

Spectrum Management Organisation in India

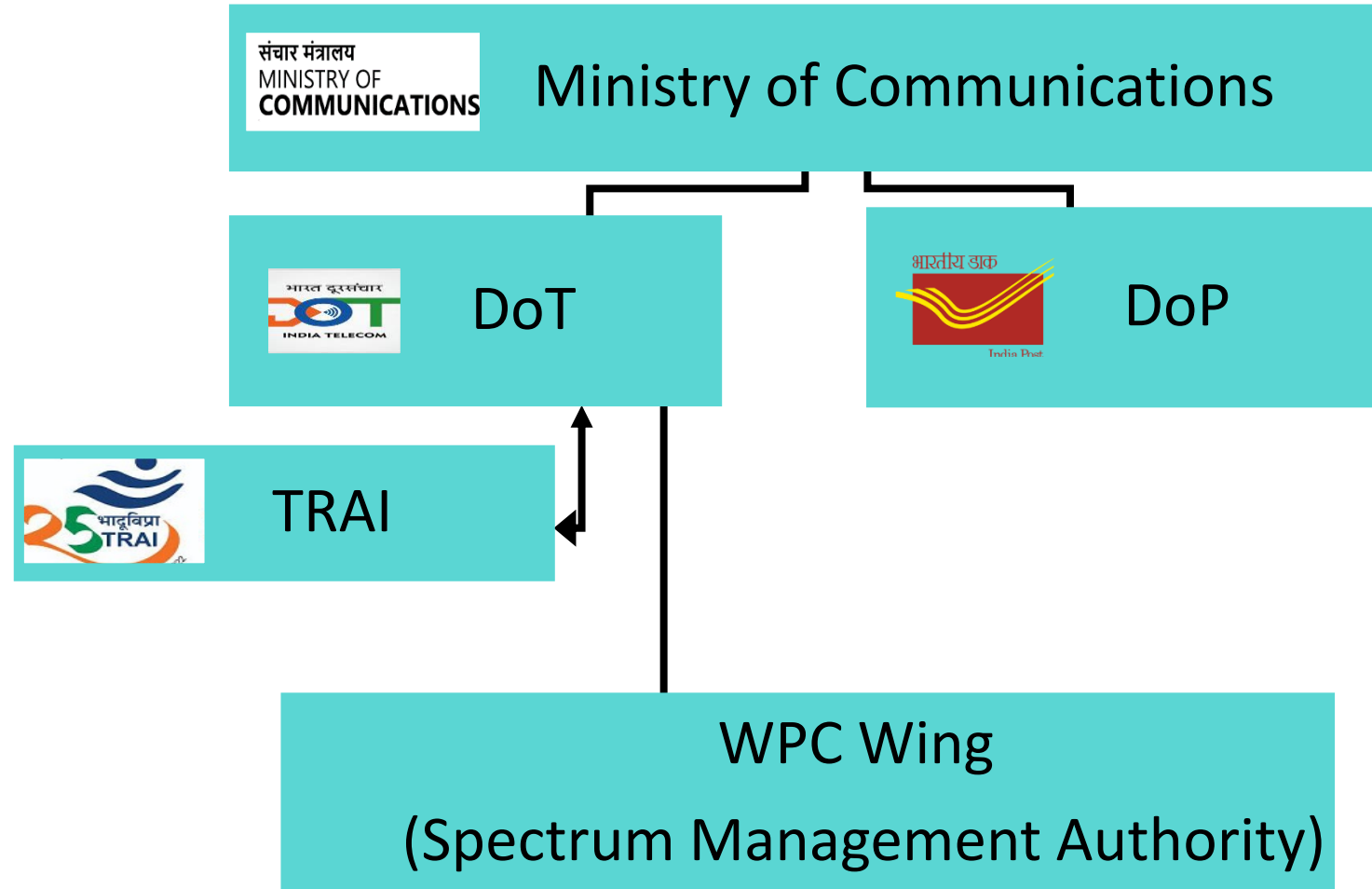
By

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Wireless Planning and Coordination (WPC) Wing

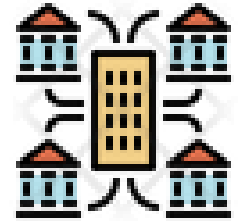


WPC WING AND WMO



Established in 1952

Nodal Agency of GOI for management of radio frequencies (Spectrum) and satellite orbital resource



