

# Mobil teknik och tjänster nedanför 900 MHz

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# 3G Mobile Broadband

2003/4

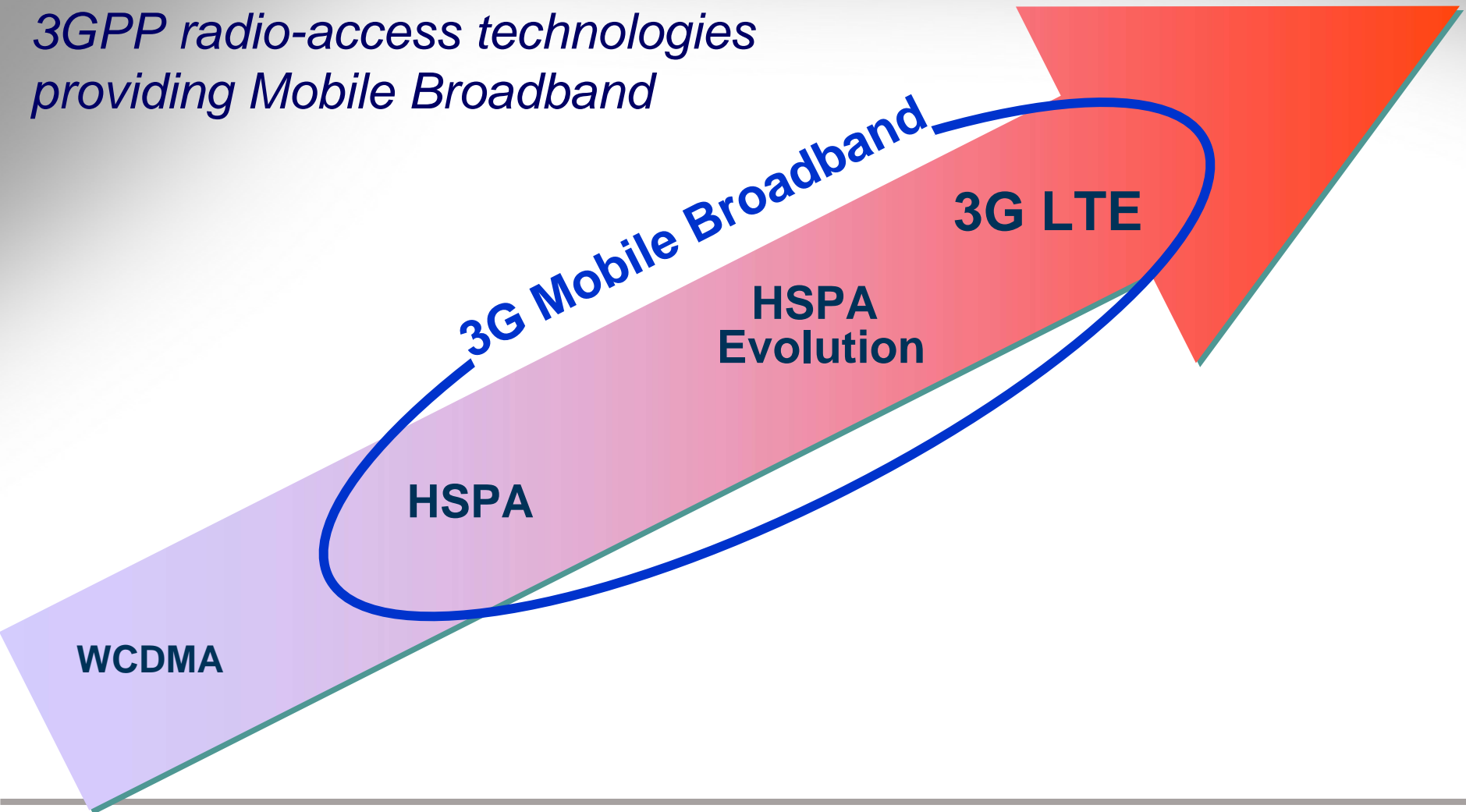
2005/6

2007/8

2009/10

2011/12

*3GPP radio-access technologies  
providing Mobile Broadband*



# 3G Mobile Broadband

2003/4

2005/6

2007/8

2009/10

2011/12

**Downlink: 3.6 Mbps ⇔ 7.2 Mbps ⇔ 14 Mbps**  
**Uplink: Up to 5.8 Mbps**

**3G LTE**

**HSPA  
Evolution**

**HSPA**

**WCDMA**

**>180 million WCDMA & HSPA subscribers world wide**

# 3G Mobile Broadband

2003/4

2005/6

2007/8

2009/10

2011/12

WCDMA

HSPA

HSPA  
Evolution

3G LTE

- Downlink: *14 Mbps* ⇔ *42 Mbps*
- Uplink: *Close to 12 Mbps*
- *Improved user experience*

