

**June 9 2010**

**BioResources Innovations Network for Eastern Africa (*BioInnovate*)**

***First Call for Concept Notes***

***on***

***Adapting to Climate Change in Agriculture and the Environment in  
Eastern Africa***

*Deadline for receipt of Concept Notes is July 9 2010.*

[bioinnovate-calls@cgiar.org](mailto:bioinnovate-calls@cgiar.org)

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## Section 1 Background

**BioInnovate** is a new, multidisciplinary, competitive funding mechanism for biosciences and product orientated innovation activities in Eastern Africa. It is supported by a grant of SEK 80m (USD 10.7m) from the Swedish International Development Cooperation Agency (Sida) over the 5 year period 2010-2014: [www.bioinnovate-africa.org](http://www.bioinnovate-africa.org).

The Program builds on previous investments, achievements and experiences from the Sida-supported BIO-EARN Program and other regional initiatives. BioInnovate will work closely with the African Union New Partnership for Africa's Development (AU/NEPAD) Planning and Coordinating Agency (NPCA) and Eastern Africa Councils/Commissions for Science and Technology in strengthening regional collaboration in science and technology to enable the continent to adapt the rapid advances and promises of modern biosciences.

The BioInnovate Program will be co-located with the BecA ILRI Hub in Nairobi. This is a shared research platform where African scientists are applying modern biosciences to the solution of some of the continent's pressing problems in food security, environmental sustainability and responding to the challenges of climate change.

The BioInnovate Program will support projects that will use bioscience innovation systems in practice to improve crop productivity and to improve resilience to climate change in small-scale farming systems (Theme 1); and also support projects to improve the efficiency of the agro-processing industry so as to add value to local bioresources in a sustainable manner (Theme 2). Strong emphasis in the selection criteria (as described in Section 4 below) will be given to the active involvement of market actors and practitioners; and to proposed projects that are mobilizing matching funds from market actors, governments and/or finding potential co-financing from other donor agencies.

The Call is a two stage process of Concept Notes followed by invitations for Proposals. This Call for Concept Notes is open to regional applications that are led by public and/or private entities (including small scale enterprises and NGOs) in one of the six BioInnovate participating countries of Burundi, Ethiopia, Kenya, Rwanda, Tanzania and Uganda. The lead entities from the region may seek, and are encouraged, to include other regional and/or international partners, within or beyond the eastern Africa region, as partners in the proposed project.

The new Program will deliver five result areas, each with a number of activities that will be implemented over a period of five years. These key results areas are:

(1) Strategic Eastern Africa crop innovation systems strengthened to improve productivity and enhance food and nutrition security in the region. This area will generate innovations to enhance crop diversification; improve crop adaptability to the consequences of climate change; and better manage crop productivity constraints.

(2) Innovations on sustainable waste treatment and to secure freshwater resources promoted in the region. This strategic area will generate efficient and effective bioscience innovations for waste management and environmental clean-up; agricultural by-products utilisation for bio-energy to mitigate climate change; and sustainable use of water resources

(3) Eastern Africa innovation systems catalysed to deliver agricultural, environmental and industrial innovations that stimulate sustainable transformation, utilization and productivity of the Region's bio-resources. Technology incubation and other mechanisms for putting research into use by communities and industry will be developed and operationalized.

(4) Innovation policies for sustainable harnessing of bio-resources developed and promoted. The BioInnovate Program will support policy analysis studies to provide decision support tools for investment, promotion and management of bio-resource innovations in Eastern Africa.

(5) An enabling mechanism for mobilization, catalysis and nurture of a strong bio-resource and science-led economic growth agenda for Eastern Africa strengthened and operationalized.

### **BioInnovate Program Thematic Areas**

A central objective of the BioInnovate Program is to build functional innovation consortia able to take bioscience R&D and innovations to the market. The BioInnovate niche is characterized by a focus on the applications of bio-resource innovations to support sustainable growth and transformation of the agricultural and environmental sub-sectors from primary production to value addition, while enhancing adaptability to climatic change and strengthening innovation policy. The BioInnovate program will have four Thematic Areas, all of which are closely connected to and build on AU/NEPAD *Consolidated Plan of Action for Africa's Science and Technology*.

