

GSM ASSOCIATION: MEMBERSHIP & MARKET STATISTICS

QUICK STATS

- **Total Membership (14 JAN 2003) = 687**
consisting of :

533 Full Members
18 provisional Full Members (Total: 551 full members)
131 Associate Members
5 Provisional Associate Members (Total: 136 associate members)
- **Operator Members represent 191 Countries / Areas**

Worldwide GSM Subscribers at end DEC 2002 = 787.5 Million

GSM accounts for **71.6 % of the World's digital market** and **69.7% of the World's wireless market**

Further Details may be found in the Tables below :-

- 1) GSM ASSOCIATION MEMBERSHIP STATISTICS
- 2) GSM ASSOCIATION NETWORK STATISTICS
- 3) GSM SUBSCRIBER STATISTICS
- 4) GSM ASSOCIATION SUBSCRIBER FORECASTS

1) GSM ASSOCIATION MEMBERSHIP STATISTICS

SUMMARY OF MEMBERSHIP (INCLUDES PROVISIONAL MEMBERSHIP)

	Dec 01 (14Jan01)	Jan 02 (12Feb02)	Apr 02 (10May02)	Jun 02 (17Jul02)	Jul 02 (9Aug02)	Aug 02 (13Sept02)	Sept 02 (7Oct02)	Oct 02 (19Nov02)	Nov 02 (19Dec02)	Dec 02 (14Jan03)
Total Membership (includes associate, full & provisional members)	598	611	634	647	651	659	669	681	691	687
Ratified Operator and Regulator Members	482	482	510	509	509	505	505	534	535	533
Provisional Operator Members	9	16	1	12	15	21	25	9	15	18
Total Full Members	491	498	511	521	524	526	530	543	550	551
Total Countries Represented	172	172	179	179	179	179	179	189	189	189
Countries where we have Provisional Members	0	2	0	1	2	2	5	2	2	2
Total Countries	172	174	179	180	181	181	184	191	191	191
Ratified Associate Members	97	96	122	119	117	117	117	138	136	131
Provisional Associate Members	10	17	1	7	10	16	22	0	5	5
Total Associate Members	107	113	123	126	127	133	139	138	141	136

OPERATOR & REGULATOR MEMBER REGIONAL BREAKDOWN (INCLUDES PROVISIONAL MEMBERS)

	Dec 01 (14Jan01)	Jan 02 (12Feb02)	Apr 02 (10May02)	Jun 02 (17Jul02)	July 02 (9Aug02)	Aug 02 (13Sept02)	Sept 02 (7Oct02)	Oct 02 (19Nov02)	Nov 02 (19Dec02)	Dec 02 (14Jan02)
Arab World	22	22	22	21	21	21	21	21	21	21
Asia Pacific	70	71	71	72	73	74	75	76	76	77
Africa	101	101	102	102	103	105	105	105	105	104
East Central Asia	21	21	22	24	24	23	23	24	25	24
Europe	154	154	155	155	155	156	156	155	155	154
India	26	26	26	26	26	26	26	25	25	25
North America	41	43	46	47	48	47	48	57	59	59
South America	21	25	29	29	30	30	31	32	34	36
Russia	35	35	38	41	44	44	44	46	49	49

Please note Full Member = Operator and Regulator Members (We have 14 regulator members)

2) GSM ASSOCIATION NETWORK STATISTICS

SUMMARY OF GSM ASSOCIATION NETWORK-ON AIR* STATISTICS

	Dec 00	Dec 01	Jan 02	Feb 02	Apr 02	Jun 02	Jul 02	Aug02	Sept 02	Oct 02	Nov 02	Dec 02
No of Networks on Air *	392	429	429	432	438	452	460	454	460	464	468	467
No of Countries on Air	147	155	155	155	157	161	164	164	165	168	168	169
No of Networks planned to go on air	67	96	102	109	109	106	105	107	107	111	117	118

