

ITU-T Highlights

2009-2012



WTSA 2012
Dubai, UAE



**Membership:
On the rise again**

- **Pro-active membership outreach bears fruit**
- **Increase in 2011 (33) and again in 2012 (34)**
- **Financial contributions increased in 2012**
- **Academia category great success**
 - **34 members in ITU-T (of 48 in ITU=70%)**
 - **53 delegates in 2012**



**ITU-T maximizes and
protects backbone
investment**

- **95% of all int'l traffic runs over fibre (Economist)**
- **Smoothing upgrade from SDH-packet**
 - **eg Carrier Ethernet, MPLS-TP**
- **ITU standardizes physical characteristics of optical fibres, cables and systems**

The background is a dark blue field filled with glowing, semi-transparent numbers (0-9) and circuit-like patterns. The numbers are scattered and vary in opacity, creating a sense of depth and digital activity. The overall aesthetic is futuristic and data-oriented.

**Smart phones
don't miss a beat
with ITU's sync
and protection
built into high
speed backhaul
networks**

- **ITU brings reliability and resilience to packet-based networks that are delivering vastly increased levels of bandwidth to mobile networks**
 - **Packet-based frequency synchronization**
 - **Packet-based path protection**

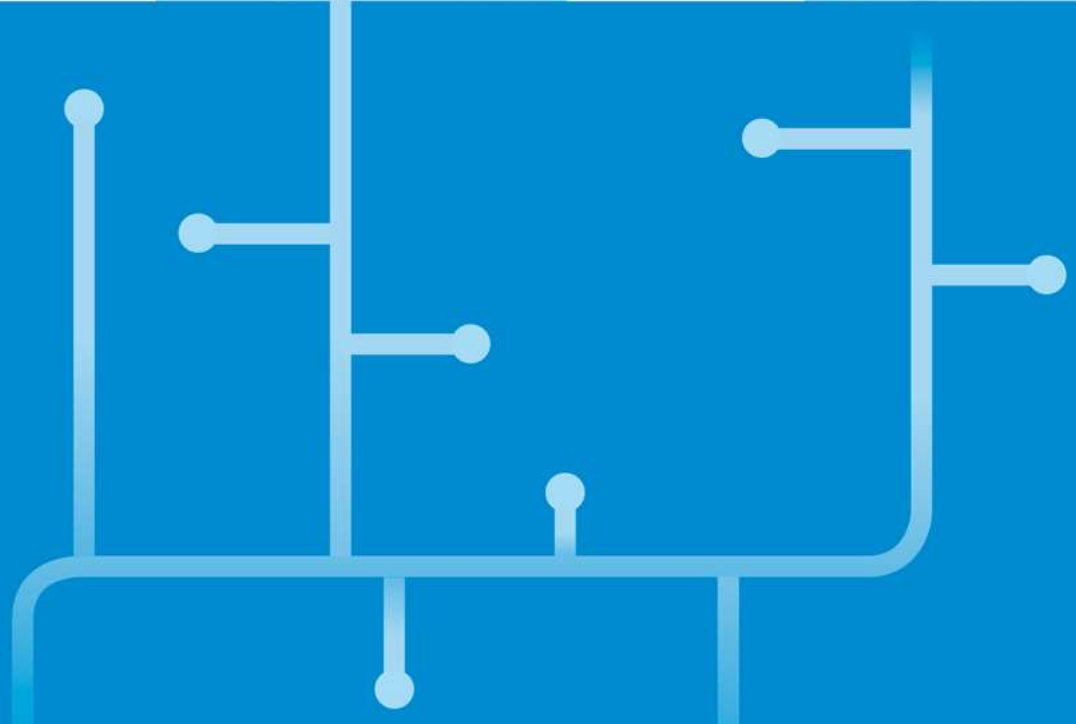


**ITU-T protects
your transport
network**

- **Protection switching provides smooth fail-over in case a link fails**
- **Installation techniques for physical resilience**



**Enabling the
smart grid**



- **ITU-T provides narrowband solution for smart grid over power line**
- **Enables energy management, diagnostics, fault location, smart metering...**
- **PLT ideal platform because power lines under control of power utilities**
- **Report: Boosting energy efficiency through Smart Grids**



