



International Telecommunication Union

# ITU-T Study Group 12

## ITU-T and its work in the field of Standardization

Judit Katona Kiss

Counsellor, ITU, TSB

E-mail: [judit.katona-kiss@itu.int](mailto:judit.katona-kiss@itu.int)

QoS and user perceived transmission quality  
in evolving networks



# ITU-T

## Study Group 12

## ITU Landmarks

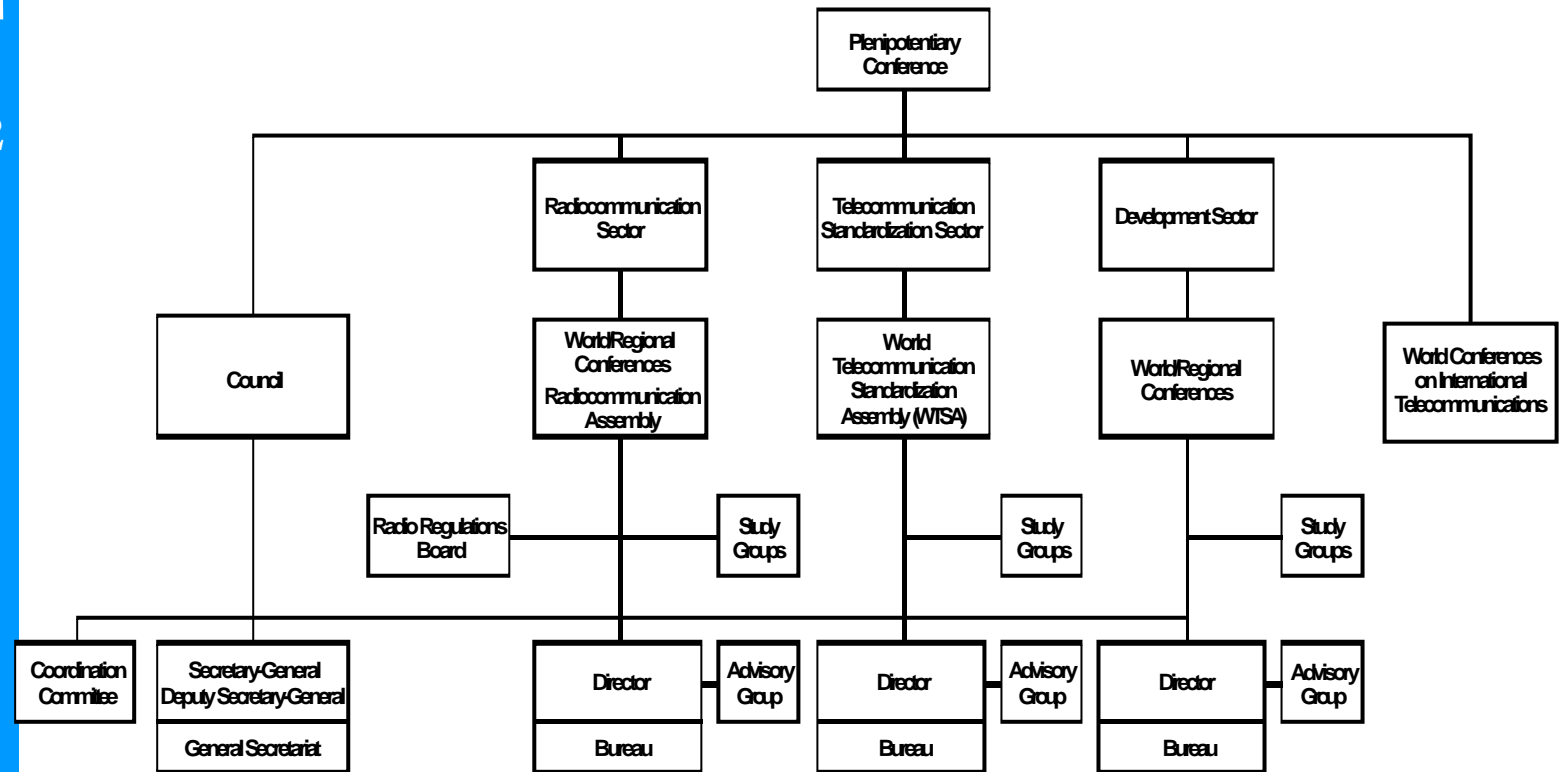
- 1837 Invention of the first electric telegraph
- 1844 Samuel Morse sent his first public message over a telegraph line between Washington and Baltimore
- 1865 Foundation of the International Telegraph Union by twenty States with the adoption of the first Convention. First Telegraph Regulations.**
- 17 May
- 1876 Alexander Graham Bell patents his invention of the telephone
- 1924 **Paris - Creation of CCIF (International Telephone Consultative Committee)**
- 1925 **Paris - Creation of CCIT (International Telegraph Consultative Committee)**
- 1927 **Washington - Creation of the CCIR (Intl. Radio Consultative Committee)**
- 1932 **Madrid - Plenipotentiary Conference. Telegraph Union changes name to *International Telecommunication Union***
- 1947 **ITU becomes a Specialized Agency of the United Nations**
- 1956 **Geneva - CCIF and CCIT merged into CCITT (International Telegraph and Telephone Consultative Committee)**
- 1992 **Geneva - Plenipotentiary Conference. Creation of 3 Sectors: ITU-T replaces CCITT, ITU-R replaces IFRB, CCIR, and ITU-D replaces TCD**
- 1999/7 **ITU becomes a founding Member of PSO of ICANN**



