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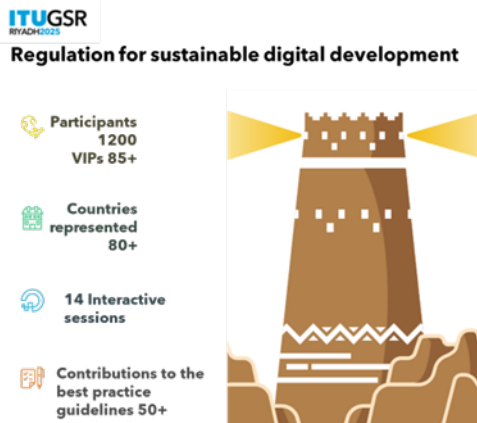
ITU GSR RIYADH2025

Riyadh, Saudi Arabia, 31 August - 3 September 2025

Chairman's report



Regulation for Impact



The 2025 Global Symposium for Regulators (GSR-25) was held in Riyadh, Saudi Arabia, from 31 August to 3 September 2025 under the theme “Regulation for sustainable digital development”. The event attracted a record of 1200 participants including Government Ministers and Deputy Ministers, Heads of Regulatory Authorities and C-level industry executives (85+) from over 80 countries.

GSR-25 was organized by the Telecommunication Development Bureau (BDT) of the International Telecommunication Union (ITU) and hosted by the Government of Saudi Arabia. The Symposium was chaired by H.E. Eng. Haitham AlOhal, Governor, Communications, Space & Technology Commission (CST), Saudi Arabia.

- A series of special events took place on 31 August and 1 September including the Executive Masterclass on Strategic Foresight for AI Collaborative Frameworks, the Regional Regulatory Associations (RA) and Digital Regulation Network (DRN) meeting and the Heads of Regulators' Executive Roundtable.
- The Industry Advisory Group on Development Issues and Private Sector Chief Regulatory Officers (IAGDI-CRO) convened on 1 September and on 2 September a session of Network of Women (NoW) in ITU's Telecommunication Development Sector explored mechanisms for greater participation of women in ICT-related fields and addressed the leadership gender gap in the ICT sector.
- An information session on connecting humanity was held on 1 September and a lightning session on RegTech took place on 3 September.
- A technology exhibition was held from 1-3 September showcasing the latest digital innovative technologies and applications from international and local ICT companies.
- Throughout the GSR programme, discussions focused on **collaborate, connect, trust, protect, include, empower, sustain, and innovate.**

Regulators from around the world identified and endorsed the GSR-25 Best Practice Guidelines on Empowering regulators as digital ecosystem builders?”. The Guidelines can help ICT regulators assume the role of digital ecosystem builders and deliver practical, forward-looking regulatory leadership for a digital future that leaves no one behind. The guidelines are included in annex to this report and can be found on the GSR-25 website at: <https://www.itu.int/net/epub/BDT/2025-GSR-25-Best-Practice-Guidelines/index.html#p=1>

Key outcomes of discussions included:

- Scale cooperation and capital. Only sustained cross-border cooperation – paired with investment at the magnitude required – will deliver universal, meaningful connectivity.
- Regulate as ecosystem builders making innovation a core regulatory practice. Regulators need to act not merely as market referees but as digital ecosystem builders, using agile, evidence-based instruments, such as sandboxes, enabling frameworks and practical tools, to keep pace with rapid technological change and steer it toward the public interest.
- Adapt institutional capacity. Regulators should develop the technical and strategic capabilities to respond to fast-moving challenges across digital markets and technologies.
- Leverage technology for regulatory excellence. Digital tools, data analytics and AI should be used to enhance oversight, efficiency and responsiveness.
- Strengthen cross-border collaboration. Shared goals around infrastructure, cybersecurity and digital trust require aligned rules, interoperability and regional cooperation.
- Champion collaborative governance. Digital transformation must be co-owned by regulators, industry, civil society and academia – with regulators leading inclusive coordination.
- Prioritize a human-centric digital future. Technology must serve people first – with safeguards, access, skills and trust at the heart of digital policy.

GSR core sessions

Opening ceremony



The Opening ceremony welcomed distinguished guests:

Opening by H.E. Eng. Haitham AIOhali, Governor and GSR-25 Chair, Communications, Space & Technology Commission (CST), Saudi Arabia



H.E. Eng. Haitham AIOhali opened the Symposium by underscoring the urgency of closing persistent gaps in ICT infrastructures and access, and regulatory readiness, noting that an estimated 2.6 billion people remain offline. Together with ITU, he announced the launch of the *Connecting Humanity Action Blueprint* estimating the global investment need to bridge the divide at USD2.6-2.8 trillion. He called for solutions that move beyond traditional roll-outs – such as satellite connectivity and AI-enabled approaches – and pointed to Saudi Arabia’s investments in skills and inclusion, including a marked rise in women’s participation, as well as a joint programme supporting regulatory capacity in more than 100 countries.

Opening by Ms Doreen Bogdan-Martin, Secretary-General of the International Telecommunication Union



Ms Doreen Bogdan-Martin marked the Symposium’s 25th anniversary and affirmed a clear evolution in remit: regulators are no longer only market overseers, but builders of the digital ecosystem. She framed three defining challenges for the next phase – speed, scale and stakes – and called for cooperation as the unifying response, stressing smarter regulation that strengthens trust and inclusion so that digital transformation benefits everyone and leaves no one behind.

Opening by Dr Cosmas Luckyson Zavazava, Director of the Telecommunication Development Bureau at the International Telecommunication Union



Dr Cosmas Luckyson Zavazava described GSR as a 'regulatory compass' whose Best Practice Guidelines capture a community of practice built over 25 years. Looking ahead, he announced a forthcoming ITU Global economic model study (GEMS) being developed with support from CST to guide investment decisions based on economic impact toward universal connectivity, and flagged plans for a global innovation centre on quantum technologies in Riyadh co-designed with ITU – two key initiatives to translate digital development ambition into delivery.

Session 1: Collaborate - Collaborative governance for digital development (High level Segment)



Moderated by Dr Cosmas Luckyson Zavazava, Director of the Telecommunication Development Bureau, the High-Level Segment welcomed the following esteemed guests:

- H.E. Ms Nathi Moorosi, Minister of Information, Communication, Science, Technology and Innovation, Lesotho
- H.E. Mr Miguel Marques Gonçalves Manetelu, Minister of Transport and Communications, Timor-Leste
- H.E. Eng. Haitham AlOhal, Governor and GSR-25 Chair, CST, Saudi Arabia
- Mr Anil Kumar Lahoti, Chairman, Telecom Regulatory Authority of India (TRAI)
- Mr Carlos Manuel Baigorri, President, Agência Nacional de Telecomunicações (ANATEL), Brazil
- Ms Fatou Sow Kane, CEO, Expresso Senegal

The session started with a Ministerial exchange and continued with a high-level dialogue with regulators and industry players. In launching the discussion, Dr Zavazava stressed the importance of collaboration at all levels. All speakers underscored that digital development succeeds when policy, regulation and markets are coordinated. Achieving this requires a whole-of-society coalition – including government, regulators, private sector, academia and civil society – guided by evidence, measurable targets and practical mechanisms for shared infrastructure and inclusion. Participants highlighted data-driven oversight (from KPIs to regulatory impact assessment), multi-technology connectivity strategies and

sustainability (energy use, e-waste, even space debris) as integral to governance that is agile, transparent, and fit for purpose.

