

COMPILED DIAGNOSTIC STATEMENTS

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Community of Practice

Problem Statement	<i>succinct, one-sentence description</i>	Makerspace organizers do not have regular access to an inclusive, robust, and developed community of practice.
Category	<i>broad category of impact</i>	Community of Practice, Communication, Conference
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> makerspace organizers (all sizes and experience levels)
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> sharing of promising/best practices reduction of unnecessarily “reinventing the wheel” additional support structure for new and emerging spaces overall increase of connectivity between spaces from around the country
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> centralized gathering space for conversation issue of signal-to-noise ratio as communication line increases in size or popularity potential for disruptive or outside-the-box thinking to lessen as best practices are codified and shared more difficulty of selecting single platform or format due to varying preferences of participants cost of travel to location for in-person gathering(s)
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	
Statement POC	<i>name and contact info</i>	Andrew Coy Senior Advisor for Making (WH OSTP) acoyn@ostp.eop.gov

Problem Statement	<i>succinct, one-sentence description</i>	Spaces often don't take advantage of large non-monetary benefits from unfunded government initiatives.
Category	<i>broad category of impact</i>	Capacity-Building, Public Impact
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Makerspaces and their members (all sizes) Small businesses and start-ups using makerspace

		<p>incubator models</p> <ul style="list-style-type: none"> Institutions with internal makerspaces (e.g., schools, libraries, community centers) 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Additional support for makerspace development and sustainability using already available programs Government programs benefit from the inclusion of high-value civic participation of makers, including outside-the-box thinking Increased capacity for makerspace-driven economic gains, innovation, and citizen science Overall increase of resources going into makerspaces by shifting existing opportunities currently going to non-makers 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Limited awareness of availability of free conferences, in-kind services or testing, used equipment, support programs, etc. Lack of centralized system for finding opportunities makes high barrier for researching government initiatives Information regarding non-monetary government services and opportunities frequently utilizes challenging bureaucratic language and misses key information Difficult for groups/individuals to assess value of in-kind services or opportunities Difficult to select focus due to wide variety of needs and preferences Upfront costs on applications for some opportunities (time, energy, money for professional grant-writing), with uncertain outcomes 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Nan Braun, Ross Carroll, Sean Auriti, Jim Berry, Steve Traugott		
Statement POC	<i>name and contact info</i>	Kari Love	Kari Love	Kari Love

Problem Statement	<i>succinct, one-sentence description</i>	Some projects require tools that an individual space does not have in house and there is not a streamlined way to help know what resources other spaces might have.		
Category	<i>broad category of impact</i>	●		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Members who are sometimes hit dead end with project Space organizers who find it difficult to find places for members to finish work. 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Projects never stuck so more and better prototypes built. 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Knowledge of capabilities of partners concerns about training and liability 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Leaders at: Fairfield County Makers' Guild, MakeHartford, Danbury Hackerspace, MakeHaven have expressed interest in solving this.		
Statement POC	<i>name and contact info</i>	J.R. Logan	Chief Maker / MakeHaven	jrllogan@makehaven.org 203-676 - 3414

Problem	<i>succinct, one-sentence</i>	There is missing community infrastructure that would support
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Statement	<i>description</i>	broader community engagement, including "top down" organizational engagement from governments, corporations and foundations who want to support the activity that happens in makerspaces, as well as "bottom up" community engagement from individuals, educators, and small businesses who want to participate in or replicate the activity that happens in other spaces.		
		Funding, Capacity-Building, broad organization, infrastructure, exposure of the maker movement		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Makerspaces and other places where the maker movement is emerging Local communities Educators Small and large companies Federal, state, county and city governments 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Creates avenue for well-established lines of funding making more resources available to makerspaces and the communities in which they are located (via top down and bottom up support) Infrastructure will allow improved visibility into maker movement via consistent reporting, aggregated data, best practices. A systematic and well-understood structure will increase opportunities for engagement between makers and others. Increase makerspace exposure due to ability for local individuals and organizations to easily engage. 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Individual makerspaces may not trust the organizational infrastructure and therefore may not participate Organizational infrastructure may be developed out of balance (e.g. top heavy or bureaucratic) Infrastructure may be developed but subsequently under-capitalized. Micro-local nature of maker movement could be barrier to scaling Committed partnerships needed to run successful pilot may not emerge 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Interest at Georgia Tech and in the GA maker community. Perhaps also other research universities. State and local economic development authorities		
Statement POC	<i>name and contact info</i>	Lew Lefton	ED of Decatur Makers and Asst. Dean in College of Sciences at Georgia Tech	lew.lefton@gatech.edu

Problem Statement	<i>succinct, one-sentence description</i>	A maker's ability to discover potential collaborators and resources is usually limited to their immediate network and organization.		
		Communication, Conference, Collaboration		
Impacted Groups	<i>list of those impacted by problem (organize with</i>	<ul style="list-style-type: none"> Individual makers and teams 		

or Individuals	<i>largest impact on top)</i>	
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • Improve team outcomes through broader selection of talent and resources • Overall increase in inter-makerspace collaboration • Deeper pool of peer-to-peer learning opportunities • Possible convergence of similar projects to improve likelihood of success • Provide visibility to maker portfolios for external stakeholders to tap talent for projects and other opportunities
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • Comprehensive centralized repository of maker and resource profiles does not exist • Information that is out-of-date or inaccurate degrades the usefulness of database • Ability to search database to find optimal matches has not been developed • Potential fragmentation of community if partial solutions are deployed that address niche aspects of this problem • Privacy concerns similar to other social networks that potentially create barriers to optimal matches.
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Adina Levin, Bernie Lynch, Tanju Bayramoglu, Ian Cole, Ann Boes, PD Klein, James Dinsmore, An Hettinger, Maureen Muldavin, Mike Greenberg, Sean Auriti
Statement POC	<i>name and contact info</i>	Maureen Muldavin Secretary, Counter Culture Labs muldavin.m@gmail.com

Problem Statement	<i>succinct, one-sentence description</i>	There is no yearly conference for makerspace organizers to collaborate with each other or the government.
		Events, Conferences, Social
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> • Makerspace organizers • Government • Remote Public viewing event online
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • Provides a yearly conference to convene at. • Provides educational information and helps create new makerspaces for innovation. • Offers opportunities for sharing of best practices
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • • New government leadership teams need to agree to continue to make Nation of Makers an annual event
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Nation of Makers
Statement POC	<i>name and contact info</i>	Sean Auriti Founder sean@alphaonelabs.com

Problem Statement	<i>succinct, one-sentence description</i>	The community has not agreed on a consolidated source of broad information for and about makerspace that can then be supported and maintained by the community.
		Websites, Wikis, Apps, Organization, Discovery
Impacted Groups	<i>list of those impacted by</i>	<ul style="list-style-type: none"> • Makerspaces

or Individuals	<i>problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> • Makers • Public
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • provides a quick way to interface with all aspects of a makerspace and running a business. • provides the makerspace in a box solution that can be applied to any makerspace. • Comprehensive toolset saves time and money
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • Open sourcing tools that have been fully developed as paid items • Bring flexible to various needs
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Makerspaces Steve Traugott stevegt@t7a.org
Statement POC	<i>name and contact info</i>	Sean Auriti Founder sean@alphaonelabs.com

Problem Statement	<i>succinct, one-sentence description</i>	It is difficult to initiate collaboration on projects between individuals at different makerspaces
		Projects,
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> • makerspaces • General Public • Institutions
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • Provides ability for collaboration and data collection
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • There are so many variations on use case it is difficult to have one solution that fits all of the potentials needs or uses
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	
Statement POC	<i>name and contact info</i>	Sean Auriti Founder sean@alphaonelabs.com

Problem Statement	<i>succinct, one-sentence description</i>	Makerspaces feel disconnected from each other and often do not have structure to support interactions and collaborations, information sharing, or community building efforts.
Category	<i>broad category of impact</i>	Makerspace Network
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> • Makerspace organizers • Maker communities (members, staff)
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • A connected community of makerspaces enables spaces to learn from each other, share resources and information, reduce the need to learn in isolation and encourage more community and connections between makers across the country.
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • Adoption within makerspaces • Time/energy needed to establish and maintain community relations • Costs of developing nation events focused on makerspaces
Potential	<i>list of those interested in helping to solve this</i>	<ul style="list-style-type: none"> • Dana Woodman - dana@chimeraarts.org • Government (encourage, support nation makerspace

Collaborators	<i>problem</i>	movement) <ul style="list-style-type: none"> Industry (sponsorship, support of “maker movement”) 		
Statement POC	<i>name and contact info</i>	Dana Woodman	E.D., Founder Chimera Arts & Makerspace	dana@chimeraarts.org

Problem Statement	<i>succinct, one-sentence description</i>	Mini Maker Faire organizers are not as aware of, able to connect with, or effective at attracting makers to exhibit when the faire is located outside the maker’s local community.		
Category	<i>broad category of impact</i>	Maker Faire/ Community Outreach		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Maker Faire Organizers Makerspaces Individual makers 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> The excitement of large scale projects can be shared with smaller communities Maker Faires don’t reach. The work being done in small communities benefit from the same type of community support as larger cities. 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Traveling to exhibit at a Mini Maker Faire does not have the same incentives as larger Maker Faires. Cost and time of exhibiting 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>			
Statement POC	<i>name and contact info</i>	Brent Richardson	Maker Education Manager (Children’s Museum of Houston)	Brichardson@cmhouston.org

