



Regulate to Innovate

Dr. Amr Badawi

Executive President

National Telecom Regulatory Authority

Outlines

- ❑ **Innovation Process**
- ❑ **The role of ICT industry to enable innovation across various economic sectors**
- ❑ **Major innovations, embodied in the ICT Industry**
- ❑ **The challenge for regulation to accommodate such innovations**
- ❑ **How does competition help innovation and growth?**
- ❑ **Limitations of Competition Inverted-U Theory**
- ❑ **Consumer needs and expectations**
- ❑ **Innovation Drivers**
- ❑ **Recommendations**

Innovation Process

- **“The ability to deliver new value to a customer”**
(Jose Campos)
- **“Innovation is the way of transforming the resources of an enterprise through the creativity of people into new resources and wealth”** **(Paul Schumann)**
- **“The three stages in the process of innovation: invention, translation and commercialization”**
(Bruce D. Merrifield)

Innovation role across various Socio-economic sectors

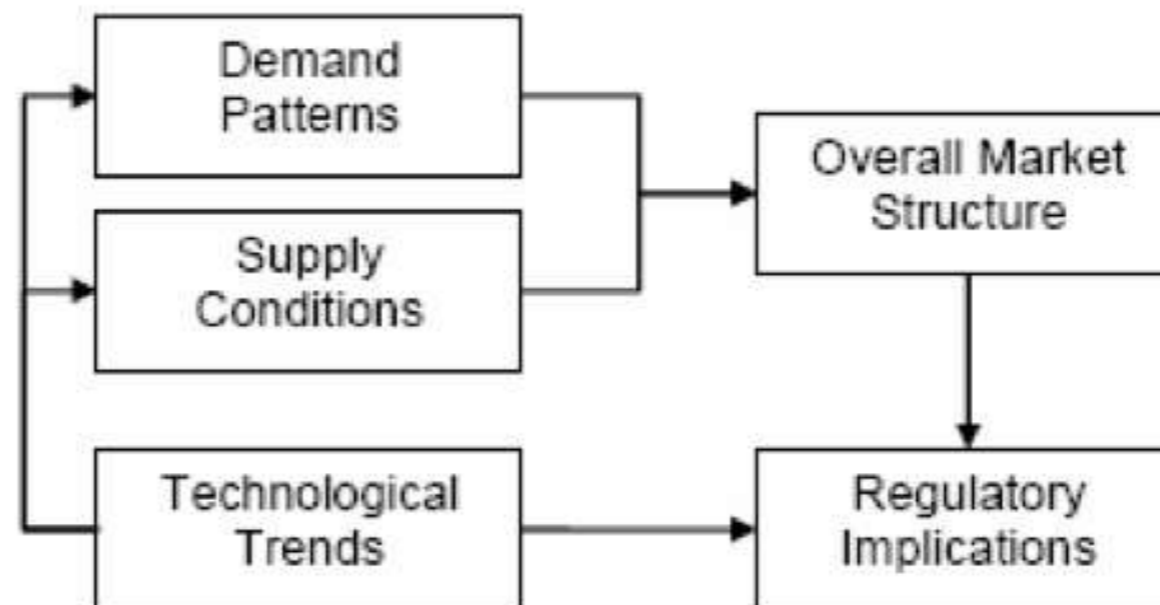
- **Grooming A healthy environment for innovation will enable advances in health care, energy, education, job training, public safety and all of our national priorities.**
- **Creativity is a national virtue that has catalyzed National leadership in many sectors.**

The Role of Innovation in ICT Revolution

- Among network industries, telecommunication has undergone the most dramatic change since the mid-1980s. Major innovations, embodied in the wireless technology or the internet, have pushed costs down and demand up.**
- The new segments of the mobile and the internet markets are hence suitable for competition. Network externalities in telecommunications oblige entrants to interconnect with the incumbent operator in order to reach their customers.**

Towards a regulatory paradigm?

- Regulation may be affected by technological developments and innovation in two different ways:
 - Firstly, new technologies lead to the development of new services and modes of delivery unforeseen by existing regulation.
 - Secondly, they affect the overall market structure and the level of competition by changing the conditions for supply or patterns of demands.

