Telecommunication Industry Report

Indonesia

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- Before 1999, domestic services were monopolized by TELKOM, while international services were monopolized by Indosat. After 1999, the government gradually abolished exclusive rights for both operators, and has been trying to promote industry transparency and fair competition. However, political interests still dominates the industry structure. The duopoly structure in fixed communications has not created much competition to boost teledensity
- Although operators are given full service and network provider rights, there seemed to be a priority shift in recent telecommunication development from fixed to mobile:
  - Fixed line subscribers is forecasted to grow only by 31% from 14 million in 2006 to 18.4 million in 2010, while mobile subscribers growth is expected to double to 136 million in 2010 from 69.5 million in 2006
  - Capex of TELKOM's **mobile** unit (Telkomsel) for 2006 was 87.2% of the total expense, infrastructure for **Fixed Wireless Access** (TELKOMFlexi) was 3.5%, and infrastructure for data backbone and **fixed line** backbone was 3.7%

- Access to fixed communications is inadequate and unevenly distributed. To improve this, the government charges operators and service providers 0.75% of their gross revenue through the USO programme. The funds are used to build emergency facilities and to provide basic telephony services, including fax and internet in remote areas. Government plans to tender USO projects in 2007
- The fading interests in fixed line deployment due to high investments, has led operators to spin off Fixed Wireless Access services based on CDMA technology which offer relatively limited coverage at lower price. Starting from 2003, in less than 5 years, the growth of CDMA network has reached almost 10% level, while the rest is still enjoyed by GSM which was first introduced in the 1990s
- In February 2006, 3G licensed tendered by the government was won by TELKOM, Indosat, Excelcomindo, Hutchison, and Lippo Telekom. The demand for high-speed data and value added services has pushed the growth of the country’s 3G subscribers. With Telkomsel gaining 2.8 million subscribers at end of June 2007, it is forecasted that the total will reach 3.7 million at the end of this year

Andaman Sea
Gulf of Thailand
VIETNAM
PHILIPPINES
Philippine Sea
THAILAND
South China Sea
NORTH PACIFIC OCEAN
Strait of Malacca
BRUNEI
MALAYSIA
MALAYSIA
Pulau Ligitan
Pulau Sipadan
Celebes Sea
Medan
Borneo
Sungaipakning
SINGAPORE
Pekanbaru
Pontianak
Equator
PAPUA NEW GUINEA
Padang
Kalimantan
Biak
Sulawesi (Celebes)
Sumatra
MOLUCCAS
Banjarmasin
Palembang
IRIAN JAYA
Puncak Jaya
Ambon
Java Sea
Makassar
New Guinea
Ciwandan
JAKARTA
Semarang
Madura
Banda Sea
Bandung
Java
Surabaya
INDIAN OCEAN
Denpasar
Kupang
EAST TIMOR
Arafura Sea
Timor Sea
0 200 400 km
0 200 400 mi
AUSTRALIA

- Republic of Indonesia - Southeastern Asia
- Archipelago between the Indian Ocean and Pacific Ocean. 17,508 islands, 30 Provinces

- Total: 1,919,440 sq km
- Land: 1,826,440 sq km
- Water: 93,000 sq km

Country, Economic & Development

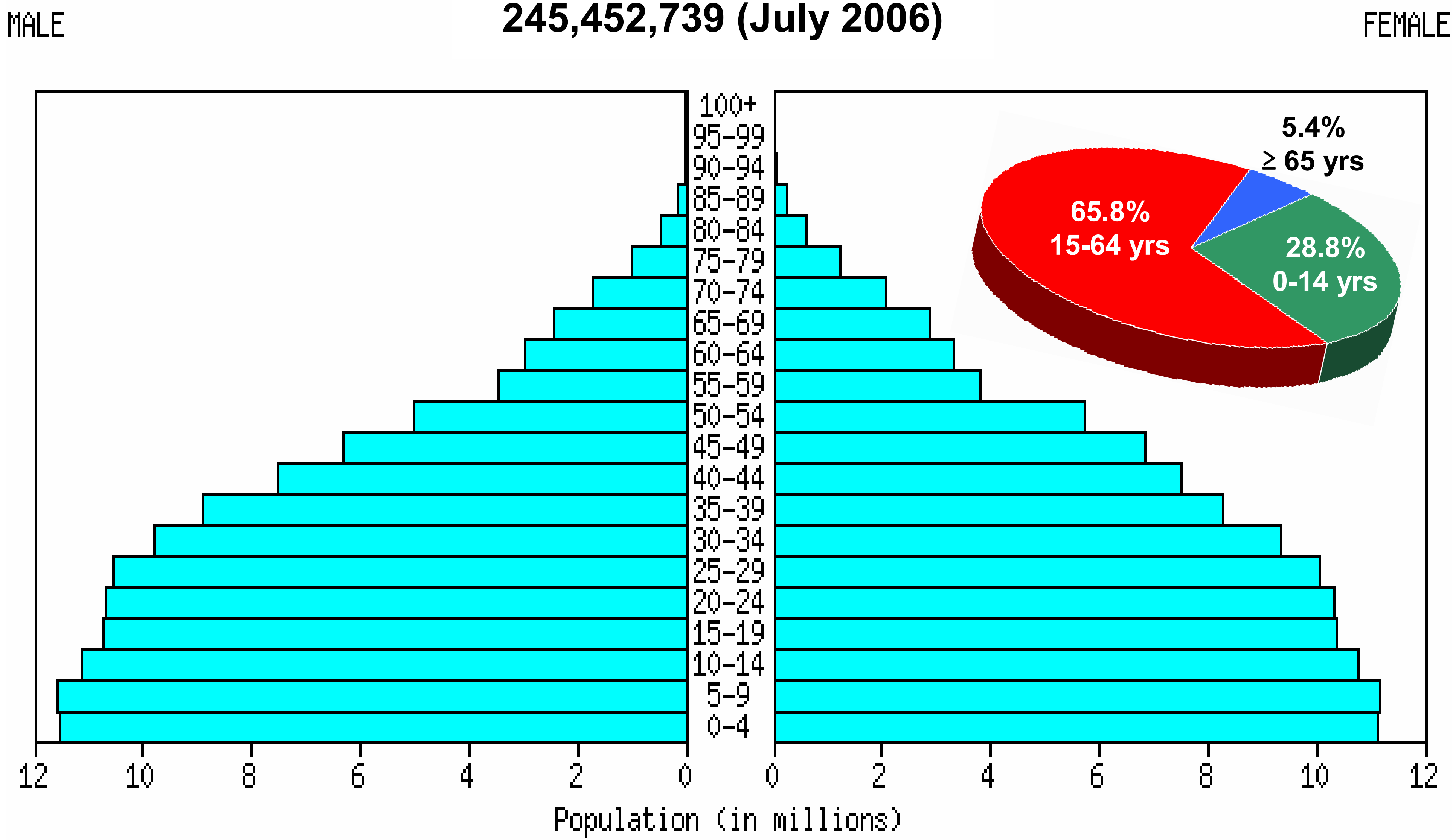
Summary | Fact Sheet | Overview | The Players | Analysis

- Population below poverty line: 17.8%
- Unemployment rate: 12.5%
- Literacy rate: 87.9%
- IDR 9,207.18 = US$ 1
- GDP per capita: $3,800

Age Distribution

Summary | Fact Sheet | Overview | The Players | Analysis

245,452,739 (July 2006)



Source: U.S. Census Bureau, International Data Base.

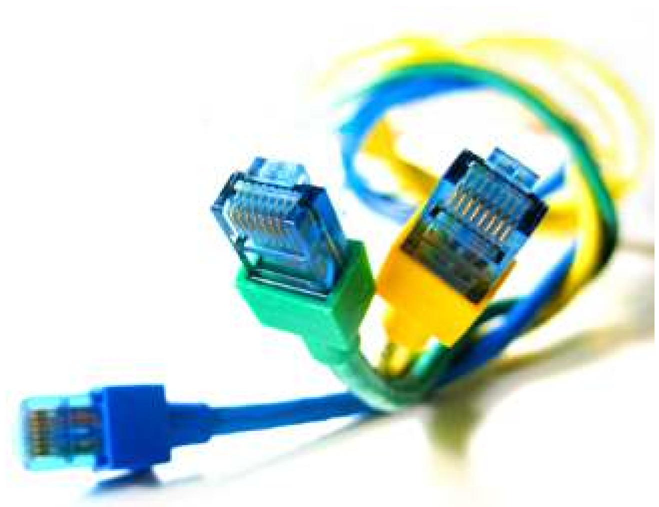
- Fixed line in use: 12,772 million
- Teledensity: 5.73

- Mobile cellular in use: 46.91 million
- Teledensity: 21.06

- Mobile signal coverage: 90% of population

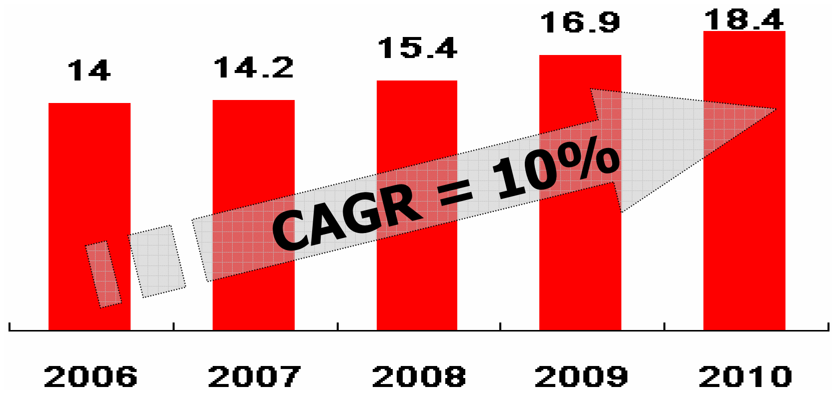
- Internet subscribers: 1.5 million
- Internet users: 16 million
- Teledensity: 7.18

