



ACCOUNTABILITY, TRANSPARENCY AND EFFICIENCY



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THE DIGITAL MARKET IN LATIN AMERICA SETTING REGULATION TO PROMOTE ITS DEVELOPMENT

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INTRODUCTION

The telecom and media market is converging to form a single digital market where new media interact directly with the users through new tailor made services and products. This is a clear trend not only in developed countries, but also in other regions such as ASEAN and Latin America.

The current integration not only represents a symptom of technological progress, it also pictures the shift in needs and demands as they are perceived and embodied by users. It also provides the only path that will enable big telecommunication services providers to compete against the edge providers, such as Over-The-Top (OTT) companies.

Edge providers are present to a greater extent in the communications and television business and in some cases have started to build their own partial infrastructure to support the growth of their services. But most of these edge providers, specifically in the region of Latin America, rely on the existing infrastructure of the Telecommunication and Media companies to distribute content

We are witnessing not only an increase in the video consumption and augmented reality connected to the web, but also the development of big data, industry 4.0 and the Internet of Things. In the future, supporting data traffic will become more and more important, specifically with the appearance in the next few years of the 5G technology.

Indeed the capabilities of next generation of wireless networks will enable/untap massive new levels of connectivity, tremendous throughput speed and

high reliability mobile communications. These capabilities will be met through the development of new air interfaces, new networking technologies as well as the evolution and enhancement of today's technology.

5G is thus more than a gradual evolution of current mobile broadband technology: it is a trigger for deep social, business, and industrial transformation that will impact numerous vertical markets: automotive, energy, agriculture, city planning and administration, government, healthcare, manufacturing, public transportation, etc. Therefore the current public policy making process should consider the deployment of 5G as one of its main goals.

This is why, from a regulatory point of view, the role of the competent authorities is looking to more and more complex challenges. Different markets are no longer divided by technology. Instead, we have a single digital market in which many drivers influence technological development and innovation. Convergence is indeed "King".

The situation does not differ in Latin America, despite certain regional particularities. The market is probably not as mature as in other regions, many infrastructural bottlenecks are certainly present and the regulatory environment is less than ideal.

In order to understand the Latin American case some best practices as well as some problematic cases need mentioning and consideration. However, before focusing on these, it may be necessary to preliminary consider two global trends. •

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NEEDS FOR INFRASTRUCTURE

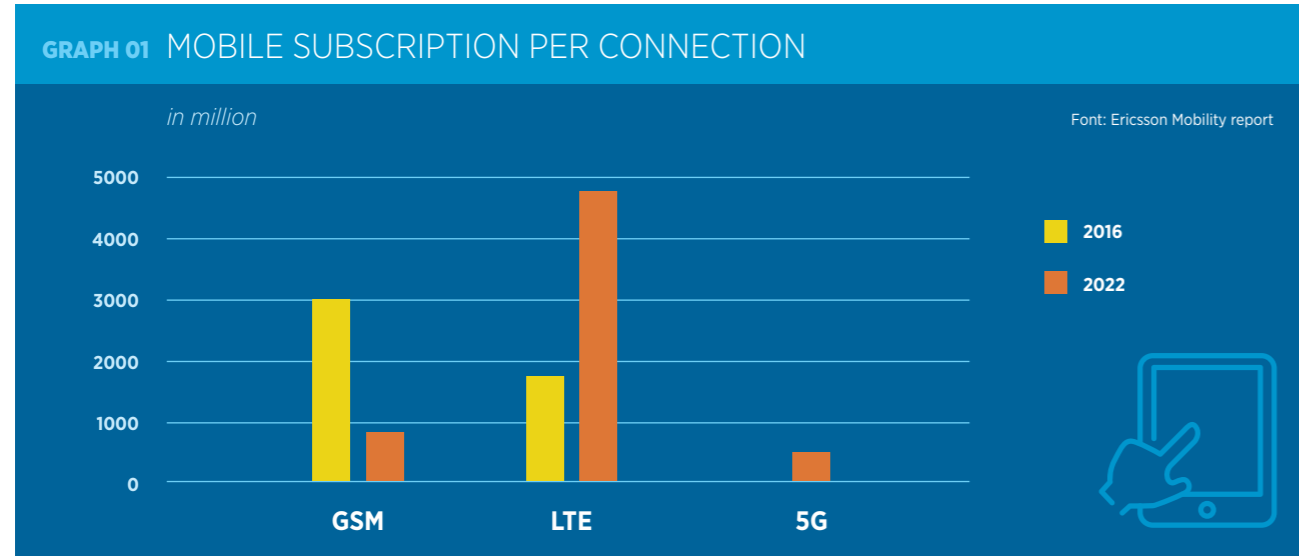
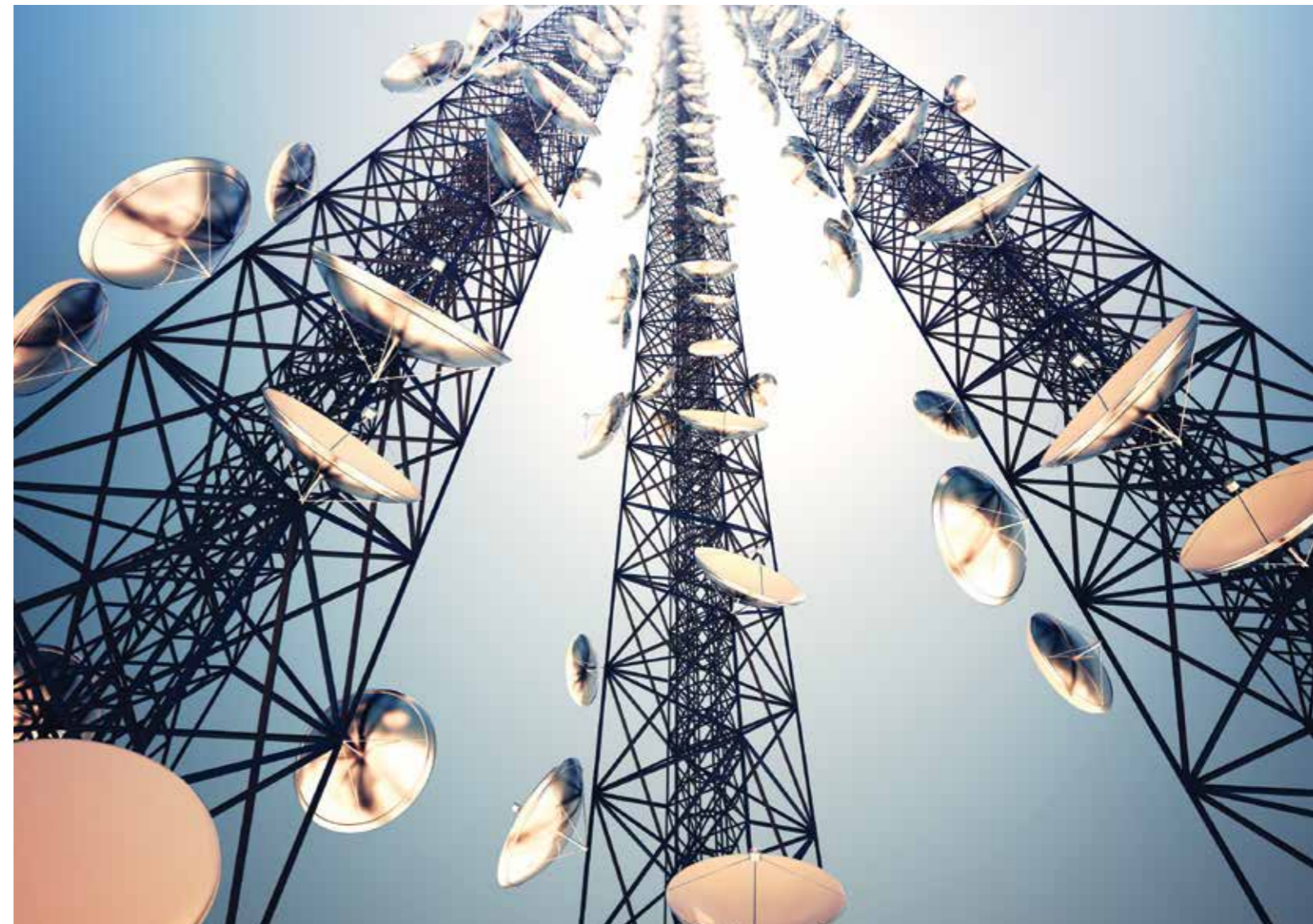
It is important to underline the needs for infrastructure that telecom operators will face in the next years. In order to promote investments in this infrastructure one key element is the presence of well-targeted regulation which will also attract Foreign Direct Investment (FDI).

Over the next five years, customer demand for high speed connections will only grow due to the increased availability of services and vice versa.

5G deployment is going to be the big challenge infrastructure providers will face throughout

the 2020s. Deep deployment of fiber optics into any country's network infrastructure is a mandatory step for the successful launch of 5G technologies. Indeed, as 5G heavily relies on fiber, it will likely fall far short of its potential unless there is a significant increase in deep fiber deployment.

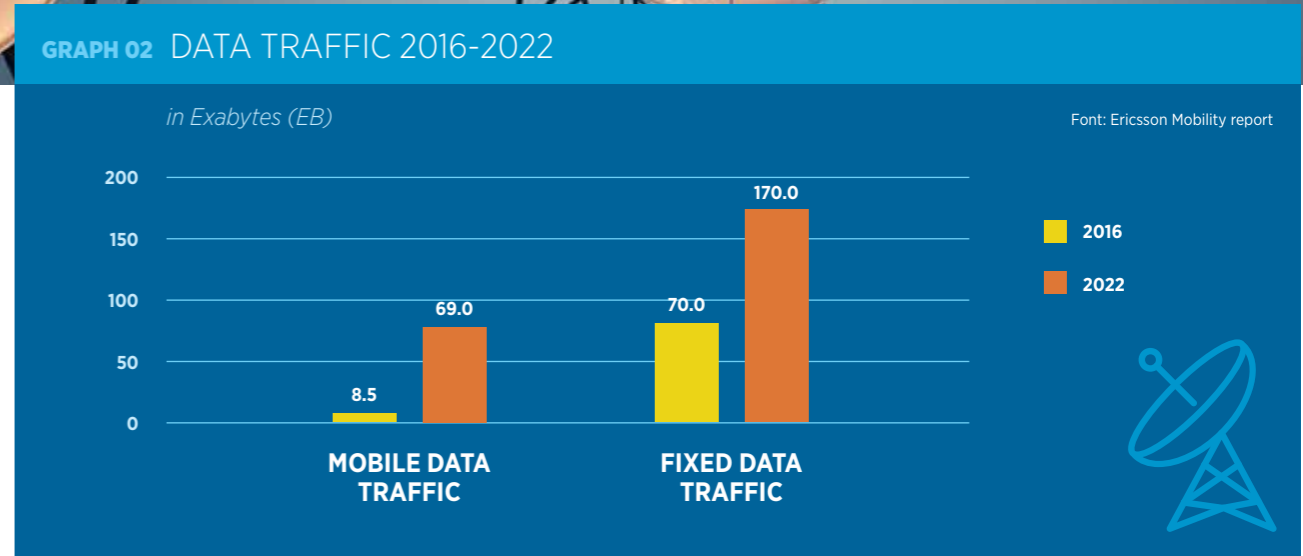
The graph below compares the number of mobile subscriptions globally in 2016 and its forecast for 2022. In just six years, connectivity will be completely transformed, making the associated investment in infrastructure even more essential.



Over the next five years, the number of GSM connections will decrease by about 70 per cent, from more than 3 billion subscriptions to less than 1 billion.

