



# Interstate Technology and Regulatory Council

**Working to accelerate the acceptance of innovative  
environmental technologies**

***Tim Titus***

***Program Administrator***

# ITRC Membership

## Host organization



**Environmental Council of the States**

## Federal agencies



**U.S. Department of Energy**



**U.S. Environmental Protection Agency**



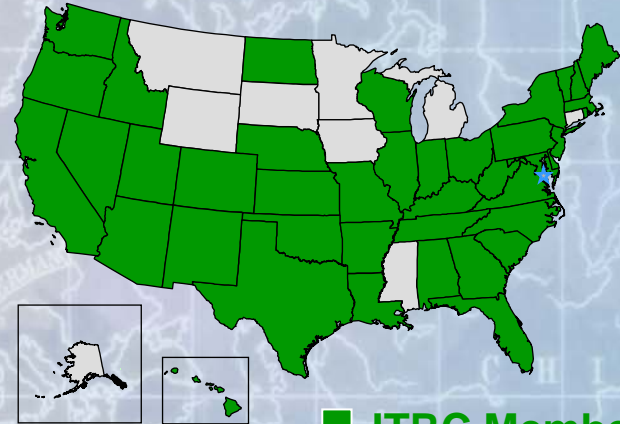
**U.S. Department of Defense**

## Academia

## Public stakeholders

## Industry representatives

## ITRC State Members



**■ ITRC Member State**

## State organizations



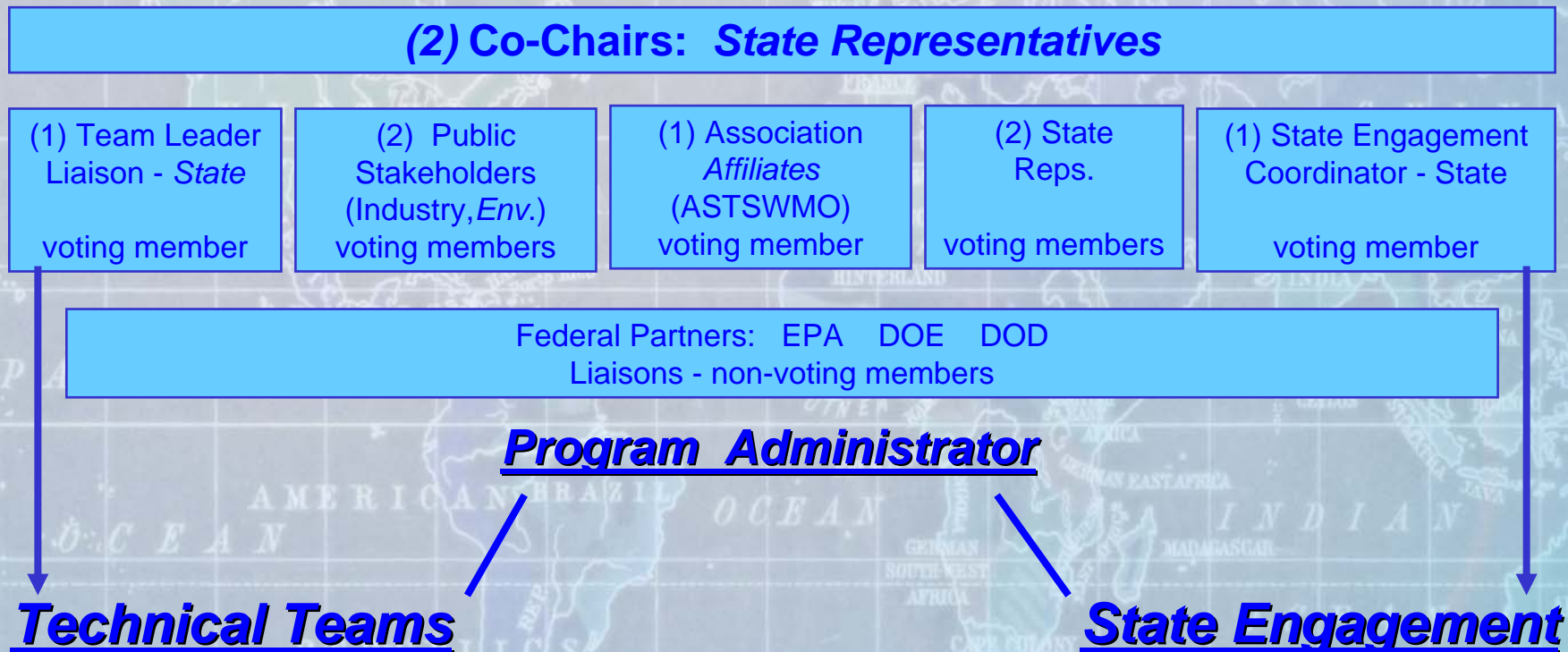
**Western Governors' Association**

**ASTSWMO**

## ECOS / ERIS

*State institutional support: enables participation of state staff funding support / Fiscal agent*

### ITRC Board of Advisors



# Technical Teams

- **Team Formation based on available funding**
  - 2004 - 21 Technical Teams
  - 2005 - 14 Technical Teams
  - 2006 - 14 Technical Teams
- **Topics selected one of 2 ways**
  - **Topics proposed by ITRC Members: Proposals ranked by Board / POCs / Team Leaders and Federal Liaisons. Topics of highest ranking considered for Team formation.**
  - **Team may be formed if funds for project are provided by outside funding source and topic is consistent w/ITRC Strategic Plan**