- Broadband subscribers: 108,000
- Teledensity: 0.05

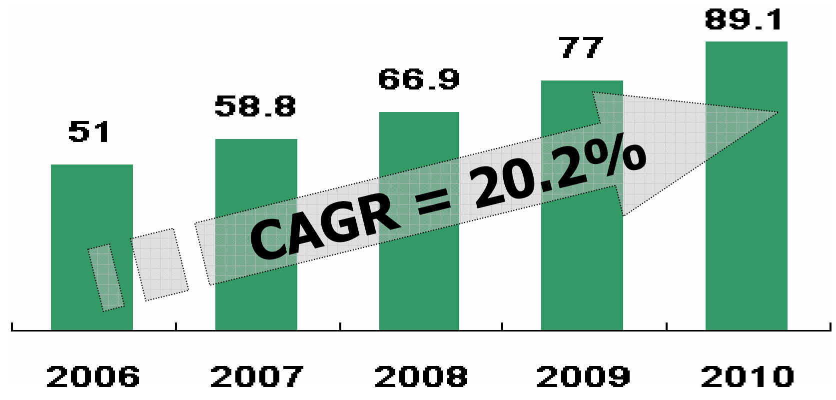


ICT Growth & Forecast

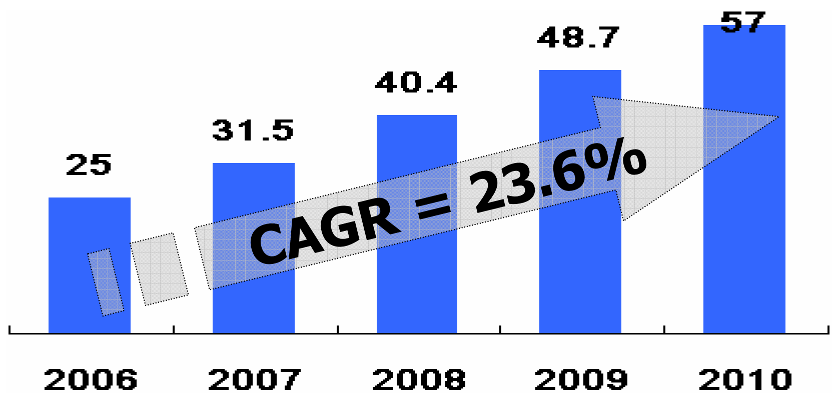
Fixed Phone (million)



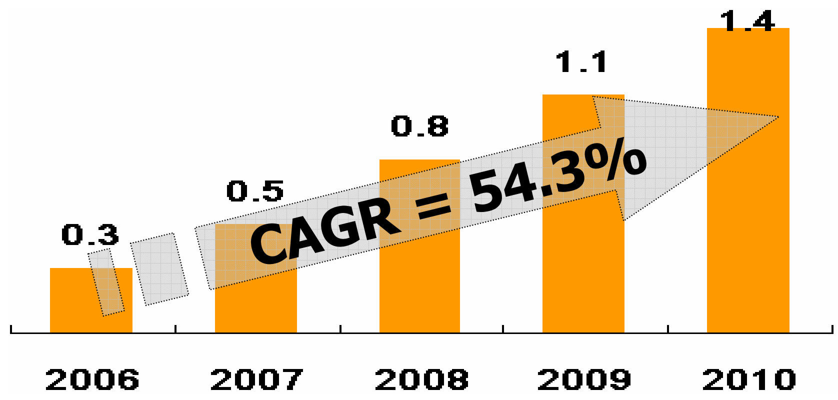
Mobile Phone (million)



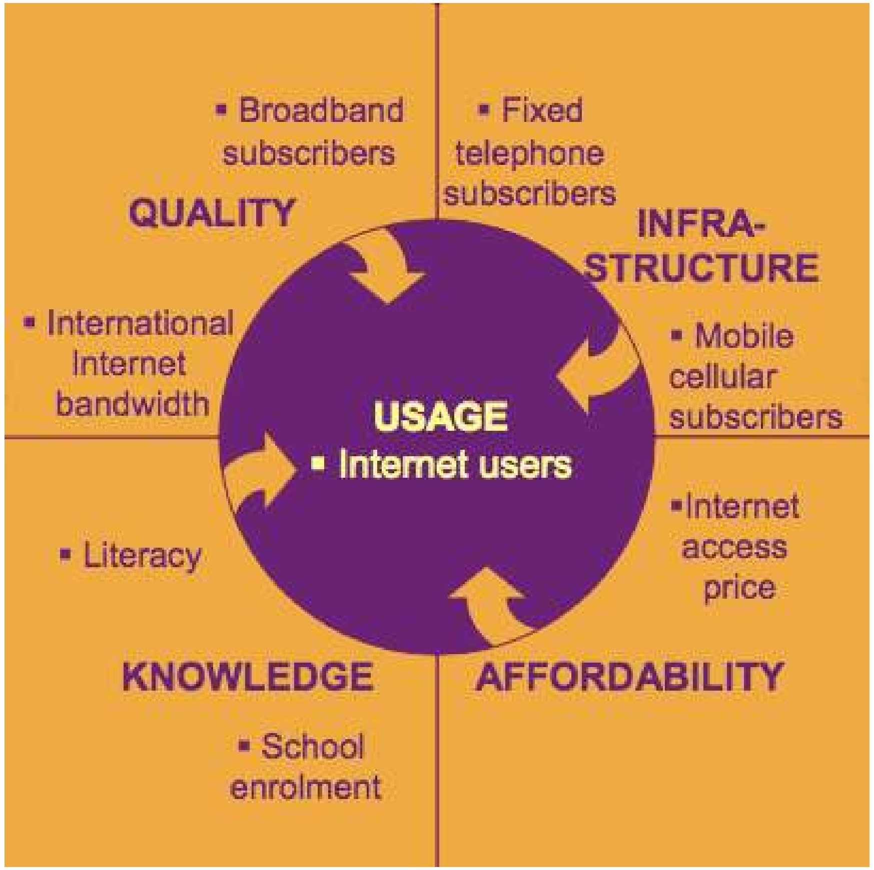
Internet Users (million)



Broadband Users (million)



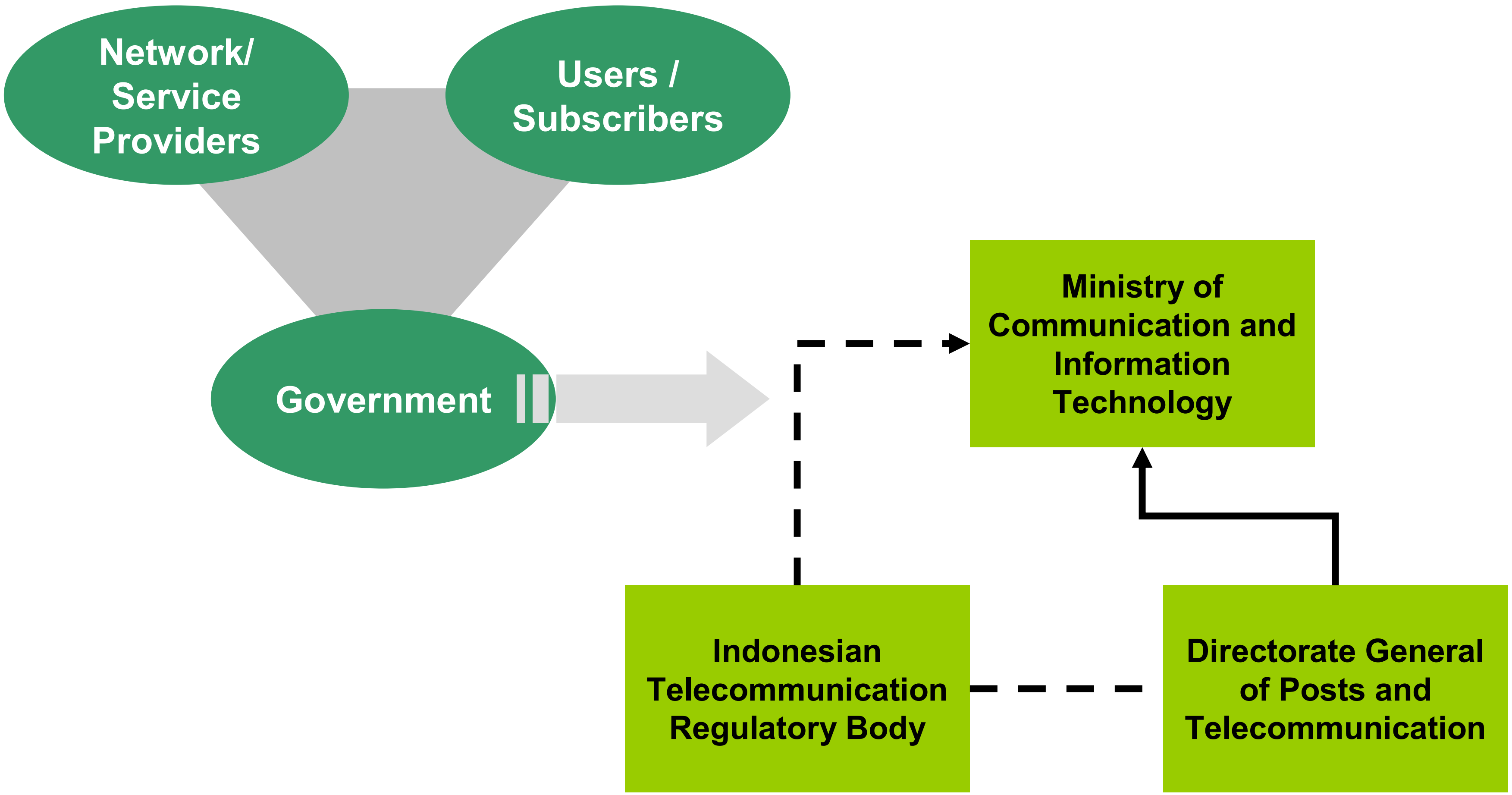
Country	DAI 2002
Singapore	0.75
Malaysia	0.57
Brunei Darussalam	0.55
Thailand	0.48
Indonesia	0.34
Vietnam	0.31