**ITU-T connects
500 million
broadband customers**

- **XG-PON:**
Pushes shared Internet access rates up to 10 Gb/s
- **Vectoring eliminates cross talk:**
Turbocharges copper to > 100 Mbps
- **G.fast pushes very short copper lines to 1 Gb/s**



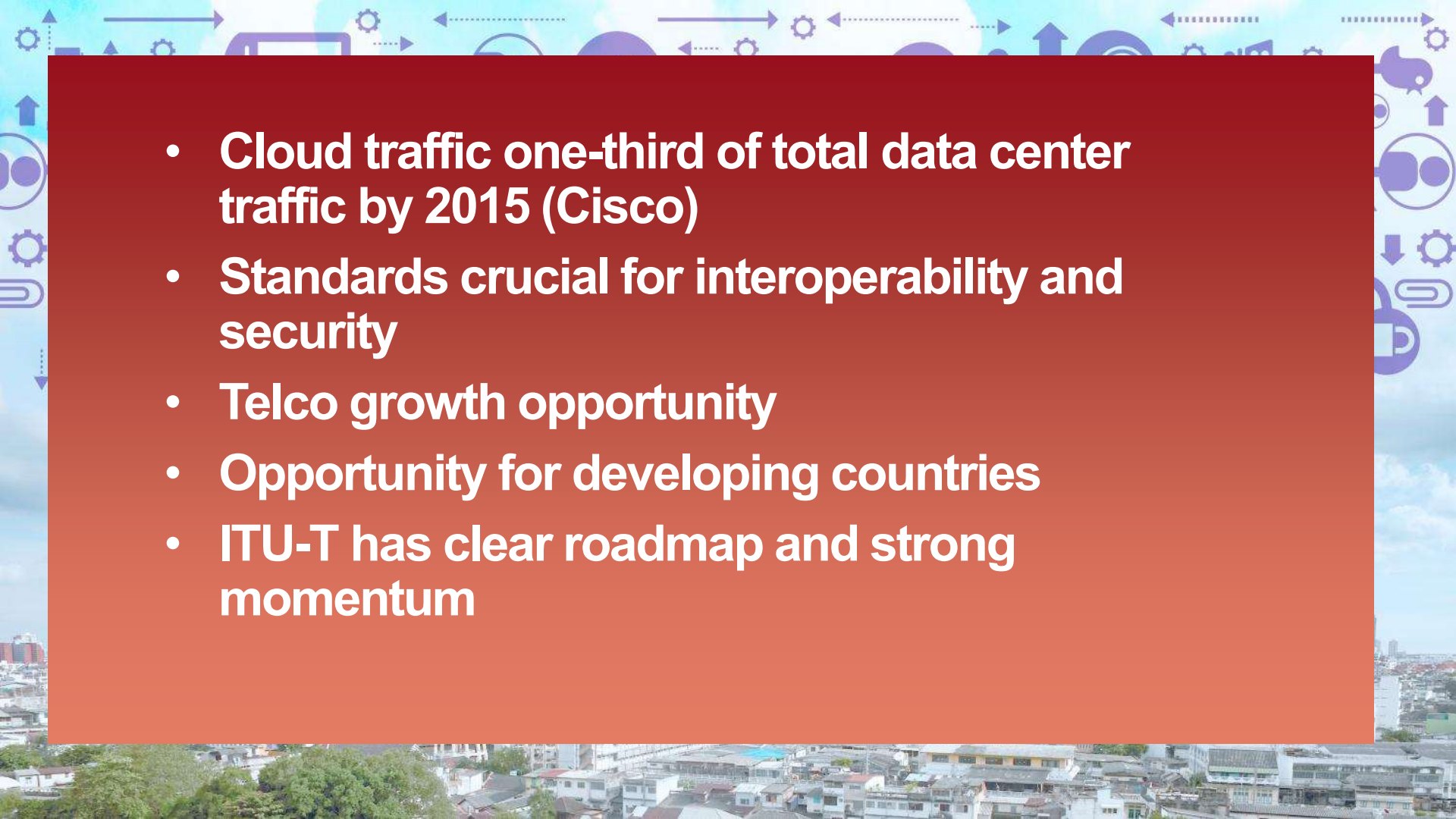
