

Trends in Telecommunications in Cambodia

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with

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Technical Assistance

World Bank project to strengthening the Cambodian Telecommunications regulatory framework with rules for:

- **fair competition**
- **interconnection regime**
- **rate-rebalancing**

Aims At

- **cost effective communications**
- **maintain and enhance the revenue stream from telecommunications to government**

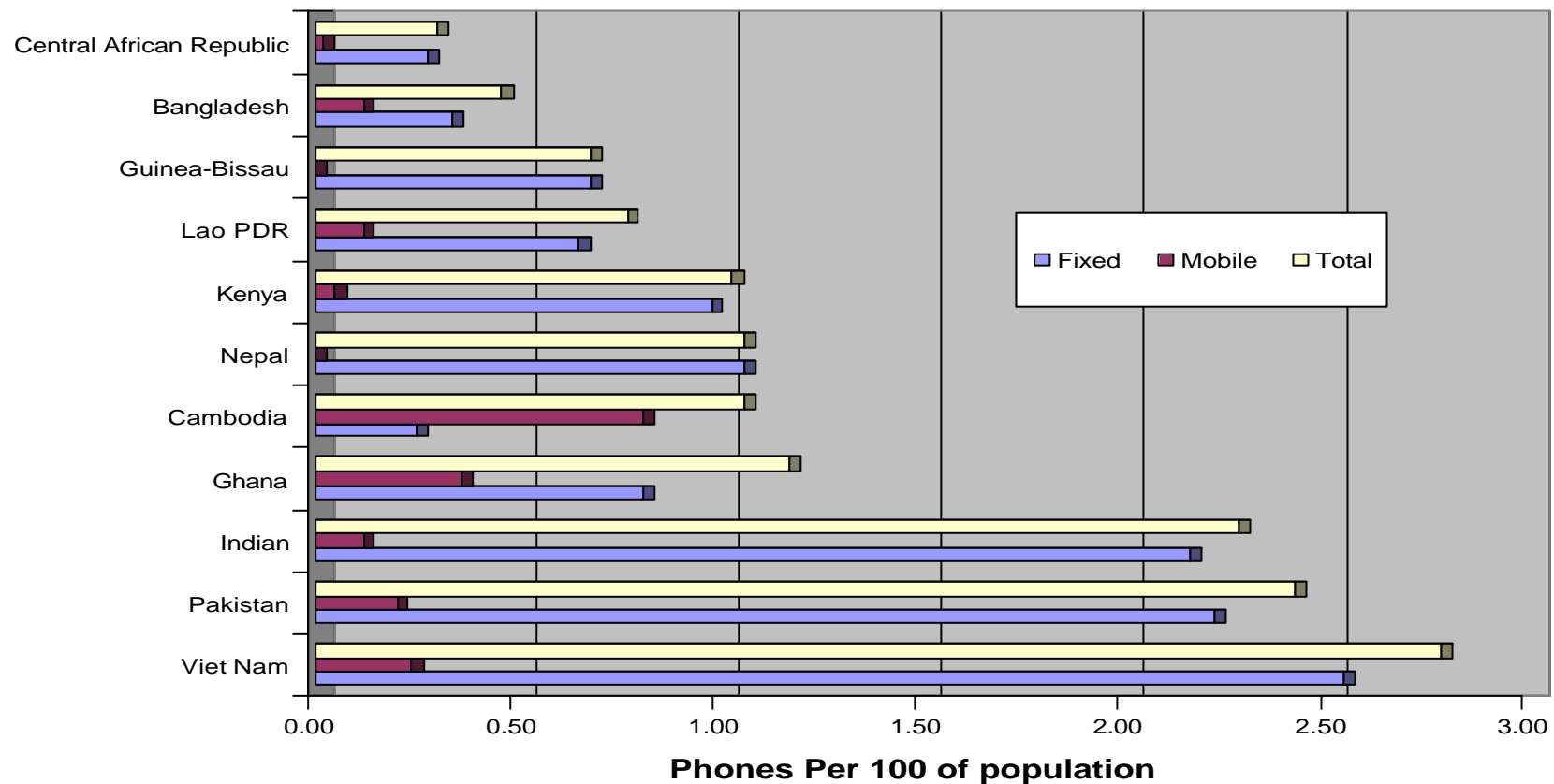
Key Issues in Telecommunications

There are two important issues in telecommunications, that affect the future of Cambodia and which should be a focus of government policy,

- Extending the coverage of access to telecommunications as a development tool
- Keeping the real cost of telecommunications as low as possible to facilitate the development of businesses to increase wealth and employ Cambodians

