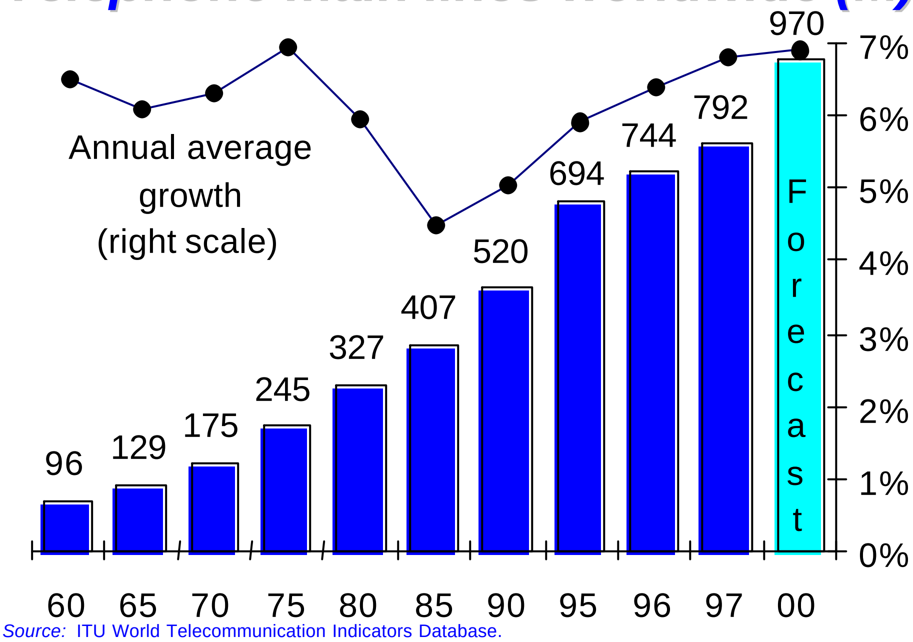
Tariff strategies for competitive environments: Aims and objectives

Dr Tim Kelly (ITU), Seminar on tariff strategies for competitive environments, ALTTC, Ghaziabad, 20-22 July 1999

Agenda

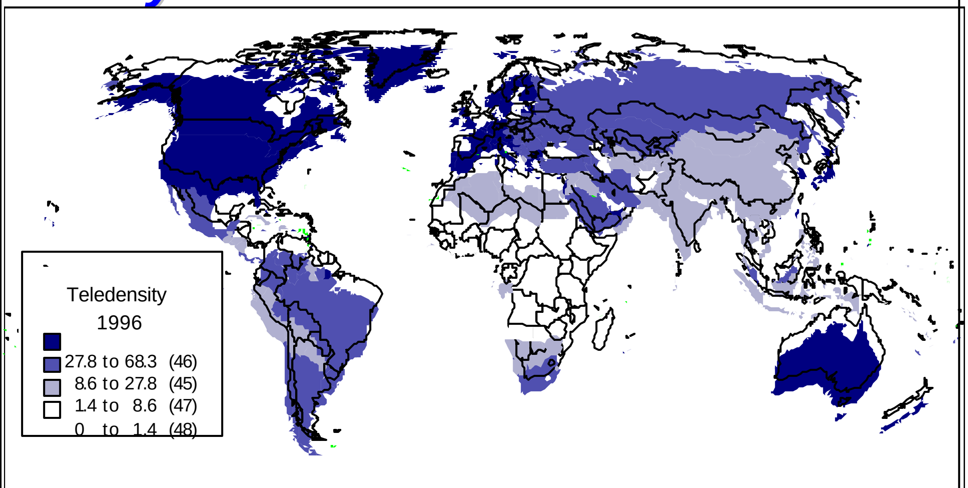
- **The state of the Telecoms sector worldwide**
  - **The Public Switched Telephone Network**
  - **Mobile Communications**
  - **The Internet**
- **The growth of competition**
- **The competitive pressures facing DoT**
- **Aims and objectives of the course**
- **Structure of the course**

Telephone main lines worldwide (M)



