



**National Science Foundation
4201 Wilson Boulevard
Arlington, Virginia 22230**

NSF 12-104

Dear Colleague Letter - FY 2014 EFRI Topic Ideas

DATE: July, 9, 2012

FY 2014 EFRI Topic Ideas

**SUBJECT: Seeking Community Input for Topic Ideas for FY 2014
Emerging Frontiers in Research and Innovation.**

DEADLINE: September 14, 2012

Wiki Discussion Commences: July 15, 2012

The purpose of this Dear Colleague letter (DCL) is to invite the research community to submit suggestions for **Topic Ideas** to be considered for the FY 2014 Emerging Frontiers in Research and Innovation (EFRI) Program Solicitation.

Suggestions for EFRI Topic Ideas are currently solicited and vetted every two years. Selected Topics become the foci of EFRI-supported research. Solicitations are announced annually for research proposals that fall under the specified Topic areas.

This DCL is not a request for submission of a single research proposal idea; rather, it is meant to generate potential topic areas of emerging transformational research and innovation. You may submit your candidate topic idea along with a one-page description by visiting <http://nsf.gov/eng/efri/efri2014/>. Please follow the instructions provided.

The deadline for submission is **September 14, 2012**.

BACKGROUND: EFRI was established in FY 2007 to serve a critical role in focusing the engineering community on important emerging areas in a timely manner. Each year, EFRI evaluates, recommends, and funds interdisciplinary initiatives at the emerging frontiers of engineering research and innovation. These transformative opportunities may lead to: new research directions; new industries or capabilities that result in a leadership position for the country; and/or significant progress on a recognized National need or grand challenge.

EFRI invests in high risk opportunities with high potential payoff. Its role is to support research opportunities that would be difficult to fund through the current funding mechanisms of EARly-concept Grants for Exploratory Research (EAGER), typical core program awards, or large research center awards. These frontier ideas cannot be pursued by one researcher or within one field of expertise. They are "frontier" because they not only push the limits of knowledge of one field, but actually overlap multiple fields. The EFRI funding process is designed to both inspire and enable several different experts to work together on one frontier idea.

EFRI Program is perpetually gathering information for use in deciding future research topic areas to support. This process operates continually, ensuring input and feedback from the engineering community on promising upcoming research opportunities. This input comes from diverse sources as workshops, advisory committees, proposals and awards, technical meetings, and professional

societies as well as from the individual engineering researchers. From this comprehensive input, the EFRI team identifies, evaluates, and prioritizes those frontier topics that best match the EFRI criteria.

In order to provide a wider and more direct opportunity for the research community to provide input on selection of topic ideas for FY 2014, the NSF EFRI team is inviting the community to submit emerging-frontier Topic Idea suggestions for consideration by NSF.

YOUR OPPORTUNITIES TO CONTRIBUTE:

(1) Submit Via EFRI2014 link: <http://nsf.gov/eng/efri/efri2014/>

The topic ideas you submit should provide forward-looking views and identify opportunities in emerging frontiers of research and innovation; the topic ideas should not simply summarize or justify your own ongoing research activities. Note that topics or areas of opportunity should be those that cannot be supported through other programs at NSF. All the information you submit will remain confidential. NSF staff will review submitted candidate topic ideas in consultation with external experts. NSF plans to invite up to ten submitters to NSF for further discussions on their proposed topic. Those submitters selected to present their frontier idea suggestions at NSF will be notified by mid-December and invited to come to Arlington, VA in January, 2013.

(2) Via Wiki (NEW!) - <https://extwiki.nsf.gov/display/efriwiki2014>

- Pose a Topic to the Community: Before you formally submit your idea the EFRI2014 link, you may choose to post it to the EFRI-Wiki in order to gather comments from the Scientific/Engineering community and refine the idea. To log on, you will be asked for a name or alias of the user (first and last names) and a functioning e-mail address in the US. These items will be the only identifying information known to NSF and general users of the Wiki site.

IMPORTANT: Clearly, if you use this Wiki mechanism for refining your idea, the idea will be visible to the general public during its discussion and development. The Wiki site is a service to those interested in proposing topic ideas, **but it is NOT a means of submitting those ideas for consideration by EFRI Office**. It is still necessary to submit the ideas at the EFRI2014 link. It is highly advisable (but not required) that those using the Wiki site post their initial ideas by August 15, 2012 to allow time for comments.

To gain access to the Wiki site, go to <https://extwiki.nsf.gov/signup.action>, and create an account. Then navigate to <https://extwiki.nsf.gov/display/efriwiki2014> to view the Wiki content and start or join a conversation.

- **Comments from the Community (NEW!):** Whether you are contributing an idea for an EFRI topic or not, your insight and commentary are welcome and helpful in the development of these ideas. Simply visit the EFRI-Wiki site at your convenience; read the ideas and comments and contribute your own. Follow the instructions above to gain access to the Wiki site.

We thank you in advance for taking the time to submit your emerging frontier ideas to the NSF Directorate for Engineering.

Sincerely,

Sohi Rastegar
Director, Office of
Emerging Frontiers in Research, Innovation,
and Interdisciplinary Activities (EFRI²)