Combined Air Emissions Reporting
E-Enterprise for the Environment

Marc Houyoux

EPA Office of Air Quality Planning and Standards

Air Quality Assessment Division

Bryan Shaw

Chairman, Texas Commission on Environmental Quality

Clean Air Act Advisory Committee, Washington, DC, June 28-29, 2016

Combined Air Emissions Reporting (CAER)

- Streamlining air emissions reporting:
  - To improve **environmental results**
  - To enhance services **to the regulated community** and **the public** by making government more efficient and effective

- EPA working closely with state, local, and tribal (SLT) agencies as part of joint governance for E-Enterprise

- The team is actively using stakeholder input
  - We have changed our ideas for the proposed future state based on continued input
  - Details continue to evolve with continued input from CAER subteams, Webinars, and we will soon be providing other voluntary input opportunities
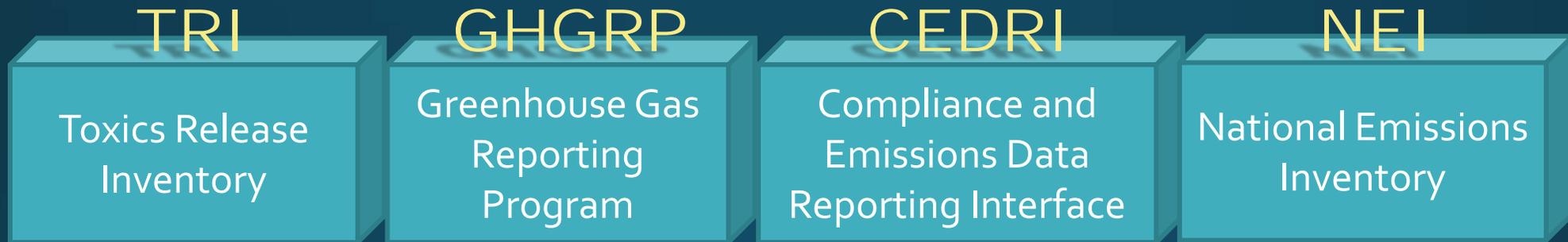
CAER Project Goals

- 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 Focuses on Point Sources

- Focuses on four major air reporting programs

TRI
Toxics Release Inventory

GHGRP
Greenhouse Gas Reporting Program

CEDRI
Compliance and Emissions Data Reporting Interface

NEI
National Emissions Inventory

- Different pollutants
- Different facility definitions
- Different data resolution (facility or sub-facility) and types (emissions and stack test data)
- Different program development stages
- Different data flows (e.g., NEI includes SLTs)

CAER Intersection with Laws

TRI: Emergency Planning and Community Right-to-Know Act (EPCRA)

> *"...was created to help communities plan for emergencies involving hazardous substances"*

GHGRP: Clean Air Act Sections 114 (record keeping) and 208 (information collection)

> *"...tracks facility-level emissions from the largest sources of greenhouse gas emissions in the United States"*

CEDRI: Clean Air Act Sections 111 (new sources) and 112 (air toxics)
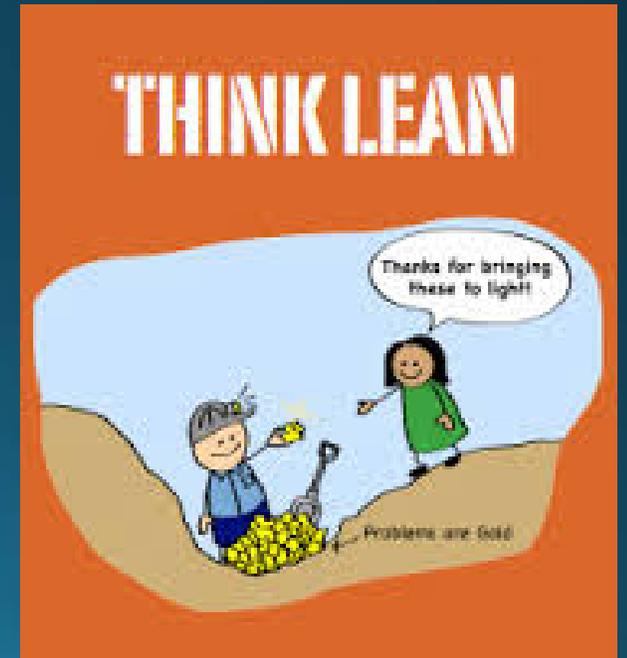
> *"...electronically submit test results, emissions monitoring data, compliance reports, and emissions reports" (in accordance with EPA regulations codified in 40 CFR Part 60, 62 and 63)*

