

# Mobile broadband wireless access.

- Connecting all EU citizens against economic downturn

Mats Nilsson  
VP head of European  
Affairs

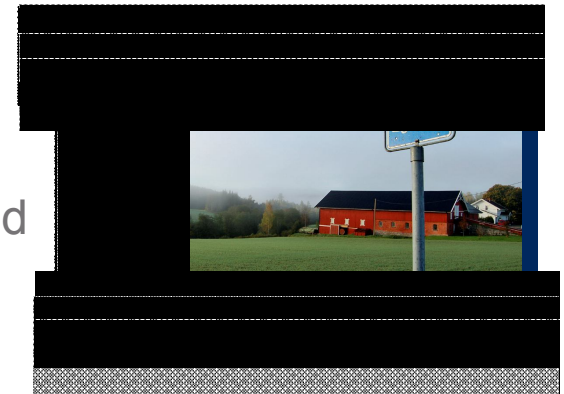
20 October 2009



# Mobile broadband is serving the **political agenda**

---

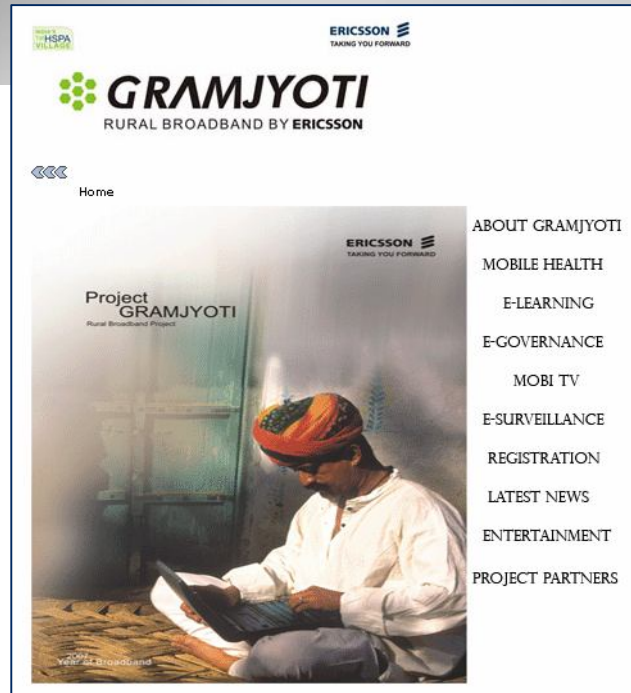
- › mobile broadband potential should be fully engaged; **maximizing the national growth**
  - but, today it is a struggle in the regulatory domain, mobile broadband needs recognition
- › mobile broadband might be the **first, and only connection to the internet** for many
  - mobile now equal to fixed internet connection
- › with **spectrum** at hand; presenting a significant **societal and economical** opportunities for citizens
  - needs to be included in balanced decisions
- › reducing the **digital divide**; between people on one hand and regions on the other hand



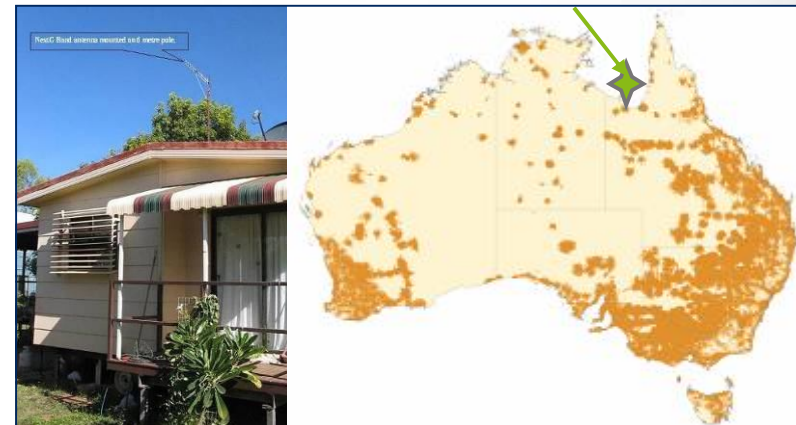
[ holding such responsibilities, regulatory experiments should be avoided, spectrum still need to be made available and be harmonized ]

