ITU Policy and Economic Colloquium for the Americas (IPEC-25)

ITU Regional Economic Dialogue (RED-AMS)

Montevideo, Uruguay, 6-7 October 2025

The ITU Policy and Economic Colloquium (IPEC-25), and specifically the Regional Economic Dialogue (RED), was organized by the Telecommunication Development Bureau (BDT) of the International Telecommunication Union (ITU) in partnership with n partnership with the Dirección Nacional de Telecomunicaciones (Dinatel) of Uruguay. The IPEC-25 counted with the participation of 112 delegates from 20 countries.

This year, **the ITU IPEC-25 for the Americas** included:

- **ITU-D Regional Economic Dialogue** (including a session on ITU-D Study Group 1 Question 4/1: Economic aspects of national telecommunications/ICT) held on 6 and 7 October, including the **ITU Digital Regulation Network (DRN) session on Building an innovative ecosystem to address regional and global challenges** [Agenda with presentation and material];
- **BDT Workshop on emerging technologies for innovative connectivity solutions: policy, economic and technical aspects,** with the support of the Ministry of Science and ICT (MSIT), Republic of Korea, 8 October (morning) [Training Outline];
- Meeting of **ITU-T Study Group 3 Regional Group for Latin America and the Caribbean** (SG3RG-LAC) 8 (afternoon) and 9 October;
- Meeting of the **ITU-T Study Group 2 Regional Group for the Americas** (SG2RG-AMR) held on 10 October.

All the material and presentations from the RED are available at: https://www.itu.int/en/ITU-D/Regional-Presence/Americas/Pages/EVENTS/2025/IPEC-2025.aspx

Opening session

In his opening remarks **Mr Rodrigo Robles (ITU Representative)** highlighted the celebration of the 25 years of IPEC as the unique ITU platform for open dialogue among governments, regulators, and industry across the Americas, addressing the policy and economic issues at high and operational levels. He also emphasized the importance of the Best Practice Guidelines as a roadmap for: Regulatory innovation and evidence-based decision-making; Strengthening institutional and financial capacities of regulators; Strategic use of emerging technologies; and facilitating cross-border operations. Finally, he encouraged active participation toward shaping the next ITU Development Sector Action Plan and fostering collaboration across the region.

Mr Alejandro Paz (President, Antel Uruguay) welcomed participants and reaffirmed Antel's role as the executive arm of Uruguay's public telecommunications policy. He stressed that telecommunications are a human right and should be viewed as a tool for national development, not merely a business, and the importance of public efficiency and inclusiveness in guaranteeing digital access for all citizens.

Mr Gonzalo Balcedo (President, URSEC) expressed Uruguay's honor in hosting IPEC-25 and emphasized ITU's long-standing role in promoting global collaboration and transparency in telecommunications. He underscored the value of technical and academic exchange fostered through ITU events, and the timeliness and relevance of IPEC discussions on satellites, spectrum management, and tariff policies, which are global regulatory challenges.

Mr Pablo Siris (Director, DINATEL, Uruguay) extended a warm welcome and gratitude to ITU, URSEC, Antel, and the event's organizing teams. He highlighted the collaborative effort among national institutions to host IPEC and expressed hope that the meeting would yield productive and practical outcomes for the region's digital development.

Ms Fernanda Cardona (Minister of Industry, Energy and Mining, Uruguay) shared her personal connection with ITU and reaffirmed Uruguay's commitment to inter-ministerial and cross-sector collaboration. She recalled Uruguay's strategic decision 15 years ago to deploy nationwide fiber optics and develop a public policy ecosystem that integrates public and private sectors and stressed that digital transformation, energy, production, and education are interconnected and must be addressed through coordinated public policy. She also mentioned the Uruguay's broad political consensus on digital and industrial policy as key to long-term national success and reaffirmed that digital inclusion and equitable access remain central goals, ensuring technology benefits all communities.

High Level Session 1: Digital Regulation Network (DRN) Session on policy and regulation in the Americas region - Building an innovative ecosystem to address regional and global challenges

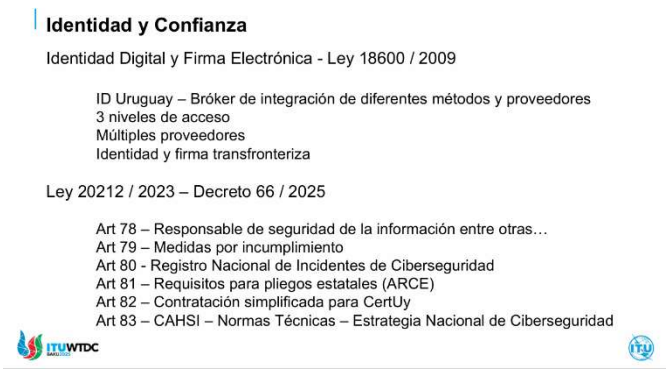
The Moderator of the session, Ms Carmen Prado-Wagner, ITU Representative, introduced the Digital Regulation Network (DRN) as a global initiative that brings together national regulatory authorities and regional regulatory associations to accelerate sustainable digital development through cooperation—South-South, North-South, and triangular. She explained that this session is part of the three main pillars of the DRN: thought leadership for dialogue on emerging regulatory needs, capacity development through knowledge-sharing and training, and regulatory experimentation to jointly work on emerging technologies policies and regulations. She also highlighted a key component the Global Economic Model Study (GEMS).

The main output of the GEMS is an economic modelling tool capable of analyzing investment in network infrastructure at a regional, national or local level to guide policymakers, regulators and the private sector on investment decisions, and in the application of regulatory practices. As such, the tool will be able to estimate investment requirements, potential returns on such investment, stipulating business opportunities and models and explore the impact of regulatory practices using the ITU Regulatory Tracker and benchmarking to quantify the economic impact at national level, using econometric modelling. The output will be tailored to the context and socio-economic situation of each country and region. She also informed about the GSR-25 Best Practices Guidelines that this year focused on empowering regulators to become digital ecosystem builders.

Mr Pablo Siris, Director of DINATEL Uruguay, emphasized that telecommunications are now considered as essential infrastructure for global development, human rights, and access to services such as education, health, work, and digital citizenship. However, connectivity remains uneven, requiring strong state involvement and regulation to guarantee equitable access. Uruguay's institutional framework relies on a "tripod": DINATEL sets public policy and regulatory frameworks, the national regulator URSEC oversees and promotes the sector, and the state-owned operator Antel implements policy and ensures universal service. Public policy, he stressed, must actively guide innovation and investment toward social well-being, equity, and sovereignty. He also highlighted the regulatory challenges posed by emerging technologies, such as generative AI, 5G/6G, and low-orbit satellites, and by the globalization of digital platforms. Falling revenues from traditional mobile services and increasing convergence between connectivity and content require maintaining a balance between investment and state contributions. Although Uruguay made major advances

in digital inclusion in the past, the digital divide has recently widened, underscoring the need for an active state to protect digital rights. He highlighted Uruguay's commitment to restoring digital equity, strengthening Antel's leadership role, and deepening international cooperation, particularly with the ITU and regional partners, to build an innovative, secure, rights-based digital ecosystem that ensures an inclusive, sustainable, and sovereign digital transformation.

Mr Maximiliano Maneiro, Agencia de Gobierno Electrónico y Sociedad de la Información y del Conocimiento (AGESIC), Uruguay outlined the agency's role in leading Uruguay's digital transformation since 2005 through public policies, regulations, and digital tools that simplify interaction between citizens and the State. He highlighted strong alignment between AGESIC's responsibilities and the ITU Strategic Plan, including digital skills development, closing digital gaps, expanding access to quality public digital services, and ensuring secure, interoperable infrastructure. Maneiro emphasized the agency's work on cybersecurity, accessibility, and digital identity, such as the ID Uruguay platform, the national Public Key Infrastructure (PKI), and cross-border authentication. AGESIC also drives participatory digital strategies, involving public institutions, private sector, academia, and civil society to address how people operate in the digital environment and how creators participate in it. He also detailed Uruguay's evolving regulatory framework in cybersecurity, personal data protection, and artificial intelligence. Recent legislation created mandatory information-security roles within public agencies, a national registry of cybersecurity incidents, procurement requirements, and an advisory council to guide national cybersecurity strategy. Uruguay's robust data protection law requires informed consent, registration of all personal-data databases, and strict rules for international data transfers. AGESIC is additionally responsible for the national AI and data strategy, producing recommendations to Parliament, creating an observatory of AI use in the government, and drafting regulations for controlled testing environments and data spaces. Maneiro concluded by stressing that an innovative digital ecosystem depends not only on technology but on inclusive policies, secure digital identity, responsible data governance, and regional collaboration toward trustworthy digital transformation.



Mr Rodney Taylor, Caribbean Telecommunications Union (CTU) presented recent regional developments following the Caribbean ICT Week held in Jamaica, where CARICOM members, including the newly added French Guyana, met to advance their digital transformation agendas. The CTU Council, the region's main decision-making body for telecommunications, convened representatives from 18 countries to review policies and regulatory progress. He highlighted efforts to enhance routing resilience, create more robust regional Internet exchanges, involve youth in regulatory

conversations, and expand digital governance through new agreements and resolutions aimed at strengthening cooperation.

