

## **GSM ASSOCIATION: MEMBERSHIP & MARKET STATISTICS AS AT END OF MAY 2003**

### **QUICK STATS**

- **Total Membership (27 JUNE 2003) = 708 Members**  
consisting of :
  - 541** Full Members
  - 25** Provisional Full Members
  - 13** Complete Regulator Members **(Total: 579 Full Members)**
  
  - 123** Associate Members
  - 6** Provisional Associate Members **(Total: 129 Associate Members)**
  
- **Operator Members represent 197 Countries / Areas**

**Worldwide GSM Subscribers at end MAY 2003 = 863.6 Million**

GSM accounts for **72 % of the World's digital market** and **70% 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)

	Dec01 14Jan01	Jan02 12Feb02	Apr02 10May02	Jun02 17Jul02	Aug02 13Sept02	Sep02 7Oct02	Oct02 19Nov02	Nov02 19Dec02	Dec02 14Jan03	Jan 03 11Feb03	Feb03 19Mar03	Apr 03 12May03	May 03 24June03
<b>Total Membership (includes associate, full &amp; provisional members)</b>	<b>598</b>	<b>611</b>	<b>634</b>	<b>647</b>	<b>659</b>	<b>669</b>	<b>681</b>	<b>691</b>	<b>687</b>	<b>687</b>	<b>689</b>	<b>698</b>	<b>708</b>
Ratified Operator and Regulator Members	482	482	510	509	505	505	534	535	533	527	524	555	554
Provisional Operator Members	9	16	1	12	21	25	9	15	18	23	31	7	25
<b>Total Full Members</b>	<b>491</b>	<b>498</b>	<b>511</b>	<b>521</b>	<b>526</b>	<b>530</b>	<b>543</b>	<b>550</b>	<b>551</b>	<b>550</b>	<b>555</b>	<b>562</b>	<b>579</b>
Total Countries Represented	172	172	179	179	179	179	189	189	189	190	190	195	195
Countries where we have Provisional Members	0	2	0	1	2	5	2	2	2	3	4	0	2
<b>Total Countries</b>	<b>172</b>	<b>174</b>	<b>179</b>	<b>180</b>	<b>181</b>	<b>184</b>	<b>191</b>	<b>191</b>	<b>191</b>	<b>193</b>	<b>194</b>	<b>195</b>	<b>197</b>
Ratified Associate Members	97	96	122	119	117	117	138	136	131	130	124	135	123
Provisional Associate Members	10	17	1	7	16	22	0	5	5	7	10	1	6
<b>Total Associate Members</b>	<b>107</b>	<b>113</b>	<b>123</b>	<b>126</b>	<b>133</b>	<b>139</b>	<b>138</b>	<b>141</b>	<b>136</b>	<b>137</b>	<b>134</b>	<b>136</b>	<b>129</b>

## OPERATOR & REGULATOR MEMBER REGIONAL BREAKDOWN (INCLUDES PROVISIONAL MEMBERS)

	Dec 01 14Jan01	Jan 02 12Feb02	Apr 02 10May02	Jun 02 17Jul02	Aug 02 13Sept02	Sept02 7Oct02	Oct02 19Nov02	Nov02 19Dec02	Dec02 14Jan02	Jan03 11Feb03	Feb03 19Mar03	Apr03 12May03	May03 24Jun03
<b>Arab World</b>	22	22	22	21	21	21	21	21	21	21	21	21	21
<b>Asia Pacific</b>	70	71	71	72	74	75	76	76	77	77	78	80	80
<b>Africa</b>	101	101	102	102	105	105	105	105	104	104	103	104	106
<b>East Central Asia</b>	21	21	22	24	23	23	24	25	24	24	25	26	27
<b>Europe</b>	154	154	155	155	156	156	155	155	154	150	149	149	149
<b>India</b>	26	26	26	26	26	26	25	25	25	25	25	25	24
<b>North America</b>	41	43	46	47	47	48	57	59	59	62	65	67	73
<b>South America</b>	21	25	29	29	30	31	32	34	36	37	37	41	48
<b>Russia</b>	35	35	38	41	44	44	46	49	49	50	49	50	50

