

Action Plan Worksheet

Jurisdiction: Alaska

Objective: Strengthen the Alaska entrepreneurship ecosystem through increased communication, focused collaboration among champions of entrepreneurship and attention on realistic, actionable outcomes.

Why this objective is important: Alaska needs to bridge the gaps between:

- The scattered pockets of brilliance that comprise our immature entrepreneurship ecosystem;
- A traditional, resource-based economy and a modern, diversified economy; and
- Our strength in innovation/independence and state-based industry.

Action Be activity-focused	Responsible Party Who is the driver?	Resources Who should participate?	Outcomes Be realistic, specific, measurable	Time Frame
Hold workshops to engage champions of entrepreneurship.	Pips Veazey - EPSCOR; Economic Committee	EPSCoR; Local and state govt.; Regional development orgs. and EDOs; Alaska Native orgs.	Statewide analysis of our ecosystem with focused action plans for breakout groups	6-12 mos.
<u>Focus Area 1:</u> Hold work sessions focused on increasing SBIR/ STTR activity.	Adam Krynicki - SBDC	Kathryn Dodge - CES SBDC, NTV Tech-based entrepreneurs Industry- ABM 2015 list	↑ Applications ↑ Awards ↑ Dollars received	12 mos.
<u>Focus Area 2:</u> Hold workshops to increase research collaboration among university, industry, military.	Rosie Madnick - OGCA Adam Krynicki - SBDC	Nolan Klouda - UAA CED Christi Bell - UAA CED Mark Billingsley - UAF OIPC Private sector tech leaders JEDC research cluster Industry - ABM 2015 list	↑ # of research agreements ↑ # of IP license agreements	12 mos.
<u>Focus Area 3:</u> Start a dialogue to increase collaboration among entrepreneurial education programs.	Tania Clucas - EPSCoR Kathryn Dodge - CES Juliet Shepherd - FEDC	Ky Holland - APU Gianna Foltz - UA BEI Tania Clucas - UAF/EPSCoR Juliet Shepherd - FEDC Al Herrman - UAA Bus Nicole Cundiff - UAF SOM JA, 4-H, FFA, DECA, CEO, AIM, Lemonade Day, Entrepreneurship Edge, Innovation, business, sci & tech, programming eds., CES; student leaders: K-12 through post-secondary	↑ attendance at entrepreneurship events and training programs around the state	12 mos.
<u>Focus Area 4:</u> Improve regulatory environment.	Jon Bittner - AEDC	Julius Brecht - Attorney Kevin Ansholm - Sec. Com. Adam Krynicki - SBDC Jomo Stewart - FEDC Nolan Klouda - UA CED Kathryn Dodge - AML	↑ Legislative Changes ↑ Companies making use of beneficial legislation	12-16 mos.
Continue the conversation by identifying, engaging, and soliciting ideas from startup and community leaders.	Kathryn Dodge - CES Juliet Shepherd - FEDC	BEI, SBDC, L:A, OIPC, NIC, NTV, Allan Johnston & TEAM, AEDC, JEDC, FEDC, Investment funds, Industry,	Create a network of startup comm. leaders with a common basis, coordinated objectives & measurable milestones	18 mos.

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Jurisdiction: Alabama

Objective: To strengthen the entrepreneurial ecosystem across the state that promotes job creation through innovation, research and new venture creation

Why this objective is important: A vibrant entrepreneurial ecosystem helps facilitate job opportunities and drives economic development which benefits the community, state and general public

Action Be activity-focused	Responsible Party(s) Identify the driver	Resources Who should participate?	Outcomes Be realistic, specific, measurable	Time Frame When should it be done?
Provide training courses/webinars to researchers on IP and technology transfer and commercialization	Tech transfer officers coordinated through State EPSCoR Office	Tech transfer and commercialization offices, OVPORs, researchers, academic unit heads	Develop mechanisms on each campus for bringing awareness among researchers on the benefits of IP, tech transfer and commercialization	Beginning of Fall 2016, and once a year thereafter
Coordinate interdisciplinary research efforts that address unmet needs, specifically with regard to facilitating the commercialization of IP and the formation of university-industry partnerships.	<i>EPSCoR PI and co-PIs</i> , Industry engagement team	Members of the EPSCoR workshop team; technology commercialization officers, university representatives, state and/or EDPA representative	Themed areas identified, number of proposal submitted.	Ongoing throughout the year
Coordinate research and development infrastructure	EPSCoR co-PIs and Research thrust leads.	AL Research institution's chief research officers and others listed above.	Development of a database that includes all available resources/equipment. Sponsor workshops on the use and application of major instrumentation state-wide. Create a database of individuals with technical expertise for collaborations and proposal development.	Initiate by end of Fall 2016, biannual workshops, one part of annual Science and Technology Open House.
Develop communication strategies both for promoting efforts and communicating with stakeholders	All of the above. Use of state's cyberinfrastructure to enhance communication among the different parties, via virtual meetings.	<i>Members of the EPSCoR workshop team.</i> Also the EPSCoR co-PIs from the state's research universities, tech transfer and commercialization offices at each institute, and members of the external advisory board.	Development of a website, social media outlets and/or resource materials. Creation of professional networks for the development of new ideas, collaborative teams, and bringing ideas to patent and commercial product stages. Holding annual workshops bringing together researchers, tech transfer officers, and industrial representatives.	Initiate by end of Fall 2016 and Ongoing.
Identify champions at each institution and key external stake holders to lead this effort	Tech transfer officers of each research university through offices of VPRs, Research leads, industry partners	Members of the EPSCoR workshop team; technology commercialization officers, university representatives, state and/or EDPA representative. Also, key alumni who are in government and private industry in the state, CEOs of tech startup companies, and state representatives.	Champions identified for each institution and region, contacted, and recruited. A new advocacy team created to facilitate state R&D and commercialization. Creation of a state advisory board for translational research, with members from the private sector, as outlined in the EPSCoR proposal.	End of Fall 2016.
Host themed networking events; utilize established networks to encourage cross	EPSCoR state steering committee, state EPSCoR office	Members of the EPSCoR workshop team; technology	Number of events held, number of attendees attending, and partnerships	Ongoing throughout year

