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THE MOROCCAN TELECOM EXPERIENCE

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OUTLINE

- Regulatory Framework
- Introducing Mobile Competition: GSM2
- Introducing Competition in Satellite Services: VSAT and GMPCS
- Introducing Competition in Fixed Services: Future Licences



- **Corporatization of incumbent operator**
- **Separation of policy making function from regulatory function: creation of independant regulator: ANRT**
- **Licencing regime for new operators**
- **Obligation to publish Reference Interconnection Offer for operators with SMP**
- **Regulated Universal Service tariffs**



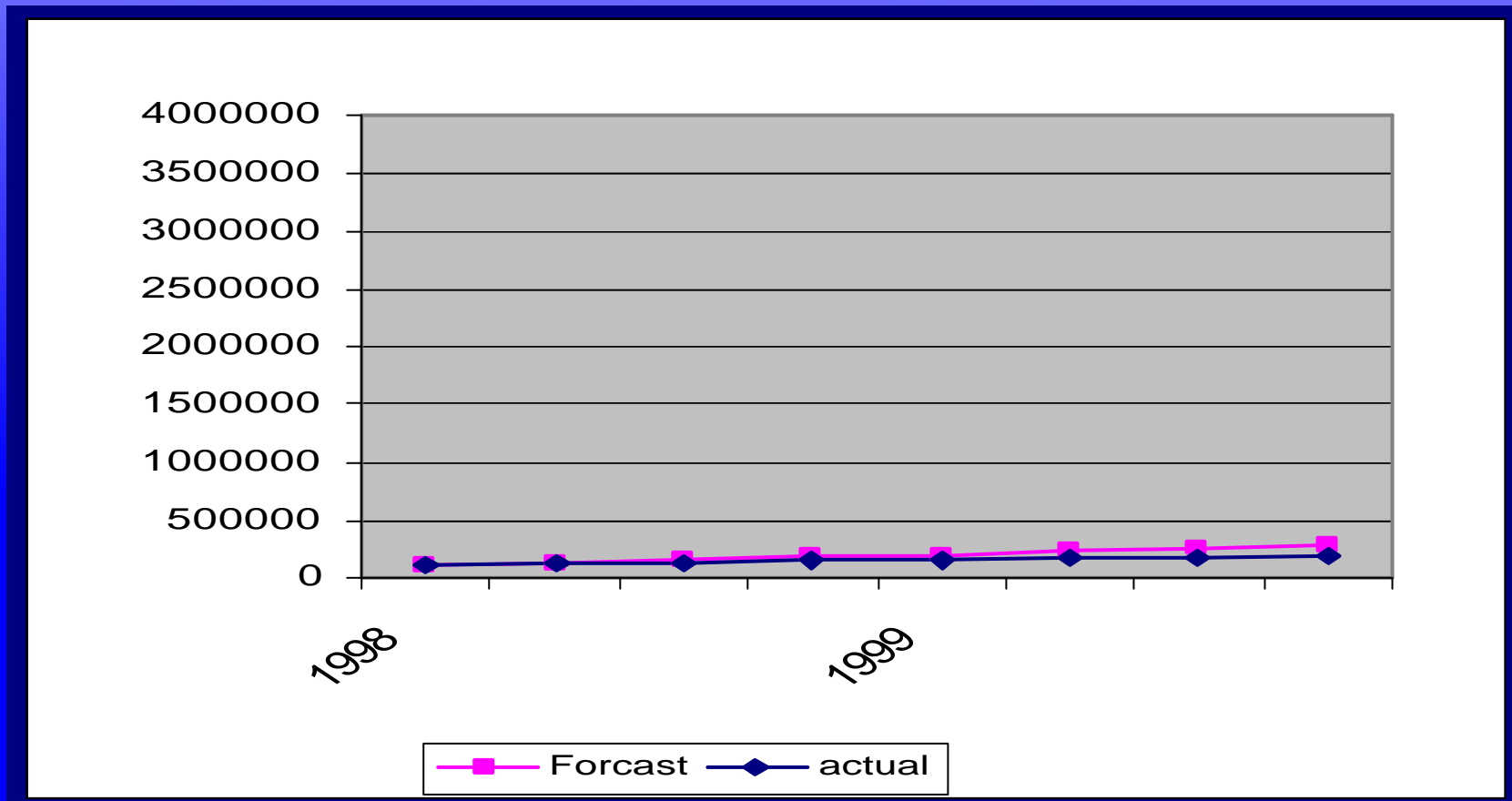
Regulatory Framework: the National Telecom Regulatory Agency : ANRT

- **Status**: public office with financial autonomy, under direct supervision of the Prime Minister.
- **Main Missions**:
 - ▶ Proposes/adapts laws, decrees , license terms,
 - ▶ Controls implementation of license terms
 - ▶ Manages licensing process
 - ▶ Management of Frequency spectrum
 - ▶ Management of Numbering scheme
 - ▶ Encryption's control and regulation
 - ▶ Interconnection dispute resolution...
- **Revenues**
 - Proceeds from frequency fees
 - Percentage of proceeds of licences
 - Operator's contribution to research, training and normalization