Please note Full Member = Operator and Regulator Members (We have 13 regulator members)

## 2) GSM ASSOCIATION NETWORK STATISTICS

### SUMMARY OF GSM ASSOCIATION NETWORK-ON-AIR\* STATISTICS

	Dec 00	Dec01	Jan02	Apr02	Jun02	Aug02	Sept02	Oct 02	Nov02	Dec02	Jan03	Feb03	Apr03	May03
No. of Networks on Air *	392	429	429	438	452	454	460	464	468	467	470	474	496	510
No. of Countries on Air	147	155	155	157	161	164	165	168	168	169	171	172	173	174
No. of Networks planned to go on air	67	96	102	109	106	107	107	111	117	118	116	118	125	118

### NUMBER OF NETWORKS-ON-AIR\* – REGIONAL BREAKDOWN

	Dec 00	Dec01	Jan02	Apr02	Jun02	Aug02	Sept02	Oct 02	Nov 02	Dec 02	Jan03	Feb03	Apr03	May03
Arab World	19	21	21	21	20	20	20	21	22	22	22	22	22	22
Asia Pacific	55	56	56	59	59	62	62	62	62	62	62	65	65	67
Africa	63	81	81	83	89	90	92	93	92	92	93	93	94	94
East Central Asia	17	19	19	20	21	21	21	21	22	21	21	22	23	23
Europe	119	128	128	129	133	134	135	135	135	134	133	134	134	135
India	40	40	40	40	42	42	43	40	40	40	40	40	55	55
North America	42	41	41	42	45	40	40	41	41	41	43	41	43	47
South America	11	14	14	14	14	16	17	20	21	22	23	26	27	33
Russia	26	32	32	33	32	32	33	34	36	36	36	35	36	37

\*counting one network per licence area

### FREQUENCY BREAKDOWN (INCLUDES PROVISIONAL MEMBERS)

	Dec01	Jan 02	Apr 02	Jun02	Aug02	Sep02	Nov02	Dec02	Jan03	Feb03	Apr03	May03
GSM 900	275	272	274	275	275	275	267	268	267	266	267	265
GSM 1800	63	66	64	71	71	68	69	70	71	70	73	75
GSM 1900	47	48	50	51	52	52	53	57	57	57	58	60
Dual Band GSM 900/1800	79	83	90	93	97	100	107	109	111	112	114	120
GSM 900/1900	-	-	1	1	1	2	2	2	3	3	4	5
GSM 850	-	-	1	1	1	1	3	7	8	12	15	22
Satellite	4	4	4	4	0	0	4	4	4	4	4	4
3G –Only Members	14	15	17	18	18	18	19	19	16	17	18	19
2G Members who Also Hold 3G Licences	49	49	49	49	46	45	45	45	45	44	43	43
Operators with Commercial GPRS Networks*	94	94	108	111	109	108	113	113	113	169	171	171
Operators Deployed/Planned GPRS Networks*	18	18	16	17	16	16	18	18	19	40	44	44

\*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 (27JUNE2003)

	Dec00	Jun01	Dec01	Jan02	Mar02	May02	Jul02	Sep02	Nov02	Dec02	Jan03	Feb03	Mar03	Apr03	May03
<b>Total GSM Subscribers</b>	<b>455.1</b>	<b>542.3</b>	<b>627.7</b>	<b>641.9</b>	<b>666.2</b>	<b>691.7</b>	<b>716.0</b>	<b>745.0</b>	<b>773.0</b>	<b>791.4</b>	<b>805.8</b>	<b>819.2</b>	<b>833.1</b>	<b>847.3</b>	<b>863.6</b>
GSM 800	-	-	-	-	-	-	-	-	0.00053	0.001	0.0014	0.0018	0.0022	0.0026	0.003
GSM 900	229.3	271.2	321.0	328.9	345.5	362.3	352.3	368.2	383.8	392.9	401.1	409.4	418.0	426.2	434.5
GSM 1800	63.7	68.5	76.7	78.0	80.2	82.6	85.0	88.2	89.8	92.5	94.1	95.5	96.7	98.3	100.5
GSM 1900	10.6	13.3	15.3	15.7	16.3	17.0	17.6	18.8	20.5	21.7	22.5	23.2	23.9	24.6	25.7
GSM 900/1800	151.5	189.3	214.7	219.3	224.2	229.8	261.0	269.8	278.7	284.3	288.1	291.1	294.4	298.1	302.8
GSM 9/18/19	-	-	-	-	-	-	-	-	-	-	-	-	0.01195	0.025	0.0347
GSM 900/1900						0.0089	0.0113	0.014	0.0167	0.018	0.0193	0.0207	0.022	0.0233	0.0171

