

## REQUEST FOR INFORMATION (RFI) 100 YEAR STARSHIP™ STUDY

### BACKGROUND

Throughout history technical challenges have inspired generations to achieve scientific breakthroughs of lasting impact. Nearly fifty years ago, for instance, the race to the moon sparked global excitement surrounding space exploration that persists to this day. The Defense Advanced Research Projects Agency (DARPA) has initiated a study to inspire the first steps in the next era of space exploration—a journey between the stars.<sup>1</sup> Neither the vagaries of the modern fiscal cycle, nor net-present-value calculations over reasonably foreseeable futures, have lent themselves to the kinds of century-long patronage and persistence needed to definitively transform mankind into a space-faring species.

The 100 Year Starship™ Study is a project seeded by DARPA to develop a viable and sustainable model for persistent, long-term, private-sector investment into the myriad of disciplines needed to make long-distance space travel practicable and feasible. The genesis of this study is to foster a rebirth of a sense of wonder among students, academia, industry, researchers and the general population to consider “why not” and to encourage them to tackle whole new classes of research and development related to all the issues surrounding long duration, long distance spaceflight. DARPA contends that the useful, unanticipated consequences of such research will have benefit to the Department of Defense and to NASA, and well as the private and commercial sector.

This endeavor will require an understanding of questions such as: how do organizations evolve and maintain focus and momentum for 100 years or more; what models have supported long term technology development; what resources and financial structures have initiated and sustained prior settlements of “new worlds?”

DARPA is supported in this effort by NASA Ames Research Center, who will act as the execution agent on DARPA’s behalf.

### DESCRIPTION

We are seeking ideas for an organization, business model and approach appropriate for a self-sustaining investment vehicle. The respondent must focus on flexible yet robust mechanisms by which an endowment can be created and sustained, wholly devoid of government subsidy or control, and by which worthwhile undertakings—in the sciences, engineering, humanities, or the arts—may be awarded in pursuit of the vision of interstellar flight. Several attributes are of interest, specifically:

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<sup>1</sup> For more information, see prior press releases at <http://www.darpa.mil/WorkArea/DownloadAsset.aspx?id=1799> and <http://go.usa.gov/bqB>, as well as the study website at <http://www.100yearstarshipstudy.com>.

- Long-term survivability over a century-long time horizon;
- Self-governance, independent of government participation or oversight;
- Self-sustainment, independent of government funding; and
- Relevance to the goal of moving humanity toward the goal of interstellar travel, including related technological, biological, social, economic, and other issues.

Respondents are requested to provide a description of a proposed organization and approach for the establishment and operation of the 100 Year Starship™ research entity. Responses should describe the:

- Organizational structure;
- Governance mechanism;
- Investment strategy and criteria; and
- Business model for long-term self-sustainment,

as needed to meet the objectives and attributes described above.

DARPA anticipates issuing an appropriate contract instrument for initial start-up and early operating expenses for the organization not to exceed several hundred thousand dollars. This RFI is intended to solicit ideas and information on structure and approach, and identify parties qualified and interested in furthering the 100 Year Starship™ effort. DARPA may draw upon the responses to this RFI in formulating the structure and content of a subsequent Broad Area Announcement (BAA) or Request for Proposals (RFP). In providing a response to this RFI, respondents should consider that a future BAA or RFP will likely ask for details on:

- Methods for inspiring new generations of researchers,
- Methods for obtaining initial and sustaining funding,
- Branding and messaging for the long term research strategy,
- Approach to an ongoing relationship to government research,
- Proposed Handling of Intellectual property of researchers and future products,
- Methods to incentivize researchers,
- Specific types and domains of future research.

#### PURPOSE OF RFI

The information obtained will be used for planning and acquisition strategy development. We will use the information obtained as a result of this RFI on a non-attribution basis. Providing data and information that is limited or restricted for use by the Government for that purpose would be of very little value and the inclusion of such restricted/limited data/information is discouraged.

Regretfully we will be unable to respond to each individual submission, but will provide an update to development and acquisition plans. The Government does not intend to award a contract on the basis of this RFI or to otherwise pay for the information solicited. As stipulated in FAR 15.201(e), responses to this notice are not considered offers, shall not be used as a

proposal, and cannot be accepted by the Government to form a binding contract. To the full extent that it is protected pursuant to the Freedom of Information Act and other laws and regulations, information identified by a respondent as "Proprietary or Confidential" will be kept confidential.

#### INFORMATION FOR RESPONDENTS

Responses may be a maximum of five (5) letter-size pages, with minimum 12-point font and 1-inch margins. All responses should include the responding organization's name, an individual point of contact, physical address, e-mail address, and phone number.

Please submit all responses as a single file in Adobe PDF electronic format to [100YSS@darpa.mil](mailto:100YSS@darpa.mil) by 12:00pm (noon) Eastern Time, Friday, June 3, 2011.

Regretfully, we are unable to answer questions about this RFI. Furthermore, no telephone inquiries will be accepted.

Respondents are reminded that the evaluation process does not involve the procedures set forth in the Federal Acquisition Regulation (FAR) nor the NASA FAR or DFARS supplement since this announcement will not result in the award of a contract, grant, or cooperative agreement.

Compliance with U.S. Laws, Regulations, and Policies: Submissions must comply with all applicable U.S. laws, regulations and policies.

Use of Government Resources: If a submission is reliant on Government furnished equipment, facilities or services, such conditions should be documented in the response.

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"100 Year Starship" and "100YSS" are property of the United States, trademark applications pending at the U.S. Patent and Trademark Office.