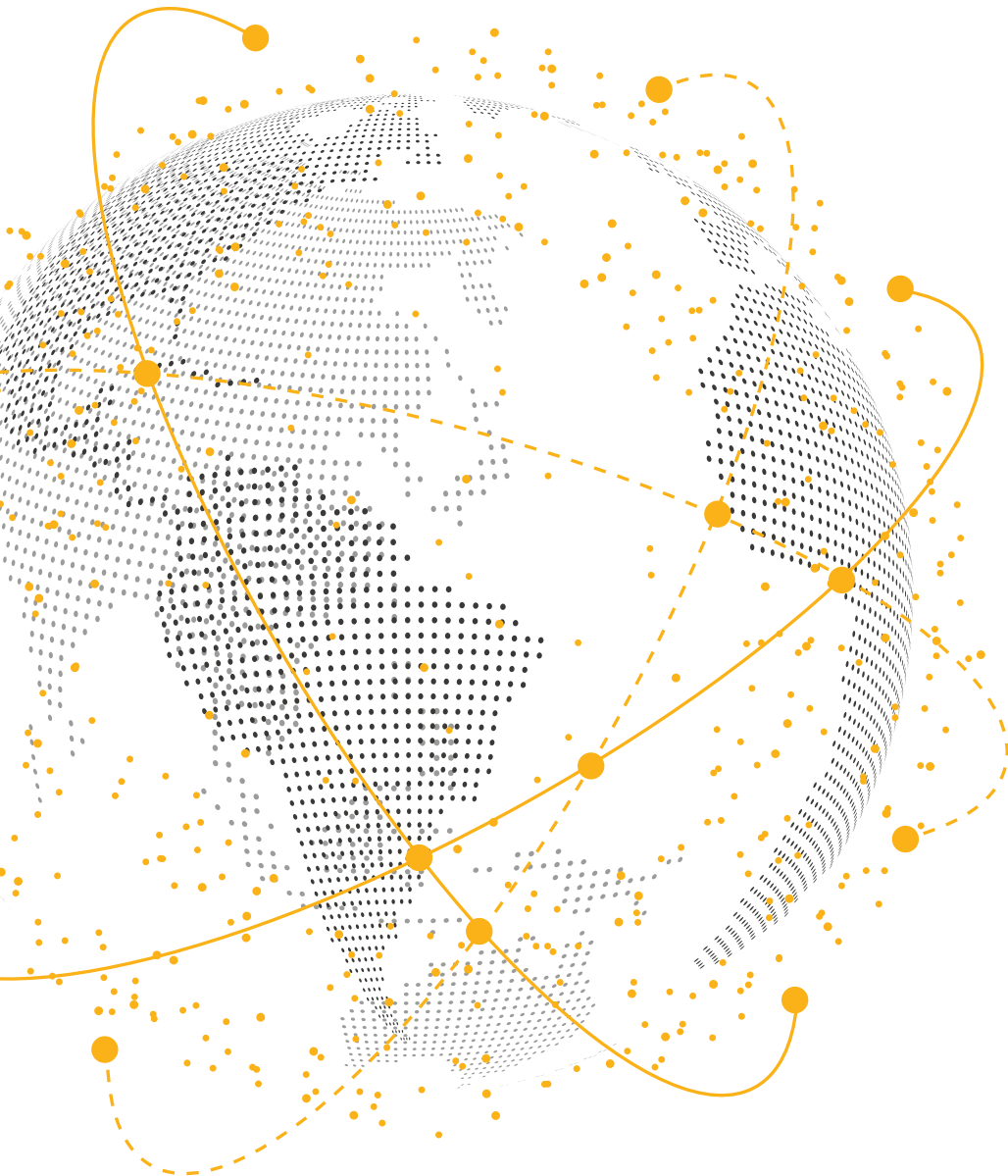




Ten steps to keep broadband regulation fit for purpose



The broadband landscape is changing – fiber is reaching more areas than ever before, fixed wireless is becoming more popular, and satellite is expanding connectivity to places that were traditionally difficult to serve.

