

Letter of Interest Form
All applicants MUST use this form to apply

Development Innovation Ventures (DIV) aims to find and support breakthrough solutions to the world's most important development challenges. DIV seeks applications that have ideas for addressing development challenges more effectively and more cheaply. If you have a great idea, please submit a Letter of Interest (LOI) to DIV using this form. **Citations should be provided whenever possible, and assumptions used to generate estimates should be clearly explained.** Please submit the final LOI to DIVApplications@usaid.gov. Once you submit a LOI, it will undergo a competitive review and if successful, we will ask you to submit a full application.

For additional information about DIV, examples of great projects that we support, and our application process and timeline, please visit DIV's website at <http://www.usaid.gov/div/>. **Please carefully review our Annual Program Statement available on our website before submitting your LOI.**

I. Eligibility Checklist

DIV welcomes applications from many types of organizations including foundations, U.S. and non-U.S. non-governmental organizations (NGOs), faith-based organizations, U.S. and non-U.S. private businesses, business and trade associations, international organizations, U.S. and non-U.S. colleges and universities (public and private), civic groups, regional organizations, etc.

Applicants must meet the following minimum requirements (check all that apply):

- ☒ Applicant is a legally recognized organizational entity under applicable law.
- ☒ Applicant's activities take place in the countries for which USAID provides assistance. If the project covers other countries, the DIV grant can only be used for activities in USAID presence countries.
- ☒ Applicant is not an organization from a country that is ineligible for assistance under the Foreign Assistance Act, as amended, or related appropriations acts.

II. Organization Information

- A. Organization legal name: Open Source Ecology
- B. Organization type (please select from dropdown menu): Nonprofit
- If 'Other', please specify:

C. Organization address:

Street Address 909 SW Willow Road.
City: Maysville
State/Region: Missouri
Zip/Postal Code: 64469
Country: United States

D. Contact information:

Primary point of contact

Name: Aaron Makaruk

Title: Director of
Development

Telephone: 720-254-2085

E-mail: aaron@opensourceecology.org

Secondary point of contact

Name: Marcin Jakubowski,
PhD

Title: Executive Director

Telephone: 816-846-0736

E-mail: opensourceecology@gmail.com

III. **Overview Information**

A. Project title: The Global Village Construction Set (GVCS)

B. DIV stage (please select from dropdown menu): 1

C. Which of the following best describes the sector your innovation addresses? (please select from dropdown menu) Other

If 'Other', please specify: Multiple Categories

D. Partner organizations: TED Network, the Ewing Marion Kauffman Foundation, the
Shuttleworth Foundation, the Shumaker Family

E. Total funding requested (USD): 95000

F. Proposed cost share (USD): 300000

G. Country/countries where the project will take place: United States, Guatemala, Canada, the
Philippines, Europe, Kenya, Ethiopia - global expansion

H. Expected duration of project activities (months): 12

I. Has the applicant ever received USAID funding in the past? No

J. Has the applicant received USG funding for this or a similar project? No

IV. Project Information

A. Development Challenge and Your Solution

What development challenge are you addressing? What solution are you proposing? What is the magnitude of this challenge in the proposed country of implementation, as well as globally (include relevant statistics)? What about this particular solution gives it the potential to significantly impact the development challenge in a way that has not been feasible before? If applicable, describe previous experiences implementing or testing the solution and any evidence of successful development impact. Please provide relevant data and citations in support of your statements. (1/2 page limit)

Open Source Ecology builds industrial machine designs spanning multiple industry sectors. Our specifications require that our machines are easy to build, modular, built to last, efficient, and cost an average of 69% less than commercial alternatives when built by the end user.

Our main focus is the Global Village Construction Set (GVCS) platform. The GVCS is a set of 50 industrial machines that are most responsible for high living standards in the developed world and spans manufacturing, agriculture, energy production, transportation, and construction industry sectors.

Our programs consist of on-site trainings that cover the skills required to build the technology as well as how to use it to establish business enterprises. We also provide online, distance-education materials that provide extensive documentation to facilitate independent replication of the technology and business plans anywhere in the world.

The distinguishing advantage that we provide is based on our open source nature, which means our technology and plans are not copyrighted. Openly licensing allows others to replicate, reuse, adapt, improve, adopt, bring to scale, write about, talk about, remix, translate, digitize, redistribute and build upon what we have done without financial restrictions, fees, hidden costs, or any other types of barriers. By inviting the entire world to collaborate on the design process, we can harness the innovations and refinements of people throughout the economy, which ensures that our technology and enterprise models improve over time and ultimately excel as real solutions for people in need.

Our programs are already having a global impact with independent replications and partnerships emerging in 14 countries in Europe, Guatemala, the Philippines, Canada, and throughout the United States. We are directly addressing structural problems in the global economy by providing solutions to chronic unemployment and poverty as well as environmental degradation, because our technology is designed to integrate with natural ecosystems and maximize the use of local resources.

B. Objectives and Anticipated Results

What are your objectives and the anticipated results for the proposed level of DIV funding support? How would DIV support help you meet your goals for the innovative solution? (1/2 page limit)

Our objective is to completely design, prototype, field test, and document the entire Global Village Construction Set platform by the end of 2013. We will use the funding primarily to help us develop an online archive, freely available to everyone without restriction, of open business models based on the use of the GVCS industrial capital. Part of the funding will create enterprise development training curriculum, which will directly benefit people both on-site, people travel from all over the world to train and participate in our programming in Missouri, as well as online (or documentation is available in a shippable DVD format as well). We will also gather data about the efficacy of the enterprise training and business models to make improvements in the programs and services we offer.