# ITU-T

Study Group 12

## New Structure of the ITU





# ITU-T

Study Group 12

## CCITT and ITU-T

### CCITT (International Telegraph and Telephone Consultative Committee):

1956	1 <sup>st</sup> Plenary Assembly	
1960	2 <sup>nd</sup> Plenary Assembly	Red Books
1964	3 <sup>rd</sup> Plenary Assembly	Blue Books
1968	4 <sup>th</sup> Plenary Assembly	White Books
1972	5 <sup>th</sup> Plenary Assembly	Green Books
1976	6 <sup>th</sup> Plenary Assembly	Orange Books
1980	7 <sup>th</sup> Plenary Assembly	Yellow Books
1984	8 <sup>th</sup> Plenary Assembly	Red Books
1988	9 <sup>th</sup> Plenary Assembly	Blue Books

### ITU-T (International Telecommunication Union - Telecom. Standardization Sector):

1993	1 <sup>st</sup> World Telecommunication Standardization Conference (WTSC-93), Helsinki
1996	2 <sup>nd</sup> World Telecommunication Standardization Conference (WTSC-96), Geneva
2000	3 <sup>rd</sup> World Telecommunication Standardization Assembly (WTSA-2000), Montreal



**ITU-T**  
Study Group 12

## Functions of ITU-T

***"The functions of the Telecommunication Standardization Sector shall be, bearing in mind the particular concerns of the developing countries, to fulfill the purposes of the Union relating to telecommunication standardization, as stated in Article 1 of this Constitution, by studying technical, operating and tariff Questions and adopting Recommendations on them with a view to standardizing telecommunications on a worldwide basis."***



**ITU-T**  
Study Group 12

## Membership of ITU-T

	08/2001	01/2000	difference
Administrations	189	189	-
ROAs	180	161	+19
SIOs	232	189	+43
Associates	19	-	+19
Others	42	40	+2

