



Writing a Successful Grant Proposal

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So you're thinking of writing a grant proposal...

How exciting!!

Share your research vision and get feedback on it

Opportunity to get funding and turn vision into reality



Objectives

Proposal characteristics

- Compliant
- Complete
- Cohesive
- Competitive
- Compelling



Source: The Document Lab

Compliance

Funding
opportunity
information

- Link to website, RFP via email, General call for proposals, etc.

Review
proposal
instructions

- Ranges of specificity

Compliance

Alignment of research with mission of program/sponsor

Due dates

- Preliminary steps (e.g., LOI, pre-proposal, limited submission)
- Due to sponsored programs administration (SPA) 5 days prior
- Due to funding agency/sponsor

Proposal components

- Abstract and/or summary
- Rationale and plan of work
 - Significance of contribution
 - Benefits to researchers, society

Complete

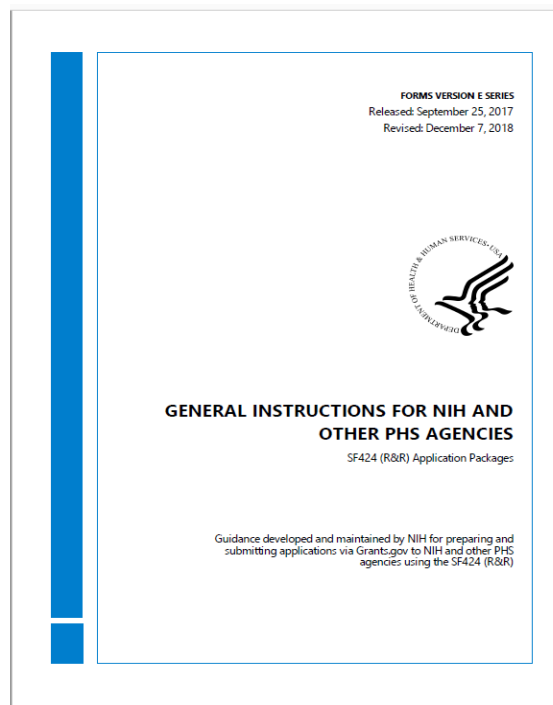
Proposal components

- Don't forget
 - References, Biosketches, Facilities, IRB, Letters of support, Budgets and justification
 - Other supplementary documents, appendix items
- Important in overall review
 - Qualifications of the team
 - Ability to take on scope of work
 - Environment in which work will be conducted

Compliance

Use available templates

- Funding agency websites
 - Be sure to access the most recent, as they might have changed recently
- Check with grants unit in your department
- SPA website



Complete

- Helps to prepare checklist
 - Create own
 - Or, use template
(e.g, <https://sponsoredprograms.illinois.edu/forms-templates-and-checklists/checklists>)

Due to NSF: **Wednesday, September 26, 5 pm Central**

<u>NSF INFEWS Proposal Components</u>	<u>Current status</u>	<u>Responsible Party</u>
COVER SHEET		PI and SPA
PROJECT SUMMARY (1-Page)	<i>Template in Box folder</i>	
PROJECT DESCRIPTION (15-PAGE LIMIT)] <i>Structure and page limitations below are as laid out in the Meeting Agenda from 8/13; no specific guidance is provided from the solicitation requiring or regarding the sections below other than a requirement for sections that address the Intellectual Merit and Broader Impacts</i> <i>May want to consider adding sub-sections on: ‘Systems Approach’, and ‘Interdisciplinary Integration’, to address the solicitation-specific review criteria.</i>	<i>Draft in progress</i>	
Introduction and context (2 pgs)		
Rationale and significance (1 pg)		
Objectives and hypotheses (2 pgs)		
State of knowledge (4 pgs) i. Integrate relation to longer term goals of the PIs		
Experimental methods (7 pgs)		
Procedures and plans for preservation, documentation, and sharing products (0.5 pgs)		
Intellectual Merit		
Broader Impacts (1 pg)		
REFERENCES LIST		
BIOSKETCHES FOR PIs, co-PIs, SENIOR PERSONNEL (2-PAGE LIMIT, TO BE UPLOADED AS PDF FILE)		
[Name]	<i>On Box, ready for review</i>	
[Name]		
BUDGETS		
Budget justification		
CURRENT AND PENDING SUPPORT		
[Name]	<i>On Box, ready for review</i>	
[Name]		
FACILITIES, EQUIPMENT AND OTHER RESOURCES	<i>Draft in progress, in Box folder</i>	

Proposal Considerations

Title?

