



## Why ITU matters Case for investment, 2028-2031

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## **Global challenges, practical solutions**

Now more than ever, the world needs ITU.

The accelerating pace of technological change brings both opportunities and risks for societies and economies worldwide.

Governments, industry and academia need to work together to ensure smooth global communications.

For 160 years, ITU has provided a neutral platform to ensure that the benefits of advancing technologies reach everyone. Today, we continue building on that tradition as the United Nations agency for digital technologies.

Investing in ITU means investing in our shared digital future.

Doreen Bogdan-Martin Secretary-General International Telecommunication Union

## Why invest in ITU?

A strong, fit-for-purpose ITU is essential to meet the evolving needs of countries worldwide for radio spectrum management, technology standardization and digital development.

Today's ITU is shaping global communications well into the future.

This critical technical organization improves predictability in regulations around the world. It reduces threats to digital infrastructure and networks. And by easing market access, it supports vigorous growth across the global tech sector.

But to do its job effectively, ITU relies on far-sighted investment by its global members.

## Global membership, global impact

ITU's growing membership is unique in the United Nations system, bringing together 194 Member States with more than 1,000 companies, universities, research institutes and international and regional organizations spanning the industry.

Our 194 Member States are at all levels of economic development, and they all contribute to critical regulations and standards. At the same time, they gain an unmatched interface with leaders and experts from the private sector and the research world.

That's because our membership also includes leading technology companies, as well as innovative start-ups, academia and associations representing the entire digital ecosystem.

In fact, our global community brings together more than 20,000 experts working together to coordinate vital radio resources, develop international standards and best practices, and implement projects and initiatives for the benefit of countries worldwide.

### Modest commitment, major return

ITU's work – carried out through its membership – enables trillions of dollars of investment in digital infrastructure and services, market development and expanded access to digital services around the globe.

Our members benefit from policy and regulatory harmonization, clarity and international benchmarks for technology modernization. Beyond tech, our work enables broader economic transformation across virtually all industries and every part of society.

Commitments to ITU = Big Return on Investment !

## ITU's 160-year history

From the telegraph and telephones to radio transmissions and early TV broadcasts and onwards to satellites, the Internet, mobile communications, artificial intelligence (AI) and virtual worlds, ours is a story of innovation, evolution and resilience.

With each new technological leap, we've adapted to serve our members for the future.

Play our <u>160<sup>th</sup> anniversary highlights</u>



## Future opportunities and challenges

Emerging technologies like 5G and 6G networks, AI, blockchain, and quantum technologies will continue transforming our economies and daily lives.

At the same time, many countries still struggle with infrastructure gaps, and misinformation and security breaches threaten everyone. This is no time to underinvest in global technology cooperation.

Together, we can harness the full potential of these innovations and address emerging challenges of an increasingly connected world.

# The-multi-trillion-dollar opportunity

ITU's platforms and products help countries to unlock digital and telecom investments that drive multi-trillion-dollar industries globally.

The telecom industry has grown dramatically over the last four decades, as fixed lines with basic telephone services gave way to a vast and growing mobile digital ecosystem.

From tens of billions in the 1980s, global telecom revenue has reached an estimated <u>USD 2.5 trillion in 2025</u>.

## Supporting open markets

After the break-up of monopoly incumbents and accelerating market deregulation, the majority of industry revenue now comes from competitive markets.

Since the early 2000s, ITU has helped shape and update global telecom policies, encouraging countries to adopt regulations that facilitate public-private partnerships and attract investment in new technologies, innovative services, and expanded digital access.

Our influence has helped transform the telecom industry into a critical economic engine that significantly boosts global GDP.

- Our *Global ICT Regulatory Outlook* helps countries assess their progress and move towards investment-friendly policies.
- Our annual *Global Symposium for Regulators* brings together policymakers, industry leaders, and the heads of regulatory authorities to agree on best practices and tackle pressing challenges like Al governance, space economy policies, and more.

The space economy is forecast to soar to USD 1.8 trillion by 2035, up from USD 630 billion in 2023, in an increasingly connected and mobile world, creating new value for nearly all industries on Earth

Source: McKinsey and Company

## Facilitating global trade and investment

Countries and companies need a neutral platform to collaborate on information and communication technologies (ICTs), modernize and harmonize regulations, and develop standards. By providing this platform, ITU unlocks market access worldwide.

Our standards ensure interoperability and avoid technical mismatches, while promoting fair competition and respect for intellectual property rights.

Adherence to common ITU frameworks averts trade disputes, streamlines market access, and enables

businesses to expand with confidence, driving economic growth and innovation worldwide.

## **Building digital capacity**

Our specialized courses provide expert advice, enhance digital skills and equip executive decision-makers and individuals for the fast-changing digital economy.

