

CORE-CM in the Greater Green River and Wind River Basins: Transforming and Advancing a National Coal Asset

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Project Lead

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School of
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Acknowledgement and Disclaimer

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Our Project Team

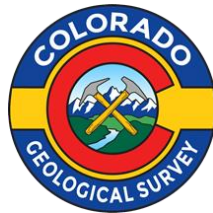
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Current CORE-CM Support

Project Partners and Stakeholders include:

Industry, Academia, Non-profit Organizations, Economic Development Groups, National Laboratories, State Geologic Surveys, State-wide Agencies, and City and County Governments

Current Partners & Supporting Stakeholders:

U.S. Congressional Delegation of Barrasso, Lummis, and Cheney; Wyoming Governors Office; Colorado State Land Board; Colorado Division of Reclamation, Mining and Safety; Wyoming Mining Association; Wyoming Representative Donald Burkhart; Wyoming Representative Mike Greear; Wyoming County Commissioners Association; Associated Governments of Northern Colorado; Wyoming Business Council; Wyoming Small Business Development Center; Impact 307; Wyoming Counties of Sweetwater, Sublette, Fremont, Carbon, and Uinta; Routt County, CO Economic Development Office; Moffat County; Kemmerer Operations, LLC; Tri-State; NTEC; Peabody Energy; PacifiCorp; Trapper Coal Mine; Colowyo Coal Mine; Black Butte Coal; Bridger Coal Company; Sweetwater Economic Development Coalition; Southwest Wyoming Manufacturing Partnership; Central Wyoming College; Mango Materials; Ur-Energy Inc.; City of Rock Springs; City of Green River; The University of Texas at Austin; Concurrent Technologies Corporation; Tetra Tech; Novex, LLC; Disa, LLC

Where & Why

CORE-CM in the GGRB-WRB has the ability to significantly impact the region by providing transformational economic development & potential resources for the U.S. domestic supply chain

- Nearly all of the coal mines residing in the GGRB-WRB are facing early closure dates
- The region and it's stakeholders are seeking:
 - Modernization of coal and related natural resources
 - Better ways to guarantee regional economic diversification
- Communities and stakeholders are active in diversification planning
 - Federal Grant Applications (e.g. Build Back Better)
 - State Programs facilitating economic development
 - County and City level economic incentives
- Communities and stakeholders seek to have a voice in regional economics