The following key messages were emphasized:

- Collaboration is non-negotiable and policy implementation progress depends on structured cooperation across sectors and levels, with clear channels for co-design and delivery – not government alone.
- Decisions should be steered by data, with public targets, published indicators and continuous monitoring and evaluation that enable real-time policy and regulatory adaptation.
- Digital inclusion hinges on both networks and skills, requiring strategies combining last-mile connectivity (including mixed fibre/satellite approaches) with literacy and service design that reach rural and vulnerable groups.
- Sustainability must be embedded in governance, addressing energy efficiency, e-waste and emerging issues such as space debris through shared toolkits, standards and cross-agency checks.
- Clarity of roles and codified cooperation strengthen outcomes, with explicit allocation of who sets policy, who regulates and who delivers, alongside sound policy, legal and regulatory frameworks for open access, shared infrastructure and fair competition is a must.

Session 2: Connect - From earth to space



Moderator: Ms Ekaterina Imadadze, Commissioner, Georgian National Communications, Georgia

Panelists:

- Mr Mothibi Ramusi, Chairperson, Independent Communications Authority of South Africa (ICASA), South Africa
- Mr Khalid Hegazy, Chief Operations Officer, e& International
- Mr Barbee Ponder, Vice President and General Counsel, Globalstar
- Mr Kalpak Gude, Head Global Regulatory Affairs, Amazon Kuiper
- Mr Vadim Nozdrin, Counsellor ITU-R Study Group 7, ITU's Radiocommunication Bureau

The session examined ways to achieve universal connectivity by combining terrestrial fibre and wireless with subsea cables and rapidly evolving satellite capabilities, especially low earth orbit (LEO), direct-to-device (D2D), and non-terrestrial networks (NTN).

Speakers agreed that no single solution will deliver meaningful connectivity on its own. Fiber, mobile networks and satellites must be deployed in a complementary way. The panel stressed that streamlined licensing framework, cross-border spectrum coordination and modernized infrastructure sharing rules can lower cost, speed rollout and improve connectivity resilience. They also flagged practical barriers such as landing-rights regimes, fragmented terminal licensing, sector-specific taxes, the need to integrate energy efficiency and uneven use of universal service funds – alongside. Participants further raised questions around security, sovereignty and trust – from data protection and lawful intercept to ensuring that benefits from new services are shared fairly with the countries where they are delivered.

The following key messages were emphasized:

- Multi-technology stacks work best when satellites are treated as a complementary layer. Satellites extend reach and provide a resilient failover (e.g. D2D during disasters or where no terrestrial service exists), while dense urban capacity remains a

terrestrial strength. Policy should enable, not block, this complementarity.

- Regulatory simplifications unlock coverage and lower cost. Examples included technology-neutral frameworks, streamlined satellite licensing, regional spectrum-coordination pacts, realistic rural Quality of Service targets, and USF designs such as 'pay-or-play' approaches, paired with reduced sector-specific taxes that inflate service costs.
- Future-Ready spectrum policy is needed and space for trials. Priorities cited were non-geostationary satellite orbit (NGSO)-GSO sharing arrangements (with potential 30-50 per cent capacity gains), D2D smartphone connectivity provisions and blanket terminal licensing. In preparation for the next World Radiocommunication Conference (WRC-27), related agenda items include multiple satellite issues such as equal access to orbits, enforcement against unauthorized stations and emerging space-to-space use cases.
- Security and data governance must be consistent across satellite and terrestrial networks. Consumers expect regulators to apply the same, clearly stated requirements for lawful intercept, data handling and storage, and oversight whether traffic moves over LEO/MEO/GEO satellites (including D2D/NTN) or over mobile and fixed/fibre networks, and agree practical technical solutions (e.g., in-country facilities where required).
- Address the regulatory barriers to foster spectrum innovation while protecting existing public services. Regulators should consider creating a single nationwide approval for user terminals, easing investment restrictions that hinder digital infrastructure development, remove special telecom taxes on entry-level phones and data, and use universal service financing to cut prices and build basic digital skills. On the other hand, regulators should safeguard spectrum for public-interest services such as Earth observation, meteorology and astronomy, which provide indispensable data for climate monitoring, weather forecasting, and public safety.

Session 3: Trust - In digital we trust



Moderator: Ms Emilia Nghikembua, Chief Executive Officer, Communications Regulatory Authority of Namibia (CRAN), Namibia

Panelists:

- Mr George Michaelides, Commissioner, Office of the Commissioner of Electronic Communications and Postal Regulation, Cyprus
- Dr Aminu Maida, Vice Chairman & Chief Executive Officer, Nigerian Communications Commission (NCC), Nigeria
- Eng. Mohamed Shamroukh, Executive President, National Telecom Regulatory Authority (NTRA), Egypt
- Dr Bilel Jamoussi, Deputy Director and Chief of Study Groups and Policy Department, ITU's Telecommunication Standardization Bureau (TSB)
- Mr Chee Kheong Foong, Group Chief Regulatory Officer, Axiata Group Berhad
- Mr Ran Wei, Chief Engineer, China Academy of Information and Communications Technology (CAICT), China

This session explored how regulators can create the enabling conditions for trust in the digital ecosystem. Panelists highlighted that as infrastructure becomes more distributed and data-driven technologies reshape services, there is an urgent need to address security, transparency, and accountability from both a policy and technical standpoint. From fibre and satellites to cloud and AI systems, trust must be hardwired into architecture, not treated as an afterthought. The session underscored that trust is not static – it must be continuously earned, maintained and adapted as technologies evolve. Regulatory strategies that are integrated, forward-looking and grounded in accountability are essential to ensure the digital ecosystem remains resilient and equitable for all.

The following key messages were emphasized:

- Build trust into infrastructure by design. Secure, reliable connectivity starts with protecting critical assets such as subsea cables, data centres, satellites and cloud services. Regulatory frameworks should move beyond reactive controls to embed proactive standards for resilience, disaster recovery, redundancy and secure-by-design protocols.
- Coordinate security and privacy governance across borders and sectors. Fragmented approaches increase vulnerability. Regulators should align privacy rules, incident reporting, data localization, and lawful intercept provisions across both terrestrial and non-terrestrial networks, ensuring that users are protected regardless of where traffic flows.
- Promote accountability and oversight for digital platforms and infrastructure providers. Transparency requirements, reporting obligations, and clarity on roles and responsibilities help close enforcement gaps. Regulators must develop the tools – including technical audits and legal authority – to ensure compliance and respond quickly to breaches.
- Leverage international standards and partnerships to manage new risks. Standards for cloud interoperability, AI governance, multimedia authentication and spectrum use help regulators future-proof their policies. Active participation in international fora enables countries to shape, rather than just adopt, rules for emerging technologies like LEO constellations, deepfake detection and quantum communication.
- Keep trust people-centred. Affordability, reliability, and secure access are fundamental, not optional. Inclusive trust frameworks are essential by design, ensuring rural users, small businesses and vulnerable communities can access digital services safely and confidently.

