15TH ITU ACADEMIC CONFERENCE

ITUKALEIDOSCOPE
NEW DELHI2024

Innovation and digital transformation for a sustainable world

21-23 October 2024
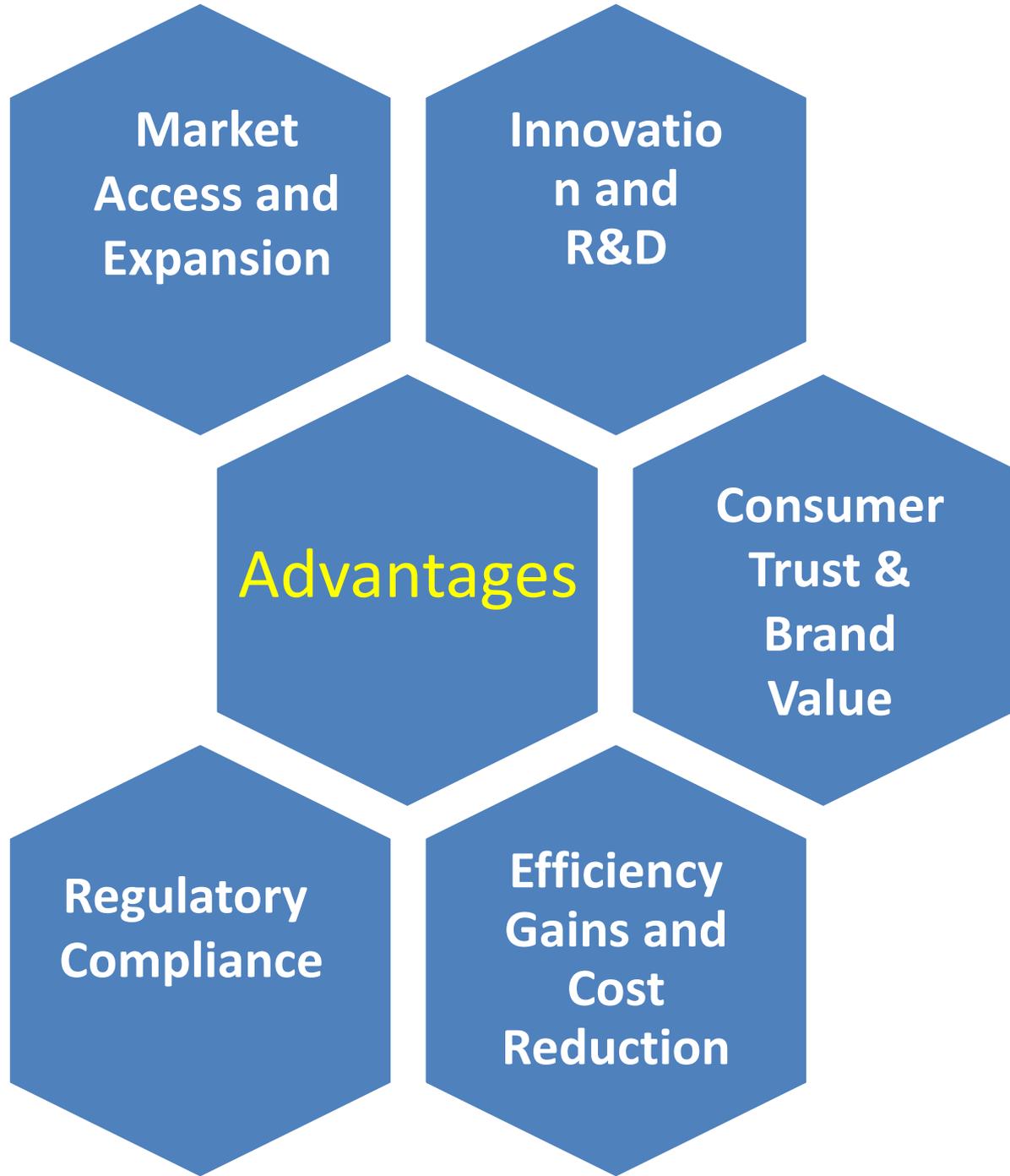New Delhi, India

Conference
Awareness Workshop

19 April 2024

Atul Sinha,
DDG- DoT

ITU Kaleidoscope 2024 Conference Awareness Workshop

Global Standards

Importance of Global Standards

- **Contribution to global standards plays a pivotal role in the development and dissemination of technology, significantly impacting economic growth and capital formation.**

- **The process of setting global standards involves establishing consensus on technical specifications, protocols, and guidelines that ensure compatibility, interoperability, and reliability of products and services across borders.**

World Telecommunication Standardization Assembly (WTSA) Events

Introduction to WTSA

- **The WTSA is a global assembly organized by the ITU (International Telecommunication Union).**

- **Held every four years to define the next period of study for the ITU Telecommunication Standardization Sector (ITU-T).**

- **Sets the direction and structure for standards development and addresses critical issues in global telecommunications.**

- **Provides a platform for members to collaborate and make decisions on future technologies and standards.**

Objectives of WTSA

- **To set the ITU-T's strategic plan and general policy for the next four years.**

- **To elect the leadership of ITU-T study groups and other groups.**

- **To approve the financial plan for the standardization sector.**

- **To address and adopt resolutions on the global standardization of telecommunications technologies.**

Importance of WTSA

- **Facilitates global interoperability and connectivity.**

- **Addresses emerging technologies and their integration into society.**

- **Promotes inclusive and sustainable growth through ICT innovation.**

- **Ensures a unified approach to the development of international standards.**

Key Topics and Trends

- **5G/ 6G and future networks.**

- **Cybersecurity and data protection.**

- **Internet of Things (IoT) and smart cities.**

- **Artificial Intelligence and its impact on ICT.**

- **Environmental sustainability and ICT.**

Participation and Impact

- **Open to ITU Member States, Sector Members, and Associates.**

- **Provides a unique opportunity for stakeholders to influence global standards.**

- **Enhances collaboration between governments, private sector, and academia.**

- **Contributes to the global digital transformation agenda.**

WTSA-2024 is being organized in Delhi from 14th to 24th Oct.

