MOBILE BROADBAND INDUSTRY OUTLOOK

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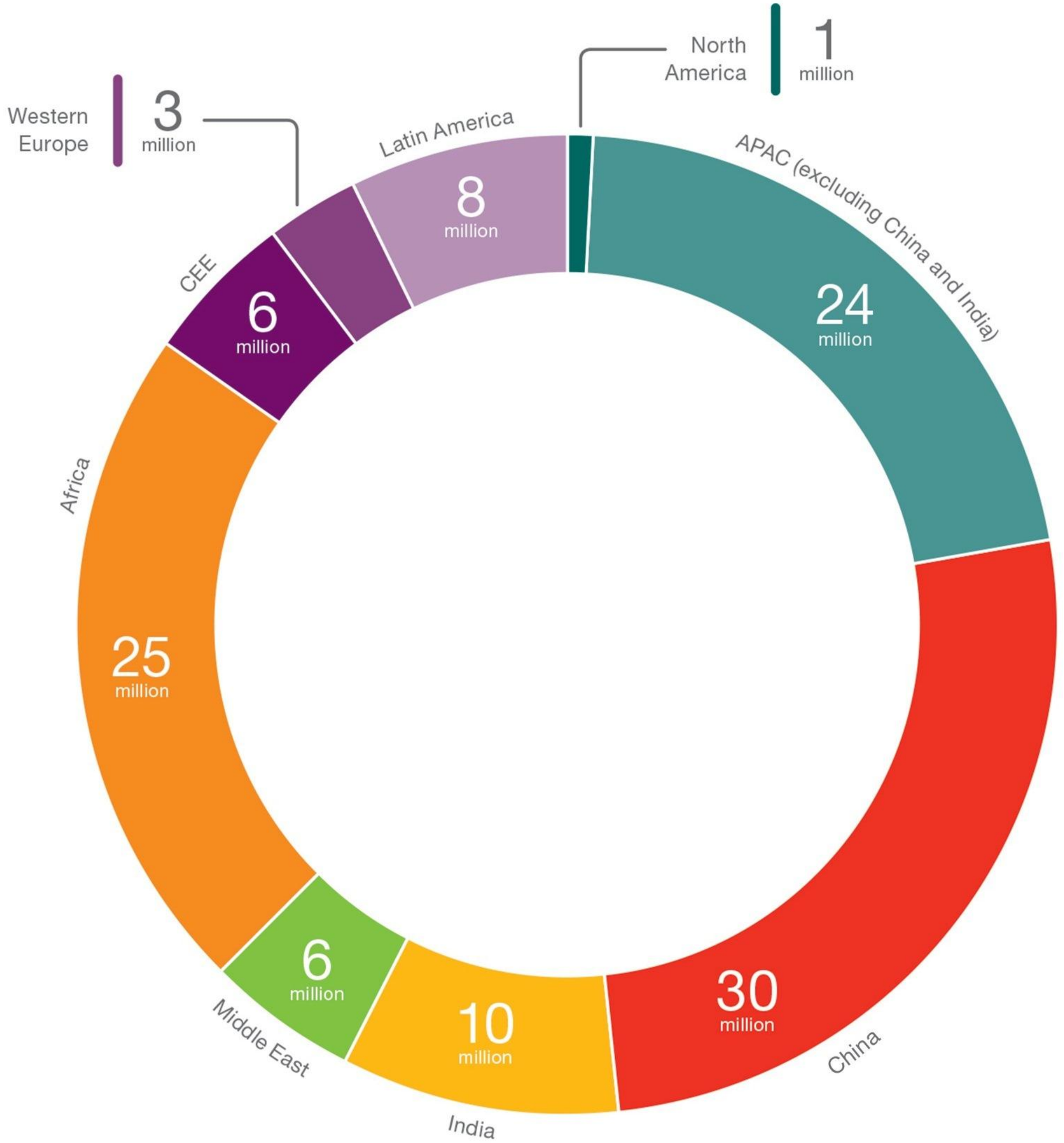
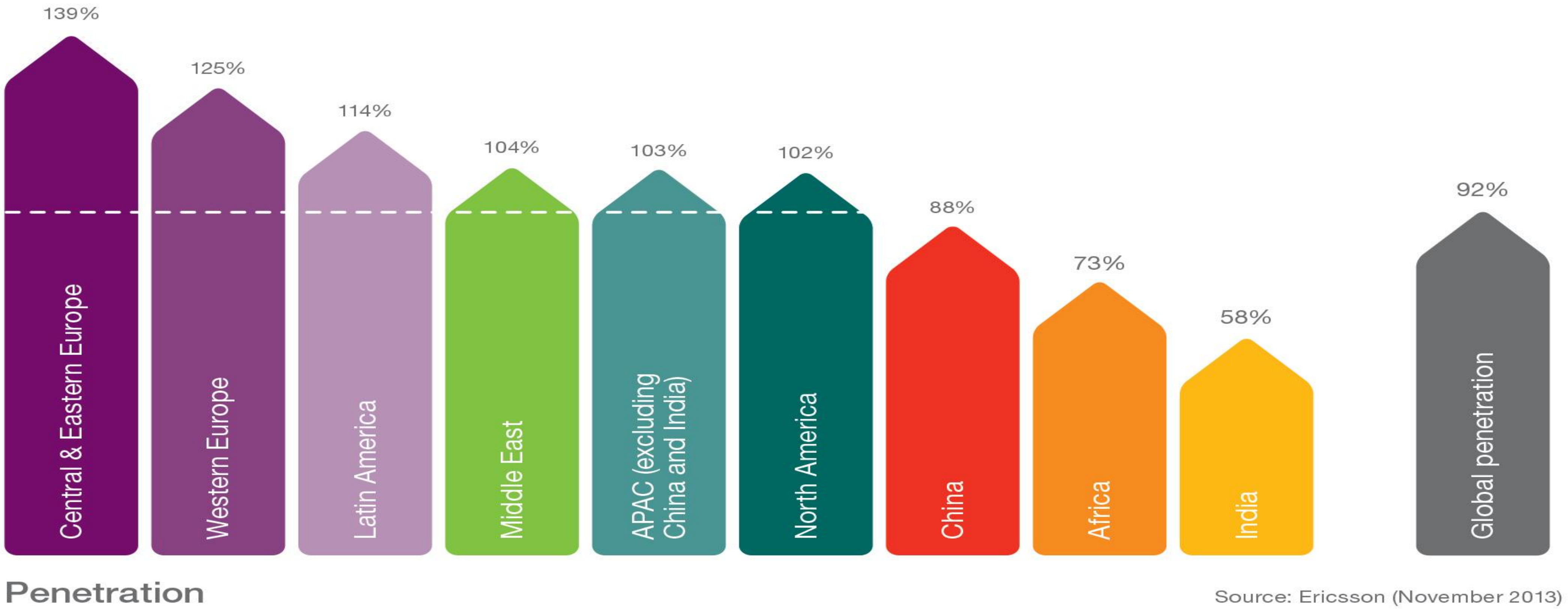
HEAD OF MARKETING – MOBILE BROADBAND

SUBSCRIPTION GROWTH Q3

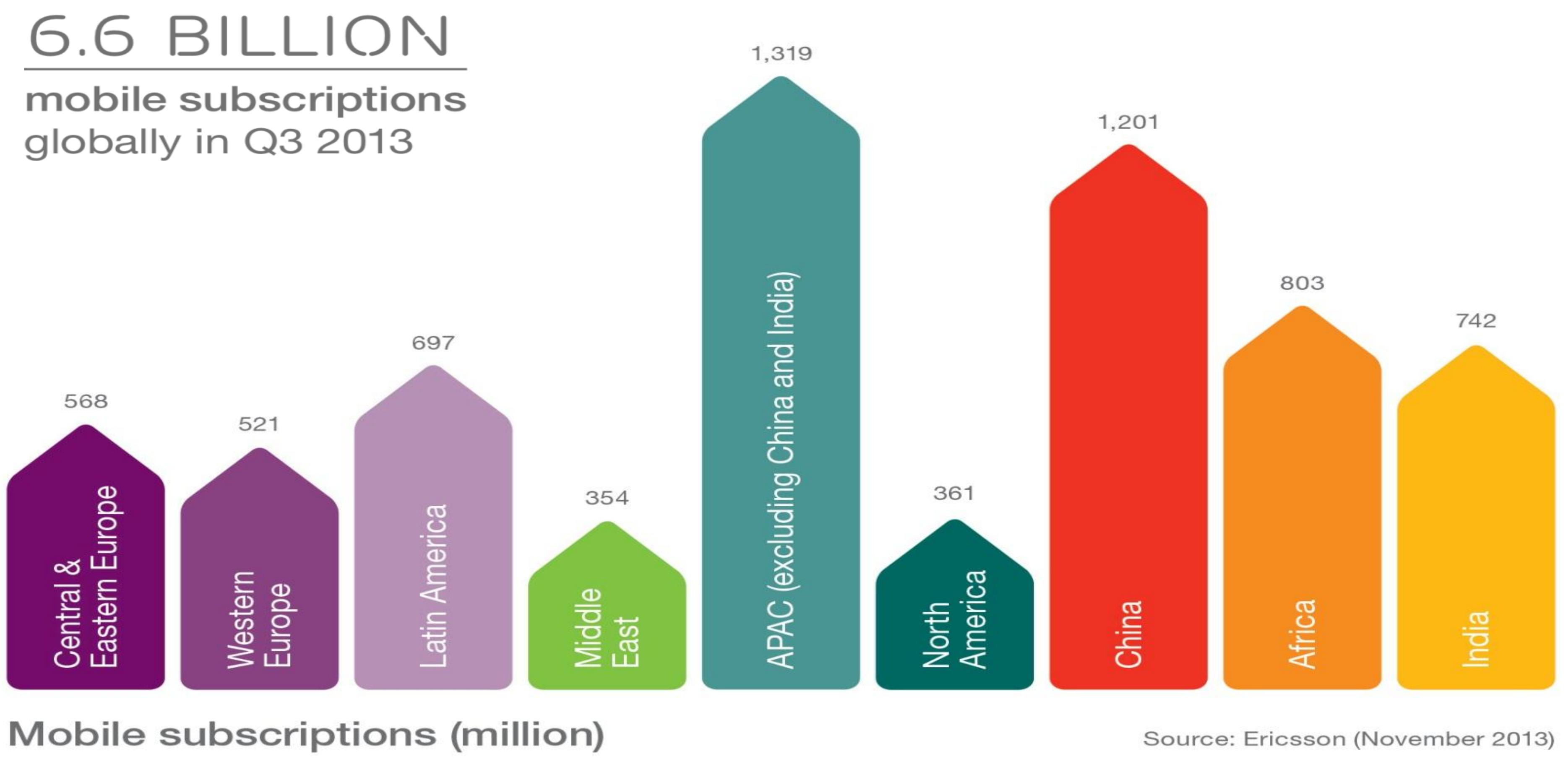
› 113 million new mobile subscriptions
  – 80 million WCMDA/HSPA
  – 25 million LTE
› China added 30 million = 25%
› 6.6 billion mobile subscriptions



