# 3GPP PCG #14_27 - April 21, 2005

*Market Representation Partner Report to 3GPP PCG*

**GSA**

**G**lobal mobile **S**uppliers **A**ssociation

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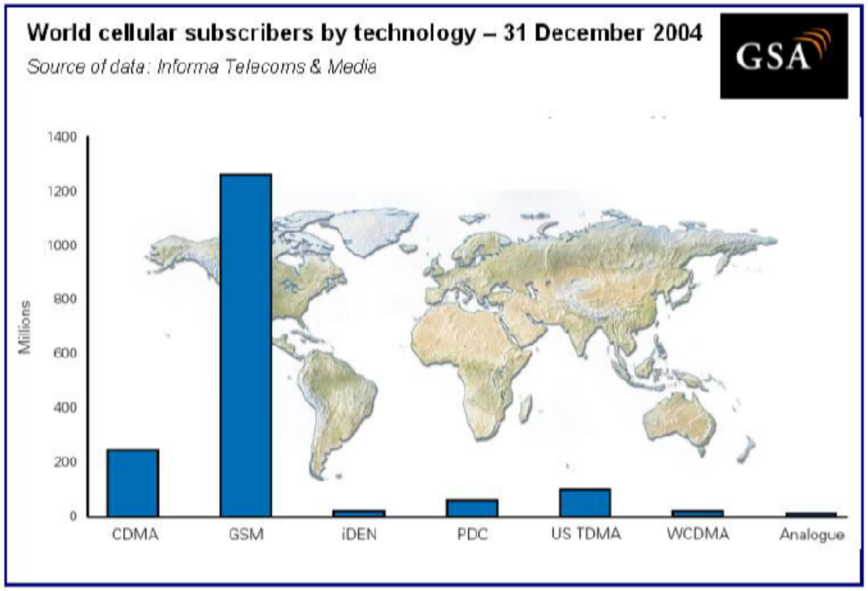
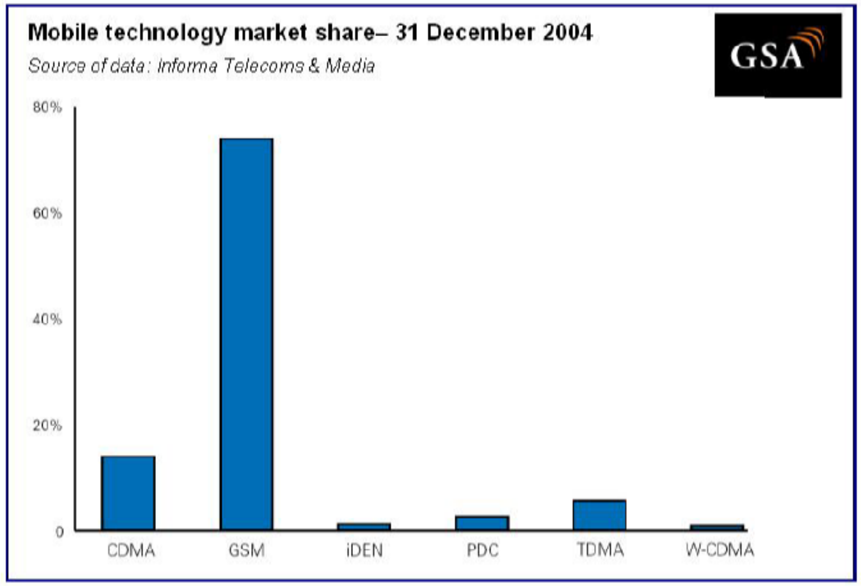
# GSA Programs in 2005

- Deliver **market facts, intelligence & data** objectively for the mobile industry
  - GSA website positioned as the reference source (**www.gsacom.com**)
- Facilitate **networking/dialogue** cross-industry for information sharing, business developt
- **Advise policy-makers** on the most **favourable conditions** for mobile market development
  - Duality of the market – evolution to 3G, & universal access, low ARPU markets
- Inform **media & analysts** about key industry milestones, drivers, developments, trends
- Organize **high-level interaction** with **GSM/3G operators** for improved information sharing, case study/success stories sharing, to assist the evolution to 3G
  - the **Operators Zone** is one of the key channels for dialogue with GSM/3G operators
- Produce **Opinion Papers** to broaden understanding/acceptance of the key issues
- Deliver at the **global** and **regional** level - Africa, APAC, Europe, India, and Latin America

