EPA AirHub
Project Overview

Summer 2026

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- EPA AirHub Project Scope: Business Lines, Shared Functionality, Use Cases
- EPA AirHub Project Organization
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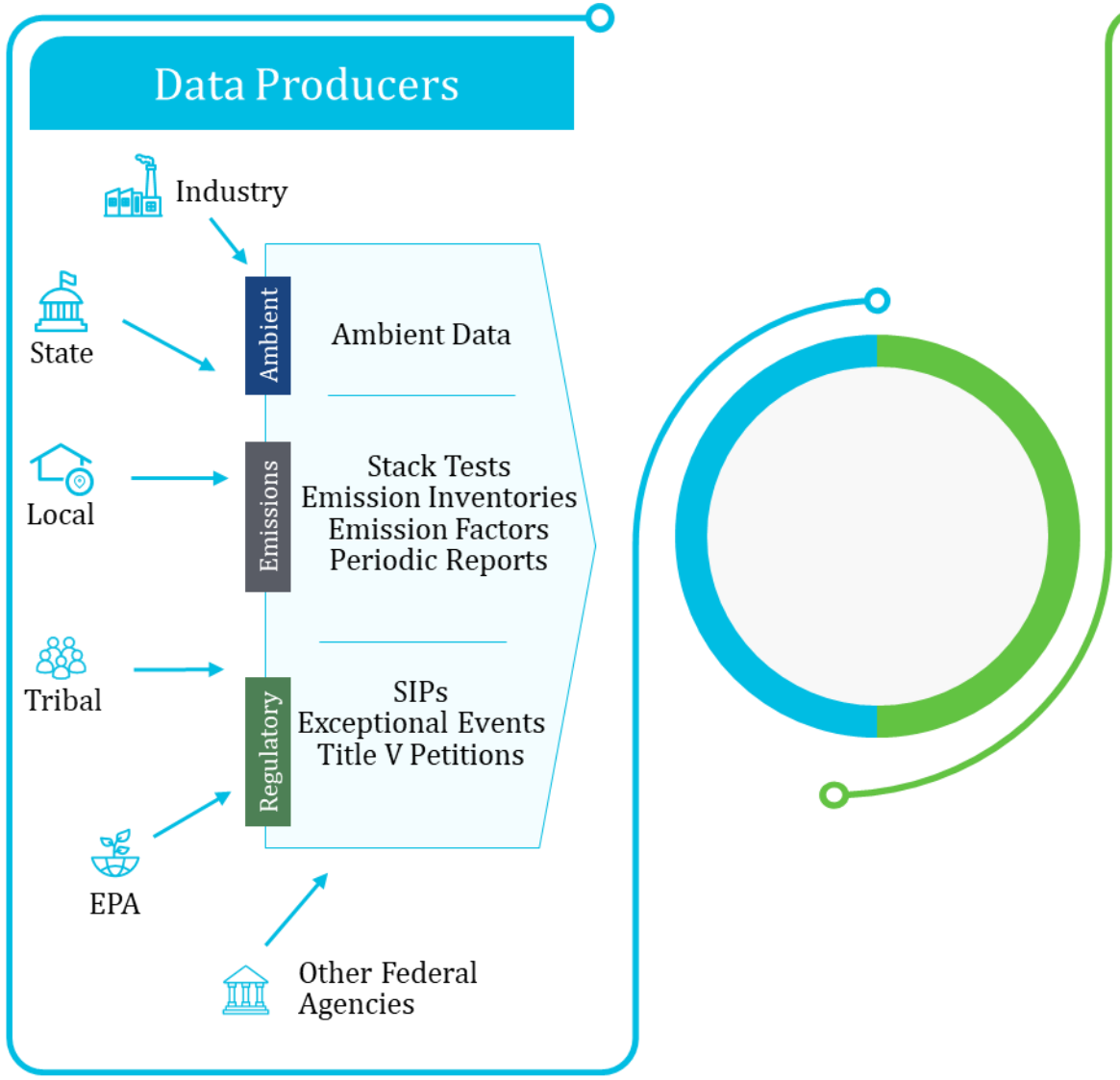
Background & Overview

What is EPA AirHub?



Existing Systems

Ambient

- AirNow (includes AirNow Tech)
- Air Quality System (AQS) (includes AQS DataMart)

Emissions

- Combined Air Emissions Reporting System (CAERS)
- Compliance and Emissions Data Reporting Interface (CEDRI)
- Electronic Reporting Tool (ERT)
- Web and Factor Information Retrieval Database (WebFIRE))
- Emissions Inventory System (EIS)

