

# Preparation of Projects & Protocols



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Research and Development proposals are among the most difficult to write and they are the most difficult to evaluate.....

## THE REASON?



- ❑ The limited knowledge available - for both the writer and the evaluator.
- ❑ In particular, early research work (preliminary) there is usually no universally agreed and predetermined best way or approach.



❑ Both the preparation and the evaluation are based on predictions and estimates, usually with a host of unknown complicated factors. Writers and evaluators understandingly feel that this is a difficult task.

❑ Problem comes when one may know, What is wanted (the result) but may not know for sure the best way to achieve it. If it has been known, the request would be preferably for hardware.



# Therefore a technical proposal must be specific and complete



- ❑ If the proposal is incomplete or vague, the evaluators are likely to consider you incapable - So do your best to save your reputation.
- ❑ If your Institute is recognized as the leader in the specific technology or facility needed to solve the problem, state that fact with justification for a favorable review.

# General Rule

## Writing a good research project requires;

- ❖ Ability of clear thinking, planning and writing
- ❖ Communication skill to develop confidence with authorities
- ❖ and Collaborators
- ❖ Be flexible & accommodative of other's ideas and mistakes

because "No one is Perfect"

and **Remember** - Many times you may not be able to develop a project because of misunderstandings of very trivial nature.

Therefore, Never Forget;

*Trivial + Trivial may no longer be Trivial*

(Sharma's belief)

**So analyze the reasons and pay attention to resolve it immediately.**



# (a) Objective



- ❖ Brief, Specific and Clear, and within the objectives of the institute concerned.
- ❖ Probability of success is high if your objective is one of the thrust areas or a specialized need of the funding agency (Govt. or Private).



❖ This may reflect your area of interest with a comprehension of the problem based on the literature and patent search.



❖ ASK questions within yourself. In case it is an interdisciplinary area, have discussions with experts.



❖ Make sure - you have an interrelated concept and work plan, which is achievable.



## (b) Proposed line of investigation



Restate the specific problem and define the specific solution you expect to offer

## (c) Method of Approach:

extremely important element of research

- i) Think - What is possible with the present facilities
- ii) Improvements necessary

Man power

Equipment or facility

Specialized Collaborators

- within the Institute
- outside the institute





## (d) Clearance from authorities of respective organizations



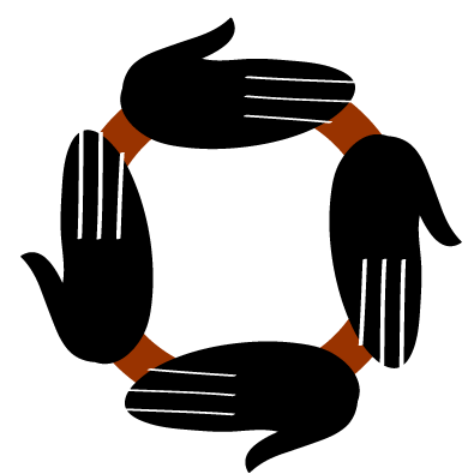
- For this purpose, Develop a draft based on funding agency's format
- Have discussions with collaborators of your expectations and authorities

## (e) Total programme - Mutual agreements

- Man Power
- Consumables
- Equipment and/or facilities required
- Travel
- Contingency

## f) Any other requirements





# Co investigators

- ❑ Should not think they are doing an obligation on the PI, they are part of the programme.
- ❑ Togetherness is the total success. They are responsible to share the success & failure of the programme equally. They should not create a pressurized situation that problems are felt but not expressed.



# Principal Investigator (PI):

Should stand apart because of

- a) Overall credibility in the area
- b) Persuasiveness with mutual respect
- c) He/she must be clear what he/she expects and becomes an example of doing what he/she says
- d) Maintain confidentiality even if he/she is not satisfied with a co-investigator's progress, because it may be temporary
- e) Be honest & transparent in his/her communication to collaborators and no criticism to any of his investigators to others.

