

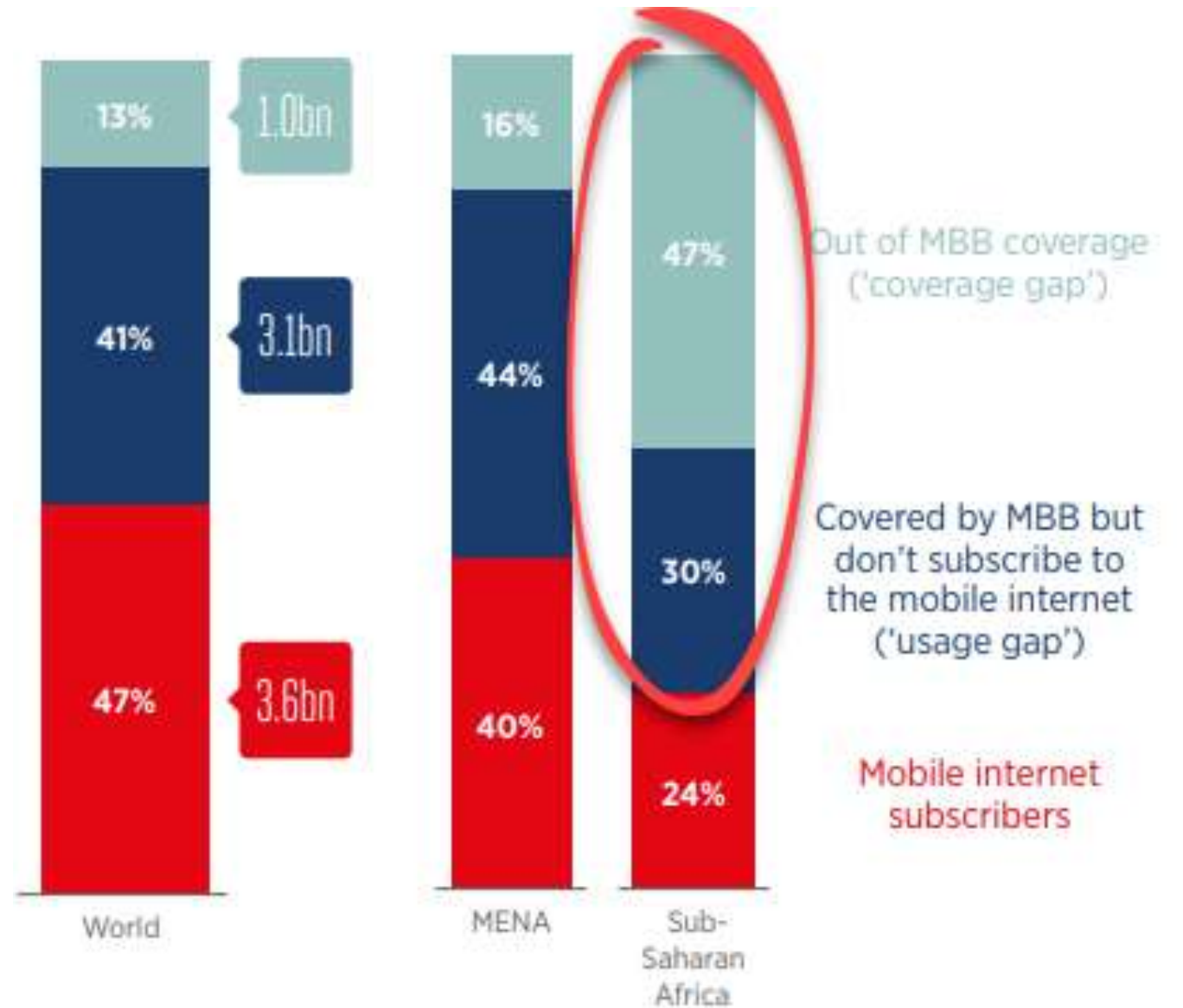
Inclusive Digital Service
Design and the role of
APIs:

Creating Impact
at Scale

Lesley-Ann Vaughan
@VaughanLA



77% of people
in Sub-
Saharan Africa
don't have
access to the
internet on a
phone