Problem Statement	<i>succinct, one-sentence description</i>	Sharing of promising practices, innovations, or generating plans for collective actions are stifled by the limited tools we have for group communication and education.		
Category	<i>broad category of impact</i>	New tools for communication, education, empathy, community action		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	Maker spaces, hacker spaces, schools, start-ups, neighborhoods, cities, businesses, think tanks, state & federal governments, NGOs		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Through more inclusive and collaborative augmented and virtual reality tools, group communication and education in labs, maker spaces and classrooms can be vastly improved via new types of “Seeing Spaces” that empower people to learn by doing, to invent and organize, as well as to plan their futures together more effectively. Seeing Spaces and related mixed reality tools can truly connect labs, creatives, and classrooms through totally immersive telepresence, allowing peer-to-peer remote learning, rapid prototyping, IoT connectivity, virtual exhibits/demos and other new modes of networked, immersive, co-located making & education. By empowering communities and individuals to see each 		

		other, develop a sense of empathy and take collective action together, these mixed reality tools can combat inequality and the status quo by connecting us to wider, shared awareness of our communities, allowing groups to act upon & explore a collective vision of the myriad issues and mutual opportunities surrounding us.
Known Barriers	<i>those things which would prevent success of a future solution</i>	Like the Web & social networks, the value of mixed-reality "Seeing Spaces", or immersive computing platforms, depends on how many others are connected.
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	NYU ITP (Interactive Telecommunications Program), Yale University, NRDC, United Nations, NSF, NEA, NASA, NIH, Streaming Museum, No Longer Empty
Statement POC	<i>name and contact info</i>	James A. Tunick CEO, The IMC Lab Email: JTunick@TheIMCLab.com Phone: 917-446-8116 Skype: tunick1

Culture/Inclusion/Diversity

Problem Statement	<i>succinct, one-sentence description</i>	It's difficult to build out the culture of a makerspace.
Category	<i>broad category of impact</i>	Organization and Volunteers
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	•• Board members, members, staff, the general public
Benefit of Solving the Problem	<i>description of positive potential</i>	•• A more connected community • More opportunities for mentorship • Opportunities to work together on projects
Known Barriers	<i>those things which would prevent success of a future solution</i>	•• Some members are loners and have limited interest in the social side of making. • It's difficult enough building out the space, dealing with bookkeeping, etc., so how does a space make time for building culture?
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	
Statement POC	<i>name and contact info</i>	David Brightbill Making Awesome, Inc. david.brightbill@gmail.com +1.850.510.9574

Problem Statement	<i>succinct, one-sentence description</i>	Makerspaces often do not reflect the diversity of their communities.
Category	<i>broad category of impact</i>	Diversity and Inclusion
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	• Women, people of color, LGBTQ, low income individuals, etc., and society in general (because of lost opportunities).
Benefit of Solving the Problem	<i>description of positive potential</i>	• By being inclusive, makerspaces benefit from untapped resources, build tighter connections with the entire community, and help encourage and support every person who is interested in STEAM or tinkering.
Known Barriers	<i>those things which would prevent success of a future solution</i>	• Spaces are often mostly white and mostly male. • Spaces are not doing outreach to potential non-traditional

		<p>members.</p> <ul style="list-style-type: none"> • Spaces are often founded and run by wealthy white males. • Spaces often focus on technologies which are beyond the reach of lower income people. <ul style="list-style-type: none"> •
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	<i>National Society of Black Engineers SciGirls - a science program for middle school girls at the National High Magnetic Field Lab. Women in Science and Engineering</i>
Statement POC	<i>name and contact info</i>	David Brightbill Making Awesome, Inc. david.brightbill@gmail.com +1.850.510.9574

Problem Statement	<i>succinct, one-sentence description</i>	Minority communities do not have access to technical training in the growing market of small lot custom manufacturing.
Category	<i>broad category of impact</i>	Minority empowerment
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> • Minority youth, inner city ghost town residents
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • Minority youth will have pedestrian access to empowerment, white flight zones will have renewed vitality, export of goods and services from blighted communities
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • Economic impact studies lacking
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	
Statement POC	<i>name and contact info</i>	David Brightbill Making Awesome, Inc. david.brightbill@gmail.com +1.850.510.9574

Problem Statement	<i>succinct, one-sentence description</i>	Spaces need support to have increased awareness of best practices to limit, stop, and appropriately respond to harassment or bullying by individuals in makerspaces.
Category	<i>broad category of impact</i>	Diversity and Inclusion
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> • Members, visitors
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • Making the space more welcoming to everyone. • The space gets smart and positive members.
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • No clear policy or social rules. • No consequences for bad behavior • No one wants to be the “bad cop”. • Members not feeling empowered to respond to negative behaviors.
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	
Statement POC	<i>name and contact info</i>	David Brightbill Making Awesome, Inc. david.brightbill@gmail.com +1.850.510.9574

Problem	<i>succinct, one-sentence</i>	Spaces could contribute more to helping closed the digital
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Statement	<i>description</i>	divide within their community.		
Category	<i>broad category of impact</i>	Community Service and Outreach		
Impacted Groups/Individuals	<i>list of those impacted by problem (organize by highest degree first on top)</i>	<ul style="list-style-type: none"> Underprivileged/underserved individuals and groups Community Partners Makerspaces 		
Benefit of Solving Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Closing the “Digital Divide” Empowering individuals Enabling children to do better in school Giving back to the community Providing access to government and community resources on the internet Ex: refreshing older computers with Linux/Libre Office 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Funding Finding collaborative partners serving community Finding excessed computer hardware Partnering with providers for low-cost/subsidized internet access 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>			
Statement POC	<i>name and contact info</i>	David Overland	VP Creatorspace	David.overland@creatorspace.org

Problem Statement	<i>succinct, one-sentence description</i>	Too many members fail to return after joining, often reporting not knowing where to start or not knowing others well enough to feel fully welcomed into the space.		
Category	<i>broad category of impact</i>			
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Members who are overwhelmed Spaces who lose members 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Improved member retention Greater member satisfaction Opportunity to develop maker culture Opportunity to create connections/ cohort 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Action is harder than ideas. People struggle transition from ideas to setting time aside to learn to make stuff. 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Dallas Makerspace seemed interested in training		
Statement POC	<i>name and contact info</i>	J.R. Logan	Chief Maker / MakeHaven	jrlogan@makehaven.org 203-676 - 3414

Problem Statement	<i>succinct, one-sentence description</i>	Spaces often don't match the demographics of the local population.
		Operations, Education, Safety, Community Engagement, Inclusion, Marketing, Funding
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> General Population Currently underrepresented groups: Racial & Ethnic Minority Groups, Women, Patients & People with Disabilities, LGBTQ, Low-income populations, Senior

		Citizens, etc. <ul style="list-style-type: none"> Individual Makers 			
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Increase quality of solutions & products produced by the maker movement. Diverse teams have superior problem solving abilities. Including those affected by a problem in the effort to solve it is known to improve solutions. Improving STEAM knowledge & skills is likely to lead to positive impacts on health outcomes, educational attainment, worker productivity, community engagement, & support for environmental sustainability. Help to reduce educational & income gaps in affected populations Technology has great ability to improve the quality of life of ill & disabled people reducing healthcare costs. Increased participation of wider segment of the public increases total participants. 			
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Pre-existing diversity in tech initiatives want greater monetary & organizational resources than makerspaces can provide Focus on trivial topics or minutia Disagreement on nature of causes of inequity Inordinate burden on affected groups Narrow demographics of STEAM careers discourage people from seeking workforce training Socio-economic barriers to entry & participation Lack of resources of time & money to pursue diversity 			
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Ann Boes, Kari Love, Maureen Muldavin, Tom Tongue, Sean Auriti			
Statement POC	<i>name and contact info</i>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Maureen Muldavin</td> <td style="width: 33%;">Secretary, Counter Culture Labs</td> <td style="width: 33%;">muldavin.m@gmail.com</td> </tr> </table>	Maureen Muldavin	Secretary, Counter Culture Labs	muldavin.m@gmail.com
Maureen Muldavin	Secretary, Counter Culture Labs	muldavin.m@gmail.com			

Problem Statement	<i>succinct, one-sentence description</i>	Underrepresented populations are underrepresented in makerspaces.		
Category	<i>broad category of impact</i>	Equity/Inclusion		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Underrepresented population Makerspaces 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Membership fees won't be a barrier More diversity can add value to the types of programs makerspaces offer 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Many makerspaces operate from the revenue generated by memberships Members who pay for their access don't want to fight for access to limited resources. 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>			
Statement POC	<i>name and contact info</i>	Brent Richardson	Maker Education Manager (Children's	BRichardson@cmhouston.org

Education

Problem Statement	<i>succinct, one-sentence description</i>	Public schools do not expose students to making and digital manufacturing technologies such as 3D printing.		
Category	<i>broad category of impact</i>	Organization, Discovery, Public Schools		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Makerspaces Makers Public K-12 Schools 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Exposes students to technological innovations during its growth period thereby supplying adequate 21st century training Aligns with National Common Core standards of Critical Thinking, Creativity, Communication and Collaboration Highly Relevant to Global Transition toward 4th Industrial Revolution Impacts local and state economies by providing workers that are trained in disruptive technologies like 3d Printing 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> No Adequate Curriculum which aligns to Common Core Standards No Professional Development for Core Subject Teachers Lack of tools and equipment 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>			
Statement POC	<i>name and contact info</i>	Miguel Almena	Lead 3D Print and Makerspace Teacher	miguelalmena@gmail.com

Problem Statement	<i>succinct, one-sentence description</i>	It is difficult for each space to create material for the training and tracking of member safety instruction or certifications.		
Category	<i>broad category of impact</i>			
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Members (who are poorly trained) Space Leaders (whos members leave or break things) 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Improved Safety of participants Time saved developing materials Known portable safety skills between spaces 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Conflicting ideas of what is safe Expensive of documentation and video production Difficult to track training Inconsistent implementation at different spaces. Each space and tool has special quirks 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Unknown		
Statement POC	<i>name and contact info</i>	J.R. Logan	Chief Maker / MakeHaven	jrlogan@makehaven.org 203-676 - 3414

Problem Statement	<i>succinct, one-sentence description</i>	While many spaces are either located in, or work closely with, or want to work closely with Higher Education, there is not a shared best practices that could make new engagements with additional educational institutions easier or more likely.		
Category	<i>broad category of impact</i>	Public/ Higher Ed Relationships		
Impacted Groups/Individuals	<i>list of those impacted by problem (organize by highest degree first on top)</i>	<ul style="list-style-type: none"> • Members • Board • Talent • Equipment 		
Benefit of Solving Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • Higher Education can provide support for makerspaces through talent, student members, IP exchange, and sometimes equipment. 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • Successful partnerships are rarely achieved when the people at the table are not those of decision making authority. • Empathy is important, realizing there is a partnership or equal exchange. • Higher Ed can't simply be "a huge pocket" 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	<ul style="list-style-type: none"> • Community Colleges • Universities • Colleges • MakeSchools.org 		
Statement POC	<i>name and contact info</i>	Amanda Ervin	Union College MakerWeb Consortium	ervina@union.edu

