



Request for Information

Report Writer: Strategic Engineering Focus for Next- Generation Wireless Competitiveness

Released February 1, 2024

Background

Launched in April 2021, the [Engineering Research Visioning Alliance \(ERVA\)](#) is a National Science Foundation-funded five-year activity awarded to three core partners: the UIDP, the EPSCoR IDeA Foundation, and the Big Ten Academic Alliance. ERVA is a neutral convener of diverse sector/disciplinary engineers around a societally important theme to identify technology opportunities and articulate engineering research to envision high-impact solutions in visioning events. These visioning events result in a report that is a roadmap of the high-value, nascent engineering research opportunities that span from today to twenty-plus years. This report is widely shared with engineering stakeholders in government, academia, industry, national labs, nonprofits, and more to help guide resource priorities. ERVA leverages a network of affiliates, champions, advisory boards, and working groups to identify and vet the visioning event themes. The ERVA operating model is predicated on being agile and producing high-quality products that meet the needs of the engineering community.

Visioning events articulate the role of engineering within a specific topic. The visioning event report is critical in promoting ERVA activities to strengthen connectivity in the engineering community.

ERVA seeks an individual with technical expertise in wireless technology or related fields to attend the visioning event and produce an event report.

The technical writer will translate the conversations, notes, work boards, discussions, and annotators' notes from the ERVA visioning events into reports for external dissemination.

The writer will create high-impact and cogent reports intended for those with a vested interest in the engineering community that capture the technical findings from ERVA events without lobbying or recommending policy changes.

Desired Skills Sets

The technical writer must have expertise in wireless technology, ideally in one or more subthemes discussed in the visioning event as outlined in the abstract at the end of the RFI. ERVA seeks a writer to communicate complex technical information to a varied audience, from those with a high level of technical competence to others not technically trained in the research topic.

Project Deliverables

The technical writer will deliver a roughly 10,000-word comprehensive written report with supporting references after the ERVA event. The report should highlight the grand challenges/opportunities identified in the event and articulate the engineering role. The report must also motivate the reason the

theme was chosen: a technological opportunity of societal importance that engineering research is critical in leading. The report will identify the participants, dates, locations, and engineering research focus areas developed for the visioning event.

The writer is not responsible for the professional layout of reports; only for report content analysis and synthesis, technical writing, and content development.

The technical writer will work closely with the ERVA Executive Director, the ERVA Communications Director, and the thematic task force (TTF) that designed the program content for the visioning event.

Budget

Respondents are asked to provide a tailored budget for the report described herein. ERVA will reimburse technical writers for allowable expenses. Please refer to the submission requirements below for details.

Contract Term

Three months to complete the report and adopt changes to account for feedback from the thematic task force, Principal Investigator (PI) team, Executive Director, and the National Science Foundation (NSF).

Anticipated Activities

The event is being held in Denver, CO, from June 13th to June 14th, 2024. The event timeline is TBD.

- The technical writer will attend the event in person and will be provided with recordings of the events, chat logs, annotator notes, and copies of all workboards. Travel and accommodations will be reserved and paid for by ERVA.
- The technical writer is expected to attend one or more pre-event preparatory meetings reviewing event structure and landscape analysis two months before the event. The pre-event meetings will be virtual and likely 1-2 hours each.
- The writer is expected to meet with the thematic task force and executive director the evening before the event and stay for 3 hours post-event while the task force discusses the key takeaways. This position will involve spurts of activity before, during, and immediately following the visioning event.
- The timeline for the report is shown in the table below.

Report Timeline <i>From the last day of the visioning event</i>	
First draft to ERVA	1 week
Draft to co-chairs	4 weeks
First draft to NSF	6 weeks
Draft to layout	12 weeks
Final report to NSF	16 weeks

Submission Requirements

Your RFI response should include the following:

- An overview of your proposed approach to the scope of work and anticipated activities.
- A one-time, flat fee per the scope of work as a baseline quote, including what is and is not included. Include an hourly rate for additional work beyond the agreed-upon scope.
- Bios for any team members that will be sourced for this contract and references for three similar clients you have worked with in the past three years.
- A bio showing your relevant technical qualifications and experience.
- Samples of technical writing.
- No more than five pages

Submission Timeline

- Responses should be submitted to info@ervacommunity.org by **5:00 p.m. on February 19th, 2024**.
- Questions from interested individuals may be submitted at any time and should be directed to info@ervacommunity.org
- ERVA will evaluate responses with an expected decision by February 26th, 2024.

Abstract for the Visioning Event

STRATEGIC ENGINEERING FOCUS FOR NEXT-GENERATION WIRELESS COMPETITIVENESS

Since the invention of the cell phone, the US has led in wireless technology, but we are rapidly falling behind, especially amidst the global focus on spectrum resources above 100 GHz. Systems operating in the terahertz range will be needed to accommodate the growing global demand for wireless data, incorporate unique sensing capabilities that have the potential to revolutionize society and address growing security concerns. We must clarify the relevant engineering research challenges and engage diverse stakeholders to ensure the development of holistic engineering solutions that avoid interference. Given the vast financial resources already being devoted to these issues in most of the developed world, the role of the US in the global landscape remains poorly defined. This situation must change.

The Engineering Research Visioning Alliance (ERVA), an initiative funded by the National Science Foundation Engineering Directorate, will host a visioning event to identify and articulate critical areas of wireless performance where engineering research can lead. The goal is to target engineering resources needed to define strategic areas of wireless networks beyond 100 GHz and identify specific nascent engineering research directions with the potential for the greatest return on investment to where the United States can lead.