SATELLITE GROWTH OPPORTUNITIES

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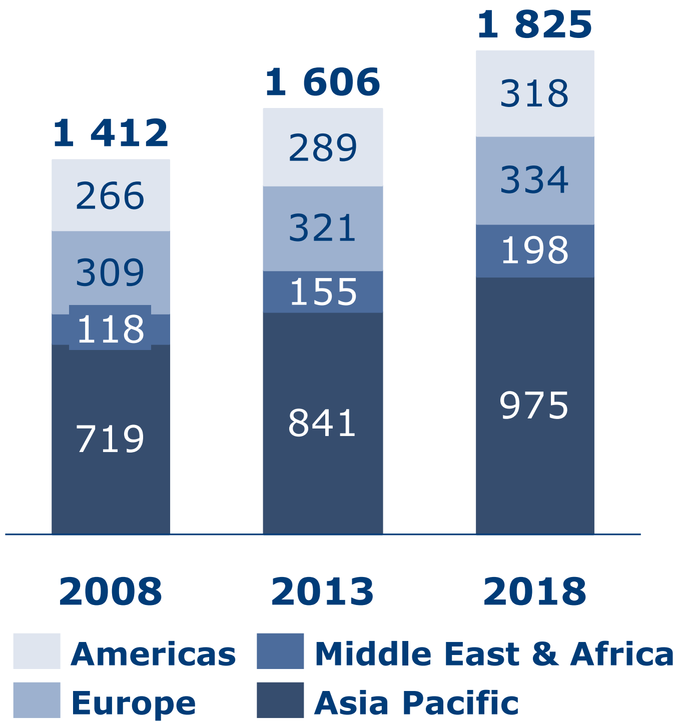
eutelsat

