



## ITU-BDT Regional Seminar on Mobile and Fixed Wireless Access for Broadband Applications for the Arab Region

Algiers, Algeria, 18-22 June 2006

### Convergence Strategy for Universal Operators and role of business planning

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### Convergence Strategy in Competition Content

- **Key factors in Evolution**
  - **Cost structure and savings**
  - **Economies of scale**
  - **Competition Level**
- **A stair case strategy for a universal operator**
  - **Business trends per category**
  - **Migration steps towards universal operation**
- **Business planning role and triple play evaluations**



## Convergence Strategy in Competition Convergence domains

Convergence may follow many directions

- At **Service** level (Fixed and Mobile, Interactive and Broadcasting, etc.)
- At **Network** level (One network for all service types: NGN )
- At radio **Access** level (DECT, WiMax, 3G, etc.)
- At **Operational** level (OSS, Billing, etc, for all customer classes)
- At **Terminals** level (2G, 3G, PDA, etc.)

Which one will happen ? → **Driven by Market, Economy of scale and Competition**



## Convergence Strategy in Competition Key Factors: Cost structure and savings

- High cost impact of network infrastructure layer: > 60% in Greenfield areas of which > 70% in access segment.
- Dimensioning and cost evolving in 3 phases through time:
  - A) Accessibility due to **Geo coverage** either physical or radio
  - B) Equipment in **Ports/users** as customers grow
  - C) Capacity in **Traffic** due to increase of multiservice applications
- Significant savings by resources and equipment sharing within an operator due to convergence at network layers : i.e.: 30%
- Additional savings inter-operators due to cost sharing of non-core equipment (buildings, towers, etc.) > 20%



## Convergence Strategy in Competition

### Key Factors: Economies of scale

Economies of scale are an inherent characteristic to the telecom technologies that impacts on solutions, evolution and also now survivability in competition

- The five dimensions of the economy of scale:
  - By **Size** of the systems → Larger systems cheaper per unit
  - By **Technology** capabilities → New technologies with higher capacity
  - By **Traffic efficiency** with the occupancy → Higher utilization for a given GoS when more servers
  - By customers **Density** → Quadratic increase with coverage radio
  - By **Volume** of purchasing → Discount per volume in log scale



## Convergence Strategy in Competition

### Key Factors: Competition level

#### Different Levels of Competition

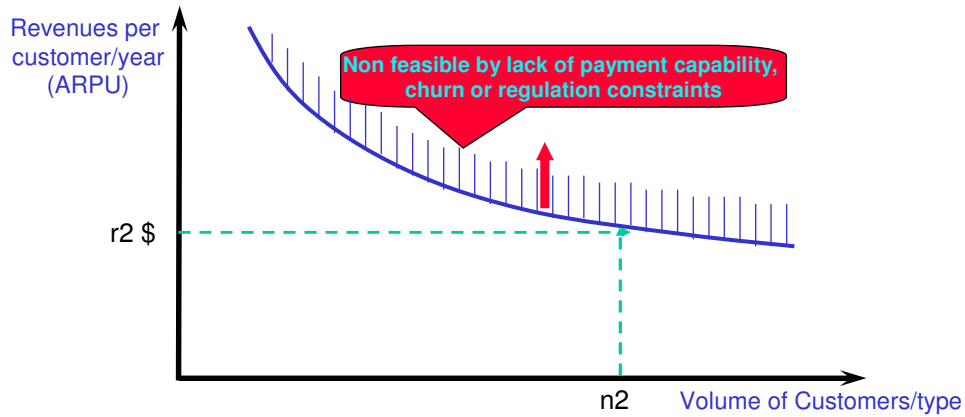
- **L1) Monopoly** for all geographical areas, customer classes and service types
- **L2) Limited monopoly** per area and/or service types while free operation for niche operators
- **L3) Moderate competition** for all network segments and services
- **L4) High competition** for high revenue customers and services
- **L5) Aggressive competition** for all areas, customers and services

*“Efficient telecom implies different competition levels as a function of country size and development status”*