# HSPA enables cost effective broadband to all...

Mobile  
Broadband



**18 villages and 15 towns  
provided internet services using  
HSPA**



**Telstra provided HSPA to 98% of pop  
in 10 months**

**Also rural areas** like Mornington Island in  
Gulf of Carpentaria, Australia

**over 120km from serving tower**

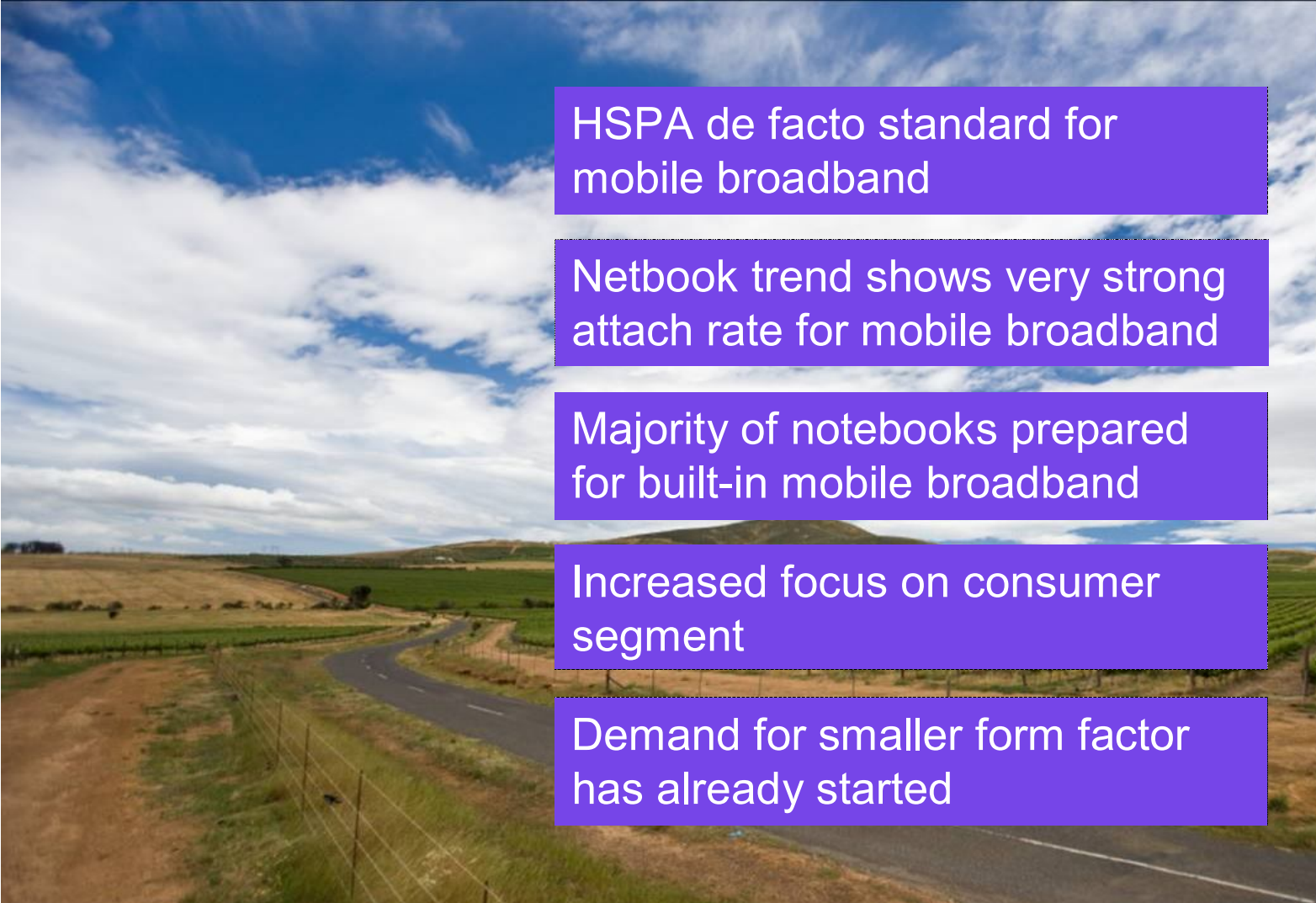
ERICSSON

2009-09-29

# Mobile broadband modules

- summary of 2009 so far...

---



HSPA de facto standard for mobile broadband

Netbook trend shows very strong attach rate for mobile broadband

Majority of notebooks prepared for built-in mobile broadband

Increased focus on consumer segment

Demand for smaller form factor has already started

**2020 Vision:**

*"50 billion connected devices"*



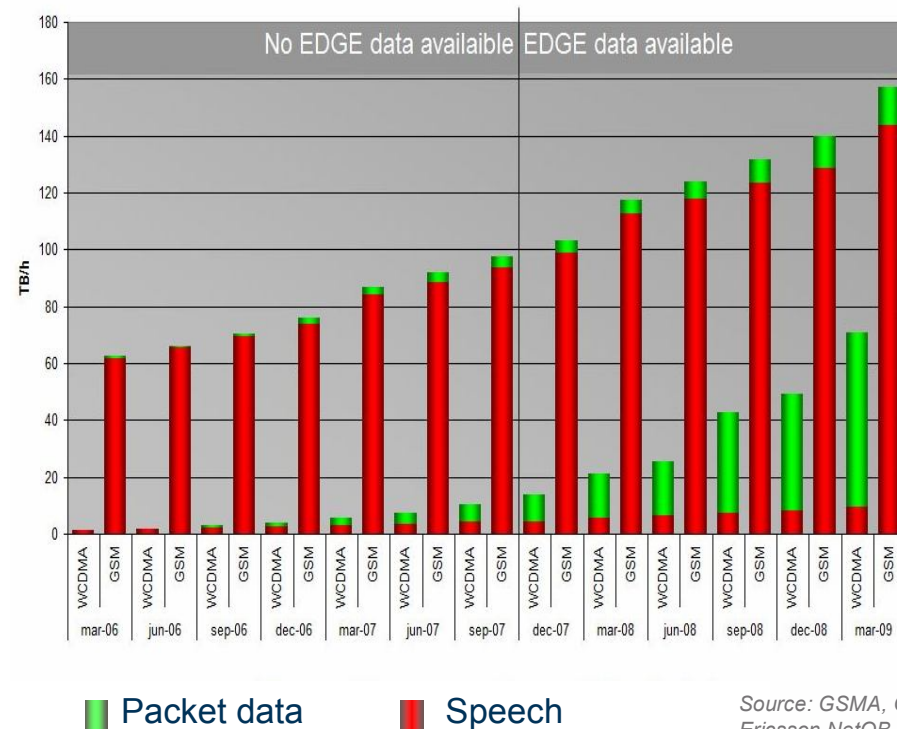
# Strong growth in mobile broadband

- world wide status

## Rapid subscriber uptake

- 410 million WCDMA/HSPA subscribers
- 10 million new HSPA subscribers per month, 150 million in total
- **1600 HSPA devices** are launched from 150 suppliers
- HSPA is deployed in 250 networks in 110 countries/territories
- **90%** of the traffic in WCDMA/HSPA networks **is data**

