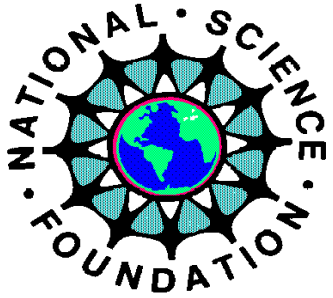




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**Proposal meeting at the  
College of William and Mary**

**Donald Senich  
Directorate for Engineering  
April 3, 2002**



# MEETING YOUR PROGRAM OFFICER





# Preparing for The Meeting...



## • What Program is for me?

- \* Depends on your research objectives
- \* Look at our web site (<http://www.eng.nsf.gov/dmii/>)

## • When and where can I meet with my Program Officer?

\* At the annual NSF DMII Grantees Conference:

- various workshops
- at your poster
- PO office hours
- O's breakout sessions
- special panels
- banquet social

\* At various society meetings and conferences

- \* At NSF during scheduled visits, panel meetings etc.
- \* At your institution during a scheduled visit by your PO.



## • What if I am not able to meet in person with my PO?

- \* Feel free to email or call to introduce yourself



# Meeting your PO (before submitting a proposal)

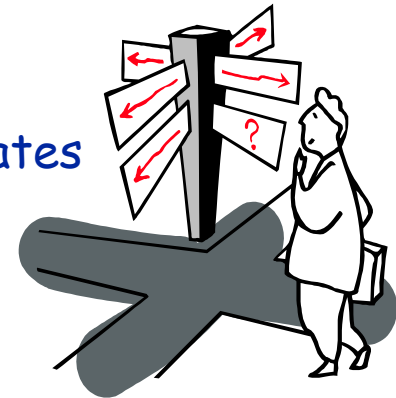


## • What do you want to get out of the meeting?

- \* Introduce yourself
- \* Find out how your research objectives match NSF programs
- \* Get feedback on your ideas

## • What can you learn from it?

- \* Program scope, focus and objectives
- \* Program data (budgets, award rates etc.)
- \* Relationship with other programs, divisions, directorates
- \* New funding opportunities: initiatives, solicitations
- \* Special and cross-cutting programs:
  - ADVANCE
  - CAREER/PECASE
  - CRCO
  - SBIR/STTR
  - GOALI
  - IOC





# At the Meeting ... (Do's)



## • What should I do?

- \* Be brief and to the point
- \* Listen to your PO
- \* Be ready to state, "The objective of my research is..."



- \* Ask for related NSF brochures, announcements, and contacts
- \* Volunteer to serve as a panelist for NSF proposal review panels
- \* Leave a short biography and your business card with the PO...



# At the Meeting ... (Don'ts)

## • What should I *NOT* do?

- \* Wait for the PO to end the meeting
- \* Talk to yourself about yourself from your own perspective
- \* Start a 40-minute presentation on your laptop
- \* Overwhelm your PO with papers etc.
- \* Explain to your PO what NSF does
- \* Force-fit your interests to the Program objectives and vice versa



- \* Push your PO for a SGER when there is *no* SGER idea
- \* Push your PO for emergency funding before a crisis...
- \* Repeat how great your past work or upcoming proposal is -  
- remember, your audience is the reviewer panel, NOT just your PO.



# Meeting your PO (after a grant or declination)

## • Why meet with my Program Officer?



- \* Get constructive feedback from proposal reviews and advice on how to improve your project
- \* Get information on other funding sources
- \* Keep the PO informed of your progress
- \* Explore long-term planning and support strategies

## • Why also meet with my Program Officer?

- \* Provide your PO with feedback and suggestions to improve the Program performance
- \* Participate in Program activities and opportunities
- \* Arm the PO to get public leverage for your funding (articles, web pages, samples, media clips etc.)
- \* Support new NSF initiatives and programs

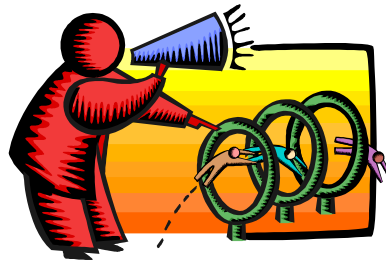




# After The Meeting...

## • How should I proceed?

- \* Make best use of the PO's information and advice
  - learn more on NSF from brochures and the web ([www.nsf.gov](http://www.nsf.gov))
  - implement your PO's suggestions in your proposals and grants
- \* Let your PO know how your meeting has served you
- \* Prepare for your next meeting with your Program Officer...  
(meet not too often, not too seldom...)



