



DEPARTMENT OF COMMERCE

National Institute of Standards and Technology

Docket Number: [160914846-6846-01]

Announcement of Requirements and Registration for National Institute of Standards and Technology Prize Competition – Federal Impact Assessment Challenge

AGENCY: National Institute of Standards and Technology, Commerce.

ACTION: Notice.

SUMMARY:

In 2011, President Obama issued a Presidential Memorandum – *Accelerating Technology Transfer and Commercialization of Federal Research in Support of High-Growth Businesses* - which called on Federal agencies to establish performance goals, metrics, evaluation methods, and implementation plans to improve the effectiveness of Federal technology transfer activities. The President's charge has stimulated agency interest in studies that assess the impact of technologies transferred from Federal laboratories.

In an effort to encourage research in this area, the National Institute of Standards and Technology and the *Journal of Technology Transfer* present a Federal Impact Assessment (FIA) Challenge for researchers to develop impact studies of Federal technology transfer activities.

The FIA Challenge calls on researchers to perform original retrospective studies that assess the impact of federally developed technologies that 1) have been developed completely or in part by Federal researchers working at any Federal agency at any time over the past 30 years, and 2) have been transferred to an entity other than the agency which developed the technology.

DATES:

Submission Period: [PLEASE INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]- March 31, 2017.

Announcement of Winners: April 28, 2017

The Submission Period begins [PLEASE INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER], at 9:00 AM Eastern Time (ET) and ends March 31, 2017, at 5:00 PM ET. Prize competition dates are subject to change at the discretion of NIST. Entries submitted before or after the Submission Period will not be reviewed or considered for award.

FOR FURTHER INFORMATION CONTACT:

Changes or updates to the prize competition rules will be posted and can be viewed at the Event Website, <https://www.challenge.gov/challenge/federal-impact-assessment-challenge>.

Questions about the prize competition can be directed to NIST via the Event Website, <https://www.challenge.gov/challenge/federal-impact-assessment-challenge> or by email to Michael Walsh at michael.walsh@nist.gov, phone 301-975-5455.

Results of the prize competition will be announced on the Event Website, <https://www.challenge.gov/challenge/federal-impact-assessment-challenge> and on the NIST website, www.nist.gov.

SUPPLEMENTARY INFORMATION:**FIA Challenge Sponsors**

The National Institute of Standards and Technology (NIST; www.nist.gov) is a non-regulatory Federal agency within the United States Department of Commerce. Founded in 1901, NIST's mission is to promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security and improve our quality of life. NIST's Technology Partnerships Office (TPO) is part of NIST's Innovation and Industry Services directorate that is responsible for the NIST suite of partnership programs. TPO works with regional, state and local economic development organizations, technology incubation centers, public-private business development initiatives, and other organizations and partnerships, to facilitate the transfer of technologies developed within NIST laboratories to the private and nonprofit sectors through licensing and/or collaboration. NIST scientists conduct measurement science research, create technologies and make discoveries in nearly every scientific and technological field.

The *Journal of Technology Transfer* (<http://link.springer.com/journal/10961>), the official journal of the Technology Transfer Society, provides an international forum for the exchange of ideas that enhance and build an understanding of the practice of technology transfer. In particular, it

emphasizes research on management practices and strategies for technology transfer. Moreover, the journal explores the external environment that affects these practices and strategies, including public policy developments, regulatory and legal issues, and global trends.

Eligibility Rules for Participating in the FIA Challenge

At the time of Entry, participants must meet the following Eligibility Rules:

The FIA Challenge is open to all individuals over the age of 18 that are residents of the 50 United States, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, Guam, the Commonwealth of the Northern Mariana Islands, and American Samoa, and to for-profit or non-profit corporations, institutions, or other validly formed legal entities organized or incorporated in, *and* which maintain a primary place of business in, any of the preceding jurisdictions. An individual, whether participating singly or with a group, must be a citizen or permanent resident of the United States.

Federal employees are not eligible to participate. Any individuals or legal entities that have received Federal funds for the development of any part of a submission are ineligible. Any other individuals or legal entities involved with the design, production, execution, distribution or evaluation of the FIA Challenge are also not eligible to participate.