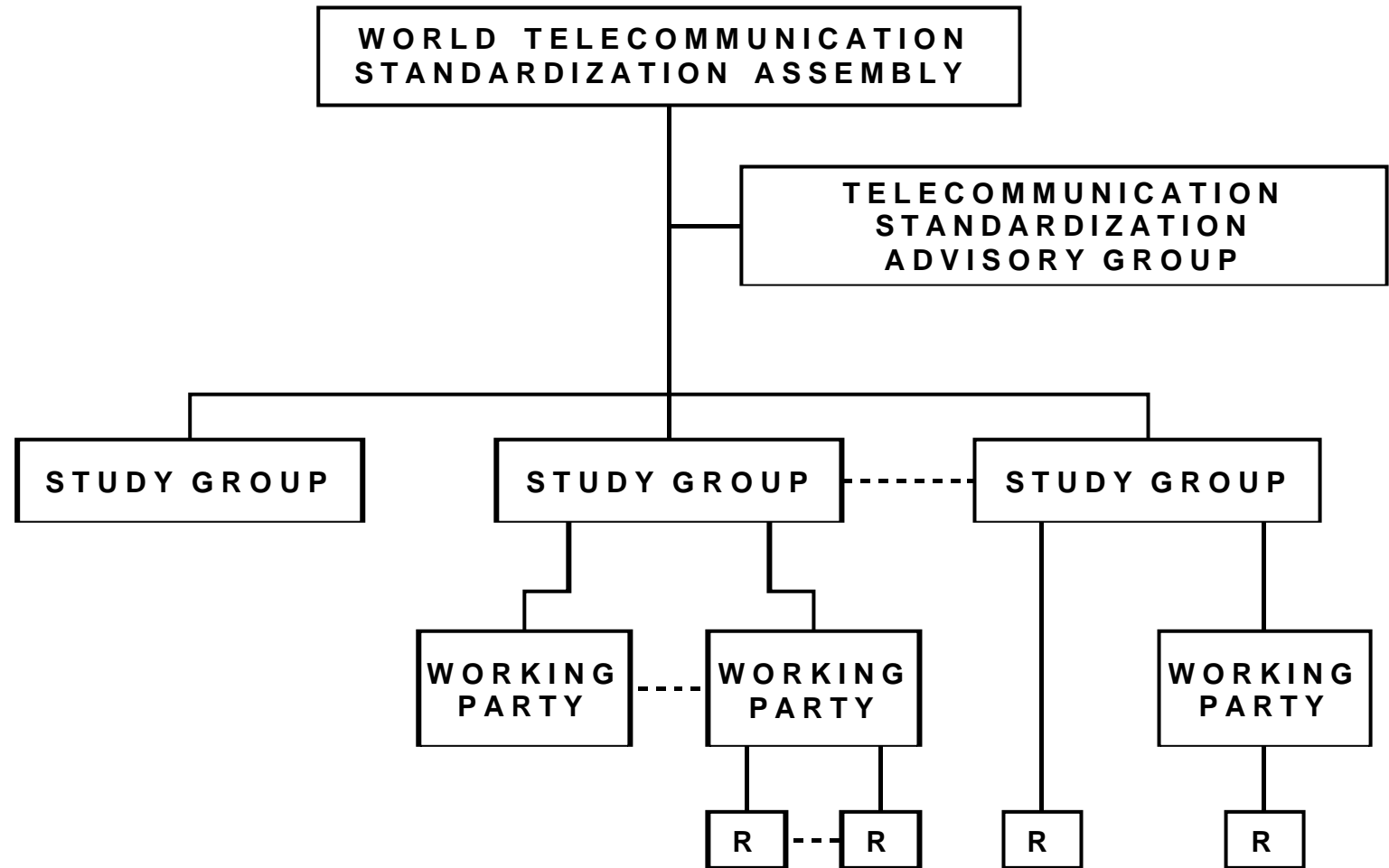
**(Others: ISO, CEI, ISOC/IETF, INTELSAT, INMARSAT, EUTELSAT, ETSI, CEPT, ...)**



# ITU-T

## Study Group 12

### Organizational Structure of ITU-T



R = RAPPORTEUR GROUP



**ITU-T**

**Study Group 12**

**World Telecommunication Standardization Assembly  
(WTSA-2000)  
Montreal/Canada  
27 September - 6 October 2000**



**Chairman : Mr M. Israel (Canada)**

**Vice-Chairmen: Mr B. Horton (Australia)  
Mrs M.-T. Alajouanine (France)  
Mr Y. Pavlenko (Russia)  
Mr M. Marouf (Syria)  
M G. Adanusa (Ghana)**

**Participation : 650 participants from 86 countries**





**ITU-T**

**Study Group 12**

## WTSA-2000 results

- approved the reports for the 1997-2000 activities
- approved several new and revised Recommendations
- established a Special Study Group on IMT-2000 and beyond
- Chairmen and Vice-Chairmen of SGs nominated
- Recommendation A.AAP, now called “Rec. A.8”, (Alternative Approval Procedures), quicker, WEB consultation
- EDH (Electronic Data Handling); e-mail, tele-conferencing, e-consulting, paperless meeting



# ITU-T

Study Group 12

## WTSA-2000 results

- **TSAG (Telecommunication Standardization Advisory Group): more power**
- **“Associate”: Sfr. 10.500 per year (1/3 of Sector Membership fee)**
- **Reform of ITU-T**
- **Resolution 17: Telecommunication standardization in relation to the interests of developing countries:**
  - **to cooperate with ITU regional office, possibly to hold ITU-T meetings in the region;**
  - **to strengthen cooperation with regional organizations;**
  - **to provide free electronic access to Recommendations if approved by the Council;**
  - **to encourage participation of developing countries in ITU-T activities;**
  - **to hold information meetings;**
  - **to assist developing countries with technical priority studies;**
  - **etc.**