The growing use of cloud platforms and software to manage networks, meanwhile, is changing how broadband services are built and run.

Many regulatory frameworks were designed for a broadband market that looked very different from the one we see today. Regulators should therefore review these frameworks to make sure they continue to reflect how broadband services are delivered.

The priority, in Africa, the Caribbean or the Middle East, is to ensure that regulation remains effective – people need access to broadband, competition must be fair, consumers must be protected and public money should be spent responsibly.

Policy frameworks and regulatory processes need to adapt, while at the same time remaining realistic and enforceable.

Here are ten practical steps to help regulators keep pace with technological change.

01

Start from the user experience

When regulatory frameworks were first developed, they were usually built around the technologies and network models that were most widely used at the time.

Although this has provided consistency, the market today is much more complex than it once was, with broadband now being delivered in several different ways at the same time.

A more practical approach would be to start with the experience people should be having. What standard of service should they be able to rely on? Where should coverage be available? And, how consistent should that service be in different areas and at different times?

If regulators start by deciding what outcomes they want people to receive, the frameworks are more likely to remain relevant as networks and infrastructure change. This helps to keep policy focused on the needs of end users, rather than it being tied too closely to any one type of technology, network architecture or design.



02

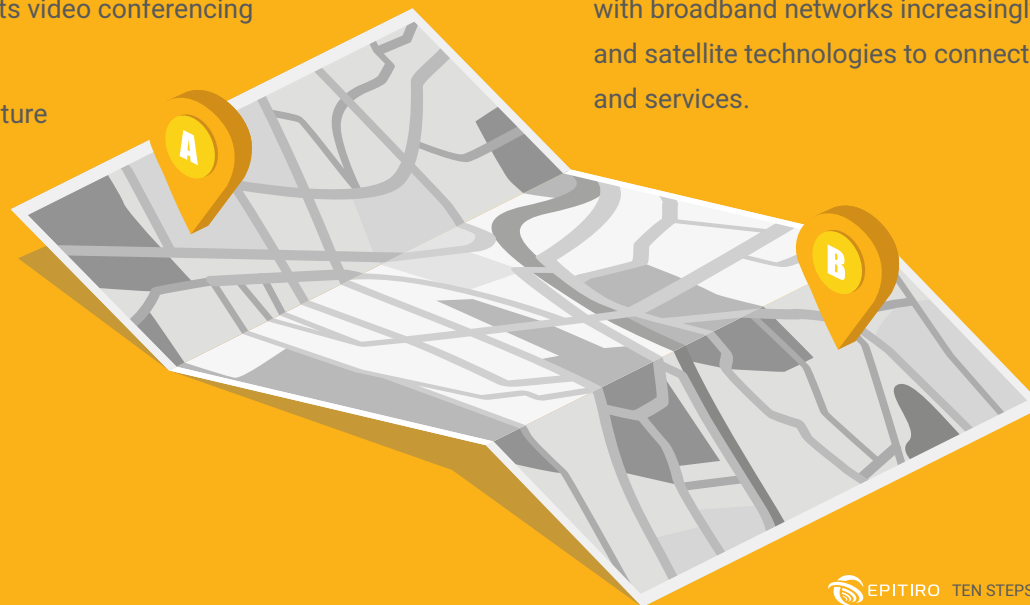
Broadband quality is about more than speed

Download speed is the measure people tend to know best and it's easily communicated. On its own, however, it does not give a full picture of service quality.

Whether a connection is available when they need it, how reliable it is and how well it supports everyday applications is also important to users.

A service may look strong in a speed test but it can still struggle during busy periods or exhibit latency that affects video conferencing or cloud applications.

Regulators can build a more accurate picture of how broadband services work in practice by using a wider set of performance indicators.



03

Measure the full user journey

Broadband services rely on everything from a user's device and local access network to the wider infrastructure that carries traffic across the internet.

If you only measure performance at one point in this chain, you can miss what the user is experiencing.

End-to-end measurement gives regulators a clearer picture of service delivery and what users actually experience, particularly with broadband networks increasingly combining fiber, wireless and satellite technologies to connect to cloud hosted applications and services.

