



2021 NTIA Spectrum Policy Symposium

ISART 2022 Preview: Evolving Spectrum-Sharing through Data-, Science-, and Technology-Driven Analysis and Decision-Making

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International Symposium on Advanced Radio Technologies (ISART)TM



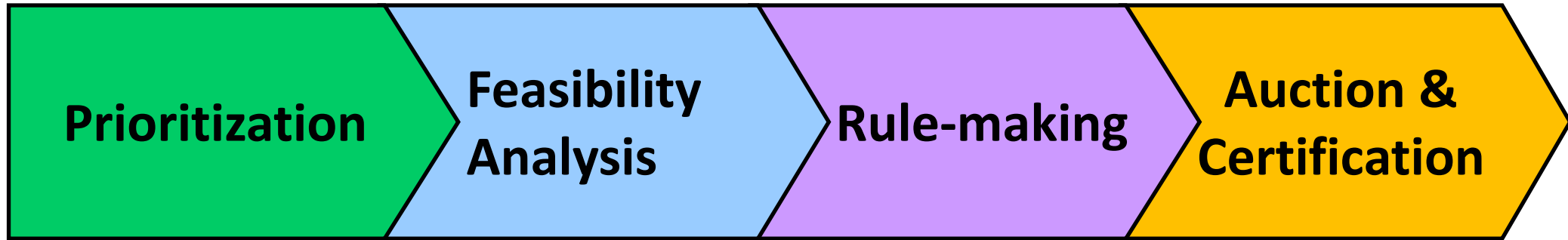
<https://www.its.blrdoc.gov/isart/isart-home>



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Current Process



Broadly generalized graphic depiction of the current linear spectrum sharing regulatory process



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Applying Lessons Learned

Lessons Learned	Potential Solutions
<ul style="list-style-type: none"> ▶ Feasibility studies include incomplete technical data on system parameters, and assumptions on deployments 	<ul style="list-style-type: none"> • Better data could reduce margins/worst case analyses, longitudinal data spur reassessments
<ul style="list-style-type: none"> ▶ Engineering studies done late in the process may identify obstacles omitted in the sharing parameters 	<ul style="list-style-type: none"> • Begin engineering studies early and repeat as the technology matures, to refine parameters
<ul style="list-style-type: none"> ▶ Innovation in hardware and software outpaces the regulatory process 	<ul style="list-style-type: none"> • An iterative process could potentially keep better pace with innovation
<ul style="list-style-type: none"> ▶ Funds do not exist to incent Federal-unlicensed sharing 	<ul style="list-style-type: none"> • Alternative funding could be developed
<ul style="list-style-type: none"> ▶ Information asymmetries exist 	<ul style="list-style-type: none"> • Transparency, open data, and data sharing incentives could be developed
<ul style="list-style-type: none"> ▶ Coexistence is not always considered in standards processes 	<ul style="list-style-type: none"> • Standards that engineer for co-existence could expedite sharing



Evolving the Process



Broadly generalized potential continuous regulatory improvement model



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ISART 2022 Call for Conference Papers: Suggested Topics for *Evolving Spectrum Sharing Through Science and Engineering*

- ▶ Retrospectives on AWS-3, CBRS, and AMBIT
 - ▶ NTIA spectrum sharing feasibility analyses
 - ▶ Data sharing and transparency
 - ▶ Model standardization
 - ▶ Risk-based interference prevention
 - ▶ Ex post developments
- ▶ All submissions must be made via email to isart2022@ntia.gov
 - Use IEEE conference paper format guidelines
 - Limit abstract to one page and paper length to four pages
 - ▶ Important dates:
 - Submission window opens: 03 January 2022
 - Abstract deadline: 14 January 2022
 - Abstract acceptance notification: 11 February 2022
 - Complete paper deadline: 18 March 2022

