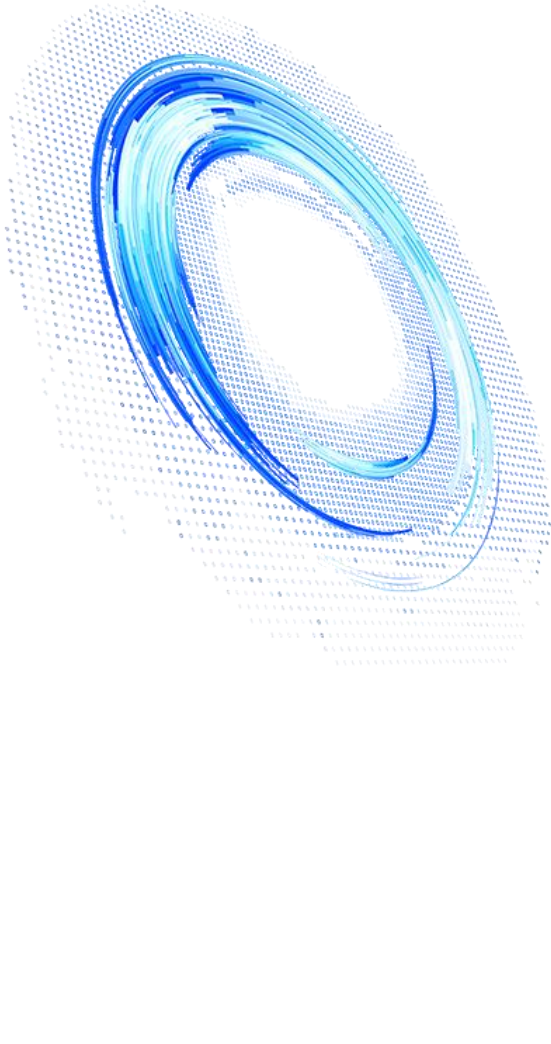


Over the Top (OTT) - Opportunity, Threat or Something Else?



PTC '20 VISION 2020 AND BEYOND

10-27 JANUARY 2020 | HONOLULU, HAWAII

By Tony Mosley
Director of Business Development
Ocean Specialists Inc.
tmosley@oceanspecialists.com