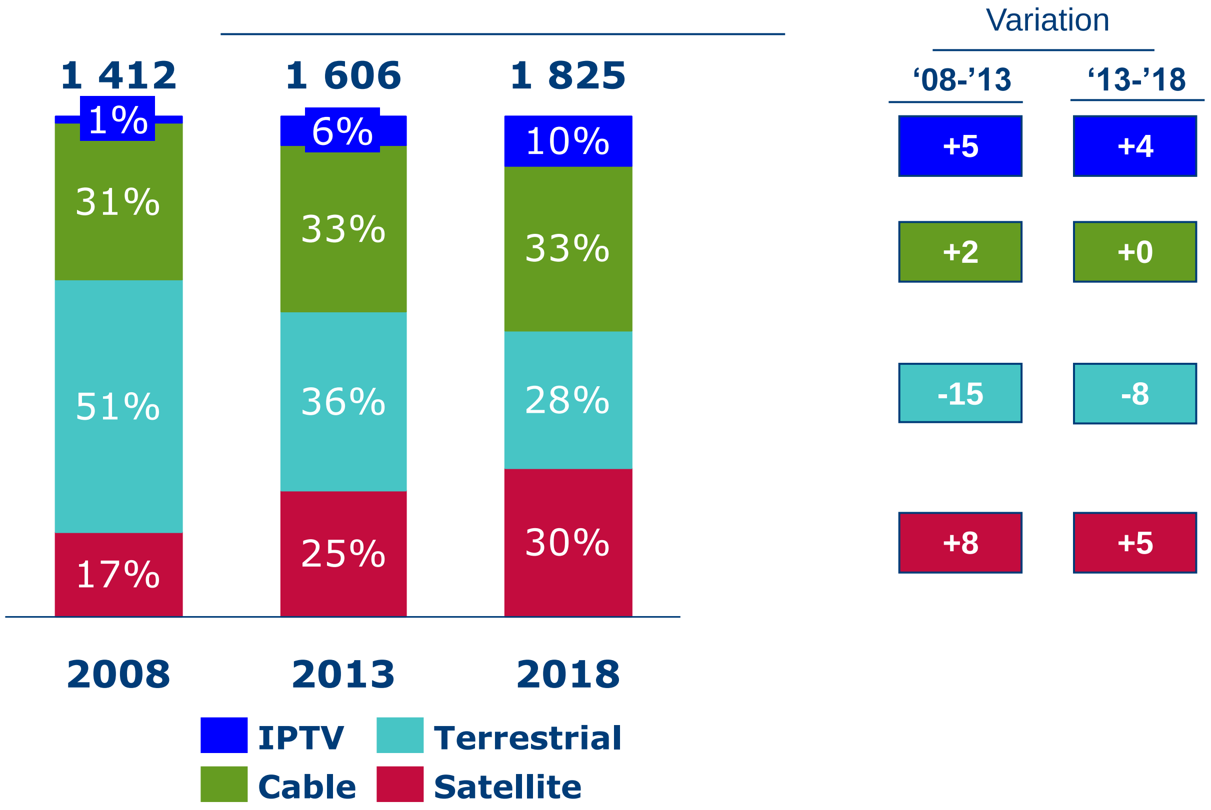
A GROWING VIDEO MARKET IN WHICH THE SATELLITE IS EXPANDING

TV households worldwide (in millions)



- **People are still switching on TV for the first time!**

Worldwide TV reception audience (%)



- **Satellite is the fastest growing technology for TV reception**

SATELLITES ARE AT EVERY LEVEL OF THIS EXPANSION

- **Satellites are active in every step of the broadcasting chain**

Professional video links

Consumer broadcasting

Video contribution for sports, news events

Editing, play-out

Cable, ADSL

Direct-to-Home

DTT

- **Satellites enable direct reception (DTH) and are indirectly present for TV reception in all terrestrial networks (cable, DTT, IPTV)**

DIRECT DISTRIBUTION: DIRECT-TO-HOME

Eutelsat alone hosts more than 40 pay TV platforms

In South East Asia alone, room for growth is obvious

- → DTH platforms licences are not all issued yet
- → HD TV content is still taking up
- → 13.5m Pay TV subscribers in 2013 to around 27.5m by 2023 in South East Asia that has a population of 600m inhabitants today

Source: NSR

DIRECT DISTRIBUTION: DIRECT-TO-HOME

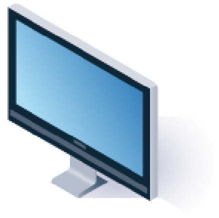
Direct-to-Home leverages on the economics and benefits of satellite

- Cost per viewer for the broadcaster
- Broadcasting cost by satellite is 1 cent per month per viewer, with no marginal cost to serve additional viewers, for an SD channel with an audience of 1 million viewers
- Coverage and ubiquity
  - Well suited for large continents with low population density and poor terrestrial infrastructure
- Capacity
  - Hundred channels per broadcasting satellite!
- Uniform signal quality

