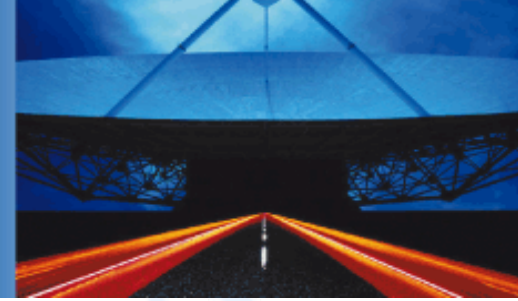




Workshop on
Market Mechanisms
for Spectrum Management

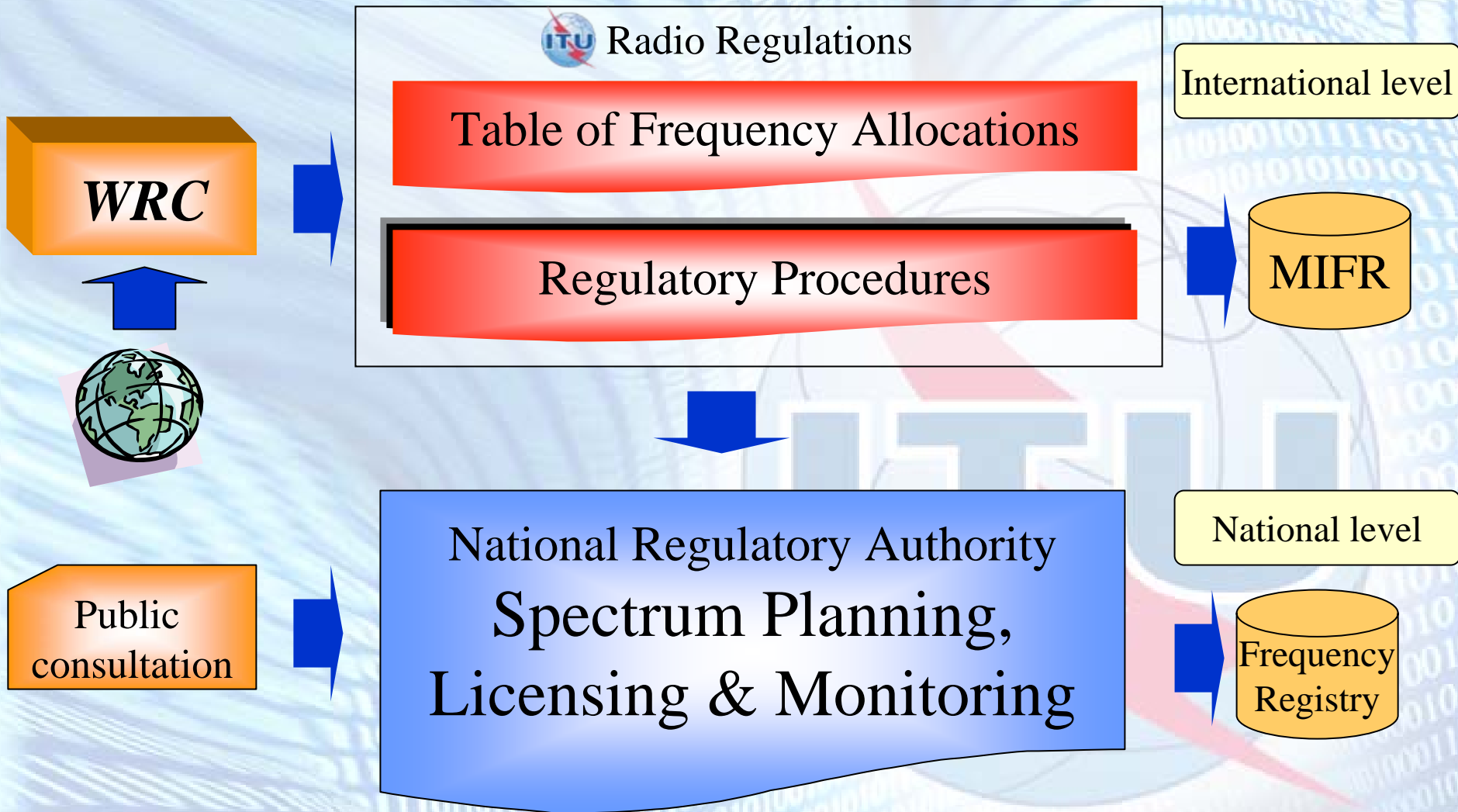