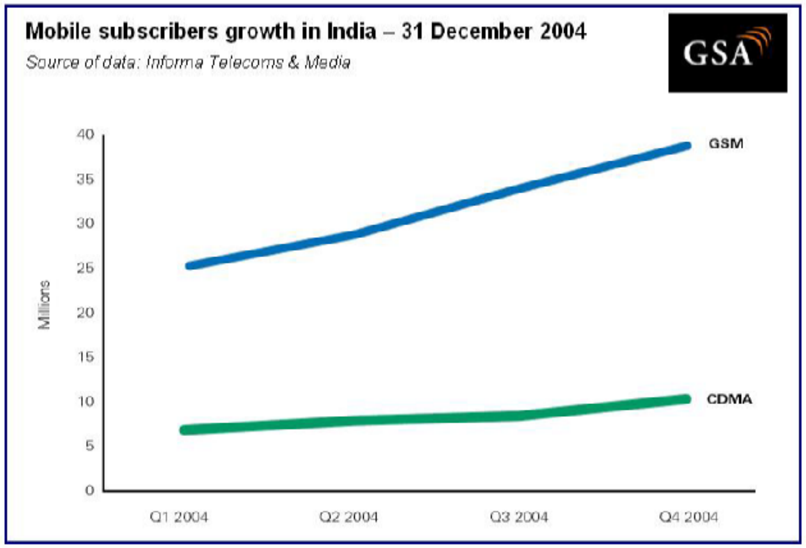
# Mobile market update -
# over 1.33 billion GSM/WCDMA users today




GSM/3G statistics and downloadable charts at www.gsacom.com/news/statistics.php4

# Mobile subscribers growth by region




GSM/3G statistics, charts downloadable at

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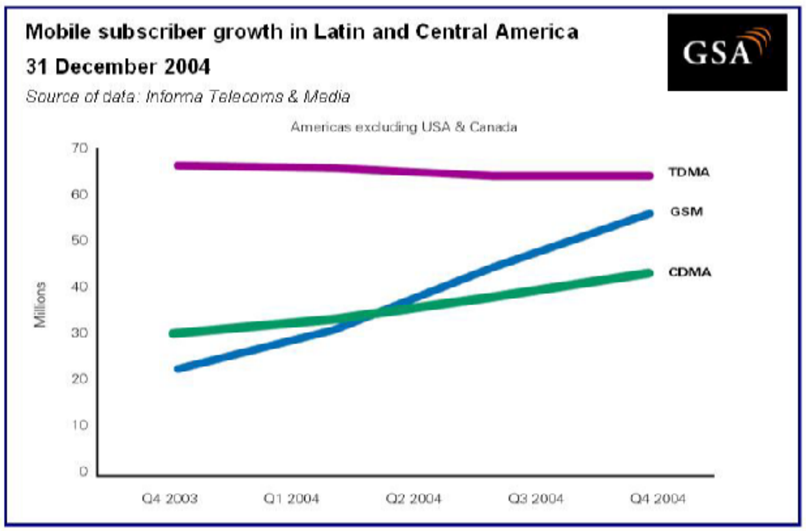
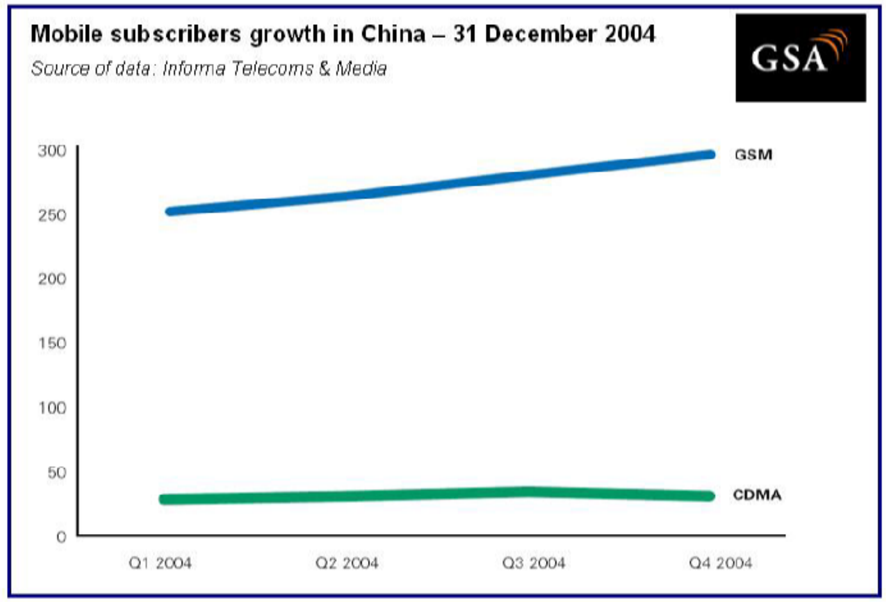
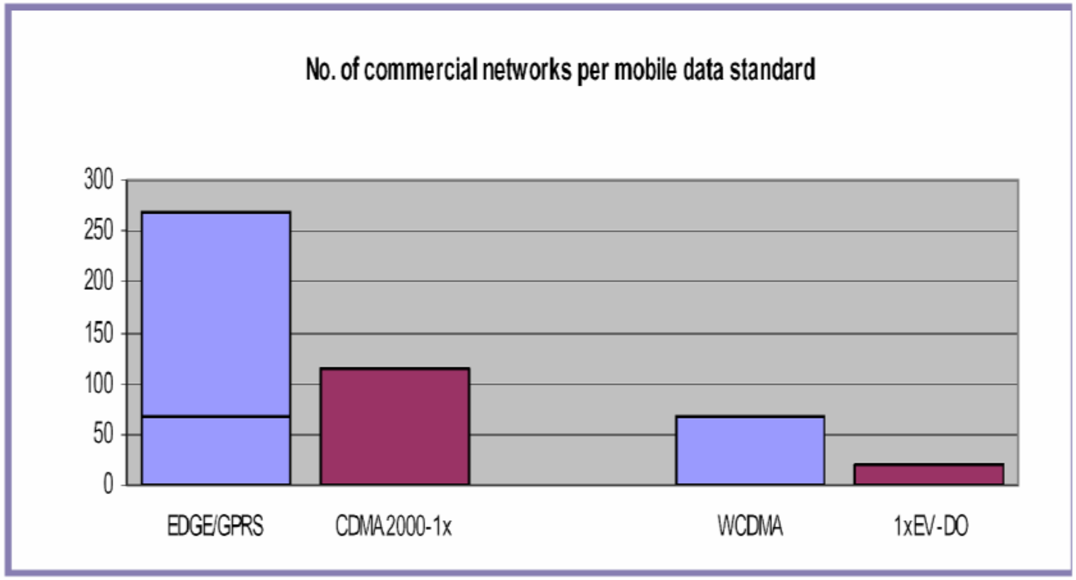