#### Subscribers for Other Technologies:

W-CDMA	-	-	0.03	0.04	0.09	0.112	0.127	0.135	0.149	0.153	0.159	0.201	0.355	0.455	0.521
CDMA	82.2	96.7	112.3	114.8	119.7	123.7	128.1	134.7	141.4	145.4	148.3	151.6	155.1	157.9	156.7
PDC	50.8	54.2	56.8	57.1	58.2	58.6	59.1	59.3	59.6	60.1	60.3	60.5	61.3	61.7	61.7
US TDMA	65.2	80.6	93.3	94.3	97.8	100.2	102.3	104.4	106.6	107.5	108.4	109.2	109.8	110.4	111.4
<b>Total Digital Subscribers</b>	<b>653.3</b>	<b>773.6</b>	<b>890.7</b>	<b>908.8</b>	<b>942.3</b>	<b>962.0</b>	<b>1015.7</b>	<b>1049.1</b>	<b>1083.8</b>	<b>1099.8</b>	<b>1123.7</b>	<b>1143.8</b>	<b>1159.6</b>	<b>1177.7</b>	<b>1193.5</b>
<b>Total Analogue Subscribers</b>	<b>68.0</b>	<b>54.6</b>	<b>43.6</b>	<b>42.0</b>	<b>39.0</b>	<b>35.5</b>	<b>34.4</b>	<b>32.6</b>	<b>30.3</b>	<b>29.3</b>	<b>28.1</b>	<b>27.1</b>	<b>26.4</b>	<b>25.1</b>	<b>24.5</b>
<b>Total Wireless Subscribers</b>		<b>828.2</b>	<b>934.3</b>	<b>950.8</b>	<b>981.3</b>	<b>1007.8</b>	<b>1039.8</b>	<b>1076.2</b>	<b>1110.9</b>	<b>1133.9</b>	<b>1151.1</b>	<b>1167.9</b>	<b>1186.0</b>	<b>1202.8</b>	<b>1217.9</b>

**GSM SUBSCRIBERS BY MEMBERSHIP REGIONAL BREAKDOWN – SOURCE: EMC WORLD CELLULAR DATABASE (27JUNE2003)**

	Dec00	Jun01	Dec01	Jan02	Mar02	May02	Jul02	Sep02	Nov02	Dec02	Jan03	Feb03	Mar03	Apr03	May03
<b>Total</b>	<b>455.1</b>	<b>542.3</b>	<b>627.7</b>	<b>641.9</b>	<b>666.2</b>	<b>691.7</b>	<b>716.0</b>	<b>745.0</b>	<b>773.0</b>	<b>791.4</b>	<b>805.8</b>	<b>819.2</b>	<b>833.1</b>	<b>847.3</b>	<b>863.6</b>
Arab World	10.4	14.0	17.1	17.7	18.6	19.7	21.1	22.4	23.7	24.3	24.9	25.6	26.2	26.8	27.5
Asia Pacific	133.7	180.5	219.9	227.2	242.4	256.2	268.9	282.6	294.0	300.2	306.5	312.9	319.4	325.9	333.5
Africa	10.8	13.4	17.1	17.7	18.6	19.7	21.1	22.3	24.1	25.1	25.8	26.6	27.4	27.8	27.9
East Central Asia	2.2	3.2	4.1	4.4	4.7	5.1	5.5	6.0	6.4	6.6	6.8	6.9	7.1	7.3	7.5
Europe	281.3	308.9	340.4	344.5	349.0	355.5	360.6	368.8	376.5	383.5	387.4	390.8	394.1	397.9	399.8
Russia	2.3	3.8	6.5	7.2	8.2	9.5	11.1	12.7	14.5	15.3	16.1	16.5	17.3	18.1	21.6
India	3.1	4.1	5.5	5.7	6.5	7.0	7.7	8.5	9.7	10.5	11.2	11.8	12.7	13.5	14.2
North America	9.6	11.7	13.5	13.8	14.3	14.9	15.6	16.7	18.0	18.7	19.3	19.9	20.5	21.0	21.9
South America	1.7	2.7	3.6	3.7	3.9	4.1	4.4	4.9	6.1	7.1	7.8	8.2	8.4	9.0	9.6