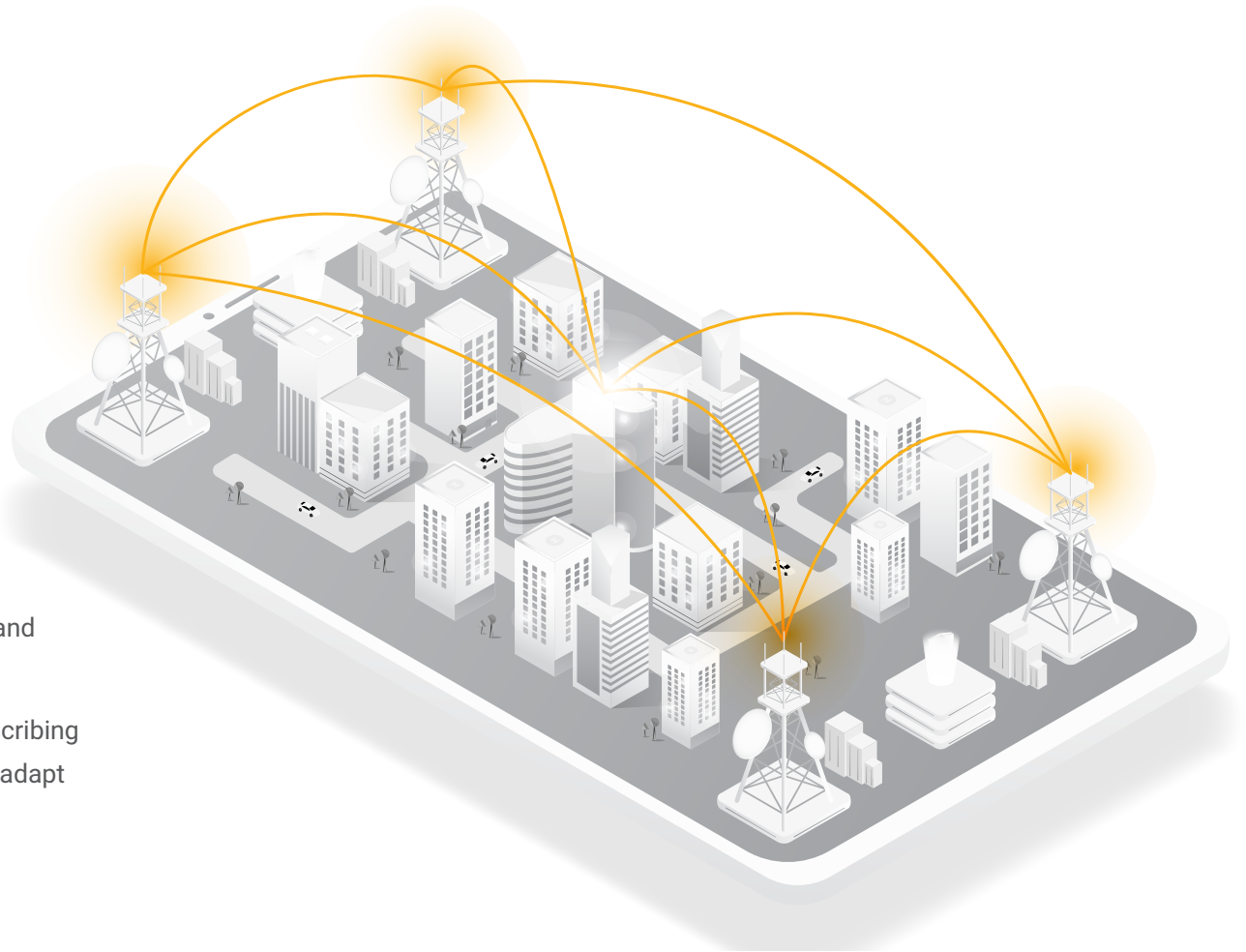
04

Keep policy technology-neutral

Broadband today will often be delivered through a mix of fiber, cable, fixed wireless and satellite technology, managed by a combination of national, regional and community network providers, with each offering different benefits depending on cost and local circumstances.