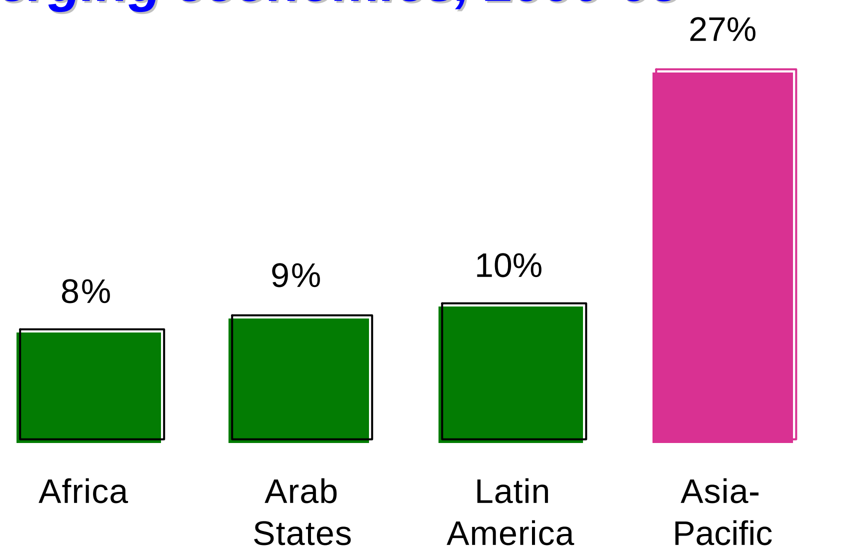
Source: ITU World Telecommunication Indicators Database.

"The future is here, it's just not evenly distributed" William Gibson



Source: ITU World Telecommunication Indicators Database.

Annual growth in telephone network Emerging economies, 1990-95



Source: ITU "Asia-Pacific Telecommunication Indicators, 1997: New Telecom Operators".