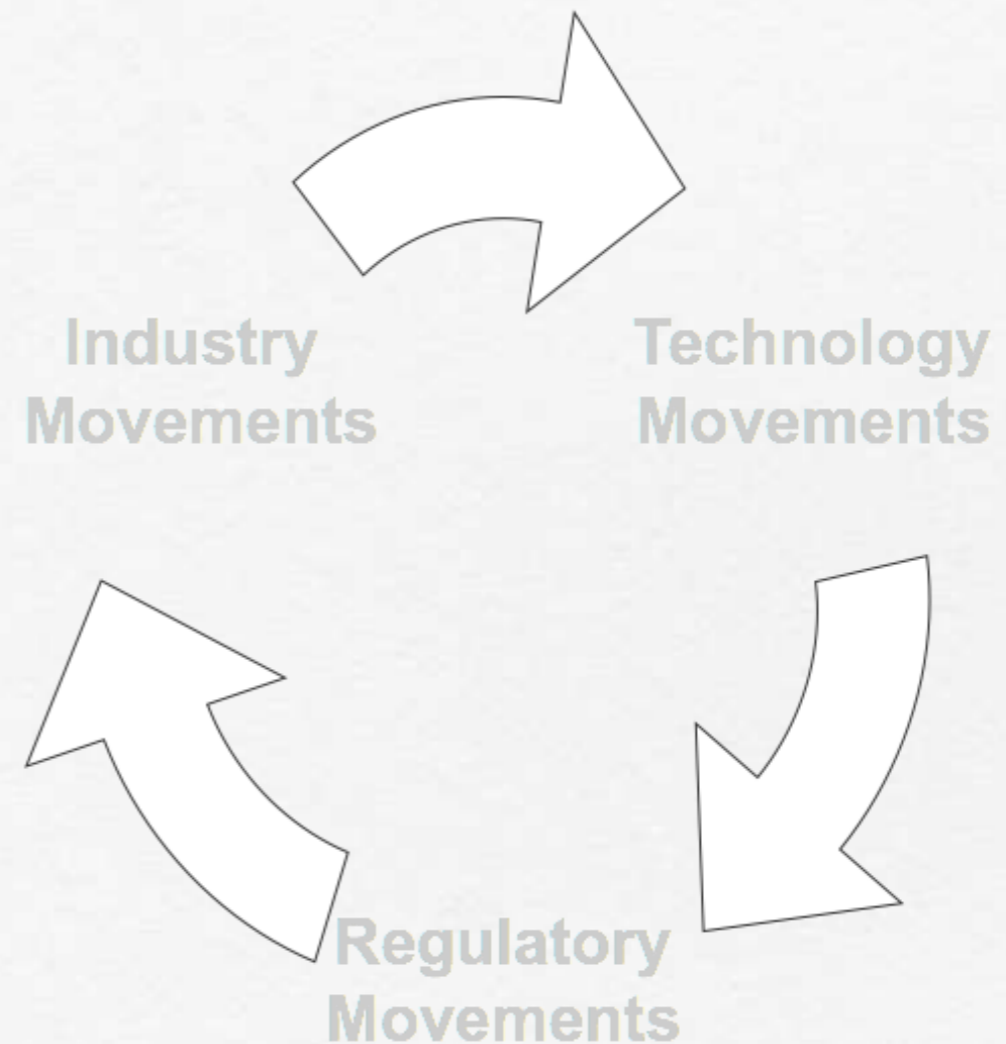


The Regulatory Challenge

- **The challenge Facing TRAs to enable innovation is to promote favorable market conditions in which competition can flourish to maximize innovation, whilst at the same time ensuring that consumers' interests are protected.**
- **So what is the right way to enrich the innovation process ?**