New Approaches for Regulating International Radiocommunications

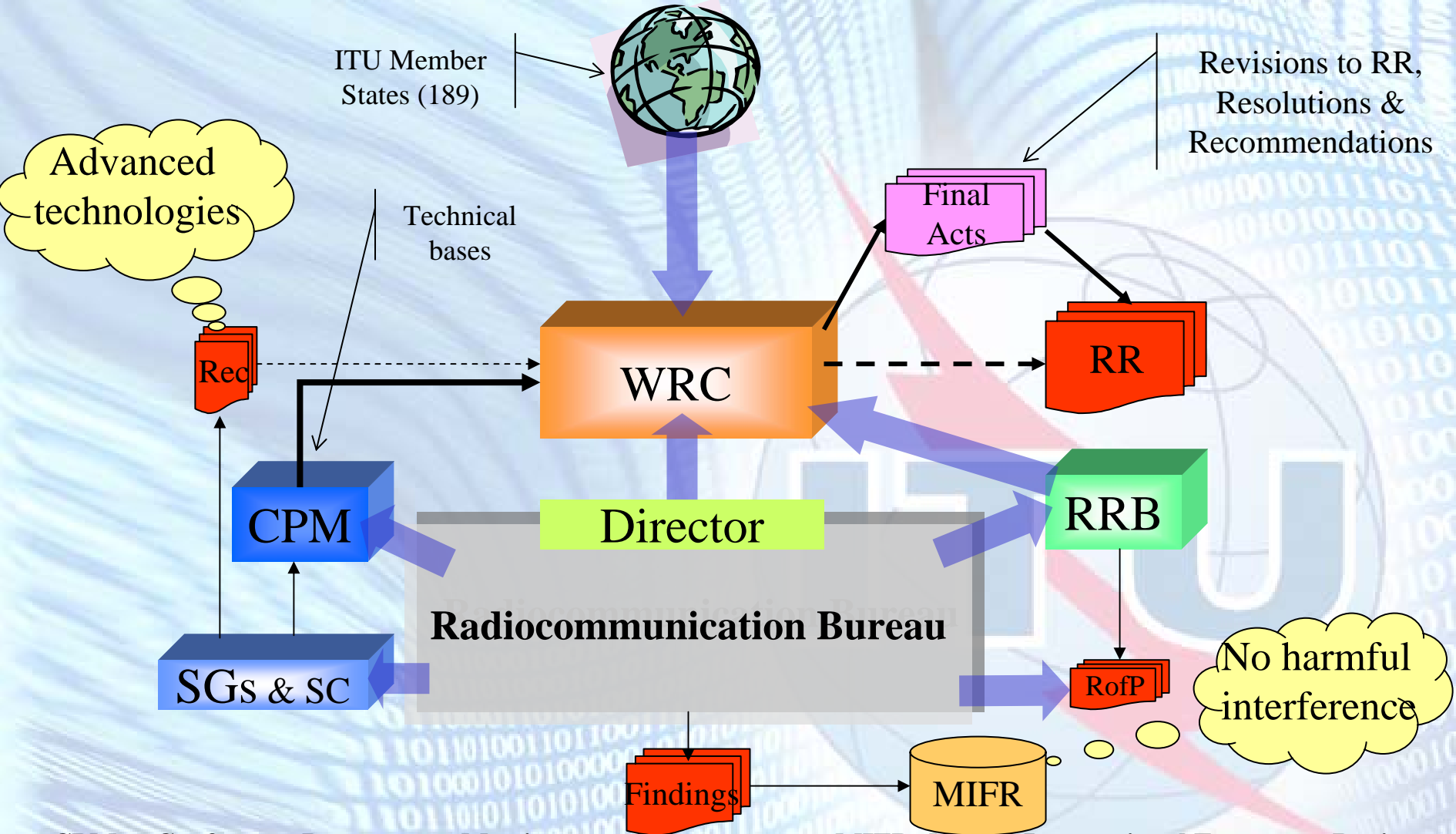
Fabio Leite
Deputy-Director,
ITU Radiocommunication Bureau (BR)