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pollination	in coordination with the EPSCoR PIs.	commercialization officers, university representatives, state and/or EDPA representative	formed, and additional proposal submitted. Increase in collaborative efforts in proposals, publications, and patents.	
Increase awareness of local and state government representatives to the economic benefits of state support of basic and applied research.	All of the above.	All of the above; programs designed to reach state congressmen and senators, congressional budget committee, governor's office.	Formulation of new policies to facilitate tech development and tech transfer. Increased financial support for research at all stages of commercial development.	December 2016

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Jurisdiction: Arkansas

Objective: Create better higher paying jobs through research commercialization benefiting/promoting both existing industries and start ups

Why this objective is important: benefit to Arkansas economy

Action Be activity-focused	Responsible Party(s) Identify the driver	Resources Who should participate?	Outcomes Be realistic, specific, measurable	Time Frame When should it be done?
<i>Identify various research strengths and infrastructure throughout the state</i>	<i>EPSCoR State Committee</i>	<i>ARA, Universities, Federal labs, Art Norris</i>	<i>Inventory</i>	<i>March 30th 2016</i>
<i>Identify commercialization activities and resources for cultivating startups</i>	<i>AA- James Hendren</i>	<i>AA, AEDC, IA,ADFA, and SBTDC</i>	<i>Inventory</i>	<i>March 30th 2016</i>
<i>Identify connections and gaps</i>	<i>EPSCoR state committee, Governor's office, and AA</i>	<i>AA, AEDC, IA,ADFA, SBTDC, VC, innovation hub, and Carol Reeves</i>	<i>Inventory</i>	<i>May 1st 2016</i>
<i>Assess ways to address gaps and prepare a road map</i>	<i>EPSCoR state committee, Governor's office, and AA</i>	<i>AA, AEDC, IA,ADFA, SBTDC, VC, Innovation hub, and Carol Reeves</i>	<i>Action plans</i>	<i>June 1st 2016</i>
<i>Training programs to prepare and encourage commercialization awareness and application of research to Arkansas companies</i>	<i>University tech transfer offices, SBTDC, EPSCoR committee</i>	<i>Carol Reeves, SBTDC,</i>	<i>Institutionalized programs on each campus</i>	<i>March 30th 2017</i>
<i>Training on NSF pipeline and other federal programs</i>	<i>SBTDC</i>	<i>NSF agency representatives</i>	<i>Defined curriculum and taught 4 times</i>	<i>February 2017</i>
<i>Evaluate the near term projects with commercial application</i>	<i>ARA</i>		<i>Inventory</i>	<i>Nov 2016</i>
<i>Maintaining information on the near term projects with commercialization resources and/or existing industries</i>	<i>AEDC, ARA, and State EPSCoR committee</i>	<i>VC, AA, AEDC, IA,ADFA, SBTDC, innovation hub, Start-up Junkie, and</i>	<i>Inventory</i>	<i>Continuing</i>

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		<i>entrepreneurial professors</i>		
<i>Provide matching support for NSF and other federal research commercialization programs</i>	<i>AEDC, Governor's office</i>	<i>AEDC, Governor's office, and AA</i>	Legislation	March 2017
University industry summits	<i>EPSCoR and UAMS Bioventures</i>	<i>ARA and Tom Chilton</i>	Event is held	Nov 2016 Annually
Strengthen technology transfer services	<i>ARA and Tom Chilton</i>	<i>University administration</i>	Solution defined and implemented	Defined: May 2017 Implemented: Dec 2017
Determine University policies that affect researchers' involvement in commercialization	<i>ARA and Tom Chilton</i>	<i>University administration, AA, and entrepreneurial community reps</i>	Inventory of policies	January 2017
Define solution for University policies that affect researchers' involvement in commercialization	<i>ARA and Tom Chilton</i>	<i>University administration, AA, and entrepreneurial community reps</i>	Definition of policies	January 2018
Implement University policies that affect researchers' involvement in commercialization	<i>ARA and Tom Chilton</i>	<i>University administration</i>	Implemented	July 2018
Encouraging entrepreneurial spirit and define action plan	<i>AA</i>	<i>Carol Reeves, ACC, Innovation hub, local school and civic organizations</i>	plan	January 2017
Encouraging entrepreneurial spirit implementation of plan	<i>AA</i>	<i>Carol Reeves, ACC, Innovation hub, local school and civic organizations</i>	implemented	July 2017