TV VIEWER EXPECTATIONS ARE CHANGING:
"ADVANCED TV EXPERIENCE" NOT ONLY IN THE DEVELOPED WORLD

Yesterday

ANY SCREEN



ANY TIME

→ Linear TV

INCREASED QUALITY

DVD VIDEO

PAL NTSC

HD TV

Today

ANY SCREEN

ANY TIME

REPLAY

→ Catch-up TV
→ Video on Demand
→ Interactivity

INCREASED QUALITY

Blu-ray Disc

ULTRA HD

HD TV 1080p

iPad mini
with Retina Display

WHILE USAGES INCREASE, OTT VIDEO DISTRIBUTION SHOWS SEVERAL WEAKNESSES

Inability to reach the entire population

- ➔ Lower image quality …
- ➔ … Or even no video service at all

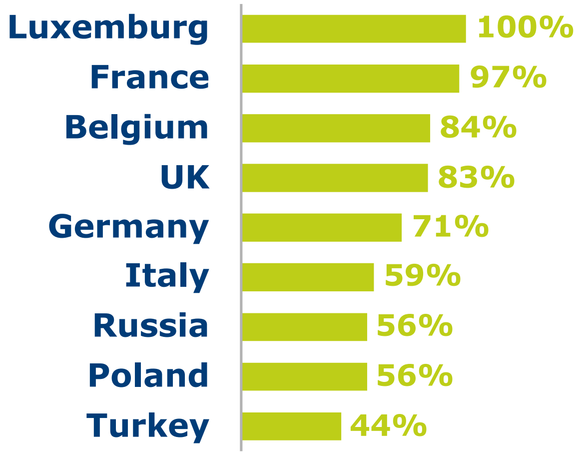
Growing distribution costs

- ➔ CDN costs increase with the audience

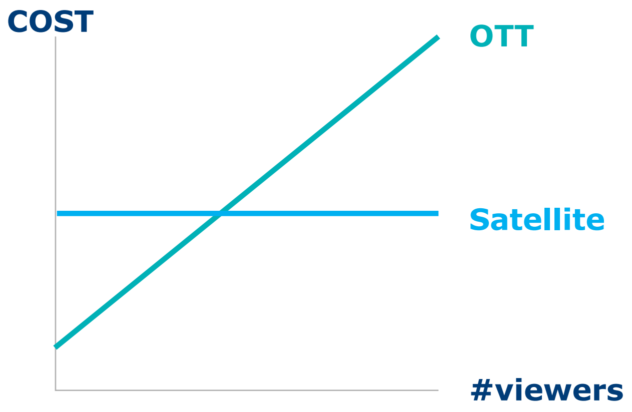
Lower quality of service, especially at peak hour

- ➔ Broadband networks saturated by OTT demands

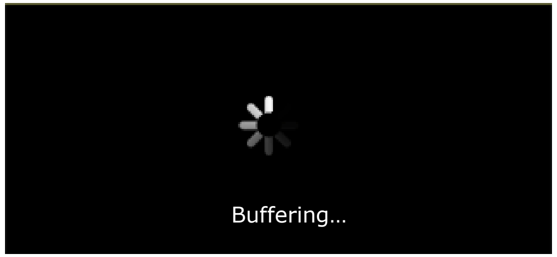
Broadband penetration (2014)