NUMBER OF NETWORKS-ON AIR* – REGIONAL BREAKDOWN

	Dec 00	Dec 01	Jan 02	Feb 02	Apr 02	Jun 02	Jul 02	Aug 02	Sept 02	Oct 02	Nov 02	Dec 02
Arab World	19	21	21	21	21	20	20	20	20	21	22	22
Asia Pacific	55	56	56	57	59	59	61	62	62	62	62	62
Africa	63	81	81	83	83	89	90	90	92	93	92	92
East Central Asia	17	19	19	19	20	21	21	21	21	21	22	21
Europe	119	128	128	128	129	133	134	134	135	135	135	134
India	40	40	40	40	40	42	42	42	43	40	40	40
North America	42	41	41	41	42	45	47	40	40	41	41	41
South America	11	14	14	14	14	14	16	16	17	20	21	22
Russia	26	32	32	32	33	32	32	32	33	34	36	36

*counting one network per licence area

FREQUENCY BREAKDOWN (INCLUDES PROVISIONAL MEMBERS)

	Dec 00	Dec 01	Jan 02	Apr 02	Jun 02	Jul 02	Aug 02	Sept02	Nov 02	Dec 02
GSM 900	256	275	272	274	275	274	275	275	267	268
GSM 1800	50	63	66	64	71	72	71	68	69	70
GSM 1900	36	47	48	50	51	50	52	52	53	57
Dual Band GSM 900/1800	54	79	83	90	93	96	97	100	107	109
GSM 900/1900	-	-	-	1	1	1	1	2	2	2
GSM 850	-	-	-	1	1	1	1	1	3	7
Satellite	4	4	4	4	4	0	0	0	4	4
3G –Only Members	12**	14	15	17	18	18	18	18	19	19
2G Members who Also Hold 3G Licences		49	49	49	49	46	46	45	45	45
Operators with Commercial GPRS Networks*		94	94	108	111	108	109	108	113	113
Operators Testing/Implementing GPRS Networks*		18	18	16	17	16	16	16	18	18

*Information not confirmed (provided by operators) **Includes both 3G only Members & 2G Members who hold 3G licences

3) GSM SUBSCRIBER STATISTICS

All figures indicated are in Millions

SUBSCRIBERS BY TECHNOLOGY – SOURCE: EMC WORLD CELLULAR DATABASE (14JAN2003)

	Dec 00	Jun 01	Dec 01	Jan 02	Mar 02	May 02	Jun 02	Jul 02	Aug 02	Sept02	Oct 02	Nov 02	Dec 02
Total GSM Subscribers	455.1	542.3	627.7	641.9	666.2	691.7	704.3	718.4	733.3	749.1	763.7	777.6	787.5
GSM 900	229.3	271.2	321.0	328.9	345.5	362.3	370.9	380.2	389.6	398.5	407.2	416.5	420.9
GSM 1800	63.7	68.5	76.7	78.0	80.2	82.6	83.7	85.0	86.3	87.7	89.1	90.8	92.2
GSM 1900	10.6	13.3	15.3	15.7	16.3	17.0	17.3	17.6	18.1	18.6	19.0	19.5	19.9
GSM 900/1800	151.5	189.3	214.7	219.3	224.2	229.8	232.4	235.6	239.3	244.3	248.4	250.8	254.5

Subscribers for Other Technologies:

W-CDMA	-	-	0.03	0.04	0.09	0.10	0.14	0.127	0.133	0.135	0.142	0.149	0.153
CDMA	82.2	96.7	112.3	114.8	119.7	121.8	126.1	128.3	130.9	134.1	136.6	138.7	142.7
PDC	50.8	54.2	56.8	57.1	58.2	58.5	58.8	59.1	59.1	59.3	59.5	59.8	60.1
US TDMA	65.2	80.6	93.3	94.3	97.8	99.3	102.0	103.6	104.8	105.9	107.6	107.5	109.2
Total Digital Subscribers	653.3	773.6	890.7	908.8	942.3	962.0	1001.0	1015.7	1029.1	1049.1	1067.6	1083.8	1099.8
Total Analogue Subscribers	68.0	54.6	43.6	42.0	39.0	37.5	34.6	33.5	32.2	30.9	32.4	31.4	30.0
Total Wireless Subscribers		829.6	935.3	952.5	986.8	1005.3	1035.6	1049.2	1061.3	1080.0	1100.0	1115.2	1129.8

GSM SUBSCRIBERS BY MEMBERSHIP REGIONAL BREAKDOWN – SOURCE: EMC WORLD CELLULAR DATABASE (14JAN2003)

