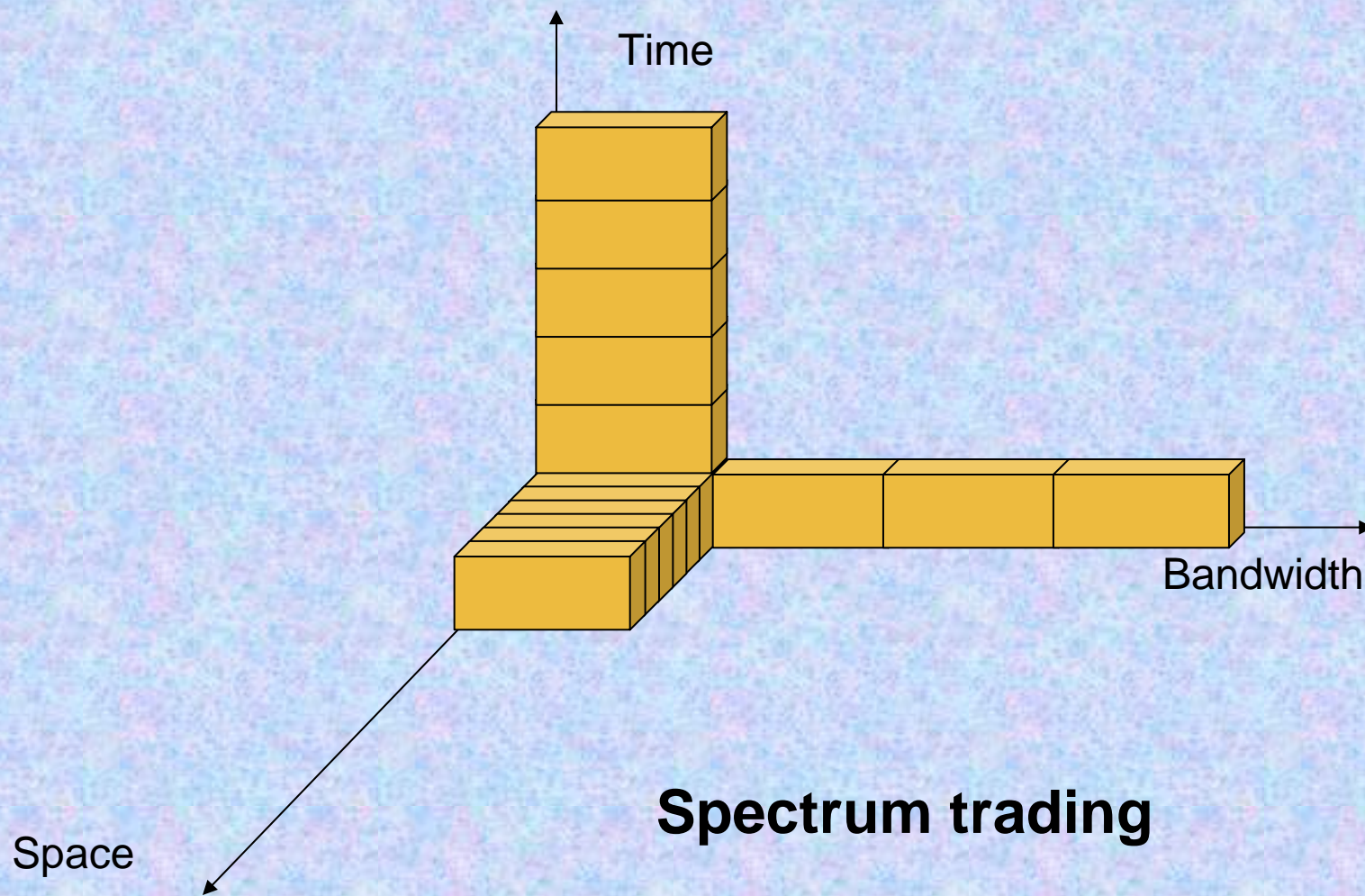


Market based approaches to improve spectrum management

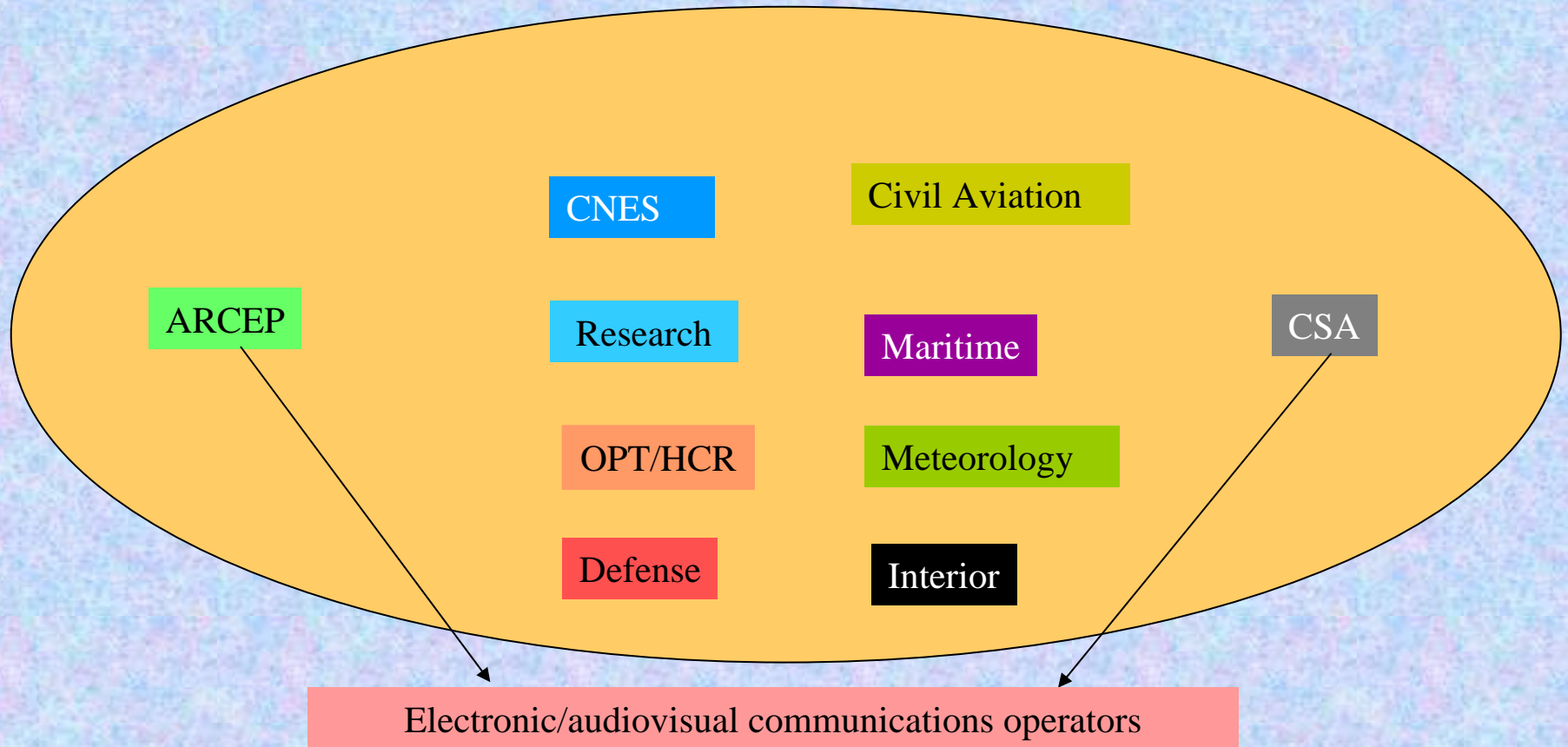
François Rancy
Director General, ANFR



Any problems ?

- **Spectrum is not sugar – rights are elusive**
 - Interference links spectrum to adjacent spectrum and distant areas
 - Most spectrum is shared, hence coordinated on a per assignment basis. In this case, propertization equates to transferring management rights
 - For exclusive spectrum, resolving interference by fixing limits at borders results in inefficiencies. Coordination results in lack of transparency.
 - Power limits/masks are not technologically/service/application neutral
 - Time sharing is not an option for large networks
- **Markets require stability, predicatability and transparency**
 - key factors to establish confidence of investors
 - Stability of allocations and predicatability of interference environment bring harmonisation, hence market development.
- **Spectrum is flowing from upstream market**
 - Wholesale market reflecting transactions between governments and regulators is essential.

