Opportunities – Challenges facing ICT Investors in Egypt……

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Egypt ICT On the Move..

- Information & Communications Technology (ICT) amplifies human ability for the benefit of the economy and the community due to its substantial contribution to employment, exports and diversification of the economy
- Egypt’s telecommunications infrastructure has increased dramatically over the last decade
- Solid foundations have been laid gradually at a rate Egyptian society can adapt to, closing the digital divide for Egypt’s industries, people and culture to allow the country to move forward

Egyptian ICT Recent Achievements

- Increased infrastructure investments
- Eased restrictions & encouraged FDI
- Encouraged competition
- Increased liberalization & issued a number of licenses
  - Third mobile license
  - International Submarine Cable Licenses
  - 3G license to Vodafone Egypt & Mobinil
  - International Gateway

Egyptian Market/Attractive Socio-Economic Conditions

- Egypt is the most populated country in MENA region - 73M with 60% under the age of 30
  - Average population growth rate of 2%, poises opportunity for potential Market
  - Young Population
  - Labor Force

- Inflation Rate: 5%
- Unemployment rate: 10.3%
- GDP/Capita: ~ $1,465
- GDP growth rate: 6.7%

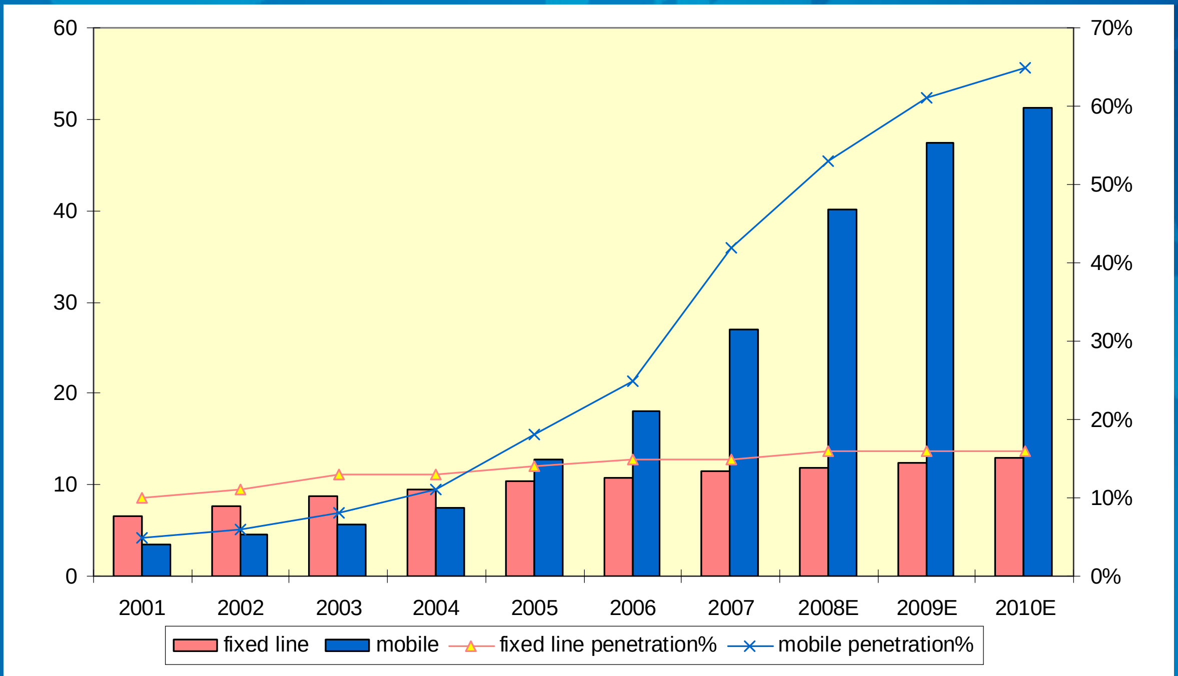
ICT Market Growth

Fixed Lines

- No. of installed base: 13.6M
- No. of lines in operation: 11M - 15% penetration
- No. of Exchanges 1,604
- Penetration level is approx. 62%

Mobile Lines

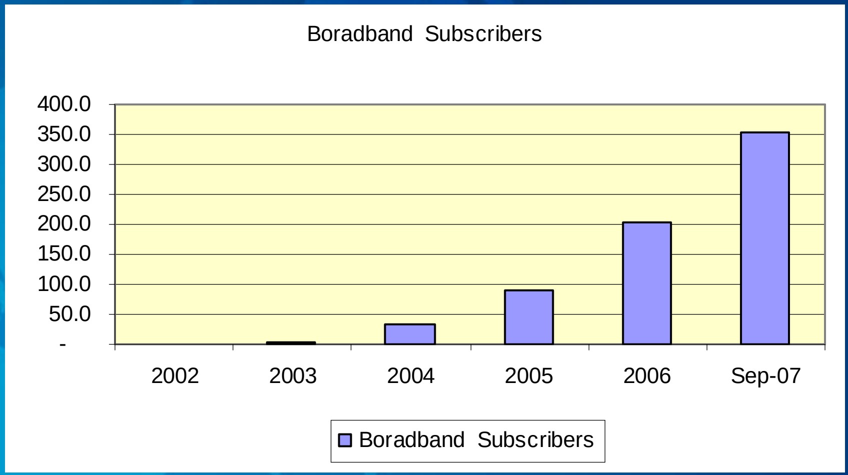
- One of the highest growth rates in the world
- Increase of Mobile Cell Phone Subscribers from 654K to 26.4M during the past 7 years.
- 3 operators together are adding up to 1M new subscribers per month
- Penetration is at 35.86%



