Research funding possibilities for postdocs

Virve Karttunen,

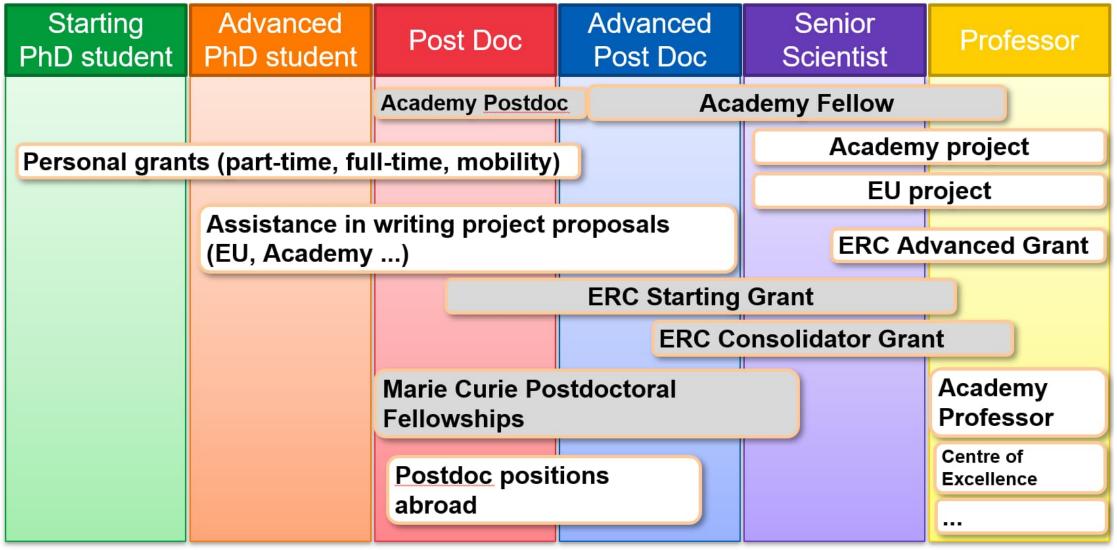
Research Liaison Officer

Aalto University, Research and Innovation Services

25.1.2022

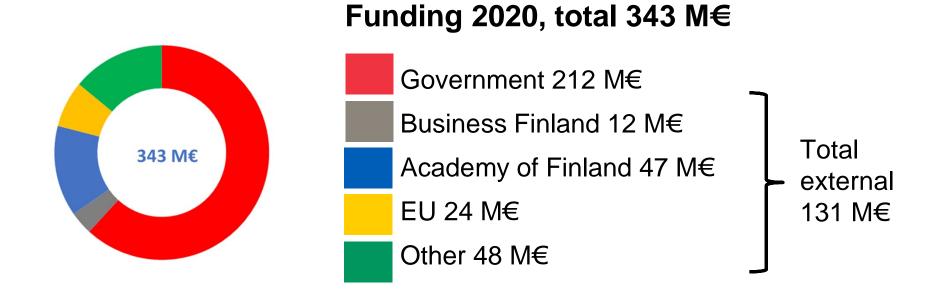


Research funding at different career stages





External funding at Aalto in 2020





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).





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, Russia, 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)

- Georgia
- Iceland
- Israel
- Moldova
- Montenegro
- North Macedonia
- Norway
- Serbia
- Turkey

- Armenia
- Bosnia and Herzegovina
- Faroe Islands
- Kosovo
- Morocco
- Tunisia
- Ukraine
- 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.

PIs must demonstrate the ground-breaking nature

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
- Postdoctoral Researcher
- Clinical Researcher



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/

AoF Postdoctoral Researcher

- Gaining competence for demanding researcher or expert positions
- For your own research project (you are the PI) + teaching 5% (max 10%)
- Funding to Aalto University, you will be hired as an employee
- Funding: Your salary (max. 3900 €/month i.e. the more experienced PhDs...) for 3 years
 + Research costs (Equipment, materials, consumables, travels, mobility, not for other's
 salary)

Eligibility - mobility is required after the PhD degree :

- You apply to a different research environment than the one you worked while completing your PhD thesis OR
- You apply to the same research environment, but you have worked abroad or somewhere else in Finland at least for 6 months after completing your PhD before the call dead-line (can be separate spells, but two longest spells must equal ≥ 6 months).
- (COVID-19 exceptions to mobility (provide proof e.g. airline tickets or invitation)).



