

# **Standard Setting and Intellectual Property - an introductory overview**

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## Agenda

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- ↓ What is a standard?
- ↓ Overview over Standard Setting Organisations (SSO)
- ↓ Introduction of representative SSOs
- ↓ IP-policies
- ↓ Licencing strategies of participants
- ↓ Perspectives



## What is a Standard ?

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### Definition:

Standards are documented agreements containing technical specifications or other precise criteria to be used consistently as rules, guidelines, or definitions of characteristics, to ensure that materials, products, processes and services are fitted for their purpose.



## Purpose of Technical Standards

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### Goal:

Technological coordination by providing...

#### ↓ Compatibility

=> determination of interfaces between cooperating technical units  
(e.g. cellular phone and radio network)

#### ↓ Portability

=> easy exchange/replacement of components and/or data of a  
technical system (e.g. exchangeable memory devices)

#### ↓ Interoperability

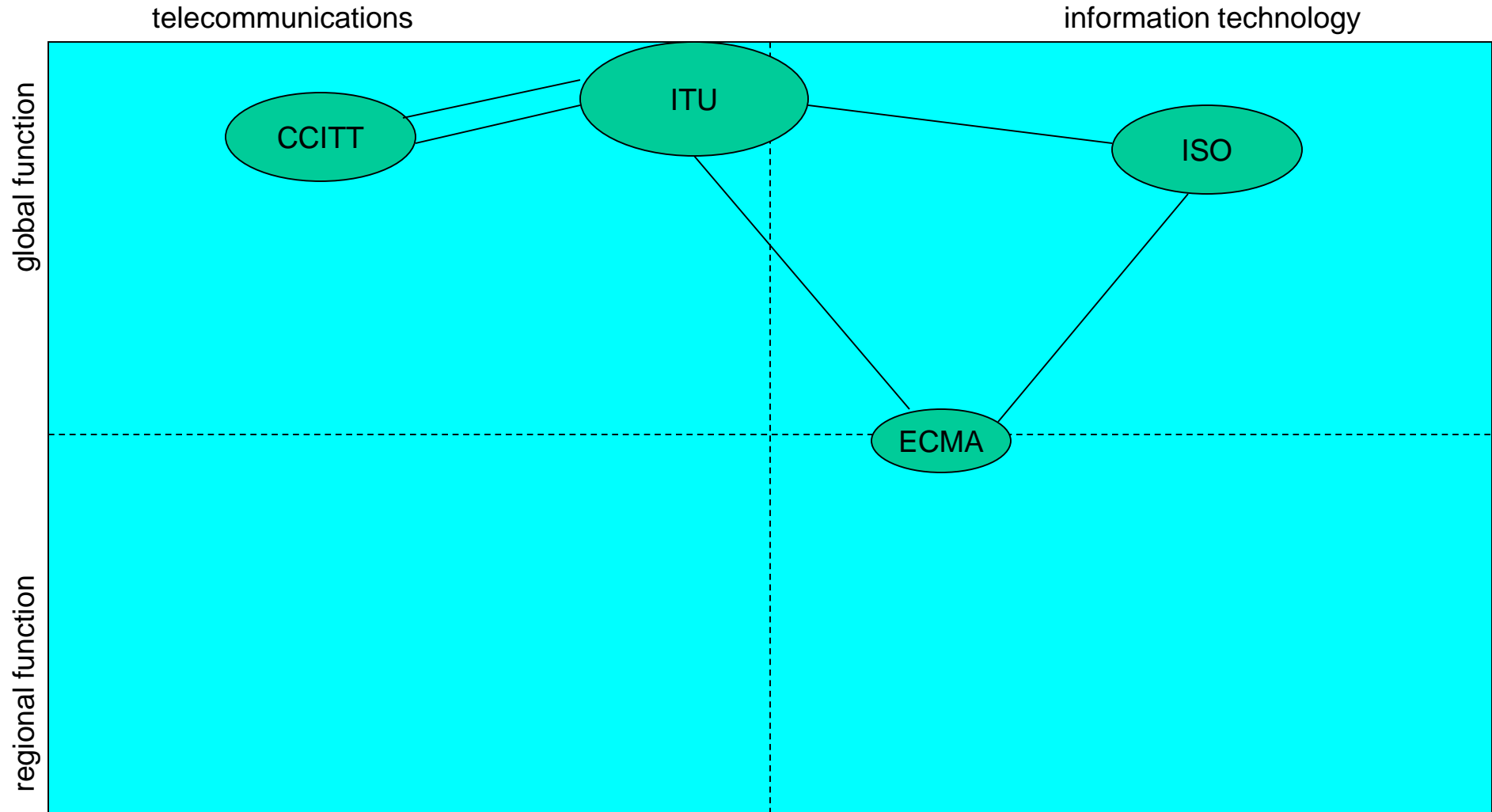
=> joint operation of different systems  
(e.g. communication of different computers via the Internet)