**Remember - World is too small,  
With such acts - Team spirit will be lost.  
Ultimately success depends on how you  
approach the programme with totality.**



# PI - Different Phases of Failure



# Advise:

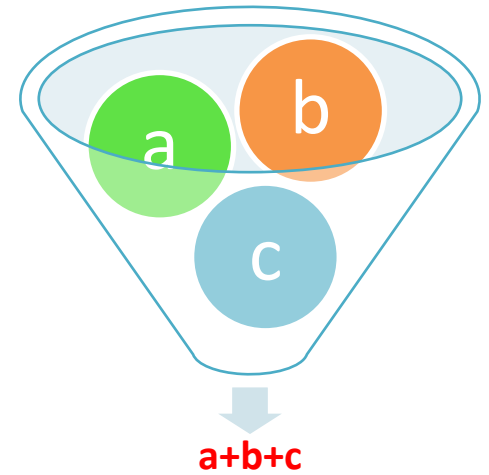
Control your impulses of greatness, and become greater.  
Many great people have come and gone from this earth.

Remember - The universe will continue to exist even after you.  
Therefore be responsible to take the entire group together modestly and collect all necessary information related to your programme.

**Recommended changes:** An evaluator may recommend some logical changes. Be receptive of such changes if minor in nature. Or Convince the evaluators that you plan to spend the money you will receive in a manner that offers highest probability of success.

**Logical work units:** Provide a list of logically sequenced phases with reasons because this systematicity will optimize chances of success.

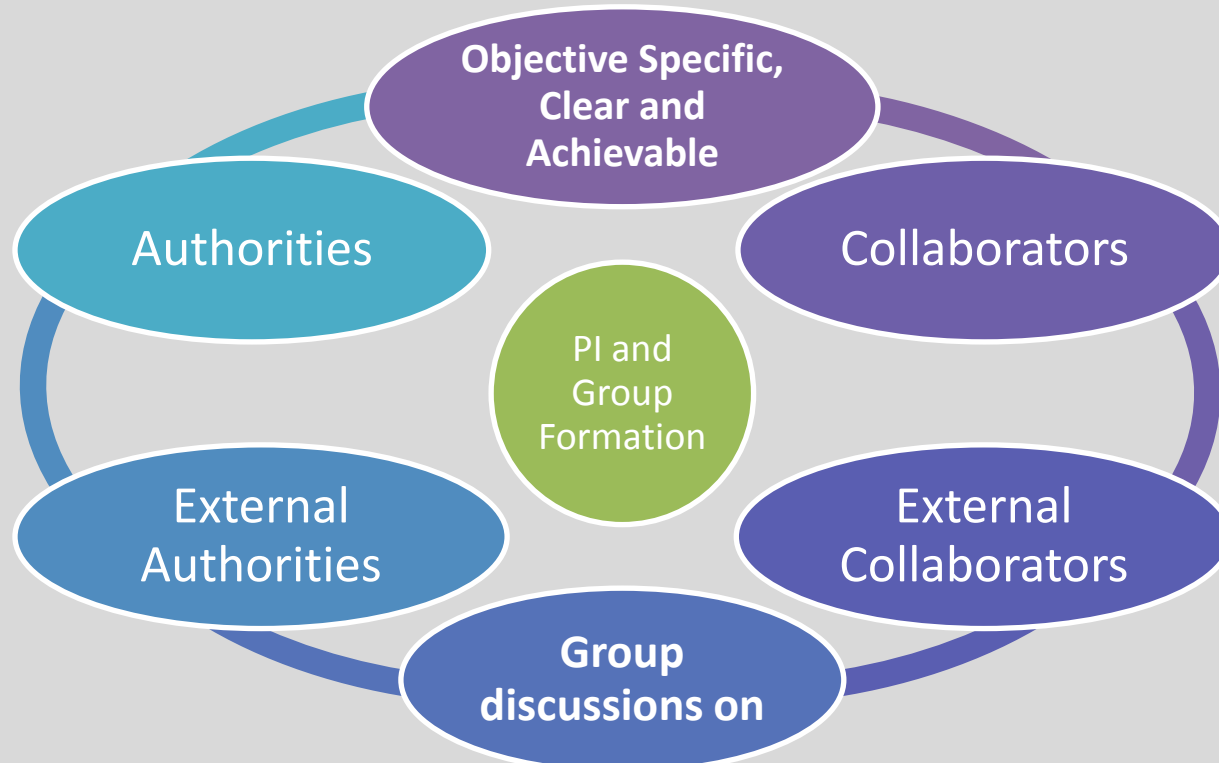
**Completion time:** An estimated time table to indicate when results will be available and so to define the proposed expenditure of funds and man power.