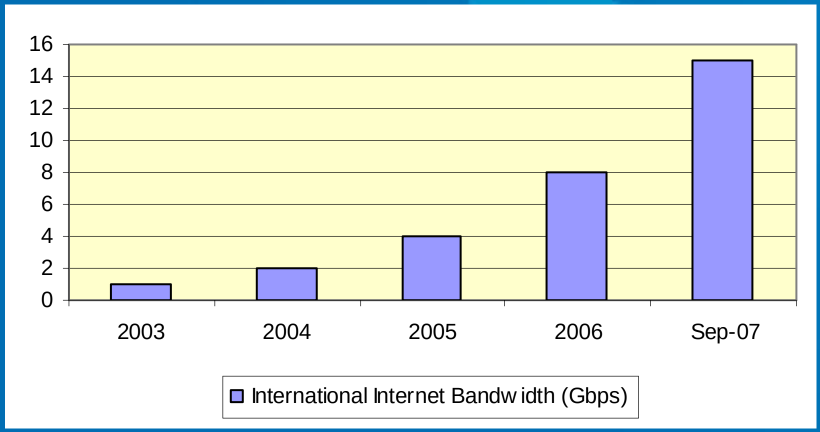
ICT Market Growth

- Egypt has the largest Internet market in Africa
- Internet Users: 7.7M in Sep 07 up from 6M in Sep 06

Broadband Subscribers: 353.8K in Sep 07 up from 166.2K Sep 06



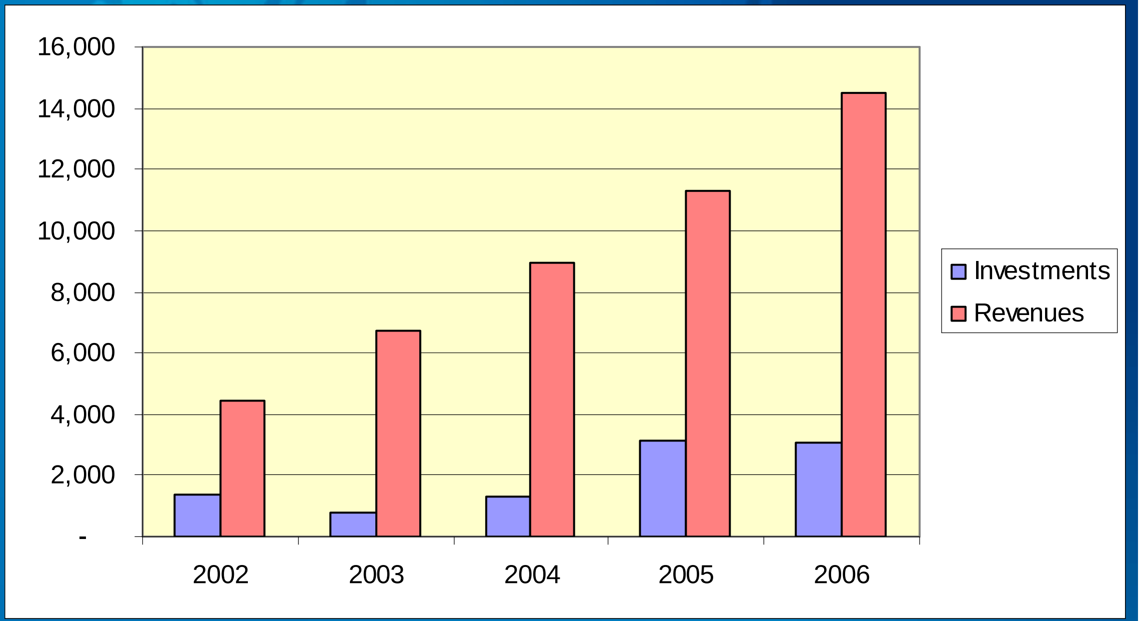
International Internet Bandwidth 14,911 (MBps) Aug 07 up from 8,239 (MBps) Aug. 06



ICT: Investments & Yields

Mobile Companies Investment Vs. Revenes (L.E Million)

