*DIL INNOVATE -* Request for Applications

**Spring 2014 – *Information and Communication Technology***

On behalf of the [Development Impact Lab](http://dil.berkeley.edu) (DIL), the [Policy Design and Evaluation Lab](http://pdel.ucsd.edu/) (PDEL) at UC San Diego invites affiliated researchers[[1]](#footnote-1) to apply for grants supporting the design and rigorous testing of innovative solutions for international development.

We expect to award approximately four seed grants (up to $50,000) and two full project grants (up to $200,000). These funding limits represent total costs, i.e. direct costs plus indirect costs (such as university overhead). These *DIL Innovate* grants will be issued as sub-grants from UC Berkeley, from a parent Cooperative Agreement between USAID and UC Berkeley; therefore all awards are subject to US government policies and regulations.

**Focus:** Applications should demonstrate an innovative use of Information and Communications Technology (ICT) to address an important development problem. The novel technology may be an *intervention* (meaning that ICT is being used to provide a new service), an *observation tool* (meaning that outcomes are being captured using ICT), or both. A strong application will establish a clear research question and lay out an empirical strategy to answer that question. Researchers do NOT have to come from computer science or electrical engineering departments. Incorporation of ICT within diverse fields of development is encouraged, including but not limited to health, energy, agriculture, environment and finance.

**Criteria:** In general, DIL grants are designed to uncover and fund novel technologies and technological approaches with real-world impact and potential for scale-up. Key components of DIL’s grant priorities include:

* **Technology**: Projects must innovate technologically, in software, hardware, or novel applications of existing mobile technologies.
* **Social Context:** Projects must actively research social, cultural, economic, or policy questions necessary for successful implementation. DIL does not fund pure ‘gadget’ design.
* **Scale and Impact**: DIL’s mandate is to foster effective application of university-led technology and science to international development – not to support traditional academic research or knowledge generation. Projects can, however, be at various stages of the innovation pipeline (discovery, design, evaluation, and/or scale-up).

Applications will be reviewed by DIL faculty and staff and evaluated for relevance, novelty, viability, and potential impact. Requests will also be evaluated for their potential to foster new international partnerships or promote research capacity in low- and middle-income countries.

**Deadline:** Applications must be submitted online by March 31, 2014 at **11:59 PM US Pacific Time.**

**Expected Timeframe:**

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| *DIL Innovate* RFA Release | February 3, 2014 |
| Submission Deadline | March 31, 2014 |
| Award Notification | June 11, 2014 |
| Earliest Start Date | July 1, 2014 |

**Eligibility**: This competition is open to researchers with Principal Investigator status at DIL-affiliated centers and institutes listed on page 1 of this RFA. Please do not circulate this RFA externally. If you have questions regarding your eligibility to apply, please send an email to pdel-dil-grants@ucsd.edu

**Annual Cycle**: DIL anticipates circulating at least one “DIL Innovate” Request for Applications (RFA) each year, through 2017. During the Fall semester, DIL Innovate will focus broadly on *Development Engineering*. RFAs released during the Spring semester will focus on variable topics.

Overview

The Development Impact Lab (DIL) is an international network of innovators addressing global development challenges through science and technology. Funded by the U.S. Agency for International Development (USAID), and headquartered at the University of California, Berkeley (UCB), the network also includes researchers throughout the University of California system, the Lawrence Berkeley National Lab (LBNL), and other partner universities. The broader consortium includes non-governmental organizations such as BRAC, the Aga Khan Development Network, Innovations for Poverty Action, and IDEO.org as well as partners like Cisco, IBM, Intel, Lemelson Foundation, Microsoft Research, and the Omidyar Network.

DIL is conducting a series of grant competitions to identify and support scientific breakthroughs with the promise to improve livelihoods, welfare, and economic development in low- and middle-income countries. Funded research projects may fall at any stage along the innovation pipeline – from problem discovery and solution design, to prototyping and piloting, to rigorous evaluation in the field. In some cases, the Lab may also support translation or hand-off of a proven solution to scale-up partners. The Fall 2013 grant competition sought to advance the field of *Development Engineering*, a nascent discipline that formalizes the design of complex technological solutions for social and economic development. This Spring 2014 call continues this work, within the specific area of Information and Communication Technologies (ICT).