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Purpose: *To promote economic development through small technology based businesses*

Objective: *Increase State commitment to entrepreneurial/small business development*

- a. *Upgrade State Science and Technology Plan (S&T)*
- b. *Secure state buy-in and support for S&T Plan*

Why this objective is important: *The economy of Delaware relies heavily on the success of small businesses. In 2016, Delaware will be faced with a new governor and administration leading to a critical need for more focused support of small technology based businesses in the form of strategic alignment of business development activities, increased state incentives and funding support from investors.*

Action Be activity-focused	Responsible Party(s) Identify the driver	Resources Who should participate?	Outcomes Be realistic, specific, measurable	Time Frame When should it be done?
<i>Identify sector leaders for the S&T plan</i>	<i>OEIP (David Weir, Cindy McLaughlin) and Delaware State EPSCoR Office (Don Sparks, Amy Slocum)</i>	<i>Members of the EPSCoR workshop team; government, industry and university representatives</i>	<i>Leaders identified for each sector contacted, and recruited</i>	<i>February 2016</i>
<i>Identify people from other organizations in each of the sectors that must be involved for successful implementation</i>	<i>OEIP (David Weir, Cindy McLaughlin) and Delaware State EPSCoR Office (Don Sparks, Amy Slocum)</i>	<i>Committee of 100, industry liaisons, Delaware Economic Development Office, university and industry leaders</i>	<i>Individuals identified for each sector contacted, and recruited</i>	<i>February 2016</i>
<i>Redesign S&T plan to include action items and specific objectives</i>	<i>OEIP (David Weir, Cindy McLaughlin) and Delaware State EPSCoR Office (Don Sparks, Amy Slocum)</i>	<i>Identified representatives from each S&T sectors</i>	<i>Revised S&T plan</i>	<i>June 2016</i>
<i>Meet with state leaders to secure buy-in</i>	<i>OEIP (David Weir, Cindy McLaughlin) and Delaware State EPSCoR Office (Don Sparks, Amy Slocum)</i>	<i>Governors Office, DEDO and Legislature</i>	<i>Plan is adopted</i>	<i>December 2016</i>
<i>Implement S&T plan</i>	<i>OEIP (David Weir, Cindy McLaughlin) and Delaware State EPSCoR Office (Don Sparks, Amy Slocum)</i>	<i>Governors Office, DEDO and Legislature, sector leads & EPSCoR State Committee Members</i>	<i>Investments are being made in priority areas.</i>	<i>January 2017</i>

OEIP - *Office of Economic Innovation and Partnerships*

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Jurisdiction: Idaho

Objective: To advance an entrepreneurial culture that increases commercialization of research developed at universities and industry in Idaho.

Why this objective is important: Educate residents of Idaho about entrepreneurialism and increase startups (job development); increase partnerships between universities and industry (build workforce and capacity at Universities and at private businesses); create central hub for culture.

SWOT Description of the ideas	Action Be activity-focused	Responsible Party(s) Identify the driver	Resources Who should participate?	Outcomes Be realistic, specific, measurable	Time Frame When should it be done?
1. Capitalize on existing research infrastructure – leverage existing partnerships to develop new ones	Inventory and promote existing research infrastructure	All OTTs (Katy and Chris lead)	Gene Merrell INL – Stephanie Cook maybe? CAES – Howard Grimes (Elsevier)	Increase licensing of University IP	End of FY17
	Inventory and prospect existing and new research partners	All OTTs (Katy and Chris lead)	Gene Merrell INL – Stephanie Cook maybe? CAES – Howard Grimes DOC/IGEM – Carmen Achabal	Increase licensing of University IP	End of FY17
2. Educate faculty at universities about process and incentives	Educate faculty at Universities about process and incentives	All OTTs (Katy and Chris lead)	Dr. Hill? SBOE?	Increased awareness and disclosures of IP	Ongoing
3. SBDC and TechHelp – opportunity to promote further?	Promote SBDC / TH services to university researchers, entrepreneurs, and small businesses	SBDC and TH – Katie Sewell and Steve Hatten	SBDC, TechHelp, Tech Transfer contacts, DOC/IGEM and EPSCoR members	Greater awareness of resources to commercialize technology.	Ongoing
	Research Phase I and Phase II programs in Idaho	SBDC – Paul Cooperrider	SBDC; DOC/IGEM; ITC; INL and a host of other tech ecosystem stakeholders	3-4 more SBIR proposals submitted per year	Each succeeding year
4. Restart Phase 0? Develop SBIR / STTR Program?	Research funding/matching a Phase 0 program	SBDC – Paul Cooperrider	SBDC; EPSCoR; DOC/IGEM; etc.	Increase funding for Phase 0 by \$30k-\$50k annually	Next budget cycle.
5. Help small biz with transition planning and scalability	Identify and promote available services to help small biz grow and scale, whether SBDC/TH or others	SBDC – Katie Sewell	Small Business Wizard on the Idaho BizHelp website – anyone who wants to help beta test and provide additional resources; DOC: Chambers of Commerce	Resource Wizard tested, finalized and online	By June 2016