ITU, Geneva, 22-23 January 2007

Spectrum Management Processes



WRC Process

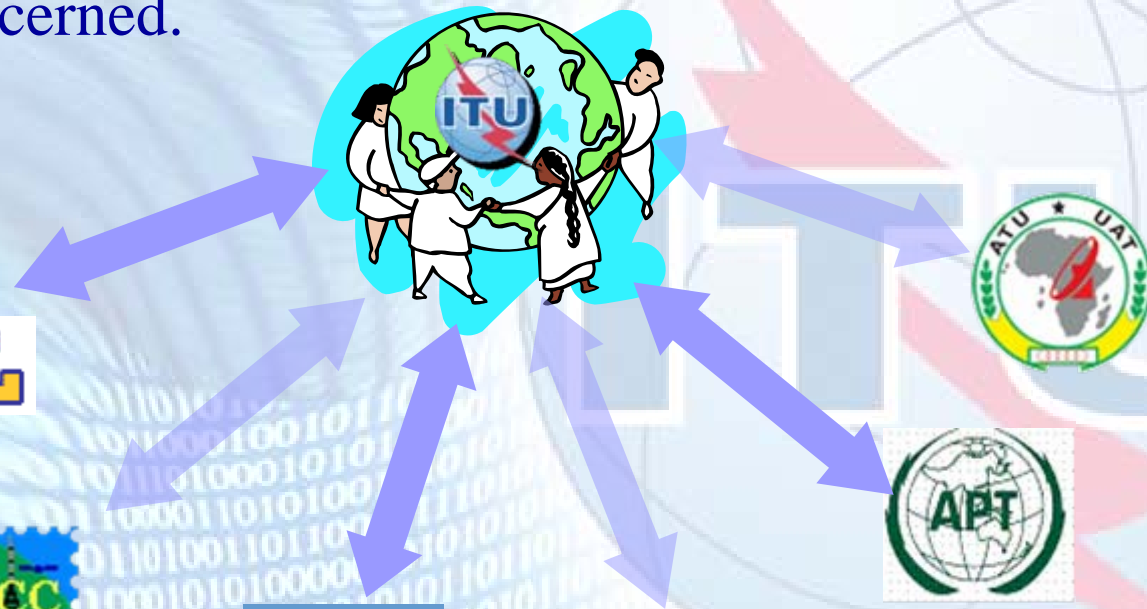


CPM: Conference Preparatory Meeting
Rec: ITU-R Recommendation
RofP: Rules of Procedure
RR: Radio Regulations (treaty status)

