June 2017

African Regional Bureau

ANNIVERSARY
25th
YEAR

Internet
Society

Why are we doing what we are doing?

Africa Regional Bureau Team

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Senior Development
Manager**

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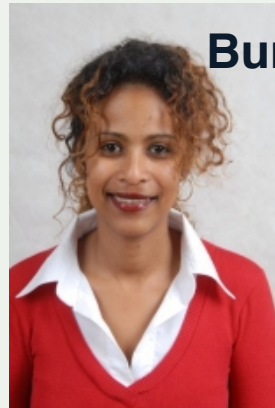Regional
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Africa in a nutshell

Large, Young, Fragmented and Diverse

- Its area is 3.1 times China or the US
- 1.2 Billion (was only 221 million in 1950!)
- Half of the population under 25 years
- 54/55 countries
- Official languages
  - French, English, Arabic, Portuguese, Spanish, Amharic, etc.
  - More than 2000 languages

The **True Size** of Africa
A small contribution in the fight against rampant *Immappancy*, by Kai Krause

Graphic layout for visualization only (some countries are cut and rotated)
But the conclusions are very accurate: refer to table below for exact data

COUNTRY	AREA x 1000 km²
China	9.597
USA	9.629
India	3.287
Mexico	1.964
Peru	1.285
France	633
Spain	506
Papua New Guinea	462
Sweden	441
Japan	378
Germany	357
Norway	324
Italy	301
New Zealand	270
United Kingdom	243
Nepal	147
Bangladesh	144
Greece	132
TOTAL	**30.102**
AFRICA	**30.221**

In addition to the well known social issues of *illiteracy* and *innumeracy*, there also should be such a concept as "*immappancy*", meaning *insufficient geographical knowledge*.

A survey with random American schoolkids let them guess the population and land area of their country. Not entirely unexpected, but still rather unsettling, the majority chose "*1-2 billion*" and "*largest in the world*", respectively.

Even with Asian and European college students, geographical estimates were often off by factors of *2-3*. This is partly due to the highly distorted nature of the predominantly used mapping projections (such as *Mercator*).

A particularly extreme example is the worldwide misjudgement of the true size of *Africa*. This single image tries to embody the massive scale, which is larger than the *USA, China, India, Japan* and *all of Europe........ combined!*

Continental organizations

African Union (1963)

Regional Economic communities

Arab Maghreb Union (UMA)
Common Market for Eastern and Southern Africa (COMESA)
Community of Sahel-Saharan States (CEN-SAD)
East African Community (EAC)
Economic Community of Central African States (ECCAS)
Economic Community of West African States (ECOWAS)
Intergovernmental Authority on Development (IGAD)
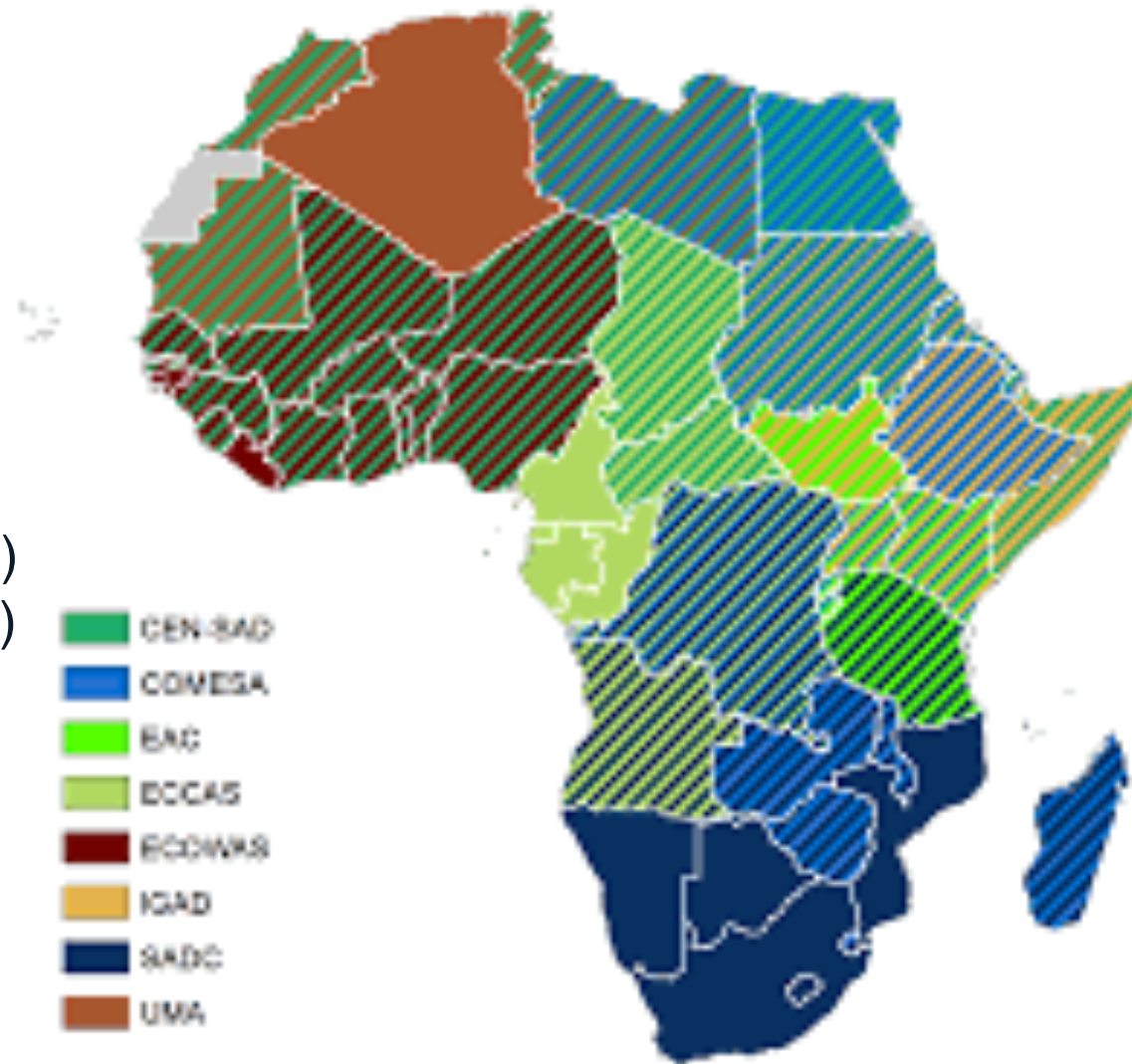Southern African Development Community (SADC)