Scope of work?

CoPIs and Senior Personnel?

Due dates?

Period of Performance?

Staff to involve?

Subawards?

Consultants?

Human Subjects?

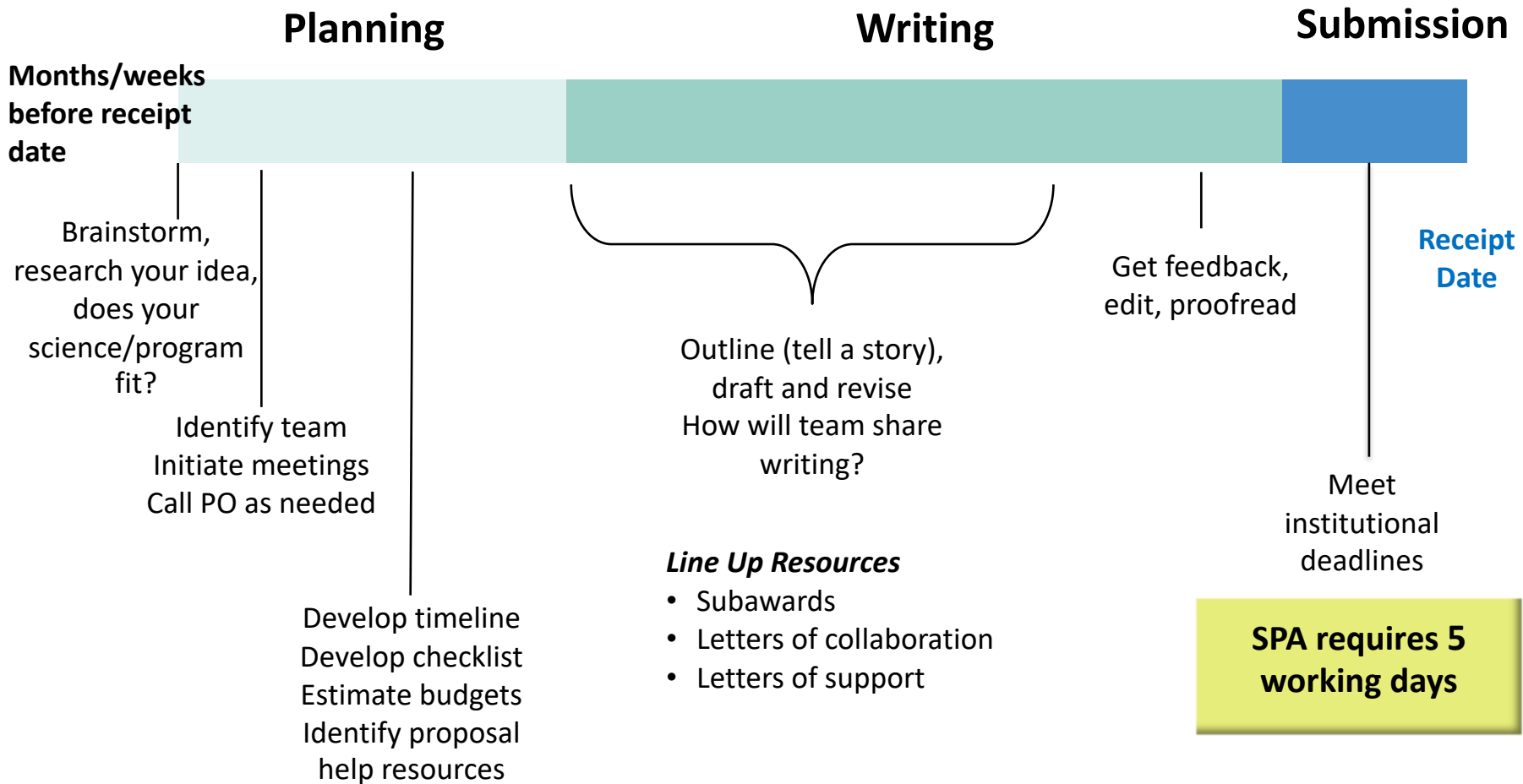
Forms and templates?