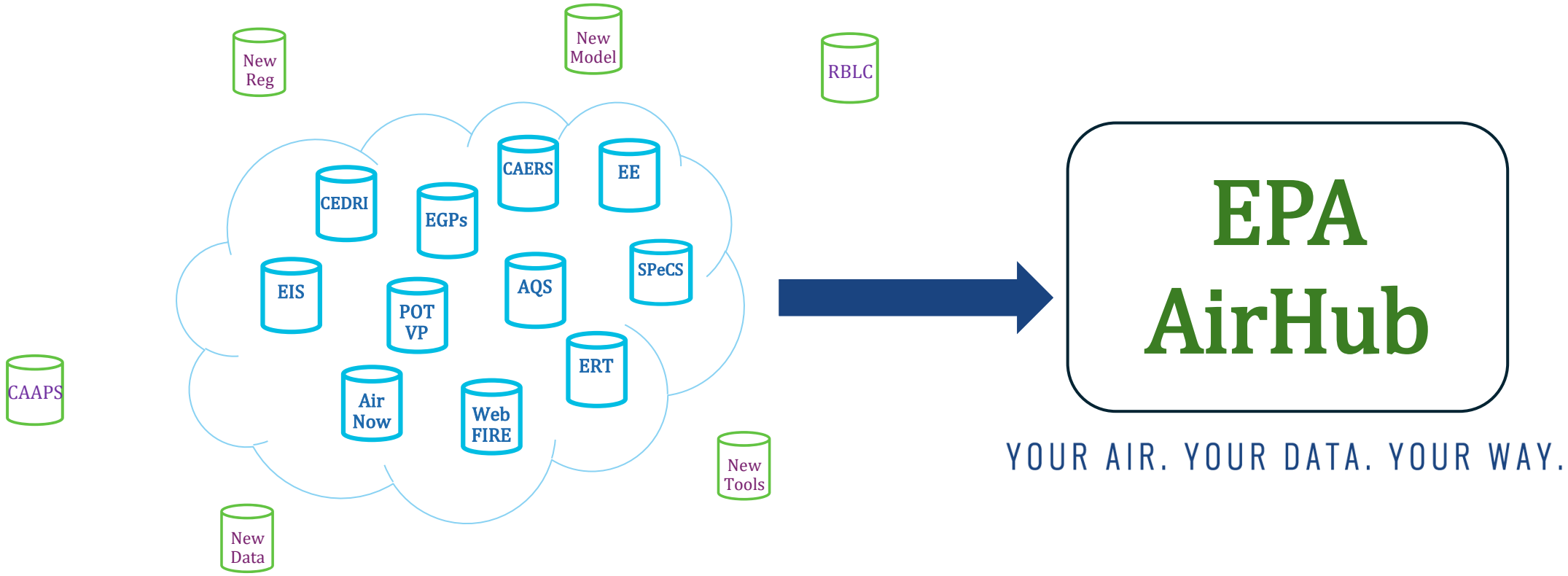
Regulatory

- State Planning Electronic Collaboration System (SPeCS) for SIPs
- SPeCS for Exceptional Events (EE)
- Petitions to Object to Title V Permits (POTVP)
- SPeCS for Emissions Guideline Plans (EGPs)

Air Programs and Systems

System	Programs	Regulatory Authority
Air Quality System	• Ambient Air Monitoring • NAAQS • Quality Assurance • Exceptional Events	CAA §109, §172, §182, §189 40 CFR Parts 50, 53, and 58
AirNow	• AQI • Fire and Smoke	CAA§103, §319 40 CFR Parts 58.50 and 58 Appendix G
Emissions Inventory System	• Emissions Inventories	40 CFR Part 51
Combined Air Emissions Reporting Interface	• Emissions Inventories • Performance Tests	
Compliance and Emissions Data Reporting Interface	• Performance Test, Notification, Periodic, & Title V Reports • ICRs	CAA § 111, 40 CFR Parts 60, 59, and 61 CAA § 112, 40 CFR 63 CAA § 129, 40 CFR 52
Electronic Reporting Tool	• Stack Testing	CAA § 111, 40 CFR Parts 59, 60, and 61 CAA § 112, 40 CFR 63 CAA § 129, 40 CFR 52
Web Factor Information Retrieval Database	• Emissions Factors	CAA §111, 40 CFR 60 CAA §112, 40 CFR 63 CAA §130
MOSAIC Platform – SIPs, Exceptional Events, Title V Petitions, EGPs (no existing application)	• State Implementation Plans • Exceptional Events • Title V Petitions • Emissions Guideline Plans	CAA § 109 CAA § 110 CAA §319(b), 40 CFR Parts 50.1, 50.14, and 51.930 CAA § 111, 40 CFR 60 CAA § 112, 40 CFR 63