PDEL has partnered with the DIL to manage a portfolio of *development engineering* research projects that make novel use of ICT to improve development outcomes. Rapid expansion of ICT in the developing world enhances our capacity to reduce poverty and accelerate citizen empowerment. For example, mobile devices are already widely used to deliver services in low-income countries and increasingly these technologies are also used to monitor the public sector.

The Spring 2014 grant competition hopes to identify innovative and effective solutions to development problems using ICT.

Evaluating ICT INNOVATION

Mobile phones, wireless communication, and inexpensive handheld computing power have revolutionized access to information and markets in the developing world. Previously isolated places have become networked, transaction costs have plummeted, and technological innovation is creating new modalities for delivering a wide range of services. A design-centered approach to ICT has animated the field of development engineering, and age-old problems are being addressed by cutting-edge technologies.

At the same time, amidst the proliferation of novel ideas for development ICT, the ultimate goal is the improvement of human welfare. How do we measure our progress toward this goal? ICT is not only reshaping the products and services available in developing countries, it is sharpening our ability to measure their impacts. DIL seeks useful, inexpensive, and effective ways of bringing technology and research together to facilitate our understanding of the developing world, and to identify innovations that measurably improve lives there.

For a development engineering solution to achieve its promise requires appropriate design, good understanding of the local infrastructural environment, and sufficient uptake of the technology. DIL seed grants will be used primarily to fund exploratory research intended to establish the viability of new technologies and survey methods. The full project grants are intended to support more mature projects that can already establish viability and demand as they move to scale. DIL funds can be used to fund both technical and research-related expenses. Applications may investigate a novel use of technology as an intervention, as a data capture device, or both. Examples of potential projects include:

**Intervention:**

* Application or extensions of mobile money (or other mobile point-of-service financial products) to address market failures.
* Crowd-sourcing missing information via mobile devices in a development context.
* Understanding or leveraging social networks with the expansion of ICT.
* Public monitoring or reporting systems using mobile input.
* Mobile devices and the dissemination of new information.
* New media in the developing world.
* The broader impact of existing ICT networks via a well-identified observational study.

**Observation:**

* Digital surveys in which the ICT component allows for innovation in data collection.
* Sensors operated via telecommunication or mobile computing devices.
* Mobile validation of remote sensing data.
* Measuring networks using ICT data.

SPRING 2014 Grant Eligibility

To qualify for funding, applications must meet the following criteria:

* Projects must be led by a Principal Investigator holding an appointment at a DIL-affiliated center or institute. If uncertain, potential applicants are encouraged to confirm eligibility by emailing pdel-dil-grants@ucsd.edu.
* Graduate students and Post-docs are encouraged to apply, but will need an eligible faculty member to lead the project as Principal Investigator.
* Research teams and projects must reflect interdisciplinary expertise.
* Projects must focus on issues relevant to one or more eligible developing country. Below is a list of eligible countries where DIL or its partner organizations have previously supported projects. Other focus regions that are not included on this list may be allowable, but please contact pdel-dil-grants@ucsd.edu **as soon as possible** to confirm eligibility. You must secure approval before submitting an application for an unlisted country.

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| Afghanistan | Ethiopia | Kenya | Rwanda |
| Armenia | Georgia | Mozambique | South Africa |
| Bangladesh | Ghana  | Nepal | Tanzania |
| Brazil | Haiti | Pakistan | Thailand |
| Cameroon | India | Panama | Uganda |
| Colombia | Indonesia | Peru | Vietnam |
| Egypt | Jordan  | Philippines | Yemen |

* Research teams may apply as a single institution, or as a consortium of two partner institutions. If applying as a consortium, you must identify a DIL-affiliated "Lead Institution" (i.e. the PI's institution) and a secondary "Partner Institution". Separate awards will be issued to the Lead and Partner institutions; DIL does not permit Lead Institutions to issue their own sub-awards.
* Requests may not exceed $50,000 in total costs (for seed grants) or $200,000 in total costs (for full project grants). The performance period for seed grants is one year and for full project grants is up to two years.