Innovation and Disruption

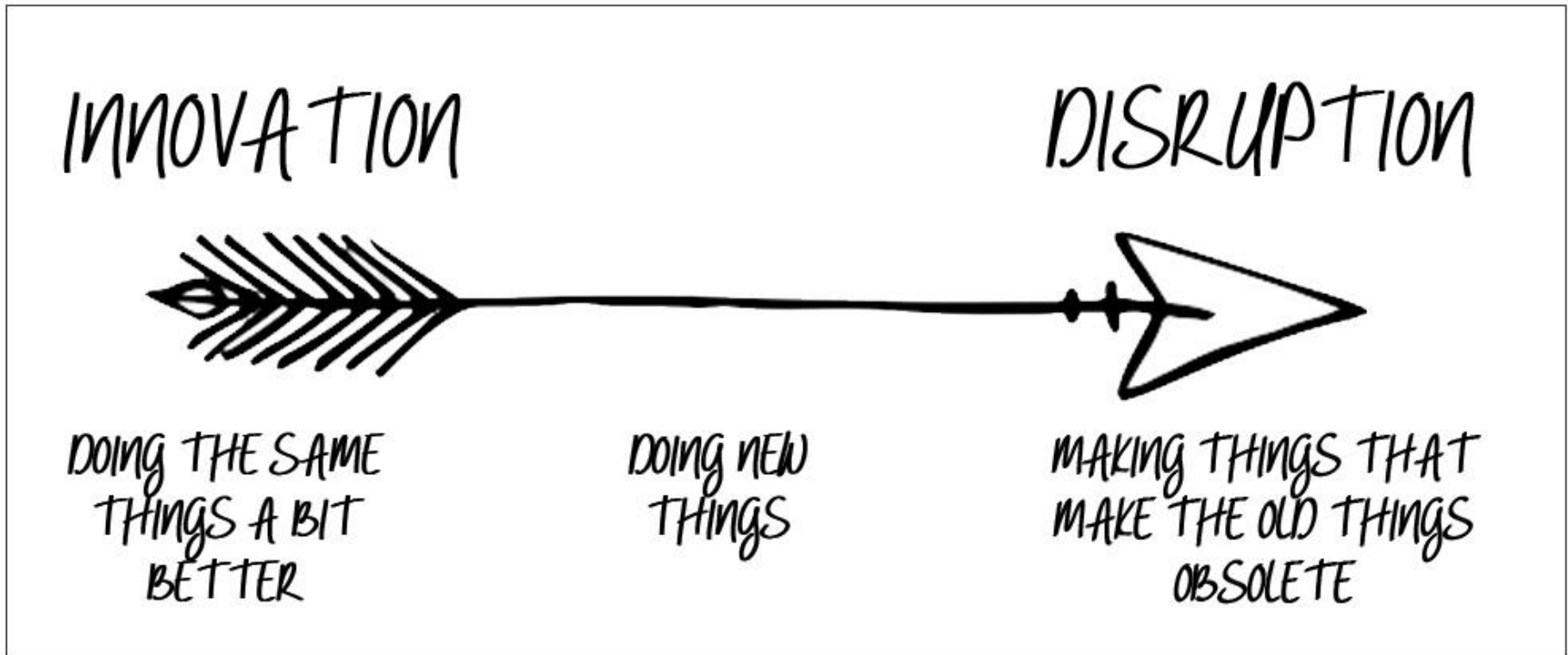
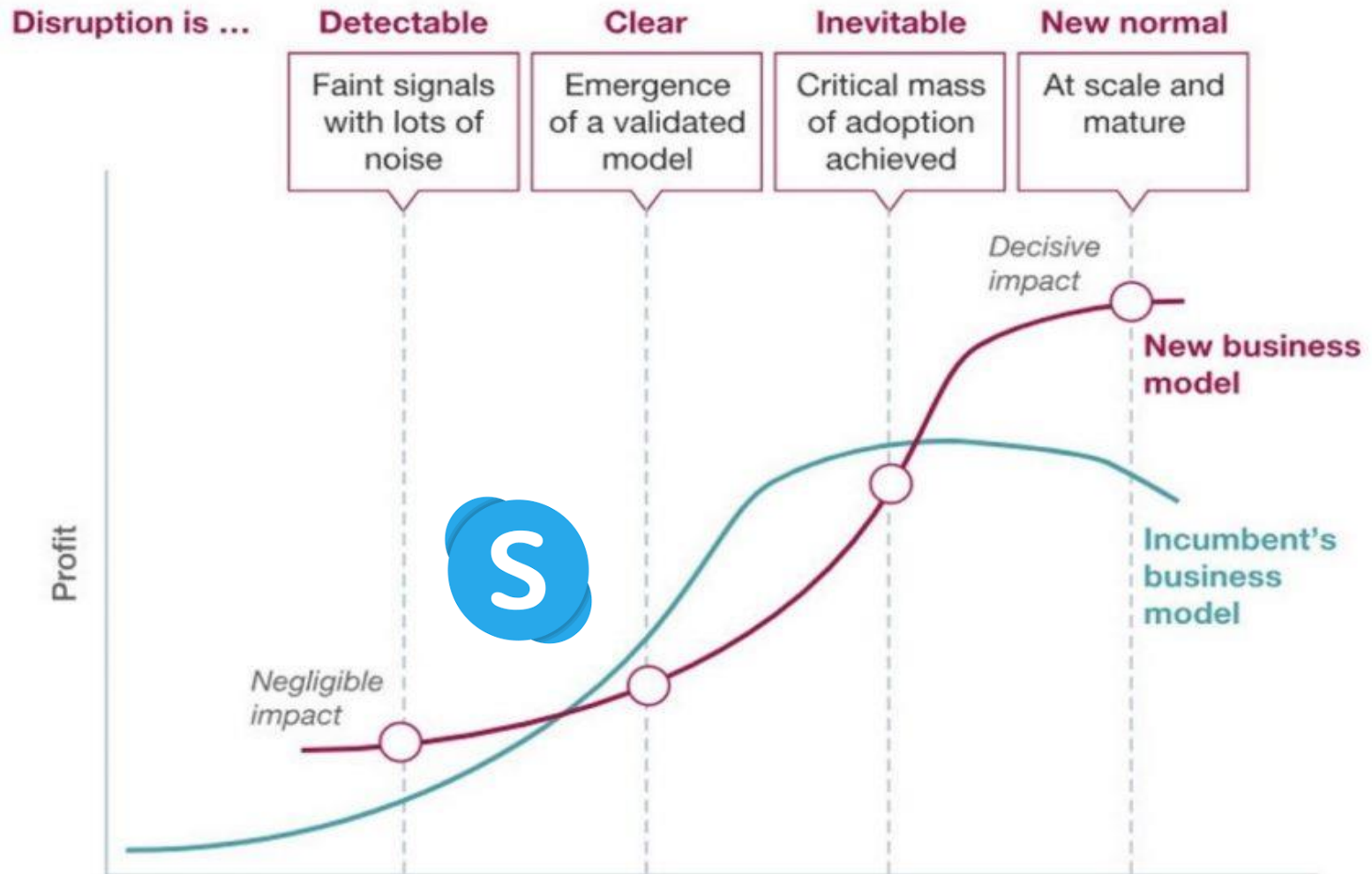
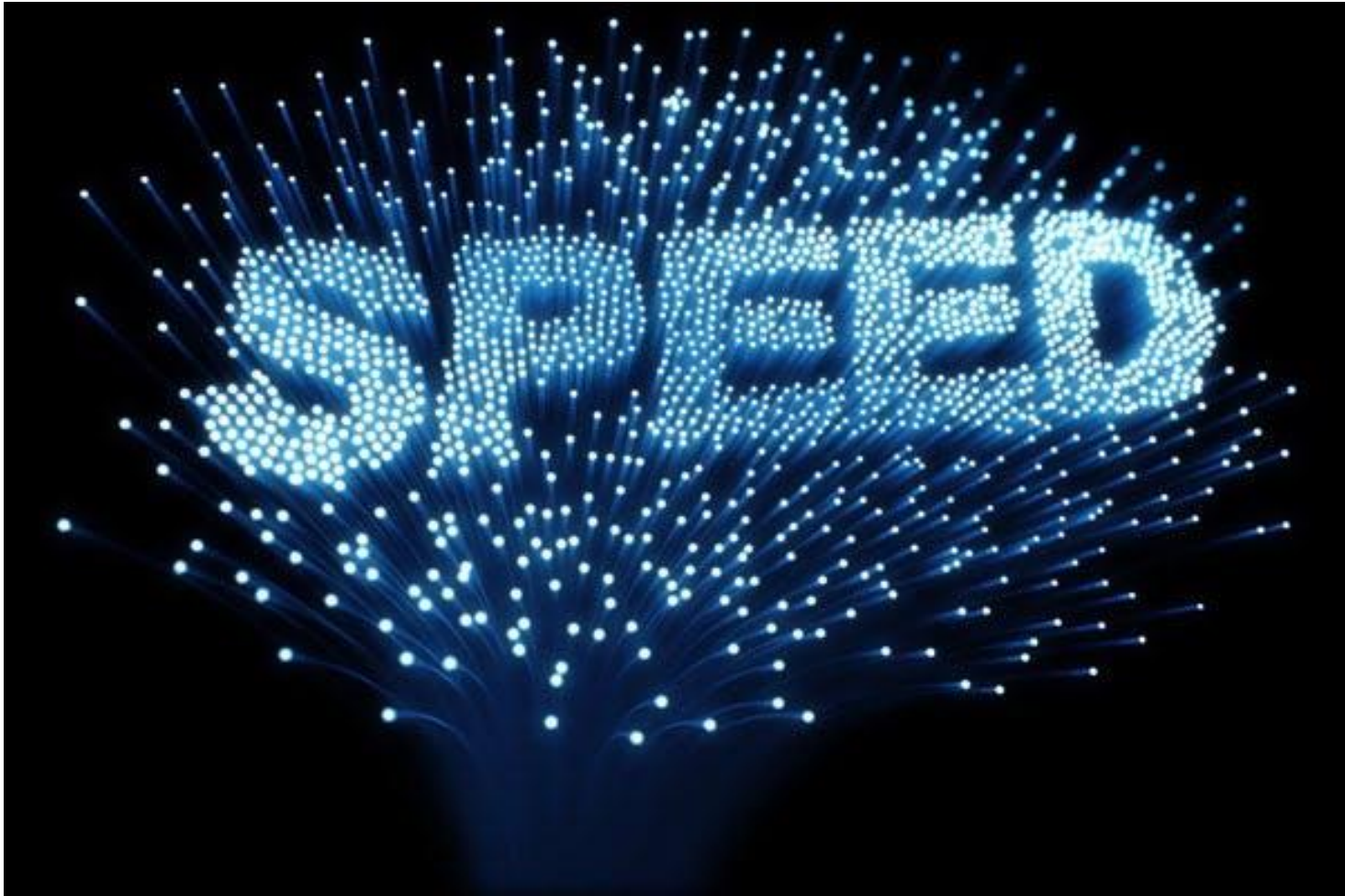


