



Critical Materials Institute

AN ENERGY INNOVATION HUB

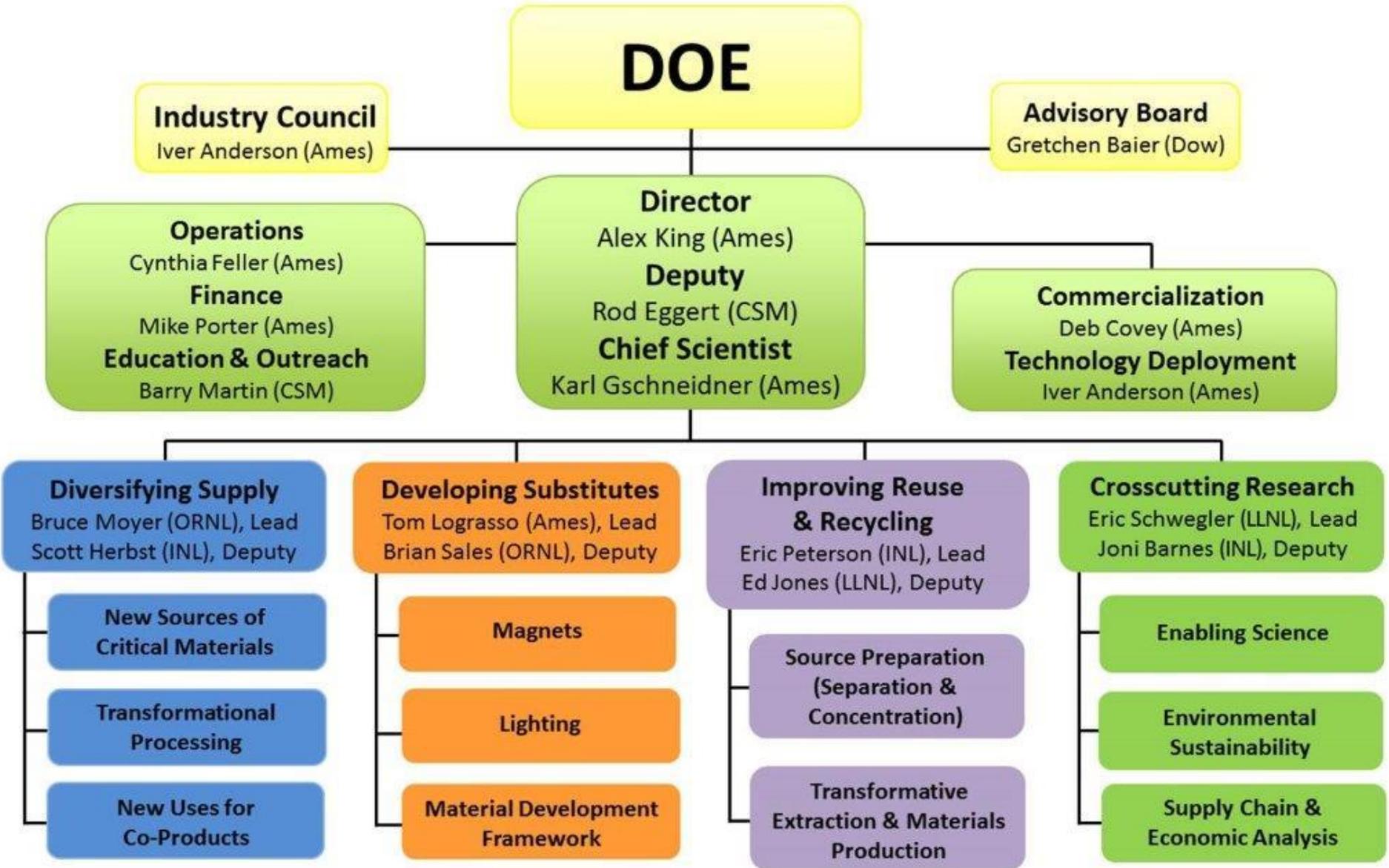
CMI Education Training and Outreach (ETO)
ETO Outreach Manager, Dr. Cynthia Howell
Colorado School of Mines
September 9, 2014