NEI: Clean Air Act Sections 110 (state implementation plans) and 172 (nonattainment planning) & SLT Regulations
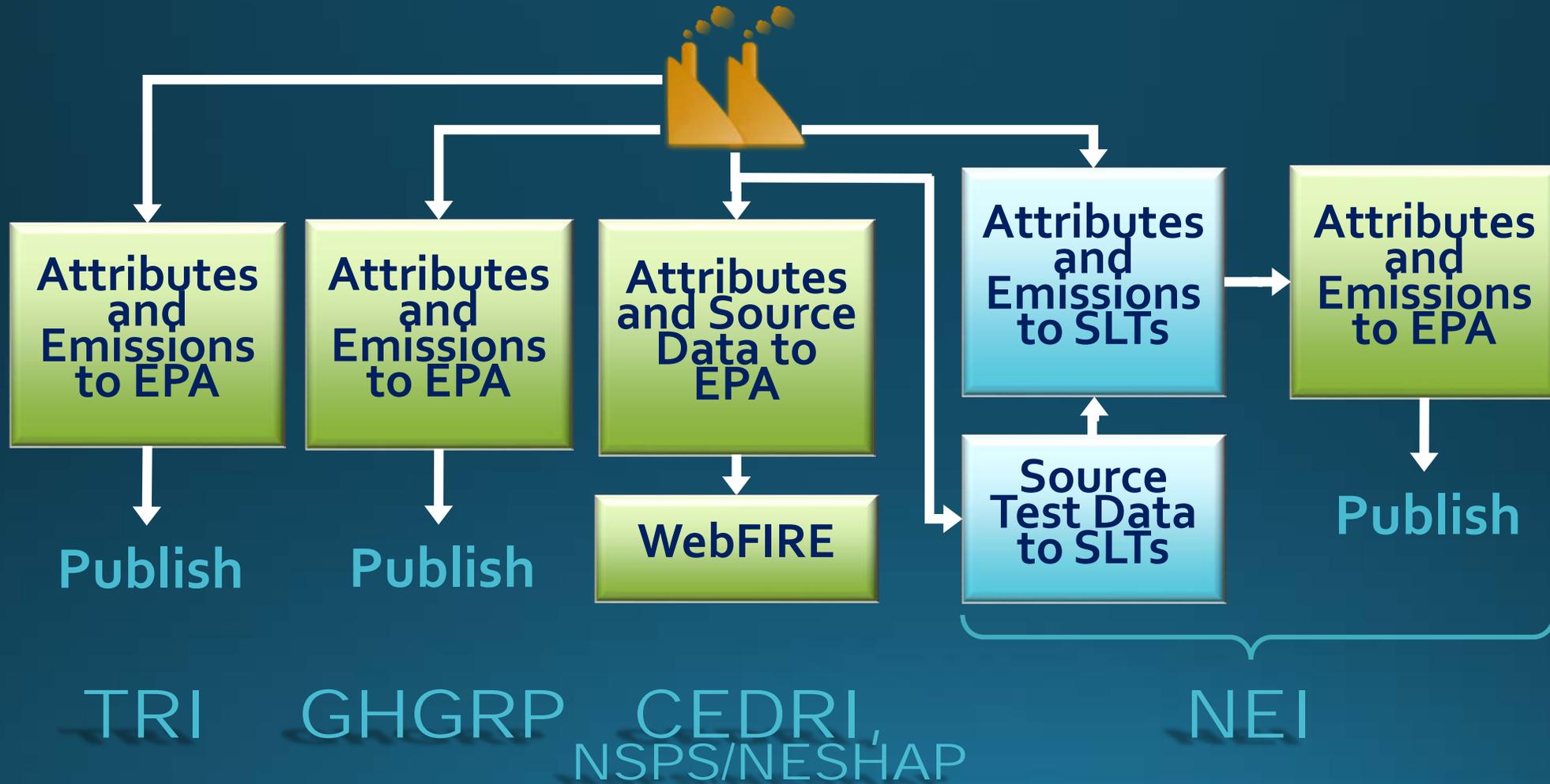
> *"...a comprehensive and detailed