Challenges
Overlapping => competition
Only a few are developed: ECOWAS, SADC and EAC

Other intergovernmental organization
UNECA, Regional bureaus of ITU, UNDP, World Bank


CEN-SAD
COMESA
EAC
ECCAS
ECOWAS
IGAD
SADC
UMA

African Regional Economic Communities

Freedom of speech (2017 World Press Freedom Index)

- 61 percent of Sub-Saharan Africans live in countries that were classified as:
  - *either free (12 percent)*
  - *or partly free (49 percent)*

There is freedom of speech in Africa ….. …. but you are not guaranteed freedom after speech
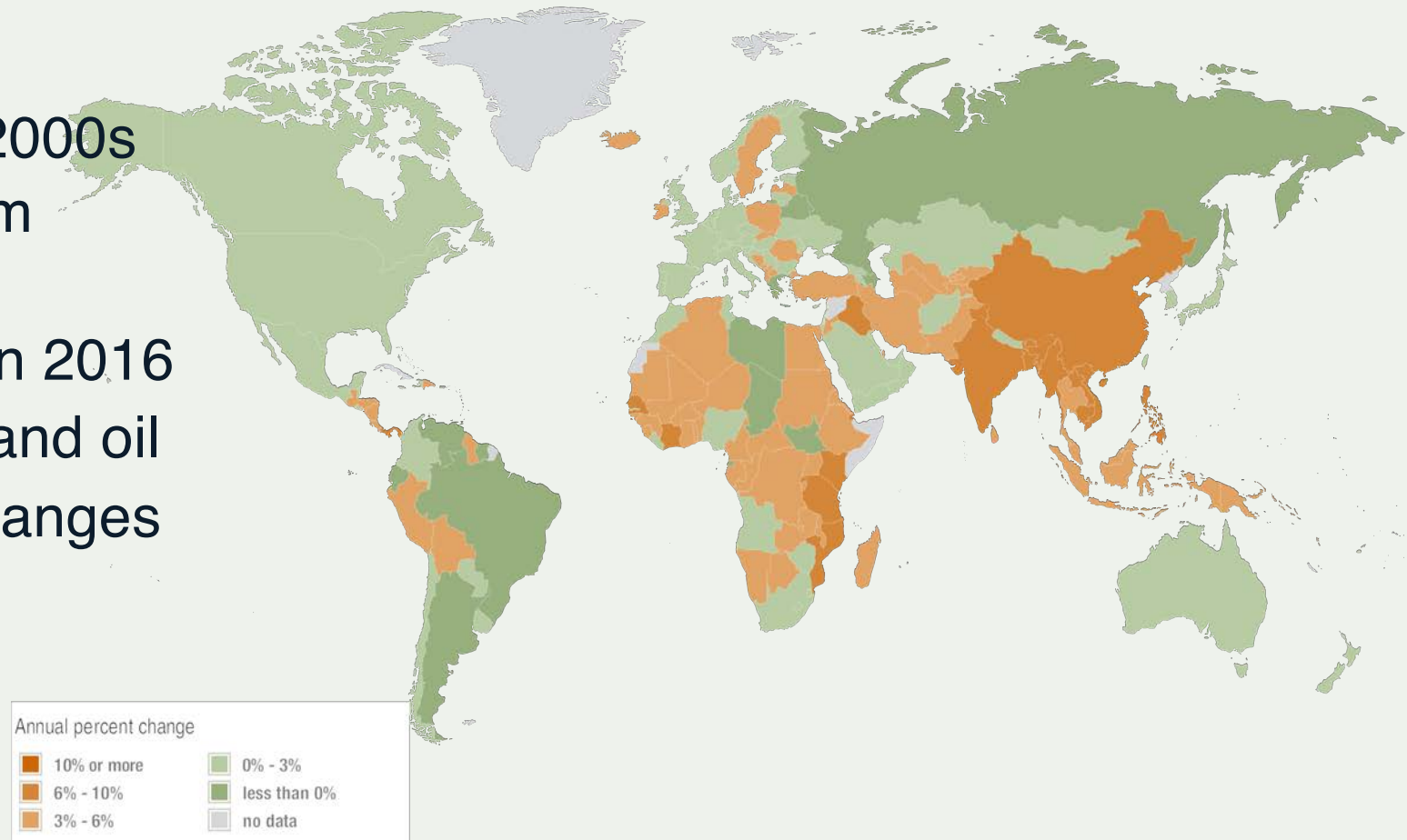