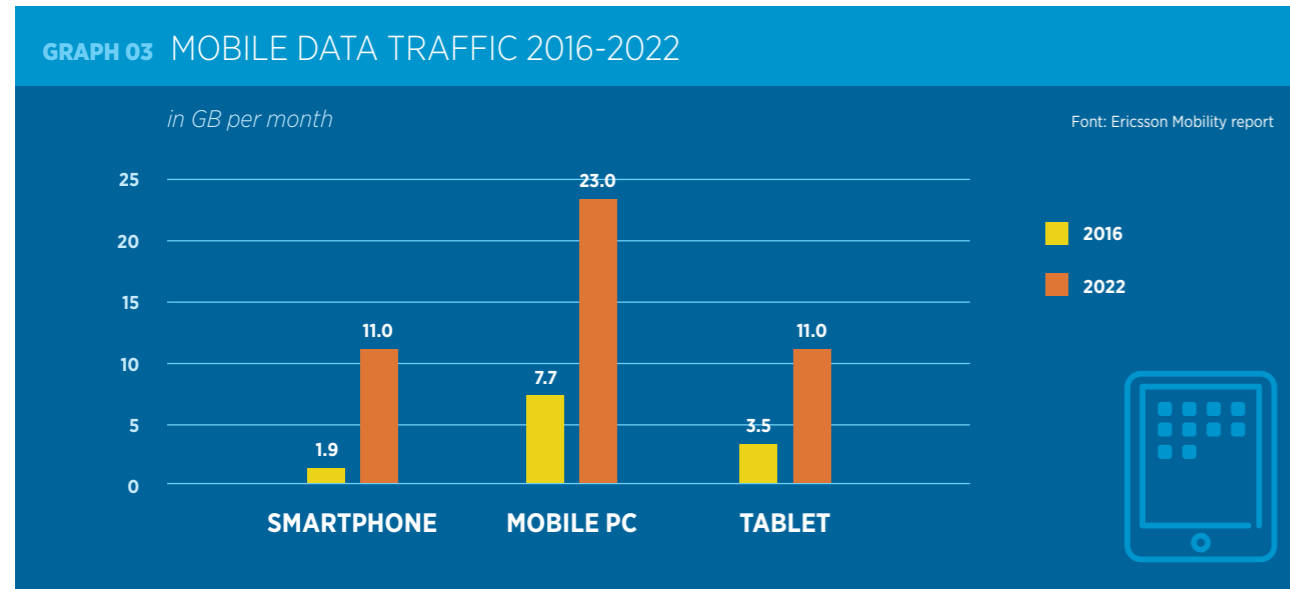
LTE connections will overtake GSM connections as early as 2018, and these will represent the large

majority of mobile connections by 2022. At the end of this period, over 4 billion people will use LTE technology for their mobile connection, while around half a billion 5G subscriptions will be in operation. OTT services will lead the growth of data traffic in both mobile and fixed devices.



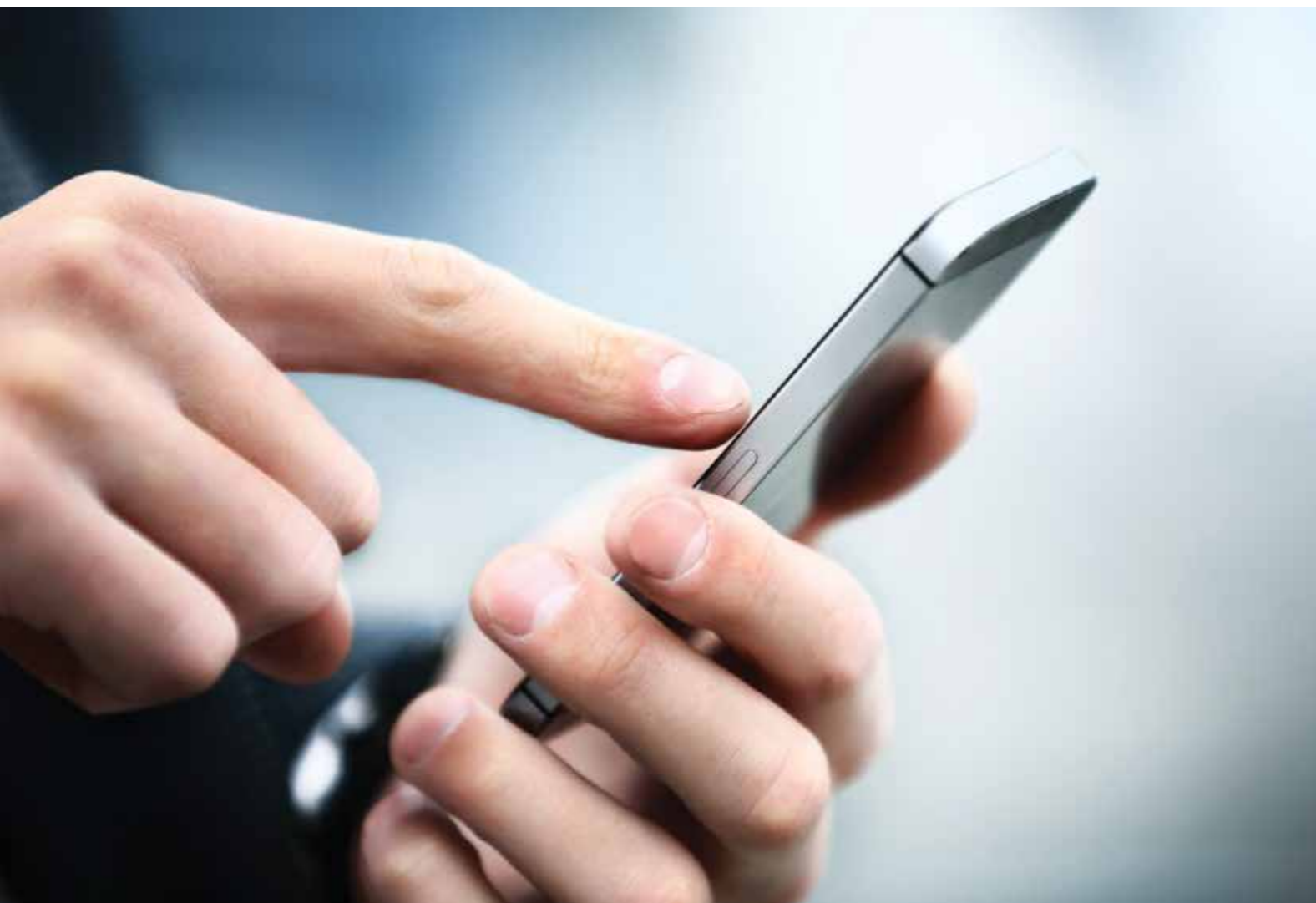
In five years, mobile data traffic will have multiplied by 8 times, growing from 8.5 Exabytes (EB) in 2016 to 69 EB in 2022. Over the same period, fixed data traffic will increase from 70 to 170 EB. This strong growth in

demand for data traffic is expected to be experienced across all devices using a mobile connection, especially smartphones.



Average smartphone data use will increase from 1.9 to 11 GB per month, while tablet and Mobile PC will also exhibit strong (although lower) growth between 2016 and 2022. This increase in connectivity will require an adapting and increasingly modernized infrastructure;

it is however also essential to have effective and fair regulation for all operators and players in the sector. The convergence of different sectors demands a regulation which takes into consideration the new markets which have now become the relevant ones. •

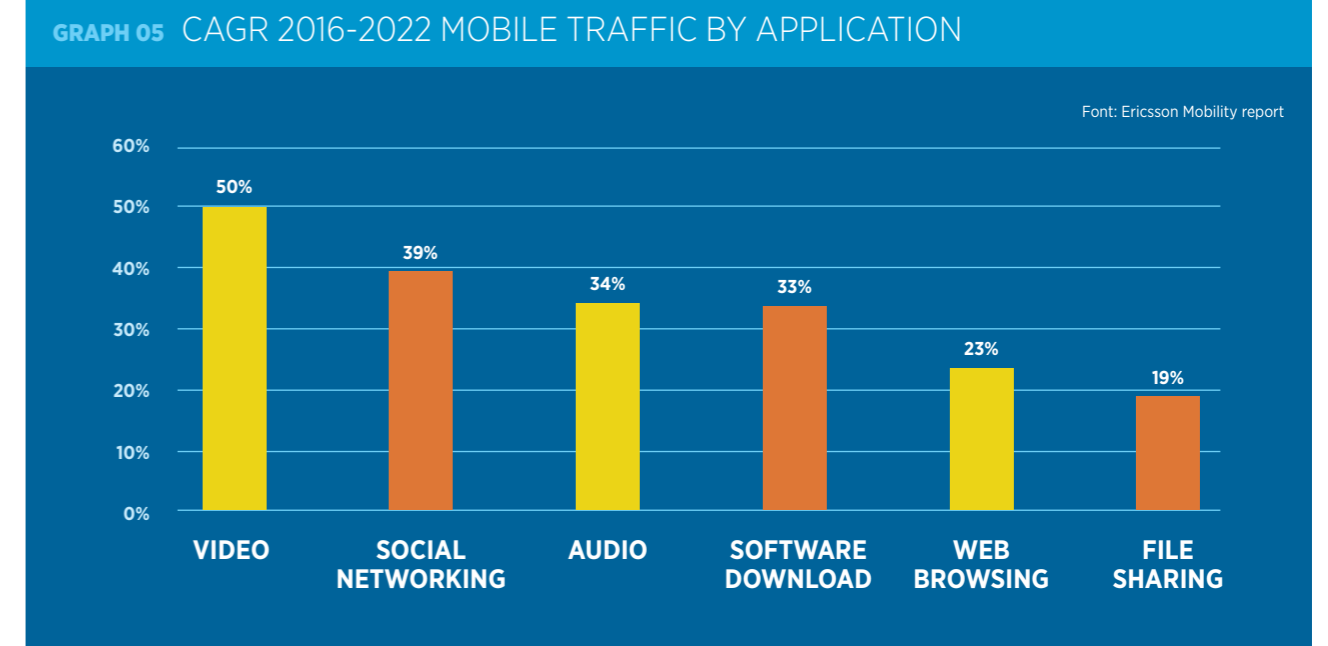
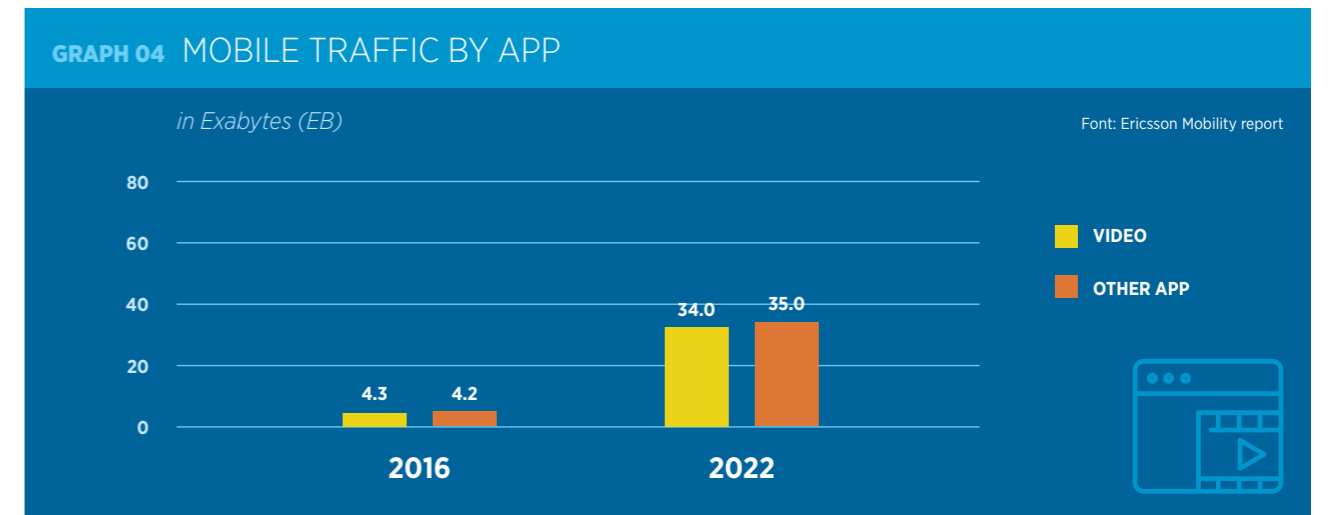


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MARKET CONVERGENCE

It is possible to analyze the APP data traffic for mobile connections. This analysis reveals that video content is already a significant component of the on demand services: around 50 % of mobile traffic is used for video: 4.2 out of a total of 8.5 EB.

In 2022, the situation in terms of share of data traffic for video and other APPs will not be drastically altered, however the total data traffic will be 8 times more than the 2016 one.



Video data-traffic Annual growth is forecasted to be around 50 per cent, but in general, data will tend to be used for convergent services. •

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LATIN AMERICA PECULIARITIES



This global analysis aims at showing how both technology and infrastructural requirements are changing in an evolving single digital market. The Latin American case presents some peculiarities; however, consumers exhibit a similar demand for connectivity. This demand is currently not completely satisfied. It is important to analyze not only the telecommunication and media market in Latin America, but also to pay close attention to population dynamics in terms of economic and social factors.