Percentage of population, 2018

Source: GSMA Intelligence

**It is possible
to design a
scalable
digital service
for customers
that only have
a feature
phone**





Register
FREE
at any Authorized
M-PESA Agent*

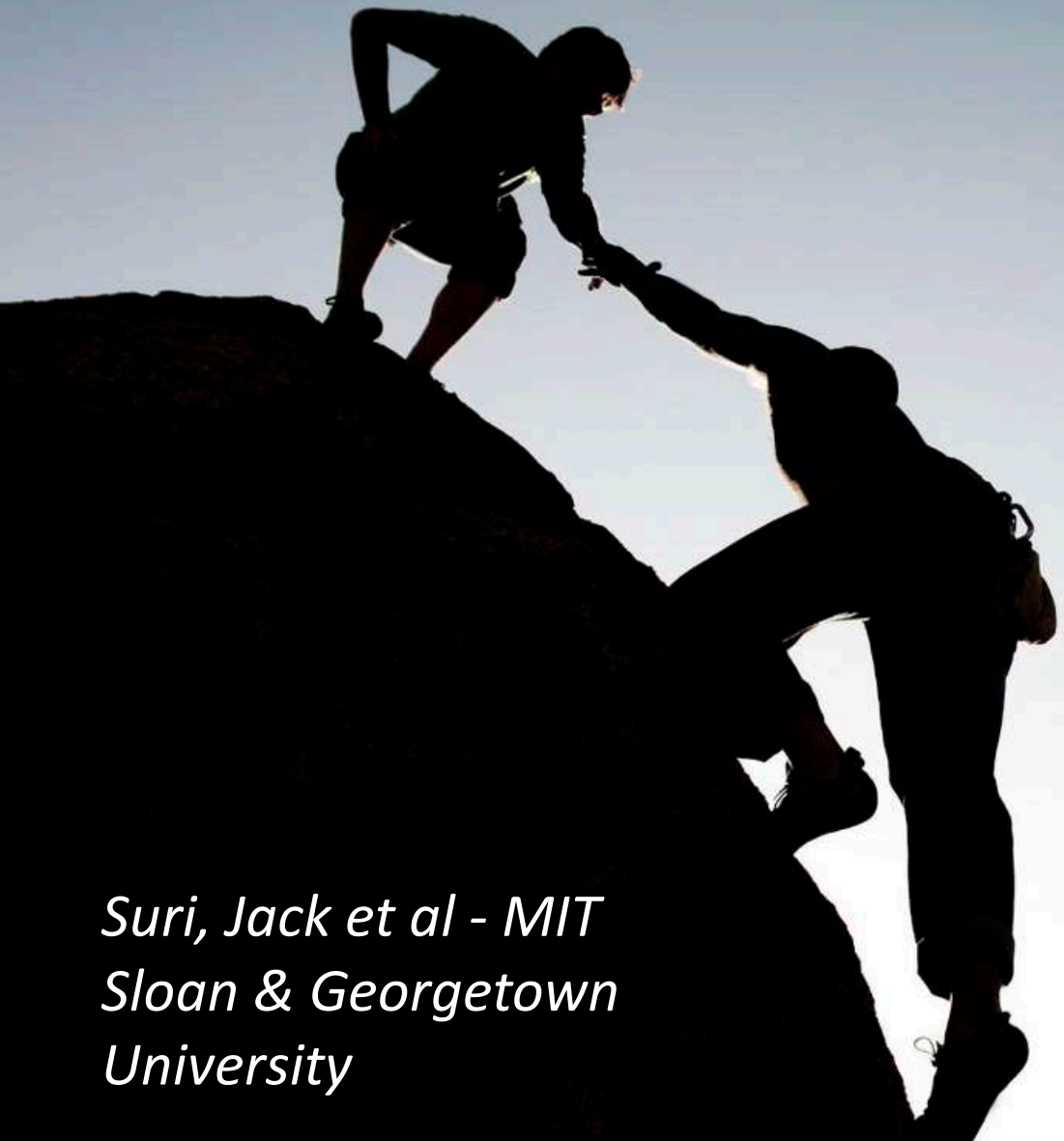


Send pesa by phone

M-PESA is the new, easy and affordable way to send money home.



