

What did we learn from 2G Mobile that we can apply to a 3G and post 3G Multimedia Environment? *... from public policies and regulation perspective*

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ITU NEW INITIATIVES PROGRAMME

Workshop on The Regulatory Environment for Future Mobile Multimedia Services



Regulatory Approach for Mobile Development in Europe until 3G

The New Paradigm of Mobile 3G and Beyond Systems

Conclusions & Lessons Learned

➔ Regulatory Approach for Mobile Development in Europe until 3G

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Conclusions & Lessons Learned

Regulatory Approach for Mobile Development in Europe until 3G

Policy Objectives and Strategic Options for 2G

- 1G mobile networks deployed by former monopolies during the early 90's
- ICT European policy focused on fostering mobile development through increasing competition among operators:
 - Need for alternatives to fixed and analogue mobile networks → **the value of the network**
 - Continuous investment, innovation, modernization and technology evolution → **the value of competition**
 - Business sustainability and long term vision
- Basic strategic options:
 - ***Competition in services -vs- competition in infrastructures?***
 - ***High or low regulatory intervention?***

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Strategic Decisions adopted for 2G

COMPETITION IN SERVICES

- **National roaming** as the main tool
- Other measures around:
 - **Number portability**
 - **Termination rates**
 - **Retail prices**

COMPETITION IN INFRASTRUCTURES

- **Limited regulatory intervention** (comparing to fixed)
- Application of general measures:
 - Convenience of a **common standard** usage across Europe (economies of scale and interoperability)
 - **Competition, licensing and technology innovation directly related** (new operators deploy new technology)

Other strategic decisions:

- The tariff model adopted (**calling party pays**), and the high connection prices in calls from the fixed network allowed a rapid return on investment.
- The development of the **international roaming** service whereby the users could use their terminal all over the continent, guaranteeing continuity of service in any country
- The high user **terminal subsidies** by operators, permitting price reductions and promoting service penetration, principally in the residential market.
- Development of forms of **pre-payment** which speeded up the competition among operators to capture users through significant offers and discounts.

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The Way Forward: 3G and Beyond

The industry, the National governments, and the European Commission itself, supported the **usage of 2G development model for 3G**, which seemed to be a sufficient condition to guarantee another success, based on a common standard, generating great expectations about the future technology, but...:

- The **lack of harmonization** in the methods by which licenses were awarded around the European continent during the early 2000's- in their number and prices, coverage obligations and or investment commitments - created great instability
- The **business plans** designed by the operators, in conjunction with the equipment manufacturers and consultancy firms, **did not adequately evaluate the risks** implied and effort required for migration towards 3G
- The increase in the **operators' level of debt'** due to license fees, mergers and acquisitions payments, affected possible future investments
- The **bursting of the technological bubble** in 2001 and the subsequent economic crisis, undermined confidence in the sector, which was unable to commercialize its new services
- The **inability to develop the UMTS technology in the planned time-frames** (approximately 3 years of delay in average)
- The **difficulty to create a new appealing offer of mobile data services to costumers** showed the need to open mobile business to third party agents, particularly on the side of Internet and multimedia contents

Need for a strategic re-thinking of European Mobile sector

Regulatory Approach for Mobile Development in Europe until 3G

➔ **The New Paradigm of Mobile 3G and Beyond Systems**

Conclusions & Lessons Learned

The New Paradigm of Mobile 3G and Beyond Systems

3G and B3G in the Era of Convergence



It is already acknowledged that **services and applications, commonly known as “converged” ones, are affecting deeply the traditional structure of the mobile communications industry** as well as the means for provision of the different services based on voice, data and/or audiovisual content:

- **Mobile operators**, as main responsible of providing services and applications to final users, should migrate their business models and functional structures to new ones that better fit their interests in this new environment, assuring a smooth transition from the traditional network infrastructures to new broadband mobile-wireless ones able to effectively provide such solutions.
- **Policy makers and regulatory authorities** should create a suitable framework for a balanced development of the sector and market competition, taking into account the different interests and points of view of the agents across the value chain.

The New Paradigm of Mobile 3G and Beyond Systems

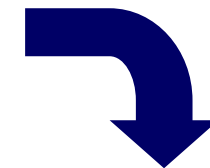
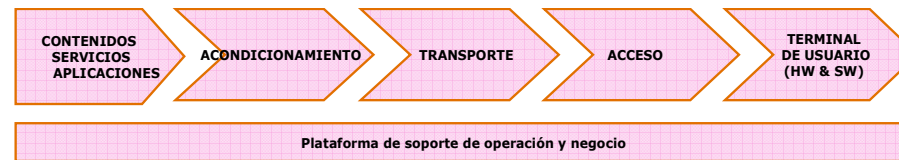
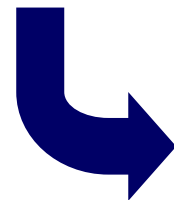
3G and B3G face a change in Business Environment