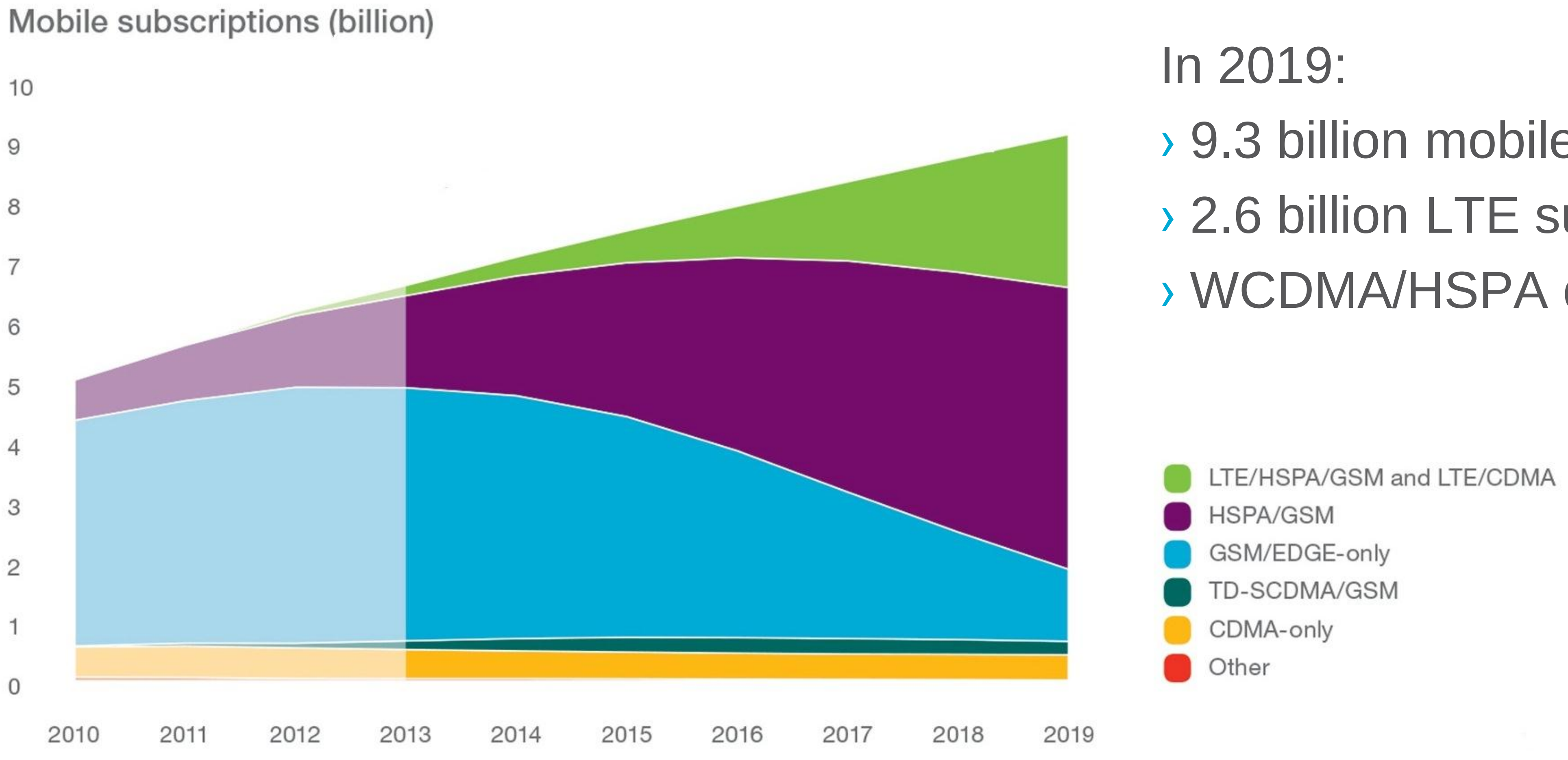
MOBILE PENETRATION Q3 2013 - REGIONAL



MOBILE SUBSCRIPTIONS Q3 2013 - REGIONAL



SUBSCRIPTION OUTLOOK – GROWTH IN HSPA AND LTE



In 2019:

- › 9.3 billion mobile subscriptions
- › 2.6 billion LTE subscriptions
- › WCDMA/HSPA dominant

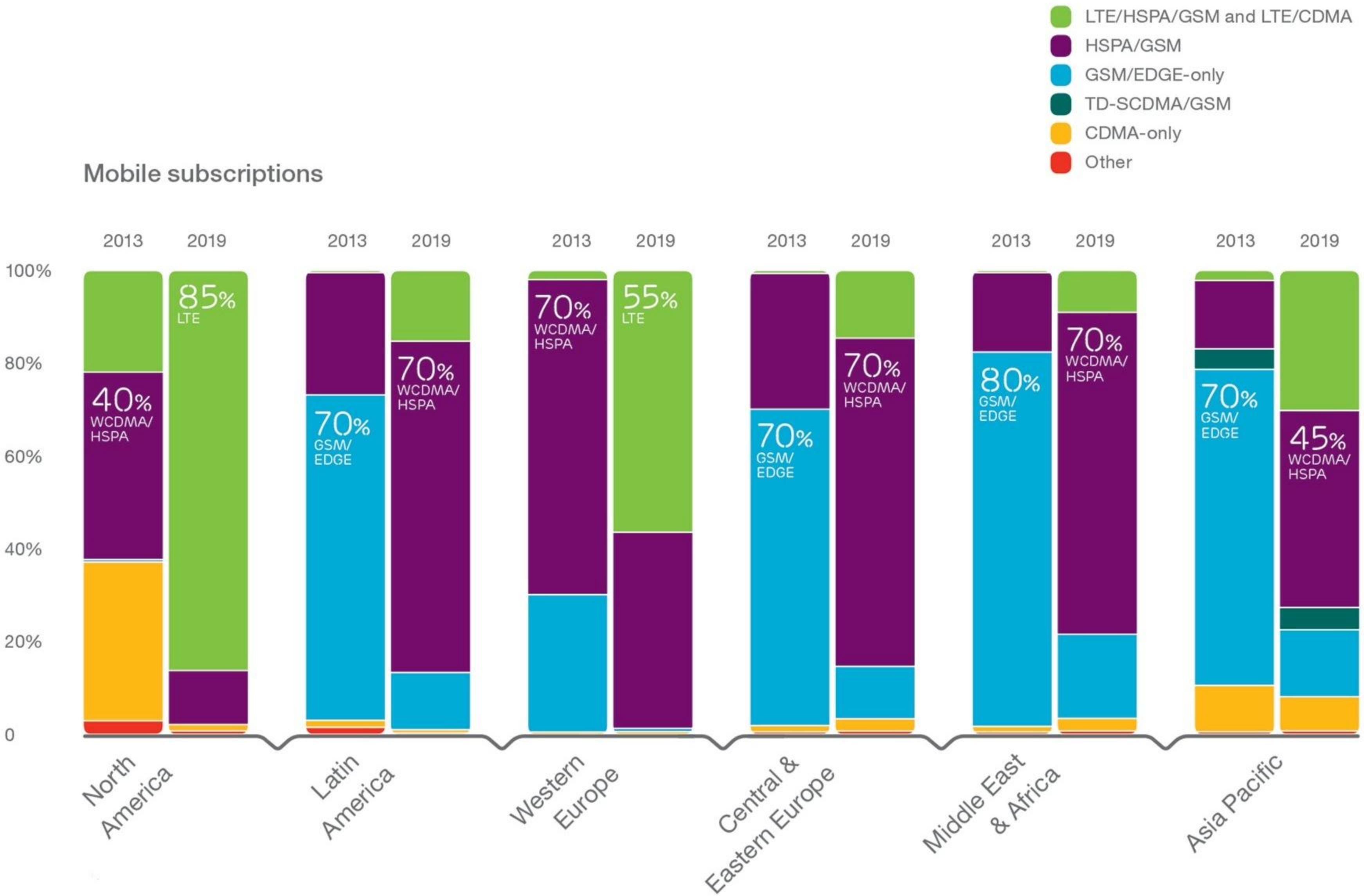
MAJOR SHIFT IN REGIONS

85%

of **North American mobile subscriptions** will be LTE by 2019

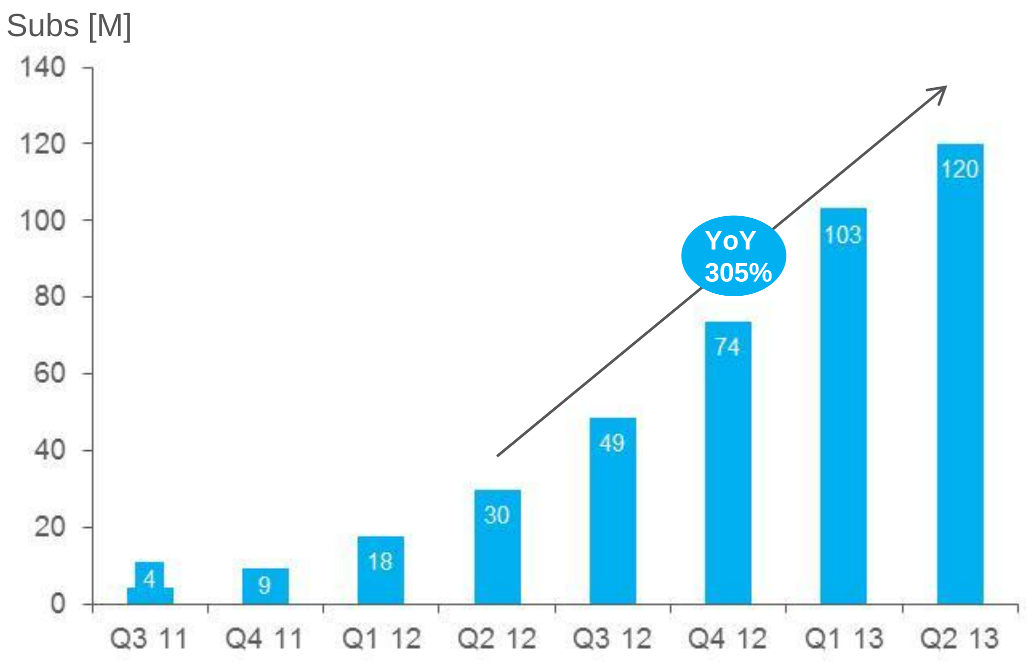
80%

of **Middle East & Africa subscriptions** are 2G in 2013. The same number will be 3G/4G in 2019



MATURE MARKETS DRIVE LTE

LTE Subscriber Growth



Top 10 OpCo's, 86% of all LTE subs

Top 10 LTE Operators

No [1]	Top 10 Operators [2]	Q2 LTE Subs [M]	Q2 Adds Subs [M] [1]	LTE Launch
1	Verizon Wireless	31.1	4.8 (4.7)	Dec 2010
2 (3)	AT&T Wireless	17.8	3.6 (3.5)	Sept 2011
3 (2)	Docomo	14.4	2.6 (2.9)	Dec 2010
4	SK Telecom	11.0	1.7 (1.8)	July 2011
5	Sprint	6.3	0.5 (1.8)	June 2012
6	LGU+	5.9	0.7 (0.8)	July 2011
7	Korea Telecom	5.5	0.5 (1.2)	Jan 2012
8 (9)	T-Mobile US (Metro)	4.4	-	Sept 2010
9 (8)	Softbank & eAccess	3.8	1.2 (1.0)	Feb 2012
10	Telstra	2.8	0.6 (0.6)	Sept 2011