## Exceptional traffic growth



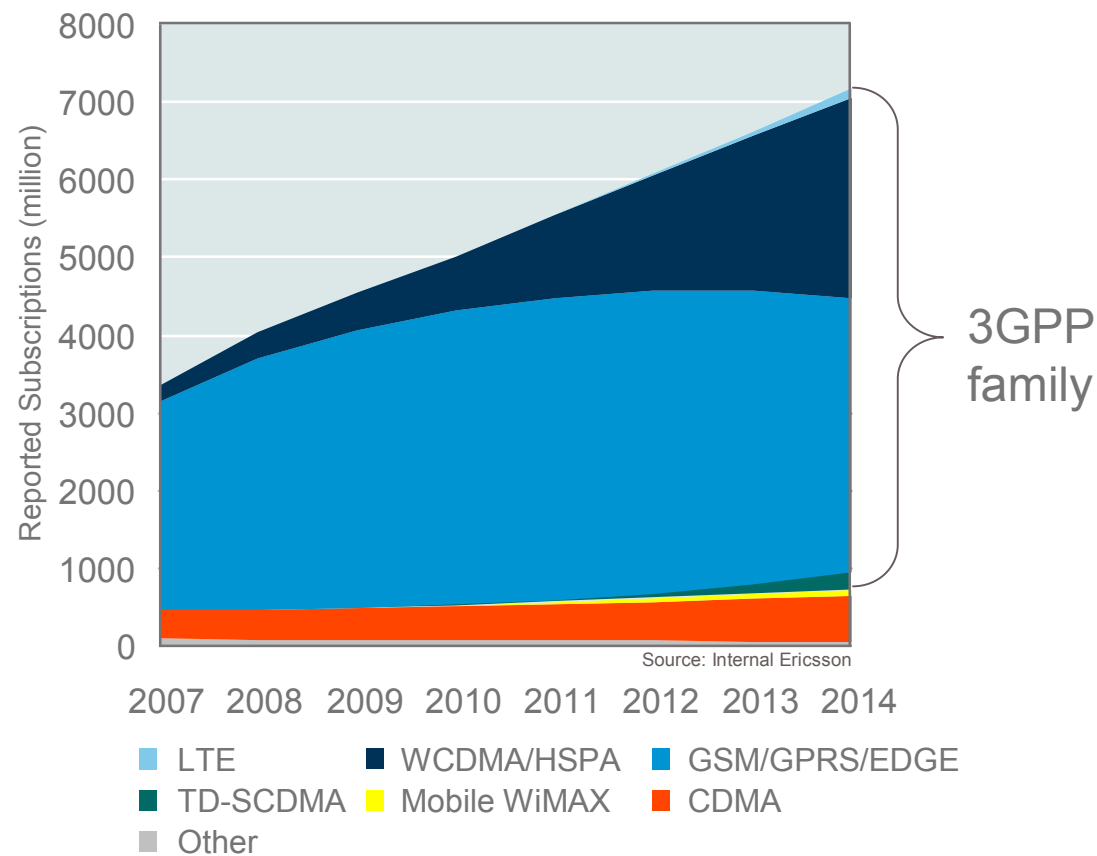
Source: GSMA, GSA, and Ericsson NetQB, March-2009

[LTE will accelerate this trend further – more spectrum needed!]



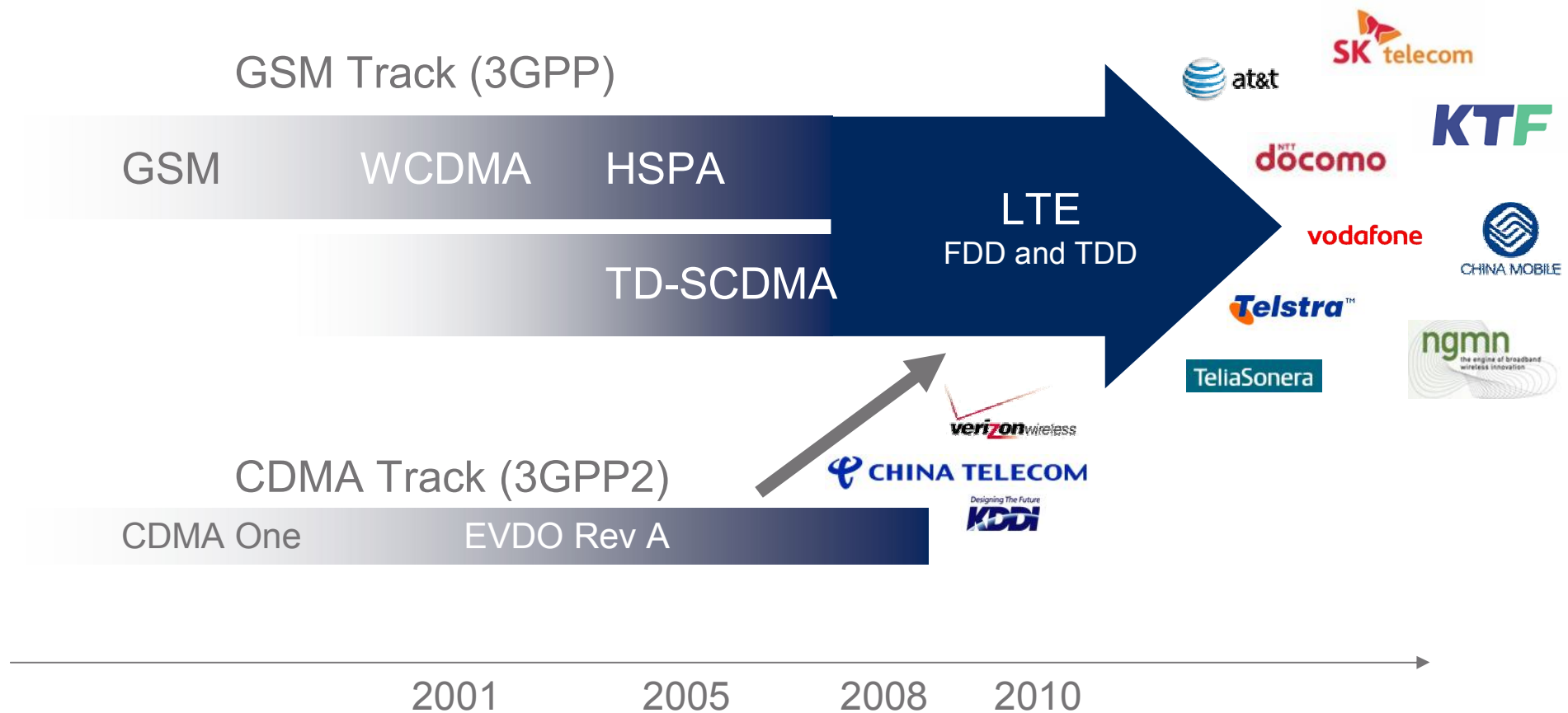
# Towards 50 billion 2020

*This slide contains  
forward looking  
statements*



[ Harmonized spectrum is the key mass market enabler ]