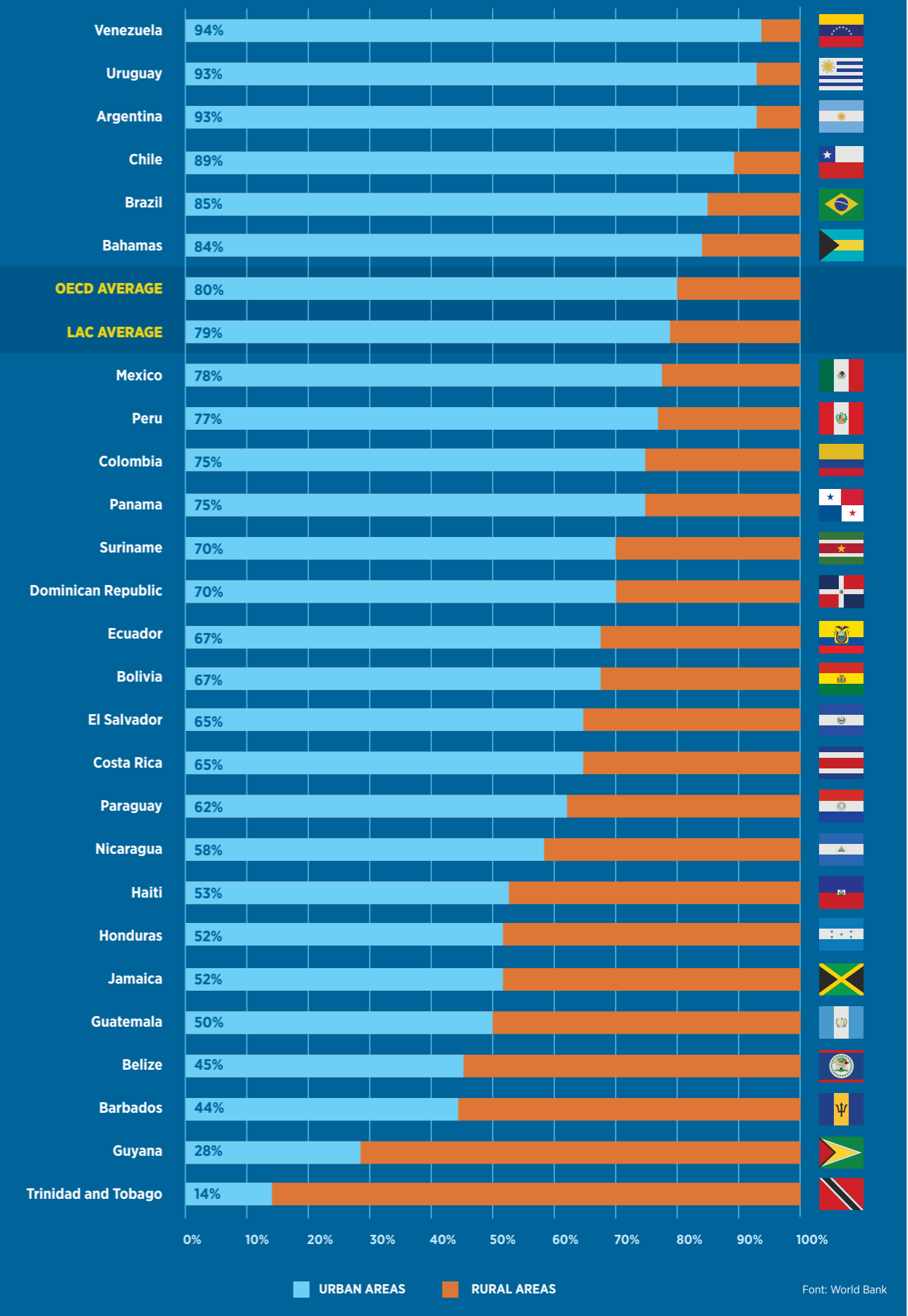
Over the last 20 years, Gross Domestic Product (GDP) per capita in Latin America has impressively grown, due to the increased export of natural resources. In many cases, the revenues the Government received from such exports were not invested in infrastructure in order to increase productivity (Venezuela provides a relevant example

of this). But several new governments are trying to change this trend.

As recognized in an OECD report, “some 300 million people have no access to the Internet. While new generations of broadband networks are rapidly emerging, much remains to be done to expand the necessary infrastructure and to encourage individuals, business and governments to make the most of what broadband has to offer.”

Latin America presents some of the social factors which could support the deployment of broadband infrastructure. As it is clear across all the network industries, the density of population in urban areas may be an important factor to support the roll-out of infrastructure, as it leads to lower deployment costs. As shown in Graph 06, the urban population density in Latin America is quite high, close to the OECD average.

GRAPH 06 URBAN AND RURAL POPULATION DISTRIBUTION IN LATIN AMERICA



High population density is a typical driver for capital-intensive industries such as media and telecommunication. So why does Latin America have so many problems and bottlenecks associated with broadband and mobile infrastructure deployment?

Argentina, Brazil and Chile have a similar proportion of their urban population, however the first of them struggles with many unsolved problems, while Chile is seen by the OECD as an example of best practice for broadband in Latin America and the Caribbean.

In general, Latin America is not a global leader for the digital economy with large parts of its population still not covered with internet connection (around 270 million at the beginning of 2017).

If we compare the data traffic per smartphone for Western Europe, North America and Latin America, it is clear that Latin America lags far behind the other regions, as illustrated in the graph below.

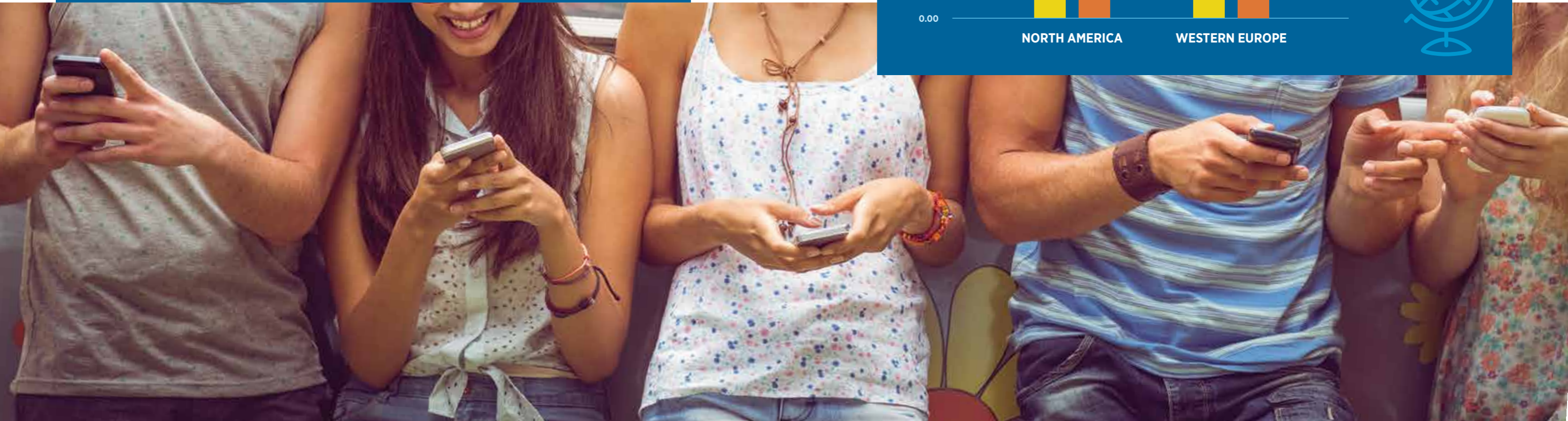
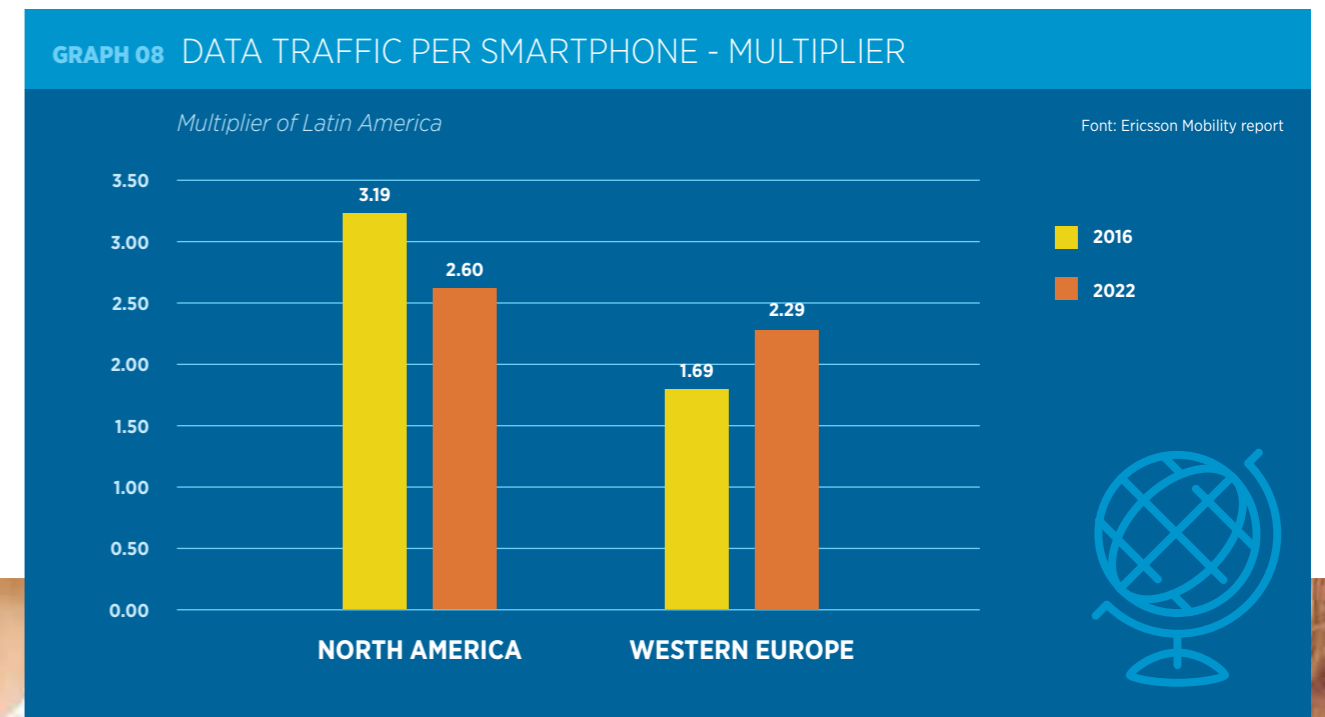
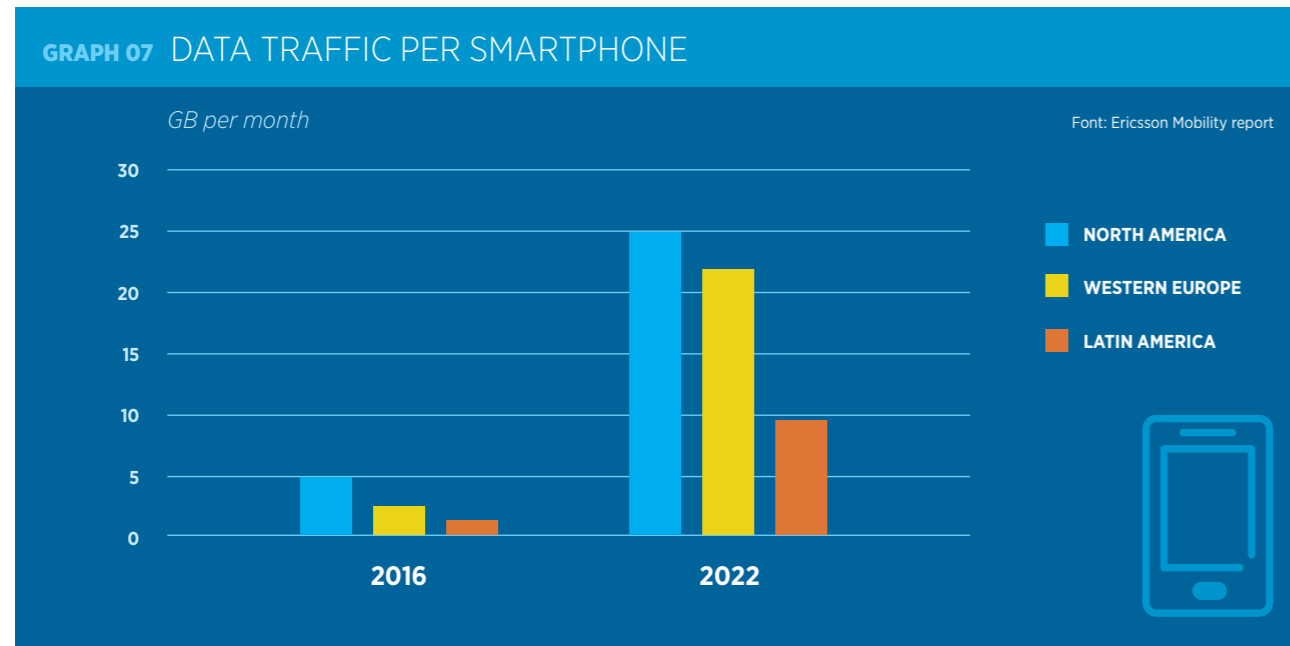
Data highlights the relatively low demand in Latin America in 2016; however, the forecast for 2022 is not much more positive. While in North America and Western Europe the demand for data will be over 20 GB per smartphone in 2022, in Latin America demand will be at about 10 GB per smartphone.

