

NGANs and the geographical segmentation of markets

OECD Workshop on Fibre
Investment and Policy Challenges

Stavanger 10-11 April 2008

Rafael Díez Vega

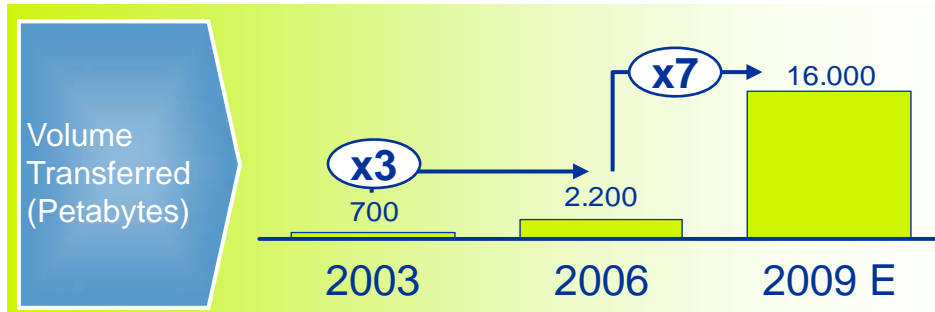
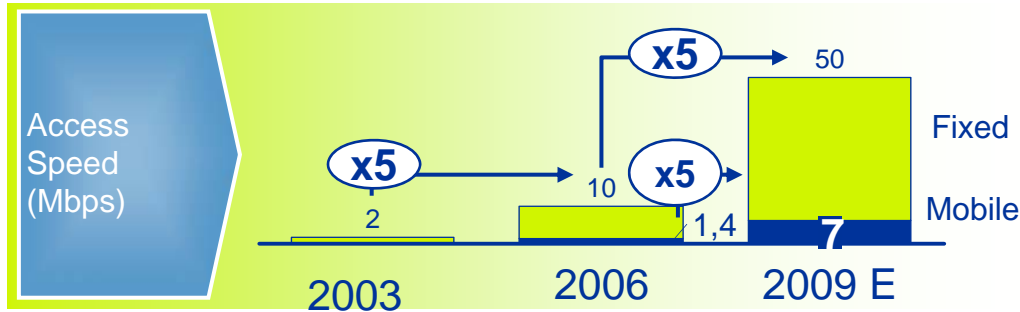


Index

- The Telecom infrastructure challenge: Policy choices
- Key tools to address the challenge: Platform competition and geographical segmentation of markets
- Positive impacts on digital divide

Telecom infrastructure is facing unprecedented challenges

Increasing demands on networks capacity



- Ultra High Broadband (trunk & access)
- Mobility
- Multiservice (image, voice, data, music)
- Multiple types of devices

Existing Telecom networks cannot cope with present market demands

Strong need of investment and innovation requires a supporting framework

Operators investing in new networks face different types of uncertainties

- Several technologies available: FTTx, Cable, DSL, Wireless, Wireline
- Demand risk on new services market
- New business models
- **Regulatory treatment of new investments**

The regulatory model should not increase uncertainties and has to provide clear incentives and guidance for the large-scale investment required for deploying NGAs

The policy choices

Politicians and Regulators have to choice between two opposed visions on the future of the industry:

Competition-driven industry

Platform competition

Multiplatform model

- Encourages platform competition to develop where technically & economically viable
- Regulation applied in a geographically differentiated way and focused on non-competitive areas
- Allows both service and platform sustainable competition to develop

vs.

Regulation-driven industry

Service-based competition

Single-network model

- Poor consideration /neglecting the added value of competing platforms
- Vision based on a single open network and service competition, ignoring alternative technologies and the potential of R&D efforts
- Perpetuation of regulation as cornerstone of business models: little faith on the potential of self sustained competition and on the role of competition law

Index

- The Telecom infrastructure challenge: Policy choices
- Key tools to address the challenge: Platform competition and geographical segmentation of markets
- Positive impacts on digital divide

Platform competition is driving investment and penetration

Will be both intra-modal
and inter-modal:

Cable

DSL

Wireless

FTTx

Platform competition

Broadband

- Platform competition has driven broadband penetration
Korea, US (Aron & Burnstein), Europe (Distaso et al. , Höffler)
- Access regulation ULL negatively affect platform competition and investment
Europe (LECG), US (Crandall & Singer)
- There is room also for platform competition over fully new built networks (Spain, Milan...), not just for upgrades of legacy CATV networks

Mobile

- Penetration and investment rocketed as free competition was launched in each country

Extending the reach of efficient platform competition requires some innovations in the regulatory framework

- To reduce barriers to new infrastructure investment by opening real bottlenecks at the lower level of the value chain.