## Team Leader: (State Regulator)

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M

- 5 State Reps. (required)
- Public Stakeholder
- DoD Services (Navy, AF, Army, ACOE, DLA etc...)
- EPA (headquarters and Regions)
- DOE (environment, legacy, science)
- Other federal (researchers and
- Site Owners
- Vendors
- Consultants
- Academia / Researchers
- ??



# 2006 ITRC Teams (14)

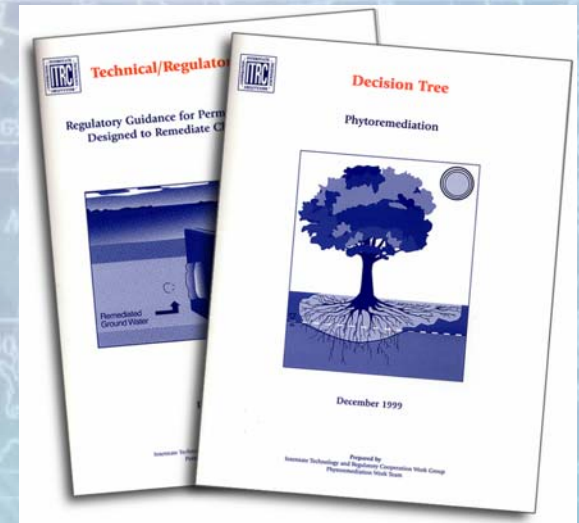
- **Alternative Landfill Technologies**
- **Bioremediation of DNAPLs**
- **Remediation Process Optimization**
- **Brownfields**
- **Diffusion Sampler Technology**
- **Ecological Enhancements and Land Re-use**
- **Enhanced Attenuation: Chlorinated Organics**
- **MTBE and other Fuel Oxygenates**
- **Perchlorate**
- **Radionuclides – Cleanup and Characterization**
- **Risk Assessment Resources**
- **Sampling, Characterization, and Monitoring**
- **Unexploded Ordnance (UXO)**
- **Vapor Intrusion**

# ITRC is a proven model



**Mutual priorities lead to partnered solutions & consensus-based tools.**

- ➔ Regulatory and Technical Guidelines
- ➔ Technology Overviews
- ➔ Case Studies
- ➔ Peer Exchange / Network
- ➔ Technology Advocates
- ➔ Internet-Based Training Courses
- ➔ Classroom Training Courses