Session 4: Protect - Shaping consumer confidence



Moderator: Mr Haji Jailani Haji Buntar, Chief Executive, Authority for Info-communications Technology Industry of Brunei Darussalam (AITI)

Panelists:

- Prof. Sandra Maximiano, Chairwoman, Autoridade Nacional de Comunicações, (ANACOM), Portugal
- Mr Philip Marnick, General Director, Telecommunications Regulatory Authority (TRA), Bahrain
- Mr Louis-Marc Sakala, Agence de Régulation des Postes et des Communications Electroniques (ARPE), Congo (Rep. of the)
- Mr Jacek Oko, President, Office of Electronic Communications (UKE), Poland
- H.E. Mr Husam A. Alsuliman, Policy & Regulations Deputy Governor, National Cybersecurity Authority (NCA), Saudi Arabia

This session examined how regulatory frameworks can adapt to protect consumers and build trust, especially as AI and data-driven services become increasingly embedded in everyday life. The discussion focused on how to ensure safety, privacy and accountability in an ecosystem shaped by new technologies, growing data asymmetries and evolving risks – especially for children, youth and vulnerable users. The session underscored that in a world shaped by AI and big data, consumer confidence should be designed into services from the start. Panelists stressed that regulation should move faster, go deeper, and that all players should be held accountable, so that digital transformation empowers, not endangers, the people it is meant to serve.

The following key messages were emphasized:

- Consumer protection should evolve with emerging risks. AI, algorithms and data-fuelled platforms present new challenges in transparency, fairness and harm mitigation. Regulators must adopt forward-looking safeguards – including algorithmic audits, redress mechanisms and digital literacy measures – to ensure consumers are informed, empowered and protected.
- Build accountability frameworks that are shared across actors. Protection cannot rest solely with regulators – developers, platforms and digital service providers should be held to clear responsibilities. This includes transparent terms of use, explainability of AI decisions, and codes of conduct that ensure providers act in the public interest.
- Policies should prioritize the protection of minors and vulnerable groups. Children face disproportionate exposure to online harms. Regulatory strategies must include age-appropriate content guidelines, parental control standards, and stronger obligations on platforms to proactively prevent exploitation and abuse.
- Trust is built through transparency and enforcement. Disclosure requirements, complaint mechanisms and sanctions are essential to consumer trust. Clear, accessible information on how data is used – and visible consequences for misuse – help build confidence in digital services.
- Regional and international cooperation is critical for aligned protections. Global data flows and cross-border platforms require coordination across jurisdictions. Participants called for harmonized standards, mutual recognition of protections, and participation in international fora to align responses to shared threats.

Session 5: Include - Building an inclusive and equitable digital future



Moderator: Ms Julissa Cruz, Executive Director, Instituto Dominicano de las Telecomunicaciones (INDOTEL), Dominican Republic

Panelists:

- Mr Samuel Muhizi, Director General, Agence de Régulation et de Contrôle des Télécommunications (ARCT), Burundi
- Eng. Bassam Al Sarhan, Chairman of the Board and CEO, Telecommunications Regulatory Commission (TRC), Jordan
- Mr Abdul Karim Fakir Ali, Managing Director, Malaysian Communications and Multimedia Commission (MCMC), Malaysia
- Prof. Salma Abbasi, Chairperson and CEO, eWorldwide Group

The session examined how regulation can drive environmental sustainability across the digital value chain – from greener infrastructure and circular electronics to climate-conscious policy frameworks. Participants underscored that connectivity and climate goals must be pursued in tandem. As the environmental impact of digitalization rises – including energy use, e-waste, and emissions from data centers – regulatory frameworks need to evolve to embed environmental responsibility into digital transformation. Speakers emphasized that measurement, coordination and regulatory design will determine whether the sector becomes a sustainability enabler or a growing burden.

The following key messages were emphasized:

- Make sustainability a regulatory priority, not a side objective. Environmental protection should be embedded into digital regulation as a core pillar – not an afterthought. This means aligning ICT strategies with climate targets, using licensing conditions and performance frameworks to mandate energy efficiency, and requiring environmental risk assessments for new deployments. Participants noted that digital transformation is not inherently green – policy should make it so.
- Track what matters: measure energy, emissions and material flows. Without standardized data, sustainability strategies risk becoming symbolic. Regulators and operators should measure energy consumption, carbon emissions, and e-waste volumes as part of routine oversight. Embedding environmental indicators into sector reports, universal service frameworks and licensing renewals can push the ecosystem toward greener practices.
- Support circularity through practical, enforceable regulation. The digital sector is a major contributor to global e-waste, yet device reuse and recycling remain limited. Regulatory approaches such as extended producer responsibility (EPR), take-back schemes, and incentives for refurbishing devices are essential to close the loop. Participants also highlighted the potential of green procurement and tax incentives to shape industry behavior.
- Align innovation incentives with sustainability outcomes. Green tech adoption – from solar-powered base stations to sustainable cooling in data centers – depends on regulatory signals. Financing mechanisms, green certifications, and fast-track approvals for sustainable solutions can accelerate uptake. Policy should enable experimentation while setting clear benchmarks for energy and materials performance.
- Coordinate across sectors – environmental outcomes need whole-of-government action. Telecommunication/ICT regulators alone cannot drive digital sustainability. Collaboration with environmental agencies, energy regulators, municipalities and international bodies is essential to set shared standards, mobilize financing, and scale solutions. Regional coordination on issues like e-waste export, battery reuse, and green taxonomies will also be key.

Session 6: Empower - Upskilling for the Digital Age



Moderator: Ms Leonilde Tatiana Monteiro Lima Santos, Chairman of the Board of Directors, Agência Reguladora Multissetorial da Economia (ARME), Cape Verde

Panelists:

- Mr Marko Mišmaš, Director, Agency for Communication Networks and Services of the Republic of Slovenia (AKOS), Slovenia
- Mr John Omo, Secretary General, African Telecommunications Union (ATU)
- Mr Andrew Changa on behalf of Caroline Koech, Executive Director, East African Communications Organization (EACO)
- Ms Eiman Mohyeldin, Global Head of spectrum standardization, Nokia

This session examined the regulatory and policy levers needed to promote inclusive digital skills development and human-centric digital transformation. Participants stressed that as technology reshapes economies and societies, people must be equipped not only to participate but to lead in the digital age, and that this responsibility spans across sectors, ministries and actors.

The following key messages were emphasized:

- Digital transformation is a human challenge, not just a technical one. Connectivity must be matched with

the skills that enable people to use, shape and trust digital technologies.

- Skills development must start early and follow lifelong learning pathways. Youth-focused training is essential, but digital skills must also reach mid-career workers, older generations and vulnerable groups.
- Policy coordination across ministries is essential. Regulatory authorities alone cannot deliver inclusive skills. Education, labour, ICT and finance ministries must coordinate efforts with clear mandates and shared goals.
- Inclusion demands both access and design. It is not enough to extend connectivity. Digital tools and content must be culturally and linguistically appropriate, gender-responsive, and accessible to persons with disabilities. Regulation should incentivize inclusive service design and close representation gaps in the digital workforce.
- Invest in data and measurement. Countries need robust, disaggregated data to identify gaps in access and skills, monitor progress and inform evidence-based policymaking. Panelists called for harmonized indicators and shared methodologies to enable cross-country learning and benchmarking.
- Collaboration is the only way forward. Governments, private sector, civil society and development partners must work together to create inclusive digital ecosystems and co-design with communities.

Session 7: Sustain - What framework for a sustainable future?