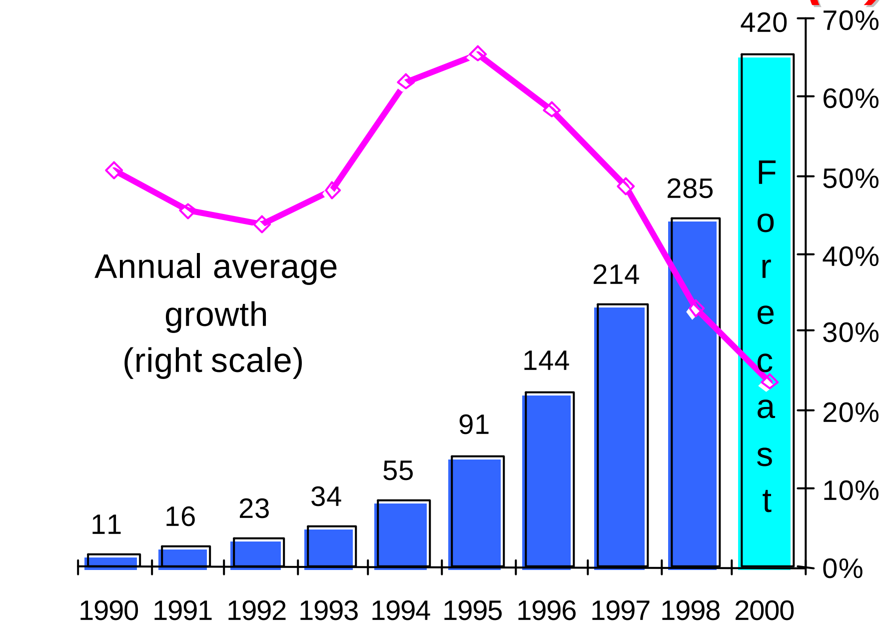
Top 20 PTOs by revenue, 1997

Rank 97	Rank 96	Operator (Country)	Telecom revenue Total (US$ m)	Telecom revenue Change (96-97)	Net income Total (US$ m)	Net income Change (96-97)
1	1	NTT (Japan) [a]	71'591	7.1%	2'196	15.3%
2	2	AT&T (United States)	51'319	1.5%	4'638	-21.5%
3	3	Deutsche Telekom (Germany)	37'694	7.1%	1'843	87.9%
4	16	Bell Atlantic (United States)	30'194	3.6%	2'455	-27.8%
5	5	BT (United Kingdom) [a]	26'277	4.7%	2'908	-17.6%
6	4	France Télécom (France)	26'174	3.6%	2'482	605.4%
7	14	SBC (United States)	24'856	6.0%	1'474	-55.0%
8	7	Telecom Italia (Italy)	24'204	9.9%	1'949	12.5%
9	6	GTE (United States)	23'260	9.0%	2'794	-0.1%
10	8	BellSouth (United States)	20'561	8.0%	3'261	13.9%
11	9	MCI (United States)	19'653	6.3%	149	-87.6%
12	12	DGT (China)	17'154	1.5%	5'375	-12.1%
13	11	Ameritech (United States)	15'998	7.2%	2'296	7.6%
14	10	Telefónica (Spain)	15'577	17.8%	1'253	18.6%
15	17	US West (United States)	15'235	18.0%	697	-40.8%
16	13	Sprint (United States)	14'874	5.9%	953	-19.5%
17	18	Telebras (Brazil)	14'158	23.7%	3'493	42.1%
18	19	Telstra (Australia) [b]	11'915	4.9%	1'205	-29.8%
19	22	DDI (Japan) [a]	8'927	15.9%	63	‡
20	23	KPN (Netherlands)	7'671	8.4%	962	9.4%
		Top twenty	**477'291**	**7.0%**	**42'447**	**-4.6%**

Source: ITU PTO Database.

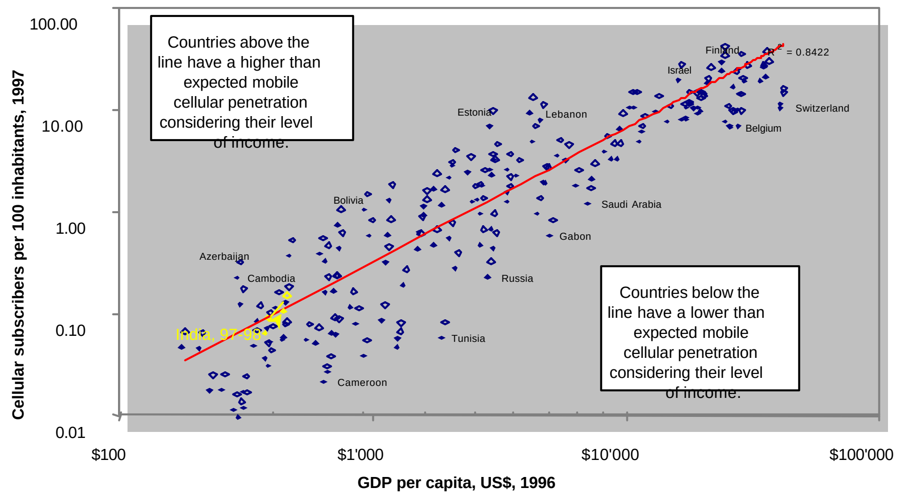
Note: VSNL comes 56th

Cellular subscribers worldwide (M)



Source: ITU World Telecommunication Indicators Database.

Cellphones, like fixed-lines, are closely related to wealth



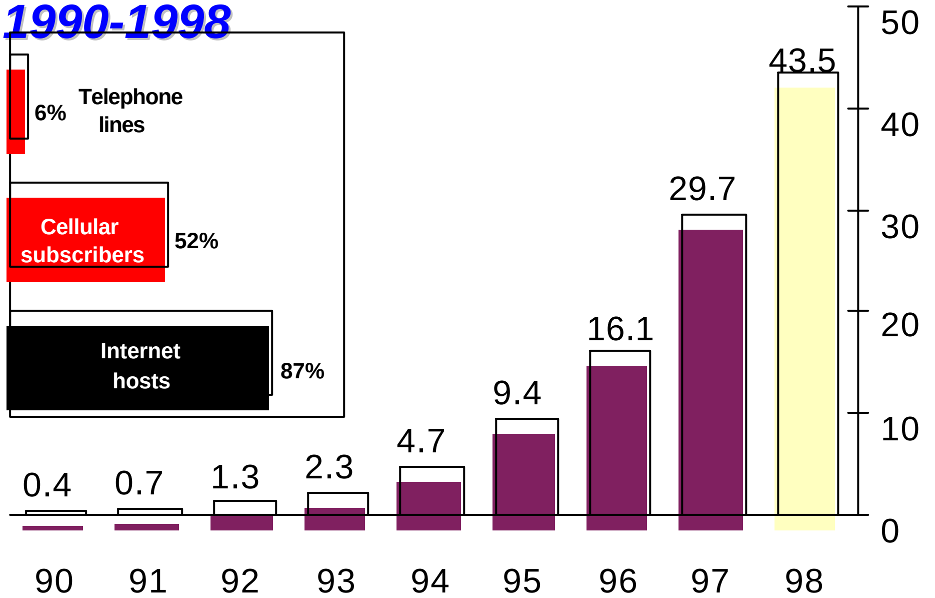
Source: ITU World Telecommunication Indicators Database.