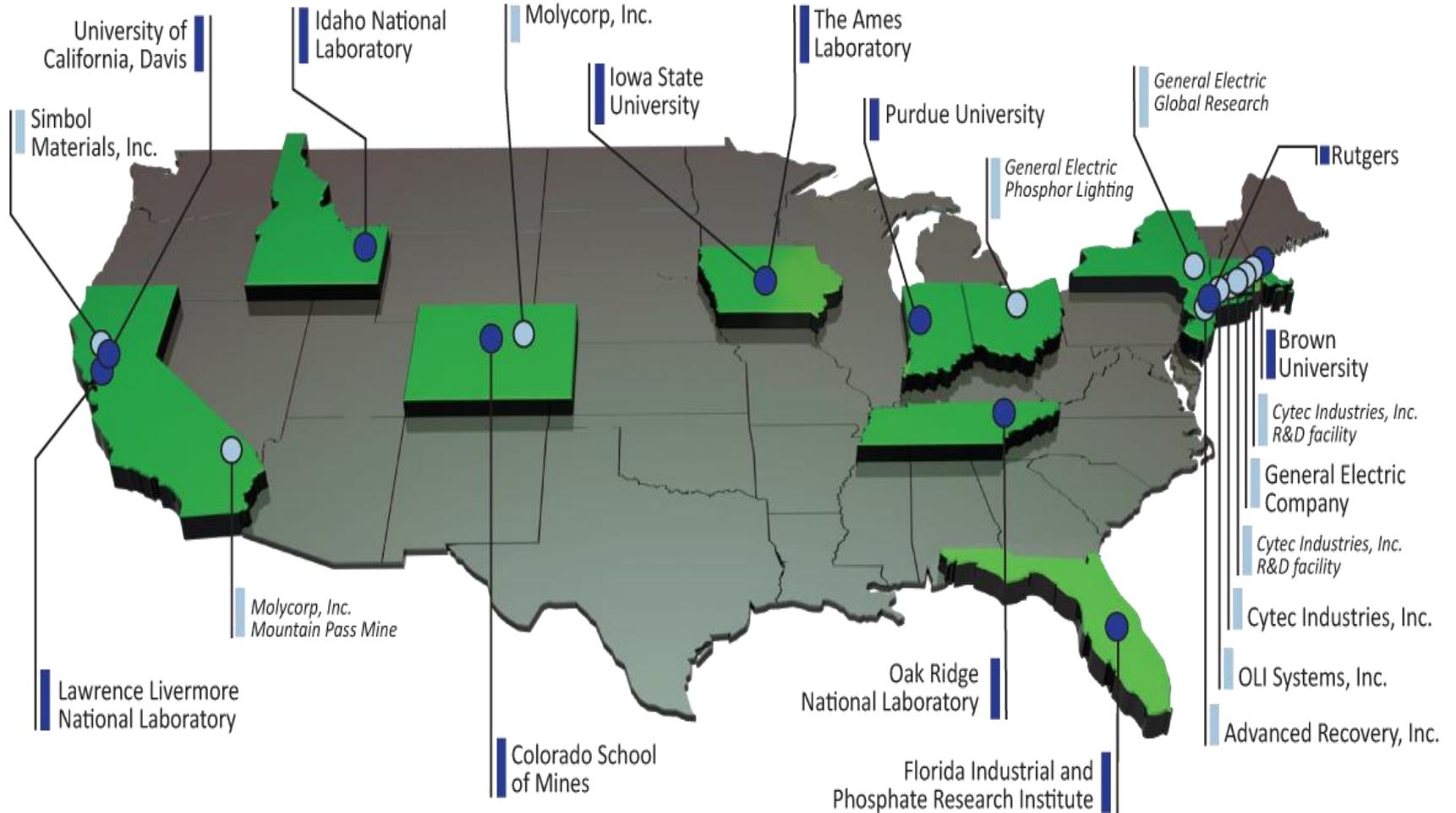
CMI Education Training and Outreach Roadmap

Engaging the workforce of the future is only one of the audiences we will address through the CMI Hub





What Can ETO do for CMI's Current and Growing Hub/team?