AoF Postdoctoral Researcher

Postdoctoral Researchers are encouraged to engage in international mobility and collaboration

If you want to be competitive,

- do not to continue business as usual at supervisor's lab
- take the mobility plan seriously
- show that you have your own research ideas and collaborators



AoF Postdoctoral Researcher

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/



Academy of Finland evaluation (1/2)

https://www.aka.fi/en/research-funding/peer-review-and-funding-decision/guides-for-reviewers/

1 Quality of research described in plan

- **1.1 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. See item 1 Aim and objectives in the research plan.
- **1.2 Implementation 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; human resources and management of research tasks; research environment including research infrastructures; identified potential scientific or methodological problem areas and mitigation plan; etc. See item 2 Implementation in the research plan.
- 1.2.1 If applicable: Research consortium (no numerical rating) Significance and added value of consortium for attainment of research objectives. See item 2.4 Added value of consortium in the research plan. A consortium is a fixed-term body of subprojects under a joint research plan that it implements together with a view to achieving more extensive added value than through normal cooperation. Each consortium subproject applies for funding to implement the plan as part of the joint consortium application, but a consortium application is reviewed as a single research plan.

2 Competence of applicant(s), quality of research collaboration

- 2.1 Competence of applicant(s) and complementary expertise of applicant's research team (project personnel) Sub-
- **rating (1–6)** Merits and scientific expertise of applicant (in case of consortium: applicants) in terms of project implementation; complementary expertise of applicant's research team (i.e. project personnel directly working/funded for the project); competence of applicant(s) in terms of supervising PhD candidates or postdoctoral researchers; support for researcher training within project; etc. See item 3.1 Project personnel and their project-relevant key merits in the research plan. See most relevant publications and other key outputs in the application form. See CV(s) of the applicant(s) in the application form. See complete list(s) of publications. If you are reviewing consortium applications, you should review the competence of all principal investigators.
- **2.2 Significance of research collaboration and researcher mobility Sub-rating (1–6)** Significance of national and/or international research collaboration (i.e. collaborators engaged in the project with their own funding) including complementary expertise and research environment of collaborators in terms of project implementation; significance of planned mobility for implementation of research plan and researcher training; etc. See item 3.2 Collaborators and their project-relevant key merits in the research plan. See mobility in the application form. See attached Letter(s) of collaboration.



Academy of Finland evaluation (2/2)

https://www.aka.fi/en/research-funding/peer-review-and-funding-decision/guides-for-reviewers/

3 Responsible science

3.1 Has the applicant considered the following aspects of responsible science properly in the application?

- See item 4 Responsible science in the research plan. The Academy of Finland is committed to promoting research integrity, responsible conduct of research and the principles and practice of equality and nondiscrimination and open science. See 'Instructions for reviewing' for further information.
- 3.1.1 Research ethics Yes (no comment needed) No, please comment in sub-item 3.2.1
- 3.1.2 Promotion of equality and nondiscrimination within project or in society at large Yes (no comment needed) No, please comment in sub-item 3.2.1
- 3.1.3 Open access to research publications Yes (no comment needed) No, please comment in sub-item 3.2.1
- 3.1.4 Data management and open access to data Yes (no comment needed) No, please comment in sub-item 3.2.1
- 3.2 Comment on responsible science, societal effects and impact
- 3.2.1 Provide further comments if responsible science aspects (3.1.1-3.1.4) have not been properly considered
- 3.2.2 Additional comments on societal effects and impact

You are also encouraged to comment on societal effects and impact, including principles of sustainable development. • See items 4.4 Sustainable development objectives and 5.1 Effects and impact beyond academia in the research plan. • Please note that comments on societal effects and impact, including principles of sustainable development, 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.

4 Overall assessment and rating

4.1 Main strengths and weaknesses of project (no numerical rating)

Please select major strengths and weaknesses of the application. Give justifications for the selection in sub-item 4.2.

Main strengths/weaknesses (select all relevant aspects): scientific quality - innovativeness and novelty value - impact within scientific community - feasibility of research plan - significance and added value of consortium (if applicable) - competence of applicant/s in terms of project implementation - complementary expertise of research team (in terms of project implementation) - significance of collaborative networks in terms of project implementation - researcher training including researcher mobility

- **4.2 Justifications and comments** Please justify the selections above by briefly describing the main strengths and weaknesses of the application.
- **5 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 the 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.

- - Lugineering

Statistics in September call

Table 1.1. Postdoctoral Researchers: Applications, funded researchers and success rate by research council in 2019–2021. Source: Academy of Finland.

Research Council	Applica- tions in 2019	Applica- tions in 2020	Applica- tions in 2021	Funded researchers in 2019	Funded researchers in 2020	Funded researchers in 2021	Success rate in 2019	Success rate in 2020	Success rate in 2021
Biosciences,									
Health and the									
Environment	255	207	222	38	35	33	15%	17%	15%
Culture and									
Society	249	235	267	38	31	30	15%	13%	11%
Natural Sciences									
and Engineering	267	277	312	42	44	44	16%	16%	14%
					Ĭ				
Total	771	719	801	118	110	107	15%	15%	13%



Personal Grants - directly to your pocket!