Replacing Legacy Siloed Systems with ONE Unified Platform

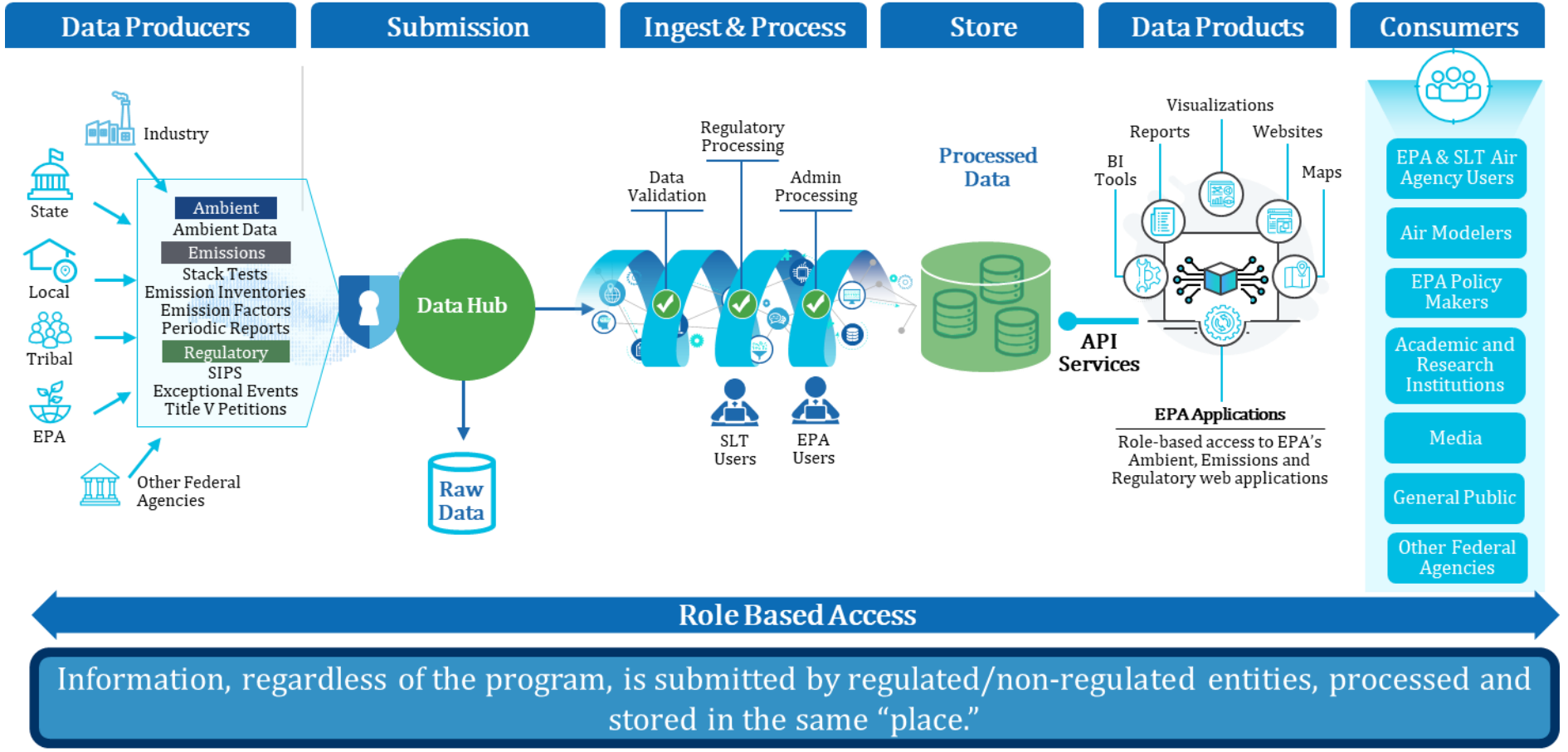


= Current Scope

= Future Scope

The Vision for the Future of Air Data

- We are building a ***new*** modern system that **redesigns how we collect, process, store, and share data** across programs.



A Strategic Redesign (Not a "Lift and Shift" of Systems)

We're building one new comprehensive system that will enable all our data and information management needs.

- Built to acquire, store, manage, analyze and disseminate air quality information.
- System design is being informed by every data element, system feature, and business step found in our existing systems.
- Will identify duplicate data and workflows, then introduce shared services to streamline data submission, management and access.
- Will include standardized development, establishing consistent methods, procedures, and guidelines for developing software across our programs.
    - Standardized coding practices, documentation, tools, and processes will make it easier to update and maintain system functions, and expand to add new data, programs, and functions.

Minimum Viable Product (MVP) – Initial Scope

- The MVP focuses on delivering the **core functionalities** that will most significantly enhance the user experience. **The MVP schedule and development efforts are iterative and subject to user acceptance testing, which may shift our initial timeline.**

- The initial scope is organized into smaller, manageable components called **functionalities**, defined across the ambient, emissions, and regulatory workstreams. Each functionality represents how a user interacts with the system to complete a specific program or business goal.

- As engagement with internal and external partners continues, additional functionalities may be defined to further strengthen EPA AirHub.

