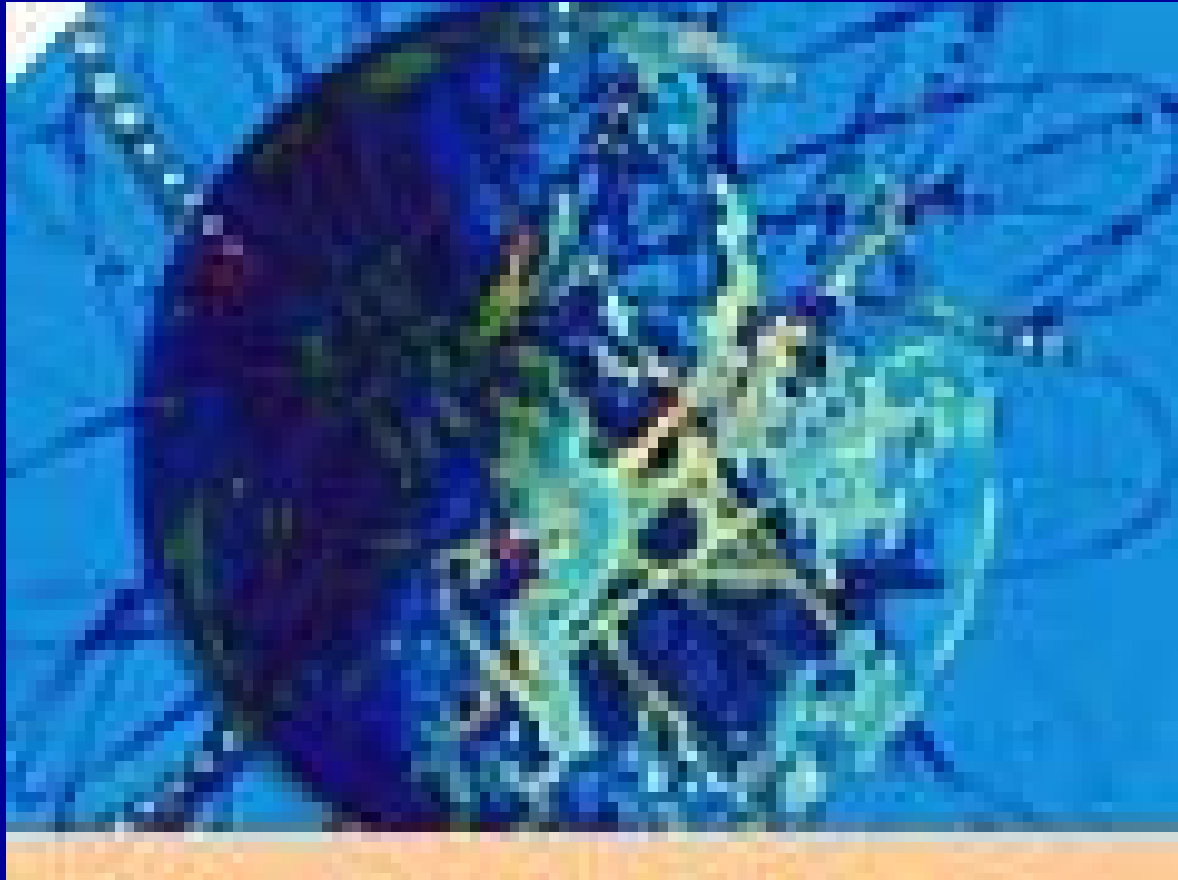


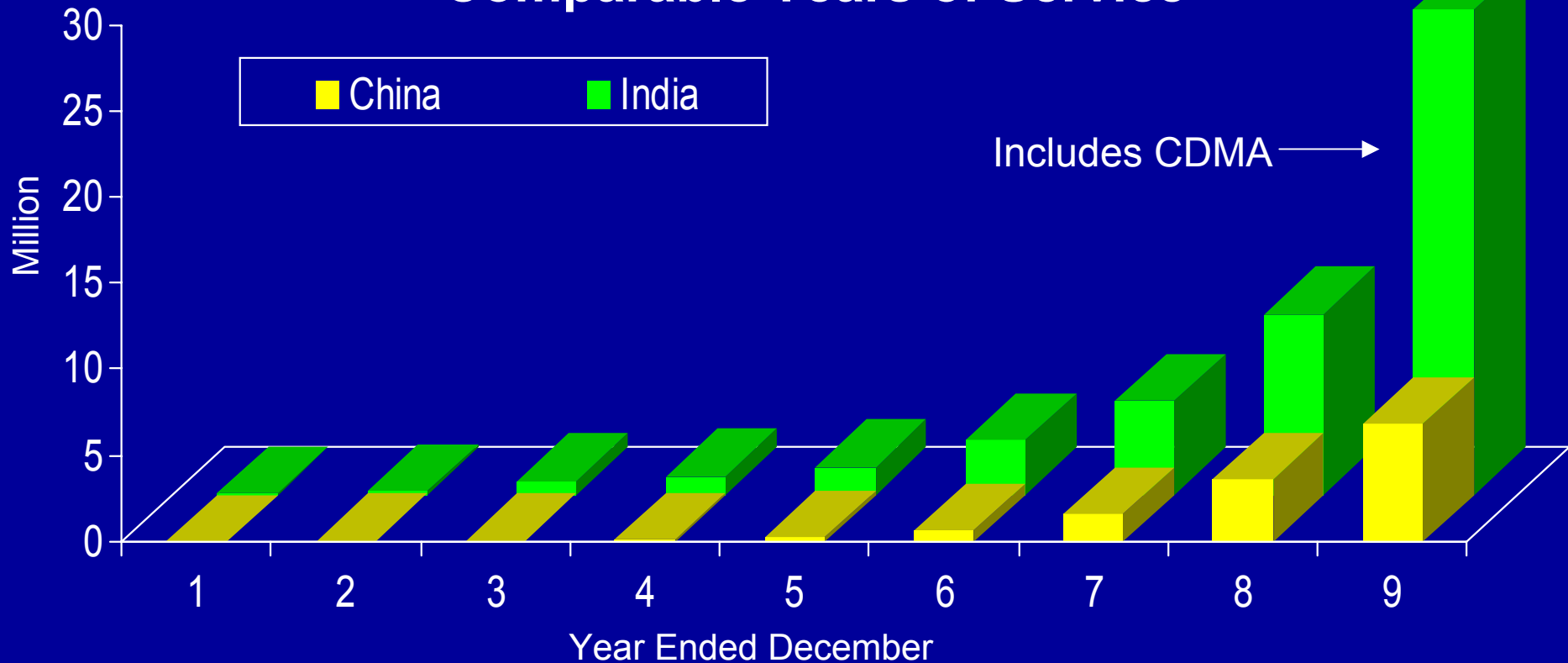
Regulatory Framework for Powering Cellular Growth



T V Ramachandran, Director General, COAI
March 4, 2004 @ CII Telecom Summit, New Delhi

India versus China

Comparable Years of Service



Year	1	2	3	4	5	6	7	8	9
China	1988	1989	1990	1991	1992	1993	1994	1995	1996
Subs. (MLN)	0.003	0.01	0.02	0.1	0.2	0.6	1.6	3.6	6.8
India	1995	1996	1997	1998	1999	2000	2001	2002	2003
Subs. (MLN)	0.03	0.22	0.8	1.1	1.6	3.1	5.5	10.5	28.2

India's Growth levels actually ahead of China's

Recent Developments

1. Unified Access Service Licensing (UASL)

- ❑ WLL(M) dispute concluded satisfactorily with introduction of UASL
- ❑ Welcome clarity & predictability in the policy & licensing regime.
- ❑ The two-step approach of the Government in moving towards full unification appears to have worked.
- ❑ With the first phase being concluded satisfactorily, there is a need to now move towards full & holistic unification
- ❑ Otherwise, similar problems could occur in other sectors – what technology permits, should not be denied by regulation.

2. Intra Circle Mergers & Acquisitions

- ❑ M&A Guidelines notified on January 30, 2004.
- ❑ Guidelines appear to be both practical and progressive and should lead to sustainable market structure through healthy consolidation.
- ❑ Some aspects require further clarity to ensure effective implementation
 - Duration of license of merged entity
 - Spectrum cap & Spectrum usage charges in case of merger of a CDMA & GSM operator
 - What should be the factors (market share, coverage area, etc) that will determine the effective presence of a player – to meet the minimum 3 players criteria
 - Would the high incremental spectrum usage charges deter mergers.
 - Can two entities merge only a single (say mobile) business, etc.