Moderator: Mr Xavier Merlin, Board Member, Autorité de Régulation des Communications électroniques et des Postes (ARCEP), France

Panelists:

- Mr Mustafa Yaasin Sheikh, Director General, National Communications Authority (NCA), Somalia
- Mr Ömer Abdullah Karagözoğlu, President and Chairman of the Board, Information and Communication Technologies Authority (BTK), Türkiye
- Mr Jay Schwarz, Chief of the Space Bureau, Federal Communications Commission (FCC), United States
- Mr Naif Sheshah, Deputy Governor of Strategy and Digital, CST, Saudi Arabia
- Ms Cynthia Lesufi, Minister Counsellor, Permanent Mission of South Africa to the UN Office and other International Organisations, South Africa
- Ms Donna Bethea Murphy, Senior Vice President, Global Regulatory Policy, Viasat

The discussion framed 'digital sustainability' as a dual mandate: harnessing digital technologies to measure, predict and mitigate climate risks while confronting the sector's own footprint – from energy and water use to electronic and orbital waste. Panelists underlined that AI and space-enabled services can accelerate early warning, environmental monitoring and resilience, but also intensify resource use and raise new safety, privacy and governance questions that regulators must anticipate.

The panel converged on a practical agenda for regulators: put credible measurement at the core (for example through 'regulating by data'), design policies that make resilient connectivity the default (including power and infrastructure sharing) and use collaboration – across borders and between public and private actors – to

convert principles into interoperable standards, financed deployments and enforceable rules. Discussion on space sustainability stressed debris mitigation, fair access to scarce orbital and spectrum resources and the need for space-traffic management to keep growth compatible with safety and equity.

The following key messages emerged from the discussion:

- Make sustainability-by-design a regulatory duty. Require measurement and disclosure, embed environmental, social, and governance (ESG) criteria in licensing and spectrum policies and align incentives so efficiency and resilience are built in from the start.
- Treat trusted data as climate infrastructure. Enable standardized, privacy-preserving data access and APIs to turn operational data into decisions – powering early warning, supervision and continuous regulatory improvement.
- Engineer resilient, affordable networks. Prioritize continuity under climate stress (spectrum for high-risk areas, IoT and satellite monitoring) and use infrastructure- and power-sharing arrangements and targeted funds to keep services reliable and affordable.
- Keep space sustainable and open. Advance debris rules, space-situational awareness, traffic management and regulatory certainty while protecting equitable access to orbital and spectrum resources for all countries and industry players, including small and medium-sized enterprise (SMEs).
- Accelerate circularity and e-waste management. Build national frameworks around extended producer responsibility, raise collection and recycling rates and integrate enforcement into the regulatory toolkit.



The session closed with the launch by CST Deputy Governor, Mr Naif Sheshah, and the Director of the ITU's Telecommunication Development Bureau, Dr Cosmas Luckyson Zavazava, of the second edition of ITU's Policy Practices for E-waste Management Toolkit developed with support from CST Saudi Arabia. The Toolkit provides practical guidance including 10 policy recommendations to strengthen licensing, compliance and enforcement for e-waste systems.

Session 8: Innovate – Building the ecosystem to address global challenges



Moderator: Mr Tonko Obuljen, Chairman, Croatian Regulatory Authority for Network Industries (HAKOM), Croatia

Panelists:

- Ms Iza Razija Mesevic, Chairwoman of the Council, CRA, Bosnia and Herzegovina
- Dr Gift Kallisto Machengete, Director General, Postal and Telecommunications Regulatory Authority (POTRAZ), Zimbabwe
- Ms Isabelle Mauro, Director General, GSOA

The discussion focused on how to build innovation ecosystems that deliver public value – balancing rapid advances in AI, IoT, new space services and blockchain with responsibility, sustainability and inclusion. Panellists contrasted ‘regulatory tsunamis’ of detailed rules with principle-based, technology-neutral approaches that can adapt as markets evolve. They examined co-creation and co-regulation as practical means to keep pace with technology and market innovation, bringing entrepreneurs, academia and civil society into structured, evidence-driven processes while safeguarding regulatory independence.

A second thread explored how convergence of terrestrial and non-terrestrial networks changes the regulatory toolkit, relying increasingly on agile authorization models (e.g., general/blanket approvals), reduced red tape and long-term spectrum certainty to unlock investment, careful differentiation between technology- and service-neutrality

to avoid ‘one-size-fits-all’ obligations, and reforms that channel universal service funding and partnerships toward last-mile scale-up.

The following key messages were emphasized:

- Regulate for outcomes, not for services or technologies. Prefer principle-based, technology-neutral rules and focus enforcement on competition, consumer protection, data governance and privacy – the ‘outskirts’ where durable norms can be applied as systems change.
- Co-create while protecting regulatory independence. Make participatory design (with startups, researchers, civil society and operators) a default, using evidence and foresight; at the same time, secure financial and institutional autonomy so co-creation strengthens, rather than compromises, the regulator’s independence.
- Make convergence investable. Use innovation-friendly authorization (general/blanket licensing), reduce procedural friction, provide long-term spectrum certainty, avoid ‘same service, same rule’ when infrastructures differ, and reform USFs while leveraging public-private initiatives for scale.
- Embed responsibility by design, including in space. Prioritize safety, transparency and sustainability (e.g. debris mitigation and space-traffic considerations) so innovation advances without eroding resilience or equity.
- Equip the regulator to innovate. Move from passive oversight to active innovation stewardship – deploying sandboxes, research partnerships and ‘AI to regulate AI’, so oversight capacity matches the speed and complexity of emerging technologies.

Closing Ceremony



Eng. Omar Abdulrahman Alrejaje, Deputy Governor, CST, Saudi Arabia and Chair of the Regional Regulatory Associations Meeting, reported on the key outcomes from the RA/DRN deliberations. He emphasized the Digital Regulation Network's (DRN) role as a dynamic platform for inter-regional collaboration and outlined a call to strengthen knowledge-sharing, capacity building, and the use of ITU and RA-developed tools. He further affirmed the adoption of the GSR-25 Best Practice Guidelines as a pivotal outcome – a shared blueprint empowering regulators to transition from rule-setters to proactive ecosystem builders.

Mr Bocar Ba, Chair of the Industry Advisory Group for Development Issues Private Sector and Chief Regulatory Officers (IAGDI-CRO), presented the private sector's joint outcome statement. He outlined three critical action areas: expanding inclusive connectivity, securing investment and innovation, and ensuring agile, trusted governance. Practical proposals included integrating satellite and terrestrial solutions, streamlining permits and spectrum processes, strengthening local service relevance, and adopting outcome-based regulation. He urged greater alignment on AI risk governance, cybersecurity, and responsible innovation – all grounded in multi-stakeholder collaboration.



In his closing remarks, **Dr Cosmas Luckyson Zavazava**, Director of the ITU's Telecommunication Development Bureau, framed GSR-25 as a turning point. He lauded the record participation and emphasized that regulators must now act as gardeners of the digital future, nurturing innovation through experimentation, evidence and inclusion. He praised the CST and the Kingdom of Saudi Arabia for their exceptional leadership and hospitality, highlighting their continued partnership in global digital development. He highlighted the main key take aways from the discussions and reminded participants of the 2.6 billion people still unconnected and urged collective action to bring meaningful connectivity to all by 2030. He called the GSR-25 guidelines a "living blueprint" – ready to be implemented and adapted – and reaffirmed the ITU's commitment to support countries on this journey. The ceremony closed with an invitation to reconvene at the World Telecommunication Development Conference

(WTDC) in Baku, Republic of Azerbaijan, in November 2025.