These Thematic Areas are:

- Thematic Area 1: Climate change adaptability, productivity, value addition and improvement for food and nutrition security;
- Thematic Area 2: Agro-process waste treatment, bio-energy from renewable bio-resources and technologies for securing freshwater resources;
- Thematic Area 3: Innovation incubation and promotion of targeted value chains; and
- Thematic Area 4: Bioresource innovation policy and sustainability analysis

The Program will implement activities using a results oriented, thematic approach. The key results will be achieved by supporting innovative projects within the four Thematic Areas and by encouraging cross sectoral technology and policy linkages amongst the four different Thematic Areas.

## **Innovation Consortia within and amongst the Themes**

Within and between the four Thematic Areas, related projects will be linked with one another to form a small number of innovation consortia. Each consortium will consist of several related projects, along the value chain, which link research institutes and development partners in different countries of eastern Africa to form a critical mass of effort to address some key issues and deliver innovative solutions.

It is envisaged that the four Thematic Areas will be addressed by developing up to 10 regional, multi-disciplinary innovation consortia, each consisting of a small number of distinct but interlinked projects. These consortia will be comprised of a range of value chain actors critical to span the process from science to production and markets. Involvement of market actors and other practitioners in the innovation consortia will be crucial in order to ensure that products, knowledge and new technologies emanating from the BioInnovate Program reach the market and specified end users.

These Innovation Consortia will be catalyzed by the Program Management Team by linking the related project teams from amongst the successful Concept Notes for proposed projects. This process will follow the consideration of the Concept Notes by the BioInnovate Technical Advisory Committee (TAC). The TAC will make decisions on the successful applications at the Concept Note stage, of relevant and high quality Concept Notes that meet the selection criteria, for further development into full proposals.

The First Call is for Concept Notes in Themes 1 and 2. The Second Call, to be made later in 2010, will invite Concept Notes in Themes 3 and 4, which address innovation and policy issues respectively. It is envisaged that early linkages will be facilitated by the Program Management Team between the proposed projects in Themes 1 and 2 (which are more technology orientated) and the emerging projects in Themes 3 and 4 (which are more about innovation and policy), so that there are strong cross linkages in the BioInnovate Program from technology to innovation to policy.

## **Section 2: Scope of First BioInnovate Call for Concept Notes**

The First Call is for Concept Notes that will address the effects of climate change on African agriculture and the environment and the use of biosciences innovations to enable African farmers, agroprocessing industries, small businesses and local communities to adapt to climate change and/or to mitigate its negative effects (Thematic Areas 1 and 2). These areas are described in more detail below.

### **Thematic Area 1: Climate change adaptability, productivity and improvement for food and nutrition security**

This theme focuses on generating and promoting technologies to boost productivity of strategically important crops in eastern Africa under the threat posed by climatic change. Such crops are important to small-scale farming and rural livelihood strategies. The theme aims at unlocking genetic potential of crops that are resilient to climate change. The Thematic Area seeks to produce crop varieties that are high yielding and resilient to biotic and environmental stresses and address nutritional quality. The theme focuses on strategically important crops for the Region, as designated by ASARECA, such as cassava, millet, sorghum and sweet potato; and adding value to ongoing initiatives by tackling both input and output traits (including processing and other quality attributes). The innovations will contribute to boosting food and nutrition security, lower food prices, offer more opportunities for income growth through crop diversification, explore value addition opportunities and reduce crop intensification pressure in fragile agro-ecologies.

### **Thematic Area 2: Agro-process waste treatment, bioenergy for renewable bioresources, and technologies for securing freshwater resources**

This theme will focus on treatment of agro-processing waste through reuse, conservation of water and other bioresources. It aims to generate coping strategies, through innovations to reduce the impact of green-house gas emissions and adapt to climate change through innovations to enhance bio-energy recovery from solids and wastewater and provision of clean freshwater resources. An important area will be on use of agro-processing by-products, waste treatment and bio-energy production from existing and ongoing agro-processing activities in the region.

The use of wastes for production of value added products such as improved feed, bio-processing reagents with selective catalysts, safe green chemicals, biofuels, biogas, bioplastics and biopolymers would serve the agro-processing sector in the region by making it more sustainable and reduce its greenhouse gas emissions. This would also make the agro-processing sector more energy and resource efficient, which is vital for its competitiveness. Such links would also support rural livelihoods through increased demand for local crops and livestock and other bio-resources, enhancing the agribusiness opportunities for farmers and small scale enterprises in the region. Promoting the conversion of waste into renewable energy

(such as biogas, bio-fuel etc) will also reduce the need to import costly fossil fuel and serve as a step to mitigate climate change. Another important focus will be on promoting innovation on small scale bio-refineries at village level by assisting local communities to add value to their crop produce.