[1] Current Q (Previous Q)
[2] Blue – Ericsson LTE supplied network

Source: Wireless Intelligence

LTE LAUNCH STRATEGIES

Operator	Launch	Coverage POP %	Subs LTE %	Bundling	Pricing	GTM Summary
Verizon US	Dec 2010 2nd in market	96% Fast rollout	**27%**	Unlimited to Share. New subs must choose share	Same	Smartphone focus Low band Fast rollout
AT&T US	Sept 2011 3rd in market	86% Fast rollout	**16%**	Tiered to Share. New customers can choose tiered or share	Same	Smartphone focus Low band
LGU+ KR	July 2011 1st in market	100% Very fast rollout	**57%**	Unlimited to tiered	Same, but ARPU+ with tiered	Smartphone focus Low band Challenger
SKT KR	July 2011 1st in market	100% Very fast rollout	**40%**	Unlimited to tiered	Same, but ARPU+ with tiered	Smartphone focus Low band
Telstra AU	Sept 2011 1st in market	100%	**19%**	Volume	Same	Smartphone focus

- Smartphone focus
- Fast rollout
- No price differentiation towards 3G

Operator	Launch	Coverage POP %	Subs LTE %	Bundling	Pricing	GTM Summary
Telia SE 1st in market	Dec 2009	60% 99% by 2015	**9%**	Tiered to Tiered and shared	Initially LTE premium. Over time integrated in all plans. LTE helped raise price	First to launch LTE world wide. Initially dongle
Vfe DE 1st in market	Sept 2011	50%	**9%**	Tiered	LTE premium	Fixed and mobile. Low band
EE UK	Oct 2012 1st market	50% 90% by end 2013	**4%**	Share	£4-5 LTE premium	Smartphone focus

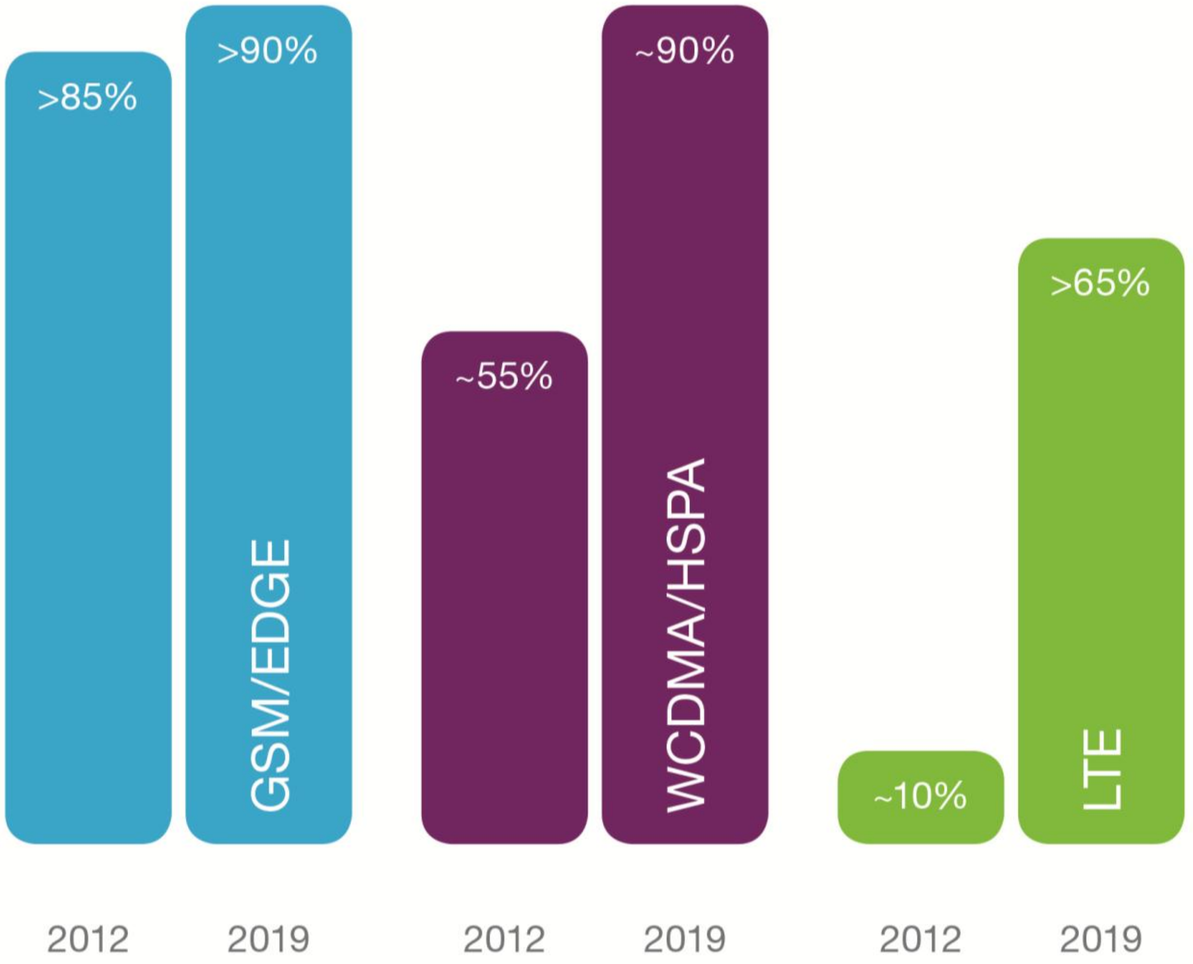
- LTE as premium - **leveraging LTE to raise the price floor**
- Typically slower rollout

Premium established, floor raised, time to move on...

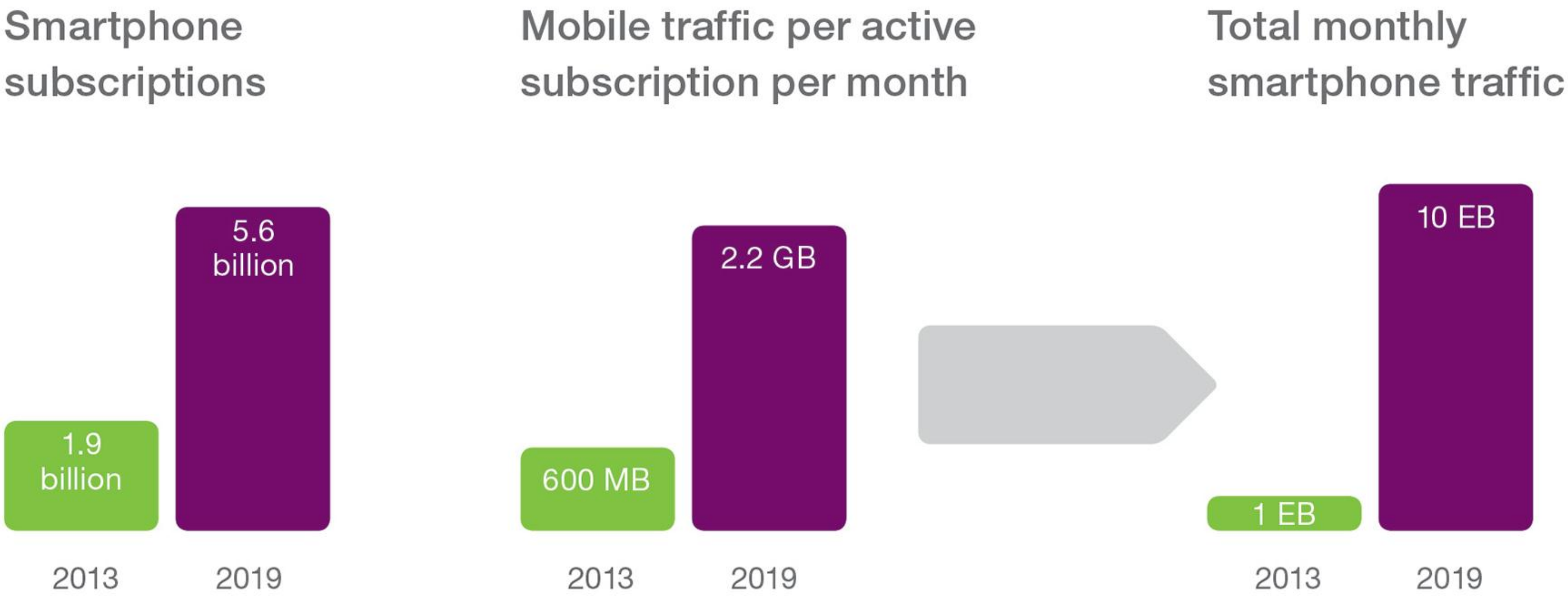
EVOLVING 3G/4G COVERAGE

- World population coverage 2019
  - ~90% WCDMA/HSPA
  - >65% LTE

- Technology evolution continues
  - More than 25% of HSPA networks now on 42 Mbps
  - LTE-Advanced, e.g. carrier aggregation