estimate of air emissions of criteria pollutants, criteria precursors, and hazardous air pollutants from air emissions sources"*
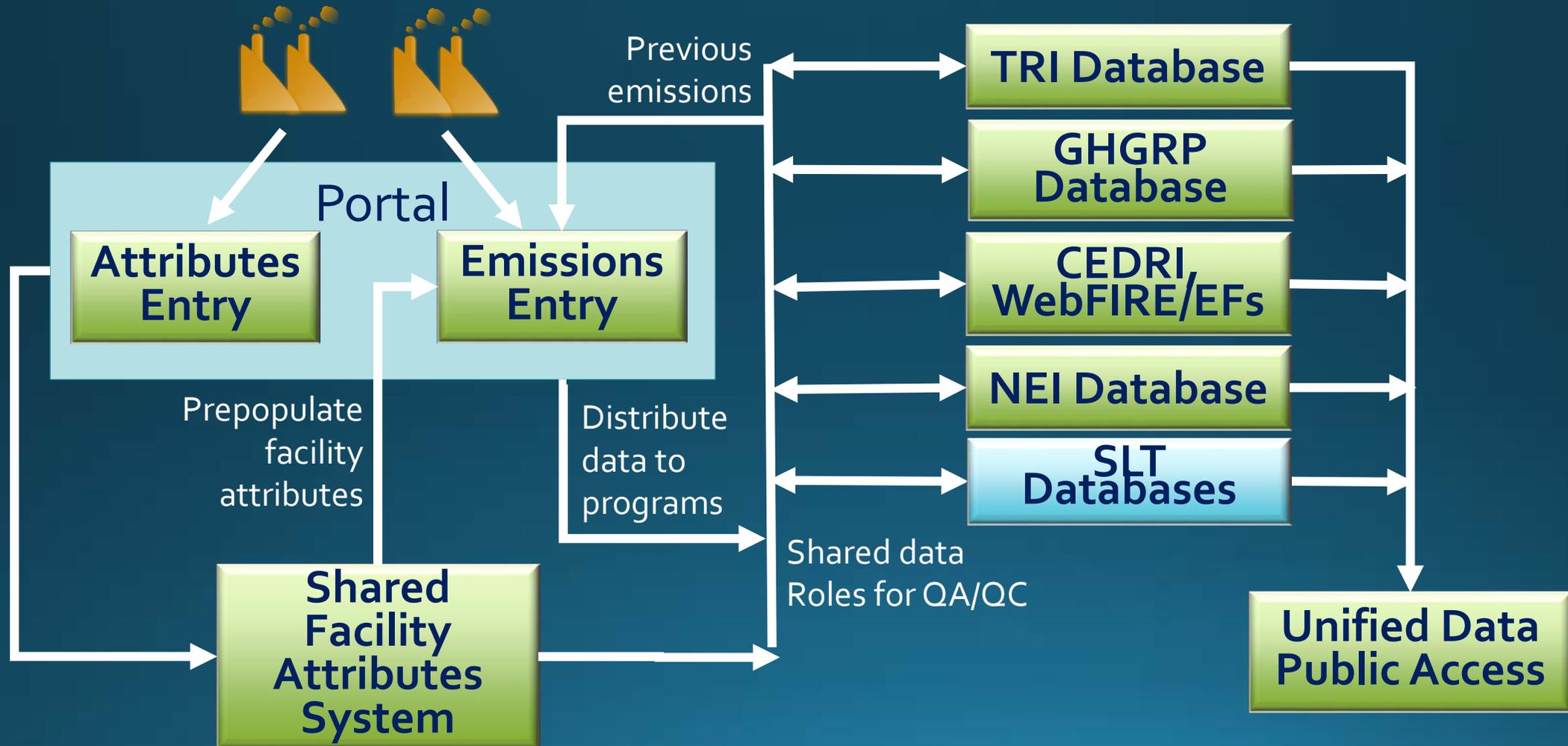
CAER Progress

