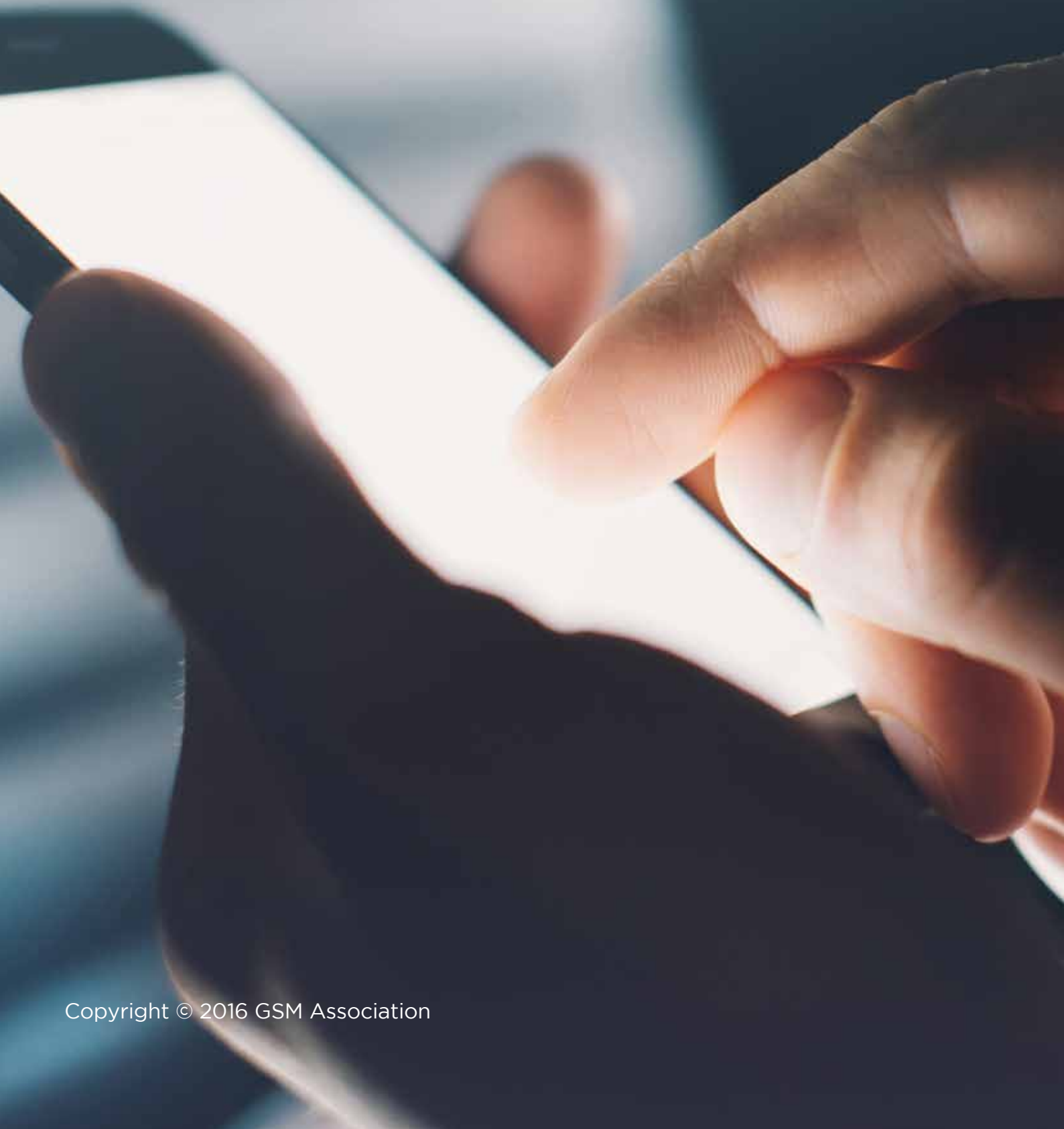




Keys to the Modernisation of Digital Ecosystem Regulation in **Argentina**



RECOMMENDATIONS FOR CONVERGED COMMUNICATIONS LAW

GENERAL PUBLIC POLICY RECOMMENDATIONS

BENEFITS FOR USERS



1. MAXIMISE THE BENEFITS OF CONVERGENCE BY REMOVING ARTIFICIAL BARRIERS

- Remove the regulatory restriction that places a time limit on any company entering neighbouring markets, allowing various services to be delivered on any given network

- Allow all providers to offer ICT services through any available technology.

- Facilitate mergers and acquisitions of companies to achieve economies of scale and scope.

- Strengthen ex post regulation in consultation with the competent bodies and by continually monitoring and updating the dynamics of the global digital world.

- Greater choice of providers for a single service or substitute services.
- Lower prices.
- Higher quality.



2. EXTEND COVERAGE BY REMOVING MUNICIPAL BARRIERS

- Standardise rules and regulations for wiring and antenna installation.

- Local permits for infrastructure deployment should be granted automatically if they comply with the basic criteria laid down in national regulations.

- Allow state-owned buildings and installations (national, provincial and municipal) to be used free of

charge for installation and deployment of infrastructure (not only on buildings but also via the network of public services and roads for fibre optic installation).