Graph 08 shows that although, between 2016 and 2022, the relative difference between Latin America and North America in terms of data traffic per smartphone will decrease, the difference with Western Europe will actually increase (multiplier will grow from 1.69 to 2.29).

The lower demand for data in Latin America is not just a result of its lower GDP per capita, but is also caused by a number of other factors.

The problems are not linked to a “natural lower demand”, but are probably connected to its weaker infrastructure. The lack of investment in broadband and in a single digital economy is Latin American weakness.

It is important to understand the reason for this lack of investment, and one of the first points underlined by the OECD has been regulation. •



5

THE FISCAL CHALLENGE



To promote the development of this sector it is essential to be really careful with fiscal policies that impose special taxes on traditional electronic communications and TV services. Indeed, those usually cause distortions that crowd out private spending, diminish welfare, and reduce economic efficiency. It is well recognized today that a reduction in taxation on the total cost of mobile ownership, which includes services and devices, could increase wireless penetration. Such an increase in service adoption would naturally boost GDP growth, which in turn could partially or totally compensate for the foregone tax revenues. Thus, “emerging countries need to align taxation approaches affecting mobile broadband with ICT national objectives. If mobile broadband is understood as a key social and economic development lever, taxes cannot represent an obstacle for diffusion.” (Katz, Flores-Roux & Mariscal, 2011).

Governments should eliminate artificial taxes and operational burdens, which affect the costs of

producing telecommunications and media services and should also eliminate asymmetries between players that provide services with a certain degree of substitution. Lowering costs of ICT through tax-reduction policies and a reduction in operative burdens would leverage the uptake of communication services, reduce the digital divide, and increase investment in the expansion of communication infrastructure. In particular, the following public policies would generate positive effects towards investment:

- Encourage the coverage of services in rural and suburban zones with exemptions from payment of regulatory fees
- Eliminate or reduce taxes on the importation of communications equipment
- Eliminate or reduce VAT on the consumption of communications services •

6

REGULATORY IMPACT

The regulatory framework is essential for the development of an economic sector, especially for a network industry.

market in the past, but now, with the creation of single digital market, it is important to identify the exact nature and scope of the relevant market.

In the case of Italy, for example, lack of competition limited the development of high speed Internet. The opening of competition in this industry in 2012 drove a growth in demand of around 80 per cent, and a drop in prices of around 40 per cent.

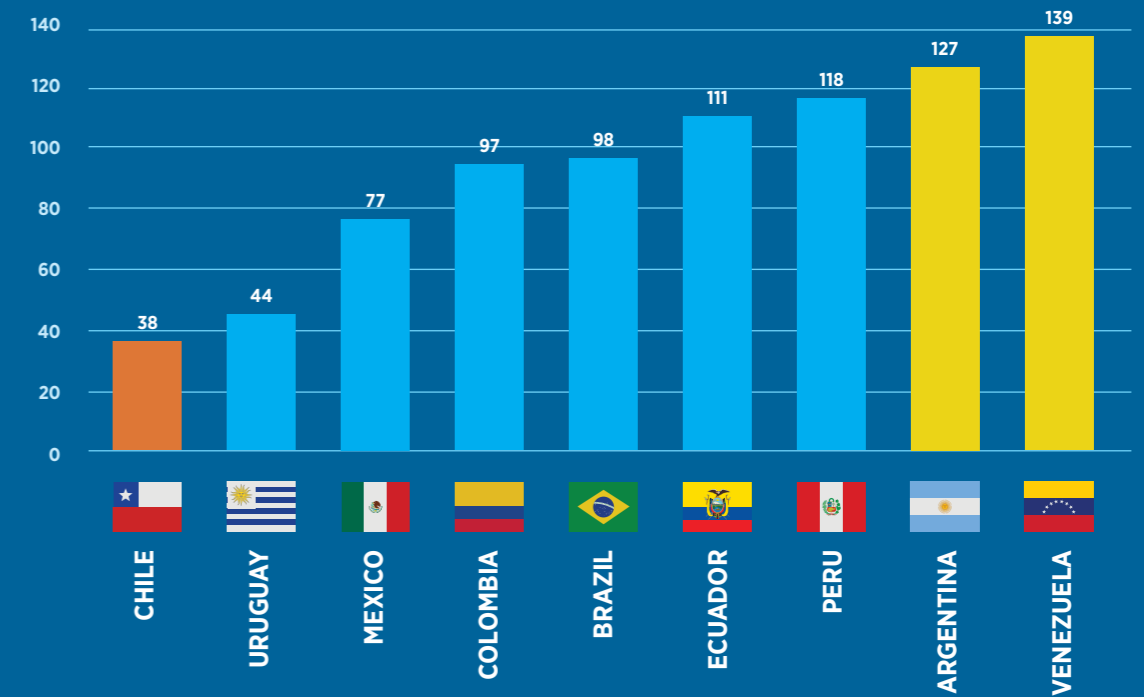
The risk of asymmetric regulation in places where competition exists could lead to market failure and under development of the digital market, as will be demonstrated in some cases in Latin America.

Lack of competition has typically limited the innovation and development in the telecommunication

Political and regulatory environments are compared by the World Economic Forum as illustrated in Graph 09.

GRAPH 09 RANKING OF POLITICAL AND REGULATORY FRAMEWORKS

Font: WEF, Global Information and technology report 2016



The World Economic Forum underlines that in Latin America there is a problem in terms of regulation and policies in the information and technology sector. There are a few cases of good regulation, with Chile ranking at 38th, however a large number of Latin American Countries are towards the bottom of the ranking.

Besides Venezuela, damaged by political and economic crises largely imputable to the “socialist” policies of its Government over the last 15 years, another important country, Argentina, is also caught in a problematic situation.

Argentina is ranked at 127th, one of the worst cases in the World. Obviously this ranking is due to several years of policies that have totally discourage investments in the sector. Meanwhile Brazil is also at the lower end of the ranking (98th) while Mexico is in a middling position, ranked at 77th.

As we underline in this study, although these countries exhibit similar social and economic trends (e.g. GDP per capita and share of urban population), they are completely different in terms of policies and regulation. •

7

ONLINE AND PAY TV SIGNAL PIRACY

The fast paced development of the digital economy environment witnessed the rapid growth of fraudulent practices operated both online (e.g. Peer to Peer (P2P) file sharing of unauthorized content, illegal Live IPTV Streaming) as well as in the subscription based television signals. The Latin America and the Caribbean market are heavily affected by both phenomena: about 29% of the 86 millions Latin American and Caribbean households have access to pay-tv through signal piracy, while online piracy accounts for 110 millions individual users.

The impact of pay-tv signal theft is particularly damaging and challenging as its practices and consequences affect the entire digital ecosystem: from the operators, to audiovisual content producers, from the equipment manufacturers to the individual user. Manipulation of devices including set top boxes and free to air devices in order for users to access unauthorized audiovisual content has a tangible impact on the economy. The volume of the illegal piracy market in the region is estimated at around USD 4.8 Billion and evading USD 1.2 Billion of taxes annually with significant damage to the competitiveness of the sector as these practices

compete with providers which must abide by the rules and fees of regulation and legislation.

As observed by the Inter-American Telecommunication Commission (CITEL) of the Organization of American States (OAS) pay satellite tv in Latin America offers a valid tool to reach remote areas fostering the circulation of information and entertainment in areas otherwise isolated, it also has triggered a competitive and dynamic market ultimately benefitting the users with more options and choices. On the other hand, the practice of underreporting carried out by operators is equally damaging, as it again prevents fair competition and encourages informality.

It is then quite fundamental that all forms of signal theft piracy as well as other fraudulent practices are considered when discussing barriers and remedies to the latter for the Region to bridge the digital gap and benefit from a healthy and dynamic digital ecosystem, its innovative services and opportunities. Regulatory, fiscal and legal authorities include piracy into their priorities in order to improve its monitoring and sanctioning. Considerable efforts are currently undergoing in Chile, Colombia, Peru and Uruguay with considerable impact also on the public awareness. •

8

BEST PRACTICE AND PROBLEMATIC CASES

The last part of this analysis is focused on the best and worst cases in Latin America for the single digital market.

It will consider not only the telecommunication market, but the entire digital market, including for example Pay-TV and OTT services.

One of the key elements affecting the market evaluation is the regulatory body and the stability of regulation.

8.1 SINGLE REGULATORY BODY AND STABLE REGULATION

All around the world, the creation of a single digital market is already a priority. In Latin America, the low-level development of the market has inhibited the impact of benefits brought by this new market. The vertical integration of TV, Media and telecommunications operators allows economy of scale for investing in this larger sector.

Competition is becoming more globalized with new technology creating a real global market, with big internet companies from the US and China developing new business models and playing more and more an influential role. In this new market, the role of an independent converged regulator is and will be crucial.

This is probably one of the reason why the idea of a convergent regulatory is becoming popular in the region. This is an important factor in the efforts to create a single digital market and avoid a situation of asymmetric regulation.

It is clear that in order to create predictable policies that provide certainty for investment, regulatory institutions must be stable, credible, and enduring. These three key attributes reassure investors that the rules regulating the markets will not change. According to the OECD, streamlining regulation and providing incentives for stronger competition and higher investment are roles better undertaken by an independent regulator. Moreover, an independent regulator would ensure their continuity over time, insofar as it should comply with high standards of transparency and accountability.

Convergent NRAs would be better placed to assess the implications of video content and bundles in the competition dynamics of these markets. Regulators need to be able to deal with an ever-changing industry and the development of the digital economy. Barriers between traditional telecommunications services and other related markets are disappearing. The interaction and coordination between telecommunications regulators and other different sectoral regulators, such as banking, health, antitrust, and so on, must be reinforced to ensure a healthy development of the sectors affected. •