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Jurisdiction: *Louisiana*

Objective: *Adequately fund Louisiana Innovation Council (LIC) (or other such organization) to support higher education research (e.g., recruit scientists) and the commercialization efforts of the research results (e.g., seed funding for commercial ventures).*

Why this objective is important: *This will help us to grow our academic research enterprise by allowing us to more effectively attract and retain top research faculty. It will also help us to promote the commercialization of the resulting intellectual property (IP). In order to expand the number of technologies (IP), spin-out companies generated in an area it is necessary to build up your research base because they are largely a byproduct of the research enterprise. While very important, programs that only target the “output” of R&D will have diminishing returns once those outputs attain their maximal ratios (e.g., inventions per \$million R&D expenditures). We feel this objective is critically important to remain competitive with other states and prevent us from falling further behind. To give one example, in 2004 California authorized the sale of \$3 billion in state bonds to fund stem cell research (Proposition 71) and created the California Institute for Regenerative Medicine (CIRM) to administer and award grants in that area.*

Action Be activity-focused	Responsible Party(s) Identify the driver	Resources Who should participate?	Outcomes Be realistic, specific, measurable	Time Frame When should it be done?
Arrange a briefing with the new Secretary of Louisiana Economic Development (LED) to discuss the LIC	EPSCoR leadership	Board of Regents LED Network of Tech Transfer Professionals of Louisiana (NTTPL) Idea Village	Commitment to create an Annual Innovation Month sponsored by LED and Board of Regents	Meeting by the end of April
Build upon the Annual Innovation Month to request a legislative appropriation for FY17	EPSCoR leadership working closely with the governmental affairs leaders of the Board of Regents, LED and the Governor’s Special Counsel Legislature	Board of Regents LED NTTPL Idea Village	Appropriation amount that will be sufficient to fund the current announced Board of Regent position as well as a LED dedicated staff position	End of 2016 legislative session
Creation of an Office of Innovation within LED akin to statutorily established Office of International Commerce within LED	EPSCoR leadership working closely with the governmental affairs leaders of the BOR, LED and the Governor’s Special Counsel	Board of Regents LED NTTPL Idea Village Leaders of the various innovation incubators	Enhance commercialization activities, improve industrial ties, bring recognition to innovative faculty across the State	June 2017

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	Legislature			
Develop action plan for creating a dedicated fund supported in part with private contributions (from individuals, companies, foundations) and state appropriations to support strategic investments in higher education research and commercialization efforts.	Above mentioned BOR and LED staffers LIC Champion	Board of Regents LED Louisiana Business Roundtable Committee of 100 LIC	State appropriations for fund.	June 2018

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Jurisdiction: *Maine*

Objective

- a) Leverage SEANET to develop greater revenue through growth of existing firms engaged in aquaculture-based activities (sea vegetables, finfish, shellfish), and
- b) Increase the number of sustainable (ecologically, socially, economically) aquaculture firms in each of the three aquaculture sectors (4 new firms per year per sector).

Action Be activity-focused	Responsible Party(s) Identify the driver	Resources Who should participate?	Outcomes Be realistic, specific, measurable	Time Frame When should it be done?
Workforce Development				
<i>Business Training</i>				
<i>Develop and promote aquaculture-specific entrepreneurial training (squirt gun)</i>	<i>TTI or MAIC</i>	<i>MAIC, ARI, CEI, MCED, MAA, SEANET, SEAGRANT Extension</i>	<i>8 business leaders trained per year</i>	<i>Commence by Jan 2017</i>
<i>Elevate Foster center engagement with aquaculture space through internships.</i>	<i>Jake Ward</i>	<i>SEANET, MAA, MAIC</i>	<i>10 internships per year (5 or more with farmers vs. up or downstream in value chain)</i>	<i>June 30</i>
<i>Leverage WFD seed grants to indirectly drive professional WFD</i>	<i>Shane Moeykens</i>	<i>State Workforce Development, Education Partners</i>	<i>50+ trained staff per year</i>	<i>2017</i>
Market Development				
<i>Market study to identify niche markets for Maine produced aquaculture</i>	<i>UMaine School of Economics (or Business)</i>	<i>MAA, MAIC, MTI</i>	<i>Deliverable report to industry and researchers</i>	<i>2017</i>
<i>Aquaculture state-wide company survey and readiness assessment</i>	<i>UMaine Office of Economic Dev.</i>	<i>MAA, UMaine Office of Economic Dev.</i>	<i>Deliverable report to industry and researchers</i>	<i>Phase I Q4'2016</i>
<i>Consumer sentiment acceptance assessment & media relations</i>	<i>SEANET Theme 4</i>	<i>ARI</i>	<i>Deliverable report to industry and researchers</i>	<i>2018</i>
Technology/Innovation				
<i>Equipment design and innovation</i>				
<i>Equipment design challenge</i>	<i>Theme 3 SEANET</i>	<i>MAIC, Foster Center, Equipment design firms</i>	<i>1 per 24 months</i>	<i>Fall 2016</i>
<i>Capstone design projects</i>	<i>Shane Moeykens</i>	<i>MMA, UMaine engineering programs</i>	<i>6 projects per year run at UMaine and MMA combined</i>	<i>Fall 2016/Spring 2017</i>
<i>Visit other aquaculture locations and develop best practice benchmarks</i>	<i>Theme 2 and Theme 3 SEANET researchers</i>	<i>ARI, MAIC, SeaGrant</i>	<i>Reports and presentations by information gatherers</i>	<i>Spring 2017</i>
<i>Improved farm site selection tools</i>	<i>Theme 1 SEANET</i>	<i>MAIC</i>	<i>Exercisable software</i>	<i>2019</i>
<i>Technology roadmap for seaweed, finfish, shellfish sectors (address bottlenecks)</i>	<i>SEANET Theme 3 (or consultant)</i>	<i>MTI, MAA, SeaGrant, MAIC</i>	<i>Annual</i>	<i>2017</i>
<i>Drive collaborative proposals with industry partners</i>	<i>ARI</i>	<i>MTI (SBIR, STTR)</i>	<i>Grant applications</i>	<i>Ongoing</i>