# Adoption of different mobile standards

- **First steps to 3G**
  - 270 commercial GPRS networks
  - 137 networks deploying GPRS/EDGE
  - 67 commercial EDGE networks
    (source: GSA, April 5, 2005)
  - 115 commercial Cdma2000 1x networks
    (source: CDG, April 8, 2005)
- **3G**
  - WCDMA: 134 licenses awarded
  - 67 commercial WCDMA networks
    (source: GSA, April 12, 2005)
  - 20 commercial CDMA 1x EV-DO networks
    (source: CDG, April 8, 2005)




- **Evolved 3G**
  - HSDPA: all WCDMA operators expected to upgrade to HSDPA (SW upgrade to BTS)
  - CDMA 1x EV-DV: expected fragmentation of operators into different evolution steps, due to required hardware upgrades in each step

# 3G/WCDMA - mature technology - globally deployed in commercial service

**134** WCDMA licences in 48 countries

**67** commercial WCDMA operators in 31 countries

**8** operators at pre-commercial stage

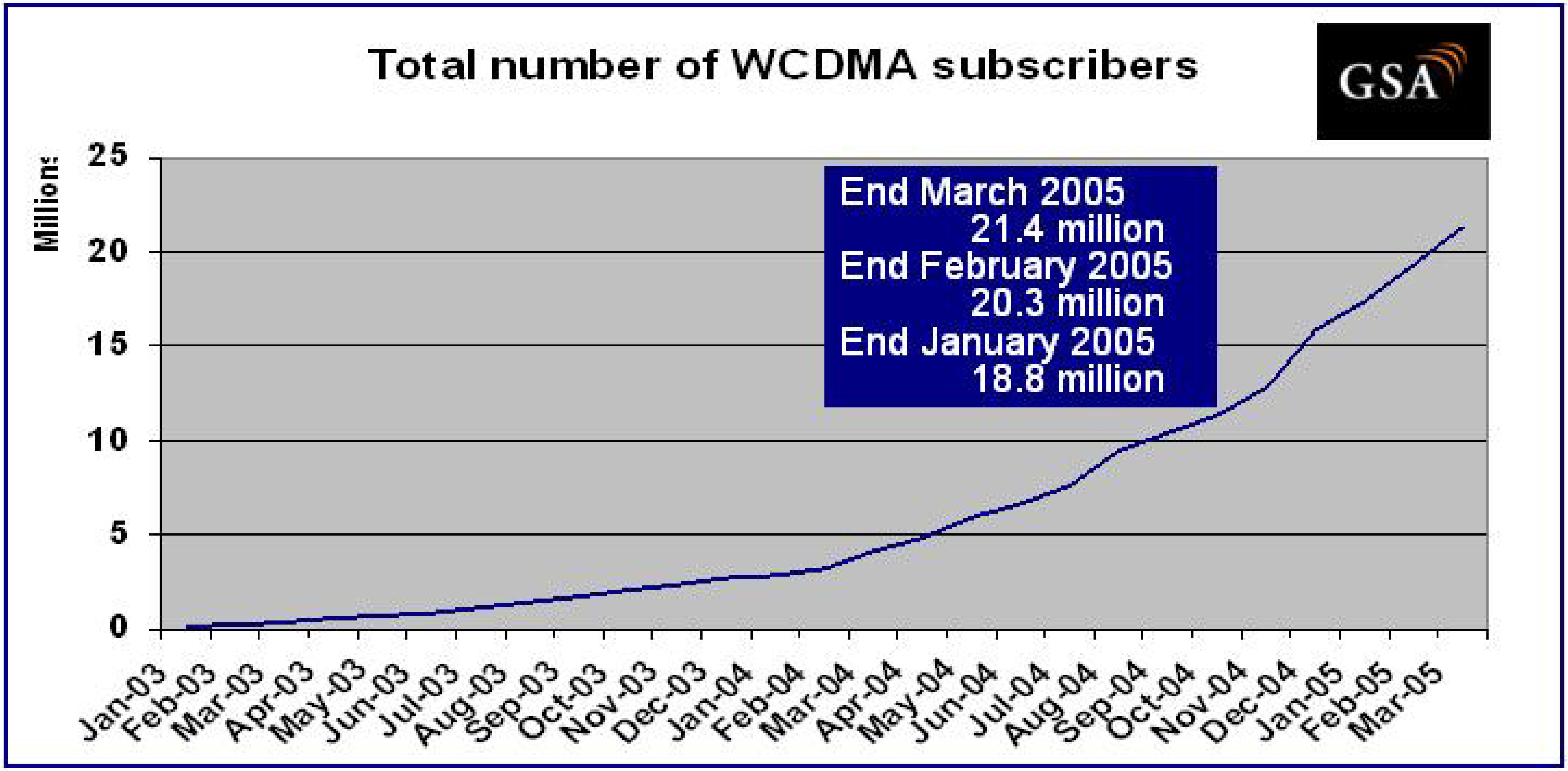
**WCDMA is the most widely accepted** 3G technology globally