OTT distribution cost pattern



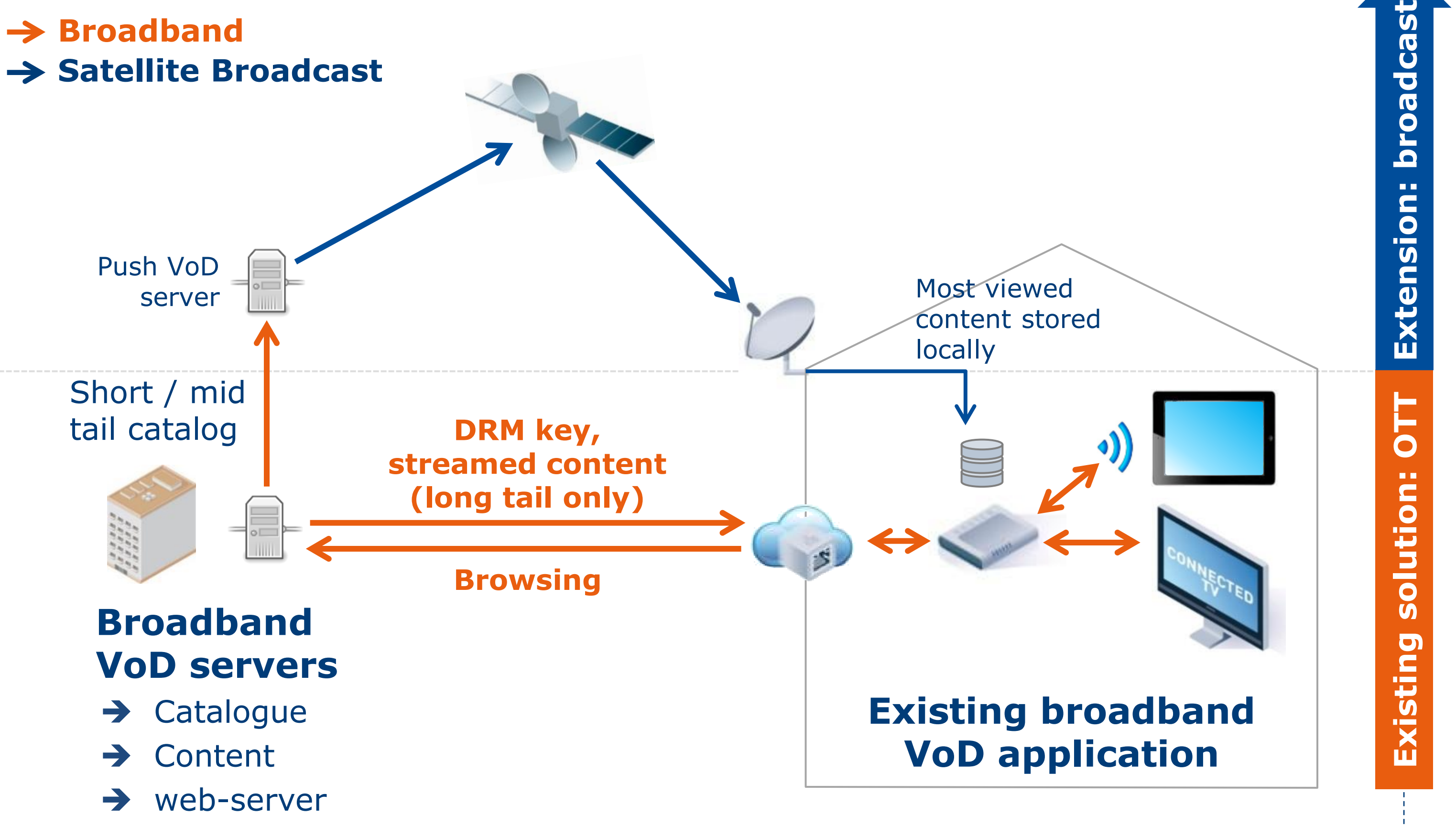
Internet bottleneck at peak hour



Adaptive bit rate transforms your HD content in SD or worse

HYBRIDIZATION WIDEN THE REACH OF ADVANCED TV EXPERIENCE THE 'ON-DEMAND' CASE

Enhanced hybrid on-demand services



"SAT On-Demand"

- Distribute via satellite, store locally contents pre-packaged for tablets/PCs, ready for immediate watching, …
- … fully compatible with existing OTT VoD services:
  - → **same back-end** (incl. DRM)
  - → **Same customer applications**
  - → **Access to long-tail catalogue through internet connection** (in lower quality)