- A diverse team spent 3 months and had a 3-day Lean event to develop a "future state". Participants were :
  - EPA (Four programs: GHGRP, NEI, TRI, & CEDRI)
  - States: Arizona, North Carolina
  - Regulated community: Alcoa, Phillips 66, Air Force
- June 2015 return-on-investment analysis indicated positive but uncertain savings
  - Estimated two times return *per year* on one-time EPA and SLT investment
- Ongoing Short Term Wins, planning, and initial implementation

THINK LEAN

Thanks for bringing these to light

Problems are Gold

CAER "As is" State

TRI   GHGRP   CEDRI, NSPS/NESHAP   NEI

Air Emissions – Proposed Future State

CAER Ongoing Activities

- Ongoing "Short Term Win" projects from last year wrapping up internal phase through June/July this year
- Initiating iterative "Agile" development approach that will not seek regulatory changes at first
- Working with Facility Registry Service (FRS) for CAER facility data
- FY16 projects
  - FRS-RTR project
  - Prototyping "Quick Start" project (tentatively August)
- STAG resources provided for expected FY17 project with SLT(s)
- Ongoing outreach
  - July webinar being planned (date TBD)
  - June - "input forums" started for end-user feedback

Short Term Wins

- CAER implementation plan (AR,AZ, MA,MN, NC, OK, OR, VT)

- WebFIRE search improvements and consolidated export of industry test data (NC, VT, OK, TX)

- Identify and eliminate root causes of EPA augmentation for the NEI (AK, AZ, MA, OK, OR, SC, VA, VT)

- Web-based service for Source Classification Codes (SCCs) (MN, MA, CA)

- Data dictionary and harmonization of code tables (NC, MA, TX)

Agile Development Approach

- Initially work with existing laws and regulations
  - Statutory and/or regulatory changes would be a slow place to start
  - We do not yet know what changes would be most effective
- Find program overlaps within exist laws, regulations and programs
  - Facility attributes
  - NEI with SLTs – highest ROI
  - NEI with TRI – second highest ROI
- Design and build products with biggest impacts first
- Streamline processes and use IT to implement them
- Development using iterations and early end-user feedback
- Any hurdles that require regulation changes will be apparent

E-Enterprise Portal and Facility Widget

- In October 2015, EPA launched a new E-Enterprise Portal
  - https://eportal.epa.gov
- CEDRI is using the portal as part of its interface with facilities
- This "Facility Widget" will be expanded based on results of FRS-RTR user interface work

FRS-RTR Project

- <u>Objective</u>: Improve data collection for supporting the Residual Risk and Technology Review (RTR)

- What is RTR?