**WCDMA subscribers**: approaching 21.4 million

**WCDMA take-up is faster than GSM** was at the equivalent stage of its introduction

*Source: GSA*

# WCDMA subscriber growth globally




*Source of WCDMA subscriber numbers:*

*Informa Telecoms & Media www.informatm.com*

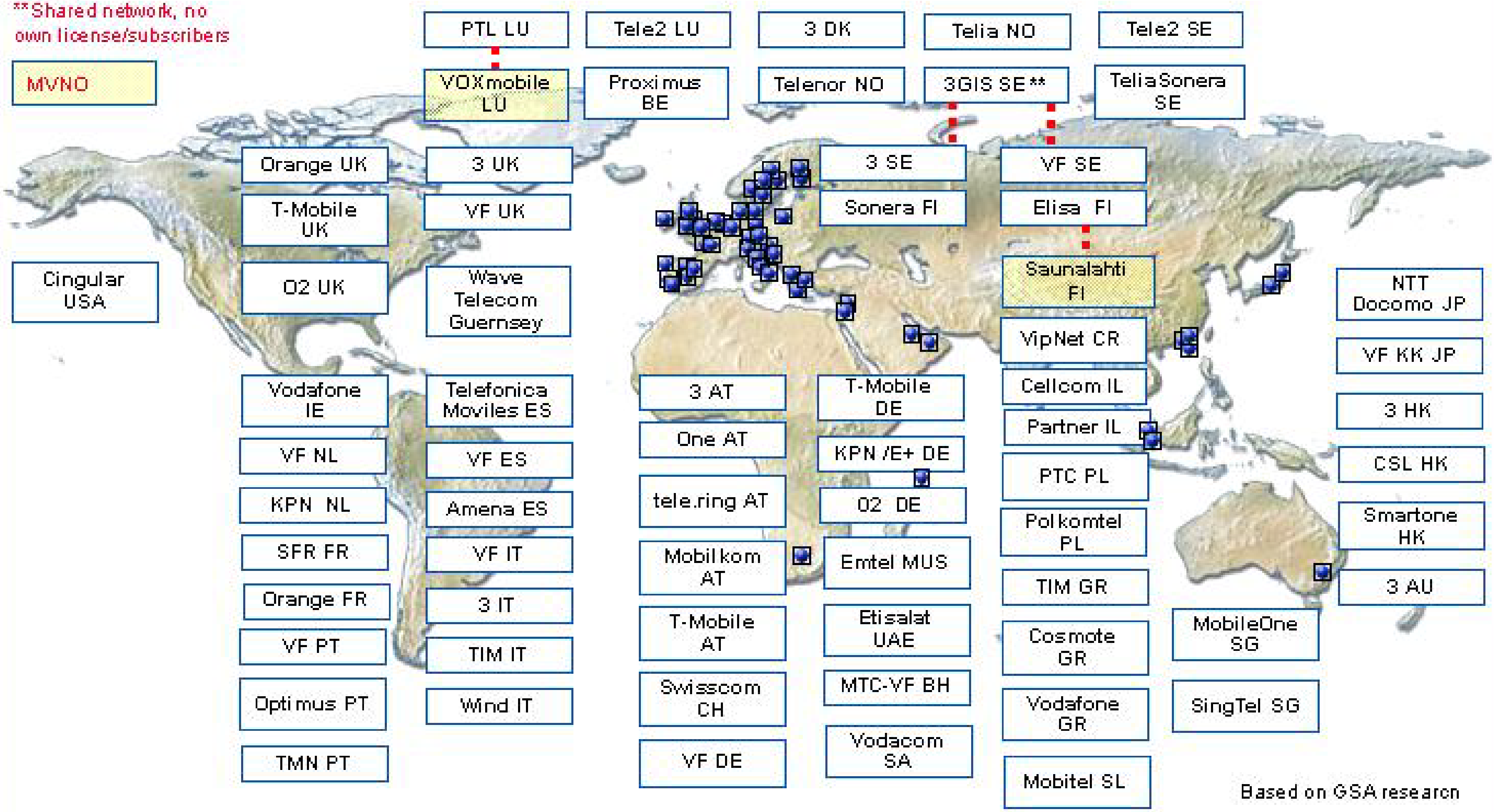
# 67 Commercial WCDMA Operators
# April 12, 2005