## Convergence Strategy in Competition Key Factors: Competition level

Business feasibility space as a function of volume and ARPU



ARPU is limited by the economical development level and fixed costs

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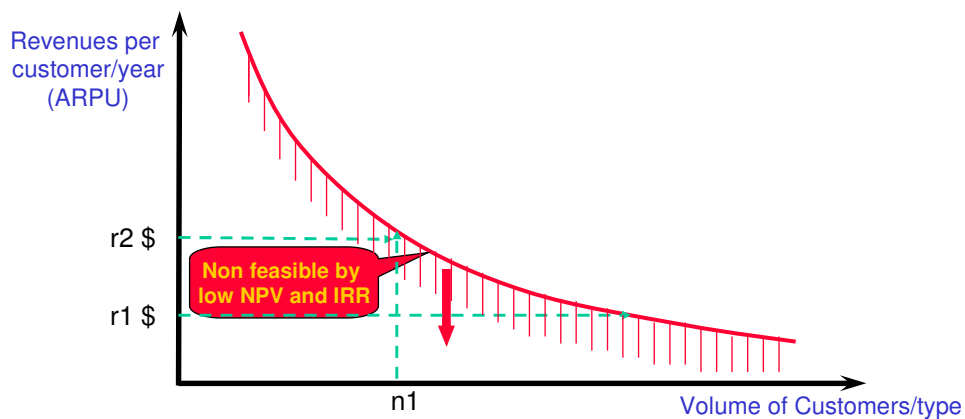
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## Convergence Strategy in Competition Key Factors: Competition level

Business feasibility space as a function of volume and ARPU



Business feasibility limited by positive NPV

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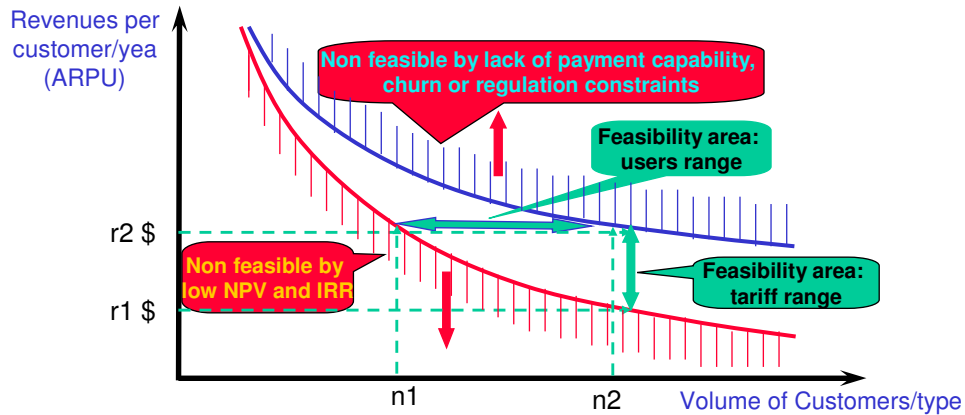
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## Convergence Strategy in Competition Key Factors: Competition level

Business feasibility space as a function of volume and ARPU



Feasibility space highly dependent on country size and economical level

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## Convergence Strategy in Competition Key Factors: Competition level

### Key factors for survivability in competition

- Push for **new services**
- Imaginative **pricing strategies** and bundles
- Actions for **market share capture** and better **take-up rate**
- Actions do minimize **churn**
- Actions to decrease **Cost of Ownership** and share common resources
- Business **profitability** positive and within or better than indicators benchmark

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## Convergence Strategy in Competition Content

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- **A stair case strategy for a universal operator**
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  - Migration steps towards universal operation
- **Business planning role and triple play evaluations**

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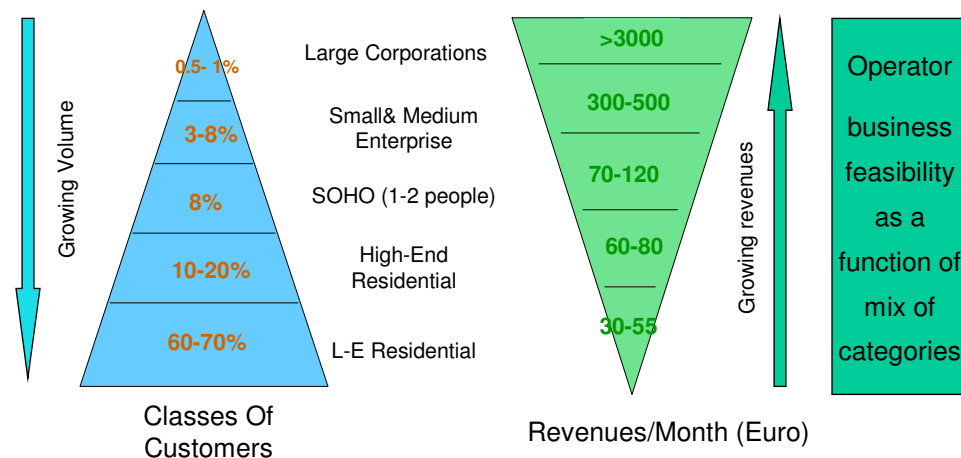
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## Convergence Strategy in Competition Business domains and trends