Problem Statement	<i>succinct, one-sentence description</i>	There is demand for community educational programming, but spaces often have difficulty identifying, training, and retaining qualified instructors for the programming needs.		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> • Makerspace leadership • Libraries, schools, YMCAs, other community groups looking for programming 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • Makerspaces find a way to further their educational/outreach missions and may find regular source of revenue 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • Small membership base • Limited volunteer hours 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Libraries, schools, YMCAs, other community groups looking for programming		
Statement POC	<i>name and contact info</i>	Andrew Morrison	Workshop 88	morris@workshop88.com

Problem Statement	<i>succinct, one-sentence description</i>	Members of a space require clear, consistent training and documentation on key areas such as safety training, operational guides/best practices for key equipment.		
		Operations, Makerspace startup, Safety		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> • Makerspace Organizers • Individual Makers 		
Benefit of Solving	<i>description of positive potential</i>	<ul style="list-style-type: none"> • Improve quality and consistency of safety training 		

the Problem		materials, leading to potentially lower safety liability <ul style="list-style-type: none"> • Reduce redundant efforts to develop materials for member safety training • Uniform training materials and practices might lead to makerspace interoperability? • Peer reviewed materials may lead to lower liability insurance rates 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • Wide variation in equipment in makerspaces. • Potential liability incurred by training material developers for any incidents that occur after training 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>			
Statement POC	<i>name and contact info</i>	Tom Tongue	Executive Director, Tech Valley Center of Gravity	ttongue@tvcog.net

Problem Statement	<i>succinct, one-sentence description</i>	Cyberlearning is expanding but no comprehensive listing exists of available resources application to makerspaces as there is not currently a central or clearly established gateway.		
		Cyberlearning, Education, Software		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> • Makerspace organizers • Government • Students and Teachers 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • Will provide a hub for education resources and content. • Potential for cross pollination of topics from OWASP • Ability to “plug in” like the Matrix and learn something • Potential partnership with YouTube 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • Disrupting educational system • Redefining ways of achieving educational credits • Identifying credible teaching sources 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	OWASP, Nation of Makers, all Makerspaces		
Statement POC	<i>name and contact info</i>	Sean Auriti	Founder	sean@alphaonelabs.com

Problem Statement	<i>succinct, one-sentence description</i>	Programs in makerspaces are not explicitly linked to educational standards.		
Category	<i>broad category of impact</i>	k-12 Education		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> • Makerspaces • Schools • Teachers 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • School administrators will understand the benefits of maker programs • Teachers can use maker projects as teaching resources • Makerspaces will better equipped to vocalize the educational value of their programs to schools and funders 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • Teaching standards vary between states and are constantly changing • Many individuals developing/documenting maker 		

		workshops are not familiar with teaching standards		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>			
Statement POC	<i>name and contact info</i>	Brent Richardson	Maker Education Manager (Children's Museum of Houston)	Brichardson@cmhouston.org

Problem Statement	<i>succinct, one-sentence description</i>	Teachers lack the resources needed to support making in the classroom.		
Category	<i>broad category of impact</i>	k-12 Education		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Schools Teachers K-12 students 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Teachers will be able to effectively teach content via project based learning. Students will learn their capacity to solve problems and learn from each other Equal weight can be given to the knowledge part of state standards and the skills part of the standards. 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Supplies can be expensive Teachers are often not prepared to manage large classrooms of students during open-ended learning opportunities. It is difficult to measure mastery of specific content during open-ended projects. 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>			
Statement POC	<i>name and contact info</i>	Brent Richardson	Maker Education Manager (Children's Museum of Houston)	Brichardson@cmhouston.org

Problem Statement	<i>succinct, one-sentence description</i>	There are many introductory making activities but insufficient scaffolding for more advanced or open-ended making.		
Category	<i>broad category of impact</i>	k-12 Education		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Teachers K-12 students Parents 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Teachers/parents will be better equipped to guide children to a deeper understand of content Makers can avoid recreating projects that primarily exist to impress people and better understand the educational value in digging deeper 		
Known Barriers	<i>those things which would prevent success of a future</i>	<ul style="list-style-type: none"> Students are not provided adequate time to explore and dig deeper 		

	<i>solution</i>	<ul style="list-style-type: none"> Traditional educational settings do not cultivate the culture of creativity needed to equip students to think outside the box. "I made a MakeyMakey fruit piano, now what?"
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	
Statement POC	<i>name and contact info</i>	Brent Richardson Maker Education Manager (Children's Museum of Houston) Richardson@cmhouston.org

Problem Statement	<i>succinct, one-sentence description</i>	Makerspaces do not track students' success in school post participating in makerspace programs.		
Category	<i>broad category of impact</i>	k-12 Education		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Makerspaces Funders 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Makerspaces will have objective evidence of the educational value of making. Funders will feel confident investing in making programs Formal education institutes will listen if it can be proven that making improves test scores. 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Schools cannot share specific data that identifies specific students It would take a large amount of time to examine a large dataset 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>			
Statement POC	<i>name and contact info</i>	Brent Richardson Maker Education Manager (Children's Museum of Houston) Richardson@cmhouston.org		

Problem Statement	<i>succinct, one-sentence description</i>	There is insufficient archiving of existing or new curriculum for spaces or a way to share events and project ideas.		
Category	<i>broad category of impact</i>	Apps, Organization, Discovery		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Makerspaces Makers Libraries Schools Public 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Shares events that spaces have created, leveraging knowledge base. Track attribution to facilitate Q&A and advice. Track forking to allow improvement/customization development. 		

		<ul style="list-style-type: none"> Record debrief thoughts to assist secondary users of content.
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Limited uptake by makerspace community No resource to pay for maintenance, requires sustainable volunteering
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Makerspaces Libraries Schools Carl Lozar carl@kauaimakerspace.org Mike Armstrong mike@kauaimakerspace.org
Statement POC	<i>name and contact info</i>	President, Kauai Makerspace Carl Lozar

Problem Statement	<i>succinct, one-sentence description</i>	Although many Makerspaces are offering engaging educational classes, they often struggle with the documentation/formalization of this training. Without capturing the training in a persistent format, there is a lot of duplication of effort in creating classes, even within a single makerspace and almost no means to share between makerspaces.
Category	<i>broad category of impact</i>	
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	Makerspaces who offer classes, especially those engaging in outreach classes to draw in more members or for community give back.
Benefit of Solving the Problem	<i>description of positive potential</i>	Makerspaces could spend time and effort in improving classes instead of creating them, more classes could be offered with less effort input. Startup makerspaces could have a body of materials to enable faster ramp up.
Known Barriers	<i>those things which would prevent success of a future solution</i>	Lack of skills in class material preparation/technical writing/videography. Lack of central repository, must be careful about IP concerns, sometimes a feeling of “competition” between spaces to offer “unique classes”
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	
Statement POC	<i>name and contact info</i>	Nan Braun SHAKMakerspace nan@shakmakerspace.com

Impact and Evaluation

Problem Statement	<i>succinct, one-sentence description</i>	Makerspaces do not have a clear and shared criteria for success and impact and documentation
Category	<i>broad category of impact</i>	Funding, Promotion, Membership
Impacted Groups/Individuals	<i>list of those impacted by problem (organize by highest degree)</i>	<ul style="list-style-type: none"> medium to smaller makerspaces All Funding sources

	<i>first on top)</i>	
Benefit of Solving Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> creates stronger argument for support (government, corporate and foundation) better “storytelling” for publicity and recruitment strengthens total movement’s impact on educational, business, civic and entrepreneurial communities as it can be expressed more clearly
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Diversity of makerspaces and their communities Feeling among community that each makerspace is the same Ability to track “success” of participants if/when they move on from our space documentation
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	
Statement POC	<i>name and contact info</i>	Margaret Pastel Westport Library mpastel@westportlibrary.org

Problem Statement	<i>succinct, one-sentence description</i>	There is not a commonly accepted definition of “Makerspace”.
Category	<i>broad category of impact</i>	
Impacted Groups/Individuals	<i>list of those impacted by problem (organize by highest degree first on top)</i>	<ul style="list-style-type: none"> • Maker community as a whole • Public perception
Benefit of Solving Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Minimize bandwagon effect by larger organizations/institutes who claim to now have “Makerspaces” Avoid diluting grant applications by real Makerspaces and others chasing money
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Makerspaces are still early stage and a definition could continuously change Deciding who or what entity gets to define a Makerspace Adoption of definition by all
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Makezine
Statement POC	<i>name and contact info</i>	Justin Merrell Catalyst Space contact@catalystspace.org / 240-342-6671

Problem Statement	<i>succinct, one-sentence description</i>	There is not enough understanding or measurement of the innovation or jobs created as a result of a given space.
		Startups, Jobs
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Entrepreneurs Makers Makerspaces
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Provide each makerspace with seed funding to start 5 new companies - 1 from each makerspace for a total of

		250 new startups. <ul style="list-style-type: none"> Offer mentors
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Some startups will fail Choosing startups with good potential is challenging
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Seed funds, Venture Capital
Statement POC	<i>name and contact info</i>	Sean Auriti Founder sean@alphaonelabs.com

Problem Statement	<i>succinct, one-sentence description</i>	Teens and college students often struggle to find jobs when companies are looking to employ individuals with the maker skill-sets.		
Category	<i>broad category of impact</i>	Workforce		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Unemployed Corporate partners 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Students won't need to work jobs that don't benefit their career Students won't need to work for free to gain experience 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Many companies have established pathways for paid opportunities and it is hard to get a foot in the door 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>			
Statement POC	<i>name and contact info</i>	Brent Richardson	Maker Education Manager (Children's Museum of Houston)	Brent.Richardson@cmhouston.org

Leadership Development

Problem Statement	<i>succinct, one-sentence description</i>	The needs of a newly created space and those of a more mature space require different kinds of leadership and a different level of commitment.
Category	<i>broad category of impact</i>	Organization and Volunteers
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Board members, members, staff
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> A more effective burnout, less conflict, and more awesome.
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Not all members, or board members have the same vision for the space. Founders pride Resistance to change It is difficult and a delicate process to switch from "Getting Started Mode" to "Sustaining a Mature