	Dec 00	Jun 01	Dec 01	Jan 02	Mar 02	May 02	Jun 02	Jul 02	Aug 02	Sept02	Oct 02	Nov 02	Dec 02
Total	455.1	542.3	627.7	641.9	666.2	691.7	704.3	718.4	733.3	749.1	763.7	777.6	787.5
Arab World	10.4	14.0	17.1	17.7	18.6	19.8	20.6	21.2	21.7	22.3	22.9	23.5	24.2
Asia Pacific	133.7	180.5	219.9	227.2	242.4	256.2	262.3	269.5	277.3	285.4	292.6	300.1	303.2
Africa	10.8	13.4	17.1	17.7	18.6	19.7	20.4	21.1	21.7	22.2	22.9	23.7	24.4
East Central Asia	2.2	3.2	4.1	4.4	4.7	5.2	5.3	5.5	5.7	6.0	6.2	6.4	6.7
Europe	281.3	308.9	340.4	344.5	349.0	355.2	358.6	362.4	366.8	371.6	375.8	378.5	381.8
Russia	2.3	3.8	6.5	7.2	8.2	9.5	10.1	10.8	11.4	12.1	12.8	13.6	14.3
India	3.1	4.1	5.5	5.7	6.5	7.0	7.3	7.7	8.2	8.5	9.0	9.7	10.5
North America	9.6	11.7	13.5	13.8	14.3	15.0	15.2	15.6	16.0	16.5	16.8	17.3	17.6
South America	1.7	2.7	3.6	3.7	3.9	4.1	4.5	4.6	4.5	4.5	4.7	4.8	4.8

Please note that all EMC statistics are based on estimates and actuals and are therefore subject to change.

4) GSM ASSOCIATION SUBSCRIBER FORECASTS

All figures indicated are in Millions

GSM TECHNOLOGY FORECASTS – SOURCE: EMC WORLD CELLULAR DATABASE (14JAN2003)

	Dec 97	Dec 98	Dec 99	Dec 00	Dec 01	Dec 02	Dec 03	Dec 04	Dec 05	Dec 06
Total GSM Subscribers	71.2	138.4	258.3	456.6	627.4	779.0	931.9	1074.7	1203.6	1315.8
GSM 850	-	-	-	-	-	-	0.04	0.22	0.48	0.79
GSM 900	63.7	105.9	138.2	222.0	320.7	417.7	512.1	596.4	667.8	728.3
GSM 1800	4.8	11.1	27.5	58.2	76.7	93.5	116.9	142.4	166.8	188.9
GSM 1900	1.3	3.2	6.3	10.5	15.3	19.8	25.4	32.4	39.5	45.9
GSM 900/1800	1.2	18.2	86.3	165.9	214.7	247.9	277.5	303.4	329.1	351.9
GSM 900/1900	-	-	-	-	-	0.002	0.007	0.011	0.013	0.014

GSM SUBSCRIBER FORECASTS - REGIONAL BREAKDOWN – SOURCE: EMC WORLD CELLULAR DATABASE (14JAN2003)

	Dec 97	Dec 98	Dec 99	Dec 00	Dec 01	Dec 02	Dec 03	Dec 04	Dec 05	Dec 06
Total	71.2	138.4	258.3	456.6	627.4	779.0	931.9	1074.7	1203.6	1315.8
Africa	1.8	3.4	7.0	16.0	26.4	39.0	58.6	82.4	108.7	134.5
South America (Americas)	0.03	0.3	0.9	2.1	4.5	6.6	11.5	18.5	25.6	32.2
Asia Pacific	16.9	35.5	70.7	138.5	226.1	307.6	382.1	449.3	506.9	556.9
Eastern Europe	2.9	6.6	13.1	27.5	48.5	70.3	92.8	115.7	136.2	151.8
Western Europe	46.9	87.3	156.9	256.3	298.6	324.2	347.0	359.7	367.6	372.8
Middle East	1.3	2.3	3.9	7.0	10.8	15.3	21.2	28.2	35.8	43.1
USA/Canada	1.3	3.0	5.8	9.2	12.5	16.0	18.7	20.9	22.8	24.5

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