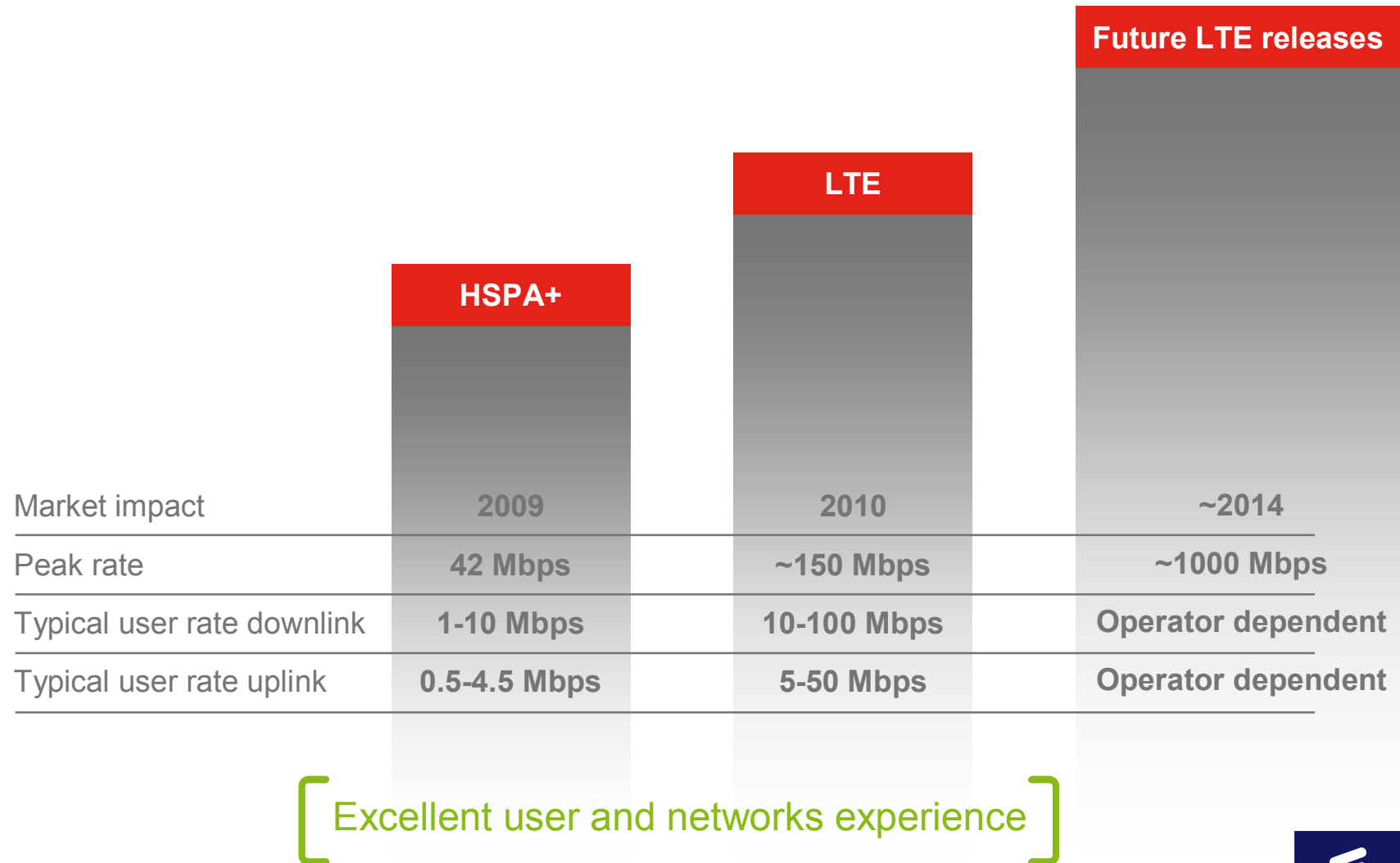
# A common technology evolution



[ LTE the Global standard for Next Generation (4G) ]



# Mobile broadband speed evolution



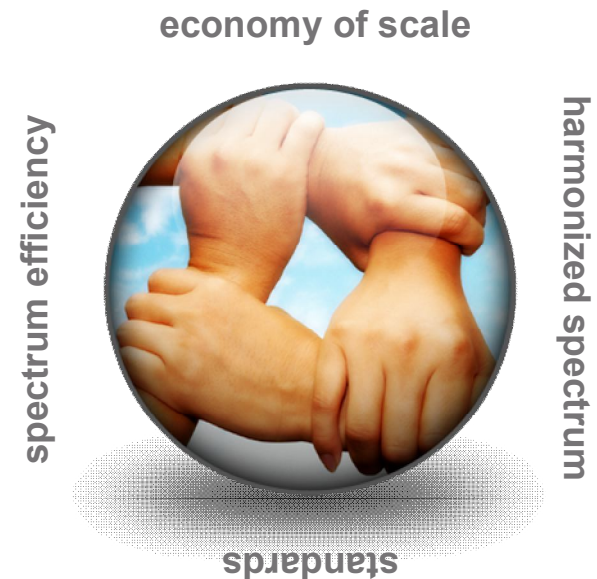


# Harmonized spectrum and standards

---

Harmonized spectrum is necessary and key for the public mobile broadband access developments; as for the industry to be able to successfully respond to national policy goals

- › economy of scale and affordability
  - mass markets add these values
- › easy cross-border coordination
- › cross-border operation
- › global roaming capabilities
- › interoperability
- › efficient use of spectrum (also in border areas)



[ as to be able to provide affordable services ]