upport of

DESSIUM
UNDATION

OpenStreetMap contributors
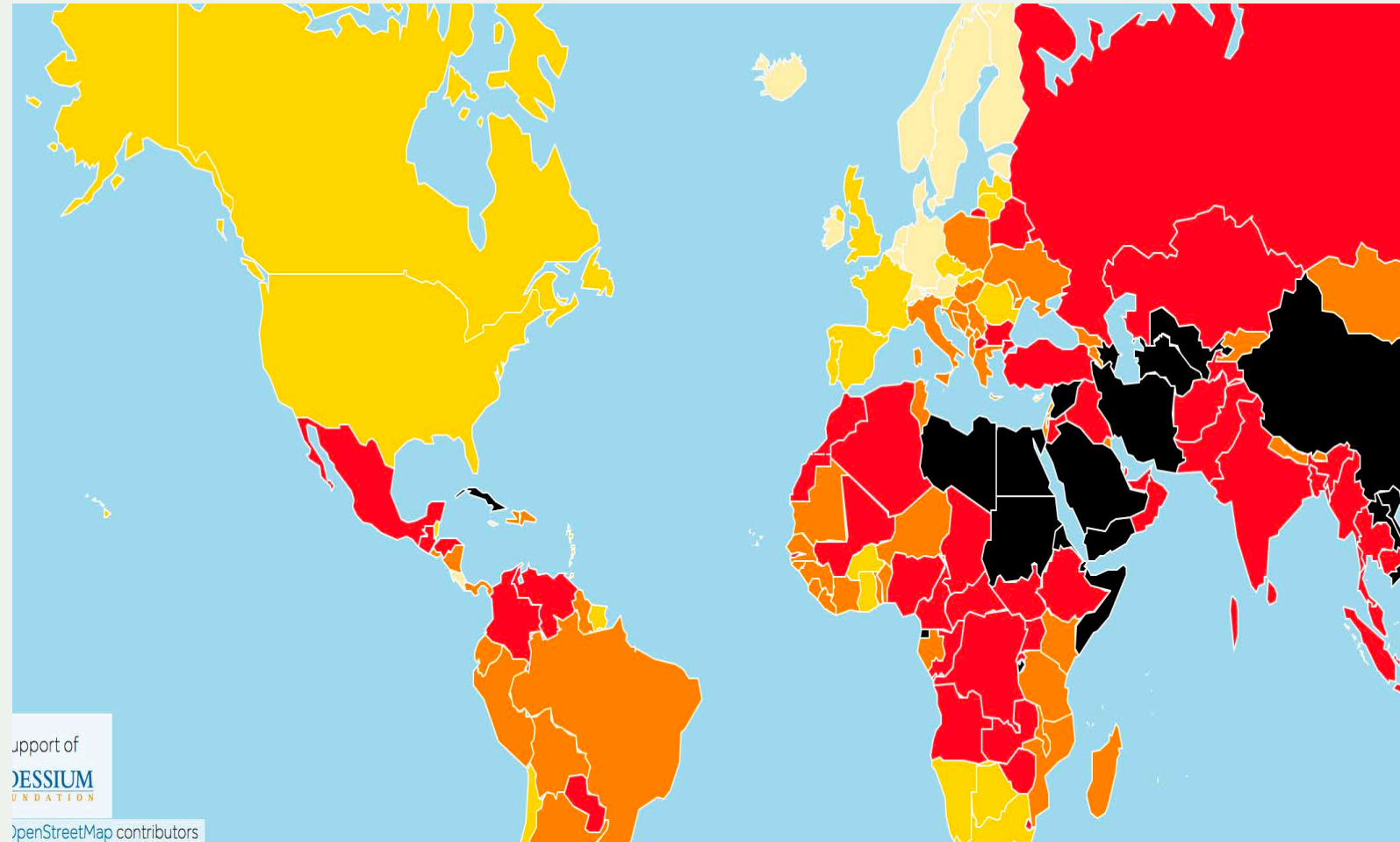
Freedom of Speech around the world

