

**THE UNITED NATIONS COMMISSION ON SCIENCE AND TECHNOLOGY
FOR DEVELOPMENT**

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Item 3: Science and technology for development

6 May 2015

Contribution by

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Digital Development and Digital Inclusion

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The views presented here are the contributor's and do not necessarily reflect the views and the position of the United Nations or the United Nations Conference on Trade and Development

Digital Development and Digital Inclusion

18th Session of the United Nations
Commission on Science and Technology for Development
May 6, 2015

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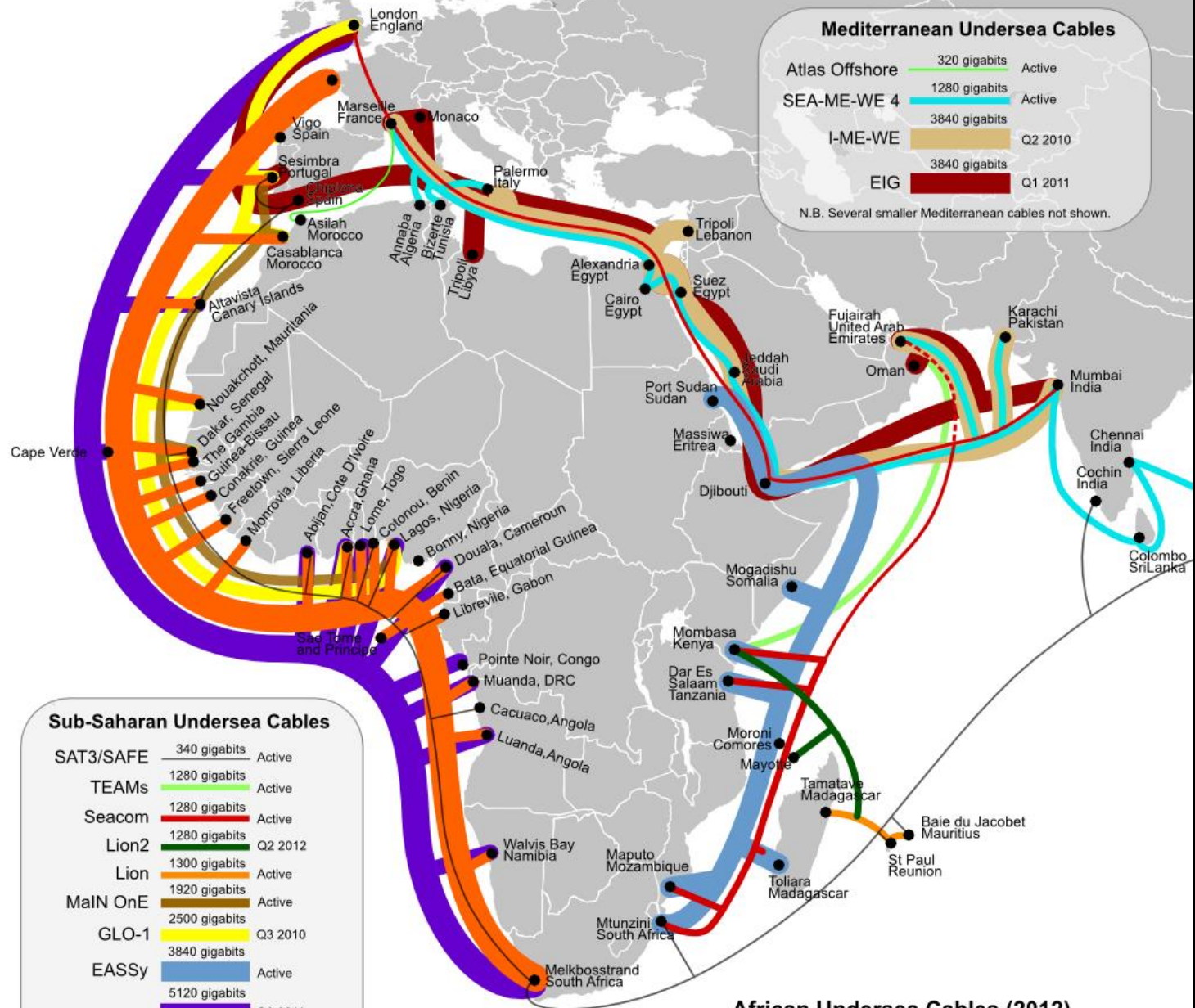


Image: Copyright Roger Bamber



Sub-Saharan Undersea Cables
January 2009
 SAT3/SAFE 120 gigabits Active

African Undersea Cables (2009)
<http://manypossibilities.net/african-undersea-cables> ⓘ



Mediterranean Undersea Cables

Atlas Offshore	320 gigabits	Active
SEA-ME-WE 4	1280 gigabits	Active
I-ME-WE	3840 gigabits	Q2 2010
EIG	3840 gigabits	Q1 2011

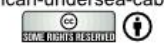
N.B. Several smaller Mediterranean cables not shown.