		Organization" as it often benefits from a different type of organizer or board members, but there is not a clear way to made that transition
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Institute for Nonprofit Excellence
Statement POC	<i>name and contact info</i>	David Brightbill Making Awesome, Inc. david.brightbill@gmail.com +1.850.510.9574

Problem Statement	<i>succinct, one-sentence description</i>	Many spaces face issues as various points of leadership burnout or turnover.
Category	<i>broad category of impact</i>	Organization and Leadership
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Board and leadership, members, and the community.
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Many hands make light work.
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Founders pride - It's hard to let go and share responsibilities. Member churn - especially in spaces with a lot of college student members
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Institute for Nonprofit Excellence
Statement POC	<i>name and contact info</i>	David Brightbill Making Awesome, Inc. david.brightbill@gmail.com +1.850.510.9574

Problem Statement	<i>succinct, one-sentence description</i>	There tends to be a core group that really runs the space and they get burnt out doing everything.
Category	<i>broad category of impact</i>	Operations
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	Members, Leadership Board, Community
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Prevents stagnation and apathy Morale of existing members is affected. Presents the space in a higher light when happy makers are present
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Makers are often very dedicated and will try to work to get everything done, even if they need a break Getting other members to become invested in the space and not treat it like a gym membership
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	<ul style="list-style-type: none"> Sean Auriti
Statement POC	<i>name and contact info</i>	Erik Leonard Triple Cities Makerspace erikl@tcmakerspace.com

Problem Statement	<i>succinct, one-sentence description</i>	Makerspace leadership is often under-qualified or inexperienced at overseeing a non-profit or for-profit organization.
Category	<i>broad category of impact</i>	Leadership Board, Members, Guests, Everyone
Impacted Groups	<i>list of those impacted by problem (organize with</i>	<ul style="list-style-type: none"> Skilled business leaders and operators increase value in the operation

or Individuals	<i>largest impact on top)</i>	<ul style="list-style-type: none"> Makerspace is better suited to meet the needs of its community/market (increase value) Skilled leadership is able to address problems, challenges, and constraints in positive and constructive ways
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Makerspace leadership is often composed of the most passionate local makers Time constraints, pursuing leadership activities leaves less time for "making" activities Lack of budget for training programs, consultants, material Attitudinal and cultural "<u>I just want to make stuff not be an administrator/bureaucrat</u>"
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Wide variation in equipment in makerspaces. Potential liability incurred by training material developers for any incidents that occur after training
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Something like United Ways Board Leadership Development Program, www.unitedwaynca.org/pages/board-leadership-development-program
Statement POC	<i>name and contact info</i>	Tanju (TJ) Bayramoglu The Maker Station in Marietta GA tanju@themakerstation.com

Problem Statement	<i>succinct, one-sentence description</i>	Spaces often do not know what they do not know about the best practices or standard expectations of running a business/nonprofit, specifically as it relates to operations and business law, which increases avoidable risk and unnecessary exposures.
Category	<i>broad category of impact</i>	Paperwork/legal
Impacted Groups/Individuals	<i>list of those impacted by problem (organize by highest degree first on top)</i>	<ul style="list-style-type: none"> Members, Leadership Board
Benefit of Solving Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Able to avoid possible legal problems Avoid panic/drama that comes with an unknown suddenly becoming known Risk mitigation
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Makerspaces are a 'new thing' and there's no comprehensive 'things to do/watch out for' list for nonbusiness/volunteer people Different states have different laws Members are afraid to draw attention to possible legal/accounting problems Pushback of "we're too small for that to be a problem"
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	<ul style="list-style-type: none"> Local legal/governmental/accounting organizations and firms Maybe university students in business/accounting?
Statement POC	<i>name and contact info</i>	Jamie Szafran FamiLab jamie@familab.org

Problem Statement	<i>succinct, one-sentence description</i>	Many makerspaces are run by passionate makers but who lack business experience.
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		Business Operations
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> • rural makerspaces • makerspaces staffed by volunteers • newly formed makerspaces • small to medium-sized makerspaces
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • more diverse makerspaces representing underserved communities • more impactful outcomes from makerspaces—focus can be on producing meaningful outcomes vs day-to-day survival • makerspaces become more vibrant fixtures in their local communities • good business operations give makerspaces credibility within the philanthropic, business, scientific, manufacturing, government, etc. communities
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • upfront costs (time, energy, money for professional services) • lack of business experience by founders • “not invented here” syndrome • fears that bureaucratic business practices will hamper the innovative culture, need to remain pure to the ethos of experimentation and creativity, including in how you operate a makerspace • one size does not fit all—makerspaces need to adapt to the culture, needs and skills of their community—what works in silicon valley unlikely to work in rural farming community • some spaces have technical skills, but not skills at marketing
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	
Statement POC	<i>name and contact info</i>	Laura Ulibarri President, Maui Makers laura@mauimakers.com

Marketing

Problem Statement	<i>succinct, one-sentence description</i>	The general public's knowledge and understanding of the value-add of a makerspace to them individually or to their communities is insufficient if not completely absent.
Category	<i>broad category of impact</i>	Communication, Marketing
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> • communities • makerspaces
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • increased engagement from various community business, educational, civic, social, and recreational organizations • increased demand for access to programs, educational offerings, and membership benefits

		<ul style="list-style-type: none"> increased capacity for philanthropic support and/or government funding
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> interest of makerspaces for more demand clear marketing language and messaging capacity clear pathways for various types of engagements with a makerspace (not every type of community member is going to be interested in same type of interaction)
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Adam Savage
Statement POC	<i>name and contact info</i>	Andrew Coy Senior Advisor for Making (WH OSTP) acoyn@ostp.eop.gov

Problem Statement	<i>succinct, one-sentence description</i>	The awareness and image of makerspaces in the eyes of Industry, academia, and the public is lacking.
Category	<i>broad category of impact</i>	Marketing, Public Awareness of Benefits
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> All Makerspaces This has been an issue especially for Biological Makerspaces like BioCurious, GenSpace, Hive Bio.
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Acceptance of Makerspace and benefits Increase in the possible collaborations, Increase in Job training re- training in new skills, Increase willing and ready supplemental labor force (Open street maps, Wikipedia) Knowledgeable public.
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Converting skeptical public is difficult, academia and Industry has been especially difficult potential for one incident/person/project bad publicity to cause public outrage, distrust or legislation ruining the reputation/operability of spaces not involved in incident
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	<ul style="list-style-type: none"> Nation of Makers White House and other Government agencies
Statement POC	<i>name and contact info</i>	Eric Harness BioCurious Board Member eharness@gmail.com

Problem Statement	<i>succinct, one-sentence description</i>	Makerspaces and hackerspaces are so diverse it is hard for the public and organizations to distinguish between the different amenities offered
Category	<i>broad category of impact</i>	
Impacted Groups/Individuals	<i>list of those impacted by problem (organize by highest degree first on top)</i>	<ul style="list-style-type: none"> General public Organizations Maker/hackerspaces
Benefit of Solving Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Simplifies the public's search for a maker/hackerspace that best suits their needs Incentivizes spaces to grow and provide more/better amenities Helps outside organizations by providing objective benchmark data and capabilities for various spaces
Known Barriers	<i>those things which would</i>	<ul style="list-style-type: none"> Continuous reassessment of the scale based on future

	<i>prevent success of a future solution</i>	technology acquired by spaces <ul style="list-style-type: none"> • Implementing the rating system on a large scale that reflects the true capabilities of the space • Funding the operator to maintain the database
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	United States Government; Nation of Makers
Statement POC	<i>name and contact info</i>	Kyle Krieg <i>Founder, The Manufactory</i> kyle@themanufacturer.y.us/513-673-7735

Problem Statement	<i>succinct, one-sentence description</i>	Spaces need support to continually maintain/gain membership to account for natural turnover
Category	<i>broad category of impact</i>	
Impacted Groups/Individuals	<i>list of those impacted by problem (organize by highest degree first on top)</i>	<ul style="list-style-type: none"> • Members that rely on the heavier used equipment for their businesses – laser cutter, 3d printers, cnc • Group project money for new members, festivals, booths • Anyone using equipment that breaks down above current budget -emergency situations.
Benefit of Solving Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • Keeps current members happy and continuing their membership. • Attracts new members • Keeps the above happy.
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • Not enough volunteers • Need better organization of current volunteers • Need inventory of available skills • Need ways to attract member that have lower barrier to entry • Need to find out why people leave and how we can get them back
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Board, committee members, other Makerspaces who might have gone through this or have better retention ideas of why their members leave.
Statement POC	<i>name and contact info</i>	Beth Sallay <i>President/Make Salt Lake</i> Macbethants@gmail.com /801-999-8308

Problem Statement	<i>succinct, one-sentence description</i>	Spaces could attract and retain more public interest given more public awareness and budget to back more volunteers.
Category	<i>broad category of impact</i>	
Impacted Groups/Individuals	<i>list of those impacted by problem (organize by highest degree first on top)</i>	<ul style="list-style-type: none"> • Any specific makerspace • Students. • Technology users.
Benefit of Solving Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • Free or low cost STEM education for the general public. • Free or low cost training and access to industrial tools for the general public. • Engaging with young minds to become the makers and scientists for the next generation. • Keeping the American culture of inventiveness and innovation at the global forefront. • New technologies, citizen science. Notably Byzantium Linux (wireless mesh networking), a maximum performance

		biosignal amplifier, several CNC manufacturing tools, and more.						
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Consumption of manpower on operational requirements (eg. fundraising to pay rent). Local real-estate prices inhibiting expansion. Small budget. Bylaws are difficult to reform, amendments are in progress. 						
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	<ul style="list-style-type: none"> A space's BOD. A space's membership. A space's volunteers. A space's clubs. HSTS (High School Technology Services). Other maker/hacker spaces and ham clubs. National Organization of Makers Government, local and federal. 						
Statement POC	<i>name and contact info</i>	<table border="1"> <tr> <td><i>Julia Longtin</i></td> <td><i>President / HacDC</i></td> <td><i>Julia.Longtin@gmail.com / 479-966-9254</i></td> </tr> <tr> <td>BOD</td> <td>Board of Directors / HacDC</td> <td>bod@hacdc.org</td> </tr> </table>	<i>Julia Longtin</i>	<i>President / HacDC</i>	<i>Julia.Longtin@gmail.com / 479-966-9254</i>	BOD	Board of Directors / HacDC	bod@hacdc.org
<i>Julia Longtin</i>	<i>President / HacDC</i>	<i>Julia.Longtin@gmail.com / 479-966-9254</i>						
BOD	Board of Directors / HacDC	bod@hacdc.org						