Your NSF Program Officers  
are looking forward to meeting you...



# The Research Proposal

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There is no "FORMULA" for a successful proposal,  
**BUT**

- there is a format you must follow (NSF 02-2)
  - <http://www.nsf.gov/cgi-bin/getpub?nsf022>
  - pay attention to margins and font size
- the scope **MUST** be research, not development
- nothing excites reviewers more than a new idea
  - clearly explained, **NOVEL** ideas can win!
- get it in on time
  - solicitations have deadlines - read the program announcement
  - unsolicited proposals to DMII may be submitted
    - » 1 September thru 1 October (deadline)
    - » 1 January thru 1 February (deadline)



## Criteria 1 & 2

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- **Criterion 1 - What is the intellectual merit of the proposed activity?**
  - This criterion addresses the overall quality of the proposed activity to advance science and engineering through research and education.
- **Criterion 2 - What are the broader impacts of the proposed activity?**
  - This criterion addresses the overall impact of the proposed activity.



# What? Some thoughts-

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**SO**

- **what** should you propose? Your area of interest?
- **FOCUS** on your strengths - not just the current trend of the day ("Nano", "9-11", or something interesting you saw on the Discovery Channel)

Establish a plan for yourself based upon **your** expertise:

- Where are the frontiers of knowledge/how can **your approach** be innovative?/what contribution will you make?
- Who else is tackling these issues?
- What recent awards have been made/what funding sources are available?
- Have there been recent advances/breakthroughs?
- What has been published - globally?
- Is there industry interest?



# Is there a home for your idea? Actions for you to take

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- **Subscribe** to the NSF Custom News Service  
<http://www.nsf.gov/home/cns/>
- **Read** NSF Program Announcements and the Division websites
  - Do **NOT** "force fit" topics into programs
  - Are you eligible? What is the deadline?
  - Check that the program exists - just because there was an announcement in 1997 doesn't mean you should prepare a new proposal now
- **Identify** what program you think the proposal topic fits into, then e-mail or call the NSF program director (**BEFORE** the due date) if you have questions



# Only 15 pages! What to do?

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Use the space wisely - clarity of thought and brevity of word - more is not always better

On **Page 1** - state what you are going to do and why - don't make reviewers wait until page 7, it shouldn't be a mystery.

Make at least the introduction **understandable to any technically educated person**. Not all members of the panel will be expert in your sub-discipline.

Page limits/fonts/margins **ARE** important - don't use small fonts - don't disqualify your proposal **!!!**



# Only 15 pages! What to do?

---

## Pages 2-15

### LAY THE GROUNDWORK

- Acknowledge the work of others
- Demonstrate your prior work

### THEN

- Lay out your research plan (**an idea is not enough**)
- Method of validating results
- How you handle obstacles
- Broader impacts including **education** (possibilities include lifelong learning, K-12 outreach, industry as well as undergraduate and graduate), **environment, energy, economics**

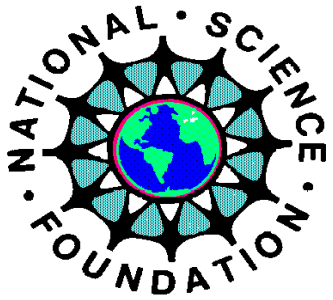


# The Project Summary

## *The Most Important Page*

- **What:** Clearly state the research objectives first
- **Why:** Is this research needed? Justification!
- **How:** Describe the major research tasks and how this meets **Criteria 2** in terms of broader impacts
- **Who:** Provide information on you and your team and why you are the ones to do this research
- **Collaboration:** If this involves more than one Principle Investigator, demonstrate the strengths and synergy of the team

Criteria 2 MUST be explicitly addressed in the Project Summary and the Project Description or your proposal will be disqualified and returned as inappropriate