NATION-WIDE COMMERCIAL LAUNCHES OF ULTRA-HD HAVE STARTED ON SATELLITE: DIRECTV

DIRECTV Ultra-HD offer

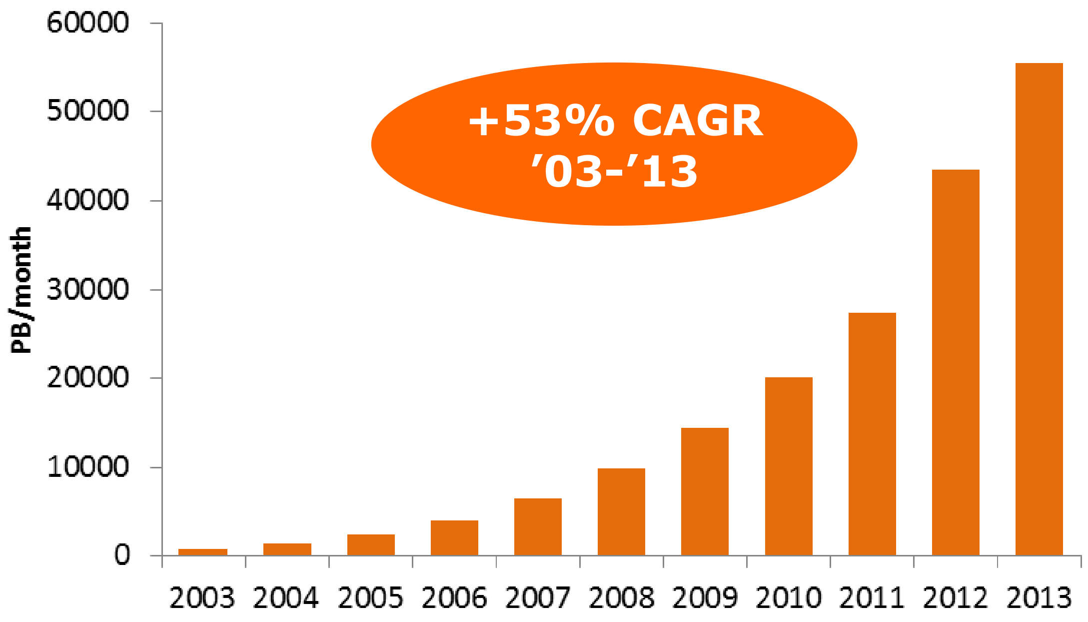
- **Nov 2014: Nation-wide introduction of UHD VoD service, preloaded via satellite**
- **Later in 2015, launch first channels**
- **Necessary equipment**
  - → Legacy DirecTV set top box
  - → Compatible UHD TV set or
  - → 4K Genie Mini player connected to any UHD TV set

Real UHD: guaranteed quality of service

100% subscribers reach: existing set-top-boxes are compatible with UHD service

DATA DEMAND: EVER INCREASING GROWTH OF USAGES

- **Total IP traffic has been multiplied by 70 since 2003 (+53% CAGR)**
  - → More internet users (+13% CAGR)
  - → Traffic per user (+35% CAGR)
- **Video is a big driver: 64% of consumer Internet traffic in 2014, will be 80% in 2019**



- **Traffic will again triple in the next 5 years to reach 2 Zettabytes in 2019**
- **Mobile traffic grows 3 to 4 times faster than fixed traffic**
- **Growth will be driven by new applications: Internet of Things, mobility**