A Participant shall not be deemed ineligible because the Participant consulted with Federal employees or used Federal facilities in preparing its submission to the FIA Challenge if the employees and facilities are made available to all Participants on an equitable basis. Note that while Federal employees may provide information to Participants, they are not obligated to respond to information requests within the time frame of this Challenge. The task of gathering information for this Challenge in a timely manner is the sole responsibility of the Participant.

To be eligible to win a Cash Award, a Participant (whether an individual or legal entity) must have registered to participate and must have complied with all requirements under section 3719 of title 15, United States Code (“Prize competitions”).

Multiple entries are permitted. Each entry will be reviewed independently. Multiple individuals and/or legal entities may collaborate as a group to submit a single entry, in which case all members of the group must satisfy the eligibility requirements, and a single individual from the group must be designated as an official representative for each entry. That designated individual will be responsible for meeting all entry and evaluation requirements. Participation is subject to all U.S. federal, state and local laws and regulations. Individuals entering on behalf of or representing a company, institution or other legal entity are responsible for confirming that their entry does not violate any policies of that company, institution or legal entity.

Entry Process for Participants

To enter, visit the Event Website, <https://www.challenge.gov/challenge/federal-impact-assessment-challenge>. Submit a Federal Impact Assessment (hereafter, “Paper”) that meets the selection criteria described below.

The FIA Challenge calls on Participants to write an original Paper describing a retrospective assessment of the economic and/or societal impacts resulting from the transfer of a Federal technology developed completely or in part by Federal researchers working at any Federal agency at any time over the past 30 years.

For this FIA Challenge, “Federal technologies” are those techniques, machines, articles of manufacture, compositions of matter, methods, processes, tools, or works of authorship, whether or not patentable or copyrightable, that were invented or developed in whole or in part by one or more Federal employees during the course of their employment duties.

Transfer of a Federal technology (technology transfer) is the use of that technology by an entity outside of the agency where the Federal employee(s) was assigned. There are many different means by which the Federal government seeks to transfer technologies. Technologies can be transferred through formal agreements (e.g., licenses, or Cooperative Research and Development Agreements) or through informal exchanges (e.g., publications, conference presentations or informal collaborations).

Eligible technologies must meet two criteria, namely 1) the technology must have been developed in whole or in part by a Federal employee(s) during the course of his or her employment duties at any time over the past 30 years, and 2) the technology must have been transferred outside the Federal agency in a manner that can be traced back to that Federal agency. Technologies that have been developed entirely outside of a Federal agency or that have been developed entirely by non-Federal employees (even though with federal funding) are not eligible. Technologies that have not been transferred by a Federal agency are also not eligible. Information about federally transferred technologies and technology transfer success stories can be found on the Federal Laboratories Consortium (FLC) website at www.federallabs.org. For a list of Federal agencies that prepare annual technology transfer reports, see <http://nist.gov/tpo/publications/agency-technology-transfer-reports.cfm>.

For the FIA Challenge, it is envisioned that impacts of a given Federal technology(ies) are determined by an assessment of repercussions that have accrued to those who have either utilized Federal technologies in research or development activities, and/or consumed goods or services enabled by Federal technologies. The objective of the FIA Challenge is to develop metrics that measure economic and societal impacts. These metrics will then be available to stakeholders and policy makers to evaluate the net impact of federally developed technologies (i.e., impact less development costs).¹ Impacts may be assessed at the local, regional, national, or global levels using economic data or other societal data (e.g., measures of health, safety, or security). A variety of assessment methodologies could be used by Participants in this Challenge. Examples of commonly used approaches can be found in the citations provided by NIST online at <http://nist.gov/tpo/publications/other-economic-impact-related-studies.cfm>.

Papers submitted to this challenge that have previously been published or that have been prepared using Federal funds are not eligible (e.g., Federal agency reports, reports prepared by

¹ Note that the assessment of an agency’s development cost for a given technology is not part of the FIA Challenge.