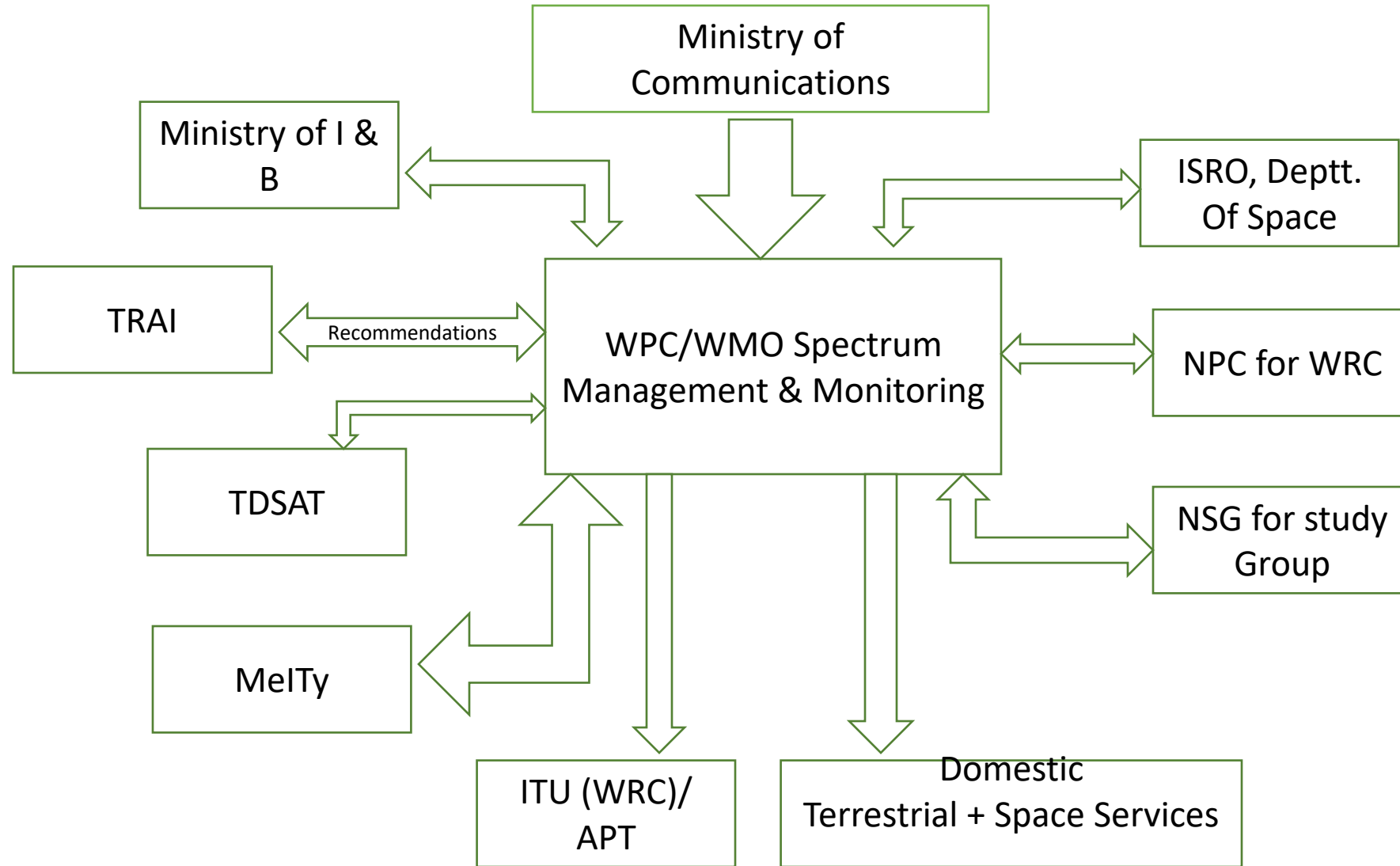
WPC Wing is the ministerial office and WMO is the subordinate office

Jointly responsible for spectrum management in India,
WMO is Eye and Ear of WPC Wing