African economy

- Major challenges since decolonization until the 2000s
- Considerable growth from 2000-2015
- Slow down of economy in 2016
- Fall of price of minerals and oil
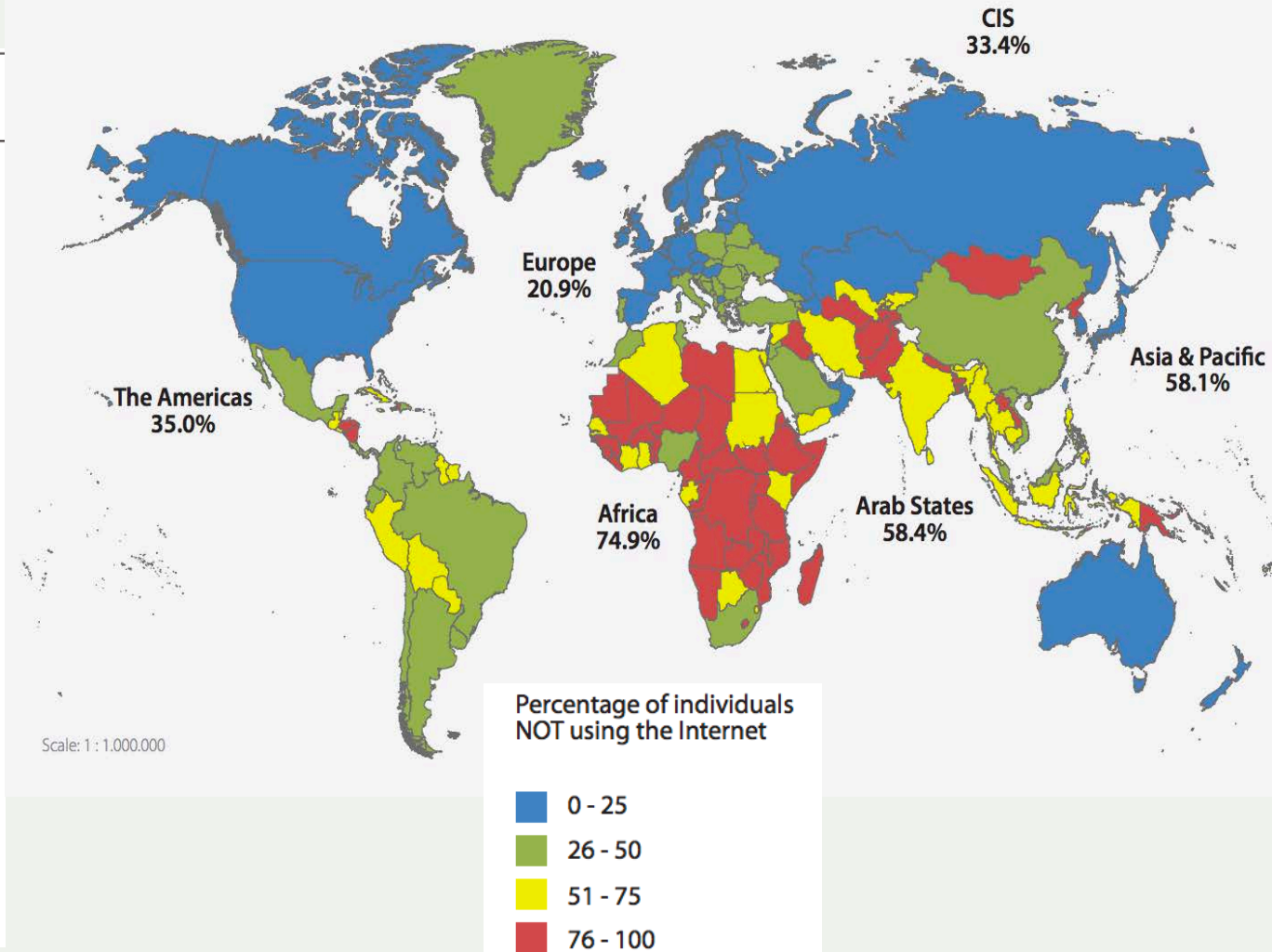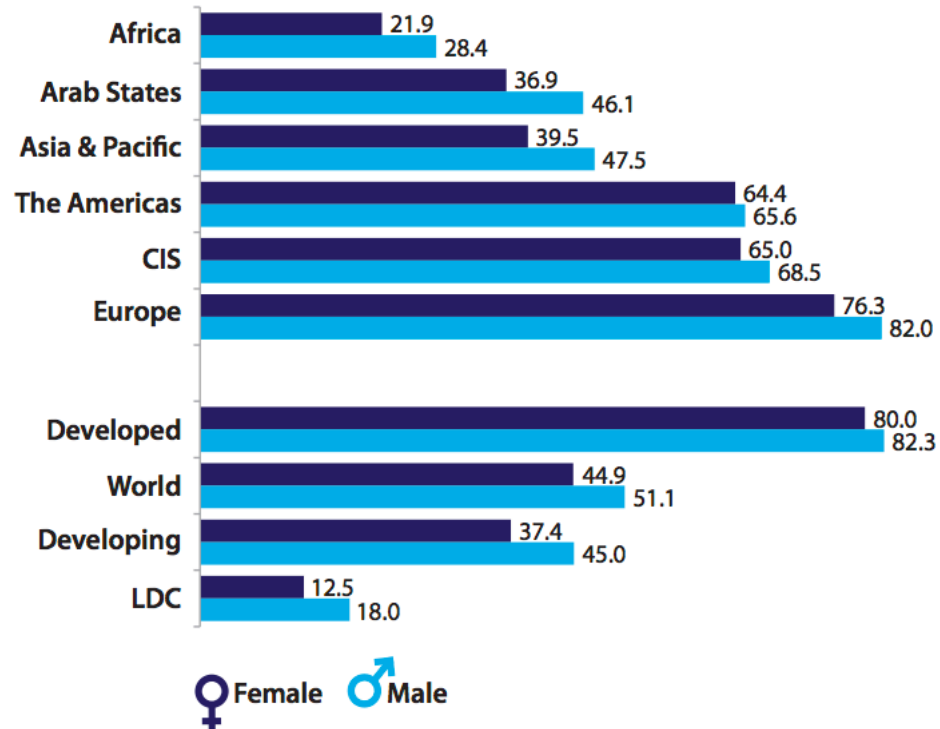- Not enough structural changes

Annual percent change

- 10% or more
- 6% - 10%
- 3% - 6%
- 0% - 3%
- less than 0%
- no data

GDP Growth in 2017

Africa and the Internet

The Internet landscape (ITU)

Internet penetration rate for men and women, 2016*

Region	Female	Male
Africa	21.9	28.4
Arab States	36.9	46.1
Asia & Pacific	39.5	47.5
The Americas	64.4	65.6
CIS	65.0	68.5
Europe	76.3	82.0
Developed	80.0	82.3
World	44.9	51.1
Developing	37.4	45.0
LDC	12.5	18.0

♀ Female ♂ Male

Unconnected population 2016

CIS 33.4%
Europe 20.9%
The Americas 35.0%
Asia & Pacific 58.1%
Africa 74.9%
Arab States 58.4%