**4) GSM ASSOCIATION SUBSCRIBER FORECASTS**

All figures indicated are in Millions - Please note that all EMC statistics are based on estimates and actuals and are therefore subject to change.

**GSM TECHNOLOGY FORECASTS – SOURCE: EMC WORLD CELLULAR DATABASE (27JUNE2003)**

	Dec 97	Dec 98	Dec 99	Dec 00	Dec 01	Dec 02	Dec 03	Dec 04	Dec 05	Dec 06	Dec 07
<b>Total GSM Subscribers</b>	<b>71.1</b>	<b>138.4</b>	<b>258.4</b>	<b>456.6</b>	<b>627.8</b>	<b>796.0</b>	<b>941.3</b>	<b>1080.0</b>	<b>1204.1</b>	<b>1309.6</b>	<b>1393.0</b>
<b>GSM 800</b>	-	-	-	-	-	0.001	0.101	0.484	1.004	1.50	1.96
<b>GSM 900</b>	63.7	105.9	138.2	221.8	321.0	422.0	506.4	589.6	665.8	730.7	780.9
<b>GSM 1800</b>	4.8	11.1	27.5	58.2	76.7	94.4	118.5	142.7	162.9	179.3	192.0
<b>GSM 1900</b>	-	0.2	0.661	1.4	2.8	4.3	6.4	9.8	13.3	16.2	18.7
<b>GSM 800/1900</b>	1.3	3.0	5.7	9.2	12.5	17.6	20.6	23.7	26.4	28.7	30.9
<b>GSM 900/1800</b>	1.2	18.2	86.3	166.0	214.8	257.6	289.3	313.7	334.7	353.2	368.4
<b>GSM 900/1900</b>	-	-	-	-	-	-	-	0.00041	0.00069	0.00088	0.00102

**GSM SUBSCRIBER FORECASTS - REGIONAL BREAKDOWN – SOURCE: EMC WORLD CELLULAR DATABASE (27JUNE2003)**

	Dec 97	Dec 98	Dec 99	Dec 00	Dec 01	Dec 02	Dec 03	Dec 04	Dec 05	Dec 06	Dec 07
<b>Total</b>	<b>71.1</b>	<b>138.4</b>	<b>258.4</b>	<b>456.6</b>	<b>627.8</b>	<b>796.0</b>	<b>941.3</b>	<b>1080.0</b>	<b>1204.1</b>	<b>1309.6</b>	<b>1393.0</b>
Africa	1.8	3.4	7.2	16.0	26.2	36.9	51.1	71.0	94.4	121.2	146.0
South America (Americas)	0.03	0.3	0.9	2.1	4.5	8.4	11.9	17.5	24.0	30.8	37.2
Asia Pacific	16.9	35.5	70.7	138.5	226.1	313.9	381.5	447.5	505.6	552.5	587.0
Eastern Europe	2.9	6.6	13.1	27.5	48.5	73.4	97.1	119.1	135.0	144.6	150.0
Western Europe	46.9	87.3	156.9	256.3	298.6	328.4	355.2	370.4	379.4	385.0	388.9
Middle East	1.3	2.3	3.9	7.0	11.4	17.4	23.8	31.5	39.3	46.8	53.0
USA/Canada	1.3	3.0	5.7	9.2	12.5	17.6	20.6	23.7	26.4	28.7	30.9