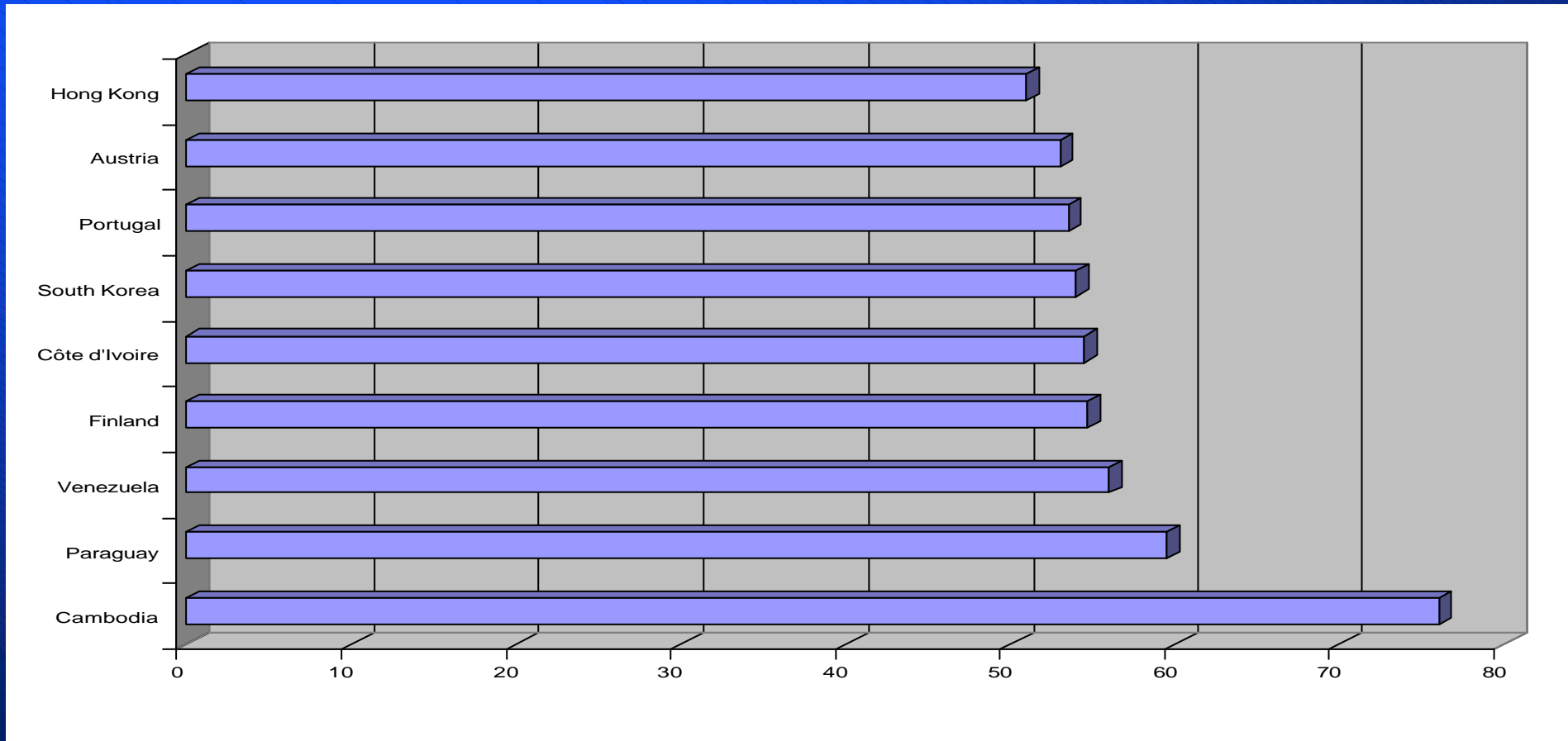
All other issues are subordinate to these two key objectives

Cambodia: Average-Total Phones High Proportion-Mobiles



Source: ITU Mission in Cambodia

World's Highest Mobile Share



Source: ITU Mission in Cambodia

Cambodia is Different

Cambodia	Most other countries
The main effort is to strengthen the fixed services to compete with the strong mobile services	The main effort is to strengthen the mobile services to compete with strong fixed services
The main effort is to strengthen the previous incumbent to be able to compete with strong entrants	The main effort is to strengthen the entrants to be able to compete with the strong incumbent

Source: ITU Mission to Cambodia

Example: Mobile vs. Fixed Phones

- **THE BIG DIFFERENCE:**
 - fixed line in the state sector, no money, no autonomy, no progress
 - mobiles are private, growing fast, light handed regulation
- **SUGGESTS**
 - competition in the mobile sector has produced, good services
 - state management has produced poor service, stagnation and lost opportunities
- **CONCLUSION**
 - encouraging competition for the consumer telephone dollar will result in improved services and coverage