Ducts Sharing

- Progressive deregulation based on existing or prospective platform competition in homogeneous competitive areas.



Geographically segmented market analysis

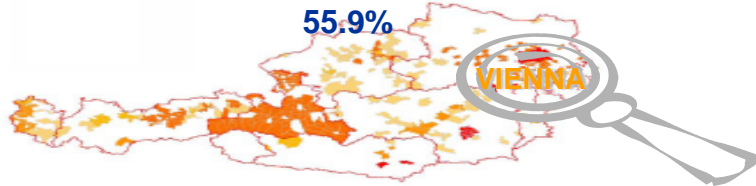
Geographical Differentiation arises from the underlying economics of telecommunications

Zone	User density	Network cost (per user)		Platform competition
		Wireline	Wireless	
Remote	+	+++++	++++	No service ■ Or only USO
Rural	++	++++	+++	— ■ Only one network, and some wireless
Suburban	+++	+++	+++	++ ■ ULL, wireless
Metropolitan	++++	++	+++	+++

And therefore Competition is not developing homogeneously within countries



BB MARKET SHARE TELEFÓNICA 55.9%

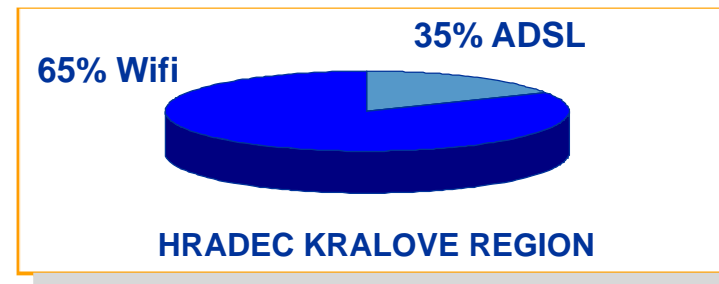
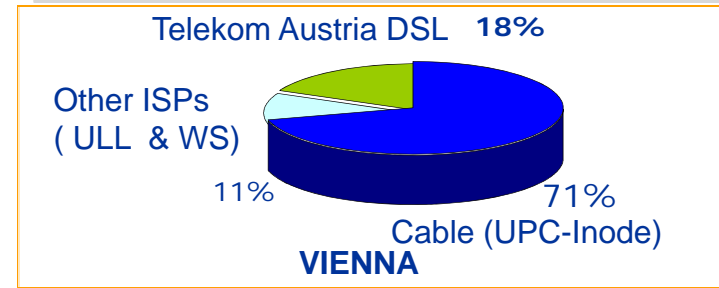
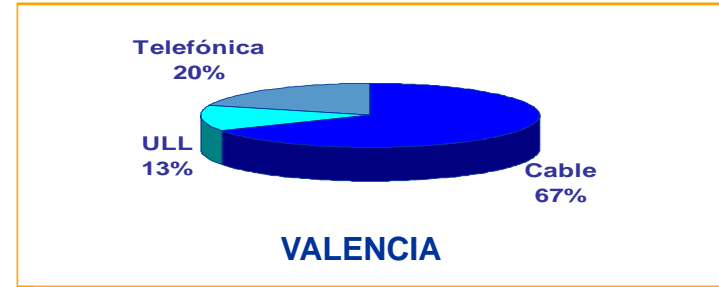