- Promote and offer incentives for passive and active infrastructure sharing to meet coverage obligations in areas that are isolated or difficult to access.

- To promote infrastructure deployment compatible with the needs of Argentina's population and economy, various actions can be taken, particularly in the context of an overhaul of the regulatory framework.

- Draw up model federal regulations as a guideline for municipal regulation, promoting their adoption through incentives.

- Greater predictability and more incentives for infrastructure deployment will allow more network competition, better and higher quality services and greater coverage.



3. ENHANCE USER EXPERIENCE BY ENCOURAGING COMPETITION IN QUALITY OF SERVICE

- Regulation of quality of service must focus on creating transparency in the information available to users, comparable to and in line with international standards and the market context.

- Regulation must ensure that new digital ecosystem services give users the same level of protection and transparency as existing services.

- Specific quality regulations should be avoided to allow service providers to compete on the basis of quality.

- An exclusively sanctions-based approach could have unwanted consequences such as discouraging innovation, distorting the market, reducing products and lowering efficiency and competition.

- Consumers will have greater transparency to be able to decide which products and providers best suit them depending on their needs.



4. REMOVE SECTOR-SPECIFIC TAXES TO ALLOW GREATER AFFORDABILITY AND UNIVERSALISATION OF THE SERVICE

- In such a strategic sector for the future development of the country, taxation on telecommunications should not distort consumption and investment decisions.

- All the stakeholders in the digital ecosystem should contribute to the Universal Service Fund, and use of the fund should focus on

universalising the internet service .

- A rethink of the Universal Service Fund is necessary to ensure it extends ICT services into unconnected areas. Asymmetric tax treatment should be avoided when obligations are already met through other regulations.

- Create a single national catalogue of verification and inspection fees to standardise concepts and generate transparency in application and charges.

- Gradually reduce or remove targeted taxes (promotion of actions such as sport and installation of internet in education centres).

- With a transparent, rational taxation system, the prices of services will decrease and consumption will increase, incorporating more people into digital services.
- Tax revenues should not experience major changes, because when available revenue increases, consumption also increases, leading to more revenue from consumption tax.



5. OPTIMISE RADIO SPECTRUM AS A KEY INPUT FOR THE INDUSTRY

- Define the state commitment to allocate all possible harmonised spectrum and ensure it is available to maximise the benefits for all citizens and, in particular, to improve coverage, capacity and quality, channel investments and facilitate adoption of new technologies.

- Create certainty and visibility around management of spectrum in the mid to long term to give clear indications of its availability, paving the way for investments and deployment of new services.

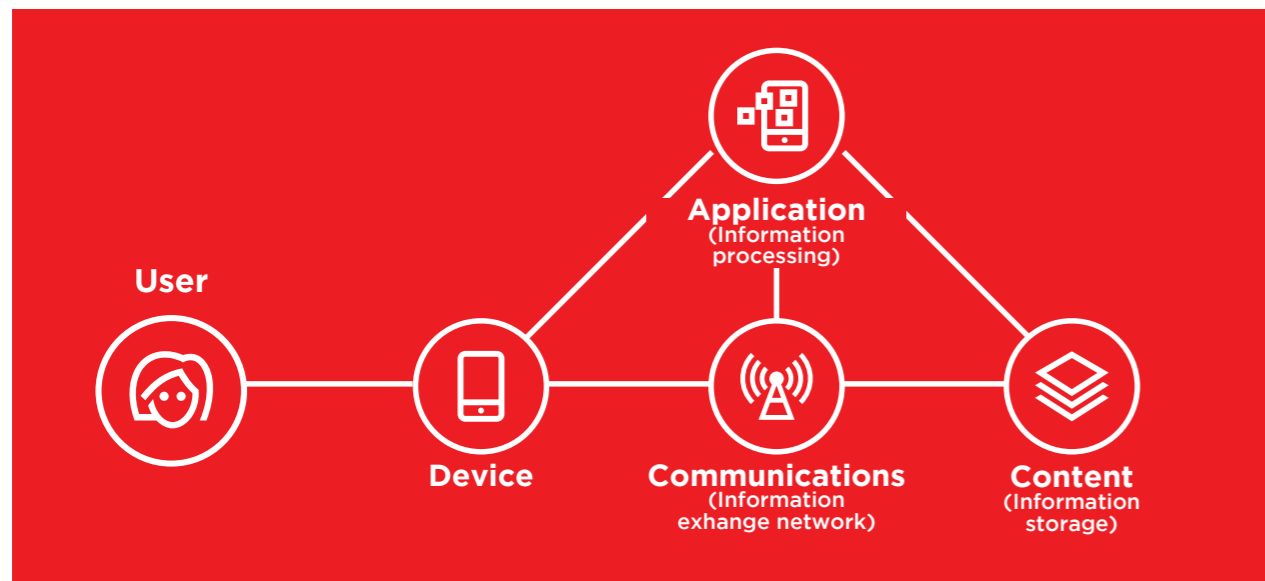
- Auction the Extended AWS band (1755-80 / 2155-80), the 2,500MHz band in the short term and the 600MHz band, which, with the C and L band, will be the keys to extending 4G and developing 5G in the country.

- Complete the clean-up of the 700MHz band so it can be brought into use as soon as possible and the social coverage goals can be achieved.