**Along with financial support, DIL will offer high-level technical assistance to its grantees, providing access to expert advisors and scale-up partners through an extended network of private, public and NGO leaders.** For example, we can provide introductions to industry leaders in key sectors (i.e. telecoms in Indonesia, power utilities in Kenya, etc.) or requests for assistance from foreign government ministries. In addition, whenever possible and appropriate, grantees’ in-country efforts can be coordinated with USAID Missions so that researchers may benefit from pre-existing internal country relationships and expertise.

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| Questions? Email pdel-dil-grants@ucsd.edu |

SPRING 2014 Grant WINDOWS

Applications are welcomed under two windows:

**1. Seed Applications.**

These should be no more than $50,000, and are intended to provide ‘proof of concept’ for a larger project. For example, seed grants may be used to prototype and field-test a novel technology, to perform a feasibility or market study for a new product, to pilot an evaluation study, or to conduct an entire evaluation in cases where institutional data are already available.

**2. Full Project Applications.**

These may be up to $200,000, and should provide evidence demonstrating the viability of the technology or approach as well as a full research strategy for the study. For example, full project applications may cover the costs of a larger pilot as a product moves to scale, or partial funding for a full evaluation project can be submitted.

All applications will be judged on two core criteria. First is the extent to which the project introduces a new technology, or exploits existing technologies in a novel way. Secondly, each application should clearly state the research question of the project and lay out an empirical strategy to answer this question. Detailed evaluation criteria are provided in a separate section below.

APPLICATION Instructions

All applications should be submitted **by 11:59 PM U.S. Pacific Time on March 31, 2014** through PDEL’s online submission website <https://pdel.submittable.com/submit>**.** Applications will not be accepted by email. Note that there are separate submission pages for Full Project Applications and for Seed Applications. Take care to apply under the correct window for your project. Using the online submission system, you can save your application as a draft for 21 days, but be sure to hit ‘Submit’ before the deadline. Successfully submitted applications will receive an immediate email acknowledging receipt.

*Do NOT submit your application to the UC San Diego or UC Berkeley Sponsored Projects Office (SPO).*

Please follow these instructions carefully when developing your grant application:

**Full Project Applications:**

1. The application attachments should include:
	1. Application Cover Sheet, using the Word template available [here](http://dil.berkeley.edu/technology-portfolio/competitions-incentives/spring-2014-rfa/)
	2. Research Narrative
	3. Budget Spreadsheet
	4. Key Personnel CV(s)
	5. Letters of Support, if applicable
2. **The Research Narrative** must include responses to all questions listed in the *Narrative Guidelines* (provided in a separate section below). It may be drafted using the Full Project Application Word template (available on the *DIL Innovate* [RFA website](http://dil.berkeley.edu/technology-portfolio/competitions-incentives/spring-2014-rfa/))OR using a text editor of your choice. If a question is not applicable for you, clearly explain why. Text should be singled spaced, using 11-point font, with one-inch margins. You may **not** submit in PDF format; the application must be submitted as an unprotected and unlocked (editable) text file. It must not exceed **six pages**, including references. No supplements, appendices, or additional materials will be reviewed.
3. **The Budget** must be developed using the spreadsheet available [here](http://dil.berkeley.edu/technology-portfolio/competitions-incentives/spring-2014-rfa/). Please read the Instructions tab for detail on allowable costs. The spreadsheet provides tabs for the Lead Institution’s budget and the Partner Institution’s budget (if needed). You must include a brief written justification explaining the purpose of each line item in the budget. The total request must include both direct costs and any allowable indirect costs (based on your institution’s Federally Negotiated Indirect Cost Rate Agreement). Grant funds must be used to carry out the project within a period of two years from the date of award signing. A full application proposing a budget higher than $200,000 will be deemed nonresponsive to the RFA and will not be accepted for review. Please **unlock** all spreadsheets and do not password-protect any sheets.
4. **Curriculum Vitae** (CV) are required for each of the key personnel (including Principal Investigator, and co-investigators, post-docs, etc. as applicable). The CV should include information on the applicant’s education, relevant prior and current employment (if any), honors received, and relevant publications (up to **two pages per CV** maximum as a separate appendix).
5. **Support letters** are required for each collaborating institution and scale-up partner. Letters should be saved as a single attachment and uploaded with your application.