- National Laboratory and Academic Partners
- Industrial Partners

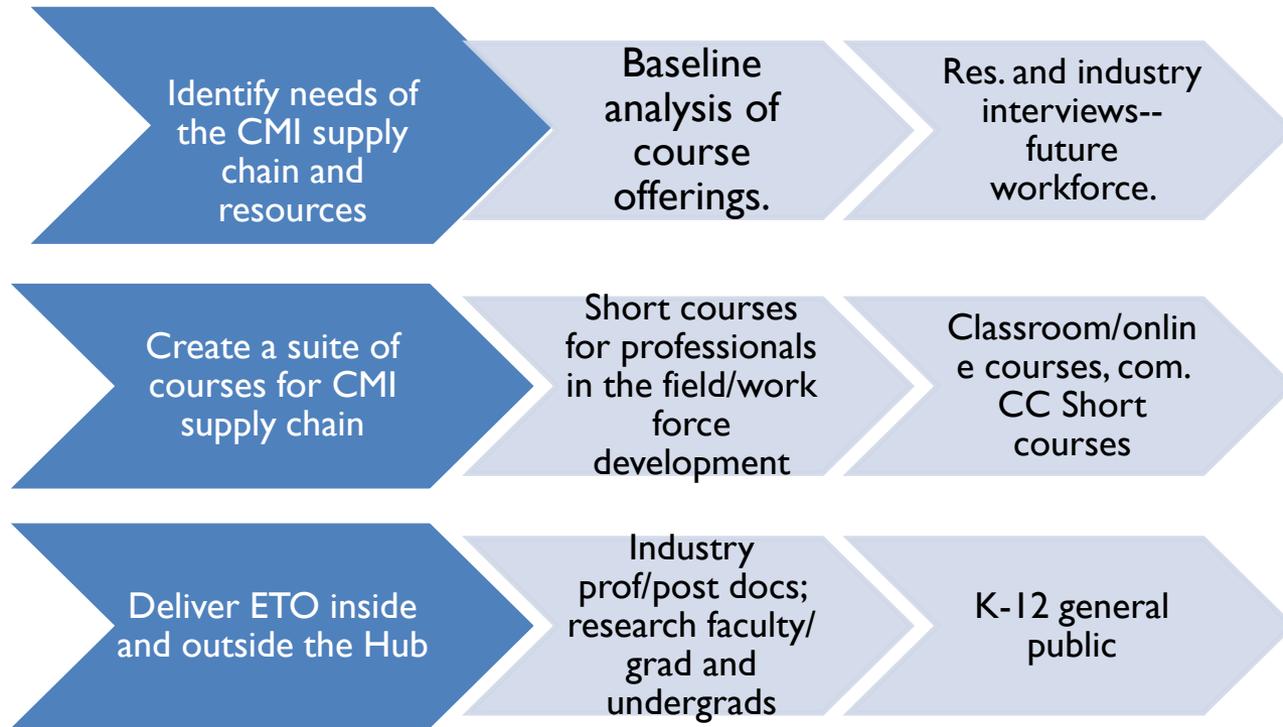
Education, Training and Outreach (ETO) Serving You

- Reaching audiences K-grey
- Emphasis on industry needs and training
- Research to the classroom—growing the STEM pipeline



- Offering a broad range of professional and outreach programs
- Getting the word out about CMI and engaging the next workforce
- Leveraging expertise from across the CMI partnership

ETO Milestones and Main Tasks



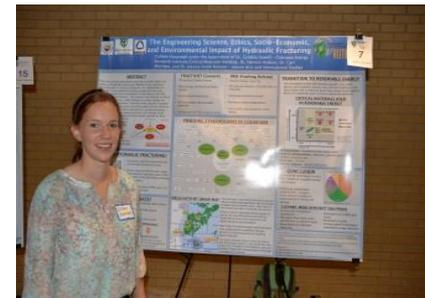
Important Milestone

Industry
prof/post docs;
research faculty/
grad and
undergrads

Industry
Short courses/training
Appropriate workforce
initiatives, Site visits/field
trips

Post Doc/Faculty
Visiting faculty programs,
Instructional fellowships
Field trips, Prof. dev.
courses

Grads and undergrads,
Research and professional
experiences, Training,
Internships, Field trips,
Exchange programs



ETO Milestone Accomplishments

Getting the word out about CMI

- Education web pages (featuring resources) developed and in development (outreach input; industry survey)
- American Indian Science and Engineering Society presentation
- Two Research presentations for national summer undergraduate interns
- Undergrad intern research poster presentation

Engaging the STEM workforce pipeline sharing CMI content

- Elementary School presentation by CMI Director, Ames
- 180-- 6th and 7th graders visit CMI/CSM
- Engaging summer interns throughout the Hub

Develop materials to support CMI and Hub

- Rare Earth Element Museum Exhibit
- Outreach Tool Kit
- Resources on Education web page
- National STEM education events—DiscoverE Engineers Week

What CMI Researchers and the Hub can do for ETO

Please designate the most appropriate ETO person(s) in your organization for us to contact.

After engaging the STEM pipeline, go to the outreach input site and add your experience: <https://cmi.ameslab.gov/about/education/cmi-outreach-gathering-tool>

Help us serve you better by going to the industry survey site to add your input: <http://dev-cmi-ameslab.gotpantheon.com/content/education-and-outreach-survey>

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Lets do More for CMI Together

- **Help us find resources for the education site**, perhaps something you use in the classroom.
 - End of five years—a web site with multiple timely and timeless education resources and workforce initiatives living on DOE site
- Education sites in review to **build out resources section**:
 - American Geophysical Union; <http://sites.agu.org/>
 - British Geological society; <http://www.bgs.ac.uk/>
 - MatEd National Resource Center; <http://www.materialseducation.org/>
 - Mineral Education Coalition;
<http://www.mineralseducationcoalition.org/>
 - National Science Teachers Association-NSTA;
<http://learningcenter.nsta.org/>
 - Office of Special Programs and Continuing Education at CSM (SPACE); http://mines.edu/Educational_Outreach_2/
 - Society for Mining, Metallurgy and Exploration;
<http://www.smenet.org/>
 - U. S. Geological Survey; http://www.usgs.gov/energy_minerals/
- National initiatives that have become institutionalized
 - DiscoverE Engineers Week can live on through your organization

Thank you, I look forward to working with you.

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