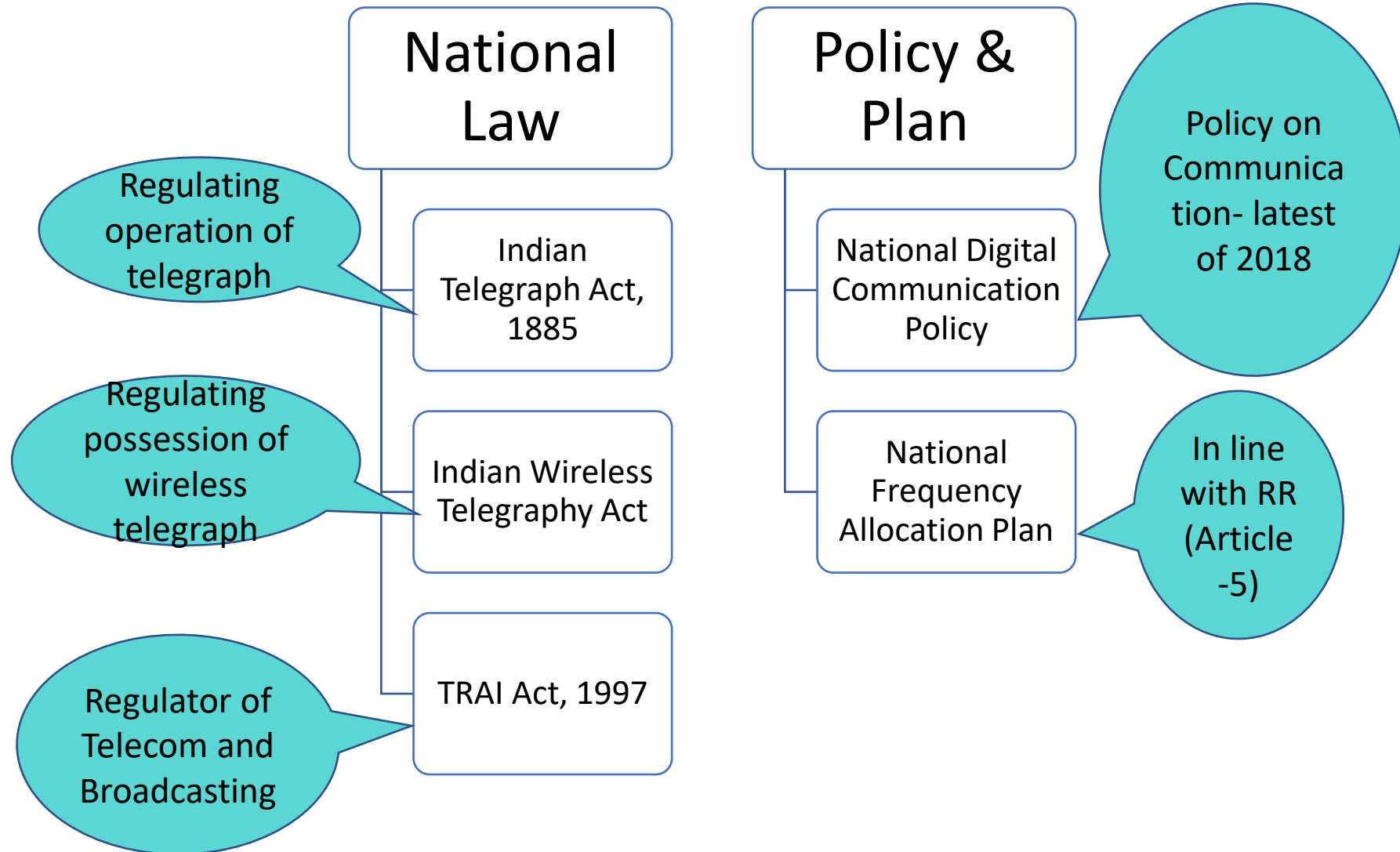


Clean and Re-usable Spectrum, Safe and Better
India

Organizational Interaction of Spectrum Manager



National Legislative Framework- Spectrum



FUNCTIONS OF WPC WING

Spectrum Allocation

- Spectrum allocation (Dividing entire spectrum range into smaller blocks and deciding what services should operate within each frequency block)

Spectrum Assignment

- Assignment is to individual user : commercial and private

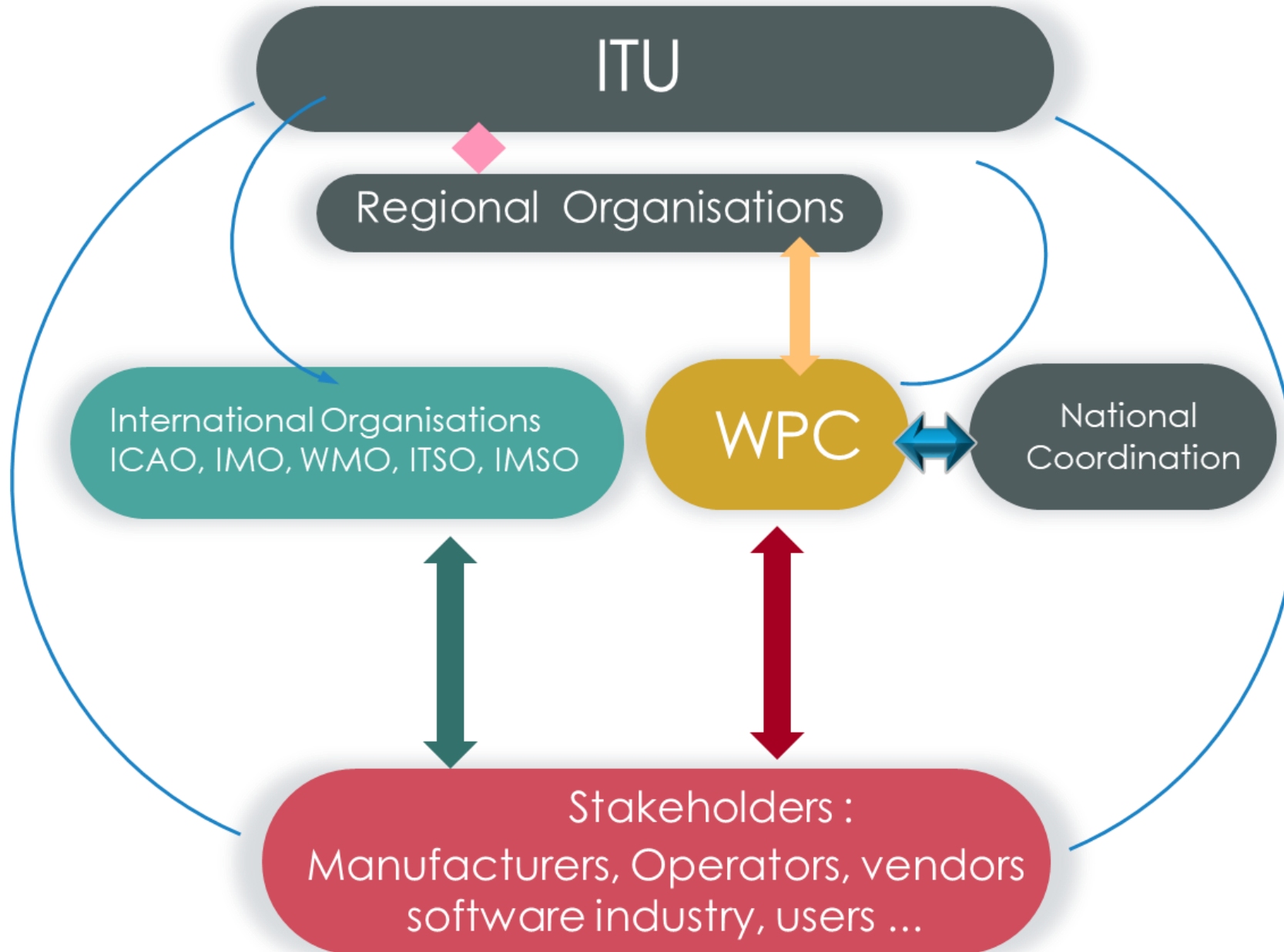
International & National Coordination

- International framework (Radio Regulation of the ITU-R)
- National framework (NFAP)