BB MARKET SHARE TELEKOM AUSTRIA 20.7%



BB MARKET SHARE TO2CR 37.2%

Source: COCOM



Source: Incumbent Operators

Competition is focusing on some areas in every country

Regulation has to adapt to present markets diversity

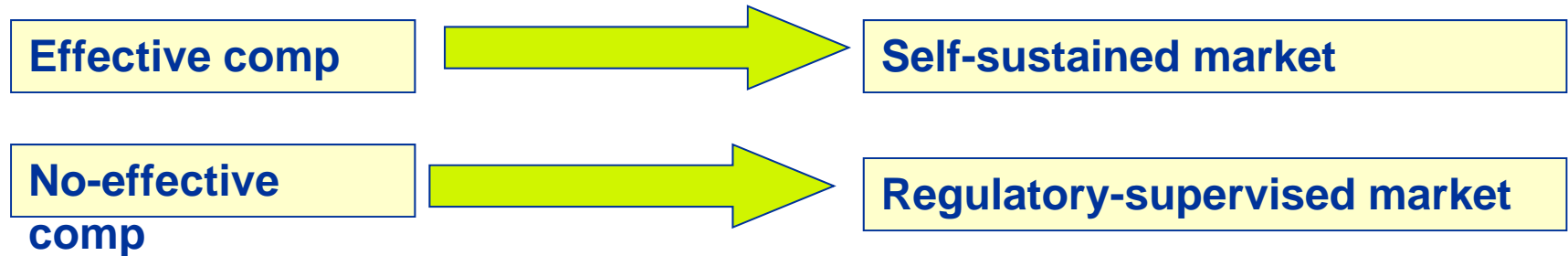
Where: Geography (user density)

When:
Alternative
networks in
place?

	Low	Medium	High
Yes	Unstable competition (DSL, 3G, WiMAX, satellite) <ul style="list-style-type: none"> ■ De-regulate ■ Actively watch NGN developments, if any 	Sustainable competition <ul style="list-style-type: none"> ■ De-regulate ■ Ordinary competition law 	
No	Temporary monopoly <ul style="list-style-type: none"> ■ Remove any obstacle to platform competition ■ Keep minimum access regulation 		Contestable (FTTx profitable for some new entrants) <ul style="list-style-type: none"> ■ Remove obstacles to platform competition ■ Wait-and-see attitude by competition authorities