Federally Funded Research and Development Centers, or reports prepared by funded intermediaries on behalf of Federal agencies.)

A complete Entry includes your Paper (including any figures, tables, and references), the email address of the Participant who is officially representing the Entry, and confirmation that you have read and agree to the Competition Rules contained in this Notice. Participants may provide submissions beginning at 9:00 AM ET on [PLEASE INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER], to the Event Website. Submissions can be made no later than 5:00 PM ET on March 31, 2017, to the Event Website.

Submissions before the start date and time, or after the end date and time, will not be evaluated or considered for award. Entries sent to NIST in any manner other than through the Event Website will not be evaluated or considered for award. Entries that do not comply with the formatting requirements set forth in this Notice will not be evaluated or considered for award.

Entries must be complete, must contain no confidential information and must be in English.

In general, each Entry:

- a) must affirmatively represent that the Participant (and each Participant if more than one) has read and consents to be governed by the Competition rules and meets the eligibility requirements;
- b) must include an original Paper not prepared using Federal funds. Specifically, the Paper must:
 1. Include the Participant(s) and the email address of the Participant who is officially representing the Entry.
 2. include text, figures, tables and references that describes a retrospective impact assessment of a federally developed technology(ies),
 3. be an original work not previously published in any media (i.e., including but not limited to printed or otherwise reproduced text/graphics for sale or distribution to the public),
 4. be a single file submitted in .doc, .docx, or .pdf format with text, figures, tables, and references contained within the Paper. There is no page limit,
 5. provide an assessment of the economic and/or societal impacts of a technology or technologies that have been developed completely or in part by Federal researchers working at any Federal agency at any time over the past 30 years, and must have been transferred from a Federal agency,
 6. provide a complete description of the impact methodology, including a description of the metrics used for the impact assessment. Citations of Federal technologies must be provided, for example by listing patent numbers, as well as citations of the transfer of the technologies to the private sector, for example by listing products and companies using licensed Federal technologies,
 7. meet the Evaluation Criteria described below in the Evaluation, Judging, and Selection of Winner(s) sections, and
 8. include original figures, tables, and text passages or, if any of these have been published elsewhere, Participants must have obtained written permission, at

Participants' sole expense, from the copyright owner(s) for both the irrevocable use and distribution by NIST of the figure, tables, or text passages, in both print and online formats and evidence that such permission has been granted must be provided in the Paper. Any material received without such evidence will be assumed to originate from the authors;

- c) must include in a separate section on the title page of the Paper, an acknowledgement of any individuals, grants, funds, or other entities that provided support for the Paper. Participants must disclose all relationships or interests that could have direct or potential influence or impart bias on the work.

FIA Challenge Award(s)

The Prize Purse for the FIA Challenge is a total of \$20,000. The Prize Purse may increase, but will not decrease. Any increases in the Prize Purse will be posted on the Event Website and published in the Federal Register. The Prize Purse will be used to fund one or more awards.

NIST will announce via the Event Website any Entry(ies) as to which the Judges have made a cash award (each, an "Award"). The anticipated number and amount of the Awards that will be awarded for this Competition is set forth in this Federal Register Notice; however, the Judges are not obligated to make all or any Awards, and reserve the right to award fewer than the anticipated number of Awards in the event an insufficient number of eligible Entries meet any one or more of the Judging Criteria for this Competition, based on the Judges' evaluation of the quality of Entries and in their sole discretion. Awards will be made based on the Judges' evaluation of an Entry's compliance with the Judging Criteria for this Competition. All potential winners will be notified by the e-mail address provided in the submission document and may be required to complete further documentation confirming their eligibility. Return of any notification as "undeliverable" will result in disqualification. After verification of eligibility, Awards will be distributed in the form of a check or electronic funds transfer addressed to the official representative specified in the winning Entry. That official representative will have sole responsibility for further distribution of any Award among Participants in a group Entry or within a company or institution that has submitted an Entry through that representative. Each list of Entries receiving Awards for the Competition will be made public according to the timeline outlined on the Event Website.