Sub-Saharan Undersea Cables

SAT3/SAFE	340 gigabits	Active
TEAMS	1280 gigabits	Active
Seacom	1280 gigabits	Active
Lion2	1280 gigabits	Q2 2012
Lion	1300 gigabits	Active
MaIN One	1920 gigabits	Active
GLO-1	2500 gigabits	Q3 2010
EASSy	3840 gigabits	Active
WACS	5120 gigabits	Q2 2011
ACE	5120 gigabits	Q2 2012

African Undersea Cables (2012)

<http://manypossibilities.net/african-undersea-cables>
Version 23 - Sept 2010

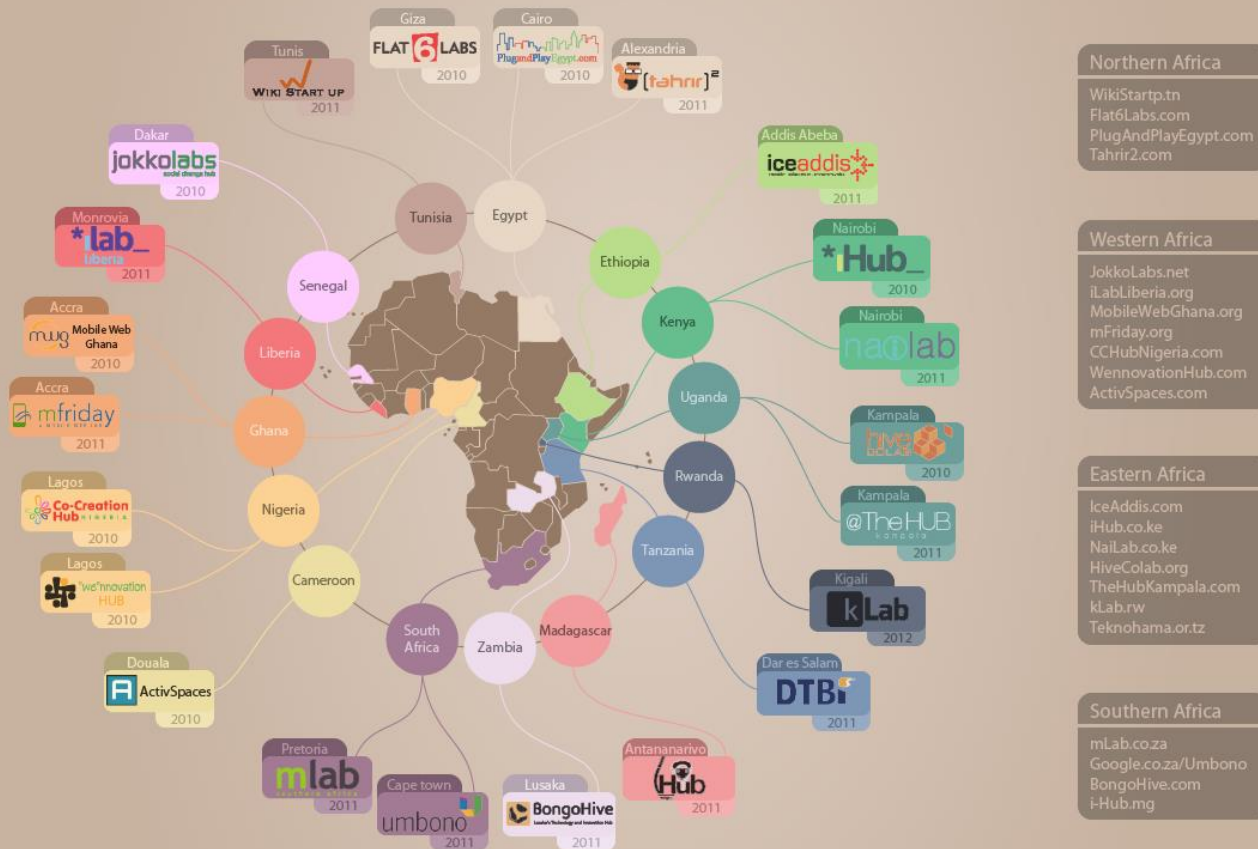


“...all the world’s citizens will have the potential to access unlimited knowledge, to express themselves freely, and to contribute to and enjoy the benefits of the knowledge society.”

Dr. Hamadoun I. Touré, Secretary-General of the International Telecommunication Union. November 2012

REINVENT AFRICA

Innovation centers in Africa



Northern Africa
 WikiStartup.tn
 Flat6Labs.com
 PlugAndPlayEgypt.com
 Tahrir2.com

Western Africa
 JokkoLabs.net
 iLabLiberia.org
 MobileWebGhana.org
 mFriday.org
 CCHubNigeria.com
 WenovationHub.com
 ActivSpaces.com

Eastern Africa
 IceAddis.com
 iHub.co.ke
 Nailab.co.ke
 HiveColab.org
 TheHubKampala.com
 kLab.rw
 Teknohama.or.tz

Southern Africa
 mLab.co.za
 Google.co.za/Umbono
 BongoHive.com
 i-Hub.mg



*iHub_



I JUST PUNCHED
THE DATA INTO MY
PHONE AND I'M EARNING
GOOD CASH.