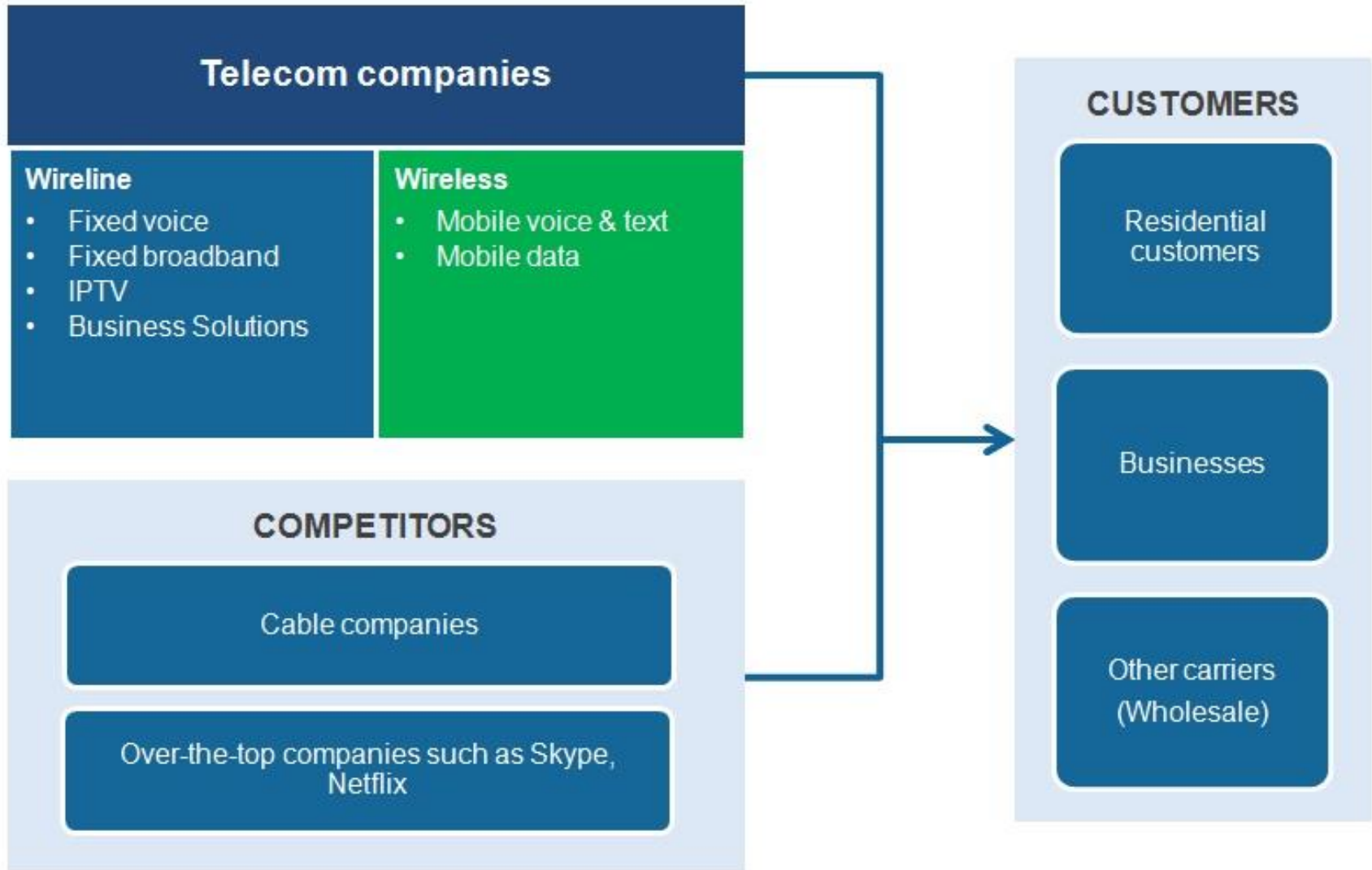
Figure 1: Disruptive innovation can hurt if you are not the one doing the disruption. (Source: Gartner.com)

Disruption and Scale





Telecom industry dynamics



Full Service Telcos

Revenue Drivers

- Voice
- SMS -messaging
- Data (Broadband)
- Mobility
- Enterprise

?