- Data collected for RTR
  - Facility attributes – starting here for this project
  - Emissions, source test data, other process details that may include confidential business information (CBI)

- Connected with Combined Air Emissions Reporting (CAER) effort
  - Improve efficiency in multi-government collection of air emissions data
  - Shared facility attributes (main tie to RTR)
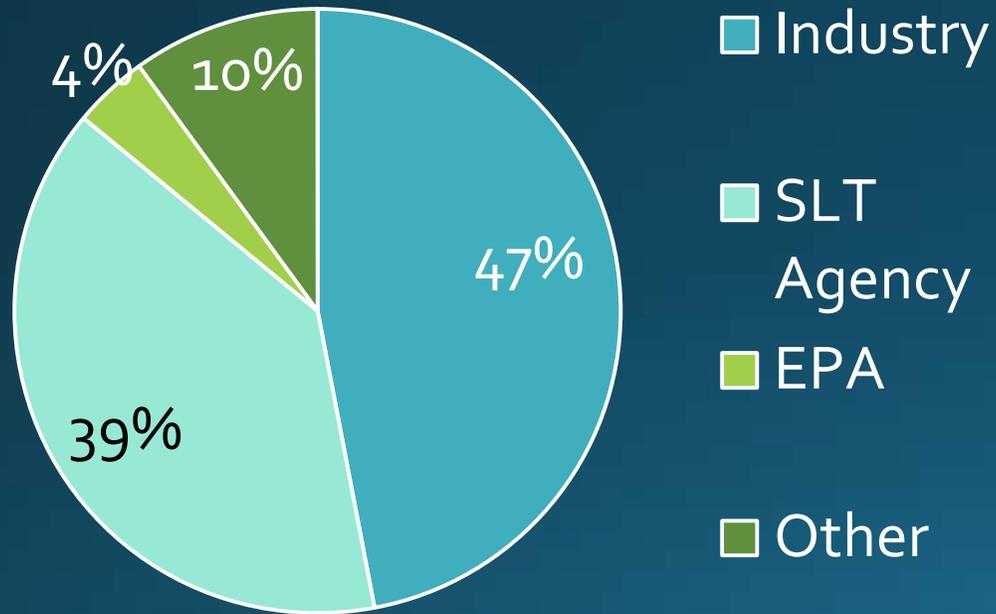 - Facility Registry Service (FRS) new data model as part of solution