INFRASTRUCTURE IS THE MAIN BOTTLENECK TO MORE GROWTH

Total world population **7.1bn**

Offlines **4.4bn**

OF WHICH **95%** IN EMERGING COUNTRIES

- ➔ Lack of infrastructure
- ➔ Poverty
- ➔ Illiteracy

Connected **2.7bn**

OF WHICH **0.9BN** IN DEVELOPPED COUNTRIES

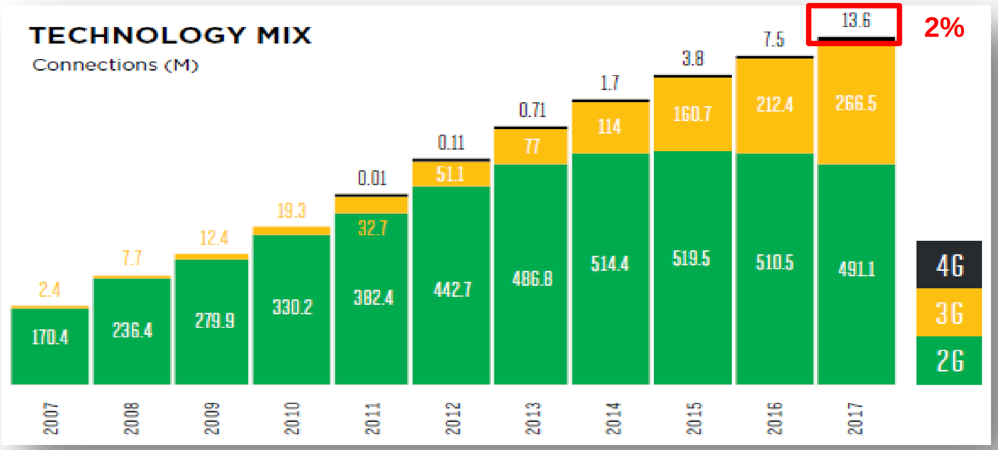
Mostly fixed connections

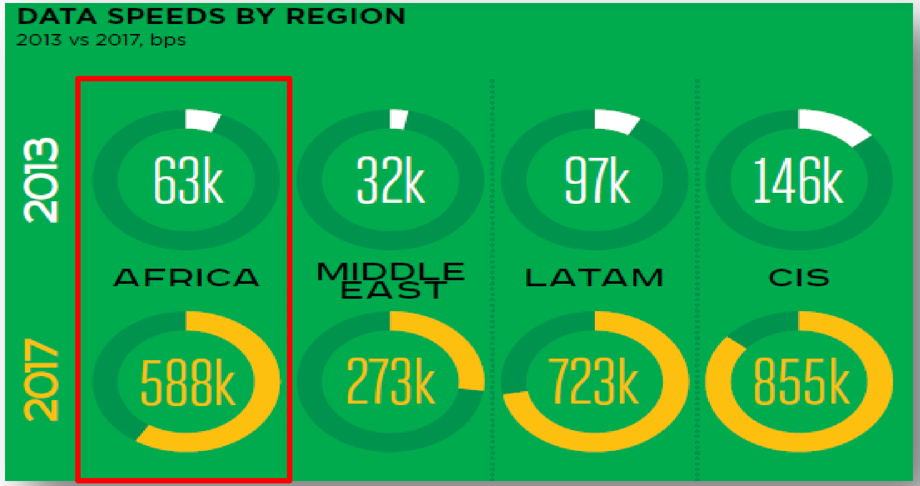
OF WHICH **1.8BN** IN EMERGING COUNTRIES

