

PCG15_20



Market Representation Partner Report 3GPP PCG #15

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Membership



Leading GSM/3G suppliers world-wide; over 80% of GSM/3G market share globally.

Member companies of GSA include Aeroflex, Agere, Alcatel, Attix5, Bechtel Telecoms, Broadcom, Business Logic Systems, CCww, Comsys, **Ericsson**, EVI Technology, Longreach, NewBay Software, **Nokia**, Openwave, Panasonic, Philips Semiconductors, Radixs, **Siemens**, Tekelec, Telcordia, Tropian, TTPCom, and Wavecom, representing solutions providers, GSM, EDGE, WCDMA and HSPA infrastructure, user devices, OSS, applications developers, billing, revenue assurance, and semiconductor software design/platforms.

Company names in **RED** = Executive Member

Current Activity Areas



- ▶ 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 exchange
- ▶ **Advise policy-makers** on most **favourable conditions** for market development
- ▶ Address duality of market: evolution to 3G, Universal Access, low ARPU segments
- ▶ Inform **media & analysts** about key 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
 - ▶ **Operators Zone** is a key channel 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, Latin America

NEW

GSM/3G Network Update – September 2005

download at www.gsacom.com



Issue 6

September 2005

GSM/3G Network Update

GSM Energized by New Growth markets now adding 1 million new subscribers every day

GSM's position as the global mobile system continues to strengthen. The number of GSM subscribers worldwide grew by 234.87 million in the first 8 months of 2005, and is currently increasing by over 31 million subscribers per month – one million subscribers every day. The total number of GSM subscribers now stands at over 1.5 billion worldwide. More than three quarters of almost 2 billion global mobile subscriptions (all technologies) at the end of August 2005 are using GSM, whose market share has increased so far this year from 74.7% to 76.8%.

Drivers for new subscriber growth are the developing markets – especially Africa, India, Latin America and Asia, where GSM is efficiently supporting operators in opening new market segments.

GSM FAST FACTS

The GSM family of technologies embraces GPRS, EDGE, WCDMA and HSPA, which are fully open standards

870 GSM networks commercially operational in 200 countries/territories

Number of GSM subscribers exceeds 1.52 billion globally (31 August 2005)

GSM today accounts for 76.8% of the world's cellular market and over 88% of current net additions

Approaching 1700 models of GSM phones in the market

GSM subscribers grew by 234.87 million in the first 8 months of 2005

One million new GSM subscribers every day

82 commercial WCDMA networks in service in 37 countries (source: GSA August 15, 2005)

Over 60% of the total of 146 WCDMA license holders globally have launched commercial 3G services, or are very near to doing so.

188 WCDMA/HSPA terminal devices announced in the market (source: GSA August 15, 2005)

32.22 million WCDMA subscribers globally (31 August 2005)

96 commercial EDGE networks in 60 countries (source: GSA August 24, 2005)

143 GSM/EDGE-enabled terminal devices announced in the market (source: GSA August 24, 2005)

48 mobile operators are deploying commercial EDGE-WCDMA networks (source: GSA August 24, 2005)

Subscriber numbers provided by Informa Telecoms & Media

www.gsacom.com Global Mobile Dialogues™

Figure 1: World cellular subscribers by technology – 31 August 2005
Source: Informa Telecoms & Media

Technology	Subscribers (Millions)
GSM	1520
CDMA	100
UMTS	100
EDGE	50
TDMA	50
WCDMA	50
Other	50

Figure 2: Mobile technology market share – 31 August 2005
Source: Informa Telecoms & Media

Technology	Market Share (%)
GSM	76.8
CDMA	10.0
UMTS	10.0
EDGE	5.0
TDMA	5.0
WCDMA	5.0
Other	5.0

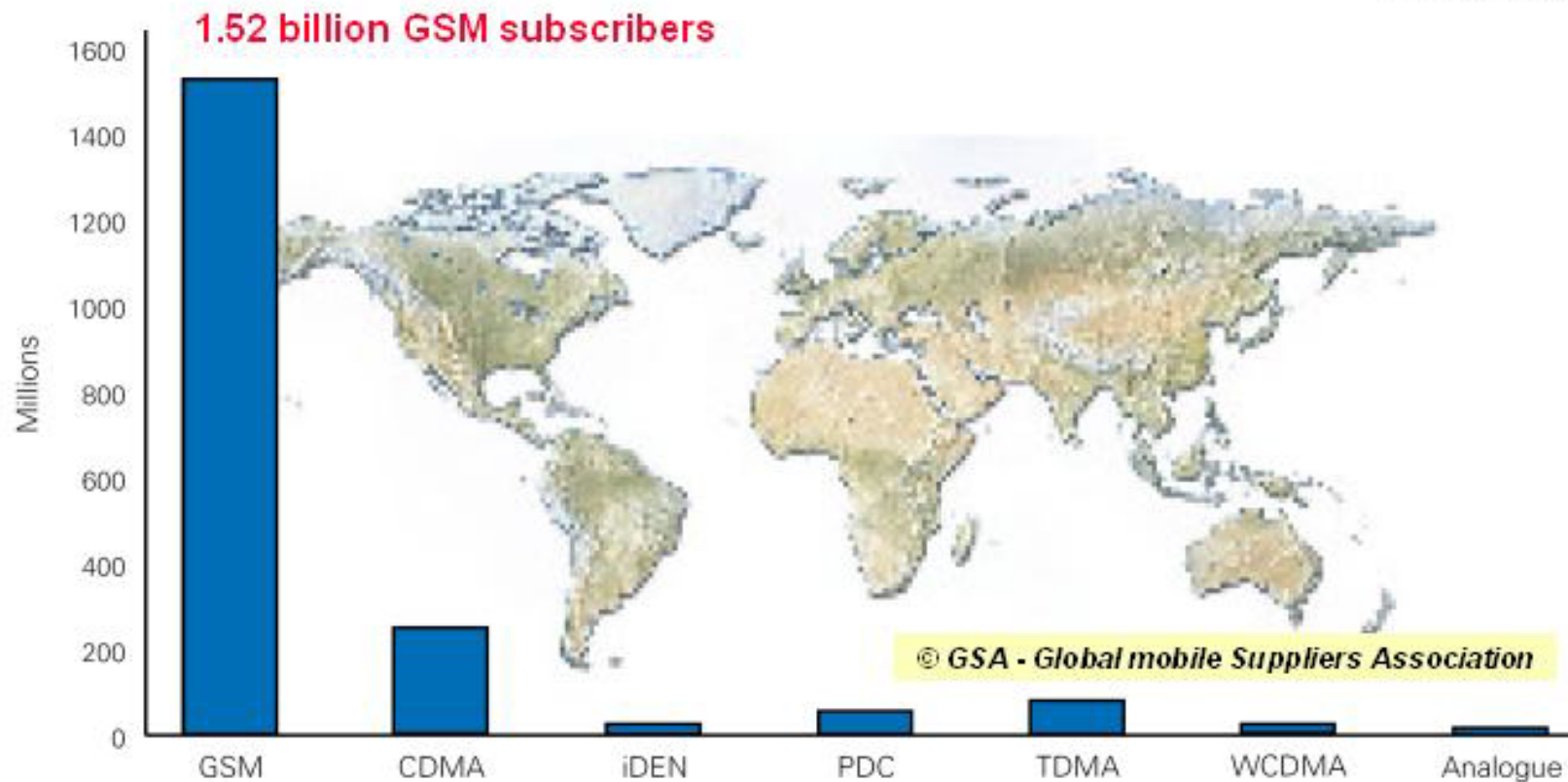
- ▶ GSM/3G market/technology updates
- ▶ GSM and 3G subscriber numbers - globally & by region
- ▶ 3G services and networks rollout
- ▶ WCDMA-enabled and EDGE-enabled devices availability
- ▶ GSM/3G resources