- Before Telecommunication Act of 1999:
  - Domestic services monopolized by PT. Telkom
  - International services monopolized by PT. Indosat
  - Telecommunication reform efforts / catalysts:
    - Partial privatization of two incumbents to support financing the demand for telecom infrastructure
    - Asian economic crisis in 1997 led to socio-political change, which created opportunities for economic development and policy reform
    - Indonesia's commitment to the 1998 World Trade Organization Basic Telecommunication Agreement to provide fair competition

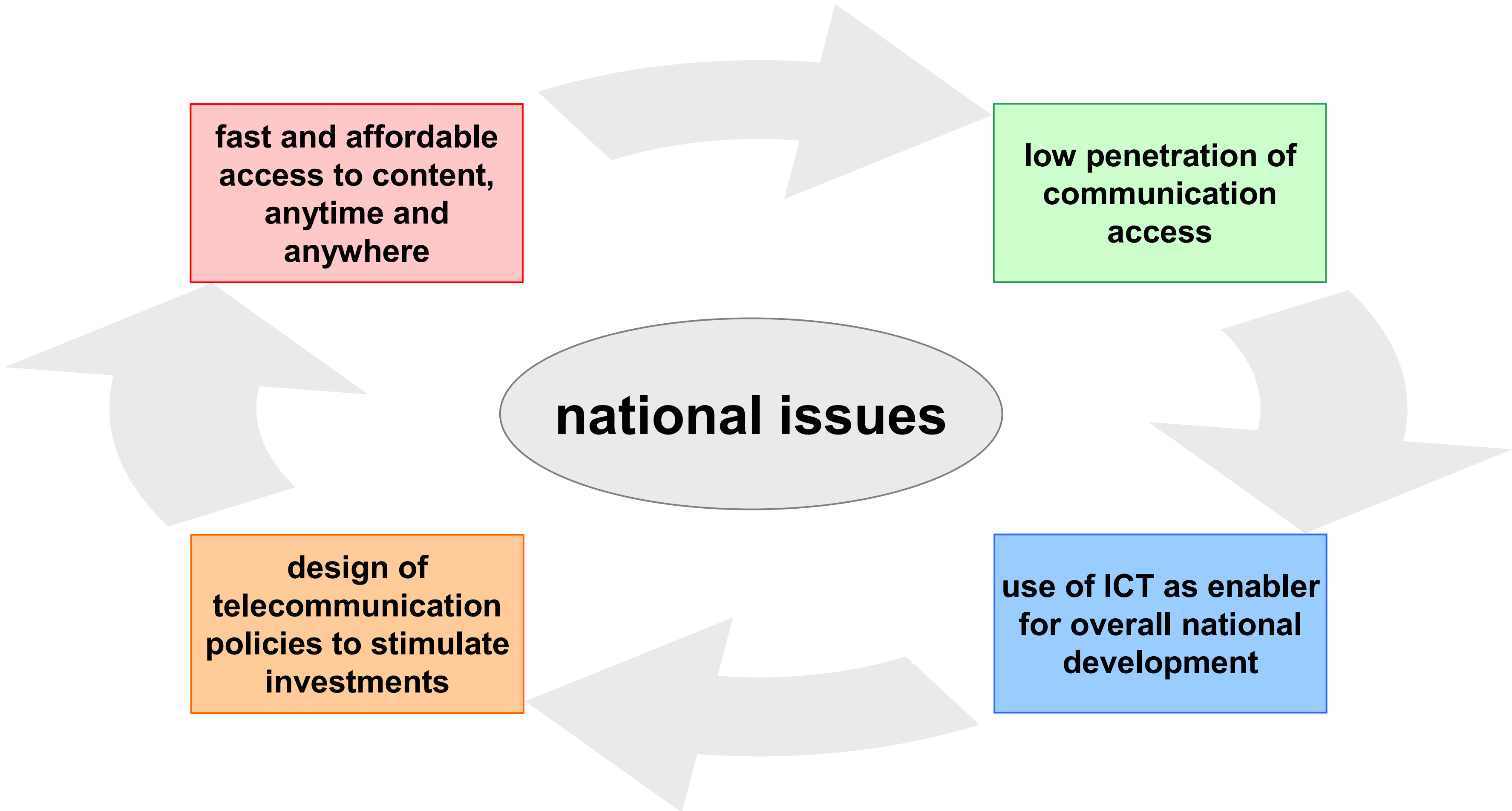
- After Telecommunication Act of 1999:
  - In August 2001, government abolished the exclusive rights of TELKOM in providing fixed line services, and Indosat in providing international services
  - Improved overall interconnection between incumbents and new operators
  - Commitment to eliminate all of forms of monopoly by 2010 led to more than 100 registered operators / service providers. However, political interest still dominate the industry structure
  - Commitment to increase transparency of regulatory led to establishment of Indonesian Telecommunication Regulatory Body - BRTI in July 2003. However, due to lack of real power and chaired by a member of DGPT, the body deemed as ineffective

- It is believed that the growth of subscribers in Indonesia is partly due to “calling party pays” system, the introduction of SMS, and the launch of prepaid service. Prepaid subscribers dominates the market with about 96% shares
- In August 2005, the government announced the usage of 1900 MHz spectrum for 3G, and 800 MHz spectrum for CDMA
- 3G license tendered by the government in February 2006 is won by TELKOM, Indosat, Excelcomindo, Hutchison, and Lippo Telekom
- 3G services being offered by operators include video call, video mail, mobile TV, high speed internet access, streaming for music, games, news, sports, and movie
- Tariffs are tend to be complicated including dimension such as product type, service type, time band, destination call operator, call zone, and promotion / bundling



Network/ Service Providers
Users / Subscribers
Government
Ministry of Communication and Information Technology
Indonesian Telecommunication Regulatory Body
Directorate General of Posts and Telecommunication

National Issues



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  Grha Citra Caraka Building 5th fl.
  Jl. Jend. Gatot Subroto No. 52, Jakarta 12710.
  +62 (21) 521 5109 www.telkom.co.id

- **PT. Indosat, Tbk.**
  Front Tower 2nd fl.
  Jl. Medan Merdeka Barat No. 21, Jakarta 10110.
  +62 (21) 3869166 www.indosat.com

- **PT. Excelcomindo Pratama, Tbk.**
  Grha XL, Kawasan Mega Kuningan
  Jl. Mega Kuningan Lot. E4-7 No. 1, Jakarta 12950.
  +62 (21) 5761881 www.xl.co.id

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  Menara Kebon Sirih 18th fl.
  Jl. Kebon Sirih Kav. 17-19, Jakarta 10340.
  +62 (21) 3920218 www.mobile-8.com

- **PT. Bakrie Telecom**
  Wisma Bakrie 3rd fl.
  Jl. H.R. Rasuna Said Kav. B1, Jakarta 12920.
  +65 (21) 91101112 www.bakrietelecom.com

History: TELKOM

- In 1974, Perumtel was established by the government to provide national and international telecommunication services
- In 1991, Perumtel was commercialized and altered in PT. Telekomunikasi Indonesia (TELKOM)
- In November 1995, TELKOM was listed in JSX, SSX, NYSE, LSE, and TSE
- In 1999, telecommunication industry reform began. As results, duopoly of TELKOM and Indosat was gradually eliminated to encourage fair competition
- Abolishments:
  - Exclusive rights of fixed line services in August 2001
  - Exclusive rights of local call in August 2002
  - Exclusive rights of domestic long distance call in August 2003

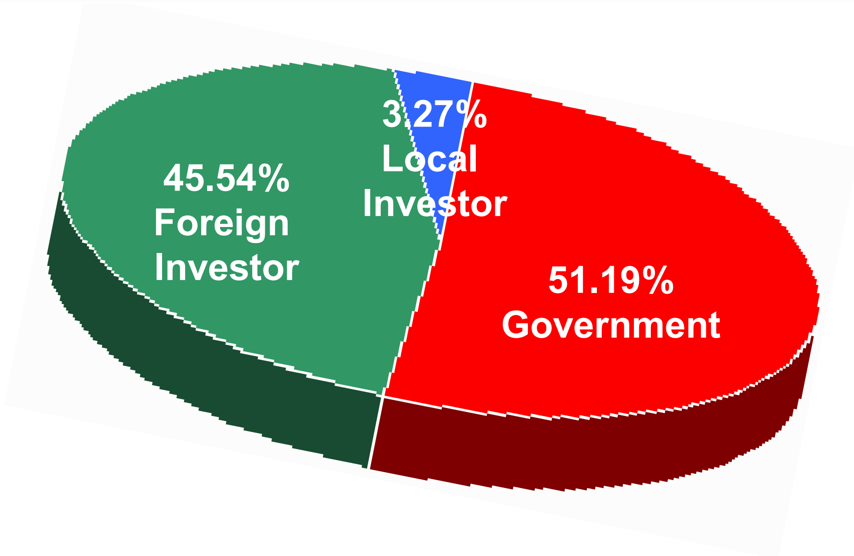
Highlights: TELKOM

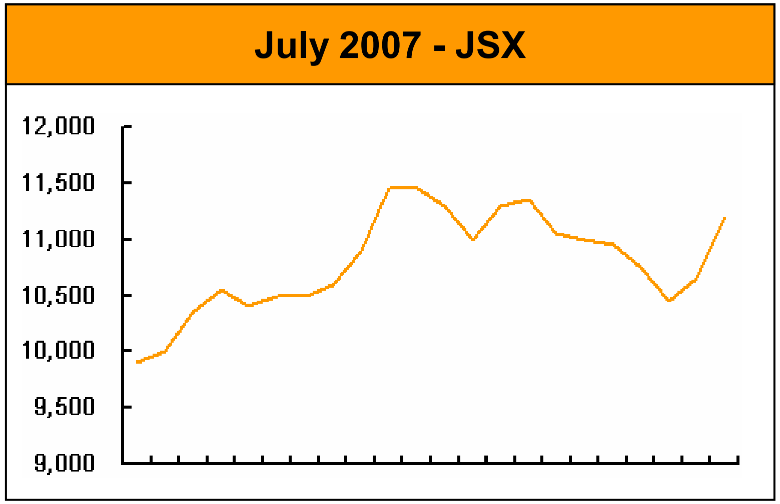
Summary | Fact Sheet | Overview | The Players | Analysis