He emphasized the region's ambition to build an inclusive, secure, and sustainable digital ecosystem, noting that digital regulation should empower small island states to participate more fully in the global digital economy. The proposed Regional Regulatory Body (RRB) will not have direct regulatory powers but will facilitate cooperation, harmonization, and capacity building among regulators, policymakers, and industry. He underscored ongoing initiatives in AI, infrastructure sharing, and gender inclusion through the Caribbean Women in ICT network, as well as collaborations on submarine cable projects. Taylor concluded by presenting a multiregional Memorandum of Understanding signed by CITEL, Regulatel, Comtelca, and CTU to strengthen cooperation toward 2026 and support regional harmonization as the Caribbean advances its digital transformation.

Mr Héctor Lizárraga, Director de Asistencia Técnica, Comisión Técnica Regional de Telecomunicaciones (COMTELCA) emphasized the urgent need to build an innovative ecosystem capable of addressing regional and global challenges that transcend borders, such as climate change, inequality, economic vulnerability, insecurity, and rapid technological transformation. He explained that innovation is not only about technology but the interaction of people, institutions, ideas, and alliances. Constructing such an ecosystem requires a long-term strategic vision, coordinated action, and strong collaboration among government, academia, the private sector, civil society, and financial institutions. Lizárraga outlined key components of this ecosystem: diverse actors with complementary roles; interconnected processes such as knowledge generation, policy development, and scalable implementation; and an enabling environment with adequate infrastructure, a culture of innovation, and strong communication networks. He highlighted practical steps including shared vision-building, strengthening governance, improving connectivity, boosting research and talent development, securing financing, promoting open innovation, and scaling successful projects regionally.

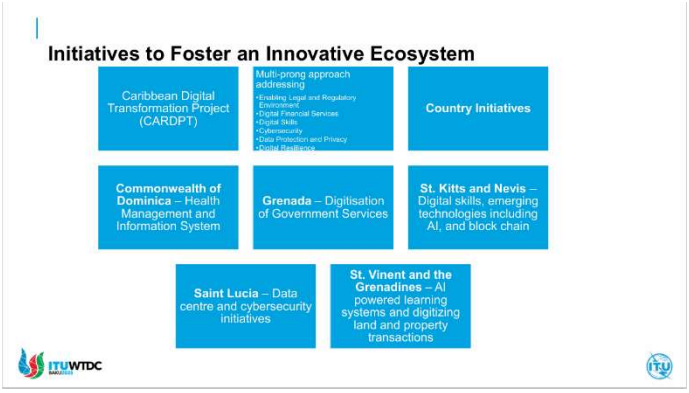
In closing, he stressed that innovation is a collective process built through collaboration, knowledge exchange, and diverse perspectives. Meaningful progress arises when businesses, universities, governments, and communities work together to transform challenges into opportunities. He underscored the region's strengths -youth, creativity, and a collaborative spirit- which together form a powerful engine for development. By embracing collective innovation, the region can strengthen capacities, attract investment, promote talent, and position itself globally as a model of resilience and cooperation. He concluded saying that coordinated regional action is essential for generating sustainable solutions and building a more prosperous, inclusive, and future-ready region.

Ms Marsha Atherley-Ikechi, Executive Director, Organization of Caribbean Utility Regulators (OOCUR) highlighted the Caribbean's unique context as a highly diverse region of more than 25 countries and territories, home to 44 million people and spanning a wide range of sizes, languages, and economic

conditions. This diversity creates exceptional challenges, particularly in infrastructure deployment, where costs for submarine fiber, fixed networks, and basic telecommunications are among the highest. As a result, the region has often innovated out of necessity, adopting mobile technologies early, creating regulatory sandboxes in places like Barbados, and even relying on improvised solutions after natural disasters such as the 2016 hurricane that severely damaged communications networks.

She emphasized that cooperation is essential for the region's survival and progress. During the pandemic, collaboration across Caribbean states proved critical for securing vaccines, illustrating the power of collective action. Organizations such as OOCUR and CARICOM continue to share intelligence and harmonize regulatory standards while preserving national sovereignty. For the Caribbean, developing innovative ecosystems is not optional but foundational to addressing persistent challenges such as digital divides, lack of economies of scale, and climate vulnerability. The region's circumstances, while difficult, position it as a natural laboratory for adaptation and pragmatic innovation.

Ms Cheryl Hector Fontenelle, Director Economics and Finance, Eastern Caribbean Telecommunications Authority (ECTEL) described the Eastern Caribbean's efforts led by ECTEL, to build a functional digital economy despite the region's extremely small markets, diverse island contexts, and limited human and financial resources. She explained that ECTEL was originally formed by five governments to harmonize telecommunications regulation and meet global commitments while preserving national sovereignty. Today, these governments recognize that developing a digital economy cannot be achieved in isolation: it requires coordinated action across government, private sector actors, financial institutions, and consumers. Although network coverage is strong and connectivity is widely available, the region still faces a significant *usage gap*. Surveys show that while about 90% of people use the Internet, usage is often limited to gaming and social media, and fewer than 20% of citizens possess intermediate digital skills. Adoption of e-commerce remains low (more than half of respondents do not participate in online commerce) and trust, habits, and limited local incentives continue to constrain digital participation.



She noted that financial inclusion is not the main barrier, as the region has strong credit union networks and broad access to traditional banking. However, mobile and online banking adoption is progressing slowly, and consumers still rely heavily on in-person transactions despite higher fees. To address these challenges, Eastern Caribbean governments are implementing a World Bank–supported Digital Transformation Project focused on modernizing legislation, strengthening data protection and cybersecurity capacity, preparing the banking system for digital finance, and improving digital education and skills. As small island economies highly vulnerable to climate change and repeated natural disasters, building resilience is a central priority. Countries are advancing at different paces, but many are prioritizing digital health, digital education, and sector-specific innovation as part of their national transformation agendas.

Ms Diana Paola Morales, Representante, Foro Latinoamericano de Entes Reguladores de Telecomunicaciones (REGULATEL) presented the work done by the Latin American Forum of Telecommunications Regulators, highlighting its role in fostering innovative, collaborative, and evidence-based regulation across the Americas. REGULATEL is composed of eight specialized working groups addressing user protection, digital inclusion and quality of service, data and ICT indicators, institutional strengthening, Internet governance, digital markets, gender parity, and regulatory innovation. Through these groups, the forum promotes best practices such as infrastructure sharing, improved data collection, regulatory simplification, and impact-based policymaking. She emphasized the importance of regulatory frameworks that are transparent, flexible, and adapted to fast-changing technological environments. Key initiatives include the exchange of experiences among regulators, development of regulatory sandboxes, and capacity-building programs to strengthen technical knowledge in areas such as data analytics, cybersecurity, and emerging digital markets. She also outlined major challenges faced by regulators in the region, including outdated and rigid legal frameworks, limited institutional capacity, insufficient access to data, and weak coordination between national and local authorities. Structural issues, such as heavy regulatory and tax burdens on traditional operators compared to new digital service providers, create asymmetries that hinder innovation. Emerging technologies like AI, 5G, and forthcoming 6G introduce additional risks tied to low technical understanding and regulatory preparedness. REGULATEL identifies priority areas including sustainable digital regulation, convergent sectoral policies, risk mitigation in emerging technologies, universal and meaningful connectivity, and reduction of normative obsolescence. She concluded that modernizing regulation, enhancing cooperation, and ensuring flexibility are essential for enabling innovation and strengthening digital ecosystems throughout Latin America.

At the end of the session, the discussion focused on why, despite high Internet usage in ECTEL countries, fewer than half of users engage in online commerce, and what the Caribbean can do to stimulate greater interest in digital trade and promote regional products. It was explained that while external demand, such as tourism, drives some online business, many locals prefer in-person services due to cultural habits, trust in face-to-face interactions, limited perception of time savings, and digital intimidation among older populations. She emphasized the need for more innovative services, education on the value of time, and fostering a mindset of becoming digital content and service creators. Additional comments noted structural barriers, including costly cross-border payments, reliance on U.S. dollars, long delays for agricultural payments, and the need for improved digital trade frameworks. Ongoing initiatives with African partners aim to strengthen payment systems, establish innovation hubs, and promote digital commerce between the Caribbean and Africa.

Role of the RAs in reducing the digital divide and promoting inclusion in the innovation ecosystem across regions in the framework of the DRN

The objective of this session was to discuss with the convened regional regulatory associations (CTU, COMTELCA, ECTEL, OOCUR, and REGULATEL) to examine the role of the Digital Regulation Network (DRN) in narrowing the digital divide, promoting inclusion, and supporting innovation across the Latin America and the Caribbean region. Although each country faces unique national circumstances, participants identified strong commonalities in their challenges and priorities, reaffirming that regional cooperation is essential for

advancing digital transformation and addressing global disruptions. A detailed summary of key activities from each RAs is available on Annex 1.

Representatives from RAs underscored that small market size, fragmented regulatory frameworks, and the growing influence of global digital platforms make coordinated action more important than ever. The DRN was recognized as a vital mechanism for regulatory harmonization, capacity-building, and the exchange of best practices, allowing countries to craft forward-looking regulatory policies that support innovation while ensuring inclusive, affordable, and secure connectivity. A consistent theme across interventions was the importance of strengthening digital resilience. This includes developing shared infrastructure such as regional data centers, submarine cables, and mechanisms for rapid restoration of services after natural disasters. RA representatives also highlighted the need for regulators to anticipate emerging technologies and to design regulatory frameworks that enable innovation rather than constrain it.