Download at www.gsacom.com

World cellular subscribers by technology – 31 August 2005



www.gsacom.com



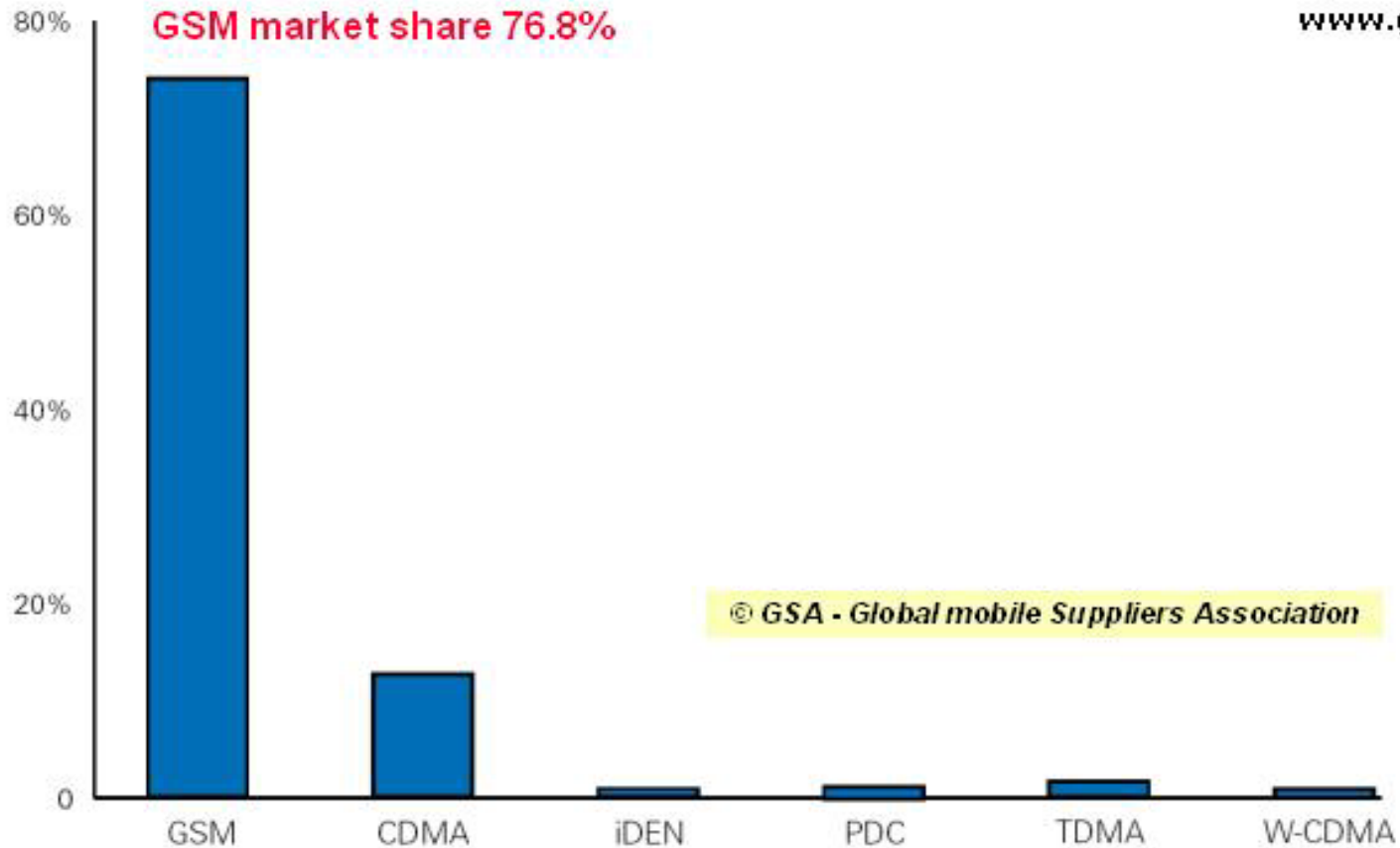
Source of data:



Mobile technology market share – 31 August 2005



www.gsacom.com



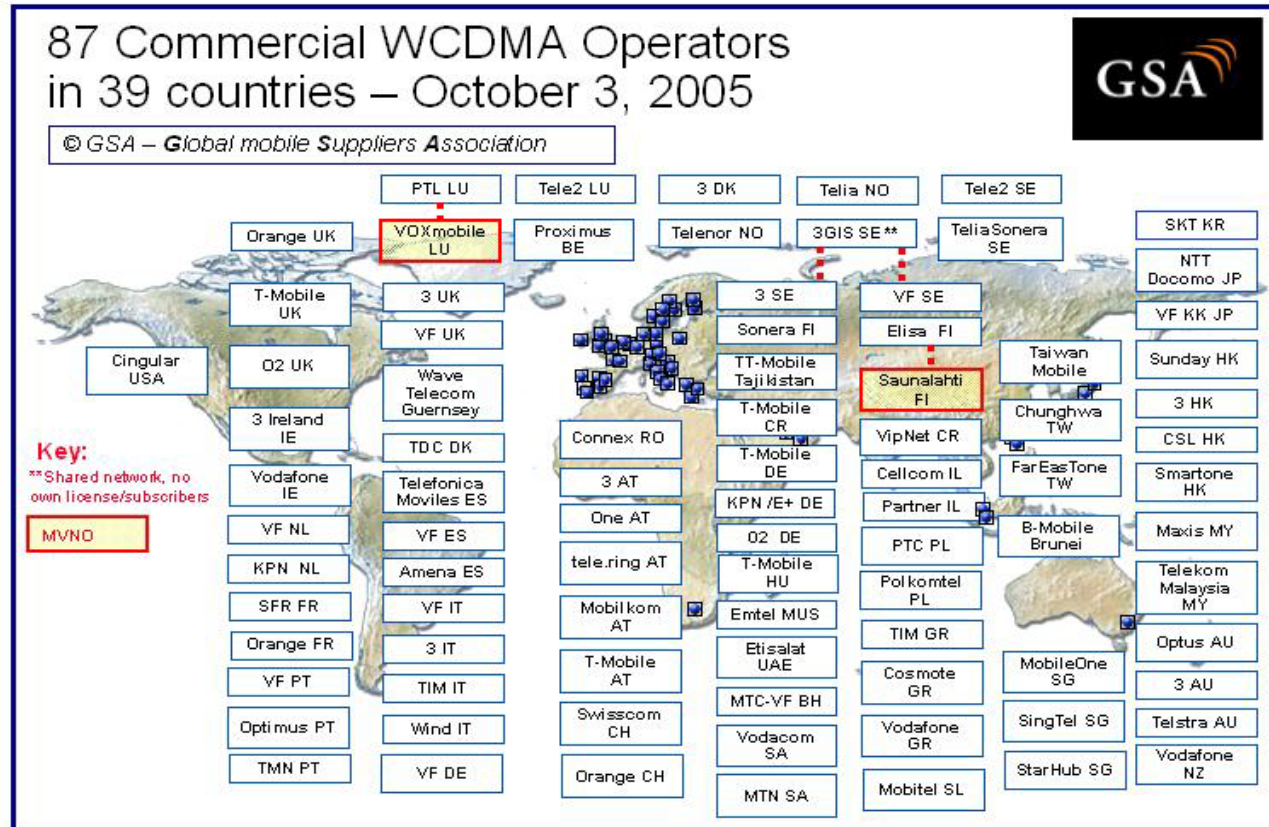
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Source of data:



GSA survey: WCDMA deployments

Deployment status, launches, service introduction dates, trends



3G/WCDMA FACT SHEET – October 3, 2005

www.gsacom.com

87 WCDMA operators in commercial service in 39 countries

- > A further 6 operators at pre-commercial phase
- > 32.2 million WCDMA subscribers* (end August 2005)
- > 186 WCDMA terminal devices launched in the market
- > 146 WCDMA licenses awarded in 52 countries
- > 55 operators deploying combined WCDMA-EDGE networks

Commercial WCDMA network is defined as meeting all of the following criteria:

- > Anyone can subscribe to service (not a limited trial or selected customers only)
- > WCDMA phones or terminals (e.g. PC cards) are available to users
- > WCDMA phones or terminals are sold to subscribers (not rented only)
- > The operator has made a public announcement
- > The service is charged for

WCDMA has by far the highest growth rate of any mobile technology, faster than GSM has at the equivalent stage in its development. The number of WCDMA subscribers* reached 32.2 million by end August 2005, growing at around 2 million subscribers per month, also confirming WCDMA as the most widely accepted 3G technology globally, delivering higher capacity for voice and enhanced data rates.

WCDMA uses new IMT-2000 spectrum with a 5 MHz carrier, providing 50 times higher data rates than in current GSM networks, and 10 times higher than in GPRS networks.

Updates of this document at www.gsacom.com

WCDMA Fact Sheet

Research/publish detailed verified operator listings

GSA survey: WCDMA/HSDPA devices

Manufacturers, models, features, images, availability



3G/WCDMA devices

www.gsacom.com



3G/WCDMA model variety and availability

GSA confirms 186 WCDMA/HSPA devices in the market

Survey published 15 August 2005

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August 15, 2005 | www.gsacom.com

WCDMA devices shipping or announced

www.gsacom.com



 Announced Q1 2005	 Announced Q1 2005	 Announced Q1 2005
 Announced Q1 2005	 Announced Q1 2005	 Announced Q1 2005

August 15, 2005 | www.gsacom.com

HSDPA devices shipping or announced

www.gsacom.com



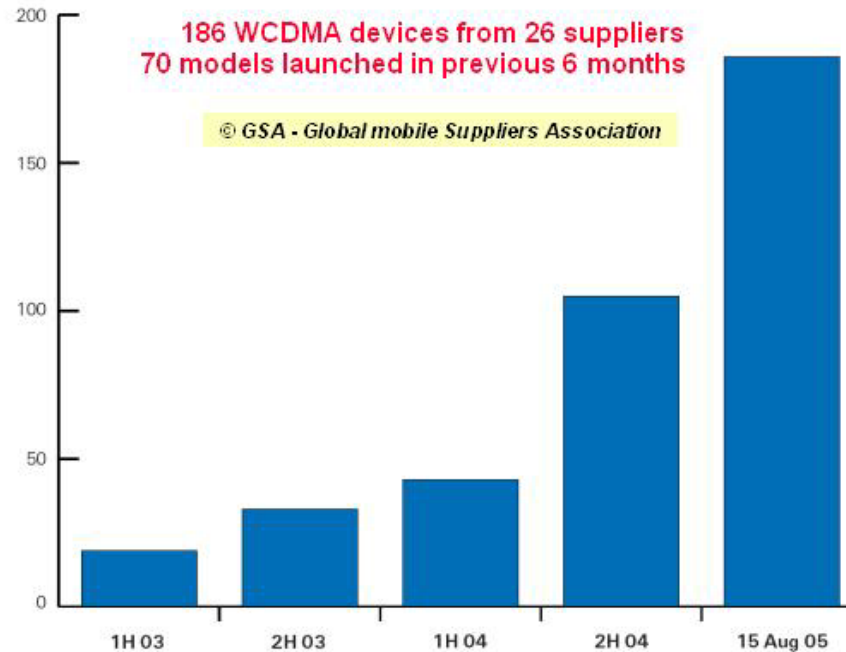
 Announced Q1 2005	 Announced Q1 2005
 Announced Q1 2005	 Announced Q1 2005
 Announced Q1 2005	 Announced Q2 2005

