



Honesty and Service®

Emissions Tracking Systems

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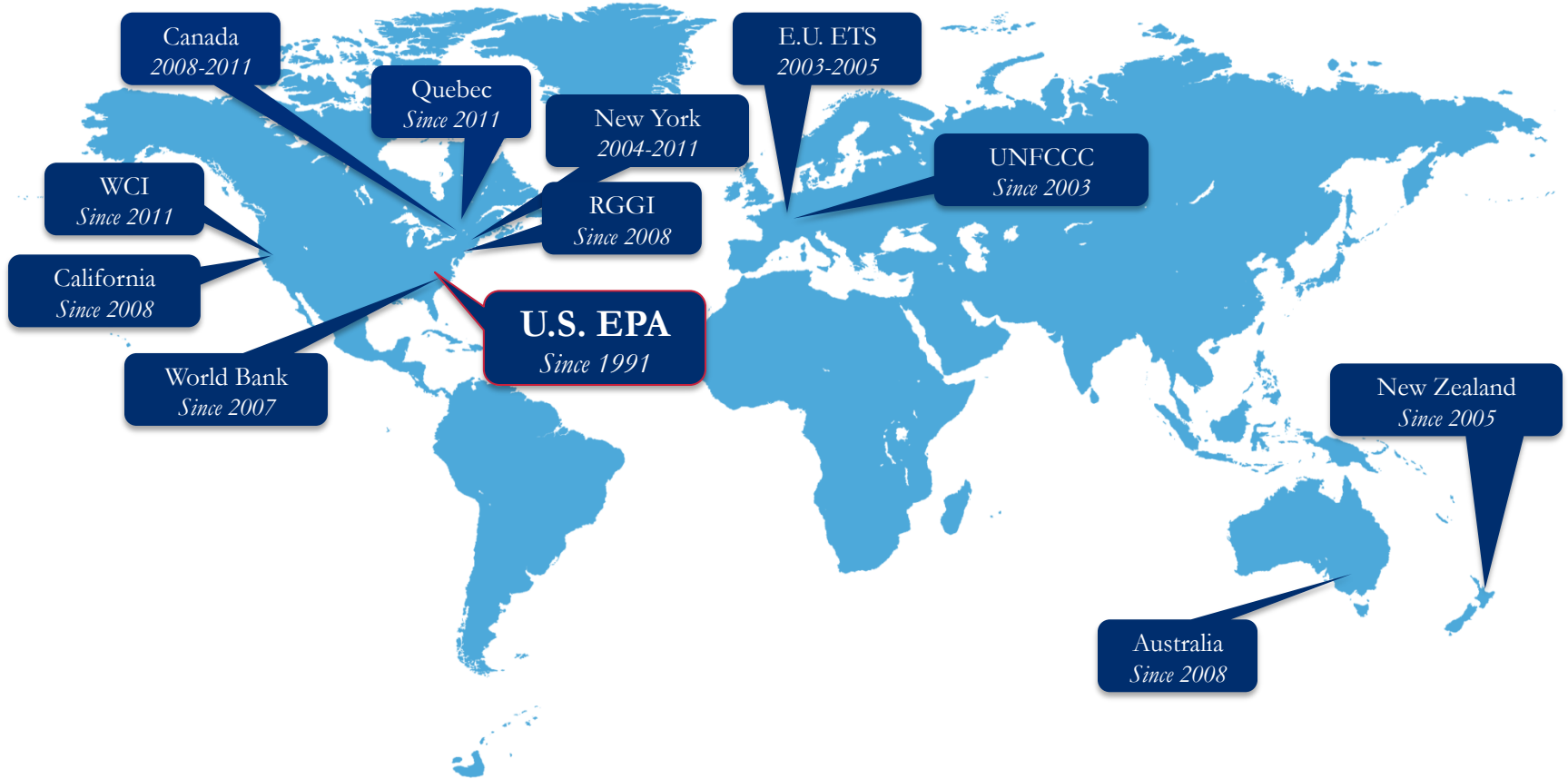
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SRA
Enduring Values. Inspired Performance.®