### **BiInnovate Program Budget**

The total funds currently available for the BiInnovate projects are in the order of SEKs 65m (USD 8.6m) over the 5 year term of the BiInnovate program. It is envisaged that at least SEK 35m (USD 4.6m) will be available to allocate in this first Call for Concept Notes for proposed projects in Themes 1 and 2, with special emphasis on adapting to climate change in agriculture and the environment in eastern Africa.

## Section 3 Guidelines for Applications

### Key Principles and Concepts underlying BioInnovate

The key considerations in the granting process will be to identify and decide on projects that have research outputs with promising potential for commercial value and/or public good. The bio-resource innovation fund will support product development for potential commercial use or technology innovations that may provide public goods, such as mitigating the effects of climate change. The project may include demonstrating “proof of concept”, small and large scale pilot testing, scaling up the production of products and/or setting up demonstration plots/pilot plants. The Program will facilitate product commercialization where appropriate, through its Innovation Consortia.

The proposed project as described in the Concept Note should build on the following key principles and concepts, which are described in more detail in the BioInnovate Program Document, available at [www.bioinnovate-africa.org](http://www.bioinnovate-africa.org). The key principles and concepts are:

***Regional and international collaboration:*** The project approach must be based on regional/international collaboration. Funding will be granted for projects where it can be clearly demonstrated that a regional approach is more effective than individual national projects. Those seeking to submit Concept Notes are encouraged to work with colleagues in the region and internationally in preparing their Concept Notes so as to reflect the intentions of the program design, as described in detail in the BioInnovate Program Document.

***Potential for economic and social impact:*** The proposed project must show that the innovation being advocated has a high potential to stimulate economic growth and promote sustainable development; it should also demonstrate it is demand driven.

Project partners will need, in their project design, to take into account the question of demand for what the project will produce (outputs), in both an economic and social sense. Project partners also need to assess development and/or dissemination costs of the proposed innovations and to what extent the innovation will be economically viable.

***Pathway to impact:*** The Concept Note should show a pathway for utilization, for either commercial use and/or public good; and it should include an implementation plan that demonstrates the necessary linkages along the innovation chain.

***Team composition:*** The proposed project should include a team of partners who collectively address all stages leading to and including product delivery; this means that the proposed project would co-operate and collaborate with a variety of partners with relevant experience in product development such as the private sector (local and international companies), NGOs, social-economic experts, universities, national and international research systems, start-up companies, etc.

It is envisaged that the projects will be implemented by multidisciplinary teams, including economic, social and market expertise, coming from different countries, mainly within the eastern Africa region.

Each team is expected to include at least two institutions drawn from the public and/or private sectors, from different BioInnovate participating countries in eastern Africa; one of the partners from within the Region would be designated as the project lead institution; the team should include at least one private sector company or NGO; and the team should include at least one other collaborator from within or outside the region. The team should include a minimum of 4 and a maximum of 6 partners in total.

**Matching funds:** Projects that can show matching funds availability will be given favourable scores.

**Institutional support:** Strong institutional support is required. This could, for example, include in kind support, such as staff time.

**Adding value to existing efforts:** The proposed project should demonstrate how it will add value and/or collaborate with existing efforts, including other on-going regional initiatives; for example the AU/NEPAD African Biosciences Initiative, including the BecA/ILRI Hub in Nairobi; CAADP; ASARECA; FARA; ECA, IGAD, etc.

**Intellectual property and other policy issues:** The Concept Note should describe how any intellectual property issues will be addressed. Any other policy issues that are connected to the delivery and impact of the specific innovation should also be addressed in the Concept Note.

