

# **Evolving Economic and Policy Mechanisms to Support Spectrum Sharing**

ISART 2022: Panel on Economics of Spectrum Sharing

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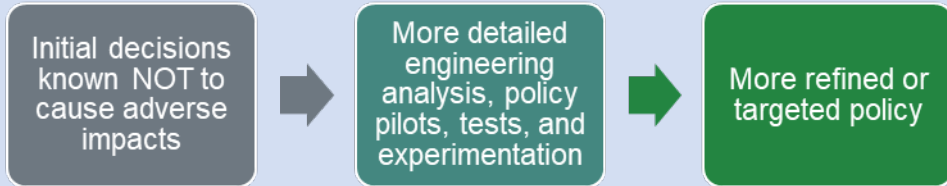
# Introduction

**Technological progress in electromagnetic spectrum sharing must be coupled with innovation in economic and policy mechanisms**

- Spectrum repurposing is stipulated via executive and legislative mandates
  - Examples: CSEA, Spectrum Pipeline Act, MOBILE NOW
  - Continuous repurposing of spectrum from government to commercial users is unsustainable
- Spectrum sharing offers a more flexible and sustainable approach
- Must be supported by a more agile economic and policy model



# More Agile Economic and Policy Mechanisms

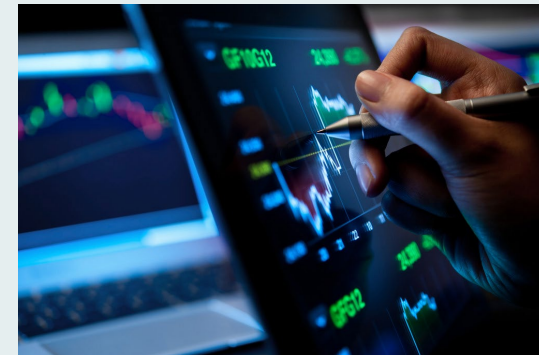


## ■ Continuous Regulatory Improvement

- Implement a more agile and iterative process that is more responsive to change\*
- Seek to realize benefits of faster timelines, increased quality and performance, improved efficiency, and reduced risk
- Establish continual improvement cycle of planning, small-scale implementation, analysis of results, identification of gaps, and refinement to address the challenges and close the gaps\*\*

## ■ Economic Innovation

- Increase the fungibility, or exchangeability, of spectrum access
- More fully reimburse costs of repurposing
- Modernize spectrum access
- Stimulate innovation through incentives
- Support secondary use and leasing



\*R. Dorch and M. Cotton, "ISART 2022 -- Evolving Spectrum Sharing Regulation Through Science and Engineering," Boulder, Colorado, 2022. \*\*The MITRE Corporation, "Systems Engineering Guide," 2014.

# Considerations

- Implement agile policy development and spectrum IT modernization to accelerate international and U.S. spectrum regulatory processes
- Increase fungibility of spectrum access by more fully reimbursing costs of repurposing spectrum and supporting secondary use and leasing
- Economic and policy mechanisms should foster a whole-of-nation approach to achieve shared national objectives to optimize spectrum sharing solutions



## *Shorter-term opportunities:*

- Implement continuous regulatory improvement, build robust databases and acceptable methods, and modernize infrastructure
- Reform the Spectrum Relocation Fund and support shorter-term transactions on a voluntary basis
- Develop and clearly articulate shared national objectives

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