Winners are responsible for all taxes and reporting related to any Award received as part of the Competition.

All costs incurred in the preparation of Competition Entries are to be borne by Participants.

Evaluation, Judging, and Selection of Winner(s)

Submission Evaluation Criteria

This section discusses how Participant submissions will be evaluated.

Entry Submission and Review

The requirements for submission of a complete Entry are detailed in the section “Entry Process for Participants.” Each Paper will be reviewed by up to three subject matter experts. Each subject matter expert will assess how well the Paper addressed each of the following evaluation criteria. For each criterion, subject matter experts will assign a numerical score and will provide a brief (50 to 100 word) assessment of how well that criterion was met.

Evaluation Criteria

1. Description of the technology. (20 points)
Papers must include a description of the technology being analyzed. In addition to describing the function and purpose of the technology, the description must also identify where and when the technology was developed, when the technology was transferred, and how the technology was transferred. Papers will be evaluated based on the presentation of a clear and adequate description of the technology being assessed.
2. Description of the demand environment. (30 points)
Papers must include a description of the demand environment. The demand environment is the environment in which the technology is utilized after it has been transferred from the agency. Papers should describe the types and number of individuals and/or organizations that utilize the technology. This should include researchers, consumers, and companies that make up the markets and industries affected. Papers will be evaluated based on the presentation of a clear and adequate description of the demand environment.
3. Description of methodologies used to gather and assess impact data. (20 points)
Papers must include a description of how impact data was gathered and assessed. This includes a description of all data sources, techniques used to clean, adjust or normalize data, and statistical methods employed. Papers will be evaluated based on the creativity and appropriateness of the methodology used to gather data and assess impacts.
4. Description of the economic and/or societal impacts that resulted from the technology transferred from the Federal agency. (30 points)
Papers must describe the economic and/or societal impact that resulted from the utilization of the technology once transferred from the agency. The description must be based on the evidence gathered and the statistical method(s) used to assess impacts in the demand environment. The description must include clearly defined metrics that allow for the benchmarking of impacts over time. Papers will be evaluated based on the degree to which reported impacts are presented in an accurate, unbiased, comprehensive, and convincing manner.

Up to 15 Papers will be selected for evaluation by the Judges. Selected papers will be the lesser of either (1) all papers with an average subject matter expert score of 70 or higher, or (2) the top 15 papers with the highest average subject matter expert scores.

A panel of three judges will then be convened to rank the selected Papers.

Judges will review each of the selected Papers and the corresponding reviews provided by subject matter experts. Judges will deliberate and then rank them using the following equally weighted Judging Criteria.

- **Novelty of the Approach** – The extent to which each Paper describes a new, creative, or innovative approach to capturing the impact of a Federally funded technology(ies).
- **Scope of the Assessment** – The extent to which each Paper addresses the scope of impact from the transfer of a Federally funded technology.
- **Quality of the Paper** – The extent to which each Paper present a high-quality, well-reasoned and compelling argument for capturing the impact of a federal funded technology(ies).

Participant(s) who submitted a Paper that is among the top four Papers ranked by the Judges will receive \$5,000 and an invitation to have the Paper considered for publication in a special issue of *The Journal of Technology Transfer* (“Journal”), or another issue as determined by the Journal’s editorial board. Participants accepting this invitation who submit their Paper to the Journal must comply with the Journal’s “Instructions for Authors.”

(See:<http://www.springer.com/business+%26+management/journal/10961>)

Papers submitted will be peer-reviewed using the processes of the Journal, and acceptance for publication is wholly within the Journal’s discretion, and is not guaranteed.

Subject Matter Experts and Judging Panel

Subject Matter Experts, to be selected by NIST, will, as a body, represent a high degree of experience with impact assessment and federally funded technologies. Subject Matter Experts will consist of Federal employees and will be subject matter experts in the technology field. Subject Matter Experts will not select winners of any awards.