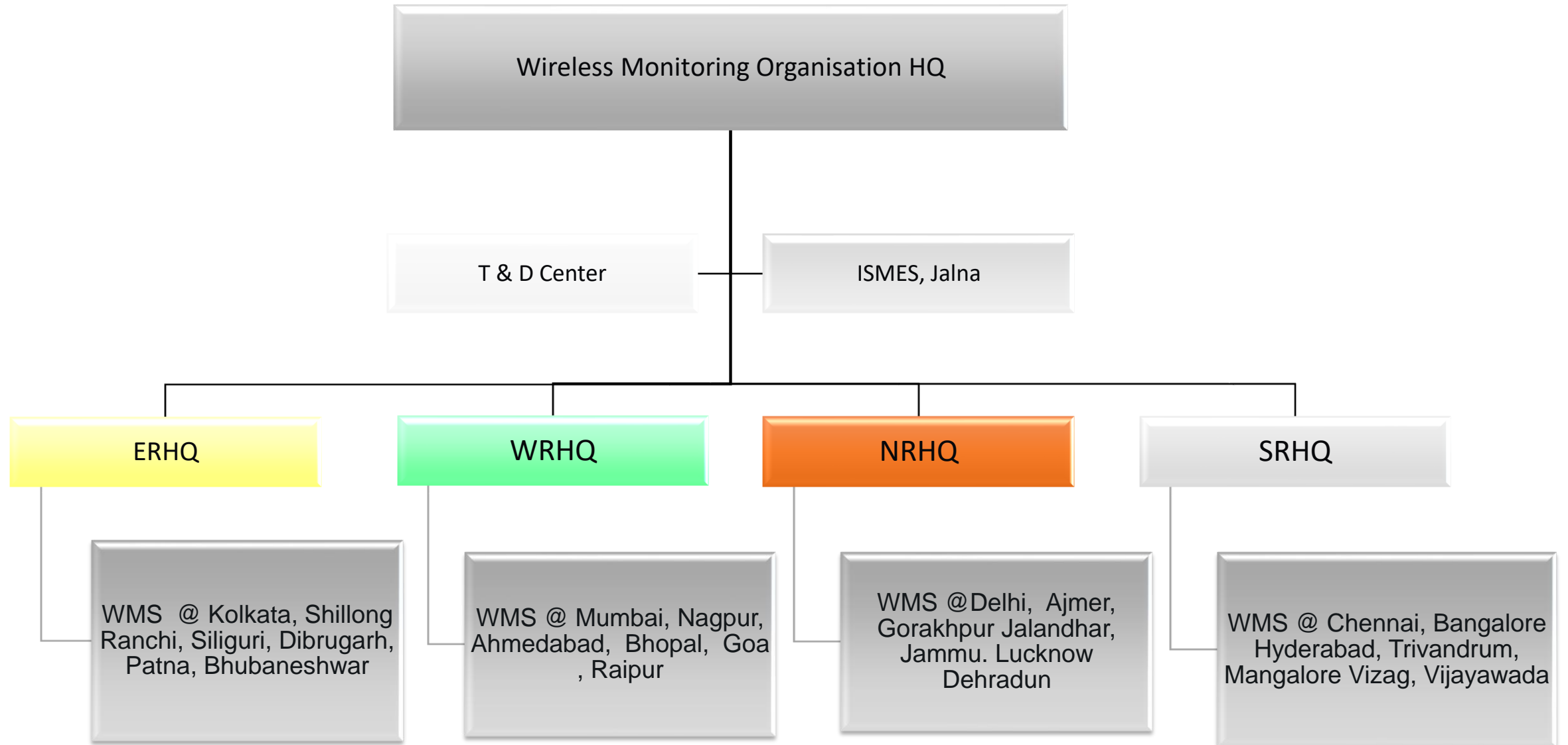
Ancillary Activities

- Standing Advisory Committee on Frequency Allocation (SACFA) (site clearance)
- Conduct of examination of proficiency in radiocommunication for professionals in aviation and Maritime