Regulators that take a technology-neutral approach can set clear standards for coverage and performance, while leaving operators free to decide how best to meet them. This helps support competition and investment.

By setting expectations for performance rather than prescribing the technology or infrastructure behind it, regulation can adapt more easily as the market changes.



05

Ensure performance data supports regulatory objectives

Performance data plays a growing role in shaping market perceptions, informing public investment decisions and helping regulators enforce requirements.

Crowdsourced measurement can help shine a light on broadband performance, but regulators can benefit more from data that's collected in a more consistent, controlled and policy-focused way.

Being clear about how and when measurements are taken and how the results are interpreted, makes the findings easier to trust.

Having control over how performance data is used and reported is also important. Some crowdsourced data models are shaped by commercial incentives that may not fully align with regulatory objectives.

Where data is used to inform policy or public investment decisions, regulators need confidence that the methodology and reporting support neutrality and transparency.

This helps ensure the data supports the purpose of the regulation and that the findings are reported in a transparent and credible way.



06

Combine audits with ongoing monitoring

Periodic audits and targeted inspections remain valuable tools, but broadband performance can vary depending on the time-of-day, network demand and usage. Consequently, snapshot assessments may not always show the full picture.

Continuous monitoring is likely to give regulators a more reliable view of performance and trends, better informing decision-making without straining resources.



07

The role of comparative benchmarking

While minimum standards help protect a baseline level of service, ongoing improvement can be supported by comparing operator performance.

Through benchmarking, regulators can spot trends, identify where performance is weak and build a clearer picture of how providers across different locations or service types compare.

