

New Year, New CLU-IN!

Sponsored by:

*USEPA, OSWER, OSRTI,
Technology Innovation Program*

January 2009

New Year, New CLUIN

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Welcome to today's internet seminar, "What's New with CLU-IN? Highlights and Future Directions". Hopefully everyone is starting on slide 1, our title slide. My name is Jean Balent. I'm an environmental scientist here at the Environmental Protection Agency's Technology Innovation Program. I will serve as both the moderator and primary speaker for today's session. Joining as well as are several other members of TIP. We are also joined by our technical support from Pete Riddle of EMS Inc. who serves as the primary contractor for CLU-IN.

I want to thank you all in advance for your participation and feedback during today's seminar.

Let's move onto slide 2 to cover some basic housekeeping.

Housekeeping

- Please mute your phone lines
 - press *6 to mute #6 to unmute your lines at anytime
- Do NOT put this call on hold
- We will ask for your feedback today. You do not need to wait for Q&A breaks to ask questions or provide comments
- To report technical problems, please use the chat field to right of your screen, include a phone # where you can be reached
- You can move forward/backward in the slides by using the arrow buttons



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Although I'm sure that some of you have these rules memorized from previous CLU-IN events, let's run through them quickly for our new participants.

Please mute your phone lines during the seminar to minimize disruption and background noise. If you do not have a mute button, press *6 to mute #6 to unmute your lines at anytime. Also, please do NOT put this call on hold as this may bring delightful, but unwanted background music over the lines and interrupt the seminar.

You should note that throughout the seminar, we will ask for your feedback. You do not need to wait for Q&A breaks to ask questions or provide comments. To submit comments/questions and report technical problems, please use the ? Icon at the top of your screen. You can move forward/backward in the slides by using the single arrow buttons (left moves back 1 slide, right moves advances 1 slide). The double arrowed buttons will take you to 1st and last slides respectively. You may also advance to any slide using the numbered links that appear on the left side of your screen. The button with a house icon will take you back to main seminar page which displays our agenda, speaker information, links to the slides and additional resources. Lastly, the button with a computer disc can be used to download and save today's presentation materials.

With that, please move to slide 3.

Presentation Overview

- CLU-IN History
- CLU-IN Structure/Tour
- What is CLU-IN?
- Updates to CLU-IN
- Feedback
- Future Efforts

Today's Speakers will include
Technology Innovation Program Staff
and CLU-IN support contractors



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In today's seminar we will cover a few topics. First, I'll provide a brief explanation of the motivations behind today's seminar, along with an overview of the clu-in website and its relationship to the EPA's Technology Innovation Program for those who are new to the website and our services. Next I will highlight recent updates to clu-in with a break to discuss users' opinions of these changes. We'll then take a sneak peak at a few planned updates to the site, pausing of course to hear what you think of these ideas. We will then move onto a similar review of the existing clu-in internet seminar platform (that's what we are using today) and talk about our vision for future seminars. Finally we'll take a few moments to hear additional comments and wrap things up.

Most importantly, there will be a series of very specific questions on changes to clu-in and our internet seminar platforms included in the feedback form at the very end of our talk. Please take a few moments to complete this form as this information is one of primary reasons for hosting today's seminar.

Lets move to the next slide.

CLU-IN Overview

- Hazardous Waste **Clean-Up Information** (CLU-IN) – source for hazardous waste site characterization and remediation information
www.clu-in.org
- EPA content on CLU-IN is mirrored on the EPA.gov website at www.epa.gov/tio
- To date, CLU-IN has seen 6.8 million visitors, averaging almost 4,000 visits a day

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The Hazardous Waste Clean-Up Information (CLU-IN) Web Site provides information about innovative treatment and site characterization technologies to the hazardous waste remediation community. It describes programs, organizations, publications, and other tools for federal and state personnel, consulting engineers, technology developers and vendors, remediation contractors, researchers, community groups, and individual citizens like you. clu-in is provided by the EPA's Technology Innovation Program (aka Technology Innovation and Field Services Division, formerly known as the Technology Innovation Office). Let me end the alphabet soup there and simply state that TIP is part of the Superfund Program.