**ITU-T**

**Study Group 12**

## **New structure (1)**

**Study Group 2: Operational aspects of service provision, networks and performance**

**Study Group 3: Tariff and accounting principles including related telecommunications economic and policy issues**

**Study Group 4: Telecommunication management, including TMN**

**Study Group 5: Protection against electromagnetic environment effects**

**Study Group 6: Outside plant**

**Study Group 9: Integrated broadband cable networks and television and sound transmission**

**Study Group 11: Signalling requirements and protocols**



**ITU-T**

**Study Group 12**

## **New Structure (2)**

**Study Group 12: End-to-end transmission performance of networks and terminals**

**Study Group 13: Multi-protocol and IP-based networks and their internetworking**

**Study Group 15: Optical and other transport networks**

**Study Group 16: Multimedia services, systems and terminals**

**Study Group 17: Data Networks and Telecommunication Software**

**Special Study Group: IMT-2000 and beyond**

**TSAG: Telecommunication Standardization Advisory Group**



**ITU-T**

**Study Group 12**

## Lead Study Groups

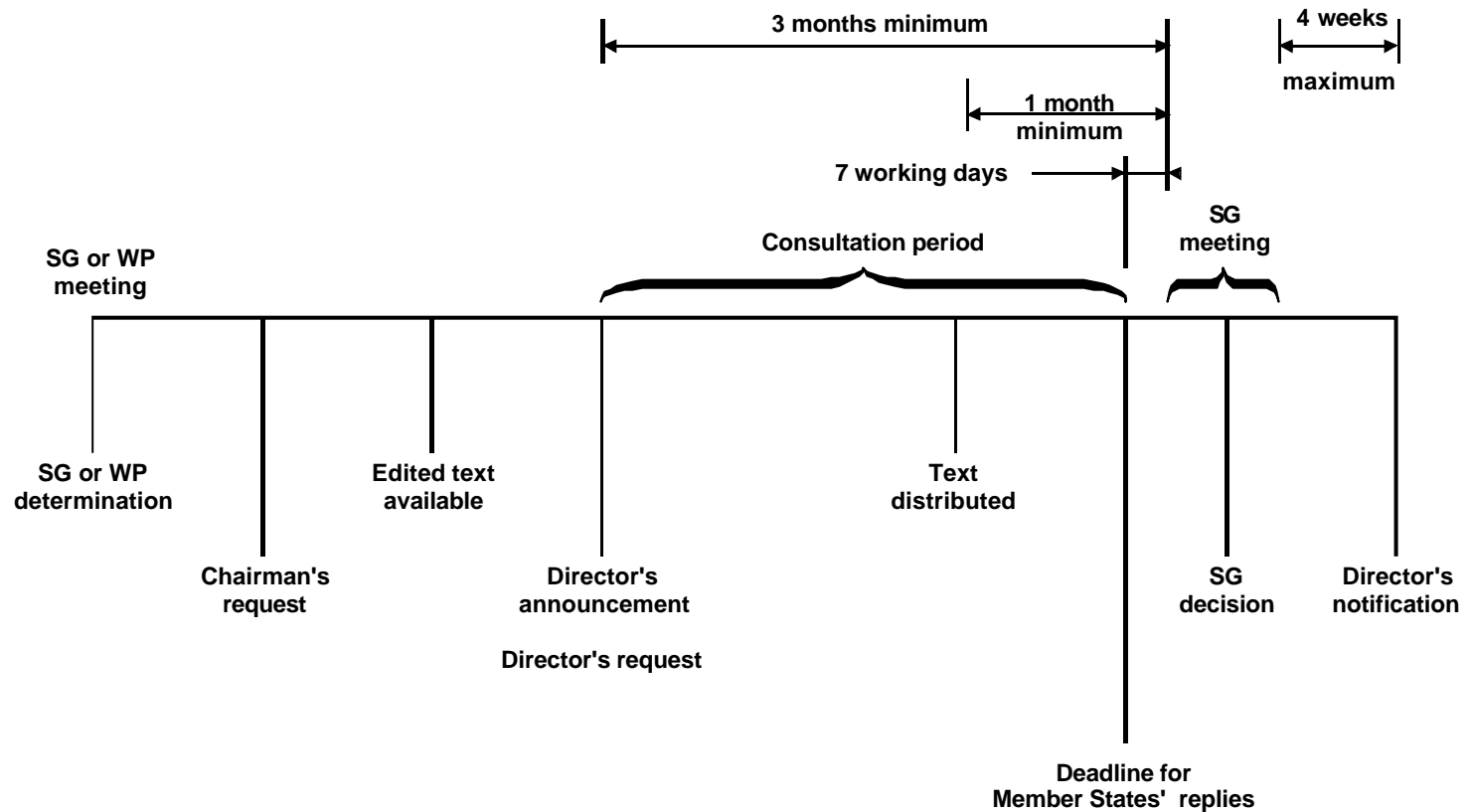
- SG 2** Service definition, numbering and routing
- SG 4** TMN
- SG 9** Integrated broadband cable and television networks
- SG 11** Intelligent networks
- SG 12** Quality of Service and performance
- SG 13** IP related matters; B-ISDN; Global Information Infrastructure; satellite matters
- SG 15** Access network transport; optical technology
- SG 16** Multimedia services, systems and terminals; e-business and e-commerce
- SG 17** Frame relay and communication system security; languages and description techniques
- SSG** IMT-2000 and beyond and for mobility