# Overall spectrum objectives

---

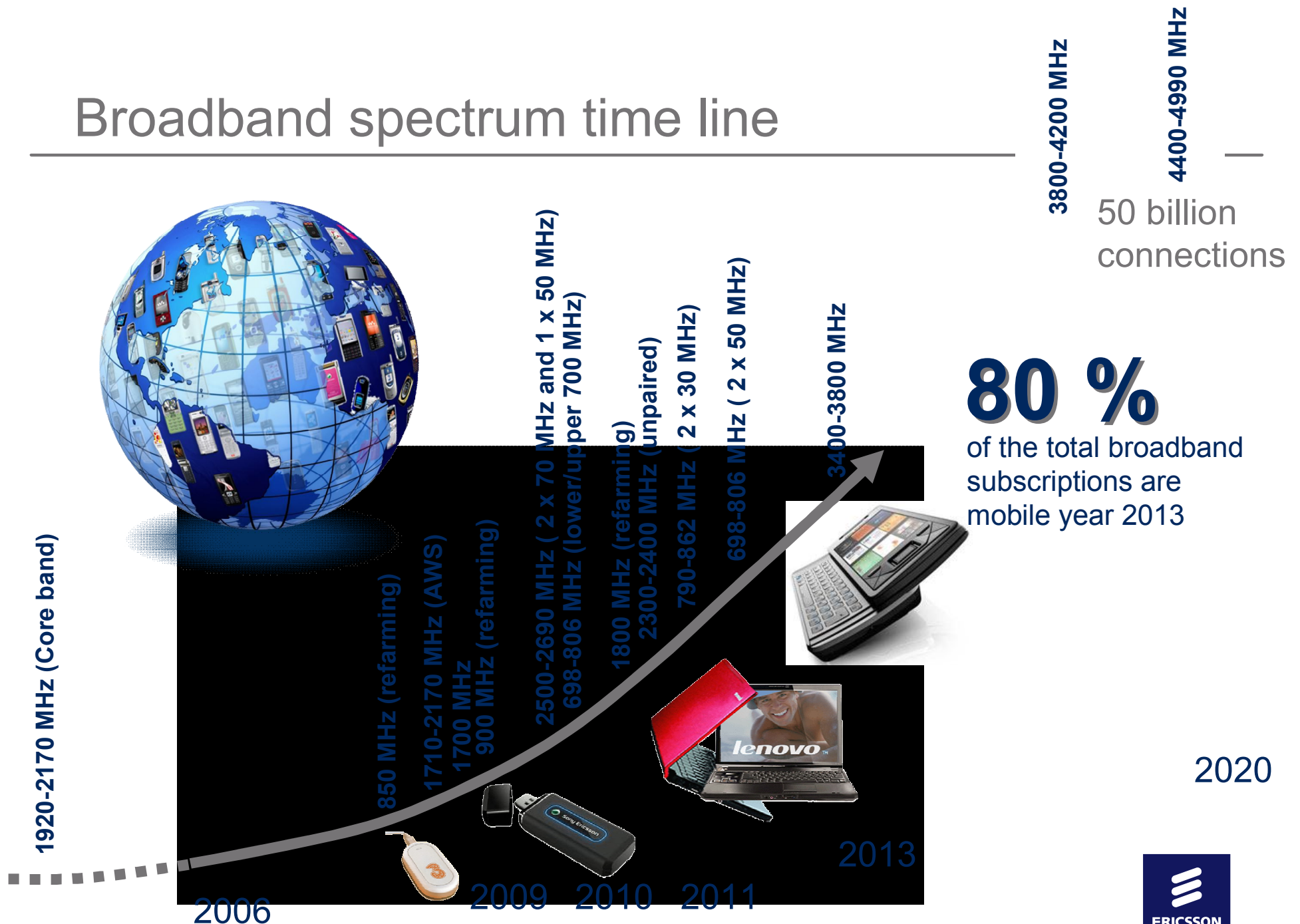


thriving for global, or regional, harmonization of frequency bands for mobile and fixed broadband radiocommunication services;

- the **right spectrum** (propagation and coverage)
- the **right combination** of spectrum bands
- **contiguous** spectrum (**20 MHz** channels for high data rates)
- **aligned and common** duplex arrangements (**separate** FDD and TDD)
- **aligned channel raster**, and/or block arrangements (**5 MHz** channel raster)
- minimizing **interference** between different operations; minimizing the need for **guard bands** / restricted channels (supported by technology developments)
- under **licensed** schemes (**QoS**)

[ allow for mobile broadband for all consumers ]