All associations emphasized the strategic value of acting as a unified region. Cooperation enables countries to achieve economies of scale, enhance their negotiating power with global technology companies, attract greater investment, and respond more effectively to shared challenges—including declining operator revenues, cybersecurity risks, and digital inclusion gaps. Collaboration was described not only as beneficial but as fundamental to ensuring long-term digital development and resilience.

In conclusion, the meeting reaffirmed that regional regulatory associations play a central role in shaping a coherent, future-oriented approach to digital regulation. By strengthening coordination, harmonizing regulatory approaches, and leveraging the DRN as a hub for shared knowledge and collective action, the Latin America and Caribbean are well positioned to accelerate progress toward a more inclusive, innovative, and resilient digital ecosystem.

Session 2: What can regulators do to facilitate safe, secure and resilient connectivity for all - Understanding the technology needs of tomorrow, are we ready for it (e.g. Direct to device)?

The Moderator of the session, Ms Rodrigo Robles, ITU Representative

What can regulators do to facilitate safe, secure and resilient connectivity for all, the case of Colombia: Ms Diana Paola Morales, CRC Colombia presented an overview of the context and background of Fixed Community Internet (ICF), which was created with the aim of ensuring connectivity in regions where there is no commercial internet service available. Diana also introduces the Organized Connectivity Communities (COC), which are non-profit organizations that operate through a wholesale provider responsible for supplying internet access, which is then distributed locally to their members.

In this context, the main rules and obligations of the COCs are presented, including the need to provide users with clear information about their rights and terms of use, maintain constant communication with the wholesale provider, and preserve essential documents such as statutes, contracts, and records. In

return, among the benefits of this model is the reduction of regulatory barriers to entry and operation, facilitating the expansion of community-based connectivity.

Digital Transformation without gaps: Challenges, opportunities, and strategies for regulators: Ms Lizania Perez, INDOTEL, Dominican Republic addressed the role of regulators in ensuring secure and resilient connectivity for all, with a focus on future technological needs and on how prepared countries are to face these challenges. Key issues were highlighted, including technological preparedness, prompting reflection on whether regulators are equipped to handle future connectivity demands; security and resilience, emphasizing the importance of developing policies that ensure reliable networks capable of withstanding crises and attacks; and accessibility and equity, underscoring the need to guarantee fair, inclusive, and equal access to digital technologies for all citizens.

In this context, the presentation aimed to guide regulators and policymakers on how to anticipate technological trends, reduce digital inequalities, and strengthen connectivity infrastructure for the future.

Secure and resilient connectivity for all: The Role of OSIPTEL in Peru: Mr Paulo Chahuara, OSIPTEL, Peru addressed the theme of secure and resilient connectivity for all, fostering dialogue on network security and its importance for user trust and service continuity, as well as on digital resilience, which often ensures the maintenance of connectivity during crises or disasters. These elements were highlighted as fundamental conditions for sustainable development and digital inclusion.

Within this context, the role of regulators was discussed, particularly in promoting international standards of quality and coverage, encouraging investment, diversifying investors to mitigate risks, and fulfilling other strategic responsibilities.

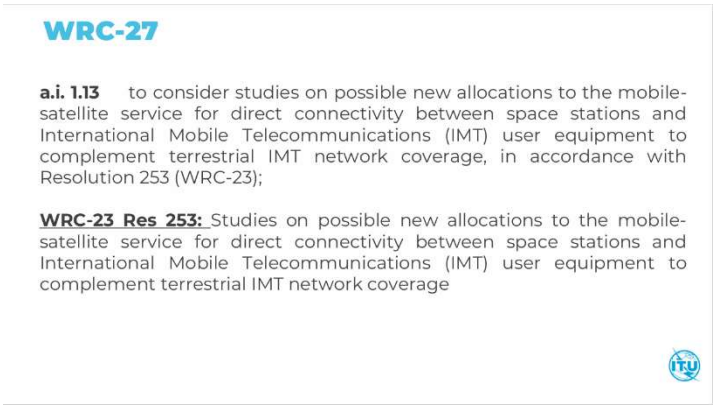
In line with this theme, Paulo highlighted the role of OSIPTEL as the Peruvian regulatory authority, which operates across four main areas: a forward-looking regulatory framework, digital empowerment of users, regulatory incentives for infrastructure development, and the adoption of international best practices. In closing, the speaker emphasized the importance of regulatory action and underscored OSIPTEL's role in promoting secure and resilient connectivity.

Future Regulation: A broad perspective on the ecosystem to promote investment: Ms Maryleana Mendez, General Secretary of ASIET addressed the future of regulation and highlighted the opportunity that Latin America and the Caribbean must use technology as a catalyst for development. In this context, the speaker

emphasized that telecommunications networks are the foundation of digital transformation and that their financial sustainability is essential to ensure competitiveness and quality of life. Along these lines, Maryleana pointed out key barriers to development, such as high levels of inequality, low social mobility, and institutional and governance challenges.

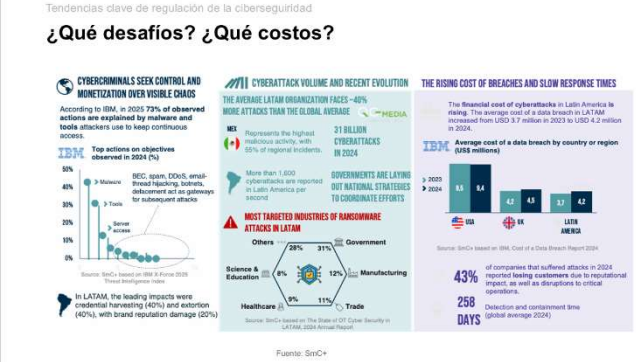
During the presentation, a new regulatory vision was discussed, characterized by a broader and more complex digital ecosystem in which regulators must encourage innovation and rethink traditional regulatory models. Accordingly, fostering innovation requires agile regulation aligned with technological evolution, active stakeholder participation, and periodic review of regulatory frameworks. Finally, the speaker emphasized that the cost of regulation is not only financial but also represents an opportunity cost, underscoring that regulatory approaches should be user-centered in order to promote investment, innovation, and digital development.

Direct to Device at the ITU-R Study Groups and WRC-26: Mr Joaquin Restrepo, ITU-R presented how IMT-2030 and Direct-to-Device (D2D) connectivity can integrate terrestrial and space networks to expand digital inclusion, overcome spectrum-related challenges, and ensure global coverage, particularly for remote communities and emergency scenarios.



In this context, the speaker outlined the main challenges and technical studies involved, highlighting aspects such as signal propagation and system compatibility. In addition, future perspectives were addressed, particularly in relation to WRC-27, which is considering new spectrum allocations for satellite-based mobile services to complement terrestrial IMT networks.

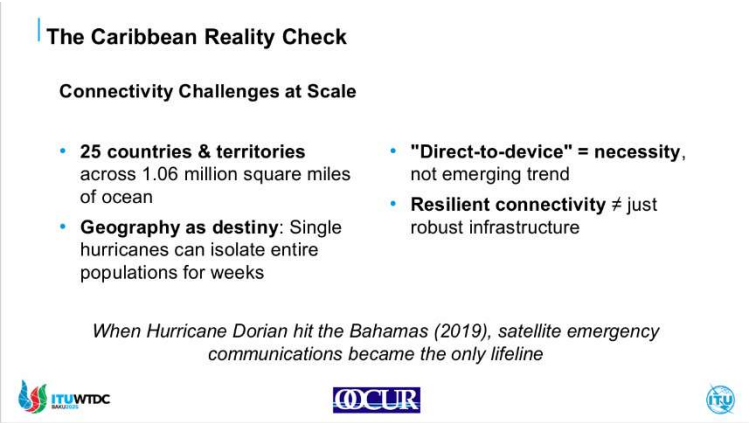
Building a Trustworthy and Secure Digital Ecosystem: Mr Sebastian Cabello, CEO, SMC Consulting addressed the theme of building an ecosystem of trust and digital security in Latin America and the Caribbean (LAC), highlighting key issues such as data protection. It showed that while some countries in the region already have data protection laws in place, others are still in the process of developing them, and it emphasized the challenges related to ensuring



the effectiveness of data protection frameworks.

Another highly relevant point raised was cybersecurity. The speaker noted that only four countries in the region have a more advanced level of regulatory development in this area and emphasized that national cybersecurity strategies are essential to articulate a medium- to long-term vision. Furthermore, by comparing countries across the region, he concluded that there is a significant disparity in the level of regulatory development for data protection and cybersecurity. He also stressed that the interrelationship between data protection and cybersecurity is critical, as one depends on the other to be effective.

Connectivity for All: The Caribbean perspective: Ms Marsha Atherley-Ikechi, Executive Director, Organization of Caribbean Utility Regulators (OOCUR) lectured the challenges related to connectivity in the Caribbean, highlighting that the region's reality requires both technological and regulatory resilience, with an emphasis on international cooperation and the flexibility needed to face natural disasters and ensure connectivity.