Mostly 2G mobile connections

AFRICA EXAMPLE: MOBILE BROADBAND IS STILL OF LOW QUALITY

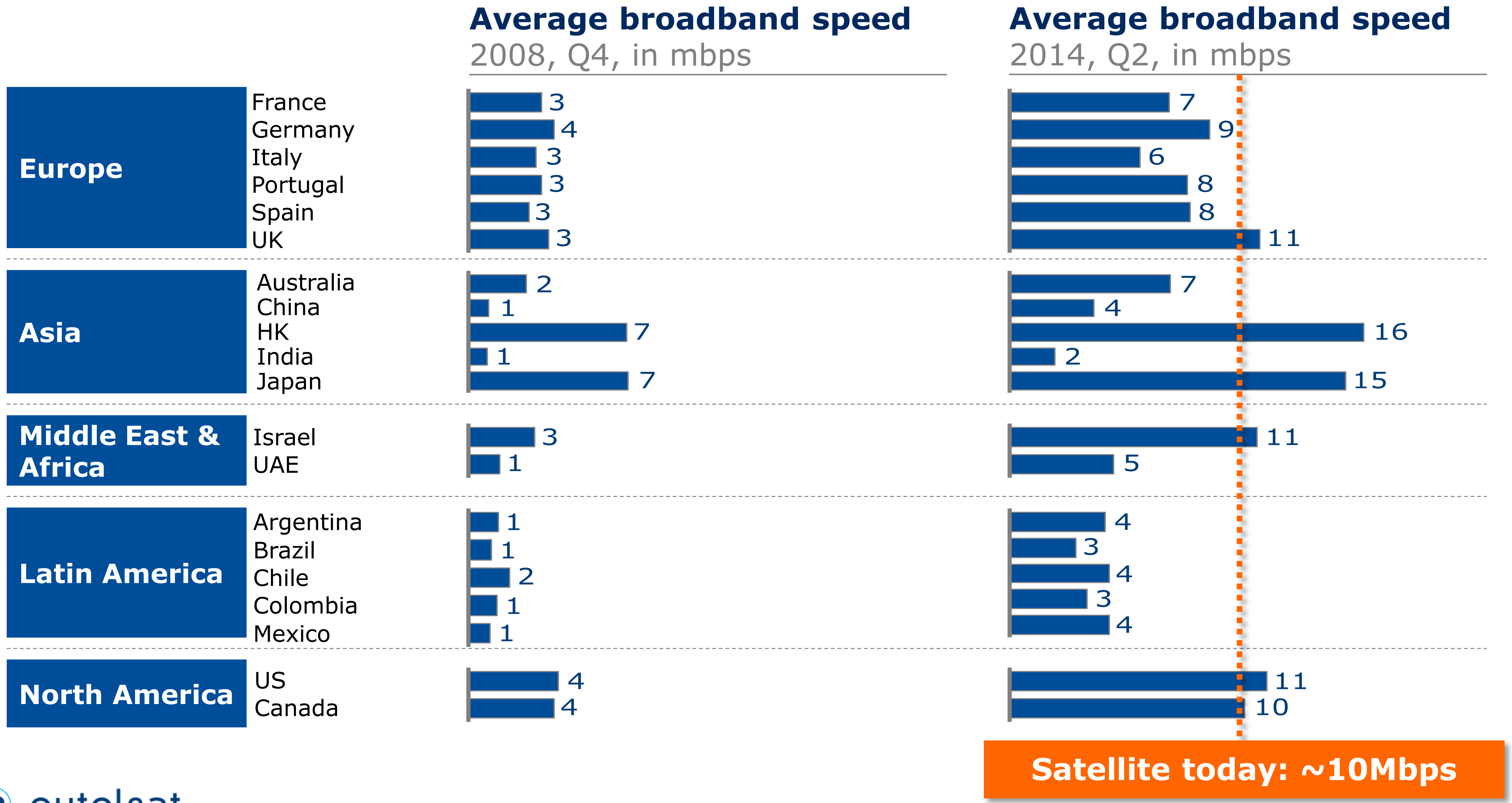
- **Mobile usage in Sub-Saharan Africa is mostly 2G today**
- **3G connections are expected to grow continuously until 2017, but 4G should remain insignificant (i.e. 2% of the connections)**
- **By 2017, average connection speed is expected to remain well below 1Mbps**





