

UNIVERSITY OF TWENTE.

***- Getting your science funded -
Writing a research proposal***

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I have an idea!

- **Is it really novel?**
- **Is it based on (your) previous work?**
- **Is it “rough” at this moment?**
- **Does it fit into the philosophy / mission of your team!**
- **Does it require multi-disciplinary approach?**

Gathering information

- **State-of-the-art**
- **Open questions in the field**
- **Future challenges**

Data gathering process makes writing easier!

Gathering information

Program information

- Project nature and how it will be done;
- Partners and / or “users”;
- Timetable;
- Anticipated outcomes - how to evaluate results;
- Staffing; including deployment of existing staff and new hires.

Gathering information

Learn about the call and bureaucratic details!

- Where to submit?
- Does my idea fit to specific call?
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-

Writing - components of proposal

- **(Executive) Summary**
Statement of your case and summary of entire proposal
- **Statement of Need (clinical problem) – Novelty**
why this project is necessary!
- **Project Description - Objectives and Approach**
Details about project implementation and evaluation
- **Conclusion**
summary of proposal's main points

(Executive) Summary

The most important section of the proposal!

Summarizes key information

Designed to convince the reader for support

Novelty of the approach

MUST INCLUDE:

- **Problem** — brief statement of problem / need you recognized and prepared to address
- **Solution** — a short project description – **NOVELTY**

Statement of need

- Reviewer / funder understands the problem you aim to solve.
- Facts /evidence supporting the need for the project
(information from: authorities / references / own experience)

Assemble arguments / present them in logical sequence:

Use correct facts / information!

Give hope to the reader!

Consider if your solution is better than others!

Avoid circular reasoning!

Project description - Objectives

Measurable project outcomes and define your methods

MUST BE

Tangible, Specific, Concrete, Measurable, Achievable in a specified time period.

Examples: new membrane; device; process; product

DON'T confuse objectives with goals; Goals are more abstract

Project description - Methods

Describe specific activities to achieve objectives

- Reader visualizes project implementation
- Reader should know what you are doing (establishing a baseline)

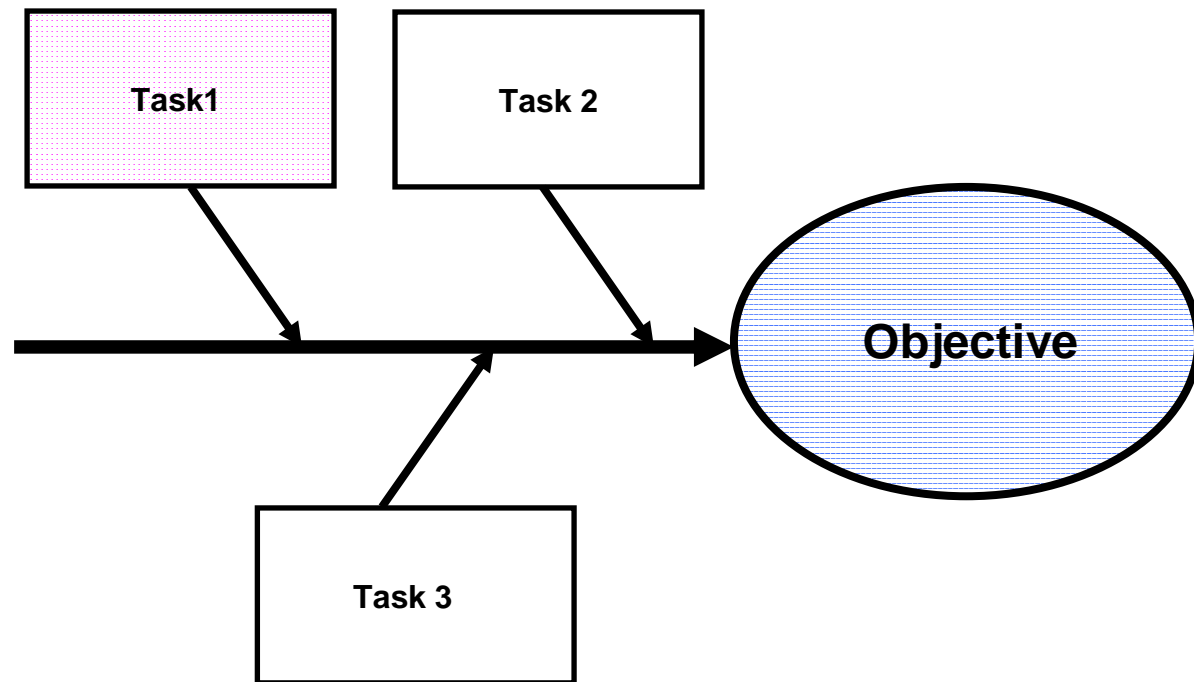
BE REALISTIC!

