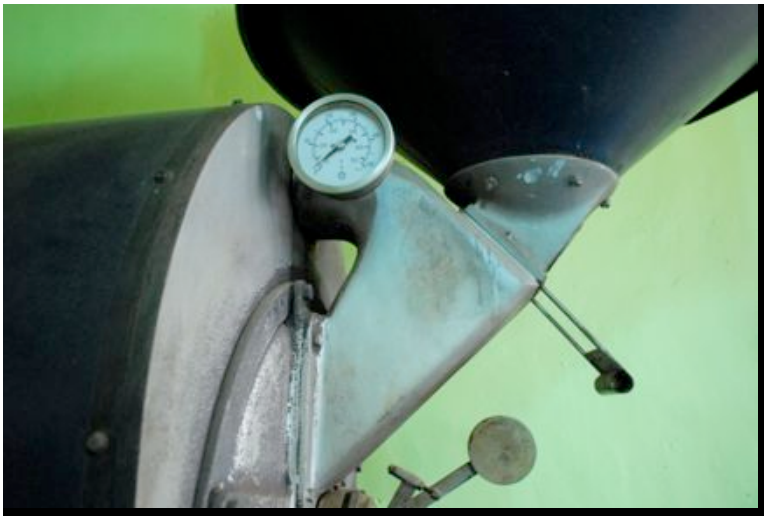

The Learning and Innovation Network for Knowledge and Solutions (LINK):

Request for Engagement

GKI's Achievement through the LINK Program:

Enabling research, industry, and academia to cross boundaries — geographic and disciplinary — and join in solving the world's toughest challenges.

REQUEST FOR ENGAGEMENT

INTRODUCTION AND GUIDANCE

JUNE 2013

Dear Potential LINK Challenger,

*I'd like to introduce you to the Global Knowledge Initiative's LINK (Learning and Innovation Network for Knowledge and Solutions) program. The Global Knowledge Initiative designed LINK to harness the power of international collaboration to solve development challenges. Specifically, LINK seeks to solve challenges that beckon for scientific and technical research, scientific and technical education, innovation, and entrepreneurship. We are delighted you have expressed interest in this program and we wish you the best of luck in contending for this auspicious award. This is a particularly exciting moment in the LINK program's evolution: it was just dubbed one of the world's "**Top 100 innovations for the next century**" by the Rockefeller Foundation. If you succeed in becoming a LINK winner you shall find that **LINK partnership has extensive benefits**. These benefits are outlined in greater detail throughout this Request for Engagement (RFE).*

*The goal of LINK is to solve specific development challenges—potentially the challenge that guides and inspires your work. The process by which LINK supports solutions is outlined in greater detail in this document. Among other benefits and activities, LINK partnership includes: **practical trainings to improve your collaboration, communication, and networking skills, an in-depth analysis of your challenge's context, a $5,000 USD cash prize to kick-start your partnership formation efforts, development of a network of researchers and others to support your work, and a design process that will help you define the specific challenge that you are best able to tackle**.*

Beyond the explicit benefits detailed, LINK offers support to challengers seeking to uncover the relationship between all actors pertinent to particular problems, be they in agriculture, energy, or health. These actors could include, for example, policy makers, agronomists, economists, farmers, and international traders. The LINK process enables each party to bring their unique contribution to the table in a way that uncovers how each part contributes to the whole and fosters long-term collaboration. In this way, LINK solves two problems in addressing complex challenges: first, it allows critical actors to find each other. Second, it links relevant resources—in particular technological and knowledge resources—in goal-oriented agendas. LINK thus lowers the transaction costs you face involved in searching, finding, and connecting across boundaries, helping you find the right partners for a given project and build enduring ties.

***By connecting you with the resources and individuals needed to solve your specific challenges, we can improve the lives of thousands, if not millions of those in dire need**. This is our Fourth Round of LINK and it will be hosted in East and Southern Africa. LINK Round IV will focus on challenges that connect to or build upon the principles laid out in the Comprehensive Africa Agriculture Development Plan (CAADP) or the related 2011 Johannesburg Communiqué that speak to agriculture, water, and climate related goals for Africa's development.*

Again, we are thrilled that you are interested in LINK and we look forward to helping you connect to the people, resources, and communities vital for your efforts to transform the world for good.