**Got an Emmy,
working on
an Oscar**

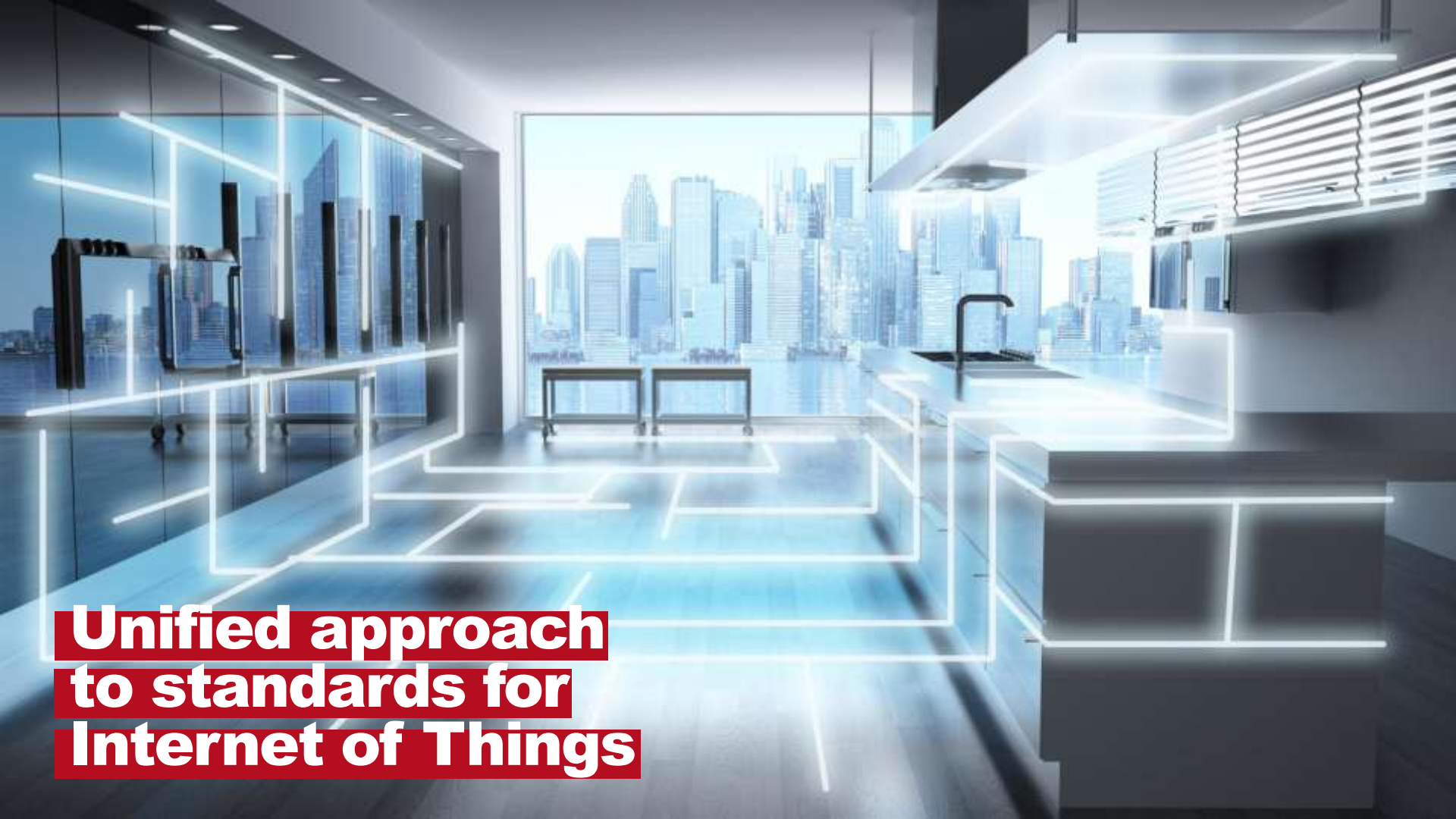
Kodak Theatre

- **Joint Collaborative Team on Video Coding (ITU-T, ISO, IEC) working on High Efficiency Video Coding**
 - **Increases video compression by 50% compared to ITU-T H.264**