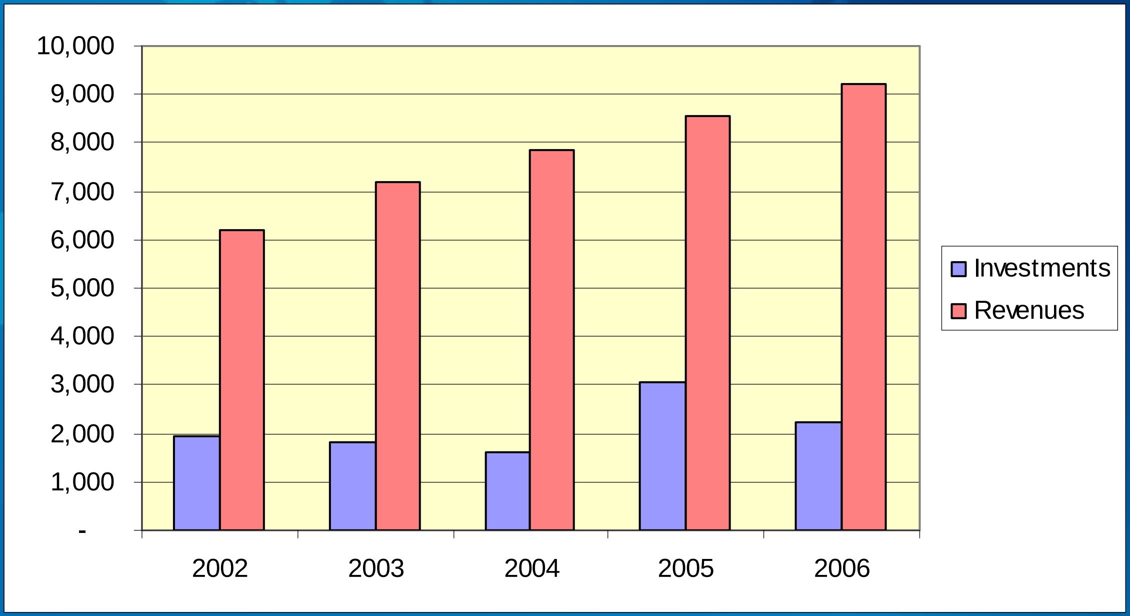
Year	Inv.	Rev.	
2002	1,362	4,454	3.3x
2003	788	6,728	0.9x
2004	1,289	8,919	0.9x
2005	3,141	11,309	0.7x
2006	3,095	14,494	0.8x



ICT: Investments & Yields

Fixed Companies Investment Vs. Revenes (L.E Million)

Year	*Inv.*	*Rev.*	
2002	1,953	6,219	3.2x
2003	1,815	7,177	0.7x
2004	1,595	7,858	0.8x
2005	3,048	8,548	0.6x
2006	2,229	9,213	0.8x



Challenges & Recommendations …………..

Several challenges and risks must be overcome on the way.

Unbalanced demand and supply of skilled resources:

- Need to enhance ICT-related technical/managerial skills in the workforce, both through skills training and changes to educational curricula

- Develop corporate mechanisms to keep high calibers within organizations who invested on their training & development

Challenges & Recommendations …………..

Competition on Price Vs. Quality:

- Encourage competition on quality rather than price to enhance innovations
- Create awareness among project evaluators
- Increase awareness of the importance of quality that can be reflected on people
- Competition on price rather than quality would lead to cheaper quality products, performance and services
- Severe Competition needs to be controlled to protect the market and help other companies to survive

Challenges & Recommendations …………..

Cooperation between major players:

- Convergence between media & ICT - boarders between services are vanishing (Media, Internet, Fixed, Mobile operators)
- Acquisitions and joint ventures process could be complex and difficult
- Agreements between operators of different services results in better customer benefit and easier workspace.

Challenges & Recommendations ………….

Limited number of Regional R&D & Technology Parks:

- Stimulate regional R&D, technology parks & excellence centers to compete worldwide.
- Attract international companies to establish their technology centers in these parks
- Provide adequate Parks' facilities (airports, highways, hotels, apartments, hospitals, ,schools….etc)
- Cooperation among Arab countries technology communities
- Need more focus on un-biased high standard research and development (many Students travel abroad to work in the R&D fields and do not find adequate institutions in their home countries)
- Progress in each of the above areas will create a more conducive environment for innovation

Challenges & Recommendations …………..

Over-licensing

- The number of licenses should be controlled to prevent monopoly and in the same time prevents dumping, which could result to:
  - Increases the competition more than the market can handle
  - Hurts the operator business case and ROI

Government Regulations:

- Enhance a joint public-private sector ICT strategy that will be reviewed on regular basis
- Encourage outsourcing in services, R&D, SW centers, call centers, ...etc
- Stimulate demand for ICT through initiatives to bring public services online.
- Allocate enough share of public funds to applied research, university labs and research centers
- Many bidders have advantages for certain licenses above the others enabling like have a different operator of possibly bundled services

Challenges & Recommendations ………….

Personal experience

In the third mobile license, the bid process was:

Pros

- Completely transparent
- Professionally evaluated technically
- Commercially handled in a smart manner

Cons

- The lack of spectrum during the 3rd mobile license bid had limited the choice to only one technology.
- Need to develop a national solution to the spectrum management problem in order to clear the whole telecommunication spectrum once and for all not on case by case basis

Opportunities on the way will further stimulate the sector ……..

- 2nd Fixed line Operator
- Call centers
- Broadband and converged services (Wi-Max, EVDO, HSPA, etc)
- Regional R&D & Technology Parks & Excellence Centers
- Triple play offerings for voice, data and video