M²WORK


IN JUST A FEW MONTHS
WE ALREADY HAVE 250
GLOBAL CLIENTS USING
OUR DATA FROM
AFRICA.


powered by

Digital gold farming in Cambodia

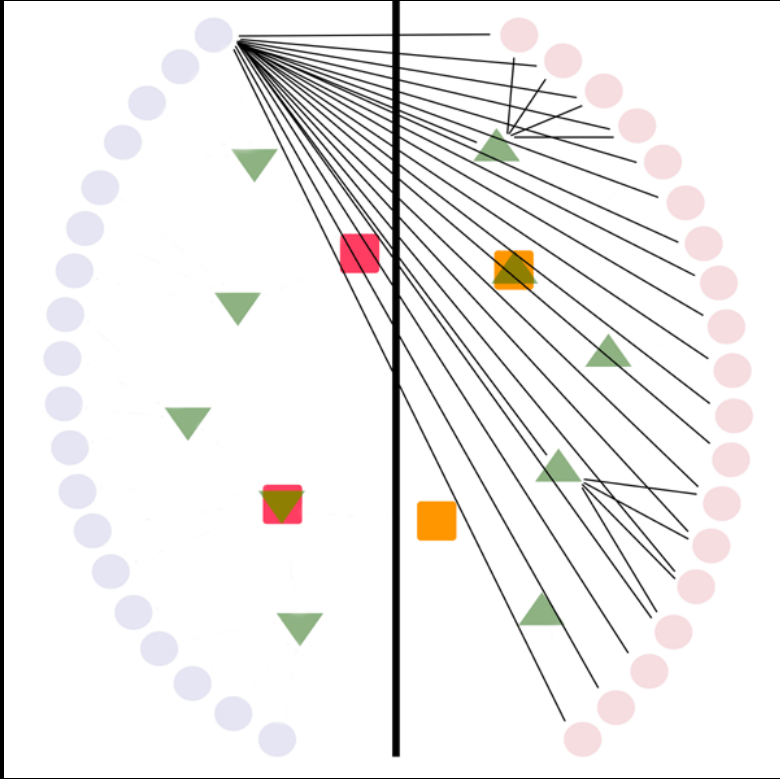
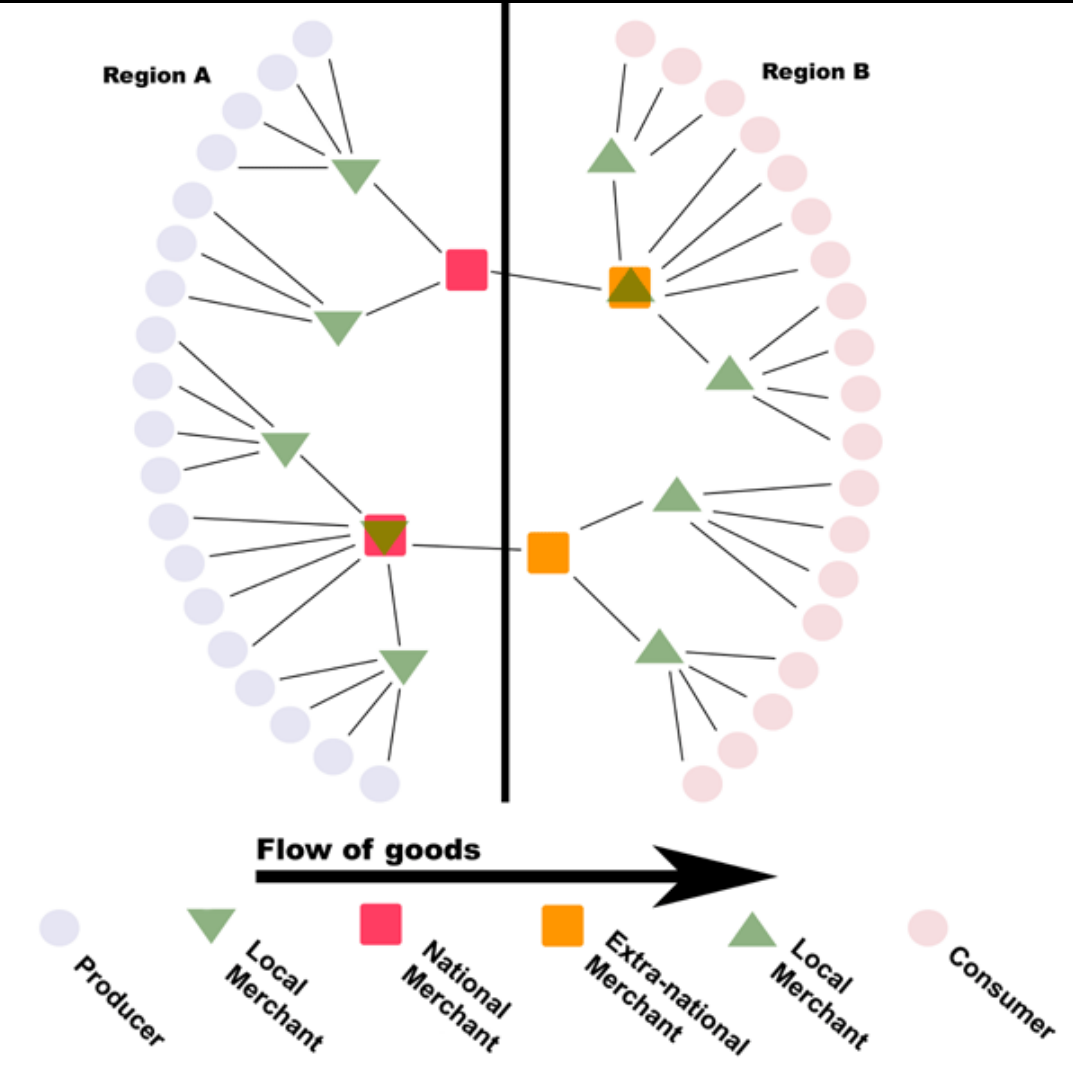


