

WHAT CO-LABS MEANS TO COLORADO'S INNOVATION ECONOMY

SUMMER 2019



#ScienceMatters

Read what federal research lab scientists, economic development organizations, technology companies, elected officials, civic leaders and academics have to say about us.

We are grateful for such partners and supporters helping us enhance Colorado's tax-payer supported research ecosystem as THE national hub for 21st Century scientific leadership and discovery.

"My colleagues and I would like to express our appreciation for the work you do to make CO-LABS a successful advocacy organization for Colorado's federally funded labs. CO-LABS is an essential partner as we work to keep abreast of the great work going on at the more than 30 labs we are lucky to have in Colorado. Each of our staff has a broad portfolio of policy, outreach, and geography to attend to on behalf of Michael and we rely on you as a go-to for this very important sector. It is a sector that spans across a number of different staff members, so having one person each of us can turn to as needed allows us to be strong advocates for these federal resources as the opportunities arise.

"The tours you organize throughout the year are helpful for new staff, DC policy staff, and for when our in-state team members just need to refresh our understanding of the work being done. Thanks for your advocacy, your friendship, and accessibility."

- **James Thompson – Regional Director, Northern Colorado – Eastern Plains**
- **Annie Oatman-Gardner – Regional Director, Pikes Peak Region**
- **Becca Montgomery – Policy Director**
- **Office of U.S. Senator Michael F. Bennet**

"I am grateful for all that you are doing on behalf of the community of science across Colorado. I am glad to participate and support this important group - and to recognize the excellence of research and technology commercialization brought together by CO-LABS. Keep up the great work! It is deeply appreciated."

- o **Walter G. Copan, Ph.D., Under Secretary of Commerce for Standards and Technology & Director, National Institute of Standards and Technology (NIST)**

“CO-LABS’ role in uniting the great minds and innovative work in federally funded labs with Colorado businesses, educational institutions and government entities has had a tremendous impact on Colorado’s growing innovation economy. The annual Governor’s awards event is a great celebration of the inspiring projects and real impact CO-LABS is creating, and it generates excitement to deepen the support and build the networks that make Colorado an amazing place to research, innovate and grow business.”

- ***Bruce E. Dahl, Director, Registered Patent Attorney, Fennemore Craig***

“On behalf of the Colorado SBDC Network, I want to express our thanks for the collaboration between the SBDC TechSource program and CO-LABS over the years. What began with an informal relationship when CO-LABS was first founded, has evolved through CO-LABS’ support (as fiscal agent) of our JPMorgan Chase Foundation grant in 2013 (which funded the early Tech Venture Accelerators in Boulder) and Colorado SBDC’s sponsorship of the Governor’s Awards for High Impact Research.

“The collaboration between SBDC and CO-LABS is especially impactful because our organizations do not duplicate efforts, but rather augment each other’s strategies and initiatives as we each support Colorado’s innovation ecosystem: SBDC in direct support of Colorado’s innovative small businesses; CO-LABS in direct support of the federal labs and universities; each organization’s support of the larger science & technology community in Colorado. Thank you for including the SBDC and our small innovative businesses (startup through advanced) in CO-LABS’ lab tours, that let us all share information and build the fabric of the our science & technology community. There is high value in the direct access that our business owners get with leaders at the labs and with other organizations and businesses they meet at these events.

“Finally, we want to thank you for sharing SBDC TechSource programs and services in your ongoing communication to the R&D community, including the upcoming August 16th SBIR National Road Tour visit to Boulder and the Innovation & Opportunity Conference (our partnership with NASA – Nov 2018 and coming in Nov 2019). We look forward to continuing and finding new ways to build our collaboration.”