Source: GSMA Sub-Saharan Africa Mobile Economy 2013

FIXED TERRESTRIAL BROADBAND SPEEDS HAVE TRIPLED SINCE 2008 BUT SATELLITE STANDS THE COMPARISON

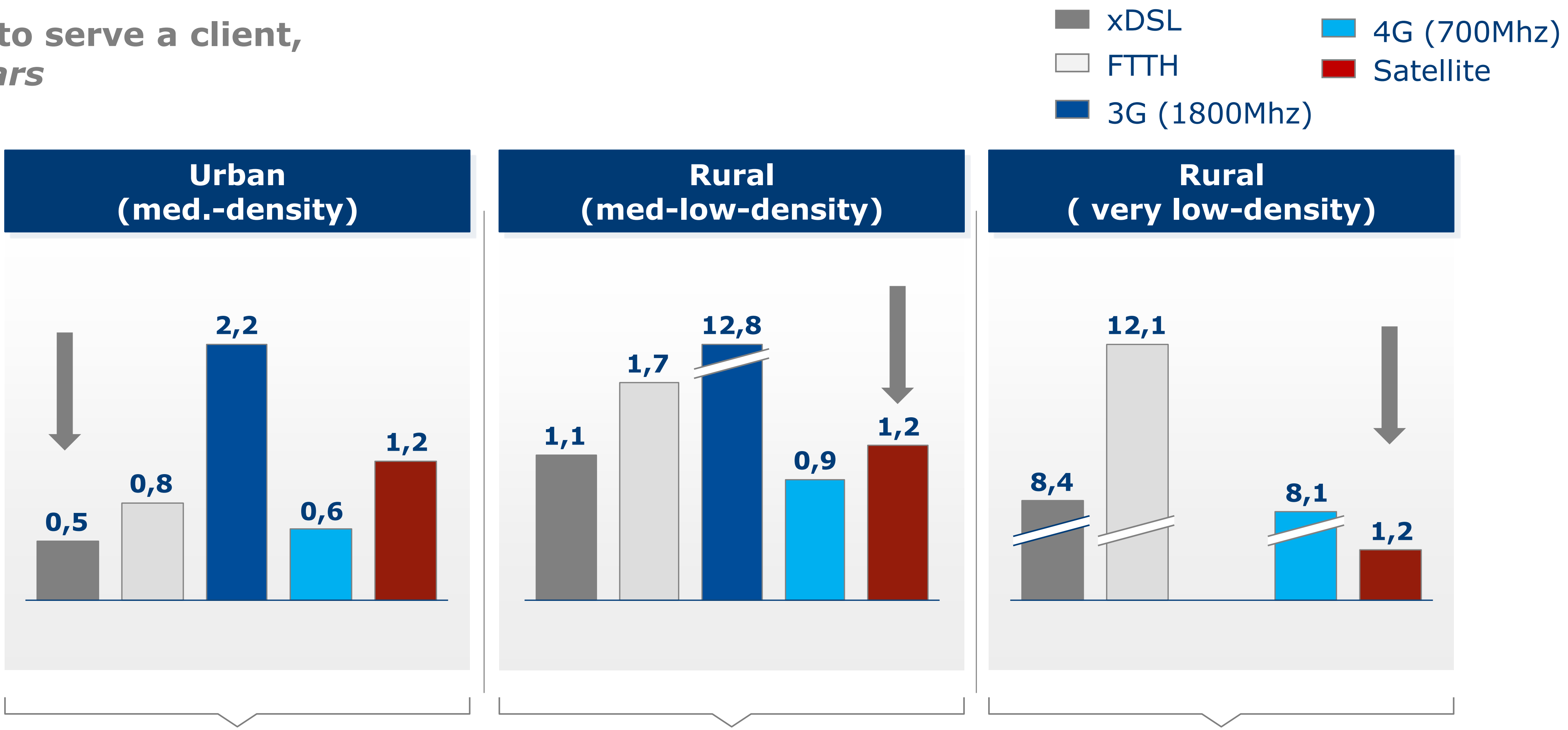


SOURCE: Akamai

SATELLITE DOES NOT ONLY PERFORM WELL, IT IS ALSO COST COMPETITIVE

Incremental cost to serve a client, in *thousands dollars*

Cost of greenfield deployment



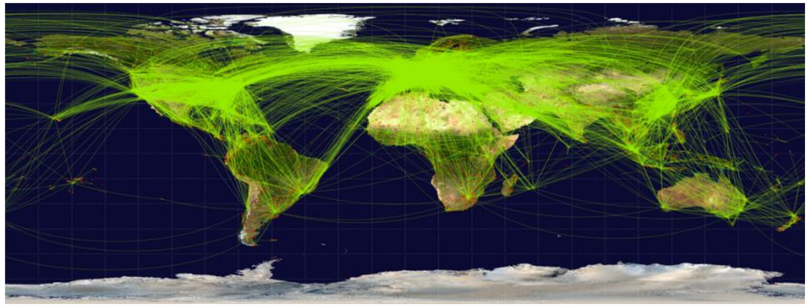
Fixed Broadband leads

Satellite and mobile broadband are comparable

Satellite leads

BEYOND BROADBAND, A NUMBER OF CONCRETE OPPORTUNITIES WILL FUEL THE NEW DATA GROWTH CYCLE

In flight entertainment and connectivity



Maritime

- → Number of vessels equipped multiplied by 2,5 between now and 2020
- → Huge potential remains in yachts, merchant marine, fishing boats

IoT

- → Booming number of devices in the « Connected Home »
- → Deployement of dedicated networks to connect billions of objects
- → Potential for massive gains in key industries, with global coverage needs

HOW CAN WE MAKE GROWTH HAPPEN FASTER?

- Evangelize
- Segment
- Continue to innovate in the Space segment for long term growth…
- … but in order to unlock short term potential, focus
  - → On customer premise equipment (cost & design)
  - → On marketing & distribution
  - → On integration with other networks
- As an industry: unite our forces to promote standards & innovations
- … and especially true in this part of the world: collaborative partnership

THANK YOU

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