# HOW TO SUBMIT



# FastLane - REQUIRED

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## Coversheet:

- First box - put in **UP-to-DATE** announcement #
- NSF Organization: Identify the right NSF program(s) / unit(s) - Question? Check!
- GOALI proposal - GOALI must be first word of title, and have industry co-PI on coversheet
- Title: Keep it short, informative, and don't use acronyms or buzz words
- Identify if proposal is being sent to another agency - NOTIFY NSF if funded by another agency

**DO NOT** submit duplicate proposals to multiple programs, regardless!



# FastLane - REQUIRED

**Format: Make sure that what you see is what we get!**

**Don't have your proposal returned as disqualified:**

- **CONFORMANCE** to formatting is **REQUIRED!**
- Project Description cannot be more than 15 pages
- **DO NOT** compress- lines/in, chars/in, figures
- **DO NOT** include appendices, unless specifically instructed in a solicitation
- **YOU MUST** include titles of papers in references

**A, B, C's!**

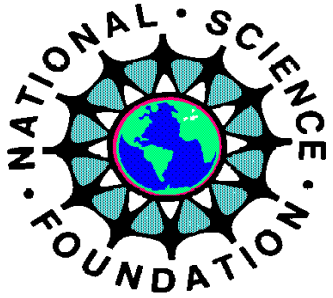
**accuracy, brevity,  
conformance**



# Collaborative Research Proposals - a Win-Win

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- Submit separate proposals from each institution
- All proposals **MUST** be submitted to **SAME PROGRAM**
- All proposals **MUST** have **SAME TITLE**
- Start title with "**Collaborative Research:**"
- Lead proposal has the Project Summary, Description and References
- Each proposal has its own budget, bios, current/pending support



# PROPOSAL PROCESSING AT NSF



# What happens when your proposal gets to NSF

- FastLane receives electronic proposals - proposal number is instantly assigned when submitted
- Proposal Processing Unit (PPU) checks for conformance to Grant Proposal Guide (GPG) and prints the proposals for the Division
- If the PI identifies a Specific Announcement/ Solicitation No./... AND the Dir/Div/Prog, the proposal will reach the proper program/division within NSF
  - Otherwise, the proposal may be sent around NSF, based on the title of the proposed project, until a home is found causing a considerable delay (missing the deadline)

A stack the equivalent of 2-4 stories high is printed daily by PPU and sent to the divisions/programs





# What do we spend all that time doing

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- Program Assistant places a hard copy of the proposal into a file, **a jacket, in NSF jargon**, and electronically assigns division and program codes to the proposal
  - At this point proposal is recognized within NSF as pending
  - The jackets are delivered to the Program Directors

Elapsed time: approximately 3 weeks

- Program Directors then review the proposals and
  - Find a home or accept proposals for a "better fit"
  - Handle uncommon or problem proposals

Elapsed time: approximately 6 weeks



# How do we select a review process/panelists

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- Program Directors
  - Classify proposals into sub-panels requiring same (or nearly same) technical expertise
  - Size the sub-panel and pick a date
  - Recruit panelists who have no conflicts of interest and:
    - » Have expertise/contribute to the balance of the panel
    - » Have time to read proposals, write reviews, and come to NSF

Elapsed time: approximately 7 weeks
- Program Assistants:
  - set up panel for electronic review in FastLane
  - Contact panelists with FastLane ID, password, and review assignments (matrix)
  - Handle contingencies

Elapsed time: approximately 8 weeks

**NOTE: We no longer send out hard copies of proposals unless specifically requested**



# What happens at a panel meeting

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- DMI runs One Day Panels With 5-12 People
- Typical Agenda:
  - Sign In and Welcome
  - Conflict of Interest Briefing and Panel Procedures
  - Program Directors remind panelists that deliberations are confidential
  - Sub-Panels discuss, rate (PC/SC/DNC) and rank each proposal, and prepare a written panel summary
- Review package after the panel meeting consists of:
  - 3 or more FastLane submitted individual reviews
  - Word-processed panel summary (with signed original)
  - Signed matrix with COIs, rating and ranking annotated