www.safaricom.co.ke



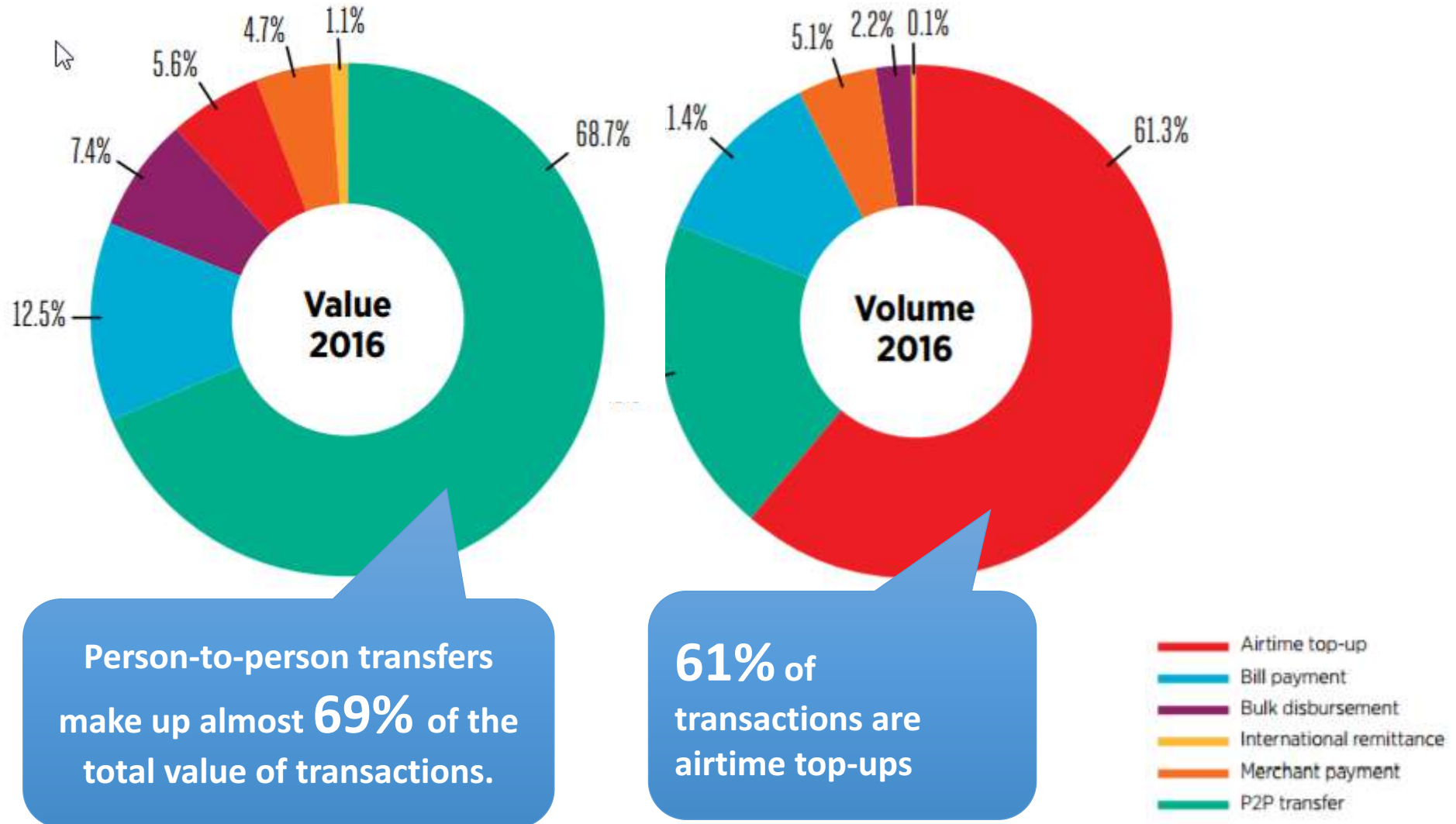
2% of Kenyan households
lifted out of extreme poverty

185,000 woman move
from farming to business

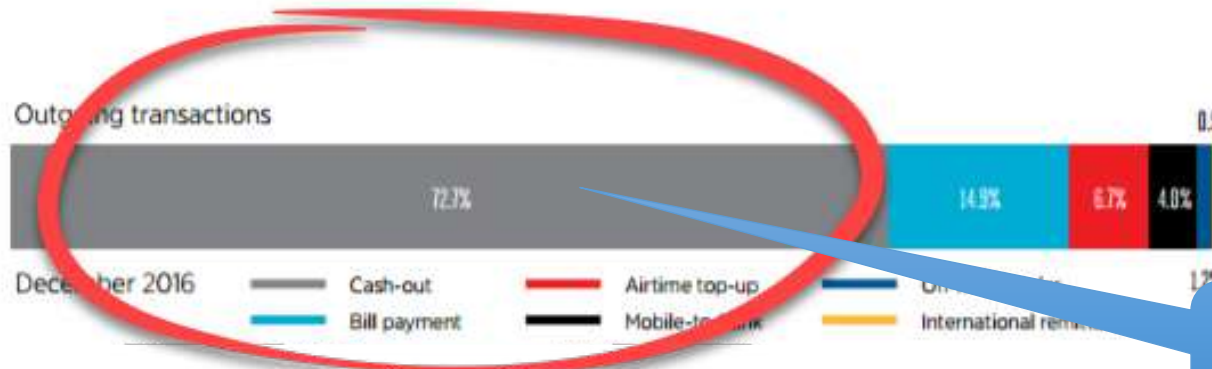
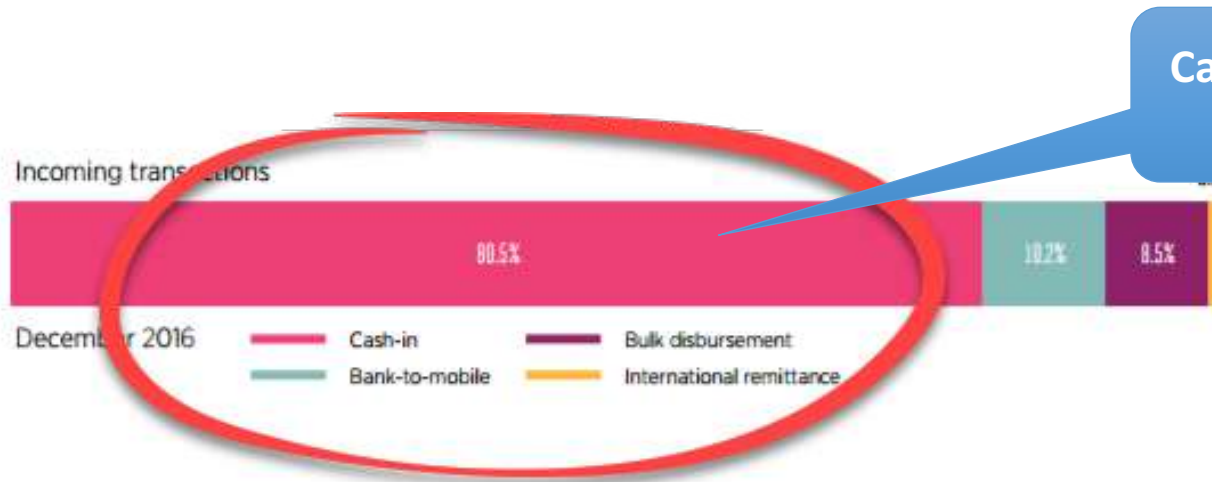
\$1.75bn paid in
commissions to Agents