# Broadband spectrum time line

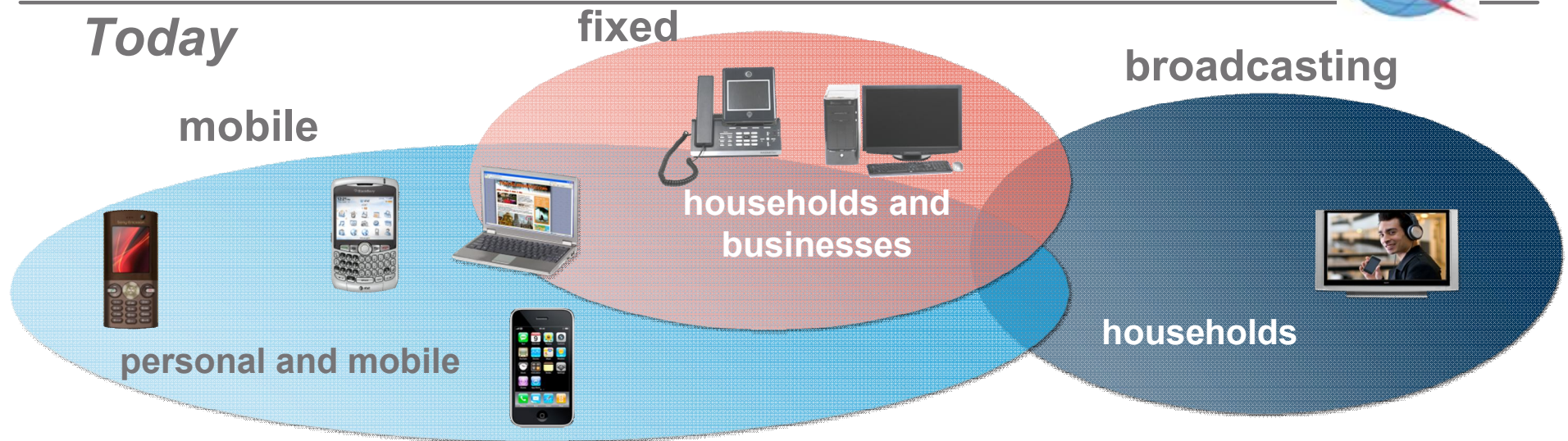




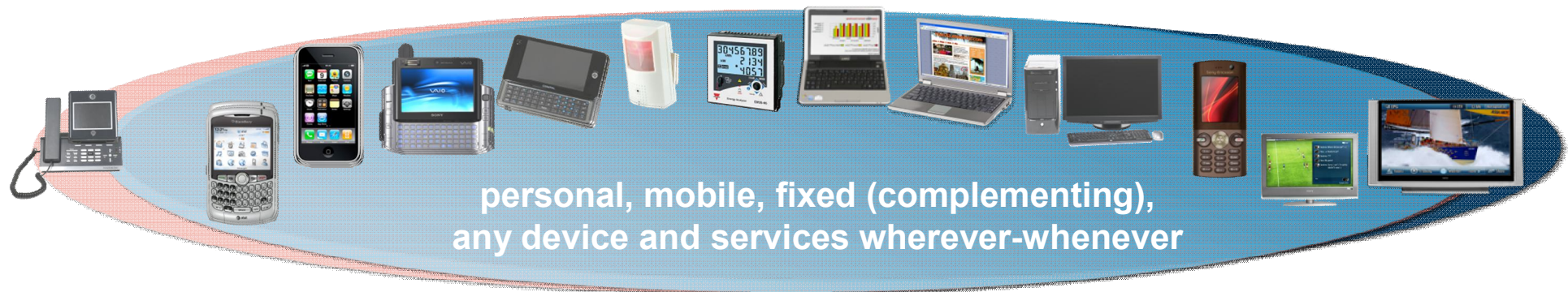
# Converged radio regulations



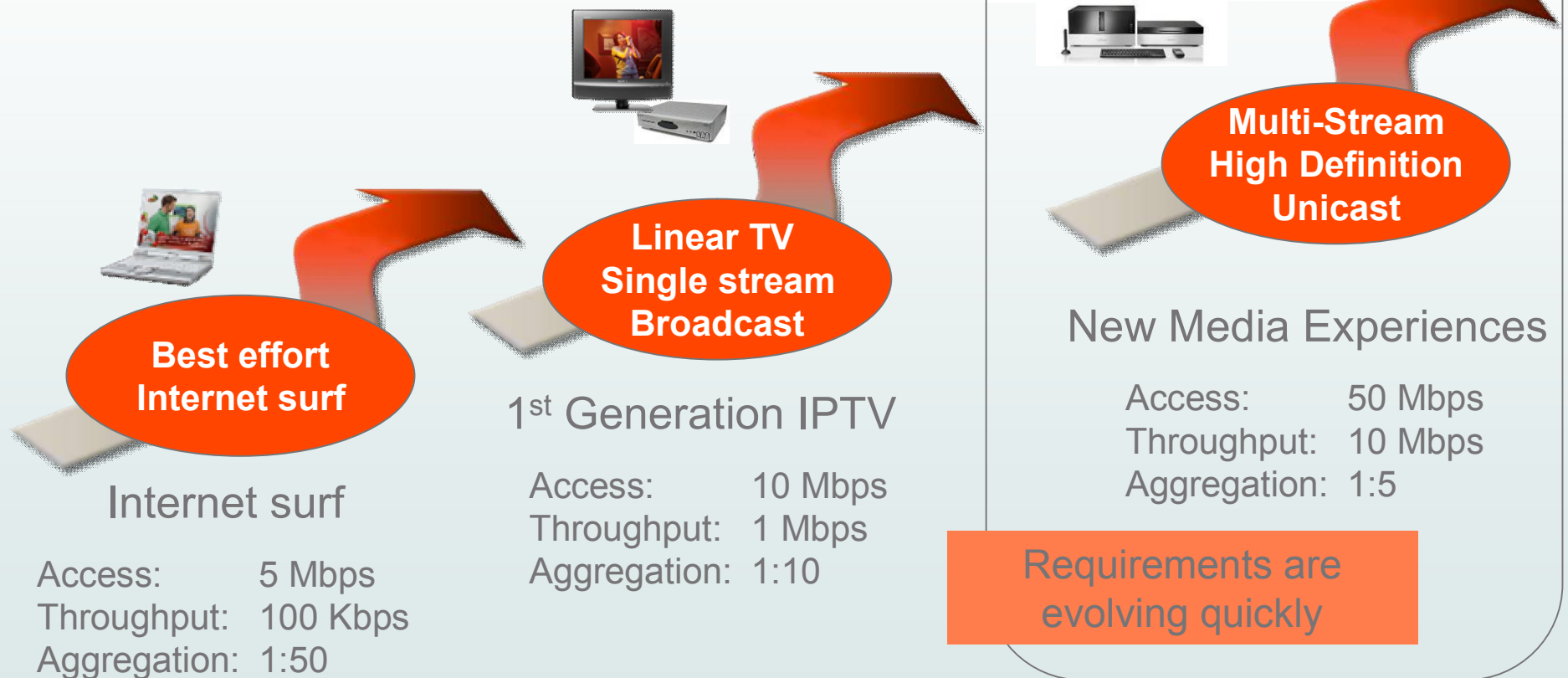
*Today*



*Tomorrow*



# Three residential broadband steps



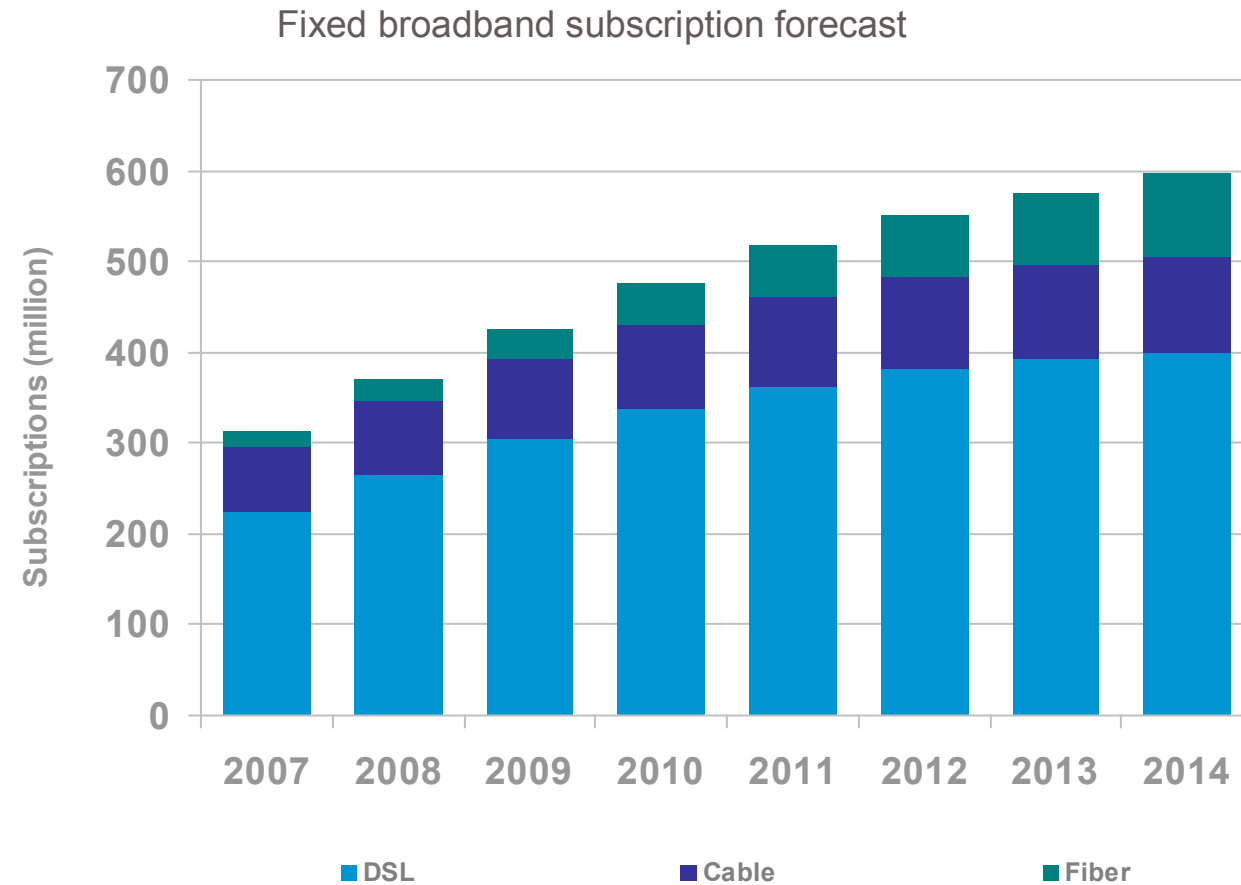
High definition TV & Video will be the main driver of capacity in access network

# Deep fiber business case

---

- › Fiber access is not built to provide internet access.
- › A deep fiber project is difficult to justify by High-Speed Internet (and telephony), even with basic IPTV.
- › Deep fibre and IPTV increases the value of the access and secures the long term role of the service provider in the value chain.
- › The business case is about building the most valuable and cost-effective access service
  - and to use it to deliver more value.
- › Fixed broadband also becoming a complement to a dominating Mobile Broadband Access, adding service capabilities, bandwidth and capacity to buildings and fixed consumers with very high bandwidth demand