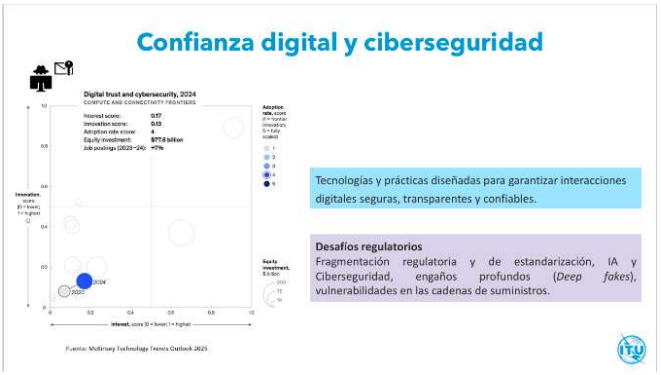


In this context, the speaker proposed a regulatory innovation approach that includes pre-hurricane preparedness, with the central lesson being the creation of structures capable of adapting without collapsing. He also emphasized that the Caribbean has several advantages, particularly its relatively small size, which facilitates the implementation of smart, agile, and effective solutions.

The role of Regulators in ensuring secure and resilient connectivity for all, the role of a Regional Regulatory Association: Mr Hector Lizarraga, Director de Asistencia Técnica, Comisión Técnica Regional de Telecomunicaciones (COMTELCA) addressed the topic of secure and resilient connectivity, highlighting the need for telecommunications services to be protected against cyberattacks, fraud, and disruptions, as well as for networks to be capable of withstanding and rapidly recovering from natural disasters, technical failures, and health crises. In this context, the importance of the role of regulators and the need to consider future technological demands were emphasized.

Furthermore, the speaker highlighted the existing regulatory challenges and ways to address them, either through strengthening regulatory frameworks or by promoting international cooperation. It was thus concluded that regulators are not merely arbiters, but active builders of the future.

Understanding the technology needs of tomorrow, are we ready for it? Regulatory and economic issues: Mr Julián Gómez, Expert UIT addressed issues related to emerging regulatory trends and the main regulatory and economic challenges associated with them, with a focus on balancing innovation, security, sustainability, and resilience.



It highlighted important aspects of artificial intelligence, such as risk management and the need to balance innovation and cybersecurity, as well as issues related to cloud computing and the future of mobility and energy, emphasizing the role of political responsibility and public incentives in this context.

Openness, trust, and innovation: Ms Mercedes Aramendia, Directora Ejecutiva, Alianza por una Internet Abierta (AIA-LAC) highlighted AIA-LAC's mission to promote an inclusive, accessible, and secure internet by strengthening regional collaboration and fostering a plurality of voices in the digital environment.

The speaker explained what the Alianza por una Internet Abierta en Latinoamérica y el Caribe (AIA-LAC) is, how the organization operates, and its core values, which include accessibility, security, and plurality.

Community Centered Connectivity: Mr Christian O´ Flaherty, Internet Society (ISOC) addressed digital trust and security in Latin America and the Caribbean, highlighting key aspects of data protection, including its historical background, current landscape, and the challenges faced in the region. It also covers cybersecurity topics, discussing national strategies, core principles such as the protection of human rights in cyberspace, the level of maturity, and the main challenges involved.

Session 3: Space and terrestrial spectrum: What spectrum for future technologies?

The Moderator of the session, Mr Joaquin Restrepo, ITU-R

The discussion focused on global spectrum harmonization and the building of consensus among countries, which are crucial to ensuring stable, sustainable, and economically viable radiocommunication services in the face of growing demand for connectivity and emerging space technologies. Accordingly, the opening remarks highlighted key points related to the WRC-27 agenda, as well as its processes and cycles.

Space Technology Hub: A commitment to developing Uruguay's space sector: Mr Juan Manuel Caldas, Polo Tecnológico Espacial (PTE), Dinatel, Uruguay presented the digitalization and its impact on the energy value chain. The speaker presents the context and motivations for the topic, as well as an introduction to the Space Technology Hub and its main objectives. In this regard, the presentation highlights projects and opportunities, emphasizing Uruguay's potential as a regional provider of space services.

Other highly relevant points discussed by the speaker include the challenges related to interference and the corresponding mitigation strategies, with a focus on proactive and reactive actions to protect radio astronomy.

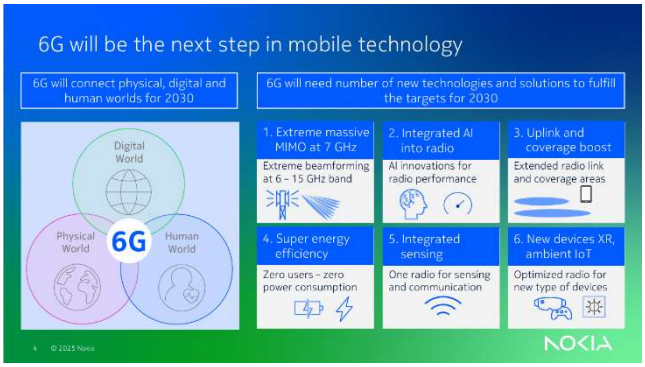
Technological sustainability and the economics of the radio spectrum: Mr Victor Martinez, Managing Director, Latin America and the Caribbean (LAC), Welchman Keen, Mexico highlighted the importance of spatial and technological sustainability, international regulation, and multilateral cooperation to ensure equitable connectivity, responsible innovation, and the mitigation of environmental and geopolitical risks. In this context, it addressed highly relevant topics such as digital transformation and inclusion, spectrum management and regulation, space sustainability, among others.

A particularly significant point emphasized was the discussion of regional challenges and opportunities, highlighting the lack of regulatory frameworks and the dependence on foreign operators, as well as the potential for public–private partnerships and shared space surveillance platforms as key opportunities.

Mr Héctor Bude, URSEC, Uruguay spoke about the management and administration of the radio spectrum and satellite orbits, highlighting them as finite resources under increasing pressure from technological

advancements, especially the growth of satellite networks and new communication technologies. He indicated that international spectrum harmonization and coordination is complex because multiple services (satellite, mobile, scientific, maritime, aeronautical, passive, etc.) coexist in the same bands, and any new allocation must protect existing services. This makes regulatory decisions increasingly difficult. He also mentioned the key role of the ITU, the Radio Regulations, and the World Radiocommunication Conferences, which operate in long cycles of study and negotiation (several years) to reach consensus among more than 190 national administrations. Consensus is fundamental, as a vote is considered a failure of the process. He further emphasized the importance of regional coordination, especially in the Americas through CITEL, which works to present common proposals. Although there were few regional proposals initially, today hundreds are being generated, reflecting the growing complexity of the issues addressed. It was also emphasized that, in addition to the spectrum, space orbits and space debris management are critical issues. These topics extend beyond the ITU and require coordination with other bodies, such as the UN Commission on the Peaceful Uses of Outer Space (COPUOS), since debris can cause dangerous collisions between satellites. Finally, it was stressed that active participation in these international forums is essential, because those who do not participate in the negotiations allow others to decide for them. Building consensus is a long and complex process, but indispensable to guarantee the equitable, efficient, and safe use of the spectrum and space for the benefit of humanity.

Charting the 6G Spectrum Roadmap: Mr Celedonio Von Wuthenau, NOKIA addressed a spectrum roadmap for 6G. The speaker provides an important overview to support the understanding of this roadmap and highlights the growth of mobile traffic, noting that it is expected to increase by six to nine times by 2033. In this context, the presentation outlines the anticipated innovations of 6G and its core services.



Accordingly, the speaker emphasizes that 6G will be built upon the success of 5G, while delivering greater efficiency, scalability, and sustainability. The presentation highlights the role of artificial intelligence, energy efficiency, and the integration of the physical, digital, and human worlds, as well as detailing the spectrum requirements needed to support new services and devices.

Direct-to-Device D2D Enabling Mass Market Satellite Connectivity: Mr Alejandro Adamowicz, GSMA focused on demonstrating how the D2D model can serve as a strategic tool to reduce the coverage gap, while acknowledging that it alone does not address the usage gap. In summary, the speaker shows that partnerships are essential to expand connectivity in remote areas and that regulatory frameworks need to be adjusted to allow coexistence without harmful interference.

In this context, the speaker emphasizes that this is a promising market and highlights that technology alone is not sufficient. Aligning innovation, regulation, and public policies is necessary to effectively close the digital divide.

Connections and Alliances for the Infrastructure of Tomorrow: Mr Olmo Ramirez, GSOA addressed the importance of integrating satellites into the 6G ecosystem, the role of non-terrestrial networks in bridging the digital divide, and the technical and regulatory challenges related to spectrum and connectivity.

In this context, the speaker presents the background and mission of the GSOA and reflects on the technological evolution from 4G to 6G, while also highlighting key regulatory aspects.