# 3G Mobile Broadband

2003/4

2005/6

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2011/12

**WCDMA**

**HSPA**

**HSPA  
Evolution**

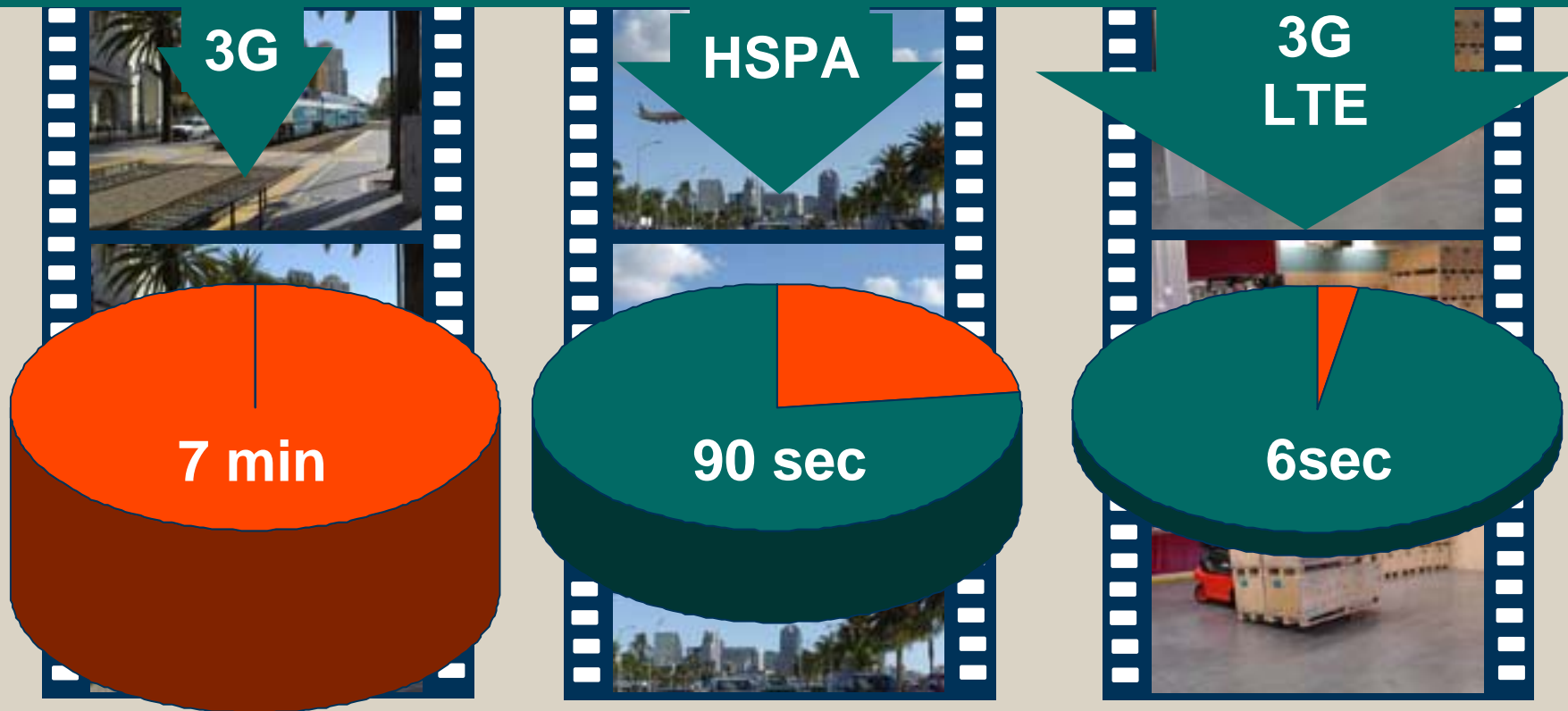
**3G LTE**

- Expansion to 20 MHz bandwidth