**ITU-T connects
clouds**

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- **Cloud traffic one-third of total data center traffic by 2015 (Cisco)**
 - **Standards crucial for interoperability and security**
 - **Telco growth opportunity**
 - **Opportunity for developing countries**
 - **ITU-T has clear roadmap and strong momentum**



**Unified approach
to standards for
Internet of Things**

- **Frameworks and requirements defined**
- **Next phase: High level and service requirements**
- **M2M service layer for e-health progressing**
- **Vertical market participation (Continua Health Alliance, WHO)**

The background features a complex network of glowing white lines on a dark red gradient. The lines are interconnected with various geometric shapes: small squares, circles, and triangles, some of which are filled with a dark red color. The overall pattern resembles a circuit board or a data network topology.

**From Next
Generation
to Future
Networks**

- **Revised NGN architecture adds:**
 - **Mobility, content delivery, access for service providers, identity management**
- **Completed objectives and design goals of Future Networks (FN)**
- **Started architectural framework for software defined networking (SDN) for FNs**
- **SDN = most promising technology for network virtualization**



**One adapter size
fits all**

- **Standards developed for**
 - **Universal charger for mobile ICT devices**
 - **Universal charger for stationary ICT devices**
- **Report:**
 - **An energy aware survey of ICT device power supplies**



**The business
case to go green**

- **ITU-T's methodologies assess ICT's carbon footprint and energy consumption**
- **Data centres can halve energy use with ITU-T's best practices**
- **Series of reports including:**
 - **Toolkit on environmental sustainability; greening ICT supply chains; Guidance on green procurement**



**The fully
networked car
is coming**

- **ITU hosts new Collaboration on ITS Communication Standards**
- **Global standards instead of regional or proprietary solutions**
- **Car manufacturers participating**
- **Reducing driver distraction saves lives: Deliverables due end 2012**
- **Better voice recognition for hands-free phones: Work progressing**



**IPTV's growing
family of
standards range ...**

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- ... from network and service definitions
 - ... to set-top boxes
 - and support services
eg audience measurement
 - Digital signage standards also based on ITU IPTV specs
 - Demonstrated at ITU Interop events



**Towards a secure
online world**

- **Mainstreaming Child Online Protection**
- **Standards providing:**
 - **Security in the cloud:
Major hurdle for service providers**
 - **Identity Management:
Trust in web transactions**
 - **Protection from spam**
 - **Exchanging cybersecurity information,
collaborating on cyber risks**



Addressing a lack of interoperability

- **Great concern for developing countries**
- **Study groups to address conformity requirements**
- **Action plan agreed based on four pillars**
 - **Conformity assessment programme**
 - **Interoperability events**
 - **Capacity building**
 - **Creation of test centres in the regions**



44



33



966



82



49



916



84



246



34



1



81

**Maintaining
stability in
global
numbering
resources**

- **Standard identifying actions to counter misuse of numbering**
- **International Numbering Resources database launched**



**Accounting:
A better deal
for developing
countries**

4562.78
9652.16
1263.85
12476.35
8654.27
46213.16
6234.84
9654.15

851.65
154.32
4156.54
159.76
962.85
751.46
854.56
876.65
985.15

876.95
856.15
459.84
953.74
862.76

- **Supplement to ITU-T D.50:**
 - **Gives developing countries tools to negotiate better rates for International Internet Connectivity**

- **Output contributed to new work**
- **More contributions from members/academia**
- **Topics include:**
Digital Signage; Cloud Privacy; e-Health;
Smart Water; Gaming; Driver Distraction;
e-Learning