https://www.aalto.fi/services/research-funding-from-foundations

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



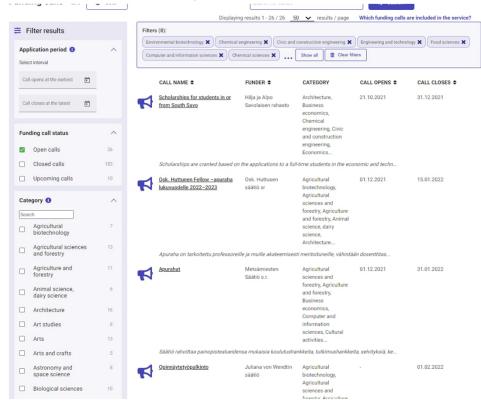
Foundations - Personal grants - Doctoral student

	Personal grants			
Applicant	Researcher or student / individual			
Funder	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, good 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			



Foundations – call search

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



Former AURORA-database will be part of the Research.fi from the beginning 2022

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

Deadline: Last year 04.03.2021

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: Last year 16.04.2021

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 Ahiström Foundation

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

Topics: Wood, EE, Power engineering, Metal industry

Deadline: 31.12.2022

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 May 23, 2021

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

Deadline: Last year March 22, 2021



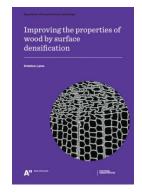
Check theses / Acknowledgments

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.

© Juha Salmilehto



© 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,



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



Status of grantee

Status difference of grantee and employee

E.g. full-time grant (ca. 24 000 €/yr) -> Academic Visitor:

- exclude insurances, lunch discount etc.
- No supervision relationships, no guidance, no office, no PC, no access to equipment unless discussed with supervisor and department head; Letter of commitment may include these items
- Compensation to host university (e.g. 1750 € / year included in some grants) –
 Academic Visitor Agreement
- Intellectual property rights do not transfer automatically to Aalto; subject to agreement

Employee can have some kind of grants:

- Support/encouragement grants / kannustusapuraha
- Mobility grants, conference or course participation grants
- Research costs grants



Writing a successful grant application

Grant Writing seminars 2022:

- 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)

https://wd3.myworkday.com/aalto/d/inst/13102!CK5mGhEKBggDEMenAhlHCgUl1A0QTw~~/cacheable-task/14860\$23.htmld



Upcoming trainings organized by RIS Check Workday Learning

What researchers need to know about IPR, 3/2021

 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!

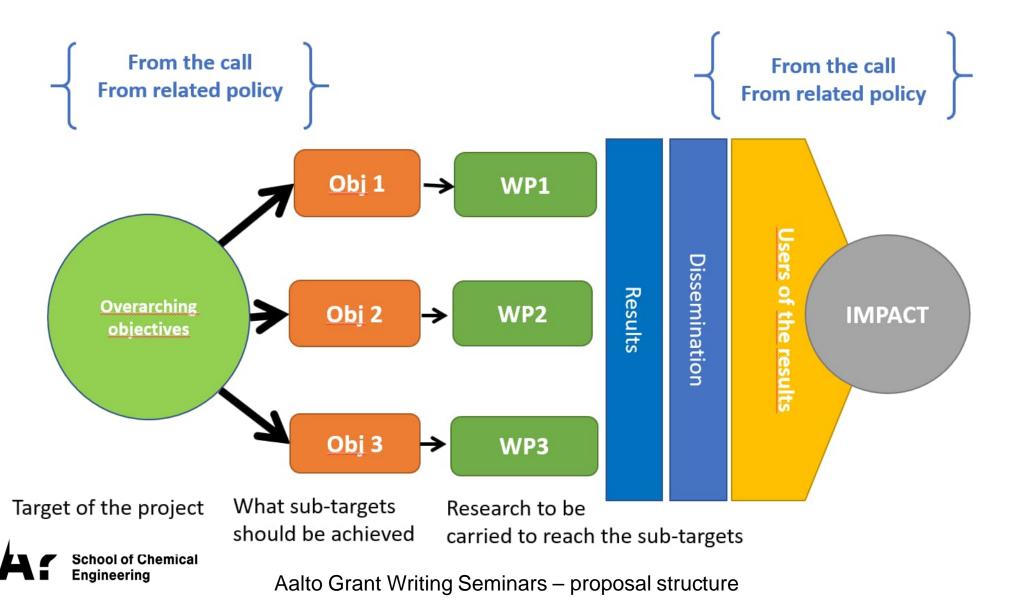


Academic Writing versus Grant Writing: Contrasting Perspectives

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			



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)

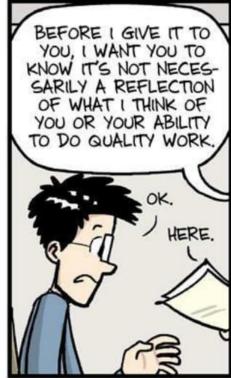
Good Proposal in a nutshell

- 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