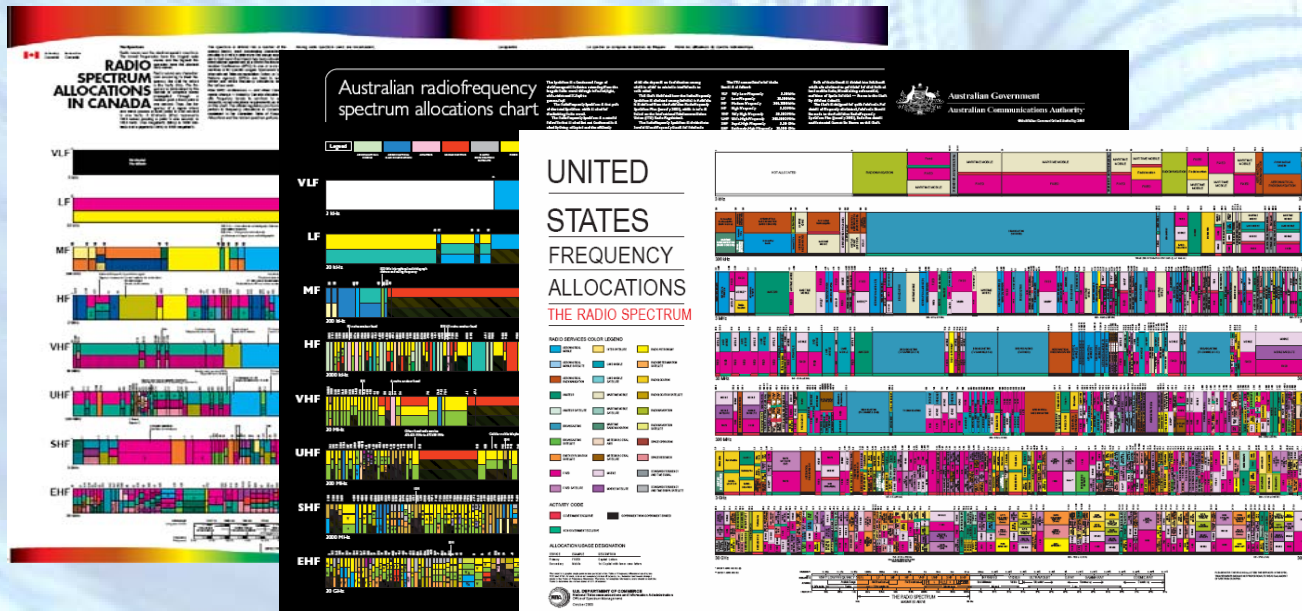
MIFR: Master International Frequency Registry
RRB: Radio Regulations Board
SGs: Radiocommunication Study Groups
WRC: World Radiocommunication Conference

Regional Spectrum Management

- ✓ **Harmonization** of national frequency allocations within the relatively flexible framework set by ITU so as to allow for the coordinated introduction of new services;
- ✓ **Harmonization** of the standards and procedures for certification of equipment with a view to its free circulation and use in the countries concerned.