Session 4: ITU-D Question 4/1 Economic aspects of national telecommunications/ICTs – Costing and tariff policies issues

The Moderator of the session, Ms Carmen Prado-Wagner, ITU, Regulatory and Market Environment Division

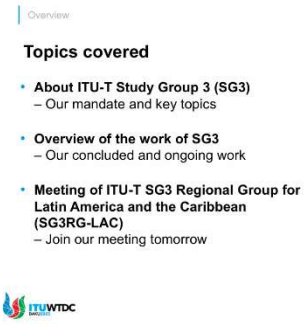
Question 4/1 Output Report for the study period 2022-25 and new topics: Mr Arseny Plossky, Rapporteur ITU-D Study Group 1 (online presentation) addressed economic and public policy issues related to telecommunications and ICTs, with a focus on cost and pricing models for Next Generation Networks (NGN). It discusses infrastructure sharing and its impacts on competition and pricing, the evolution of consumer prices and their effects on innovation, investment, and revenues, as well as mobile virtual network operators (MVNOs) and regulatory frameworks.

The presentation also explores ICT convergence and its implications for cost models, among other topics.

In addition, the report presented outlines several future perspectives, including digital currencies and the taxation of digital services, spectrum economics, and social return on ICT investments, among others.

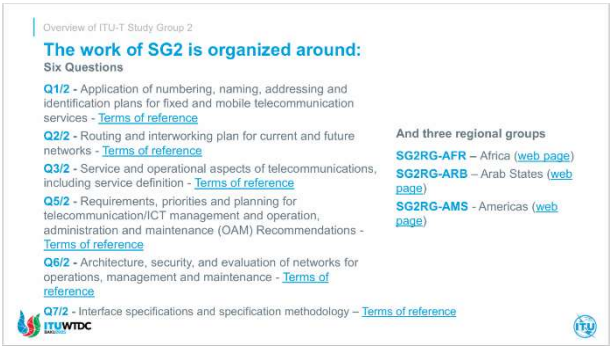
ITU-T SG3RG-LAC overview: Ms May Thi Aye, ITU-T Study Group 3 addressed the mandates and the completed and ongoing activities of SG3, focusing on topics such as tariffs, economic policies, and affordable digital services, among others. It also highlighted the work of the regional groups and the upcoming scheduled meetings.

Among the completed activities, key highlights include international roaming, with recommendations on methodological principles for tariffs, charging, and regional initiatives (Africa, Asia, and Oceania), as well as technical reports on the economic impact of OTTs, roaming in IoT/M2M, and guidelines for roaming cost analysis.



Regarding ongoing activities, particular emphasis was given to cost models for affordable data services, encompassing policy and fiscal incentives, regulatory best practices, taxonomy, and emerging business models, in addition to studies on satellite connectivity, focusing on economic aspects and cost models.

ITU-T SG2 overview: Ms Maite Comas, ITU-T Study Group 2 explained about the work of SG2, which is responsible for the operational aspects of telecommunications and ICTs, focusing on numbering, addressing, interoperability, emergency services, and network management, in addition to coordinating technical recommendations within regional groups.

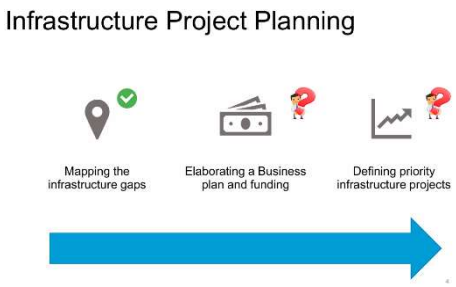


She highlighted the main functions of SG2, such as routing and interoperability between networks, as well as the definition of telecommunications services. The group's work structure is also presented, organized into six Questions (Q1/2 to Q7/2), covering numbering plans, routing, service definition, management and operations, network architecture and security, as well as interface specifications. SG2 also includes three regional groups: Africa (SG2RG-AFR), Arab States (SG2RG-ARB), and the Americas (SG2RG-AMS).

ITU-R Spectrum valuation and pricing: models, options (fees, auctions, obligations): Mr Joaquin Restrepo, discussed about the criteria for valuing the radio frequency spectrum, aiming to balance economic revenue, public policies, and social benefits. In this context, different licensing models, user categories, and market mechanisms are highlighted.

Throughout the presentation, the speaker guides the discussion by addressing key questions such as how much the spectrum is worth, how much the government intends to collect, and how much users are willing to pay.

Supporting the development of future networks through innovative solutions: The new ITU Connectivity Planning Platform (CPP): Mr Vladimir Daigele, ITU-D explained about the ITU tools and methodologies for mapping, planning, and financing ICT infrastructure projects, with a focus on school connectivity and the promotion of digital inclusion.



Among the most relevant points highlighted were the infrastructure project planning process, as well as technical assistance and capacity-building initiatives for national mapping.

Part 2: Costing and tariff policies issues - Experiences from Countries in the Americas Region

Shared use of telecommunications infrastructure in Costa Rica: Ms Yuliana Ugalde from SUTEL, Costa Rica, presented the country's regulatory and operational framework for shared use of telecommunications infrastructure, the challenges that persist in its implementation, and the new initiatives, both regulatory and legislative, undertaken to improve deployment conditions. The discussion began with an overview of shared use offers, situating them within Costa Rica's regulatory environment, which is anchored in two principal laws. The first is the General Telecommunications Law, which establishes the overall structure and functioning of the telecommunications sector. The second is the Public Services Regulatory Authority Law, known as Law 7593, which contains essential provisions that promote and regulate infrastructure sharing. This law includes regulatory instruments detailing the conditions and obligations under which infrastructure sharing must occur, ensuring that operators can access essential facilities needed for network deployment.

Complementing these laws are the regulatory instruments issued by SUTEL, notably Resolution 025 from 2025. This resolution sets out a mandatory methodology and formula for calculating infrastructure-sharing charges. Operators proposing a sharing offer must follow this methodology and provide a thorough technical and economic justification for the costs included. SUTEL evaluates these offers based on a number of technical parameters, including the completeness of cost allocation, the justification of associated expenses, and the profitability and viability of the proposed sharing terms. The review also examines procedural compliance, especially concerning idle elements within the infrastructure, and assesses whether operators have adequate processes for managing access, maintenance, and space allocation.

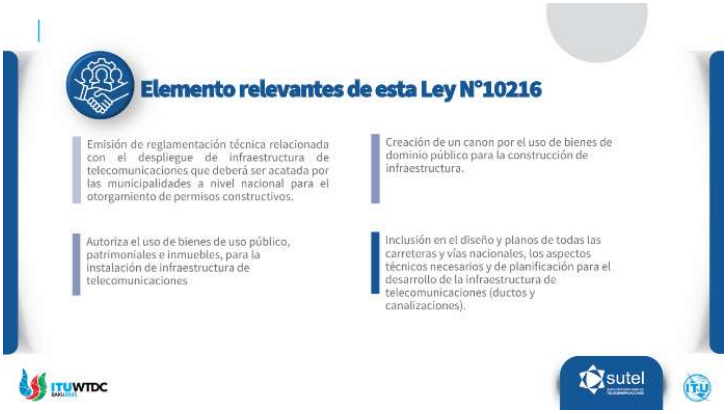
A critical technical requirement highlighted in the presentation is the rule mandating an allocation of 15 centimetres per operator on shared structures such as posts, which is intended to prevent excessive occupation of physical resources and ensure there is sufficient capacity for additional market players. Additionally, sharing offers must uphold equity between infrastructure owners and applicants. This includes ensuring that both parties operate under transparent, fair, and consistent conditions while maintaining clear operational responsibilities related to shared infrastructure use.

Despite the existence of a comprehensive regulatory framework, several significant barriers continue to impede efficient infrastructure sharing in Costa Rica. One of the most prominent challenges relates to municipal permitting processes. With 82 municipalities across the country, operators face a lack of standardized procedures, leading to administrative burdens, inconsistent requirements, and lengthy approval

timelines. This fragmentation complicates deployment planning and increases transaction costs. In some cases, discriminatory practices arise when infrastructure owners impose inequitable prices, access conditions, or service levels that disadvantage certain operators. Moreover, the structural disparity between rural and urban areas poses additional obstacles. Rural regions often present lower profitability and higher deployment costs, discouraging investment and creating persistent coverage gaps even when regulatory mechanisms encourage shared use.

To address these issues and foster more efficient infrastructure deployment, SUTEL has developed several complementary initiatives. One of the most significant is a market study aimed at identifying the specific barriers to competition that hinder network deployment. Based on the study's findings, SUTEL worked on detailed guidelines to streamline the deployment of telecommunications networks, particularly within business and commercial properties. These guidelines include requirements for property developers to incorporate network infrastructure designs from the initial planning phase that allow simultaneous access for multiple operators. This ensures that buildings are equipped to host several networks without structural or technical limitations. Building administrators are encouraged to familiarize themselves with different telecommunications technologies and supervise the proper use of shared infrastructure. For operators, the guidelines reinforce the obligation to use space efficiently, share resources responsibly, and remove non-functional or idle elements so that space remains available for new entrants.

The presentation concluded with an explanation of Costa Rica's new Law 10216, enacted in early 2023, which aims to facilitate and accelerate the deployment of telecommunications infrastructure nationwide. This law emerged in response to persistent bottlenecks, particularly at the municipal level, identified by an inter-institutional committee reviewing deployment challenges. Law 10216 promotes coordinated action among public bodies to support the development of telecommunications services. One of its central principles is the obligation for telecom operators to prioritize the use of existing shared infrastructure before constructing new facilities, thus reinforcing the efficiency objectives already present in earlier legislation. The law also mandates the development of technical regulations that standardize municipal criteria, procedures, and timelines. By harmonizing requirements across municipalities, the law seeks to eliminate regulatory fragmentation and accelerate deployment processes. Furthermore, Law 10216 authorizes the use of public assets (such as land and public buildings) for telecommunications infrastructure, with clearly defined fees (canon) and conditions to prevent financial obstacles from hindering deployment. Finally, the law requires that all national road and highway planning incorporate the necessary elements for telecommunications infrastructure, ensuring that future public works include adequate provisions for connectivity and reducing the need for costly components.