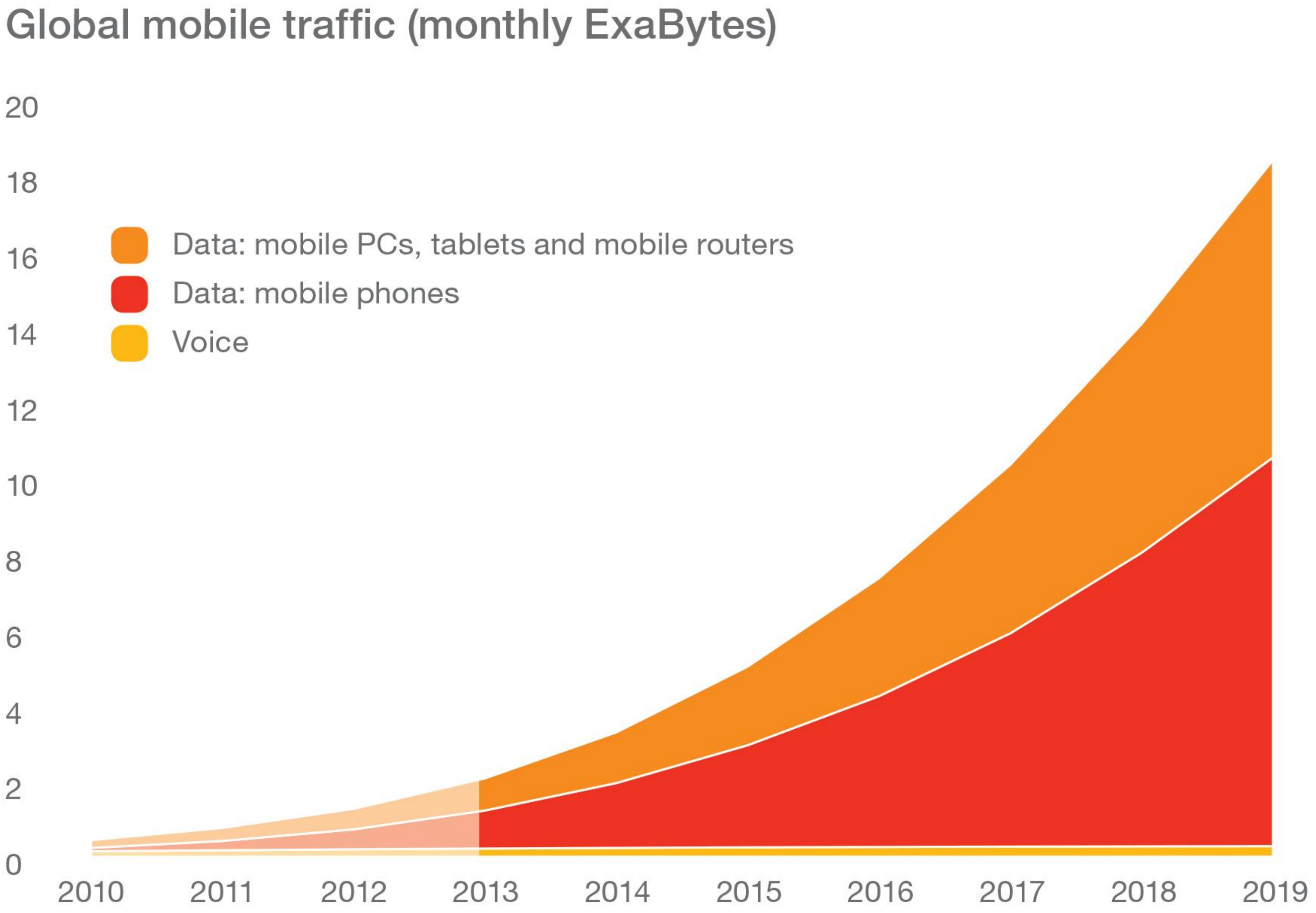
SMARTPHONES DRIVE TRAFFIC GROWTH



10X

growth in **smartphone traffic** between 2013 and 2019

MOBILE DATA 10X UNTIL 2019



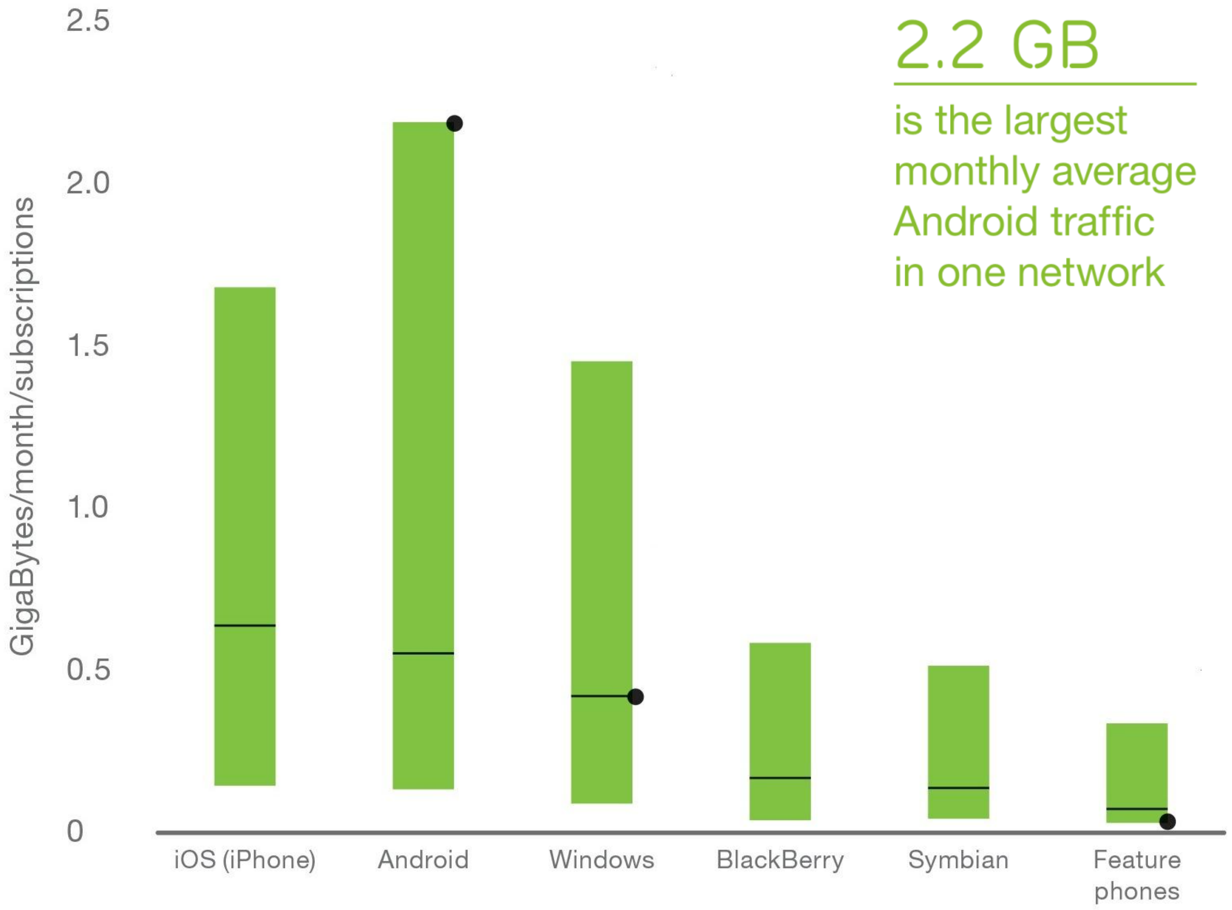
10X

growth in **mobile data traffic** between 2013 and 2019

In 2013, **mobile traffic generated by mobile phones** will exceed that generated by mobile PCs, tablets and routers

MOBILE PHONES - TRAFFIC DISTRIBUTION

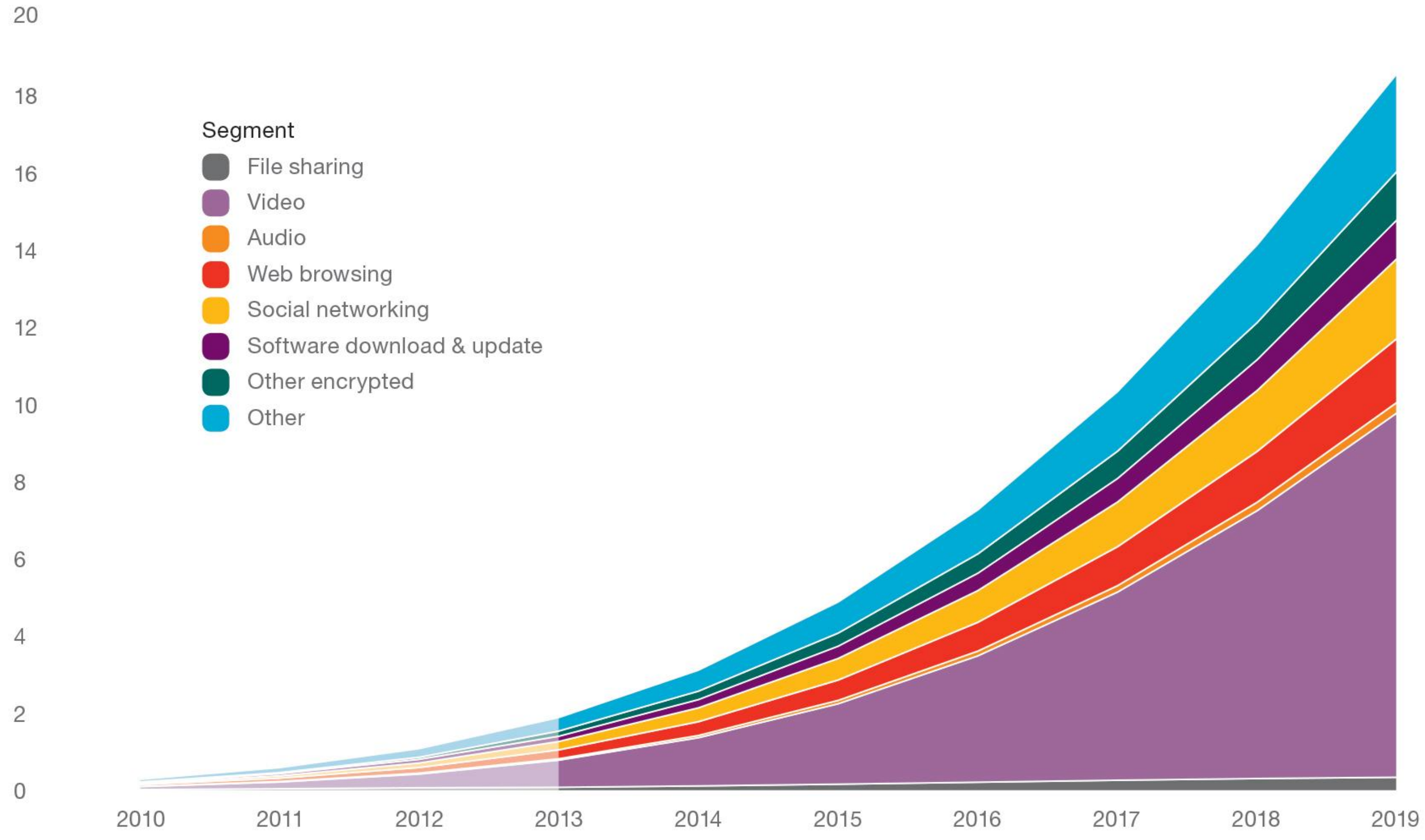
- Traffic volumes per subscription for mobile phones vary greatly between Networks as well as Operating Systems.
- Android and iOS devices generates similar average monthly traffic/subscription in measured networks



Note: Based on a selection of 2G, 3G and 4G networks.

VIDEO MAIN DRIVER OF MOBILE TRAFFIC

Mobile data traffic by application type
(monthly ExaBytes)



>50%

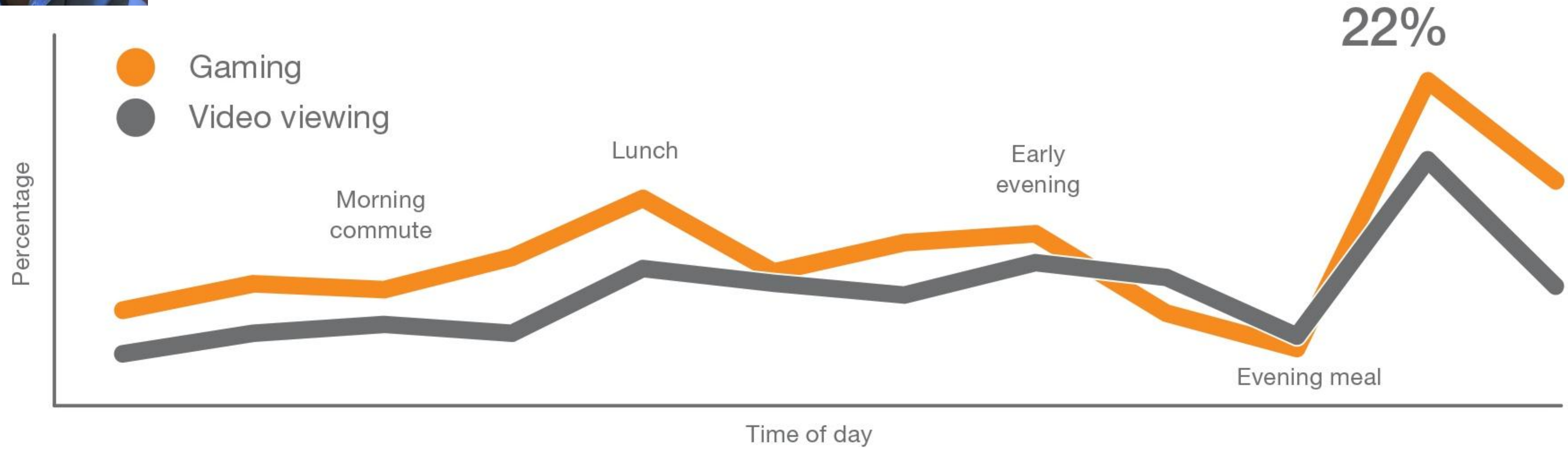
of **mobile data traffic** will come from video in 2019

Using **social networking** on smartphones, and watching **video** on tablets and mobile PCs has increased since 2012

DOES GAMING DRIVE TRAFFIC?