- *ITU Academy* courses, offered with over 20 partner institutions, now reach over 34,000 learners worldwide.
- 140+ countries have engaged in *ITU cyberdrills*, with ITU helping establish over 20 cybersecurity centres around the globe.
- Our **Child Online Protection** partnership has shown over 17,000 children and over 2,000 parents and teachers how to stay safe online



In addition to training programs, ITU produces the <u>ITU</u> <u>Journal</u> on Future and Evolving Technologies (<u>ITU J-FET</u>) to provide a platform for researchers, academics, and industry experts to share cutting-edge research and innovative ideas.

## Clear signals, lifesaving assistance

Spectrum coordination through ITU makes maritime and aeronautical communications possible without interference between systems.

It also enables clear communications for emergency services.

We mobilize public-private expertise to ensure early disaster alerts, help restore connectivity quickly after disasters and show how to incorporate new technologies like AI to save people's lives and protect livelihoods.

### Disaster management

ITU's Common Alerting Protocol, and satellite system standards support disaster management while collaboration with other agencies and the tech industry leverages Al to boost global hazard resilience.

## Wireless world

The ITU Radio Regulations, along with related standards and spectrum coordination procedures, support the harmonious coexistence of all telecommunications systems, whether for governmental, scientific or commercial purposes.



## Interference-free operations

Internationally coordinated spectrum management through ITU ensures rational, equitable, efficient, and economical use of radio frequencies and orbital resources. Spectrum coordination is especially vital to ensure satellite and terrestrial services can operate free from harmful interferences.

## Small satellites on the rise

Growing numbers of companies are now deploying their own low and middle Earth orbit - or LEO and MEO satellites and constellations. This makes global coordination and spectrum management a key challenge for the years ahead.

## Strengthening the world's digital backbone

We work closely with industry players to strengthen submarine telecom cables, which carry 99% of international data traffic, through key standards, cooperation on cable deployment, repair and risk monitoring.

## Explosive growth in IoT applications

Internet of Things (IoT) applications are expected to generate exponentially more data in the coming years.

IoT devices generated 86 petabytes of information in 2022 and are projected to generate over 1,100 petabytes by 2027–a more than tenfold increase in five years.

Source: IBM

## Impact through technical standards

Standards help create global markets and economies of scale that cut production costs and, ultimately, lower prices for consumers.

ITU publishes 300+ open standards each year.

#### A strong technical foundation

Our standards capture innovation for the world to keep innovating together. That means new industries grow - and established industries continue moving forward.

#### Advancing digital and closing divides

ITU standards support continuous, cost-effective evolution towards more advanced capabilities and stimulate global access to leave no country behind.

Ultimately, standards set through the ITU process give countries and companies the confidence to invest in our digital future.

#### Uniquely positioned

ITU differs from other standards bodies. Firstly, we are an intergovernmental organization founded on a treaty between nation states. While that makes us a unique technology standardization platform, our private-sector members make us a unique UN agency.

#### Everyone at the table

For optimal impact, standards need to be developed transparently, with all voices heard. ITU offers this assurance.

In our standardization process, every step forward happens by consensus.

And a key ITU programme - <u>Bridging the Standardization Gap</u> - helps all countries benefit from the tech advances changing our world.

#### New industries and stakeholders

Standards make technologies safer, more accessible, more sustainable and more affordable.

Today, as technologies and businesses converge, our standards are needed across a growing range of industries - with new participants continually coming on board.

#### Economy-wide impact

ITU has always helped technologies to work together.

Our standards now support digital transformation in areas from energy and transport to healthcare, financial services, agriculture and smart cities.

They are also helping everyone capitalize on advances in areas like AI, quantum information technologies, and virtual worlds.

#### Just a small sample

ITU develops standards for:

• Mobile broadband

Our International Mobile Telecommunications (IMT) family defines the technical frameworks for mobile broadband systems like 3G (IMT-2000), 4G (IMT-Advanced), 5G (IMT-2020), and the upcoming 6G (IMT-2030). ITU ensures global compatibility, efficient spectrum use, and support for advanced applications, fostering innovation and connectivity worldwide.

• Fibre-optic networks

Over 90% of international data traffic runs over fibre-optic networks built to ITU standards. Since ITU first standardized optical fibre in 1984, ITU standards have enabled optical networks to grow in capacity by an average of 40 per cent each year.

#### • Video coding and broadcasting

Video accounts for over 80% of Internet traffic, enabled by Primetime Emmy-winning video-compression algorithms standardized jointly by ITU, the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC).

ITU has won six Emmy awards for video and image coding and broadcasting standards.

- International telecom operations ITU's work on numbering, naming, addressing and identification underpins international services such as global roaming as well as global connectivity for Internet of Things devices and connected cars.
- Secure online transactions

ITU-standard digital certificates and the broader public key infrastructure support the authentication needed for trusted exchanges online. Our security standards are also addressing new threats posed by AI and quantum information technologies.

