Research funding possibilities for postdocs

Virve Karttunen,

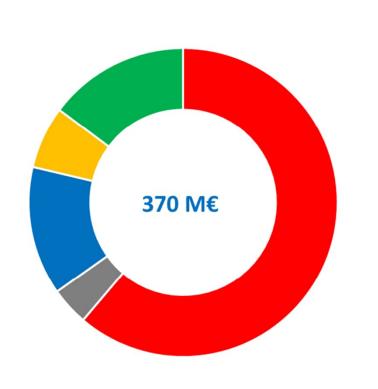
Research Liaison Officer

Aalto University, Research and Innovation Services

1.2.2023



External funding at Aalto in 2021



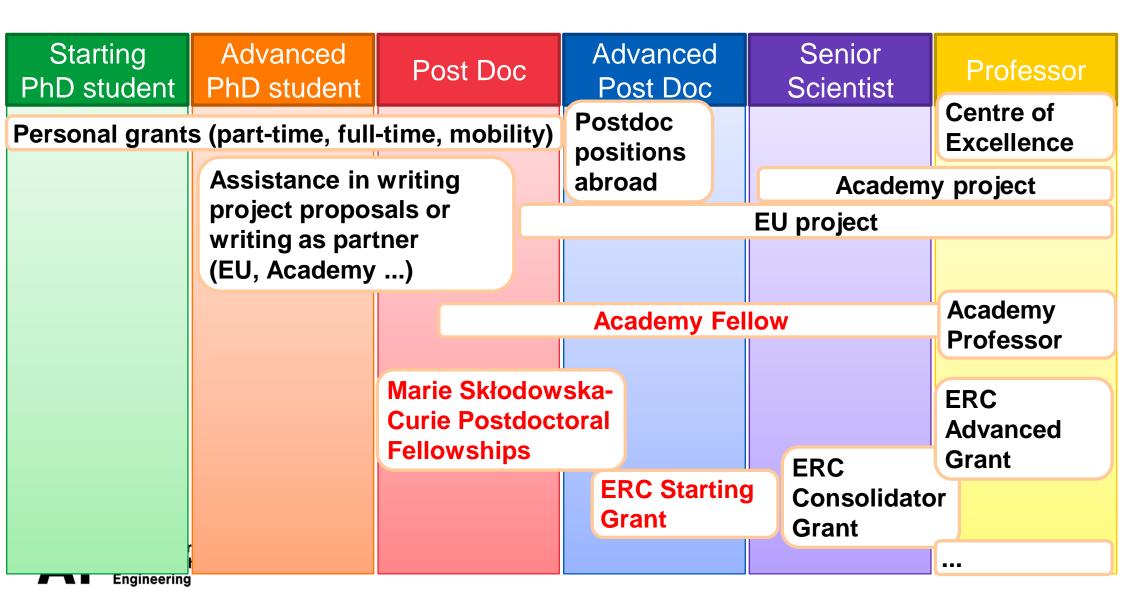
Funding 2021, total 370 M€

- Government 226 M€
- Business Finland 15 M€
- Academy of Finland 50 M€
- EU 24 M€
- Other 55 M€

Total external funding 144 M€



Research funding at different career stages





Marie Skłodowska Curie Actions: Postdoctoral Fellowship (PF)



MSCA-PF

Marie Skłodowska-Curie Action: Postdoctoral Fellowship

European Union & Associated Countries Third Countries, incl. US, China, Japan, India, Brazil... European Fellowships 1-2 yrs. European Fellowships 1-2 yrs. Global Fellowships 1-2 yrs. may include secondments 1 yr. **Academic / Non-academic Academic / Non-academic**



Mobility rule: less than 12 months during last 3 yrs. in future Host Country

EU member states and Associated countries

EU member states (MS) – 27

Associated countries (AC)

- 1. Albania
- 2. Armenia
- 3. Bosnia and Herzegovina
- 4. Faroe Islands
- 5. Georgia
- 6. Iceland
- 7. Israel
- 8. Kosovo
- 9. Moldova

- 10. Montenegro
- 11. North Macedonia
- 12.Norway
- 13.Serbia
- 14.Tunisia
- 15.Turkey
- 16.Ukraine
- (1. Morocco)
- (2. United Kingdom)



European Research Council ERC Starting Grant





ERC-Funding: Who can apply?

- Researcher of any nationality, age or current place of work
- Host Institution based in EU or associated countries

What kind of project?