August 15, 2005 | www.gsacom.com

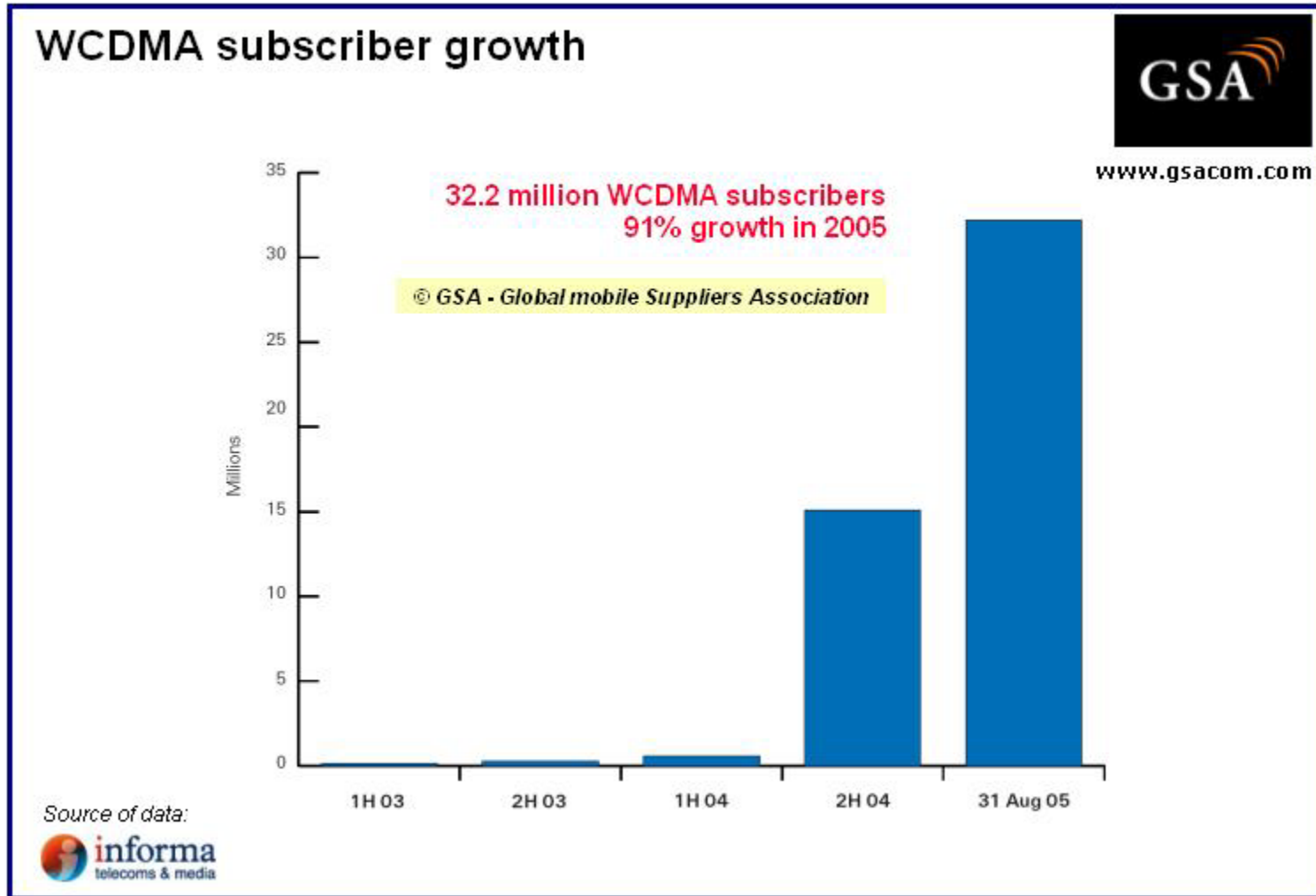
WCDMA terminal models growth



www.gsacom.com



WCDMA subscriber growth



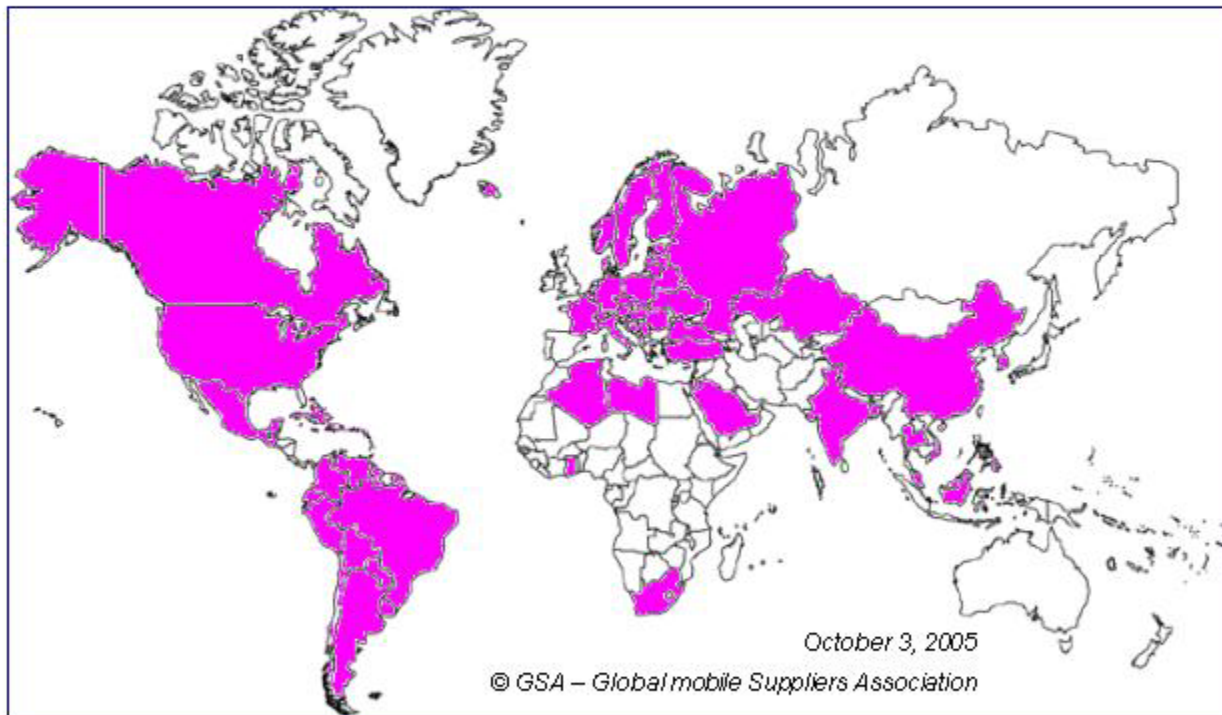
EDGE deployments – global reality



169 EDGE network deployments in 91 countries



www.gsacom.com



GSA survey: EDGE deployments

Deployment status, launches, service introduction dates, trends

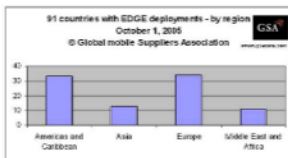


EDGE FACT SHEET – October 3, 2005
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 Download charts at www.gsacom.com -- Terms of Use apply

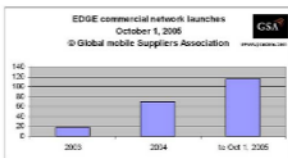


169 networks deploying GSM/EDGE
 ⇒ 116 commercial networks in 70 countries
 ⇒ 55 operators operating or deploying combined EDGE/WCDMA networks

GSA confirms 169 operators in 91 countries committed to EDGE deployments.



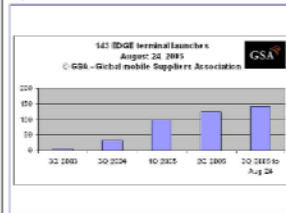
116 networks are delivering commercial EDGE-enabled services in 70 countries, compared with 35 networks which were "live" 12 months earlier.



core network. No separate roaming agreements are required as EDGE is covered under GPRS roaming agreements.

WCDMA and EDGE are complementary technologies ensuring lower capital expense and optimum flexibility and efficiencies. GSA confirms 55 operators are also deploying EDGE and WCDMA in combined networks for 3G services delivery. Furthermore, 23 of these networks are now offering combined EDGE/WCDMA-enabled commercial services.

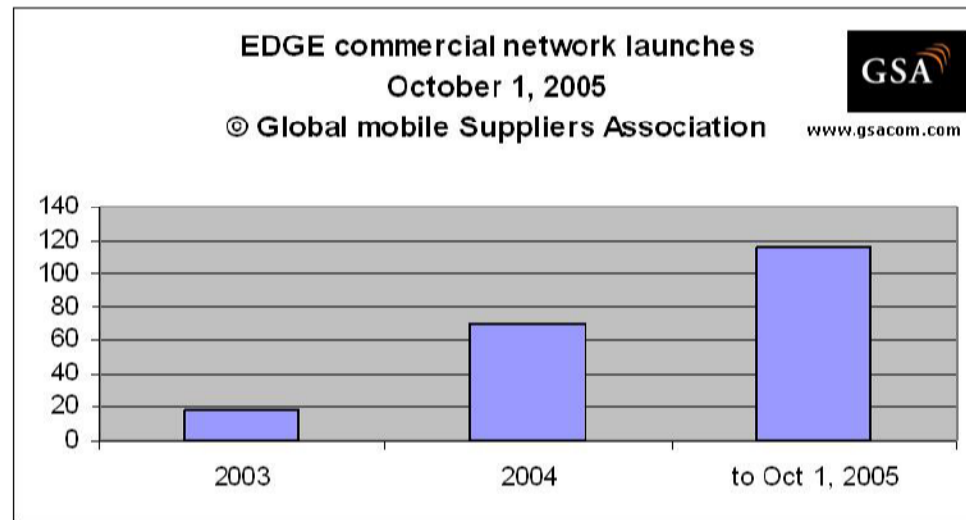