Top 20 mobile companies, 1997

Rank 97	96	Operator (Country)	Cellular subscribers 1997 (000s)	Cellular subscribers CAGR (96-97)	Mobile revenue 1997 (US$ m)	Mobile revenue CAGR (96-97)	Mobile revenue % of total
1	1	NTT (Japan)	19'890	18.4%	20'873	35.5%	29%
2	5	DGT (China)	13'229	93.1%	3'334 *	81.9%	23%
3	3	TIM (Italy)	9'278	62.6%	5'345	28.7%	100%
4	9	DDI (Japan)	7'815	24.0%	6'953	26.1%	78%
5	2	AT&T (United States)	6'000	15.4%	4'337	10.3%	8%
6	4	SBC (United States)	5'493	23.9%	3'034	15.1%	12%
7	6	BANM (United States)	5'356	21.5%	2'859	17.2%	100%
8	15	SK Telecom (Korea (Rep.))	4'571	58.1%	2'090	31.2%	100%
9	7	GTE (United States)	4'487	19.7%	2'742	10.5%	12%
10	12	AirTouch (United States)	4'309	26.6%	2'363	19.1%	100%
11	8	BellSouth (United States)	4'193	15.1%	3'555	27.0%	17%
12	21	Telebras (Brazil)	4'023	64.1%	3'762	62.8%	20%
13	13	Deutsche Telekom (Germany)	3'752	39.6%	2'776	19.0%	7%
14	18	Mannesmann (Germany)	3'542	54.0%	3'118	32.8%	100%
15	10	Vodafone (United Kingdom)	3'400	18.6%	2'977	13.5%	100%
16	24	Telefónica (Spain)	3'187	35.9%	2'395	40.3%	15%
17	14	Ameritech (United States)	3'177	26.5%	1'760	31.0%	11%
18	11	BT (United Kingdom)	3'077	14.0%	1'830	14.8%	7%
19	23	France Télécom (France)	3'000	92.3%	2'851	52.0%	11%
20	16	Telstra (Australia)	2'777	21.6%	1'477	16.2%	12%
		Top twenty	**114'556**	**34.6%**	**80'430**	**27.8%**	**21%**

Source: ITU PTO Database.

Internet hosts (million) and growth rates, 1990-1998



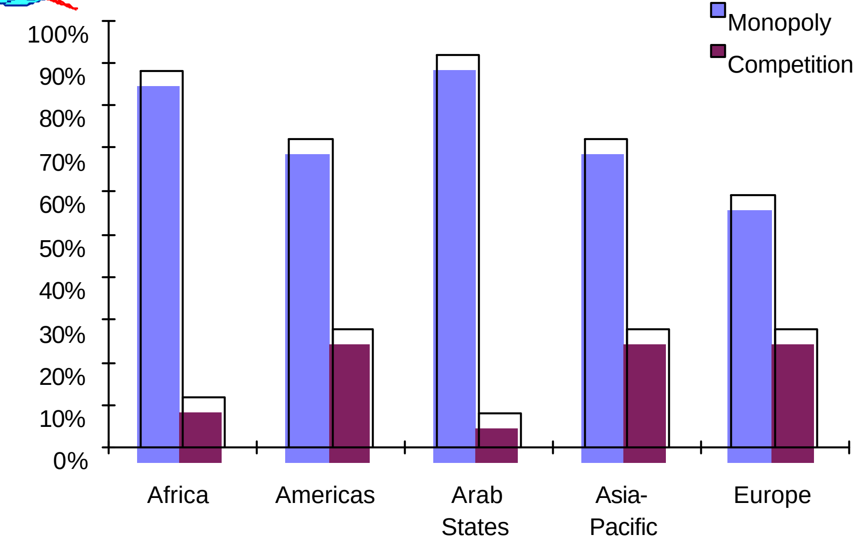
Source: ITU "Challenges to the Network: Internet for development, 1999". Network Wizards.