- Bring Argentina's Table of Frequency Band Allocations (CABFRA) into line with international recommendations, primarily aiming to generate contiguous blocks of spectrum in bands where there currently are none.

- By increasing the amount of spectrum available for mobile services, users will have improved quality of service and greater and better coverage (indoor and outdoor).
- The impact of spectrum on quality and speed has been noticeable since 2014, when operators started to use AWS spectrum for 4G services.

Keys to the Modernisation of Digital Ecosystem Regulation in Argentina



The technological progress resulting from digitisation has produced countless benefits for consumers around the world. Primarily leveraged by mobile, access to digital content is becoming universal, with more than three billion people connecting through these devices every day. Argentina has 64 million mobile connections and almost 30 million unique mobile internet users, indicating that access is starting to penetrate lower income levels.

Three key characteristics¹ of the new digital ecosystem are driving this progress:

1. Modularity. Digital products and services are made up of a combination of complementary inputs (applications, content, devices and communications)

that multiply, almost endlessly, the array of choices to satisfy consumer needs.

2. Economies of scale and scope.

The ubiquity of the internet allows increasingly better services to be made available to companies and users at constantly falling prices, or even free of charge.

3. Dynamism.

The constant evolution of the digital ecosystem means that both new and existing companies have powerful incentives to invest and innovate, and therefore to create new products that satisfy user needs more efficiently (cheaper and/or better products). At the same time it generates more competition as a result of entry into neighbouring markets.



Future-proof regulation

Argentina has a unique opportunity to revise its legislation in an ambitious and comprehensive manner, allowing it to incorporate all the dynamism of digital technological convergence and obtain clear benefits for citizens and companies, who constantly demand greater connectivity.

However, the fast-paced dynamism of the digital ecosystem complicates the task of establishing rules capable of maintaining their validity for any length of time. Stringent regulation can distort the market and affect the emergence of new products and services. We are currently seeing two very specific

harmful outcomes of the obsolescence of some regulatory policies:

- **Regulatory discrimination:** There is a clear difference in the way in which various sectors currently providing very similar or even identical² services are regulated. An example of this is traditional versus IP communications services.
- **Static regulation in a dynamic market:** Today the regulatory framework of most countries in the region, including Argentina, is prescriptive or ex ante, as it lays down the rules under which companies will operate.

¹ For more information, see "A New Regulatory Framework for the Digital Ecosystem"

² For more information, see "Competition Policy in the Digital Age".

To keep pace with the growth of the digital ecosystem and maximise the socioeconomic benefits of this vibrant industry, we believe that regulation should be “future-proof” and based on three specific principles:

1. Functionality-based regulation.

Design the regulatory framework to achieve its objectives in the most efficient way, without regard to industry structure, technologies or legacy regulatory regimes.

2. Dynamic regulation.

The dynamism of this type of market means that regulation must have general principles, be flexible and not hinder the emergence of new services.

3. Bottom-up regulation.

In some cases regulation may need to be rethought from the ground up so the legacy of outdated rules does not continue to adversely affect users. In many cases, competition in the digital ecosystem means that legacy regulation no longer achieves the objective it was created for. In other cases, such as privacy and cyber security, a new regulatory framework will be necessary.

This must not be confused with a lack of regulation; it is more a case of seeking a minimum of general ex ante principles complemented by ex post regulation to allow intervention to protect user rights, competition and data privacy. This is in line with recommendations of the Organisation for Economic Cooperation and Development (OECD)³, which propose introducing reforms to ensure full liberalisation of telecommunications markets to discipline prices, promote innovation and improve responsiveness to demand.

The new regulatory framework to emerge from this must be market- and technology-neutral. It will be cost effective, as it will aim to achieve public policy goals at the lowest possible cost. It must also be flexible, because it will keep pace with technological and market innovation while preserving and enhancing regulators’ ability to achieve their objectives. Most importantly, this new framework must allow consumers to use digital tools and be protected by regulation that is designed according to their needs and maximises the benefits of access to the digital ecosystem.

³ “A Digital Economy Toolkit: Broadband Policies for Latin America and the Caribbean”, OECD.