By hosting clu-in as an outside website, TIP has had the power to share a wide variety of information from many sources with the public. We do also work to maintain an EPA presence by mirroring all EPA content from clu-in off the EPA's public website.

To give you an idea of clu-in's popularity, as of April 2007, 3.2 million visitors have been to clu-in, averaging 2,000 visits a day.

Please move to slide 6

CLU-IN's History

- Bulletin Board System (1987)
- CLU-IN Web Site Launched (1996)
- TechDirect Information Service Launched (1997)
- Streaming Videos (1998)
- Vendor and Developer Support (1998)
- Internet Seminars (1999)
- Online Databases (1999)
- Technology Focus (1999)

CLU-IN has grown quite a bit in the past 12 years!

- Conference Webcasts (2000)
- Field Analytic Technologies Encyclopedia (2001)
- Technology Innovation News Survey Archives (2002)
- Contaminant Focus (2003)
- Upgraded CLU-IN Search Engine (2004)
- Project Profile Databases Search (2005)
- RSS Feed (2005)
- Internet Seminar Archive Podcasts (2005)
- Issue Areas (2006)

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The origin of CLU-IN reach back to an early electronic Bulletin Board System. The CLU-IN web site was launched in 1996, and was operated in parallel with the CLU-IN BBS between 1996 and 1999. In 1999, The CLU-IN BBS was discontinued to better serve the growing CLU-IN web site user community. Some major CLU-IN events such as the start of TechDirect and Internet Seminars began this same year. Some of the more recent changes listed on this slide such as the addition of RSS and Podcast feeds will be discussed in today's seminar.

Please move to the next slide.

Early Versions of CLU-IN



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NEW TOOL, NEW CLU-IN

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New CLU-IN

The screenshot shows the CLU-IN website interface. At the top, there is a navigation bar with the CLU-IN logo, the EPA logo, and the text "Technology Innovation Program". Below this is a search bar and the text "Contaminated Site Clean-Up Information". A main heading reads "Providing information about innovative treatment and site characterization technologies while acting as a forum for all waste remediation stakeholders". A large, semi-transparent text box is overlaid on the center of the page, containing the text "We'll check this out later!". The background shows various website elements like "Spotlight", "Open Submissions", and a footer with a grid of links and the text "January 2009" and "7".

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CLU-IN (New) Structure

Technologies

Remediation
Characterization and Monitoring

Contaminants

Arsenic
Chromium VI
Dense Nonaqueous Phase Liquids (DNAPLs)
1,4-Dioxane
Dioxins
Mercury
Methyl Tertiary Butyl Ether (MTBE)
Perchlorate
Persistent Organic Pollutants (POPs)
Polychlorinated Biphenyls(PCBs)
Trichloroethylene (TCE)

Issues

Brownfields
Triad: A Smarter Solution to Site Cleanup
Green Remediation
Ecological Land Reuse
Mining Sites
Nanotechnology
Sediments
Vapor Intrusion
Wood Treater Sites

Strategies & Initiatives

Federal Remediation Technologies
Roundtable

Triad: A Smarter Solution to Site
Cleanup

State Coalition for Remediation of
Drycleaners

Green Remediation

Measurement and Monitoring
Technologies for the 21st
Century (21M2)

Remediation Process Optimization

Long-Term Monitoring Optimization

Technical and Technology Support
Services

Vendors & Developers

Market Analysis

Business Planning and Funding

Research & Development

Demonstration & Testing

Permitting & Regulatory Assistance

Commercialization & Contracts

Vendor Information

Training & Events

Upcoming Internet Seminars

Archived Internet Seminars &
Podcasts

The Training Exchange (Trainex)