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Jurisdiction: Missouri

Objective: Build, enhance and support a culture of entrepreneurship and innovation within the state’s research universities to facilitate technology commercialization including establishing a state-wide, consortium-based proof-of-concept fund targeting technologies in Missouri’s key industries such as Agriculture (Animal and Plant Sciences), Life Sciences, and the intersection of Human and Animal Health.

Why this objective is important: We want our research universities to become more of an economic driver in our state, and plan to achieve this goal by encouraging more start-up companies around university technologies.

Action Be activity-focused	Responsible Party(s) Identify the driver	Resources Who should participate?	Outcomes Be realistic, specific, measurable	Time Frame When should it be done?
<i>Assess current proof of concept funding available by industry sector in Missouri for gaps and best practices</i>	<i>Bill Anderson, Keith Gary, Ben Johnson</i>	<i>Life Sciences support organizations (BioSTL, KCALS, MTC, MOBIO)</i>	<i>Identify current POC funding available for life sciences in general and identify areas of opportunity and best practices for POC fund management</i>	<i>March 30, 2016</i>
<i>Assess opportunities to expand MU’s Biodesign and Innovation program to other colleges/universities in Missouri</i>	<i>Roger de la Torre</i>	<i>Vice Chancellors of Research at MU System campuses (UMSL, UMKC, MS&T)</i>	<i>Meetings held at each campus to determine necessary program adaptations to facilitate adoption.</i>	<i>June 30, 2016</i>
<i>Provide university faculty access to the Kauffman Foundation’s FastTrack program.</i>	<i>Maria Meyers</i>	<i>UMSL SBTDC, UMKC SBTDC, MU SBTDC</i>	<i>Establish school/departmental “scholarships” to send interested faculty through FastTrack program</i>	<i>First faculty classes enrolled by June 30 2016</i>
<i>Identify select Animal Health and Plant Science companies to provide faculty externships</i>	<i>Daryl Pint</i>	<i>Opportunity should be available to any faculty member of Missouri colleges/Universities</i>	<i>Establish 4-6 week faculty externships to expose participants to the “commercialization of science” in an industry setting</i>	<i>Five companies identified in both Kansas City and St. Louis to pilot externship program</i>
Select and benchmark best-in-class programs to support innovative culture on campus and proof-of-concept funds		Member of the EPSCoR workshop team; economic development representatives, university representatives	Phone calls and/or meetings held with representatives from each program	Benchmarking complete by July 30, 2016
Develop action plan for creating a consortium-based POC fund in MO and innovation-enhancing programs within MO research universities		Member of the EPSCoR workshop team; economic development representatives, university representatives	<i>Action plan complete; POC consortium launched by _____; programs to enhance innovation launched at each of the four UM campuses (at a minimum) by _____.</i>	Action plan complete by Aug. 30, 2016; Begin execution of action plan in Sept. 2016.
Identify local companies with technical focus areas that match focus industries.		Chamber of Commerce industry liaisons, economic development representatives, university representatives	List of companies and contacts (by region) that may be interested in pursuing POC consortium, sponsoring campus programs, etc.	Oct. 31, 2016

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Jurisdiction: North Dakota

Objective: Increase communications between researchers and industry.

Why this objective is important: Develop ND EPSCoR Track-1 partnerships with regional industries in value-added agriculture and other enterprises that depend on knowledge of climatic variation and weather extremes; collaborations between the research themes and national labs; engage students and postdoctoral research associates in partnerships and collaborations.

