Forward

## Governments. . .

- . . . Push forward with open policies & national geospatial infrastructures
- . . . Create your Country Pages on Africa GeoPortal, share your story

## Users. . .

- . . . Get involved, share your successes on the nervous system
- . . . Create solutions for local problems

## Academics. . .

- . . . Adapt to life long learning, create tomorrows leaders
- . . . Champion geospatial learning in your institutions





# Your Tasks Ahead. . .

Will Be Key In Moving Forward

## Industry. . .

- . . . Let's collaborate and partner today
- . . . Share your data, empower users

## Agencies. . .

- . . . Prioritize data sustainability in your work
- . . . Share your data so others can benefit and coordinate

## Communities. . .

- . . . Keep on talking, asking, innovating
- . . . Get your community space on Africa GeoPortal



A woman with a headwrap is looking at a colorful map, likely a land use or vegetation map, which is part of the data being processed by the system.

YOU | ARE THE PULSE OF THE NERVOUS SYSTEM