Upcoming Courses and
Conferences

Additional Resources

Recent Additions

Popular Additions

Upcoming Live Web Events

Archived Internet Seminars &
Podcasts

News Feed (RSS)

TechDirect and Newsletters

Upcoming Courses and
Conferences

Documents

Videos

Databases

Software and Tools

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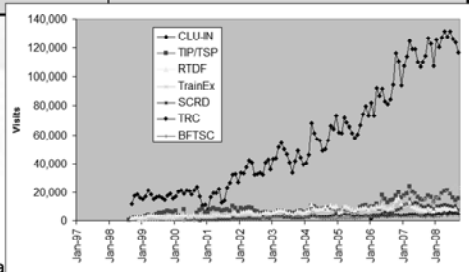
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CLU-IN's Impact

	FY 08	Total
Visits	1.48 million	6.8 million
Downloads	234,000	1.3 million
Seminars	128	567

#1 search result in Google for
 "hazardous waste
 remediation/clean up"

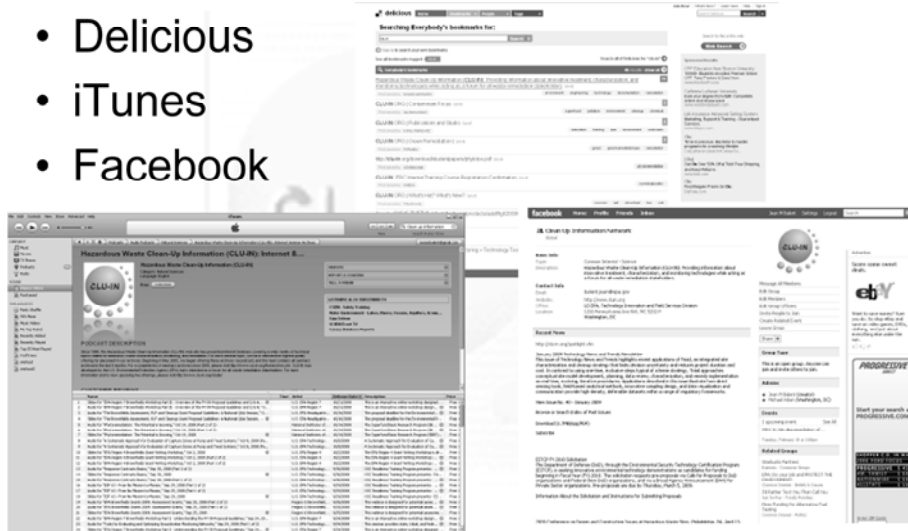


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CLU-IN's visibility

- Delicious
- iTunes
- Facebook



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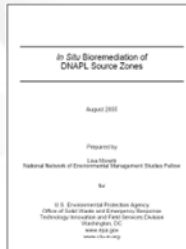
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CLU-IN is... an information resource

- 664 Publications and other resources
- 18 Databases & almost 14,000 Case Studies, Profiles, and other Reports
- 14 Software Programs
- 29 Videos



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CLU-IN is... training

- Free online technical training and conference webcasts (www.cluin.org/training)
- Seminars are recorded and archived for later viewing
- 185,000+ Archive/Podcast downloads in FY 08

Examples of Recent Seminars:

	FY 08	Total
Seminars	128	567
Participants	17,000+	86,000+

• *A Systematic Approach for Evaluation of Capture Zones at Pump and Treat Systems*

• *Using High-resolution Piezocone to Determine Hydraulic Parameters and Mass Flux Distribution*

• *Sustainable Practices, Brownfields Prevention Challenge 1: South Suburban Mayors and Managers(SSMMA), IL*

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CLU-IN is ... news for professionals

- Four email/paper newsletters available (<http://clu-in.org/newsletters/>)
 - TechDirect: 31,951 Subscribers
 - Technology News and Trends: 8,634 Subscribers
 - Technology Innovation News Survey: 5,531 Subscribers
 - Federal Business Opportunities: 3,311 Subscribers
- RSS News Feed (<http://www.clu-in.org/rss/>) for immediate updates



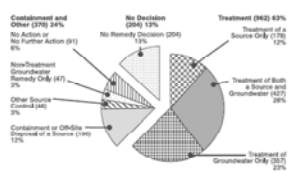
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CLU-IN is ... a pulse for trends

Figure 1. Actual Remedy Types at Sites on the NPL (FY 1982 - 2007)
Total Number of Sites = 1,526



Treatment remedies are planned or implemented at 63 percent of NPL sites.