CONVERGENCE: KEYS TO THE MODERNISATION OF DIGITAL ECOSYSTEM REGULATION IN ARGENTINA



PUBLIC POLICY RECOMMENDATION



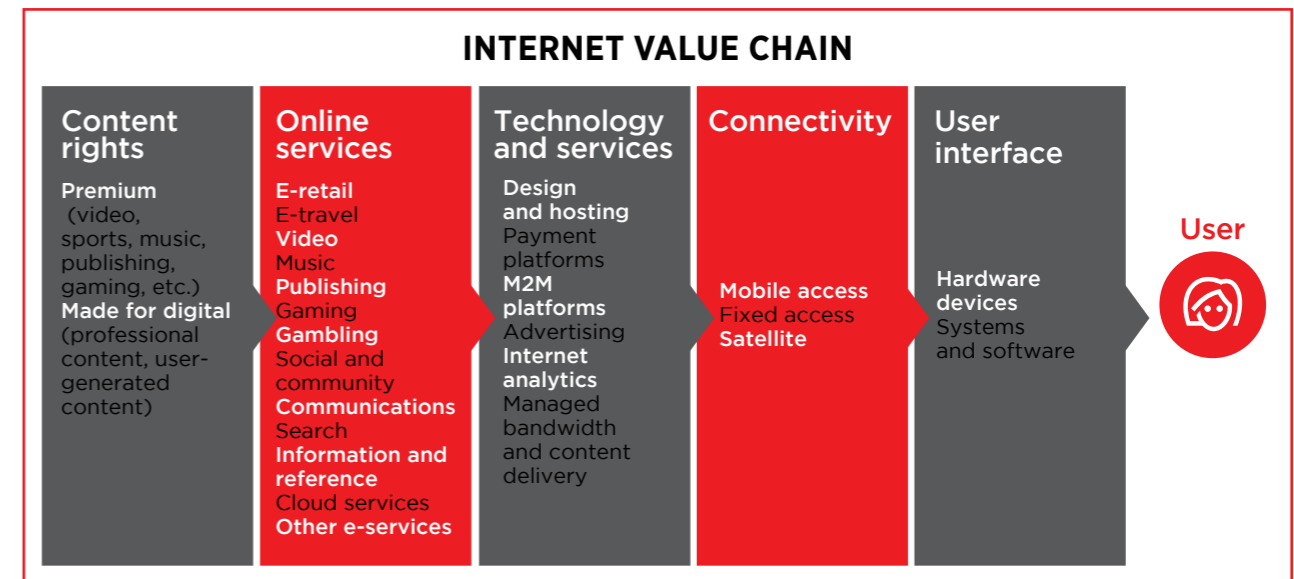
1 Maximise the benefits of convergence by removing artificial barriers

Digital services are inherently convergent. One of the main objectives of reforming the sector is to acknowledge the advent of a convergent market in which the only limitation for providing services using a particular type of network should be technology, rather than prescriptive regulation. If more services can be delivered through a single technology, products and competition will increase, generating greater benefits for consumers in terms of diversity, quality and price. From the point of view of the service provider, a more efficiently used network will result in lower unit costs and a more intensive use of capital, with a corresponding rise in productivity.

The convergence of services typically regarded as telecommunications (voice, messages, data) has occurred gradually, without a technological barrier. In Argentina today, traditional voice and data companies are excluded from entering the pay television market, even though their networks can provide this service. Convergence brings endless opportunities that far exceed the benefits of protecting traditional sectors.

Regulations in Argentina were historically separate (Laws 26,522 and 27,078; Decree 764/00), with different bodies responsible for broadcasting and telecommunications. For convergence to become a reality, a comprehensive approach is necessary, taking into account new technologies and services emerging as a result of the pre-eminence of internet connectivity. Regulations like Decree 267/16, which exclude satellite service from the ICT context, should be repealed, because for convergence, all providers should be able to offer all ICT services, regardless of the technology used.

The current prohibition on entering the pay television market is a result of legacy regulation. Such a framework does not consider that goals for penetration, diversity of services, competition and investment can be more effectively achieved with greater competition, regardless of existing technology and market structure. Distortions in competition should be solved by empowering the national authority to intervene where necessary.



Principles of regulatory modernisation

Technological neutrality is essential to achieve regulatory modernisation capable of encouraging innovation and investment. As an example, to help close the digital divide and deliver mobile internet services to remote areas, service could be provided through various technologies; applying prescriptive or differentiated regulatory measures limits the range of options and makes it difficult to achieve the proposed goal of increasing user benefits. A prescriptive rule applied ex ante

endangers dynamic, flexible regulation capable of adjusting to the changes of a rapidly evolving market. This type of regulatory barrier is an example of regulatory discrimination. The regulatory framework must reduce asymmetries between digital services, allowing for an ecosystem in which the value chain can grow⁴, segments are more interdependent, and where regulation keeps pace with the harmonious development of the ecosystem rather than limiting its evolution.

Recommendations for a new convergence law

- Remove the regulatory restriction that places a time limit on any company entering neighbouring markets, allowing various services to be delivered on any given network.
- Allow all providers to offer ICT services through any available technology.

General public policy recommendations

- Facilitate mergers and acquisitions of companies to achieve economies of scale and scope.
- Strengthen ex post regulation in consultation with the competent bodies and by continually monitoring and updating the dynamics of the global digital world.

BENEFITS FOR CONSUMERS

There will be greater choice of providers for a single service or substitute services, leading to an increase in consumer surplus through lower prices and higher quality.

⁴ For more information, see "The Internet Value Chain", GSMA.

PUBLIC POLICY RECOMMENDATION



2 Extend coverage by removing municipal barriers

Convergent services can be provided only if there are telecommunications networks to carry them. Growing demand and fast-paced technological innovation oblige networks to increase their ability to continually incorporate breakthrough technology. To achieve this, the regulatory framework must minimise bottlenecks, encourage rapid network deployment, remove unjustified costs, and focus on areas with a history of local impediments to deployment.

At present the rules vary between municipalities, creating multiple non-standard regulations. This could mean that municipal regulation obstructs the achievement of national public policy, such as maximising coverage and universalising service. Infrastructure deployment is a complex undertaking that requires a regulatory framework to promote it. Such a framework must not be an obstacle to the benefits that a robust infrastructure can deliver for citizens⁵.