- All fields of science
- Excellence (PI + project) only criterion
- Frontier research: high gain/high risk

Starting Grant 2-7 after PhD Up to 1.5 (2) M€ for 5 years



For excellent PIs starting their own independent research team or programme. Pls must demonstrate the ground-breaking nature,

ambition and feasibility of their research proposal.

Academy of Finland https://www.aka.fi/en/





Funding opportunities



For researchers

- · Academy Professor
- · Academy Research Fellow
- · Clinical Researcher
- · Mobility funding



For research teams

- Academy Project funding
- Academy Programme funding
- · Centres of Exellence funding





For research organisations

- Research infrastructure funding
- Funding to strengthen university research profiles
- · Flagship funding



Strategic research

 Strategic research programmes



https://www.aka.fi/en/research-funding/funding-opportunities-at-a-glance/

Academy Research Fellow

- For researchers who at the application deadline have completed their first doctorate 2-7 years ago.
 - Applicants who have completed their doctoral degree longer ago than the period mentioned above can be considered only for special reasons (maternity, paternity, parental or childcare leave, military service or nonmilitary service, or long-term illness).
- > No prior mobility between research environments required.
 - but it is still important to have mobility and collaboration.

- Fellowship funding covers four years.
- Budget size should match applicant's research experience and research plan.
- Budget is for 2 persons and the research costs (either for hiring two researchers or for own salary and one other researcher).



Merits and competencies as a researcher

- Tab 'Merits and increased competencies' in the online services (additional to CV)
- Structure:
 - Researcher merits to date
 - 2. How the research idea has evolved since the doctoral dissertation
 - 3. Increasing researcher competencies during the funding period
 - 4. Career plan after the funding period.

May include:

- National and international collaboration and mobility
- Cross-sectoral collaboration
- (Co-)publication (implemented or planned)
- Sharing of data
- Establishing a research team and other academic leadership experience
- Supervision and teaching experience
- Various expert positions
- Most important research funding awards (planned and received).



How we process an application





1

An applicant submits their application in the online services



2

A science adviser at the Academy processes the application



3

The application goes through a scientific review by an international panel of experts



4

An elected body makes the funding decision based on the panel review and science policy



5

If funded, the project can start

https://www.aka.fi/en/research-funding/peer-review-and-funding-decision/review-and-decision-making/



Reveal your experience, expertise, and ambitions

https://www.aka.fi/globalassets/10rahoitus/2022-liitteet/review_form_2022_academy_research_fellowships.pdf

1. Competence of applicant

1.1 Competence and expertise of applicant Sub-rating (1–6)

Personal merits and scientific expertise of applicant; applicant's professional competence and independence; merits in supervising/mentoring students, PhD candidates and/or postdoctoral researchers; merits in existing or planned joint projects or more independent publishing than in previous career stages; experience of working in different research environments across international and/or sectoral borders; significance of the funding to the advancement of the applicant's professional competence; applicant's career development potential and ability to generate scientific renewal, etc.

Where this will be looked for in your proposal:

- □ See CV of applicant in the application form including
 - o most relevant publications and other key outputs in CV (complete list of publications attached at the end of application)
- □ See Merits and increased competencies in the application form.

Describe scientific research breakthrough

https://www.aka.fi/globalassets/10rahoitus/2022-liitteet/review_form_2022_academy_research_fellowships.pdf

2 Quality of research

2.1 Scientific quality, novelty and innovativeness of research Sub-rating (1–6)

Significance of project; objectives and hypotheses; ambitiousness and state of the art of objectives (possible novel concepts and approaches or development across disciplines); scientific impact of research; potential for breakthroughs or exceptionally significant outcomes; etc.

Where this will be looked for in the proposal:

□ See item 1 Aim and objectives in the research plan.

Convincing project execution

https://www.aka.fi/globalassets/10rahoitus/2022-liitteet/review_form_2022_academy_research_fellowships.pdf

3 Implementation

3.1 Feasibility of research plan Sub-rating (1–6)

Feasibility of project (bearing in mind extent to which the proposed research may include high risks); materials, research data and methods; management of research tasks; research environment including research infrastructures; identified potential scientific or methodological problem areas and mitigation plan; etc.

Where this will be looked for in the proposal: □ See item 2 Implementation in the research plan.