GSA

**Key:**

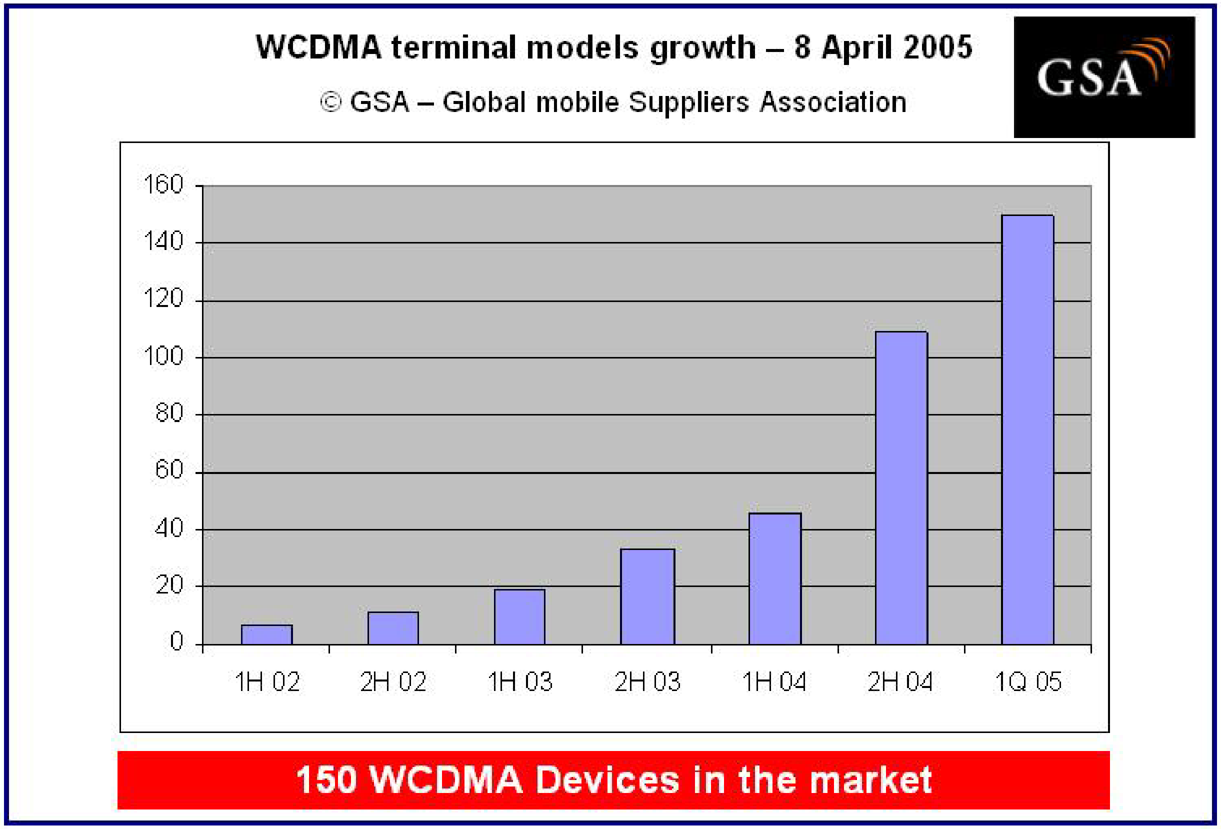
** Shared network, no own license/subscribers