- ***Sharon King, Executive Director, Boulder Small Business Development Center, Colorado SBDC TechSource, 2018 U.S. Small Business Administration’s National Award Winner***

“Working with CO-LABS to promote the science and technology we do at the National Institute of Standards and Technology Boulder Labs is rewarding in every way imaginable. Dan Powers is an enthusiastic and energetic promoter of all the federal labs in Colorado. And through his leadership, CO-LABS has created a network of supporters and principals that continues to expand and share the knowledge of what each of us is doing research-wise and what issues we face locally, statewide and nationally. CO-LABS is truly a valuable resource.”

- ***James Burrus, Outreach Coordinator; National Institute of Standards and Technology, Boulder Labs***

“Colorado Business Roundtable has enjoyed a great partnership with CO-LABS for many years. Under Dan's leadership, CO-LABS has really galvanized the research community and touted not only the numerous benefits of research labs, but partnership opportunities for companies across the state. The economic impact of is noteworthy, and CO-LABS is helping share the story, success, and opportunities. From organizing roundtables and educational forums, to touring some amazing facilities, we feel we not only have a greater understanding of the work being done, but also how we can engage with the research community.”

- *Jeff Wasden, President, Colorado Business Roundtable*

“I want to thank you for the work CO-LABS does on behalf of all the federal laboratories in Colorado. The efforts to bring to attention to the accomplishments of the laboratories through the CO-LABS web site is greatly appreciated. Also, the efforts to bring the federal laboratories and potential partners through laboratory tours is an effective way to raise awareness of the missions and activities of federal labs and provides opportunities for partnerships because of the heightened mutual awareness. Your efforts in organizing the briefing calls with the CO Congressional delegations is an excellent way to demonstrate the value of the federal labs to the delegation. It allows time and a neutral platform to show how the federal labs are important to local constituencies.

“Finally, the CO-LABS efforts in organizing laboratory recognition for the various awards is also valuable. We take that information and recognition to raise the situational awareness of our laboratory contributions within our Department, and it is always well received. All of these efforts take time and energy, and on behalf of the NWRC I thank you and CO-LABS. Many thanks.”

- *Larry Clark, Ph.D., Director, National Wildlife Research Center, USDA-APHIS-WS*

“I believe that what CO-LABS does is critical to showcasing the capabilities and talents that exist in the state of Colorado and making those capabilities known on a national and even international basis. This brings not only attention but also resources, collaboration and funding opportunities to our state and our communities in Colorado. If this case is not made for Colorado, those same assets are likely to go elsewhere, draining us of the talent and economic energy that drives our state economy not only in the technology sector, but also in every aspect of our state economy that is driven by having the talent pool of people that federal and national lab activities and jobs bring. The work that CO-LABS does helps us maintain a leadership position that not only benefits Colorado, but also provides the source of problem solving and problem preventing efforts ranging from infectious disease research, agricultural programs, energy programs, defense related programs and environmental efforts that impact the citizens of Colorado, the United States and the world in general.”

- *Raymond P. Goodrich, PhD, Executive Director, Infectious Disease Research Center, Colorado State University*

The National Telecommunications and Information Administration's ITS tour (Institute for Telecommunication Sciences) organized by CO-LABS was indeed a pleasure to attend, the most inspiring part of tour was CO-LABS emphasis on how their advancements impact to American industry and citizens. CO-Labs provided an outstanding platform to interact with diverse group of federal, state, local and industrial entities on wide array of technology and innovation happening at federal labs. Structured and unstructured tour agenda offer an excellent opportunity to interact with highly talented individuals."

- *Vihang Jani, FirstNet Innovation Center, First Responder Network Authority*

"The behind-the-scenes lab tour expanded my awareness of JILA and was highly informative. I learned about the work of international importance being done right here in Boulder, which deepened my appreciation of the significance of the numerous federal labs in our community. The tour also provided an opportunity to meet others who are doing remarkable work. If you have the opportunity to go, I highly recommend this experience!"

