Combined Air Emissions Reporting

E-Enterprise for the Environment

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Topics for Today

- Background on E-Enterprise and CAER goals
- CAER Implementation Plan and moving forward
- CAER "Quick Start" Event
- Demonstration of an emissions sharing prototype using a "common form" approach from Be Informed vendor
- Questions and answers

Participant Poll Question #1

What type of organization are you associated with?

E-Enterprise

- E-Enterprise for the Environment is jointly governed by state/local/tribes (SLTs) and the EPA to collaboratively modernize business processes:
  - To improve environmental results
  - To enhance services to the regulated community and the public by making government more efficient and effective
- A completely new way of working together among EPA and SLTs
- For CAER, we are listening:
  - We have changed our ideas for the proposed future state based on continued input
  - Details continue to evolve with continued input via CAER Subteams, Webinars, and other voluntary input opportunities

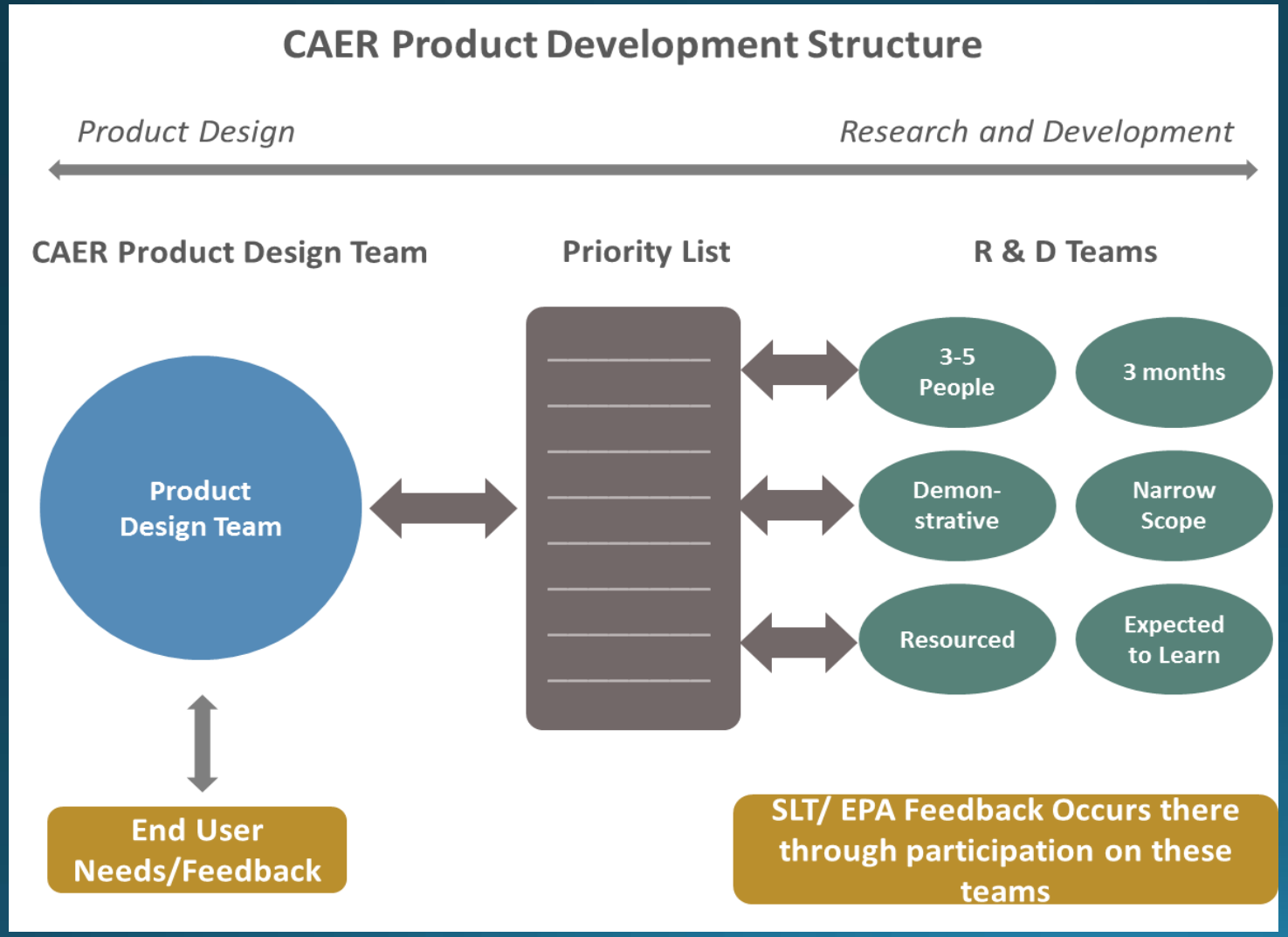
CAER Goals

- Reduce industry burden for point source reporting
- Improve timeliness and transparency of data
- Ensure consistent information across air emissions programs
- Improve data quality
- Improve accessibility and usability of data
- Support more timely decision making