A number of initiatives have been set up in Argentina to promote infrastructure deployment, although they have not always achieved their goals. They include Ministerial Decree 798/16 and the Argentinian Federation of Municipalities Code of Good Practices. It is essential to include the importance of infrastructure deployment and removal of barriers to deployment in the convergence law at federal level; there should be no regulations at other government levels that could create ambiguity. A positive example of standardisation is the 2016 Model Ordinance, which proposes a procedure for registration and automatic approval for infrastructure deployment, although it needs more of a “push” for it to take effect “by default” at municipal level.








Principles of regulatory modernisation

The power of municipalities to determine rights of way and territorial planning should not hinder the deployment of infrastructure that enables the delivery of new services and

the entry of more providers. It must be possible to implement functionality-based regulation effectively at provincial and municipal level.

MORE ANTENNAS MEANS A HIGHER SIGNAL LEVEL AND LONGER DURATION FOR MOBILE DEVICE BATTERIES

EXAMPLES OF OBSTACLES TO INSTALLATION OF ANTENNAS

 Visual impact	 Neighbourhood fears about potential impact on health	 Neighbourhood demonstrations	 Negative media coverage
 Lack of awareness of national regulations in force	 Lack of knowledge and use of unreliable sources of information	 Delays in government permits and excessive fees	

Recommendations for a new convergence law

- Standardise rules and regulations for wiring and antenna installation.
- Local permits for infrastructure deployment should be granted automatically if they comply with the basic criteria laid down in national regulations.
- Allow state-owned buildings and installations (national, provincial and municipal) to be used free of charge for installation and deployment of infrastructure (not only on buildings but also via the network of public services and roads for fibre optic installation).
- Promote and offer incentives for passive and active infrastructure sharing to meet coverage obligations in areas that are isolated or difficult to access.

General public policy recommendations

- To promote infrastructure deployment compatible with the needs of Argentina’s population and economy, various actions can be taken, particularly in the context of an overhaul of the regulatory framework.
- Draw up model federal regulations as a guideline for municipal regulation, promoting their adoption through incentives.

 **BENEFITS FOR CONSUMERS**

Greater predictability and more incentives for infrastructure deployment will allow more network competition, better and higher quality services and greater coverage⁷.

⁵ It is important to distinguish between two fundamental types of deployment: wiring (including fibre optic) and antenna installation (for mobile telephony as well as satellite reception and point-to-point transport).
⁶ For more information, see <http://www.gsma.com/latinamerica/es/despliegue-infraestructura>

⁷ For more information about coverage in Latin America, see <http://www.gsma.com/latinamerica/es/cerrar-la-brecha-de-cobertura>

PUBLIC POLICY RECOMMENDATION



3 Enhance user experience by encouraging competition in quality of service

Quality of service is a very broad, difficult to define concept⁸. Telecommunications service providers combine quality of service parameters according to their specific requirements. By differentiating their products and services and tailoring them to all types of users, they ensure user satisfaction.

To have quality services, it is first of all necessary to ensure there are no barriers to two basic inputs: spectrum availability and favourable conditions for infrastructure deployment. It is also essential to consider that factors beyond the network directly affect user experience and therefore the perception

of quality. These can include anything from the number of users in a cell to traffic jams, public protests, the distance between the terminal and the antenna, jammers and the weather.

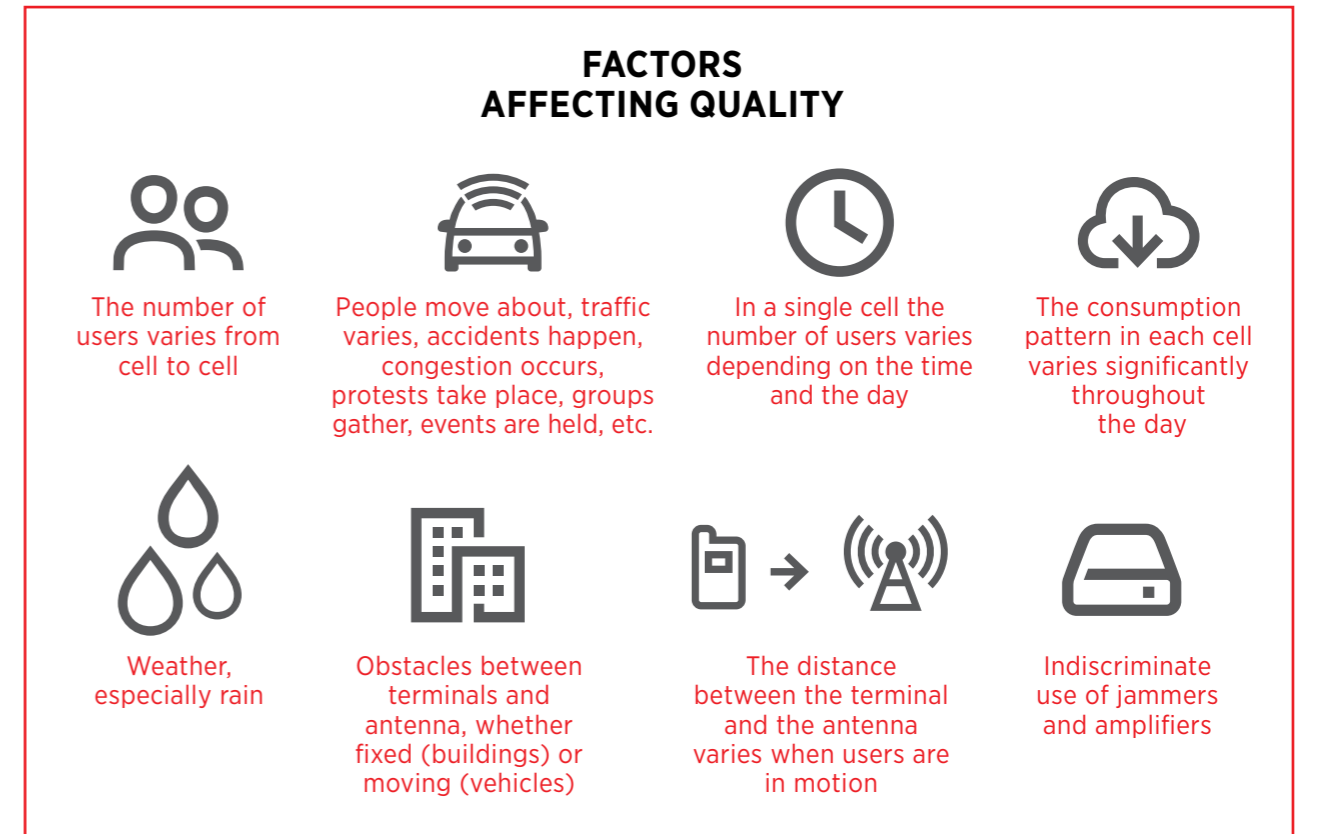
In Argentina quality of service is governed by the 2013 Telecommunications Quality of Service Regulation, which lays down minimum quality requirements for services. This regulation not only fails to incorporate international best practices, but also includes objectives that are not necessarily designed to ensure improved user experience.