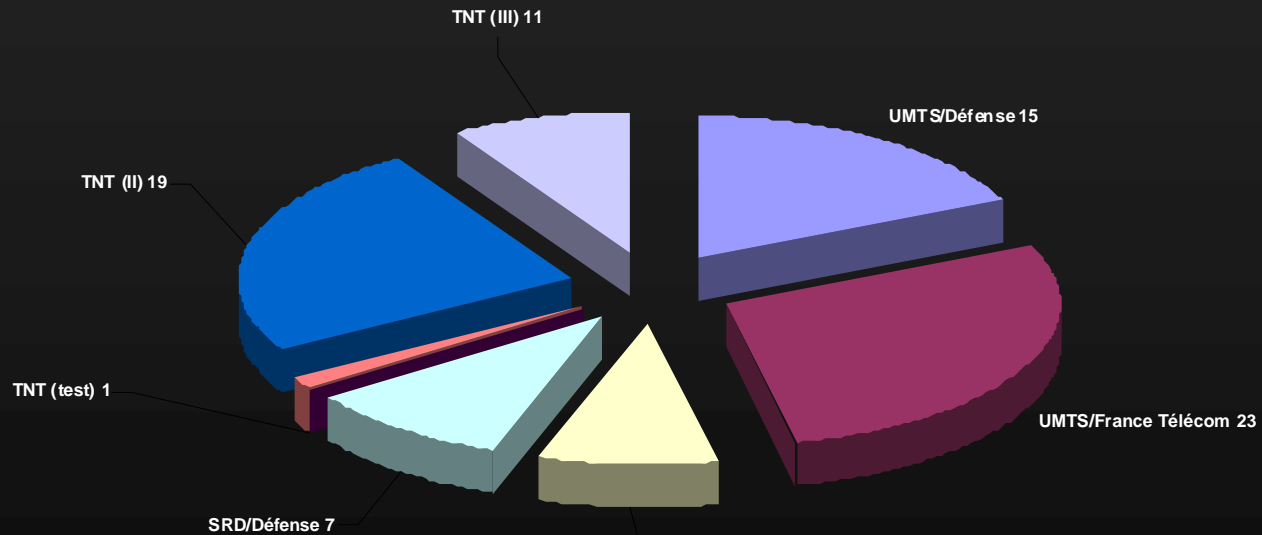
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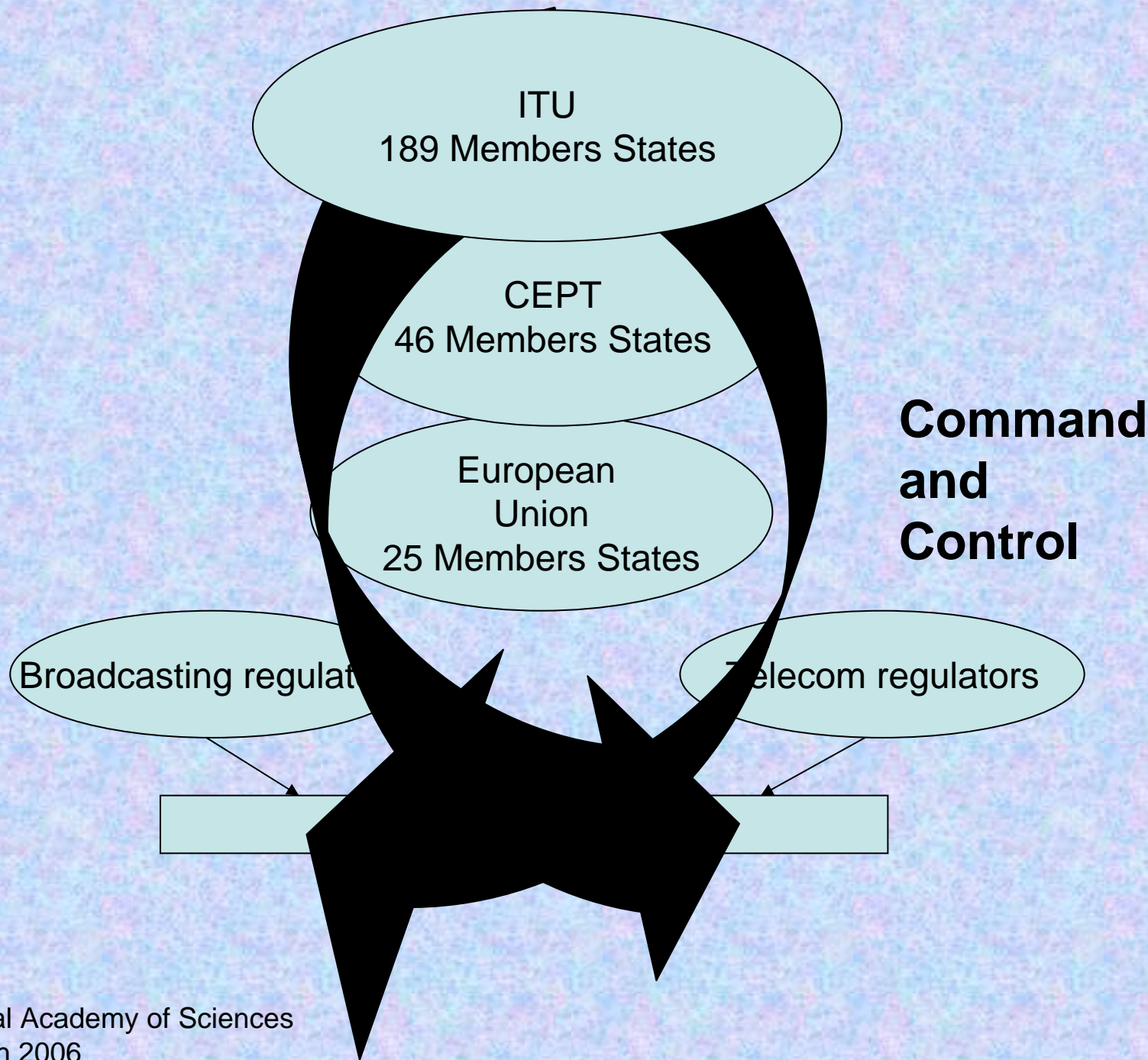
Wholesale spectrum transfers in France 1992-2002

System	Bandwidth	Transferred from
GSM 900	50 MHz	Defense
GSM 1800	150 MHz	Defense
UMTS 2 GHz	140 MHz	Defense (partly)
SRD (wifi) 2.4 GHz	83,5 MHz	Defense
Total MHz	423,5 MHz	350 MHz

Main actions supported by the spectrum refarming fund as of end-2005
86 M€



One perception of spectrum management



And another one