Problem Statement	<i>succinct, one-sentence description</i>	More of the public are not aware, not connected, are too far from, or face other barriers to more fully benefiting from an innovation ecosystems in their communities.			
		Building, Public, Ecosystems			
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> maker community students, young and old public entrepreneurs and manufacturers 			
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> radical shift forward for technology in the US new ecosystem for innovation in every state new job potential 			
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> upfront costs (time, energy, space acquisition) with uncertain outcomes building what has never been built before making the right local partnerships for success 			
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	A makerspace from each 50 states.			
Statement POC	<i>name and contact info</i>	<table border="1"> <tr> <td>Sean Auriti</td> <td>Founder</td> <td>sean@alphaonelabs.com</td> </tr> </table>	Sean Auriti	Founder	sean@alphaonelabs.com
Sean Auriti	Founder	sean@alphaonelabs.com			

Problem Statement	<i>succinct, one-sentence description</i>	The term Makerspace is not well defined, which can make it more difficult to find common ground with each other and to talk with outsiders about what we are.
Category	<i>broad category of impact</i>	Branding
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Makerspaces Hackerspaces Fab Labs Other spaces The Uninformed Public
	<i>description of positive</i>	

Benefit of Solving the Problem	<i>potential</i>	<ul style="list-style-type: none"> • Increase understanding of our own needs • Facilitate conversations with new people • Allow better group solutions to shared problems • May reveal hidden weaknesses and strengths
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • Lack of comprehensive data about existing spaces • Vastly differing missions, business models, and core values
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	<ul style="list-style-type: none"> • Lexicographers • Ontologists • Taxonomists • Pragmatists • Sean Auriti
Statement POC	<i>name and contact info</i>	John Fenley Founder ProVolt John@ProVolt.org

Problem Statement	<i>succinct, one-sentence description</i>	Many spaces do not have the expertise or support for creating, launching, and running a marketing campaign.
Category	<i>broad category of impact</i>	
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> • All non-profit makerspaces, many for profit makerspaces
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • Providing a marketing campaign to build makerspaces and build interest within a community
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • Marketing has been difficult due to a lack of understanding of what a makerspace is and what they can do for a community.
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	
Statement POC	<i>name and contact info</i>	Mike Rushton (Dir. Operations / Lowell Makes Inc.) (mike@lowellmakes.com)

Operations & Infrastructure

Problem Statement	<i>succinct, one-sentence description</i>	The recurring repetitive tasks of managing members, volunteers, schedules requires significant amount of time and energy that is then not able to be dedicated to other high impact actions
Category	<i>broad category of impact</i>	Operations
Impacted Groups/Individuals	<i>list of those impacted by problem (organize by highest degree first on top)</i>	<ul style="list-style-type: none"> • Makerspace managers • Program directors and administrators • Makers
Benefit of Solving Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • Lowers the time burden and overhead for management • Puts membership on autopilot (as much as possible)
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • No known tools exist specifically for makerspaces • Consistent and widespread adoption may be an issue
Potential	<i>list of those interested in helping to solve this</i>	FabLab.com is working on web based tools. We need grant

Collaborators	<i>problem</i>	money to accelerate development		
Statement POC	<i>name and contact info</i>	Stephen Tibbitts	Founder / Director Fablab LLC	steve@fablab.com

Problem Statement	<i>succinct, one-sentence description</i>	Makerspaces could benefit from support structures that share best practices and training about accountability and fraud-prevention.		
Category	<i>broad category of impact</i>	Operations, Funding		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> small to large-sized makerspaces 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Better accounting practices will help make the space more effective Community trust Easier Taxes 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> upfront cost of accounting software, accountant, learning accounting practices software Drain on Resources 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	<ul style="list-style-type: none"> Pro-bono accounting services Accounting software companies 		
Statement POC	<i>name and contact info</i>	Eric Harness	BioCurious	eharness@gmail.com

Problem Statement	<i>succinct, one-sentence description</i>	Spaces need robust, fast and wide internet		
Category	<i>broad category of impact</i>	Infrastructure		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> members, staff and visitors 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Better connectivity for members and guests, and enough bandwidth to support for large events like hackathons. 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> It costs money and funds are limited 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	<ul style="list-style-type: none"> National telecommunications providers - potential partnership. FCC - potentially including makerspaces in the E-rate program. 		
Statement POC	<i>name and contact info</i>	David Brightbill	Making Awesome, Inc.	david.brightbill@gmail.com +1.850.510.9574

Problem Statement	<i>succinct, one-sentence description</i>	Makerspaces struggle to afford physical space for large shops and labs.		
Category	<i>broad category of impact</i>			
Impacted Groups/Individuals	<i>list of those impacted by problem (organize by highest degree first on top)</i>	<ul style="list-style-type: none"> Small to medium sized makerspaces Makerspaces with affordable dues Makerspaces with or without 501(c)(3) status (few grants provide for rent/utilities) 		
Benefit of Solving Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Enables metalworking shops, woodworking shops, large projects, classrooms, storage and other non-space- 		

		efficient areas.		
		<ul style="list-style-type: none"> • Puts less strain on the general budget and membership funds. • Enable existing funds to be focused on projects of more value to the membership and community. 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • Reductions in lease/rent are not tax deductible. • Overhead expenses are not “obvious” to potential donors or to members. • It is difficult to take advantage of space expansion opportunities when they arise (The “lease it now or lose it” situation) • What few grants/donations that are available in this area are mostly “one time” and do not sustain long term expansion or projects. 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>			
Statement POC	<i>name and contact info</i>	(name) Colin Robinson Michelle Suddreth	(title / organization) President Secretary Foothills Community Workshop	(email / phone) president@foothillscommunityworkshop.org 828-994-2088 michelle@foothillscommunityworkshop.org 828-754-5002

Problem Statement	<i>succinct, one-sentence description</i>	Legacy organizational governance methods often do not meet the needs of makerspaces or open-source projects, integrate poorly with IoT devices, and have not kept up with current capabilities in electronic communications, distributed ledgers, smart contracts, and open-source collaboration.
Category	<i>broad category of impact</i>	
Impacted Groups/Individuals	<i>list of those impacted by problem (organize by highest degree first on top)</i>	<ul style="list-style-type: none"> • makerspaces • open-source projects • non-profits • startups • corporate • government
Benefit of Solving Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • lower friction and transaction costs within and between organizations • better resource-sharing, with fine-grained accountability, possibly in internal currencies • better accounting for individual contributions, both volunteer and staff • peer-to-peer, consensus-based protocols integrating sensors, controls, computing, and data storage, with robust redundancy, without requiring central servers • better integration of membership, access controls, equipment use, training and certification, etc. • organizations coordinated via internal economy rather than centralized command and control

		<ul style="list-style-type: none"> lower overhead greater collaboration greater transparency lowered barrier to entrepreneurial entry enable and encourage internal entrepreneurship and innovation
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> existing corporate structure permeates the way we think of organizations existing assumptions existing laws and regulations difficulty in describing new models and their benefits
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	<ul style="list-style-type: none"> General examples: makerspace organizers open-source project maintainers innovative business schools Specific examples (not contacted): Chris Anderson (Wired, 3D Robotics, "Makers: The New Industrial Revolution") Tom Malone (MIT, "The Future of Work") James Surowiecki ("Wisdom of Crowds") Hyperledger project (distributed ledger, smart contracts) Ethereum project (distributed ledger, smart contracts) Tippie College of Business (Iowa Electronic Markets)
Statement POC	<i>name and contact info</i>	Steve Traugott Managing Partner, TerraLuna LLC stevegt@t7a.org 408-986-0725

Problem Statement	<i>succinct, one-sentence description</i>	Securing and insuring a space and its content takes money and community buy-in, which can sometimes face cultural resistance in a given community.
Category	<i>broad category of impact</i>	Financial, cultural
Impacted Groups/Individuals	<i>list of those impacted by problem (organize by highest degree first on top)</i>	<ul style="list-style-type: none"> Members, Leadership Board
Benefit of Solving Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Ensuring tools and space contents are available for all to use Avoiding damage/loss via theft
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Makerspace culture tends to be open and trusting; there can be pushback on wanting to implement security systems, inventory tracking, etc. Not all spaces can afford security systems Some insurance won't insure contents unless there is a security system in place
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	<ul style="list-style-type: none">
Statement POC	<i>name and contact info</i>	Jamie Szafran FamiLab jamie@familab.org

Problem Statement	<i>succinct, one-sentence description</i>	Not every space has someone sufficiently versed in legal, financial, or business issues; similarly, not all spaces can afford to hire such expertise
Category	<i>broad category of impact</i>	Paperwork, legal

Impacted Groups/Individuals	<i>list of those impacted by problem (organize by highest degree first on top)</i>	<ul style="list-style-type: none"> Leadership board 			
Benefit of Solving Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Prevent future legal or accounting problems Make makerspace starting easier Relieve board stress 			
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Not all spaces can afford legal or financial help Not all board members have the time to Self-educate enough to do more than get by 			
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Local legal/governmental/accounting organizations and firms			
Statement POC	<i>name and contact info</i>	<table border="1"> <tr> <td>Jamie Szafran</td> <td>FamiLab</td> <td>jamie@familab.org</td> </tr> </table>	Jamie Szafran	FamiLab	jamie@familab.org
Jamie Szafran	FamiLab	jamie@familab.org			