MVNO




Based on GSA research

# 150 WCDMA terminals in the market

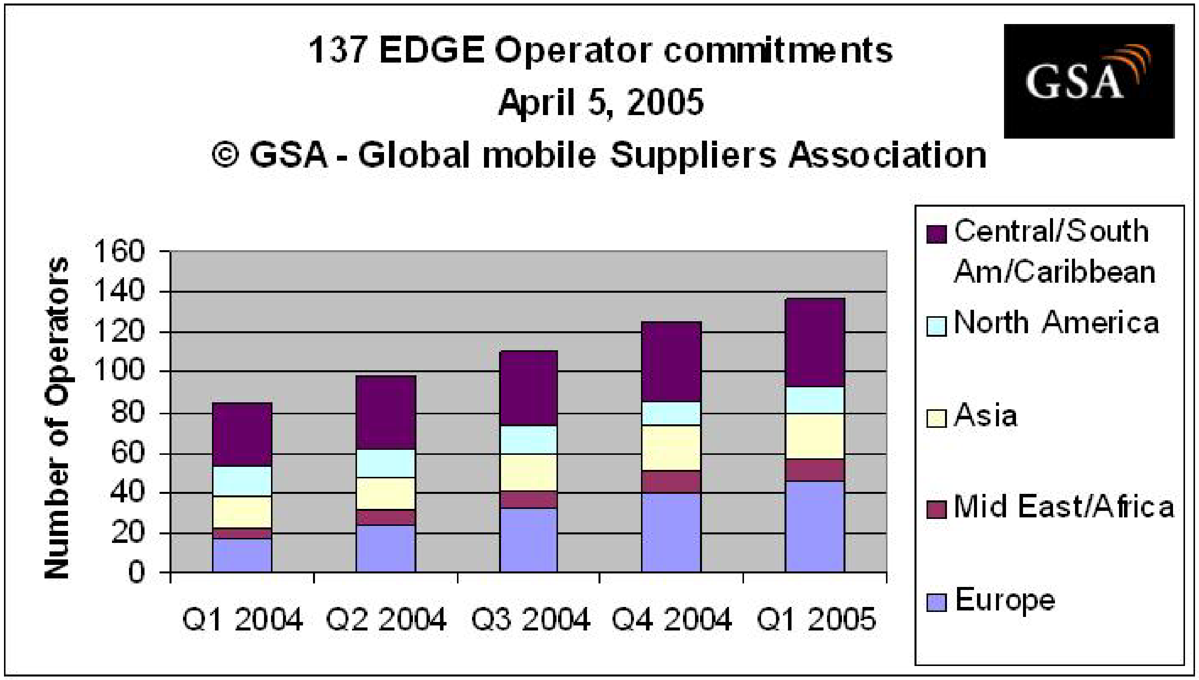



Subscriber growth is now driven by a wider range of competitive service offerings, a wider variety of terminals in the market, and maturing technology

*Source: GSA*

# GSM/EDGE - strong take up globally

- 137 operators in 78 countries are deploying EDGE
- 67 commercial networks in 44 countries now on all continents