- Owns 65% of Telkomsel's shares – the country's largest mobile operator based on subscriber and revenue
- Telkomsel, launched GPRS in October 2002, EDGE in Februari 2004, and 3G in September 2006. Currently, TELKOM is preparing the implementation of its Next Generation Network
- In December 2002, TELKOM launched its fixed wireless access service called "TELKOMFlexi" based on CDMA technology
- Despite of the government as the majority shareholder, TELKOM has been rewarded both local and international recognitions for good corporate governance

Shareholders: TELKOM

- 15% of JSX market capitalization
- Owns 65% of Telkomsel's shares, the rest 35% owned by Singapore Telecom Mobile Pte Ltd ("Singtel Mobile")
- Telkomsel contributes 40% of the total consolidated revenue of TELKOM
- TELKOM is also a major shareholders in other 8 companies providing products and services for fixed-phone, application, content, and data communication, finance, as well as property and construction

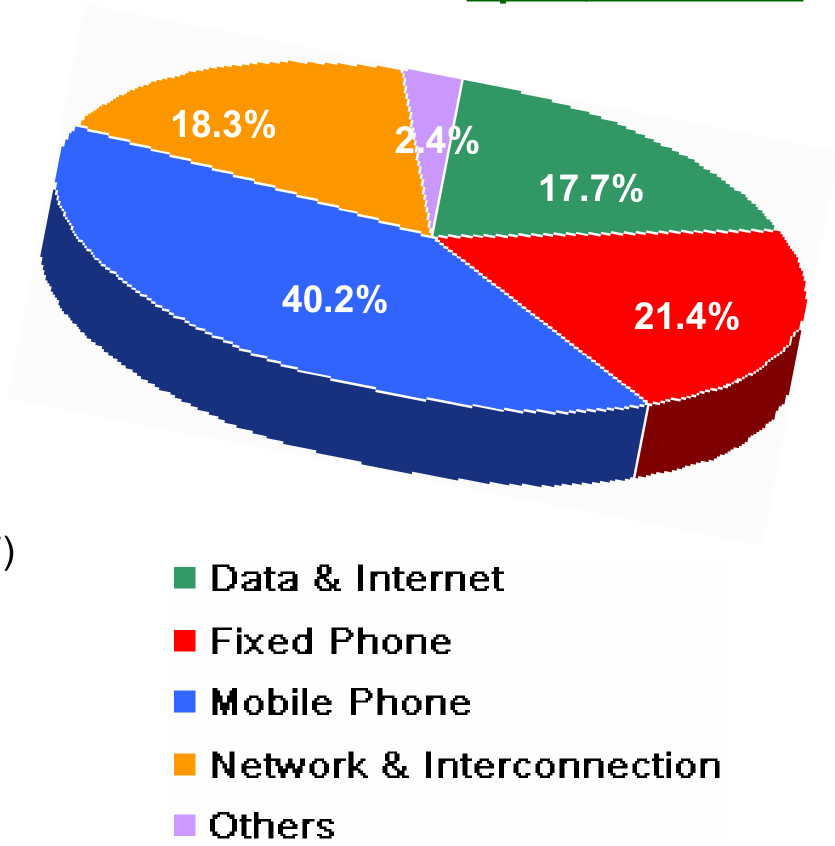




Line of Business: TELKOM

- Fixed Phone (TELKOM Phone):
  - Personal Line
  - Corporate Line
  - Public Phone
- Mobile Phone (Telkomsel):
  - Prepaid Services (simPATI)
  - Postpaid Services (Halo)
- Network & Interconnection (TELKOM Intercarrier):
  - Interconnection Services
  - Network Leased Services
- Data & Internet:
  - Leased Channel Services (TELKOM Link)
  - Internet Services (TELKOMNet)
  - VoIP Services (TELKOM Save & Global 017)
  - SMS Services (from Telkomsel, TELKOM Flexi, and TELKOM SMS)
- Fixed Wireless Access (TELKOM Flexi)
  - Prepaid Services (Flexi Trendy)
  - Postpaid Services (Flexi Classy)

Total Revenue & Composition
Rp 51,294 billion

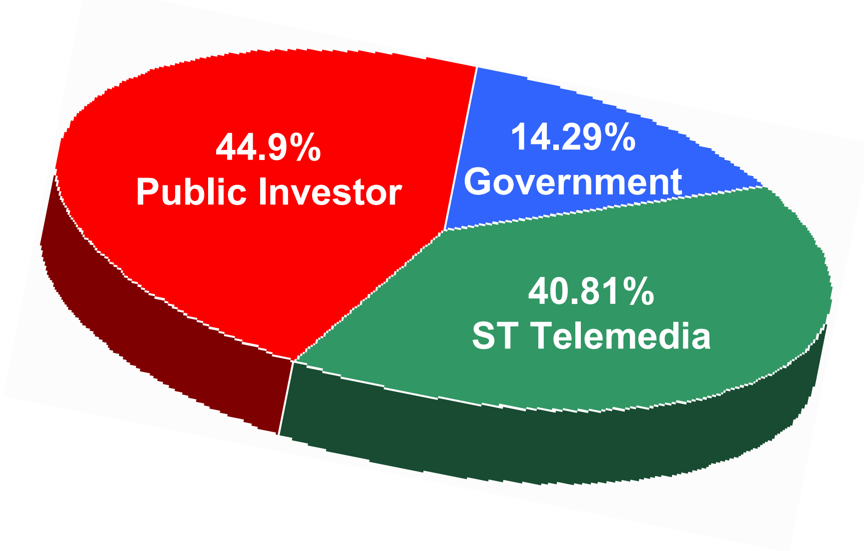


History: Indosat

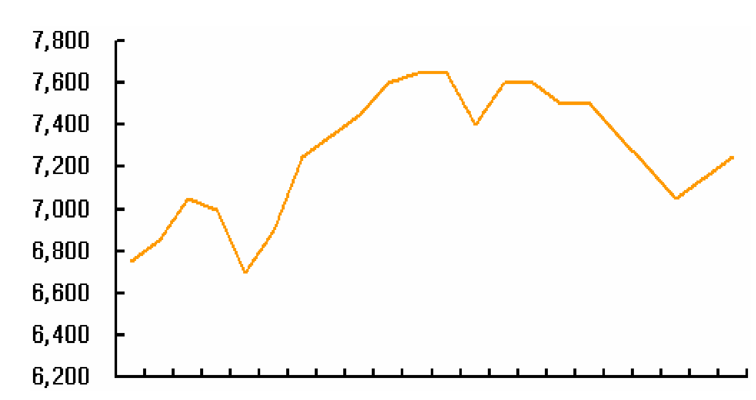
- In 1967, PT. Indosat was established as a foreign investment company to provide international telecommunication services
- In 1980, the government acquired all of the shares of Indosat
- In 1994, Indosat was listed in JSX, SSX, and NYSE
- In 1999, telecommunication industry reform began. As results, duopoly of TELKOM and Indosat was gradually eliminated to encourage fair competition
- Abolishments:
  - Exclusive rights of international direct dialing services in August 2001
- In 2002, after major divestment by the government, Indosat is once again became a foreign investment company, offering full fledged, integrated network and services in information and communication solutions
- In May 2004, Indosat launched its Fixed Wireless Access service called “StarOne” based on CDMA technology
- Indosat has run 3.5G network since November 2006. To date, Indosat is the second largest mobile operator

Shareholders: Indosat

- 2.9% of JSX market capitalization
- In 2002, the government divested 41.94% of its shares to Singapore Technologies Telemedia Pte. Ltd.
- Cellular business contributes 75% of the total consolidated revenues of Indosat
- Indosat is also a major shareholders in 17 companies providing products and services for multimedia, finance, telecommunications, and data communications



July 2007 - JSX



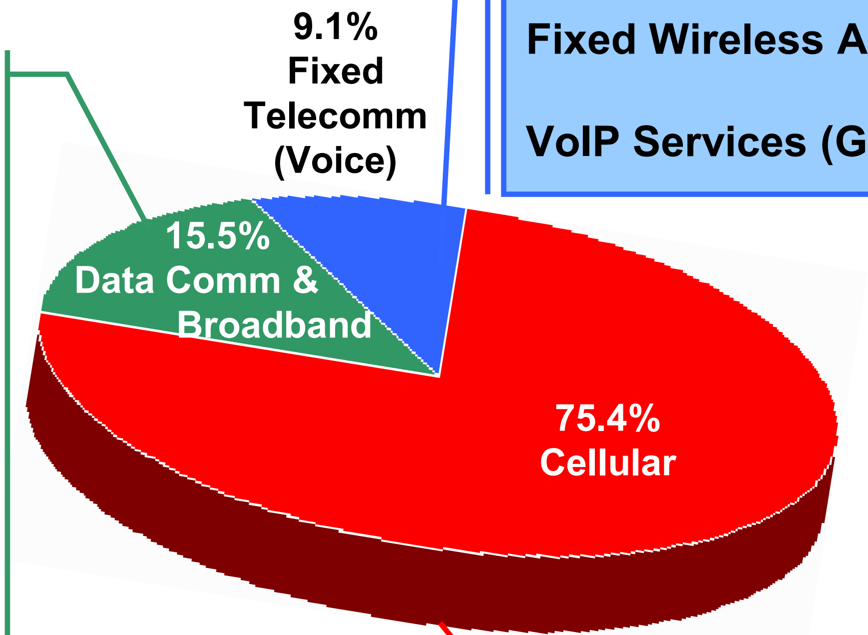
Line of Business: Indosat

Total Revenue & Composition
Rp 12,239.4 billion

International Leased Circuit
International Frame Relay
VSATs
Wholesale Internet Access