3.2 Human resources, expertise and collaboration Sub-rating (1–6)

Scientific expertise of applicant in terms of project implementation; if relevant, complementary expertise of applicant's team (i.e., project personnel directly working/funded for the project), including appropriateness and sufficiency for the proposed project; adequateness of human resources in terms of project implementation; contribution of national and/or international research collaborators and their environment to the success of the project (i.e., collaborators engaged in the project with their own funding); significance of planned mobility for implementation of research plan and researcher training; etc.

Where	this	will	be	looked	for	in	the	propo	sal
-------	------	------	----	--------	-----	----	-----	-------	-----

See	item 3	. Applicant	, possible res	earch tea	m and collabo	orators in the	e research p	lan.	
See	list of	publication	ıs. 🗆 See mob	ility plan	in the applica	ition form. \square	See letter(s	s) of collaborati	ion.

Responsibility and societal impact

https://www.aka.fi/globalassets/10rahoitus/2022-liitteet/review_form_2022_academy_research_fellowships.pdf

4 Responsible science, societal effects and impact

4.1 Responsible science (no numerical rating)

Consideration of different aspects of responsible science; please comment especially if there are shortcomings in any of the following aspects: research ethics; promotion of equality and nondiscrimination within project or in society at large; open access to research publications; data management and open access to data; sustainable development.

Where this will be looked for in the proposal: □ See item 4 Responsible science in the research plan.

4.2 Societal effects and impact of the project (no numerical rating)

Comments on aspects of societal effects and impact of the project, if relevant.

Where this will be looked for in the proposal:

- □ See item 5 Societal effects and impact in the research plan.
- □ Comments on societal effects and impact should not affect the scientific review/rating or ranking of the application. Instead, they will be considered as an additional factor when the funding decisions are made.



Evaluation Summary

https://www.aka.fi/globalassets/10rahoitus/2022-liitteet/review_form_2022_academy_research_fellowships.pdf

5 Summary assessment of project

Main strengths and weaknesses of project (no numerical rating)

Summary assessment of application including main strengths and weaknesses with justifications; concluding remarks.

- 5.1 Main strengths and their justifications:
- 5.2 Main weaknesses and their justifications:
- 5.3 Concluding remarks:

6 Overall rating Rating (1-6)

□ Please note that the final rating should not be a mathematical average of the sub-ratings. For example, the application should not be penalised if it has a slight weakness in one evaluation item that is later strengthened in another item (e.g., lack of some expertise in a local team but compensated through international collaboration).

Ranking based on the panel discussion (the ranking is made during the panel meeting)

Your application was ranked [ordinal number] of all [number] [Funding instrument name] applications reviewed in this panel. Only applications with a final rating of 5 or 6 were ranked. The [Funding instrument name] applications addressed to the Research Council for [Research Council name] were reviewed in a total of [number] panels

Submitting proposals

- Read guidelines carefully! Start early!
- Open the submission portal early, check electronic forms.
- Check required attachments: CV, Letter, Certificate, DMP,
- Keep track of relevant papers, update your CV, ORCID, ...
- Talk to your supervisor: collaborators, feedback, references,...
- Ask someone to read your proposal and give comments.
- Build a reasonable budget and schedule
- The evaluators are professional but may be not specialists.
- Do not be discouraged after rejection. Same proposals are sent several times (updated and modified).



Personal Grants

https://www.aalto.fi/services/research-funding-from-foundations https://www.aalto.fi/en/services/funding-from-foundations-for-events-and-travel



Foundations - Personal grants - Doctoral student

	Personal grants				
Applicant	Researcher or student / individual				
Funder	under Foundations, Companies, Ministries, etc				
Purpose	Stipends, Fellowship, Encouragement, Mobility, Travel, Research cost				
Funding size	Typically smaller grants (500 €28 000 €) – directly to your pocket				
Budgeting	Depending on the guides /grant type, often fixed sums, check last year grantees, ask advice from the supervisor				
Approvals	Not needed from Department head, need to inform controller (except if a commitment is given by the department e.g. commitment letter)				
Tips	References, ask someone to read your proposal and give comments				