Principles of regulatory modernisation

Legacy regulation persists in the dynamic digital market, for example setting blanket standards of service quality for mobile networks. A modern regulatory framework must recognise that network performance expectations change according to the needs and circumstances of each user (i.e., a single user can have different needs depending

on whether they are travelling, working, at home or consuming entertainment).

Absolute parameters of quality that do not evolve with the market or adapt to specific conditions of place, time and space can become obsolete or irrelevant. It is necessary to ensure users have the best possible quality and the same protection and rights for similar services.



Recommendations for a new convergence law

- Regulation of quality of service must focus on creating transparency in the information available to users, comparable to and in line with international standards and the market context.
- Regulation must ensure that new digital ecosystem services give users the same level of protection and transparency as existing services.

General public policy recommendations

- Specific quality regulations should be avoided to allow service providers to compete on the basis of quality.
- An exclusively sanctions-based approach could have unwanted consequences such as discouraging innovation, distorting the market, reducing products and lowering efficiency and competition.

BENEFITS FOR CONSUMERS

Consumers will have greater transparency to be able to decide which products and providers best suit them depending on their needs.

⁸ For more information about Quality of Service, see <http://www.gsma.com/latinamerica/es/qos>

PUBLIC POLICY RECOMMENDATION



4 Remove sector-specific taxes to allow greater affordability and universalisation of service

Telecommunications are a necessity, not a luxury; high taxes have been proven to result in higher prices for users. A higher tax burden increases the price of services, leading in turn to lower consumption and exclusion of those at the bottom of the income pyramid. Digital inclusion is a development goal of most countries, to the extent that the right to internet access is recognised as a human right.

Argentina is one of the highest ranked countries (Deloitte, 2015) for taxation as a proportion of total cost of mobile ownership, which stands at 58%, compared to a world average of almost 23%. Argentina imposes 27% VAT, 4% special tax on use, 20% luxury tax on handsets (handsets from Tierra del Fuego are exempt) and sector-specific fees and taxes (use of spectrum and Universal Service Fund). Mobile services are subject to specific internal taxes and gross receipts tax at disproportionately high levels compared to other sectors, which is clearly contradictory for a service that cannot be considered a luxury, does not pollute and does not use non-renewable natural resources. But if digital services are drivers of inclusion, development and productivity, they should have better tax treatment.