Latest GSA research identifies 143 EDGE-enabled devices in the market, covering all segments - see chart below. Several dual-mode EDGE/WCDMA devices, some with HSDPA are in the market for the best user experience of mobile broadband services.



These market facts are from GSA publications "EDGE Operators Worldwide" and "EDGE Devices" - comprehensive updated surveys for GSA member organizations, which include detailed listings of EDGE deployments globally, commercial launches, EDGE Devices on the market, etc. Further surveys include the WCDMA/HSPA market - See www.gsacom.com

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116 EDGE Commercial network launches in 70 countries



Research/publish detailed verified operator listings for (currently) 169 operators in 91 countries committed to EDGE deployment

GSA survey: EDGE devices

Manufacturers, models, features, images, availability



GSA

GSMEDGE DEVICES - updated August 24, 2005
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143 GSMEDGE-enabled devices
 (EDGE is also known as EGPRS) from 23 suppliers are identified by GSA's latest research, covering all segments for new revenue growth and the best user experience of fast web data services. Dual mode EDGE/WCDMA phones and PC cards are in the market.

EDGE device suppliers
 Avaya, Aircel, Alcatel, CHN Net, H3C, HPT, LG, Marvell, Motorola, NEC, Novelec, NttData, Nokia, Oracle, Opticon, PalmOne, Ricoh, Samsung, Siemens, Sanyo, Winbond, SonyEricsson, Telstar, and ZteCom.

