

Combined Air Emissions Reporting (CAER): Key Challenges

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Industry can't be set up to fail

- Need detailed understanding of the existing regulations
 - Do we fully understand the fundamental problem that CAER solution is proposed to solve?
- What are the differences and similarities for AERR, TRI, GHGRP and CEDRI between:
 - Facility definitions?
 - Reporting requirements?
 - Reporting thresholds?
 - Reportable pollutants and compound groups?

Industry can't be set up to fail

- Need sign-off from all offices in EPA
- Companies can't fall out of compliance by using CAER
- Partial implementation for parts of programs
 - Air emissions for TRI – but what about the rest of the Form R?
 - How big is the actual overlap between one or more programs?
 - What about AEI-only or TRI-only facilities?
- FACA concerns?

Business Process Concerns

- EIS performance is very slow, hard to navigate through the front end
 - Will any new system be significantly better?
- How easy will it be to change emissions data?
 - Very hard to completely delete data in the EIS
- We need the ability to quickly add/remove and change the configuration of facilities during the reporting season
- We need to be able to monitor a company's submission status
- Cannot afford to allow fee-collection process to be comprised
 - Subsequent changes to emission amounts must be quickly propagated

Getting SLT Buy-In

- Contributions from Emission Inventory staff to CAER projects do not necessarily represent buy-in from all levels in a state agency
 - Lack of awareness, not high enough on the radar
- Overcoming skepticism about this project
 - Complex project
 - Regulatory constraints
 - Funding issues, staff resources
 - Communicating how project has responded to SLT input and feedback
- Overcoming skepticism about past EPA projects
 - Cooperative federalism in action