Action Be activity-focused	Responsible Party(s) Identify the driver	Resources Who should participate? <i>*ND EPSCoR workshop team</i> <i>**NSF Track-1 Partnerships, Collaborations & Communication committee</i>	Outcomes Be realistic, specific, measurable <i>(Objectives for ND EPSCoR NSF Track-1 Focus Area 5, Goals 1 and 3)</i>	Time Frame When should it be done?
Develop roundtable opportunities related to Track-1 activities in conjunction with other related events	Ulven, Chisholm, Bowman, Sibi	*; **; Dale Zetocha; Henry Nowak	1.1: Create partnerships with industry through ND Department of Commerce or other similar programs. Submit 4 Research-ND proposals.	Systematically until end of Track-1 project
Assess the success of current efforts and host educational workshops involving Track-1 researchers	Ulven, Chisholm, Bowman, Sibi	*; **; Dale Zetocha; Henry Nowak	1.1: Develop Translational Research Initiative (TRI) program to provide technology proof-of-concept funding. Develop 6 translation research initiatives	Systematically until end of Track-1 project
Host educational workshops involving Track-1 researchers	Ulven, Chisholm, Sibi	*; **; Tyler Okerland	1.1: Collaborate with industry on SBIR/STTR opportunities. Four SBIR/STTR proposals will be submitted by companies based on research results generated by CSMS faculty	Systematically until end of Track-1 project
Develop roundtable opportunities related to Track-1 activities in conjunction with other Ag-related events	Denton, Bowman	*; **; American Crystal Sugar; Dale Zetocha; Henry Nowak	1.2: Strengthen relationship with American Crystal Sugar Company and develop new partner relationship(s). Develop working relationships with 12 additional agricultural group partners.	Systematically until end of Track-1 project
Direct ND EPSCoR STTR resources in new ways (i.e.: work with EMPOWERED-ND Corps)	Webster, Sibi, Bowman	*; **; Elizabeth Jung	3.1: Identify and support summer internships in ND industry. Identify 8 new ND industry partnerships that include the placement of 13 interns.	Systematically until end of Track-1 project
Foster existing SD EPSCoR relationships and promote MT EPSCoR relationships in Track-1 related areas	Webster, Sibi, Bowman	*; **; Jim Rice (SD); Ray Callaway (MT)	3.1: Identify and support regional (MN, MT, SD) industry and summer internships. Identify 5 new regional industry partnerships that include the placement of 6 student interns.	Systematically until end of Track-1 project
Review of process toward meeting Focus Area #5 Track-1 metrics	Bowman, Sibi	Kelly Rusch; Mark Hoffmann; Jean Ostrom-Blonigen	Review this progress toward the outcomes	Every six months until end of Track-1 project
Brainstorming session about additional applications of these processes (i.e.: post ND/SD Track 2 Award	Ostrom-Blonigen	*; Kelly Rusch; Hoffmann; Jean Ostrom-Blonigen Jim Rice (SD)	Apply workshop processes to other ND EPSCoR projects	Ongoing

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***ND EPSCoR workshop team:**

- Jean Ostrom-Blonigen, ND EPSCoR Project Administrator
- Tara Kopplin, Licensing Associate, Intellectual Property, Commercialization & Economic Development, UND
- Michael Moore, Associate Vice President, Intellectual Property, Commercialization & Economic Development, UND
- Jolynne Tschetter, Executive Director, Corporate & Foundation Research Relations, NDSU
- Chad Ulven, Associate Professor, Mechanical Engineering, NDSU

****ND EPSCoR Partnerships, Collaborations & Communication:**

- Co-Lead: Frank Bowman, Co-Lead, ND EPSCoR Center for Regional Climate Studies and Associate Professor, Chemical Engineering, UND
- Co-Lead: Mukund Sibi, Co-Lead, ND EPSCoR Center for Sustainable Material Sciences and Distinguished Professor, Chemistry and Biochemistry, NDSU
- Bret Chisholm, Laboratory Employee, Research and Creative Activity, NDSU
- Anne Denton, Associate Professor, Computer Science, NDSU
- Scott Hanson, Tribal Colleges Liaison Manager, ND EPSCoR***
- Mark Hoffmann, ND EPSCoR Associate Project Director and Associate Vice President for Research and Economic Development, UND
- Andrei Kirilenko, Associate Professor, Earth System Science & Policy, UND
- Jean Ostrom-Blonigen, ND EPSCoR Project Administrator
- Kelly Rusch, ND EPSCoR Project Director and Vice President for Research and Creative Activity, NDSU
- Chad Ulven, Associate Professor, Mechanical Engineering, NDSU
- Dean Webster, CSMS Director and Professor and Chair, Coatings and Polymeric Materials, NDSU

***Consideration to add as a team member

Increase Communications between Research Institutions within the State (University, Private, State)