Kaleidoscope 2024

Innovation and Digital Transformation for a Sustainable World

Fostering Collaboration for Humanity's Benefit

21-23 October 2024

Introduction to Kaleidoscope 2024

- **ITU's premier academic conference** series aimed at fostering **international collaboration** among universities, industry, and research institutions to explore the implications of emerging trends in digital and sustainable transformation.

Theme and Objectives

- **Theme:** **Harnessing technology for sustainable change.**

- **Objectives:** **To discuss technological innovations and their implications across various frameworks and how ICT standards contribute to achieving the UN SDGs.**

Audience and Submission Details

- **Target Audience:** ICT and socio-economic development specialists, researchers, students, engineers, policymakers, and innovators.

- **Submission:** Papers should follow the specified guidelines and meet the submission deadlines.

Key Topics and Tracks

- **Suggested topics and tracks include**

(i) Technology

(ii) Applications for Sustainable Development

(iii) Enabling Technologies, and

(iv) Social, Economic, and Policy Aspects

Track 1 - Technology, next-generation network architectures

- **Future mobile and wireless communication networks and network infrastructures (5G and beyond)**
- **Energy-efficient cloud computing and sustainability**
- **Cyber-physical systems for environmental monitoring and management**
- **System architectures for extended Reality (XR), metaverse, and Immersive Live Experience (ILE)**
- **Security, privacy, and trust in decentralized and distributed systems**
- **Edge computing and fog computing for real-time applications**
- **Machine learning and AI-driven optimization in sustainable solutions: Quality of Service (QoS), Quality of Experience (QoE) and performance**
- **Network resilience in disaster relief and recovery systems**
- **Quantum communication for secure and resilient networks**
- **Optical and wireless communication convergence system**
- **Long-distance and ultra-high-speed transmission network systems (terabit, exabit)**
- **Efficient communication and design in IoT and sensor networks**
- **Circular economy approaches in ICT waste management**

Track 2 - Applications and services for sustainable development

- **AI-driven personalized e-services for health and well-being**
- **IoT applications for water quality monitoring and sanitation**
- **Sustainable energy services**
- **Smart transportation and urban mobility applications**
- **Data analytics for monitoring and assessing development goals**
- **Robotics and drones for eco-friendly applications**
- **Technology for aging in place and ambient assistive living**
- **Sustainable smart cities and communities**
- **Provision of adequate security and privacy services**

Track 3 - Enabling technologies

- **Data processing, management and analytics**
- **Interoperability in decentralized and distributed systems**
- **Next-generation human-computer interaction**
- **Location-based services and spatial registration technologies**
- **Semantic computing and communications**
- **Service chaining, orchestration and federation**
- **Technology convergence: computing network convergence, IT/OT (operational technology) convergence, etc.**
- **Modelling and simulation for digital twins and digital humans**
- **Emerging AI techniques and algorithms including Generative AI**
- **Edge intelligence with on device AI**
- **Blockchain/distributed ledger technologies with incentive and consensus mechanisms**
- **Technologies for quality and sustainable online education**
- **Alternate technology options for rural connectivity**
- **Integration of existing mechanisms to provide for security and privacy**

Track 4 - Social, economic, environmental and policy aspects for sustainable development

- **Standards and regulations for sustainable development and sustainable ICT solutions**
- **ICT strategies for sustainable development**
- **Regulatory mechanisms under the convergence paradigm**
- **Environmental implications of cloud computing services**
- **Accessibility and usability in technology solutions**
- **Engineering education for sustainable development**
- **Modelling of the role of technology in society**
- **Intellectual property rights in the digital era**
- **Conformance and interoperability for global technology adoption**
- **Regulation to enforce adequate security and privacy mechanisms**
- **Generating a sustainable echo-system for the Startups**

Submission Process

- Submission of full, original papers should be **within eight pages, including a summary and references**, using the template available on the event website.

- All papers will go through a **double blind peer-review process**. Submission must be made electronically;

- See **http://itu.int/go/K-2024** for more details on online submission **(EDAS)**.

- Paper proposals will be evaluated according to **content, originality, clarity, relevance to the conference's theme and, in particular, significance to future standards.**

Deadlines

- **Submission of full paper proposals: 29 April 2024**

- **Notification of paper acceptance: 12 July 2024**

- **Submission of camera-ready accepted papers: 2 August 2024**

- **Publication and presentation: Accepted and presented papers will be published in the Conference Proceedings.**

Awards

A prize fund totalling CHF 6,000 will be shared among the authors of the three best papers, as judged by the Steering and Technical Programme Committees.

In addition, young authors of up to 30 years of age presenting accepted papers will receive Young Author Recognition certificates.

Call to Action

- **Kaleidoscope 2024 plays a pivotal role in advancing ICT for sustainable development.**

- **We encourage your participation and look forward to your valuable contributions.**

THANKS