



**Request for Applicants:  
Engineering for One Planet Network Manager (Flexible/Remote)  
08.24.21**

## **Introduction**

The [Lemelson Foundation](#) is a private family foundation based in Portland, Oregon, with a unique focus on improving lives through invention. We are driven by the belief that inventors will solve our biggest challenges and improve lives in communities in the U.S. and around the world. Established by prolific US inventor [Jerome Lemelson](#) and his wife Dorothy in the early 1990s, and guided today by the Lemelson family, The Lemelson Foundation has provided over \$290 million in grants and other investments to hundreds of organizations.

We believe that invention is essential for creating the future we all want. We support Impact Invention, focusing on inventions that have positive social impact, are environmentally responsible, and can become financially self-sustaining products and businesses. We aspire to strengthen the invention ecosystem and empower inventors to solve the biggest local, regional, and global challenges and opportunities of our time, whether it is ensuring equal access to a healthy life; providing clean water and sanitation; developing clean energy alternatives; cost-effective medical devices; rethinking how the world grows, shares and consumes its food; or building a strong and stable economy. We work to create a pathway for invention by inspiring and educating the next generation of inventors, and cultivating the entrepreneurial environments needed to support invention-based businesses. The ultimate goal of our programming, accomplished through our community-building work and the work of our grantees, is to build a more resilient and equitable economy in the US and reach the Sustainable Development Goals in low- and middle-income countries by inspiring young or emerging innovators to solve problems through invention; providing nascent inventors at the primary, secondary, and post-secondary educational levels with the skillsets and mindsets they need to invent; and supporting inventors in the launch and earliest incubation of invention-based enterprises.

The Foundation is committed to enabling inventors to address a range of urgent social and environmental problems, and to provide them with the skills, mindsets and leadership capabilities to integrate environmental responsibility throughout invention and commercialization pathways. Tangible inventions can take an especially hard toll on our planet. Ensuring an invention-based business is environmentally responsible means careful consideration of all aspects of the work, including:

- Efficient use of raw materials and energy
- Consideration of chemistry and materials selection for toxicity and environmental safety
- Minimizing negative impact on the environment relative to supply chain, manufacturing, distribution, usage scenarios and end-of-life or disposal stages.



Environmental sustainability is increasingly a business imperative, and engineers are needed on the frontlines of sustainability practices and sustainable solutions. While playing a significant role in solving current and future global environmental and social issues, product inventors and engineers can contribute to unintended negative impacts on the environment. The inventors, engineers and product designers of tomorrow would therefore benefit from knowing how to apply principles of environmental responsibility throughout the design, manufacturing, and commercialization process. Engineering education is a key lever to prepare engineers to solve environmental problems while minimizing negative environmental impacts, yet neither the principles of environmental responsibility nor the tools of sustainable design are widely integrated in engineering curricular offerings.

The opportunity exists to forestall future unintended negative impact by transforming engineering education to better prepare tomorrow's inventors and engineers with fundamental principles of environmental sustainability – this is the goal of the Engineering for One Planet (EOP) initiative. By accelerating the integration of environmental sustainability in the education of all engineering students, future engineers will be equipped for professional excellence in the face of the constraints of our planet. **The aspirational vision of EOP is that all engineers will be equipped to design, build, code and invent with the planet in mind.**

#### EOP Framework and Pilot Grant Program

Working closely with our partner, [VentureWell](#), the Foundation has engaged hundreds of stakeholders over the past three years and used their feedback to co-develop the EOP initiative and a corresponding [Framework](#) of student learning outcomes. The Framework is now being used as a tool for curricular change through two-year pilot grants with five higher education institutions through the EOP Pilot Grant Program. The EOP Pilot Grant Program participants -- Arizona State University, Oregon State University, University of Central Florida, University of Maryland, and Villanova University – recently shared their first-year achievements and plans for the future of their EOP work. For example, in less than a year, the pilot grantees have developed or modified 26 courses that have collectively reached nearly 2000 students. The program is also capturing lessons learned and resources developed through these diverse approaches to help facilitate changes at other institutions. We're excited about what we're learning and what has already been accomplished.

#### EOP Roadmap

While the Foundation is learning a lot from EOP Pilot Grant Program, we believe isolated approaches to curricular change will not suffice to reach the aspirational vision of EOP. A movement will be needed to transform engineering education so that all engineering students are able to become environmentally and socially responsible engineering professionals. To build the movement we are using three inter-related approaches: 1. making direct investments in curricular change; 2. supporting the development and sharing of EOP teaching resources; and 3. building and engaging with a global community of interested stakeholders.