Domestic Leased Circuit
Domestic Frame Relay
VSATs
Corporate Solutions

IP – Virtual Private Network
Dedicated and Dial Up Internet
Wi-Fi & Hotspots



Premium IDD (IDD 001)
Budget IDD (IDD 008)
Flat Rate IDD (FlatCall 016)

Fixed Wireless Access (StarOne)

VoIP Services (GlobalSave)

Postpaid Services (Matrix)

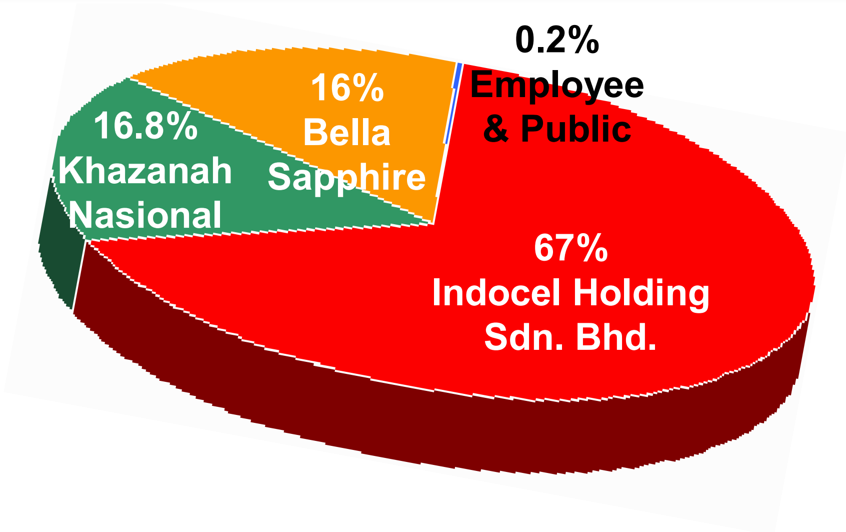
Prepaid Services (Mentari)
Prepaid Services (IM3)

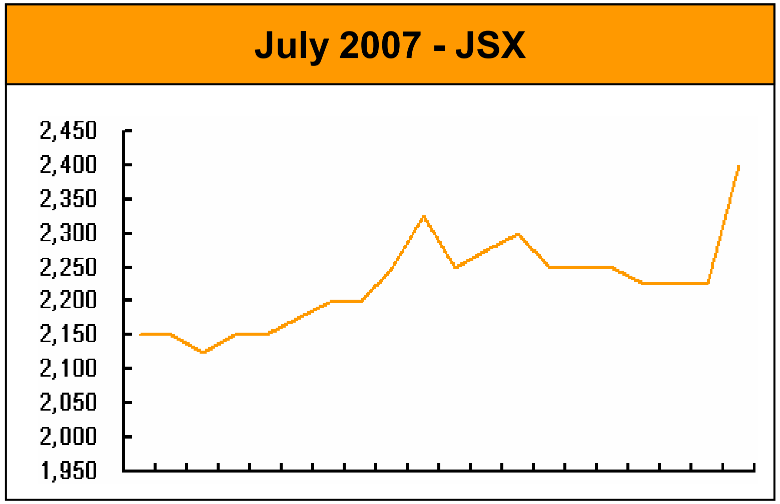
History: XL

- In October 1996, XL – the first private company to provide mobile telephony services in Indonesia, started its commercial operation
- In September 2005, XL was listed in JSX, and in this same year, XL officially became a subsidiary of the TM Group - Malaysia
- XL claims to be the only cellular company in Indonesia which owns an extensive fiber optic backbone network
- XL has run 3G network since September 2006. To date, XL is the third largest mobile operator

Shareholders: XL

- 1.3% of JSX market capitalization
- Indocel Holding is a wholly owned subsidiary of TM International, which is the overseas investment arm of Telecom Malaysia. While Khazanah is the investment arm of Malaysian government
- XL is also a major shareholder in 4 companies in Malaysia and Netherlands, providing financial services



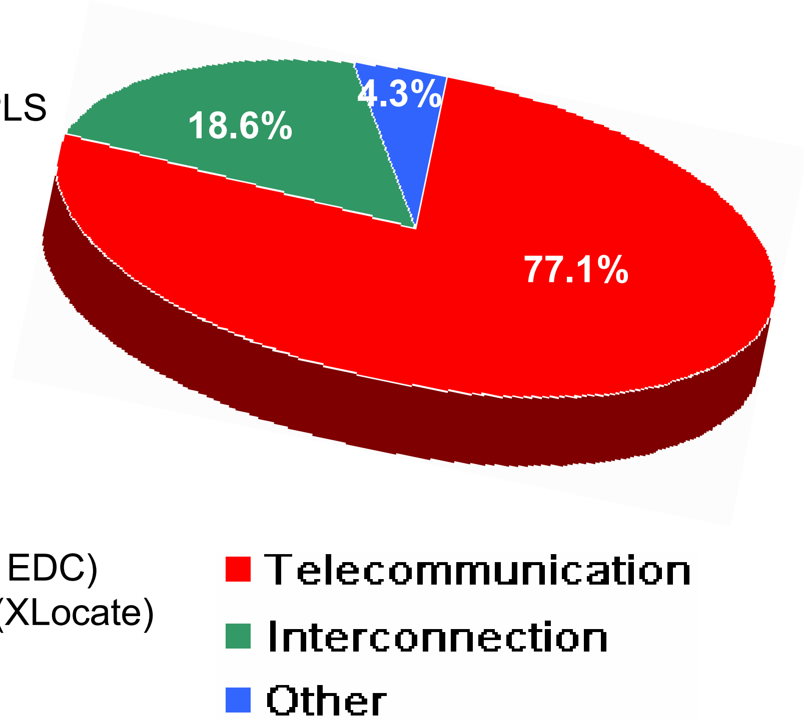


Line of Business: XL

Summary | Fact Sheet | Overview | The Players | Analysis

- Consumer Solutions:
  - Prepaid Services (bebas, jempol, jimat)
  - Postpaid Services (xplor)
- Corporate Solutions (Business Solutions):
  - Fixed Communication Services
    - Domestic & International Leased Line and MPLS
    - Broadband Internet Access, VoIP, Collocation
  - Mobile Communication Services
    - Corporate User Group, Data (GPRS, 3G)
    - Corporate SMS Broadcast
    - Push Mail (Xpand, Blackberry)
    - Mobile Application
  - Convergence Communication Services
    - Office Zone & Instant Office
    - GSM PBX Integration & Hosted PBX
    - Machine to Machine (Wireless ATM, Wireless EDC)
    - Wi Fi over Picocell, Vehicle Tracking System (XLocate)
- International Roaming
  - Visiting Indonesia
  - Traveling out of Indonesia
  - XL International Roaming Program

Total Revenue & Composition
Rp 6,466 billion

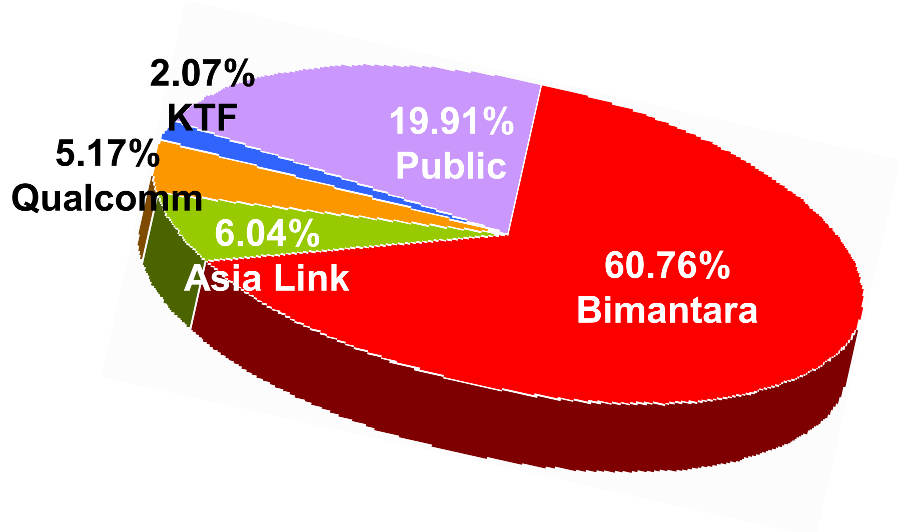


History: Mobile-8

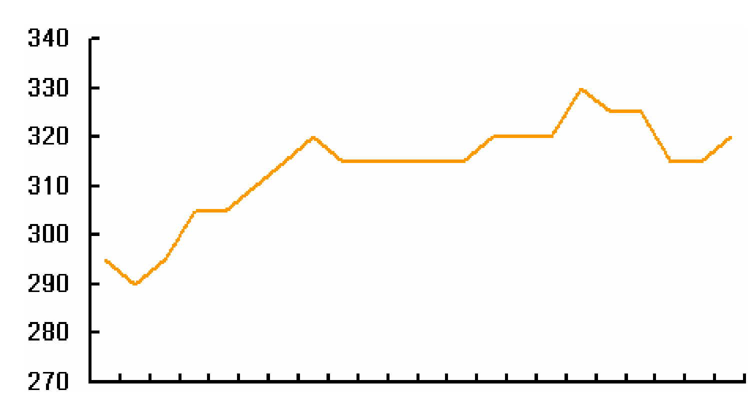
- Mobile-8 was established in December 2002 by acquiring three licensed mobile cellular analog AMPS-based operators which are Metrosel, Komselindo, and Telesera. In May 2007, those three companies were officially merged into Mobile-8
- Their coverage was almost for the whole of Indonesia. However, Mobile-8 progressively phase out the AMPS system and replace it with the present CDMA 2000-1x system
- In December 2003, Mobile-8 launched the prepaid service using the brand name “Fren” (Fast Reliable Enjoyable Network). In April 2004, they launched the postpaid service. In December 2006, they obtained the Fixed Wireless Access license from the government. Although Mobile-8 holds the nationwide cellular license, the current service area is concentrated in Java island
- In November 2006, Mobile-8 was listed in JSX and SSX, and they planned to expand the national coverage to other major islands
- Mobile-8 targets first time users, teenagers, young professionals, and mobile executives. To date, Mobile-8 is the fourth largest CDMA-based nationwide cellular operator