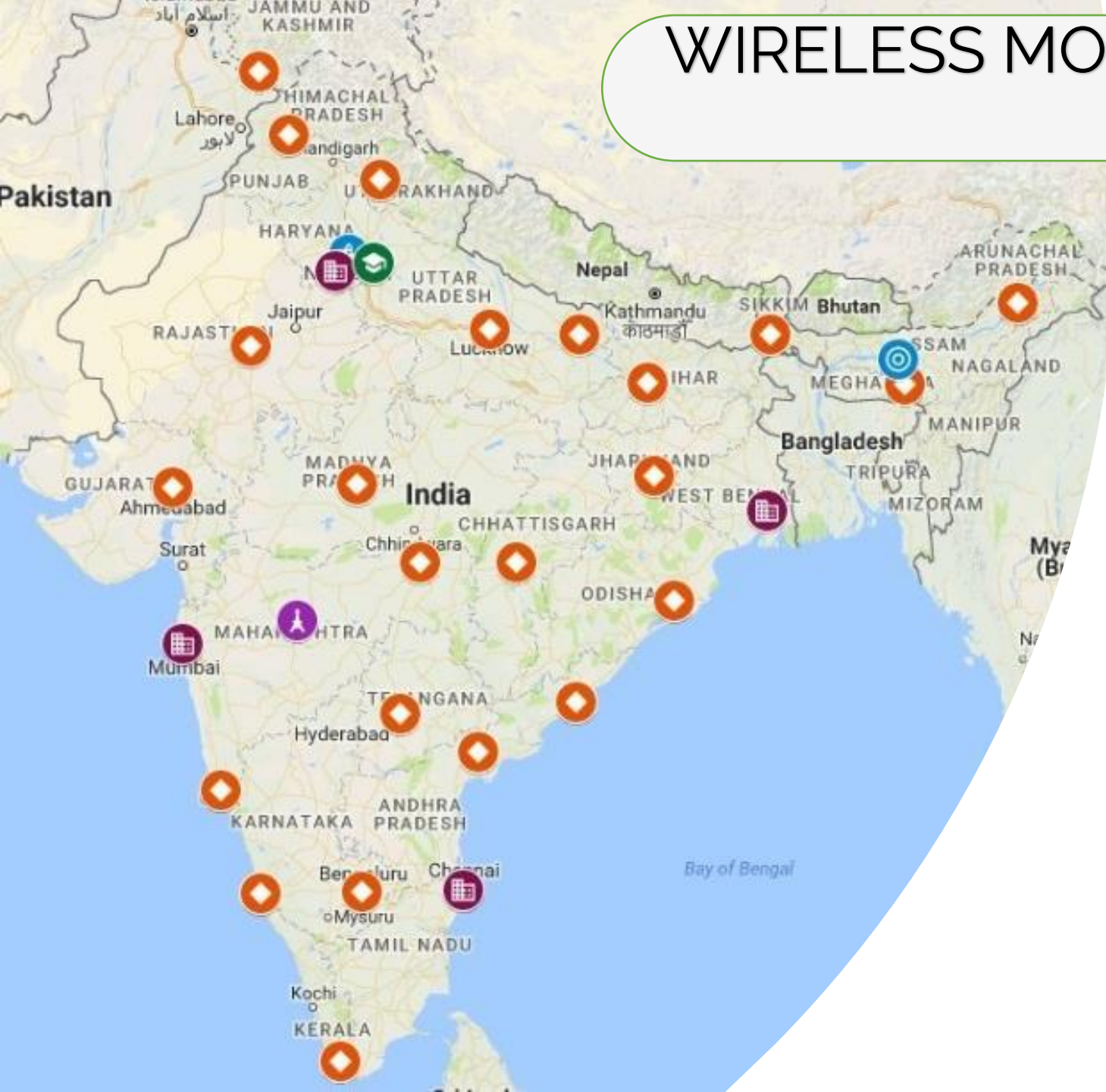
NATIONAL AND INTERNATIONAL COORDINATION



WMO ORGANIZATION STRUCTURE



WIRELESS MONITORING STATIONS IN INDIA



1. WMS Jammu
2. WMS Jalandhar
3. WMS Dehradun
4. IMS Delhi
5. WMS Lucknow
6. WMS Ajmer
7. WMS Gorakhpur
8. WMS Patna
9. WMS Siliguri
10. WMS Shillong
11. WMS Dibrugarh
12. WMS Ahmedabad
13. WMS Bhopal
14. WMS Ranchi
15. IMS Kolkata
16. IMS Mumbai
17. WMS Raipur
18. IMS Nagpur
19. WMS Goa
20. WMS Bhubaneswar
21. WMS Hyderabad
22. WMS Vijayawada
23. WMS Vishakhapatnam
24. WMS Mangalore
25. WMS Bangalore
26. WMS Trivandrum
27. IMS Chennai
28. ISMES Jalna

ORGANIZATIONAL SETUP

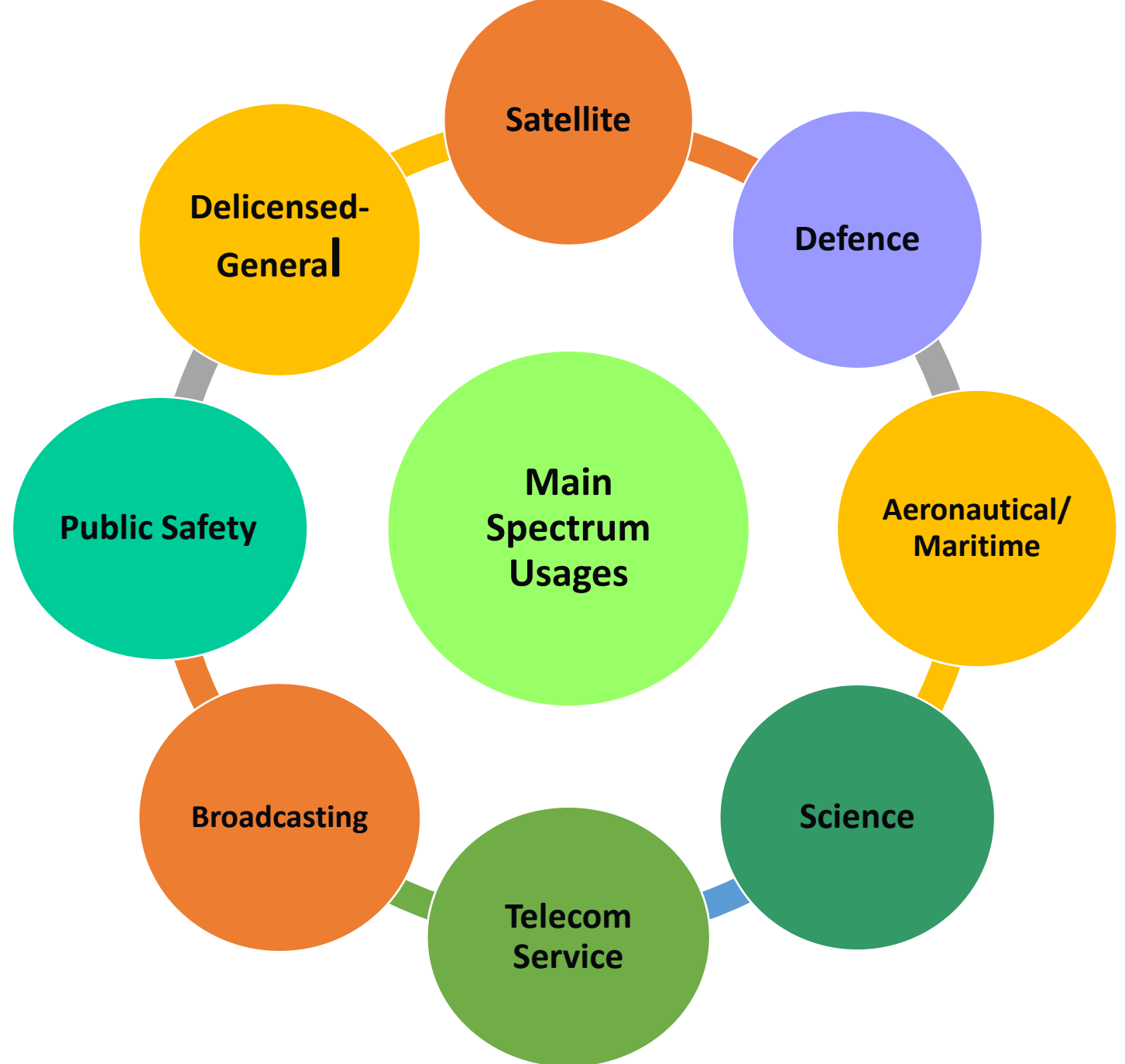
- 22 Wireless Monitoring Stations (WMS),
- 4 Regional Headquarters at Delhi, Mumbai, Chennai, Kolkata
- 5 International Monitoring stations (IMS) and
- 1 International Satellite Monitoring Earth Station (ISMES) at Jalna