Regards,

Sara E. Farley
Co-Founder & Chief Operating Officer

Nina Fedoroff
Scientific Advisory Board Co-Chair

Background on the Global Knowledge Initiative

The mission of the Global Knowledge Initiative (GKI) is to forge, optimize, and sustain knowledge partnerships between the people and institutions of higher education and research. We define a knowledge partnership as one that builds the capacity of individuals and organizations to create new knowledge or introduce relevant knowledge where it is needed. Aligning the resources of developing and developed country universities and research institutions to address shared development challenges pertinent to science, technology, and innovation (STI) guides our work.

GKI arose from the 2008 Higher Education Summit for Global Development convened by the US Secretaries of State and Education and the US Agency for International Development. Attended by more than 200 global university presidents from Africa, Europe, Asia, and beyond, heads of technology firms, and foundation representatives, the Summit identified the need for a "clearinghouse for resources and information to help build knowledge partnerships that can tackle development challenges." GKI was created to respond to this call.

The GKI leadership team includes several world-class scientists, among them leaders of major professional scientific networks, the Prime Minister of India's Minister on Public Information Infrastructure and Innovation, Rwanda's Former Minister of Science, Technology, and Scientific Research, and the Director of the Library of Alexandria. Incubated by the US National Academies and now housed within the American Association for the Advancement of Science, GKI represents a network of high-caliber researchers, entrepreneurs, and STI professionals committed to solving the world's most challenging development needs through collaboration.

GKI and Muslim-Majority Countries
March 2011 (pictured)

LINK promotes stability through science partnerships between research, academia, and civil society

How has LINK worked previously?

LINK represents the deployment of an innovation system framework, creating the conditions for people to collaboratively address change in complex systems. Typically, research around some of the most critical challenges of our era involves ad-hoc partnerships based on a discrete research agenda, typically designed to address one small piece of a complex puzzle.

To date, GKI has created three global LINK networks in Rwanda, Kenya, and Afghanistan-Pakistan that further connect to 47 institutions around the world. The approach ensured that solvers are equipped with the collaborative innovation skills necessary to tackle future challenges beyond the initial project. In this process, GKI held 17 training sessions in 6 countries benefitting 357 network leaders coming from 47 countries on a range of collaborative innovation skills. In total, these pilot programs have engaged 600 stakeholders. No longer do the LINK challengers toil alone. They have the connections needed to devise and implement their path-breaking ideas.

The LINK Rwanda Challenge:

How might we employ a participatory approach to understanding, monitoring, and responding to the antestia-potato taste challenge to sustain and increase the market share of Rwandan specialty coffee?

For instance, in Rwanda, LINK focused on eliminating a taste defect in specialty coffee, a highly valuable export for smallholder farmers. Prior to LINK the few researchers addressing this issue worked in isolation of one another. Today, with 17 institutions including coffee buyers, farmers' associations, universities in Rwanda, California, and Washington, and agricultural research institutes in Africa and France working together, LINK Rwanda has delivered results: creation of a new coffee test, training for graduate students, and a public-private partnership in which government, industry, research, and farmers alike have a stake in shaping the agenda, measuring progress, and scaling solutions. By training researchers, network partners, and facilitators on the tools and skills that underpin LINK, GKI empowers future leaders to activate LINK networks around the challenges they confront.

Case Study: LINK Rwanda and Combating Potato Taste in Specialty Coffee

Contributing to enormous economic gains for Rwanda's smallholder farmers, the emergence of Rwanda's specialty coffee industry offers a spectacular development success story. As the sector grew, though, coffee roasters began encountering a mysterious odor—called the "potato taste defect"—emanating from Rwandan beans. Since early 2011, a team led by Dr. Daniel Rukazambuga, GKI's first LINK winner and an entomologist at the National University of Rwanda, has worked with GKI to forge the partnerships needed to eliminate the defect.

Compelled by this challenge's urgency, GKI assembled an international team that traveled to Rwanda in 2012. Made up of Rwandan researchers, GKI experts, Dr. Christian Cilas from CIRAD in France, and Dr. Thomas Miller from the University of California in Riverside (UCR), this team devised a strategy to rid Rwandan coffee of the defect. Since this meeting, the team has grown substantially. Researchers from Rogers Family Company analyze coffee cherries for damage in Rwanda. Teams at Seattle University and UCR in the US work to determine potato taste's chemical footprint, while at CIRAD they analyze its biological components. Through LINK, one scientist's passion has become an effort spanning five continents, with a network of researchers committed to eliminating the potato taste defect and protecting the livelihoods of Rwanda's farmers.