Business Line Structure & EPA AirHub Project Scope

EPA AirHub Project Development: Business Line Structure

- The EPA AirHub development is organized into three business lines:

Ambient	Emissions	Regulatory
Focuses on real-time and historical monitoring data. (*i.e.,* AQS and AirNow)	Covers emissions inventory and facility reporting. (*i.e.,* EIS, CEDRI, CAERS, ERT, WebFIRE)	Supports Clean Air Act planning, permitting, and exceptional events. (*i.e.,* SPeCS for SIPs and SPeCS for Exceptional Events, POTVP)

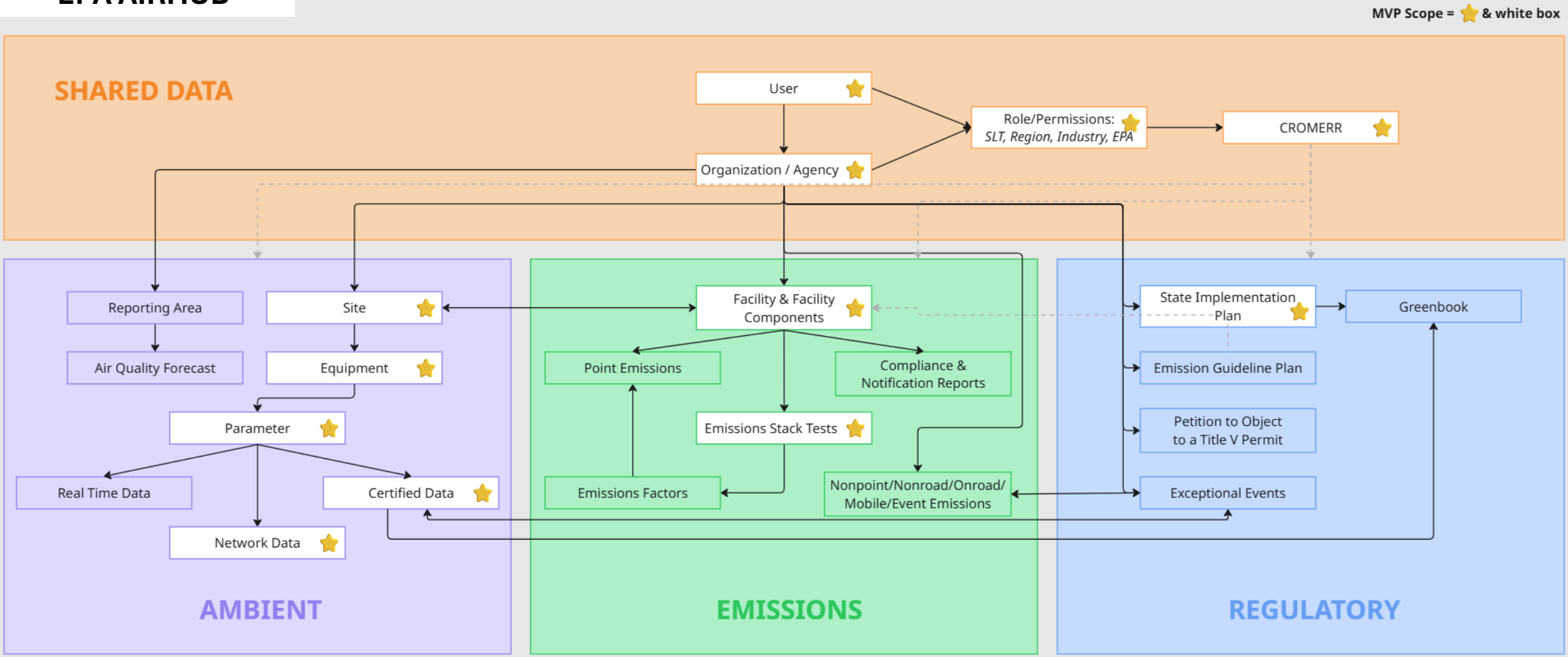
- Each business line moves at a different cadence based on internal and external stakeholder participation, but they will ultimately converge in the EPA AirHub.
  - Focusing on updating existing data standards and requirements for MVP functionality.
- On separate tracks:
  - The development and architecture team are working on the security, hosting, and infrastructure of the system.
  - OSAP-led EPA teams are working with EPA Office of Finance and Administration to implement and ensure compliance with EPA guidance and regulations.

Functionality “Use Cases” in the New System

Overlapping (“Shared”) Functions or “Use Cases”		
Unified Experience Design System		
Login, Account Creation, User & Organization Management		
In-App Notifications & Email Notifications		
Data Submission		
Data Distribution		
User Dashboards & Reports		
Certify & Review		
Ambient	**Emissions**	**Regulatory**
Configure & Manage Network	Facility Inventory Management	Update Review / Area Pages
Data Certification	Prepare Regulatory Emissions Data for Submission & QA Data	Manage Backend Data
Quality Control Review	Develop Emissions Factors	Internal & Sanction Clocks
Air Quality Forecasting	Prepare NEI Data for Submission & QA Data	Deficiencies for Redesignation
Reporting Areas	Refine Data for Annual Reports	Area Status & Reclassification