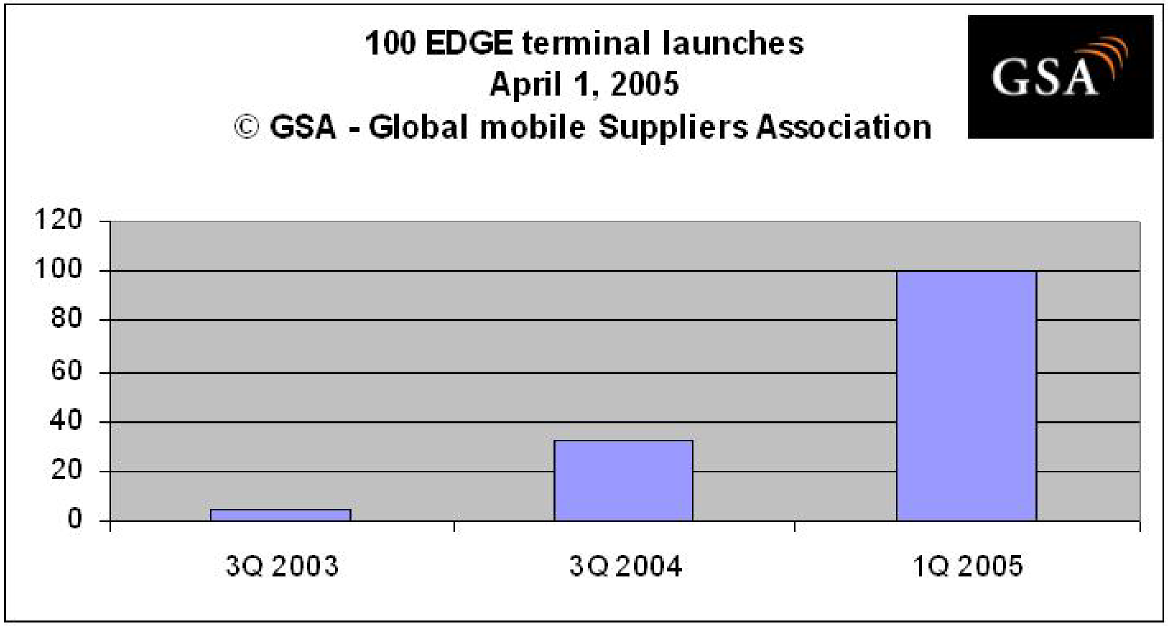



**The majority of the world's commercial GPRS networks have committed to the EDGE upgrade**

*Source: GSA*

# GSM/EDGE devices shipping or announced

- 100 GSM/EDGE devices in the market
- EDGE is standard in most new data-enabled phones
  - Number of models announced tripled in 6 months




*Source: GSA*

# Combined WCDMA-EDGE networks

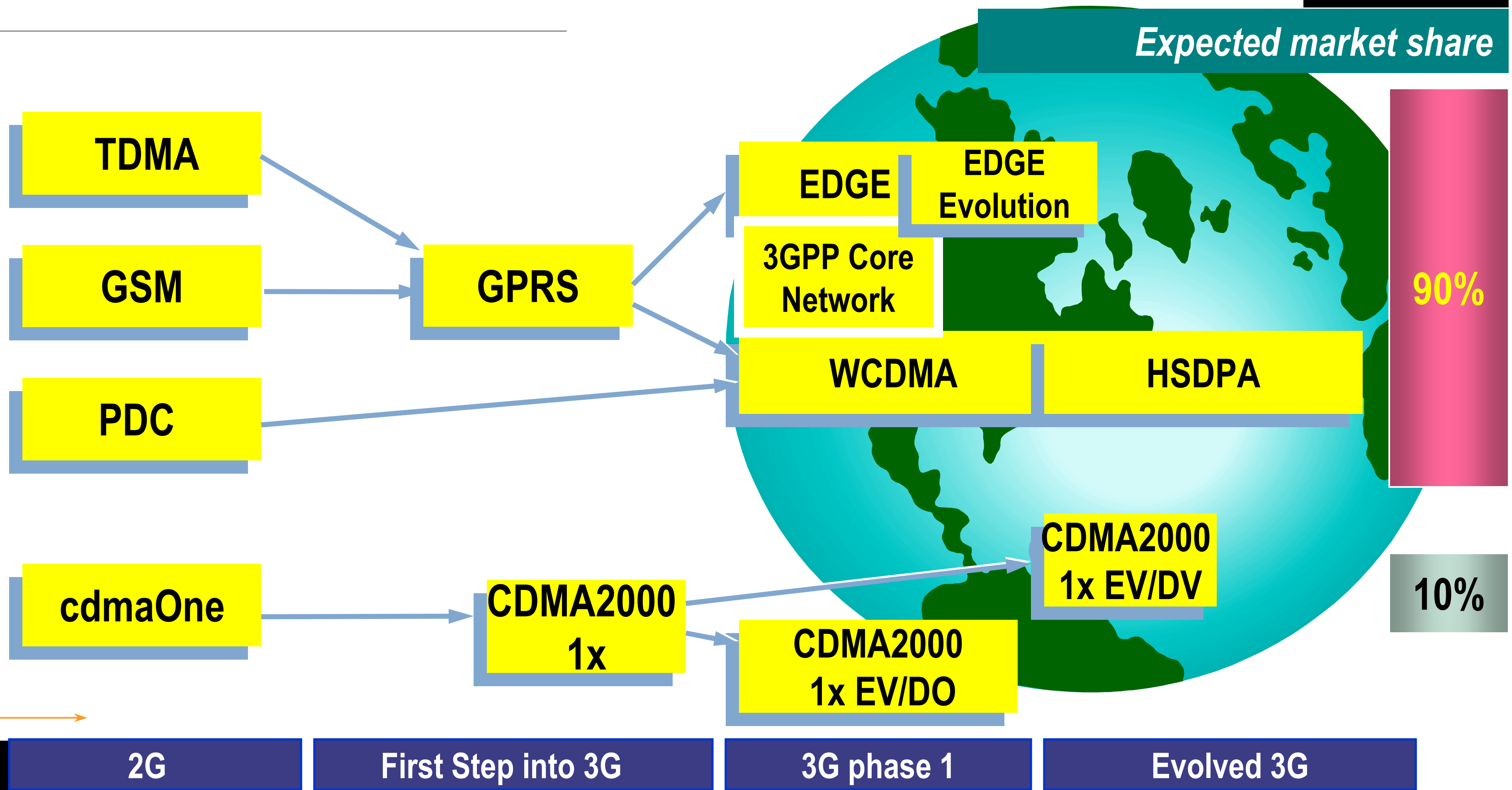
At least 40 operators are delivering 3G services on combined WCDMA-EDGE networks. WCDMA and EDGE are complementary technologies ensuring lower capital cost and optimum flexibility and efficiencies.