Source: SPaRC'Ed: Proposal Preparation



The fun is
just
beginning...

Plan



Compliance (and Cohesive)

Identify important elements of call

Required and “must include” elements

Project Description (10-pages maximum), including the following: **(Required section headings are highlighted in boldface).**

- A statement of which of the categories of Mid-scale RI-1 is most appropriate for this proposal as the first sentence.
- Any project-related activities that are anticipated to have significant environmental and/or cultural impacts should be noted at the beginning of the Project Description.
- Along with the **Intellectual Merit**, describe the **Scientific Justification**, including the unique research capabilities and lack of general availability of the requested infrastructure and its potential to significantly advance the Nation's research infrastructure.
- Along with the **Intellectual Merit**, include a description of the **Research Community Priority** of the infrastructure, i.e., evidence, such as workshop reports or other publicly available indicators, that the infrastructure is a priority for a research community or important for a recognized NSF priority area such as one of NSF's research Big Ideas.
- Along with the **Broader Impacts**, include a discussion of student training, increased participation of underrepresented groups and a description of tangible benefits to the wider U.S. research community (access, data products, technology, etc.).
- Preliminary proposal **must include** an outline of ongoing operations and maintenance plans, including an estimate of any needs for ongoing, NSF-supported operations and maintenance that may be requested outside of the Mid-scale RI program.
- Note: Results from Prior NSF Support should not be included. Also, links to URLs may not be used.

Proposals with an international dimension should include a description of the foreign collaborator's role in the project. Biographical Sketches for foreign collaborators and letters of commitment from foreign institutions or organizations should be included as supplemental documents to ensure commitment to the collaboration.

Cohesive

Identify important elements of call (Compliance, Competitive)

Review Criteria

Additional Solicitation Specific Review Criteria

The focus of the preliminary proposal review will be on the significance of the proposed science, the importance and benefit of the proposed infrastructure to the wider community, the ability of the team to undertake the project and the viability of long-term operations and maintenance. In addition to these elements, the full proposal review will focus on the project management, the validity of the cost estimates (including for O&M), the potential training of students and assessment plans for that training and broadening participation of underrepresented groups in all aspects of the project.

1. Reviews of both preliminary and invited full proposals will consider the Scientific Justification, including the science drivers and the unique research capabilities and lack of general availability of the requested infrastructure. A major consideration will be the project's potential to significantly advance the Nation's research infrastructure. For implementation projects, proposals will be evaluated on the completeness of the research and design activities that have led to the project being ready for mid-scale support.
2. Reviews of both preliminary and invited full proposals will evaluate the Research Community Priority of the infrastructure, i.e., evidence, such as workshop reports or other publicly available indicators, that the infrastructure is a priority for a research community or important for a recognized NSF priority area such as one of NSF's research Big Ideas. The value and benefit to the US research community will be evaluated. Examples of benefit include, but are not limited to, open-access observing time on the facility, access to data products and software, and cooperation and sharing of technology with other projects.
3. Reviews of both preliminary and invited full proposals will be evaluated on the strength and maturity of the plan to execute and manage the project including but not limited to project management methods, soundness of the cost estimate, feasibility of the schedule, and comprehensiveness of the risk management plan. Reviews will consider the appropriateness of the assembled team, including their qualifications, experience working in a team environment and potential to advance the goals of the project.