WHY do we need to do this?				
<u>ACTION</u>	<u>RESPONSIBLE PARTY</u>	<u>RESOURCES</u>	<u>OUTCOMES</u>	<u>TIME FRAME</u>
Review Successful Models and/or Best Practices from other States (if Avail)	Traci Hancock; Joe Runge	NSF, Steve Blank; AUTM, TTO's	A categorized list of resources with exemplary implementation	12 months
Inventory of Resources Available in the State: Private Sector	Ryan Anderson	State DED, Incubators	A list of entrepreneurs ranked by fundability	TBD
Inventory of Resources Available in the State: University	Joe Runge; Ryan Anderson, Traci Hancock	Individual Campus Representatives (UNL, UNO, UNK, UNMC, Creighton, Community Colleges, etc.)	A categorized list of resources indexed by campus	TBD
Inventory of Resources Available in the State: Government	Joe Fox	State DED	A categorized list of resources by agency	TBD
Identify Relevant Stakeholders Necessary to Improve Communications	Joe Fox; Joe Runge; Ryan Anderson	State DED, University Campuses	Produce a body of advocates to focus resources on commercialization and entrepreneurship	TBD
Present Plan devised in LV to Larger Nebraska Audience	Joe Runge	LV presentation	Present to at least 1 state, 1 University and 1 private group	TBD
Establish Quarterly Meeting Schedule	Joe Fox; Joe Runge; Ryan Anderson; Traci Hancock	Establish a periodic board, possibly meeting during related established meetings	Establish ongoing meeting	TBD
Identify New Areas of Collaboration and/or New Collaborative Partnerships	Joe Runge	Develop an EPSCoR driven translational/commercialization, entrepreneurship	Initiate one project	TBD
Explore Dedicated Staff time of State Employees to assist with these efforts	Joe Fox	Nebraska DED Innovation Staff	Help Stand up a Statewide Innovation Council	TBD
Establish Regular Meetings with State DED "Innovation Council" to Identify NE Industry Opportunities	Joe Fox	Nebraska DED Innovation Staff	Help Stand up a Statewide Innovation Council	TBD

Action Plan Worksheet

Jurisdiction: **South Dakota**

Objective: **Increase the number & success of the state's knowledge-based businesses (create an entrepreneurial culture)**

Why this objective is important: **It would increase the quality of life in South Dakota by growing the state's economy**

Action <small>Be activity-focused</small>	Outcomes <small>Be realistic, specific, measurable</small>	Time Frame <small>When should it be done?</small>
Create equity funds	Create five (5) new angel funds in SD Create a South Dakota Small Business Investment Company (SBIC) licensed equity capital fund Expand the network of South Dakota angel and equity funds to include regional and national investors by meeting with 10 out-of-state equity investors annually.	Q3 SBIC fund in place 1 new angel fund per year
Expand "Proof of Concept" grant program	\$250,000 of base funding included in the 2017 General Bill to support and expand the number of proof of concept projects	July 1 Funds are available
Create SBIR/STTR Phase 0 Program	10 Phase 0 applications / year by FY 2019 Increase SBIR/STTR Phase I success rate	May 2016 modify POC guidelines
SBIR/STTR Matching - Program	5 SBIR/STTR Matching Funds awards / year by FY 2019 Increase SBIR/STTR Phase II success rate	May 2016 modify POC guidelines
Expand "Entrepreneur in Residence" programs across all higher education institutions	Expand EIR engagement/program statewide Create an easily accessible database of all IP held by the BOR Host annual brainstorming sessions with EIRs to assess commercialization potential of IP	Ongoing over next 3 years
Strengthen business accelerator programs	8 to 10 projects/companies in each program with 3-5 successful business launches \$250,000 in investment capital raised (debt and equity)	2 programs each year (SDTBC and SDEA) for 5 years
Greater private sector/university partnerships	Modify Governor's Research Center program to require public/private partnership Fund 6 public/private research teams in FY2017 Fund 2 public/private research centers in FY2018 Grow industry sponsored R&D by 20% over 3 year period	Modify program -March 2017 Fund Research Teams - June 2017 Fund Research Centers - June 2018
Develop an entrepreneurial university culture	Grow faculty startups by 20% Increase the number of license agreements signed with startup companies by 20% Conduct annual commercialization workshops at USD, SDSU and SDSMT	Ongoing over next 3 years
Develop management teams	5 Start up businesses have experienced management teams in place. 20 students involved in management teams of early stage businesses or Research Teams (business)	2016
Increase "deal flow" for potential investors	10 quality and committed business accelerator teams 10 non-South Dakota start-up businesses looking to raise capital and locate in South Dakota	2016
Create educational programs help facilitate faculty/student entrepreneurs	All researchers and students involved with state research centers to complete program Annually new hires, new funded project researchers & student researchers complete program Increase average number of students entering Giant Vision Business Plan competition from 22 to 40	Implement in 2016 Implement in 2017 2018
Expand SD's research park infrastructure	2 new research/commercialization facilities totaling 100,000 sq. ft. at both the Research Park at SDSU and the USD Discover District Launch of a SDSMT affiliated research district and development of one 50,000 sq. ft. research/commercialization facility 5 industry/university collaborations and location of five companies in each research park	Ongoing over next 3 years


Action Plan Worksheet

Action Plan Worksheet

Jurisdiction: Tennessee

Objective: Overall Action Plan

Why this objective is important: For universities to become an economic driver in the state; to accelerate technology based commercialization into the market; to enhance the culture of support for startups and new ventures