*Suri, Jack et al - MIT
Sloan & Georgetown
University*

Despite progress in some areas, and some success stories..



Customers are dependent on cash still



We are seeing increases in the no. of transactions per customer, **but not if we compare to the number of transactions customers are doing in cash**

Cash Out makes up 73%

Poor people have underserved needs

scramble

Poor people sometimes need to scramble to make ends meet and deal with emergencies

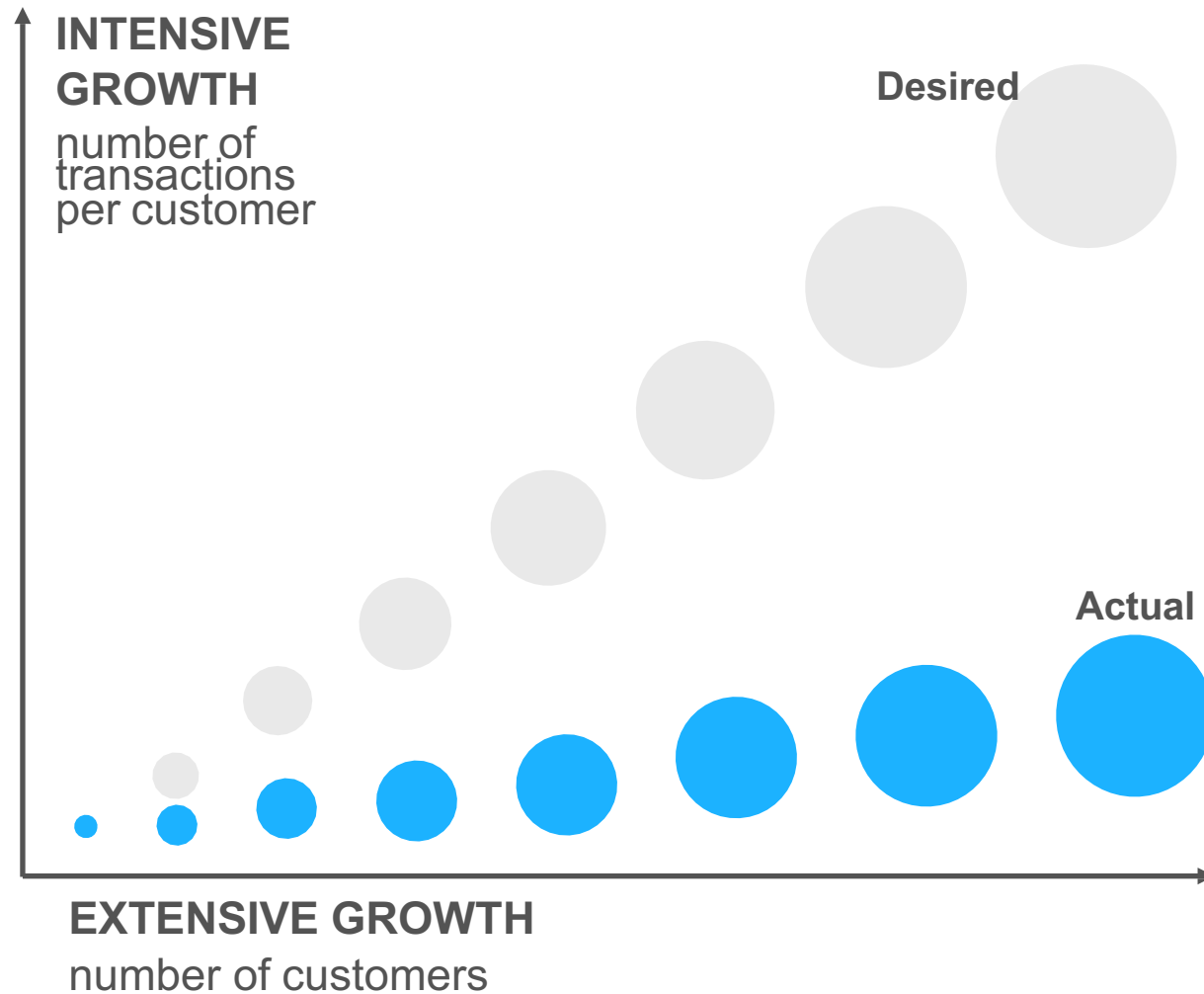
protect

Poor people need to protect their family and their earnings from shocks

aspire

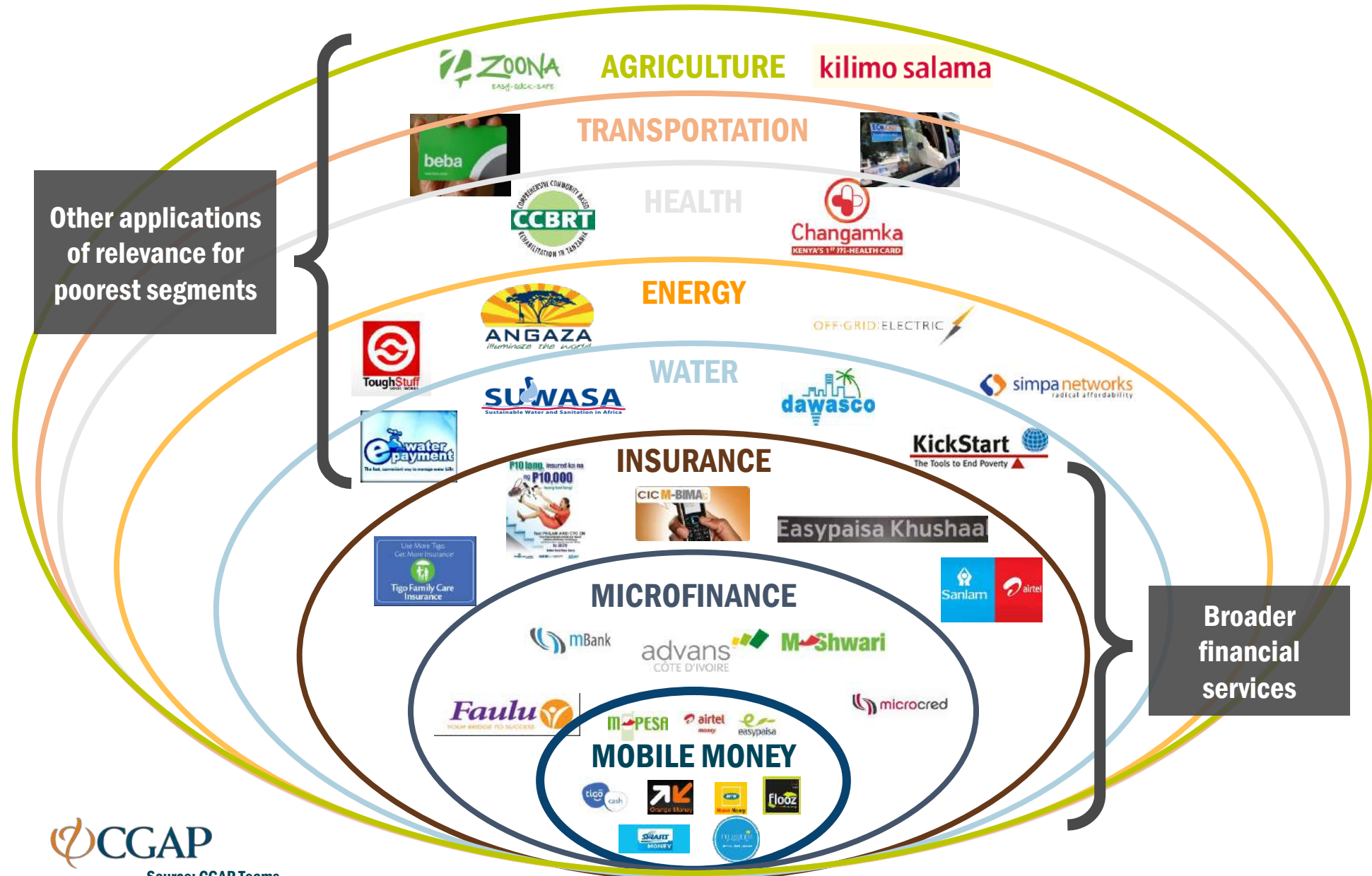
Poor people aspire to a better financial future

How do we achieve higher activity rates?