Cooperation is A key Driver

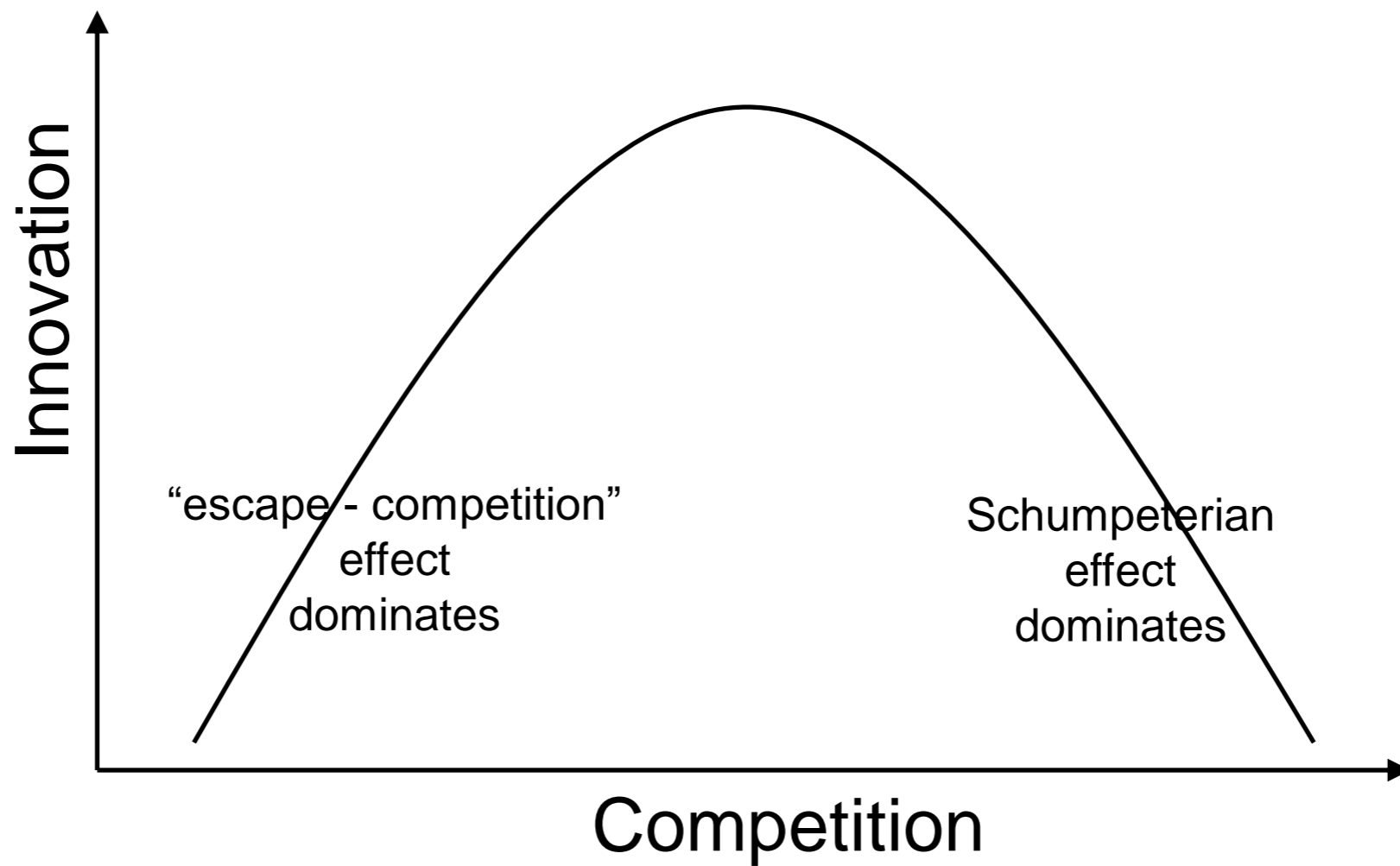
- **Successful Stories will require a great deal of cooperation between the research institutes , regulatory agencies, Services Providers, equipment manufacturers.**