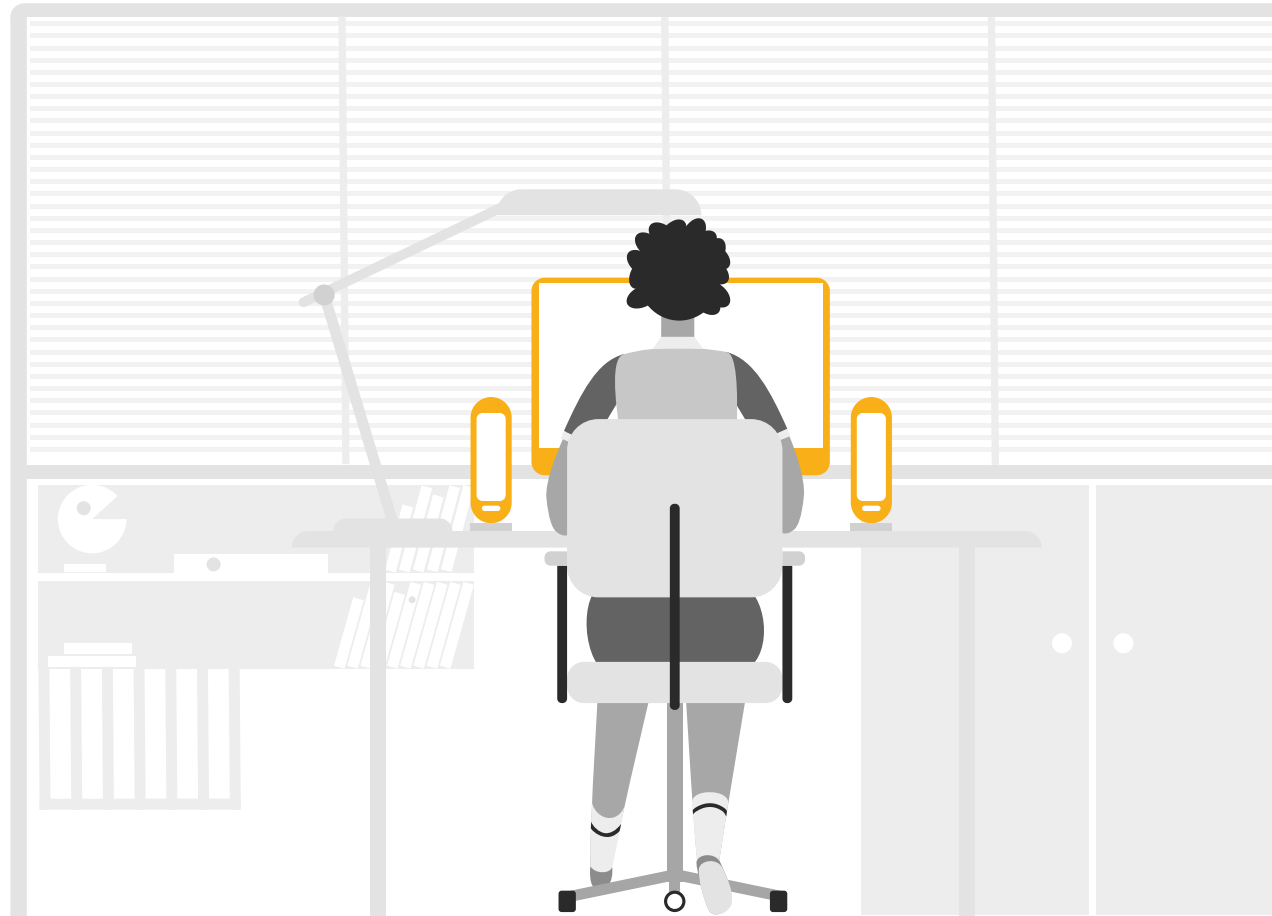
08

Make regulation practical to deliver and cost effective to implement

Effective regulation depends on well-defined requirements and a practical way to implement them.

Large-scale monitoring systems can become difficult to manage if they are too complex. Newer solutions, using lightweight agents and centrally managed analytics platforms, can provide powerful insights, without creating unnecessary infrastructure demands.

This allows regulators to focus more on interpreting the data and policy application, rather than technical system maintenance. It also means monitoring can be aligned with national data governance and sovereignty requirements.



09

Keep regulation flexible as networks converge

Broadband markets are increasingly characterized by convergence.

Fiber may support wireless access, satellite connectivity may complement terrestrial networks and public Wi-Fi may integrate with mobile infrastructure. Regulation needs to be flexible enough to keep up.

A framework based on the user experience, instead of a specific network designs, makes this easier. It allows regulators to adapt to change and support innovation, while still holding providers accountable to clear standards.