National Spectrum Management



Factors ↔ conditions

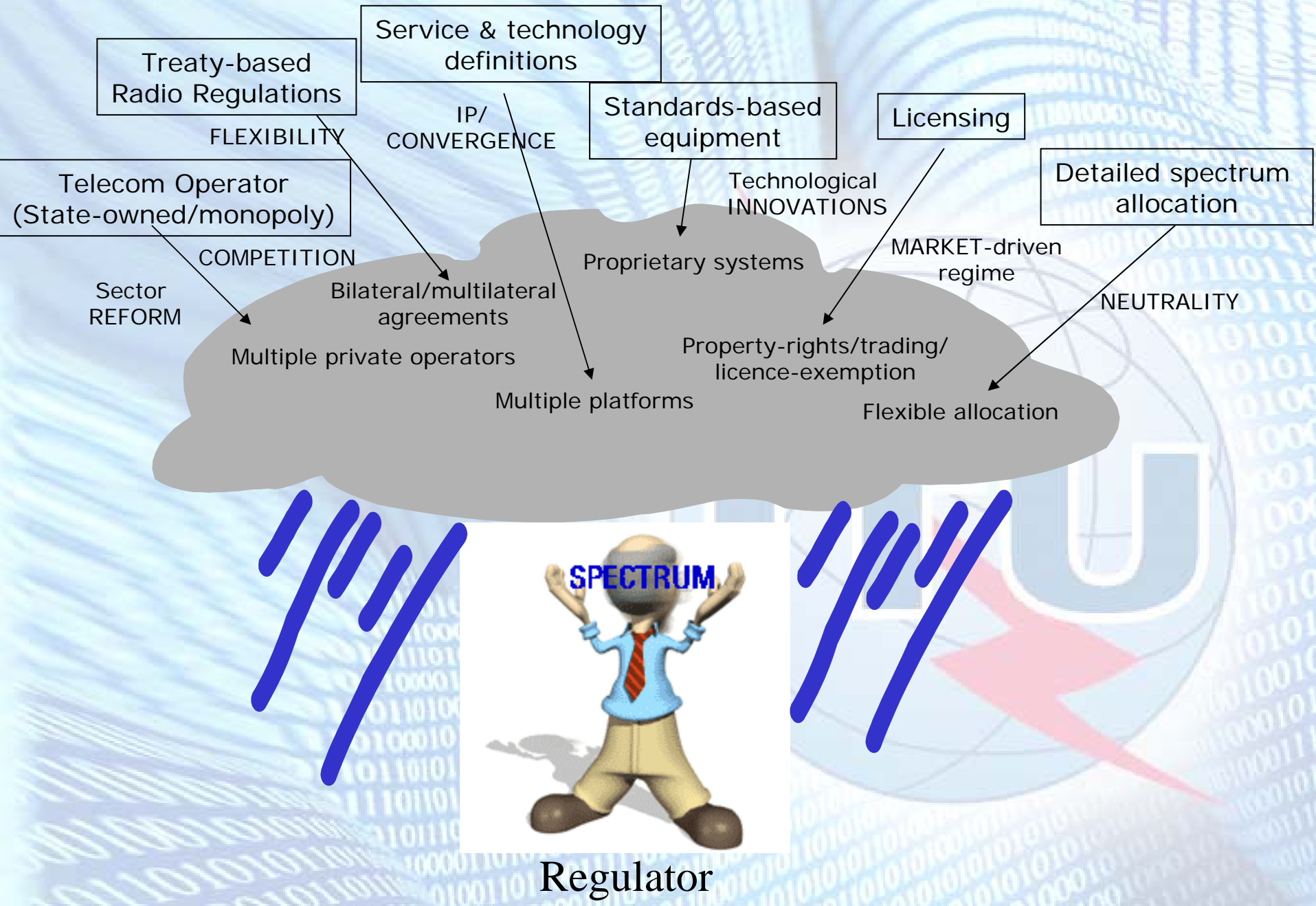
Flexibility ↔ international obligations

Market mechanisms ↔ social aspects, governmental, safety & scientific uses

Technical complexities ↔ graceful transitions, impact on other uses

Different solutions for different services/situations/uses
(a-priori planning, “command & control”, commons, trading, auction)

The changing wireless environment



Options for improvement of the international spectrum regulatory framework

CONVERGENCE

New applications

SERVICE DEFINITION

SERVICE
Fixed, mobile,
broadcasting

Fixed, mobile,
broadcasting

WRC Process

FLEXIBILITY

**Spectrum
HARMONIZATION**

TECHNOLOGY
IP-core networks
UWB, HAPS, SDR
mobile-TV

RR

Regional,
global

New allocations

no change

**mod
service
definitions**

**principle of
substitutability
(fixed/mobile)**

Flexibility

less "command & control" & rigidity

Spectrum
utilization

TECHNOLOGICAL ADVANCES

Spread-spectrum, UWB,
smart antennas, SDR &
cognitive radio

Spectrum
licensing

REGULATORY CHANGES

Market mechanisms (e.g.,
auction, trading), commons,
license-exemption, digital
dividend, convergence



Stakeholders

NRAs

More spectrum capacity & wider range of applications

Stability

more certainty & harmonization

Spectrum
allocation

**GLOBAL & REGIONAL
HARMONIZATION**

WRC process,
macro management,
boundary issues



Stakeholders

NRAs

Spectrum
sharing

**ENGINEERING & LEGAL
EXPERTISE**

Technically sound
regulations, level playing
field (competition & non-
commercial uses)

More certainty for investments & protection of non-commercial uses