**Project duration:** Projects will be supported for up to 3 years.

## Further information

The Program Document that describes the BioInnovate Program is available at [www.bioinnovate-africa.org](http://www.bioinnovate-africa.org). Those interested in submitting Concept Notes are encouraged to read the full project document as this conveys in more detail the scope and expectations of the Program. Special attention should be paid in the BioInnovate Program Document to Chapter 3 (pp 17-21), which describes the Scope of the Program; and Chapter 5 (pp. 27-30), which describes the Competitive Grants Scheme. This information will assist applicants in preparing the Concept Notes. For any additional information, please contact the BioInnovate Program Management Team by email at [bioinnovate@cgiar.org](mailto:bioinnovate@cgiar.org). Any additional information on the Call that is provided to an applicant in response to an email enquiry will be shared anonymously with all potential applicants via the BioInnovate web page in a Frequently Asked Questions (FAQs) section.

## Section 4 Selection Criteria, Selection Process and Timelines

### Initial Selection Criteria

Concept Notes will be screened initially by the Program Management Team to ensure they meet the following minimum selection criteria:

1. **Concept Note format:** Concept Note is prepared in accordance with the designated Proforma for BioInnovate Concept Notes (available at [www.bioinnovate-africa.org](http://www.bioinnovate-africa.org)), with no additional attachments apart from a single Annex containing one page CVs of Principal Investigators (PIs) and co-PIs. All questions in the Proforma are to be answered.
2. **Concept Note length:** Concept Note itself (excluding Annex 1 with the CVs) is to be not longer than 10 pages. It should be prepared as a Word Document, using Times New Roman, 11 pt.
3. **Regional leadership:** The Concept Note should briefly describe the partners in the proposed project and designate the Project Leader, who must be from a public or private entity located in one of the six BioInnovate participating countries (Burundi, Ethiopia, Kenya, Rwanda, Tanzania and Uganda).

If one or more of these three initial selection criteria are not met, the Concept Note will not be considered further.

### Technical Selection Criteria

Concept Notes that meet the initial selection criteria will be assessed by BioInnovate's independent Technical Advisory Committee (TAC), against the following criteria, to ensure their alignment with the key principles for BioInnovate (as described in Section 3 above on Guidelines for Applications).

The technical selection criteria and the maximum points that may be awarded for each selection criterion are given below. The maximum possible points per selection criterion is either 10 points (for the first priority criteria) or 5 points (for the second priority criteria). The maximum possible total points for all selection criteria combined are 100 points. Thus each Concept Note will be given a ranking score of points out of 100.

## **Selection Criteria**

### ***Regional approach (10 points)***

Rationale that a regional approach is more effective than individual, national projects.

### ***Potential for economic and social impact (10 points)***

Potential to stimulate economic growth and sustainable development in the region

Evidence of demand for innovation in target sector

Assessment of costs of development and dissemination of the proposed innovations

What is the development goal to be addressed?

### ***Content of the Concept Note (10 points)***

Relevance to adapting and/or mitigating the effects of climate change

Quality and relevance of the approach

Likely chances of success

How does the proposed project fit within the BioInnovate priority areas of Themes 1 and/or 2, and with demonstrated relevance to climate change adaptation?

Any possible integration of the proposed project between the two Themes e.g. outputs or activities relevant to both Themes?

### ***Pathway to impact (10 points)***

Clear innovation pathway that demonstrates the necessary linkages along the innovation chain to ensure delivery to identified end users.

### ***Adding value to existing efforts (10 points)***

Demonstrated complementarities and/or collaboration with regional programs and other existing efforts, such as the AU/NEPAD African Biosciences Initiative, including the BecA/ILRI Hub in Nairobi; CAADP; ASARECA; FARA; ECA, IGAD, etc.

### ***Matching funds (10 points)***

Matching funds identified from the partners and/or other investors, including governments and/or development agencies.

### ***Institutional support (10 points)***

Demonstration of strong institutional support from partners, including in kind support (e.g. staff time).

### ***Team leadership (10 points)***

Track records of the proposed Team Leader (Principal Investigator) and the Co-PIs.

**Team composition (5 points)**

Team composition is multidisciplinary, multi-country, with regional leadership, includes both public and private entities, and is comprised of a minimum of 4 and a maximum of 6 partners, (as per the Concept Note guideline for applications, on Team composition).

**Communications plan (5 points)**

Coherent plan for how the project outputs and results will be communicated to the public, policy makers and potential end users? It is expected that a range of media and communications tools will be used during the course of the proposed project.