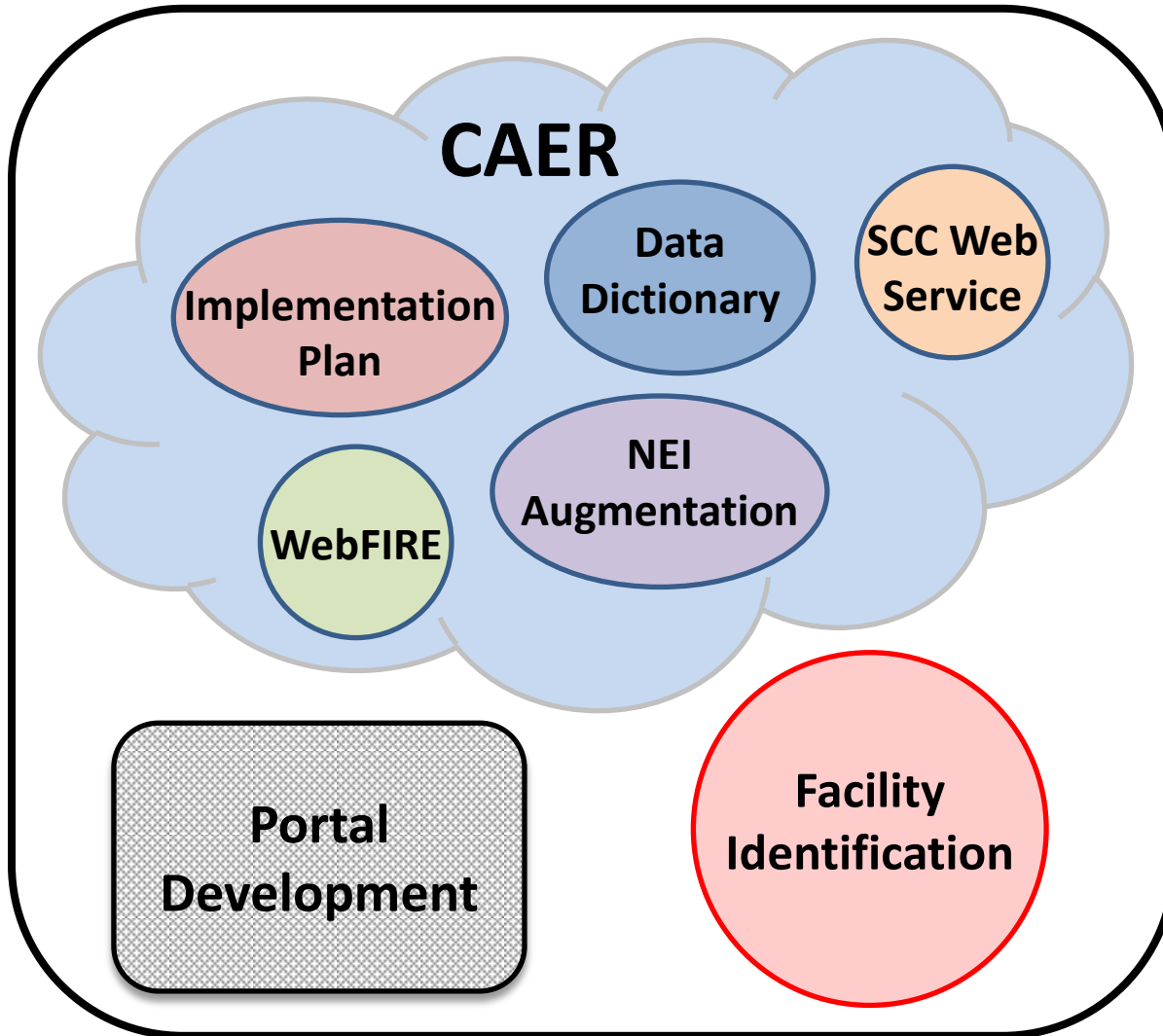
Getting SLT Buy-In

- What will be the impact when migrating from existing systems?
 - Staff time
 - Frequent turnover
 - Need to get up to speed
 - IT Resources
- What support will EPA provide to the states?
- What is the CAER Value Proposition?
 - Benefits minus Costs

CAER Project Governance

- Hard to keep up with everything
 - One short meeting per month
- Coordination of sub programs
 - Multiple interdependencies
- Coordination with other projects
 - Facility Identification Integrated Project Team (FIPT)
 - Facility Registry Service (FRS) / Residual Risk Technology Review (RTR)
 - CAER is critically dependent on these programs

Project Interaction & Governance



E-Enterprise



**Not
E-Enterprise**



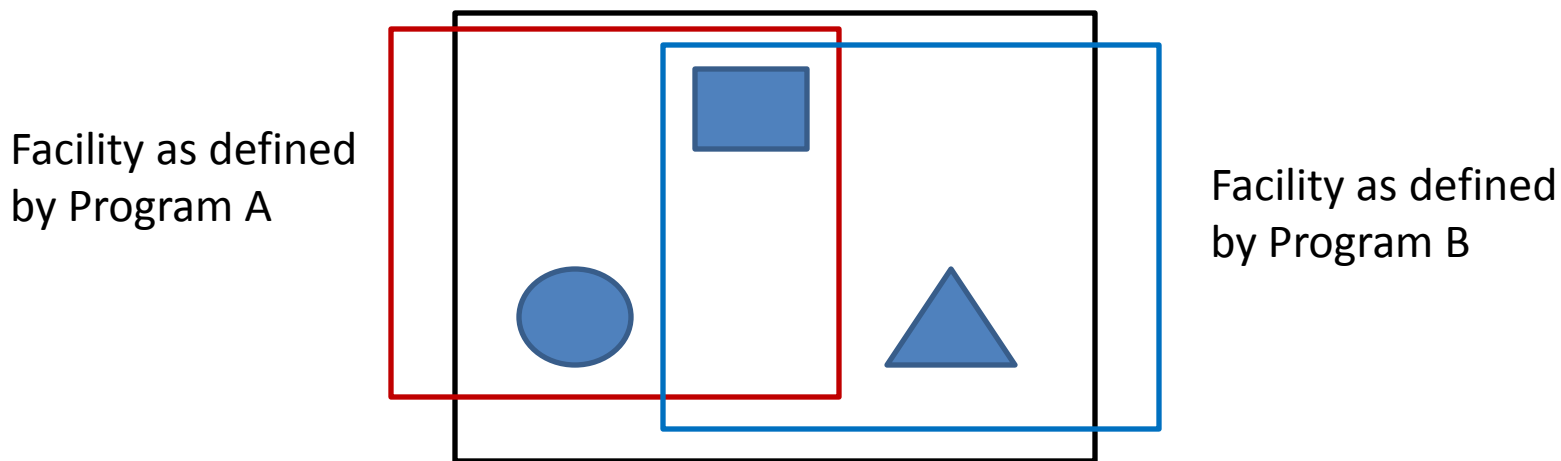
**FRS Data
Model &
RTR**

Facility Registry Service (FRS) Data Model

- How related to E-Enterprise?
- State review and input needed for this crucially important infrastructure
- What's wrong with the CERS? Why do we need a new data structure?
- What regulations define a “facility” across different agencies and programs?

How to match facilities across different programs?