| | | |
|---|---|---|
| AIS, Thailand | Mobiltel, Bulgaria | Telenor, Norway |
| Ålands Mobiltelefon, Finland | Mobily, Saudi Arabia | T-Mobile, Croatia |
| Batelco, Bahrain | MTC Vodafone, Bahrain | T-Mobile, Czech |
| Cellcom, Israel | MTN, South Africa | T-Mobile, Hungary |
| Cingular Wireless, USA | Netcom, Norway | T-Mobile, USA |
| CSL, Hong Kong | Orange, France | Telfort, Netherlands |
| Dialog GSM, Sri Lanka | Orange, Romania | TeliaSonera, Denmark |
| Elisa, Finland | Orange Slovensko, Slovak | TeliaSonera, Finland |
| EMT, Estonia | Oskar Mobile, Czech | TeliaSonera, Sweden |
| Eurotel Praha, Czech | Pannon GSM, Hungary | TIM Hellas, Greece |
| Eurotel Bratislava, Slovak | Polkomtel, Poland | TIM, Italy |
| GPTC, Libya | Rogers Wireless - Fido, Canada | VIP Net, Croatia |
| Maxis, Malaysia | Si. Mobil – Vodafone, Slovenia | |
| Mobilkom Austria | Swisscom, Switzerland | |

*Source: GSA*

# Evolution of Mobile Systems to 3G

## - drivers are capacity, data speeds, lower cost of delivery for revenue growth



# EDGE Evolution - first steps taken towards standardisation

WCDMA evolution to HSPA is one of the key drivers for EDGE Evolution

The commitment is there:

Operators have expressed their interest and need – e.g. Cingular Wireless, TIM, TeliaSonera + many more.

Backed by leading vendors including Ericsson, Nokia, Siemens

## PRESS RELEASE

GSA

**GSA Announces Next GSM/EDGE Steps to Enhance Service Continuity with EDGE Evolution**

**March 10th, 2005:** GSA announces its support for the new 3GPP study items on EDGE Evolution. EDGE Evolution is envisaged to bring on average 2-3 fold data speeds compared to EDGE rates today, higher voice and data capacity and improved spectral efficiency.

With deployment of WCDMA accelerating globally, 3G services are in strong demand by enterprises and the mass market. Many operators are deploying a combined WCDMA/EDGE network strategy for delivery of 3G services. EDGE Evolution is a natural complement to HSPA (High Speed Packet Access) which will enhance WCDMA data rates and capacity, ensuring the best user experience of advanced wireless mobile broadband services.

**Alan Hadden, President, GSA,** explains: *"EDGE Evolution is an important step for single mode GSM and multimode GSM/WCDMA operators to support their current business and to the service continuity in GSM networks. EDGE Evolution is envisaged to only have a low impact on the existing EDGE capable GSM networks; however, it will lower service delivery costs considerably and make new services and higher data revenues possible. When it comes to WCDMA/HSPA subscribers, they can roam outside WCDMA/HSPA coverage and still use the services they are accustomed to."*

Leading GSM/3G suppliers Ericsson, Nokia and Siemens are fully committed to bringing the benefits of EDGE Evolution to the marketplace. The first standardization release, 3GPP release 7, is envisaged to be ready in 2006.

**Proposed candidate work items now being considered in GERAN Evolution feasibility study**

# Core network
# - capabilities, services, applications

## Key themes/work in progress:

- The move from a single service network to a complex multi-service network e.g. IMS
- Convergence - services and technologies
- The new competitive edge (which used to be coverage)
- Applications - supported by facts, proof points e.g. MMS
- Change management
- Assist with the end user understanding
- 2 billion mobile customers coming up - how to achieve the next billion?

# Universal Service/rural/low ARPU markets

**Low cost handset** is one aspect**. Also need to ensure:**

- **Affordability -** from a combination of innovative technology and business operations that together lower the total cost of ownership
  - Networks to cover the rural areas – coverage, capacity – e.g. AMR
  - Devices availability
  - Operations, customer care
- **Profitability**
  - Operators can secure the business case for delivering to low ARPU segments, by extending distribution, reducing cost per subscriber, adapting procedures
- **Favourable regulation and policies**
  - create the conditions for competition, international compliance, low taxation, transparency, etc.

# www.gsacom.com

**The single information source for:**

- Mobile market/technology updates and statistics – market shares, subscribers – globally, and by region
- Charts – for presentations, reports, articles
- Opinion papers – e.g. AMR, Push to Talk; responses to consultations
- 3G/WCDMA, EDGE - deployments, devices updates
- Newsletters – global, regional (India)
- Operators Zone for GSM/3G mobile network operators