Problem Statement	<i>succinct, one-sentence description</i>	In the face of limited resources, spaces could use sensor/automation tools to help them manage the space, provide important communications to members and guests, and evaluate impact.			
Category	<i>broad category of impact</i>				
Impacted Groups/Individuals	<i>list of those impacted by problem (organize by highest degree first on top)</i>	<ul style="list-style-type: none"> Space admins/board members, who don't have time to chase/monitor/evaluate space functions, tool-use, and utilization flows Members Guests / visitors 			
Benefit of Solving Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Admins would have tasks lifted from their workload, and thus be able to focus on other important work. Simultaneously, they would be able to provide more effective management of the space, its resources and functions. Members would benefit from increased communication on tool/space access, more efficient workflows Guests and visitors would witness a more efficient, happier community at work, and thus be more interested in joining and/or taking advantage of space resources 			
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Existing, often commercial software solutions are expensive, keeping them out of the hands of spaces in their early stages – which is often a make-or-break time, and when it's best to establish functional practices. Hardware (IoT sensors, etc) are in their infancy as an industry, so there's a lot of chaos and competing 'standards' 			
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	<ul style="list-style-type: none"> Developers in makerspaces that are sitting in the middle of the problems, who are therefore better equipped to create solutions tailored to the actual needs. 			
Statement POC	<i>name and contact info</i>	<table border="1"> <tr> <td>John Eich</td> <td>Co-founder & Pres/Bodgery</td> <td>John.eich@gmail.com</td> </tr> </table>	John Eich	Co-founder & Pres/Bodgery	John.eich@gmail.com
John Eich	Co-founder & Pres/Bodgery	John.eich@gmail.com			

Problem	<i>succinct, one-sentence description</i>	Spaces often face uncertainty about the legal soundness and
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Statement		strength of their documents, such as waivers or member contracts.
Category	<i>broad category of impact</i>	
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Space organizers - uncertain about effectiveness of waiver
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Consistency and certainty. Opens door for collaboration
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Everybody has their own background and reasons for their waiver. Not a super exciting topic Lots of ideas for what the law is, not as much vetted knowledge.
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Unknown. Any CT makerspaces are good candidates.
Statement POC	<i>name and contact info</i>	J.R. Logan Chief Maker / MakeHaven jrlogan@makehaven.org 203-676 - 3414

Problem Statement	<i>succinct, one-sentence description</i>	Spaces often face difficulty managing their payment/membership system and infrastructure.
Category	<i>broad category of impact</i>	
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> All spaces with monthly memberships
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Increased member retention. Time saved on administrative tasks.
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Payments are complex Many projects and products to choose from
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	
Statement POC	<i>name and contact info</i>	J.R. Logan Chief Maker / MakeHaven jrlogan@makehaven.org 203-676 - 3414

Problem Statement	<i>succinct, one-sentence description</i>	Spaces often face challenge to figure out what laws, ordinances, zoning rules, or other guidelines apply to them.
Category	<i>broad category of impact</i>	
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Boards Organizers
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Remove fear and distracting debates about doing something wrong Help spaces figure out compliance before it becomes a bigger issue. Move forward with confidence to set up ventilation, waste disposal, bio labs and safety systems.
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Seems we might live in a murky area
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	

Statement POC	<i>name and contact info</i>	J.R. Logan	Chief Maker / MakeHaven	jrlogan@makehaven.org 203-676 - 3414
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Problem Statement	<i>succinct, one-sentence description</i>	Some cities have zoning barriers to makerspaces, classifying them as an unknown kind of renter.		
Category	<i>broad category of impact</i>	Space, Community connection		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Makerspaces Makers Communities 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Creating new makerspaces Enabling new neighborhoods and engagements within Reduce expenses Better communication with the city Increase community involvement Better placement for makerspaces to reach the community 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> City zoning that doesn't account for groups like makerspaces. The community and local government misunderstanding what makerspaces are. 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	<ul style="list-style-type: none"> Any organization that struggles with a city that has strict zoning laws Madalene Fetsch, Phoenix Asylum, Boulder, CO 		
Statement POC	<i>name and contact info</i>	Madalene Fetsch	Founder Phoenix Asylum	madalene@phoenixasylum.org

Problem Statement	<i>succinct, one-sentence description</i>	Makerspaces sometimes struggle knowing or staying up-to-date with best practices for fiscal oversight to guard against and mitigate the risks of embezzlement and other financial mismanagement.		
Category	<i>broad category of impact</i>	Financial health, Operations		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Makerspaces Renting members Building owners 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Financially stable makerspaces Education for members around financial oversight Better knowledge for leadership turnover Reduce risk to space for its lifetime Lessen risk from bad actors 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Members don't want to participate Lack of knowledge about sound fiscal practices Lack of transparency in finances to members 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	<ul style="list-style-type: none"> Any organization that has experience with setting up financial oversight practices Madalene Fetsch, Phoenix Asylum, Boulder, CO 		
Statement POC	<i>name and contact info</i>	Madalene Fetsch	Founder Phoenix Asylum	madalene@phoenixasylum.org

Problem	<i>succinct, one-sentence</i>	Many Makerspaces have difficulties finding a
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Statement	<i>description</i>	location/building that suits their needs.		
Category	<i>broad category of impact</i>			
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Pop up makerspaces Small makerspaces Inner-city makers groups Makers groups in high rent real estate areas 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Raised awareness of Makers Ability to grow to fit the needs of their community Expanded tools and workshop capabilities 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> High rent Low real estate inventory in the desired community 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>			
Statement POC	<i>name and contact info</i>	Dave Strain	Director, Make Ventura	makeventura@gmail.com 805-551-4900

Problem Statement	<i>succinct, one-sentence description</i>	Growing makerspaces have trouble finding appropriate new locations to move to when time to expand operations.		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Makerspaces with expanding memberships Makerspaces looking to grow memberships 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Development of a model for many makerspaces to replicate when looking for new locations Development of a model for makerspaces to partner with local community organizations 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Lack of knowledge in navigating local commercial/industrial real estate markets Lack of knowledge in forming partnerships with relevant community organizations 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>			
Statement POC	<i>name and contact info</i>	Andrew Morrison	Workshop 88	morris@workshop88.com

Problem Statement	<i>succinct, one-sentence description</i>	Makerspace toolkits and machines are sometimes fragmented, worn out and limited in sufficient quantity.
		Tools, Refresh, Machines
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Makerspaces Members Guests
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Provides a new set of tools that is complete and has essential components needed in a makerspace. Creates an infrastructure for making and creating when all tools and machinery is available in a makerspace. Improves speed and efficiency of projects Attracts interest from new people
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Needs to meet individual space restrictions Technical expertise may be needed for some tool operation

Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	<ul style="list-style-type: none"> Makerspaces 		
Statement POC	<i>name and contact info</i>	Sean Auriti	Founder	sean@alphaonelabs.com

Problem Statement	<i>succinct, one-sentence description</i>	Makerspaces encounter many problems with acquiring insurance, or knowing the amount needed and appropriate costs for doing so.		
Impacted Groups/Individuals	<i>list of those impacted by problem (organize by highest degree first on top)</i>	All independent unattached makerspaces		
Benefit of Solving Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Better understanding of insurance requirements (liability, loss and theft) A more fair use of funds to appropriately attach to risks. 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Insurance carriers lack of understanding of what makerspaces are. Differences in makerspaces with regards to equipment, members and activities. 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	<ul style="list-style-type: none"> National Association of Insurance Commissioners (www.naic.org) International Risk Mismanagement Institute, Inc. (www.irmi.com) American Risk and Insurance Association (ARIA) (www.aria.org) 		
Statement POC	<i>name and contact info</i>	Frank Cornacchillo	Maker Depot Partner	fcorn@themakerdepot.com 862-245-3805

Problem Statement	<i>succinct, one-sentence description</i>	Housekeeping is an ongoing challenge for spaces as members' projects are often not cleaned up while in process or at the completion, occupying space and tools that others could be using.
Category	<i>broad category of impact</i>	Operations
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Members, Guests, Leadership Board, Everyone
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Safety: messy spaces pose various safety risks at best and potentially environmental and health hazards at worst. Morale of existing members is affected. Significant mess and cleanliness also impacts ability to attract new members and interacting with the broader community.
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Makers are often inherently messy. Housekeeping is considered drudgery, low value activity Lack of budget for cleaning and house keeping services Lack of budget for dust collection systems, air quality systems Lack of budget for trash pickup or disposal services
Potential Collaborators	<i>list of those interested in helping to solve this</i>	<ul style="list-style-type: none"> Local private or municipal waste management services, brainstorm for potential solution opportunities.

	<i>problem</i>	<ul style="list-style-type: none"> • Local private or municipal house keeping services, brainstorm for potential solution opportunities. • Local volunteer and community service organizations may be able to provide labor to support cleanup & housekeeping activities. The key is to implement a repeatable and consistent process. 		
Statement POC	<i>name and contact info</i>	Tanju (TJ) Bayramoglu	The Maker Station in Marietta GA	tanju@themakerstation.com

Problem Statement	<i>succinct, one-sentence description</i>	Good space is hard to find, and difficult to afford.		
Category	<i>broad category of impact</i>	Branding, Mission, Funding		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> • Makerspaces • Makers • Communities 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • Increase offering • Reduce expenses • Increase perceived value • Increase community involvement • A good space can increase the value that can be provided 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • Lack of concrete evidence of the benefit of makerspaces to a community • The community and local government misunderstanding what makerspaces are 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	<ul style="list-style-type: none"> • Any organization that struggles with finding a suitable space, Sean Auriti 		
Statement POC	<i>name and contact info</i>	John Fenley	Founder ProVolt	John@ProVolt.org

Problem Statement	<i>succinct, one-sentence description</i>	Spaces have to generate or recreate basic documents and materials as there is not a central repository of organizational documents for running and maintaining a space.		
Category	<i>broad category of impact</i>	Organization, paperwork/legal		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> • New makerspaces (0-5yrs?) • Non-profit makerspaces • For-profit makerspaces 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • Get quality, reliable, off-the-shelf organizational documents for your makerspace, and/or customizable documents that can be autogenerated based on a small number of design choices. • Articles of incorporation, bylaws, membership agreements, waiver forms, etc. • Avoid common pitfalls and expensive legal advice 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • Reinventing the wheel • Poorly organized and hard-to-search repository • Lack of meta-documentation highlighting the special features of each version 		
Potential Collaborators	<i>list of those interested in helping to solve this</i>	<ul style="list-style-type: none"> • Established makerspaces with well-developed and well-tested procedures and documents 		

	<i>problem</i>	<ul style="list-style-type: none"> • Anyone who has contributed documents on the #documentation slack channel 		
Statement POC	<i>name and contact info</i>	Patrik D'haeseleer	Founder, Counter Culture Labs	patrikd@gmail.com