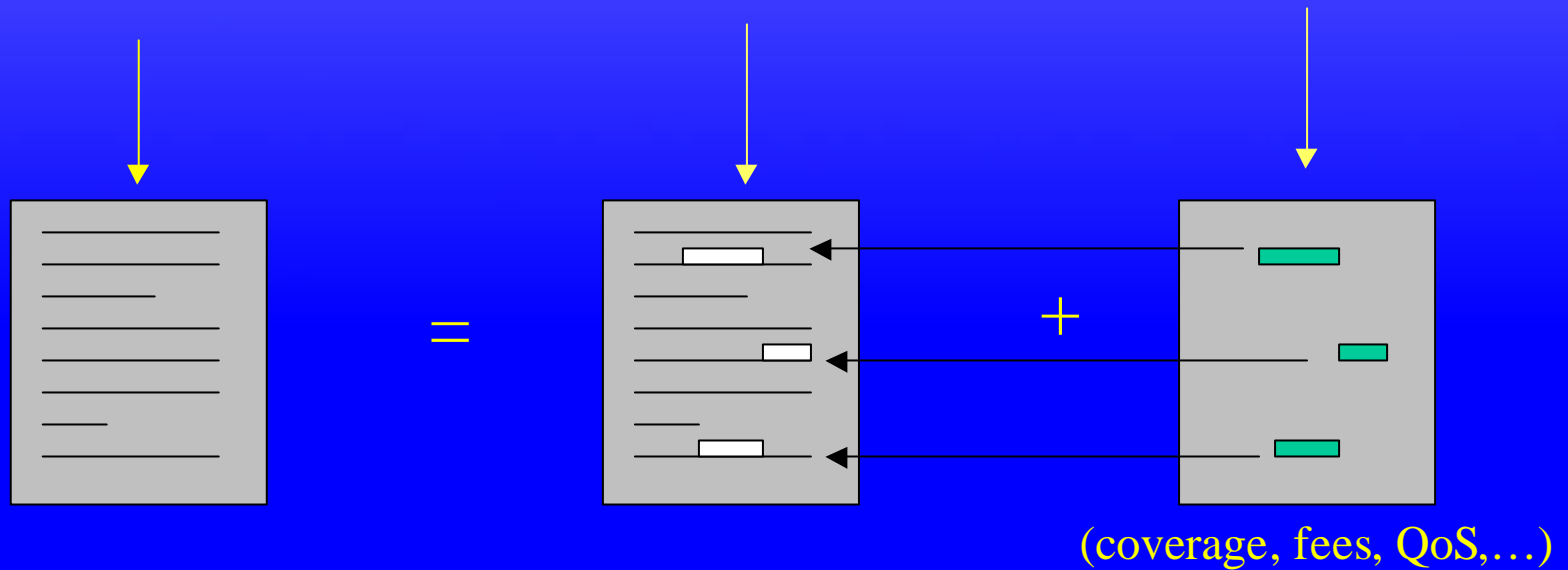
Introducing Mobile competition

Mobile subscribers Incumbent's forecast



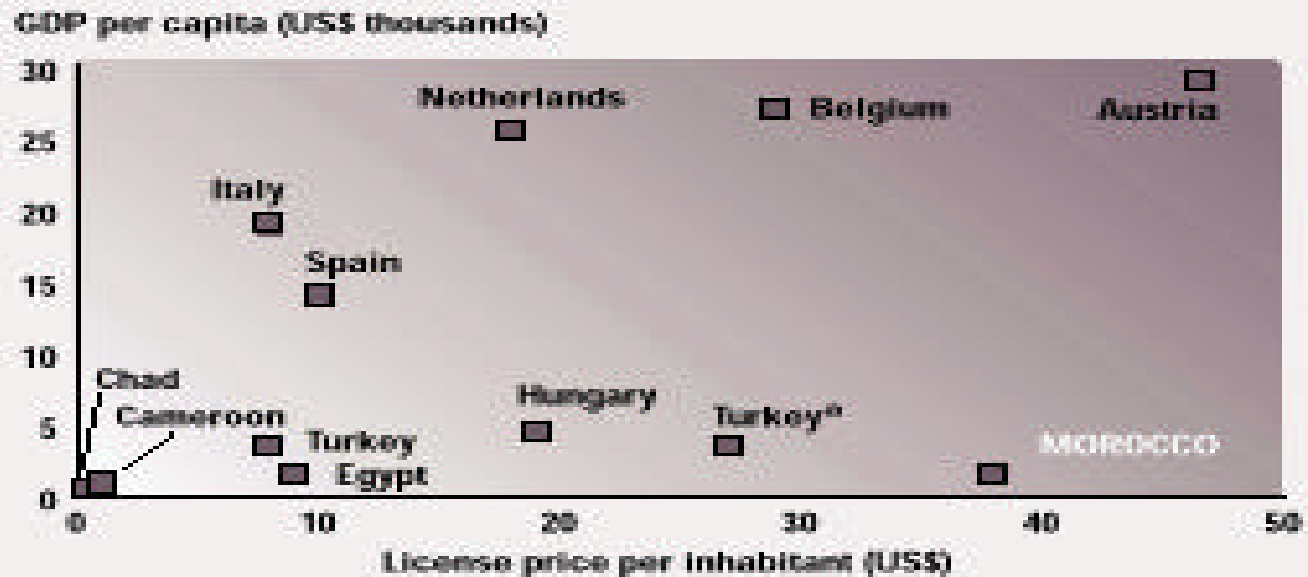
Predictability of license terms

Terms of license = tender documents + bids



- \$1.1 Billion license fee (\$40 per capita)
- Comprehensive coverage and tariff reduction commitments