Felix Kjellberg aka PewDiePie
15,8 M followers
450K new per week
2,8 Billion views!

Strong correlation between gaming and video viewing on smartphones



Base: US smartphone users age 15-69
Source: Ericsson ConsumerLab Analytical Platform 2013, online survey

TIME TO CONTENT

CRITICAL FOR USER EXPERIENCE

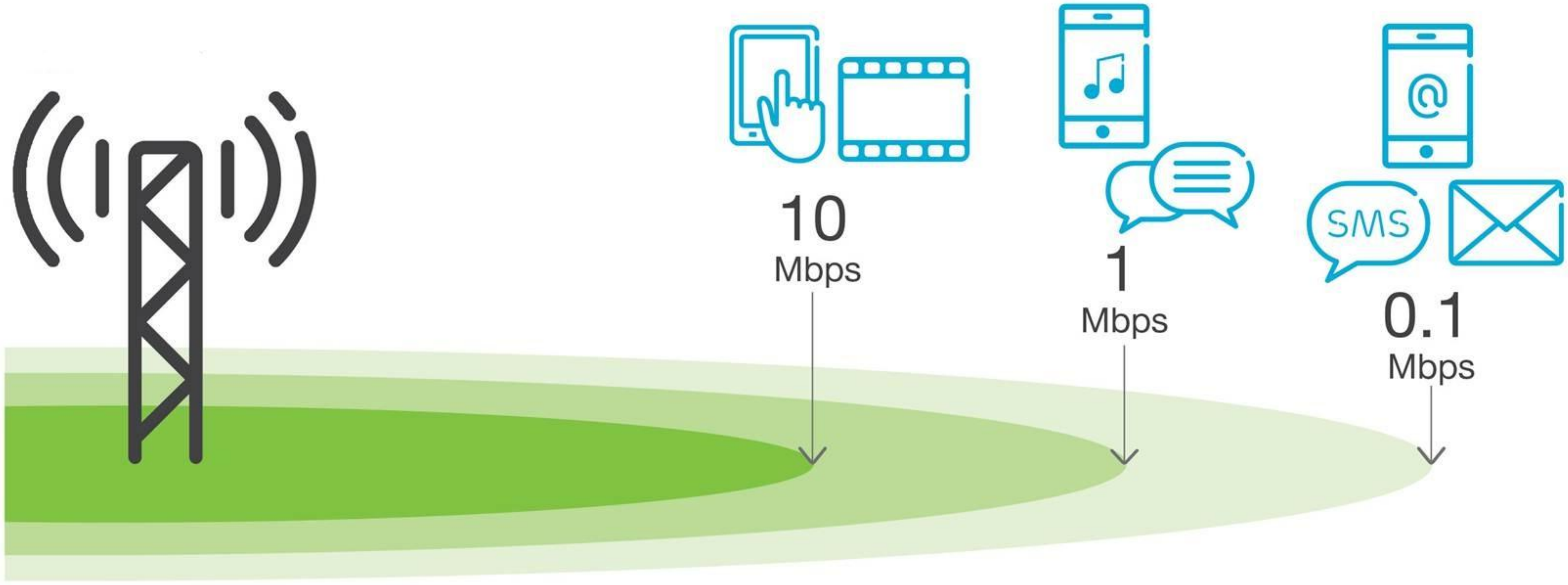
10%

OF MOBILE USERS
ABANDON ONLINE VIDEO
AFTER 4 SECONDS

40%

OF MOBILE USERS
ABANDON ONLINE VIDEO
AFTER 10 SECONDS

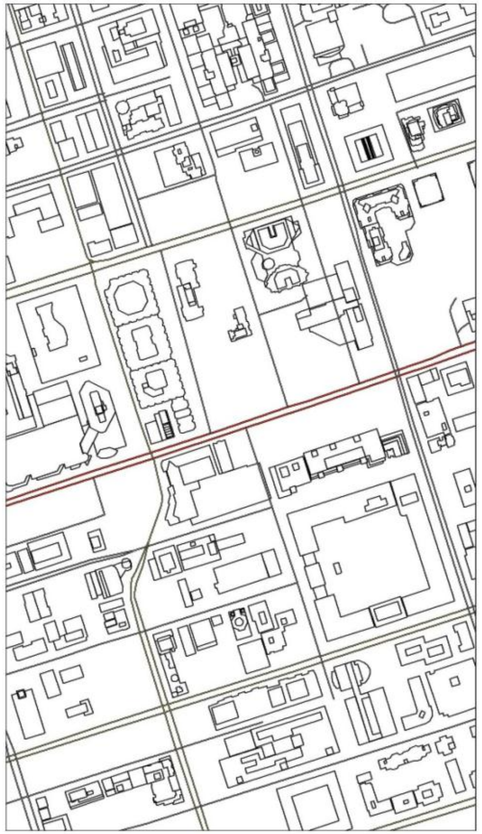
APP COVERAGE



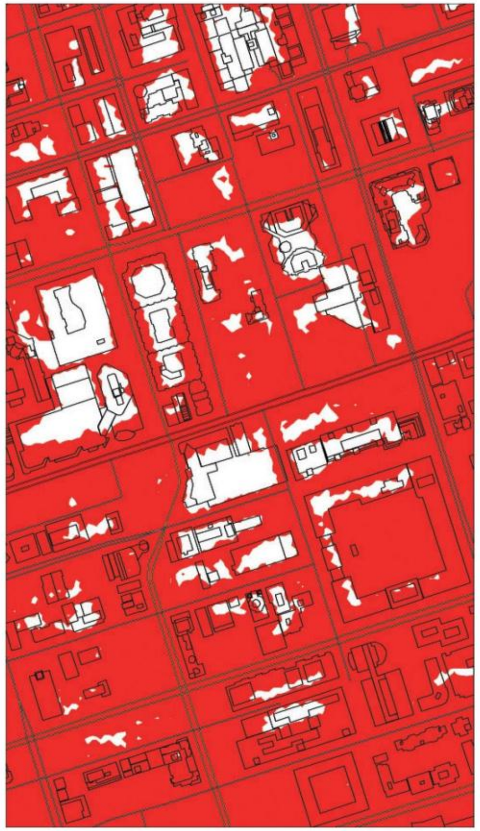
"App Coverage" – the area where my app works as I expect

APP COVERAGE APPLIED

City plan view without mapped coverage

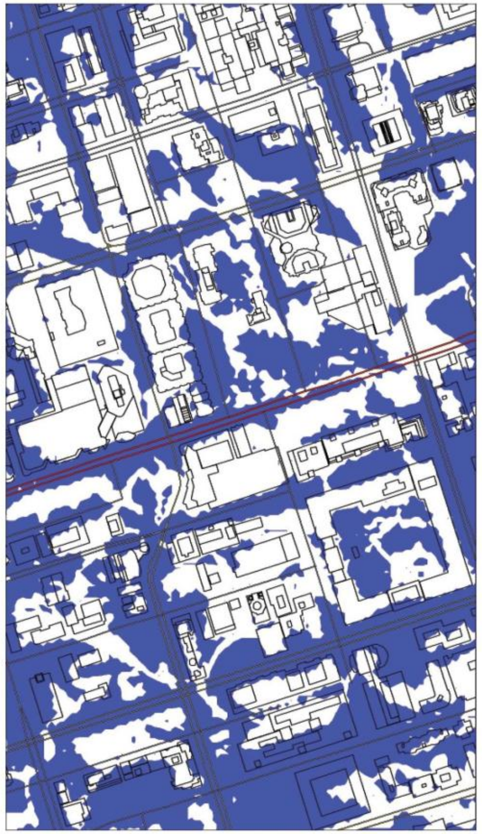


Voice coverage



Music coverage

Video streaming coverage



“Every app has its own coverage map”

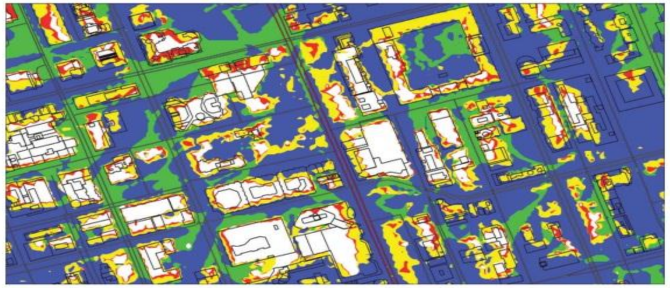
APP COVERAGE APPLIED

The effect of different radio network designs on coverage in a 4 km² area

		Base case		Tuning and optimization		Macro densification	
	Threshold	Total coverage	Indoor penetration	Total coverage	Indoor penetration	Total coverage	Indoor penetration
Voice	12.5 Kbps UL/DL	94%	85%	95%	88%	97%	93%
Music streaming	160 Kbps DL	88%	70%	89%	71%	93%	82%
Video telephony	320 Kbps UL/DL	70%	24%	76%	38%	83%	55%
Video streaming	720 Kbps DL	48%	17%	68%	40%	73%	47%

Source: Ericsson (November 2013)

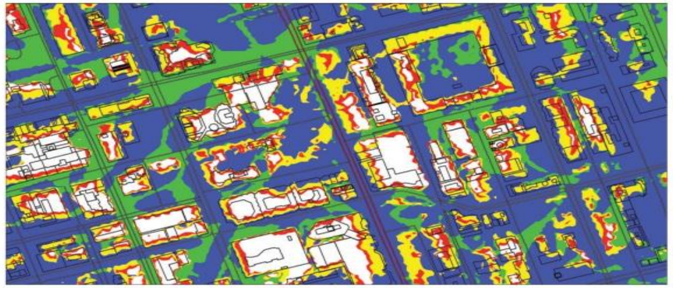
Base case



Source: Ericsson (November 2013)

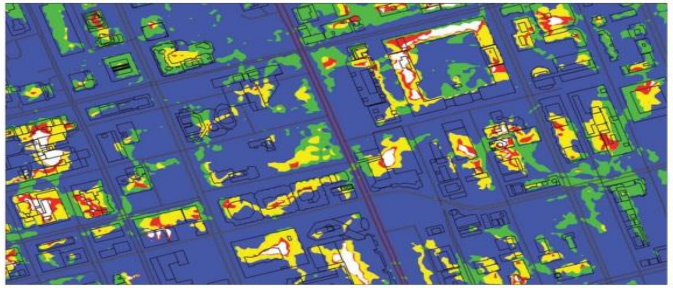
All apps

Tuning and optimization



Source: Ericsson (November 2013)