Figure 1: Rapid growth of terminals in the market

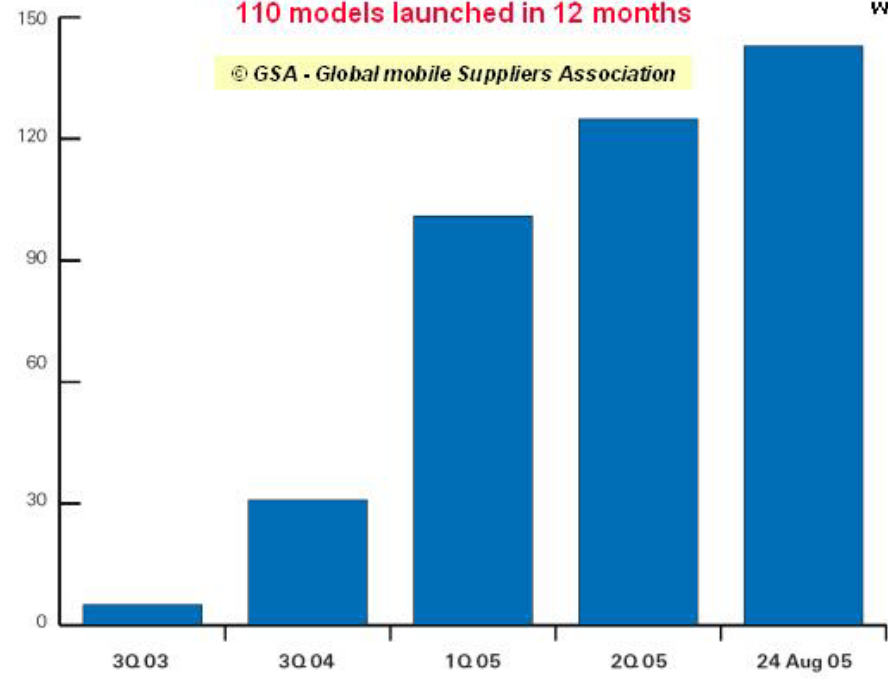
Regular updates at www.gsa.com

- Nokia 6220 - shipping now**
 GSM 850/900/1800
 EDGE R117E-MEM
- Nokia 6220 - shipping now**
 GSM 850/900/1800/1900
 EDGE R117E-MEM
- Nokia 7260 - shipping now**
 GSM 850/900/1800/1900
 EDGE R117E-MEM, integrated VGA camera, 3.5MP camera and 2.2MP camera, 256Kbps GPRS, 256Kbps GPRS, 256Kbps GPRS
- Screen mobile HTC's Quad-band EDGE Module**
 Quad-band GSM, the HTC's can be used in all GSM networks worldwide.
- Novatel Wireless Merit U730 PC Card - available 2M EDGE North America**
 GSM 850/900/1800/1900/WCDMA 900/2100
 GSMEDGE/WCDMA/HSPA
- Novatel Wireless Merit U740 PC Card - available 2M EDGE**
 GSM 850/900/1800/1900/WCDMA 2100
 GSMEDGE/WCDMA/HSPA
- EDGE devices added in this update:**
 Motorola v320 - available now in T-Mobile USA
- GSM 850/900/1800/1900 EDGE Class 4**
 Sony Ericsson CC31
- GSM EDGE GPRS/GPRS 850/900/1800/1900 HSPA plus HSPA/WCDMA 900/2100**
 Motorola D - availability Q1 2005
- GSM EDGE 850/900/1800/1900 EDGE CLASS 4**
 Samsung SGH-300E - available now

