1st OCCUR Annual Conference

"The Challenge for Utility Regulators in the Caribbean"

Port of Spain, Trinidad & Tobago

Radio regulation Framework

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Topics Covered

- International Activities
- Spectrum Management Process
- National Activities
- Regulatory Bodies Objectives
- Example of an SM process
- Conclusions

Spectrum Management Framework

Objective of Presentation:

To provide participants with an understanding of the necessary building blocks for National Spectrum Management.

Spectrum Management Principals

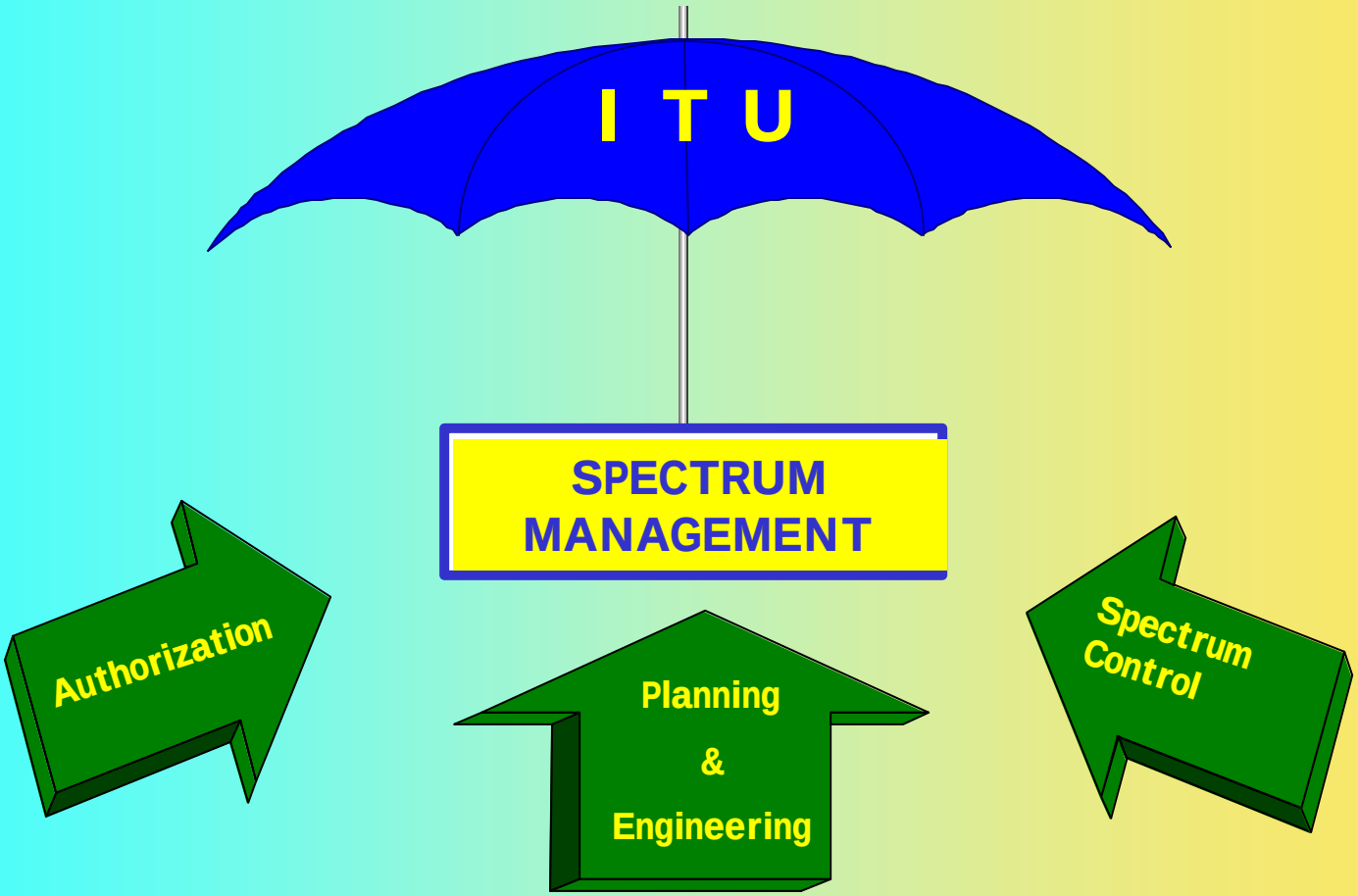
Key objective of Radio Spectrum Management is to ensure orderly and timely access to the radio spectrum to the benefit of citizens of the country.