Kaleidoscope

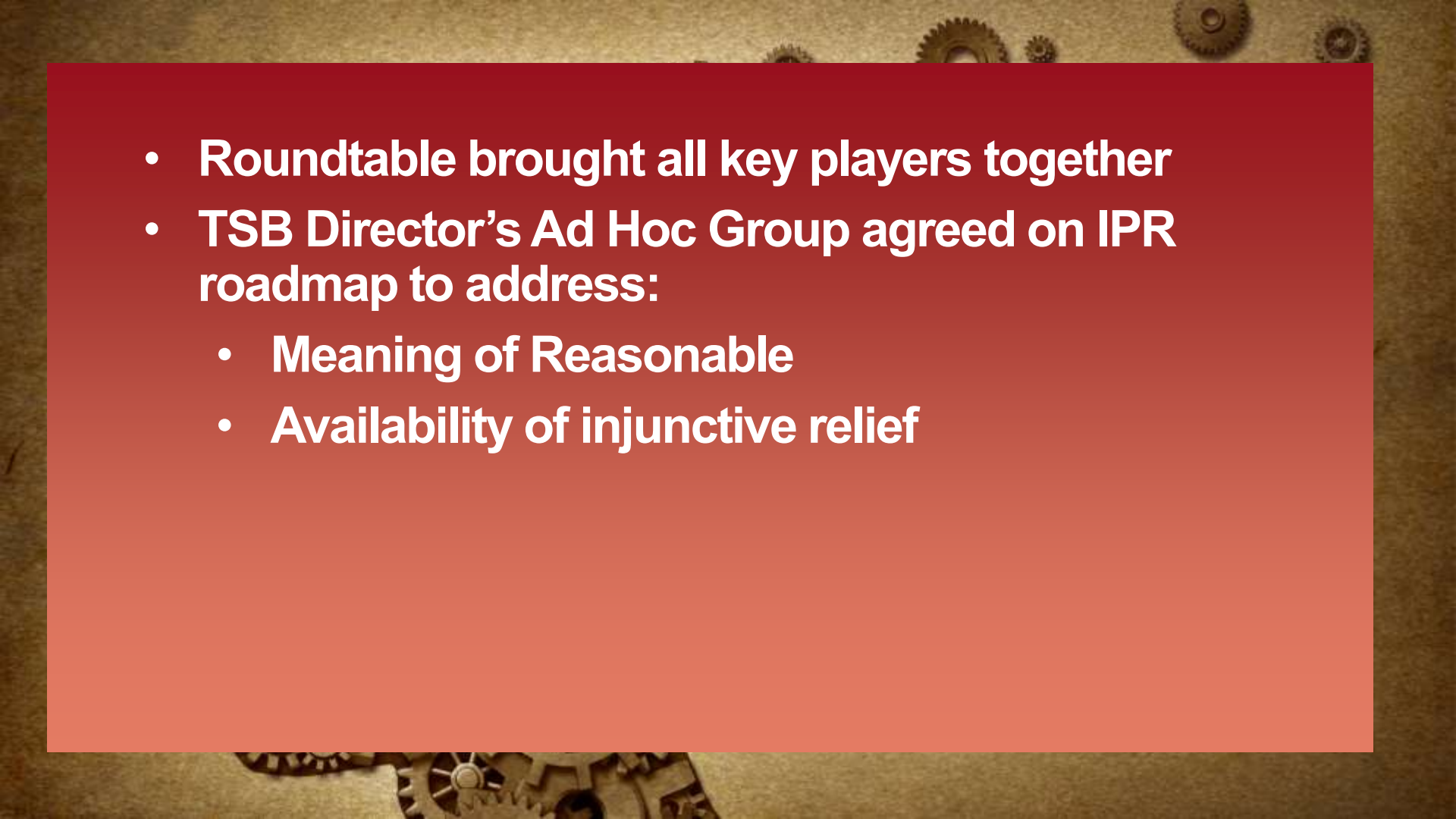
**Through the
Kaleidoscope**



- **International events bringing academia and industry together...**
- **... a meeting point between experience and new ideas**
- **Rigorous, double-blind, peer-review process**
- **Has led to new membership...**
 - ... stimulated work**



