

## **ITU Global Symposium for Regulators 2025**

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### ***Heads of Regulators Executive Roundtable: What will it take for regulators to be digital ecosystem builders?***

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#### ***How to integrate innovation at the core of regulatory approaches?***

The role of regulators is to promote with every means available the innovation process brought by emerging technologies, which are the driving force in bringing the digital development.

Regulators need to stay open and willing to learn. By constantly re-thinking regulatory processes and by constructively interacting with ICT industry, making sure they don't over-regulate markets so large enterprises are willing to invest in new technologies, but on the other hand regulate enough so the SMEs and startups are given a fair chance to succeed too.

The principle of collaborative/cross-sectional/international work in general, is key in this context.

Regulators should stay open to stimulus that will come from any stakeholder, no matter how distanced to the regulator in the ICT chain.

ICT sector horizontally interferes with so many sectors that it is unrealistic to think that there is actually a choice in opting for an operational model other than working collaboratively.

Collaboration among ICT regulators at national, regional and global level can be a true accelerator and enabler of digital transformation. Regulating without consideration for the international context is likely to result in unnecessary regulatory divergences across countries. While the underlying laws and regulations may not deal with trans-boundary issues, their divergences across jurisdictions may be costly to market participants, to consumers/users and to governments, thus inhibiting the progress of digital transformation.

#### ***How to leverage emerging technologies for regulatory excellence?***

Regulators today face significant challenges in fulfilling their responsibilities. These include ensuring access to reliable and timely information (such as compliance status), managing pressure from stakeholders—including regulated businesses—to reduce transactional and regulatory burdens, navigating dynamic political

environments, and adapting to the impacts of globalization, such as the exponential growth and interconnectedness of global economies.

Digital technologies offer several potential benefits to regulators. These include enhanced service delivery to regulated businesses, greater efficiency in regulatory tasks like inspections and enforcement, and improved data quality that can reduce uncertainty in risk assessments—enabling smarter resource allocation. Furthermore, these technologies can help lower the regulatory burden on businesses while potentially enhancing regulatory outcomes.

Recognizing these advantages, many regulators are increasingly turning to emerging technologies as a key tool in addressing these challenges. They are exploring innovative, technology-driven solutions, particularly in areas like inspections and enforcement, to streamline operations and improve overall effectiveness.

An example of how emerging technologies can be used to address regulatory challenges is the use of LEO cube satellites for uplink satellite spectrum monitoring. A relevant feasibility study is in progress at the Hellenic Telecommunications and Post Commission.

Safeguarding space-based assets by identifying ground sources attempting to interfere with their normal operations is crucial. However, uplink spectrum monitoring remains a significant technical challenge. Satellite radio communications rely on highly directional signals, making it difficult—if not physically impossible—to intercept them from the ground. This is because near direct "line-of-sight" access is required.

Low Earth Orbit (LEO) satellites, typically positioned between 250 km and 500 km, create enough distance between a ground-based transmitting antenna and a spectrum monitoring instrument. This distance allows transmitted signals to spread over a wider area, making them easier to intercept. In addition, LEO satellites enhance the geographical coverage of monitoring equipment and surveillance networks.

CubeSats can serve as ideal "platforms" for antennas and signal processing equipment used in spectrum monitoring. These platforms are particularly valuable in addressing emerging trends such as LEO satellite internet services and Direct-to-Device LEO satellite-operated mobile base stations. They can also play a key role in ensuring compliance with legal interception provisions and in regulating access to certain content and services over the Internet.