FIGURE 1 PRICES PAID FOR SECOND GSM LICENSES IN RECENT TRANSACTIONS, 1994-99

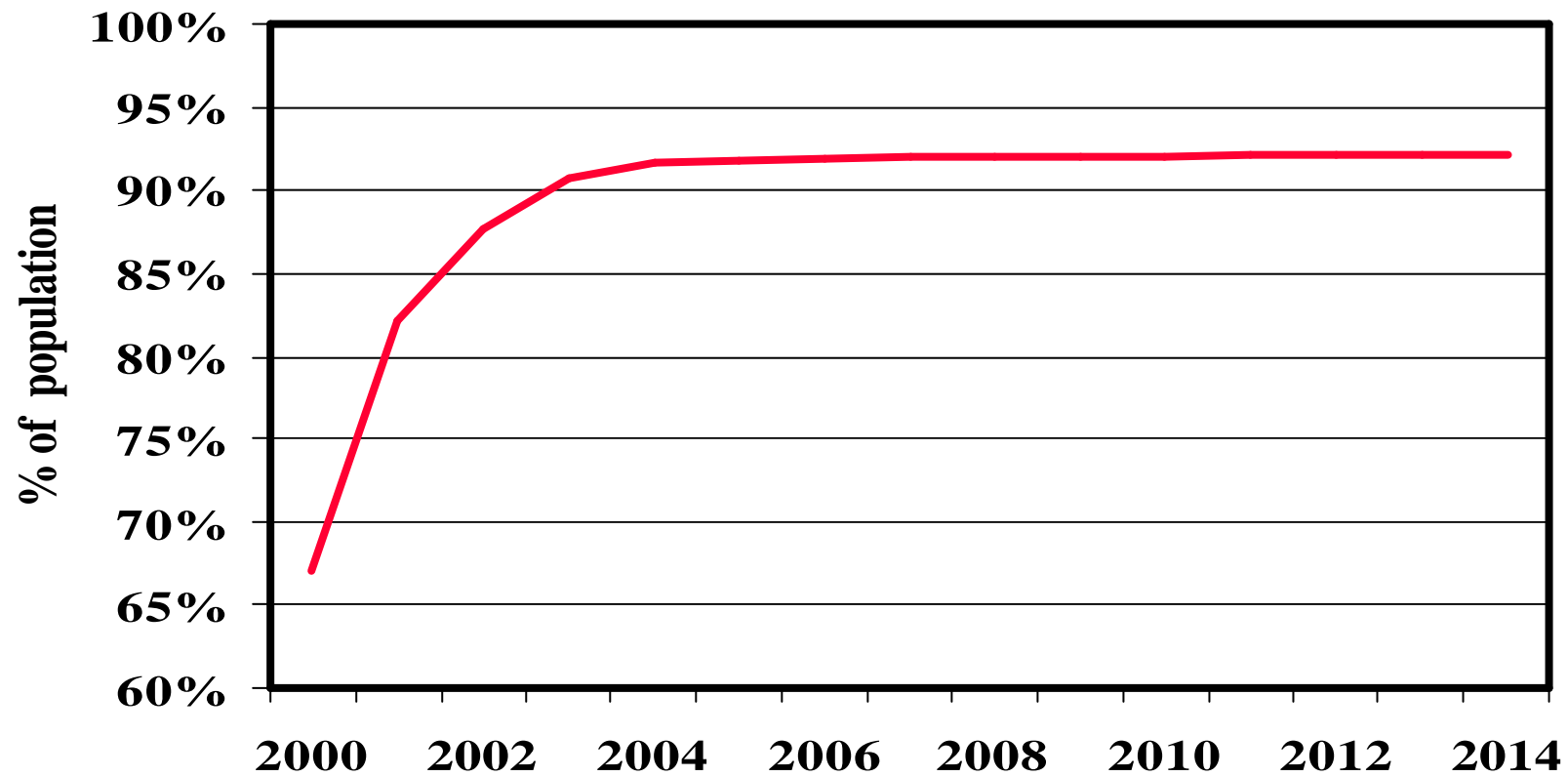


^a Net present value.
Source: ANRT and World Bank data.