Substitution

Telex

Fax

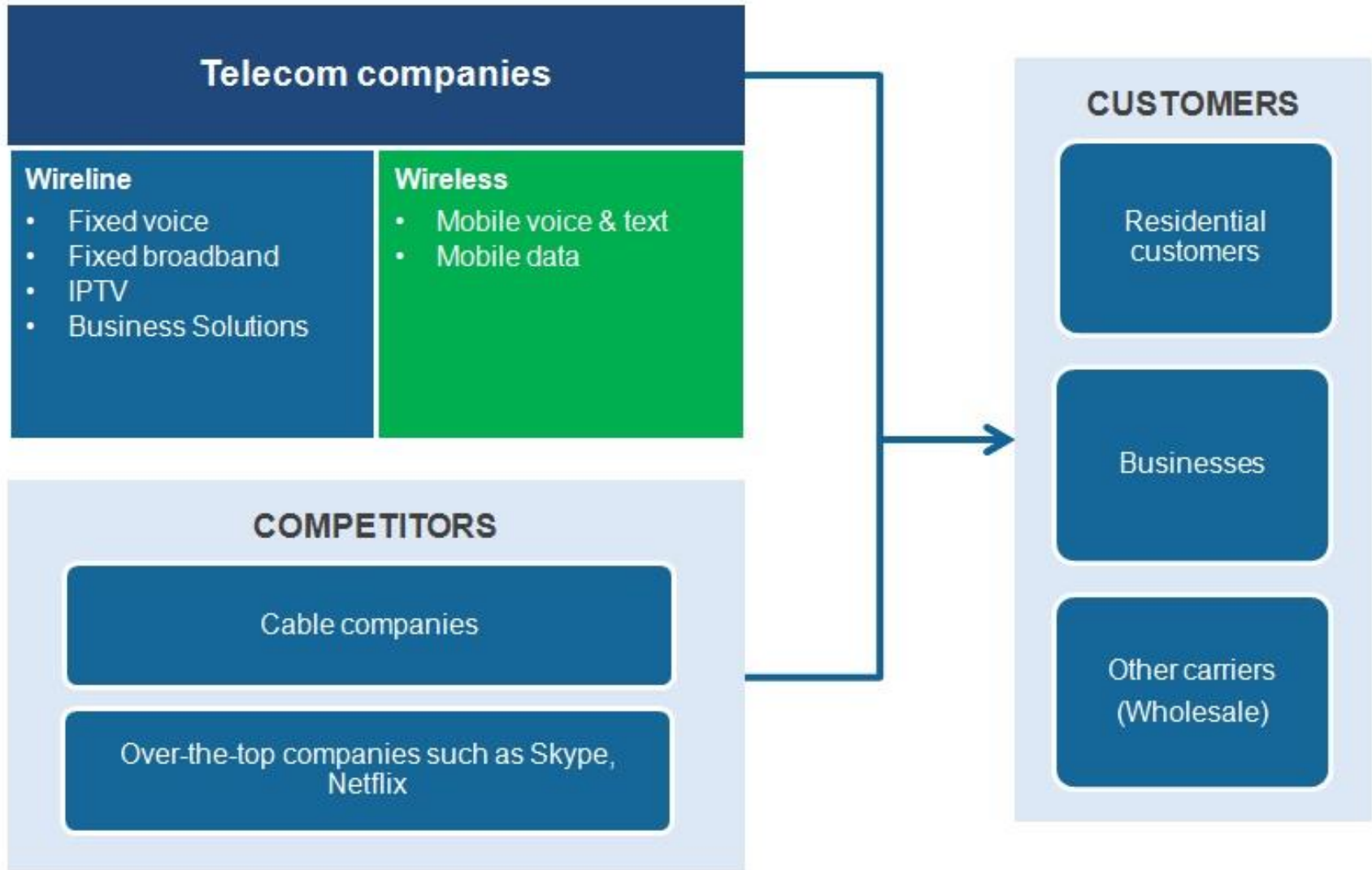
Voice

Video

Data

Mobility

Telecom industry dynamics



OTT Definition

- **Over-the-Top Application (OTT)**
- **Definition - What does *Over-the-Top Application (OTT)* mean?**
- An over-the-top (OTT) application is any app or service that provides a product over the Internet and bypasses traditional distribution. Services that come over the top are most typically related to **media** and **communication** and are generally, if not always, lower in cost than the traditional method of delivery.
- Internet Based Service Providers (IBSP)



Multi-faceted OTT Competition



Threats? Revenue Loss 2012-2017

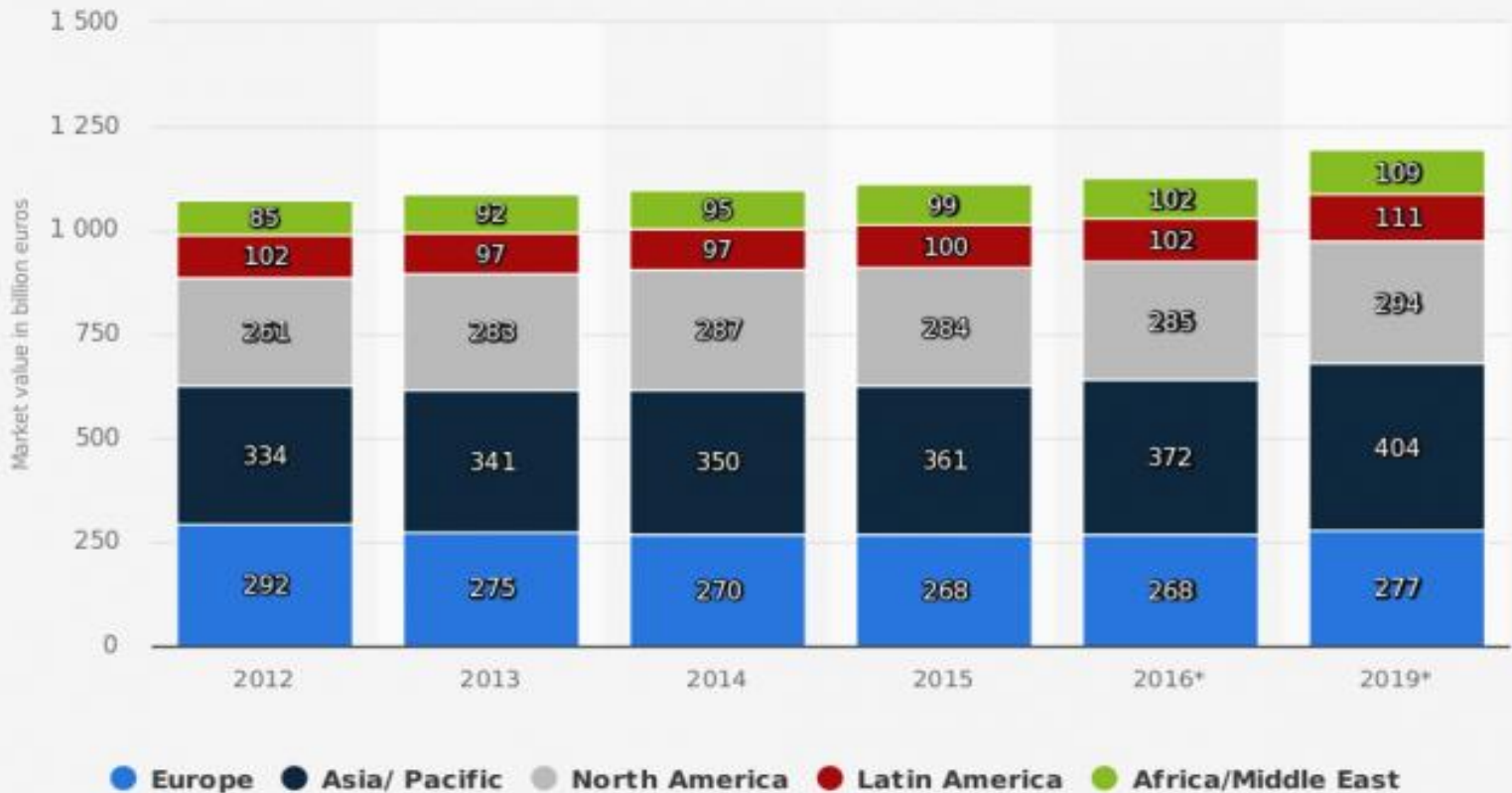
\$461 Billion USD

Ovum research 2016

1997 Netscape
2007 iPhone

Global Telecom Revenue

Global telecommunications services market value from 2012 to 2019, by region (in billion euros)



