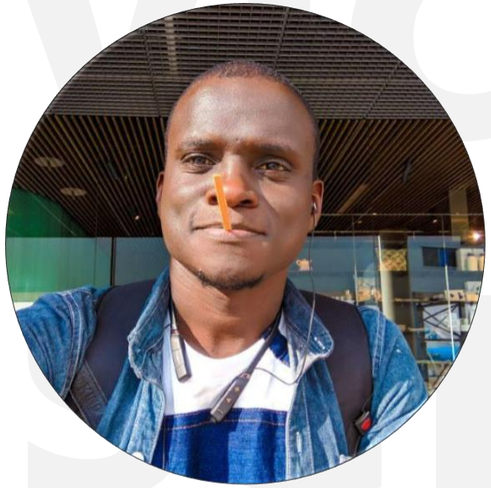
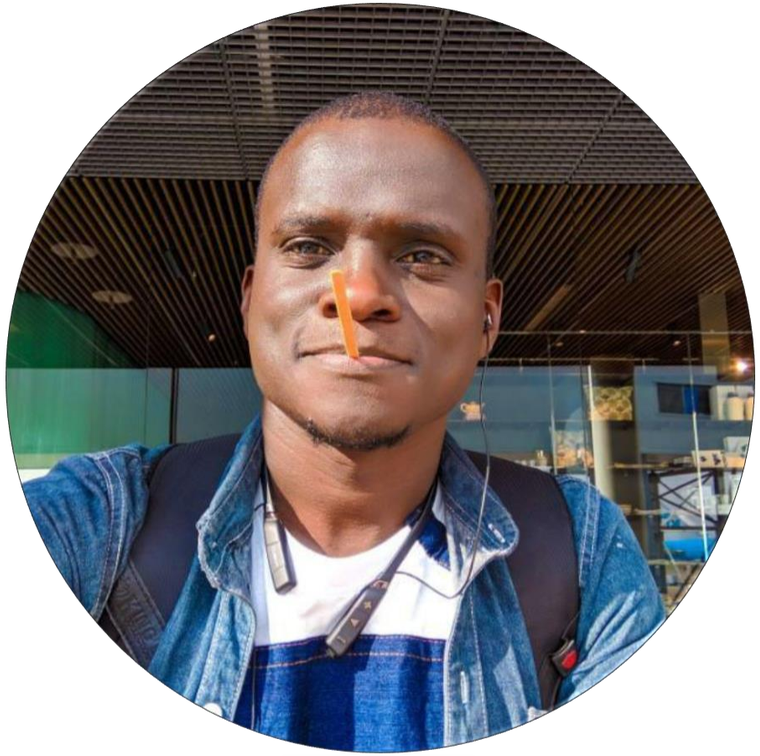
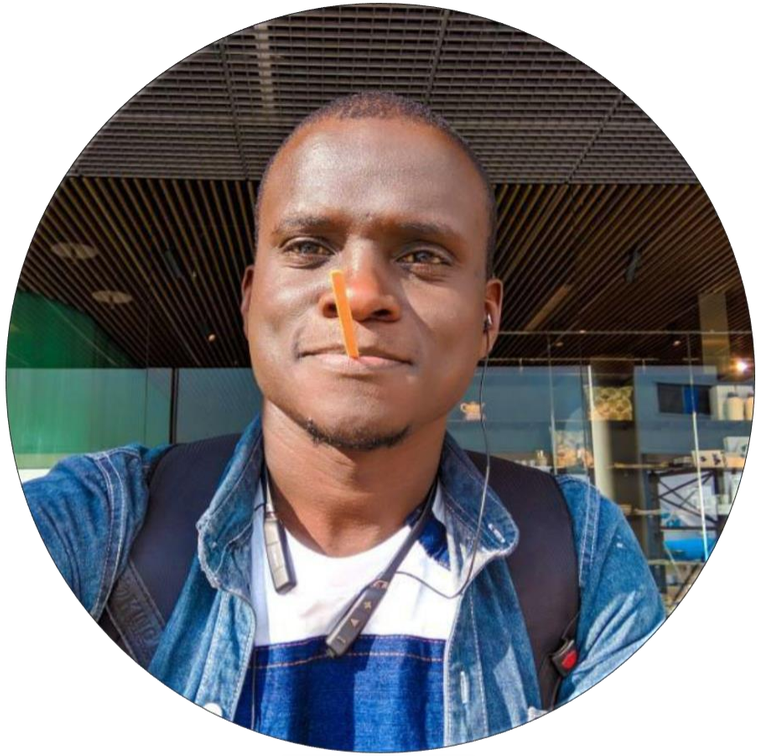
a billion low end devices and their users



frank tamre
@tamrefrank

frank tamre





frank tamre

@tamrefrank

frank tamre

@tamrefrank

SE & consultant

earlycamp

android254

kotlinkenya

azureKE

agenda

- the users.
- the devices.
- development.
- q&a.