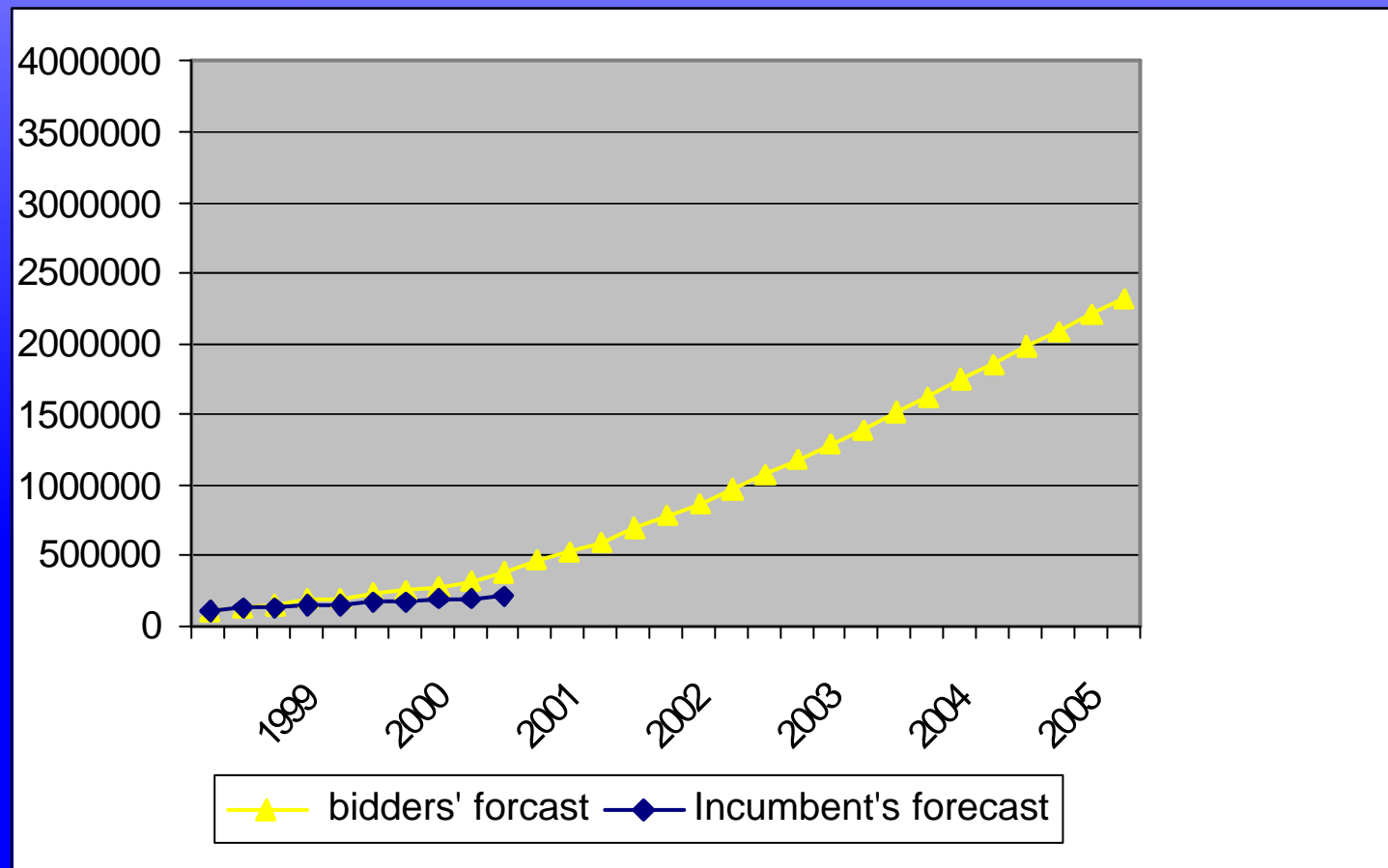
GSM2 Results

GSM2: Coverage (average of the bids)





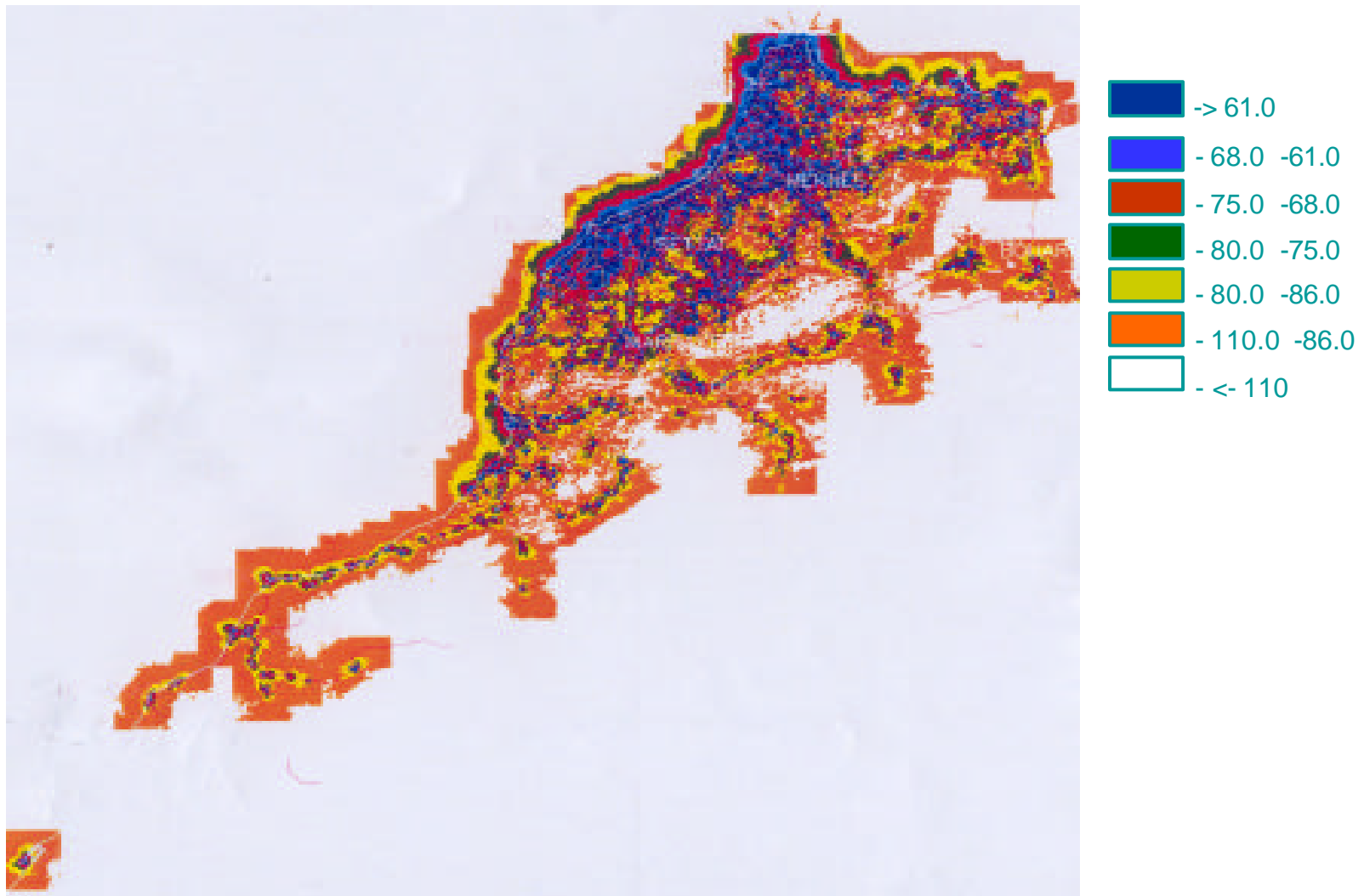
GSM2 process (3)