MAJOR FUNCTIONS OF WMO

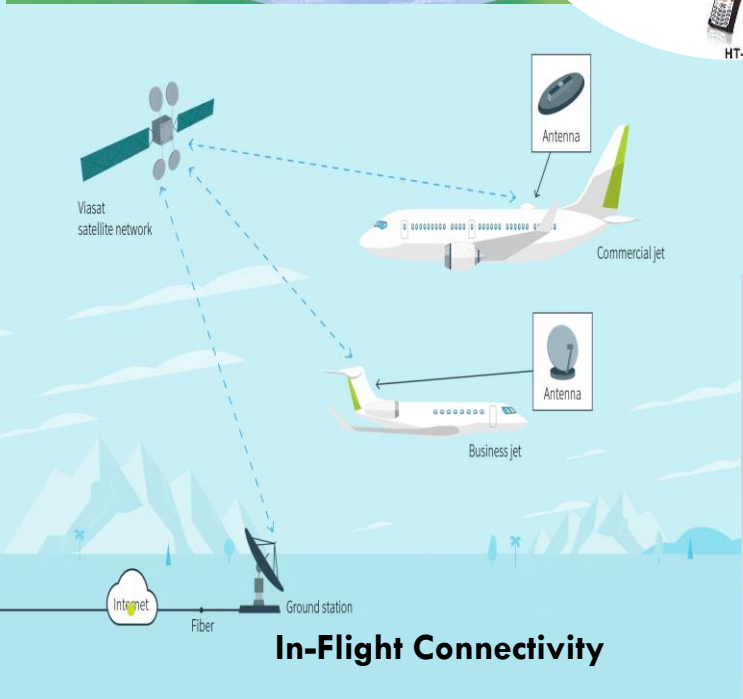
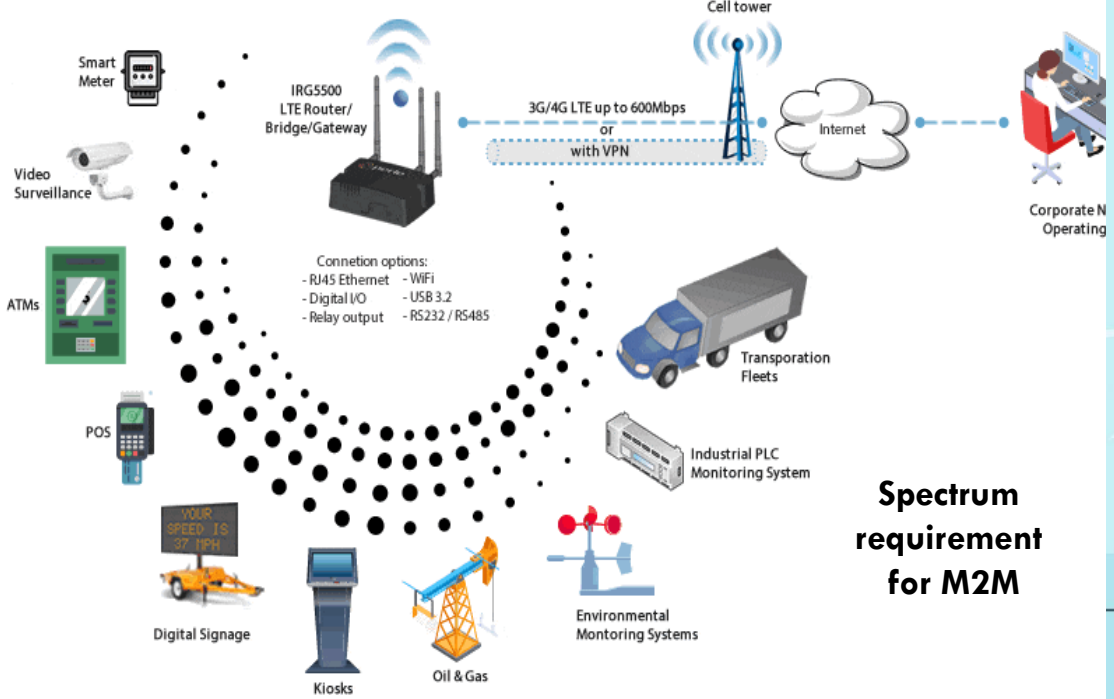
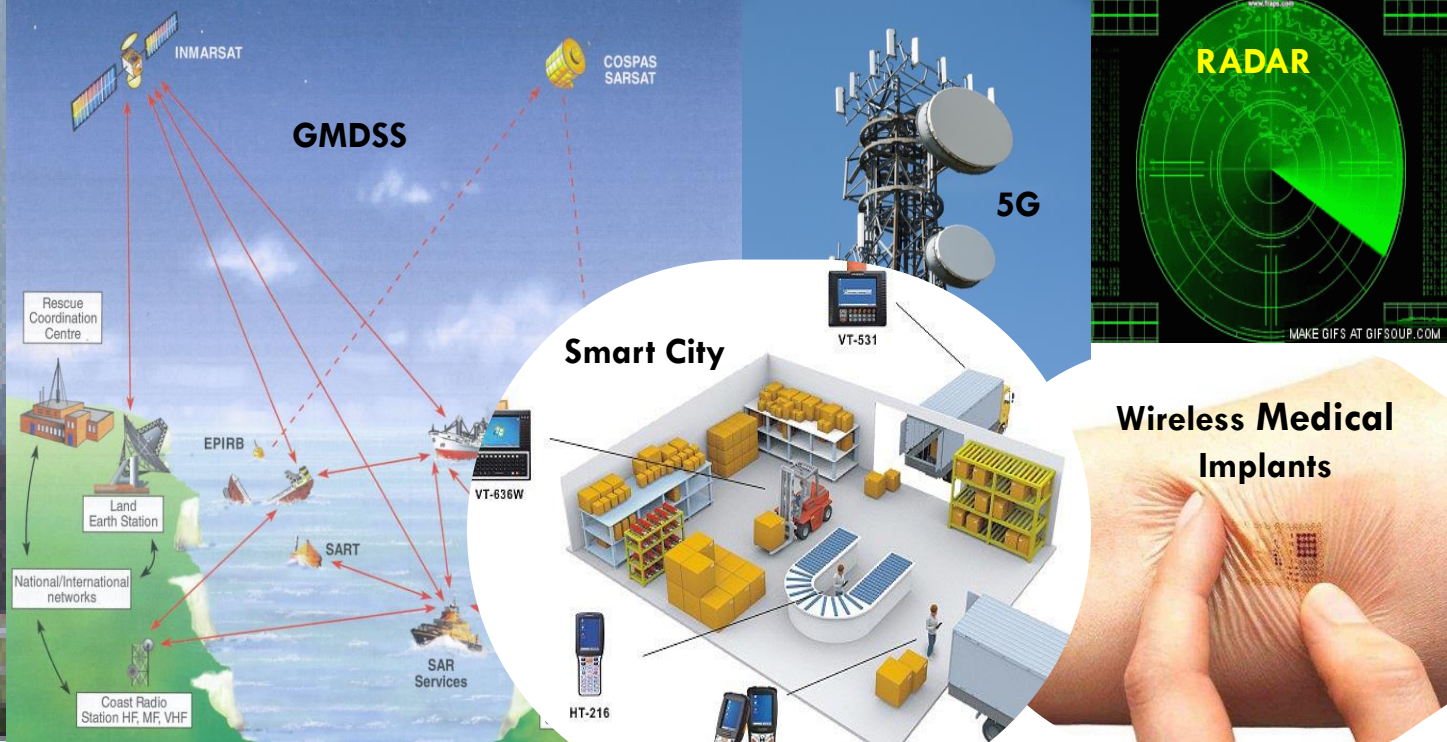
- Resolution of Harmful Interference
- Monitoring for identification of frequency sub-bands for introduction of new services and/or for additional allocation to existing services;
- Monitoring for spectrum recovery/ Spectrum Audit — unused/ under-used frequency authorizations
- Monitoring for ensuring adherence to licensing conditions
- Monitoring of space emissions to protect authorized satellite transmissions.
- Assistance to foreign administrations