The issue of Technology News and Trends highlights innovative approaches for addressing contaminated sediment sites. Elements of these approaches include sediment dewatering through use of geotextile containers, designed erosion control layers in conjunction with surface and subsurface conditions, new models to predict navigational vessel impacts on cap performance, and placement of caps in very thin lifts over soft sediments.

Innovative Dredging Technology Accelerates Removal of Residual Contamination in Astabula River

The U.S. EPA's Great Lakes National Program Office (GLNPO) and their non-federal partners, the Astabula City Port Authority, along with the State of Ohio, the U.S. Army Corps of Engineers (USACE), and a consortium of private companies collaborated to design and implement an innovative approach for addressing extensive sediment contamination in a portion of the Astabula River near Lake Erie. The approach employed a lock-dredger system for hydraulic dredging, an aboveground, double-walled pipeline for sediment slurry transfer, and a component of the transported contaminated sediment to "dewater" sediment as a sandy contained landfill. Over 13 months, the system removed approximately

CLU-IN Resources

CLU-IN's web page on sediment remediation provides key information on remediation, design, and monitoring of sediment remediation projects. The web page also provides important guidance documents and information on remediation projects developed by organizations such as EPA's Great Lakes National Program Office, the U.S. Army Corps of Engineers, and the U.S. Department of Defense. Visit the sediment page at <http://www.clu-in.org> by clicking on the "Sediment" tab and the "Sediment" sub-tab.

- **TechDirect and Technology News and Trends**
- **Issue Areas** for emerging problems
- **Annual Status Report** surveys technologies and trends at SF sites
- **ITRC, NIEHS, & SBPR, ESTCP/SERDP** Internet Seminars disseminate info on important issues and new research

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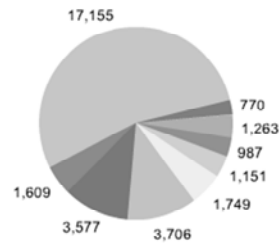
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CLU-IN is ... a connection

- Brings together regulators, educators, students, consultant, site owners, community stakeholders from around the world
- Crosses programs: Superfund, Brownfields, RCRA, State Voluntary Clean Up, Federal Facilities
- ITRC, NIEHS, SBRP, OBCR, FRTR and others are supported with outreach and information delivery mechanisms

TechDirect Subscribers as of October 31, 2008

■ .EDU ■ .MIL ■ .ORG ■ .COM ■ .NET
■ Int'l ■ State ■ EPA ■ .GOV



What's New with CLU-IN?

- Additional information resources
- Slides added to Podcast
- Improved seminar interface and audio
- Increased seminar participant capacity
- More seminar series – technology focused
- Updates to look and feel of CLU-IN
- Improved organization

What's New? Issue Areas & Resources

<http://clu-in.org/greenremediation/>

Overview

NEWS FLASH

- Green Remediation: The Focus Technical Topic for December 2008 FRTR General Meeting
- Wisconsin's Initiative on Sustainable Cleanups (WISC) awards contract to develop sustainable cleanup reference guide and evaluate state lead cleanups
- ASTSWMO Sustainability Subcommittee forms Green Cleanups Task Force
- View Army and DoD Issue Green Procurement Policy and Requirements
- EPA and NREL create state maps for renewable energy potential on contaminated sites

Technology Primer

EPA's technology primer, *Green Remediation: Incorporating sustainable Environmental Practices into Remediation of Contaminated Sites* (56pp, 814 KB), outlines the principles of green remediation and describes opportunities to reduce the footprint of cleanup activities throughout the life of a project.