Telecommunications Services for Electronic Payment Systems in Paraguay: Mr Juan Javier Villalba Báez, CONATEL, Paraguay addressed the major challenge of promoting financial inclusion in Paraguay, analyzing available payment methods, the adoption of new technologies, and the need for cooperation among different stakeholders to expand access for underserved populations.

The figures presented indicate that Paraguay has rapidly expanded electronic payment methods, with more than 2 million electronic payment accounts registered. This progress resulted in a financial inclusion rate of approximately 30% of the adult population, who gained access to digital financial services.

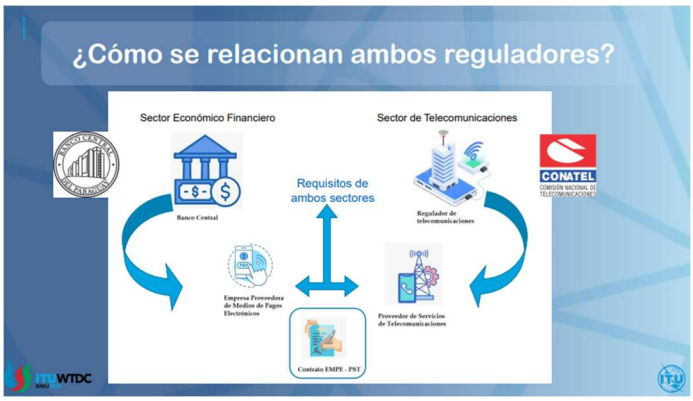
The presentation focused on the evolution, regulation, and current dynamics of telecommunications services used for electronic payment methods in Paraguay. He began by describing how these services originated around 2008, when telecommunications operators began offering electronic wallets. As these digital wallets expanded and electronic money transfers using telecommunications platforms became more widely adopted, the Central Bank of Paraguay identified the need to establish a regulatory framework to ensure the diversity, reliability, and efficiency of electronic financial instruments. Under its organic law, the Central Bank holds authority over payment systems and internal monetary movements nationwide, and it also lists financial inclusion among its strategic objectives. In pursuit of this goal, the Central Bank introduced regulations for non-bank electronic money and electronic transfers, defining the requirements for entities wishing to provide these services within the national territory through telecommunication networks.

Within this regulatory framework, the concept of telecommunications services appears explicitly, assigning the telecommunications regulator CONATEL a clear role in overseeing aspects related to electronic payment services. The Central Bank's regulations define operations such as the "conversion" of cash into electronic money and "reconversion," meaning the withdrawal of cash from electronic funds. Other core operations carried out through electronic wallets include real-time non-bank payments and electronic transfers. Mr. Villalba illustrated how the Central Bank and CONATEL interact within this ecosystem: the Central Bank governs the financial sector, while CONATEL oversees the telecommunications infrastructure that supports the delivery of electronic payment services. Importantly, the Central Bank's regulation acts as the overarching framework, and CONATEL issues secondary regulations that specify the technical, economic, and legal conditions under which telecommunications operators must provide services enabling electronic payment methods.

The financial sector requires service providers to demonstrate compliance with telecommunications regulations, including offering proof, through CONATEL, that service contracts meet requirements of neutrality, non-discrimination, equal access, and cost transparency. To support this, CONATEL's regulation on telecommunications services for electronic payments requires operators to offer access to electronic payment entities under fair and non-discriminatory conditions. Telecommunications service providers must ensure interconnection and interoperability across networks, meet established technical requirements, and submit all contracts and subsequent amendments to CONATEL for approval. They must also request the necessary numbering resources, such as short codes, used within the electronic payment system. In parallel, electronic payment entities must submit documentation demonstrating their legal constitution, as well as the contracts they establish with telecommunications operators.

The regulation also sets out specific technical and economic conditions. Fees, penalties, and access charges must adhere to principles of transparency, efficiency, and non-discrimination. Access to telecommunication networks for payment services must be organized through technically agreed-upon projects between payment entities and telecom operators, ensuring adequate coordination, interference mitigation, quality standards, and smooth interoperability. Telecommunications operators providing these services must hold an appropriate CONATEL license, usually a data transmission or Internet service license, and must remain compliant with general regulatory obligations.

It was highlighted the recent sector activity, including an event organized by the Paraguayan Chamber of Electronic Payment Entities, an association comprising all major electronic payment companies operating in the financial system. The sector includes four main service providers: three telecommunications operators and one company dedicated to managing card payment systems. Statistics from a user survey showed that electronic wallet use was concentrated primarily in transfers (representing around 50% of transactions), followed by bill payments (35%), while retail purchases accounted for only 5%. The pandemic played an important role in increasing the number of active electronic wallet accounts due to emergency government subsidy programmes delivered via mobile payments. These programmes included Ayuda ("help" in Spanish), aimed at informal workers and microenterprises, and Tekoporã ("welfare" or "living well" in Guaraní), focused on low-income households. These subsidy schemes expanded digital payment adoption, though numbers declined slightly once emergency programmes ended.



Transaction volumes displayed similar trends, with visible pandemic-related growth linked to the widespread use of mobile telephony to distribute government support. A pronounced increase occurred in October 2021, which was associated with the Central Bank's integration of an instant payment module within the national payment system. This reform enabled payments to be executed 24 hours a day, 365 days a year, significantly boosting transaction frequency. In 2024, two additional regulatory changes further shaped the payment ecosystem. In April, the Central Bank introduced regulations for basic bank accounts, removing minimum balance requirements and easing account-opening procedures, thus expanding financial access to formerly excluded populations. In September 2024, amendments to the regulation governing electronic payment entities introduced new limits on non-bank electronic transfers and on the amount that could be transferred between accounts. These restrictions generated a reduction in clients of non-bank payment companies, as more users shifted toward traditional financial institutions encouraged by the availability of basic accounts.

User surveys showed evolving consumer preferences, with increases in payments made through QR codes, physical cards, and contactless Near Field Communication (NFC) technology. By contrast, the use of electronic wallets showed a declining tendency, reflecting the regulatory changes and increased competition from banking products. In concluding his analysis, Mr Villalba emphasized that financial inclusion efforts in Paraguay are largely led by the Central Bank, while the telecommunications regulator plays a complementary role by ensuring that telecommunications services supporting electronic payments function under appropriate conditions. Looking ahead, Paraguay faces the challenge of continually evaluating and updating its regulatory framework for electronic payment systems and NFC technologies, ensuring that both the telecommunications and financial sectors work in coordination to promote financial inclusion for underserved populations.

Cost issues and tariff policies of interconnection services in Uruguay: Mr Diego Larriera, URSEC, Uruguay focused his presentation on cost-oriented service regulation and tariff policies governing network interconnection in the Uruguayan telecommunications sector. He began by distinguishing between the two broad categories of telecommunications services in the country's regulatory framework. On one hand, there are retail services, including broadband Internet access, mobile telecommunication services, and subscription

television, which are commercial offerings provided directly to end users. These services are not subject to price regulation; operators set retail tariffs freely according to market conditions. On the other hand, wholesale services, specifically interconnection services exchanged between operators, are regulated. Interconnection is required, for example, when a customer belonging to operator A makes a call to a customer of operator B, meaning networks must interoperate and the originating operator must pay the terminating operator an established price for that service.

Mr Larriera explained that all rules relating to these regulated wholesale services fall under the Uruguay's interconnection regulation, which forms, together with licensing and spectrum management, the backbone of the national regulatory system. The regulation is grounded in the doctrine of the "essential facility," meaning that a resource controlled by one operator is indispensable for other operators to deliver services. As a result, interconnection must be ensured on fair and reasonable terms. The regulation also defines several guiding principles: interconnection is mandatory for all operators; it must be offered on a non-discriminatory basis; and prices should ideally be negotiated freely between the parties. If negotiations fail, operators may request intervention from URSEC, which then evaluates the case and sets the applicable interconnection price. In practice, operators seeking access must follow a formal request process and, if they are unable to reach an agreement within the stipulated timeframe, the matter is escalated to the URSEC for resolution.

To determine cost-oriented wholesale tariffs, URSEC relies on a methodology based on long-run incremental cost (LRIC), widely used in regulatory regimes around the world. This approach requires operators to submit cost studies that model efficient network deployment over time. It was explained that the regulation provides clear guidelines on the types of costs that must be included, such as the use of the most efficient available technology, market-based equipment prices, efficient staffing levels, asset depreciation, and the cost of capital. Importantly, the cost model does not reflect each operator's actual historic investments. Rather, it calculates the hypothetical cost of building an efficient network using optimal technologies. This can differ significantly from an operator's real expenditures, but it ensures that interconnection prices are based on forward-looking efficiency rather than legacy conditions. The cost of capital is included to reflect the financial resources needed to support such investments, whether they originate from shareholders' equity or external loans.