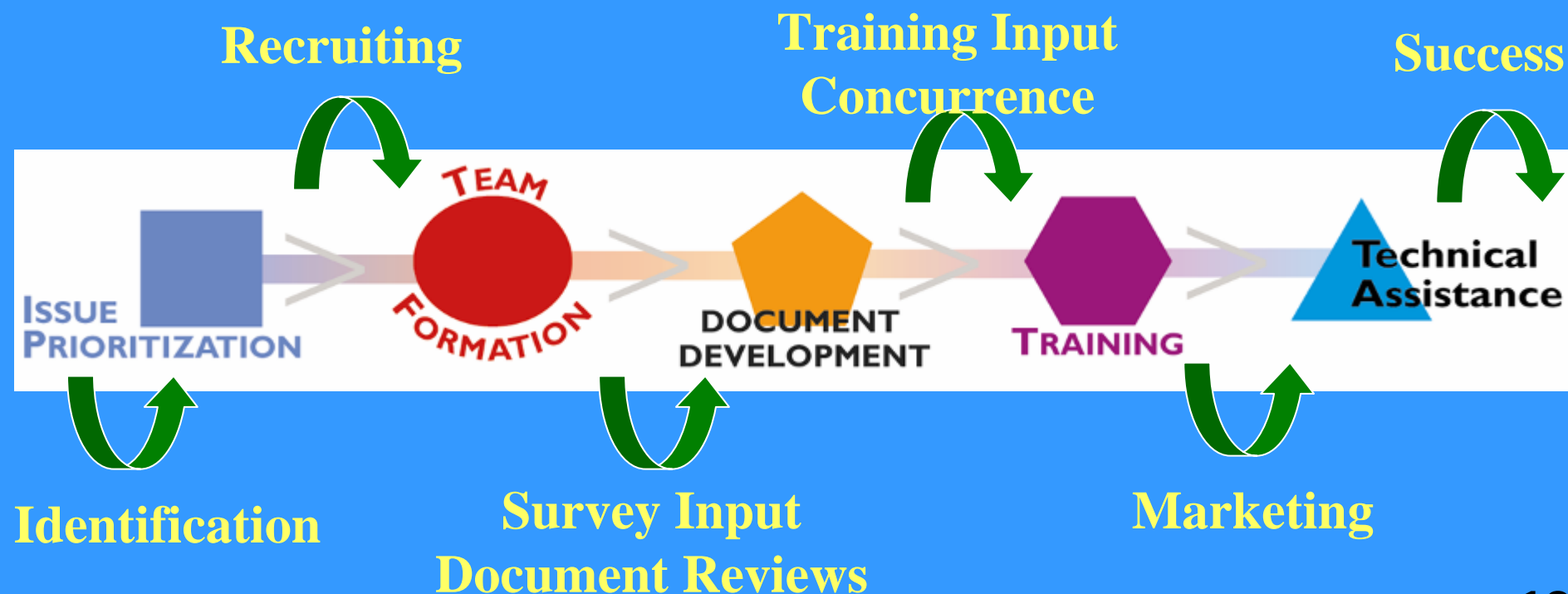
## State Point of Contact Network (45 POCs)

- Help find State reps. for Teams
- Coordinate review of ITRC products
- Coordinate in-state training on ITRC products
- Ensure state awareness/ use of ITRC products
- Coordinate concurrence on ITRC documents