Without change, low-income customers will likely continue to favor informal solutions to address the majority of their financial challenges

APIs have started to unlock ecosystem innovation

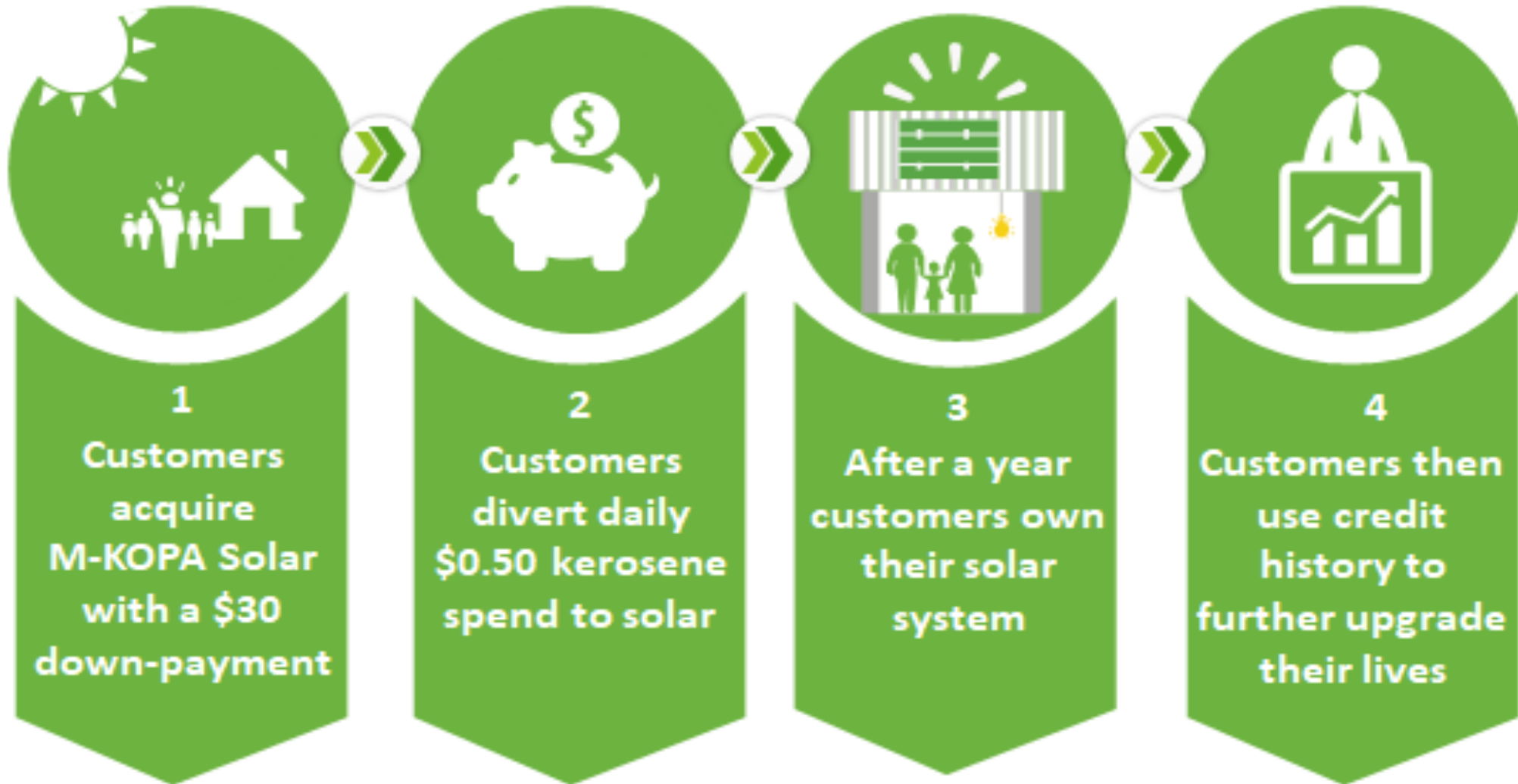






1) M-KOPA Solar

A simple business model based on affordability and progress ...





550,000 Homes connected



92% Positive credit

2,500 People employed

2) Pula

A farmer buys insurance with his seed

He activates the Insurance at Planting time (Location is Key)

Weather Station Data is Monitored

Payout decisions are made based on weather data

Payout is transferred to the farmer digitally



Imagining agricultural insurance to protect smallholders worldwide

"The real challenge was selling insurance"

3) Hello Tractor

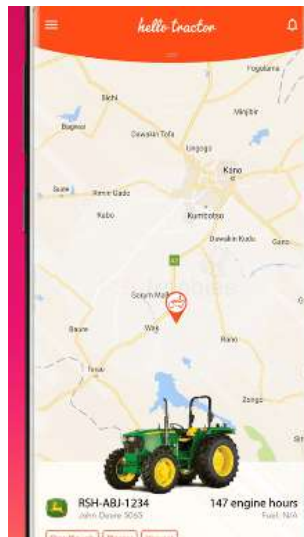
It's Like Uber for Tractors, and It Could Change the Game for African Farmers

Instead of taking out a high-interest loan to buy machinery, this start-up is connecting locals to farming implements via text message.