The NIST Director will appoint a panel of highly qualified Judges. The Judging Panel will consist of three individuals who are experts in the field of assessing economic or societal impacts. Judges will deliberate and rank proposals according to the Judging Criteria described above. The top four proposals ranked by the Judges will be selected to receive an Award. Judges may not have personal or financial interests in, or be an employee, officer, director, or agent of, any entity that is a registered Participant in this Competition and may not have a familial or financial relationship with an individual who is a registered Participant. In the event of such a conflict, a Judge must recuse himself or herself. Should this occur a new Judge may be appointed to the panel.

Intellectual Property Rights

Other than as set forth herein, NIST does not make any claim to ownership of your Entry or any of your intellectual property or third party intellectual property that it may contain. By participating in the Competition, you are not granting any rights in any patents or pending patent applications related to your Entry; provided that by submitting an Entry, you are granting NIST certain limited rights as set forth herein.

By submitting an Entry, you grant to NIST the right to review your Entry as described above in the section “Entry Submission and Review,” to describe your Entry in connection with any materials created in connection with the Competition and to have the Subject Matter Experts, Judges, Competition administrators, and the designees of any of them, review your Entry.

By submitting an Entry, you grant a non-exclusive, irrevocable, paid up right and license to NIST to use your name, likeness, biographical information, image, any other personal data submitted with your Entry and the contents in your Entry, in connection with the Federal Impact Assessment Challenge for any purpose, including promotion and advertisement of the Challenge and future challenges.

You agree that nothing in this Notice grants you a right or license to use any names or logos of NIST or the Department of Commerce, or any other intellectual property or proprietary rights of NIST or the Department of Commerce or their employees or contractors. You grant to NIST the right to include your name and your company or institution name and logo (if your Entry is from a company or institution) as a Participant on the Event Website and in materials from NIST announcing winners of or Participants in the Competition. Other than these uses or as otherwise set forth herein, you are not granting NIST any rights to your trademarks.

If your Entry is selected as a Winner, you will be invited to submit your Paper for publication in the Journal of Technology Transfer. If you opt to submit your Paper to the Journal, you will enter into an agreement with the Journal and nothing in this Notice alters the peer review, publication, and other processes practiced by the Journal.

Entries containing any matter which, in the sole discretion of NIST, is indecent, defamatory, in obvious bad taste, which demonstrates a lack of respect for public morals or conduct, which promotes discrimination in any form, which shows unlawful acts being performed, which is slanderous or libelous, or which adversely affects the reputation of NIST, will not be accepted. If NIST, in its sole discretion, finds any Entry to be unacceptable, then such Entry shall be deemed disqualified and will not be evaluated or considered for award. NIST shall have the right to remove any content from the Event Website in its sole discretion at any time and for any reason, including, but not limited to, any online comment or posting related to the Competition.

Confidential Information

By making a submission to the FIA Challenge, you agree that no part of your submission includes any confidential or proprietary information, ideas or products, including but not limited to information, ideas or products within the scope of the Trade Secrets Act, 18 USC §1905. Because NIST will not receive or hold any submitted materials “in confidence,” it is agreed that, with respect to your Entry, no confidential or fiduciary relationship or obligation of secrecy is established between NIST and you, your Entry team, the company or institution you represent when submitting an Entry, or any other person or entity associated with any part of your Entry.

Warranties

By submitting an Entry, you represent and warrant that all information you submit is true and complete to the best of your knowledge, that you have the right and authority to submit the Entry on your own behalf or on behalf of the persons and entities that you specify within the Entry, and that your Entry (both the information and software submitted in the Entry and the underlying technologies or concepts described in the Entry):

- (a) is your own original work, or is submitted by permission with full and proper credit given within your Entry;
- (b) does not contain confidential information or trade secrets (yours or anyone else's);
- (c) does not knowingly, after due inquiry (including, by way of example only and without limitation, reviewing the records of the United States Patent and Trademark Office and inquiring of any employees and other professionals retained with respect to such matters), violate or infringe upon the patent rights, industrial design rights, copyrights, trademarks, rights in technical data, rights of privacy, publicity or other intellectual property or other rights of any person or entity;
- (d) does not contain malicious code, such as viruses, malware, timebombs, cancelbots, worms, Trojan horses or other potentially harmful programs or other material or information;
- (e) does not and will not violate any applicable law, statute, ordinance, rule or regulation, including, without limitation, United States export laws and regulations, including, but not limited to, the International Traffic in Arms Regulations and the Department of Commerce Export Regulations; and
- (f) does not trigger any reporting or royalty or other obligation to any third party; and
- (g) does not contain any statement that is abusive, defamatory, libelous, obscene, fraudulent, or is in any other way unlawful or in violation of applicable laws.