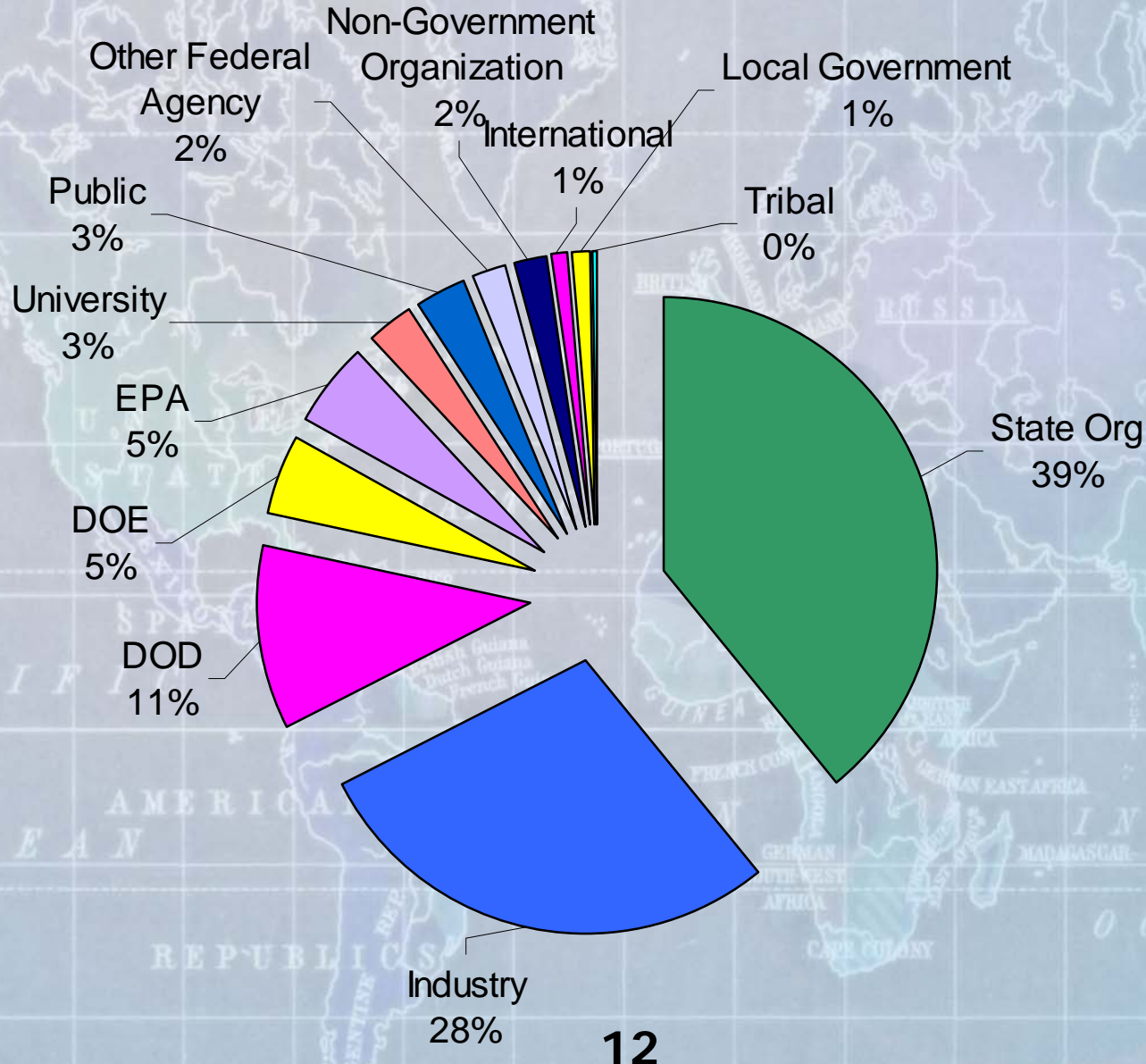
# State Engagement

## Ensuring Usability, Quality, and Implementation of ITRC Products



- **For Technical and Regulatory Guidance Documents**
- **Formal review/acceptance of state willingness to use ITRC documents**
- **Illustrates state commitment to ITRC tools**
- **Provides predictability**
- **High level state management buy-in**
- **Role of Technical Team**
  - Team members coordinate with POCs for concurrence
  - Develop Internet-based Training in parallel
  - Identify key issues to focus reviews

# ITRC Membership By Organization



## State Government led initiative (currently 45 States)

- brings the environmental community together:
- fostering collaboration
- focusing on mutual priorities
- leading the way to partnered solutions
- creating consensus-based tools and resources

## Promotes the proper use of innovative env. technologies

- achieve better environmental protection
- successful deployment increases potential for acceptance
- identify technical/regulatory barriers; work to address issues
- expand regulatory acceptance through better decision-making
- reduce cost of site investigation and cleanup



# Internet-Based Training

## How does it work?

- Curriculum based on guidance documents
- Course time - 2 to 2¼ hours
- On-line registration with two audio options (Conference call or Simulcast)
- Delivered via EPA-TIP website  
<http://clu-in.org/studio/seminar.cfm>
- Attendees participate from the comfort of their own office or conference room
- Interaction with instructors during Q&A
- National & International audience
- Free!!!