- *Kelly Brown, Director of Silicon Flatirons' Governmental Entrepreneurial Leadership Accelerator at CU Boulder*

"The work done by Federal research labs in Colorado has a huge economic impact, both direct and indirect. We develop products and technology that enter the marketplace directly generating revenue for private companies and public-private partnerships. We also develop technology and scientific knowledge that indirectly impact the Colorado economy by laying a foundation for innovation that is seized upon as companies expand within our State or move here partly because of this "ecosystem" of innovation between Universities, the private sector, and Federal research agencies. CO-LABS powerfully articulates this wonderful story to all who will listen; to Colorado legislators regarding the benefits of State support; to the private sector regarding the profit potential that can be seized upon; and to Federal legislators of the undeniable economic return of their investments in this "ecosystem" of innovation. For all CO-LABS does, we are thankful. And Coloradoans benefit each and every day."

- *Daren Harmel, PhD, Director, USDA-ARS Center for Agricultural Resources Research (CARR)*

"Colorado has many attractive features, and for those of us in the scientific community, the presence of national laboratories and the industries that have sprung up around them provide a significant draw. I have worked for companies that spun out of both NREL and JILA. These companies provide scientific equipment to a global community working on solving some of our most important problems. CO-LABS is doing a great service to the scientific community and the Colorado economy by bringing people from a wide variety of backgrounds together and highlighting the activities that take place here. My participation in events hosted by CO-LABS has helped foster strong connections with other participants and together, through our networks, we have made each other more successful business people, better communicators, and more involved in the political process. Dan's enthusiasm for the laboratories, the research that happens there, and the businesses that support them is intoxicating. He is a great spokesperson for the scientific community. Thanks for all you do!"

- *Orri Jonsson, Sales & Marketing Manager, ColdQuanta*

“Dan Powers is the consummate networker and through those efforts I have learned a lot about federal labs I had not been aware of as well as gaining a greatly improved understanding of the work underway and capabilities in the many federally funded labs in Colorado. The lab tours Dan organizes have been instrumental in increasing my awareness as well as providing an opportunity for me to network with others on the tours. In this era of tighter budgets, this cross-lab networking can also help leverage resources between labs.”

- *Cindy Beeler, Region 8, Environmental Protection Agency*

“From my perspective, CO-LABS provides a unique opportunity to introduce important Colorado constituents to the critical impact provided by our federally-funded research laboratories”

- *Todd Headley, CEO CSU Ventures*

“CO-LABS has been an integral research and development networking platform for my company, Extreme Event Risk. In March 2016, on a tour of NREL’s Energy Systems Integration Facility (ESIF) I was introduced to NREL’s Small Business Representative and encouraged to write an ‘In Kind Grant Application for a High Powered Computer’ under DOE’s Energy Efficiency and Renewable Energy Program. We needed the use of a super computer to develop and investigate what had been a theoretical understanding of multifractal analysis of extreme weather events based on climate change. As a start-up business with highly limited R&D funding, we submitted our application the following August and was awarded the grant in October 2016 to conduct our research for 1 year utilizing the Peregrine Super Computer at NREL’s facilities here in Golden. In August 2017 we completed our mathematical Proof of Concept and began augmenting this new analysis into our risk assessment platform. Without CO-LABS, this process would never have occurred.”

- *Joshua Putterman, CEO, Extreme Event Risk*

“Manufacturer’s Edge has been a proud and active supporter of CO-LABS and will continue to be. The National Laboratories in Colorado are truly a very hidden and important resource for Colorado academia, business, and our economy, and CO-LABS has been instrumental in telling the story of that value. Beyond awareness of their existence, programs like the CO-LABS tours have enabled the community to see first-hand the work and technology development being done in our State, and has broadened the perception of the labs as a useful resource for business. Of particular note is the Governor’s technology awards program, which highlights not just the incredible technological advances from these labs, but also the people who work there, and the enormous benefit to society, and Colorado, of the work being done. “This program, the tours, the newsletter, and other activities of CO-LABS have changed the labs from buildings spread out around the State into living parts of the community and economy. Without CO-LABS, they are just buildings. With CO-LABS, they and their people are vital parts of our community.”