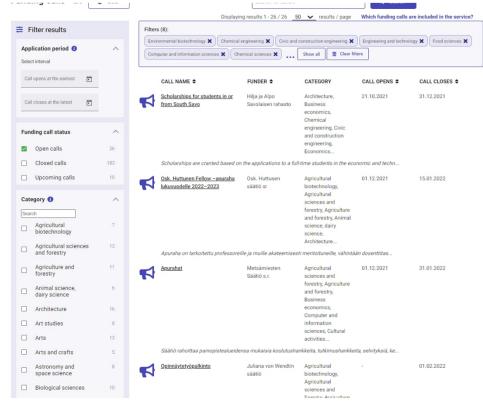
What to check

- Funded research fields
- Guidelines, Evaluation criteria
- Foundation policy
- Whether personal grants funded
- Whether research project grants to organisation funded
- Previous grantees
- Any restrictions (age, citizenship, mother tongue, city)
- Pay attention to timeframe: possible need of Reference Letters or Letter of Commitment, hence approval from the Department Head; degree certificates (translated) etc.
- Some Finnish foundations have web pages in Finnish only



Foundations – call search

<u>research.fi/en/</u> <u>research.fi/en/funding-calls?status=open</u>





www.aalto.fi/en/services/research-funding-from-foundations

Important Finnish foundations (some selected from the whole list given)

- •<u>Alfred Kordelin Foundation</u> (grants to promote science, literature, art and public education)
- Emil Aaltosen säätiö (grants for several research fields, for Finnish speaking researchers)
- •<u>Foundation for Aalto University Science and Technology</u> (grants for MSc and doctoral theses and research visit for researchers at Aalto Schools CHEM, ELEC, ENG, SCI and Department of Architecture)
- •Henry Ford Foundation (in Finnish; motorized traffic and agriculture)
- •<u>Jane and Aatos Erkko Foundation</u> (high-level international research, arts and culture)
- Jenny and Antti Wihuri Foundation (grants for several research fields)
- •KAUTE Foundation (scientific research in business and engineering)
- •Kone Foundation (grants for research in humanities, social sciences, environmental research and artistic research)
- •Maj and Tor Nessling Foundation (environmental protection)
- •Finnish Cultural Foundation (several research fields)
- •<u>Tekniikan edistämissäätiö (TES)</u> (only in Finnish; Research on technology)
- •<u>Technology Industries of Finland Centennial Foundation</u> (fields represented by the Federation of Finnish Technology Industries)

Information about foundations and their calls is available also on the following websites:

- Grant bulletin board (Into)
- •Funding from foundations for events and travel (aalto.fi)

Most important foundations

Emil Aaltonen Foundation

Tekniikan edistämissäätiö, TES

Finnish Cultural Foundation

Foundation for Aalto University Science and Technology

Jenny and Antti Wihuri Foundation

Alfred Kordelin Foundation

Magnus Ehrnrooth Foundation

Jane and Aatos Erkko Foundation

Foundations' Post-doc pool

PoDoCo funding



KAUTE Foundation

Link: https://kaute.fi/

Topics: economics and technical sciences

Deadline: 31.1. usually

Grantees: individuals

For: PhD thesis and postdocs (3, 6 or 12 months, max 24 000 €), research costs (5000 €) or research visits (10 000 €)



Emil Aaltonen Foundation

Link: https://emilaaltonen.fi/ (Finnish only)

Topics: any; for Finnish-speaking researchers

Deadline: 15.02. every year

Grantees: individuals and organizations

For: research projects, PhD thesis (full year, 4-10 months), postdoc (full year, 4-10 months), encouragement grants (5000 €), travels and other costs



The Finnish Foundation for Technology Promotion Tekniikan edistämissäätiö, TES

Link: https://tekniikanedistamissaatio.fi/en/grants/

Topics: Technology fields

Deadline: January/February

Grantees: individuals and organizations

For: PhD thesis (full year, part of the year, abroad), postdoc (for foreigners, full year), encouragement grants (5000 €), conference trip costs (presentation)



Finnish Cultural Foundation Suomen Kulttuurirahasto

Link: http://www.skr.fi/en

Topics: arts, science and various fields of cultural life

Deadline: Central Fund grants - end of October; 17 regional funds

in February (incl. Uusimaa)

Grantees: individuals, working groups and organizations

For: research projects, PhD thesis (full- and half-time), postdoc,

finalizing degree (1000 – 4000 €)



Foundation for Aalto University Science and Technology

Link: https://www.aalto.fi/foundation-for-aalto-university-science-and-technology

Topics: Technology and architecture

Deadline: 2.3.2023

Grantees: individuals

For: PhD thesis (15 000€), research visits

+ Gifts from donor companies to be used for a specific field of technology – support for M.Sc., Lic.Sc., D.Sc. degrees. Grant decisions every month.