Wireless World

- Moving toward a wireless communication environment
- WRC2003 identified around 455 MHz for RLAN
- The need for effective means to manage the radio spectrum

Regulatory Bodies Key Objectives/Challenges

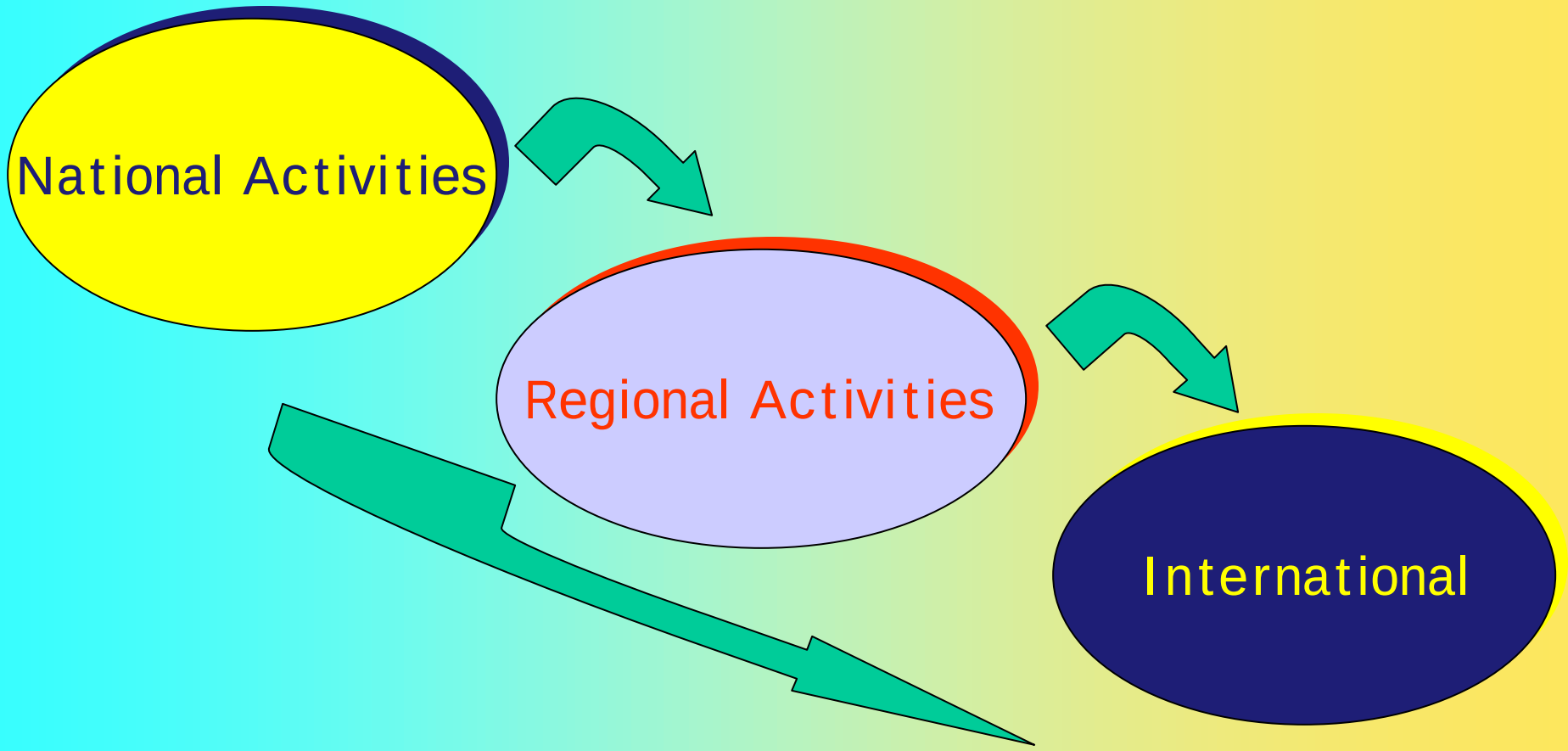
- ✓ Stimulate increased access to telecommunications services
- ✓ Provide service to the greatest possible % of population
- ✓ Stimulate services, new technologies, at affordable prices
- ✓ Stimulate competition
- ✓ Stimulate National, Regional, and Global Markets
- ✓ Eliminate unnecessary regulations
- ✓ Recover fair market value for access to spectrum, when appropriate