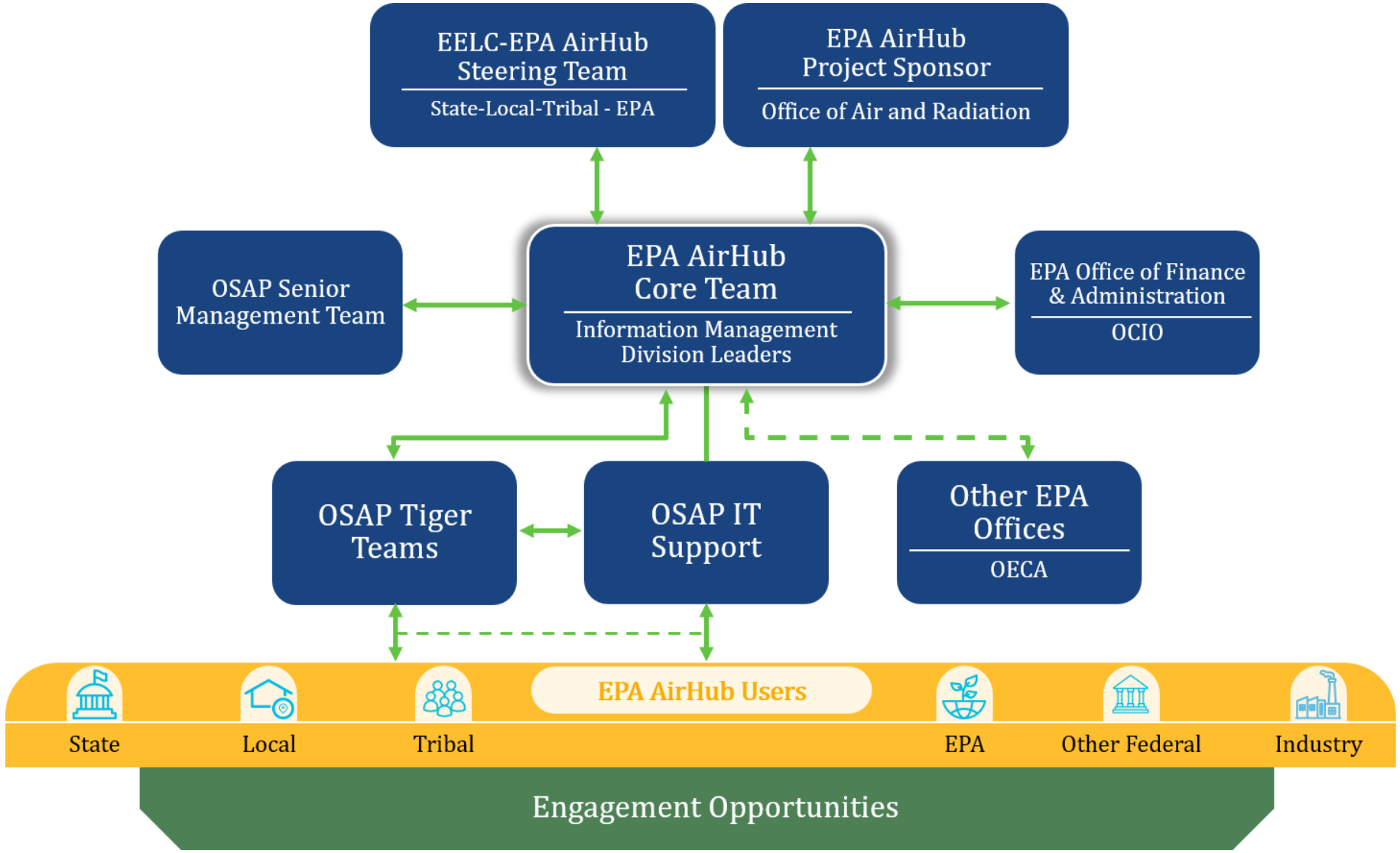
Unified Experience Across Business Lines