CAER Implementation Plan

- Status
  - Internal team development completed
  - Full CAER team report out completed and comments received
  - Final plan released in August 2016
- Plan Contents
  - Expanded view of proposed future state
  - Governance process and structure
  - Initial priority list and managing it
  - Managing the next phase of implementation, including constraints
  - Resource needs
  - Defining success and measuring progress

CAER Governance Structure



- Product Design Team (PDT)
- R & D Teams
- Customer & end user feedback
- Agile process
- Outcome measures

PDT:

12 representative members (or fewer)
Sufficiently senior to commit to reporting program decisions
Standing team for the duration of CAER
Responsibilities

- CAER vision champion
- Policy direction and resolution
- Resource management
- Manage priority list (identify items and priorities) and work via R&D teams
- Coordination with other projects upon which CAER has crucial dependencies
- Strategic communications to ensure buy-in from agency leadership and industry

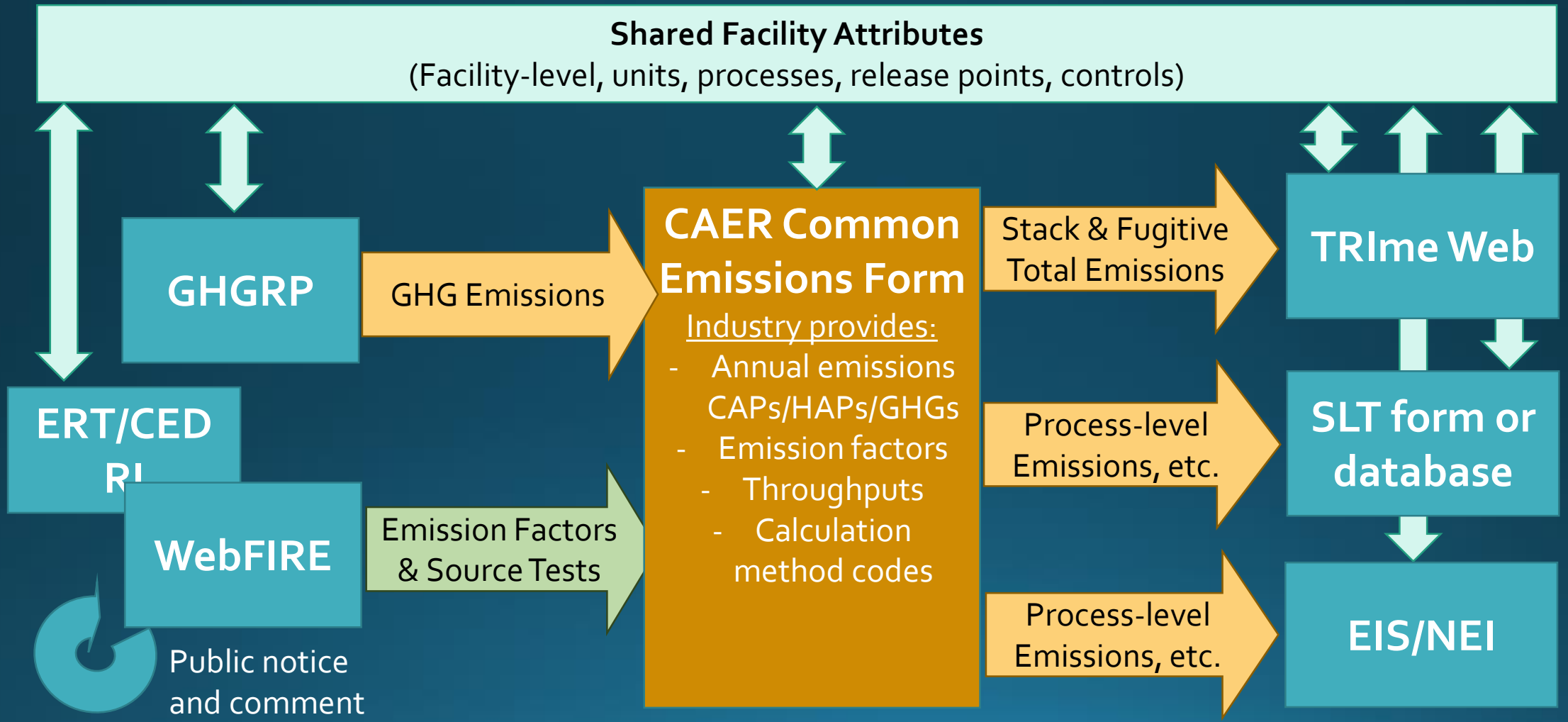
R&D Teams:

Purpose is to accomplish a discrete piece of work initiated by the PDT
Small number of experts convened to solve a very specific problem
Form and function of each team is left for members to establish
Regular reporting to PDT

CAER "Quick Start" event

- Created a prototype during a 5-day challenge event
  - EPA members from each of the 4 CAER emissions programs and the Office of Environmental Information (OEI) Facility Registry Service (FRS)
  - State members from Georgia, Mississippi, South Carolina, and Wyoming
  - Other EPA "observers" and states (Minnesota, Massachusetts, Arizona)
- Focused on emissions sharing
  - Assumed sharing of facility attributes was in place
  - The Facility Data Integrated planning Team has the lead
- Focused on NEI-SLT and NEI-TRI (two highest return on investments), with connections to GHGRP and CEDRI/WebFIRE
- Explored the idea of a Common Emissions Form
- Explored the use of the Be Informed® software package

CAER Common Form Idea



CAER Quick Start Takeaways on the Be Informed Approach

- The Be Informed vendor successfully prototyped examples of CAER functionality
- CAER and Be Informed could make TRI more consistent with NEI
- Be Informed seems flexible enough to accommodate different state needs and can be configured to meet states' requirements
- Be Informed could allow state systems to push data to a Common Form, thus states could participate in CAER with different mechanisms
- Requirements can be carefully modeled in Be Informed to ensure compliance for facilities and states and EPA programs
- We still need to use past performance information of Be Informed to better assess the applicability for CAER

CAER Quick Start Takeaways on Workflows

- Some states want to imbed the Common Form capability into their user interfaces and systems.
  - The form specifications can be provided as a web service by Be Informed
- Four examples of workflows that could be supported in parallel:
- Example 1: State interface and backend are retained (Common Form received data from state interface)
- Example 2: State interface and backend are retained (Common Form pushes data to state interface)
- Example 3: Common Form replaces state interface but state database *is* retained
- Example 4: State uses Common Form and EIS only

Background for today's webinar video on Quick Start prototype

- We will be showing an approximate 30 min video describing the Quick Start prototype developed with Be Informed® software package
- Things to keep in mind while viewing the video:
  - The examples used in the demo are meant to show how existing program requirements can be fulfilled through the use of the common form approach
  - The prototype is meant to illustrate some key functionalities under the CAER proposed future state, including retrieval of facility attributes, collecting requirements, reporting and sharing emissions data, and example of QA/QC
  - There are many more possibilities regarding functionalities and user experience/interface than shown in the prototype that can be tailored to specific program needs
  - A more complete, full-scale pilot of the prototype is necessary to capture the full functionalities and capabilities of the approach and to allow for further evaluation

- Examples of additional functionalities:
  - For example, some SLTs may wish to maintain their reporting interface that industries see, in which case the common form could exist as a background service interface behind the SLT interface
  - More detail on emission data to match SLT and program needs (e.g., calculation methods, throughput info, reporting thresholds, advanced QA/QC checks)
  - Reporting functionalities for different users

View Video Quick Start Prototype
(click each link to start videos)

Capturing the NEI reporting requirements

This video demonstrates how the reporting requirements for the NEI program are captured in the CAER prototype application. The reporting requirements consist of process SCC codes, pollutants to be reported per SCC code and the reporting expectation.

These requirements are used to provide guidance to regulated entities when using the Common Emissions Form for reporting emissions.

Capturing the TRI reporting requirements

This video demonstrates how the reporting requirements for the TRI program are captured in the CAER prototype application. The reporting requirements consist of NAICS codes subject to reporting to TRI.

These requirements are used by the Common Emissions Form and part of the process to determine if a regulated entity is subject to reporting to the TRI program.

View Video Quick Start Prototype
click each link to start videos)

Capturing the state reporting requirements

This video demonstrates how the state reporting requirements are captured in the CAER prototype application. Each state can capture its requirements in their own register. The requirements consist of how a state wants to process emissions reported with the Common Emissions Form, and the pollutants that need to be reported in addition to the NEI reporting requirements.

These requirements are used to provide guidance to regulated entities when using the Common Emissions Form for reporting emissions and how this information is processed and approved.