C. Potential Impact & Scale

What is the possible magnitude of impact your proposed solution could have on the stated development challenge, both in the country described above and globally (include relevant statistics)? Who and how many will the solution directly impact? Who and how many will the solution indirectly impact? Provide a definition of direct and indirect “beneficiary” as it relates to your project’s potential impact, and explain your methodology for calculating the anticipated number of beneficiaries. What is the maximum level of scale your innovation could reach in the long-term, both in the country described above and globally? What are possible avenues for scale up over the next 3 – 10 years? (1/2 page limit)

Our direct beneficiaries are on-site trainees and independent replicators (often the categories overlap). Independent beneficiaries include people in external industry sectors who benefit from the example we set as an open source company. As we inspire other people to create open source alternatives to copyrighted innovation and businesses that use it, we will indirectly benefit customers of other companies throughout the world.

Since there are no barriers for the use of our technology and enterprise solutions, we anticipate both a rapid and widespread expansion of our user base. Combined with our network of collaborators that spans throughout the world, where we are able to harness the innovation and ideas for improving our solutions from the brightest minds virtually anywhere, we have every reason to believe that our solutions will be adopted by millions of people within 10 years.

Provide the most appropriate estimate of who the solution will directly and indirectly affect.

	<u>Direct</u>	<u>Indirect</u>
Now?	40	100
In 3 years?	300	1000
In 5 years?	10000	100000
In 10 years?	1000000	1000000000

D. Competitive Landscape

What are existing common practices or competing solutions that seek to address the same development challenge as your innovative solution? What makes your solution more appealing to public and/or private sector stakeholders in comparison with these alternatives? Describe the cost-effectiveness of your innovation including the difference in estimated cost/per development outcome for your innovative solution and that of competing solutions or existing practices. If your solution is a completely new idea or does not have market competition, explain why you believe it is likely to generate or maintain interest from the public and/or private sector, including cost considerations. (1/2 page limit)

There are non-profit organizations that offer industrial capital to entrepreneurs in developing countries. Two examples are TechnoServe and Kickstart. In comparison, our solutions are more comprehensive, diverse, and distinguished primarily by the open source nature of the platform. There are no copyrights to restrict the use of the Global Village Construction Set, which is a huge step forward in comparison to other non-profit programming in terms of supporting the widespread adoption of our solutions to global problems.

Further, our technology, in comparison to retail counterparts sold by commercial manufacturers, are on average 69% more affordable when built by the end user. We offer designs meant to last a lifetime based on their simplicity, modularity, and because of the collaborative nature of the design refinement process. We harness the best ideas of people all over the world to make our designs as good as physically possible. Our goal is to create industrial capital that works in a business setting, and that means people must be able to repair the machinery themselves. Our training materials, available for free online, ensure that this is so, and this gives us a major advantage in comparison to complex technology for sale on the open market.

E. Measuring Success

Briefly, how do you propose to evaluate the development impact of your solutions and how will you generate relevant implementation lessons? Approaches to evaluation will vary by solution, but evaluation plans for both public and private sector solutions should include steps to measure the social impacts in some way and to evaluate the potential impact and scale and cost-effectiveness assumptions provided above. How is your evaluation structured to inform future scale up? (1/2 page limit)

We currently track independent replications on our wiki, and in the future, we will hire a programs evaluator to track the progress and experiences of people who independently replicate the GVCS technology.

On-site trainees will take pre and post evaluation exams to gauge their skills acquisition, changes in attitudes, and the progression of their general outlook. Their experiences and activities will be tracked periodically to determine the effectiveness of our education programs.

We are looking at the possibility of engaging in microfinancing through direct financial loans and equipment leasing in order to facilitate the distribution of enterprises. Part of our technique would be a high degree of transparency regarding how diligently the loans are paid back, as well as how well our business models fair in the open market. With transparency among our business plan adopters, we can gather a large amount of useful data about how effective our capital and

enterprise models are, and we can also solicit the ideas our independent replicators have for improving the technology and business ideas.

F. People

Describe the composition of the project team, including partner organizations (if any), that will be responsible for implementing the proposed project. Explain how the project team possesses the skills and experience necessary to achieve the proposed objectives. (1/2 page limit)

Marcin Jakubowski - PhD - Founder/Executive Director

- B.S. Princeton/PhD Physics University of Wisconsin

- 2011 TED Fellow

- 2012 Senior TED Fellow

- 2012 Shuttleworth Fellow

Aaron Makaruk - Director of Development

- Founder of Youth On Record

Marshall Hilton - Director of Production

- Mechanical/Energy Engineer

Gabrielle LeBlanc - Director of Agriculture

- Bachelor of Animal Science, Specialization in Livestock and Dairy at University of California, Davis

Advisors

- Karien Bezuidenhout - COO of the Shuttleworth Foundation

V. Submission

Please email your completed LOI in MS Word or compatible format to DIVApplications@usaid.gov. Please do not send any additional attachments or information. Once you've submitted your LOI, you will receive a confirmation that we have received it. Your LOI will undergo a competitive review and if successful, we will ask you to submit a full application. Please carefully review our Annual Program Statement available at <http://www.usaid.gov/div/> before submitting your LOI.

By submitting this LOI, your organization is certifying that the answers to the questions are accurate to the full extent of your organization's knowledge.

Aaron Makaruk

6/1/12

Name of authorized representative

Date

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