Shareholders: Mobile-8

- 0.5% of JSX market capitalization
- Bimantara Group through Media Nusantara Citra (MNC), the leading national television stations, print media, and radio networks is giving full content support to Mobile-8
- Korean Telecom Freetel (KTF) is the second largest CDMA operator in South Korea is mainly contributing in technology transfer, operation, and maintenance
- Qualcomm provides supports for the latest CDMA technology development and implementation
- Asia Link is also a major shareholder in Philippine Long Distance Telephone (PLDT) and SMART, the largest cellular operator in the Philippines



July 2007 - JSX

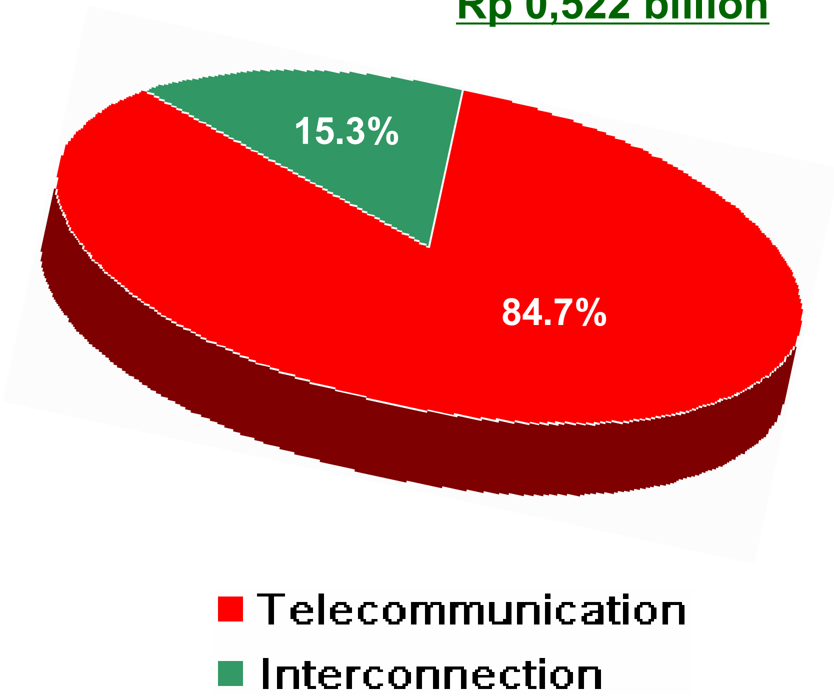


Line of Business: Mobile-8

Summary | Fact Sheet | Overview | **The Players** | Analysis

- Mobile Services
  - Prepaid Services (Fren Prabayar)
  - Postpaid Services (Fren Pascabayar)
- Fren Mobile Internet
- Corporate Services
  - Mobile Acces Hunting
  - Mobile Virtual Private Network
- Value Added Services
  - TV Mobi
  - Fren RingGo
  - Fren SLI#168
  - Fren e-Banking Channel

Total Revenue & Composition
Rp 0,522 billion



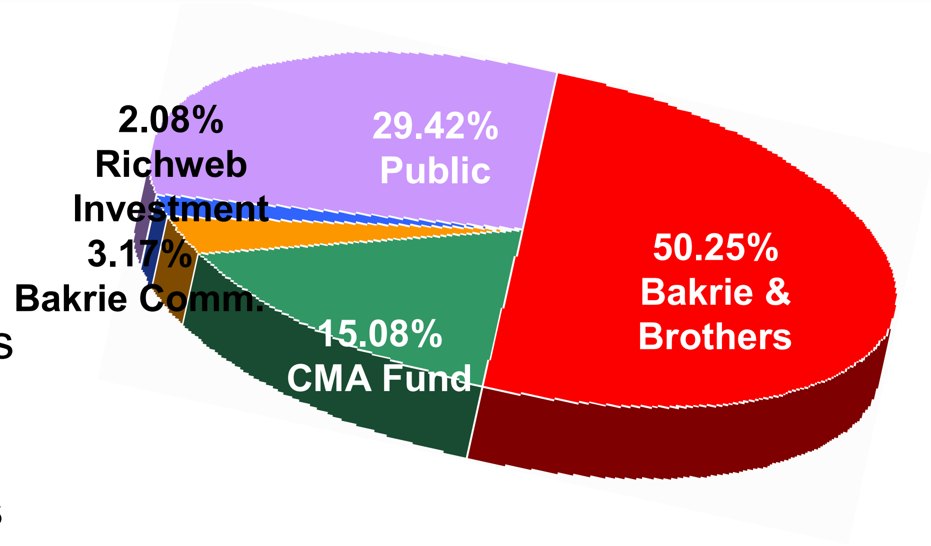
History: Bakrie Telecom

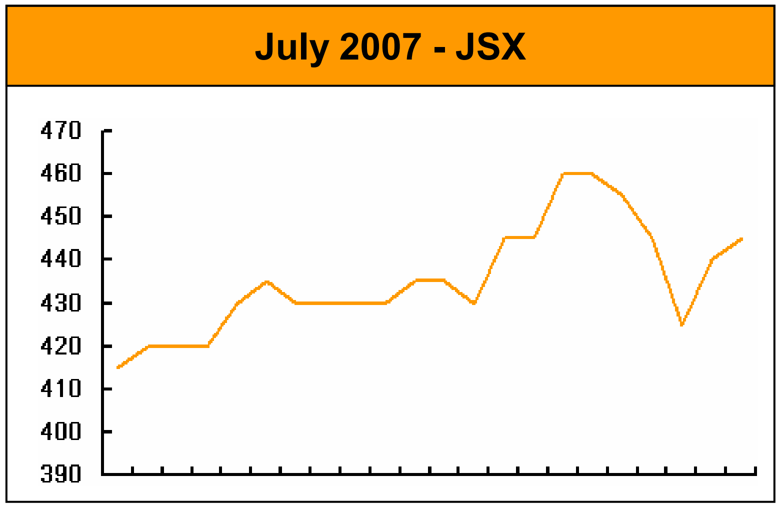
Summary | Fact Sheet | Overview | **The Players** | Analysis

- PT. Radio Telepon Indonesia (Ratelindo) was established in 1993. Ten years later, the company changed its name to PT. Bakrie Telecom
- In 1996, Ratelindo launched the first product, a Fixed Wireless Access service using E-TDMA technology. In September 2003, B-Tel launched a new limited wireless telephony service using CDMA 2000-1x technology under the brand name “Esia”
- In February 2006, B-Tel was listed in JSX. The total capital raised through the IPO was Rp 605 billion. In July 2006, B-Tel was named Best CDMA Operator at the Indonesia Cellular Show 2006. B-Tel is the first private company to sign an Integrity Pact as a commitment to comply with good corporate governance standards
- In September 2006, B-Tel launched Wifone (wireless intelligent phone service), a fixed wireless home phone equipped with features similar to a mobile phone
- In December 2006, B-Tel obtained the nationwide Fixed Wireless Access license from the government. The current service is concentrated in central and west Java island. B-Tel plans to expand using MVNO framework, of which they have signed an MoU with Indosat in September 2005
- B-Tel positioned itself as a budget operator. BTEL promotes “Talktime” as the common measurement of communication charges instead of the status quo “Pulsa”

Shareholders: Bakrie Telecom

- 0.4% of JSX market capitalization
- Bakrie & Brothers is one of Indonesia's foremost corporations with scope of business interests that spans from infrastructure, telecommunication, and plantations
- Bakrie & Brothers is the major shareholder (99.6%) of Bakrie Communications which specializes in high frequency communication system.
- Bakrie Communications has total control of Richweb Investment Ltd., which was established in October 2000 in the Republic of Mauritius
- CMA Fund Management owns 11.46% of Bakrie & Brothers' shares



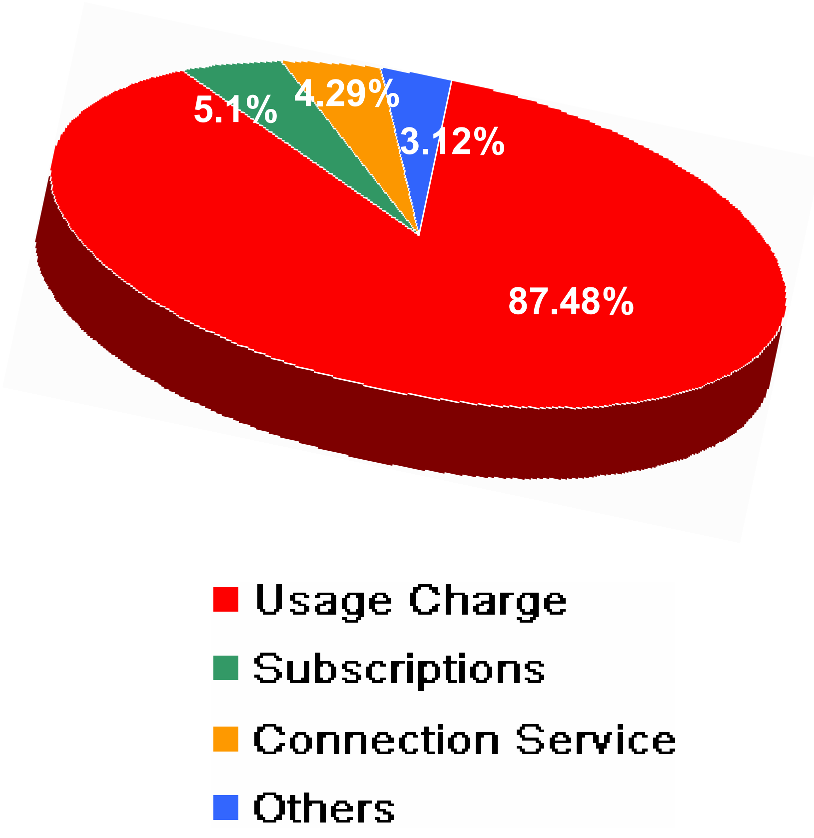


Line of Business: Bakrie Telecom

Summary | Fact Sheet | Overview | The Players | Analysis

- Esia
  - Prepaid Services
  - Postpaid Services
  - Esia-tel:
    prepaid wireless public phone
- Wifone:
  - Prepaid
  - Postpaid
- Wimode Mobile Internet
- Value Added Services
  - Ring Back Tone
  - Featured Artist
  - Greeting Messaging Service
  - Music Jukebox