FEATURES OF LINK ROUND IV

LINK Round IV will be hosted in East and Southern Africa and will focus on **challenges that connect or respond to the challenges and principles called for in CAADP or the related 2011 Johannesburg Communiqué**. In short, these themes correspond to challenges in water, climate, and agriculture. For more information on the scope of explicit topical orientation of challenges solicited through LINK Round IV, please see the corresponding handout entitled "CAADP and the 2011 Johannesburg Communiqué." Building off the successes of LINK Round I, hosted by the National University of Rwanda, and LINK Round III, hosted by Kenyatta University in Kenya, LINK's approach helps partners:

(1) **Locate** and make accessible the resources needed for collaborative problem solving. In this stage, LINK partners define a development challenge in terms of its potential to be tackled collaboratively. Together with GKI, teams identify resources available to them and measure the gaps that hinder progress. (See GKI publication LINK Analysis: Rwanda for more information on insights garnered through research and analysis.)

(2) **Enable** partners to collaborate through trainings and capacity building initiatives. GKI helps partners identify and collaborate with people and institutions offering resources needed to fill those gaps. Beyond matchmaking, LINK builds team members' collaboration skills to work effectively across different disciplines, sectors, and communities. We have found that technical assistance—specifically training on collaborative innovation skills, communication, agenda-setting, monitoring and evaluation, team-building, and fundraising—is key to success in solving complex challenges collaboratively.

(3) **Connect** seekers and solvers together with the global network of problem solvers to bring solutions to scale. We use baseline information on team members' existing resources, partnerships, and needs, as well as GKI's linkages with science associations, academies, and others, to identify complementary initiatives and partners and plug them into purpose-driven networks. Through focused introductions to potential solvers, as well as events such as Collaboration Colloquia, we connect teams to the partners needed to ultimately solve their challenge.

Through LINK, GKI builds the foundation for effective collaborations in training, research, and innovation to solve challenges in the lab, the classroom, and in the community. This approach to building purpose-driven networks capable of collaborative innovation is being scaled across Africa, Asia, and elsewhere. See our website at www.globalknowledgeinitiative.org to learn more about GKI's work, including updates on our existing LINK networks and the strides we are helping them take.

TIMELINE FOR THE LINK PROCESS

LINK is still in its pilot phase and the timeline presented below is meant to be an estimate. Partners should consider this timeline preliminary and subject to change. GKI is adopting this flexible approach because it is committed to learning from each round of LINK to continually improve it and optimize efficiencies. Though this timeline is presented in a linear fashion, the research and training activities undertaken after the winning application is selected often happen concurrently.

Action	Anticipated Completion Date
Hold regional stakeholder meetings • Introduce GKI and the LINK process • Issue guidelines for "Request for Engagement" Attendees submit statements of interest	Uganda: July 2013 Rwanda: July 2013 Kenya: September/October 2013 (to be confirmed) Other African countries (to be confirmed)
Partners submit completed "Request for Engagement"	Friday, 22 November, 2013
Technical Committee reviews "Requests for Engagement" See section next section for review process details	Monday, 16 December, 2013
Announce selected LINK project	Early January 2014
Initiate LINK with selected institution (commence with activities described below): • Conduct research and analysis on the national STI context, the needs and resources of the host institution, and an analysis of the context of the challenge itself • Train team in collaborative innovation skills (1-2 in-country or off-site trainings). Principal Investigator (PI) will have choice of customized trainings; others are strongly advised • Use "Collaborative Innovation Strategy" to clarify the team's design process, devise a strategy for team work, and to plan for subsequent collaborative activities • Introduce LINK partner team to individuals and institutions with the capacity to help them solve their challenge These will take place in the context of 1-2 GKI trips to the host institution, and potentially through off-site training/facilitation opportunities.	February 2014 – January 2015
Continue LINK network communication and facilitation as necessary/appropriate	January 2015-January 2016

WHAT TO EXPECT AFTER SUBMITTING YOUR REQUEST FOR ENGAGEMENT

The LINK process begins with a Request for Engagement submitted on behalf of a university or research institute representative, also known as the "principal investigator" (PI). A PI must be identified in the RFE and will serve as the lead point of contact with GKI and the coordinator of his/her institution's involvement in LINK.