Macro densification

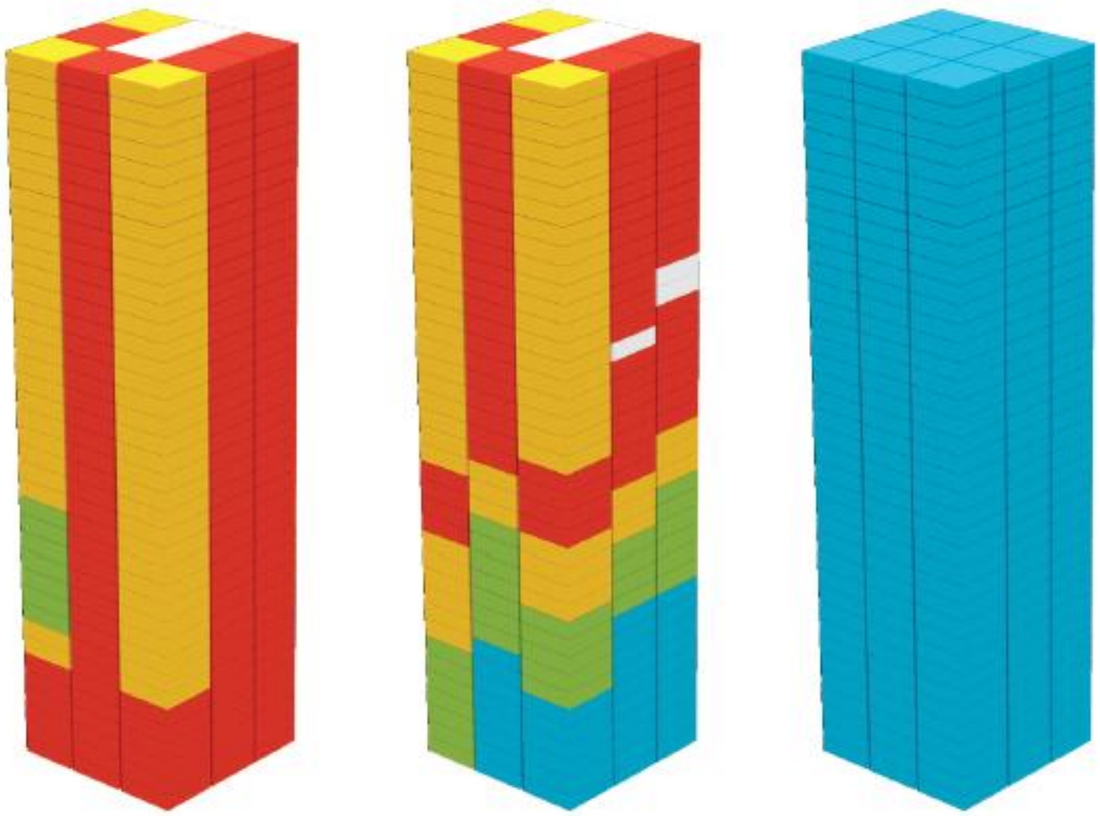


Source: Ericsson (November 2013)

APP COVERAGE - INDOOR

Building:
Metalized glass

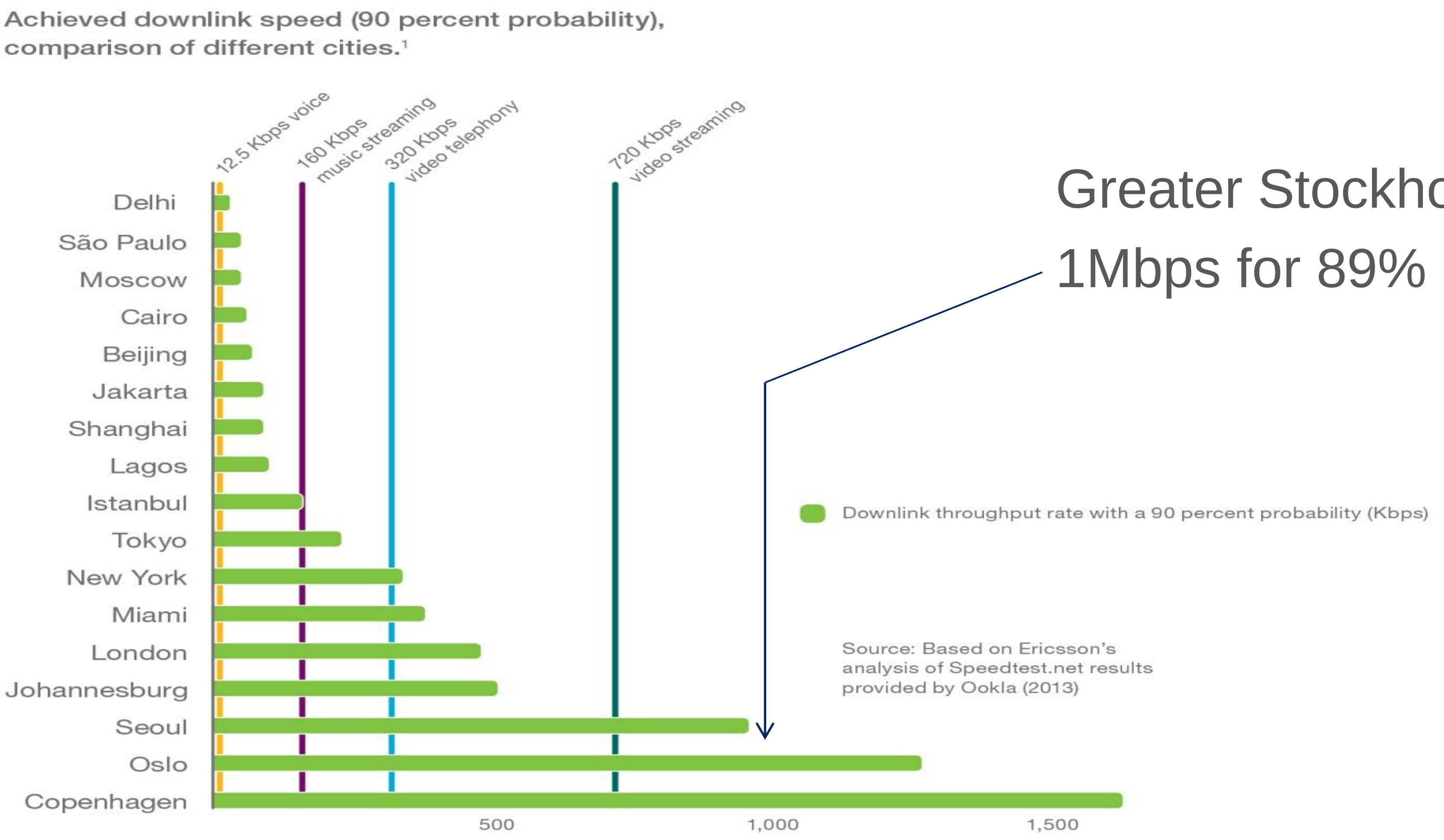
- App coverage in buildings present a significant challenge
- In-building app coverage can be improved with suitable radio network deployment



Macro only	Add outdoor micro	Add indoor solution
86%	91%	100%
26%	61%	100%
2%	41%	100%
0%	21%	100%

No coverage
Voice (12.5 Kbps UL/DL)
Music streaming (160 Kbps DL)
Video telephony (320 Kbps UL/DL)
Video streaming (720 Kbps DL)

APP COVERAGE IN CITIES

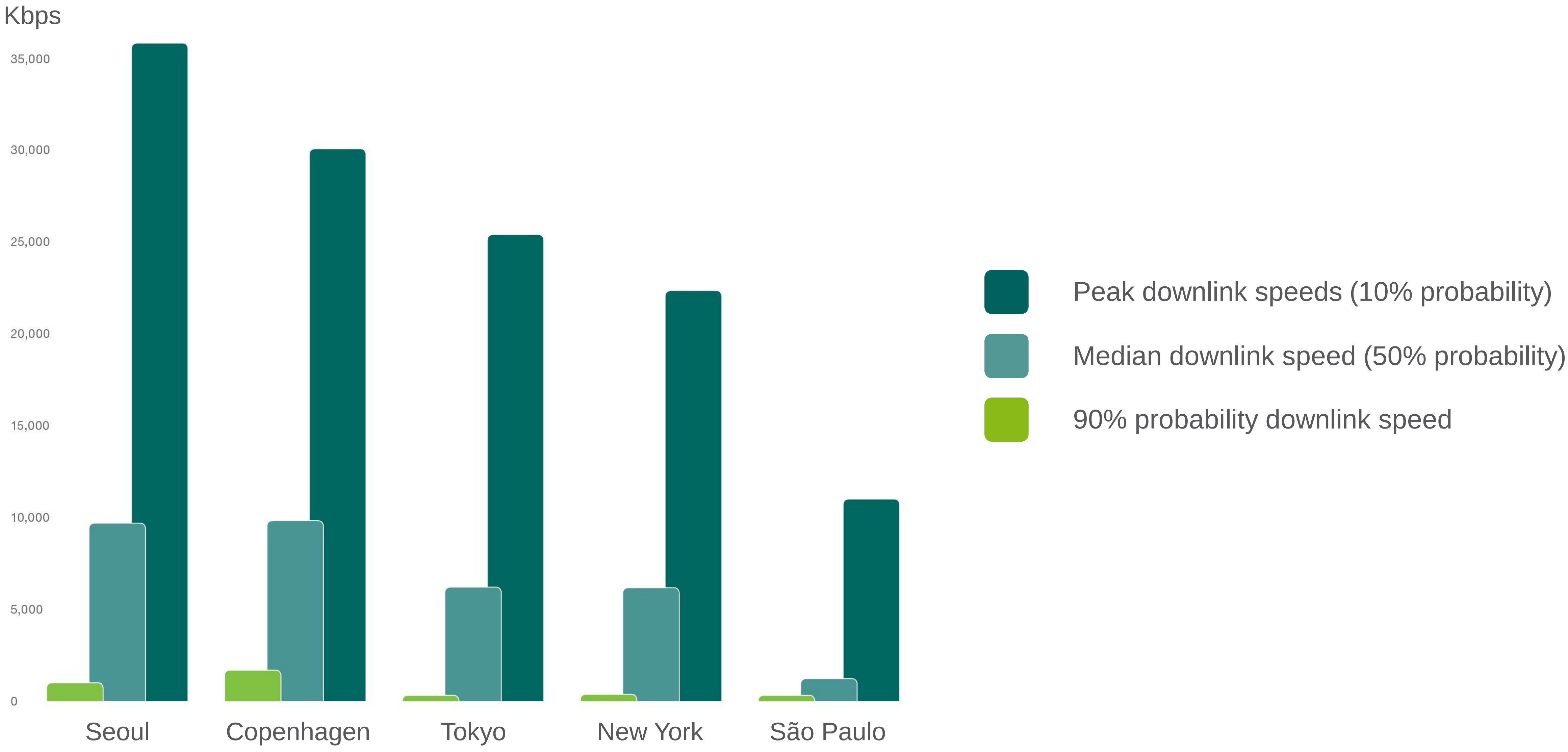


Greater Stockholm :