the users

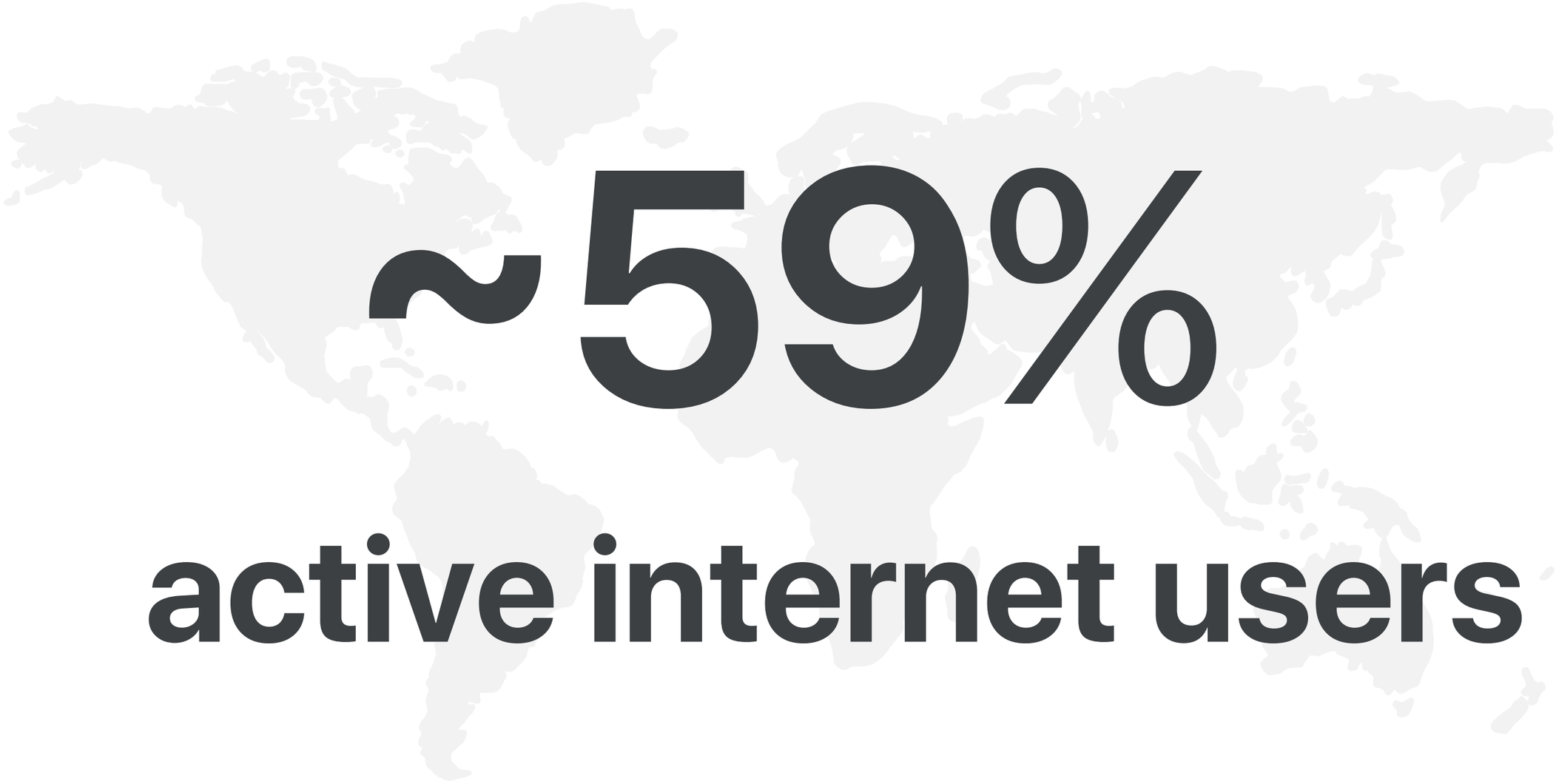
self reflection
my audience
difference
answer honestly