The RFE serves as a preliminary inquiry for participation in the LINK pilot. A template for the RFE to be submitted by the PI can be found within this document. **To be considered for involvement in the LINK pilot process, the PI must answer each of the questions provided in the template to the best of his/her ability**. **Responses to these questions should be captured in no more than 10 pages, 11-point font.** Upon submission to GKI, the RFE will be reviewed via the process outlined below. *PI's are asked to submit the completed "Request for Engagement" to Andrew Gerard, GKI Program Officer, via email to* **andrew.gerard@gkinitiative.org** *by Friday, 22 November, 2013.*

Should a RFE be selected as a LINK pilot, **the PI commits to**:

- Participate in all required trainings and research activities
- Recruit relevant colleagues and students as LINK team members, who will also participate in trainings and research activities as requested under the direction of the PI
- Coordinate LINK team members', department's, and institution's involvement in LINK
- Identify reports, documents, policies, surveys, etc. to be utilized by GKI in order to build analyses that paint a detailed picture of the context for partnership
- Secure sufficient physical space for working sessions or other events when the GKI team and network partners come for training, workshops, and design sessions
- Co-design a work-plan with GKI and LINK team members, including LINK team objectives and partnership criteria
- Take part in the "Knowledge Partnership Landscape Analysis" (KPLA) interview process, including disclosing collaboration activity, identifying colleagues within their respective institution who may participate, and providing introductions to those colleagues
- Provide speedy responses and feedback to the GKI staff
- Facilitate transportation/support of his/her own team. GKI does NOT provide funding for transportation or facilitation of team members within a host country, such as per diems. However, GKI provides a $5,000 USD award, which is meant to cover team in-country expenses, such as meals, transportation, and other project-related costs in so far as the LINK PI deems those expenses appropriate for coverage under the kick-start grant.
- If necessary, facilitate in-country travel for GKI team (through airport transfer, transport from hotel to university, etc.)

If a Request for Engagement is selected as a pilot institution, **GKI commits to providing the following services and technical assistance, valued at $200,000**:

- Train the PI and his/her LINK team members on collaborative innovation skills through at least two multi-day training sessions. The PI will be given a number of "credit hours" that he/she will be able to use on trainings he/she needs. Additionally, GKI will require a number of core courses.
- Provide $5,000 USD as a cash prize to the PI to assist with project expenses, such as travel, food, accommodation
- Analyze the collaboration data provided by PI and his/her team and provide a report that will be made available to the university representatives and colleagues identified, as well as potential partners
- Map challenges to identify those specific problems for which partnership may be especially helpful
- Work with the PI and his/her team to develop a "Collaborative Innovation Strategy" to guide partnership and identify partners and resources needed to solve the challenge
- Identify potential partners throughout the world and introduce them to the PI and his/her challenge
- Provide speedy responses and feedback to the PI and pilot institution partners

Those interested in submitting a Request for Engagement should recognize that GKI is NOT a funding organization. Rather, GKI is a nonprofit that works with institutions of

higher education and research seeking to optimize their knowledge partnerships and enable more effective problem-solving. As such, the Request for Engagement in Phase I LINK activities should not be considered those amenable to a standard "research grant" application. LINK pilot winners receive a scholarship from GKI for skills building and research support to be applied throughout LINK activities, as well as an award of $5,000 USD to support start-up activities. The in-kind contribution of services and resources on behalf of GKI to pilot institutions is valued at approximately $205,000 USD.

SUPPORT TO LINK FINALISTS

GKI does not have the funding available to provide all who submit an RFE with full-scale LINK support. However, there are a number of actions we will take on an in-kind basis to raise the visibility of the important work being done by finalists who are not selected as pilot winners. To this end, we will help finalists find some of their needed partners/resources by performing the following activities:

- Construct a "Challenger Profile", which is a professional, polished, and compelling story of the PI and the challenge he/she is working to address
- Broadcast the work of the PI and his/her challenge on our website and to at least five international partners, including university deans, funders, science associations, etc.
- Promote the PI and his/her challenge at upcoming "Collaboration Colloquiums." Collaboration Colloquiums will be hosted at prestigious US and international universities. Collaboration Colloquiums are designed to promote partnership to solve your challenge; they bring together researchers and entrepreneurs with similar challenges with a goal of facilitating partnership and encouraging partnership on mutually beneficial projects.
- When feasible, provide collaborative innovation training opportunities (to be determined)

REVIEW PROCESS FOR REQUESTS FOR ENGAGEMENT

All RFEs go through an internal GKI review and a peer reviewed selection process performed by a Technical Committee composed of renowned international scientists and development experts. The selection criteria used to perform the external review are listed below.