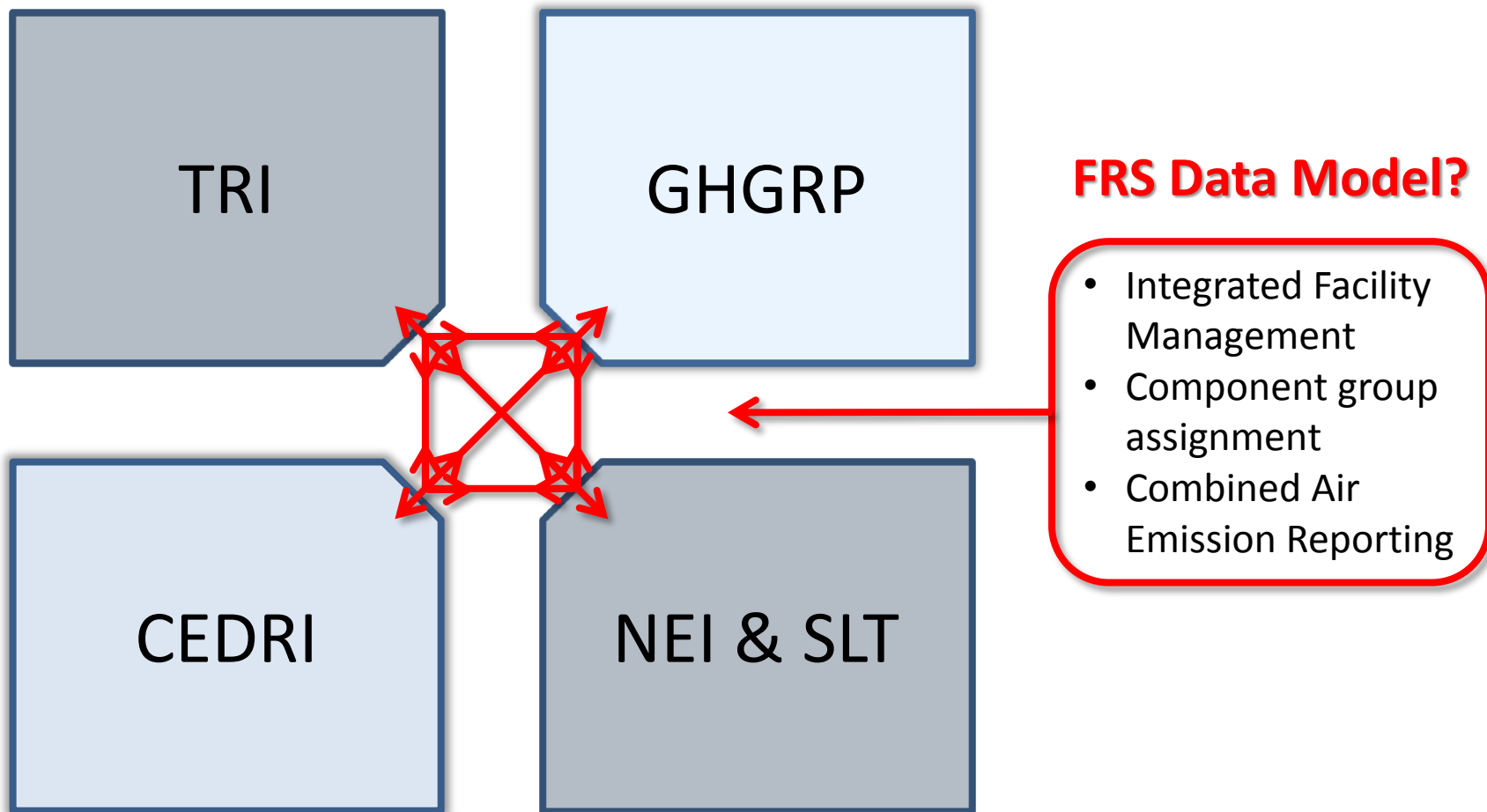
- Matching facilities will require assigning sub-facility 'component groups' to appropriate programs
- Likely has to be done at the emission unit level



How to match facilities across different programs?

- Increase in metadata will be needed
 - Relationship of each emission unit component with its parent “facility” for different programs
 - Account for changes in ownership
 - Account for temporal changes
 - When was unit added, removed, etc.