H.E. Eng. Haitham ALOhali, Governor of the Communications, Space and Technology Commission (CST) and Chair of GSR-25, delivered the final remarks of the Symposium. He thanked ITU, participants and partners for making the 25th edition of GSR a global success, and reaffirmed Saudi Arabia's commitment to collaborative leadership in digital transformation. He stressed that regulation must move at the speed of innovation, and called on regulators to stay bold, agile and people-focused in the face of evolving technologies. Drawing on Saudi Arabia's experience, he emphasized that lasting impact is built on inclusive policy, long-term vision and strong partnerships – and closed with a call to continue building together a connected, trusted and empowered digital future for all.

Pre-events

Regional Regulatory Associations (RA)/Digital Regulation Network (DRN) meeting



The Regional Regulatory Associations / Digital Regulation Network (DRN) Meeting, held on 1 September 2025, convened 12 regional regulatory associations to exchange experiences and practical insights.

In his opening remarks, Eng. Omar Alrejraje, Representative AREGNET and RA-25 Chair, Deputy Governor of Regulation and Competition Sector, CST, Saudi Arabia expressed sincere gratitude to the Director of the Telecommunication Development Bureau at ITU for his vision and leadership in creating the Digital Regulation Network (DRN). This initiative has given us a powerful platform to share knowledge, align strategies, and work collectively toward a digital transformation that benefits everyone.

The Director of the Telecommunication Development Bureau at ITU, Dr Cosmas Luckyson Zavazava, emphasized the importance of regional collaboration and highlighted the DRN initiative, launched two years ago, as a key driver of sustainable digital transformation.

The DRN initiative aims to accelerate sustainable digital transformation by fostering common approaches to collaborative digital policy, regulation, and governance across sectors and borders.

Regional Regulatory Associations highlighted the value and growing impact of the DRN initiative, recognizing its success in strengthening regional collaboration. They reaffirmed their commitment to supporting the DRN as a strategic tool for enhancing cooperation among members. The RAs also stressed the urgency of sharing best practices at both regional and interregional levels, organizing knowledge-exchange platforms, and continuing to circulate relevant ITU materials and resources. These actions, they noted, are essential to accelerating the adoption of emerging technologies through collaborative regulatory approaches across sectors, countries, and regions.

Discussions covered core regulatory themes – universal broadband access, competition, and cybersecurity, alongside emerging tools and strategies to spur innovation. A central focus was advancing common regional approaches to complex cross-border issues, notably artificial intelligence, satellite-based communications, and data protection, highlighting the need for interoperable frameworks and coordinated action.

Heads of Regulators Executive Roundtable



The Heads of Regulators Executive Roundtable held on 1 September under the theme “What will it take for regulators to become ecosystem builders?” brought together over 100 participants who examined how authorities can move beyond market oversight to actively shape resilient, future-ready digital ecosystems. **Dr Cosmas Luckyson Zavazava**, Director of the Telecommunication Development Bureau at ITU, opened and moderated the roundtable. He stressed that for a

quarter of a century, the GSR guidelines have served as the compass for regulatory development ensuring that regulators worldwide are aligned with the same true north and that, whatever their starting point, they are headed in the same direction. He added that practical, data-driven tools is at the heart of BDT’s work highlighting the Connectivity Planning Platform, or CPP, developed in partnership with Ericsson.



GSR-25 Chair, **Eng. Haitam Alohaly**, presented the GSR-25 Guidelines on [Empowering Regulators as Digital Ecosystem Builders](#) for adoption. As digital technologies transform how our societies connect, trade, and are governed, we regulators are being called to do more than just oversee markets. We are being asked to shape them. He therefore stressed that these guidelines are not just principles; they are a call to action. They provide a roadmap to leverage emerging technologies for our own regulatory excellence, he added. He thanked all regulators

and stakeholders for their contributions to the consultation which reached a record of over 50 contributions.

The ITU Secretary-General, **Doreen Bogdan-Martin**, underlined that Governments, civil society, private sector, and the broader digital ecosystem should work together on AI, ensuring that AI benefit everyone, not just elites. She stressed that with digital technologies transforming every part of life, regulators need to keep pace. She emphasized that as an outcome of the governance

dialogue held during the last AI for Good Summit, ten governance principles were identified focusing on accountability, transparency, trust, standards and capacity development. She further noted that another outcome of the Summit was the global initiative for AI in food

systems, in addition to two landmark resources launched on multimedia authenticity standards and policy to detect deepfakes and to verify digital content. We also launched an AI standards exchange database. She added.



H.E. Jyotiraditya M. Scindia, Minister of Communications; and Minister of Development of North Eastern Region, from the Ministry of Communications, Department of Telecommunications of India underlined that for two decades GSR has stood as a beacon of collaboration that has guided nations across continents towards a world that is not just connected, but a world that is inclusive, a world that is sustainable, and a world that is resilient. In terms of India's digital transformation, Connectivity, forward-looking telecom and cybersecurity frameworks, and initiatives like Digital Bharat Nidhi are empowering 1.4 billion citizens and positioning India as a global co-creator. India's digital economy, powered by AI, 5G, cloud, and innovation ecosystems, is set to reach \$1 trillion by 2028, contributing significantly to GDP, jobs, and global digital leadership. India's experience highlights four key lessons: prioritize open standards for innovation, ensure inclusion and trust through strong data protection, foster public-private collaboration with co-creation and regulatory sandboxes, and maintain agile governance to keep pace with technology. These principles can guide other countries in building resilient, inclusive digital ecosystems.

The open discussion that followed examined how regulatory authorities can embed innovation at the core of their mandates and leverage emerging technologies to strengthen regulatory performance. Speakers emphasized practical priorities for building resilient, future-ready digital ecosystems through evidence-based, coordinated and inclusive regulation.

- Regulators must evolve from 'referees' to proactive digital ecosystem builders - embedding innovation, institutionalizing experimentation (including learning from failures), coordinating whole-of-government action and deepening cross-border cooperation.
- Make regulation data-driven and tool-enabled: use big data, AI, dynamic modelling, and practical platforms (from connectivity planning to AI-assisted

rule-drafting and modern spectrum monitoring) to deliver faster, evidence-based, transparent decisions.

- Institutionalize safe experimentation: deploy regulatory sandboxes (including live-environment pilots) and agile pathways like innovation licences, favouring outcome-based guidance over rigid prescriptions so promising ideas can be tested and scaled responsibly.
- Place inclusion at the centre: close coverage and affordability gaps, ensure equitable access for urban and rural communities - including youth, women and persons with disabilities, and deploy targeted service offers, device-ownership schemes and last-mile infrastructure so emerging technologies narrow, rather than widen, the digital divides.
- Provide predictability and keep markets open: stable, long-term frameworks and pro-competition measures (including data openness and interoperability) attract investment, accelerate fibre and advanced mobile services rollout, and spur innovation for positive socio-economic impact.
- Collaborate across sectors and borders: align the work of telecom/ICT, finance, energy and other regulators on key topics relevant to innovation; craft common approaches at the regional, sub-regional level or multilaterally on cross-border issues; share learning infrastructures in the field of new and emerging technologies; and strengthen critical infrastructure resilience (e.g. submarine cables) through international cooperation.
- Build trust by design: pair innovation with safety, ethics and security guardrails - adopt AI governance principles, authenticity standards to counter deepfakes, robust cybersecurity and fraud-prevention measures and modern e-KYC to protect users while enabling digital market growth.