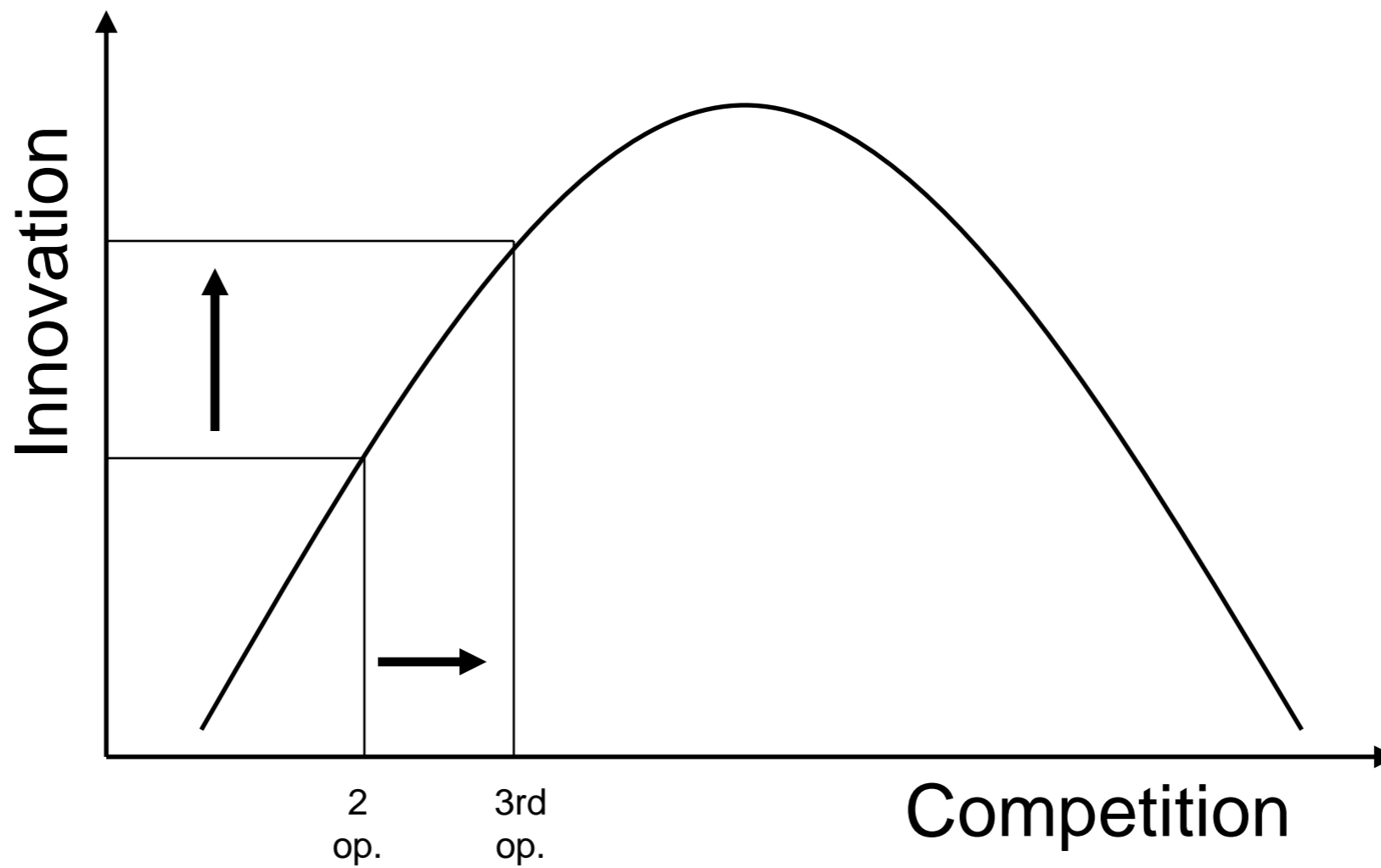
Enacting policies to foster competition

- Competition is a major driver of innovation (but some argue that it has limitations)**
- Innovations such as broadband and others like it drive the creation of a wide variety of products and services. The competitive forces that sparked these breakthroughs need to be nurtured, so that the ICT Industry can continue to reap the benefits of its unrivaled culture of innovation.**