Liberalization results

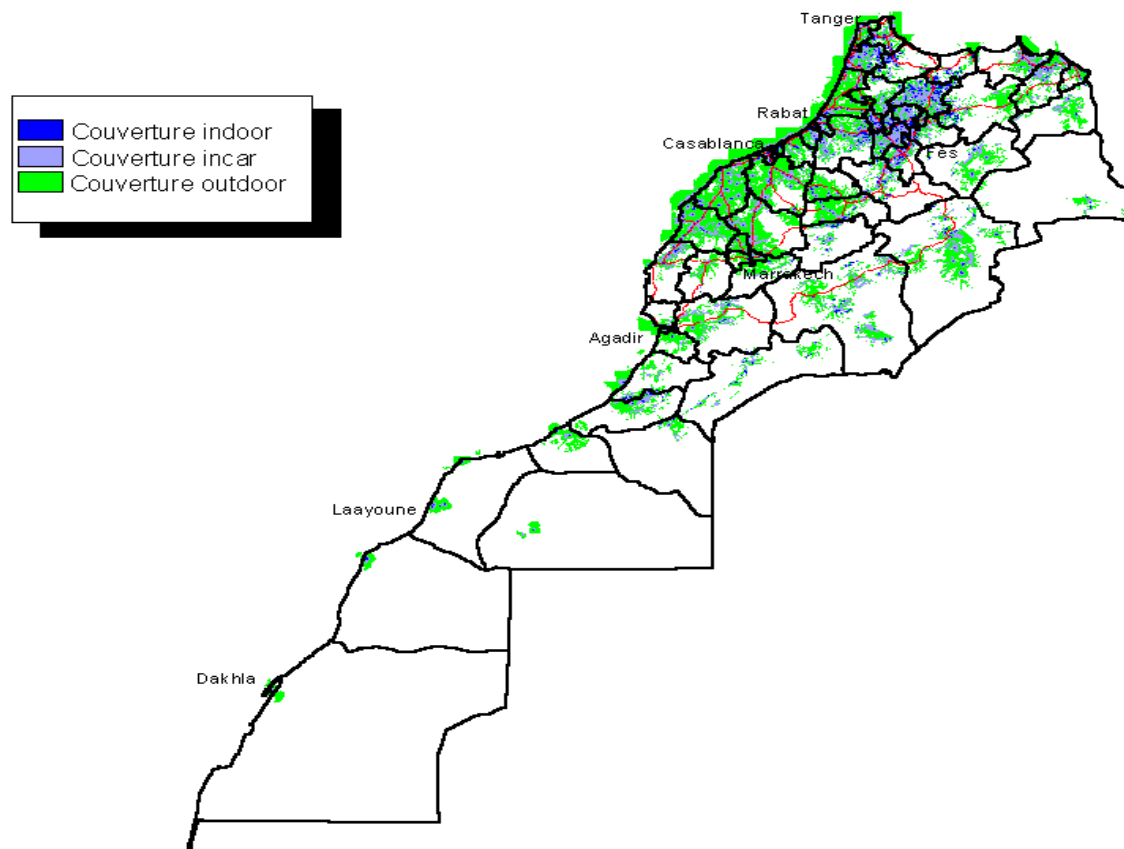
Incumbent Coverage





Liberalization results

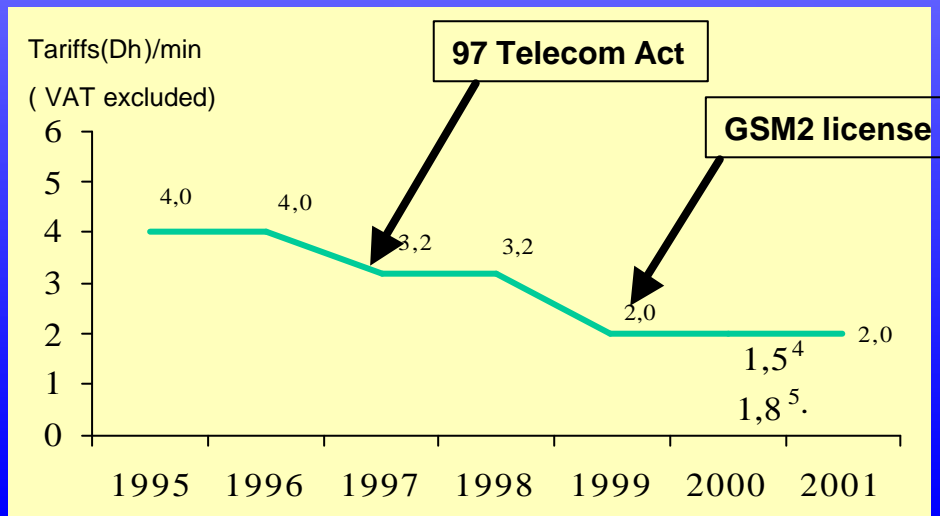
New Entrant Coverage (after 18 months of service)



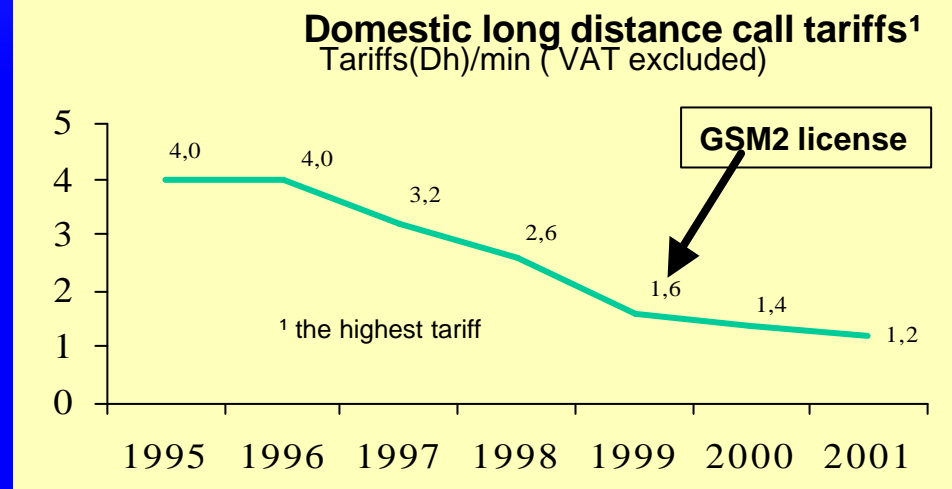


Mobile Liberalization results

Evolution of Mobile Communication tariffs (Incumbent post paid tariffs)