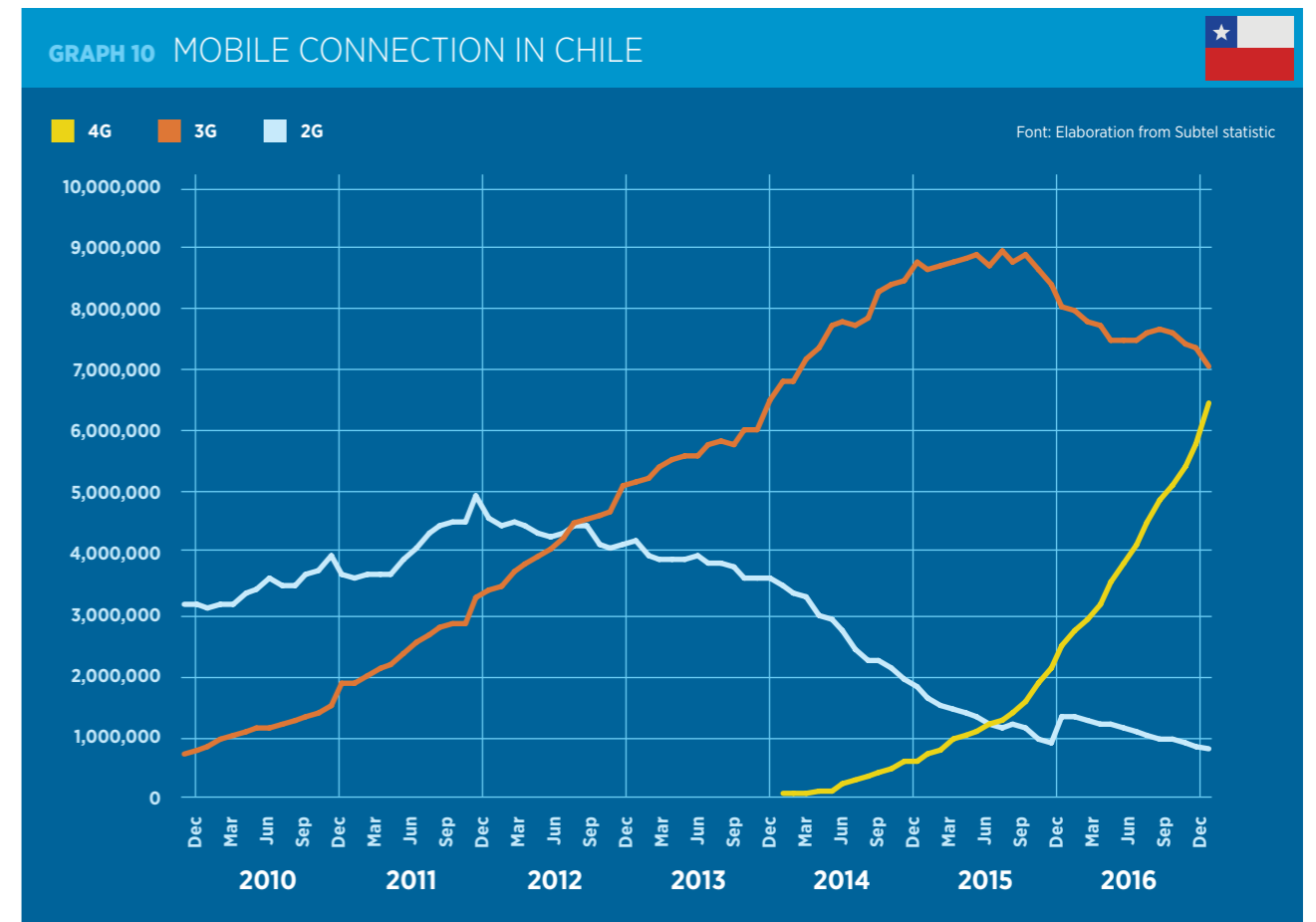
9

CHILE

Best case identified by OECD

The OECD report underlines that Chile is an example of best practice for many reasons, for example with a passive telecommunications infrastructure in building, a national Roaming case or encouraging competition from Mobile Virtual Network Operator (MVNO). The appropriate regulatory and policy environment has enabled Chile to achieve a

good penetration of 4G technology in the mobile market. The development of this technology leads to the creation of new opportunities in the single digital market. At the end of 2016, the number of 4G connections was close to that of 3G connections, and in the first semester of 2017 (as it is showed in Graph 10), in 4G connections overtook 3G connections in Chile.



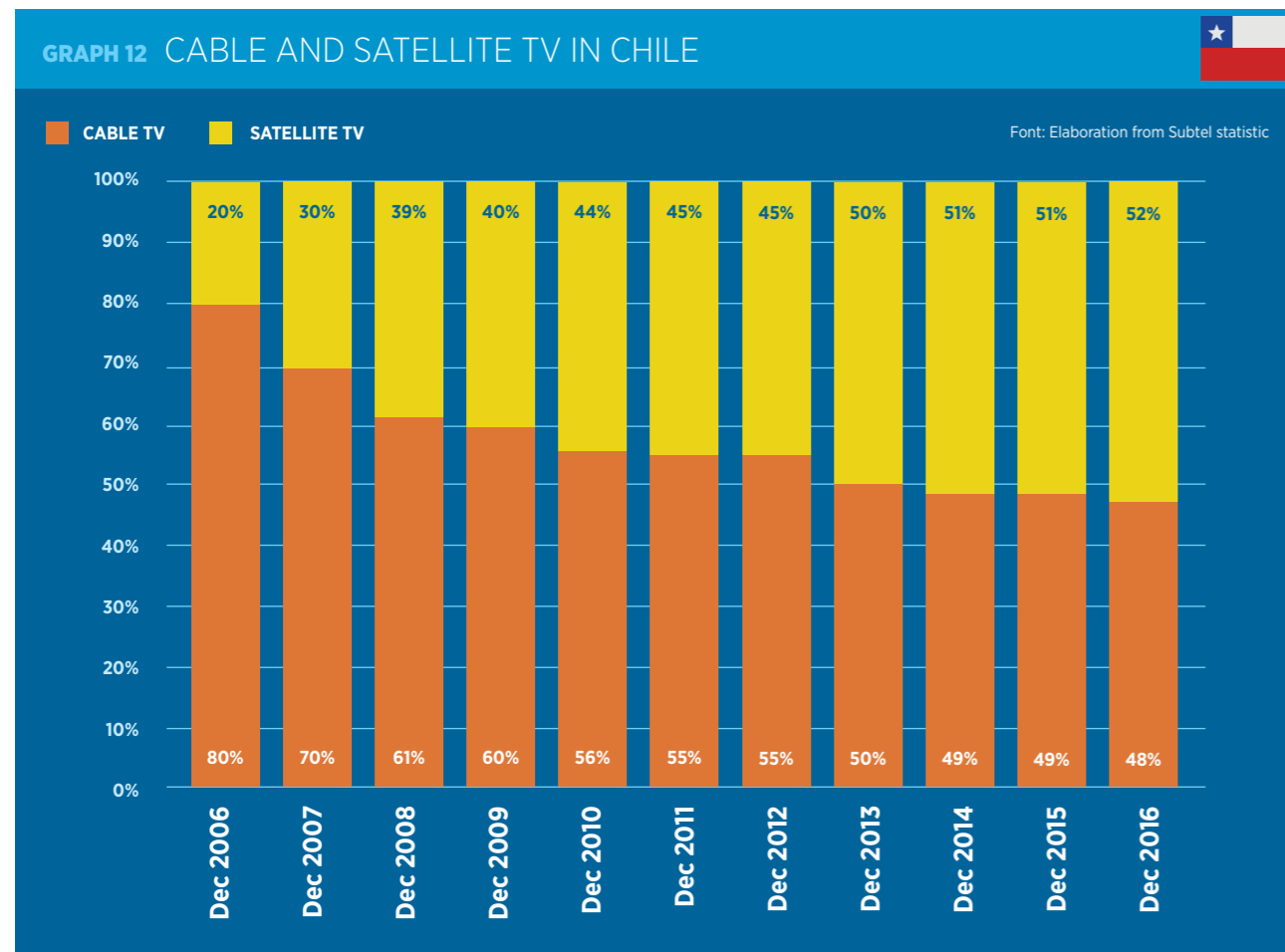
4G technology first arrived in the country at the end of 2013, and one year later, this type of connectivity had already overtaken 2G connections. This success in mobile

connectivity is also reflected in the Pay-TV market. Graph 11 underlines the increase of subscription and the rate of penetration for the population.



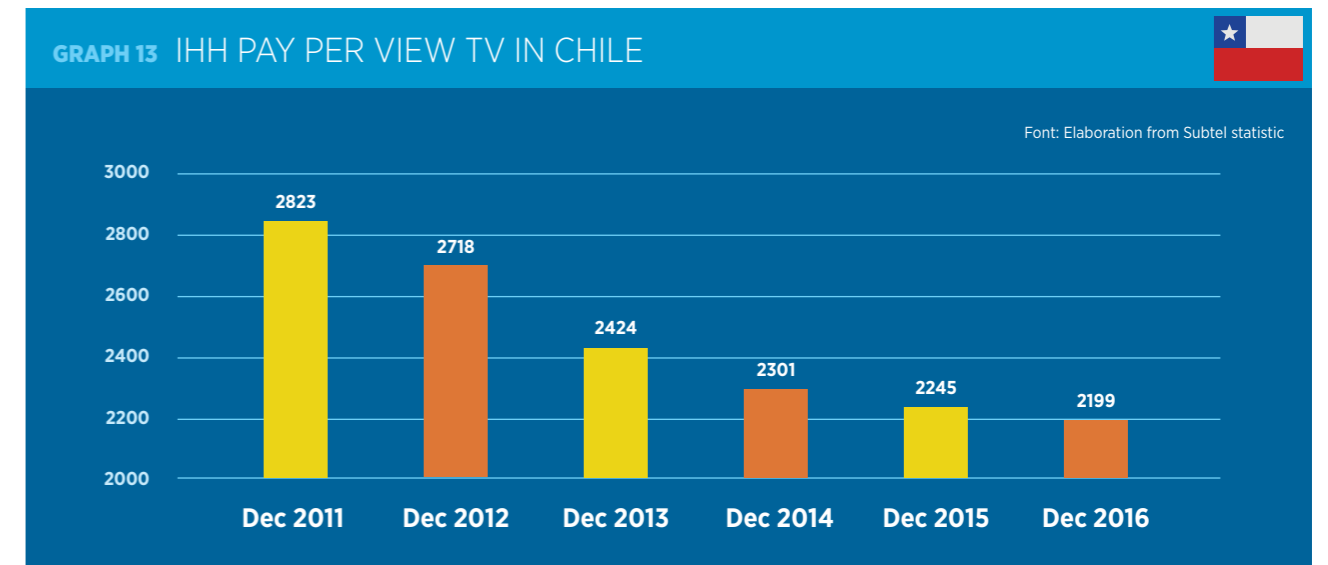
Over the last 10 years, the number of subscriptions has greatly increased, from 1 to 3 million. The rate of penetration shows a similar trend and now more than 15 per cent of the population uses Pay-TV services in Chile. The growth has continued

and the last million new subscriptions were added in the last 5 years. The increased number of customers is due to the growth of satellite TV services that take up a growing share of the market as shown in Graph 12.



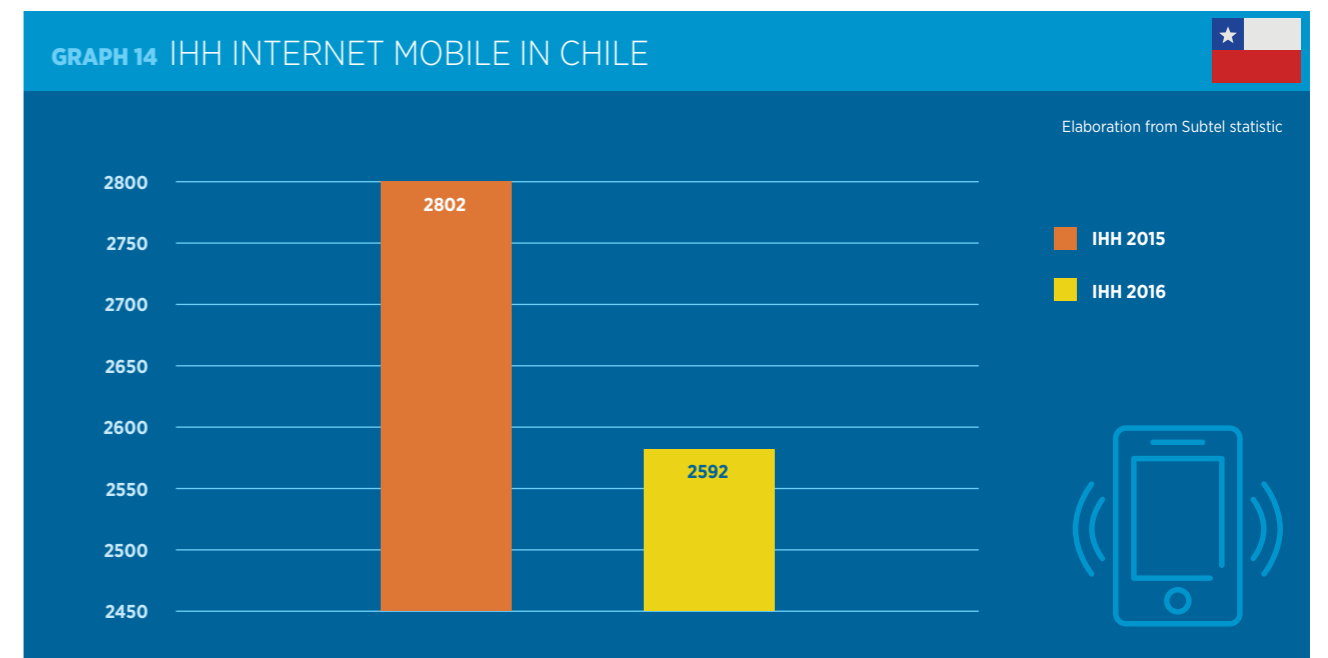
In December 2006, 80 per cent of customers in the Pay-TV market were accounted for by cable TV, while in the last four years, satellite TV services have accounted for the majority of the market. The Pay-TV market has become more and more competitive and the HHI (Hirschman Herfindhal

Index) has decreased as Graph 13 underlines. Since 2011, the HHI has decreased continuously from over 2800 points to less than 2200 points at the end of 2016. This is a clear sign of strong competition in the Pay-TV market, leading to a tripling of the number of subscriptions.