EPA's **strategic plan** calls for increased research and applications of sustainable systems that promote environmental stewardship, reduce GHG emissions, and improve energy efficiency as required by federal mandates such as **Executive Order 13273**. *Revised March 2008*

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<http://clu-in.org/ecotools/>

EcoTools: Tools for Ecological Land Reuse

Introduction

Ecological reuse returns polluted or otherwise disturbed lands to a functioning and sustainable use by increasing or improving habitat for plants and animals. "Ecological land reuse" is a broad term that encompasses a number of interrelated activities including the reconstruction of antecedent physical conditions, chemical adjustment of the soil and water, and biological manipulation which includes the reintroduction of native flora and fauna. EPA promotes land reuse programs that consider the inextricable links between all life forms and all media within an ecosystem rather than an isolated manipulation of individual elements. Reuse of contaminated sites, when based on ecological principles, can complement traditional remediation activities that ensure the protection of human health and the environment, in addition to creating habitat. Ecological land reuse can be a cost-effective way to create or incorporate habitats as natural remediation tools that are part of the cleanup process for contaminated sites.

PAGE LINKS

> Why restore disturbed or contaminated lands?

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What's New? Information Resources

- Searchable Vendor Directory

EPA United States Environmental Protection Agency
Technology Innovation Program

Home | Press | News | You Need This? | CLU-IN Search | Feedback

Vendor and Developer Support
Vendor Information

For more information on the Remediation and Characterization Technologies Vendor Directory, please contact:

Jan Egan
Technology Integration and Information Branch
(301) 753-9324
egan.jan@epa.gov

Remediation and Characterization Technologies Vendor Directory

Search Technology Vendor Directory | Submit New Vendor Information | Update Vendor Information

Search the Technology Vendor Directory

This directory contains contact information as well as technology and services provided by remediation and characterization technology vendors. You may search by vendor name, technology category, contaminant, media, and site type. Use the text fields and drop-down menus below to build your criteria for searching the Vendor Directory. Click on the search button at the end of the form to submit your search. Please read the [Vendor Information Disclaimer](#) about its use.

Technology Vendor Search Results

Technology Category=Characterization
Characterization Technology Type=Soil Gas Analyzer Systems

The 6 vendors listed below match your search criteria. Click on a vendor name in the list to view contact information and details on their services and/or technology availability.

Vendor Name	City	State
Beacon Environmental Services, Inc.	Bel Air	MD
Columbia Technologies, LLC	Baltimore	MD
Columbus Instruments	Columbus	OH

Vendor	Columbia Technologies, LLC
Location	Baltimore, MD
Contact Information	Ned Tillman Vendor: Columbia Technologies, LLC Phone: (410) 530-9911 Email: ntillman@columbiadata.com Web Site: www.columbiadata.com
Technology Category	Characterization
Trade Name	Direct Sensing
Technology Type	Downhole sensors - Vadose Zone
Contaminant Group	Benzene-toluene-ethylbenzene-xylene (BTEX) Nonhalogenated volatiles
Media Type	Soil gas

In 2009, vendors will be able to update and add additional entries

What's New?

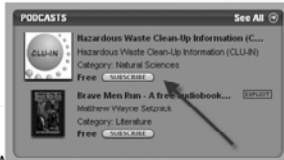
Slides with Podcast

- Direct links to download slides are included in Podcast
- Easy access to audio and powerpoint from iTunes or other Podcast services



Tip: To subscribe to the Podcast, use <http://www.clu-in.org/live/archive.xml>

Tip: To find the Podcast in iTunes, search for "Clean up Information"



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What's New? Improved Audio



EPA United States
Environmental Protection Agency

Technology Innovation Program

Seminar Registration Form

To ensure that you receive your registration confirmation email, please add talent.jean@epa.gov to your address book or list of approved senders before registering.