#### EOP Advisory Group, Community, and Action Network

The EOP initiative benefits from the ongoing strategic guidance of an Advisory Group representing diverse stakeholder groups that influence and comprise the engineering education system, including



faculty, students, and professionals from professional associations, industry, and nonprofit organizations.

The global EOP community currently includes more than 550 newsletter subscribers who have had varying degrees of direct engagement with the initiative. For example, some are from the EOP Pilot Grant Program grantee institutions, some have contributed to the EOP Framework, and others are passively getting updates. The Foundation is keeping the EOP community informed and providing opportunities to engage in the EOP initiative.

Our stakeholder engagement approach includes a newly formed EOP Action Network (EOP Network). As of July 2021, the Foundation has catalyzed the EOP Network and two of its staff members actively participate in the EOP Network. Through the EOP Network, we are bringing together a subset of our community of stakeholders to identify ways to work together to advance the EOP vision. The EOP Network currently includes nearly 50 participants and is likely to change and grow over time. The ongoing size of the EOP Network will depend on the interests of participants and the funding available to continue supporting it. EOP Network participation is voluntary. The Foundation is supporting EOP Network coordination and convenings to enable interested participants to develop and advance collaborative projects. EOP Network participants are collaborating to advance the co-developed purpose of the EOP Network while also advancing their own aligned goals. They can participate in a number of ways, such as regularly attending convenings, supporting each other's work through advice/contacts/opportunities, and collaborating with other participants on EOP Network-defined projects. EOP Network participants have drafted the initial EOP Network Intentions. Members will continue to shape the EOP Network Intentions and activities over time.

Additional relevant background reading materials about the EOP initiative can be found on this [site](#).

### **Scope of Responsibilities: EOP Network Manager (flexible/remote)**

With the EOP Network Manager role, the Foundation is seeking to hire an experienced network manager as a consultant to coordinate and support the EOP Network. Initially, network coordination responsibilities will be shared with Foundation staff as the consultant is onboarded and as the specific tasks associated with the role become defined. The Network Manager will play a critical role in standing up and building this nascent action network. The consultant will have an opportunity to co-create the role as it evolves in tandem with the collaborative activities that the Network and its members pursue, which are under development. **This role is anticipated to be 20 hours/week initially. The right candidate will work in partnership with the Foundation to help develop the role, which may expand to a full-time position and/or to a team of two to share responsibilities.**

As detailed above, while the EOP initiative has been evolving for a few years, the EOP Network was launched in 2021 and is in early stages. It will be critical for the network manager to be flexible and

adaptable as the EOP Network evolves, applying the principles articulated in the draft EOP Network Intentions. The Network Manager's core role will be to skillfully support the network members (aka, participants) to collaborate and achieve progress toward the shared purpose of the EOP Network. Key activities include convening, coordinating, communicating, and evaluating the health and progress of the EOP Network. The network manager will be the primary contact for the EOP Network and will coordinate closely with Foundation staff to provide information to the Foundation and the EOP Network about what is evolving in order to cultivate the conditions for ongoing network vitality.

Currently the core focus of the EOP Network Manager will be to activate, connect, and mobilize EOP Network members toward collaboration. Given the nascent stage of the EOP Network, the EOP Network Manager responsibilities are evolving. The EOP Network Manager will work with the Foundation to define and prioritize work plans as needs arise. To achieve projected outcomes, responsibilities in the initial part-time role may include:

### ***Weaving EOP Network Members to Strengthen Connectivity***

- Connecting with participants individually at least twice annually via phone or Zoom to understand participants' self-interest and look for opportunities to help them engage
- Connecting participants with one another as appropriate based on shared interests and opportunities to collaborate
- Tracking participant connectivity using Social Network Analysis or similar network mapping tools (can be in partnership with external consultant)
- Onboarding new members and responding to inquiries about the EOP Network
- ***Desired Outcome: strong relationships of trust among EOP Network members; demonstrable increase in connectivity over time***