Source
IDATE DigiWorld
© Statista 2018

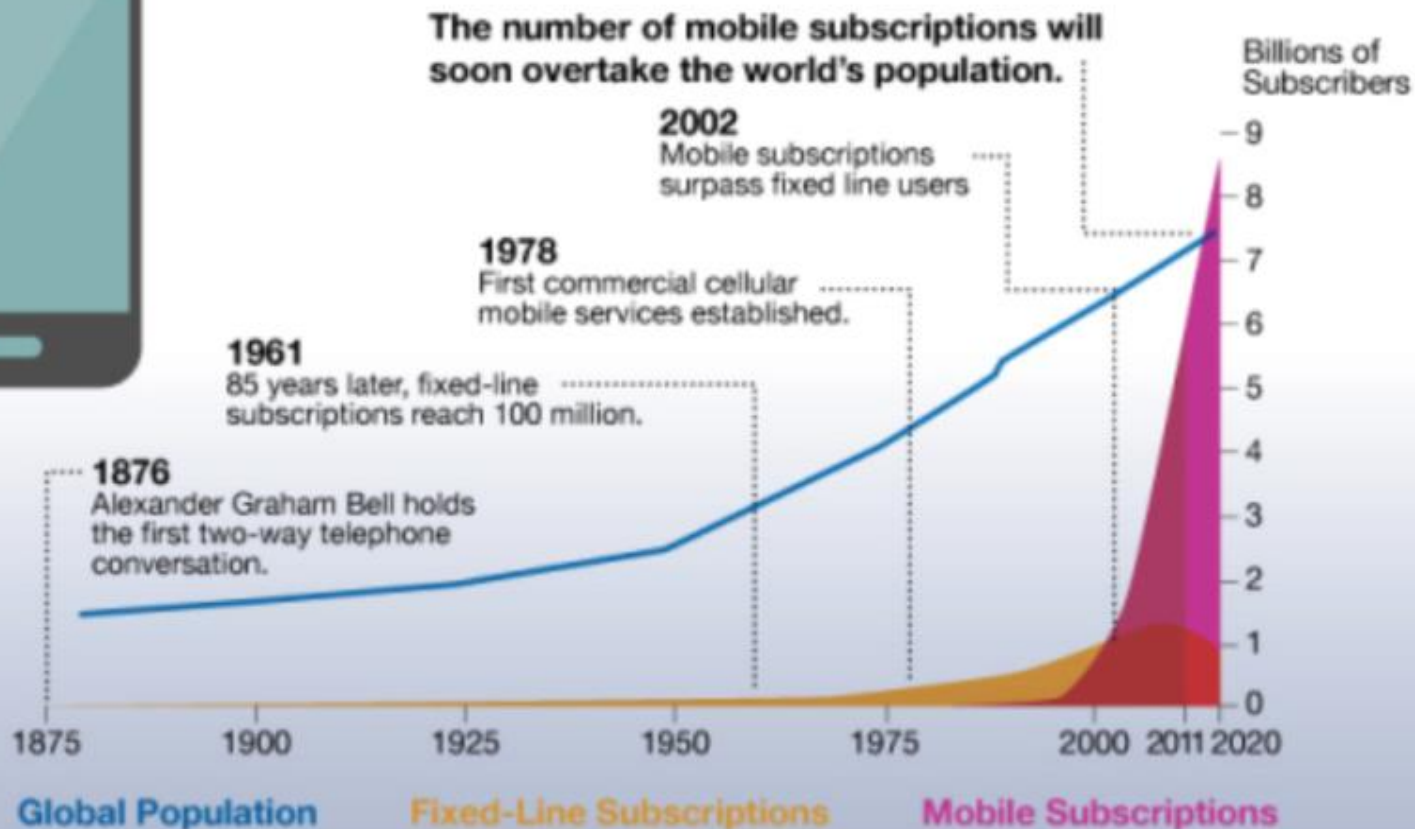
Additional Information:
Worldwide; IDATE DigiWorld; 2011 to 2015