Technical Requirements

In order to participate in our streaming audio broadcast of this seminar, you must have the following:

1. **Adobe Flash Player**. If you do not already have this browser plug-in, it is available for free using the button on the right. If you are not sure whether you have a compatible version, you may test your installation by selecting the sample clip. If you are unable to listen to the audio clip, you either are behind an Internet firewall that prevents you from listening to streaming audio or you must download the latest version of one this player. If you require any assistance, please contact the IT professionals within your organization.
2. A sound card and speakers installed on the computer you will be using to participate in the seminar.
3. An Internet connection for the duration of the seminar. We recommend a connection speed of at least 128 kbps. In general, the larger the monitor you will be using to view seminar materials online, the faster your connection must be.



Sample Clip

- Audio now streamed as MP3 format
- Improved seminar recording quality
- Use links to test your PC to ensure compatibility

*Required Fields

Preferred Audio Format:	<input checked="" type="radio"/> Adobe Flash MP3
Date:	January 30, 2009 - 1:00 PM - 2:00 PM, EST
First Name*:	<input type="text"/>
Last Name*:	<input type="text"/>
Organization*:	<input type="text"/>



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What's New? Internet Seminar Platform

The screenshot displays the CLU-IN Internet Seminar Platform interface. At the top, it features the CLU-IN and EPA logos, along with the text "Technology Innovation Program". The main heading reads "What's New with CLU-IN? Highlights and Future Directions Sponsored by: U.S. EPA Technology and Innovation Field Services Division". A "Go to Seminar" button is visible. Below this, there are sections for "Time & Date" (stating no deliveries are currently scheduled), "Description", "Presenters" (listing Jean Balard from the U.S. EPA), and "Download Slides". A "Public, 2-way chat" window is overlaid on the right side of the interface. In the foreground, a slide viewer is open, displaying "Module 6: Truth Serum: Systematic Planning, Dynamic Work Strategies, and Real Time Methodologies" with a "uncertainty mgd" logo. The slide viewer includes a navigation bar at the bottom and a "Questions (0/6)" section on the right.

Cleaner, modern look
Easier to find materials
Faster loading slides

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What's New? Internet Seminar Platform

- Plan to increase participant capacity throughout 2009
- Participants still move through slides on their own to keep them engaged in session
- Names can be removed for anonymous question submission

What's New? Focused Themes

- Throughout 2009, CLU-IN will offer themes to highlight resources, training, and information for particular technologies and issues

Green Remediation

Triad

Conceptual Site Models

Site Data Management

Membrane Interface Probes (MIP)

**What other issues
or technologies
are of interest to you?**

What's New? CLU-IN "Face-lift"

The screenshot shows the CLU-IN website interface with several callout boxes pointing to specific features:

- Main Topics:** Points to the top navigation menu.
- Site Search:** Points to the search bar in the top right corner.
- News feeds, Podcasts, TechDirect:** Points to the right-hand sidebar containing various content feeds.
- News items:** Points to a specific news article in the main content area.
- Live Events:** Points to the 'Live Web Events' section.
- Site Structure:** Points to the bottom navigation menu.

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What's New?

Integration of Connection Tools



News items

Listing of upcoming seminars and events

TechDirect Newsletter

Podcast for immediate access to latest archived seminars

RSS Feed for immediate alerts of new postings, archives, etc

These links will appear throughout the site to constantly keep you connected

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What's New?

Integration of Connection Tools

Along with other connected options, you can easily share information from CLU-IN with other social and online networking tools such as Facebook



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Your feedback is important!

- We rely heavily on visitor feedback to focus our efforts!
 - Submit Feedback at end of today's event
- Use the “Contact Us” link
- Send an email to balent.jean@epa.gov or adam.michael@epa.gov

Future Efforts

- What would you like to see from CLU-IN in the future?
 - Technology Vendor Discussions
 - Commenting and rating tools for documents and resources
 - More live events with experts
- How can it be more useful to you as a resource?

Thank you!