Total Revenue & Composition
Rp 829.4 million



Foreign Investment in the Industry

- On average, more than 40% of local telcos' shares is owned by foreign telcos, which mostly from Singapore and Malaysia
- All of the foreign investments are concentrated in mobile communication, leaving the growth of fixed line even slower

Telkomsel	Indosat	XL	Mobile-8	Cyber Access	Lippo Telecom
35%	40.81%	67%	2.07%	60%	51%
SingTel	ST Telemedia	Telecom Malaysia	Korean Telecom Freetel	Hutchison	Maxis Communi cations

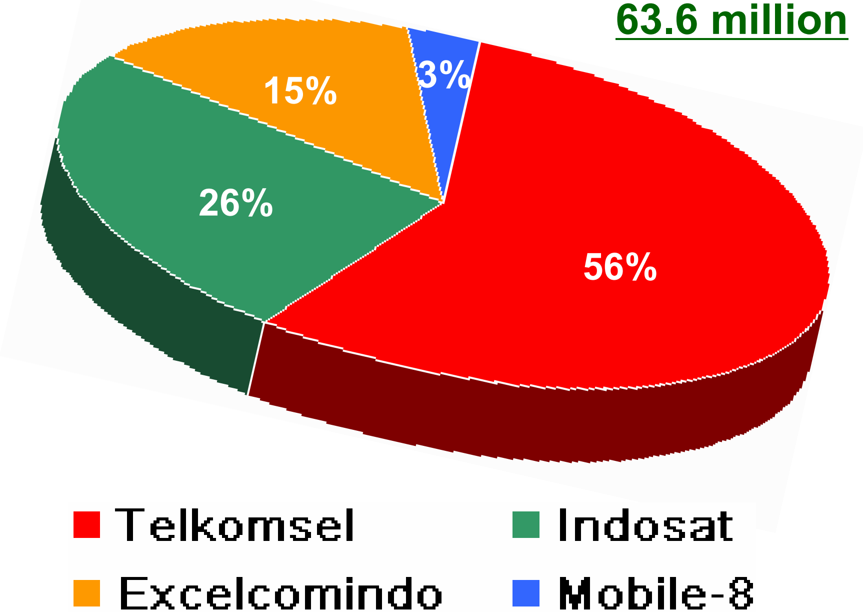
Subscriber and Technology Market Share

Summary | Fact Sheet | Overview | The Players | Analysis

- TELKOM dominates the cellular and fixed wireless services. However, the new modern licensing has promoted better environment for fair competition
- In less than 5 years, the growth of CDMA network used in fixed wireless access has reached almost 10% of total mobile subscriber. This growth is due to lower TCO incurred by adopting CDMA 2000-1x technology, which in return allows operators to charge lower fees to subscribers

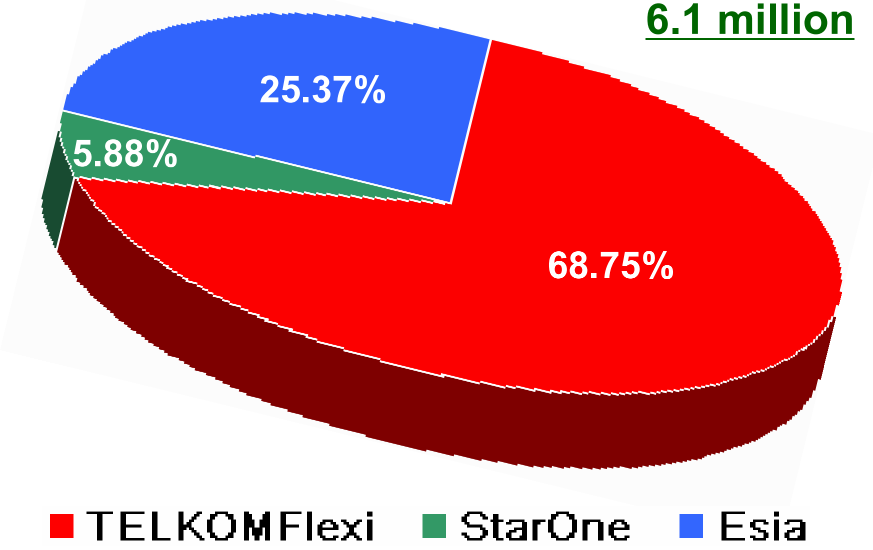
Cellular Subscriber & Composition

63.6 million



FWA Subscriber & Composition

6.1 million



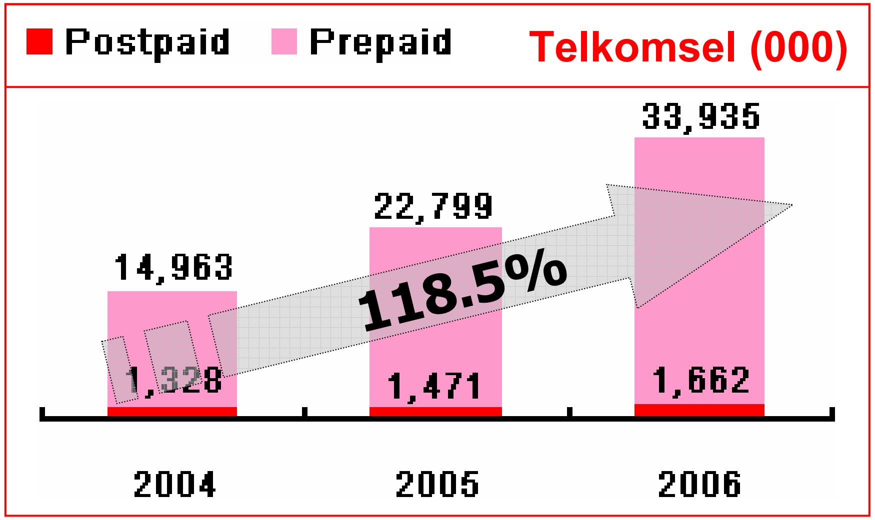
Cellular & FWA Comparison Table

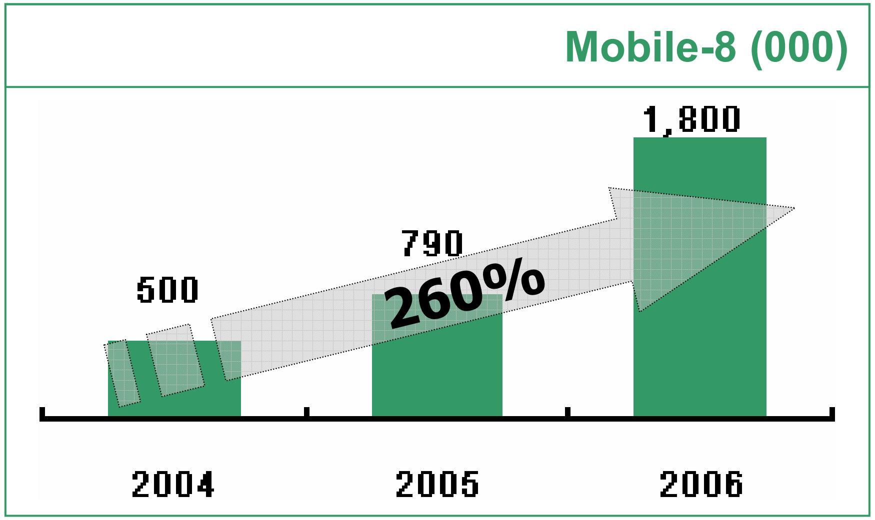
Cellular	Telkomsel	Indosat	XL	Mobile-8
Launch Date	May 1995	November 1994	October 1996	December 2003
Technology	GSM 900/1800	GSM 900/1800	GSM 900/1800	CDMA 2000-1x EV-DO
Subscribers (mil)	35.6	16.7	9.5	1.8

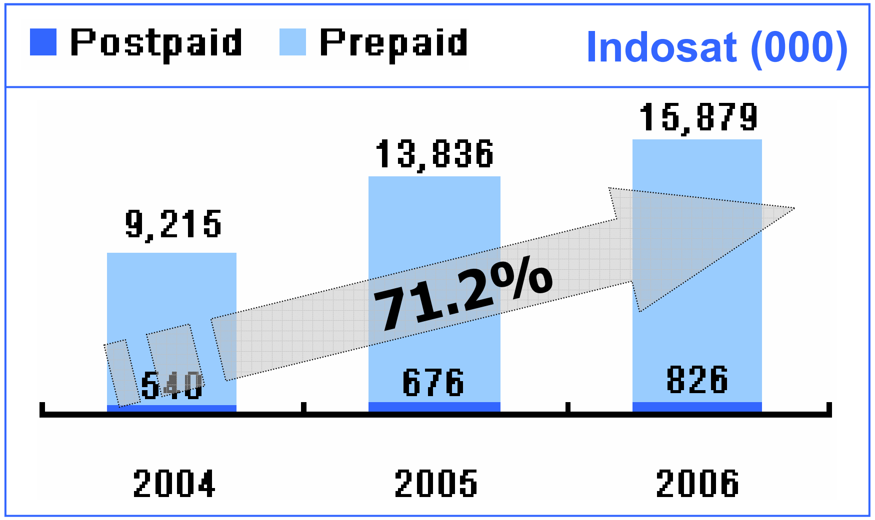
FWA	TELKOMFlexi	StarOne	Esia
Launch Date	December 2002	May 2004	September 2003
Technology	CDMA 2000-1x	CDMA 2000-1x EV-DO	CDMA 2000-1x EV-DO
Subscribers (mil)	4.2	0.359	1.55