EDGE terminal launches

143 EDGE devices from 23 suppliers
 110 models launched in 12 months

GSA
 www.gsacom.com



GSA survey: WCDMA-EDGE deployments



55 WCDMA/EDGE Network Operators

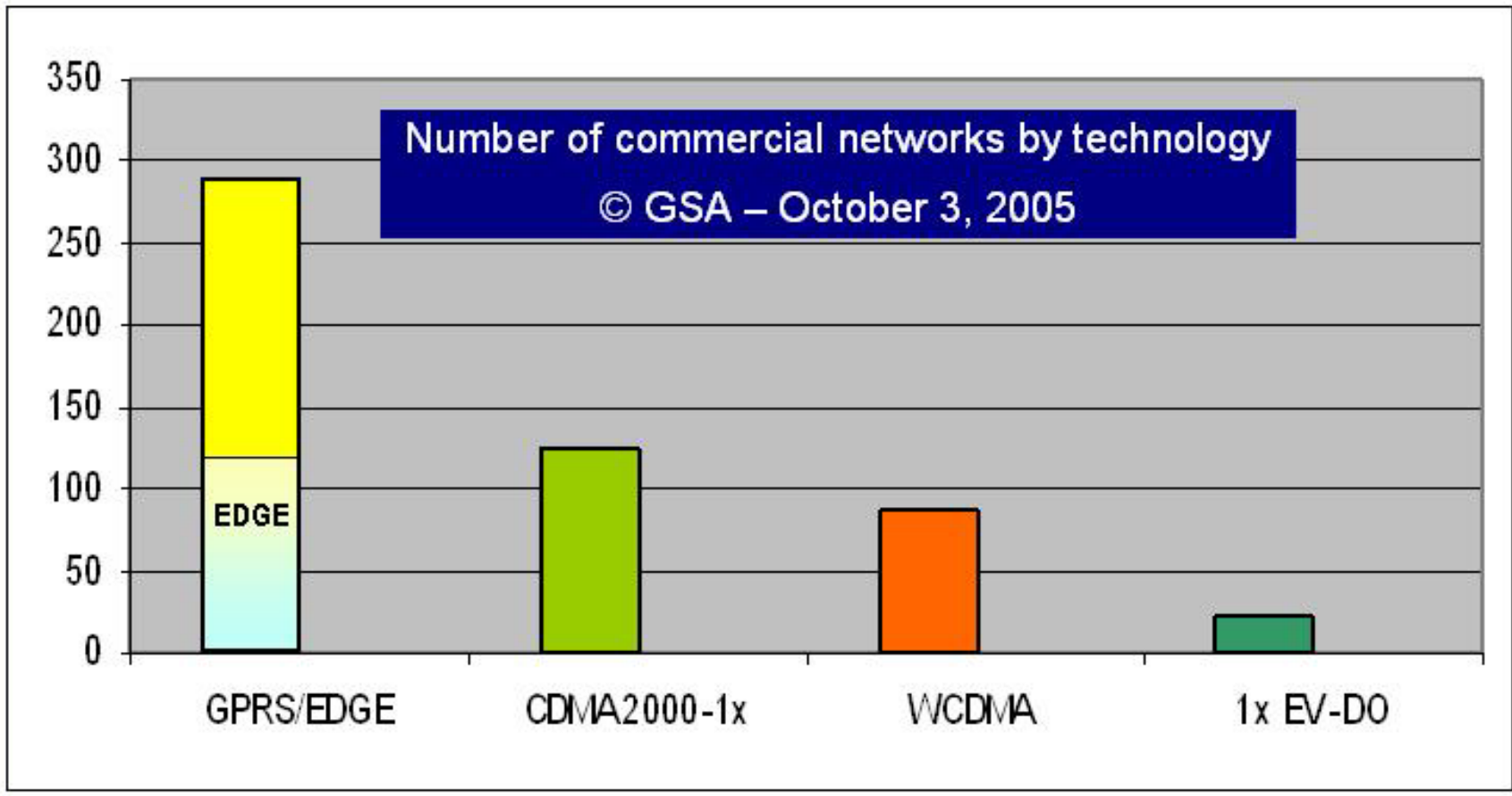
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<p>063 Mobtel Srbija, Serbia AIS, Thailand Alands Mobiltelefon, Finland Areeba, Cyprus Base, Belgium Batelco, Bahrain Bouygues Telecom, France Cell C, South Africa Cellcom, Israel Cingular Wireless, USA CSL, Hong Kong Dialog GSM, Sri Lanka Elisa, Finland EMT, Estonia Era, Poland Eurotel Praha, Czech Eurotel Bratislava, Slovak Republic GPTC, Libya LMT, Latvia</p>	<p>Maxis, Malaysia Mobilkom Austria, Austria Mobily, Saudi Arabia Mobistar (Orange), Belgium Mobitel, Bulgaria MTC Vodafone, Bahrain MTN, South Africa Nawras, Oman Orange, France Orange, Poland Orange, Romania Orange Slovensko, Slovak Republic Oskar Mobile, Czech Pannon GSM, Hungary Polkomtel, Poland Rogers Wireless - Fido, Canada Si. Mobil – Vodafone, Slovenia Sonofon, Denmark StarHub, Singapore</p>	<p>Sunrise, Switzerland Swisscom, Switzerland T-Mobile, Croatia T-Mobile, Czech T-Mobile, Hungary T-Mobile, USA Telenor, Norway Telfort, Netherlands TeliaSonera, Denmark TeliaSonera, Finland TeliaSonera (Netcom), Norway TeliaSonera, Sweden TIM Hellas, Greece TIM, Italy VIP Net, Croatia VOXmobile, Luxembourg Wataniya Telecom, Maldives</p>
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Live WCDMA/EDGE networks denoted in **RED**

23 combined
WCDMA-EDGE
networks
commercially
launched

Adoption of different mobile standards - commercial networks



GSA surveys: services, applications



Examples:

- ▶ New revenue-generating services (2G, 3G platforms)
- ▶ Push to Talk – deployments, devices, market experiences
- ▶ Impact of data on ARPU, network traffic; service differentiation according to access technology

Dialogue



GSA seminar for GSMA Latin America plenary #19 – Lima, July 2005

- ▶ GSM/EDGE/WCDMA/HSPA service continuity and revenue possibilities
- ▶ Increasing Operators Profit
- ▶ Key enablers for profitably addressing low ARPU segments with GSM solutions
- ▶ Marketing and Content Partnerships for Success

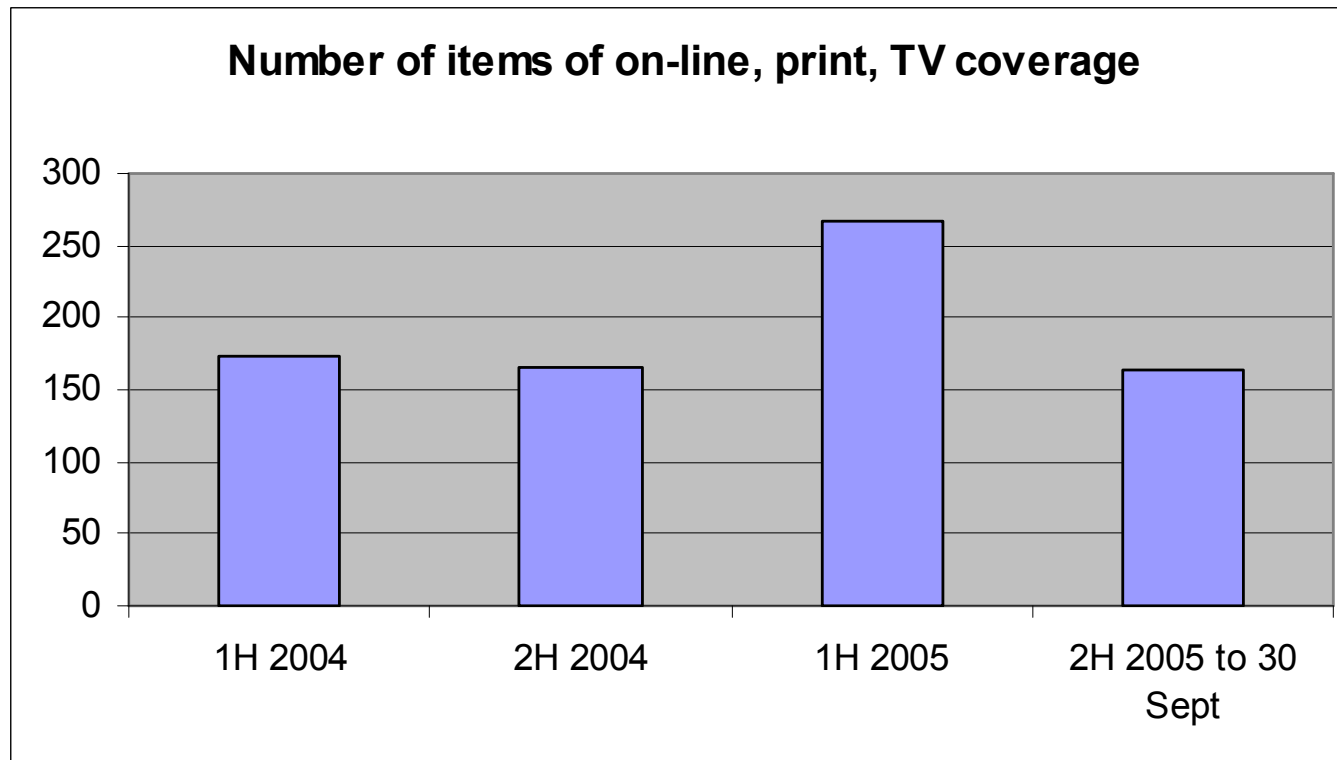
On-going activities including in India, Asia, Africa, and Europe