Raise your hand, if...

the users

7.8 billion+

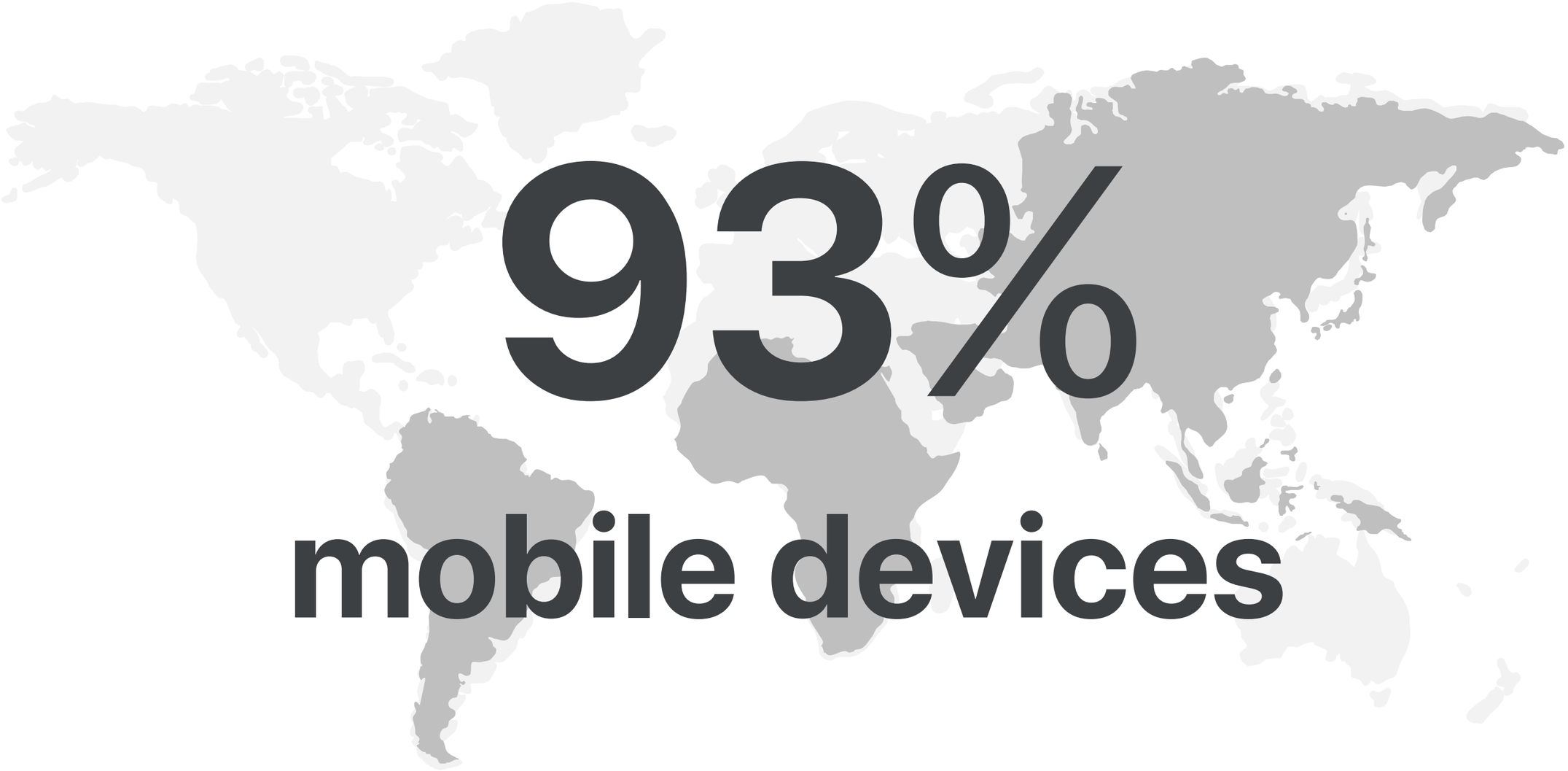
the users



~59%

active internet users

the users



93%

mobile devices

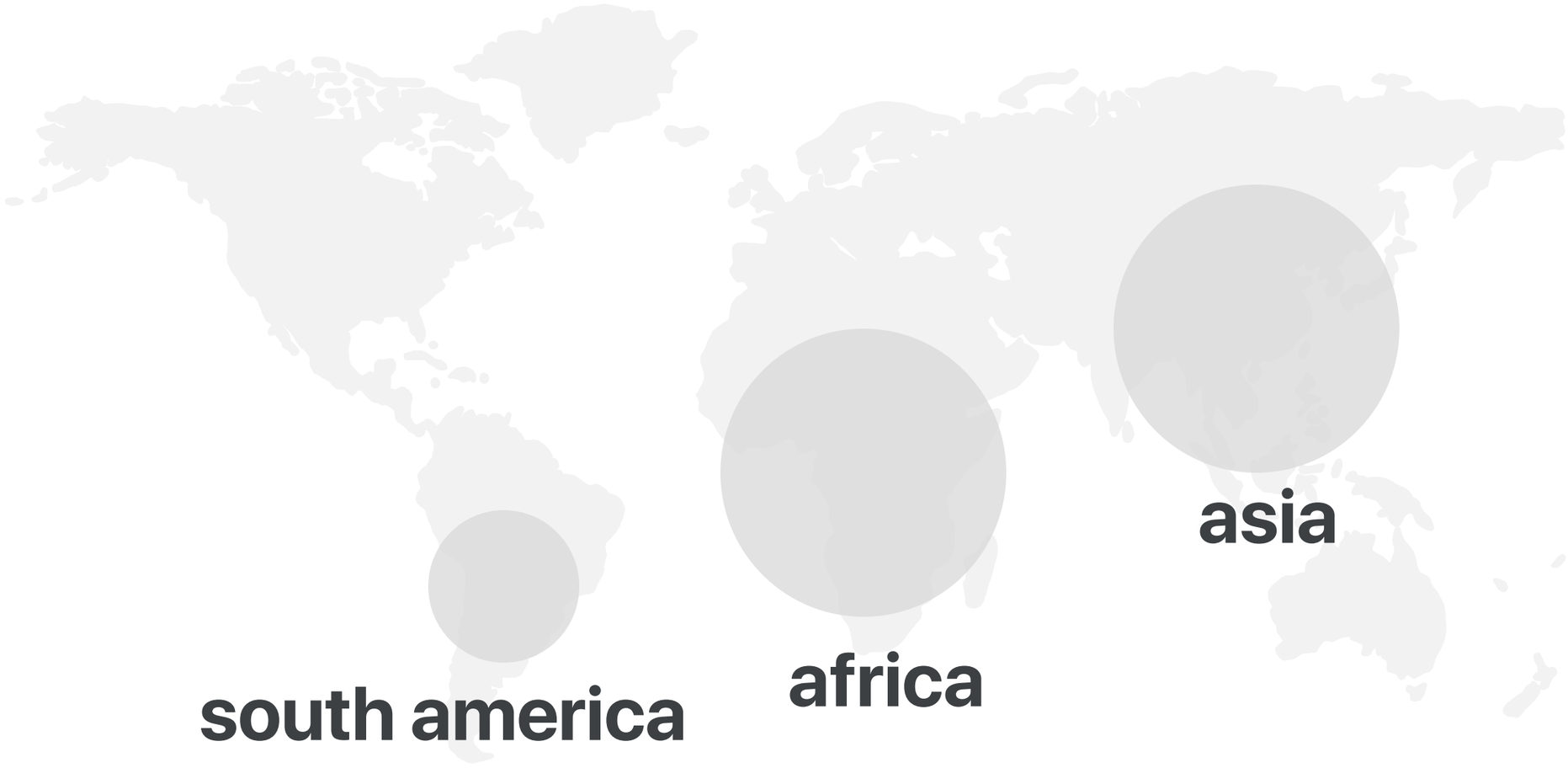
½ of population or more is not online

the users

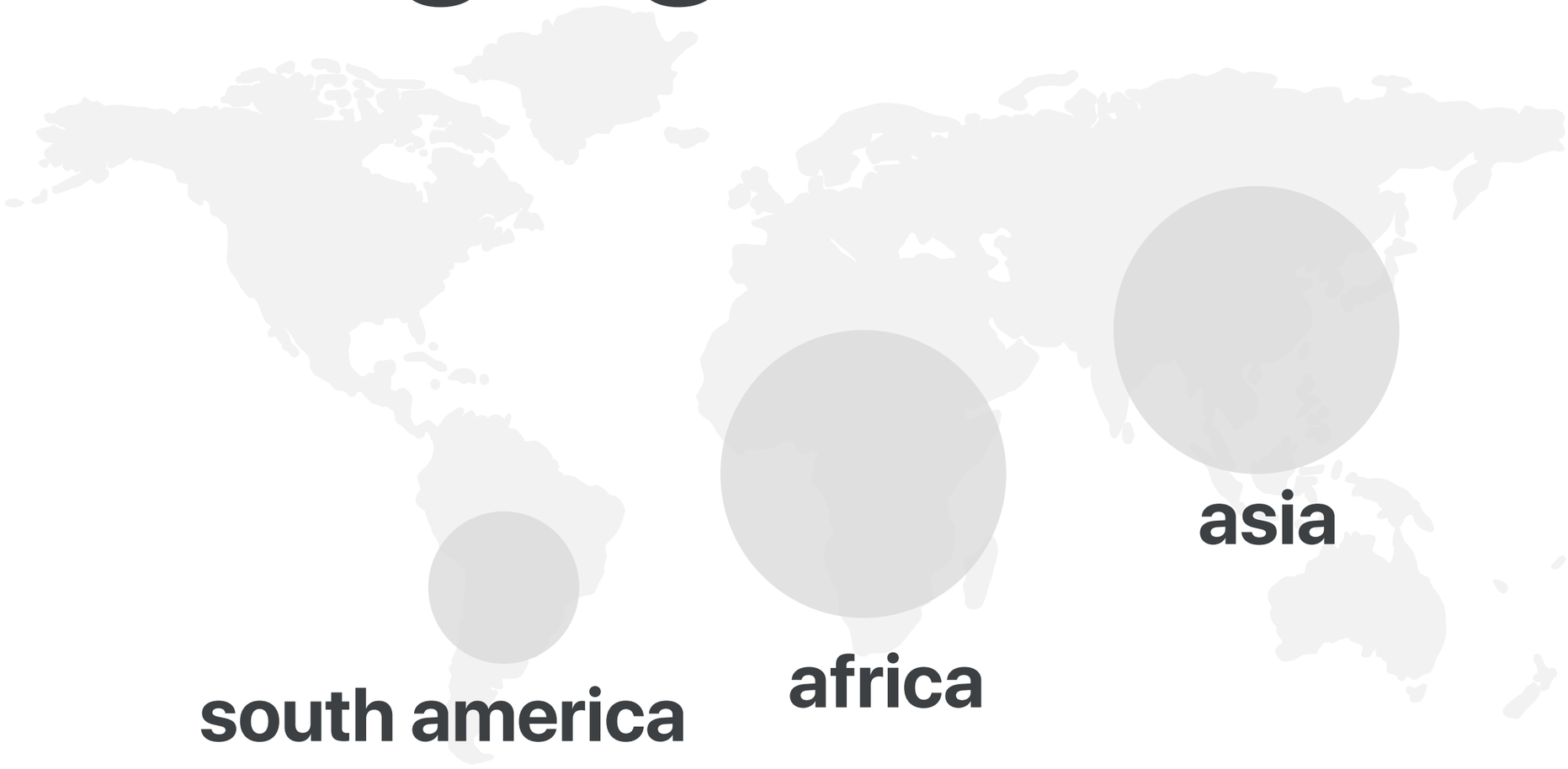
the users

emerging markets

the users

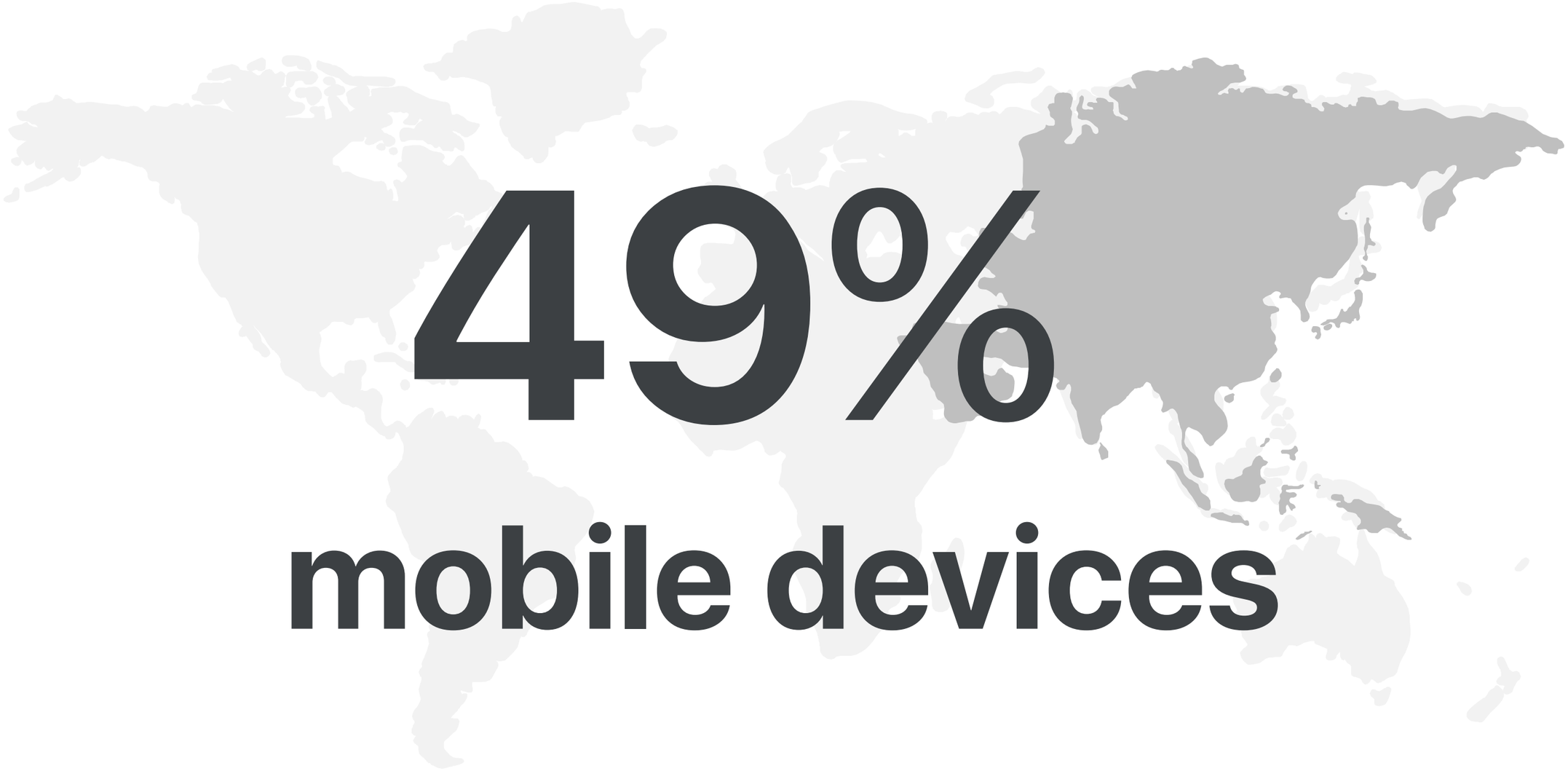


emerging markets



the users

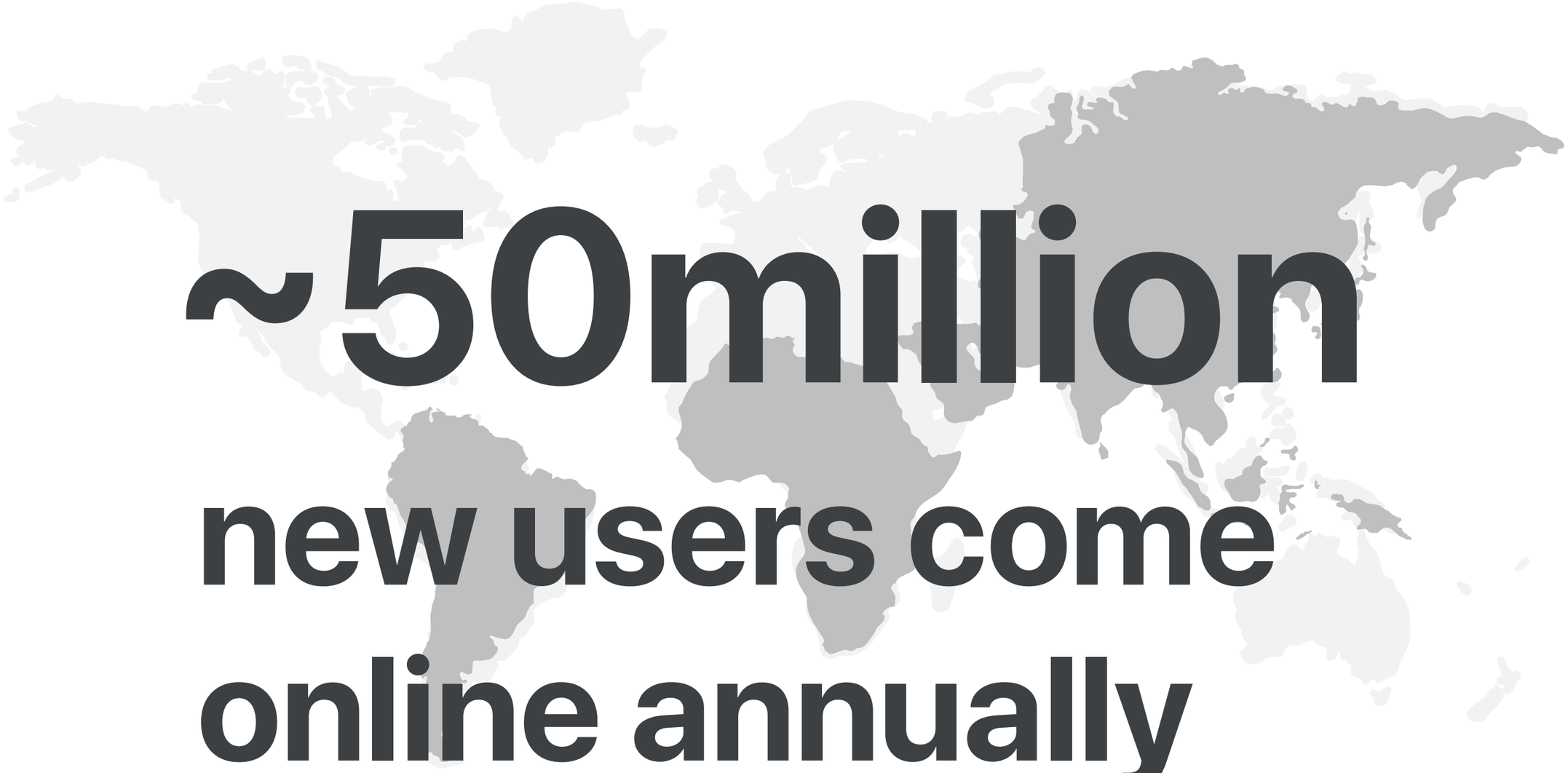
the users



49%

mobile devices

the users



~50million