The geographical model will mainly benefit users

- Users will always enjoy the best possible scenario

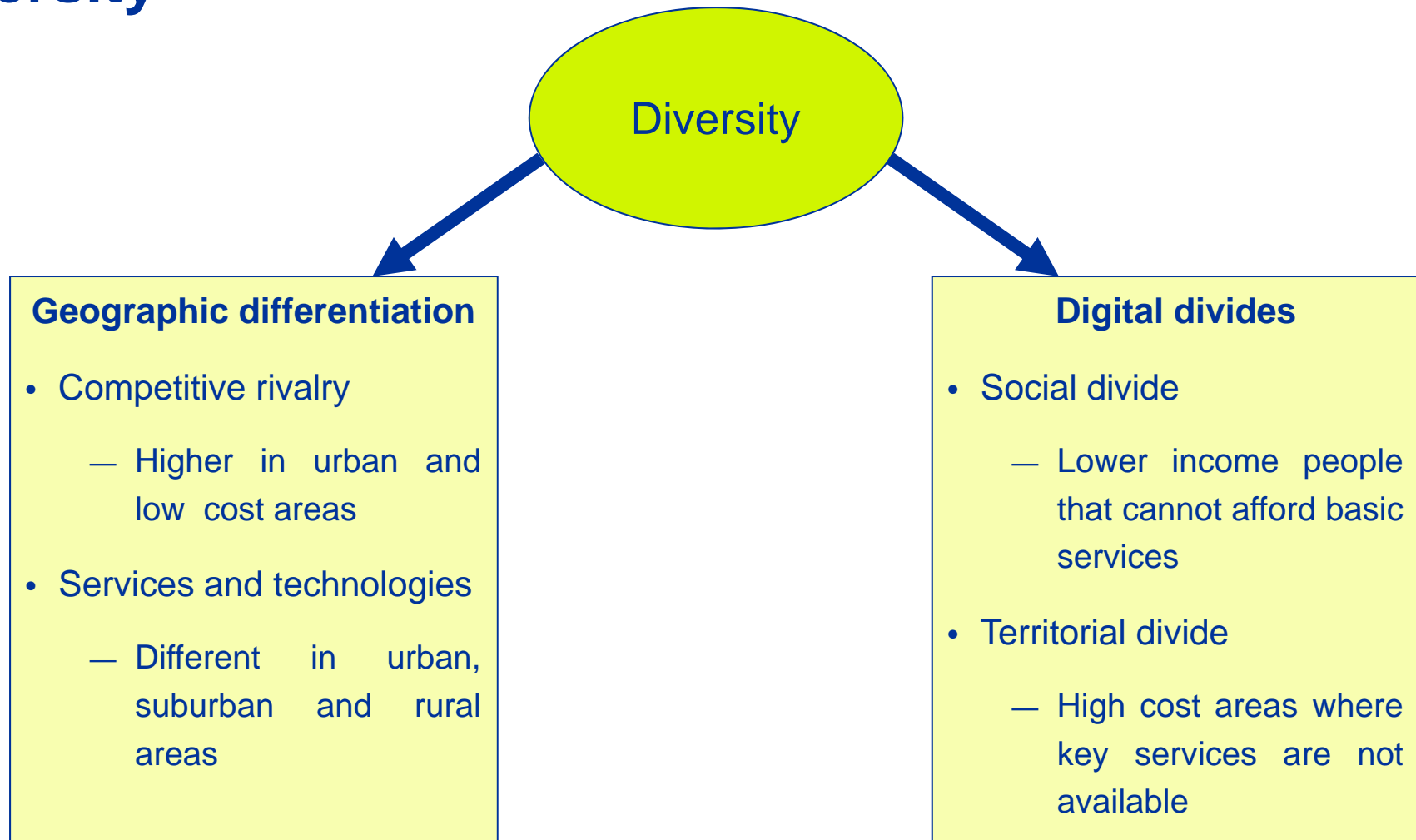


- Users will enjoy more advanced network platforms and a wider offer of innovative application and services with a range of qualities
- Fast growing number of users will benefit as incentives for market players (incumbent and alnets alike) to make competitive areas expand are established