Percentage of individuals NOT using the Internet

- 0 - 25
- 26 - 50
- 51 - 75
- 76 - 100

Scale: 1 : 1.000.000

Growth of Internet penetration in Africa
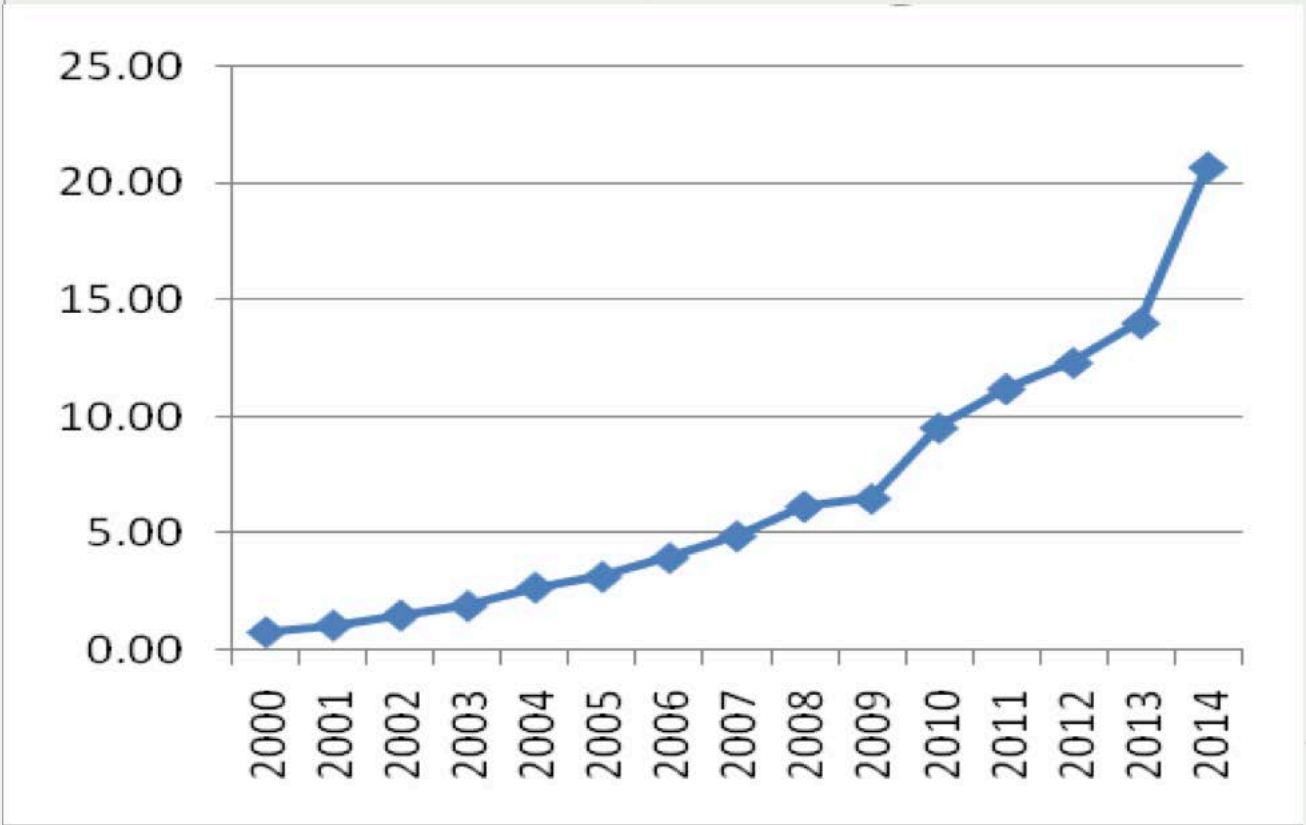
Figure 1 Internet penetration in Africa (Sources: http://www.internetworldstats.com/stats1.htm; ITU (2014), the World in 2014: ICT Facts and Figures)

International connectivity
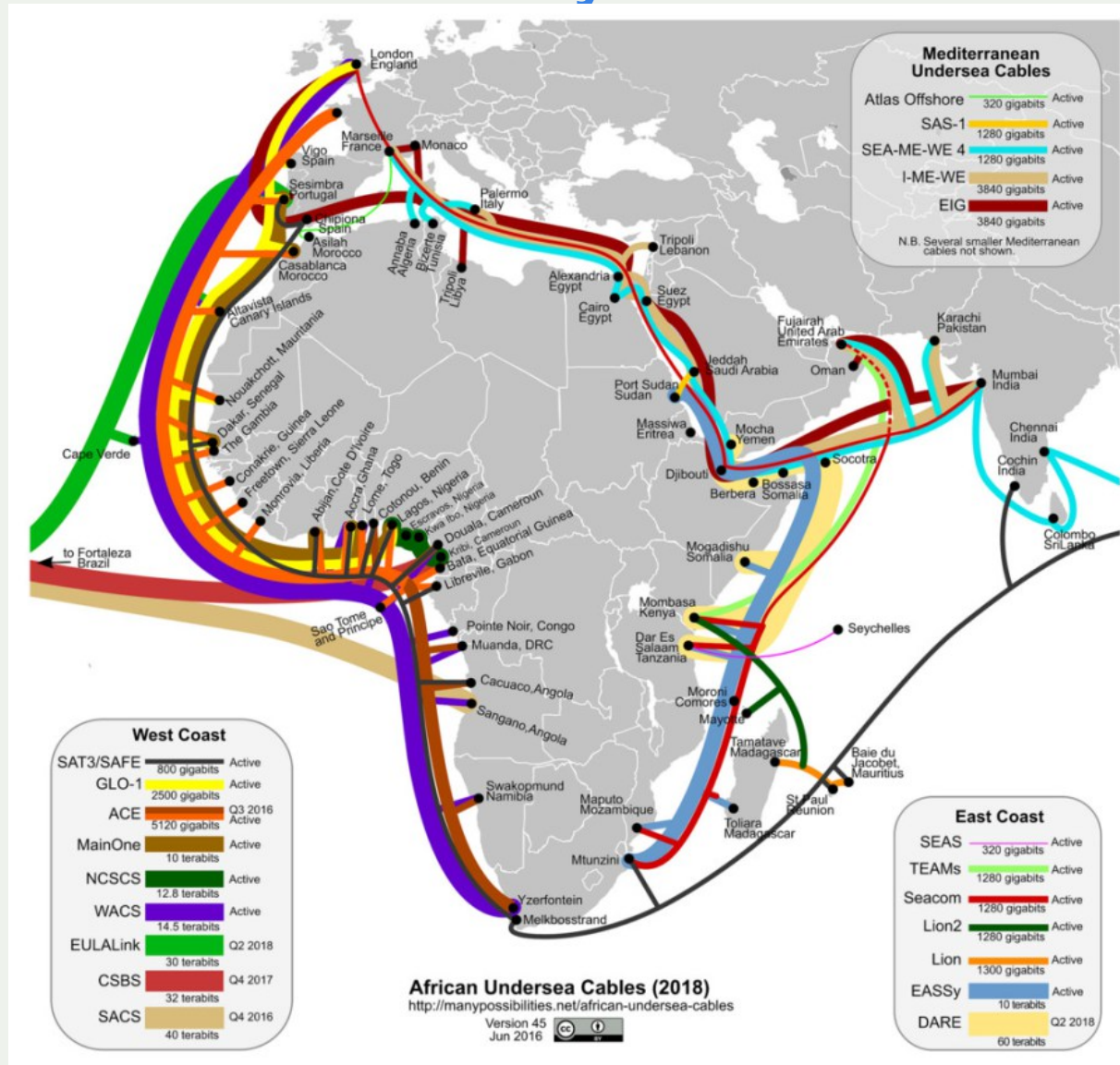
Terrestrial connectivity is moving in from coasts