**Seed Applications:**

1. The application attachments should include:
	1. Application Cover Sheet, using the Word template available [here](http://dil.berkeley.edu/technology-portfolio/competitions-incentives/spring-2014-rfa/)
	2. Research Narrative
	3. Budget Spreadsheet
2. **The Research Narrative** should be single spaced, using 11-point font, with one-inch margins. It should include the Project Name, Summary, Development Innovation, Outcomes and Research Strategy, and Project Plan components of the *Narrative Guidelines* section below. It may be developed with the Seed Application Word template (available on the *DIL Innovate* [RFA website](http://dil.berkeley.edu/technology-portfolio/competitions-incentives/spring-2014-rfa/))OR with a text editor of your choice. You may **not** submit in PDF format; the application must be submitted as an unprotected and unlocked (editable) text file. The file must not exceed **three pages**. No supplements, appendices, or additional materials will be reviewed.
3. **The Budget** must be developed using the spreadsheet available [here](http://dil.berkeley.edu/technology-portfolio/competitions-incentives/spring-2014-rfa/). Please read the Instructions tab for detail on allowable costs. Only **one year** of funding for Seed Applications can be requested; do not enter costs in the Year Two. A seed application proposing a budget higher than $50,000 will be deemed nonresponsive to the RFA and will not be accepted for review.

NARRATIVE GUIDELINES

**INSTRUCTIONS**: in your Research Narrative, please include responses to the questions and prompts below. The narrative (exclusive of the budget and budget justification) should NOT EXCEED **6 PAGES for full grant applications** and **3 PAGES for seed applications**. Do not include any additional pages; appendices and supplementary materials will be discarded.

1. **Project Name**. Include a project name no longer than 4 words; this name will be used for all correspondence. Identify whether your application is a Seed Grant or a Full Project Grant.
2. **Summary**. Provide a short, one-sentence description of your proposed project.
3. **Development Challenge**. Summarize the challengethat your solution or approach will address. What is its scale and impact? How many people are affected by this problem? Note that “solution” or “innovation” can refer to either a development intervention, or an approach for measuring impacts. If possible, provide quantitative evidence of the need for innovation (e.g. disease burden, loss of productivity, or noisiness of current measurement approaches). Include references for data and assumptions.
4. **Development Innovation.** What are the innovative elements of your approach? How will this project advance current knowledge? Refer to the scientific literature. Why is your solution more promising (e.g. cost-effective, versatile) than existing alternatives?
5. **Approach**. Provide a detailed explanation of the solution that your project will advance. How does it work? How will it address your development challenge? What is your theory or model of change (and/or your hypothesis)? How does your approach translate into improved outcomes for the poor, and what are the core questions that the study is setting out to answer?
6. **Outcomes and Research Strategy.** Detail the strategy you will use to answer the research question. For each of the outcomes that you expect to measure, please provide a description of the measurement strategy and justification for the selected approach. Include discussion of gender outcomes - for example, how might the solution or innovation be used by genders differently, what gender-based challenges and opportunities might result. If your project is experimental, describe the research design that you intend to use.

1. **Vision for Success**. What does success look like, both for your project and for the broader solution? What are some likely paths along which the solution can eventually scaled up?\* What types of organizations are likely to fund and implement it at scale? Projects must describe a possible path to scale-up (including the identification of potential translation or scale-up partners). Which stakeholders, existing institutions, or legacy technologies must be considered in scale-up plans?
2. **Project Plan and Outreach**. Please outline a project plan with the following components: a) Key Activities; b) Timeline; c) Deliverables. Describe the outreach strategy, including target audiences, specific activities, and how, if applicable, the project will engage the USAID missions.