Quick Start Prototype

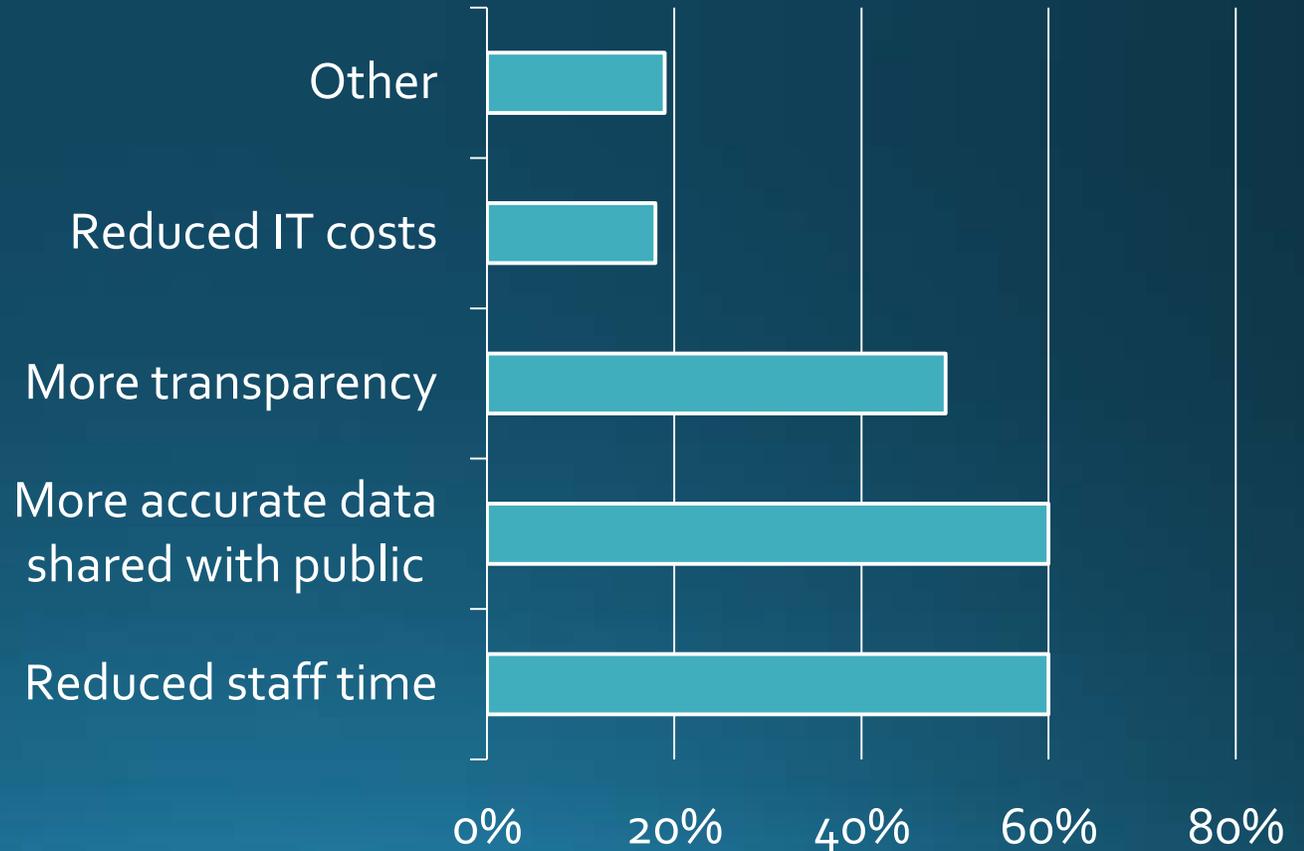- <u>Objective</u>: Create a high-level prototype for selected parts of the CAER workflow
  - Show what could be done in a more tangible way
  - Promote further discussion and future iterative development for CAER
  - Assess usefulness of new FRS data model for Shared Facility Attributes
- Expected that SLT role and data flow will be included
- Project is intensive and completed within 30 days (tentatively mid Aug-Sept)

March 2016 Webinar Feedback

Organization types attending

- Industry — 47%
- SLT Agency — 39%
- EPA — 4%
- Other — 10%

If beneficial to you, what benefits?

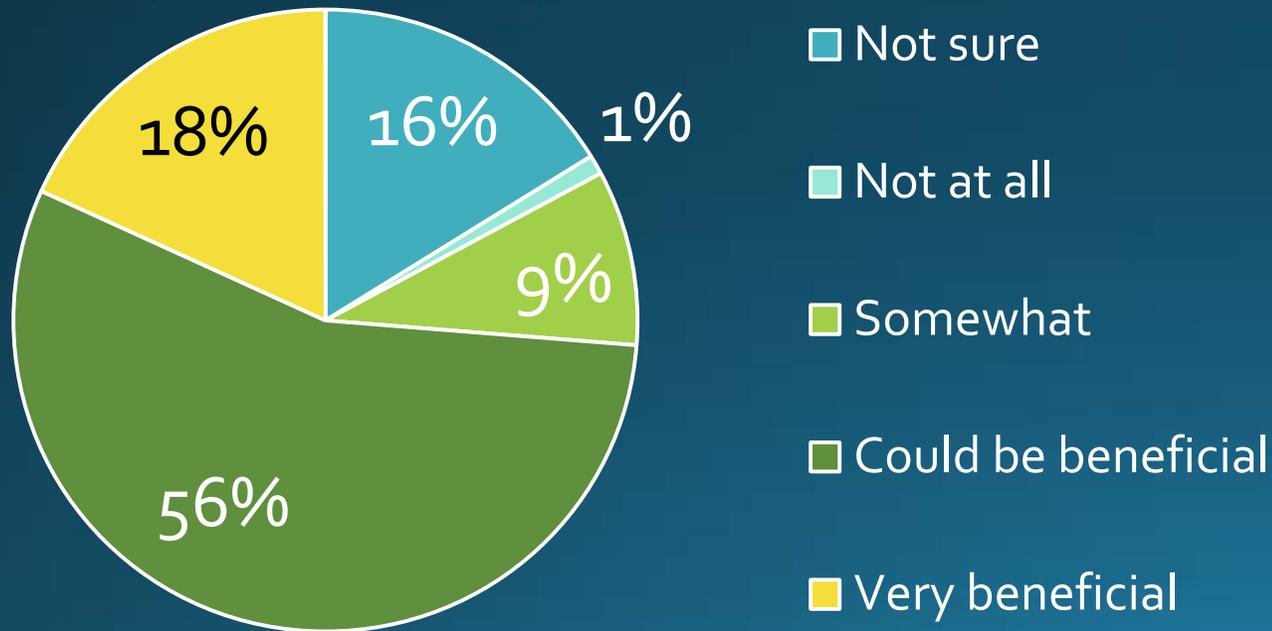| Benefit	
Other	
Reduced IT costs	
More transparency	
More accurate data shared with public	
Reduced staff time	