Unfinished Agenda

- ❑ Full Unified Licensing

- ❑ Direct Inter-Circle Connectivity

- ❑ Access Deficit

- ❑ Fair Interconnection

- ❑ Definition of AGR

- ❑ Spectrum

Full Unification

- ❑ Time for Step 2 in the unification process
- ❑ TRAI expected to release final Consultation Paper shortly
- ❑ Envisage that full unification would be completed within 6-months of introduction of UASL.
- ❑ Authorities & stakeholders must move expeditiously to meet this deadline.

Direct Inter Circle Connectivity

- ❑ License prohibits what technology permits
- ❑ DIC is a building block in the structure of open competition in national long distance. Access providers will only be terminating their own traffic
- ❑ Impact of this on NLD business expected to be minimal - less than 5% of NLD revenues
- ❑ When Open competition is the order of the day, why should NLD be an exception
- ❑ Introduction of this facility will be in the best interests of consumers, country & industry
- ❑ Why should DIC wait for full unification, it is envisaged under NTP 99

Access Deficit

- ❑ No evidence of Access Deficit for incumbent – BSNL has huge accumulated surpluses & profits year after year.
- ❑ Tariffs now mandated only for rural areas – therefore logical to club ADC, if any, with USO Fund & recover from service providers as %age of AGR.
- ❑ More transparency needed in ADC reimbursement.
- ❑ No justification for ADC levy on cell-to-cell calls – why is the cellular consumer paying for a network that he is not even using.
- ❑ Unfair to ask loss making private sector to subsidize its more profitable public sector competitor.