Achievements of the Telecommunications Sector

Cambodia has achieved:

- a mobile phone system that is:
 - close to world class
 - competitive
 - privately provided
- a relatively modern fixed line system since 1990
- a high quality, backbone fibre optic cable system
- private sector investment in mobiles, wireless networks, internet and gateways

Problems to be Addressed

- **fixed line**
 - has limited penetration and high unit costs
 - too few connections to cover fixed network costs
 - foc downtime is unacceptable by any standards
- **mobile**
 - has duplication of networks
 - long-term, is relatively expensive communication
 - danger of a dominant player emerging
- **interconnection regime**
 - is illogical and unfair

Principal Institutional Problem

MPTC is an integrated, policy, regulatory, operational and asset management agency,

Expert advice is unanimous that this leads to

- **conflicts of interest**
- **poor asset management**
- **business decisions suffer from political intervention**
- **political priorities suffer from a preoccupation with business issues**

Example: Gateway One Problem

distorted priorities:



- gateway one owned by MPTC
- currently facing strong competition from gateway 2
- represents US\$ 12 million in a sector worth about US\$ 100 million
- yet saving Gateway One is the major preoccupation for MPTC
- policy and effort should instead focus on the key interests: broadening service and reducing the cost of use

All Advisers Recommend

MPTC should have its current functions located in separate agencies:

- **policy - the correct function for MPTC**
- **regulation - an independent function**
- **business operations: Telecom Cambodia a commercial entity with operational autonomy, eventually private**
- **ownership interests, Ministry of Finance**

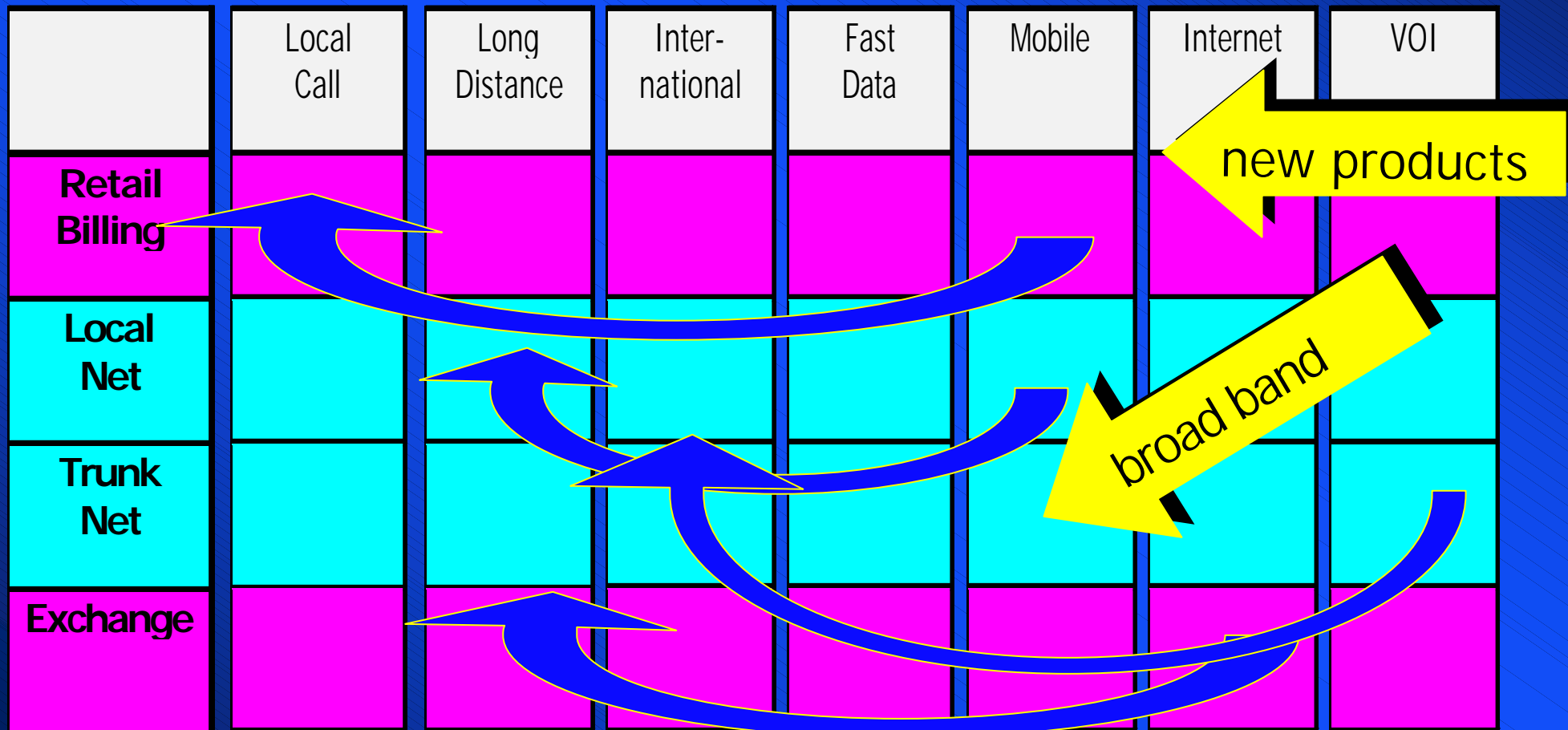
This will address conflicts of interest and give fixed line business the chance to develop