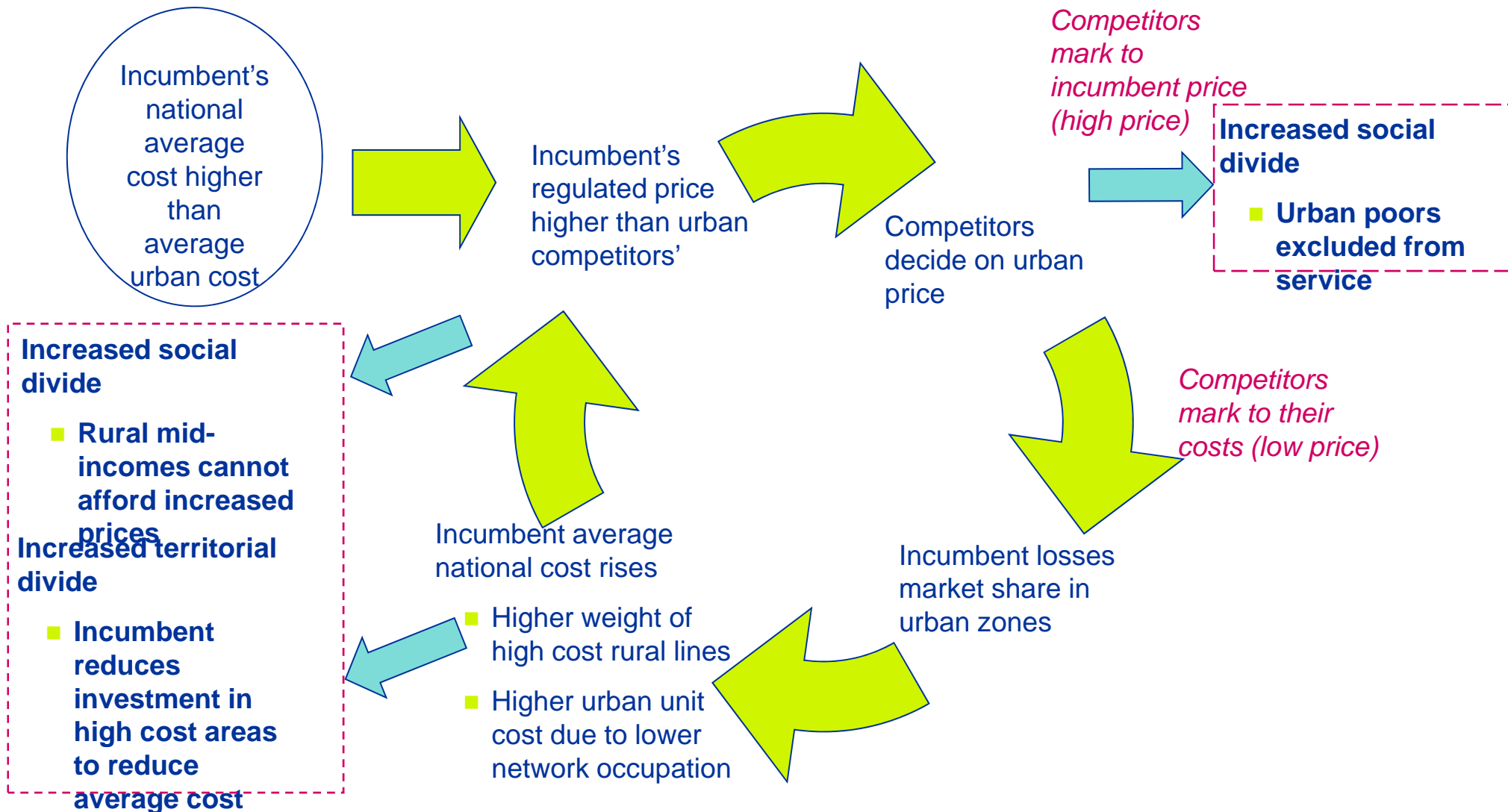
Index

- The Telecom infrastructure challenge: Policy choices
- Key tools to address the challenge: Platform competition and geographical segmentation of markets
- Positive impacts on digital divide

Both differentiation and divides arise from existing diversity



Forced uniformity drives an unsustainable vicious circle that will enlarge divides



Differentiation could prevent the rise of digital divides

	Regulation	Induced market dynamics	Impact on divides
Metropolitan & Suburban	Freedom to all operators	<p>Prices fall down to competitive levels</p> <p>Networks operate at efficient occupation levels</p> <p>Price rises capped</p>	<p>Lower social divide</p> <ul style="list-style-type: none"> Broadband affordable to most low incomes Social support better targeted
Rural	<p>Regulated access to networks</p> <p>Cost accounting separated from other zones</p>	<ul style="list-style-type: none"> Costs not linked to shares in other zones Ex ante regulation prevents abusive rises in prices <p>Unbiased investment</p> <ul style="list-style-type: none"> Incumbent deploys by zone merits New entrants do not fear price spillovers from other zones 	<p>Lower social divide</p> <ul style="list-style-type: none"> Most rural dwellers can afford broadband <p>Lower territorial divide</p> <ul style="list-style-type: none"> More commercial investment by operators
Remote	<p>Development programmes</p> <ul style="list-style-type: none"> Funded by public and universal service funds 	<p>Increased efficiency of fund allocation</p> <ul style="list-style-type: none"> Existing funds not diverted to Zones with actual or potential free market supply 	<p>Lower territorial divide</p> <ul style="list-style-type: none"> More funds targeted to this area

Conclusions

- Strong need of investment and innovation in new networks requires a framework that reduce uncertainties and provides incentive and guidance for large scale investments.
- **Effective platform competition** is the best choice to assure sustainable competition and to foster investment
- Extending the reach of efficient platform competition requires to open real bottlenecks at the lower infrastructure level and to progressively deregulate the telecom markets according to the different geographical competitive situations.
- The **Geographical Segmentation model** will push investments and gradual deregulation and users will always enjoy the best possible scenario, either with a sustained or a regulatory supervised market
- **Differentiated regulation** would prevent the increase of digital divide

Telefonica