I T U
SPECTRUM MANAGEMENT
Authorization
Planning & Engineering
Spectrum Control

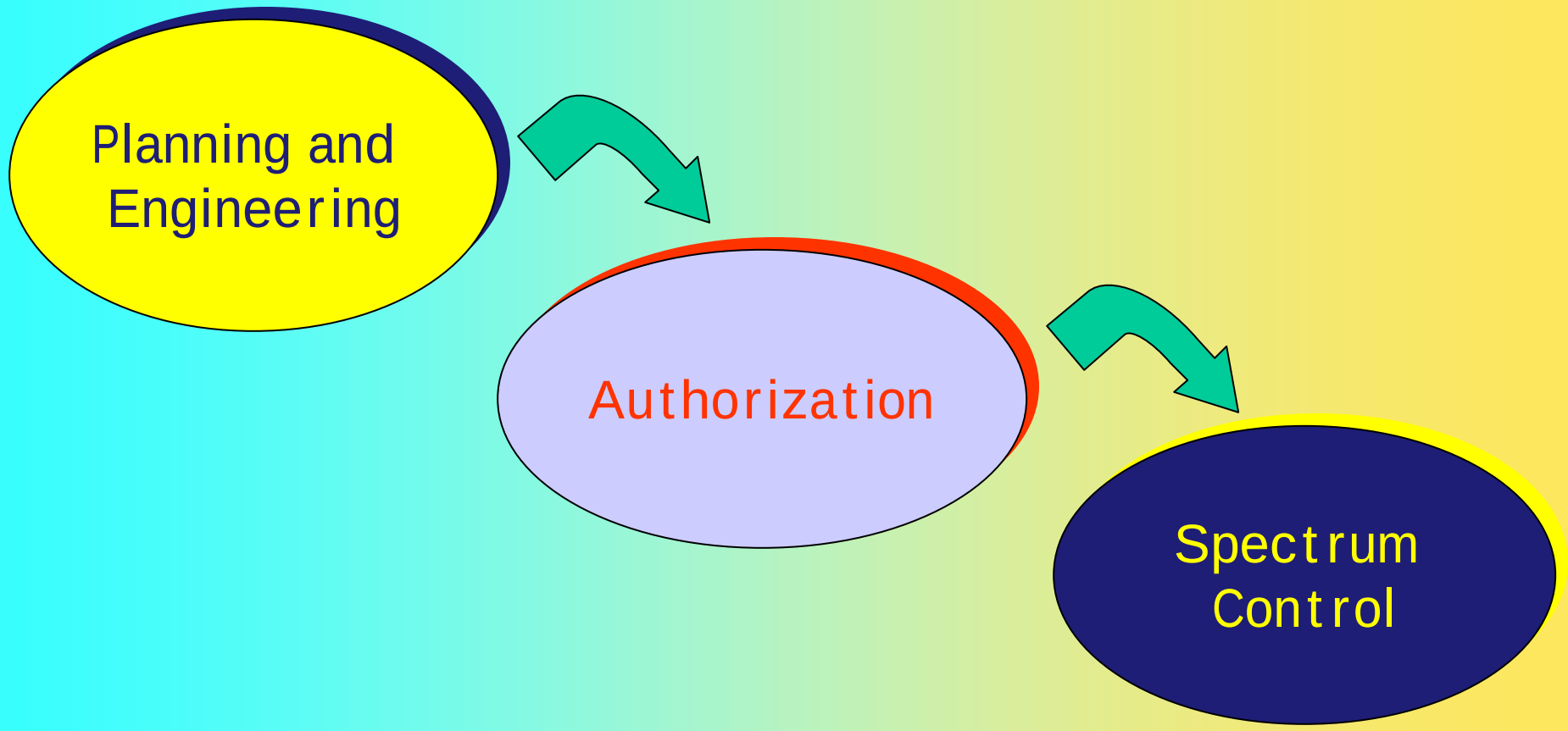
International Telecommunication Union

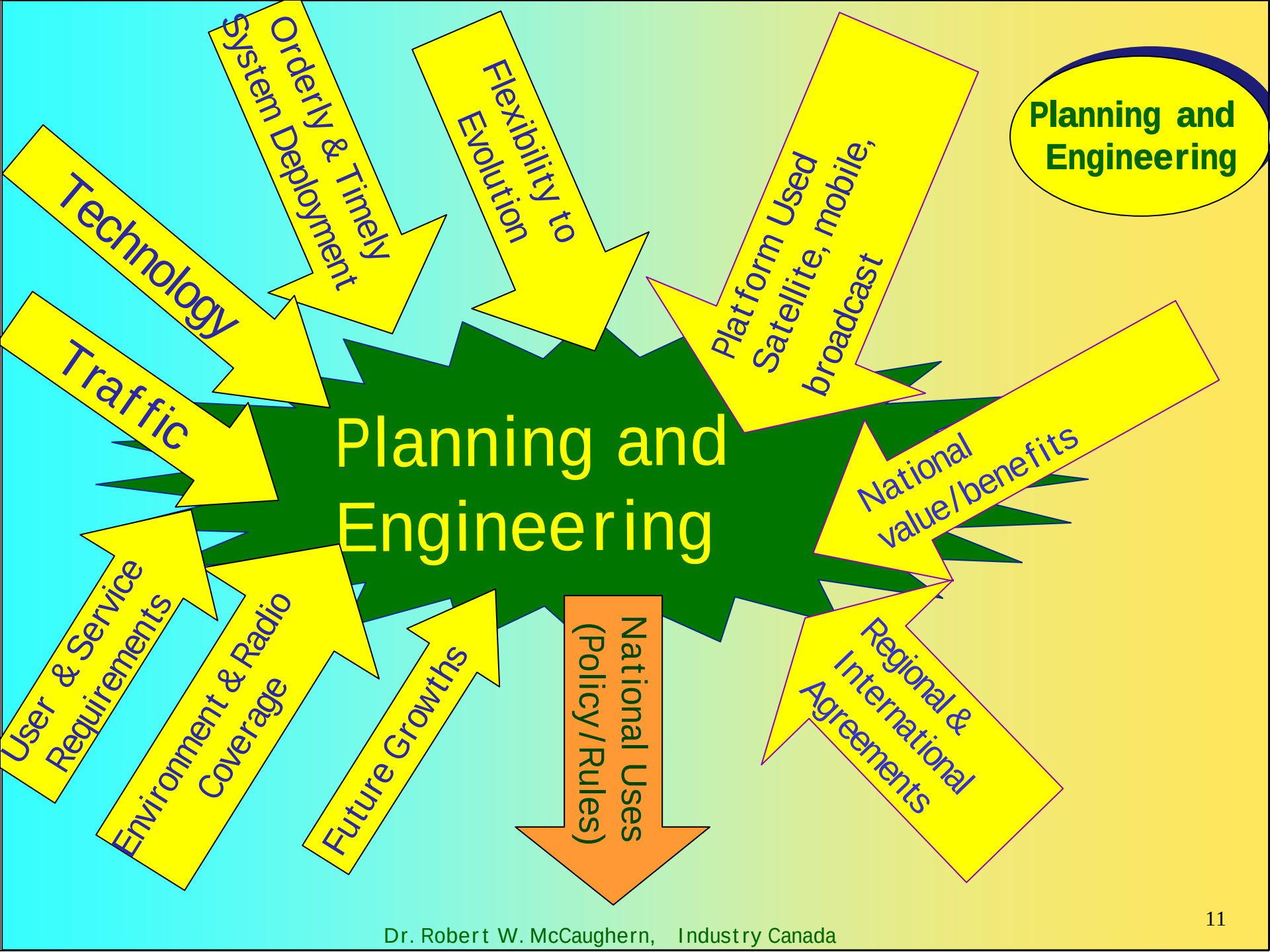
- ITU Establishes Rules
- National Systems Must Comply
- Technical Rules : ITU-R Study Groups
- Band Allocations : World Radio Conferences
- Assignments : MIFR
- Radio Regulation Board Activities

National/Regional/ International



Spectrum Managements Process




Planning and Engineering
Technology
Traffic
Orderly & Timely System Deployment
Flexibility to Evolution
Platform Used Satellite, mobile, broadcast
National value/benefits
Regional & International Agreements
National Uses (Policy/Rules)
Future Growths
Environment & Radio Coverage
User & Service Requirements
Planning and Engineering