1Mbps for 89% of samples

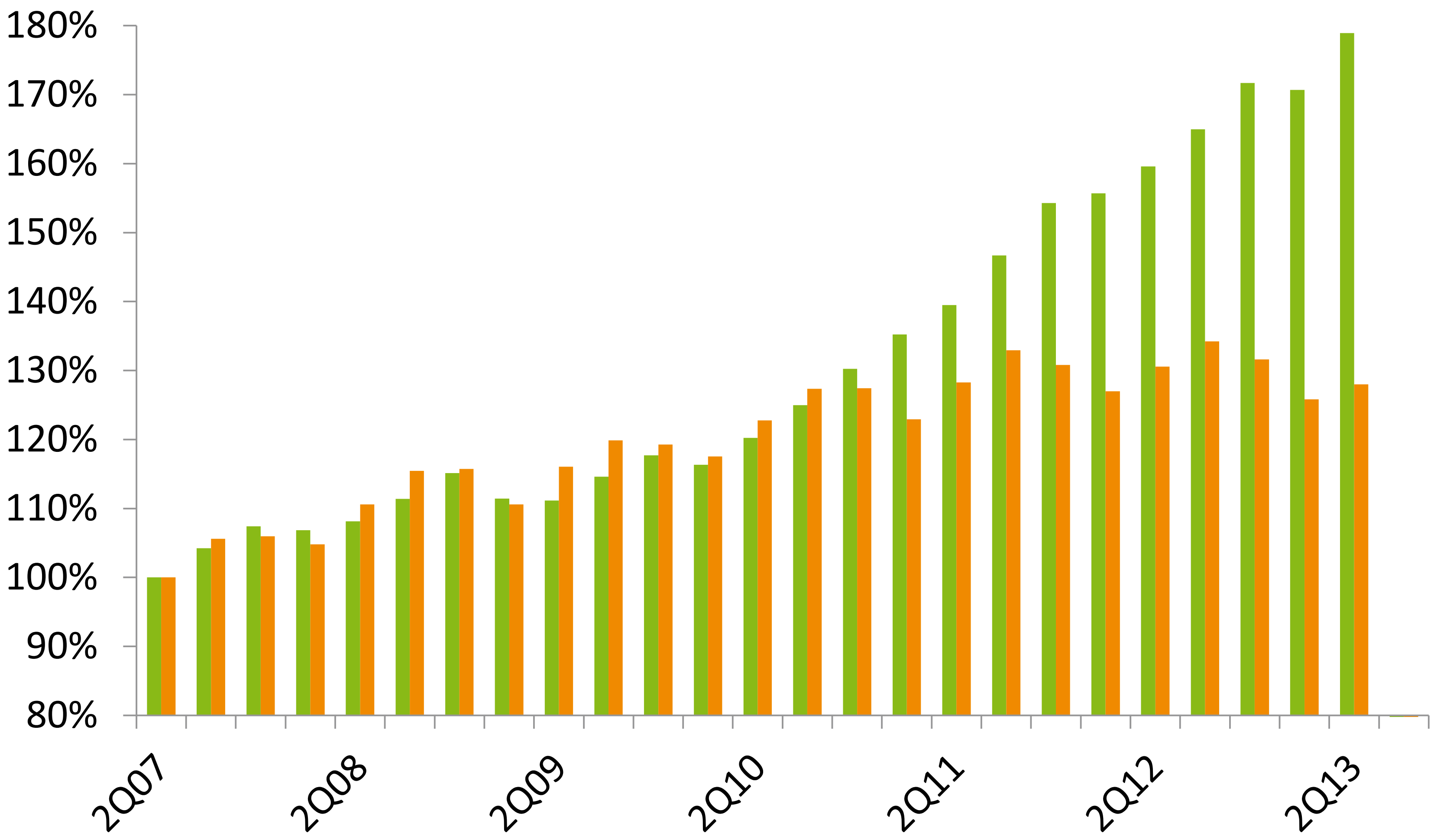
[1]Compilation of Speedtest.net measurements in each city during the period July–September 2013.
Measured median speeds (50 percent probability) and top speeds (10 percent probability) are considerably higher in all cities.

APP COVERAGE IN CITIES



Source: Based on Ericsson's analysis of Speedtest.net results provided by Ookla (2013)

FRONTRUNNERS TURN DATA GROWTH INTO REVENUE GROWTH



12,6 % CAGR*
(2009-2013)

Source : Ericsson analysis – operator reporting (8 leading operators)
*) Average CAGR among analyzed operators

FRONTRUNNERS RETHINK MOBILE BROADBAND

Problem focused

Maximizing old revenues

Connectivity as a Commodity

Market & Tech Silos

Shift of mindset

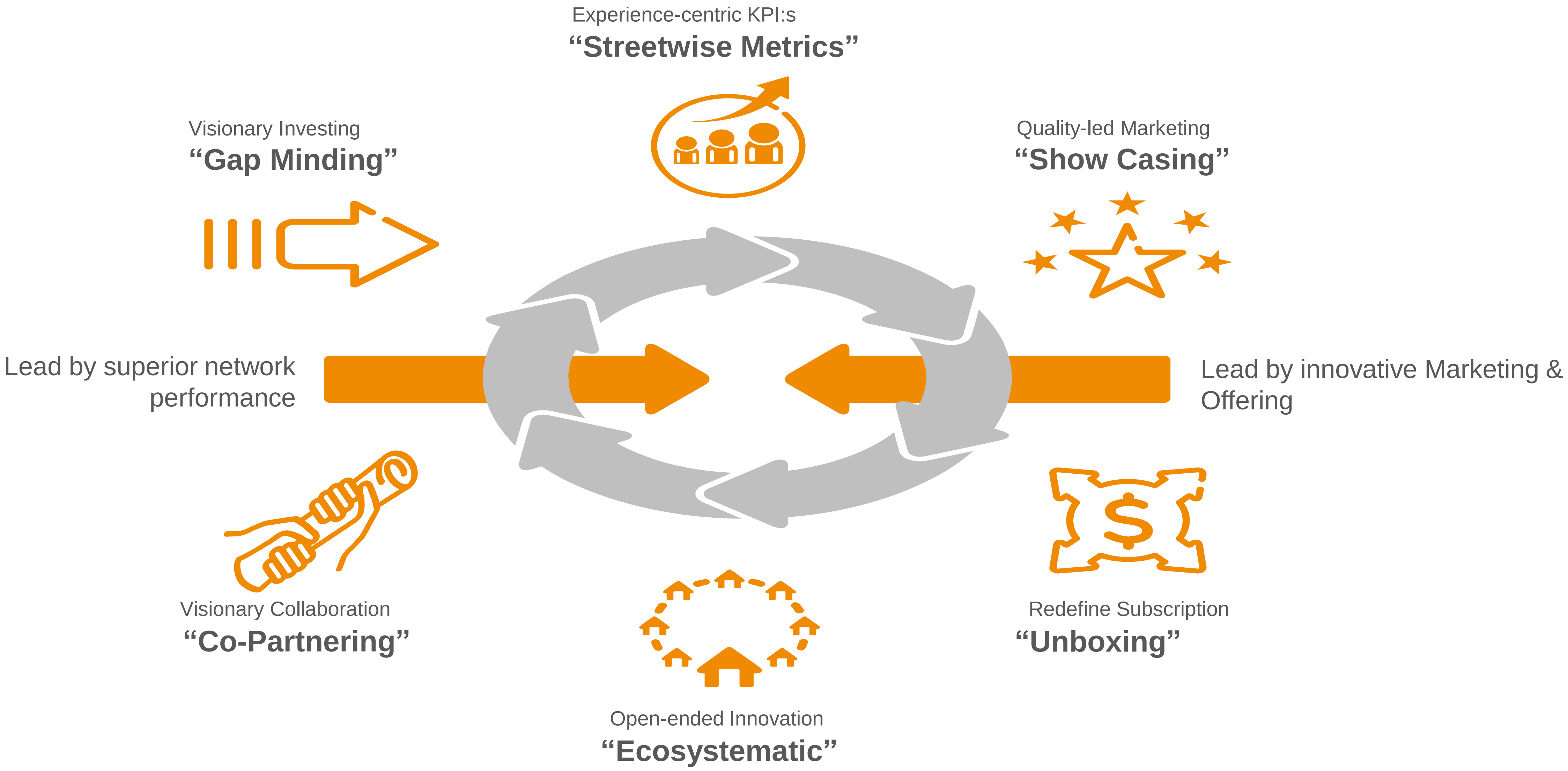
Opportunity focused

Innovating new revenues

Connectivity as a Differentiator

Market & Tech Synergies

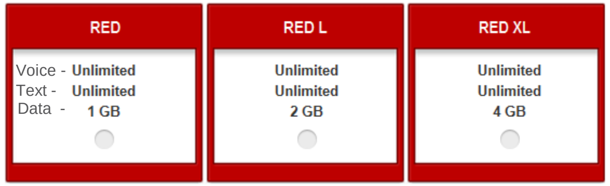
6 GROWTH CODES



POSTPAID "MARKETS"
DATA CENTRIC AND INCREASED DIFFERENTIATION/SEGMENTATION

1. Segment on Volume or Speed

› Shift from buckets to unlimited voice and text



Vodafone RED
- › Unlimited Voice and text
- › Segment on data 1/2/4 GB

2. Shared Plans

› Leverage more data usage and multiple devices

Share Data AT&T
- › Unlimited Voice and text
- › Segment on data
- › Connect the next device

3. Limited Internet for Low End

- › Attract new data subscribers with voice plans only
- › Limit by speed or internet access

Smartone
- › Unlimited data
- › Speed limit to ensure a better experience on regular subscription

4. New Services for Upsell

› New services for upsell and marketing focus

Smartone
- › Share files for computers, tablets and smartphones

PREPAID "MARKETS"

INNOVATION AND INCREASED CHOICES WITH PREPAID

1. Buckets as in Postpaid

- Data volume with fixed price

GoPhone Plans >	$65 monthly unlimited	$50 monthly unlimited	$25 monthly unlimited	$2 daily unlimited (only on days used)	10¢ minute plan (no monthly fee)
All Nationwide Calls	Unlimited	Unlimited	250 minutes included	Unlimited	10¢ minute calls
Text Messaging	Unlimited	Unlimited	Unlimited	Unlimited	20¢ text messages
Data/Web	1GB data included	Unlimited data included for eligible phones; Smartphone users must purchase a data package	1¢/5KB pay-per-use or buy a data package.	1¢/5KB pay-per-use	1¢/5KB pay-per-use

AT&T

- Similar to Postpaid
- Smartphone

2. Application Pricing

- Attract new data subscribers with voice plans only

Package	Fare	How to Subscribe
Daily	Rp 2,000 / day	Call * 363 # menu lalupilih Facebook
Weekly	Rp 10,000 / 7 days	Call * 363 # menu lalupilih Facebook
Monthly	Rp 30,000 / 30 days	Call * 363 # menu lalupilih Facebook

Telkomsel Indonesia

- Facebook $0.2 per day
- Feature and Smartphone

3. Limited Internet for Low End

- Per day pricing

TIM Brazil

- Daily use for $0.3 per day @ 10MB
- Smartphone & PC

4. Longer time fixed pricing

- Per year pricing

Internet per 1 Anno Start	2GB DI INTERNET
Internet per 1 Anno Large	5GB DI INTERNET

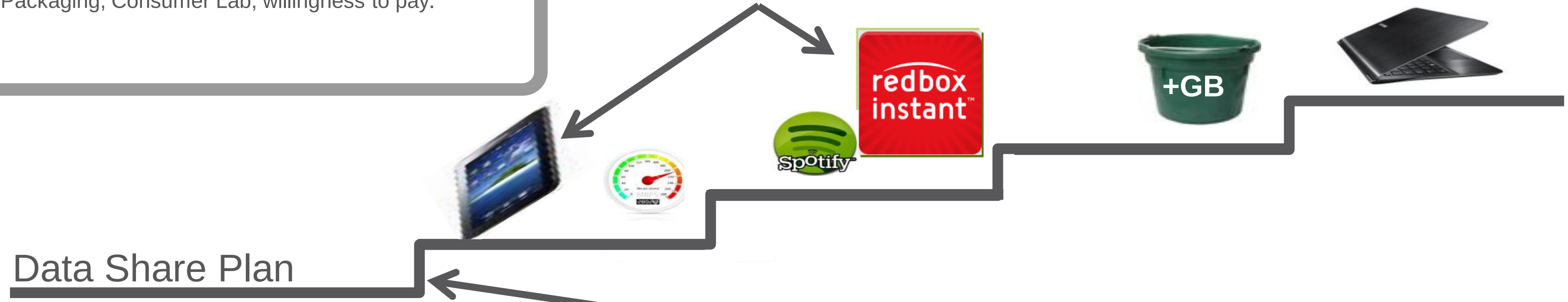
TIM Italy

- 2GB/5GB per year
- $150 one-time fee
- Tablet or PC

STEPWISE APPROACH TO INCREASED SHARE OF WALLET

Users are willing to Pay:
2x Speed => 20-30% price increase
2x Volume => 30-35% price increase
+1 Device = 30-60% price increase
Services add further value & reduce churn
Source : Ericsson Analysis – Operator Packaging, Consumer Lab, willingness to pay.