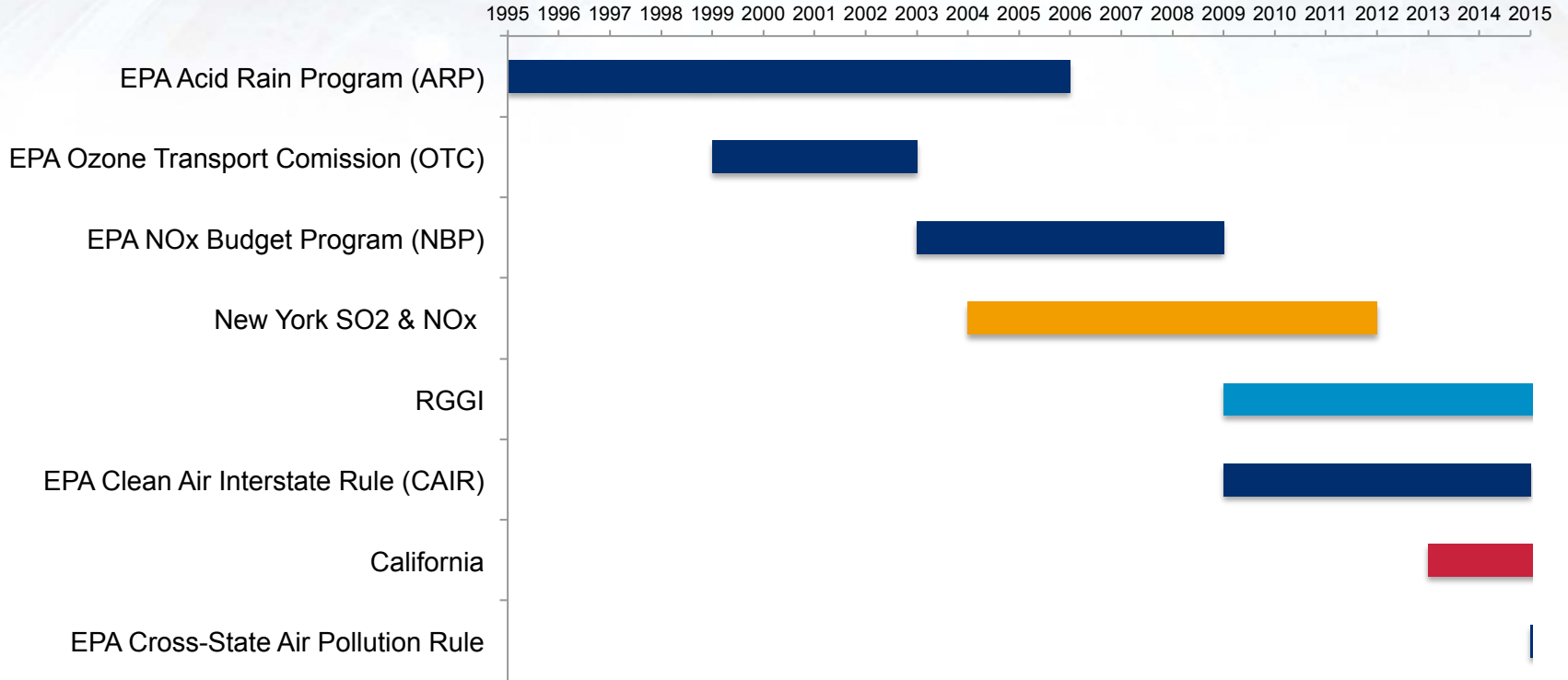
About SRA

- Our focus is supporting government programs
- Currently support all mandatory emissions trading programs in the U.S.
- Provide mission-based support and IT services
- Close working relationship with EPA since 1991
- Experience facilitating program connections between EPA and states (e.g., RGGI, NY, California)
- Excited about the opportunity to share our knowledge and experience in building new state and regional programs