Problem Statement	<i>succinct, one-sentence description</i>	Spaces could share best practices for automating general operations of a makerspace and further develop practices that are easy to deploy, maintain, use, hack and not cost-prohibitive.
Category	<i>broad category of impact</i>	Software Tools for Makerspaces
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> • Grassroots Leaders • Budding, under-resourced communities (the long tail) • Members • Makerspace staff + managers
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • Lower friction for bootstrapping new communities • Ease of expanding and maintaining existing communities • Accountability, audits • Transparency • Continuity • Reducing overall cost and system complexity
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • Lack of adoption • Lack of support • Time + energy required to implement a usable solution • Tooling + language consensus • Doesn't integrate with other systems (RFID, liability waiver, member agreement)
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	<ul style="list-style-type: none"> • Mike Greenberg - mike@myhacklab.org • Sean Auriti - sean@alphaonelabs.com • Shirley Hicks - shirley@velochicdesign.com, redmtnadmin@redmountainmakers.org • Dana Woodman - dana@chimeraarts.org • Steve Traugott - stevegt@t7a.org • Dan Hendricks - dan@opensourcemakerlabs.com • Eric Adler - eadler@tcmakerspace.com • Tony Vaughn -- tony.vaughn@tesseractpoint.com • Francis Poisson-Gagnon -- fpg@lafabriquecoop.org
Statement POC	<i>name and contact info</i>	

Problem Statement	<i>succinct, one-sentence description</i>	It can be difficult for a space to find and manage volunteers to help in the instruction and operation of a space.
Category	<i>broad category of impact</i>	
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> • All non-profit makerspaces, many for profit makerspaces
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • Lower cost of entry by keeping management costs low
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • Volunteers need motivating and might not be reliable

Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	<ul style="list-style-type: none"> Makerspace members 		
Statement POC	<i>name and contact info</i>	Mike Rushton	(Dir. Operations / Lowell Makes Inc.)	(mike@lowellmakes.com)

Sourcing and Disposal of Materials

Problem Statement	<i>succinct, one-sentence description</i>	Interacting with vendors is difficult due to vendors not understanding the nature and benefit of makerspaces, including the operations of the business and members.		
Category	<i>broad category of impact</i>	Innovation speed		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> small to large-sized makerspaces / Incubator spaces makerspaces with 501(c)(3) status or other Business licenses business or members seeking to order chemicals or organisms that may not be readily available 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> We can provide more diverse classes and programs by ordering the compounds or reagents overall increase speed in innovation Less stress More awareness of our space and mission 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Paper work, forms, Lots of emails Vendor cutting off all business with space Non-Payment of bills by members can damage spaces credit or relation with vendor Barring other makerspaces because of a few bad actors 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Vendors themselves, Professional organizations, Other Makerspaces, Small Vendors willing to take the risk		
Statement POC	<i>name and contact info</i>	Eric Harness	BioCurious Board Member	eharness@gmail.com

Problem Statement	<i>succinct, one-sentence description</i>	Many Makerspaces have limited resources or knowledge to dispose of wastes such as e-waste, hazardous chemicals, or biological, or other non-standard waste.
Category	<i>broad category of impact</i>	Environmental impact, Local environmental
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Local community Makerspaces
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> potential better environmental outcomes and recycling Community acceptance of best practices Overall decrease in clean-up costs
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> upfront costs (time, energy, money for professional disposal) with uncertain of knowledge of policy Potential Misconception for rules and policies. False expertise, for different routes

		<ul style="list-style-type: none"> Adoption of best practices among the community Possibility of members to feel singled out Buildup of waste Consistent staffing for waste pickup
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Local Waste handlers, Local waste companies
Statement POC	<i>name and contact info</i>	Eric Harness BioCurious Board eharness@gmail.com

Problem Statement	<i>succinct, one-sentence description</i>	Makerspaces are sometimes seen by the public as e-waste recycling facilities and thus unwanted "donated" materials accumulate.
Category	<i>broad category of impact</i>	Facilities and Operations
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Members, especially those members who end up dealing with the e-waste left by well meaning but uninformed people.
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Less space wasted by storing unneeded materials
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> People are well meaning and think that by donating e-waste to a makerspace, they are doing something good.
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	
Statement POC	<i>name and contact info</i>	David Brightbill Making Awesome, Inc. david.brightbill@gmail.com +1.850.510.9574

Problem Statement	<i>succinct, one-sentence description</i>	Need for makerspace "project kit" with focus on topics such as biology, chemistry and other projects to distribute to those interested.
		Biology, Chemistry, Science
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Makers Public Students / Teachers
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Provides hundreds of experiments and supplies to perform them at your makerspace. Allows for major innovation and experimentation around new technology and methodology. Provides something for people to do when they stop by the space for the first time.
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Safety measures need to be followed Refilling kits is ongoing for one time use materials
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Makerspaces, Biocurious
Statement POC	<i>name and contact info</i>	Sean Auriti Founder sean@alphaonelabs.com

Problem Statement	<i>succinct, one-sentence description</i>	Many spaces do not have systems or tools to track and maintain inventory of consumable items.
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Category	<i>broad category of impact</i>	Tools
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	Members, Leadership Board, Community
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Tools are available to use without delay No overuse by single individuals
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Tools vary from brand to brand, as we develop solutions, the technologies will change, possibly rendering the solution useless How do we manage consumable items to ensure that they are available? How do we fund them? Such things as paper and ink for printers, filament for 3d printers, and cutting tools for wood and metal working equipment.
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	<ul style="list-style-type: none"> Who can manufacture solutions? Who has ideas that don't require manufacturing? Ask device manufacturers to build consideration into new products Specifically? - Amanda Ervin at Union College is testing out some strategies now. Who else? - We should coordinate, not test the same solutions, might help get to answers faster. Sean Auriti
Statement POC	<i>name and contact info</i>	

Problem Statement	<i>succinct, one-sentence description</i>	While surplus scientific equipment from national labs and other public organizations could be re-allocated to other groups that can use it, there is not an effective entry or coordination point to assist in this process.
Category	<i>broad category of impact</i>	Tools
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Makerspaces Citizen Scientists Universities National labs
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Clear directives to labs can prevent waste Scientific equipment available to the public will increase public understanding of scientific principles Spaces increase their legitimacy and tangible benefit to the community
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Status Quo Liability Financial barriers Training barriers
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	<ul style="list-style-type: none"> National Labs Citizen-science oriented spaces Universities Sean Auriti Bio-Link Depot DIYbio labs
Statement POC	<i>name and contact info</i>	John Fenley Founder ProVolt John@ProVolt.org

Problem Statement	<i>succinct, one-sentence description</i>	It is difficult and expensive for makerspaces to get appropriate liability insurance.		
Category	<i>broad category of impact</i>			
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	Stand Alone non-profit makerspaces, startup for profit makerspaces, embedded makerspaces		
Benefit of Solving the Problem	<i>description of positive potential</i>	Eliminate many hours of time spent investigating and trying to find appropriate coverage. Some makerspaces are aborted or limited in activities they can offer due to limited insurance		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<p>There are only a handful of companies in the country will to underwrite this and many insurance agents will not broker the insurance. Makerspaces embedded in other organizations (libraries, schools, etc..) can have negative insurance impact because of perceived level of risk. Once insured, the level of effort to find it discourages people from competitive shopping ongoing.</p> <p>Agents who do not understand activities or risks, limited companies willing to underwrite, difficult for makerspace organizers to find agents who will broker.</p>		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>			
Statement POC	<i>name and contact info</i>	Nan Braun	SHAKMakerspace	nan@shakmakerspace.com

Problem Statement	<i>succinct, one-sentence description</i>	Makerspaces encounter many problems with acquiring insurance, the amount needed and the cost.		
Category	<i>broad category of impact</i>			
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	All independent unattached makerspaces		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Better understanding of insurance requirements (liability, loss and theft) A more fair use of funds to appropriately attach to risks. 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Insurance carriers lack of understanding of what makerspaces are. Differences in makerspaces with regards to equipment, members and activities. 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	<ul style="list-style-type: none"> National Association of Insurance Commissioners (www.naic.org) International Risk Mismanagement Institute, Inc. (www.irmi.com) American Risk and Insurance Association (ARIA) (www.aria.org) 		
Statement POC	<i>name and contact info</i>	Frank Cornacchuiilo	Maker Depot Partner	fcorn@themakerdepot.com 862-245-3805

Sustainability/Endurability

Problem Statement	<i>succinct, one-sentence description</i>	Many spaces do not have capability or resources to apply for grants.		
Category	<i>broad category of impact</i>	Funding, Capacity-Building		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> • small to medium-sized makerspaces • makerspaces without 501(c)(3) status • large makerspaces 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • potential of more funding for maker programs, tools, staff, admin, and other operational structures • overall increase of dollars going into makerspaces as more funding request are submitting to existing opportunities currently going to non-maker organizations 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • upfront costs (time, energy, money for professional grant-written even) with uncertain outcomes (grants are never guaranteed) • potential for spaces to begin "chasing money" and change their culture in ways that are counter-productive (some changes are healthy and good, others are distractions) • feeling among community of all going after the same money • potential for feelings of favoritism or other impropriety 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Battelle Memorial Institute (battelle.org)		
Statement POC	<i>name and contact info</i>	Andrew Coy	Senior Advisor for Making (WH OSTP)	acoyn@ostp.eop.gov

Problem Statement	<i>succinct, one-sentence description</i>	The various business model for spaces face difficulties in becoming all-around sustainable.		
Category	<i>broad category of impact</i>	Sustainability, business model, expansion		
Impacted Groups/Individuals	<i>list of those impacted by problem (organize by highest degree first on top)</i>	<ul style="list-style-type: none"> • Makerspace founders and operators (burn-out, despair) • Makers – have limited options • Communities – miss out 		
Benefit of Solving Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • Foster Makerspace / FabLab Expansion especially in smaller communities • Improves the health of existing organizations • Accelerate overall growth of on-shore manufacturing 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • Wide range of demographics • Range of existing models • One size may not fit all 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Local and federal governments, Universities, fablab.com , Kauffman Foundation (Kauffman.org) ?		
Statement POC	<i>name and contact info</i>	Stephen Tibbitts	Founder / Director Fablab LLC	steve@fablab.com