# Fixed broadband subscriptions



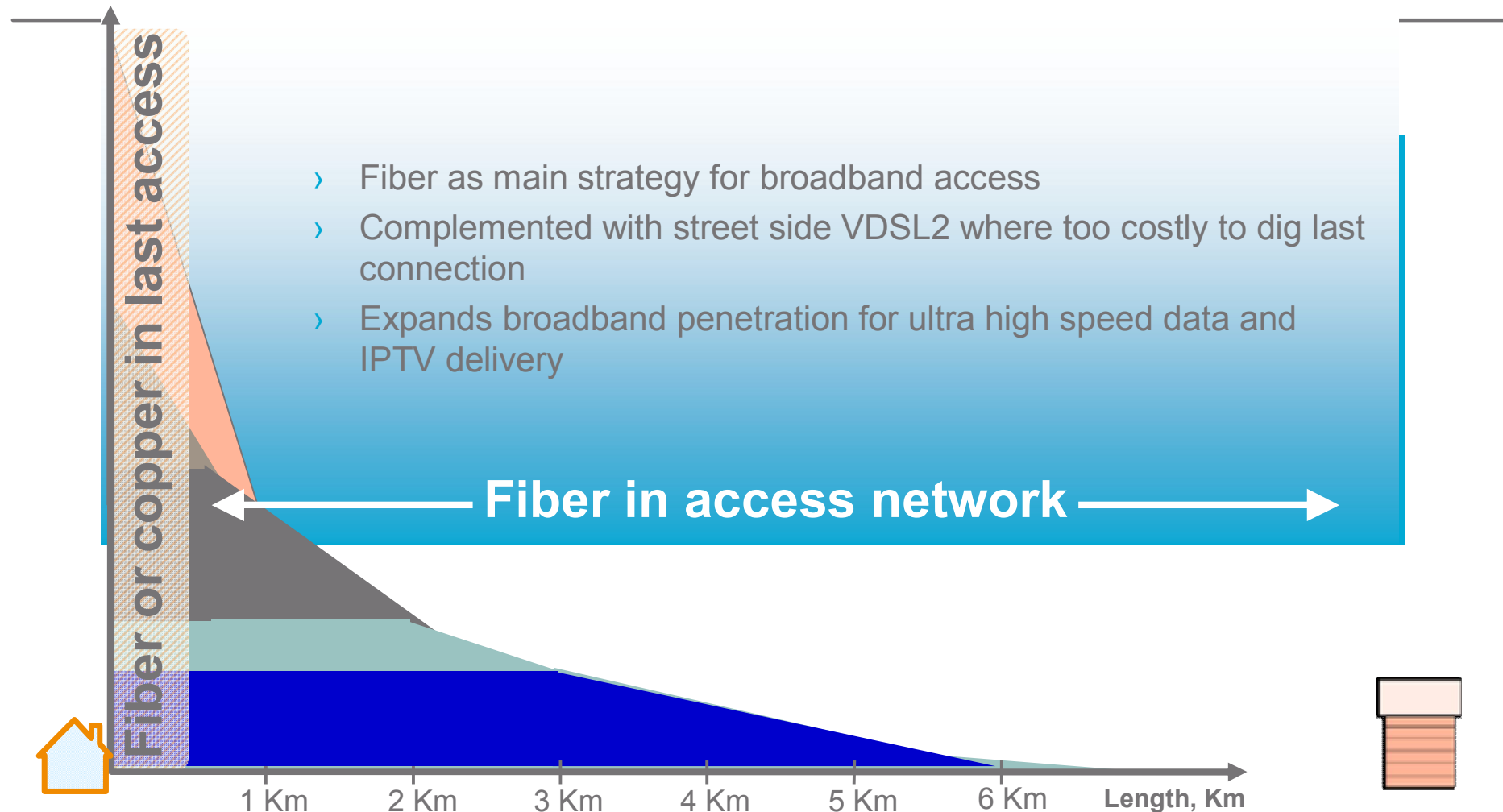
Source: Ericsson Internal

2009-09-29





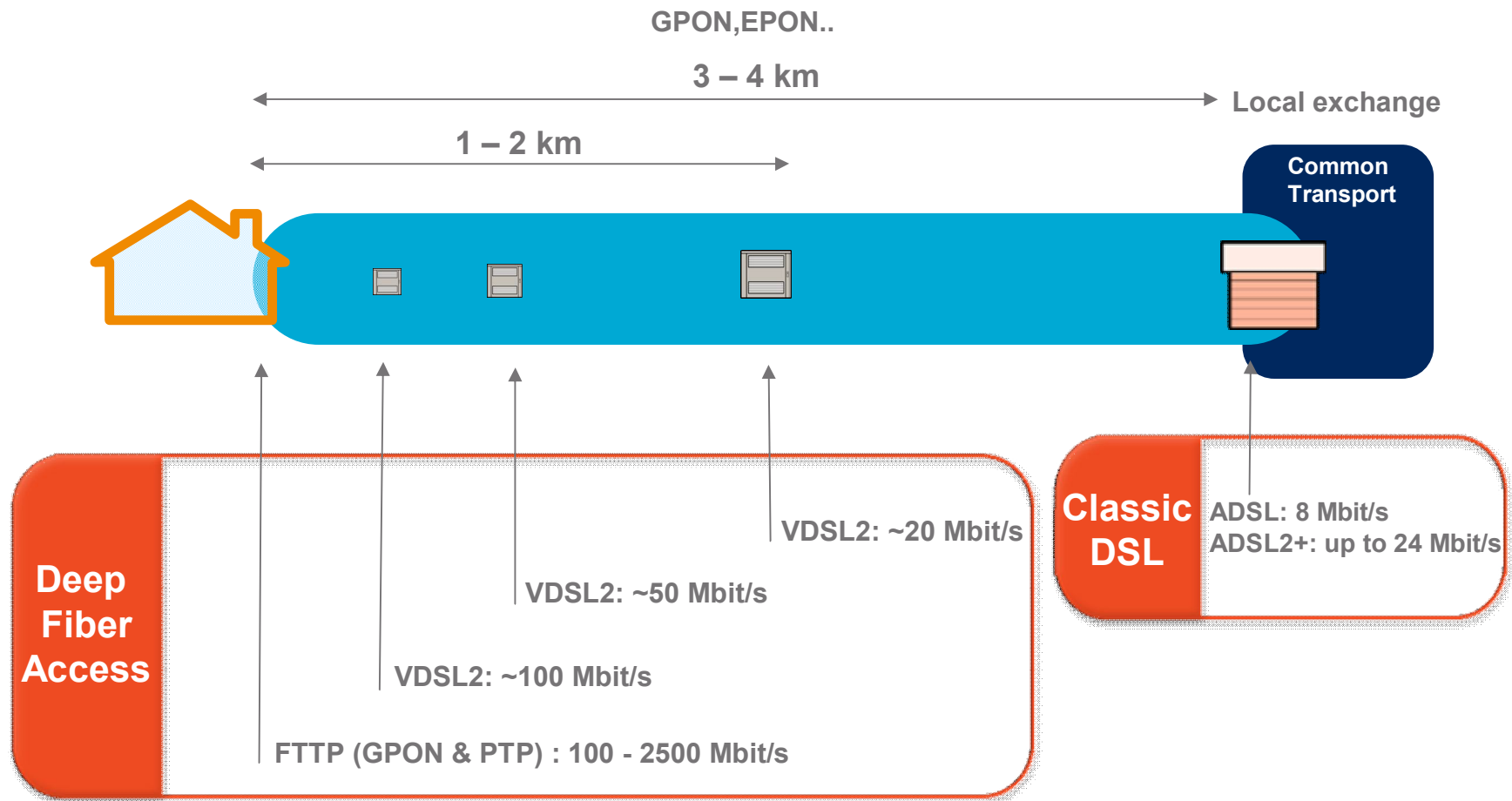
## Deep Fiber Access for Broadband Expansion



DFA: Fiber + DSL to expand broadband penetration

# Transformation to Deep Fiber Access

Multiple Deep Fiber alternatives – VDSL2/GPON/PTP Fiber



Closer to customer to increase speed



**ERICSSON**