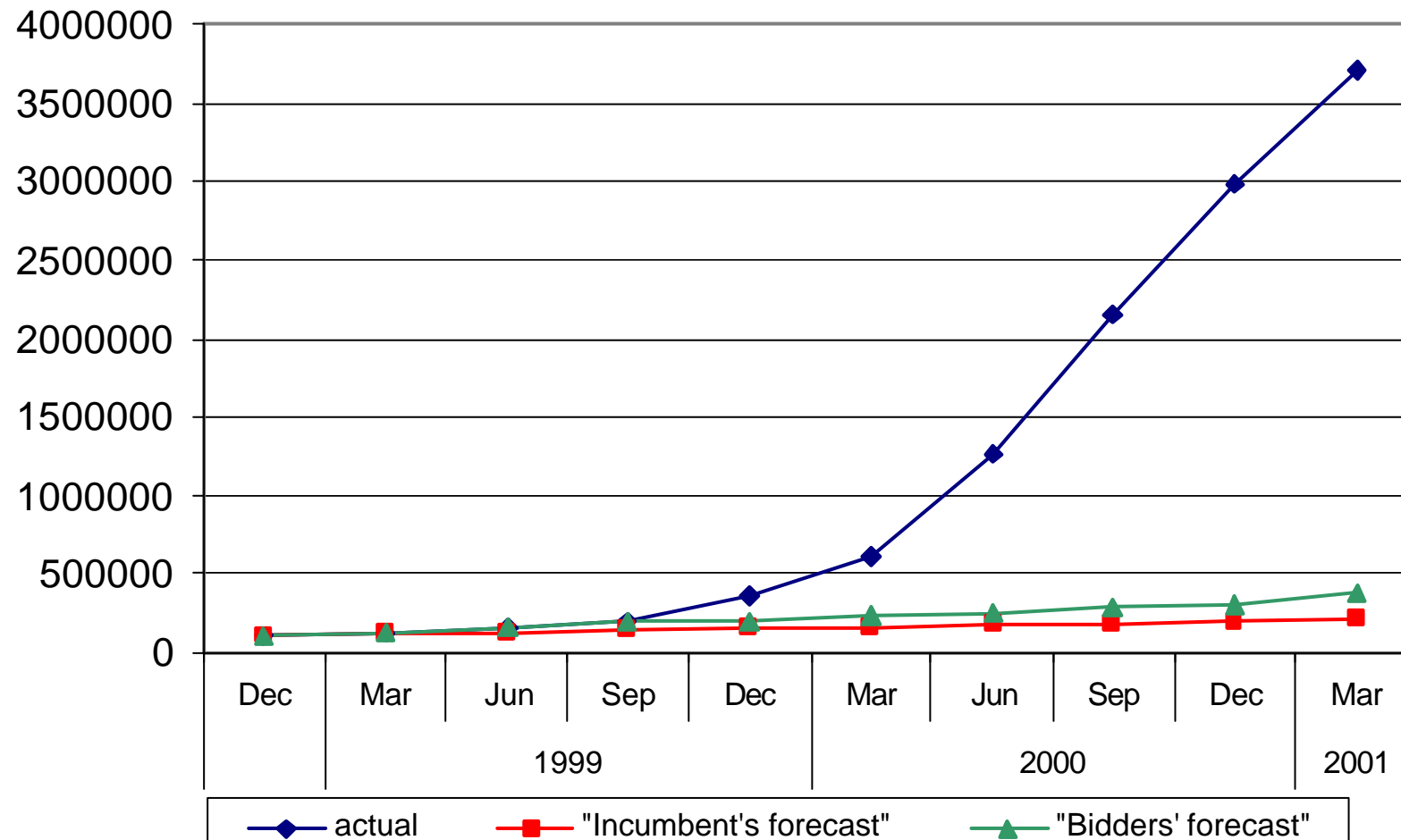


fixed long distance tariffs have been readjusted





GSM Subscribers





- **IMF** : *The success of the granting of the second GSM license owes much to the **transparent and open bidding conditions** in which it took place*
- **WSJ** : *Not only was the sheer size of the sum noteworthy but the **total transparency with which the operation was conducted** won the plaudits even of the losers, six major Western companies*
- **Pyramid** : *Many of the bidders have indicated that the **clear regulatory structure in Morocco** and the country's political stability **reduces investment risks and helps them increase the value of their bids***