7.68 BILLION PEOPLE*

* World Population Clock

Ubiquity

History of the phone



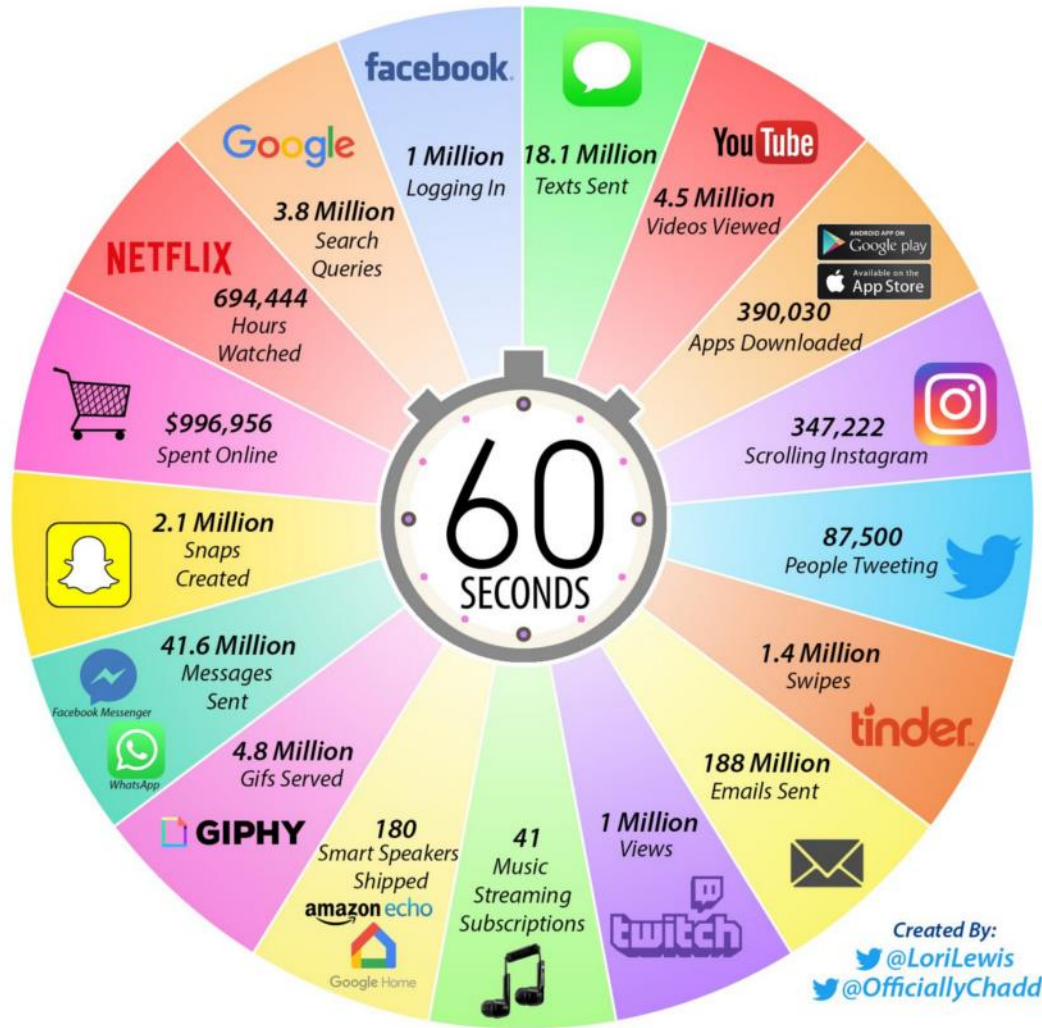
Source: <http://www.theatlantic.com/technology/archive/2012/07/a-world-with-more-phones-than-people/260069/>



62%

Statistica 2017

2019 *This Is What Happens In An Internet Minute*



CI

Communications Intensity

OTT Scale Facts



SKYPE

300 Million Users

3 Billion Minutes per day
W Video 2 Trillion
minutes per day



**FACEBOOK
MESSENGER**

2 Billion Users

8 Billion Video Views per
day
12 Billion Messages per
day
300 Million Photos
uploaded per day



WHATS APP

1.5 Billion Users

60 Billion messages per
day



WECHAT

883 Million Users

38 Billion messages per
day

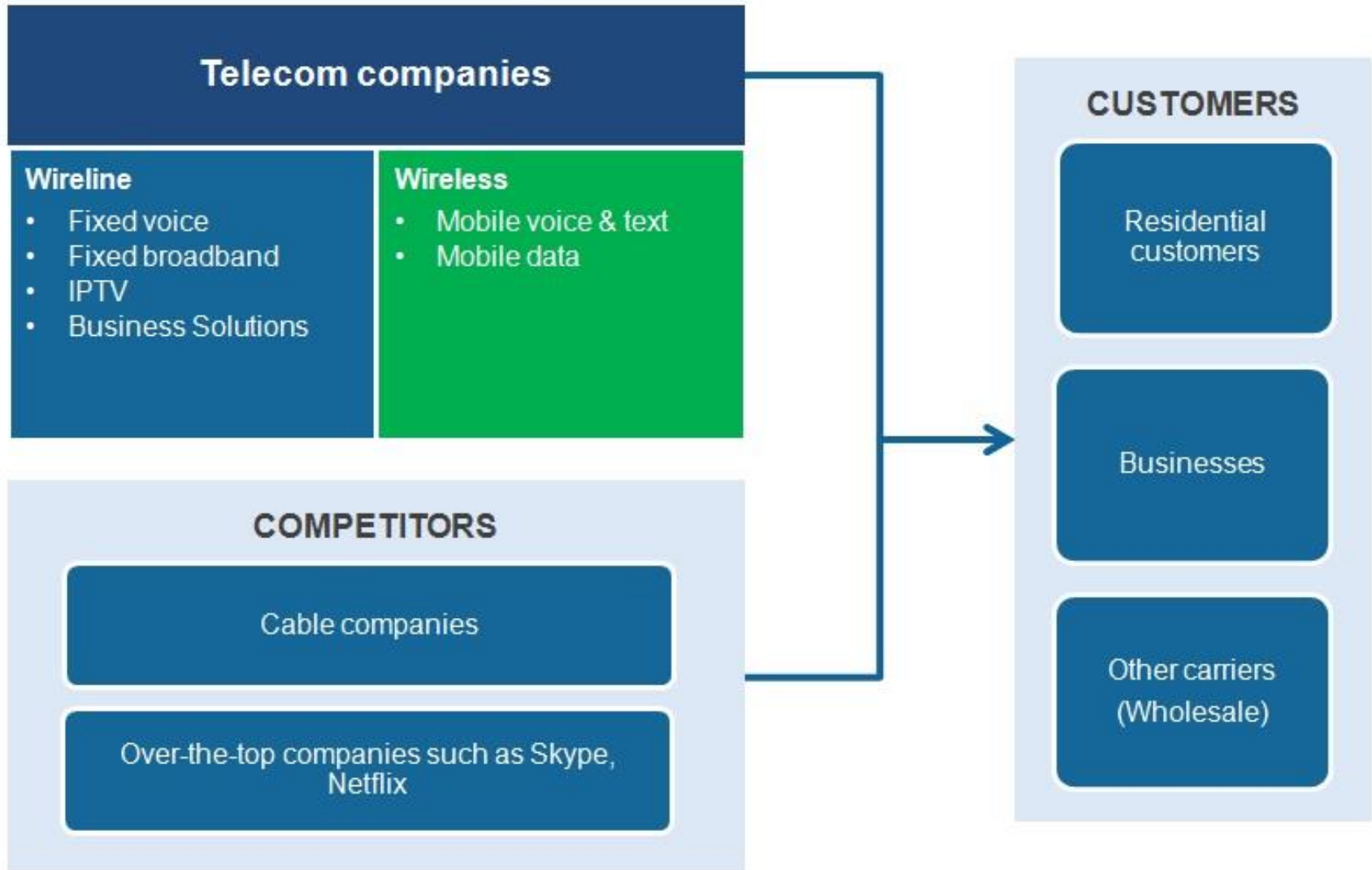
Time spent on major digital activities like video, audio, social media and gaming will continue to increase