Limitation of Liability

By participating in the FIA Challenge, you agree to assume any and all risks and to release, indemnify and hold harmless NIST and the *Journal of Technology Transfer* from and against any injuries, losses, damages, claims, actions and any liability of any kind (including attorneys' fees) resulting from or arising out of your participation in, association with or submission to the FIA Challenge (including any claims alleging that your Entry infringes, misappropriates or violates any third party's intellectual property rights). In addition, you agree to waive claims against the Federal Government and its related entities, except in the case of willful misconduct, for any injury, death, damage, or loss of property, revenue, or profits, whether direct, indirect, or consequential, arising from your participation in the FIA Challenge, whether the injury, death, damage, or loss arises through negligence or otherwise.

NIST is not responsible for any miscommunications such as technical failures related to computer, telephone, cable, and unavailable network or server connections, related technical

failures, or other failures related to hardware, software or virus, or incomplete or late Entries. Any compromise to the fair and proper conduct of the FIA Challenge may result in the disqualification of an Entry or Participant, termination of the FIA Challenge, or other remedial action, at the sole discretion of NIST. NIST reserves the right in its sole discretion to extend or modify the dates of the FIA Challenge, and to change the terms set forth herein governing any phases taking place after the effective date of any such change. By entering, you agree to the terms set forth herein and to all decisions of NIST and/or all of their respective agents, which are final and binding in all respects.

NIST is not responsible for: (1) Any incorrect or inaccurate information, whether caused by a Participant, printing errors, or by any of the equipment or programming associated with or used in the FIA Challenge; (2) unauthorized human intervention in any part of the Entry Process for the FIA Challenge; (3) technical or human error that may occur in the administration of the FIA Challenge or the processing of Entries; or (4) any injury or damage to persons or property that may be caused, directly or indirectly, in whole or in part, from a Participant's participation in the FIA Challenge or receipt or use or misuse of an Award. If for any reason an Entry is confirmed to have been deleted erroneously, lost, or otherwise destroyed or corrupted, the Participant's sole remedy is to submit another Entry in the FIA Challenge.

Termination and Disqualification

NIST reserves the authority to cancel, suspend, and/or modify the FIA Challenge, or any part of it, if any fraud, technical failures, or any other factor beyond NIST's reasonable control impairs the integrity or proper functioning of the FIA Challenge, as determined by NIST in its sole discretion.

NIST reserves the right to disqualify any Participant or Participant team it believes to be tampering with the Entry process or the operation of the FIA Challenge or to be acting in violation of any applicable rule or condition.

Any attempt by any person to undermine the legitimate operation of the FIA Challenge may be a violation of criminal and civil law, and, should such an attempt be made, NIST reserves the authority to seek damages from any such person to the fullest extent permitted by law.

Verification of Potential Winner(s)

All potential winners are subject to verification by NIST, whose decisions are final and binding in all matters related to the FIA Challenge.

Potential winner(s) must continue to comply with all terms and conditions of the FIA Challenge Rules described in this notice, and winning is contingent upon fulfilling all requirements. In the event that a potential winner, or an announced winner, is found to be ineligible or is disqualified for any reason, NIST may make an award, instead, to another Participant.

Privacy and Disclosure under FOIA

Except as provided herein, information submitted throughout the FIA Challenge will be used only to communicate with Participants regarding Entries and/or the FIA Challenge. Participant Entries and submissions to the FIA Challenge may be subject to disclosure under the Freedom of Information Act (“FOIA”).

Authority: 15 U.S.C. 3719.

Phillip Singerman

Associate Director for Innovations and Industry Services

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