“Farmers need loans to pay for a \$3,500 tractor, but commercial banks in Nigeria charge 30% interest and require repayment within a year, which Oliver likens to paying off a home mortgage in three years!”



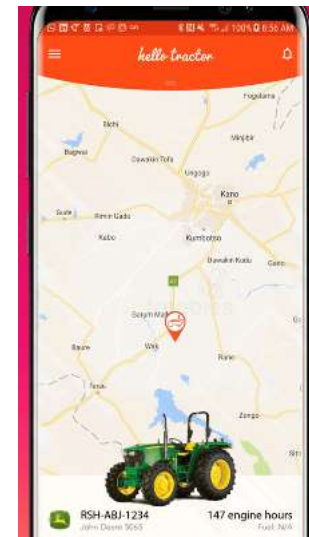


hello tractor

HELLO TRACTOR FOR TRACTOR OWNERS

Fleet Management made Simple

LEARN MORE

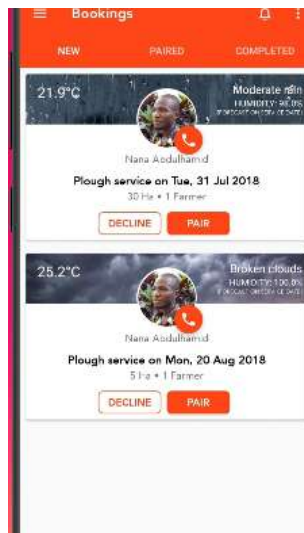


hello tractor

HELLO TRACTOR FOR DEALERS

Bring Your Customers Closer to Making a Purchase Decision

LEARN MORE



Bookings

NEW PAIRED COMPLETED

21.9°C Moderate rain HUMIDITY: 88% WIND: 10 km/h

Nana Abdulhamid

Plough service on Tue, 31 Jul 2018

30 hrs • 1 Farmer

DECLINE PAIR

25.2°C Broken clouds HUMIDITY: 100% WIND: 10 km/h

Nana Abdulhamid

Plough service on Mon, 20 Aug 2018

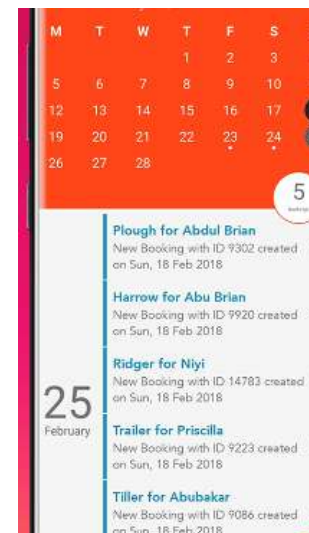
5 hrs • 1 Farmer

DECLINE PAIR

HELLO TRACTOR FOR FARMERS

Affordable, Reliable Access to Timely Tractor Service

LEARN MORE



M T W T F S S

5 6 7 8 9 10 11

12 13 14 15 16 17 18

19 20 21 22 23 24 25

26 27 28

5 Bookings

25 February

Plough for Abdul Brian
New Booking with ID 9302 created on Sun, 18 Feb 2018

Harrow for Abu Brian
New Booking with ID 9920 created on Sun, 18 Feb 2018

Ridger for Niyi
New Booking with ID 14783 created on Sun, 18 Feb 2018

Trailer for Priscilla
New Booking with ID 9223 created on Sun, 18 Feb 2018

Tiller for Abubakar
New Booking with ID 9086 created on Sun, 18 Feb 2018

HELLO TRACTOR FOR BOOKING AGENTS

Book More, Earn More

LEARN MORE

“With a new partnership with John Deere, the Nigerian startup Hello Tractor is going to have 10,000 tractors available to make farming more efficient.”



So what's the problem?



Impact takes time, customer
empathy and testing



**Identity is
central - and
often missing**

Smartphones are
nascent - and data is
not cheap

**Payments rails are
fragmented, sometimes
unreliable and really
difficult/ expensive to
access**

**The reality:
this isn't easy at all**

Mobile network
coverage is often
lacking

USSD is basic /expensive and
“clunky”