# ITU-T

## Study Group 12

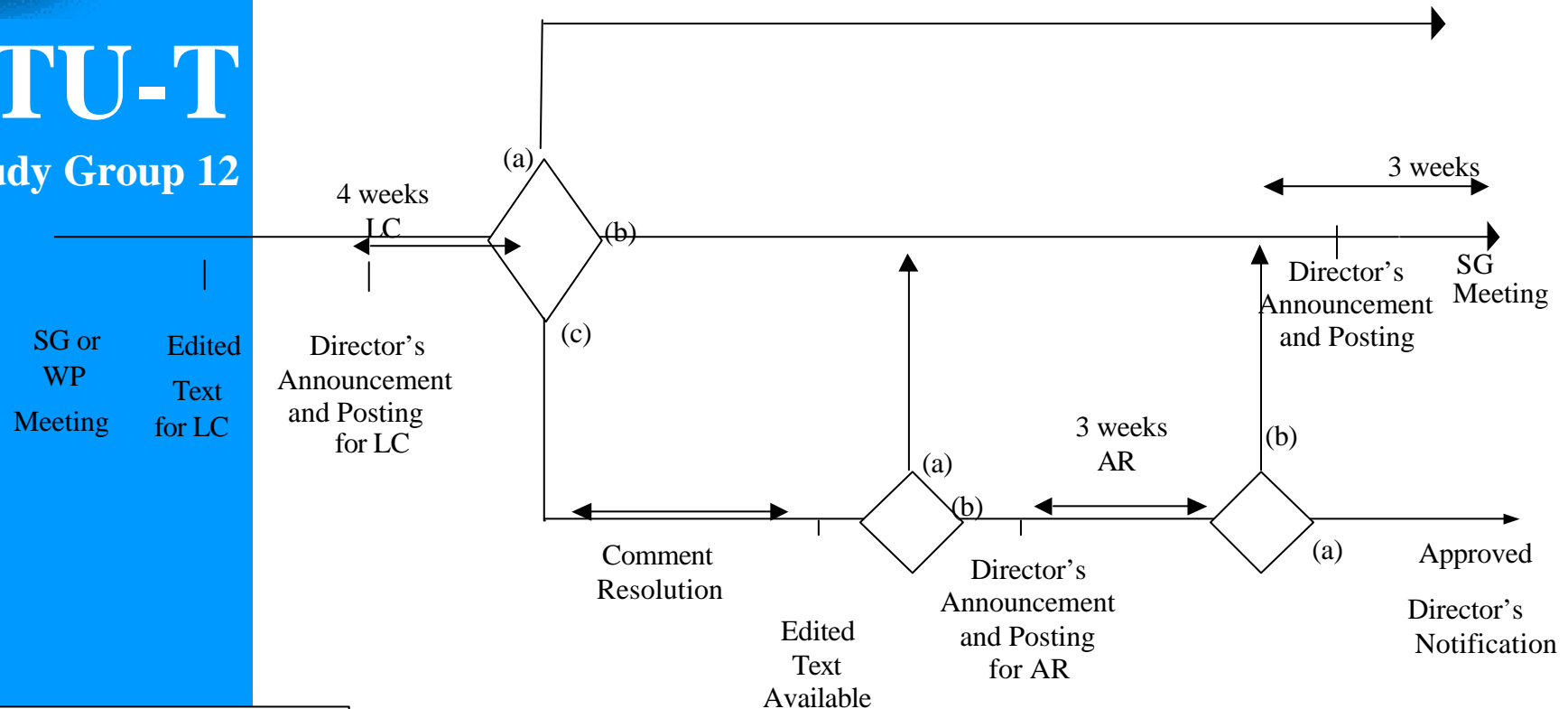
### Approval of new and revised Recommendations - TAP sequence of events