MUST ADDRESS

- **How:** tasks / actions from beginning till end; methods matching objectives
- **When:** order and timing for the tasks
- **Why:** You may need to defend your chosen methods, especially if they are new or unorthodox.

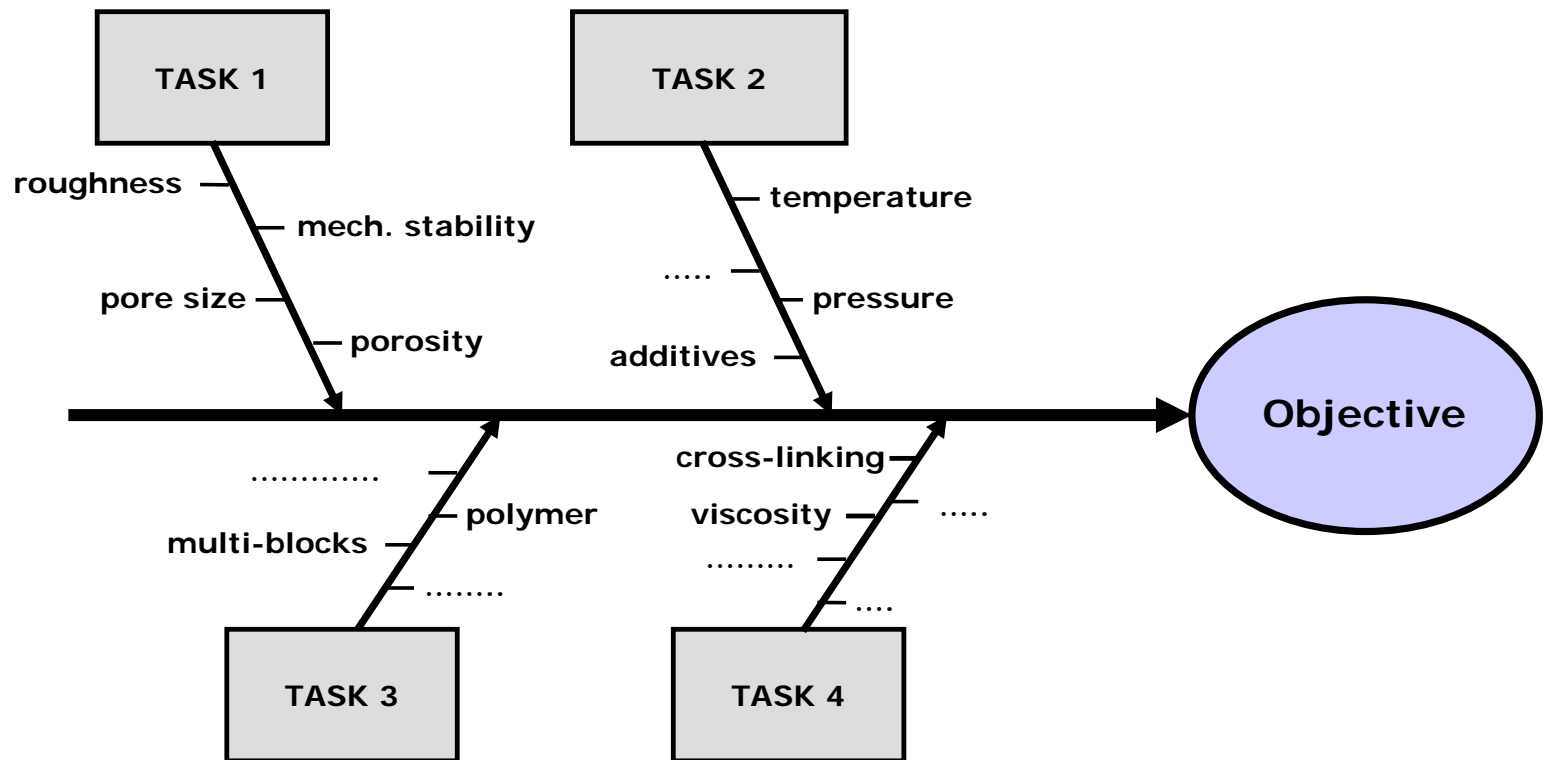
Project description - Methods

How: tasks / actions from beginning till end; methods matching objectives



Project description - Methods

How: tasks / actions from beginning till end; methods matching objectives.



Project description - Methods

When: order and timing for the tasks!

Task, PhD – 1	Year 1		Year 2		Year 3		Year 4		Group expertise
	M	M	M	M	M	M	M	M	
	1 - 6	7 - 12	1 - 6	7 - 12	1 - 6	7 - 12	1 - 6	7 - 12	
1. Task 1	x	x	x						A / B
2. Task 2			x	x	x	x	x		A
3. Task 3				x	x	x	x	x	A/C
4. Task 4							x	x	
Task, PhD - 2	Year 1		Year 2		Year 3		Year 4		Group expertise
	M	M	M	M	M	M	M	M	
	1 - 6	7 - 12	1 - 6	7 - 12	1 - 6	7 - 12	1 - 6	7 - 12	
5. Task 1	x	x	x						C/D
6. Task 2		x	x	x	x	x			C/D
7. Task 3				x	x	x	x	x	C
8. Task 4			x	x	x	x	x		

Project description - Budget

Personnel:

- 1 PhD student for 4 years for the development of
- 1 technician for practical assistance for... years

Consumables:

polymers, solvents, solutes, animal experiments etc

Investments

Special parts for microscope, etc.

Thermal analysis and control

Travel and accommodation

Attending international conferences

Project description - Budget

Personnel

Ph.D student - 4 years	€ 150.000
Technician – 4 years	€ 160.000

Materials

Consumables (chemicals, polymers etc.)	€ 40.000
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Investments:

Parts for microscope etc.)	€ 35.000	€ 100.000
Equipment for bla bla.analysis	€ 65.000	

Travel / conferences

Total costs	€ 475.000
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Think about rules!