# Internet-Based Training

- **Course development (6 months)**
- **Instructors (2-4 per course)**
  - **ITRC Team Members**
    - **State regulator (minimum requirement)**
    - **Industry, consultants, federal agency, stakeholder, etc.**
- **Training materials**
  - **Learning objectives**
  - **Presentation overview**
  - **Presentation slides (50 – 90)**
    - **Developed by team**
    - **Based on guidance documents**
  - **Links to additional resources**
  - **Instructor pics, bios, contact info**



- **6461 participants in 2005**  
(~ 30% increase over 2004)
- **36 public offerings on 16 topics**
- **Promoting over 20 ITRC documents**
- **6 new courses completed development with dry runs (others in process)**
- **75+ active ITRC instructors**
- **ISCO most popular course in 2005**  
(2<sup>nd</sup> historically only behind natural attenuation)
- **26,000 participants (1999-2005)**



## Internet-based Training by Sector





## Continued from 2005

- Alternative Landfill Covers
- Constructed Treatment Wetlands
- Environmental Management at Operational Outdoor Small Arms Ranges
- DNAPL Performance Assessment
- Mitigation Wetlands
- Perchlorate Overview
- Permeable Reactive Barriers: Lessons Learn and New Direction
- Radiation Risk Assessment
- Radiation Site Cleanup
- Remediation Process Optimization
- Site Investigation and Remediation for Munitions Response Projects
- Triad Approach
- What's New With In Situ Chemical Oxidation

## New in 2006

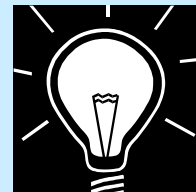
- Characterization, Design, Construction and Monitoring of Bioreactor Landfills
- Direct-Push Wells for Long-term Monitoring
- Remediation Process Optimization Advanced Training
- Planning and Promoting of Ecological Re-use of Remediated Sites
- Ending Post Closure Care at Landfills
- Rads Real-time Data Collection
- UXO Technologies
- Risk Screening Levels
- Vapor Intrusion
- More in development.....

# Our Customers Say It Best

- *We are currently involved in a pilot project that involves the treatment of ... groundwater ... so this seminar was particularly helpful in understanding some of the basic concepts of ISCO. Thank you!! – AZ Regulator*
- *Thank you for this valuable training. I can put it to use immediately. - U.S. Army*
- *Two colleagues and I participated and all of us enjoyed the presentations and this way of getting good scientific information. One colleague was not aware of this kind of training and is now a convert ! – U.S. EPA*
- *I appreciate...the regulators' perspectives. Recommendations by regulators particularly when based on their own personal knowledge are very important to achieving acceptance across the county for the range of remedial alternatives... - Site Owner*
- *The interface was awesome. Everything worked well! ... Saves on our travel budget - Environmental Consultant*

# More ITRC Customer Quotes

- *“This is my second seminar, and I've found them to be a great resource. By combining info from all the services and other sources, it's easy to get a general understanding of current best practices. The list of historical sources provided in your guidance document is also very helpful. Thank you.” – Participant from the U.S. Navy*
- *“Thank you for your excellent presentation! I am a new recruit, and I really appreciate all the available courses and information that ITRC provides.” – Nevada State Regulator*
- *“Very timely information.” – Environmental Consultant*
- *“Your organization's online courses are well appreciated. They help everyone still get training even in times of ‘lean budgets.’” – Participant from U.S. EPA*





- **Natural Attenuation - Principles and practices**
- **Permeable Reactive Barriers**
- **Accelerated In-Situ Bioremediation**
- **Unexploded Ordinance - Basic Training**
- **Phyto-Technologies**
- **Alternative Landfill Covers**
- **MTBE and other Fuel Oxygenates**

- **Information CD's - ( e.g. Diffusion Sampler Team )**
  - Over 75 Technical Papers and presentations
  - Case Study Database
  - Archived copy of ITRC Internet Training (audio and slides)
  - AFCEE Training Video for PDBS deployment
- **ITRC Website [ <http://www.itrcweb.org> ]**
  - Provides Team and training info & updates on ITRC Org.
  - ITRC Teams have individual webpages
  - Provides contact info for Teams, Board Members, and support staff



Thank You for Your Time

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