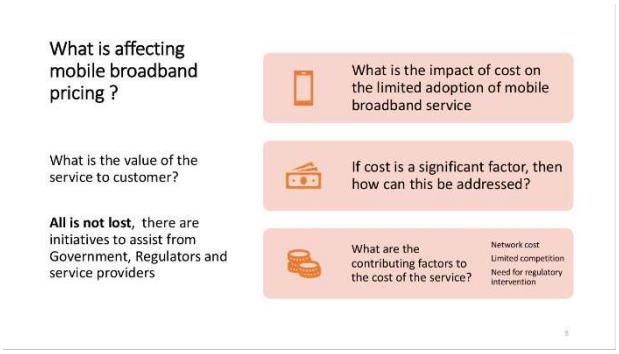
Mr Larriera emphasized that the methodology draws heavily on international best practices, particularly the ITU Telecommunication Development Bureau's economic publications. URSEC built its model with reference to the ITU-D Regulatory Accounting Guide (2006) and related ITU recommendations. With the methodology defined, the regulator must then design a network model that reflects efficient deployment. This requires determining the expected traffic volumes, identifying the assets necessary to support that traffic, and modelling the network architecture. Telecommunications networks are typically divided into three components: the access network, where voice calls are originated or received; the transport or core network, which carries traffic between key nodes; and the systems that connect these network elements back to end users. Regulators employ different approaches to designing these network models. Bottom-up models, preferred by URSEC and prescribed by the interconnection regulation, build an efficient network from scratch, using modern technology and optimal asset configurations. Top-down models start from operators' accounting data. Hybrid models combine the two, incorporating the efficiency of bottom-up modelling while grounding some elements in real operator structures.

Telecommunications networks are multi-service platforms, meaning a single network supports multiple services—such as voice, data, messaging, or even subscription TV. Therefore, cost allocation becomes a

complex but essential step. Some network costs are directly attributable to a specific service—for example, equipment used exclusively for fixed broadband. However, many costs are shared across services: fiber optic cables, microwave links, copper lines, or switching equipment often support several functions simultaneously. The regulator must therefore establish criteria to allocate these shared costs appropriately. In addition, there are common costs, such as corporate overhead, that cannot be linked to any single service. URSEC must decide which portion of common costs should be included in wholesale service pricing and which should be assigned to retail services. These allocation rules must be defined before calculating cost-based tariffs, because they influence the final interconnection prices significantly.

The cost model ultimately categorizes expenditures into operating expenses (OPEX) and capital expenses (CAPEX). OPEX generally includes personnel, maintenance, and materials, while CAPEX covers fixed asset costs and capital costs. Larriera described how URSEC calculates the weighted average cost of capital (WACC), which reflects the financial return demanded by investors (equity) and the interest payments on debt financing. This capital cost is incorporated into the depreciation formula used to determine the annualized cost of network assets. Once all costs are aggregated—across access, switching, transport, and other network components—URSEC calculates the total cost of providing interconnection services. Dividing this cost by the forecast volume of interconnection minutes yields the cost per minute, which becomes the regulated interconnection price. Interconnection pricing is a central mechanism for promoting competition, as it ensures that operators compete on service quality and innovation rather than by restricting interoperability. He concluded by noting that URSEC's long-run incremental cost methodology has enabled Uruguay to implement a transparent, economically sound, and internationally consistent framework for setting interconnection prices.

Pricing trends for telecoms and ICT services and the possible impact on the perception of the affordability gap in the Eastern Caribbean: Ms Cheryl Hector Fontenelle, Eastern Caribbean Telecommunications Authority (ECTEL) addressed broadband affordability challenges within the ECTEL Member States and analyzed how pricing trends in telecommunications and ICT services influence consumers' perception of affordability. She introduced the concept of the affordability gap, defined as the difference between what consumers are able or willing to pay for broadband services and the actual market cost of those services. This framework allows regulators to understand not only the monetary price of connectivity, but also the broader socioeconomic pressures that shape how households perceive telecommunications expenditures. According to the presentation, there is a significant and consistent disparity between the price considered affordable by households and the actual retail charges applied by operators across the Eastern Caribbean. This gap, she emphasized, reflects both the economic realities of consumers and the structural constraints within small island telecommunications markets.

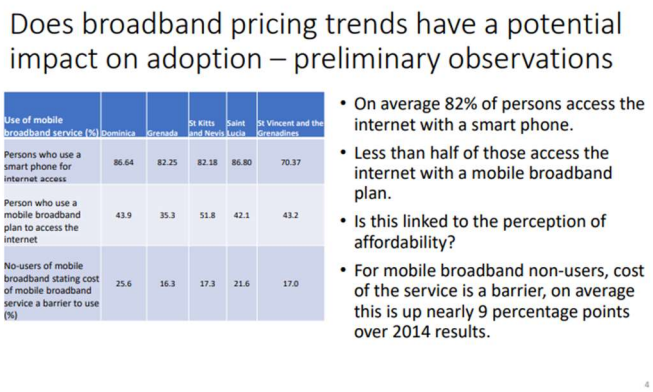


To illustrate this point, Ms Hector Fontenelle highlighted the example of Grenada, where a prepaid broadband service plan costs USD46.28. Despite this being a standard market price, fewer than half of all households surveyed consider this level of expenditure affordable, underscoring the substantial disconnect between income levels and service costs. Similar patterns appear across the other ECTEL Member States referenced in the presentation, where affordability levels range from 42% to 56%. These figures demonstrate that the

affordability challenge is not isolated to one jurisdiction but is instead a regional phenomenon shaped by common market characteristics such as scale, competition, and infrastructure investment requirements. The analysis underscores the ongoing difficulty faced by consumers in balancing essential connectivity needs with budget constraints, especially in economies that have limited purchasing power and where telecommunications services consume a larger share of household income.

Beyond fixed broadband, the presentation also examined prices and consumer perceptions related to mobile broadband services, which are widely used in the Eastern Caribbean and often represent the primary means of Internet access for many households. She discussed factors contributing to the affordability gap, including the cost of network infrastructure deployment in small island states, where geographic fragmentation and limited economies of scale increase per-user investment requirements. She also addressed the role of competition, noting that smaller markets often have fewer operators, which can lead to higher prices due to limited price rivalry and less incentive for cost reductions. These structural considerations combine with socioeconomic factors to influence how consumers judge the affordability of service plans, often resulting in cautious or negative evaluations even when prices are aligned with regional averages.

In this context, Ms Hector Fontenelle highlighted various government and regulatory initiatives aimed at reducing telecommunications costs and expanding service adoption. These measures include targeted regulatory interventions designed to encourage competition, promote price transparency, and improve cost-efficiency in network deployment. They also involve broader public-sector strategies such as encouraging investment in infrastructure-sharing arrangements, supporting digital inclusion programmes, and revisiting policy frameworks to ensure that operators can adopt modern, efficient technologies that reduce operational costs over time. Through these efforts, ECTEL and its Member States seek to narrow the affordability gap by making broadband services more accessible, reducing financial barriers for low-income households, and promoting equitable participation in the digital economy. The presentation concluded by underscoring the importance of a balanced regulatory approach that supports both affordability and sustainable sector investment, ensuring that telecommunications networks remain robust while also becoming increasingly accessible to the populations that depend on them.



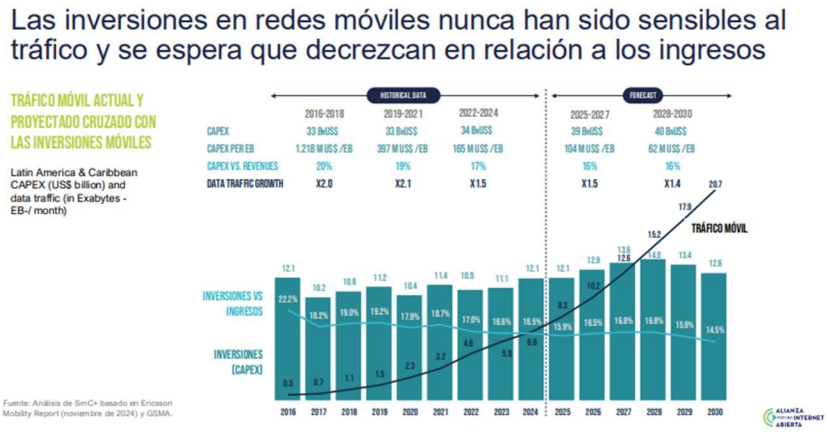
Key Contributions to the debate on network tariffs in Latin America: Mr Sebastian Cabello, CEO, SMC Consulting explained that there is no economic or technical justification for imposing network fees in Latin America, emphasizing that the focus should be on fostering innovation, collaboration, and the meaningful use of the Internet.

The figures presented reinforce the perception that the mobile sector does not suffer from a lack of resources, but rather from challenges related to innovation and digital inclusion. The mobile sector revenue indicator, showing a slight and steady increase, demonstrates that it is a mature industry, albeit without significant breakthroughs or major growth spurts.