0%   20%   40%   60%   80%

More Feedback from Webinar

Do you think that conceptually, there is a benefit to your organization to the type of streamlining described by CAER?

- Not sure
- Not at all
- Somewhat
- Could be beneficial
- Very beneficial

18%   16%   1%

9%

56%

Top 5 concerns expressed in survey:

- Logistics (15)
- IT Effectiveness (12)
- Agency Effectiveness (10)
- Resources (7)
- Regulation differences (4)

Moving Forward

- Continue building and strengthening connections to other teams
  - Facility Integrated Planning Team
  - Portal Team
- Help build support for resources in FY17
- Complete Short Term Wins and post results to public
- Complete ongoing work on FRS-RTR and Quick Start
- Further prototyping with select SLT using STAG funds
  - Find ways to use resources for encouraging further SLT involvement
- Further Agile development as resources are found

Discussion Questions

- In what ways do you think CAER can help or falls short of closing NEI data gaps for air toxics?

- What is your opinion on our approach to initially work within existing laws and regulations?

- What are the greatest challenges that you believe the CAER team should be aware?

Other Resources

Comments may be sent to:
CAER@epa.gov

For more information on the E-Enterprise initiative, please see
http://www2.epa.gov/e-enterprise

Current project website is:
https://www.epa.gov/e-enterprise/e-enterprise-projects-spotlight