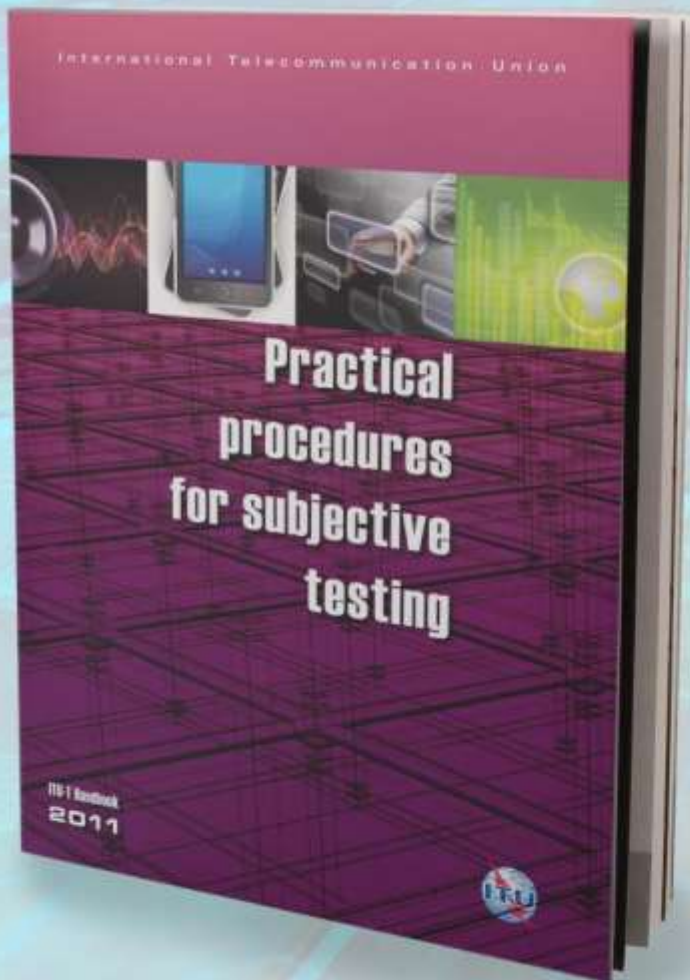
**High level talks
tackle patent
litigation**

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- **Roundtable brought all key players together**
 - **TSB Director's Ad Hoc Group agreed on IPR roadmap to address:**
 - **Meaning of Reasonable**
 - **Availability of injunctive relief**



**Bridging the
Standardization
Gap**

- **40 new countries participating in ITU-T work**
- **Aids to participation include:**
 - **Regional Groups, briefing sessions for new delegates, more meetings in developing nations, capacity building, remote participation and fellowships**
 - **BSG fund to facilitate more access for developing countries**
 - **e-learning programme initiated**



Handbooks – best practices for developing countries

- **Practical procedures for subjective testing**
- **Converging Networks**
- **ITU-T Manual on Optical Transport Networks from TDM to Packet**
- **Deployment of packet based networks**
- **Handbook on Fibre Optic Cables and Systems**
- **Security in Telecommunications and IT**
- **Object identifiers (OIDs) and their registration authorities**
- **Future networks**

Mainstreaming Accessibility




- **ITU-T meetings now with added accessibility**
- **Portal provides one stop shop for accessibility resources**
- **Coordination ensures accessibility needs taken into account in all work**





Health Care

**Connecting medics
with real-time patient data**

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- **First standard in a suite supporting communication between medical centres and remote patients**
 - **Action plan on e-health following ITU and WHO workshop**
 - **Work progresses on M2M enabling remote patient monitoring and ambient assisted living**



**ITU-T collaborates
for standards efficiency**

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- **Formal relationships with more than 40 standards developers**
 - **Recent MoUs signed with TTA, TTC, CCSA and ARIB; ETSI and EPO**
 - **World Standards Collaboration**
 - **Three year rolling plan completed**
 - **Also: ISO/IEC JTC 1, IETF, IEEE, GeSI, UNFCCC, WHO, WTO**
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thank you