Time Spent Among 18+ Users, U.S., 2011 - 2017E, Hours : Minutes

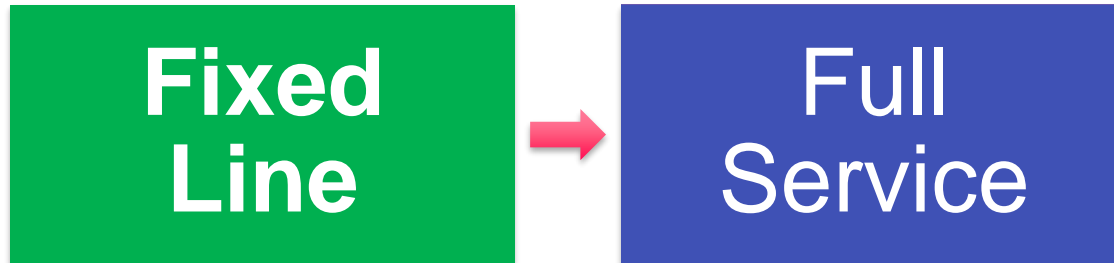


What's the right OTT Strategy?

Telecom industry dynamics



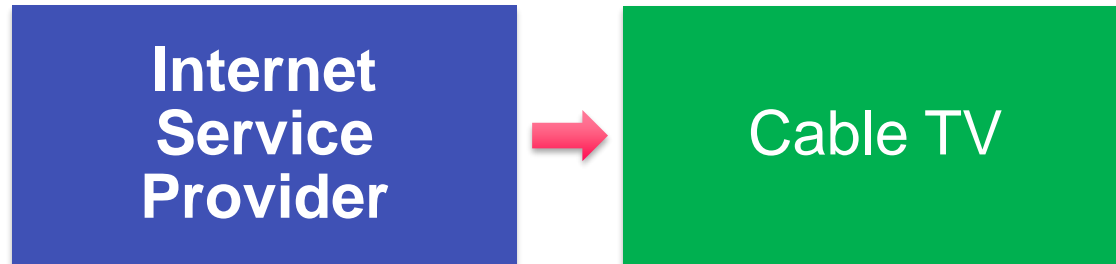
Keys for OTT Disruption



- **Quality of Service**
- **Deep Fiber Expansion**
- **Broadening Broadband**
- **Responsiveness/Agility**
- **M&A Opportunities**

- **Quality of Service**
- **Deep Fiber Network Expansion**
- **Broadening Broadband**
- **Responsiveness/Agility**
- **OTT/Cloud Development**
- **Mobility and Fixed Device Integration 4.5 - 5G**

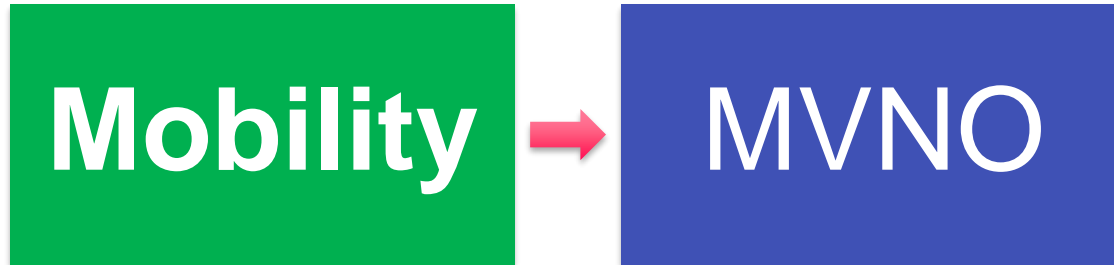
Keys to working with OTT Disruption



- **Strengthen Service Bundles**
- **Create Product Development Opportunities**
- **Manage Customer Experience**
- **OTT Partnerships**
- **Quality of Service**
- **Develop Accessible Content**
- **Broadband Increases**
- **Mobility Partnership**
- **M&A Opportunities**



Keys to working with OTT Disruption



- **Network Expansion**
- **Customer Experience**
- **Content Delivery**
- **AR/VR**
- **IoT/5G Push**
- **Brand Differentiation**
- **Superior Offer Mgmt.**
- **Agile Product Set**
- **Cloud**
- **Customer Security**
- **Mobile Money**



Keys to Dealing with Disruption OTT

- Disruption - expect it, embrace it.
- Substitution - get ahead and develop it.
- Agility - speed and the readiness to act.
- Responsiveness - don't wait could be to your peril.
- Product Trials - not traditional routes, failure?
- Service - exceptional and responsive, customer driven.
- Retention - costs 10 times as much to get them back.



**1997: Dont trust
anyone on the
internet, dont get
in strangers cars.**

**2017: use the
internet to get into
a strangers car**



Thank you.

Questions

Your Move!



Masters Traditional Games

Ubiquity & Scale



© CEN

Telecom operator scenarios for 2025

From dumb pipe to smart platforms?

+X% Average annual growth rate for telecom services worldwide 2014-2025 under each scenario
-X%

Verticals
Product range



+5% Digital mall

- Operators distribute vertical services (video, music, finance, health, energy, security, education, transportation...)
- They rely on their enhanced connectivity offers

