

ERC IN HORIZON EUROPE: WHAT'S YOUR RESEARCH VISION?

Dec 15, 2020 University Vienna

ERC Starting and Consolidator Grant Application Workshop (online)

Ylva Huber, FFG

source: iStock FFG

OUTLINE

- ERC: Mindset and principles
- What's new in Horizon Europe?
- What makes a competitive proposal? – Some reflections
- Q+A

**Scientific excellence
is the only funding criterion**

**Open for all areas
of research**

**Led by Scientific
Council**

**Highly
competitive**



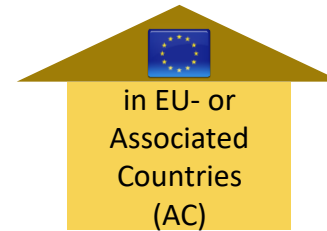
1 Principal Investigator (PI) + Host Institution (HI)



Excellent scientists in all career stages

- **Starter**
- **Consolidator**
- **Advanced**

2-4 PIs together: **Synergy**



- Minimum time commitment by PI (50% in EU/AC; 50%/40%/30% for project)
- PI autonomy
- ERC Grants are portable

FRONTIER RESEARCH GRANTS: FUNDING AND TIME WINDOWS



STARTING

2-7 years post
PhD*

max. **1,5** (-2,5)

Mio € for 5 years

next deadline:

March 9, 2021

(tbc)

Eligibility reference
date 1.1.2021

CONSOLIDATOR

7-12 years post
PhD*

max. **2,0** (- 3,0)

Mio € for 5 years

next deadline:

April 20, 2021(tbc)

Eligibility reference
date 1.1.2021

ADVANCED

outstanding 10
years track record

max. **2,5** (- 3,5)

Mio € for 5 years

next deadline:

Aug 31,2021 (tbc)

SYNERGY

max 10 Mio (-14 Mio) € for 6 years

next deadline:

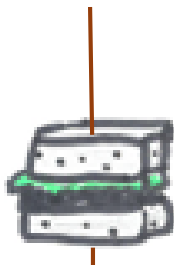
Nov 2021(tbc), Call 2022

**Eligibility time-
window can be
extended**
in defined cases,
e.g. for
maternity,
parental leave,
long-term
illness

***Time windows
will stay the
same for first
calls in Horizon
Europe/
WP 2021**

SPECIFICS OF THE ERC EVALUATION PROCESS

STEP 1



Extended Synopsis (B1) - 5 pages

+ CV - 2 pages

+ Track record - 2 pages

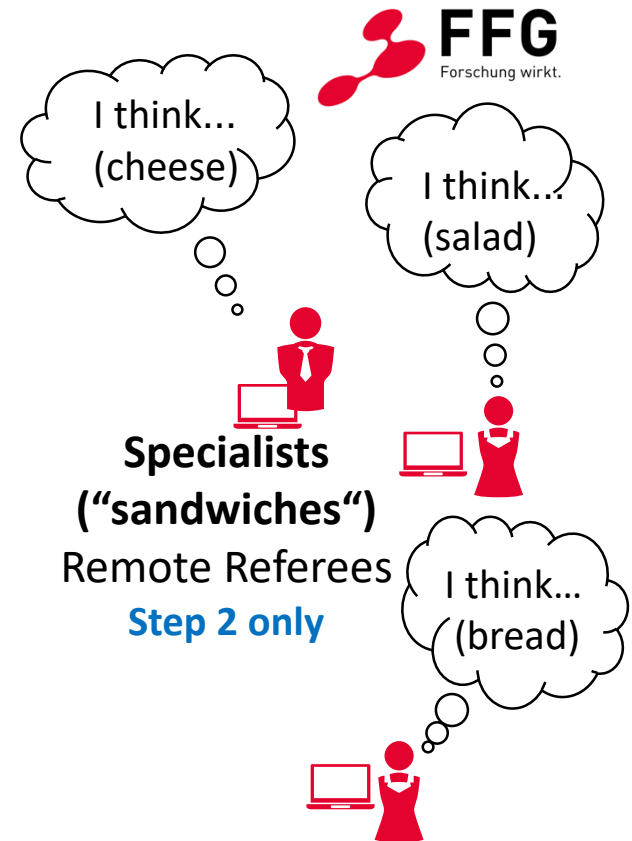
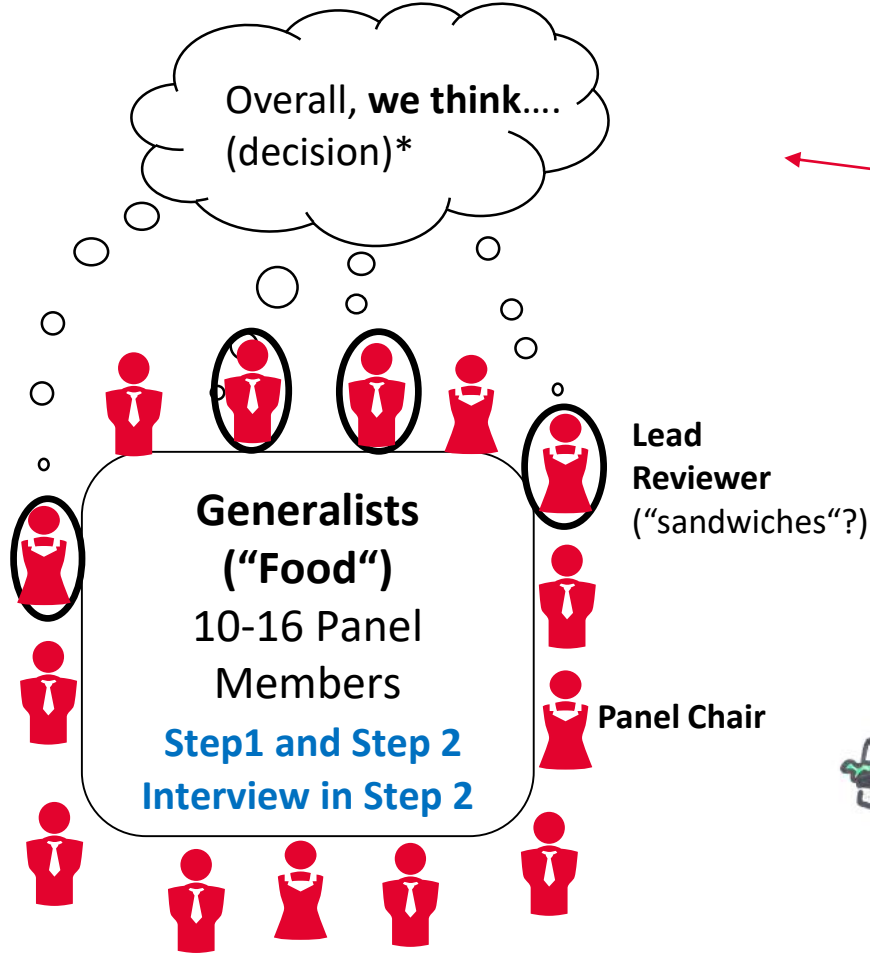
Only B1 is evaluated at step 1