The presentation offered an economic analysis of the ongoing debate around network tariffs, or so-called “network fees” or “fair share contributions”, within the telecommunications and Internet ecosystem in Latin America. Speaking from his experience as an economist and former participant in major industry policy discussions, he explained that this debate is not new but has been evolving for more than a decade. He recalled that around 2014–2015, Telefónica initiated the first major wave of arguments claiming that companies providing similar services should operate under similar regulatory conditions. Digital Platform companies quickly challenged this view, arguing that they were not telecommunications operators but digital platforms with fundamentally different roles, business models, and cost structures. It was noted that this contention sparked broader involvement from the Internet sector and industry associations, such as the GSMA, which commissioned value-chain studies to understand how revenues and value creation were distributed across the Internet ecosystem.

Drawing on his work on the Internet value chain, he explained that digital content and online services were steadily increasing their share of total industry revenues at the time. By contrast, the portion captured by connectivity providers was smaller, even though the overall size of the Internet economy nearly doubled between 2015 and 2020, growing from roughly USD3 billion to USD6 billion. Telecommunications operators grew as well, but at a slower pace, resulting in a declining relative share rather than an absolute reduction in revenue. He continued by analyzing the financial metrics of the sector, highlighting that Earnings Before Interest, Taxes, Depreciation, and Amortization (EBITDA) margins were largely stable: around 17–20% on average for Latin American operators, and approximately 30% at more consolidated infrastructure companies. Meanwhile, large digital firms often enjoyed lower margins but far higher growth rates and much stronger stock-market valuations. In a mature telecommunication environment, especially one in which most countries have subscriber penetration rates above 100%, such differences are normal, as the sector naturally moves toward slower growth, consolidation, and more stable returns.

It was also described how the industry's structure has shifted over successive technological generations. In the 2G era, operators were vertically integrated, managing everything from devices to towers. With 3G and 4G, vertical disintegration accelerated: operators outsourced towers, data centers, and other elements of their infrastructure. By 5G, operators manage only a portion of the overall value chain, while innovation and investment have largely migrated to other actors such as cloud providers, platforms, and industry-specific technology companies. This shift is evident in the development of key technologies, such as Industry 4.0 solutions, big-data analytics, and application platforms, where mobile operators have played a limited role. Accordingly, investors perceive lower growth potential within the telecommunication segment, while digital platforms attract greater investment and higher capitalization.



A major point of debate in the "network fee" discussion concerns traffic growth. He presented data from the Ericsson Mobility Report and other sources showing that while traffic has grown, projections have been repeatedly adjusted downward. Some experts even forecast a plateau around 2027-2028, since mobile devices cannot consume unlimited volumes of data and physical usage limits exist. He contrasted often-quoted operator claims, such as the assertion that 33% of traffic is mobile, with ITU data indicating that most of the traffic (81% globally and 84% in Latin America) actually goes over fixed networks. At present, only a small portion of around 0.5% corresponds to satellite traffic. Misunderstanding these distinctions leads to exaggerated assumptions about network strain and investment needs.

Regarding the argument that more traffic necessarily requires more investment, it was explained that looking at capital expenditure (CAPEX) trends in Latin America, it was noted that mobile CAPEX has consistently remained around 17-18% of operator revenues, and projections from GSMA do not indicate significant future increases. In other words, despite growing traffic levels, investment ratios have been stable for more than a decade, suggesting no direct correlation between traffic growth and CAPEX requirements. If traffic growth were truly creating unsustainable pressure, Latin America should already be experiencing widespread service degradation, which is not the case. This finding challenges the premise that network fees are needed to support continued operator investment.

Closing Regional Economic Dialogue

The Regional Economic Dialogue (RED), held in Montevideo, Uruguay, on 6-7 October 2025, concluded with closing remarks delivered jointly by Mr Rodrigo Robles of ITU-D and Mr Pablo Siris of DINATEL, Uruguay, who underscored the significance of the two-day exchange in advancing a shared regional understanding of the economic, regulatory, and technological challenges shaping today's telecommunications landscape.

They emphasized that the RED successfully brought together regulators, policymakers, industry specialists, and development partners from across the Americas to examine evidence-based approaches to connectivity, affordability, cost modelling, and digital inclusion. Mr Robles and Mr Siris highlighted the constructive spirit

of collaboration that characterized the sessions, noting that the diversity of national experiences presented, ranging from interconnection cost regulation to retail pricing dynamics, infrastructure deployment, and the broader digital economy, enriched the collective capacity to design forward looking policies.

Finally, they thanked the organization team for all their efforts and all participants for their active engagement and encouraged them to continue building on the insights, technical analyses, and policy recommendations discussed in Montevideo, emphasizing that sustained dialogue and cooperation remain key to ensuring inclusive, innovative, and economically sustainable telecommunications development across the region.

Annex 1

1. Key points raised by Regional Regulatory Associations (RA) in the Americas in the framework of the Digital Regulation Network (DRN)

CTU (Caribbean Telecommunications Union)

Key ideas:

- Caribbean countries are small markets, so supranational collaboration is essential for efficient regulation and investment.
- The DRN provides a platform for capacity-building, sharing best practices, and supporting common regulatory approaches.
- Strong focus on network resilience through:
    - infrastructure sharing,
    - regional data centers (only one certified data center in Curaçao),
    - improving submarine cable deployment and repair processes.
- Concern over the financial sustainability of operators due to competition from large OTTs.
- Emphasis on inclusive policies, especially for women and youth.
- Long-term goal: establish a regional regulatory body, since acting alone is no longer viable.
- Strong interest in collaboration with Latin America.

Role of the DRN:

A provider of coordination, standard-setting, resilience support, and best-practice sharing.

OOCUR (Organisation of Caribbean Utility Regulators)

Key ideas:

- Companies operate across multiple jurisdictions with different licensing regimes, creating barriers to investment.
- The region needs regulatory harmonization, while still preserving national sovereignty; the idea of a "common recipe" adaptable to each country.
- Urgency in addressing the decline in revenues of traditional operators.
- The Caribbean must be seen as a single, unified region to gain negotiating power with global tech players.
- Unity creates economies of scale and credibility.

Role of the DRN:

Facilitate regulatory harmonization and create a common baseline that encourages investment and regional scale.

COMTELCA (Comisión Técnica Regional de Telecomunicaciones)

Key ideas:

- Need for platforms (like the DRN) to exchange clear and healthy best practices.
- Regulators are central actors:
    - they define market rules,
    - ensure inclusive connectivity,
    - protect competition and users,
    - safeguard digital security.
- The region needs active, coordinated, forward-looking regulators.

Role of the DRN:

Create permanent spaces for exchange, strengthen regulatory capacity, and align regional visions.

ECTEL (Eastern Caribbean Telecommunications Authority)

Key ideas:

- ECTEL was created because problems are easier to solve collectively than individually.
- In natural disasters, restoring networks alone would take years; regional efforts are critical.

- Regional resilience requires joint regulatory thinking and coordinated action.
- Digital platforms can operate across the Caribbean without engaging regulators, so that, a common regulatory position is essential.
- Cooperation avoids reinventing the wheel and accelerates progress.
- Collaboration is part of the Caribbean's development DNA.

Role of the DRN:
Strengthen resilience, unify regulatory responses, and accelerate shared solutions.

REGULATEL

Key ideas:

- Despite different needs, countries share core issues:
  - cybersecurity,
  - data protection,
  - digital security,
  - innovation.
- Sharing experiences via the DRN and ITU is essential for better regulatory development.
- Regulators must stay ahead of emerging technologies to create effective frameworks.
- Regulation should enable innovation, not restrict it.

Role of the DRN:
Provide technological knowledge, coordinate best practices, and help craft innovation-friendly regulation.

2. Cross-Cutting themes - what all associations agreed on:

A. Role of the DRN in closing the digital divide and boosting inclusion

1. **Regulatory harmonization and standardization.**
2. A **platform for sharing** best practices and building capacity.
3. Stronger **digital resilience**:
   - infrastructure sharing,
   - regional data centers,
   - submarine cable coordination,
   - disaster response.
4. **Healthy competition** and consumer protection.
5. Inclusion of **women, youth, and vulnerable groups**.
6. Coordinated approaches to **global platforms (OTTs)**.
7. Support for **small markets** that cannot act alone.

B. How regional cooperation helps address global challenges

1. **Economies of scale**: a unified region attracts more investment.
2. **Coordinated response** to global threats: cybersecurity, climate disasters, network outages.
3. Stronger **bargaining power** with global actors and big tech.
4. **Joint adoption of emerging technologies** accelerates innovation.
5. Greater **efficiency and cost reduction** by sharing tools and avoiding duplication.
6. Enhanced **global visibility and geostrategic strength** for the Caribbean and Latin America.
7. Faster progress through **shared expertise** and avoiding repeated mistakes.

3. Overall summary: what role should regional associations play?

a) **Act as supranational coordination platforms -** bringing together regulators to align visions and actions.
b) **Build regulatory capacity across the region -** training, standards, technical collaboration, and knowledge exchange.

c) **Promote shared digital infrastructure -** regional data centers, submarine cables, and resilient interconnection.
d) **Create unified regional positions -** for negotiations with global digital platforms and tech giants.
e) **Support inclusive digital transformation -** ensuring women, youth, and vulnerable groups benefit.
f) **Enable innovation-friendly regulations -** avoiding frameworks that slow technological adoption.
g) **Strengthen collective digital resilience -** especially in regions prone to natural disasters.