Are there specific guidelines? Do you need matching? From whom?

Project description - Conclusion

Make a final appeal for your project

- Reiterate what you want to do and why it is important.
- why you need funding to accomplish it.
- Don't be afraid to use a “bit of emotion” to solidify your case.

Call attention to the future/after grant completion

- Outline some of the follow-up activities
- How the project might carry on without further grant support.

Project description - Others

- **Clinical relevance**

(Societal issues; how many patients would use your product or treatment; equipment etc)

- **Are there “users” in the project?**

(Industrial partners; specific role; contribution; letters of support)

- **Intellectual property (IP) issues**

(Possibility for patents; existing relevant patents, etc)

- **Economic value creation?**

(New processes; treatments; employment; saving costs;)

Project description - Others

- **Are there any ethical issues?**
(animal experiments; clinical trials; controversial methods; etc)
- **Is there a evaluation plan necessary?**
(product or a process?)
- **Should issues of funding sustainability be addressed?**
(create a new laboratory; expertise?)

Check information - once more!

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Famous last words!

General

- Do your homework well!
- Establish contacts / find partners fast!
- Understand terms and conditions!

About writing!

- Start as soon as possible!
- Use present tense and active voice!
- Use figures; schemes; diagrams; illustrations!
- Keep your language simple!
- Write clear messages – avoid fuzz!
- Be enthusiastic

“Have fun!”

we're gonna get to that place where we
really want to go..... and we'll walk
in the sun

...

But till then, tramps like us..... baby we
were born to run!

(Born to Run, 1975)