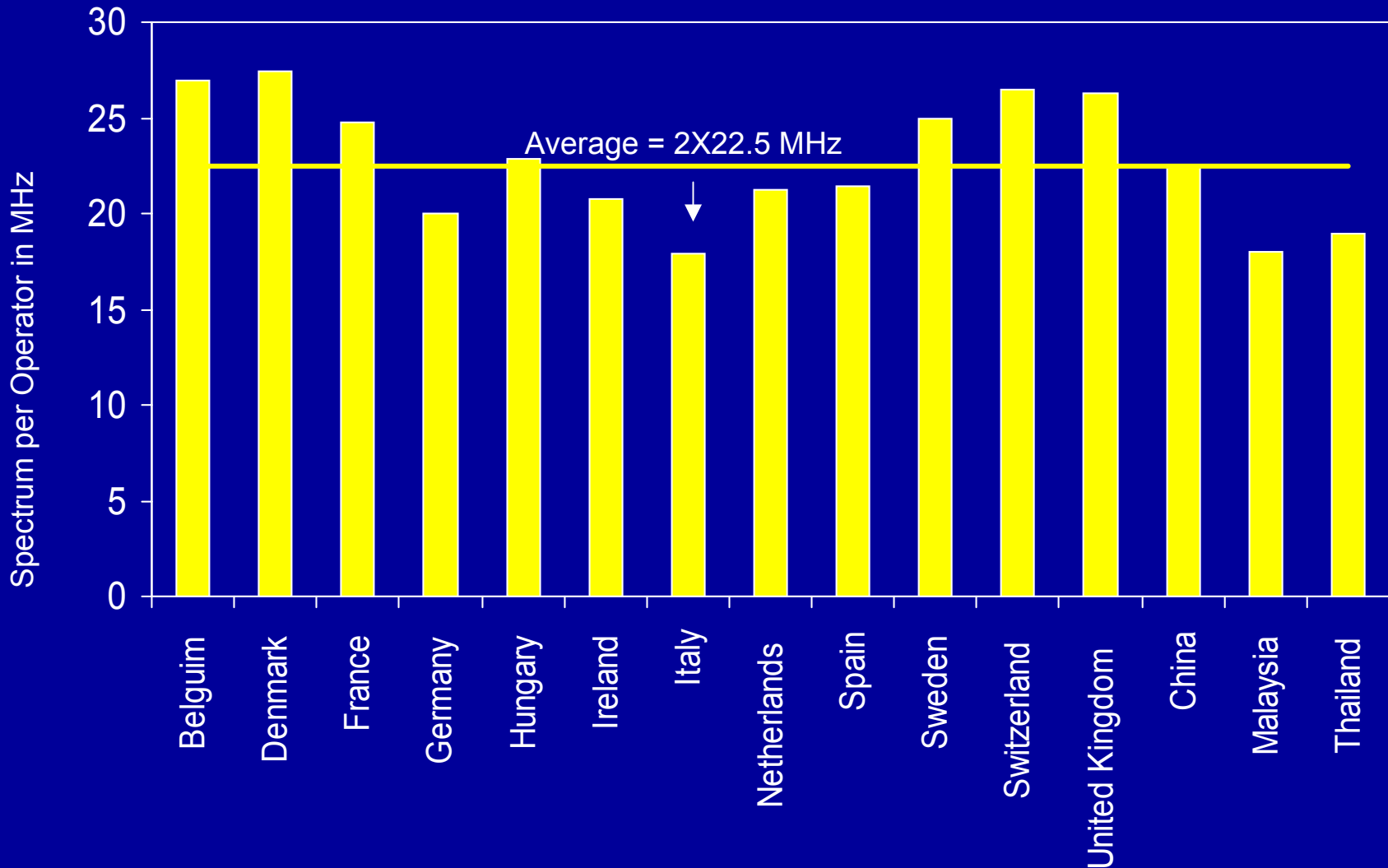
Fair Interconnection

- ❑ Termination charges specified for cellular far below cost
- ❑ Identical termination charges for fixed & mobile – negates principle of cost based interconnection
- ❑ Non-discriminatory IUC regime not being enforced – incumbent BSNL adopting discriminatory treatment for settling bills.
- ❑ Once IUC regime is in force, there should be no separate payments for ports.
- ❑ Separate port charges disadvantage private / new operators.
- ❑ Exorbitant charges by BSNL for shared facilities

Adequate Spectrum at Affordable Costs

- ❑ Spectrum – a key resource for mobile, affects both cost as well as quality of service.
- ❑ Entry fees paid by CMSPs includes cost of spectrum. Indian GSM operators have paid amongst the highest entry fees in the world.
- ❑ In contrast, spectrum allocated to them is sub-optimal – spectrum allocation must be in line with international better practices – at least 2x20 MHz per operator
- ❑ Spectrum usage charges must also be rationalized – at present these are nearly equivalent to annual license fees of better telecom regimes.
- ❑ Spectrum usage charges must cover only the costs of administration & regulation of the resource – should be capped at 1% of AGR.

Better International Practices



Indian spectrum allocation must be in line with international better practices – at least 2X20 MHz per operator

Definition of 'Adjusted Gross Revenue' (AGR)

- ❑ AGR definition of DoT contra to TRAI consistent stand that AGR should only include revenues from licensed activities.

- ❑ DoT definition of AGR includes revenues from non- service activities
 1. Interest & Dividend Income from Investments
 2. Revenues from sale of handsets
 3. Revenues from Sale of Capital Goods
 4. Revenues from sharing/ leasing of infrastructure, etc.

- ❑ Further, the definition does not allow deductions for some costs that are incurred in earning such incomes / revenues.
 1. Bad Debts
 2. Waivers / Discounts to Subscribers
 3. Roaming Signalling charges
 4. Port Charges, lease line charges

- ❑ Incorrect & unfair, as a result of this, service providers end up paying higher license fees to Government.
- ❑ COAI believes that the TRAI definition of AGR must be adopted

Shining India will Trigger Cellular Explosion

❑ High GDP growth rate

- Fastest growth amongst major democracies in last 10 years
- Average growth of 5.5% in the nineties
- Expected to be around 7% in current fiscal
- As per Goldman Sachs, India could emerge as third largest economy in next 50 years

❑ Rising Income Levels

- Per capita income rising by 4% in the nineties
- 4th largest economy in terms of purchasing power parity (PPP)

❑ Increased Urbanization

- With increased development of infrastructure, rural India will become increasingly mainstreamed