CAER Interactions

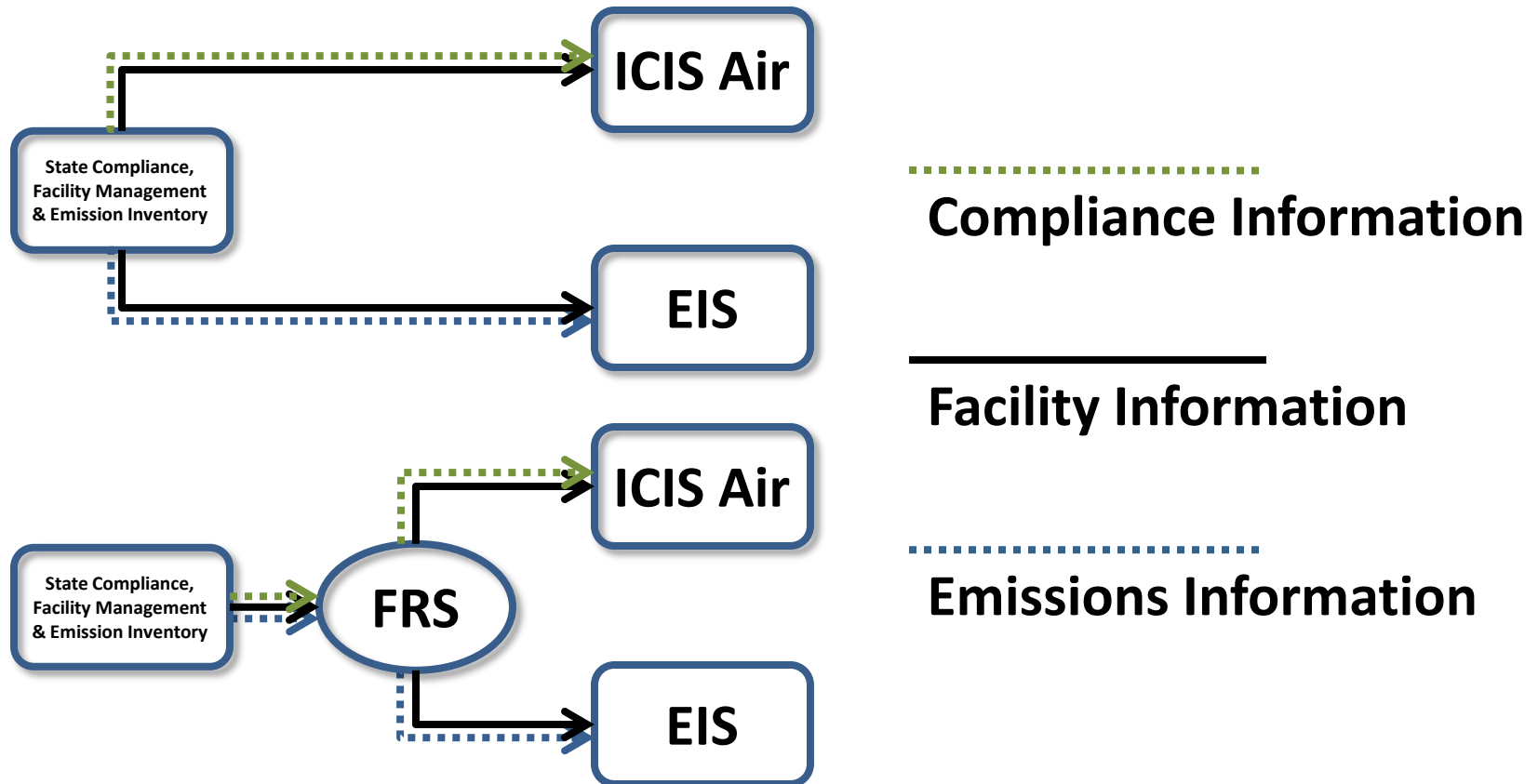


Facility Crosswalks / Reconciliation

- Will there continue to be work to maintain and update facility crosswalks across programs?
 - States must currently have in-depth knowledge of programs to create crosswalks and ensure data relevance and accuracy
- The FRS Data Model and CAER business processes will require accommodating user expertise and program relationships currently distilled into crosswalks
 - Implemented CAER should replace crosswalk necessities, but effective CAER requires state competency beyond individual state programs and crosswalks for beta testing

Optimize Facility Data Reporting?

- EI is downstream of Permitting and Compliance/Enforcement
- Our main database has to align with ICIS-Air
 - How does this program interact with CAER?



Program Ontologies

- Programs must truncate reality
 - to a “common” perception/characterization
 - this conception exists within rules, regulations, etc.
- Programs pragmatically truncate conceptions further for management practices, business processes, systems, forms, etc.
- Final **data** product of a program is a significant abstraction of reality and requires reverse engineering truncations for comparison to reality
- Logical fallacies can exist and are tremendously problematic when comparing/contrasting programs or developing technological solutions

Conclusions

- CAER has important implications for SLT emission inventory programs and other programs that depend on this data
- Technical solutions to meet the regulatory constraints will be complex
 - Or areas of overlap between programs may be limited
- Participate, review and engage if possible
- Beta testing opportunities will be available
- Keep your management informed!