### ***Supporting Emergent Collaborations***

- Providing support such as coordination, scheduling, and facilitation to collaborative projects and teams that emerge
- Collaborating with the EOP Network's leadership team/Core Team\* (if established) and the Foundation to identify emergent collaborations with strong potential to advance the EOP Network's purpose that may warrant additional support in the form of funding and/or project management
- Helping emergent collaborations clarify their objectives as needed
- Tracking the emerging opportunities within the EOP Network (possibly using a Network Dashboard template) to ensure adequate support, measure the network's progress, and tell the story of the network to a broader audience
- ***Desired Outcome: new collaborations among network participants in service of the EOP Network purpose***

### ***Fostering a Beneficial Participant Experience***

- Supporting EOP Network members to build relationships of trust

- Ensuring participants are able to engage at the level they desire
- Listening for feedback about ways to enhance participant resources like communication platforms (e.g. Slack, newsletter, etc.) and cadence, scheduling tools, and information repository
- Establishing and/or clarifying structures and agreements as needed to ensure healthy network participation
- Measuring and evaluating participant experience by conducting a Participant Experience Survey (or similar) on a regular interval (usually in conjunction with convenings) to track progress over time
- ***Desired Outcome: demonstrable value delivered to EOP Network members as a result of participation***

### ***Building Collaborative Infrastructure***

- Establishing and supporting a leadership team (often called a Core Team\*) if and when the network is ready
- Establishing and fostering a regular cadence of communication
- Maintaining the Network's communication platform
- Planning, designing, and facilitating network convenings and activities between convenings (can be in partnership with external consultant)
- Tracking collaborative infrastructure by gathering administrative data (template can be provided)
- ***Desired Outcome: effective systems and processes to support the ongoing activities of the EOP Network***

*\*A leadership team, or Core Team, is a group of network participants who volunteer or are elected to provide governance and advisory support to the network. The Core Team does not hold formal authority over the network, and its members typically rotate on a regular basis. Not all networks have Core Teams — the Network Manager will work with the EOP Network to collectively determine if and when to establish a Core Team.*

## **Skills and Experience**

Essential skills and experience

- Strong experience cultivating effective collaboration among diverse individuals, groups
- Strong interpersonal communication skills and emotional intelligence
- Strong written and verbal communication skills
- Experience supporting and/or coordinating/convening virtual and in-person events of 50+ participants
- Dynamic problem-solving skills



#### Desirable skills and experience

- Experience working in or studying engineering or STEM disciplines
- Prior experience with network management and evaluation desirable, including Social Network Analysis
- Experience working in nascent systems change efforts
- Experience fostering engagement by people of color and women who are underrepresented in STEM and engineering
- Basic experience in evaluating/assessing impact-driven work, such as conducting program evaluation surveys/interviews
- Entrepreneurial or intrapreneurial experiences with community- or collective impact-driven efforts

#### Personal characteristics

- Passion for the EOP vision
- Passion for network management
- Systems thinker who is comfortable dealing with complexity and who is also able to manage details and be highly organized
- Proactive, entrepreneurial self-starter who is also highly responsive to emerging issues, communications, requests
- Creative problem-solver who seeks win-win outcomes
- Positive attitude, sense of humor, and resilience
- Comfortable with ambiguity

Individuals from historically under-represented and under-estimated groups are highly encouraged to apply.

### **Format and Content of Proposal Submission**

Due to the inter-dependent nature of the work proposed and the need for a highly collaborative approach, the role will require a high degree of flexibility and responsiveness and regular input from the Foundation.

Prior to submitting a response, the consultant should be well versed in the Engineering for One Planet initiative, including the Framework and draft EOP Network Intentions, and demonstrate an understanding of the mission and vision of this project in their response.

In response, please include:

- A cover letter highlighting interest and relevant experience, including a brief statement about the estimated hourly or monthly fees and availability in the next 12-24 months.
- CV/resume demonstrating relevant skills, experience, and personal characteristics



- Relevant references will be requested for candidates that move forward to final consideration

***Timeline and Budget***

- Submissions due Friday, September 24, 2021
- First and second round interviews are expected to take place October 2021
- A decision is expected to be made in November 2021

The Lemelson Foundation envisions that this work will begin in November 2021 and be ongoing for a minimum of 18 months. Depending on the evolution of the EOP Network, this position could continue beyond 18 months. The scope of work will be re-evaluated in partnership with the network manager approximately every 6 months to determine if changes should be implemented based on the evolution of the EOP Network, and time and activities needed to achieve intended impacts.

***Submission***

Cover letter, budget/fees, and CV/resume should be submitted electronically to [cindyc@lemelson.org](mailto:cindyc@lemelson.org) by September 24, 2021.