In the mobile internet market, it is possible to mark a similar path over the last year (Graph 14). The IHH has decreased from 2800 points in 2015 to less than 2600 points at the end of 2016.

Increased competition and a good regulatory and policy environment have allowed Chile to experience strong technological development and growth in subscriptions both in the Pay-TV market and for 4G connections.



9.1 ANTI-PIRACY POLICIES

One of the main issue the country should really focus on is the problem of Piracy. Indeed, Pay-TV piracy in Chile would be the 5th player in

the industry. A relevant actor that grows day by day without sanctions. Its operation not only causes damages to the legal actors, but the country as a whole. It is estimated that from year to year the treasury loses about US

\$70 million for non-payment of taxes. Pirate connections in the country are estimated at more than 300.000.

The draft Amending the General Telecommunications Law to establish penalties for illegal decoding of satellite pay TV was presented in September 9th, 2015 by five senators, and aims to advance in the protection of intellectual property and copyright on the satellite pay TV market, preventing trans boundary and boundary commercialization of devices and / or software capable of decoding encrypted satellite signals, without authorization of the lawful distributor and / or content owner.

Through the current project, it is not pursued to punish the owners, or holders of the devices and / or software described previously, since the objective is to punish those who profit from the business of piracy of satellite pay-TV.

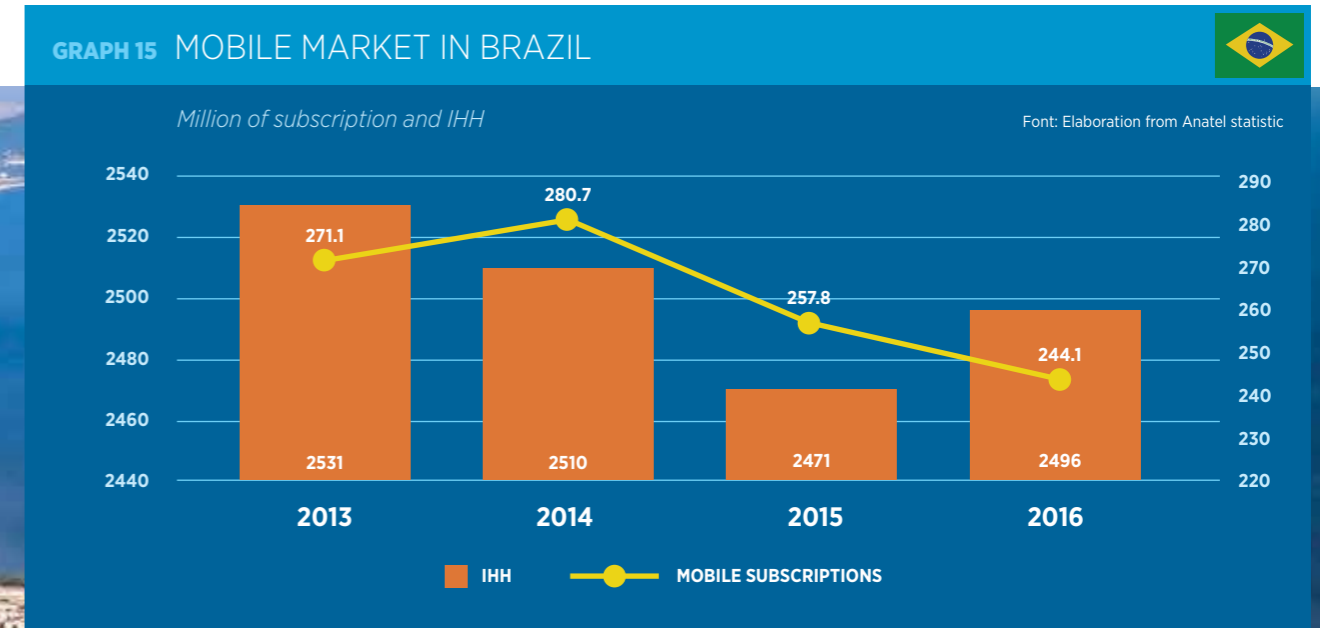
On September 20th 2017, it was dispatched from the Chamber of the Senate to the Chamber of Deputies. It will begin its second constitutional process in the Public Works, Transport and Telecommunications Commission of the Chamber of Deputies in its second constitutional process. It is currently waiting to be brought on the commission table. This is an incredibly important process that would allow Chile to become a global example in the sector. •

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BRAZIL

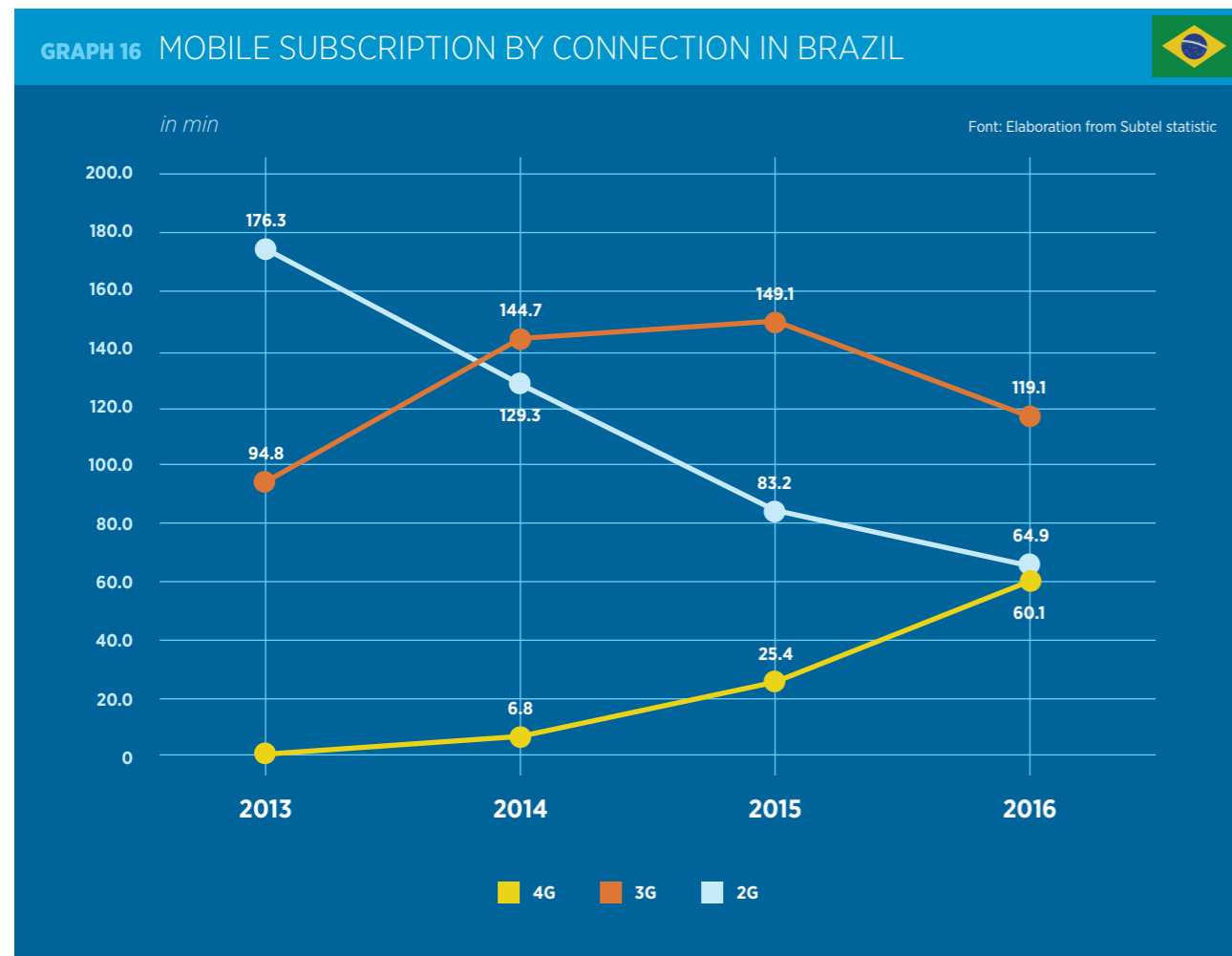
Brazil is the biggest market in Latin America. In recent years, economic crises affected the digital market. A decrease in the number of subscriptions in the mobile market has been caused

by the recession, but also by a lack of technological development. Graph 15 illustrates subscription numbers and the HHI in the Brazilian market for the last four years.

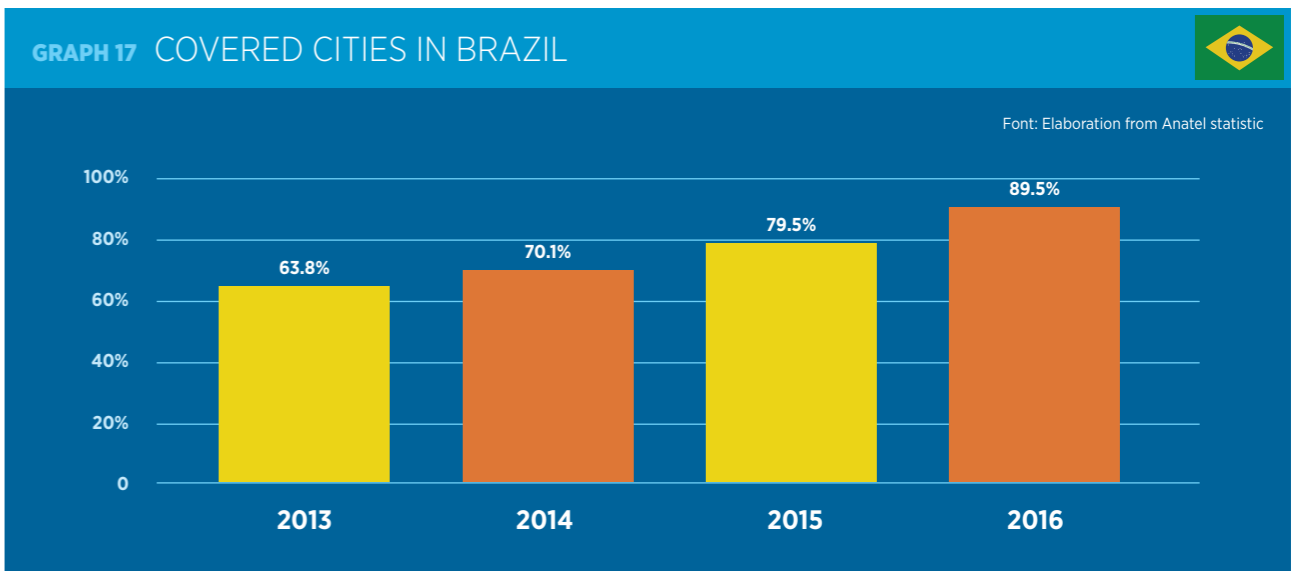


In 2016, the number of mobile subscriptions decreased by 36 million from the high point reached in 2014. This is a clear effect of the economic recession, with the poorest deciles of the population

unable to “upgrade” their mobile phone technology. Graph 16 underlines how in 2016, on top of a strong decrease in 3G and 2G connections, there was not a sufficient increase in 4G technology subscriptions.