Elapsed time: approximately 12 weeks



# What happens after the panel review

- 
- Program Director actions after ALL panels are completed
    - Review content of individual reviews
    - Decide on declinations tentative funding priorities considering funds available/panel recommendations and discussions/program balance
    - Prepare a review analysis making recommendation to Division Director
    - Negotiate budgets as needed
    - Obtain abstracts for award recommendations
  - Declinations are official when the *Division Director concurs*

**NOTE:** Declinations are now done electronically - you will receive an email and 24 hours later you can access the reviews and panel summary via FastLane

Elapsed time: approximately 16 weeks



# When do you get an award notice?

- 
- Proposals recommended for award must be approved at the divisional level then forwarded to the Division of Grants and Agreements for final award action and notification

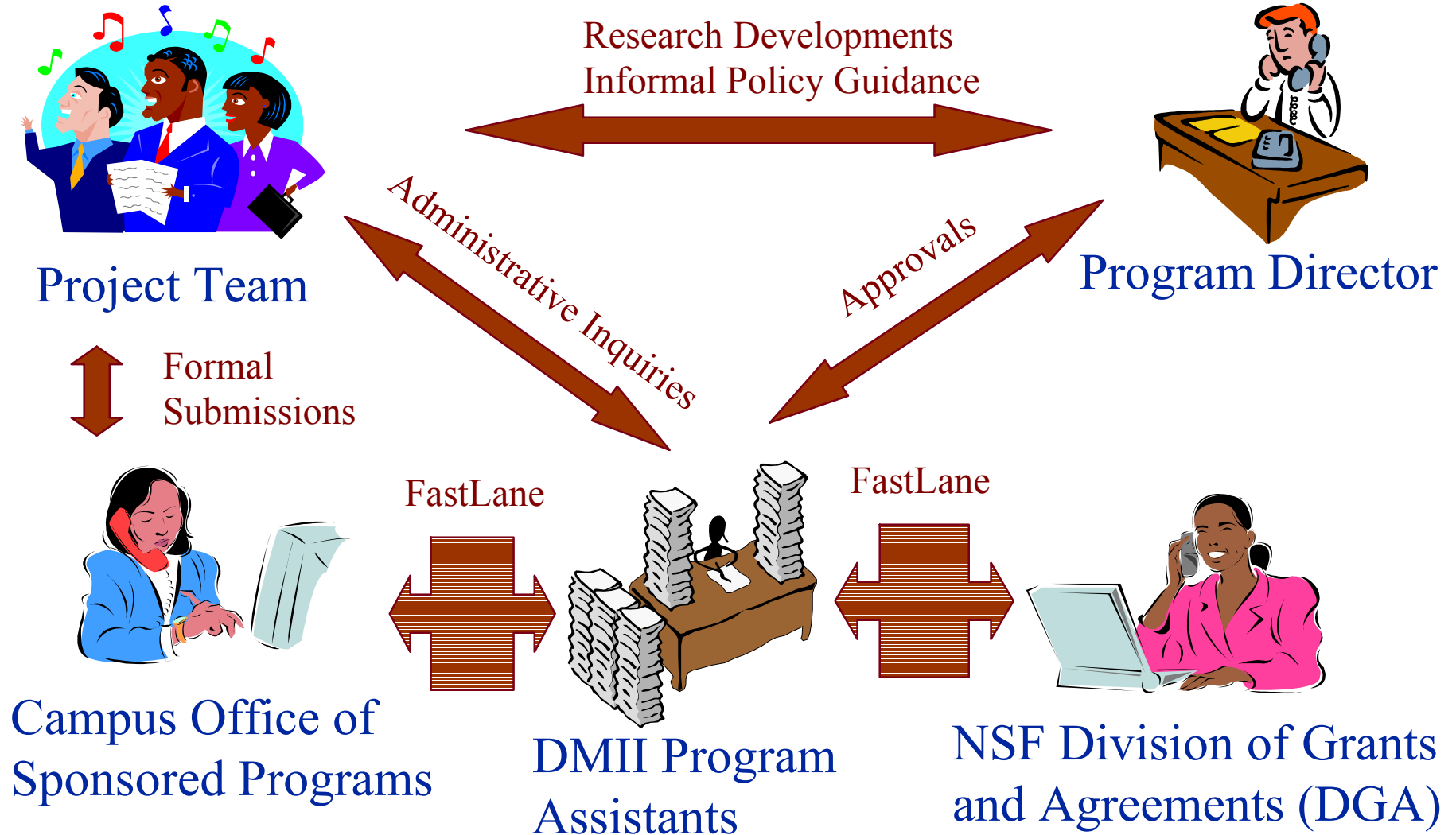
**REMEMBER: AN AWARD IS NOT AN AWARD  
UNTIL THE DIVISION OF GRANTS AND  
AGREEMENTS SAYS SO**