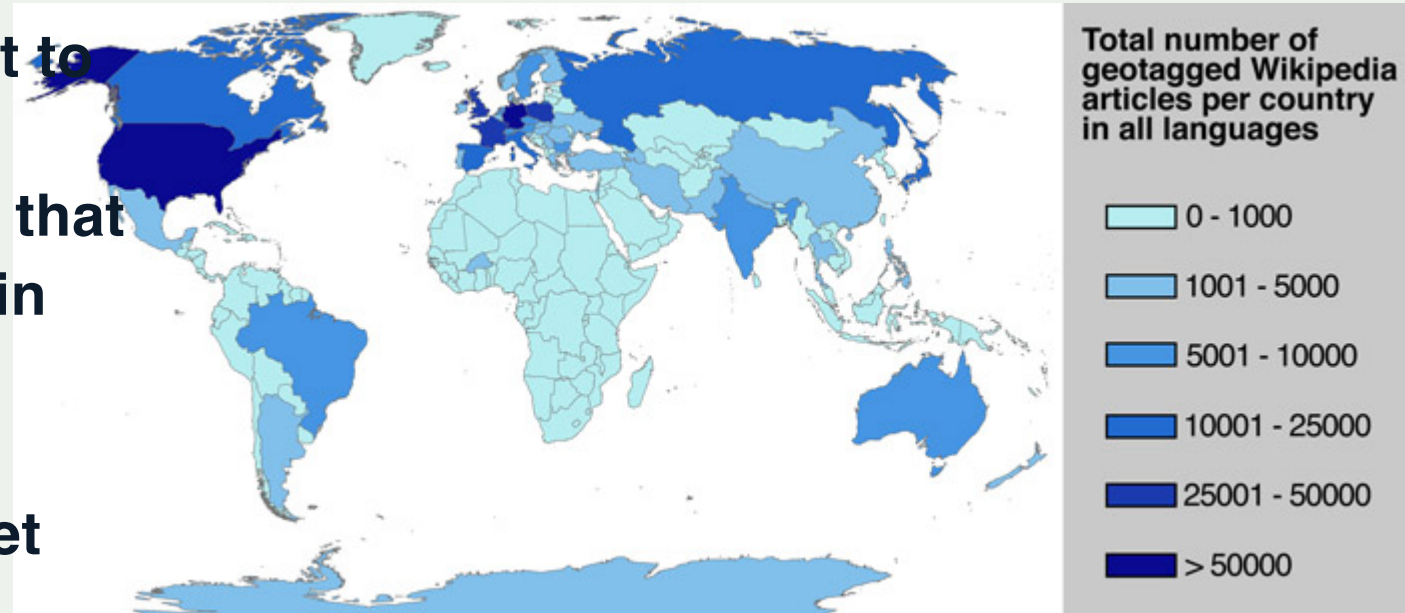Source: afterfibre.net

IXPs in Africa

Policy environment

African Internet Policy Issues

Access

- **Increasing interest of government to improve access**
- **Liberalized Telecom environment that brought competition and growth in the sector**
- **Some countries with government control of the telecom and Internet sector**
- **Major concerns with regards to local content in local languages**
  - 2.75% of the web pages targeting the African population use

Wikipedia article authors location

Total number of geotagged Wikipedia articles per country in all languages

- 0 - 1000
- 1001 - 5000
- 5001 - 10000
- 10001 - 25000
- 25001 - 50000
- > 50000

African Internet Policy Issues

Trust

- **Cybersecurity is at the top of African ICT policy makers concerns (AU/ISOC survey)**
- **African Union Convention on Cyber Security and Personal Data Protection**
- **30/54 countries do not have cybercrime laws**
- **Internet restriction is being used to limit access**