new users come online annually

not online

the users

the users

mobile first

*may own 2 phones

the devices

the users

3G

Network Connectivity

4G

Network Connectivity

the users

the users

5G

Network Connectivity

the users

the users

~~5G~~ ~~4G~~ ~~3G~~

Network Connectivity

the users

edge 2G

Network Connectivity

the users

uses

uses

- entertainment

the users

uses

- entertainment

- communication

the users

uses

- entertainment
- communication
- **utility**

uses

- entertainment
- communication
- utility

the users

experimental

the devices

hand me downs

small screens

the devices

knock-offs

the devices

cost

Less than € 77

the devices

low storage

the devices

low memory

the devices

don’t receive updates

dual sim cards

developer

development

connectivity

development

Connectivity states

- online

development

Connectivity states

- online

- loading

development

Connectivity states

- online
- loading
- failed error

development

Connectivity states

- online
- loading
- failed error

development

Connectivity states

- ~~online~~
- ~~loading~~
- ~~failed error~~

development

good Connectivity states

development

good states for connectivity

- offline first

development

good states for connectivity

- offline first

- loading progress

development

good states for connectivity

- offline first
- loading progress
- retry

development

good states for connectivity

- offline first
- loading progress
- retry

- failed error
- success

development

good states for connectivity

- offline first
- loading progress
- retry
- failed error
- success

development

good states for connectivity

- offline first
- loading progress
- retry
- failed error
- success

development

cache mechanism

development

PWAs

development

good design

development

good design

- simple is good
- delightful experiences
- delightful experiences

development

UX market research

development

performance

development

localization

from the bottom of my heart

thank you

asanteni
thank you

let us talk
questions
q&a
@tamrefrank

Q&A