Clearly percieved Value...



Base line

Reasonable Steps & over Time

Users are Willing to Pay for quality, devices and services

SHARE EVERYTHING!

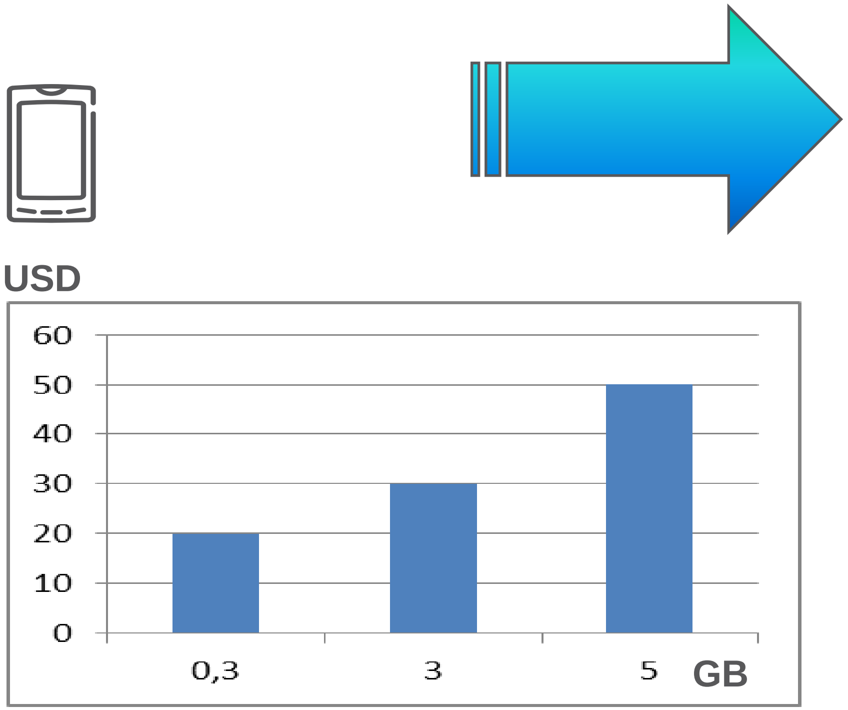
- Share Plan
  - Users choose Device and Data plan
  - Devices have separate monthly fee
  - Mix with selection of data plan
  - Up to 10 devices

- Examples:
  - 2 SmartPhones + 6GB = 160$/Month
  - SmartPhone + Tabet + 8GB = 140$/Month

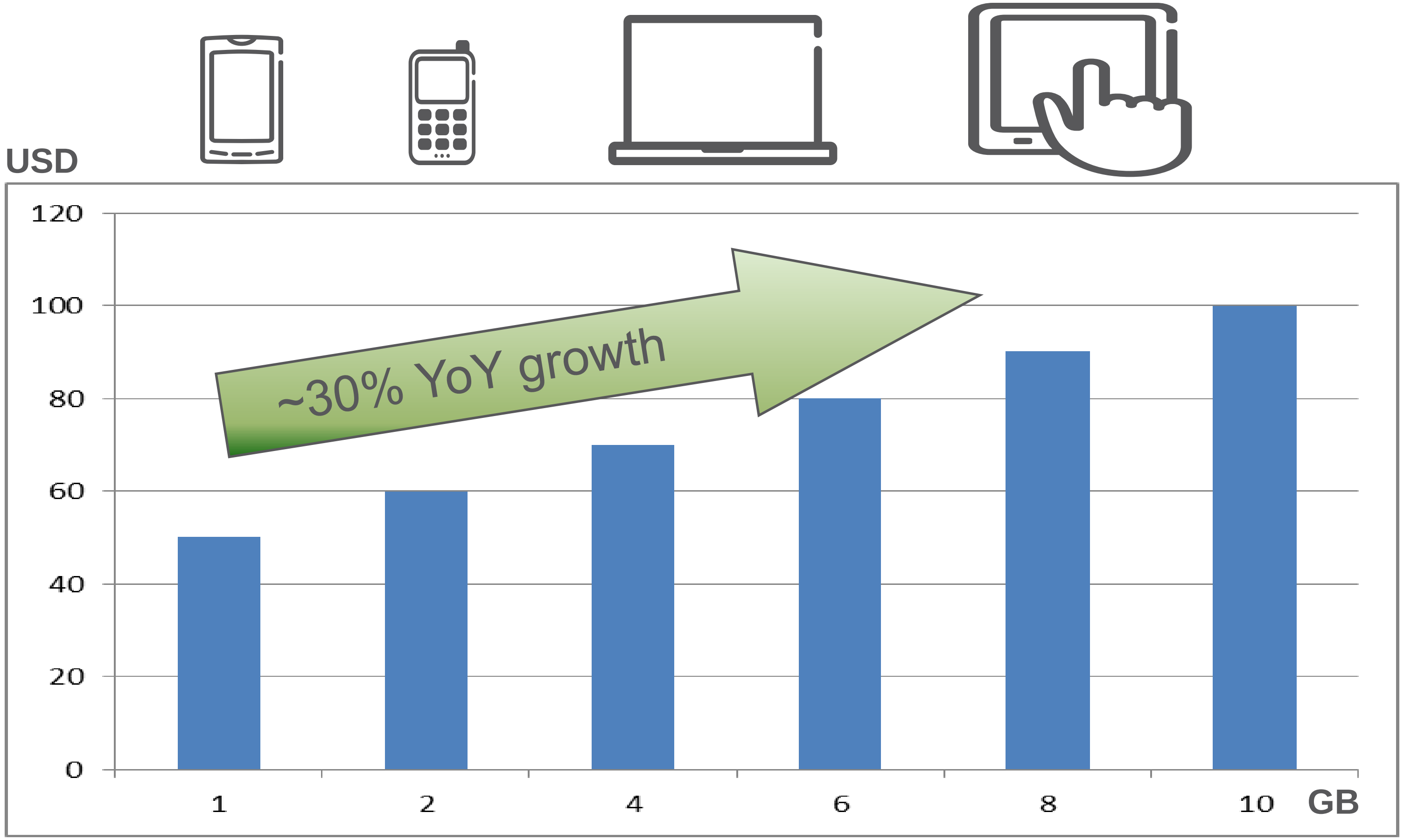
Step 1	Step 2			
Monthly Line Access (per device)	**Shared Minutes**	**Shared Messages**	**Shared Data**	**Monthly Account Access (shared with up to 10 devices)**
Smartphones - $40 Basic Phones - $30 Jetpacks/USBs/ Notebooks/Netbooks - $20 Tablets - $10	Unlimited	Unlimited	1 GB	$50
	Unlimited	Unlimited	2 GB	$60
	Unlimited	Unlimited	4 GB	$70
	Unlimited	Unlimited	6 GB	$80
	Unlimited	Unlimited	8 GB	$90
	Unlimited	Unlimited	10 GB	$100

Source: rogers.com

GROWING WITH USAGE!



Competition limits ARPU



Increased Usage drives ARPU

Modelling shows 15-20% Data ARPU growth

TELIA MOBIL DELA

- Share Plan
  - Users choose Device and Data plan
  - Devices have separate monthly fee
  - 1 SmartPhone included in Monthly Fee
  - Up to 6 devices and 16GB

- Examples:
  - 2 SmartPhones + 2GB = 548SEK/Month
  - 2 SmartPhone + Tabet + 8GB = 777SEK/Month

		Shared Minutes	Shared Messages	Shared Data	Monthly Fee
SmartPhone	149 kr	Unlimited	Unlimited	2 GB	399 kr
Tablet	29 kr	Unlimited	Unlimited	4 GB	499 kr
Dongle	29 kr	Unlimited	Unlimited	6 GB	599 kr
		Unlimited	Unlimited	8 GB	699 kr
		Unlimited	Unlimited	10 GB	799 kr

Source: telia.se

RESULTS SO FAR…

Smartphone Subs [M]

AT&T SHARE DATA PLANS

- 15% change from unlimited
- 3 Devices per Account
- 25% on 10GB or more

- New 0.3 MB and 2GB steps for better segmentation

Verizon Wireless, **began reporting ARPA** (Average Revenue Per Account) as opposed to ARPU to reflect the high proportion of shared data plan users in its contract segment. ARPA increased 6.9% YoY based on Q1 2013 reporting (up from 6.6% in previous quarter).36% of Accounts are now on Share Everything Plan. 2,7 Devices average per account
“As customers move into the plans they are adding more devices, using more data and moving up in usage tiers, which generates more revenue for Verizon.”
-- Fran Shammo, Verizon CFO, January 2013

STREAMING CONTENT

› Redbox Instant
  – 8$ per mont
  – Streaming service
  – 4 DVD’s/month – 34000 pick up stations
  – PC, Media Center, Xbox
  – Mobile platforms Android and iOS

› Complements FiOS offering
  – Segmented offering movies/series only

CONVERGED OFFERINGS

- Telia Play+
  - Large
  - Kids
  - HBO
- Live TV streaming
- Movie rental
- Leveraging IPTV offer
  - Packaging matches IPTV packages
  - Discounting towards IPTV customers

Private > TV > Play +

Play + HBO

The world's best television series - coming soon to Play +.

See new episodes the day after the U.S. premiere, and the previous section, all seasons, on demand. Eg True Blood, Game of Thrones, The Sopranos and Strike Back. It will gradually be filled with new series, more episodes and seasons, including The Wire and Six Feet Under.

Soon you can order Play + HBO. Texting **HBO** to number **71350** to get a text message when you can order.

Price £ 0 / month for TV customers with HBO. Other $ 0 / month for 6 months then 79 SEK / month.

1-800 DATA

› Is there a two sided way of paying?

› Zero Rated Services

› Accessing premium content (video) that doesn't hit the cap
Mobile operators get new revenue stream

› Partnerships enables preferential delivery – QoS functionality

› Netflix, HBO, Vudu, Spotify?

"We are getting those phone calls.
The content guys are asking for it."
- AT&T CEO Randall Stephenson

Shared Data	Monthly Account Access (shared with up to 10 devices)
1 GB	$50
2 GB	$60
4 GB	$70
6 GB	$80
8 GB	$90
10 GB	$100

Video is too much for most buckets...

ERICSSON