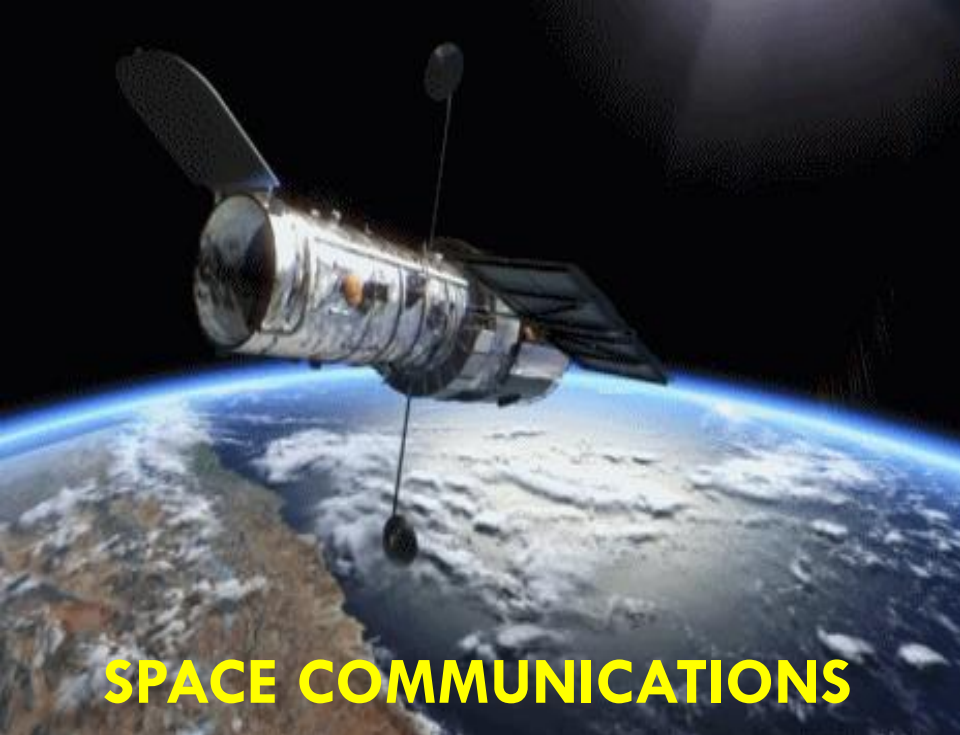
MAIN SPECTRUM USAGES

(41 Radiocommunication services)