Tutkijat Maailmalle – Researchers to the world

Link: https://tutkijatmaailmalle.fi/apurahat/ (Finnish only)

Topics: technology (except biotech and architecture) and business

Deadline: April

Grantees: individuals with Finnish citizenship or permanent

residence in Finland

For: PhD students' and postdocs' research mobility abroad (costs and grant, max. 50 k€)

Success rate 2021: 31 %



Jenny ja Antti Wihuri Foundation

Link: http://wihurinrahasto.fi/?lang=en

Topics: Any (not medicine)

Deadline: April/May, 31.5.

Grantees: individuals and organizations

For: research projects, PhD thesis (full year, half year), postdoc (full year, half year), homing-grants (after postdoc work abroad), encouragement grants (5000 €)



Alfred Kordelin Foundation

Link: https://kordelin.fi/en/grants/

Topics: science, literature, art and public education; to promote

Finnish culture, to represent Finnish culture abroad

Deadline: August, 15.08.

Grantees: individuals

For: PhD thesis (full year, half year), postdoc (full year up to three

years), conference trips

In January GUST. KOMPA FUND, only chemistry:

https://kordelin.fi/en/grants/city-funds-and-dedicated-funds

(1000-4000 €)



Magnus Ehrnrooth Foundation

Link:

https://www.magnusehrnroothinsaatio.fi/en/?noredirect=en_GB

Topics: mathematics, astronomy, physics, chemistry including medical chemistry

Deadline: 30.11.

Grantees: individuals

For: research projects, PhD thesis, postdoc, encouragement

grants, conference trips



Jane and Aatos Erkko Foundation

Link: http://www.jaes.fi/en/

Topics: research, arts and culture (primary: fields of technology, economics and medicine; also supports arts and culture, other projects that promote wellbeing)

Deadline: available for application on a continuous basis

Grantees: individuals and organizations

For: research projects (e.g. 30 k€- 2.5 M€)



Walter Ahlström Foundation

Link: http://www.walterahlstrom.fi (Finnish only)

Topics: Wood, EE, Power engineering, Metal industry

Deadline: end of December

Grantees: individuals under 35 years with Finnish ID

For: encouragement grants for PhD students (3000-5000 €),

research visits, research projects



Foundations' Post Doc Pool

Link: http://www.postdocpooli.fi/?lang=en

Topics: any

Deadlines: Dec/Jan and Aug/Sep

Grantees: individuals

For: post-doctoral research abroad (≈ 30 k€- 50 k€per year)



PoDoCo: Post Docs in Companies

Link: http://www.podoco.fi/, pool of 8 foundations

Deadlines: Autumn and Spring

Recently or (soon to be) completed PhD

For: matching young doctors and companies, 1-2 years program, academic research period at the university + targeted research period at company



Fulbright - Technology Industries of Finland Grant

Link: https://www.fulbright.fi/grant-programs-us

Topics: any + Technology (EE, Eng., IT) + Business, Economics

Deadline: Last year October 4, 2022

Grantees: individuals with Finnish citizenship

For: study and research in US on Master and PhD level,

30 k\$, one academic year

Travel grants: No citizenship limitation



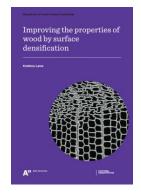
Check theses / Acknowledgments

Libraries, https://aaltodoc.aalto.fi/handle/123456789/5



I wish to thank the Väisälä Foundation for the three annual grants for doctoral studies, and greatly appreciate the smaller grants from the Emil Aaltonen Foundation, the KAUTE Foundation, and the National Graduate School in Materials Physics.

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© Kristiina Laine

...Emil Aaltonen Foundation for providing the financial support, which enabled me to work full time on the dissertation for three years. I would also like to thank Walter Ahiström Foundation, Tekniikan edistämissäätiö, Finnish Woodworking Engineers Association, Veljekset Saarelaisen säätiö for financial support, as well as Puumiesten ammattikasvatussäätiö, COST Action FP-0904, The Doctoral Programme in the Built Environment (RYM-TO), The Association of Finnish Sawmillmen for supporting my travels to the many conferences and short-term scientific visits,