EPA AIRHUB



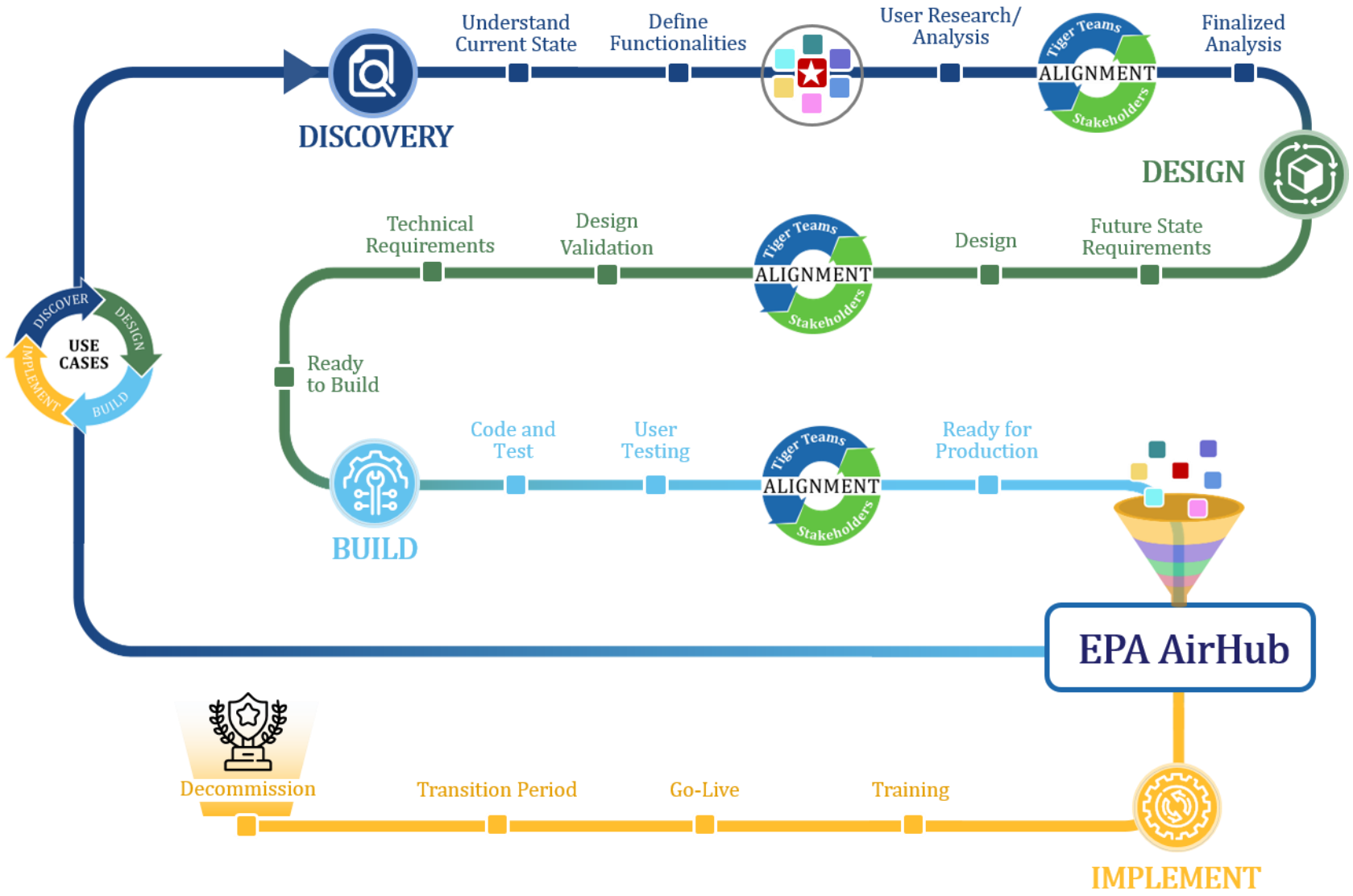
Project Organization

EPA AirHub Project Organization



“Assembly Line” Project Approach

Assembly Line Process



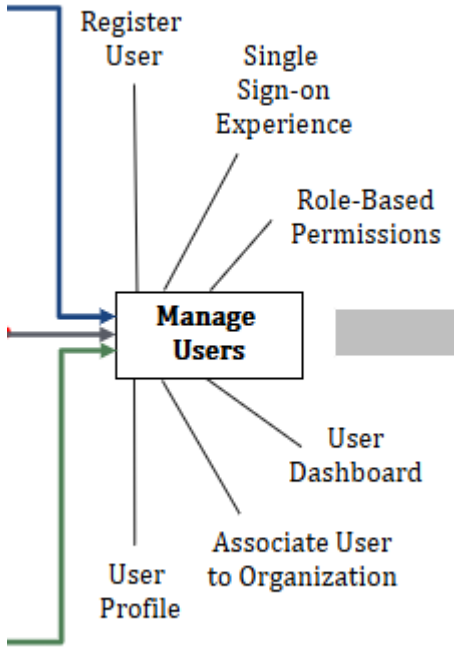
Example of the Assembly Line Process

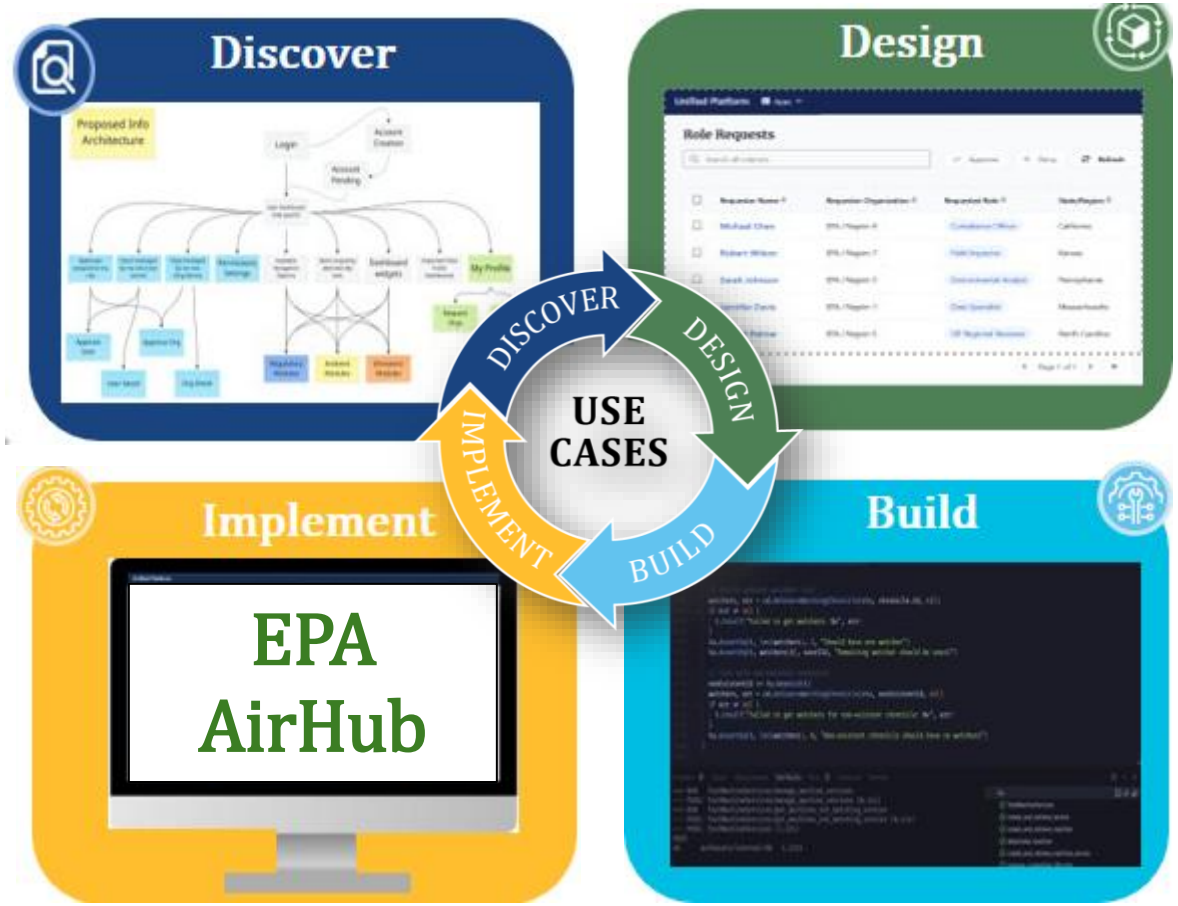
Stakeholders: State, Local, Tribal, EPA, Other Federal Agencies, Industry

Ambient
- Organization & Account Creation
- Organization & User Management
- Configure & Manage Network

Emissions
- Facility Inventory Management
- Account Creation & User Management
- Manage Users & Facilities Access Requests

Regulatory
- Account Creation & User Management
- Manage User Access Requests
- Data Submission





Engagement

External Engagement Matters

- External engagement is a core principle of the EPA AirHub Project development approach.
- The EPA AirHub Project team is committed to:
  - **Continuous engagement with state, local, and Tribal (SLT), EPA regions, and industry partners** to help ensure the platform supports real operational needs and reduces reporting burden.
  - **Commitment to sharing air program related data exchanges** through the EPA Exchange Network Partnership site.
  - **Transparent communication throughout development** so stakeholders can review progress and provide input as the system evolves.
  - **Incorporating stakeholder perspectives into system design and functionality** to better support Clean Air Act program implementation.
- Our goal is to build the new platform *with* our partners, not just *for* them.

External Engagement Opportunities

Listening Session

Participants: OSAP Program Managers & representative users

Time: 90-120 Minutes

Occurrence: 2-3 sessions, weekly

Purpose

- Meeting environment promotes openness and transparency, where everyone is encouraged to share their ideas, thoughts, and opinions
- Topics are participant driven to understand pain points of the current state & desires of the EPA AirHub future state

Focus Group

Participants: 6-12 EPA, Region, SLT representative participants

Time: 60-120 Minutes

Occurrence: 1-3 sessions, weekly

Purpose

- Gain insight into the experiences and perspectives of various stakeholders
- Discuss specific topics where there is uncertainty
- Gather feedback and thoughts on how EPA AirHub should work in the future

Working Session

Participants: EPA AirHub Core Team, Program & System Managers

Time: ½ - 1 Day

Occurrence: As needed

Purpose

- Interactive and participative working sessions
- In-person collaboration for high productivity
- Future state requirements review and approval
- Decisions on core functionality, value added enhancements and nice to haves