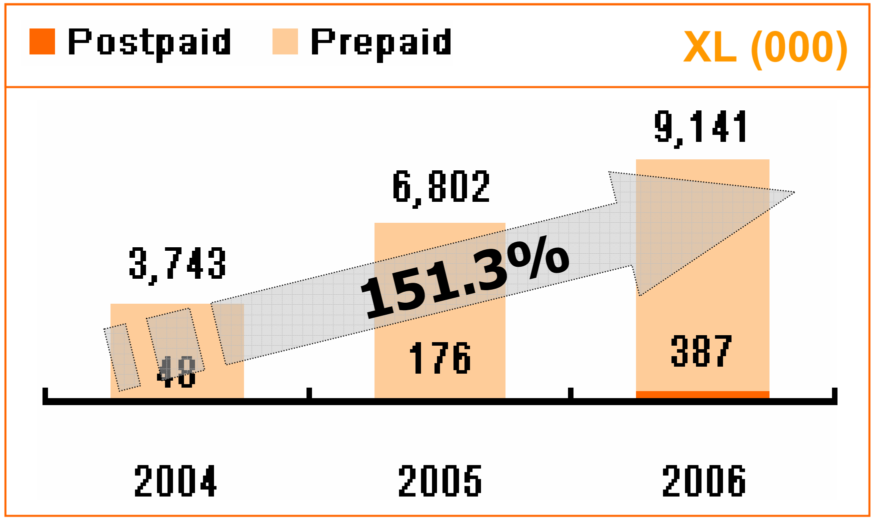
Subscriber Growth

Summary | Fact Sheet | Overview | The Players | Analysis



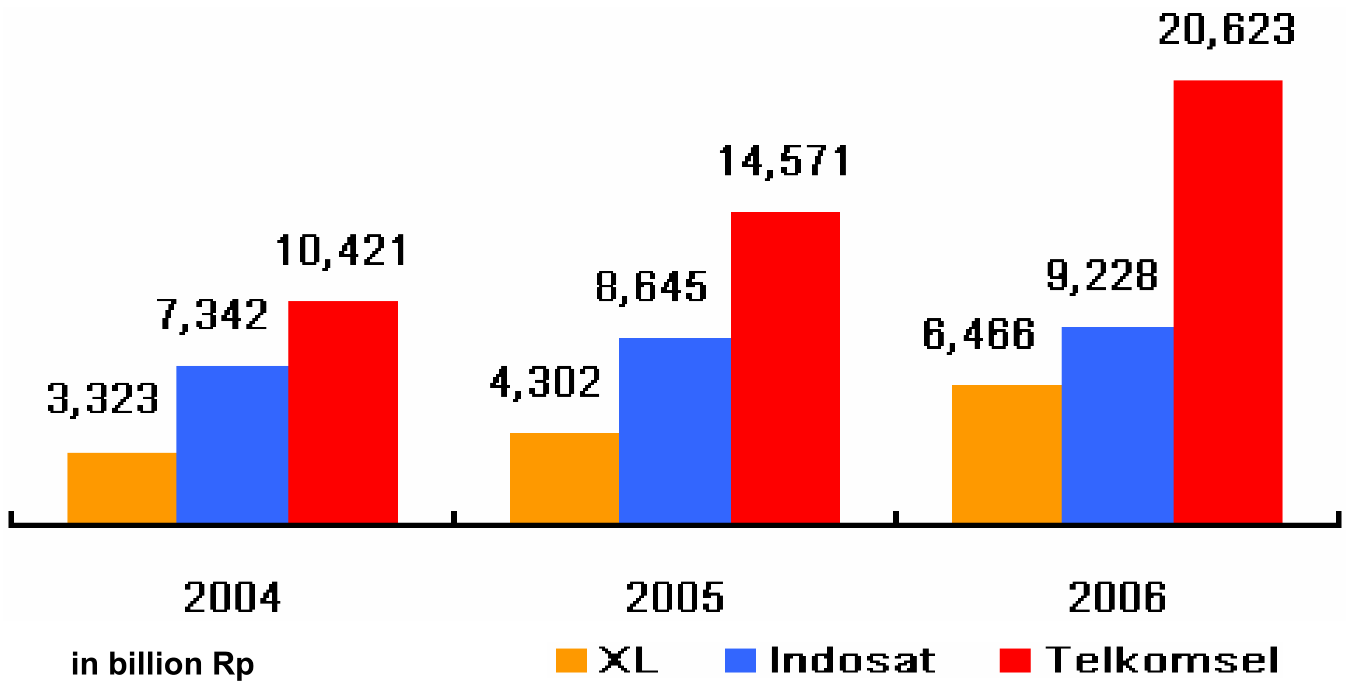






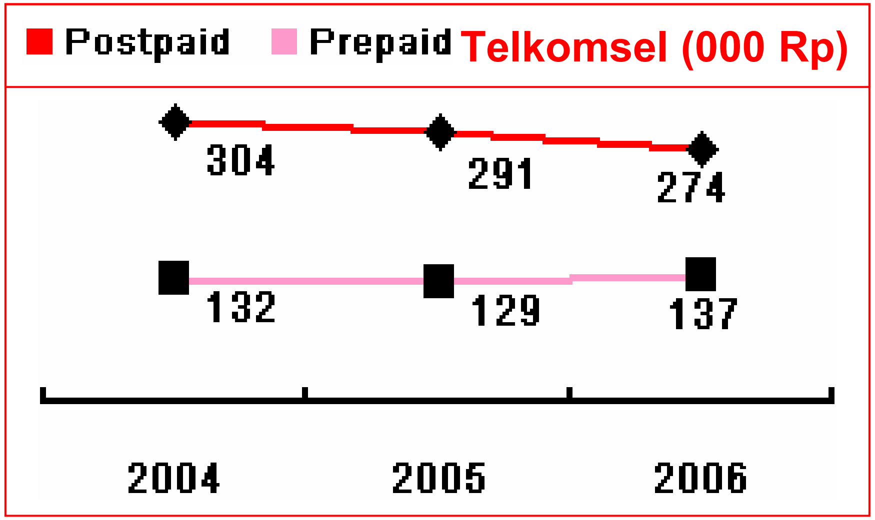
Cellular Revenues

- With the on going reform in the industry such as cost based interconnection, tariff rebalancing, as well as competitive pricing, all operators' cellular revenues still showing healthy up trend
- However, although the revenue trend is up, the ARPU trend is going down (see next slide). To boost overall revenues, operators have been introducing various value added services and promotions



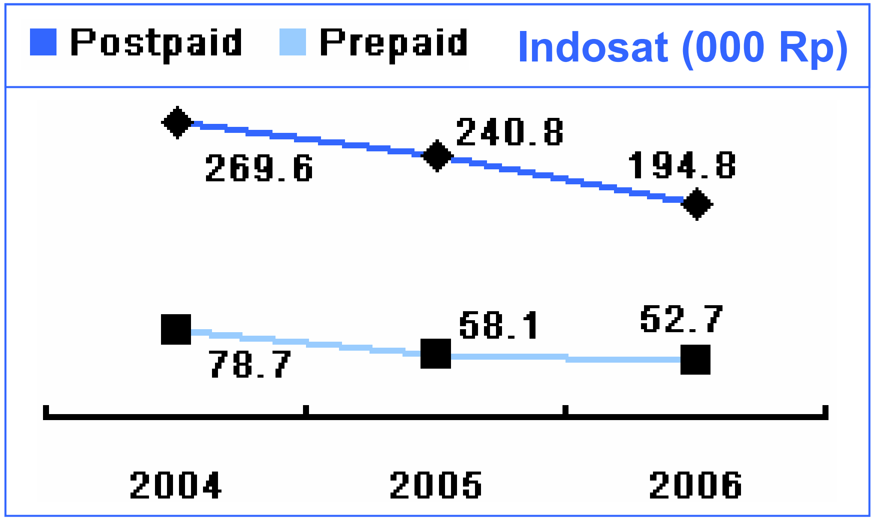
in billion Rp

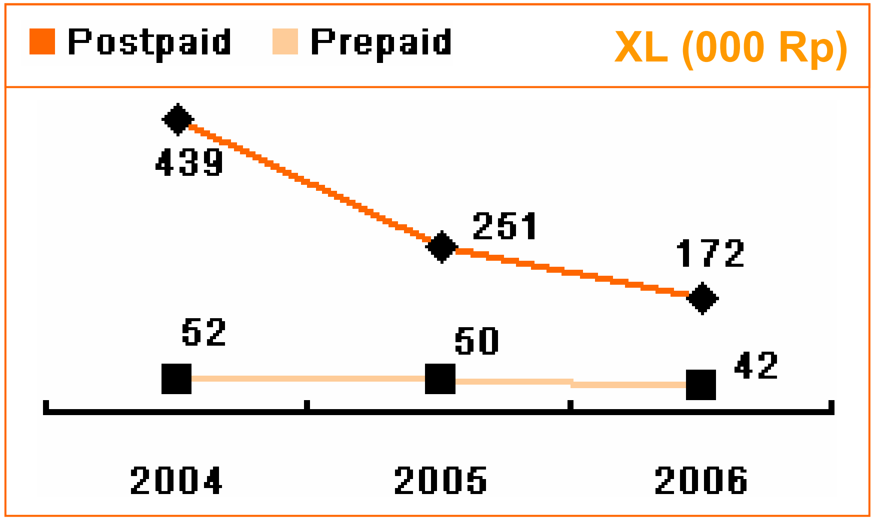
Average Revenue Per User



In general, both postpaid and prepaid ARPU of all operators have been declining. There are several reasons behind such a trend:

- The growth of prepaid subscribers outpaced the postpaid counterpart
- Nationwide disasters since the year 2000





Main References

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- Indonesian Infocom Society
- PT. Telekomunikasi Indonesia, Tbk.
- PT. Indosat, Tbk.
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- PT. Bakrie Telecom

THANK YOU

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