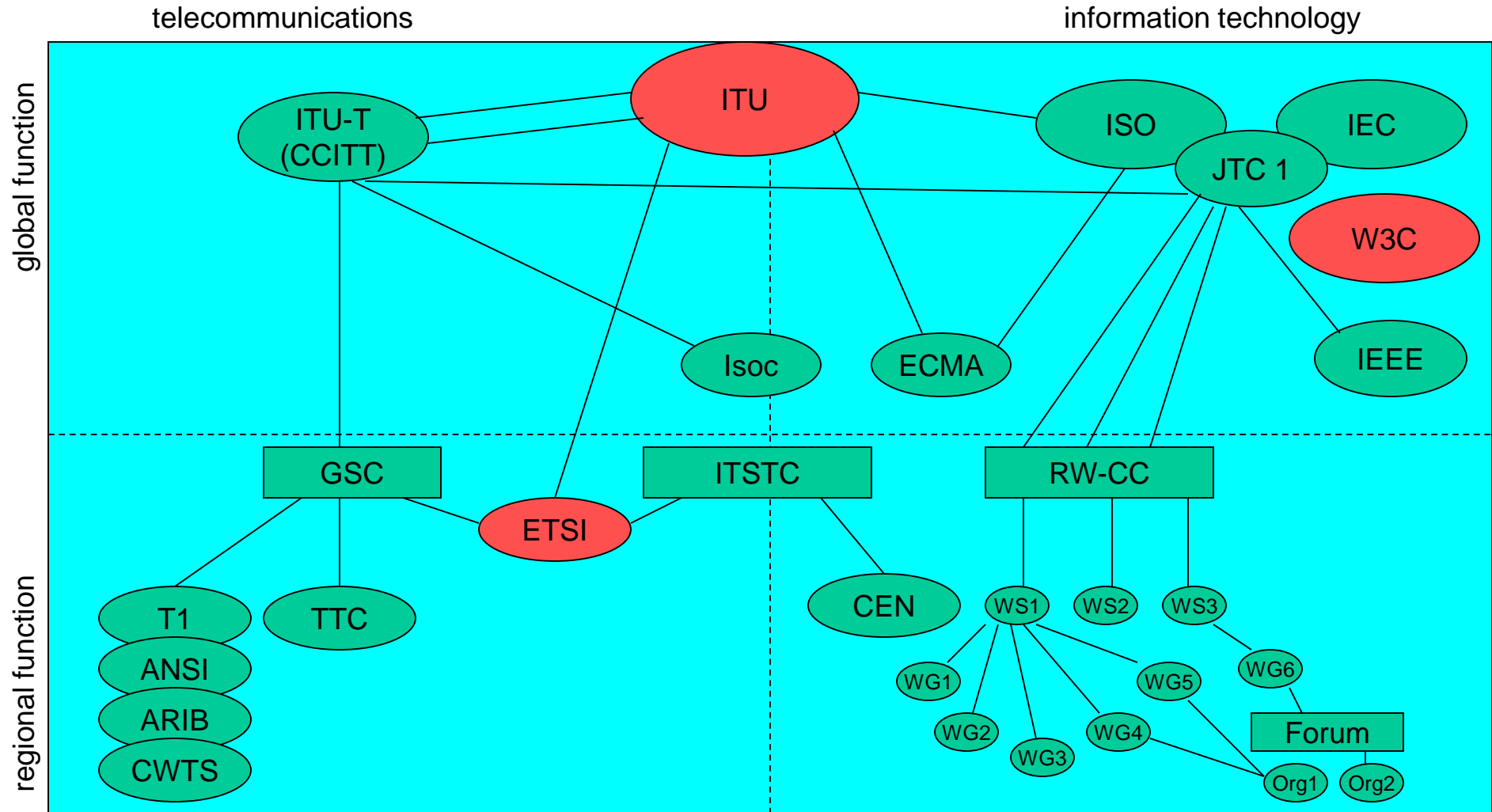
## Overview over Standard Setting Organisations (I) - Sources of Standards