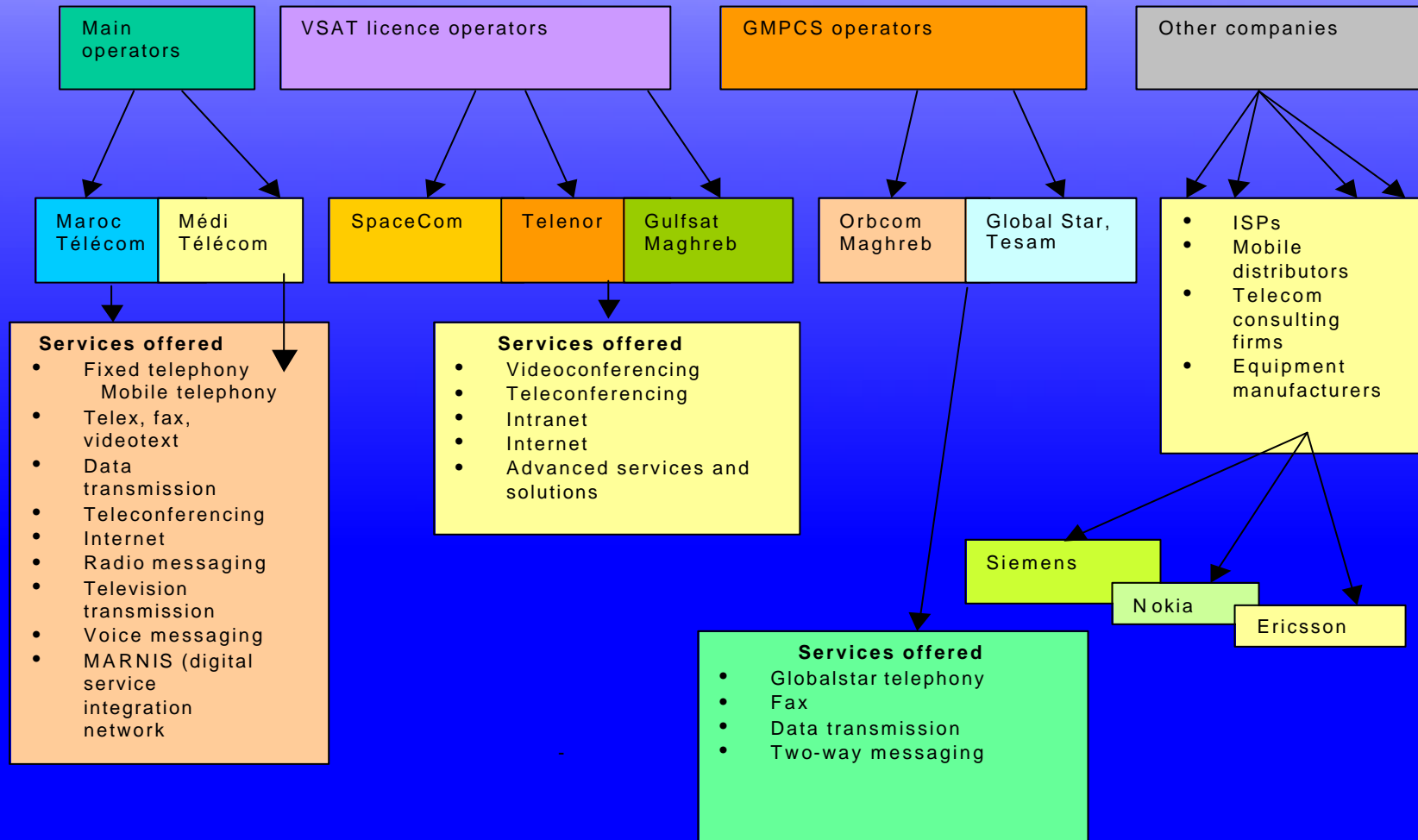
Success Factors

Regulators ranking

Country	Autonomy	Credibility	Transparency	Efficiency	Overall
Cameroon	1.00	1.50	1.00	1.50	1.15
Cote d'Ivoire	2.00	2.00	1.50	2.00	1.90
Egypt	2.00	2.15	2.00	2.21	2.05
Israel	2.50	3.75	2.50	2.81	2.78
Morocco	2.75	2.75	2.80	2.75	2.76
Saudi Arabia	1.00	1.50	1.00	1.50	1.15
South Africa	2.50	2.00	3.00	2.50	2.50
Turkey	2.15	2.25	1.75	2.00	2.08
Zimbabwe	1.00	1.00	1.00	1.00	1.00



Moroccan Market Overview





Morocco Shows An Important Mobile Market Development, Yet A Somewhat Lagging Fixed Line Market

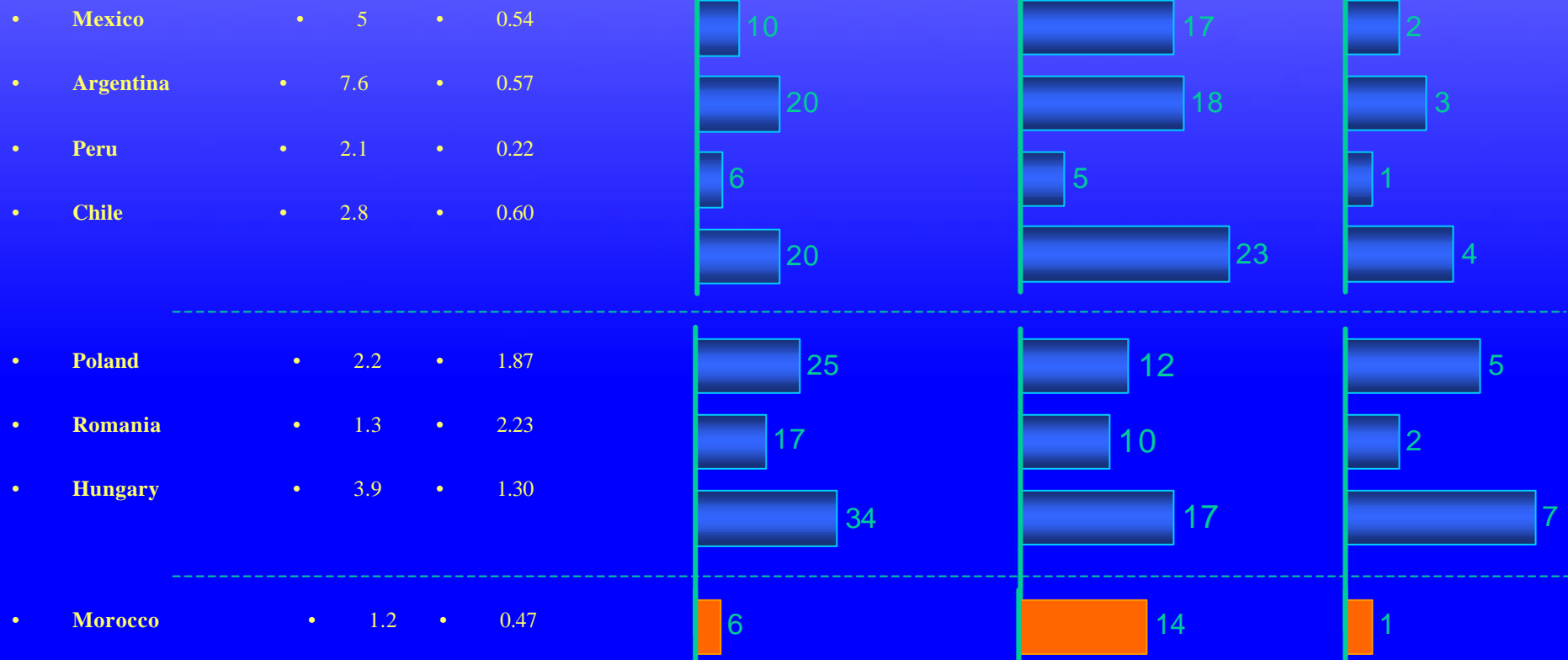
End 2000

• Macro-economic position

- GDP/capita '000 USD
- Telecom Employment Per 1000 inhab.