Natural Monopoly

Traditionally telephone companies were regarded as a “natural monopoly” using a network too expensive to reproduce,

- often they were made legal monopolies as well,
- today they are more often called a “network” - only the network facilities are expensive to reproduce,
- even if only one backbone, network competition is possible in wholesale and retail functions,
- other networks include: electricity, banking, roads, railways, airlines and telecommunications,

Former Allies Now Competitors



Historically: Networks a Barrier to Competition

Retail Billing	Competitive (service companies)								
Local Net	Monopoly (network companies)								
Trunk Net									
Exchange	Competitive (service companies)								

Open Access Networks

- our team believes that all network owners should be obliged to operate them on an open access basis:
 - mandatory roaming
 - shared facilities
 - non-discriminatory access
 - separate accounting and management services / network
- this will reduce the danger of network profits being used to unfairly promote customer services
 - encourages competition in customer service businesses
 - regulation is simpler, confined to the network
- separation of networks and services is happening fostered by regulators (OFTEL) voluntarily (AT&T)

Future: Open Access Networks the Platform for Competition

multiple, competing service companies

network companies: single platform for
competition

service companies may link with above

Different Investors Required

	Network Company	Service Company
Product Life	long	short
Complexity	low	high
Information	public	private
Risk	low	high
Return	low	high
Investor	risk adverse pension fund	high reward venture fund

What Regulation is Required?

Regulation is needed to prevent market players that own a network, from making excessive monopoly profits and using these to unfairly beat competition in a market. Get rid of:

- exclusive networks. exclusivity licences
- favourable access to government money, support
- legal protection from new competition

If networks are separated from services and networks are open access, this makes regulation simpler and easier to implement

Open Access Pro-Competition

an open access network policy will not create new monopolies if:

- it is possible for anyone to build a new network with their own resources,
- the real threat of new networks is allowed to keep the existing ones up to date and competitive,

However

- the PROBABILITY of new networks is not high because bankers will be reluctant to lend money if a good, open access network with spare capacity is already in place

Open Access Increases the \$ Value of Network

For a network with revenue \$1 billion, costing \$ 2.5 billion		
	Probability of another roll out	NPV \$ of Open Access Network
Proprietary network	90 percent	5.4 billion
Semi-proprietary network	50 percent	6.8 billion
Open Access Network	20 percent	7.8 billion

- there are strong incentives for existing network owners to become part of an open access network (Metcalfe's Law, "value of a network = square of number of users")

Tools to Create Open Access

Consultants recommend mandatory ROAMING and SHARED FACILITIES, for mobile services:

- every tower accept calls from all companies
- site owners collect a fee for the service they provide
- competition for the best sites and widest service
- will speed the introduction of service to new areas
- there will be no reason to build new networks
- networks will no longer be a barrier to competition

will create an incentive to rationalise networks with no need for other regulation

Addressing Revenue Needs

Need a plan to address government revenue needs:

- focus on revenue not on ownership, take a declining share of a rapidly growing market
- innovative ways to boost fixed line connections: e.g. ZERO charge for new fixed connections (+3months rent in advance): increase connections, reduce fixed line unit costs and reduce interconnect payments
- negotiated interconnection agreements could reduce the cost to the government (e.g. Camintel cap)
- standard levies on all gateways will expand revenue as use expands

What is the Market for Phones?