# Qualifications:

- I. Specific experience : Highlight the specific, project related and leadership experience of your institute & collaborating institute and personnel who will perform the work.
- II. Pay attention again before submission
  - How the proposal is organized - format etc.
  - How the personnel, resources and facilities in the programme will be utilized.
  - Make sure that the authorities are in full confidence with you.
  - All necessary equipment & facilities needed for the programme.
  - Ensure adequate computational & analytical skills necessary for the programme.
  - Availability of time and skills to complete the programme.
  - Adequate support from institution's personnel working in the programme from other divisions or from other institutions- National/International.



Work plan, review interrelated facilities, infrastructure & administrative help etc.

New facilities to be created & equipments etc.

Manpower, training and travel, consumable, contingencies, in vivo experiments, animal model, clinical trials, ethical considerations etc.

Total budget, Discussions

Meeting with regulatory authorities and collaborators for a draft discussion in the format of the funding agency

**Approval of the Final Proposal & Submission**



# Summary

## For writing a good project

- ❑ Be sure you understand the problem,
- ❑ Address problem directly; be specific, including background information with present status of art.
- ❑ Write descriptively, but not too lengthy, ie: sufficient to convince the evaluator.
- ❑ Make the proposal easy to read,
- ❑ Make the proposal complete and self supporting, with appropriate references.
- ❑ Include all information with bar diagrams or graphical format etc. if any, ie: leave nothing for the evaluators to assume. (They are not supposed to, any way)





# FINALLY

- ❑ Recognize that the evaluators will infer from the quality of writing in your proposal – the quality to expect in a final report.
- ❑ Final report must reflect the sincere efforts of the group. This can help if results are not as expected and to put forward alternative plan for extension of future submission of the project.

# Kipling's Six Honest Serving Men

*I keep six Honest Serving Men  
(They taught me all I knew)*

*Their names are **WHAT** and **WHY** and **WHEN**  
and **HOW** and **WHERE** and **WHO***

*Besides there are five Treacherous Servants  
as **IS**, **OF**, **AND**, **VERY** and **IT***

*They can wreck any composition if undisciplined*

**Joseph Rudyard Kipling** "The Elephant's Child"  
in *Just So Stories for Little Children* (1902)





In this process of writing a Project, any time you  
are disappointed, Remember what  
Lord Krishna said,

कर्मण्येवाधिकारस्ते मा फलेषु कदाचनः ॥

(ie: I must perform my duties, God decides the *result*)

And in the moments of good luck, Remember

फलव्येवाधिकारस्ते मा कर्मेषु कदाचनः ॥

- Sharma

(ie: I must enjoy the fruits, God decides *his* duties)

## Always Remember.....

When you look at the Sea, you see waves, smaller and if integrated larger ones, making more impact. They have their own ups and downs with the flow. Each wave looks to be independent. It appears so but they are all dependent, interconnected and coexist for whatever time, while emerging/originating from the same source The Sea.

Same way all of us feel we are independent it appears so but we are interdependent and connected to each other while working in the same organization. Therefore we must follow the ethos and integrity of the organization we work for, while operating our projects/programmes. Success greatly depends on our togetherness and following ethical practices.

Usually I observed whenever you say “its enough for me”, the progress stops. Therefore, never say “it is enough”.

*(Sharma's Belief)*



# Acknowledgements

I thank our Director for approving this presentation and Mr Willi Paul for supporting its preparation.

## Source Book:

1. *Writing a good proposal*, Chandra P. Sharma, SCTIMST News Letter, Vol. 11, No. 2, Aug 2000, pp 19-21.
2. *Writing & Speaking in the technology professions*, Edited by David F. Beer - IEEE Press, New York, 1992.
3. *Writing winning reports and proposals*, Modern Business Reports, New York, 1987



**Enjoy writing good projects.....**



Thank you