Wholesale

Customer relationship

Direct relationships

Commoditisation -2%

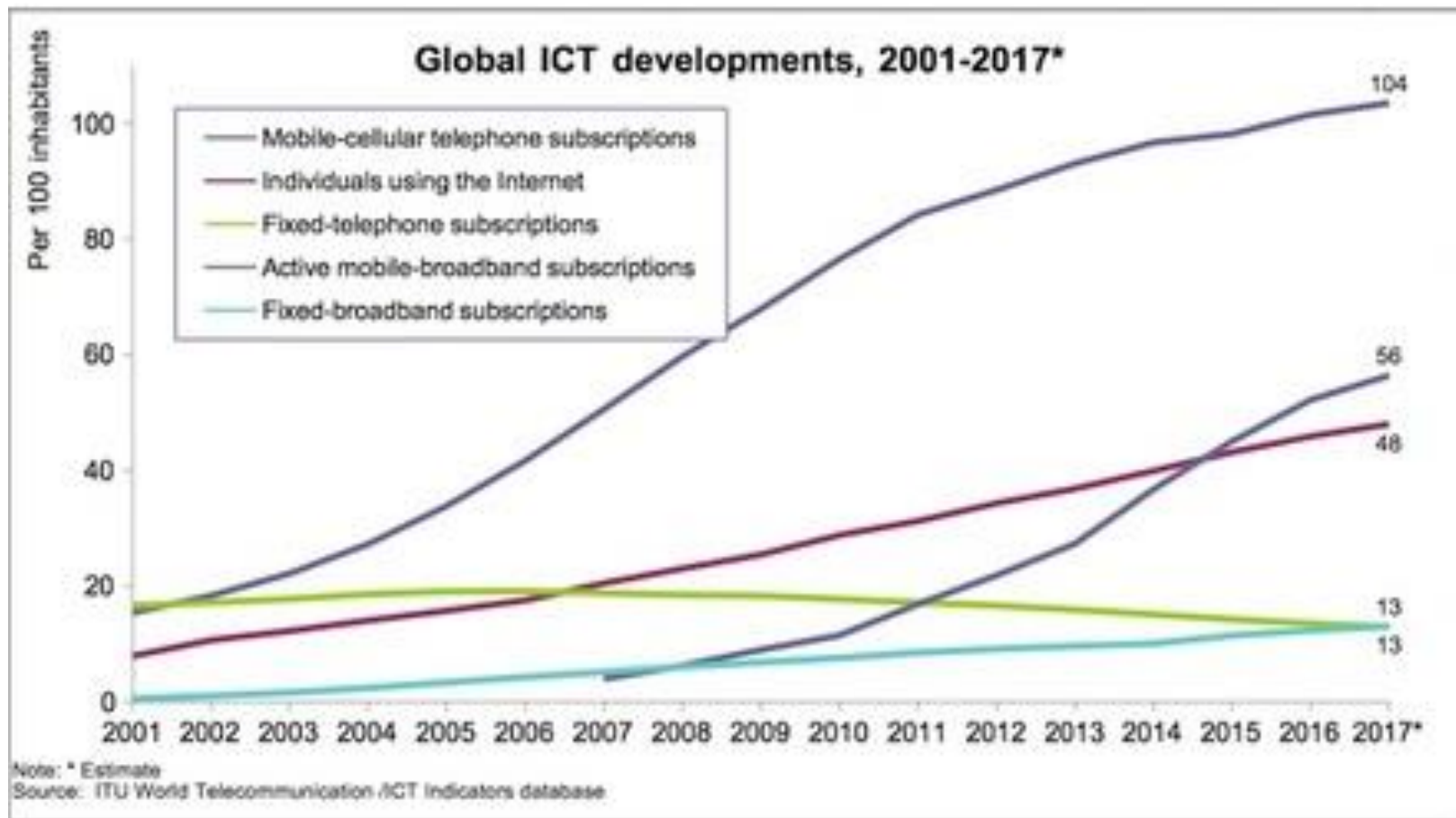
- Internet players gain a foothold in distribution with a smart cloud/dumb device model
- Telcos sell them wholesale connectivity

Smart connectivity

+2% Connectivity+

- Operators invest in quality networks
- They succeed in offering enhanced connectivity services to both end users and content providers/application developers

Global Growth Picture ITU

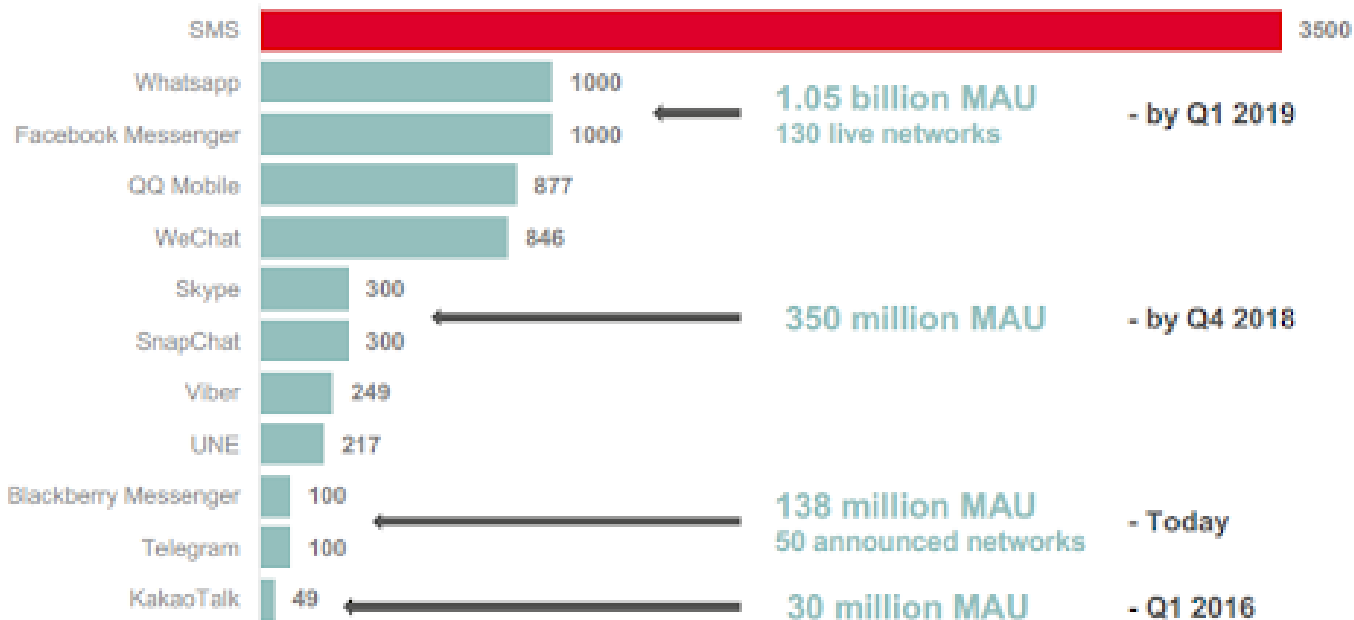


Monthly Active Users by size



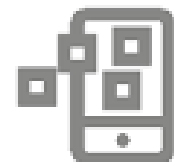
RCS is growing! How does it compare?

Messaging Apps by Monthly Active Users (in billions)



SMS remains the world's largest platform with **3.5bn MAU**.

As an SMS upgrade, RCS has this potential for growth.



OTT Take Away

Figure 1: WhatsApp vs SMS



42 Billion

Number of WhatsApp messages sent per day in 2016



16.4 Billion

Number of P2P SMS sent per day in 2016



18.8%

Decline in dollar value of MNO P2P revenues between 2013 and 2015

Source: Juniper Research