METHODS

- Transaction data from the world's largest online work platform
- Interviews with hundreds of digital workers in Southeast Asia and Sub-Saharan Africa
- Interviews with 80 managers in the Kenyan and Rwandan BPO sectors.
- African innovation hubs

Disintermediation

Disintermediation



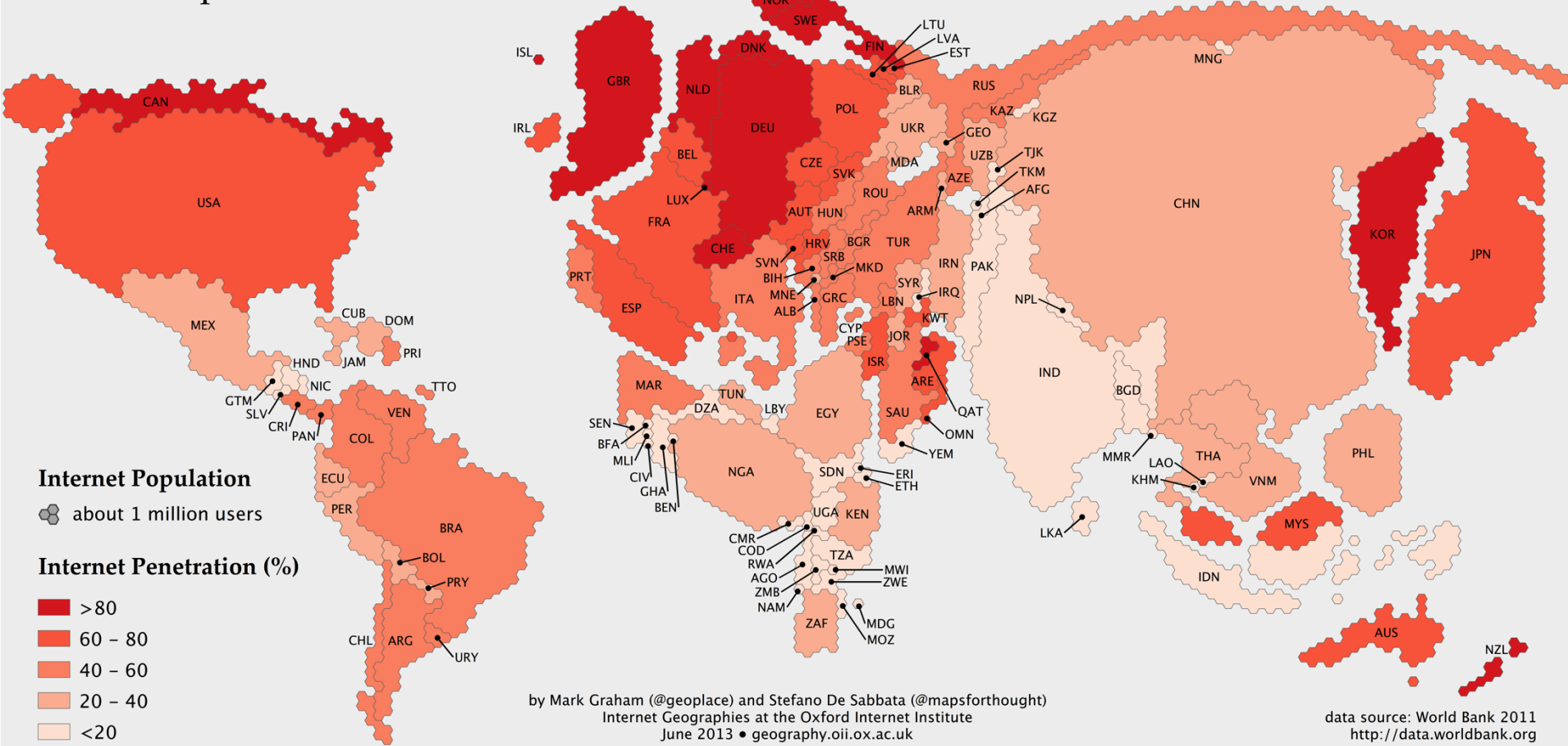
Geographic reach

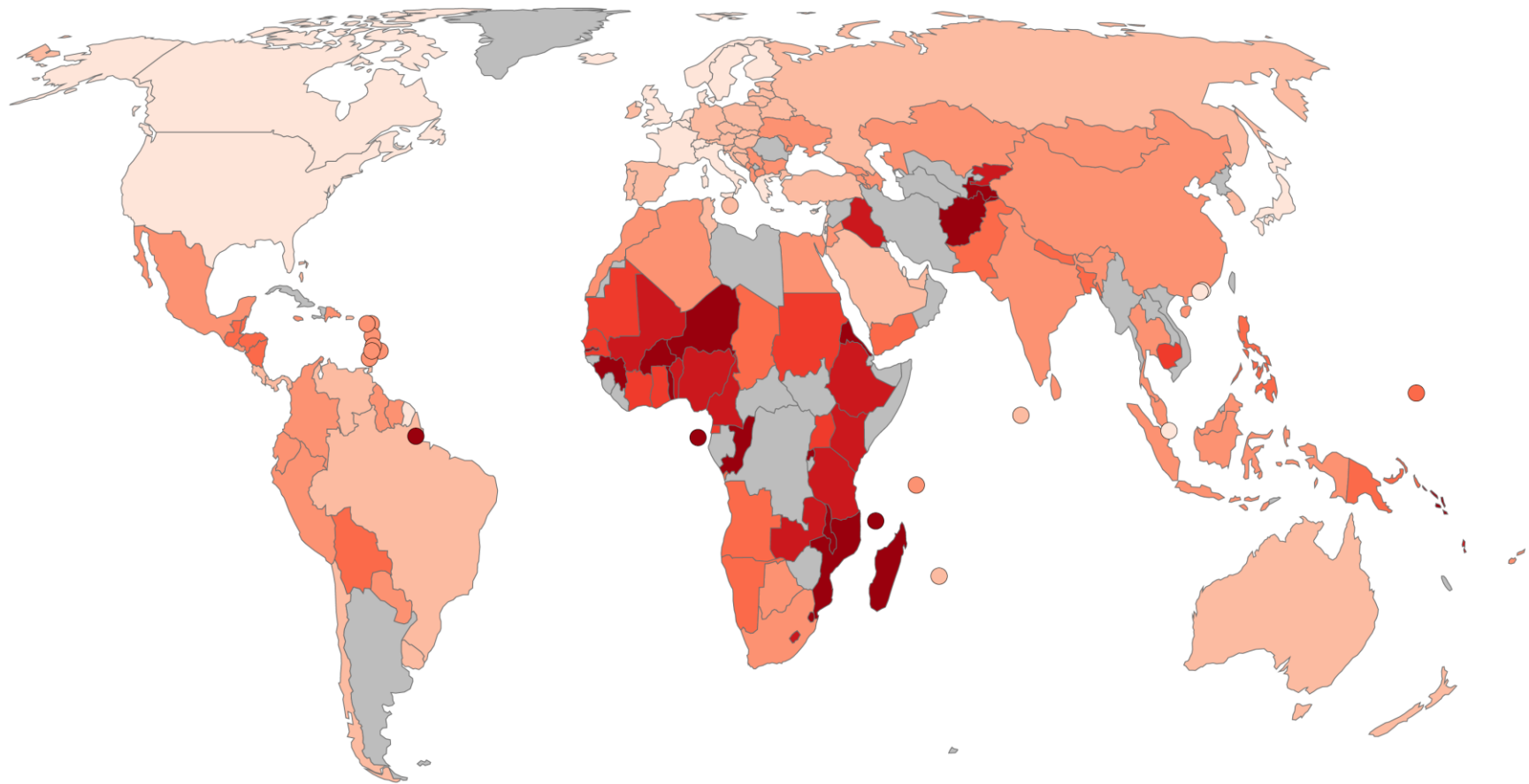
Upgrading

Combination of those things

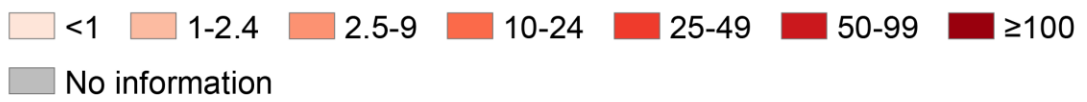
- 1) Macro-level patterns
- 2) Firm-level findings
- 3) Worker-level findings