Action Be activity-focused	Responsible Party(s) Identify the driver	Resources Who should participate?	Outcomes Be realistic, specific, measurable	Time Frame When should it be done?
Increase cooperative R&D with state industries 	<ul style="list-style-type: none"> • Research Institutions • LaunchTN /ECD • Private Sector 	<i>Economic development representative, university representatives, Private Sector Leaders</i>	<ul style="list-style-type: none"> • Signed R&D agreements with private industries • Prototyping opportunities with industry • License Agreements and Joint Ventures 	Ongoing
Develop Relationships with Industry to increase technology pull to solve known problems	<ul style="list-style-type: none"> • Research Institutions • LaunchTN /ECD • Private Sector 	<i>Chamber of Commerce industry liaisons, UT Center for Industrial Services, university research foundations, Launch TN</i>	<ul style="list-style-type: none"> • Reverse pitches • Relationships with trade organizations 	Ongoing
Identify baseline funding for ESO's	<ul style="list-style-type: none"> • LaunchTN/ECD • Private Sector • Research Institutions 	<i>Economic development representative, university representatives, Private Sector Leaders</i>	Stable funding for operations and programming	NOW!!!
Increase availability of startup and new venture capital	<ul style="list-style-type: none"> • ESO's • Private Sector • Venture Firms • ECD-Incentives 	<ul style="list-style-type: none"> • ESO's • Private Sector • Venture Firms • ECD-Incentives 	<ul style="list-style-type: none"> • Network of investors • Development of early stage debt programs • More Investment Deals 	
Increase Entrepreneurial Education	<ul style="list-style-type: none"> • University System • Research Institutions 	<ul style="list-style-type: none"> • Technical and non-technical faculty • Mentors • State of Tennessee 	<ul style="list-style-type: none"> • Awareness of and access to entrepreneurial education across all departments 	Ongoing
Better communicate value and success of Tech. Commercialization	<ul style="list-style-type: none"> • Bloggers • Research Institutions 	<ul style="list-style-type: none"> • Bloggers • Research Institutions 	<ul style="list-style-type: none"> • Coordinated PR Plan • Discover Models to Emulate 	
Promote commercialization incentives among faculty	<ul style="list-style-type: none"> • Research institutions • Research Foundations 	Academic Leadership	<ul style="list-style-type: none"> • Defined Incentive Structure for commercialization • Recognition • Assistance Programs 	
Develop broad plan and implement for growth stage ventures	<i>ESO's Traditional Incubators</i>		<ul style="list-style-type: none"> • Develop incubation programs for long term support of new ventures 	
Develop network of shared user facilities			<ul style="list-style-type: none"> • Develop needs and an inventory of available facilities 	
Take better advantage of Federal Maturation Programs			<ul style="list-style-type: none"> • More involvement with iCorps • IMCP 	

Action Plan Worksheet

Jurisdiction: *Wyoming*

Objective: *To establish 5 new businesses from Wyoming EPSCoR supported science in the next 7 years.*

Why this objective is important: *To leverage the growing research infrastructure at University of Wyoming to grow small businesses and establish a culture of entrepreneurship in Laramie and Wyoming.*

Action Be activity-focused	Responsible Party(s) Identify the driver	Resources Who should participate?	Outcomes Be realistic, specific, measurable	Time Frame When should it be done?
<i>Form Wyoming EPSCoR/WTBC partnership</i>	<i>Joy Fischer</i>	<i>Members of the EPSCoR workshop team</i>	<i>Development of mutual trust and respect</i>	<i>October 2015</i>
<i>Brainstorm idea of entrepreneurship seed grants</i>	<i>Sarah Konrad</i>	<i>Sarah Konrad and Jon Benson</i>	<i>Agreement to proceed with joint RFP</i>	<i>November 2015</i>
<i>Develop timeline and RFP</i>	<i>Christine Langley</i>	<i>Christine Langley, Jon Benson, Dave Bohling, Sarah Konrad, Brent Ewers</i>	<i>Written plan, timeline, and RFP ready to be shared with greater community</i>	<i>December 2015</i>
<i>Seek NSF EPSCoR approval for entrepreneurship seed grant project</i>	<i>Brent Ewers</i>	<i>Brent Ewers and Audrey Levine</i>	<i>Change in strategic plan approved</i>	<i>December 2015</i>
<i>Marketing and targeted prospect recruiting</i>	<i>Christine Langley</i>	<i>WyCEHG associated researchers</i>	<i>Interest generated and 20+ applications received</i>	<i>March 1, 2016</i>
<i>Cull group through two competition rounds</i>	<i>Christine Langley</i>	<i>Applicants, WTBC staff, Davona Douglass, select EPSCoR and WyCEHG personnel as judges</i>	<i>Three Qualifiers named</i>	<i>June, 2016</i>
<i>New Track-1 award submitted with workforce development component</i>	<i>Sarah Konrad</i>	<i>Wyoming EPSCoR, UW faculty, WTBC</i>	<i>Gain new funding associated with new research area</i>	<i>August 2016</i>
<i>Qualifiers make pitch for seed funding</i>	<i>Christine Langley</i>	<i>Applicants, WTBC staff, Davona Douglass, select EPSCoR and WyCEHG personnel as judges</i>	<i>Funds distributed and put to work in new, water related ventures</i>	<i>Ongoing through June 30, 2017</i>
<i>New round of entrepreneurship seed grant awards focused on new research theme</i>	<i>Sarah Konrad</i>	<i>Wyoming EPSCoR and WTBC</i>	<i>Launch this in the second year of the new Track-1 so that the research base has had time to be established</i>	<i>2019</i>
<i>Round two of entrepreneurship seed grant awards</i>	<i>Sarah Konrad</i>	<i>As above</i>	<i>Launch this in the 4th year to leverage the most developed science into start-ups</i>	<i>2021</i>