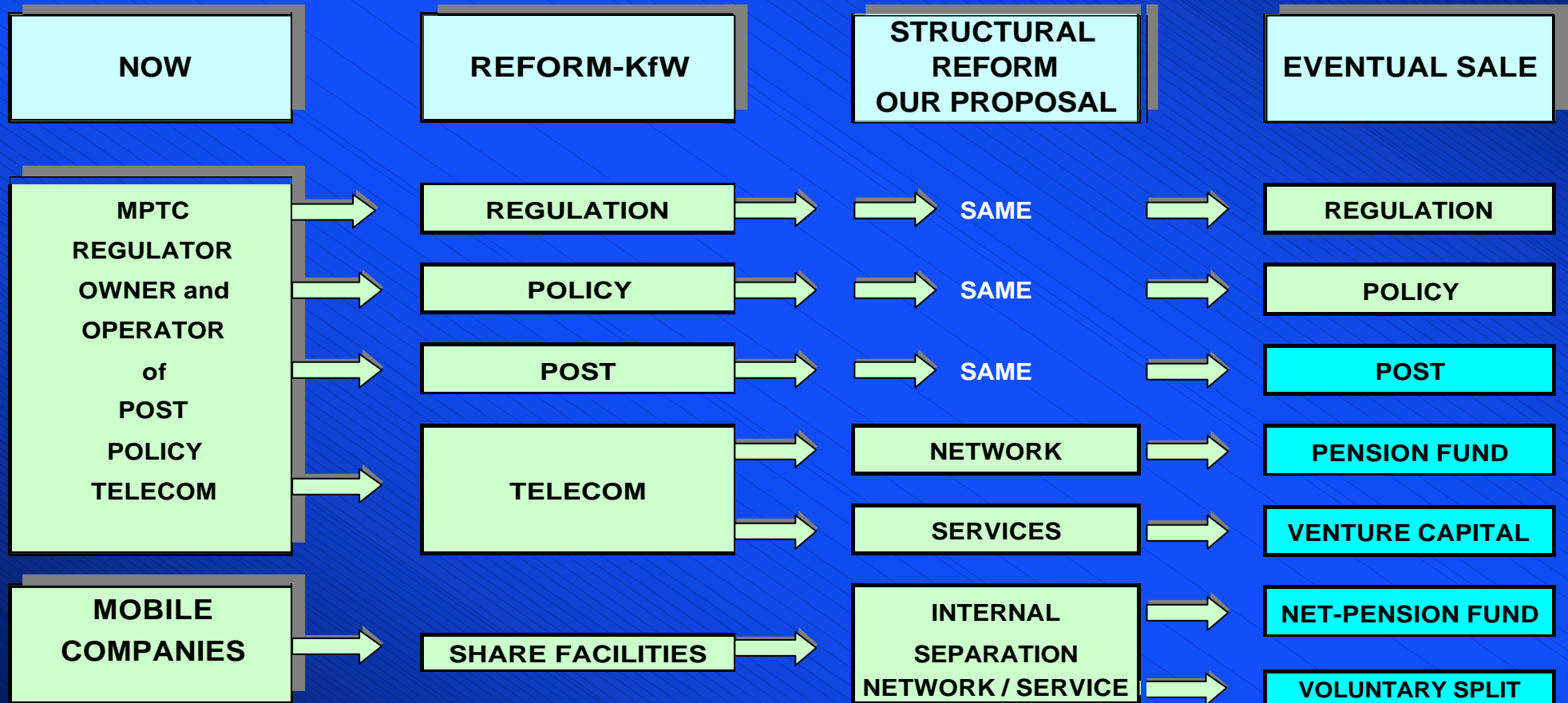
Organisation	Masterplan (bottom up and top down)	Weidleplan Eastern Loop (bottom up)	MPTC from Weidleplan Low estimate	Teleplan billings /customer lowest	Actual
Year	2003	2005	2005	2001	2001
Fixed	150,000	77,549	126,114		28,061
Mobile	25,000				234,000
Other	5,000				
Total	180,000	77,549	126,114	375,000	262,061

Pathway Forward

Telecommunications reform good for Cambodia:

- **announce**
 - policy statement and
 - a postal and telecommunications law
- **separate:**
 - policy
 - regulation
 - ownership / operations (also networks / services MPTC)
 - postal (see earlier presentation)
- **corporatise (we suggest network + service split)**
- **privatise (no cross ownership, networks/services)**

Reform Pathway



Cambodia's Telecommunications

Cambodia is already at the leading edge

- big advances in mobile services but fixed is stalled,
- high proportion of mobiles, but must ensure continuing competition
 - regulatory provisions should be the minimum necessary
 - fostering public and private Open Access Networks avoids the need for detailed regulation
 - fostering separate competitive and network activities will increase transparency and reduce monopoly power
- reform in harmony with goals: of Cost Effective communications and Enhanced Government Revenue