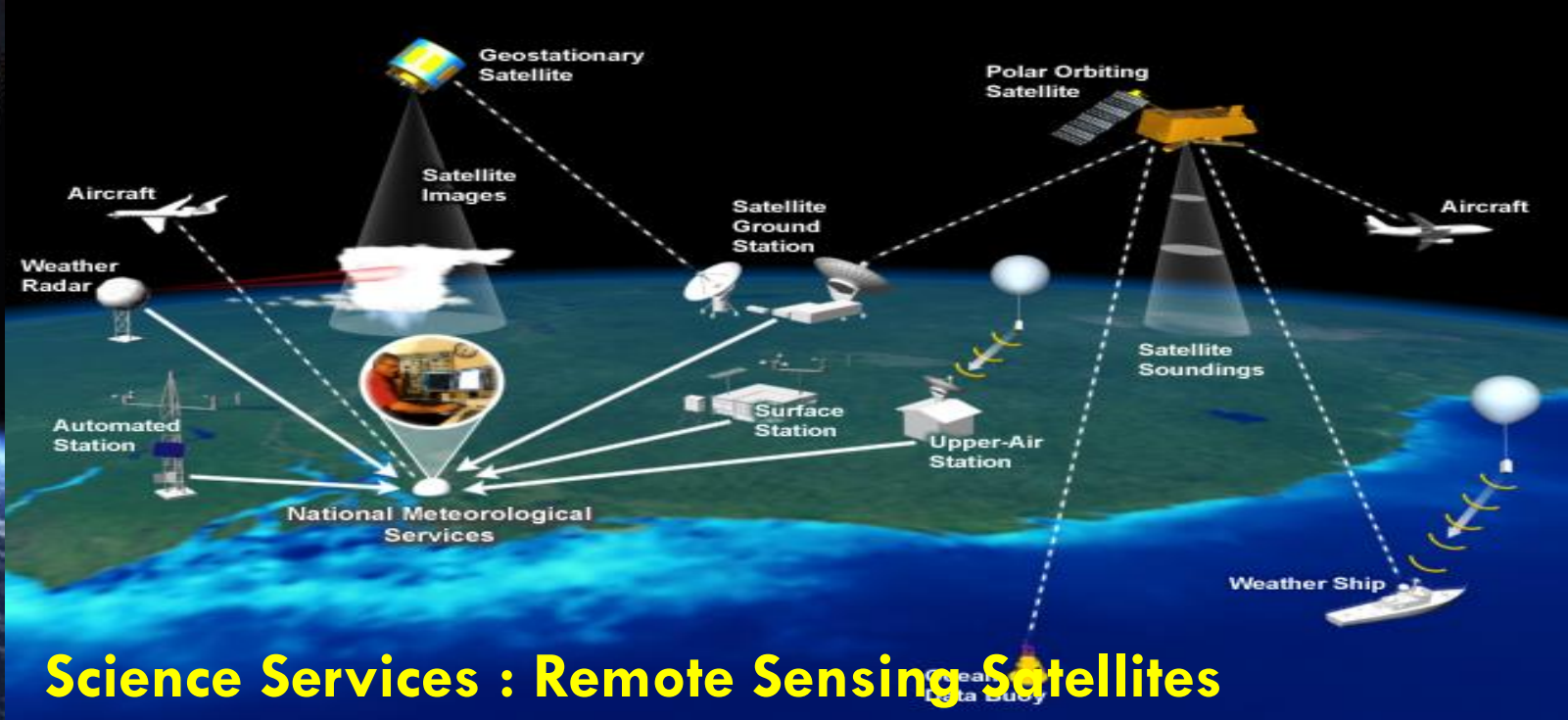


Spectrum Requirement of Civil Aviation





SPACE COMMUNICATIONS



Science Services : Remote Sensing Satellites



SHIP



COAL MINE



AIRPORT



METROS



PORT



AUTO MOBILE



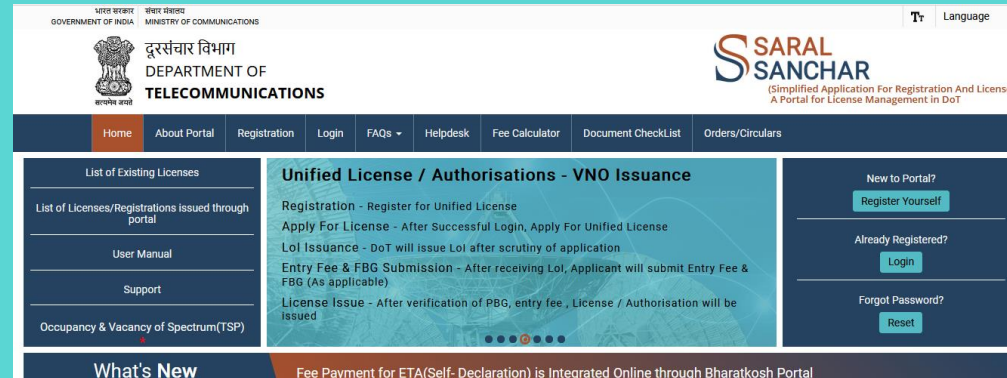
WEATHER



POLICE & DEFENCE SPECTRUM

How licenses are processed/ issued

- Application for licenses are processed through ONLINE mode, end-to-end paperless



- In-house software developed by DoT–PSU; Only administrative module. Technical analysis on need basis through standalone software
- Earlier Technical analysis software is outdated. Currently, in the process of purchasing new software

THANKS