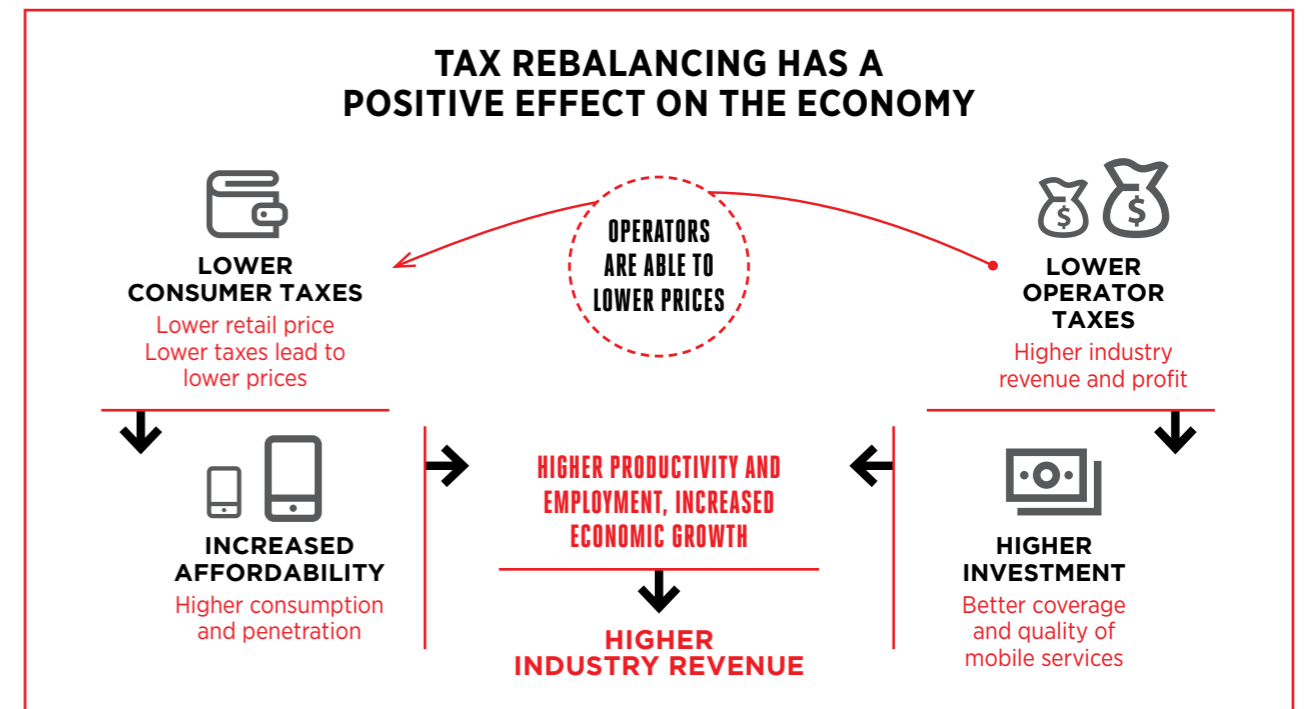
The new digital ecosystem poses a complex tax treatment of corporate income, creating a need for regional and international dialogue to determine where certain services provided to a country's inhabitants should be taxed. According to the OECD⁹: "Broadband

should be made increasingly accessible and affordable to people living in rural and remote areas [...] Sectoral over-taxation should be avoided and public authorities can also establish incentives and finance networks when markets alone are unable to meet the demand".

A complete rethink is needed of the purpose and reach of revenue collection through the Universal Service Fund, because these days obligations to reach remote areas, at least as far as mobile services are concerned, are met through the coverage requirements of spectrum licensing. Further taxation on mobile services would make no sense, unless contribution to the fund is removed for these circumstances or the extent and use of the fund are redefined to take all digital service providers into account.

Principles of regulatory modernisation

The diversity of fees and taxes on telecommunications gives rise to two central issues: (i) the inconsistency between the public goal stating that ICT must be considered a fundamental right and actions that make delivering this technology more expensive, thus reducing its affordability, acquisition and use; (ii) because taxes affect the entire range of services differently, the notion of technological neutrality and agnosticism is lost, creating distortions and allowing a choice, through taxation, of winning and losing companies.



Recommendations for a new convergence law

- In such a strategic sector for the future development of the country, taxation on telecommunications should not distort consumption and investment decisions.
- All the stakeholders in the digital ecosystem should contribute to the Universal Service Fund, and use of the fund should focus on universalising the internet service.
- A rethink of the Universal Service Fund is necessary to ensure it extends ICT services into unconnected areas. Asymmetric tax treatment should be avoided when obligations are already met through other regulations.

General public policy recommendations

- Create a single national catalogue of verification and inspection fees to standardise concepts and generate transparency in application and charges.
- Gradually reduce or remove targeted taxes (promotion of actions such as sport and installation of internet in education centres).
- Bring VAT into line with this tax on all goods and services in the economy: telecommunications are a necessity, not a luxury.
 - Remove exemptions and surcharges throughout the value chain. VAT is the best indication for optimum allocation of resources in the production, delivery and consumption of telecommunications services.

BENEFITS FOR CONSUMERS

With a transparent, rational taxation system, the prices of services will decrease and consumption will increase, incorporating more people into digital services. Tax revenues should not experience major changes, because when available revenue increases, consumption also increases, leading to more revenue from consumption tax.

⁹ <http://www.oecd.org/centrodemexico/medios/manual-ocde-para-el-uso-de-la-economia-digital-persigue-fomentar-el-uso-de-internet-de-alta-velocidad-en-el-y-el-caribe.htm>

PUBLIC POLICY RECOMMENDATION



5 Optimise radio spectrum as a key input for the industry

Spectrum is a scarce resource owned by the Argentinian state, and as such it must be used as efficiently as possible for the benefit of the people of Argentina. Use of mobile services has increased exponentially in recent years, making the mobile phone the primary means of access to the internet. This is the principal demand of Argentinians. Much more spectrum needs to be allocated to meet the demand for ubiquity and multiple connected devices.

To achieve the public policy goals of universalising internet access and having the ability to offer new and better high quality, next generation services, policy must not be restrictive with this resource. There is no spectrum less efficient than unused spectrum: the state earns no revenue, companies do not invest, and users cannot enjoy new services.