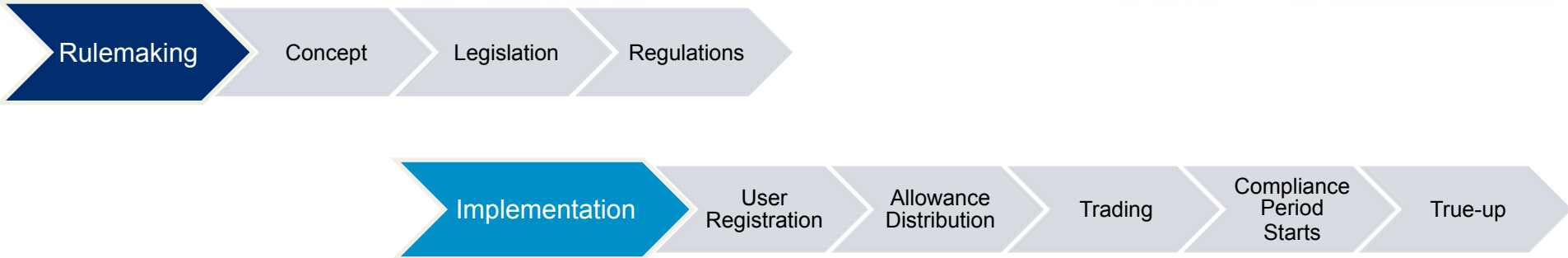
Our Experience



History of U.S. Mass-Based Programs



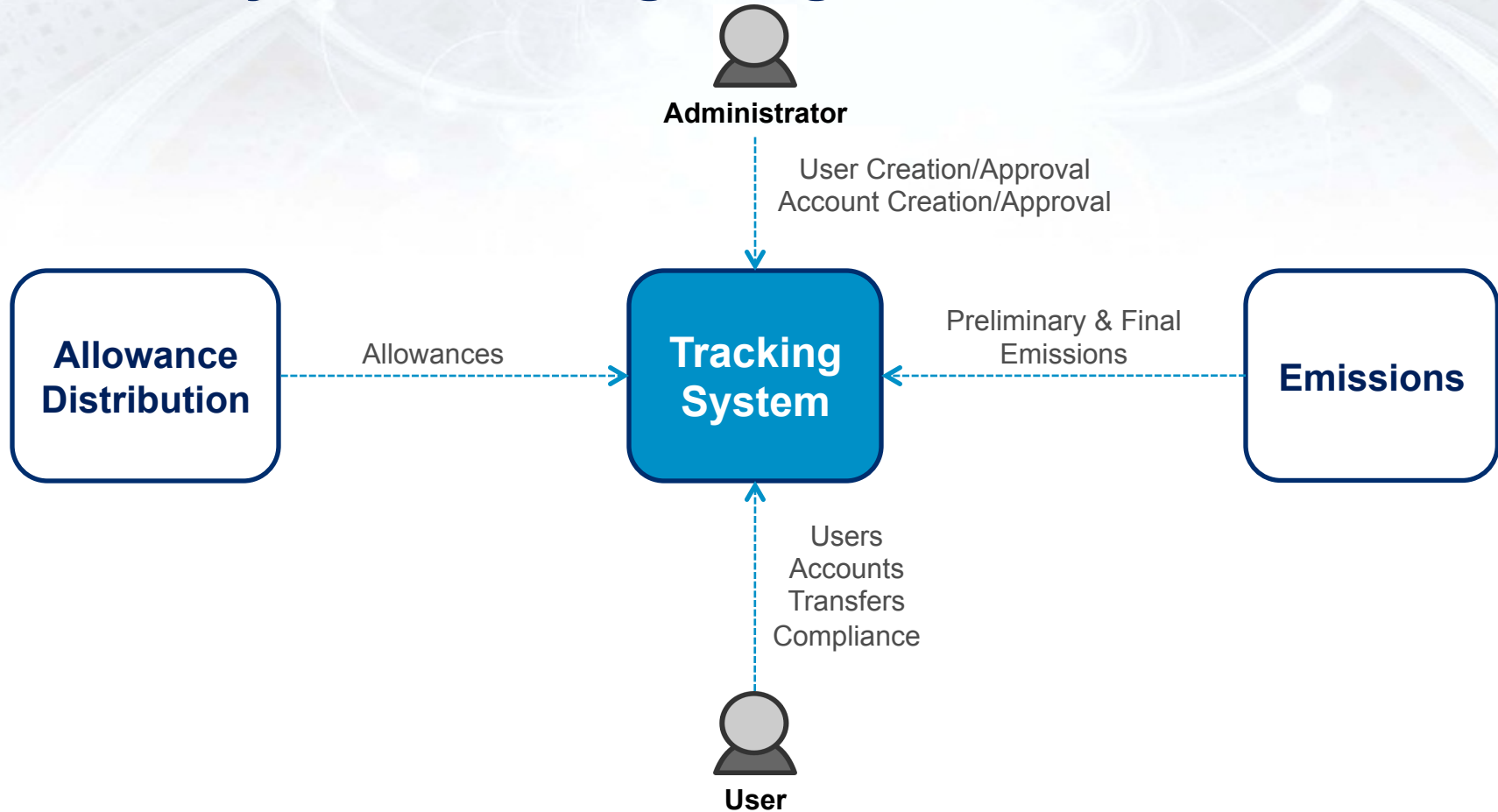
Progression of an Emissions Trading Program