### Illustration case for customer categories and revenues



**“Customer stratification should be analyzed per country”**

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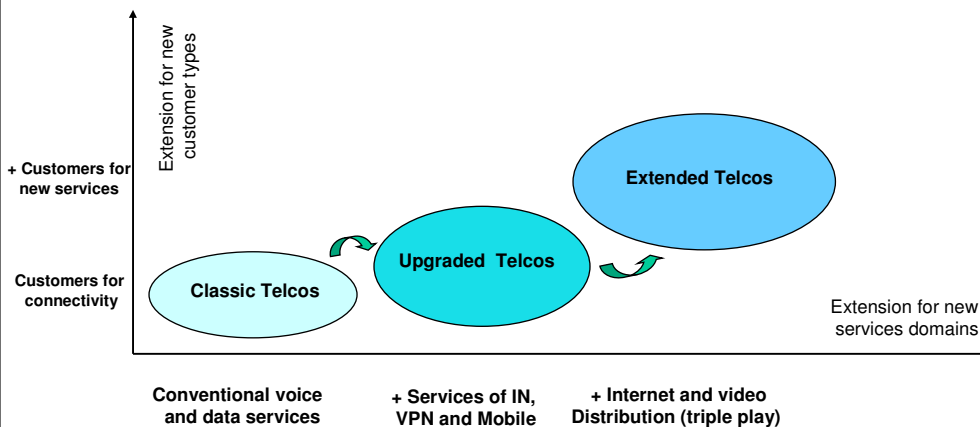
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## Convergence Strategy in Competition Migration steps

“staircase” for leading growing alternatives



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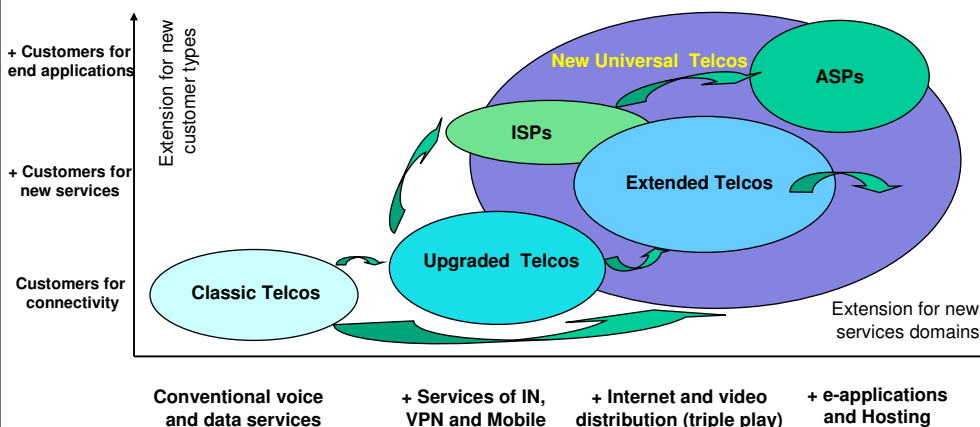
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## Convergence Strategy in Competition Migration steps

“staircase” for New Universal Telcos



Specific migration and timeframe to be optimized for the country context and regulatory conditions

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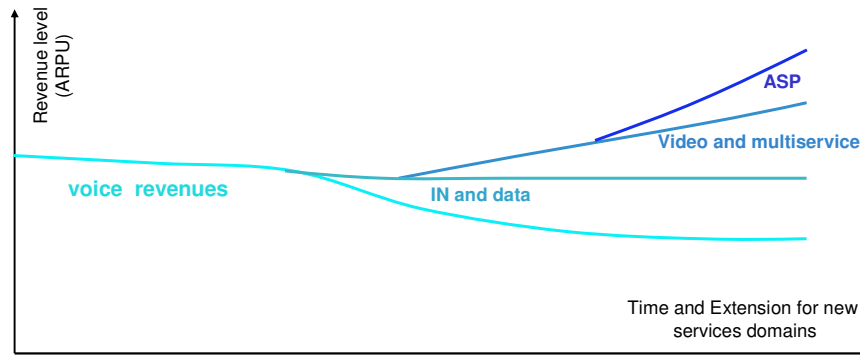
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## Convergence Strategy in Competition Migration steps

Evolution of revenues with service domains



Conventional voice  
and data services

+ Services of IN,  
VPN and Mobile

+ Internet and video  
distribution (triple play)

+ e-applications  
and Hosting

Convergence strategy is fundamental to be competitive and to grow

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## Convergence Strategy in Competition Role of Business Planning

- Forecast solutions, costs and revenues
- Evaluate future Cashflows, NPV, IRR, ROI, etc.
- Perform “What-if” analysis for optional alternatives on Volume of customers, customer mixes and services domains
- Perform benchmarking with “best in class” operators
- **Decision making on strategy and actions in competition based on quantified evaluations**
- Recommend alternatives and actions to ensure success



## Convergence Strategy in Competition Required functionality for Business tools

- Service Demand Projection
- Dynamic modeling for technology **substitution and migration rates**
- Dimensioning **multiple flows** (circuit and packet modes)
- Evaluation of network resources and associated investment (CAPEX)
- Evaluation of revenues for given tariffs and installation rate
- Modeling **multiple resource lifetimes**
- Modeling of demand elasticity to tariffs
- Interrelation between network growth and operational cost (OPEX)
- **Cost assignment** as a function of utilization rates
- Generation of standard financial results like Cash Flow, Profit & Loss, Balance Sheet, NPV, IRR, etc.