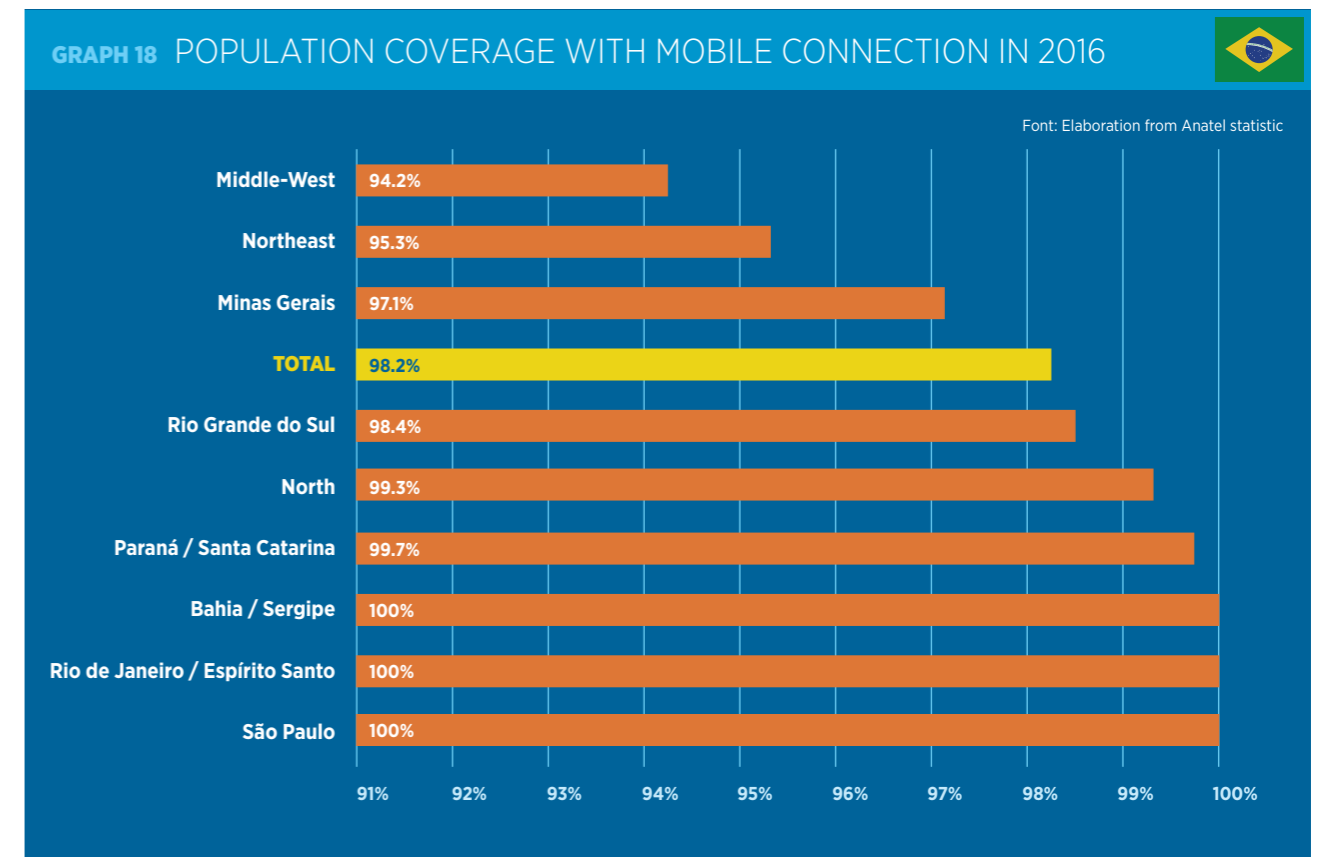


At the end of 2016, in Chile the number of 4G subscriptions was close to that of 3G connections. In Brazil, however, this number had not yet overtook that of 2G connections. The “natural” decrease in 2G connections has not been replaced by new 3G or 4G subscriptions in the last 3 years. This creates a complicated situation for telecom operators in Brazil as it doesn’t allow them to develop new services for their customers. Government regulation and policy has not encouraged investment in this sector in this past, explaining why Brazil does not feature as a best practice for Latin America. However, the country has made good policy decisions to increase the coverage of rural areas. This was not easy for a large country such as Brazil; however, over the last 4 years, the number of cities covered by mobile internet services has increased from 63.8 per cent to 89.5 per cent as is underlined in Graph 17.



In terms of population, the figures for Brazil are even better; with over 98 per cent of the population covered. Graph 18 shows mobile internet coverage for the different regions of the country. In urban areas,

such as Rio de Janeiro or Sao Paulo, coverage is already at 100%. Meanwhile, in rural areas, the figures are still good, at around 94 or 95 per cent coverage.



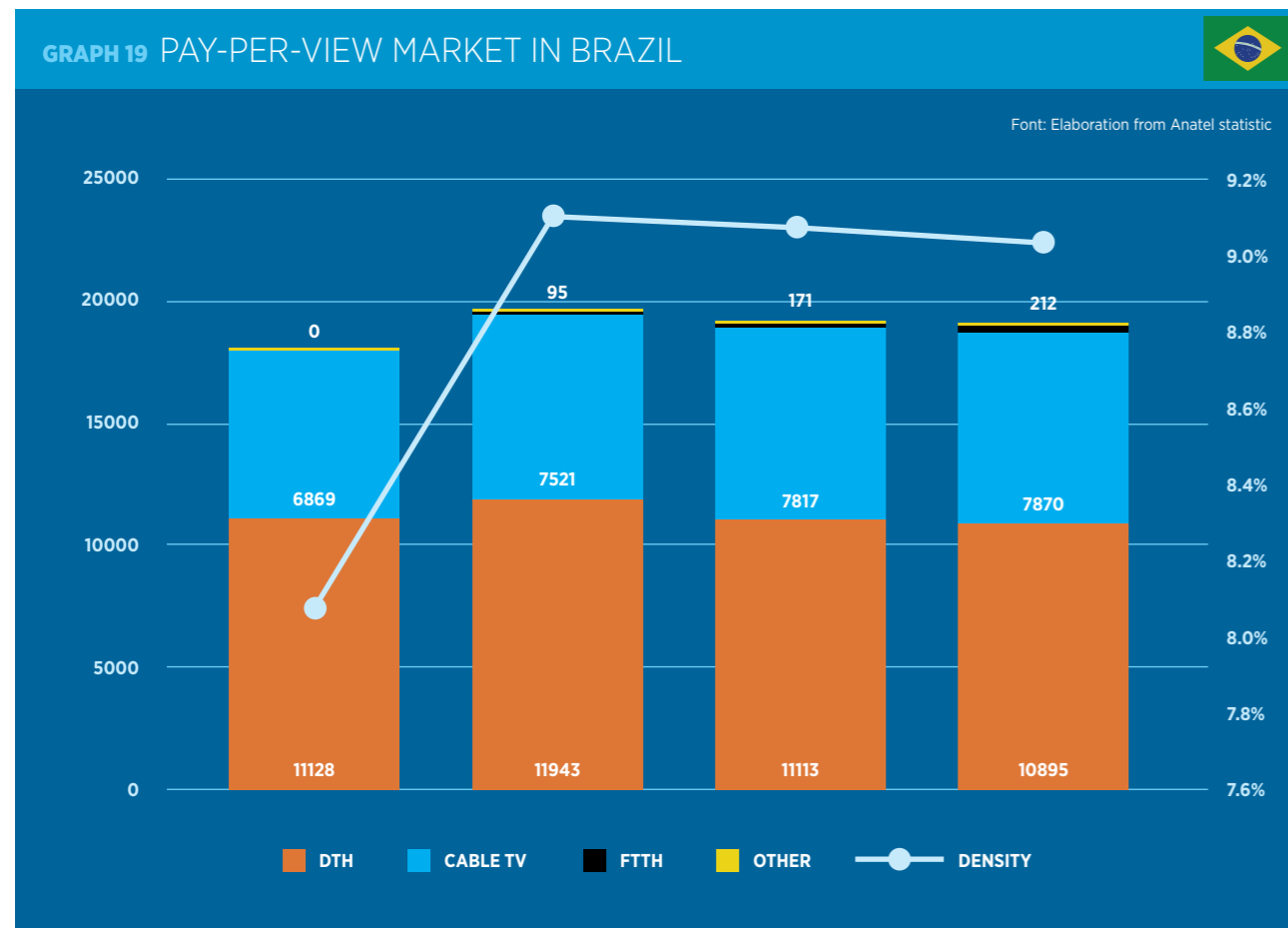
Mobile infrastructure in Brazil has exhibited a strong growth over the last 4 years, despite the strong economic recession. Although GDP has decreased over the last years, telecom companies have invested in a better infrastructure for the future. Brazil has problems with demand due to the economic

situation; however, the regulatory environment has been improving over the last year despite some remaining weak points.

The Pay-TV market has a similar level of development in Brazil to that of the mobile market. The sector was

also affected by the recession and the total number of subscriptions has decreased in recent years. It has gone from 19.6M in 2014 to 18.9M in March 2017. The last growth was registered in 2014, as shown in Graph

19. The situation is the opposite to that of Chile, where the Pay-TV market is growing very fast due to the strong growth of satellite TV. In Brazil only cable TV has grown in the last four years.



The penetration rate in Brazil of Pay-TV is around 28 per cent, more than 6 per cent points lower than Chile. Fiber-To-The-Home (FTTH) services are growing, but the rate of penetration is still very low. In the future, this market will achieve a large market share, but in Brazil this is not yet the case. The economic recession has affected demand in Brazil in the digital market, however the country also has some good lessons for increasing the coverage of rural area.

10.1 LOCAL REQUIREMENTS

Various countries – including Brazil -- have proposed or adopted policies that require the use of local content in their telecommunications sector infrastructure. Governments often pursue such policies as a way to boost their respective domestic manufacturing sectors, despite the fact that these policies undermine that long-term objective. Building a globally competitive and sustainable manufacturing sector, and ensuring world-class service suppliers

in telecommunications and in sectors that use such services, are key goals of most countries. International experience demonstrates that, to achieve these goals, countries should adopt open, market-oriented policies that encourage the establishment of manufacturing facilities that can be incorporated into global supply chains. Policies that discriminate against imported products, in contrast, discourage firms from establishing new manufacturing facilities, because such facilities would be outside global supply chains. Policies requiring the use of local content also raise serious questions of consistency with multilateral and bilateral trade rules, including provisions of the GATT and the WTO Agreement on Trade-Related Investment Measures (TRIMs).

Brazil also maintains a variety of discriminatory policies in the media and entertainment sector, primarily led by the regulator, ANCINE and imposes local content quotas in the pay television sector. In an era where cable and satellite providers have the technology to

offer their customers hundreds of channels, these quota requirements are an anachronism, restricting consumer choice. Further, in 2011, Brazil modified the definition of local content, requiring Brazilian ownership of underlying intellectual property rights – a very harmful “indigenous intellectual property” standard. Brazil also has sought to tighten its screen quotas to favor local films and limit the number of screens available to consumers for wide releases. Additionally, ANCINE has sought to impose special taxes and local content quotas on VOD distribution of films, and impose non-commercial and discriminatory requirements in the digital cinema space.

Another example of local obligation is the current ban on machine-to-Machine (M2M) permanent roaming (i.e. foreign based carriers using foreign numbering Subscriber Identity Models (SIMS) for Internet of Things (IoT) or M2M purposes within Brazil on a permanent basis) over their respective networks. Essentially, this unnecessary restriction obliges IoT device manufacturer’s to either develop devices and establish service infrastructure solely for the Brazilian market or forego providing services in Brazil. This places Brazil outside global regulatory norms as other jurisdictions have consistently permitted foreign carriers to utilize foreign SIMs to provide permanent

roaming for M2M or IoT services to their respective OEM customers.

Brazil should promote an international, interoperable policy framework for IoT and M2M solutions that includes permanent roaming. Many IOT and M2M solutions will only reach their optimal scale if they can operate around the globe (for example monitors on airline cargo or shipping containers must be able to operate wherever their freight travels). The Brazilian government should support providers of IoT and M2M services and devices and allow them to choose between various available options for numbering and device management, rather than imposing a single, one-size alternative for all cases.

All these past Brazilian governments’ interventionist policies have prevented innovation and technological progress. In order to ensure access to innovation and to modern technology, Brazil should be open to the provision of products and services from other nations. In addition to removing the local content requirements detailed above, Brazil should repeal the laws that serve as barriers to trade as these measures disrupt the global nature of the ICT industry and disadvantage both access to technology in Brazilian and the ability of technologies companies to do business in Brazil. •

11

ARGENTINA

The next country to analyze is Argentina. The OECD claims that this country has one of the worst regulatory environment for the information and technology sector. However, Argentina had a change of government two years ago, and the current government started some specific reforms in the sector even if a lot still need to be done to repair the inconsistencies of the past.

Argentina is a typical example of a country with considerable potential that is limited by several factors. The change of the government provided some space for liberalization in Argentina. To deal with the continuing economic problems, President Macri has pinned his hopes on attracting FDI. With an intensive international agenda, he repeatedly pitched that under his administration Argentina will be a great place for foreign companies to do business.