- Both paired and unpaired spectrum

**LTE Standard ready - Up to 300 Mbps downlink data rate**

# Improved user experience

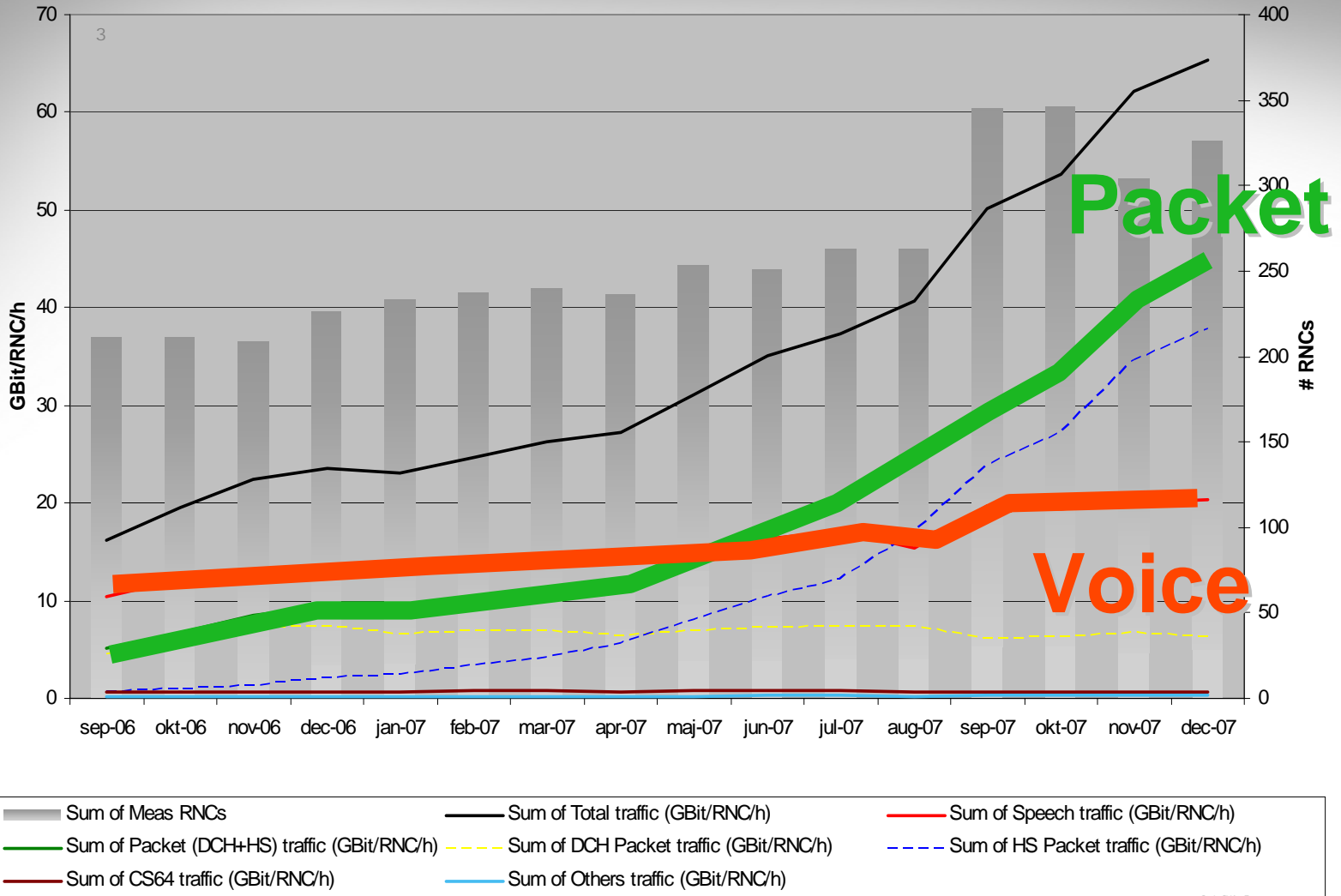
## Download Video (22 Mbyte)