• Telecom sector development

- Fixed Line per 100 inhab.
- Mobile penetration Percent
- Internet penetration Percent





Introducing Competition in Fixed Services

Resulting Industry Structure: Number Of Competitors Per Segment

- Main scope of licenses
- Secondary target market for national license

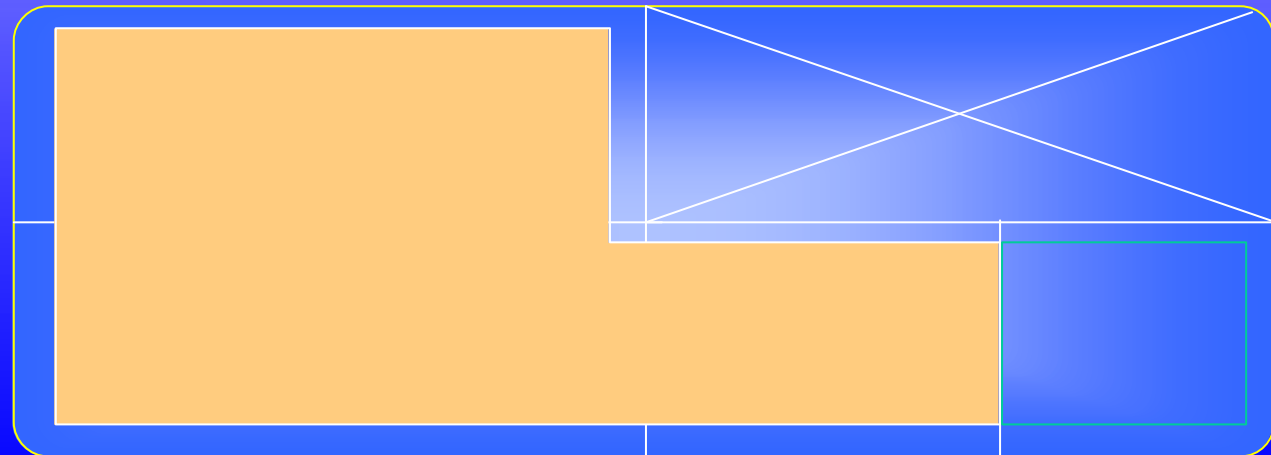
- **Business customers**
- **Corporates/SMEs**

- **Residential customers**
- **A/B/C**
- **D/E**

National license

Data

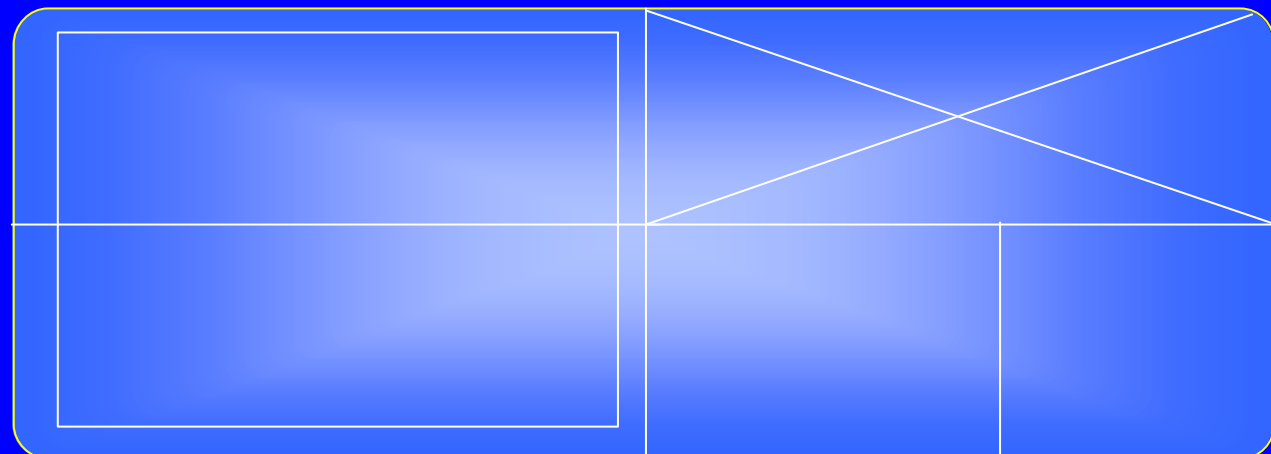
Voice



Backbone data license

Data

Voice





African Telecommunication Regulators' Network

Structure

- Annual Conference.
- Rotating chair for one year.
- Coordination committee of three members (outgoing, current and incoming chairmen)
- Permanent secretariat assured by the National Telecommunication Regulatory Agency (ANRT) of Morocco.

Membership

- African regulators.
- International and regional organizations participate as observers.

Objectives

- To promote modernization of the telecommunication sector and regulatory reform as a prerequisite for the development of the African Information Society.
- To intensify cooperation among African countries in telecommunication regulation matters.
- To harmonize national regulatory practices, in order to achieve economic integration.
- To coordinate national positions in order to achieve greater efficiency in international forums.
- To improve exchange of information and experience among regulators as well as between regulators and other public and private entities relevant to the ICT sector in Africa.