Industry Advisory Group on Development Issues and Private Sector Chief Regulatory Officers (IAGDI-CRO)



The Industry and private-sector leaders met during the Global Symposium for Regulators (GSR-25) on 1 September 2025 to share experiences, best practices and concrete proposals on inclusive digital transformation and the enabling regulatory environment. Insights from the meeting informed the IAGDI-CRO Outcome Statement that was presented by the Chair, Bocar Ba, at the GSR-25 Closing Ceremony.

In his opening remarks, Dr Cosmas Luckyson Zavazava, Director of the ITU's Telecommunication Development Bureau, emphasized the role of public-private collaboration to connect the unconnected and to make connectivity more affordable, reliable and trusted. He stressed the importance of empowering regulators as digital ecosystem builders, working hand in hand with industry to integrate innovation into regulation.

The Chair, Bocar Ba, recalled IAGDI-CRO's mandate under Resolution 71 and outlined the meeting's three focus areas: (1) universal and meaningful connectivity, (2) infrastructure innovation and transformative technologies, and (3) agile and harmonized governance for a trusted digital ecosystem.

Discussions converged on practical actions: integrate complementary technologies and plan for geographic as well as population coverage; streamline authorizations and rights-of-way; and use infrastructure sharing to lower costs, speed rollout and connect public institutions. Participants urged demand-side measures—affordable devices, digital skills, locally relevant services, online safety, and enabling basics like power and ID—to convert multi-technology coverage into use.

They called for clear multi-year spectrum roadmaps, harmonization and co-creation toward next-generation networks; improving investment conditions (predictable and affordable renewals, tax rationalization, facilitative sharing, sensible consolidation, device and skills support); and advancing agile, interoperable, outcome-based governance that ensures a level playing field, addresses online harm and strengthens trust. The participants supported exploring independent AI testing and voluntary certification for higher-risk AI. These inputs are reflected in the IAGDI-CRO Outcome Statement for GSR-25.

Special sessions

Network of Women (NoW) in ITU-D



The Network of Women (NoW) in ITU-D, held on 2 September, brought together women delegates, regulators, and policymakers to explore how gender-responsive regulation can accelerate inclusive and sustainable digital development.

ITU Secretary-General, Doreen Bogdan-Martin, highlighted the urgency of strengthening women's participation in the digital sector. Despite progress, women still represent only around 20% in key areas such as technology access, STEM careers, ITU participation, and ICT leadership roles. This gap underscores the need for concrete action.

The Director of the Telecommunication Development Bureau, Dr Cosmas Luckyson Zavazava, strongly encouraged women delegates to take an active role in the preparations for WTDC25, stressing that having women at the decision-making table is not optional but essential for achieving inclusive and sustainable outcomes. He further underlined that men's engagement in women's empowerment is equally fundamental, noting the importance of initiatives such as mentorship programmes, including those currently being developed within BDT, to create stronger pathways for women's leadership.

Participants worked in groups across three themes, with co-facilitators/rapporteurs presenting the following recommendations:

A. Regulation for an Inclusive Digital Future

- Mandate universal design and ICT accessibility from the start of product development, allowing full tech access for women, including those with disabilities, older women, and those in rural/remote areas.

- Integrate gender-responsive, intersectional approaches into national digital inclusion strategies to address barriers faced by vulnerable women.
- Enforce accessibility and inclusivity standards in public procurement, making governments role models in purchasing empowering ICT products and services.
- Include women in vulnerable situations (e.g., young, elderly, disabled, rural, low-income) as beneficiaries of the Universal Service Fund to support their empowerment.
- Promote inclusive digital literacy programs for women and girls to enable equal participation in the digital economy.
- Establish regulatory mechanisms to track gender equality and inclusivity in the ICT sector, including collecting sex-disaggregated and intersectional data.

B. AI for Green & Digital Trust

- Implement regulatory frameworks ensuring transparency, accountability, and explainability in AI to prevent bias against women and marginalized groups.
- Ensure AI supports climate-smart solutions by incentivizing energy efficiency and sustainable infrastructure.
- Enforce strong data protection, privacy, and cybersecurity measures, especially to protect women from online abuse and exploitation.
- Promote gender-balanced participation in AI research and regulation to ensure fair and trustworthy systems.

- Ensure responsible, equitable access to green technologies and make sustainability a regulatory requirement in ICT deployment.

C. Empowering Women Leaders in Sustainable Digital Policy

- Establish mentorship and sponsorship programs pairing women regulators with senior leaders to support career growth.
- Implement quotas or parity policies in regulatory bodies to ensure women's equal leadership participation.

- Offer tailored capacity-building programs to boost women's technical expertise and leadership confidence.
- Increase visibility of women leaders by highlighting their achievements in ICT forums, media, and international dialogues.
- Establish funding and supportive environments for women's ICT entrepreneurship, empowering them as innovators and regulators.

Executive Masterclass: Strategic Foresight for AI Collaborative Frameworks



Led by Dr Rafael Popper, ITU Consultant and Dr Lamy Alomair, from the Ministry of Communications and Information Technology (MCIT) Saudi Arabia, the Executive Masterclass organized on 31 August, attracted over 100 participants including heads of regulators, policymakers and senior representatives. The masterclass was structured into eight sections covering topics such as: how past societies envisioned the future, the importance of strategic foresight, an overview of what strategic foresight is, its potential applications in various contexts, practical approaches to implementing foresight, and its relevance to AI-driven Collaborative Governance.

The session concluded with a presentation on the MICT, Saudi Arabia's experience with foresight. The following key takeaways were stressed by the trainers: foresight helps regulators create adaptable, resilient policies by translating early signals into actionable insights. It fosters innovation, inclusive governance, and anticipatory collaboration. It helps translate complex AI risks and opportunities into actionable roadmaps, addressing AI risks and opportunities. By shifting from crisis management to proactive governance, foresight enables sustainable regulation that supports technological change and long-term resilience.

Lightning session on RegTech



Held on 3 September, the lightning session was moderated by Mr Petros Galides, Chairman, EMERG 2024 & 2025 and ITU DRN Board Member. The panel was composed of Eng. Omar Alrejaji, Deputy Governor, CST, Saudi Arabia; Dr Danny Tobey, Chair of AI & Data Analytics, DLA Piper; Mr James Gabriel Claude, CEO, Global Voice Group; and Dr Shiv K. Bakhshi, VP, Industry Relations, Ericsson.

The discussion explored how regulators can use emerging technologies to strengthen governance and compliance – bringing greater speed, precision and transparency to regulatory oversight. Panelists examined practical RegTech approaches such as AI-assisted drafting and supervision, digital twins to test policy or network changes before deployment and regulatory sandboxes to learn in controlled environments and guide safe scaling. They stressed that tools must keep pace with rapid technological change while remaining anchored in principles of accountability, transparency and human oversight. A recurring operational theme was treating data as infrastructure: establishing standardized, API-enabled,

near-real-time flows from sources, and turning those data into actionable insights through interoperable, cross-agency systems that can scale.