Flash Engagement

Participants: One-on-One; Applicable to all user types

Time: 30 Minutes

Occurrence: As needed

Purpose

- Individual user interviews and over the shoulder shadowing
- Quick targeted engagements for specific questions or clarifications on functionalities
- Can be used for follow-ups to other engagements
- Leveraged during all phases of discovery, design and build

Future State Definition

Participants: EPA AirHub Core Team, Program & System Managers, 2-3 Representative Users

Time: 60-90 minutes

Occurrence: Bi-Weekly

Purpose

- Validates EPA AirHub future state requirements
- Responsible for ensuring the EPA AirHub meets required program functionality
- Ensure alignment with EPA AirHub product vision and objectives
- Owns decision making

Design & UX Validation

Participants: 10-15 EPA, Region, SLT representative users

Time: 90 Minutes

Occurrence: 1-2 iterations per functionality

Purpose

- Present future state designs and prototype
- Demo of functionality; walk through of future state system design
- Gather feedback on future state
- Test user's ability to intuitively navigate and perform business functions

Pilot

Participants: 15-20 EPA, Region, SLT representative users

Time: Real-time

Occurrence: Ongoing

Purpose

- Identified group of early adopters
- Receive early training to get feedback on training materials
- Production level testing of EPA AirHub functionality
- Run legacy system and EPA AirHub in parallel to test and provide feedback

Training & Implementation

Participants: All EPA AirHub users

Time: 60-120 Minutes

Occurrence: Per Implementation Schedule

Purpose

- Role-based training
- Formal onboarding process
- Dedicated EPA AirHub support team

Fall/Winter 2025 External Engagement – Listening Sessions

- **Conducted 15+ listening sessions** across ambient, emissions, and regulatory business lines
- **Gathered 950+ system-specific pain points and workflow challenges** from over 1600 SLTs, EPA Regional offices, and industry partners
- Identified cross-cutting themes:
  - Usability
  - Performance
  - Data Access/Integration
  - Transparency
  - Reliability
- Feedback is informing functionality, requirements, and MVP prioritization

EPA AirHub Project Listening Sessions Summary

Event	Date	Audience	Participants	Details	Listening Sessions Summary
External Engagement Kickoff	September 11	General	585	• 47 States, D.C. and Puerto Rico (missing SD and WV) • 6 State/local MJOs • 13 Tribes • All 10 EPA Regional Offices	N/A
Ambient Listening Sessions	September 22 & 30	General	480	• All 50 States, D.C. and Puerto Rico • 6 State/local MJOs • 34 Tribes & TAMS • All 10 EPA Regional Offices	• Users emphasized the need for greater transparency, intuitive navigation, and clearer error messaging across ambient functionality. • Strong demand for a modern, flexible, and integrated system to simplify data submission and annual certification tracking.
	October 7	EPA Regional AQS	41		
	October 8	AAPCA	118		
	October 28	Tribes	27		
	December 10	EPA Regions	18		
Emissions Listening Sessions	September 29 & October 6	General	287	• 47 states, and D.C. (missing SD, IN and IA) • 8 State/local MJOs • 9 Tribes • All 10 EPA Regional Offices	• Participants called for system stability, performance improvements, and clearer documentation/training to reduce rework caused by mid-cycle EPA changes. • Requested better visualization tools and clearer reporting features to improve emissions data management and communication.
	September 18	Emissions Inventory Conference	128		
	October 23	AAPCA	65		
	December 4	EPA Regions	29		
Regulatory Listening Sessions	October 22	General	68	• 45 states, and D.C. (missing HI, MT, ND, SD and VT) • 7 State/local MJOs • All 10 EPA Regional Offices	• States and EPA regions highlighted persistent data loss, data submission, notification, and upload issues and called for more transparent and reliable SIP/EE workflows. • Requested streamlined access and navigation in Greenbook and public dashboards for tracking submissions and decisions.
	November 4	AAPCA	99		
	November 19	NACAA	235		
	December 15	EPA Regions	28		

How External Engagement Participants are Selected

- The EPA AirHub Project External Engagement Coordinators worked to identify and invite participants using the following criteria:
  - System Experience
    - Participants were selected based on their direct use of EPA air data systems across the ambient, emissions, and regulatory business lines
  - Workflow Role(s)
    - Users representing key functions such as data submission, review, analysis, compliance, and program oversight were prioritized
  - Stakeholder Representation
    - Users from SLT agencies, EPA Regional Offices, and industry partners where applicable
  - Availability & Alignment
    - Participants were chosen based on their availability and relevance to the specific engagement activities planned for each business line

Planned External Engagement

- External engagement will continue throughout the full EPA AirHub Project build phases:
  - Discovery, Design, Build, and Implement
- Our goal is not one-time feedback, but sustained collaboration to ensure the EPA AirHub reflects real operation needs and regulatory responsibilities.