Demographic & Consumption Dividends

Demographic Dividend

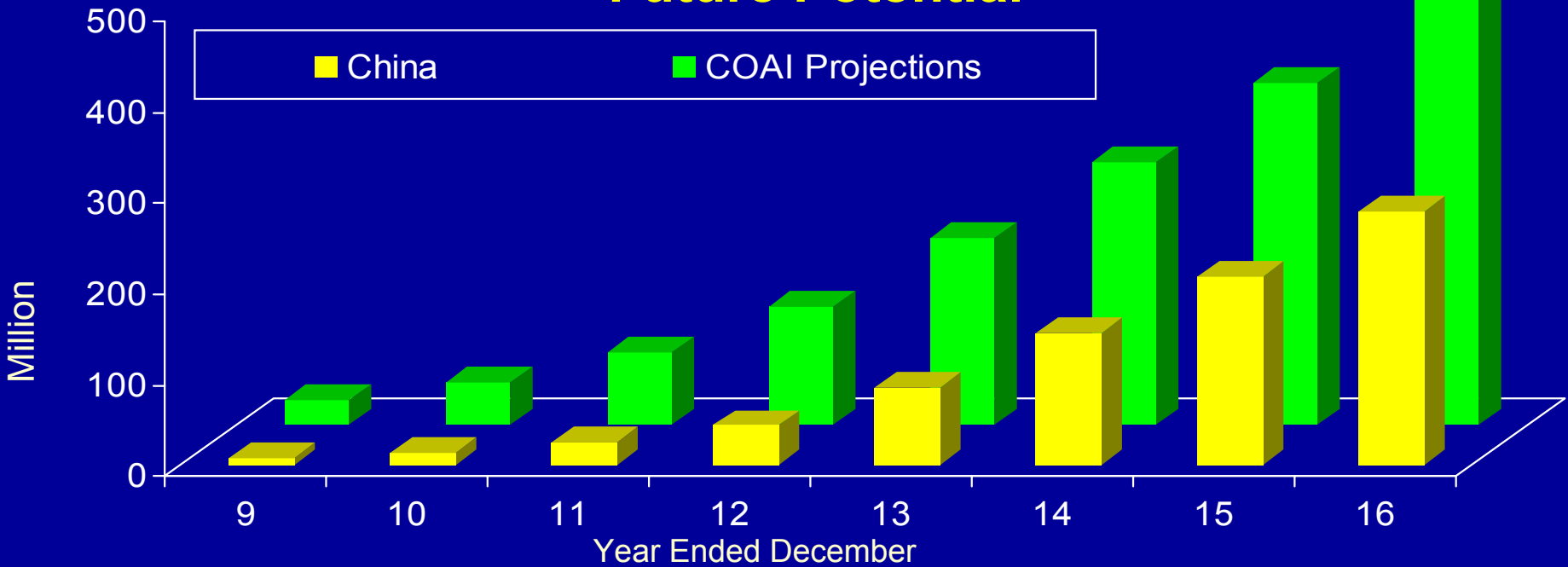
- ❖ 54% of population (555 million) below 25 years, 45% below 19 years
- ❖ Working age population to peak to 747 million in 2011.....more than entire population of Europe that year!!
- ❖ Increasing number of Professionals who are less price sensitive

Consumption Dividend

- ❖ Younger workforce represents growing market
- ❖ Improved levels of affluence, higher saving rate – from 23 to 30%
- ❖ Burgeoning middle class – 30-40 million added every year
- ❖ Growing market size – from USD 1500 BLN today to USD 2700 BLN by 2010

Positive demographics and consumer behaviour will fuel the Wireless Engine

India versus China Future Potential



	1996	1997	1998	1999	2000	2001	2002	2003
Year	9	10	11	12	13	14	15	16
China Subs	6.8	13.2	24	43	85	145	207	279
% YoY Growth		94%	82%	79%	98%	71%	43%	35%
	2003	2004	2005	2006	2007	2008	2009	2010
India Subs	28	48	81	130	207	290	377	471
% Growth YoY		71%	69%	60%	59%	40%	30%	25%

**Even at lower growth rates than China , India could have over
470 million subscribers by 2010!!**

Note : Year 9 = 1996 for China & 2003 for India