The following takeaways stood out from the discussion:

- Build for speed and complexity. Use AI, digital twins and time-bound sandboxes to test, learn and translate rules into operational code, so regulatory responses match innovation without sacrificing control.
- Treat data as a regulated utility. Require standardized, API-enabled data from sources, ensure independent reliability and focus on turning data into decisions across agencies and use cases.
- Embed trust by design. Address bias, transparency, privacy and human oversight systems up front, so RegTech improves accountability while enabling innovation and inclusive market outcomes.

Information session on Connecting Humanity



The information session on Connecting Humanity, held on 1 September, was moderated by Ms Sulyna Abdullah, Chief, Strategic Planning and Membership, and Special Advisor, Secretary-General, ITU. Following the opening remarks by Mr Mufarreh Nahari, Deputy Governor for Studies and Innovation, CST, Saudi Arabia; Mr Paul Garnett, Chief Executive Officer, Vernonburg Group and Mr Daniel Cavalcanti, Senior Advisor, Digital and Telecommunications Policy, from the Brazilian Federal Government presented the Connecting Humanity Action Blueprint.

This report is an updated edition of the landmark 2020 Connecting Humanity report, both developed by ITU with the support of the Kingdom of Saudi Arabia. This

report looks at the latest targets for universal, meaningful connectivity and provides an updated cost estimate to close the core gaps perpetuating digital divides globally: infrastructure, affordability, skills, and policy and regulation. The new Connecting Humanity Action Blueprint charts a path toward closing these gaps by advancing best practices in multistakeholder partnerships, learning from successful case studies, advancing 'Digital Inclusion Transformative Partnerships,' and monitoring and tracking progress through key performance indicators.

Annex 1: GSR-25 Best practice guidelines

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GSR-25 Best Practice Guidelines

“Empowering regulators as digital ecosystem builders”



Dr Cosmas Luckyson Zavazava
Director, Telecommunication
Development Bureau (BDT),
International Telecommunication Union
(ITU)

As digital new and emerging technologies transform economies and redraw the boundaries of markets, sectors and societies, regulators are stepping into a new role: not just managing change in telecom/ICT and digital markets but helping to shape it. This year's GSR Best Practice Guidelines provide timely and practical direction for regulators ready to lead in building inclusive, resilient and innovation-driven digital ecosystems. Grounded in real-world experience and developed through a global consultation with the regulatory community, the Guidelines continue to be an indispensable tool for future-facing regulatory leadership.



H.E. Eng. Haitham Alohal
Governor and GSR-25 Chair,
Communications, Space and
Technology Commission (CST),
Kingdom of Saudi Arabia

For more than two decades, the GSR Best Practice Guidelines have served as a compass for regulators navigating complex digital transformations. This year, they offer a clear call to action: regulators must evolve into ecosystem builders, capable of anchoring innovation in their work while upholding the public good amid accelerating technological and market shifts. I invite my fellow regulators to take these Guidelines forward to reinforce agile and anticipatory governance, deepen collaboration and ensure that digital regulation delivers for all.



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GSR-25 Best Practice Guidelines

EMPOWERING REGULATORS AS DIGITAL ECOSYSTEM BUILDERS

As digital technologies transform how societies connect, trade, learn and are governed, telecommunication/ICT regulators are being called to do more than oversee markets. They must adapt, embed innovation at the heart of their institutional mission and help shape resilient and future-ready digital ecosystems. This transformation demands a continued evolution in regulatory approaches and mindsets, the adoption of new tools, and deeper collaboration across sectors and borders.

Building on two decades of GSR Best Practice Guidelines, which have helped define sound regulatory principles and foster enabling environments, we - the regulators participating in the 2025 Global Symposium for Regulators - acknowledge the pace of this change and our urgency to respond. Responding to today's challenges and preparing for those ahead call upon regulators to reconsider our role as digital ecosystem builders: convening partners, aligning rules and incentives, opening shared data and infrastructure, and using evidence and testing to build inclusive, trusted digital markets.

These guidelines reflect our shared commitment: informed by national experience, guided by a global perspective and focused on delivering practical, forward-looking regulatory leadership for a digital future that leaves no one behind.

I FOSTER INNOVATION IN REGULATORY APPROACHES

Make innovation a core regulatory practice

Regulators should treat innovation not as a side project, but as a core part of how regulation is designed and delivered. Institutionalize experimentation by embedding pilot projects into annual workplans, using regulatory sandboxes and testing light-touch rules before full rollout. Make room for learning from failure, recognizing that not every innovation will succeed but every attempt generates valuable insights that strengthen future regulatory approaches.

Develop future-ready skills and mindsets

In addition to technical knowledge in telecommunication/ICTs, digital, new and emerging technologies such as AI, IoT, space- and satellite-enabled services and quantum technologies, blockchain and advanced cybersecurity frameworks, regulators need skills in policy prototyping, behavioural insights and systems thinking - applied through practical, evidence-led methods. Foster an agile, future-responsive regulatory culture by supporting continuous peer learning opportunities for staff and building cross-disciplinary collaboration into institutional routines.

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Regulate with agility and foresight

Implement agile frameworks such as outcome-based or principles-based regulation, and consider arrangements such as tiered licensing and sunset clauses, where appropriate, to enable adaptive regulatory responses as technologies and markets evolve. Guide innovation rather than simply react to it by using data, strategic foresight, horizon scanning and anticipatory frameworks - including scenarios, early-warning indicators and pre-agreed triggers that enable timely action - to better identify emerging risks and opportunities. Leverage spectrum and space-based technologies as platforms for innovation.

Collaborate to innovate

Expand stakeholder engagement beyond one-off consultations to continuous, problem-solving partnerships with ministries, market actors, academia and civil society across sectors. Co-creating solutions allows for the diversity of different actors' experiences to collectively inform optimal and adaptive solutions, builds legitimacy and shared ownership, and improves compliance and implementation. Align policies and prevent conflicting rules by embedding intersectoral coherence mechanisms.

II ADAPT AND ENHANCE REGULATORY CAPACITY

Empower regulators for digital realities

We encourage policymakers to ensure regulatory mandates reflect convergence across infrastructure, content and services. This may require oversight of digital platforms, data governance or AI, as well as cross-sector coordination to reduce fragmentation and reinforce public interest outcomes. This also calls for political, operational and financial independence to enable long-term planning, impartial decisions and consistent enforcement beyond political or market cycles.

Invest in strategic capacity

Go beyond technical upgrades. Secure sustained investment in the human and financial resources needed to maintain and expand new technological tools and methodologies as part of the core regulatory operations. Build multidisciplinary teams, establish internal foresight and data analytics units, allocate resources and streamline coordination across departments. Partner with stakeholders, including industry, academia and thinktanks to support continuous learning and regulatory intelligence. Use peer upskilling and joint consultations with regulators from more mature digital markets (staff exchanges, joint hearings) to absorb learnings from regulatory and industry practices.

Make decisions inclusive and evidence-based

Strengthen regulatory capacity for evidence-based and risk-informed decision-making. Use new data sources and platforms, AI analytics and stakeholder inputs to inform decision-making. Align rules with real-world conditions through regulatory impact assessments that account for potential distinct consequences for different stakeholders (including distinct providers and consumers and especially from underserved groups and local innovators), staged implementation, and recurring evaluation for iterative evolution of regulatory measures.