Internet Society's achievements in Africa

Most trusted, impactful and influential Internet organization

The most impactful organization in building tech. capacity

- Early INET workshops formed the pioneers in Africa
- 1,735 trained directly by ISOC
  - 381 Face to Face (since 2012)
  - 1,354 Online (since 2016)
- 1,485 trained through AFNOG
- 103 trained through AFCHIX
- 450 trained through AFTLD
- 1,169 through NOGs
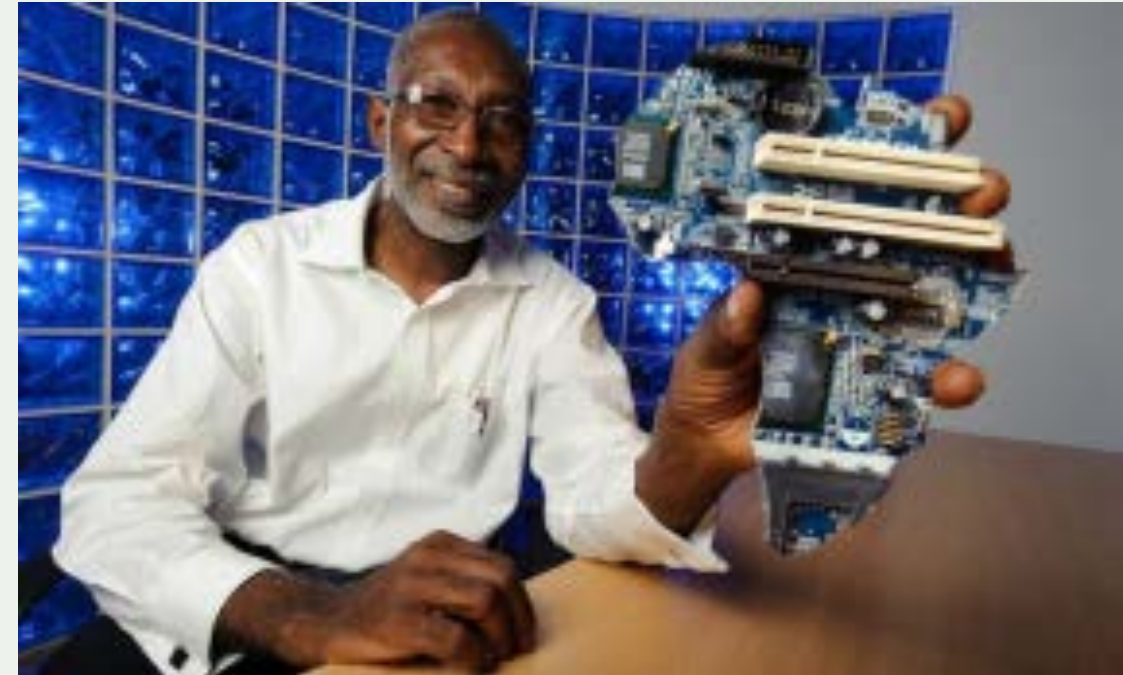
Changed The Interconnection Landscape in Africa

- Peering increased 409 times from 2009 to 2017!!!

- 460 Gbps exchanged in April 2017

- Interconnection
  - More than 30 countries
  - 7 AFPIFs
  - Leveling up of IXPs
  - African IXP association

- Development of Community Networks since 2016

AFPIF 2016, Dar es Salaam, Tanzania

Working to build Trust

- Collaborative security in practice

  - Guidelines on Internet Infrastructure Security with AUC
  - Internet restrictions and shutdown

Internet Infrastructure
Security Guidelines for Africa

A joint initiative of the Internet Society
and the Commission of the African Union

1 June 2017

Making Internet Meaningful

- Africa – Regional Internet Development Dialogue

RIDD, Kigali, May 2017

- Internet and education for Africa study
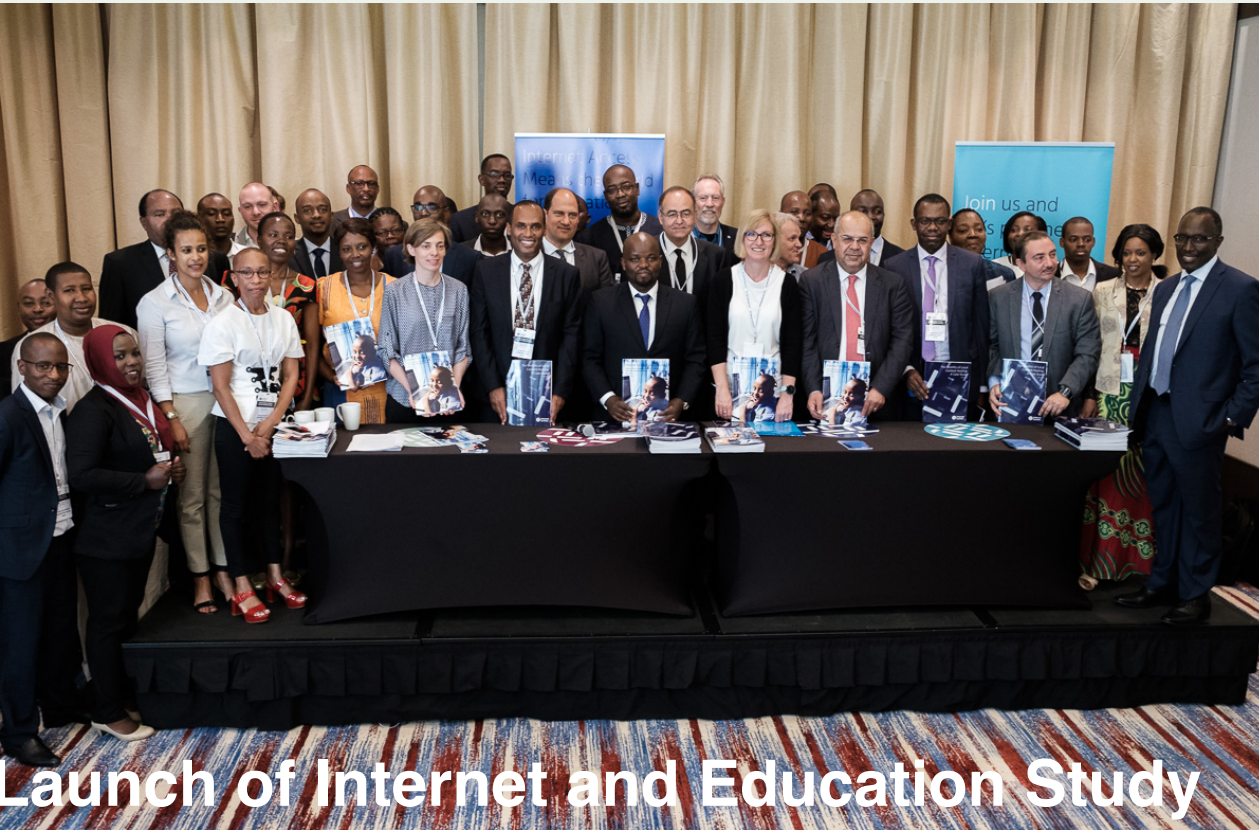
Launch of Internet and Education Study