- ↓ single company  
=> de facto standards
- ↓ associations of a plurality of companies, consortia  
=> multi-company commercial standard
- ↓ formal commercial standards bodies  
=> multi-company official/commercial standard
- ↓ government standards bodies  
=> multi-company official standard

## Overview over Standard Setting Organizations (II) - Status in 1970



# Overview over Standard Setting Organizations (III) - status today (extract)



## Representative Standard Setting Organizations (I) - ITU / ITU-T

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### ↓ History:

- ↓ ↓ ITU („International Telegraph Union“) founded 1865
- ↓ ↓ Renamed 1934 International Telecommunication Union, covering all forms of wireline and wireless communication
- ↓ ↓ 1947 UN agency
- ↓ ↓ one division: ITU-T (today, more than 420 members)  
-> telecommunication standardization

↓ The ITU-T mission is to ensure an efficient and on-time production of high quality standards covering all fields of telecommunications except radio aspects.

↓ work result: non binding ITU-T recommendations





## Representative Standard Setting Organizations (II) - ETSI

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### ↓ History:

ETSI (European Telecommunications Standards Institute) founded 1988 as a result of the requirement for a common European telecommunication standard; today, more than 900 members

### ↓ not for profit organization

### ↓ mission: setting telecommunications standards that will be used for decades to come throughout Europe and beyond

### ↓ objective of the ETSI Standards Making Process: convert market needs for standardization in the ICT area into ETSI deliverables (specifications, standards, norms, guides, reports) used in the market place.

### ↓ input to the process: existing (as yet known or unknown) market need for standardization.



## Representative Standard Setting Organizations (III) - W3C

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### ↓ History:

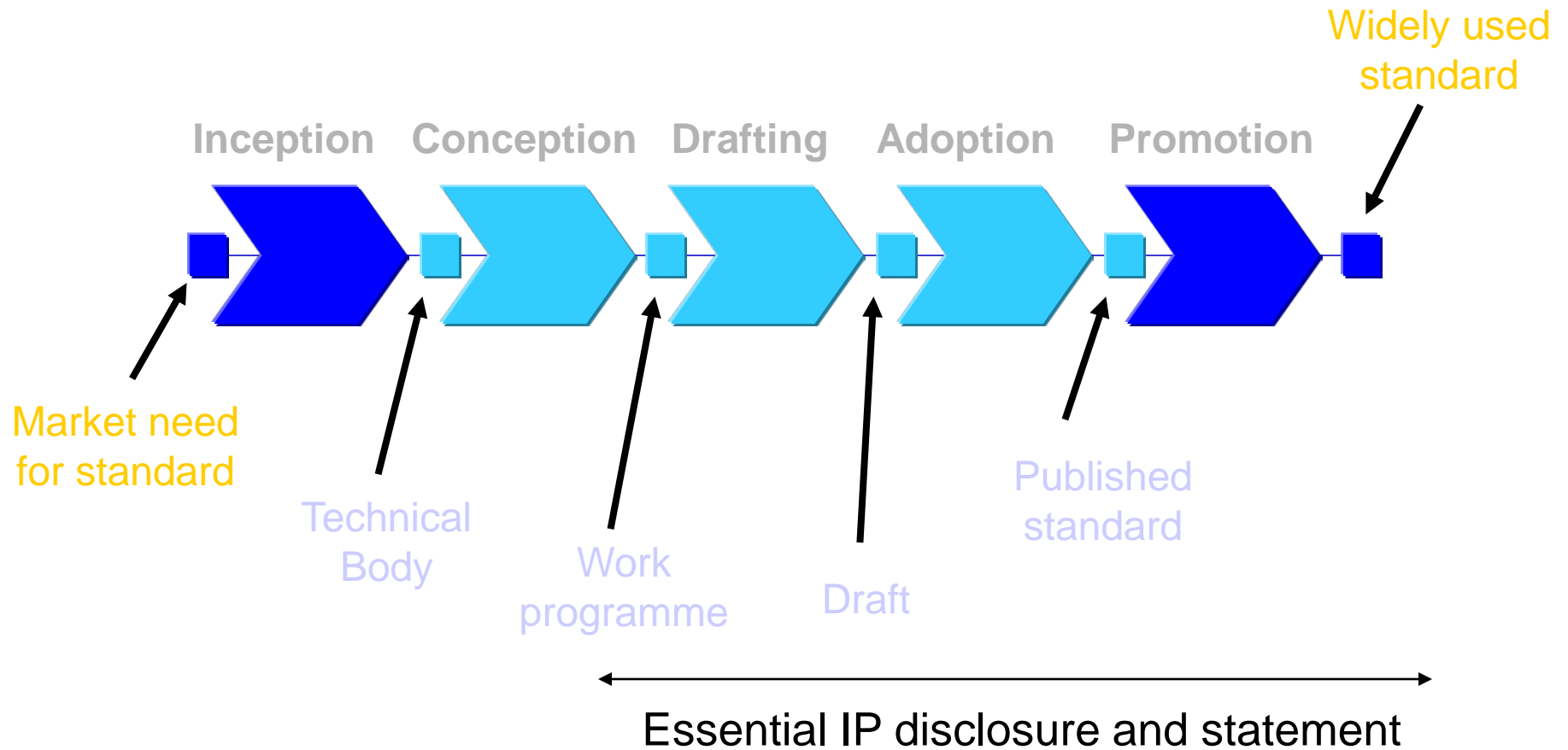
World Wide Web Consortium (W3C) founded 1994 as a industry consortium today, more than 510 members

### ↓ W3C is a forum for information, commerce, communication, and collective understanding

### ↓ develops interoperable technologies (specifications, guidelines, software, and tools) to lead the Web to its full potential



# Principles of a standardization process - example ETSI



## Term: „essential IPR“

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### Definition:

An Intellectual Property Right is essential to a standard if it is not possible on technical (but not commercial) grounds, ...

... taking into account normal technical practice and the state of the art generally available at the time of standardization,...

... to make, sell, lease, otherwise dispose of, repair, use or operate ...

... equipment or methods...

... which comply with a standard without infringing that IPR.



## IP-Policies - ITU / ITU-T (I)

**Principle:**

“A commercial (monopolistic) abuse by a holder of a patent embodied fully or partly in a Recommendation must be excluded. To meet this requirement in general is the sole objective of the code of practice.”