Voice



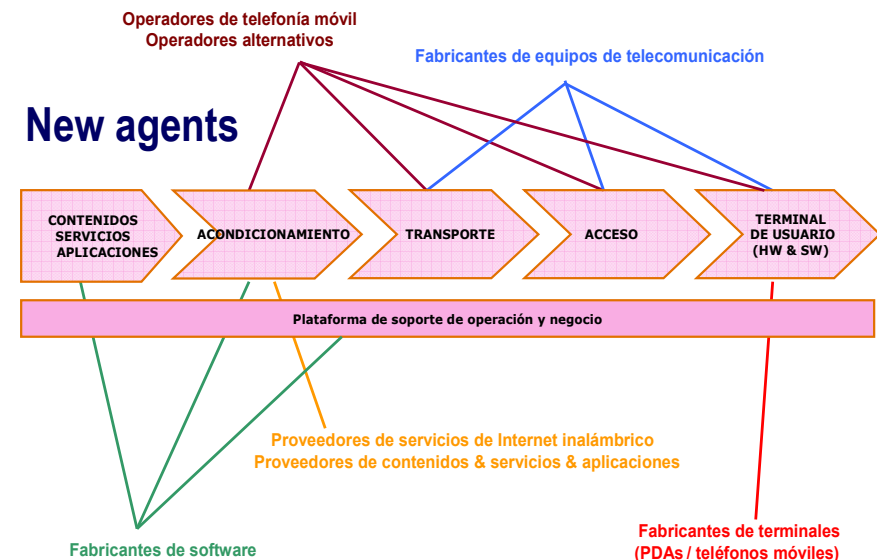
- New agents operates in different elements of the value chain:
 - Access and backbone
 - User handset
 - Contents, applications and services
 - ...

Data



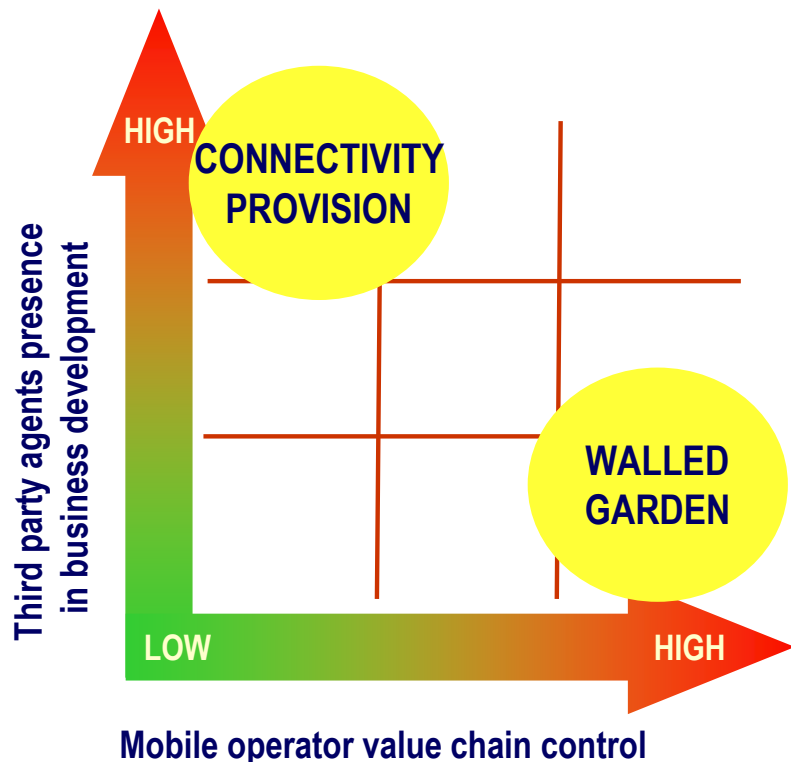
- New markets emerge to complement existing voice business:
 - **Broadband connectivity**
 - **Mobile data services**
 - ...

New agents



The New Paradigm of Mobile 3G and Beyond Systems

3G European Operators face a Business Strategy Redefinition



Connectivity provision

- Need for networks interoperability
- Increasing presence of third party agents
- Mobile operator as a carrier and enabler

Walled garden

- Network interoperability highly restricted
- Reduced presence of third party agents
- Mobile operator as a global service provider

Mobile operators keep 3G business control through their **WALLED GARDEN** approach to market mobile data services

BARRIER TO COMPETITION

The experience of the last years shows that the new market of mobile data services requires the opening-up of the value chain to new players (Internet, multimedia, entertainment, software, user devices) to bring dynamism to the creation of a services offering attractive to the end-users...

... But content protection is a pending question that it is as well a barrier to open mobile networks

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3G and B3G and their role within Information Society Development

- The European Commission already acknowledged in the June 2002 Seville Summit on ICT European Sector that **broadband development required a political boost**, in particular in cases where market dynamics are not sufficient to attain adequate infrastructure deployment or an attractive offering for users. Mobile and wireless broadband systems were included within the set of technologies suitable for that purpose.