Build communities

- **31 Chapters**
- **Close to 21,000 members**
- **NOG community**
- **IXP community**
- **CN community**
- **Organizational members**

Chapters advocacy meeting 2017

Internet Society's activities in Africa
2017 work plan

Strategic directions of the African Regional Bureau

Access

- Changing the Interconnection landscape
- Bringing access to remote communities
- Meaningful access

Trust

- Implementation of collaborative security and trust framework
- Addressing the problem of shutdowns/restrictions
- Partnerships (African Union, Access now, etc.)

IETF

- Increase Africans participation in IETF

2017 activities

Access

- **Deploying Ubiquitous & Trusted Infrastructure**
  - Interconnection and measurements
  - Community Networks in Africa
  - DNS Forum & ccTLD capacity building activities
- **Develop Capacity of Communities**
  - Supporting NOGs & Women Capacity Development
  - BCOP activities in partnership with AfriNIC
  - ION event during iWeek/SafNOG
- **Empower Communities & Sustain Development**
  - Publication: Promoting Internet and Education in Africa
  - Publication: Promoting an African Internet Economy
- **Promotion of Policies**
  - Africa edition of Regional Internet Development Dialogue (RIDD)

2017 activities …

- **Trust**

  - **Promote the African Internet Security Infrastructure Guidelines' implementation**

  - **Develop the African Personal Data Protection Guidelines**

  - **Develop an Anti-shutdown strategy**

- **Communications**

  - **Create relevant content and develop communication platforms**

  - **Implement and promote new ISOC Brand and Identity**

  - **Support and implement global communication campaigns in the region- Access and Trust**

ISOC Chapters in Africa

31 Chapters / 20'883 members

16 English Speaking Chapters

15 French Speaking Chapters

Oldest Chapter: Morocco (1996)

Youngest Chapter: Tanzania (2015)

Benin	Niger
Burkina Faso	Nigeria
Burundi	Rwanda
Cameroon	Senegal
Chad	Sierra
Congo	Leone
Cote d'Ivoire	Somalia
Democratic	South
Republic	Africa
of Congo	South
Egypt	Africa
Gambia	Gauteng
Ghana	Sudan
Kenya	Tanzania
Liberia	Togo
Mali	Tunisia
Mauritania	Uganda
Mauritius	Zimbabwe
Morocco	

African community projects

Some facts & figures

- **Community grants programme: 53 from Africa (Global total: 187)**
- **Beyond the net (as of 2015): 7 from Africa (Global total: 28)**
- **Small Grants (as of 2015): 12 from Africa (Global total: 49)**

Creating local content on wikipedia, Uganda

Zenzeleni Community Network, South Africa

IoT training, Zimbabwe

Building and strengthening chapters

- Chapter advocacy workshops

- Involving chapters in at least 30% of bureau activities

- Chapters represent ISOC in regional and national meetings

- Staff members meet with chapters

- Online trainings for chapters

- Providing tools (Zoom, Livestream, etc.)

Chapters workshop, Dakar, Senegal, 2014

IETF Africa- An overview and 2017 Action plan

IETF Africa Initiative - increase Africans' participation in IETF through various activities

Where we are with the initiative

- Active mailing list formed (ietf_africa – 200+ people)
- Various events in Africa (IETF BoF, Events by various Chapters, AFRINIC meeting, IETF material within ISOC Technical online cou

2017 Action plan

- Viewing hubs for IETF 99 in Prague

- Webinars (raise awareness)

- IETF Hackathons (identify skilled individuals)

- Meetings at at least two IETF meetings this yea

- Identify regional champions

- IETC materials in Universities and NRENs

- Produce short IETF materials for the region

Hackathon@AIS, Nairobi, 2017

Partnerships

Why are partnerships important to the ARB?

- We are a small team with a big region to cover. Partnering internally and externally enable the ARB to reach its goals

- Sharing costs, sharing knowledge and resources

- We are not alone in Africa with similar goals and a similar audience

- Partnering allows us to work with organizations, companies, friends/colleagues with similar objectives, avoid overlap and or avoid "turf issues"

Some organizations we work with
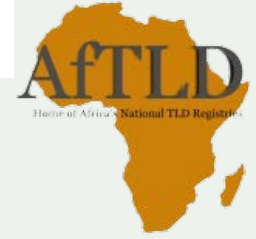
Projects with our partners

- **ISPs and IXPs**
  - *AfPIF workshops*
  - *Routing eg MANRS*

- **ICANN and AFTLD**
  - *Africa DNS Forum*
  - *ccTLD and DNS projects*

- **AFRINIC**
  - *IETF projects and increasing awareness on IPv6*

Our Partners – Capacity Building

NOGs and NRENs

- Aggregating trainees for face to face and online trainings
- IETF awareness
- Women engineers

African Peering and interconnection forum

Thank you.

Hakuna Matata