10

Use independent verification to strengthen public confidence

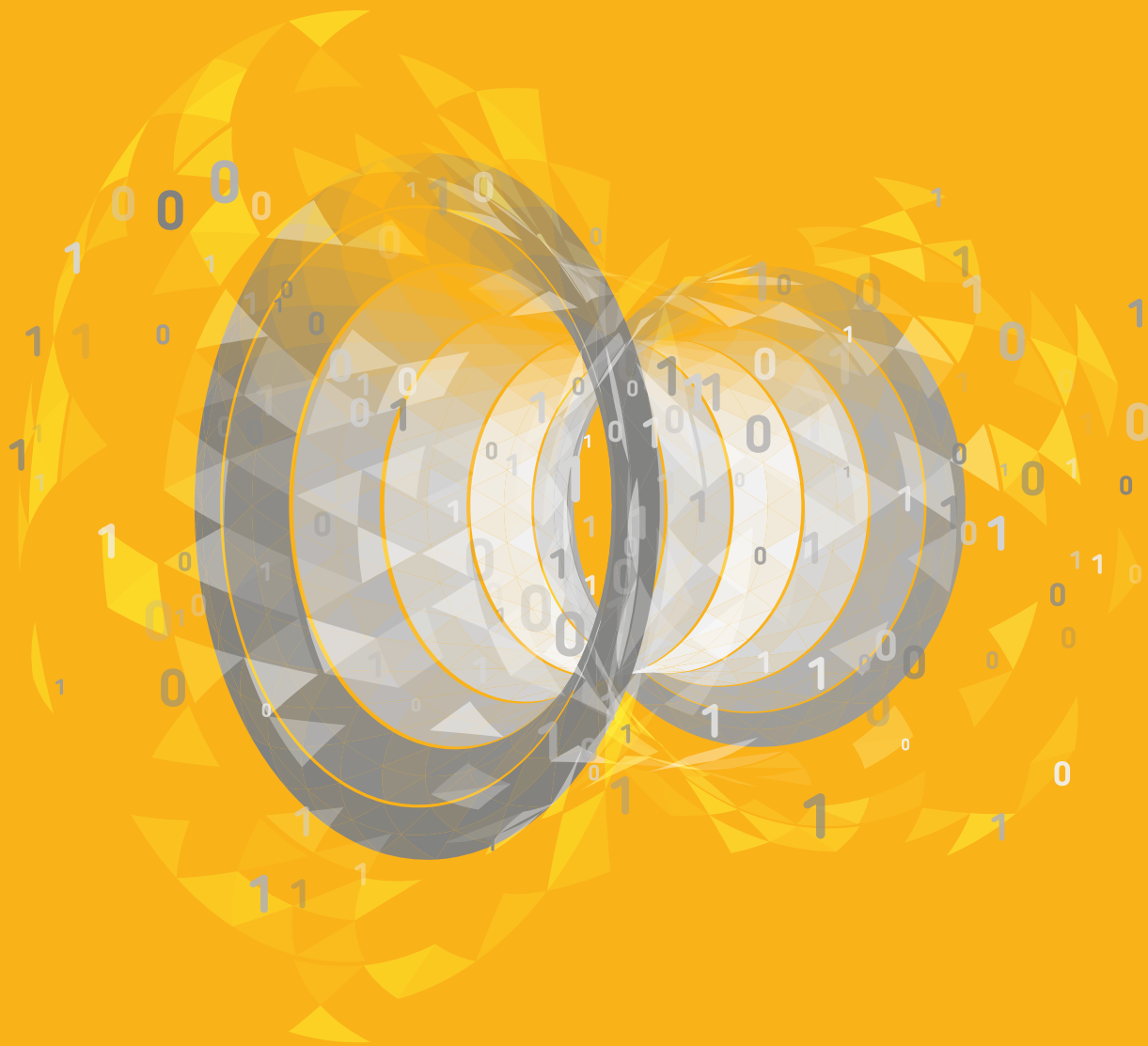
Many regions are investing heavily in broadband infrastructure, so it's important public funding programs and connectivity initiatives show clear, measurable results.

Independent verification, which doesn't favor one technology over another, helps to make this possible by giving regulators, governments and the public a clearer view of what projects are actually delivering.

It can also help operators by providing a consistent and transparent way to assess performance and compliance.

This, in turn, builds trust in the results that are being reported, along with the effectiveness of the regulation.





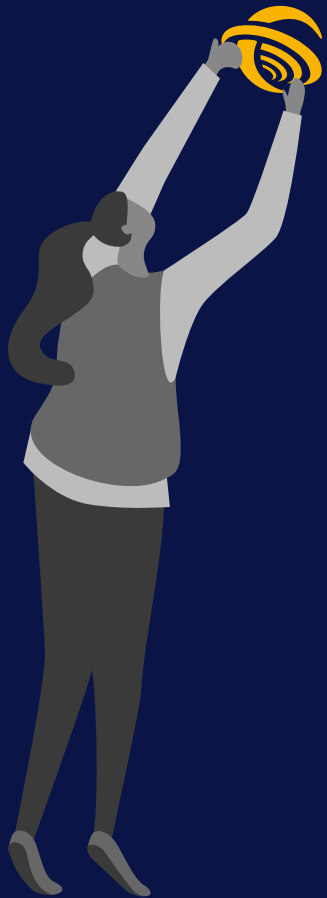
Supporting practical, independent regulation

Effective regulation that helps infrastructure investments deliver lasting public value ultimately calls for monitoring tools that are robust and operationally sustainable.

Epitiro provides independent, cloud-based performance monitoring that can be aligned with regulatory frameworks.

Using plug-and-play agents or software installed on everyday devices, regulators can measure end-to-end service performance across different regions and technologies.

Deployment can be aligned with national requirements on data governance and sovereignty, with measurement tailored to meet regulatory objectives. All the while, regulators retain control over performance indicators and reporting.



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