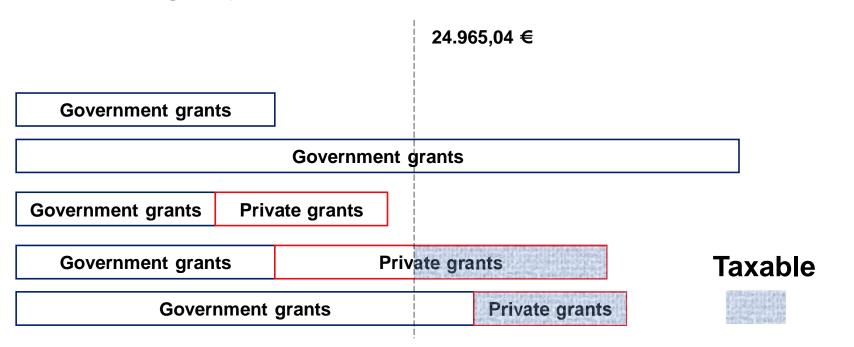
Grant types: Full-time grant

- Personal working grant / työskentelyapuraha ca. 20 000 30 000 €year
- For carrying out research work full time according to the project plan (PhD or Postdocs)
- Normally for 12 months (incl. vacation)
- Grantees are not employees
 - Academic Visitor contract
 - Discuss in advance with the professor about supervision, office, PC, access to equipment
 - Intellectual property rights do not transfer automatically to Aalto
- Some foundation allow additional employment between 10 24 % working time, some not
- <u>Aalto has committed</u> to offer 10 % employment to all personal grant recipients with at least 12 months of personal grant (voluntary: you do not need to accept it)
 - Extra tasks, not the same research as in the personal grant
 - Improve the status of the grantee: access to occupational health care, services, better integration to the community
 - Discuss with the professor (funding, tasks, supervision) and HR



Taxation of personal grants

- Other grants may be fully or partially taxable
- The part of private funding agents grants that exceeds during one year, together with government grants, 24.965,04 € is taxable. (24.965,04 € is for 2023 = artists annual state grant)





Social security

- If Personal grants for working over 4 months
 - statutory social security and pension fee ca. 15 %
 - www.mela.fi.
 - https://saatiotrahastot.fi/en/frontpage/
 - https://www.vero.fi/en/individuals/tax-cards-and-tax-returns/income/earned-income/grants/



Grant types: Part-time grant

- Similar to the Full-time grant, but, e.g., for 50 % of working time with possibility to be employed by Aalto other 50 %
- Only if the Foundation explicitly allows part-time grants
- Discuss with the professor (funding, tasks, supervision) and HR



Grant types: Mobility or Research Costs

- To cover costs related to conference trips, research visits, research mobility or research costs (equipment, materials etc.)
- Employees can apply
- Follow the guidelines



Grant types: Encouragement grant / Kannustusapuraha

- To provide additional encouragement to Doctoral Students while pursuing their doctoral degree studies
- Employees can apply extra to your salary, you are free to use it anyhow
 - 3000 5000 €
 - Can apply multiple times
- Follow the guidelines, may need a recommendation letter



Writing a successful grant application

Grant Writing seminars 2023:

- https://www.aalto.fi/en/services/annual-training-courses-to-support-research

(Please also remember that materials for trainings organized by Research and Innovation Services are available)



Upcoming trainings organized by RIS Check Workday Learning

What researchers need to know about IPR

 intellectual property rights and policies; open source publishing; commercialization and protection the IP

Grant Writing seminar, Spring

tips for writing competitive research funding application, panel, text clinic

Short course in grant writing, Autumn

tips for writing competitive research funding application

Marie Skłodowska-Curie: Postdoctoral Fellowships, May or June

tips for writing competitive research funding application



Where from do I start? Fill a need!

- Proposals offer a plan to fill a need
- Evaluators evaluate your plan according to how well your written presentation answers questions about:
 - WHAT you are proposing
 - HOW you plan to do it
 - WHEN you plan to do it
 - HOW MUCH it is going to cost
- The case is built by the demonstration of logic in your approach
- Consider all sides of the argument!