Top 20 Internet Service Providers, 1998

Rank	Internet / Online Service provider (Country)	Owner	Website	Subscribers (latest, 000s)	
1	AOL (USA) *	AOL	www.aol.com	17'100	Jun-98
2	Nifty-Serve (Japan)	Fujitsu, others	www.nifty.ne.jp	2'630	Aug-98
3	Biglobe (Japan)	NEC, others	www.biglobe.ne.jp	2'560	Mar-98
4	T-Online (Germany)	Deutsche Telekom	www.t-online.de	2'300	Jun-98
5	MSN (USA)	Microsoft	home.microsoft.com	*2'000*	Jun-98
6	Chollian (Korea (Rep.))	Dacom	http://www.chollian.net/	1'170	Dec-97
7	WorldNet (USA)	AT&T	www.att.net	1'095	Jun-98
8	EarthLink Sprint (USA)	Sprint, others	www.earthlink.com	710	Jun-98
9	Prodigy (USA)	Prodigy	www.prodigy.com	638	Jun-98
10	Infovia (Spain)	Telefonica	www.tsai.es	535	Dec-97
11	Netcom (USA)	ICG	www.netcom.com	512	Jun-98
12	HiNet (Taiwan-China)	Chungwa Telecom	www.hinet.net	507	Jun-98
13	MindSpring (USA)	MindSpring	www.mindspring.net	393	Jun-98
14	SBC Internet Services	SBC	www.public.swbell.net www.public.pacbell.net	330	Jun-98
15	Tele2 (Sweden)	Tele2	www.tele2.se	317	Jun-98
16	GTE Internetworking (USA)	GTE	www.gte.net	311	Jun-98
17	CWIX (USA)	Cable&Wireless	www.cwix.com	310	Jun-98
18	Wanadoo (France)	France Telecom	www.wanadoo.fr	266	Jun-98
19	Netvigator (Hongkong SAR)	Hongkong Telecom	www.netvigator.com	235	Mar-98
20	Telia Internet (Sweden)	Telia	www.telia.se	232	Dec-97
	TOTAL, top 20			**34'151**	

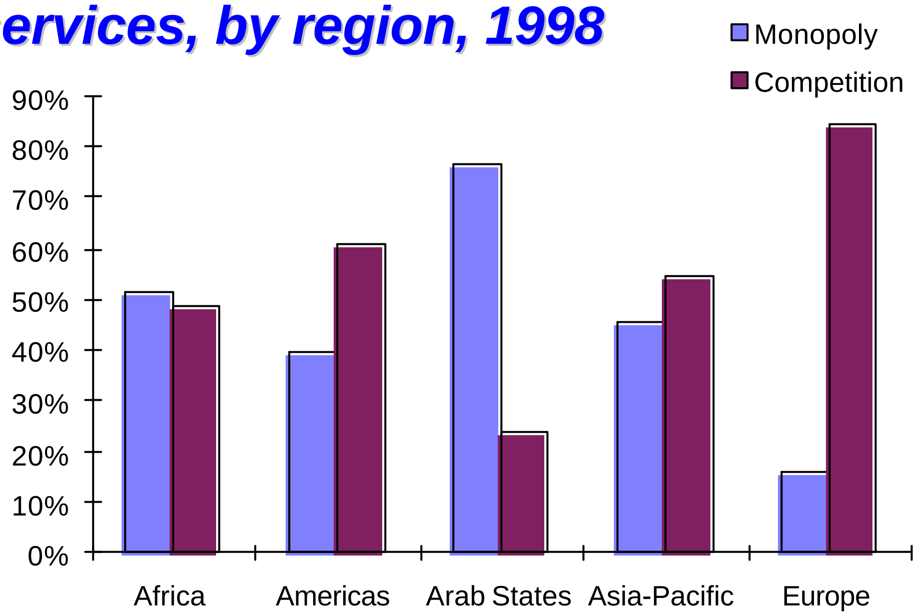
Source: ITU "Challenges to the Network: Internet for development, 1999".

Degree of competition in basic services, 1998, by region



Source: ITU Telecommunication Regulatory Database.