- *Tom Bugnitz, CEO, Manufacturer’s EDGE*

“The State of Colorado has enjoyed working with CO-LABS to strengthen our relationships with Federal Labs to further promote collaboration and participation. We support your mission and role in bringing together the collective research and development expertise from Colorado. I have enjoyed reviewing the applications for the Governor's Awards for High-Impact Research over the past few years; the convening of government, EDO's, Federal Labs, Universities and the private sector strengthens Colorado assets to help us become a global leader in technology development.”

- *Katie Woslager, Senior Manager- Advanced Industries, Colorado Office of Economic Development and International Trade (OEDIT)*

“Dan Powers is doing a great job championing the science boom in Colorado. Many people do not know that scientists and researchers at federal labs are prohibited from advocating for funding or touting the amazing accomplishments they achieve. I have none of those restrictions, so I will sing their praises...CO-LABS, Inc. reports on the overall impact this research is producing in the state, and they convene conversations that highlight innovations. This provides critical opportunities for partners in higher education and private industry to collaborate with these institutions and move these transformational technologies out of the lab and into the marketplace. Together we are not just enabling breakthrough research, we are ensuring these world-changing solutions are applied in Colorado which leads to economic growth and jobs.”

- *Eric Horner, Assistant Dean of Advancement for Research and Innovation Office, University of Colorado – Boulder*

“I would just like to be sure you know how impressed I am with the overall advancement of CO-LABS over the years. Your energy and direction with that of the board has really moved CO-LABS into the role we originally envisioned when we established it back in 2007. Cindy Schmidt and I felt it was very important for the Colorado congressional delegation, state legislature and governor's office to have a full understanding of the scientific, economic and reputational impact that the federal labs have on the state. The labs are key resource to be protected and nourished by the state for the benefit of not only Colorado but the country as a whole. “Through the good work of CO-LABS in partnership with the labs over the last twelve years, I think that has been achieved. I believe Colorado's elected officials at all levels now understand the importance of the labs to Colorado's economy and reputation and have a vested interest in supporting them. The public has now become more aware of the work of the labs overall as a result of the publicity CO-LABS has worked to generate. More can always be done, but as a founder, I wanted to convey my thanks and appreciation to you and the board for a job well done!”

- *Frances Draper, Senior Strategic Advisor for Public Policy and Community Relations, University of Colorado -Boulder*

“I’ve long been impressed with CO-LABS’ staff – their professionalism, enthusiasm and knowledge are abundant every time I cross their path at a wide variety of energy, business, economic development and other industry events. Recently I was able to attend for the first time one of the many site tours that CO-LABS organizes: a visit to Xcel Energy’s Network Operations Center and Energy Trading Floor in downtown Denver. Even though I work in the electric utility business, this was an incredibly interesting and eye-opening education, as well as an unexpectedly rich networking opportunity. I certainly hope to tag along on more of these outings and to find new and substantive ways our company can partner with CO-LABS to enable substantial, science-based progress in the rapidly-changing energy industry.”

- ***Drew Kramer, Senior External Affairs Advisor, Tri-State Generation and Transmission Association***

“Dan Powers is the consummate networker and through those efforts I have learned a lot about federal labs I had not been aware of as well as gaining a greatly improved “CO-LABS is a vital part of the scientific ecosystems that makes Colorado a premier state for innovation. Through the opportunities for sharing and engagement that is hosted by Dan and the CO-LABS supporters we are able to understand and support many different efforts within Colorado. For the Colorado Space Business Roundtable (CSBR), we utilize the scientific partnerships from CO-LABS to provide information and opportunities to our members. Many of our members are small and medium businesses who may not understand the value of the labs that are in our own backyard. Dan provides tours and opportunities for sharing information that allows our membership to tap into the work and create new partnerships. I believe it is important to keep these lines of communication and opportunity open for all.”