## Convergence Strategy in Competition Role of Business Planning

Evaluations to be based on robust techno-economical tools due to high number of alternatives and complexity

Case study for medium size country with mixes of customer classes and **triple play** services domains:

- Multiservice IP Network with integrated operation available
- Three service categories: Voice, Data/Internet, Video distribution
- Modeling demands, multiservice traffic flows, dimensioning, network resources, CAPEX, OPEX and financial results for different levels of competition
- Evaluate differential future Cash-flows, NPV, IRR, etc. for a 10 years period

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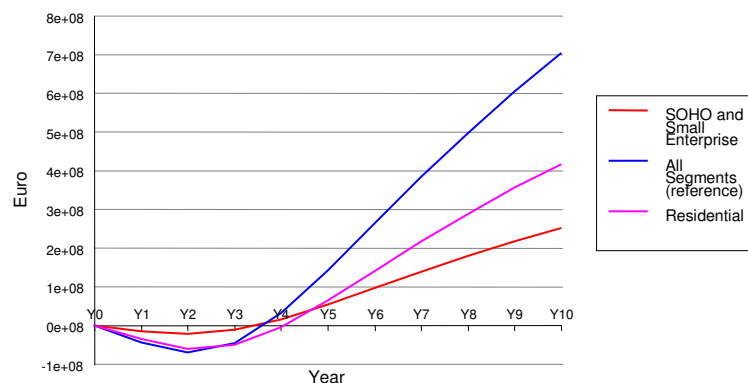
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## Convergence Strategy in Competition Role of Business Planning

Effects of the mix of customers on Reference Scenario: Low competition level  
Network NPV



- SME and SOHO with quicker recovery but less NPV and company value at medium term
  - "All customer segments" case with much better behavior

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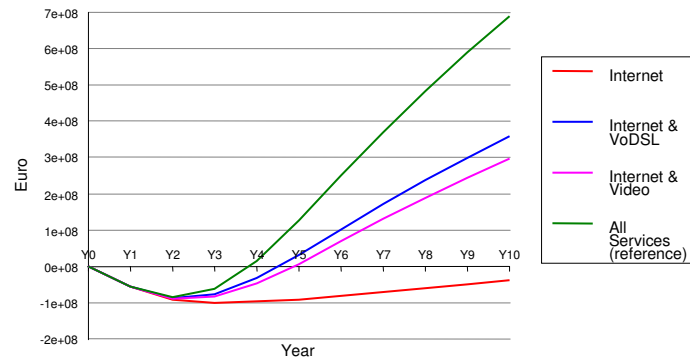
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## Convergence Strategy in Competition Role of Business Planning

Effects of the mix of services on Reference Scenario: Low competition level  
Network NPV



- Major impact of service classes on NPV and company survivability
  - Single service classes without future
  - High benefit of “all services” case

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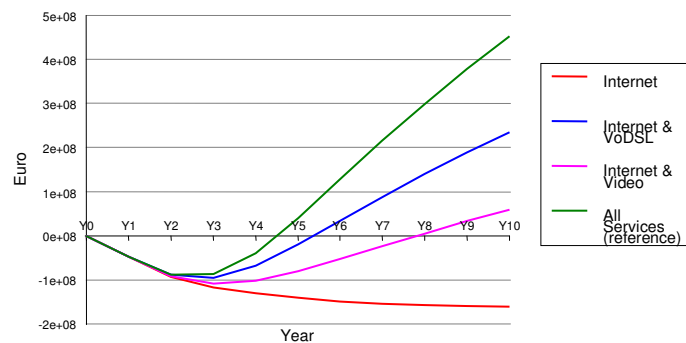
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## Convergence Strategy in Competition Role of Business Planning

Effects of the mix of services on typical scenario: Medium competition level  
Network NPV



- Increase of competition level amplifies the previous effects on feasibility: big differences between service mixes
- Data only or single service classes without feasibility at medium term
  - Very robust behavior for the “all services” case

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## **Convergence Strategy in Competition Recommendations**

- Ensure proper **modeling of key techno-economical factors** and professional tools
- Focus on **multiple customers, multiple services domains**
- Take benefit of **all economies of scale**
- Maintain **business indicators within benchmark margins in competition**

**!! Which convergence will happen ?  
Combination Driven by Market, Economy of scale and  
Competition !!**