HSPA and LTE for mass market Internet and Web-TV

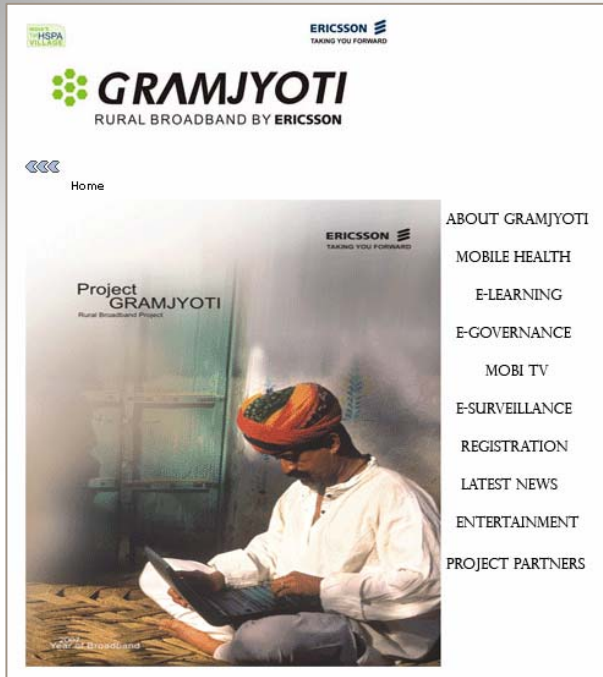
# Strong growth in data traffic

WCDMA & HSPA world average



Source: NetQB

# HSPA enables cost effective broadband to all...



**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**



# ...and everywhere

Not only at home or work



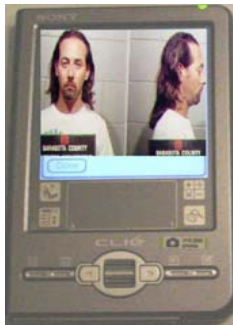
*Optimizing service staff travel in UK*



*Anywhere internet access in Sweden*



*Firefighting in Australia supported by mobile broadband*



*Mobile broadband supports local US police*



*Detecting breast cancer in rural Australia*



*Broadband on the move in Hong Kong*

>50% wants Internet access everywhere

# Innovation on device form factors

Already now >400 HSPA enabled devices\*

- 203 HSPA phones, media players, camera (50%)
- 161 PC with embedded HSPA, PC cards, USB modems (40%)
- 39 wireless routers (10%)



*\*Commercially launched as of August 2007*

>1 billion HSPA devices to be sold during 2008 - 2011



# Mobile services in 470-862 MHz (UHF)

- Mobile broadband everywhere

- 400 MHz to 5 GHz suitable for public mobile communications
  - Lower spectrum for cost-effective wide area coverage
- ITU concluded that an additional amount of new spectrum of about 700-1300 MHz is needed for mobile up to year 2020
- Closing the digital divide requires cost efficient coverage for;
  - sparsely populated areas (but also indoor penetration)
  - developing countries providing mobile broadband
- The digital dividend provides enough spectrum for both Mobile TV and Mobile broadband in addition to the broadcasting TV
- A multi-operator environment is required for competition, and for technical as well as economical efficiency 2x(10-20) MHz/operators is needed

# Summary

- **Mobile broadband took off during 2007 and is increasing**
  - Dramatic growth world wide of Mobile Broadband based on HSPA
  - HSPA is deployed in 150 networks and will provide up to 42 Mbps
  - Laptops and consumer electronic devices are building the HSPA eco-system
- **Mobile broadband benefits society**
  - Cost efficient broadband for sparsely populated areas and emerging markets
  - e-services will provide strong efficiency gains
- **LTE is the Mobile broadband evolution (into wider bandwidths)**
  - LTE standard is now ready – products in 2009
  - Data speeds of up to 300 Mbps for Internet and Web TV
- **UHF band is particularly valuable for Mobile broadband**
  - More spectrum is required to satisfy the future market needs in EMEA
  - Major part of the world's population have decided that the digital dividend starts from 698 MHz (in Americas and APAC)
- **Timing and co-ordination in Europe will be essential**

**ERICSSON**



**TAKING YOU FORWARD**