Using the Common Emission Form (scenario Wyoming)

This video demonstrates the Common Emissions Form (CEF) for a facility located in the state of Wyoming. The state of Wyoming has chosen to use their own system to approve emissions information and to not approve emissions information for pollutants added by the facility of its own accord.

The Common Emissions Form sends:

- *facility level stack and fugitive information to TRI-MEweb*
- *process level emissions required by NEI or Wyoming to Wyoming's state system*
- *emissions added by the facility of its own accord directly to EIS.*

View Video Quick Start Prototype
(click each link to start videos)

Using the Common Emission Form (scenario South Carolina)

This video demonstrates the Common Emissions Form (CEF) for a facility located in the state of South Carolina. The state of South Carolina has chosen to use their own system to approve emissions information and to also approve emissions information for pollutants added by the facility of its own accord.

The Common Emissions Form sends:

- *facility level stack and fugitive information to TRI-MEweb*
- *all process level emissions to South Carolina's state system*

Using the Common Emission Form (scenario Mississippi)

This video demonstrates the Common Emissions Form (CEF) for a facility located in the state of Mississippi. The state of Mississippi has chosen to use the CEF to approve emissions information and to not approve emissions information for pollutants added by the facility of its own accord.

The Common Emissions Form sends:

- *facility level stack and fugitive information to TRI-MEweb*
- *after approval, the process level emissions required by NEI or Mississippi, including the ones added by the facility of their own accord, directly to EIS*

View Video Quick Start Prototype
(click each link to start videos)

Using the Common Emission Form (scenario Georgia)

This video demonstrates the Common Emissions Form (CEF) for a facility located in the state of Georgia. The state of Georgia has chosen to use the CEF to approve emissions information and to also approve emissions information for pollutants added by the facility of its own accord.

The Common Emissions Form sends:

- *facility level stack and fugitive information to TRI-MEweb*
- *after approval, all process level emissions , including the ones added by the facility of their own accord, directly to EIS*

Changing a QA check in the model driven Be Informed Platform

The CAER prototype was developed using the Be Informed Platform. This platform is model driven, meaning that business rules and process rules are captured in models. When those models are changed, this is immediately reflected in the application behavior. This video illustrates the model driven characteristics of the platform by means of the quality assurance checks used in the prototype.

CAER Next Steps

- Outreach with outcomes from Quick Start
  - CAER public webinar October 5th, 2016
- Continued coordination with Facility IPT
- Continued progress on use of the new FRS data model for facility attributes
  - Expanding facility "widget" to support sub-facility attributes
- Additional implementation follow-up after Quick Start
  - Policy and program research activities
  - Prototype functionality and larger scale pilot testing
  - EPA parts
  - SLT parts and needed funding

SLT Opportunities to Get Involved

- Ongoing work on EPA-SLT sharing facility attributes – roles and business rules
  - The Facility Integrated Planning Team (IPT)
  - Contacts: Joshua.Kalfas@deq.ok.gov; Regina Crolley (crollerc@dhec.sc.gov); Susan Joan Smiley (smiley.susan@epa.gov), Evans.Ron@epa.gov
- Feedback on the proposed new FRS data model
  - Webinar available on CAER Sharepoint site
  - Contact: Kelly.Matthew@epa.gov
- Beta testing of upcoming SCC search/download page
  - Contact: Chun-Yi Wu (chun.yi.wu@state.mn.us)
- Review mock-ups of user interface to supply sub-facility attributes for RTR/CEDRI
  - Creating voluntary input groups now through ECOS
  - Contact: Kelly Poole at kpoole@ecos.org
- Participate in future CAER PDT or R & D teams
  - Contact: Kelly Poole at kpoole@ecos.org and Joe Mangino at mangino.joseph@epa.gov
- Join the CAER listserv; send email to: join-caer@lists.epa.gov

Industry Opportunities to Get Involved

- Help us learn more about what improvements/functionalities can help you most
  - We want "user stories" of the form:
    I am a <role> and I need <some capability> so that I can <some objective>
  - Send comments and user stories to: CAER@epa.gov
    - Individual comments only (group comments cannot be used)
  - User stories will be posted anonymously on Trello.com
  - Join the CAER listserv; send email to: join-caer@lists.epa.gov

Other Questions?

For more information on the E-Enterprise initiative, please seethe E-Enterprise website.

FAQ and webinar recordings posted on the CAER website

Reminder: Please answer the survey questions at the end of the webinar before you exit Adobe Connect

The Team and Supporters

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- Theresa Lowe
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- Ron Ryan
- Bob Schell
- John Wakefield
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- Tobias Schroeder, EPA

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- Gary Saunders, NC
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