\* Scaling up involves widespread uptake of products and services by target populations, including also as a result of the solution being adopted by major service providers, implementing organizations, or enterprises (public or private sector or NGO).

Review Process

Applications received by the submission deadline will be pre-screened by faculty and staff for eligibility and completeness. Eligible applications will be peer reviewed by three panels – from the social sciences, technical engineering, and external/practitioners. Final funding decisions will be made by the DIL Board of Directors. In addition, applications may be reviewed by USAID, at their request, before awards are made. Please contact pdel-dil-grants@ucsd.edu if any information in your application is confidential. The DIL conflict of interest policy is available upon request.

EVALUATION CRITERIA

Applications will be scored according to the following criteria:

1. **Technical/Scientific Merit of Project:** The application provides a clear articulation (including relevant data) of a pressing challenge that directly affects economic or social development. The project innovates technologically, in software, hardware, or novel applications of existing mobile technologies, and presents a solution to the identified challenge. The project clearly advances knowledge and will contribute to the academic literature.
2. **Novelty and Quality of Proposed Solution and Approach:** The proposed solution is a novel technology or technological approach with real-world impact. The study design is adequate to answer the central research question(s) of the project and presents a clear theory of change or hypothesis for how the proposed solution will directly lead to a positive development impact. The study integrates different disciplinary perspectives—including social or economic research questions—in a manner necessary for successful implementation. A clear strategy for measuring project outcomes and impact (including gender indicators) is provided.
3. **Robustness of Research Plan:** The project activities, timelines, milestones and deliverables are realistic and relevant. The study team, budget estimates, and resources available to the project are reasonable to support these. The research design for the study answers the question asked by the proposal in a reasonable and robust way. Additional points will be given to projects that include a developing country PI.
4. **Potential for Scale-Up:** The application demonstrates how the solution will realistically evolve beyond the life of the grant. The application presents a vision for one or more paths via which the proposed solution can eventually be scaled up, including in different contexts. Projects can be at various stages of the innovation pipeline (discovery, design, evaluation, and/or scale-up); however, a vision for scale-up must be central at any stage.

Other Considerations

**Multiple Submissions:** Each PI may submit multiple applications under this call. There is no limit to the number of applications that may be submitted by any given institution, but a separate application must be submitted for each proposed project. An award made during this round or previous rounds does not preclude funding in future rounds of competition.

**Human Subjects:** Before funds are released, winning applicants with research involving human subjects must provide official approval of their research protocols by an Institutional Review Board (IRB) recognized by the University of California, Berkeley. Otherwise, the project PI must work with DIL staff to submit a protocol for consideration by the UC Berkeley Committee for the Protection of Human Subjects.

**Support Letters:** For Full Projects, letters of support are required for each collaborating institution and scale-up partner; and if research or other work is to be done outside the US, applicants must submit a letter from a host university or institution, or collaborating partner.

**Project Duration:** Full Projects must be no more than two years in duration. Seed projects must be no more than one year in duration.

**Project Reporting Responsibilities:** Reporting requirements for all awards include a short project description intended for the DIL website, 100-word, semi-monthly progress reports (for Full Projects only), bi-annual submission of project progress indicators (for USAID M&E purposes), and an annual report. The format for these reports will be provided by DIL.

**Eligibility:** Applicants must have Principal Investigator (PI) status at a DIL-affiliated institution. Eligible PIs include those appointed at the University of California, Berkeley; The Blum Center for Developing Economies (with sites across the University of California); the Center for Effective Global Action (CEGA); Technology and Infrastructure for Emerging Regions (TIER); the Mezuri Group; Policy Design and Evaluation Lab (PDEL) at the University of California, San Diego; the LBNL Institute for Globally Transformative Technologies (LIGTT); Centre for Technology Alternatives for Rural Areas (CTARA) at IIT Bombay; Global Change Programme at Jadavpur University; and select Colleges at Makerere University. Select non-affiliated researchers who have been notified of their eligibility may also submit applications.