**Intellectual property and other policy issues (5 points)**

The Concept Note should show if any IP issues are identified and how these will be addressed. Any other policy issues that are connected to the delivery and impact of the specific innovation should also be addressed in the Concept Note.

**Monitoring and Evaluation plan (5 points)**

Inclusion of a strong internal monitoring and evaluation plan; including annual indicators of success, for monitoring progress of the proposed project towards results.

**Selection Process**

During the selection process, the Program Management Team will consult closely with the BioInnovate independent Technical Advisory Committee (TAC) and with the Eastern Africa Councils/ Commissions for Science and Technology, so as to ensure the proposed projects are consistent with regional and national priorities for economic and social development for the countries of eastern Africa.

**Submission procedures for Concept Notes**

Please send Concept Notes, prepared in accordance with the “BioInnovate Africa Proforma for First Call for Concept Notes”, by email to [bioinnovate-calls@cgiar.org](mailto:bioinnovate-calls@cgiar.org)

*Deadline for receipt of Concept Notes: Midnight, Nairobi time, July 9 2010*

**Proforma for preparation of Concept Notes:**

A Proforma to guide the preparation of the Concept Notes is attached (Attachment 1). The Proforma is also available at [www.bioinnovate-africa.org](http://www.bioinnovate-africa.org). *Please use this format when preparing the Concept Notes. Some explanatory notes are given under each heading in the proforma to highlight the priority items to be addressed in each section, relevant to the selection criteria.*

The Concept Notes should be not longer than 10 pages, when prepared as a Word Document in Times New Roman, 11 point font. One page CVs of the Principal Investigator (PIs) and not more than 5 Co-PIs from the partners may be added in a single Annex to the Concept Note, as part of the submission. No other Annexes will be accepted with the submission. Any information

beyond the 10 page limit will not be considered. When preparing the Concept Note, please take account of the information provided in Sections 2-4 above on the scope, guidelines and the selection criteria for the First Call.

### **Proposed Schedule for Competitive Grants Scheme First Call 2010**

- June 9** First Call for Concept Notes posted on websites and circulated widely.
- July 9** Deadline for receipt of Concept Notes.
- July 16** Initial screening of Concept Notes by BioInnovate Program Management Team completed.
- August 6** Review of eligible concept notes by TAC, completed at first TAC meeting in early August.
- August 9** Invitations sent to successful applicants to prepare full Proposals. Some funds will be made available to enable proposed Project teams to meet to prepare full Proposals during August/early September.
- August 10** Unsuccessful applicants will be notified and feedback on their Concept Notes provided shortly thereafter.
- Sept. 10** Deadline for submission for full Proposals.
- Sept. 24** External peer reviews of full Proposals by independent experts completed.
- Sept. 29** Review of full Proposals and peer reviewers' comments by TAC and decisions made at second TAC meeting in late September on which Proposals will be supported by BioInnovate Program.
- Sept. 30** Teams advised of results of BioInnovate competitive grants process, with feedback on all proposals provided shortly thereafter.

### **Conditions of submission**

Submission of a Concept Note implies acceptance of all rules and notices included in these guidelines, including that the decision of the TAC is final.

The proponent also agrees that, should a subsequent proposal be approved and a contract entered into, that the proposal and budget will be posted on the BioInnovate web page.

The names of external peer reviewers are confidential and will not be released under any circumstances. Scores allocated by reviewers (including TAC) will not be released; however, feedback based on the comments of reviewers will be provided to applicants.

Any questions regarding the process or content of this Call can be made to the BioInnovate Program Manager at [bioinnovate@cgiar.org](mailto:bioinnovate@cgiar.org) up to June 30 2010. All questions and answers will be made publically available on the FAQ area of the BioInnovate web site ([www.bioinnovate-africa.org](http://www.bioinnovate-africa.org)).