Limitations of Competition Inverted-U Theory

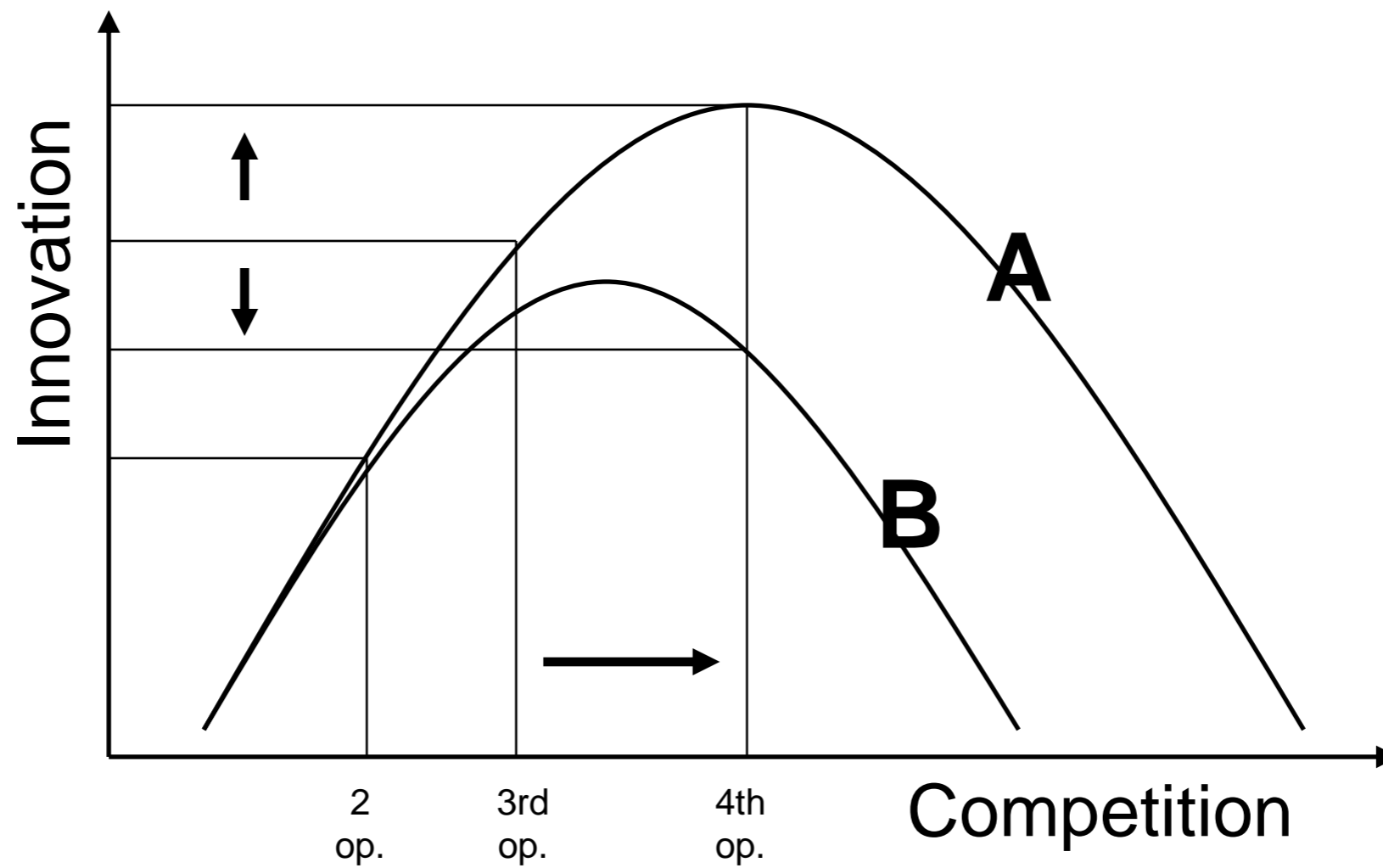


Limitations of Competition Mobile Market in Egypt

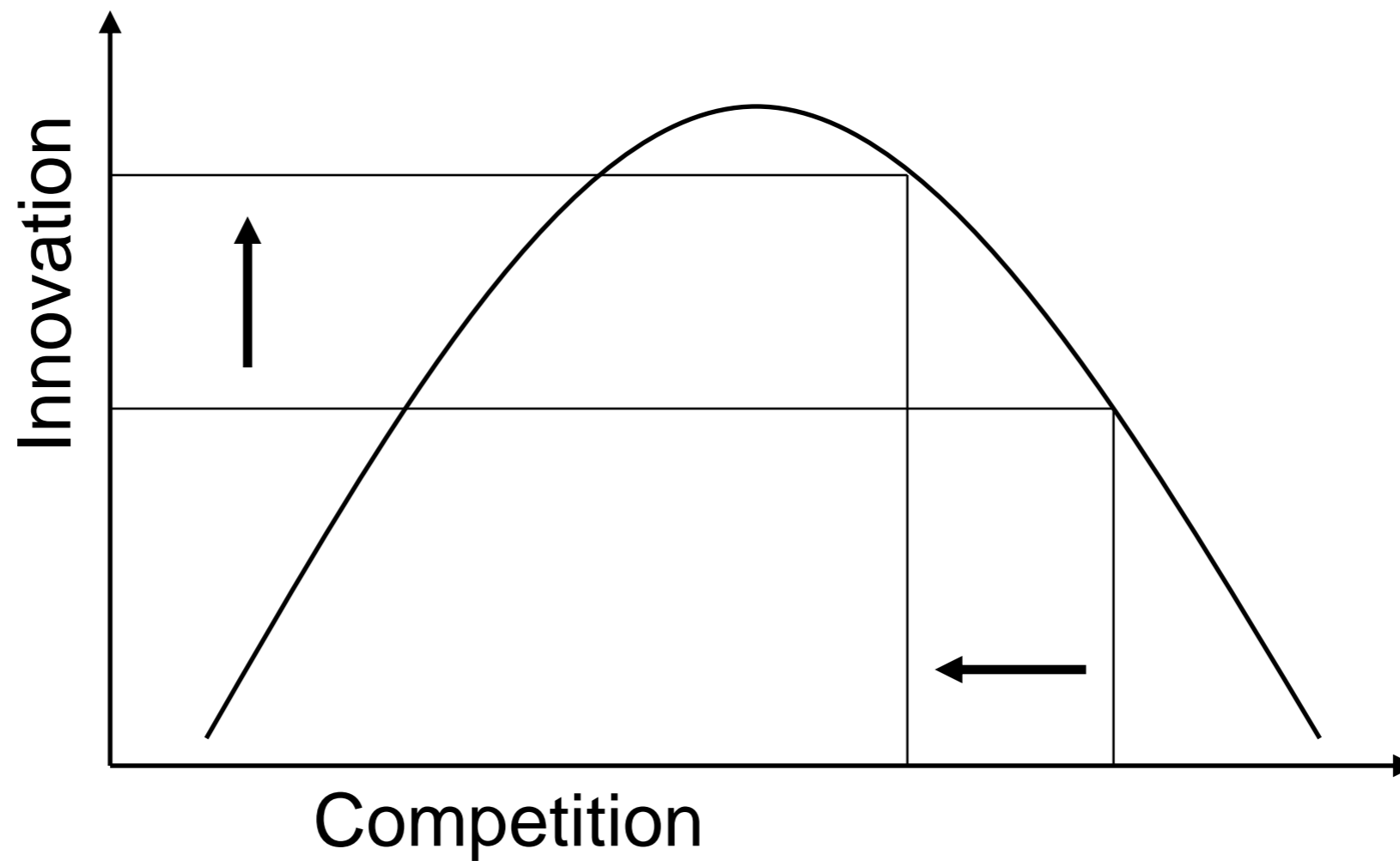


Limitations of Competition Mobile Market in Egypt

□



Limitations of Competition Data Market in Egypt



Consumers Needs and expectations

- **ICT consumers are likely to expect that:**
 - **The Internet service should provide a fast enough transmission speed to be able to support full use of common Internet features such as access to online services and applications, including multi-media, web 2.0 functionalities and file transfers.**
 - **Consumers are also likely to expect that this level of service is available at a reasonable price.**
 - **Inevitably there will need to be some sort of “**trade off**” between the quality of service provided and the price of package.**

Applications and Content

- **One way to encourage innovation in applications is to give individuals control of their digital profiles. Giving consumers control of their digital profiles and personal data, including the ability to transfer some or all of it to a third party of their choice, may enable the development of new applications and services, and reduce barriers to entry for new firms.**
- **Giving customers increased control of their profiles would also help address growing concerns about privacy and anonymity.**

To conclude

- The smart regulations are driving technology and business innovation in several other sectors, including health care, education, energy, online commerce and the government.**
- Innovation in applications and content is transforming the way Consumers communicate, shop, bank, study, read, work, use maps to find their way as they drive or walk, and are entertained.**

To conclude..... cont'd

- **Competition is sustainable in driving innovation, investment and consumer welfare will depend on the evolution of technology and consumer behavior among many other factors.**

Recommendations

□ Regulator Recommendations:

- Design policies to ensure robust competition across access, service and application levels to maximize innovation.
- Develop a plan describes actions government should take to encourage more private innovation and investment.
- Design policies to maximize consumer welfare.
- Announcement around infrastructure separation.
- Net neutrality considerations.

□ Industry Recommendations:

- Differentiation based on services and applications rather than infrastructure.
- Challenging business case of NGNs deployments in the absence of an effective infrastructure sharing model.



Thank You