**Additional Information and Support:** Questions should be submitted in English to pdel-dil-grants@ucsd.edu. Applicants are requested to identify themselves in all correspondence and put the phrase “DIL Innovate” in the email subject line. DIL at its sole discretion may choose not to disclose certain information in a response to any question or query, if in our view such details would affect the fairness or transparency of the competition or convey an undue advantage to an applicant. DIL also reserves the right to disclose to all other applicants an answer or clarification to a question from an applicant in the interest of fairness, objectivity, and transparency of this competition.

In this case, DIL will post questions (without attribution) and answers on the website: <http://dil.berkeley.edu/technology-portfolio/competitions-incentives/spring-2014-rfa/>. Applicants should check the DIL website frequently as no notice of postings will be issued.

For technical assistance with the submission site, please contact support@submittable.com or click on the Technical Help link at the bottom of the site.

**Definitive Version of this RFA:** In the case that DIL amends or make corrections and clarifications to this announcement, amendments will be posted at <http://dil.berkeley.edu/technology-portfolio/competitions-incentives/spring-2014-rfa/>

SPRING 2014 *DIL InnoVATE*: ICT – Cover Sheet

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| Project Name (4 words) |  |
| Focus Location | *Enter the country or countries and region(s) targeted*  |
| Principal Investigator (PI) |  |
| PI Email Address |  |
| Secondary Contact Email |  |
| Summary | *Enter a 1-sentence description of the development innovation proposed, in language appropriate for a non-technical reader.* |
| Total Direct Costs (USD) | $ | Total Indirect Costs (USD) | $ |
| Total Costs (USD) | $ |
| Project Start Date |  | Project End Date |  |
| Institution Receiving Award\* |  |

\* Applications may be submitted to DIL directly by investigators, but please enter the institution that will receive grant funds.

**Abstract:** Please include an executive summary of your proposed project (maximum 200 words), in language appropriate for a non-technical reader.

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**Project team:** Please list all co-investigators and field research partners on this project. This includes the main PI listed above, as well as their team/lab members. Do not list a partner organization without an identified point of contact (i.e. Name and Title/Position).

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| --- | --- | --- | --- | --- | --- |
| Name  | Title/Position | Institution | Country | Field/Discipline | Gender (opt) |
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**Stakeholders:** Please list the stakeholders for this project, including communities, government agencies, USAID operating units or programs, multi- and bi-lateral institutions, foundations, NGOs, businesses, academic researchers, etc. Do not list a stakeholder without an identified point of contact (i.e. Name and Title/Position); these should be individuals or organizations with existing links to your project.

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| --- | --- | --- |
| Organization | Contact | Nature of partnership |
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**Outside Resources**: If your project directly builds on or incorporates existing infrastructure, equipment, funding or other resources, please list these below. For grant or contract funding, provide the project title, PI, and funding agency. You may include any other non-Federal resources (e.g. private grants, unrestricted funds) or third party contributions that are directly utilized by the project. Only include contributions with estimated dollar values, and describe how the resource supports your project.

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| Award or Other Resource | Estimated Value (USD) | Description (for awards, include dates) |
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**USAID Resources**: if you have **received or applied** for any USAID funding or in-kind support for this project (or a related research study), including USAID funding made available through another USAID implementing partner, please describe below.

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1. **Applicants must have Principal Investigator (PI) status at a DIL-affiliated center or institute**. Eligible PIs include those appointed at the University of California, Berkeley; the Blum Center for Developing Economies (with sites across the University of California); the Center for Effective Global Action (CEGA); Technology and Infrastructure for Emerging Regions (TIER) and the Mezuri Group; Policy Design and Evaluation Lab (PDEL) at the University of California, San Diego; the LBNL Institute for Globally Transformative Technologies (LIGTT); Centre for Technology Alternatives for Rural Areas (CTARA) at IIT Bombay; Global Change Programme at Jadavpur University; and select Colleges at Makerere University. Select non-affiliated researchers who have been notified of their eligibility may also submit applications. Note that funds may be used to support faculty-mentored students or collaborators beyond the immediate DIL network. [↑](#footnote-ref-1)