#### Why ITU matters



## Mobilizing Al innovation to tackle human challenges

Our <u>AI for Good</u> platform stimulates public-private partnerships, facilitates knowledge exchange, and helps developing countries pursue high-potential AI applications.

The ITU-led AI for Good initiative has become a showcase for AI solutions addressing humanity's greatest challenges.

• <u>Al start-up and robotics competitions and machine</u> <u>learning challenges</u>.

The <u>Robotics for Good Youth Challenge</u> has already gathered over 200 students in New Delhi, with 15+ national tournaments leading to a grand finale at the Summit in Geneva.

The <u>Young AI Leaders Initiative</u> supports 18–30-yearolds, with nearly 100 hubs established and almost 3,000 members engaged on impactful local projects around the world.

We're inspiring and equipping young people to help shape AI for global good.

### New and emerging opportunities

Together, governments, regulators, industry, academia and other stakeholders in the ITU family can leverage new technologies for the benefit of all.

- 1. **Satellite technologies**: Satellites are a critical part of our toolkit to connect the unconnected and the technology is evolving.
- 2. **Quantum communications**: Offers ultra-secure data transmission, resistant to hacking, enhancing financial transaction security and protecting sensitive information.
- 3. Al & blockchain: These technologies promise increased efficiency, advanced decision-making, and advancements in various sectors, with blockchain offering enhanced security and transparency.
- 4. Internet of Things, digital twins and smart sustainable cities and communities: These interconnected technologies enable real-time data exchange, improve urban planning, support efficient resource management, and foster more liveable, resilient, and inclusive communities.
- 5. **From 5G to 6G**: 6G promises faster speeds, low latency, and advanced connectivity, enabling innovations like Al-driven networks and immersive digital experiences.

# **Readying ITU for the future**

To prepare for the future, we are streamlining expenditures while investing in new skills and technologies to better serve our members and keep up with the fastevolving digital ecosystem.

## Our transformation roadmap

ITU's transformation roadmap aims to enhance service delivery, increase value to our members, and ensure that ITU can respond effectively to fast-changing needs.

### Transformation initiatives:

- **Organizational transformation**: Dedicated transformation team and structured plan, and ongoing organizational structure review.
- **Financial transformation**: Savings achieved for reinvestment in priority areas, modernization of reporting and increased transparency.
- **IT transformation**: Migration of services to the cloud, automation of repetitive support tasks, and investment in new platforms to enhance the ITU delegate experience.
- Human resources efficiencies: Streamlined recruitment processes, enhanced performance management, and engagement of junior professional officers.

• **ITU's new building project**: Plan adjusted to align with available funding and ITU's evolving needs, ensuring energy-efficient, state-of-the-art facilities for staff and members.

## Our financial plan

- Member State (MS) unit contributions account for about 70% of regular budget revenues and are therefore essential to the financial stability of the Union.
- The MS unit valued at CHF 318,000 has not increased in more than 20 years despite 10%+ inflation over the same period.
- Revenues have remained relatively stable over more than two decades, with some recent pressure on cost recovery revenues.
- Despite cost pressures, the plan foresees a balanced budget.

### Key efficiency gains:

- **Human resources:** Significant savings were achieved through our voluntary separation programme.
- **Energy costs**: Strategic procurement negotiations and energy-saving solutions resulted in a 40% reduction in electricity costs.
- **Process automation & digitalization**: Automation of processes like the education grant integration and performance management led to time and cost savings.
- **Translation & interpretation**: Al translation and remote interpretation testing resulted in 30% savings.

## ITU is your organization.

- ITU is committed to strengthening transparency and accountability, risk management, internal controls, governance and compliance, while ensuring due process in case of reported misconduct.
- Our oversight charter is a manifestation of this commitment. The ITU Council approved the charter for the internal ITU Oversight Unit, which provides independent audit, investigation, and evaluation services.
- New dashboards for Council sessions provide Member States with up-to-date information across ITU secretariat operations.
- ITU has undertaken initiatives to enhance transparency and reporting to members on MOUs, use of consultancies, project implementation and more.

## 

## A strong ITU means a stronger future.

Coming together to achieve our shared objectives has been critical to the success of ITU since the organization's earliest days.

All Member States face potential market and societal disruptions, both positive and negative, prompted by Al, blockchain, quantum communications and widespread 5G/6G connectivity.

As we have done for 160 years, we will continue working with our Member States, along with industry and other stakeholders, towards common goals where everyone benefits.

## PP-26 and beyond

Our next Plenipotentiary Conference, PP-26, will be a milestone opportunity to prepare ITU for the future.

## ITU = big return on investment

Despite having one of the smallest budgets among UN agencies, ITU delivers exceptional value.

For a modest investment, our Member States can significantly boost business and market conditions, jobs and economic and social development worldwide.

Investing in ITU means investing in our shared digital future.

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