- ***Alires Almon, Founder, Deep Space Predictive & Chair, Colorado Space Business Roundtable***

“I’ve known of CO-LABS for some years now, but only recently had the opportunity to meet and work with Dan Powers. And, I’m very glad that I did. The occasion was EarthX 2019, the world’s largest environmental expo and conference series that takes place annually in Dallas during Earth Day in April. Dan attended the most recent program and presented during several conferences, as well as staffed an exhibit table. The audience responded very favorably to learning about the wide range of federal laboratories based in Colorado. For most people, it was a huge surprise to learn that so many labs existed first of all, and then to discover that there was a concerted effort to link their efforts for purposes of leveraging their impact on the economy and environment. I think it was in fact encouraging to many EarthX attendees citizens and businesspeople alike to learn that CO LABS is working to present solutions to many complex environmental challenges. CO-LABS is a powerful entity that speaks well of the state’s understanding of the power of public-private sector partnerships.”

- ***Richard Eidlin, Co-founder, American Sustainable Business Council***

“The CO-LABS Governor’s Awards event is insightful and informative; demonstrating cutting – edge strides being made across all areas of technology. Amazing examples of collaboration among the top Colorado-based laboratories held in an inspiring environment.”

- ***John P. Walt, Regional Manager, Laboratory Corporation of America***

“CO-LABS continues to be a valuable partner in highlighting the strong federal R&D ecosystem in Colorado. From universities, federal labs, and businesses in the State, CO-LABS builds bridges across the sectors in an effort to help tell the story of scientific discovery and economic impact. Through its activities – including tours of the various laboratories, newsletters, and outreach – CO-LABS not only convenes the necessary stakeholders, but conveys the critical impact of Colorado’s research network at the state and national levels.”

- *Jack Waldorf, Assistant Vice President of Federal Relations and Outreach, University of Colorado*

"I would like to extend my sincere gratitude for the incredible support and leadership CO-LABS provides to the Colorado scientific community. By extending connections and visions not only within scientists, but to policy makers, business leaders and beyond, CO-LABS is providing a foundation to accelerate the pace of innovation in Colorado. Tour after tour, I continue to learn new ways to expand my scientific thinking and, in my political role, new ways to integrate science and policy. Thank you for your continued efforts and I look forward to partnering more in the future!"

- *Trish Zornio, M.S. Candidate for U.S. Senate CO 2020 & Lecturer, CU Denver*

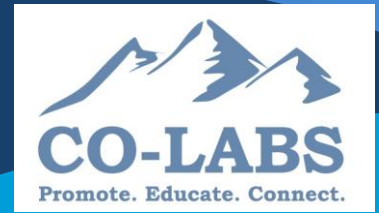
“CO-LABS is the innovation glue that inspires, connects and convenes science and our lab community in Colorado. The greatest innovations are created – together – and CO-LABS’ commitment to connect ideas to resources and opportunity – is a blessing to our State and a pillar of our innovation community. I could not be more thankful for the work they so passionately do.”

- *Erik Mitisek – Chief Innovation Officer, Office of Governor John Hickenlooper, State of Colorado*

Have thoughts to share?
Contact CO-LABS Executive Director
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or 720-389-0455

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Also see formal letters from:

Jennifer Mahoney
Acting Director, Global Systems Division/Earth System Research Laboratory
National Oceanic and Atmospheric Administration

Christian Kummerow
Director, Cooperative Institute for Research in the Atmosphere (CIRA)
Colorado State University

John L. Tayer
President and CEO, Boulder Chamber

Dr. Robert McGrath
Director, Renewable and Sustainable Energy Institute (RASEI)

Gen. Jay Lindell (ret.)
Colorado Office of Economic Development and International Trade
Aerospace and Defense Industry Champion

Thomas T. Perkins, Ph.D.
Fellow & Chair, JILA at CU-Boulder

Diane M. Stanitski, Ph.D.
Deputy Director of Planning and Administration
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