# ITU-T Study Group 12

## Approval of new and revised Recommendations – AAP Sequence of events



LC: Last Call  
AR: Additional Review



# ITU-T

## Study Group 12

## Approval and publication time of Recommendations

	before 1988	1989-1993	1993-1996	1997-2000	2001-2004
Approval time	4 years	2 years	18 months	9 months (exceptional case: 5 months)	2-9 months
Publication time	2-4 years	2 years	1-1.5 year	6-12 months	3-9 months

### Notes:

1. Pre-published Recommendations, available on ITU-T Website, from a few days to four weeks after approval of the text.
2. Recs in force, pre-published, superseded/obsolete: available on ITU-T Website.
3. Forms of publication: paper, CD-ROM, electronic bookshop, online, etc.
4. FREE ONLINE ACCESS SINCE JANUARY 2001 (one free access per member, 3 free downloads for public)
5. "Approval time" counted between "determination/consent" and final approval





# ITU-T

## Study Group 12

## Comparisons

	1981- 1984	1985- 1988	1989- 1992	1997- 2000
Recommendations in force by the end of the period	1280	1600	1897	2625
Total pages by the end of the period	11600 (Red Books)	18000 (Blue Books)	26000	76180

- Note:**
1. Approx. 300 texts per year during 1997-2000
  2. About 180 common texts between ITU-T and ISO/IEC JTC 1
  3. ITU-T publishes handbooks and Operational Bulletin



**ITU-T**  
Study Group 12

## ITU-T Recommendations Series (1)

- |                 |  |
|-----------------|--|
| <b>Series A</b> | <b>Organization of the work of the ITU-T</b>   |
| <b>Series B</b> | <b>Means of expression: definitions, symbols, classification</b>                         |
| <b>Series C</b> | <b>General telecommunication statistics</b>  |
| <b>Series D</b> | <b>General tariff principles</b>   |
| <b>Series E</b> | <b>Overall network operation, telephone service, service operation and human factors</b> |
| <b>Series F</b> | <b>Non-telephone telecommunication services</b>  |
| <b>Series G</b> | <b>Transmission systems and media, digital systems and networks</b>                      |
| <b>Series H</b> | <b>Audiovisual and multimedia systems</b>  |
| <b>Series I</b> | <b>Integrated services digital network</b>   |



# ITU-T

Study Group 12

## ITU-T Recommendations Series (2)

- Series J**      **Transmission of television, sound programme and other multimedia signals**
- Series K**      **Protection against interference**
- Series L**      **Construction, installation and protection of cables and other elements of outside plant**
- Series M**      **TMN and network maintenance: international transmission systems, telephone circuits, telegraphy, facsimile and leased circuits**
- Series N**      **Maintenance: international sound programme and television transmission circuits**
- Series O**      **Specifications of measuring equipment**
- Series P**      **Telephone transmission quality, telephone installations, local line networks**



**ITU-T**

**Study Group 12**

## **ITU-T Recommendations Series (3)**

<b>Series Q</b>	<b>Switching and signalling</b>
<b>Series R</b>	<b>Telegraph transmission</b>
<b>Series S</b>	<b>Telegraph services terminal equipment</b>
<b>Series T</b>	<b>Terminals for telematic services</b>
<b>Series U</b>	<b>Telegraph switching</b>
<b>Series V</b>	<b>Data communication over the telephone network</b>
<b>Series X</b>	<b>Data networks and open system communication</b>
<b>Series Y</b>	<b>Global information infrastructure</b>
<b>Series Z</b>	<b>Programming languages</b>



**ITU-T**  
Study Group 12

## ITU-T's main work areas

### Major items:

- IP-related issues
- IMT-2000
- Accounting rates
- QoS

### Other items:

**Multi-media, access networks (xDSL), security, numbering and addressing, inter-operabilities, IPR, etc.**

### Promotion



**ITU-T**

Study Group 12



*See you in Geneva for the next Study  
Group 12 meeting  
20 -24 May 2002*