Problem	<i>succinct, one-sentence description</i>	It is difficult to access to Government Surplus and/or LEPT program for spaces.		
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Statement				
Category	<i>broad category of impact</i>	Capacity-Building		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> • small to medium-sized makerspaces • makerspaces without DOE grant 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • potential to access hard to find laboratory equipment that is sitting in storage unused or scrapped (Ex a Geiger Counter would allow us to test potential equipment donations for radioactivity) • Potential to solve the storage problem at National Labs, High quality lab equipment to the makerspace • Potential access to shelving, benches, industrial equipment 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • Access to DOE grant with proper paper work • Access to labs, shipping • Documentation of previous use of equipment • feeling among community of all going after the same equipment • potential for feelings of favoritism or other impropriety 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	<p>https://www.osti.gov/ledp/</p> <p>DOE, Government Labs, ORNL, LBNL, LLNL, other nation labs</p>		
Statement POC	<i>name and contact info</i>	Eric Harness	BioCurious Board Member	eharness@gmail.com

Problem Statement	<i>succinct, one-sentence description</i>	Makerspaces are not regularly included in community economic development initiatives.		
Category	<i>broad category of impact</i>	Funding and Budgets, Communications and Public Relations		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> • Members, potential members, and people served. 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • Makerspaces add another dimension to economic development efforts, especially by providing inexpensive access to tools, materials and training for early stage inventors. Makerspaces democratize innovation. 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • Economic development authorities have traditional partners (trade schools, school boards, community colleges, universities, business incubators, etc.) to whom their funds are committed. • Because of their lightweight infrastructure, makerspaces often have a difficult time keeping track of their success stories, metrics, and other measures of impact. It's hard to fix the roof when you're busy changing out the water buckets catching the drips 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	<p>Interested politicians Local entrepreneurs</p>		
Statement POC	<i>name and contact info</i>	David Brightbill	Making Awesome, Inc.	david.brightbill@gmail.com +1.850.510.9574

Problem	<i>succinct, one-sentence description</i>	Exclusive funding categories (ex: "Arts" vs. "Education"), can create difficulties for securing funding for interdisciplinary
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Statement		programs.
Category	<i>broad category of impact</i>	Funding, Capacity-Building
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> communities served by small to medium-sized makerspaces communities served by makerspaces without 501(c)(3) status communities served by large makerspaces
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> potential of more funding for maker programs, tools, staff, admin, and other operational structures overall increase of dollars going into makerspaces as more funding requests are submitting to existing opportunities currently going to non-maker organizations improved alignment between makerspace offerings and the real needs of the communities they serve
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> entrenched customs, habits, and processes (aka path dependence) of various funders and related institutions potential for funding categories to drive more 'cookie-cutter' makerspaces and programs feeling among community of all going after the same money
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	
Statement POC	<i>name and contact info</i>	Meredith Wenger The Big-Brained Superheroes Club meredith@thebbsc.org

Problem Statement	<i>succinct, one-sentence description</i>	Building long-term sustainability is difficult when many grants and funders have a preference for supporting time-bound projects over long-term infrastructure or ongoing support.
Category	<i>broad category of impact</i>	Funding, Capacity-Building, Sustainability
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> communities served by small to medium-sized makerspaces communities served by makerspaces without 501(c)(3) status communities served by large makerspaces
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> potential of more funding for maker programs, tools, staff, admin, and other operational structures overall increase of dollars going into makerspaces as more funding requests are submitting to existing opportunities currently going to non-maker organizations improved alignment between makerspace offerings and the real needs of the communities they serve more flexibility for maker communities to prioritize process over product, thereby increasing probability for community-driven innovation
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> entrenched customs, habits, and processes (aka path dependence) of various funders and related institutions

		<ul style="list-style-type: none"> social/geographic distance and disparities in domain knowledge between funders and program providers increases divergence in attitudes around what constitutes meaningful success measures cultural concepts of success and achievement are currently conflated with highly controlled and quantified product delivery
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	
Statement POC	<i>name and contact info</i>	Meredith Wenger The Big-Brained Superheroes Club meredith@thebbsc.org

Problem Statement	<i>succinct, one-sentence description</i>	Spaces often lack many of the necessary resources for applying for grants, even when they align directly with their missions.
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Makerspaces Makerspace leadership
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Provide a template for small / medium-sized makerspaces to be able to identify appropriate grants to pursue as well as appropriate partnerships to forge
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Not understanding the limitations and structure of how funding from government agencies is specified Not knowing who to partner with Not having adequate accounting to be able to manage own grants
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Colleges, universities, libraries, other community organizations
Statement POC	<i>name and contact info</i>	Andrew Morrison Workshop 88 morris@workshop88.com

Problem Statement	<i>succinct, one-sentence description</i>	Spaces in low-population density areas sometimes face challenges in growing, improving, or expanding to be able to reach critical mass for space self-sufficient.
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> Communities outside of large urban areas looking for thriving makerspaces.
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> Developing a model for makerspace sustained growth and improvement for the 74% of people living outside of major urban centers.
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> Seed funding is scarce
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Community groups in non-urban areas
Statement POC	<i>name and contact info</i>	Andrew Morrison Workshop 88 morris@workshop88.com

Problem Statement	<i>succinct, one-sentence description</i>	Starting a space in rural or underserved communities often struggle to find ready access to a technical expert community.
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		Diversity
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> • rural makerspaces • underserved communities
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • potential to create opportunities for educated, high skilled workforce <i>within</i> the community—best and brightest don't need to move somewhere else to get a job—they can stay within the community makerspaces can create skills in these communities that create well-paid jobs
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • my personal experience is that some rural, family-centered communities (Maui, New Mexico) have a strong anti-education bias—if you get an education, you will think you're better than your friends and family; there is a subtle, but strong desire not to be seen as trying to be smart; a lot of STEM programs go after smart kids and segregate them to some extent from the general pool; this is not a bad thing, but reinforces this “separation anxiety” • STEM programs also attract and retain the “smart kids”; “smart” only gets you so far, hard work is most of the journey; makerspaces can show kids that they are smarter than they think—I had pre-k doing geometry and algebra for an art project—they just didn't know it; makerspaces also show that it's persistence (not a magical smart gene) that makes you successful
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	
Statement POC	<i>name and contact info</i>	Laura Ulibarri President, Maui Makers laura@mauimakers.com

Problem Statement	<i>succinct, one-sentence description</i>	It is difficult to sort through all of the various portals and sites for grants to find those most applicable to funding for spaces.
		Funding, Software, Innovation
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> • Grant seekers • Government • Organizations
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • Will allow grants to find the right projects more efficiently. • Uberizes the funding process, opens up new doors • Simplify the process to attract more applicants
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • Need cooperation with the grant givers to accept a third part form submission • Each grant has its own nuisances that would need to be standardized • Having a central solution or clearinghouse for the available grants
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	Nation of Makers
Statement POC	<i>name and contact info</i>	Sean Auriti Founder sean@alphaonelabs.com

Problem Statement	<i>succinct, one-sentence description</i>	It is often difficult for makerspace users to monetize their creations.		
Category	<i>broad category of impact</i>	Business strategy, Maker market, Art market		
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> • Artists • Musicians • Coders • Inventors • Makers 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • There is not a central marketplace for makers to sell work • Creative people need to be able to receive payment and appreciation for their work. They need to be encouraged and supported while also having families and maintaining a reasonable standard of living. Creatives should not have to choose between pursuing inventing, making & art, or earning a living. • The community is strengthened by having artists and inventors thinking about how to solve problems, and reflecting creatively on the state of the world. Every creative person who shuts down their practice due to financial concerns is a huge loss to our society. 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • It can be very difficult to bring creative output to market. This often requires connections, a business strategy, representation etc. • People who may want to buy art or support makers may not be aware of what is out there or how to acquire it • Limited numbers of labs, galleries or other venues for exhibiting/displaying/showcasing/demoing work 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>	<ul style="list-style-type: none"> • NYU ITP (Interactive Telecommunications Program), • Yale University, NRDC, United Nations, NSF, NEA, • NASA, NIH, Streaming Museum, No Longer Empty 		
Statement POC	<i>name and contact info</i>	James A. Tunick	CEO, The IMC Lab	Email: JTunick@TheIMCLab.com Phone: 917-446-8116 Skype: tunick1

Problem Statement	<i>succinct, one-sentence description</i>	Finding corporate donors to support makerspaces can be very time consuming, especially without an existing network or awareness among the companies.		
Category	<i>broad category of impact</i>			
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	<ul style="list-style-type: none"> • All non-profit makerspaces, many for profit makerspaces 		
Benefit of Solving the Problem	<i>description of positive potential</i>	<ul style="list-style-type: none"> • Providing non-membership revenue for capital improvements and operating costs. 		
Known Barriers	<i>those things which would prevent success of a future solution</i>	<ul style="list-style-type: none"> • Corporations do not know what makerspaces are and what the value of funding them is. Also what can Makerspaces offer corporations in terms of marketing and teaming opportunities 		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>			

Statement POC	<i>name and contact info</i>	Mike Rushton	(Dir. Operations / Lowell Makes Inc.)	(mike@lowellmakes.com)
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Problem Statement	<i>succinct, one-sentence description</i>	Makerspaces who actively engage in the “makerzone” of innovation and feed into local economic development plans or grants with incubators can be viewed as competition for funding.		
Category	<i>broad category of impact</i>			
Impacted Groups or Individuals	<i>list of those impacted by problem (organize with largest impact on top)</i>	Makerspaces who actively participate in the innovation/tinker cycle and work with members who have inventions/innovations.		
Benefit of Solving the Problem	<i>description of positive potential</i>	Increasing the feed of potential new companies/products into the existing incubator systems which are designed for post-prototype companies. Increase Economic Development and diversity for regions. A shift from a competitive stance between makerspace to one of collaboration and cooperation.		
Known Barriers	<i>those things which would prevent success of a future solution</i>	Lack of understanding of the role of makerspaces in innovation, view of makerspaces as competitors for resources by existing organizations		
Potential Collaborators	<i>list of those interested in helping to solve this problem</i>			
Statement POC	<i>name and contact info</i>	Nan Braun	SHAKMakerspace	nan@shakmakerspace.com