Internet Population and Penetration

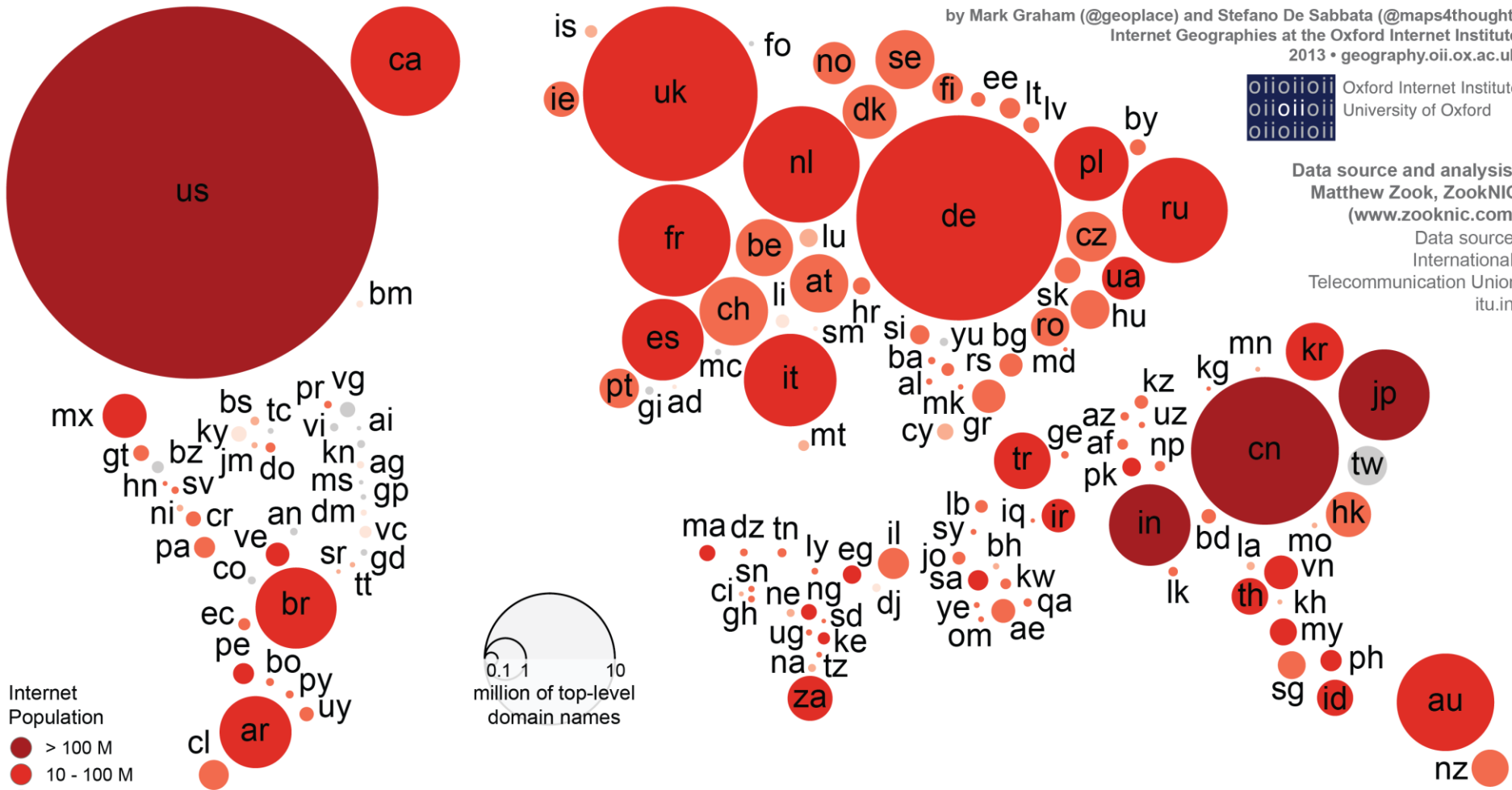




Cost of broadband subscription as percentage of average income

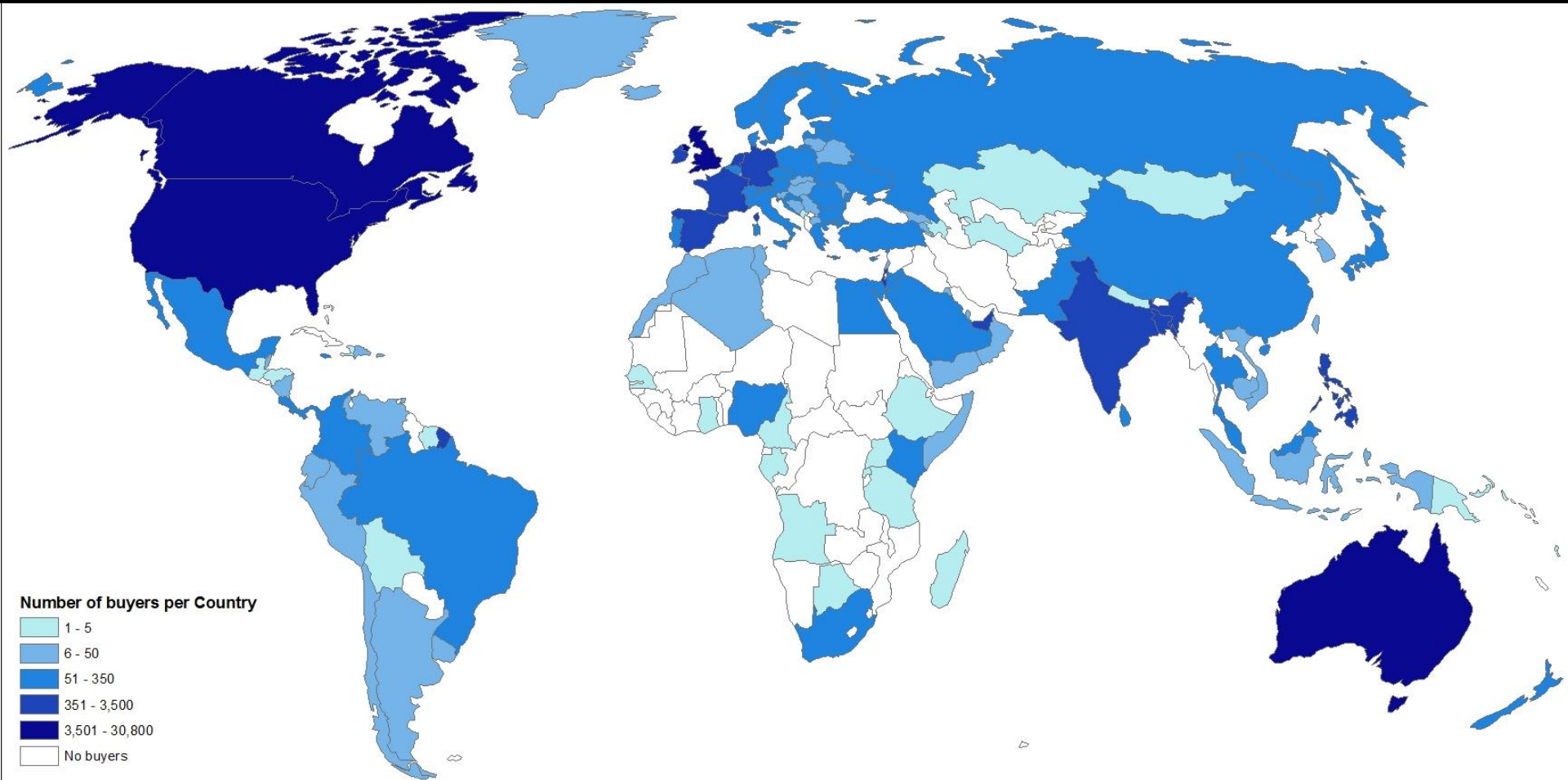


data source
International Telecommunication Union
itu.int

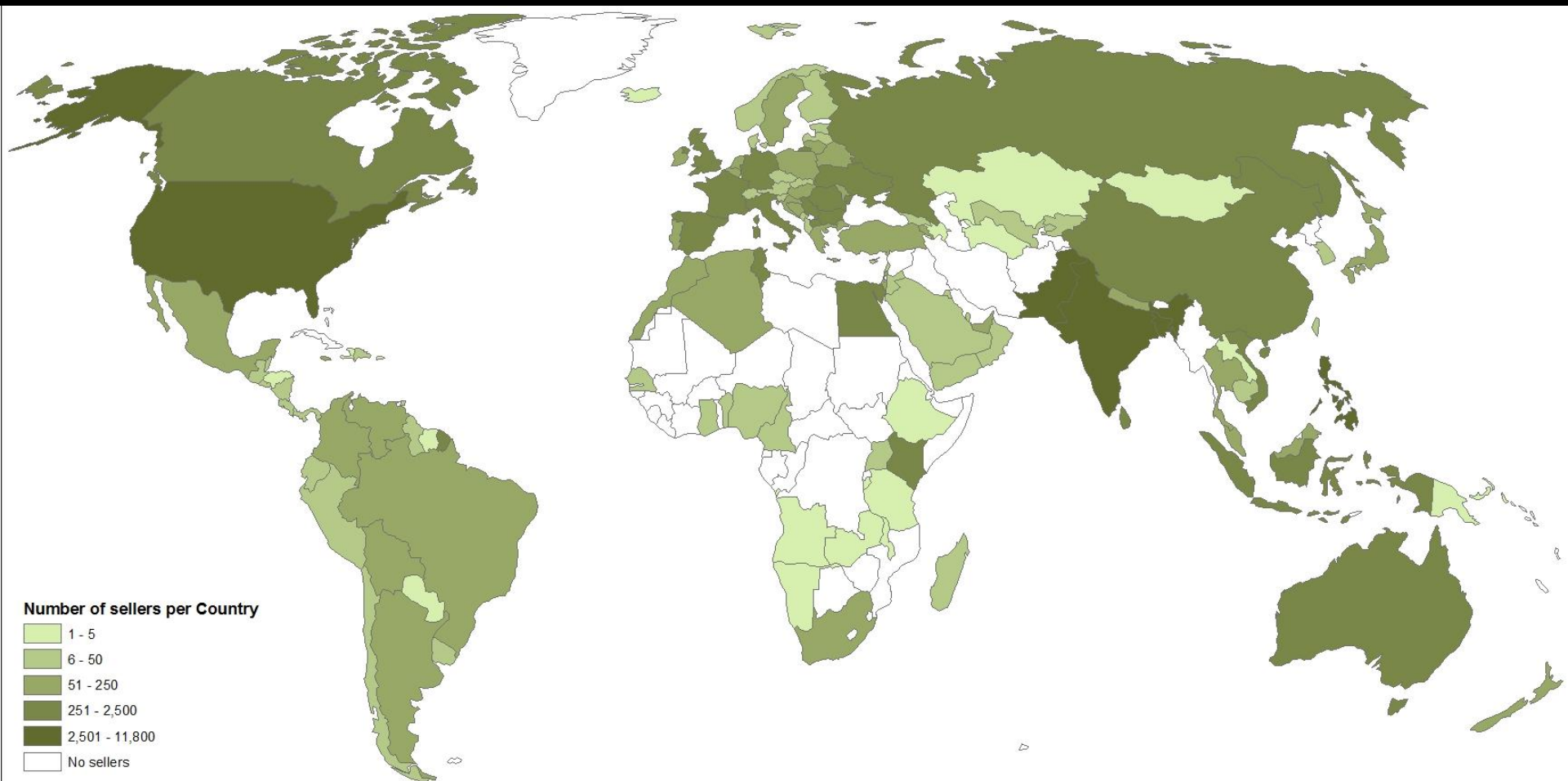


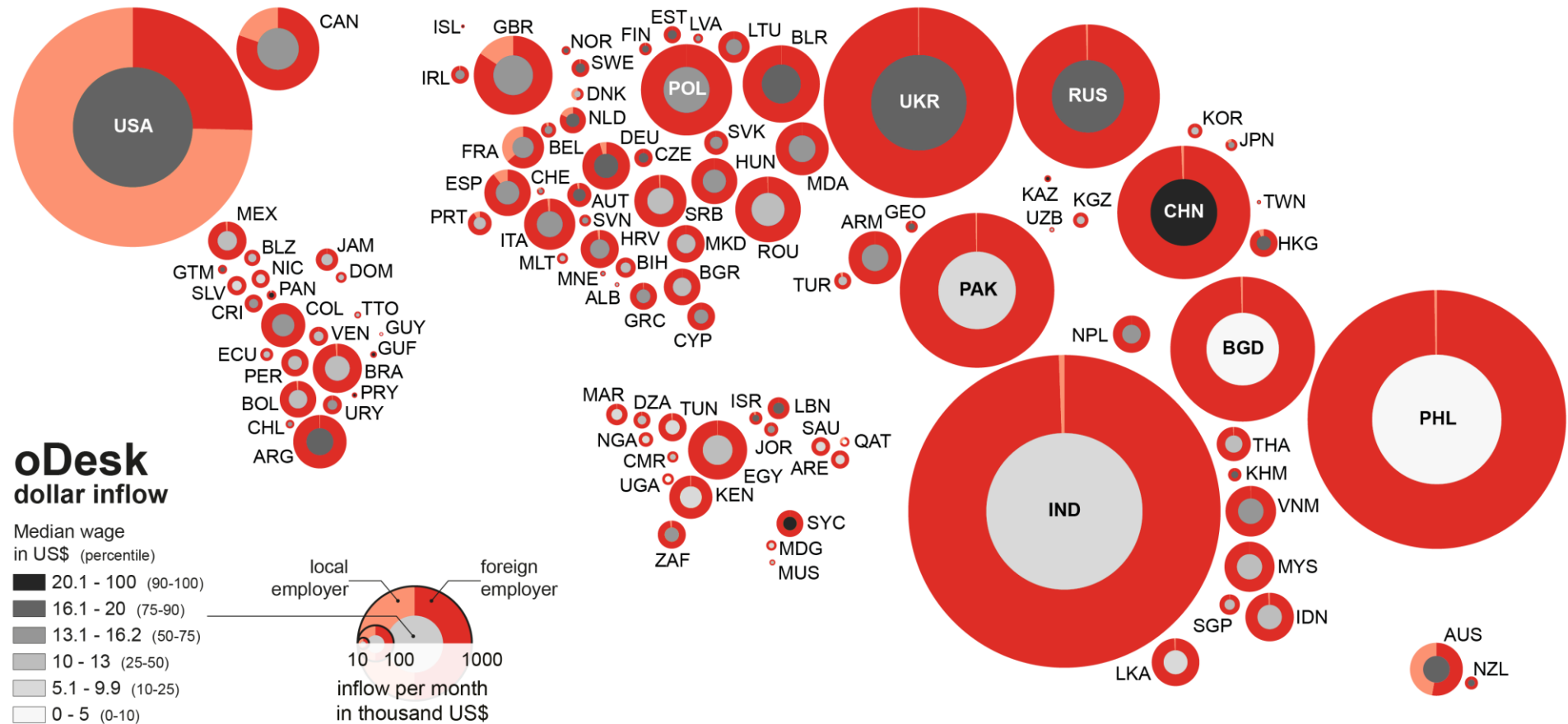
Geography of Top-Level Domain names

number of buyers per country



number of sellers per country





East African findings

Re-intermediation

Local market focus

Skills

Late-follower challenges

Factors that contribute to wage depression

- Clients expect low rates
- Clients decide on (low) rates
- Workers have a lack of bargaining power due to competition
- Platform policies influencing rate setting
- Imperfect market information
- Alienation and inability to upgrade
- Discrimination
- Feelings of powerlessness

Summary

- The digital is an important enabler of a range of new connectivity-based businesses that *can* be done from anywhere.
- But the digital is only one of many enablers that include: affordable and reliable power, easy and affordable access to requisite technology and capital goods, a supportive regulatory environment, programmes for skills development, and an ability to make trusted and verifiable payments.

Implications

- The importance of skills, learning and combinations of local and global knowledge
- Social connectivity and trust as necessary conditions for the digital to bridge distance
- Domestic and regional markets as opportunities
- Gateways and gatekeeping

Moving Forwards

- Adopt a multi-pronged digital economy strategy.
- Harness the critical mass of digital adoption.
- Encourage knowledge spillovers from foreign BPO/ITES work.
- Build the local digital brand.
- Financially supporting local SMEs.
- A need for relevant research and training.
- Ensuring that digital work is not done outside of the scope of national labour laws and taxation regimes.

thank you

(many of our outputs are available at geonet.oii.ox.ac.uk)

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