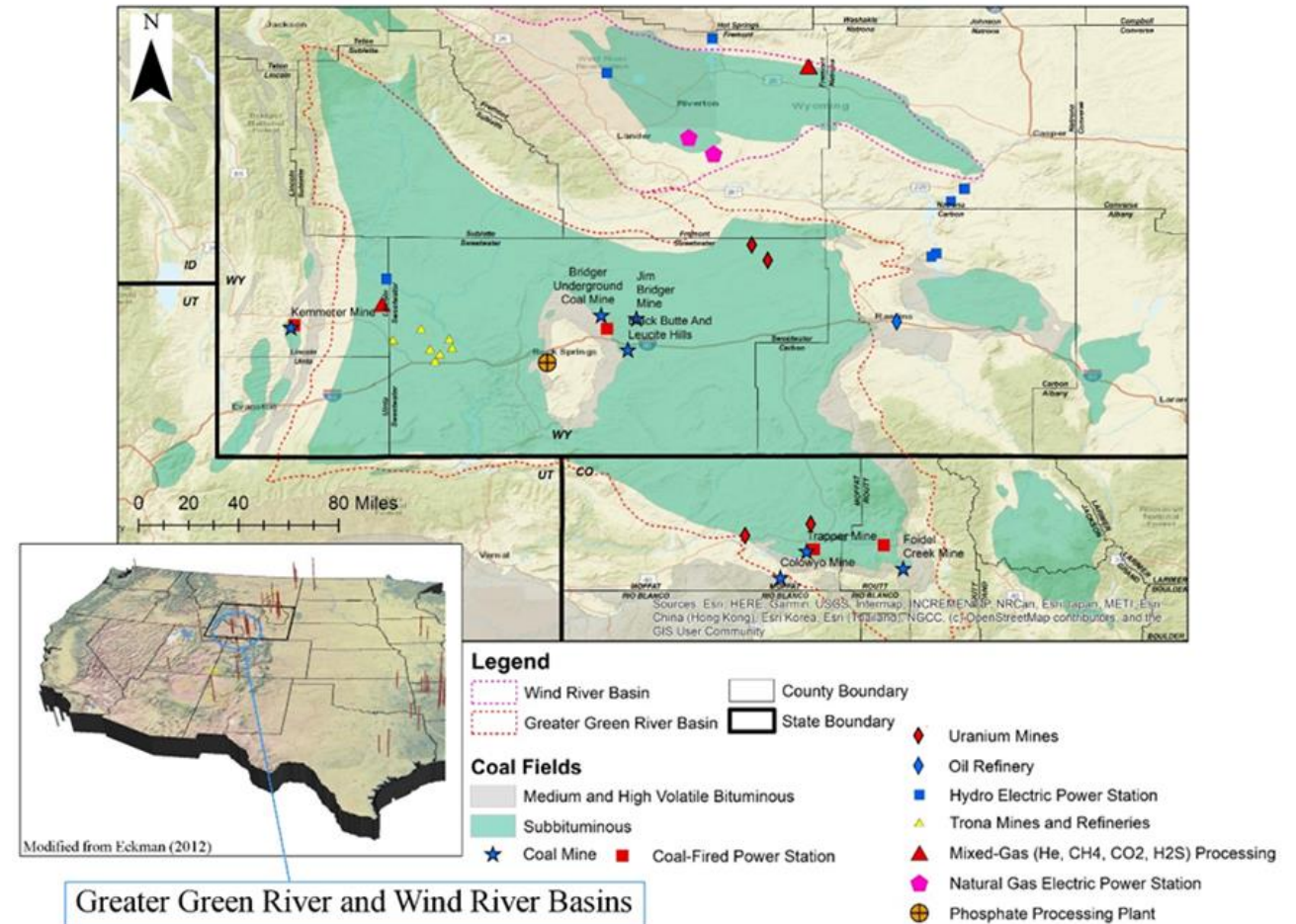
CORE-CM INITIATIVE



Where & Why

Strengths of CORE-CM in the Greater Green River & Wind River Basins

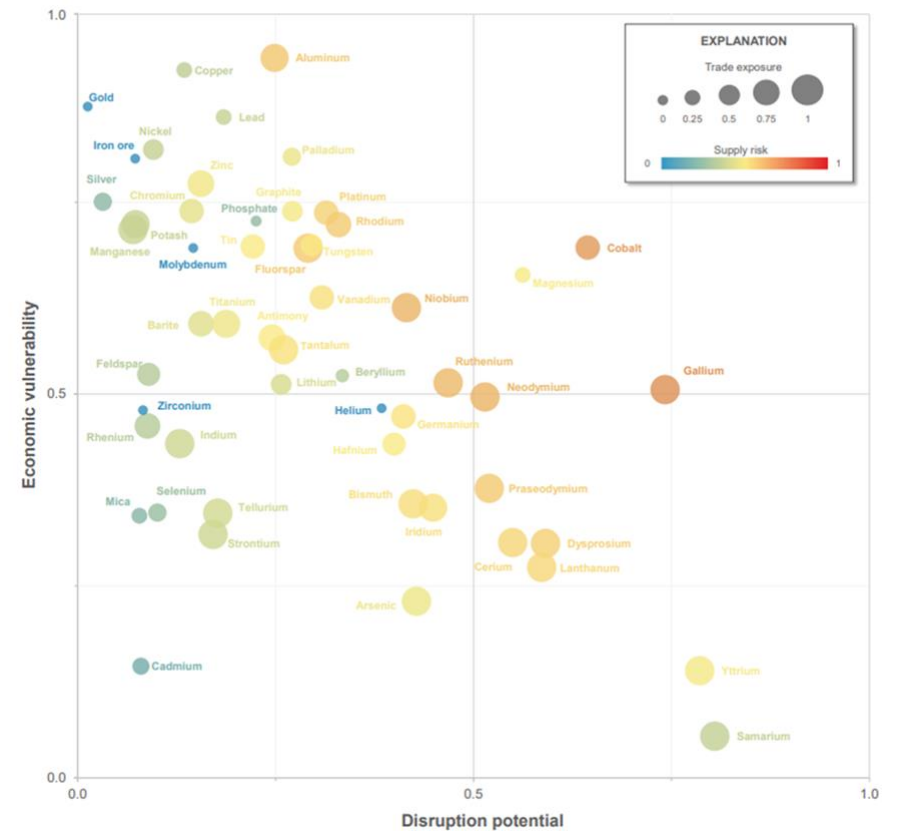
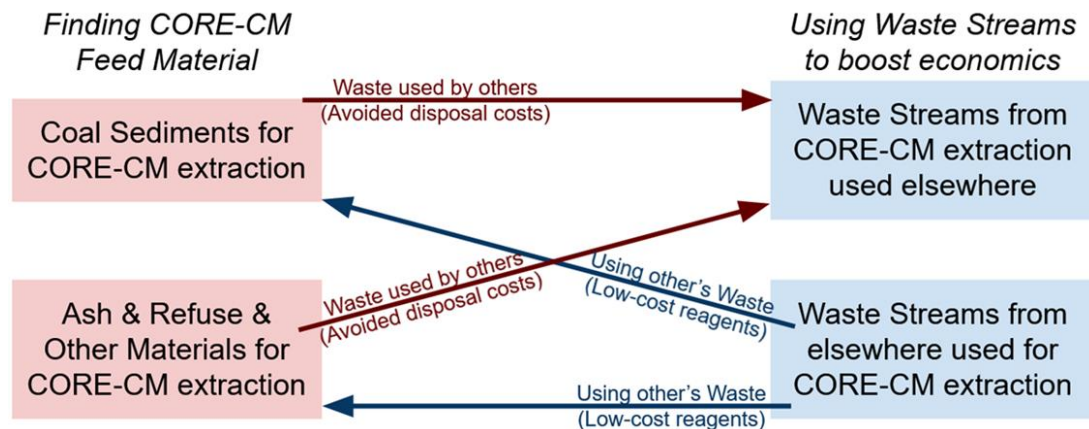
- Home to a diversity of potential feedstocks and materials to benefit CORE-CM planning and development
 - Major coal mines & extractive industries (e.g., uranium, trona, helium, oil, natural gas)
 - Major industrial operations (e.g., power, soda-ash, gas-separation, phosphate)
 - Abandoned Mines (uranium, gold, copper, iron)
- Advanced manufacturing and supply chain infrastructure relevant to CORE-CM is currently being initiated in the region
- Economic downturn is well understood by regional stakeholders composed of a highly trained, adaptable & energy-savvy work-force
- Workforce development, coalition team building & stakeholder involvement in public-private teams are all familiar to region partners



What

Assessing and Cataloguing:

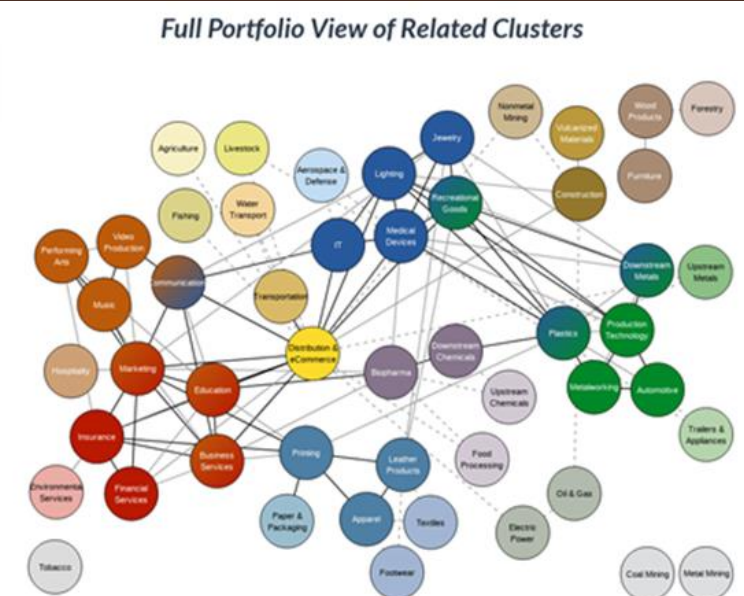
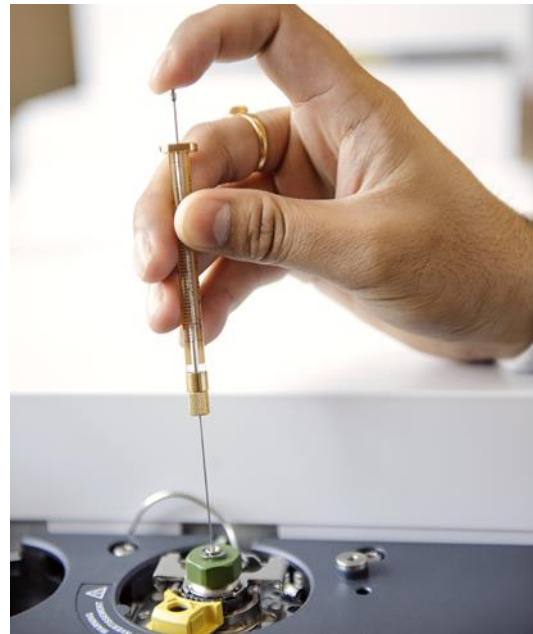
- Main-seam coal sediments, coal mine refuse, acid mine drainage, coal combustion residuals, non-fuel coal-product residuals, and other regionally distinctive materials
- Waste streams from CORE-CM production, other regional industries to develop reuse options that minimize disposal issues and improve CORE-CM economics
- Assessing both conventional and innovative technologies to overcome region-specific challenges in CORE-CM extraction, refining, and manufacturing
- Identifying critical gaps in all assessments



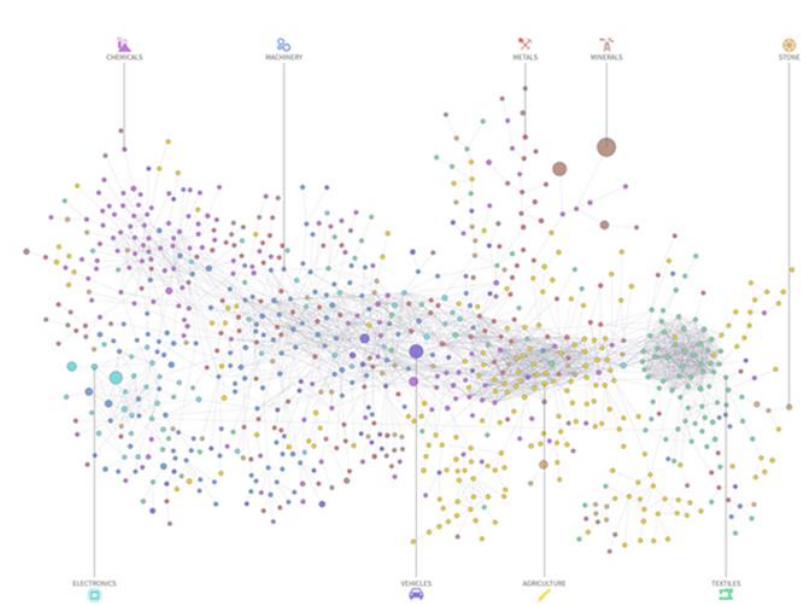
What

Understanding and Connecting:

- Evaluate regional infrastructure, industries, and businesses
- Discover basin-specific ways to connect main CORE-CM supply chains from extraction through refining to manufacturing of non-fuel CBP and high-value CM products



Note: The figure top, produced by the Harvard's Growth Lab, illustrates the product space and the figure bottom, produced by the Cluster Mapping Project, illustrates related industry clusters.