Degree of competition in mobile services, by region, 1998

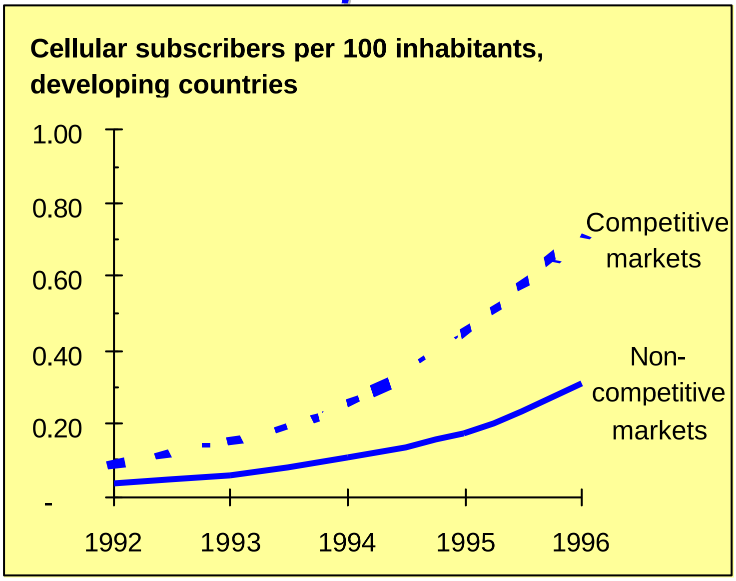


Source: ITU Telecommunication Regulatory Database.

Why introduce competition into the Sector?

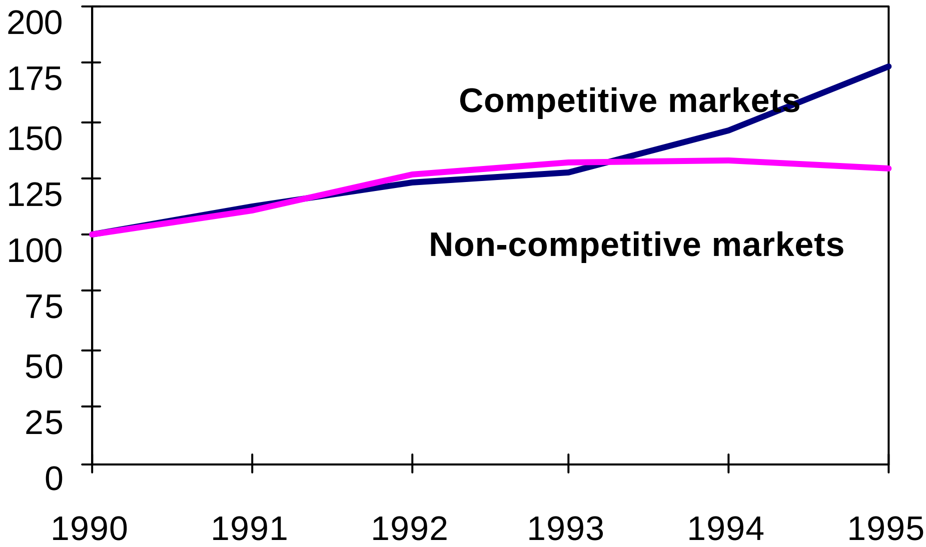
- **To introduce fresh investment and/or foreign investment into the Sector**
  - ⇨ **Existing network may be ageing or poorly maintained**
  - ⇨ **Existing operator may be debt-ridden or financially constrained**
- **To introduce innovation, price competition and new management techniques**
- **To create new business opportunities for local entrepreneurs and other suppliers**
- **To create more choice for consumers**
- **To improve level of teledensity and pace of network roll-out**

Competitive markets tend to grow faster than monopolistic ones



Source: ITU "World Telecom Development Report 1998: Universal Access"

Growth in international traffic per line, in emerging markets (1990=100)



Source: ITU World Telecommunication Development Report, *1996/97*.