# Attachment 1

## BioInnovate Africa: Proforma for First Call for Concept Notes

Please use this format when preparing BioInnovate Concept Notes. Some explanatory notes are given under each heading in the Proforma below to highlight the priority items to be addressed in each section. Deadline for receipt of applications is July 9 2010. Please submit to [bioinnovate-calls@cgjar.org](mailto:bioinnovate-calls@cgjar.org)

### 1. Title of the proposed project

### 2. Abstract (250 word summary)

### 3. Background and rationale for the proposed project

#### **Positioning of proposed project within the BioInnovate Thematic Areas**

*How does the proposed project fit within the BioInnovate priority areas of Themes 1 and/or 2, and with demonstrated relevance to climate change adaptation?*

#### **Regional approach**

*Rationale that a regional approach is more effective than individual, national projects.*

#### **Potential for economic and social impact**

*Potential to stimulate economic growth and sustainable development in the Region*

*Evidence of demand for innovation in target sector.*

*What is the development goal to be addressed?*

### 4. Project Plan

#### **Content of the proposed project**

*Relevance of proposed project to adapting and/or mitigating the effects of climate change; quality and relevance of the approach; likely chances of success.*

#### **Project goal and purpose**

*Specific project goal, derived from development goal.*

#### **Objectives**

*Specific objectives linked to achieving the stated development goal.*

#### **Outputs and activities**

*Specific outputs and activities to achieve objectives.*

#### **Outcomes**

*Intended outcomes that will contribute to economic and social development in the Region.*

## 5. Pathway to Impact

*Clear innovation pathway that demonstrates the necessary linkages along the innovation chain to ensure delivery of results to identified end users.*

## 6. Adding value to existing efforts

*Demonstrate how the proposed project would complement and/or collaborate with other regional programs and other existing efforts, such as the AU/NEPAD African Biosciences Initiative, including the BecA/ILRI Hub in Nairobi; CAADP; ASARECA; FARA; ECA, IGAD, etc.*

## 7. Matching funds

*Identify any matching funds coming from the partners and/or other investors, including governments and/or development agencies;*

## 8. Institutional support

*Demonstrate strong institutional support from partners for the proposed project, including any in kind contributions, such as staff time;*

## 9. Team Leadership, Composition and Roles of Partners

### **Team leadership**

*Demonstrate strong track records of the proposed team leader - PI (Principal Investigator) and the Co-PIs; one page CVs for the PI and the co-PIs to be included as Annex 1.*

### **Team composition and roles of various partners**

*Identify the partners who will be participating in the proposed project and the role of each partner in the proposed project. Teams should be multidisciplinary and multi country, with partners mainly coming from within the eastern Africa region.*

*Each team to include at least two institutions drawn from the public and/or private sectors in different BioInnovate participating countries in eastern Africa; one of the partners from within the region will be the designated project lead institution; the team should include at least one private sector company or NGO; and the team should include at least one other collaborator from within or outside the region; with a minimum of four and a maximum of six partners in the project.*

**Principal Investigator/s** – Name and position of the Team Leader and his/her respective lead organization. Provide at least two examples of previous team management experience including a referee who may be contacted by BioInnovate to verify any information.

**Co-Principal Investigators at Partner organizations** – Name and positions and their respective organizations (e.g. National agricultural research institutes; regional organizations).

**Research for development partners** - e.g. other national agricultural research institutes; regional research organizations; international research partners.

**Development/delivery partners** - e.g. private sector, civil society, national government agencies; other development agencies.

## **10. Intellectual Property and Other Policy Issues**

*The Concept Note should show if any IP issues are identified and how these would be addressed in the proposed project. Any other policy issues that are connected to the delivery and impact of the specific innovation should also be addressed in the Concept Note.*

## **11. Monitoring and Evaluation Plan**

*Include an internal monitoring and evaluation plan, including indicators for monitoring progress of the project towards results; include milestones, time frame and indicators of success.*

### **Milestones and time frame**

*Milestones to assess progress towards achieving outputs; Outputs to be linked to time frame for achieving milestones, by six monthly periods, with projects lasting up to 3 years.*

### **Indicators of progress towards results**

*Include annual indicators to assess progress towards achieving development outcomes (e.g. distribution and uptake of new technologies, adoption of new policies, etc).*

## **12. Communications**

*Include a Communications plan for how the project outputs and results will be communicated to the public, policy makers and potential end users.*

## **13. Indicative total project budget and project duration**

*Indicate total budget request to BioInnovate, and preferred duration of proposed project. Indicate any other sources of current or likely future financial support, which would complement BioInnovate support to the Proposal.*

## **Annex 1 Team leadership details**

*Please attach as a single Annex, the one page curriculum vitae (CVs) for the Principal Investigator (PI) who will be leading the overall effort; and also one page CVs of the co-PIs from the other partners, who will be leading their respective partner teams within the overall proposed project.*