Spectrum Managements Process

Planning and Engineering

- ✓ Requirements for Services
- ✓ Technology Evaluation
- ✓ Amount of Spectrum
- ✓ Sharing Studies
- ✓ Technical Standard

Spectrum Managements Process

Planning and Engineering

- ✓ Channelling Plans
- ✓ Participation in International Activities
  - View at Regional bodies
  - Views at ITU and other bodies (WRC)
- ✓ Negotiating Regional and International Agreements

Spectrum Managements Process

Planning and Engineering

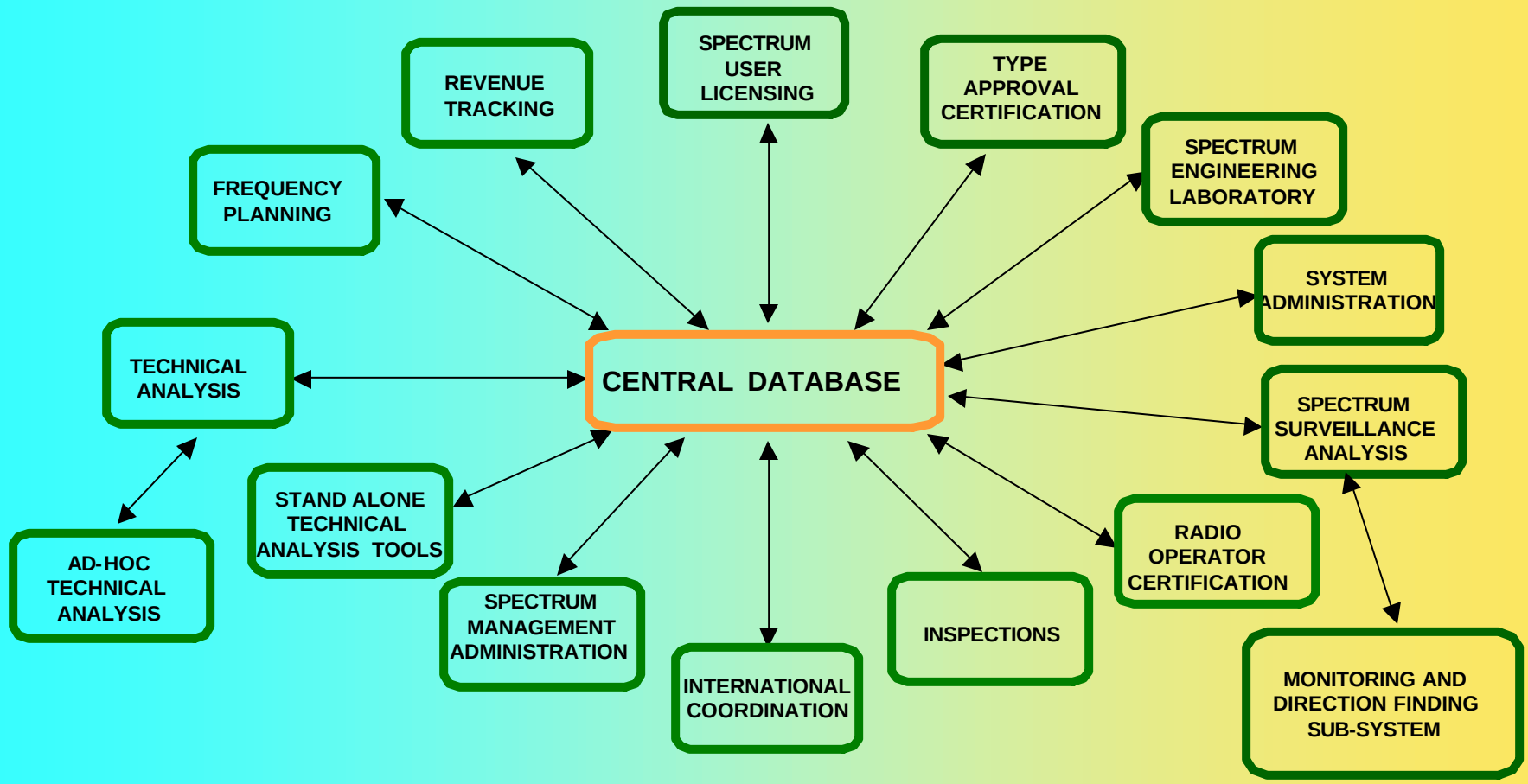
Other Activities

- ✓ Complex Interference Resolution
- ✓ Spectrum Management Tools
  - Monitoring systems
  - Computer Systems