Different approaches to market liberalisation

- Introduce competition first in mobile and value-added, and only later in basic services
  - ⇨ e.g., Mobile competition in South Africa since 1994 but exclusivity until 2003/4 for basic service.
- Introduce a duopoly for a period followed by more open competition
  - ⇨ e.g., UK introduced duopoly in 1982, full competition in domestic services in 1991 in international in 1996.
- Go for "big bang" approach to liberalisation
  - ⇨ e.g., Switzerland had monopoly until 1998; now full competition in all services.
- Unbundling Local Loop
  - ⇨ e.g., by allowing access to incumbent's network

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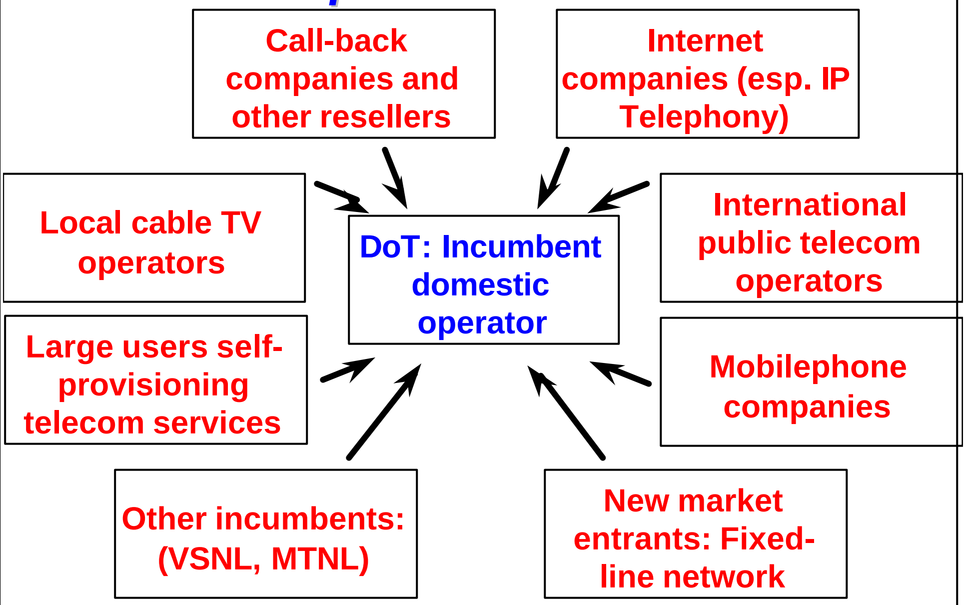
Alternatives to introduction of competition

- Liberalisation of sectors other than basic telecoms
  - ⇨ mobile communications
  - ⇨ public payphones
  - ⇨ Internet Service Providers
- Award of franchises for different regions
  - ⇨ "comparative" or "peer" competition, but not in same geographic area (e.g., Indonesia)
- Award of build/transfer arrangements
  - ⇨ Build Operate Transfer (BOT), Build Transfer Operate (BTO), Build Own Operate Transfer (BOOT) etc (e.g., Thailand)

DoT: The competitive environment



Aims and objectives of the course

- To provide general understanding of tariff restructuring in a competitive environment
- To provide case-studies of other countries, developing and developed, which have introduced competition and rebalanced tariffs
- To understand different forms of competition (e.g., Internet, mobile)
- To link pricing with broader policy issues (e.g., Universal Service, changing int’l environment)
- To provide forum for discussion of DoT strategies for tariff rebalancing, local loop unbundling etc

Introduction to Course Lecturers

- **Dr Tim Kelly, Head, Operations Analysis, International Telecommunication Union, Geneva, Switzerland**

  E-mail: Tim.Kelly@itu.int

- **Dr Chris Doyle, Senior Research Fellow, London Business School, UK**

  E-mail: cdoyle@lbs.ac.uk

Structure of course (Day 1)

11.30: Tariff strategies for competitive environments: Aims and objectives

2.00: Cost-based and demand-based tariffs (Tim Kelly)

3.00: Tariff rebalancing (Chris Doyle)

4.30: Tariff comparisons: global trends (Tim Kelly)

5.30: Discussion

Structure of course (Day 2)

9.00: Tariff policies and Universal Service (Tim Kelly)

10.00: Tariffs and Service Quality (Chris Doyle)

11.30: Tariff strategies and the Internet (Tim Kelly)

2.00: Pricing of international telecom services (Tim Kelly)

3.00: Tariff regulation: Mobile and fixed (Chris Doyle)

4.30: TRAI proposals on tariff reform (Tim Kelly)

5.30: Discussion

Structure of course (Day 3)

9.00: Tariff and pricing of interconnect (Chris Doyle)

10.00: Tariff strategies for competitive markets: Implications for India (Sidhu Sinha?)

11.30: Designing tariff strategies to match customer requirements (Chris Doyle)

12.30: Discussion