Due to NSF: **Wednesday, September 26, 5 pm Central**

<u>NSF INFEWS Proposal Components</u>	<u>Current status</u>	<u>Responsible Party</u>	<u>Notes</u>
COVER SHEET		PI and SPA	Title must begin with INFEWS and include Track number to which proposal is directed – e.g., “INFEWS/T1”
PROJECT SUMMARY (1-Page)	<i>Template in Box folder</i>		Must include sections specifically labeled “Overview,” “Intellectual Merit” and “Broader Impacts”
<p>PROJECT DESCRIPTION (15-PAGE LIMIT)] <i>Structure and page limitations below are as laid out in the Meeting Agenda from 8/13; no specific guidance is provided from the solicitation requiring or regarding the sections below other than a requirement for sections that address the Intellectual Merit and Broader Impacts</i></p> <p><i>May want to consider adding sub-sections on: ‘Systems Approach’, and ‘Interdisciplinary Integration’, to address the solicitation-specific review criteria.</i></p>	<i>Draft in progress</i>		<p>As per the Solicitation, there are additional review criteria specific to this solicitation, including:</p> <ul style="list-style-type: none"> • Systems Approach • Interdisciplinary Integration
Introduction and context (2 pgs)			
Rationale and significance (1 pg)			
Objectives and hypotheses (2 pgs)			
State of knowledge (4 pgs) i. Integrate relation to longer term goals of the PIs			
Experimental methods (7 pgs)			
Procedures and plans for preservation, documentation, and sharing products (0.5 pgs)			
Intellectual Merit			
Broader Impacts (1 pg)			

Cohesive (and Compelling)

Make good first impression

Project Abstract/Project Summary

- A stand alone document (in multi-part proposal)
- First thing reviewers are likely to read
- Opportunity to spark interest about your proposal
- Think of it as your elevator or sales pitch

Why should the funder invest in your project?

Cohesive (and Compelling)

Make good first impression

Should inform reviewers about

- What you/your team wants to do
- Why you want to do it
- How you plan to do it
- How will you know if you are succeeding
- How will it benefit the field, other researchers, society if the project is successful

Cohesive

Make good first impression

Potential Organization

- Problem or issue being studied
 - Knowledge gaps
- Team's unique, innovative, transformative approach to address it
- Clearly defined aims, milestones
 - With plan to evaluate progress toward these
- Well described and feasible methods
 - Availability of resources
- Benefit to field, other researchers
- Benefit to society at large
- Qualification of team

Cohesive

Make good first impression

Project Abstract/Project Summary

- Write it for a lay person or a scientifically literate person in a related field
- Avoid jargon



Cohesive Project Narrative

Aligned with Project Summary

- Present same concepts using same terminology

Be sure to address all the review criteria

- Use key words in solicitation in your narrative

Use headings and sub-headings

- Review solicitation for required headings/sections
- Take cues for headings based on words used in the solicitation

Cohesive Project Narrative

Storyboarding

- Useful tool for planning and strategizing
- Layout entire proposal to page count, laying out the main content of each page
- Will help identify background information, or data you need to collect



Source: The Document Lab

Competitive

Research projects funded by this program/sponsor

- Are funded proposals available for you to review?

Highlight unique contributions of your project/research

- If appropriate, include unique aspects of location of study

What is innovative about your research?

In what ways can it transform the status quo?

Other sections

Letters of support

- Demonstrates that the necessary equipment and support is available and accessible
- Who should provide a letter?
 - Collaborators
 - Consultants
 - Department Head
- Best Practices
 - Reach out early and give enough time for editing and signing
 - Give enough information about the project and their role
 - Provide draft of the letter

Other sections

Facilities, Resources, Equipment

- How will your scientific **environment** contribute to your success?
- Describes lab space, facilities, scientific environment
- What resources and facilities at your institution will help you complete the project?
- What kind of support does your institution provide?
 - e.g., time, mentoring, start-up funds, space
- What resources are being provided by other sites?

Campus Resources

Grants coordinator in your department/college

University Library

- <https://guides.library.illinois.edu/grants>

Sponsored Programs Administration (SPA) website

- <https://sponsoredprograms.illinois.edu/>

Office of Proposal Development

- <https://proposal.illinois.edu/>

Research Data Services

- <https://www.library.illinois.edu/rds/>

And many others...

Upcoming sessions

Making Your Proposal Stand Out from the Crowd – Feb 14

Questions, or comments?