Institutionalize collaboration

Enable regulators to coordinate across sectors and jurisdictions using joint task forces, shared regulatory labs and inter-agency working groups, among others. Consider ITU's collaborative governance approach - structured, transparent decision-making with defined roles, shared evidence, time-bound workplans and joint accountability across public, private and civil society partners - to design coordinated and adaptive responses to complex ecosystem challenges. A 'whole-of-government' approach is increasingly essential to ensure coherence in national digital policy and effective governance of complex digital ecosystems, recognising the complementary and distinct role of regulators vis-à-vis governments.

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Leverage co- and self-regulation

Where appropriate, share or delegate responsibilities to trusted partners with clear accountability mechanisms. Support co-regulation with expert institutions, civil society or industry actors – especially in fast-moving areas such as cybersecurity, AI and data governance where less agile models could impede investment and innovation. Explore means by which regulators can reduce their own and others' regulatory burdens by pooling and simplifying regulatory models. Consider voluntary mechanisms co-designed with stakeholders to spur action as a new model of regulation, while ensuring competent authorities safeguard privacy, ethical responsibilities, and related obligations.

Shape innovation for public value

Enable and steer innovation toward inclusive and sustainable connectivity and digital markets that supports socio-economic development. Embed safety-by-design and inclusion in decisions on fast-moving areas. Resource regulators with the ability to collect and analyse consumer data and outcome metrics to inform decisions, track real-world benefits, and address disparate impacts of new technologies.

III LEVERAGE EMERGING TECHNOLOGIES FOR REGULATORY EXCELLENCE

Use new tools across the regulatory cycle

Where appropriate, integrate technologies such as AI, big data, blockchain and IoT into regulatory supervision, compliance and decision-making – working towards them as embedded capabilities. Examples include regulation through data, real-time spectrum monitoring, automated compliance alerts and smart licensing systems, among other RegTech and SupReg applications.

Co-design such applications to encourage potential interoperability with industry applications and iterating on experimental, test-case applications. Streamline and simplify regulatory processes for industry to lower compliance costs and improve the ease of doing business while maintaining oversight.

Harness data for responsive oversight

Build integrated data systems to assist with effective regulatory compliance. Such systems can combine, among others, industry submissions, sensor data and crowd-sourced information. Detect service gaps, identify risks early and guide interventions where they matter most, publish interactive dashboards that guide compliance and consumer choice. Use these strategies to build holistic pictures of market realities with greater granularity.

Modernize engagement through technology

Launch digital portals, interactive open data platforms and mobile tools to make decisions transparent and participation of non-industry users easier. Develop these projects with the needs of users in underserved or remote communities in mind. Improve data use by stakeholders and stakeholder feedback with tools like chatbots or map-based dashboards.

Institutionalize experimentation

Test regulatory responses before codifying rules in high-risk or high-uncertainty areas by using sandboxes, living labs, simulations and scenario tools. Leverage recognised technical standards (e.g. for AI, cybersecurity, digital identity, quantum) and standards-based certification to structure sandboxes and speed safe scaling. Accelerate consultation analysis and improve responsiveness with AI-assisted tools. Ensure effectiveness and responsible innovation by co-designing these experimental frameworks with industry and other stakeholders.

Design for trust and ethics

Lead by example in how technologies are used internally. Adopt privacy-preserving tools and standards for consumer and industry data, establish clear accountability and appeals for automated decision-making as relevant to the administrative law of each jurisdiction and aligned with established global principles on trustworthy AI and data protection. Clearly communicate with the public on how technologies are being used and what safeguards are in place.

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Leverage emerging technologies for space sustainability

Where ICT regulators hold a space mandate, use AI and other tools for space-traffic monitoring, collision avoidance and orbital resource optimisation. Where they do not, enable coordination with the competent space authority, promote data sharing and standards-based safety measures so space services remain safe, reliable parts of digital infrastructure.

Build the capacity to deliver

Recognize that digital transformation requires strategy, not just software. Invest in multidisciplinary talent, promote open standards and develop shared infrastructure across government to avoid duplication and overdependence on proprietary systems.

IV STRENGTHEN CROSS-BORDER COOPERATION FOR A CONNECTED FUTURE

Make collaboration results-driven

Use regional and international partnerships to address common challenges and shared priorities, from spectrum coordination to cybersecurity to AI governance, taking into account established global regulations and principles. Prioritize joint activities, regulatory sandboxes or enforcement efforts that deliver tangible impact for consumers over formal agreements alone and resource accordingly.

Promote regulatory interoperability where it adds value

Encourage alignment through common baselines and principles in areas such as digital trade, AI ethics and data protection, noting existing or established global and regional principles and recommendations and with explicit safeguards for domestic policy space. Shared policy principles and coordinated timing help balance interoperability with sovereignty.

Build shared learning infrastructure

Establish mechanisms to share best practices such as communities of practice, joint training platforms and peer mentoring schemes. Leverage country experiences with experimentation and innovation to support regulatory advancements that are adaptable to diverse markets and contexts. Support open-access knowledge tools that can be adapted locally and reused by other regulators.

Coordinate data, tools and standards

Promote interoperability-by-design. Each country should decide the appropriate partners – domestic agencies, neighbouring regulators, regional bodies and standards organisations - and align regulatory action where it adds value using, among others, common APIs, shared indicators and data-sharing protocols. Consider setting collaboration frameworks for privacy-preserving data sharing (e.g. aggregated incidents/performance) to support aligned oversight and cross-border incident response.

Assert regional voice and digital sovereignty

Coordinate at regional levels to influence emerging international frameworks, ensuring adaptability to diverse national contexts. Engage in multilateral fora and regional platforms, support regional initiatives, and build regional capacity and shared mechanisms to turn common positions into action while preserving national policy space.

Leverage regional and international cooperation to accelerate national agendas

Cooperate – as appropriate to national context – with regional bodies, peer regulators and standards organisations to share practices, pursue targeted alignment where it reduces duplication or speeds deployment (e.g. in spectrum planning, safety, interoperability), and mobilize joint capacity to advance national regulatory and innovation goals. Embed coordination in existing structures, assign dedicated units, facilitate cross-border planning and track the real-world impact of cooperation. Integrate systemic coordination and consultation into institutional and policy design to support ongoing alignment, as necessary, across policies, sectors and stakeholders.

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For international organisations, use convening power to matchmake among regulators and help cultivate peer-to-peer learning opportunities that are based on precise need and challenges. Facilitate the optimal use of global resources by blending shared experiences with localised applications. With technology, support developing open-access knowledge tools that can be adapted locally and reused by different regulators and promote interoperability-by-design through regulatory systems and commonly defined indicators.

Enable partnerships and investment

Recognize the need for innovative investment models to support the sustainable deployment of telecommunications/ICTs and digital infrastructure while ensuring a level-playing field for all market players and applying competition safeguards. In light of persistent financial challenges in rural and remote areas, we encourage the development of inclusive policy and regulatory approaches that enable public-public and public-private partnerships, government-wide collaboration and long-term digital growth.

V WAY FORWARD

In a landscape shaped by constant flux and technological upheaval, regulation can be a lever for responsible innovation that supports economic growth, market competition and public good. We do not act in silos – through internal innovations, sufficient capacity and deep partnerships within and across our markets, we can move from rule-setters to ecosystem builders. The principles and approaches in these guidelines offer a clear path: one that strengthens public trust, credits the specific role of regulators, protect public interests, fosters digital development that leaves no one behind, and reinforces the collective ability to govern a connected, dynamic and interdependent digital world.

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