(they usually follow our recommendation, but bear in mind that they process about 20,000 award actions per year)

Elapsed time: approximately 22-24 weeks



# You Have an Award Who Will You Be Working With?





# You Have an Award Progress Reports

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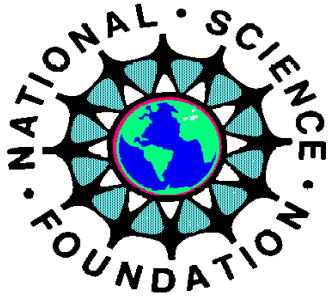
- Your award may be
  - Standard = basic grant funded in one increment
  - Continuing = funding by annual increments
- For all grants over 1 year duration, annual reports are due 90 days prior to the anniversary date of the grant, but no later than May 1
- Final reports are due within 90 days after grant expiration
- Failure to file reports can delay increments for continuing grants and new awards on which you are the PI or Co-PI
- All reports must be submitted through FastLane
  - Use designated sections - you are **REQUIRED** to fill in the sections - not just write "see attached"
  - Submit title, authors, citation and abstract on papers
  - Document industrial involvement (especially GOALI)
  - Document REU involvement if you have received REU supplement



# You Have Been Declined How to Gain from the Experience

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- Keep in mind that you are almost certainly in the majority
  - Never enough budget to fund all the good proposals
  - Consider the experience a chance to learn
- You will be provided with all written Reviews and a Summary of the Panel Discussion
  - What guidance was provided for shaping the research and future proposals?
  - Did reviewers misunderstand your intentions?
  - Were reviewers from outside your field confused?
  - Was proposal submitted to the wrong NSF program?
  - Remember reviews were tempered by panel discussion
  - Your Program Director or faculty mentors can help you interpret the reviews
- There is an official process for appeal
  - It begins by contacting your Program Director



# BEING A REVIEWER



# How Else to Learn? BE A REVIEWER!

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- Proposal review is an important service to your community
- There's no better way to see how the system works
- There's no better way to understand what makes a winning proposal
- If you think the system is unfair, try being part of it, to make it better!



# HOW TO VOLUNTEER

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- Contact your program director
- E-mail a brief (1-page) bio to your program director
- Be sure to include your contact information
- Indicate your areas of expertise



# HOW TO REVIEW A PROPOSAL

A good proposal has certain qualities-look for them:

---

- Is there a clearly stated research objective?
- Is objective really research (not development, not computer programming)?
- Is research well motivated?
- Is research properly placed in context of extant knowledge and literature?
- Is there a viable plan to accomplish stated research objective?
- Is proposed method self-consistent, is the math correct?
- Is PI capable of accomplishing the research plan?
- Is the institutional infrastructure adequate?
- What is the broader impact of the research?
- What is the contribution to education?
- Is the budget reasonable?
- Is the PI available to perform the research?



# THE WRITTEN REVIEW

- You can start with: "This proposal is about..."
- Be sure to add:
  - Your analysis of how the proposal meets the criteria of a good proposal
  - Strengths of the proposal
  - Weaknesses, errors, bad concepts, contradictions in proposal
  - Why you think this is a poor/good/excellent proposal (do not include judgements regarding fundability)
- **Do not** put inflammatory comments in your review
  - Be hard on the proposal content
  - Be gentle on the PI(s)
- Be sure to address both NSF proposal review criteria
  - Technical Merit
  - Broader Impact (**now MANDATORY**)
- Your written comments are the principal form of feedback to PI(s)
  - They are forwarded to the PI(s) verbatim
  - Your comments need to be helpful to the PI(s) in writing better proposals and/or performing better research