Criteria for Technical Committee review of Requests for Engagement:

(1) RELEVANCE OF THE CHALLENGE

The challenge should be one that:

- Constitutes a shared challenge between developed and developing countries
- Relates to science, technology, and innovation
- Will improve the lives of thousands, if not millions of people, if solved
- Is germane to the lives of people living on less than $2 USD per day
- Connects to and/or builds off of work to achieve CAADP goals or the climate change priorities of the 2011 Johannesburg Communiqué. Examples include, but are not limited to: agricultural land management, water management, seed technology, pest management, deforestation, soil preservation, crop value chains, and desertification.
- Solving the challenge clearly requires the participation of partners
- The status of work underway toward solving the challenge should *demonstrate progress* toward a clearly stated outcome (i.e., LINK awards are not to be used to start wholly new projects, but rather to catalyze efforts that were started previously and for which connections to partners and resources could now make a dramatic difference in terms of forging solutions)

(2) Impact of Enhanced Partnership

The PI must explain in specific terms how enhanced partnerships (with local, regional, and/or international collaborators) will advance progress on the challenge presented within a three year timeframe. The PI must provide examples of his/her unmet resource needs related to that problem a partner would help address and must express a demand for partnership as a mechanism to meet specific resource needs.

(3) Track Record of the PI

The PI must have sufficient personal qualifications and an appropriate background to contribute to solving the challenge.

(4) Commitment of the PI

The PI must demonstrate a proven dedication to solving the challenge in terms of personal hours and institutional resources already committed to this challenge. The PI must also articulate a commitment to integrating student training into the LINK project activities and to joining a community of implementers focused on making discernible progress toward implementing a solution within three years.

Eligibility

To be eligible to serve as a Principal Investigator (PI) for a LINK project, proponents must be MSc/MA or PhD holders and employed at a higher education/research institution within the target region of the LINK project: all OFAC-approved East and Southern Africa countries (for OFAC-*excluded* countries, see here). LINK projects are designed to add value to ongoing efforts to solve development challenges. As such, an eligible PI must already have a stated and proven commitment to solving the challenge presented.

REQUEST FOR ENGAGEMENT TEMPLATE

Part I: Contact Information for the Principal Investigator

1. Name of Principal Investigator
2. Names and positions of 2-5 team members
3. Role at institution (faculty member, administrator)
4. Department/faculty
5. Institution
6. Full contact information (mailing address, mobile number, office number, email address)

Part II: Exploration of the Challenge and the Potential for Enhanced Partnership

CHALLENGE STATEMENT

1. What development challenge involving science and technology are you addressing? GKI prioritizes challenges: (1) that are shared by developed and developing countries, (2) whose solution will improve the lives of thousands, if not millions, of people, (3) that are germane to the lives of people living on less than $2 USD per day, and (4) that connect to and/or builds off of work to achieve CAADP goals or the climate change priorities of the 2011 Johannesburg Communiqué.
2. What outcome to this challenge do you seek to achieve?
3. What is the current status of your work addressing this challenge (work must be ongoing in order to be eligible)?

NEED FOR PARTNERSHIP IN SOLVING A SPECIFIC PROBLEM

4. What **specific** research, technical, training, or innovation problem related to this challenge do you want to solve through international partnerships with scientists, engineers, entrepreneurs, or others? In other words, what specific part of the larger development challenge do you think you are especially qualified to tackle?
5. What specific resources do you want a partner to help you access? These may be technical, human, knowledge-based, communications-related, etc. Please provide specific examples (e.g., "My lab does not have the equipment it needs to test soil samples and I need someone who can help me conduct the analyses or obtain the equipment").

STATUS OF CURRENT PARTNERSHIPS

6. What are you not getting from current partners that you need? Provide specific examples (e.g., "Most partnerships focus on research projects, but what I really need is training").
7. What steps have you taken to fill this gap?

Part III: Exploration of the PI's Personal Qualifications and Commitment:

1. What personal qualifications/experiences make you particularly well-suited to address the challenge you present? (Please attach a resume/CV outlining your qualifications)
2. What percentage of time do you currently spend working on this challenge? If you are selected to participate in LINK, what percentage will you commit to solving this challenge?
3. What resources are you and your institution currently investing to address this challenge?
4. How are you engaging undergraduate and/or graduate students in this work?
5. What progress do you expect to make over the next three years toward solving the specific problem you have defined and toward implementing a solution?
6. Please provide names, institutional affiliations, and contact information (email and phone) for three individuals who can serve as references for you/your work

Submit completed Requests for Engagement by email to GKI Program Officer, Andrew Gerard: andrew.gerard@gkinitiative.org