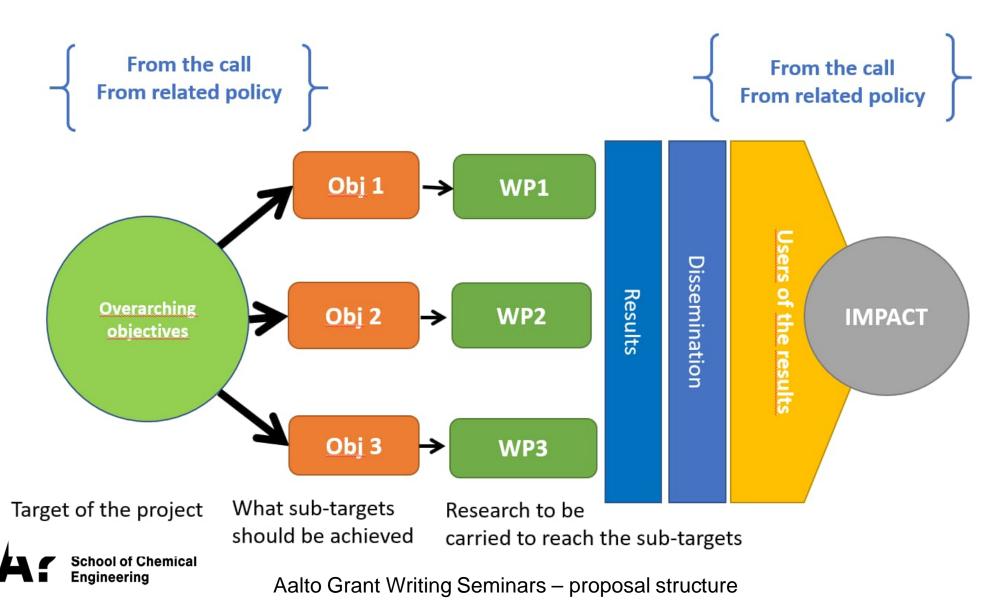
Academic Writing versus Grant Writing: Contrasting Perspectives

Academic Writing	Grant Writing
Scholarly pursuit:	Sponsor goals:
Individual passion	Service attitude
Past oriented:	Future oriented:
Work that has been done	Work that should be done
Theme-centered:	Project-centered:
Theory and thesis	Objectives and activities
Expository rhetoric:	Persuasive rhetoric:
Explaining to reader	"Selling" the reader
Impersonal tone:	Personal tone:
Objective, dispassionate	Conveys excitement
Individualistic:	Team-focused:
Primarily a solo activity	Feedback needed
Few length constraints:	Strict length constraints:
Verbosity rewarded	Brevity rewarded
Specialized terminology:	Accessible language:
"Insider jargon"	Easily understood



Robert Porter, Why academics have a hard time writing good grant proposals, https://www.schulich.uwo.ca/biochem/research/docs/Article_on_Proposal_Writing.pdf

Connect all the pieces



Issues noted in evaluation

Aalto-universitetet

- Language is too complicated (difficult to read → keep the core message clear)
- **Logic in presentation/story line** fails (difficult to follow the story → *matters related together should be connected to each other and presented in, e.g., time order*)
- Unclear objectives/project targets (no or too general targets → provide the main goal of your project, cut it to 3-5 aims that are needed to gain this main target, make these sub-objectives as WPs)
- Poor **State-of-the-Art** section (not presenting the current research globally, yours or others, no references → describe the recent development (3-5 past years) of this research area/topic, use references, relate the planned research to these findings, show the knowledge gap and research questions that you plan to answer)
- Poorly presented methodology (not enough details → What is done? Why? How? With which methods?, When? By whom? Where? With whom? – Deliverables to ensure project outcomes; Gantt and milestones to monitor project progress; Risks and their mitigation and impact to project execution)
- Inadequate resources (too much to do in too short time or personnel and research resources one
 person cannot do in 2-3 years the same that a research team in 4-5 years → check the budget and what you
 can do in the given funding and time)
- Profile/track record of PI wrong for the proposed project (→ must change topic)
- Innovation and originality not convincing (continues research already running at the host group issue in the AoF and HEU PF → Create new research sector, your own slice)

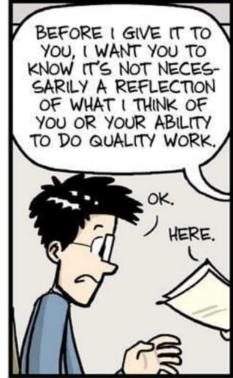
Good Proposal in a nutshell

- Evaluators are not lazy, but the workload is big, working in the evenings/nights
- Everything in place and easily served
- Feels that the clearer the structure, the more it has been taught through!
- Good language and finished layout
- Coherent
- Enthusiasm is tangible:
 - Write active!



Thank you! Questions?









WWW.PHDCOMICS.COM