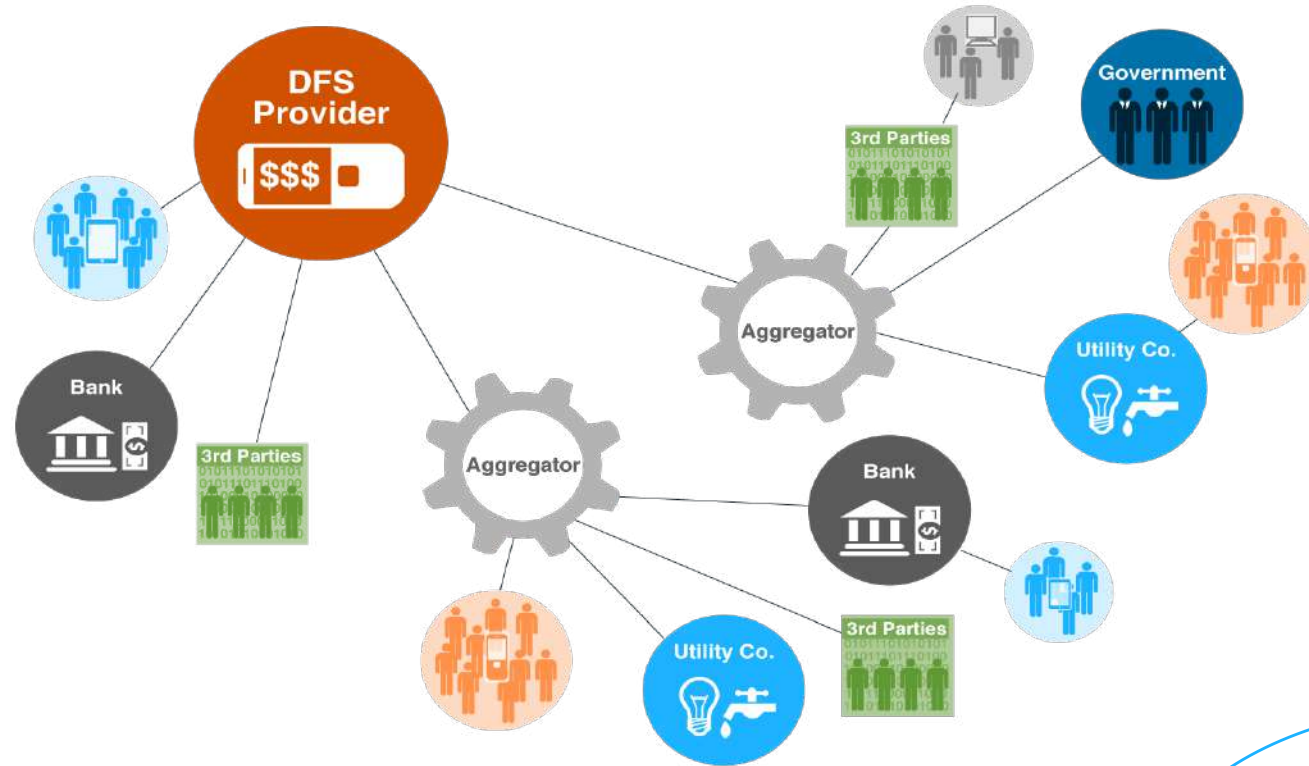
Lets talk Field Workers





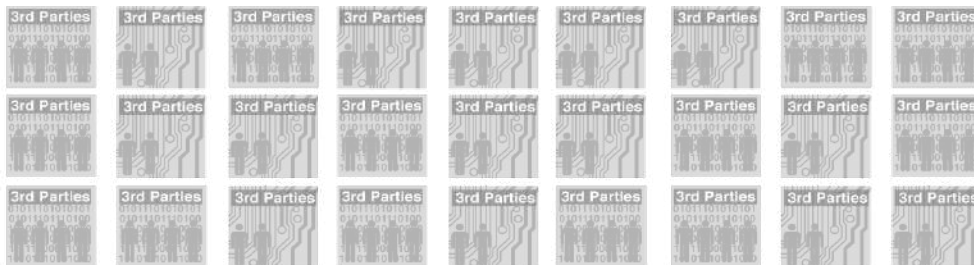
Lets talk Customers

Partnerships with DFS Providers are a core part of the solutions, but also a huge painpoint



- High & opaque costs
- Long & opaque process
- Lack of clarity on what is available, & commercials

DISCONNECTED



“““

Price quoted by providers for integration and API access (\$10,000-100,000) was too high for many smaller companies

Financial inclusion efforts at scale will be hindered, and innovation limited, until we can unlock:

- 1) Cost to Access (for both parties)**
- 2) What APIs are available**
- 3) Cost to Use**

“Setting up a shop on the platform took her a couple of days”



“How we built a WeChat app and recovered our development costs within 24 hours”

Prediction:

Reaching Africa's target demographic in the next 5 years will involve APIs but will retain the human touchpoint at key steps.

APIs done well will help put the right information in the hands of that workforce.

I hope there will be a more efficient way to use that workforce, and identity API thinking is central to that.

APIs done well will help to prototype and try things before committing at volume.

But business model innovation will be essential

Lesley-Ann Vaughan

MFX Partners

www.mfx-partners.com

@VaughanLA