**Baseline IPR Statement:**

- 2.1 The patent holder waives his rights; hence, the Recommendation is freely accessible to everybody, subject to no particular conditions, no royalties are due, etc.
- 2.2 The patent holder is not prepared to waive his rights but would be willing to negotiate licenses with other parties on a non-discriminatory basis on reasonable terms and conditions. Such negotiations are left to the parties concerned and are performed outside the ITU-T.
- 2.3 The patent holder is not willing to comply with the provisions of either paragraph 2.1 or paragraph 2.2; in such case, no Recommendation can be established.



## IP-Policies - ITU / ITU-T (II)

**Proceedings and Database:**

- ↓ members should draw attention to any known patent or to any known pending patent application related to standard actually discussed
- ↓ written statement by patent holder required including one of the three declarations (RF, RAND, refusal to licence)
- ↓ statements are collected and published in a database
- ↓ no verification of validity of such patent statement or of validity of patent



## IP-Policies - ETSI

**Principle:**

- ↓ ETSI IPR policy seeks to reduce the risk that an essential IPR for a standard or technical specification being unavailable.
- ↓ balance between the needs of standardization for public use in the field of telecommunications and the rights of the owners of IPRs aspired

**Baseline IPR Statement:**

Only for essential IPRs the patent holder should give within three months an undertaking in writing that it is prepared to grant irrevocable licences on fair, reasonable and non-discriminatory terms and conditions under such IPR to at least the following extent:

manufacture, including the right to make or have made customized components and sub-systems to the licensee's own design for use in manufacture;

sell, lease, or otherwise dispose of equipment so manufactured;

repair, use, or operate equipment;

and use methods.

The above undertaking may be made subject to the condition that those who seek licences agree to reciprocate."

## IP-Policies - ETSI (II)

**Proceedings and Database:**

- ↓ members should draw attention to any known patent or to any known pending patent application related to standard actually discussed
- ↓ statements and patents are collected and published in a database
- ↓ no verification of validity of such patent statement or of validity of patent
- ↓ refusal to licence by member => viable alternative technology selected  
=> if possible modification of standard
- ↓ in case of violation of policy => General Assembly decides the action





## IP-Policies - World Wide Web Consortium (W3C)

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### **Principle:**

“In developing a new Patent Policy for W3C activities, our goal is to affirm the Web community's long-standing preference for recommendations that can be implemented on an RF basis. Where that is not possible, the new Policy will provide a framework to assure maximum possible openness based on RAND licensing terms.”

### **Baseline IPR Statement:**

- ↓ RF (Royalty free) – clearly preferred
- ↓ RAND (Reasonable terms at non-discriminatory condition)



## IP-Policies - World Wide Web Consortium (W3C)

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### Proceedings and Database:

- ↓ To disclose patent and IPR claims, individuals must send email to W3C, which is an archived mailing list readable by Members and the Team
- ↓ All W3C Members are obliged to disclose patents
- ↓ No aggregated database, info linked to the individual technical groups



## Licencing Strategies of Participants

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### Bilateral (Cross) Licence Agreements

- ↓ licences based on reciprocity (scope of reciprocity?)
- ↓ only essential patents or whole patent portfolios
- ↓ reasonable and non discriminatory (`RAND`) terms and conditions adapted to situation (e.g. depending on a comparison of business and patent portfolio of parties)
- ↓ problem: What is meant by reasonable and non discriminatory?

### Patent Pools

- ↓ one stop shopping (e.g. MPEG LA)
- ↓ comparable fees
- ↓ open for patent holders (after patent evaluation)

### Royalty Free Conditions

- ↓ free availability of IP rights and therefore of the standard (e.g. W3C)
- ↓ technology pushed since no IP blocking



## Perspectives

### Basic principle:

Everybody should have access to a standard!

- ↓ increasing relevance of the issue „patents and standards“, since increasing number of standard setting organizations and patent holders
- ↓ new approaches like „one stop shopping“ models with „royalty cap“
- ↓ competent evaluation organs for determination of essential patents
- ↓ regulatory involvement of governmental authorities or standardization organization (e.g. referee or industry board for arbitration in case of licencing problems)

**Thank you for your attention !**