What

Partnerships to Guide Future Development:

- Developing outreach and education strategies to collaborate with stakeholders, train future workforces, and collaborate with other CORE-CM projects
- Establish criteria defining a successful Technology Innovation Center
 - Clarify assumptions about the possible scope(s) for the Technology Center(s) (location, capabilities, operation, and services provided)
 - Suggest possible outcomes (e.g., small business development, public private partnerships, etc.) and/or performance metrics (e.g., value added, engagement, training, etc.)
 - Identify opportunities and risks affecting technology readiness
- Plan public-private partnerships to develop technology innovation centers in the GGRB-WRB and around current Fossil Energy Communities



How

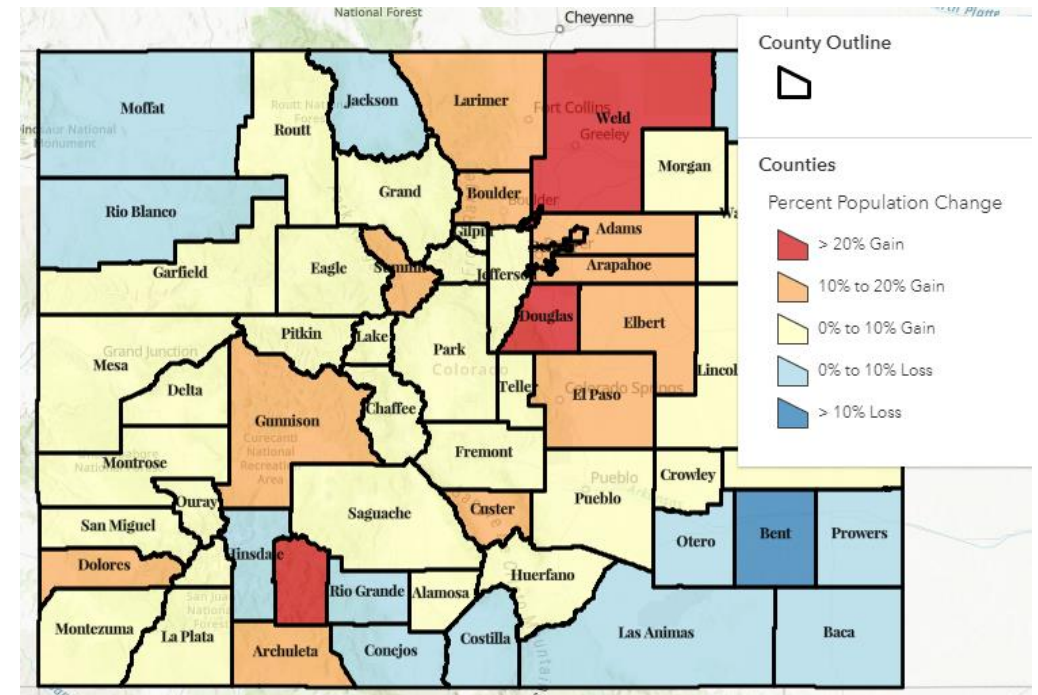
Stakeholder Engagement:

- Frequent project updates & dialog
- Host annual regional CORE-CM forums at community colleges within coal communities
- Develop outreach and education strategies within stakeholder networks
- Present webinars and educational content
- Participate in existing stakeholder activities



Environmental Justice (EJ) & Environmental Social Governance (ESG):

- The GGRB-WRB region includes large areas of Tribal Lands
- A variety of Fossil Energy/Natural Resource based communities
- Communities hosting significant socio-economic differences
- Legacy waste streams across the Natural Resource landscape



Last Thoughts

How has the initiation of your project gone so far?

- Initial assessment strategies and implementation have begun
- Stakeholder involvement has been excellent & critical to getting the project moving
- Kickoff meetings & regional conversations have proven productive

Challenges?

- Foreign National Approvals
- Site Access Agreements
- Contracts

Opportunities?

- Ability to perform new science across a wide region
- Participate in a meaningful way with communities in the energy transition

Thank You!

Please direct inquiries to

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