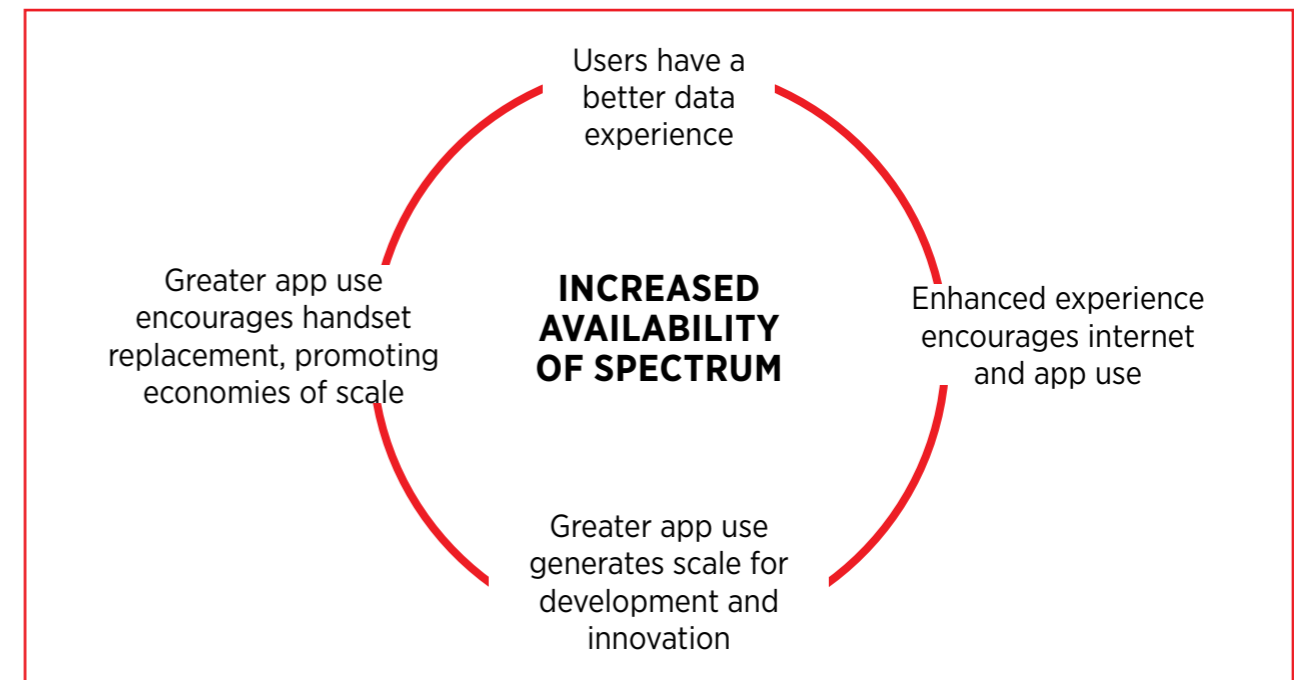
Spectrum in Argentina has been administered separately by Laws 26,522 and 27,078 and Decree 764/00 through various regulatory bodies, including private sector organisations, which have applied different criteria for licence allocation in a situation where the extent of their competences is unclear. This has led to allocations that are not in line with International Telecommunications Union (ITU) recommendations, temporary permission that extends its limits, suboptimal use of resources and artificial scarcity, all of which hinders investments and compromises quality of service.

Existing spectrum must be reorganised with a forward-looking criterion based on international discussions seeking harmonisation. This will help to avoid interference and allocation problems that can be expensive to remedy afterwards.

It is also important to have a clear plan for the future in terms of spectrum clean-up and allocation. Such a plan needs to become accepted state policy (i.e. a policy that transcends governments). These measures will reassure service providers that they will have the necessary resources to extend products and services and continue investing.

Principles of regulatory modernisation

Spectrum management must be in line with the goals of the new law. Spectrum should be made available to those who can offer reasonably-priced, open, technology neutral services so that future market developments can be incorporated. Very expensive spectrum can have harmful consequences for companies, users and the state. In addition, the conditions of licences, such as coverage obligations and deployment speed, must be realistic and avoid creating inefficiency in operator investments.



Recommendations for a new convergence law

- Define the state commitment to allocate all possible harmonised spectrum and ensure it is available to maximise the benefits for all citizens and, in particular, to improve coverage, capacity and quality, channel investments and facilitate adoption of new technologies..
- Create certainty and visibility around management of spectrum in the mid to long term to give clear indications of its availability, paving the way for investments and deployment of new services.

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BENEFITS FOR CONSUMERS

By increasing the amount of spectrum available for mobile services, users will have improved quality of service and greater and better coverage (indoor and outdoor). The impact of spectrum on quality and speed has been noticeable since 2014, when operators started to use AWS spectrum for 4G services.

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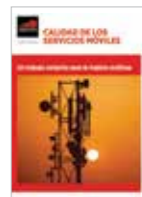
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The GSMA represents the interests of mobile operators worldwide, uniting nearly 800 operators with almost 300 companies in the broader mobile ecosystem, including handset and device makers, software companies, equipment providers and internet companies, as well as organisations in adjacent industry sectors. The GSMA also produces industry-leading events such as Mobile World Congress, Mobile World Congress Shanghai, Mobile World Congress Americas and the Mobile 360 Series of conferences.

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