Appendix

Current SLT Use of Electronic Reporting

- E-reporting mostly state-specific systems

- Nine users of SLEIS

- Still significant use of fillable forms and hard-copy submittal

- Growing number of integrated e-permitting systems

Reporting Format

- **Manual** — 33%
- **E-reporting** — 47%
- **E-reporting and permitting** — 20%
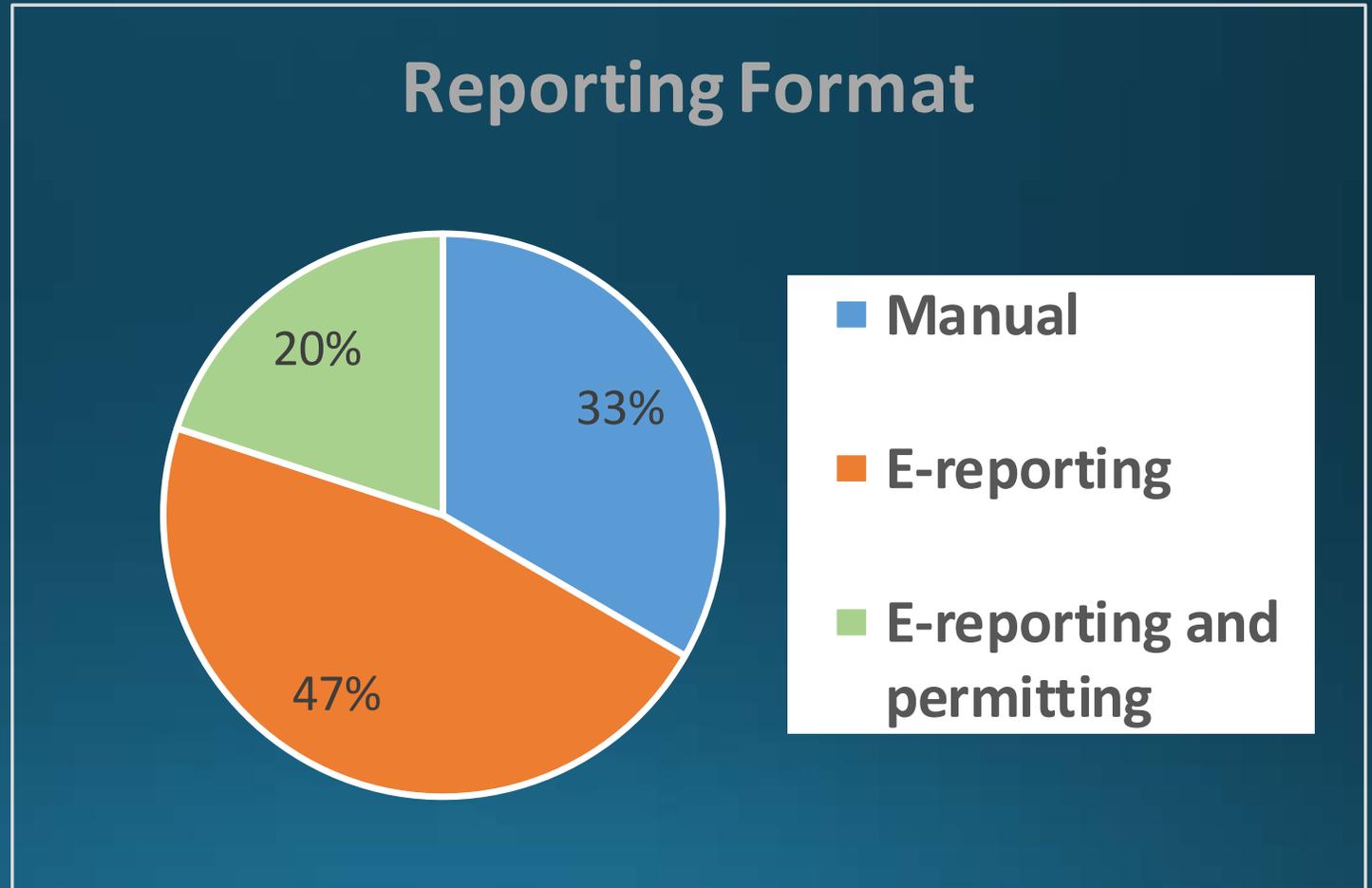
SLT Regulatory Language for Reporting Format

- Regs focus on what mechanism the industry uses to report—not the content of what is included
- 90% SLTs had "non-specific" language about form of the submission
  - E.g., submit the inventory "in a format specified by the department"
  - Do not call for specific e-reporting system or forms for submittals
- Three SLTs had specific references to reporting systems or forms
- Not exhaustive legal review—there could be other statutory/regulatory linkages for reporting that have specified requirements

SLT Thresholds for Reporting

- Over 90% require Title V-permitted sources 'plus'
  - "Plus" defined in different ways:
    - "Small" sources
    - "Intermediate" sources
    - "Synthetic Minor" sources
    - "Registered" sources
    - Sources with "state operating permits"
    - "All permitted" sources
  - Do not appear to exclude sources who have Title V permits just for HAPs
  - Most require *annual* reporting for the Title V sources—no differentiation to 'smaller' type B triennial sources
- Three agencies had thresholds lower than the Title V and/or AERR thresholds