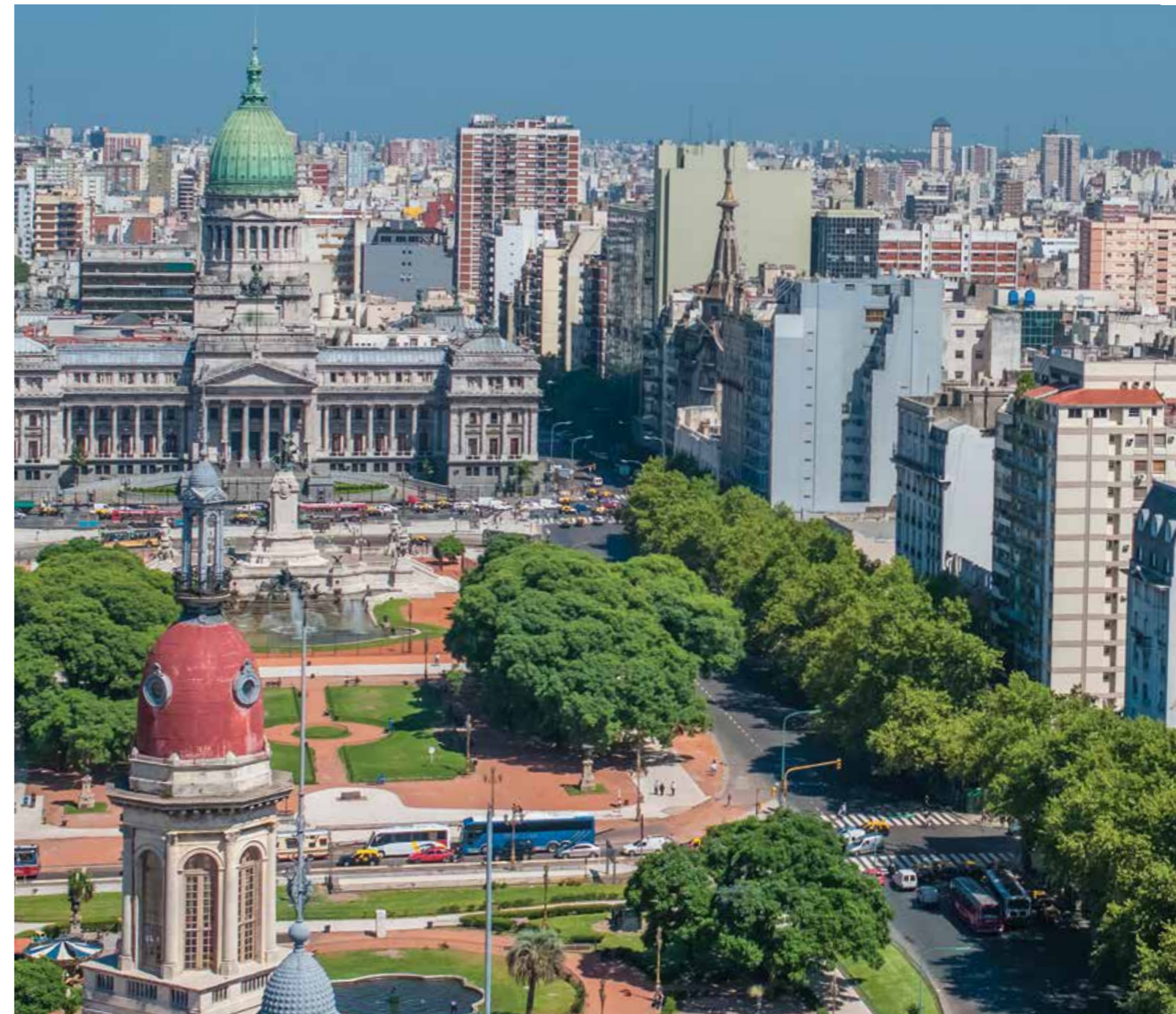
The arrival of 4G technology has not helped develop a new single digital market. This is a clear trend in many markets. In Latin America, the development of new services and contents is delayed due to the many infrastructure bottlenecks. Many steps forward were taken in different markets in the area, as the example of Chile shows, however in others countries the development of the mobile and media market is limited due to different problems.

The best way to drive development, increase employment and attract investment is to move towards a market in which the government does not excessively intervene. Venezuela provides a clear example of the consequences of the hard regulation of an economy. Attracting foreign capital is considered a key solution to prevent recession and inflation; however, is this the correct antidote for the long term?

Consistently with the shared understanding that the rapidly converging Telecommunications and Media segments need a legal and regulatory less fragmented and long-term approach, President Macri appointed a Commission to draft a new Bill of Convergent Law. Although the deadline set for the presentation of the new draft law has been postponed twice already there is currently no progress in the drafting process. In the meantime, two major reforms of the Telecommunications and Media laws have been implemented through Presidential Decrees.

On December 29, 2015, President Macri's administration passed the Presidential Decree of Need and Urgency No. 267/2015 (the "DNU"). The Decree amended Argentina's Media Law (2009) and Telecommunications Law (2014). A year later many of the restrictions imposed by the DNU were removed by means of a new Presidential Decree (Presidential Decree No. 1340/2016, the "Presidential Decree"). We should recognize and appreciate Argentina's efforts to restore competition through the enactment of the new Presidential Decree. However, the Presidential Decree failed to remove all restrictions created by the predecessor DNU and most importantly, failed to harmonize Argentina's telecommunications and media regulatory frameworks.

Cable providers maintain their ability to compete by providing bundled services, whereas Satellite providers are banned from offering their services bundled with Internet and other services provided by fixed and wireless telephony providers. In addition, although Satellite Pay-TV providers continue to be regulated by the Media Law, cable providers are expressly excluded from that law and are now covered by the Telecommunications Law. This, in practice, exempts Cable providers from complying with a series



of burdensome media obligations (e.g., investing in the local film industry, including offerings for low income customers, etc.) that continue to apply to Satellite providers, and it also frees Cable providers from cross-ownership restrictions.

Given the optimism that many investors and Governments expressed towards the Macri administration and the potential that exists for increased investment in Argentina, the existence of such an asymmetric regulatory framework may give a negative signal regarding the investment environment in Argentina. Much work is still to do to improve processes and existing regulations to encourage

investments in the telecommunications sector and to benefit the digital economy by creating a more dynamic, open and international market, favorable and accessible to international businesses and investors.

To achieve lasting reform and to promote greater investment and competition in the telecommunication and media markets, the Argentinian Government should accelerate the work of the committee appointed to draft a law establishing regulatory convergence. Such legislation will ensure equal regulatory treatment of all participants in this rapidly converging industry. •

12

COLOMBIA

Regulatory Modernization

After the recent Peace Agreement with the FARC rebels, Colombia seemed like the next Latin American promise. However, according to the Central Bank foreign direct investment (FDI) decreased 20.9% in August 2017, and the country remains stagnant in number 61 of the Global Competitiveness Report of the World Economic Forum (WEF). Particularly, FDI for the transportation, storage and communications sector was negative in the 2Q of 2017 for the first time in the two last years

The ICT sector seems to be suffering beyond the FDI numbers, GDP for the subsector of Telecom and postal services has decreased for the last 7 quarters, with no signs of recovering. Colombia has also lost positions in the WEF Networked Readiness Index (NRI), going from number 58 in 2011, to 68 in 2016, behind countries like Chile, Uruguay and Panamá. Indexes from entities such as the ITU, and the World Bank Doing Business state that the sector is not doing great.

Beyond the indexes and indicators, ICT services should be pulling the economy forward, and it is worrisome to have a sector in such dire conditions. In the last decade, the economic growth at World level was strongly correlated to the investment and innovation in the ICT sector.

As a matter of example, the efforts undertaken by the government and the ICT Ministry, starting in 2016, to design a new public policy for the audiovisual industry with the objective of tackling current regulatory asymmetries that undermine competition and investment in the Pay-TV market should be praised. However, and despite the ICT Ministry's willingness to

work decisively on the matter, Colombia's regulatory framework remains unchanged, perpetrating –or even worsening—burdensome regulatory charges and discriminatory asymmetries among providers of audiovisual services.

Also, the existence of two different regulators with different sometimes conflicting roles remains an obstacle to the development of the industry, in spite of recommendations formulated by international organizations, such as the OECD. The Comisión de Regulación de Comunicaciones (CRC) regulates telecommunication services and networks, and the Autoridad Nacional de televisión (ANTV) is in charge of regulating television services. Such dual structure led to a fragmented television regulatory framework with two authorities deciding and exerting their powers on intrinsically related matters. For example, in the case of the regulatory fees of the Pay-TV segment, the CRC concluded that there were some asymmetries between the Pay-TV sector and the ICT services and it recommended matching the fees between these markets; however the ANTV reiterated its decision to maintain higher regulatory fees for Pay-TV providers than those paid by telecommunication services providers. In addition to the uncertainty and confusion created by the coexistence of two regulators, there also is the duplication and overlapping of information reporting obligations, which imposes inefficient burdens on providers subject to the control of both entities.

In this sense the recent announcement of President Santos regarding the plans of the Colombian government to initiate the process for the creation of a new convergent regulator is welcomed as a step



forward in the economic growth and competitive positioning of Colombia in the global scenario. We should encourage the Colombian government to decisively promote the legislative or regulatory modifications required to create Colombian convergent regulator.

As already mentioned, the reality of convergence should lead to convergent regulatory bodies. This should solve the problem of complex separation of powers.

12.1 COMMUNITY TELEVISION SERVICES

Another particularity of Colombia is the existence of so called “community television” which services are focused on their local, non-commercial nature. In order to avoid a negative impact on the commercial television

market, Colombia agreed to set a quota for each “community television” to no more than 6,000 members (i.e., subscribers) and for these to be providing their services only in certain geographical areas and under specific guidelines concerning the number and type of channels that these operators could carry.

Despite existing domestic regulation implementing these obligations, Colombian authorities have not been effective to date in enforcing such restrictions on the existing “community television operators,” which frequently exceed the number of subscribers and the number of channels that they are allowed to have. Such lack of enforcement distorts the television market by allowing the “community television operators” to fully compete with the commercial providers while allowing them to enjoy substantial benefits applicable to their non-commercial nature (e.g., tax exemptions, reduced license and regulatory fees, etc.)

This is a typical example where the Colombian government to effectively enforce limitations on “community television” operators in order to create a market situation where all the players are playing with the same rules. Additionally, the Colombian government should work on eliminating the benefits applicable to “community television” operators which compete with pay-TV providers in the same relevant markets with evident advantages and at unequal conditions for the players involved. It will be probably the role of the new Convergent regulator that this administration should create before the end of its term. This new entity will have to focus on several issues such as the unequal treatment of pay-TV services that today pay significantly more in regulatory fees than any other service in the ecosystem, the lack of effective mechanisms to fight piracy and underreporting, the proliferation of unnecessary regulatory obligations that lack proper cost-benefit

analysis, and the lack of certainty in regulatory and legal obligations.

Given this reality, it is no wonder companies are thinking twice before investing in Colombia's ICT sector. Uncertainty and unfair competition are the biggest stop for the development and the innovation of sector in the short period and the growth of the economy in the long period.

As President Santos last year in office advances, there are still opportunities for him to show the world that Colombia is still the region's promise. He can begin by addressing the anti-technical regulatory fees the sector has had to live with for years and avoiding further burdens on an industry that is already drowning. He shouldn't forget that Colombia's future is intertwined with the sector's future. •

13 CONCLUSION

In this analysis, it is underlined how a single and convergent digital market is already a reality in many parts of the world. The market has become more and more integrated, not just between Media and Telecom operators, but also with new players such as the giants of the web (Google, Facebook, Apple and Amazon).

The increase in the demand of data should have an answer from the operators that they have to invest to build new infrastructure. Regulation and policy environment are key factors for the development of the investment.

Latin America does not have the best regulatory environment for this new growing market; it needs to be more flexible and modern. The economic crisis has had a strong impact in many countries of Latin America, as in Brazil. The demand in this sector is not driven just by economic and social factor, such as urban population or GDP per capita, but also by effective and light regulation. In light of all this, we can draw some key conclusions.

- **Build a legal framework suitable for investment: the main objective for legal and regulatory frameworks should be to foster dynamic competition in order to maximize infrastructure deployment and to ensure long-lasting effects of the reforms. A higher legal hierarchy of reforms increases investor confidence.**
- **Create stable, credible, and enduring regulatory institutions: it is crucial that policy-makers recognize the need to create and maintain National Regulatory Authorities (NRAs) that are independent, stable and look at the convergent markets.**
- **Promote competition in the converged markets by restricting the ability of dominant players to behave in an anticompetitive way. It is a long and continuous process, which requires constant monitoring, informed by an evidence-based approach.**
- **Create a legal and regulatory framework which discourages informality and illegal practices while allowing fair competition among market players and enhancing customer protection as well as awareness of such damaging practices.**
- **Final point is the promotion of new technologies and business models. This is where Latin America can really differentiate itself with new frameworks. It would be essential to develop a regulation for the future that consider how new services have transformed the shape of the market, have set new level playing fields, and have paved the way for further market evolution. To this end, future regulatory frameworks will have to prioritize the following concept of same services, same rules. •**



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