Media

Governments and regulatory authorities

Standards bodies - 3GPP; other key influencing organisations

Measuring effectiveness – GSA's media coverage



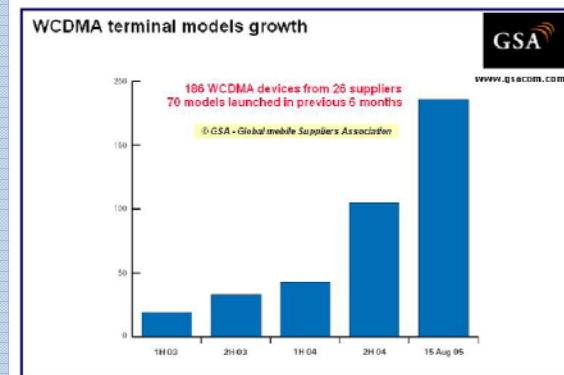
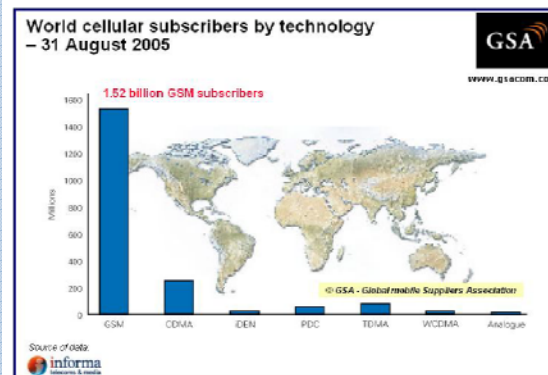
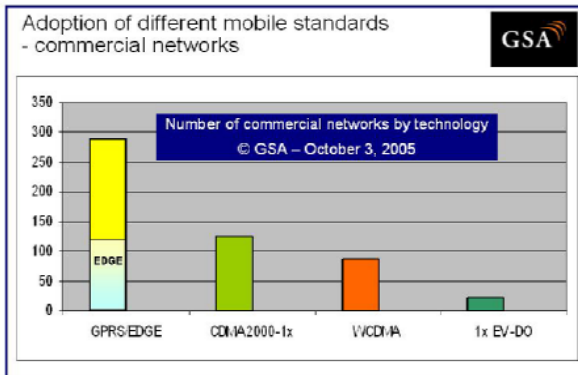
54% growth 1H 2005 compared to 1H 2004

GSM/3G Resources

- Fast Facts, statistics, charts



GSM/3G statistics, downloadable charts: www.gsacom.com/news/statistics.php4



Latest statistics covering GSM, EDGE, WCDMA and HSPA market development, technology deployments, and trends. Charts may be downloaded by any registered user of the GSA website. Terms of Use apply.

GSM/3G resources at www.gsacom.com

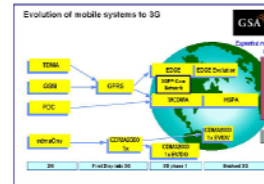
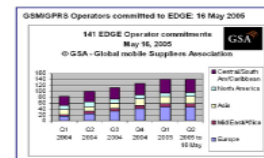
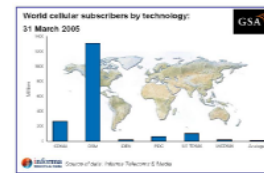


Register at www.gsacom.com for:

- ▶ Market/technology updates on GSM, EDGE, WCDMA, HSPA
- ▶ Statistics: subscribers, ARPU, data, trends, charts
- ▶ Opinion papers – AMR, Push to Talk, etc.
- ▶ Quarterly GSM/3G Network Update
- ▶ Monthly GSM/3G Market Update
- ▶ Newsletters, press releases, consultations

GSM-family operators gain free access to the Operators Zone

- ▶ Market and technology papers, surveys
- ▶ Invitations to seminars, networking events, etc



GSM/3G Network Update
September 2005

GSM Energized by New Growth markets
now adding 1 million new subscribers every day

GSM FAST FACTS

- The GSM family of technologies continues to strengthen. The number of GSM subscribers worldwide grew by 234.37 million in the first 8 months of 2005, and is currently increasing by over 31 million subscribers per month - one million subscribers every day. The total number of GSM subscribers now stands at over 1.5 billion worldwide. More than three quarters of almost 2 billion global mobile subscriptions (all technologies) at the end of August 2005 are using GSM, whose market share has increased so far this year from 74.7% to 76.8%.
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- GSM now accounts for 76.8% of the world's cellular market and over 85% of cellular subscriptions.
- Approaching 1700 models of GSM phones in the market.
- GSM subscriptions grew by 234.37 million in the first 8 months of 2005.
- One million GSM subscribers every day.
- 82 commercial WCDMA networks in service in 37 countries (source: GSA August 16, 2005).
- Over 60% of the total 146 WCDMA license holders globally have launched commercial 3G services, set to see very early adoption.
- 196 WCDMA/HSPA terminal devices announced in the market (source: GSA August 16, 2005).
- 32.22 million WCDMA subscribers globally (31 August 2005).
- 80 commercial EDGE networks in 50 countries globally (GSA August 24, 2005).
- 143 GSM-EDGE-enabled terminal devices announced in the market (source: GSA August 24, 2005).
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Drivers for new subscriber growth are the developing markets - especially Africa, India, Latin America and Asia, where GSM is efficiently supporting operators in opening new market segments.

World cellular subscribers by technology

Mobile technology market share

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