“Member States, in co-operation with the Commission should support, where necessary, deployment [of broadband access] in less favored areas, and where possible may use the Union's structural funds and/or financial incentives (without prejudice to competition rules). Particular attention should be paid to outermost regions”.

European Commission (2002): “eEurope 2005: an Information Society for all”

After four years of this political declaration, a country like Latvia will receive support (June 2006)... Obviously mobile and wireless being a critical element to reduce digital divide and extend access

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3G and B3G face changes in the Regulatory Approach

	Voice	Broadband connectivity	Mobile data services
Market situation	<ul style="list-style-type: none"> Oligopoly 	<ul style="list-style-type: none"> Emerging 	<ul style="list-style-type: none"> Emerging
Competitors	<ul style="list-style-type: none"> Mobile operators MVNO Fixed operators? 	<ul style="list-style-type: none"> Mobile operators Wireless operators Fixed operators 	<ul style="list-style-type: none"> Mobile operators
Public policies	<ul style="list-style-type: none"> Universal Service (in the future?) 	<ul style="list-style-type: none"> i-2010 	<ul style="list-style-type: none"> i-2010
Regulation	<ul style="list-style-type: none"> MVNO Interconnection Call termination Retail tariffs Number portability Roaming 	<ul style="list-style-type: none"> Spectrum? Interoperability? Intellectual property towards DRM? e-content? Access to contents? 	<ul style="list-style-type: none"> Access to mobile operator network? Spectrum? Interoperability? Intellectual property towards DRM? e-content? Access to contents?

Current regulatory measures are focused on the past while public policy looks to the future

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➔ Conclusions & Lessons Learned

Conclusions

- The evolution of the mobile sector during the last few years shows that **it is necessary to undertake a change in the way the mobile communications sector is conceived**, from the economic, technological, public policy and regulation points of view
- **2G policy decisions and regulatory measures were aligned** in order to achieve strategic and long term goals
- However, the **regulatory model used for 2G** development proved to be **exhausted** for 3G
- The new era of 3G and B3G mobile communications systems **need for a a strategic re-thinking from public policies and regulation perspective** as the new convergent panorama is changing the sector as we know it.
- It requires a **forward thinking attitude from private agents** to rapidly adapt to new conditions
- Strategic decisions should concentrate on analyzing **how to promote investment in a new and different scenario** - which is already developing - where the key is not the evolution of the operators' market share in each service, but the **competition among different technological platforms** for a service and contents market which has still to be developed

Some Guidelines (*from my modest point of view...*)

- Given the **policy priorities under i2010 initiative**, policy makers and regulators still have to **combine competition in services and infrastructures strategies to achieve the long term goals:**

COMPETITION IN SERVICES

- Facilitate **access to mobile operator network**, but not for increasing competition within voice segment but **fostering new entrants on the mobile data services and broadband connectivity markets:**
 - Operators' network access should be granted in such conditions as to adequately remunerate the investment
 - The efforts should be made on stimulating the development of 3G and B3G services in the short and medium term

COMPETITION IN INFRASTRUCTURES

- **Foster investment on alternative wireless broadband networks to extend broadband access**
- This goal could be achieved via a new **policy on spectrum management** that:
 - Reduces artificial spectrum scarcity, pursuing spectrum efficiency and flexibility in its use
 - Supports innovation of wireless technologies, services and applications to be offered to users
 - Welcomes operators aiming to invest in network deployment

- In addition:
 - **Active measures for content protection** should be taken in order to avoid similar to situations that currently happen to Internet → **this is a real barrier to open mobile operator networks**
 - **Interoperability among different services platforms** should be a mandatory requirement, no matter if it comes from *de iure* agreements or *de facto* solutions imposed by market development

Lessons Learned (*at least what I learned...*)

- In a period of time where the value of communications apparently relies on services, contents and applications, **the value of networks should not be forgotten** as a mean to foster innovation and increase competition
- Obviously, **services, contents and applications are essential for 3G and B3G success**
- Closed practices like **walled garden should be avoided** but **remedies to protect the value of contents should be a must** in any future policy or regulatory action.
- **Always forward thinking approach to solve problems**, as short-term remedies can distort current markets and damage future potential development
- European Mobile players have shown a great performance on their business despite the difficulties for 3G development. **Policy makers and NRA's should leave players to look themselves for alternatives, helping them to compete in fair conditions and asking for help to achieve i-2010 policy goals**
- At the same time **operators cannot stop potential innovations** from new competitors due to their fears and insecurities, but it is the task of **policy makers and NRAs to reduce uncertainty** on their actions and measures

The key to 2G success was based on a clear consensus and dialogue among players within public (policy makers and NRA's) and private sector (basically operators and equipment manufacturers)...

PLEASE KEEP ON WORKING TOGETHER!

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