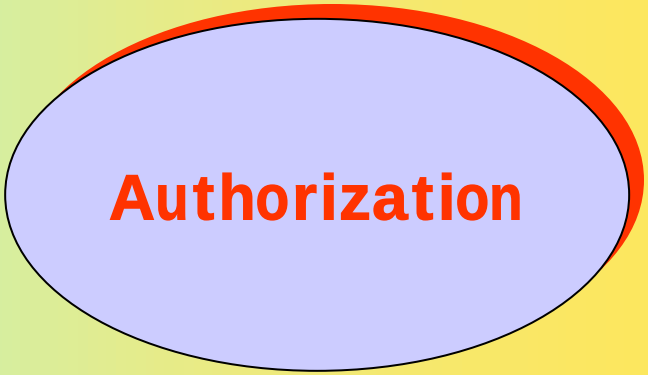
Spectrum Management

Sub-systems

Planning and Engineering



Spectrum Managements process



- ✓ **Licensing**
  - First come first served
  - Competitive (beauty Contest, Auction)
  - License Exempt
- ✓ **Coordination**
  - Domestic
  - Regional & International
- ✓ **Certification**
- ✓ **Fees**

Spectrum Managements Process

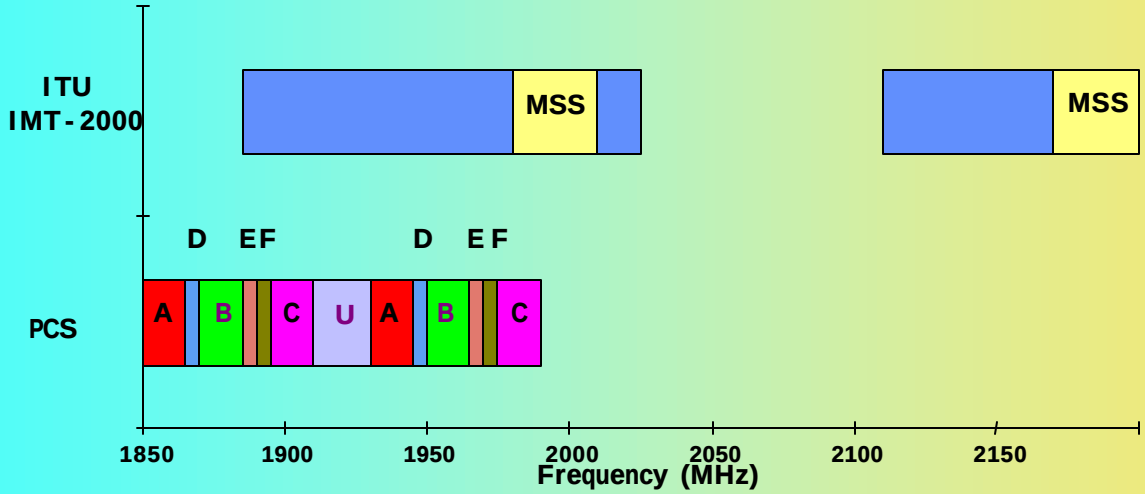
Spectrum Control

- ✓ Monitoring
- ✓ Violations / Penalties
- ✓ Interference Investigation
- ✓ International Issues

Example of New Band Allocation

- ✓ Requirements was identified in late 80's
- ✓ Contributions submitted to ITU-R to identify new spectrum for future use
- ✓ WARC'92 identified bands for IMT-2000
- ✓ 1995 new policy on PCS

PCS Band in Canada



Conclusions

- ✓ Demand on the radio spectrum will continue to climb in the future.
- ✓ Technology development and trends have been aimed at improving spectrum utilization efficiency
- ✓ Higher traffic carrying capacity and greater choice in applications is the trend
- ✓ Open industry/regulator cooperation would result in more efficient and effective planning of the radio spectrum
- ✓ Effective Spectrum Management leads to efficient use of the spectrum, and sound national telecommunications infrastructure
- ✓ Spectrum must be Considered as a National Resource to be used Wisely in Enhancing the Economic, Health, Education and Welfare of the Nation being Served.

Thank you For your Attention

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