Basic Needs of a Trading Program

1. The ability to create units and get them into the hands of the program participants
2. The ability for participants to hold and transfer those units
3. The ability to match up units with compliance limits (e.g. rate, mass, etc.)

Anatomy of a Trading Program



Role of a Tracking System

Management	Transfers	Compliance	Communication
<ul style="list-style-type: none">• Users• Entities• Accounts	<ul style="list-style-type: none">• Issuance• Distribution• Transfers• Retirement• Cancellation	<ul style="list-style-type: none">• Interim• Final	<ul style="list-style-type: none">• Emails• Reports• Announcements

Other Potential Roles of a Tracking System

Inventory	Auction	Credits	Documents
<ul style="list-style-type: none">• Units• Facilities• Corporate relationships	<ul style="list-style-type: none">• Registration• Intent to bid• Financial info	<ul style="list-style-type: none">• Project submission• Project review	<ul style="list-style-type: none">• Registration forms• Compliance statements• Contracts

How Do Tracking Systems Differ?

- Program design
 - Covered sectors
 - Flexibility mechanisms (banking, borrowing)
- Program linkages
 - Direct
 - Indirect
- Interaction with other environmental programs
 - Mandatory reporting and verification
 - Renewable portfolio standards
 - Criteria pollutants
- Financial regulations and markets
 - Secondary markets
 - Oversight and reports
- Number and type of users

Integration with Other Systems

Trading	<ul style="list-style-type: none">• Other tracking systems• Exchanges
Emissions	<ul style="list-style-type: none">• National emissions reporting• State emissions reporting
Other	<ul style="list-style-type: none">• Federal corporate identifiers• State corporate identifiers• Federal facility and unit inventories• State facility and unit inventories

Major Considerations

- Will this program link with other programs now or in the future?
- What are the major program phases and milestones? What is required to support each?
- Who will be participating in the program? What are their needs?
- What other systems will the tracking system need to interact with?
- What data do you want to get out of the system? For public reporting? For administration? For other oversight (e.g. market monitoring)?

Lessons Learned - Process

Timing	Regulations
<p>Start Early</p> <p>Programs never have full certainty</p> <p>Late start = less flexibility</p>	<p>Consider design and implementation implications</p> <p>Keep things simple</p>
Stakeholder Engagement	Processes & Tools
<p>Engage stakeholders early - both internal and external</p> <p>Ask how they want to work with you</p> <p>Understand their constraints and drivers</p>	<p>Expect and plan for change</p> <p>Use tools and processes that can support ongoing change</p> <p><i>How you work is as important as how you design the system!</i></p>

Lessons Learned - Design

Customization	Administration
<p>Flexibility in program implementation = Less customization</p> <p>Identify and build common functions that can be rapidly adapted</p>	<p>Don't ignore administrative functionality</p> <p>Recognize the risks of manual processes</p> <p>Consider what data you want out of the system</p>
Security	Variety of Users
<p>Think about the entire "system" and not just the application</p>	<p>Build capabilities that support a range of users</p> <p>Provide data interfaces</p>

Supporting 111(d) State Plans

- The program design will have a big impact on how easy or difficult a program is to implement.
- By involving those with experience building tracking systems early, you can streamline the implementation.
- If designed thoughtfully, current systems can be leveraged to reduce time and costs.
- Some customization may be required to match the specifics of the regulations.

Questions?