STEP 2



Full proposal (B2) - 15 pages

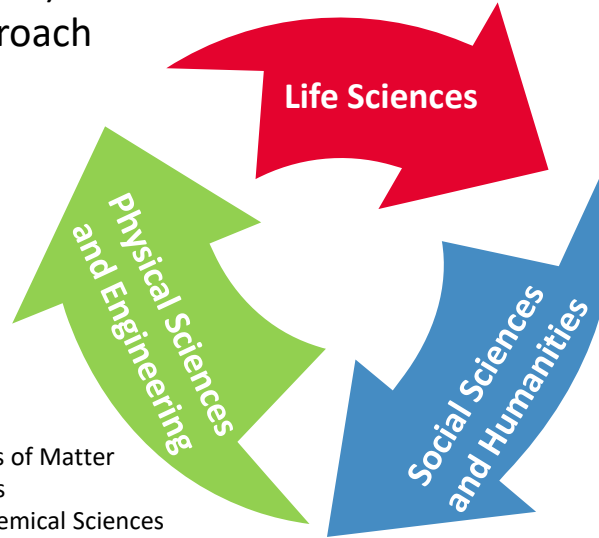
B1 and B2 are available to reviewers in step 2



* Funding decision taken by entire panel

ERC PANEL STRUCTURE 2021/2022

- 27 ERC Panels (2 new)
- whole science approach



- PE1 Mathematics
- PE2 Fundamental Constituents of Matter
- PE3 Condensed Matter Physics
- PE4 Physical and Analytical Chemical Sciences
- PE 5 Synthetic Chemistry and Materials
- PE6 Computer Science& Informatics
- PE7 Systems & Comm. Engineering
- PE8 Products and Processes Engineering
- PE9 Universe Sciences
- PE 10 Earth System Science
- **PE 11 Materials Engineering**

- LS1 Molecular & Structural Biology and Biochemistry
- LS2 Genetics, Genomics, Bioinformatics, Systems Biology
- LS3 Cellular and Developmental Biology
- LS4 Physiology, Pathophysiology and Endocrinology
- LS5 Neurosciences and Neural Disorders
- LS6 Immunity and Infection
- LS7 Diagnostic Tools, Therapies and Public Health
- LS8 Evolutionary, Population and Environmental Biology
- LS9 Applied Life Sciences and Non-Medical Biotechnology

- SH1 Individuals, Markets and Organisations
- SH2 Institutions, Values, Environment and Space
- SH3 The Social World, Diversity, Population
- SH4 The Human Mind and Its Complexity
- SH5 Cultures and Cultural Productions
- SH6 The Study of the Human Past
- **SH7 Human Mobility, Environment and space**

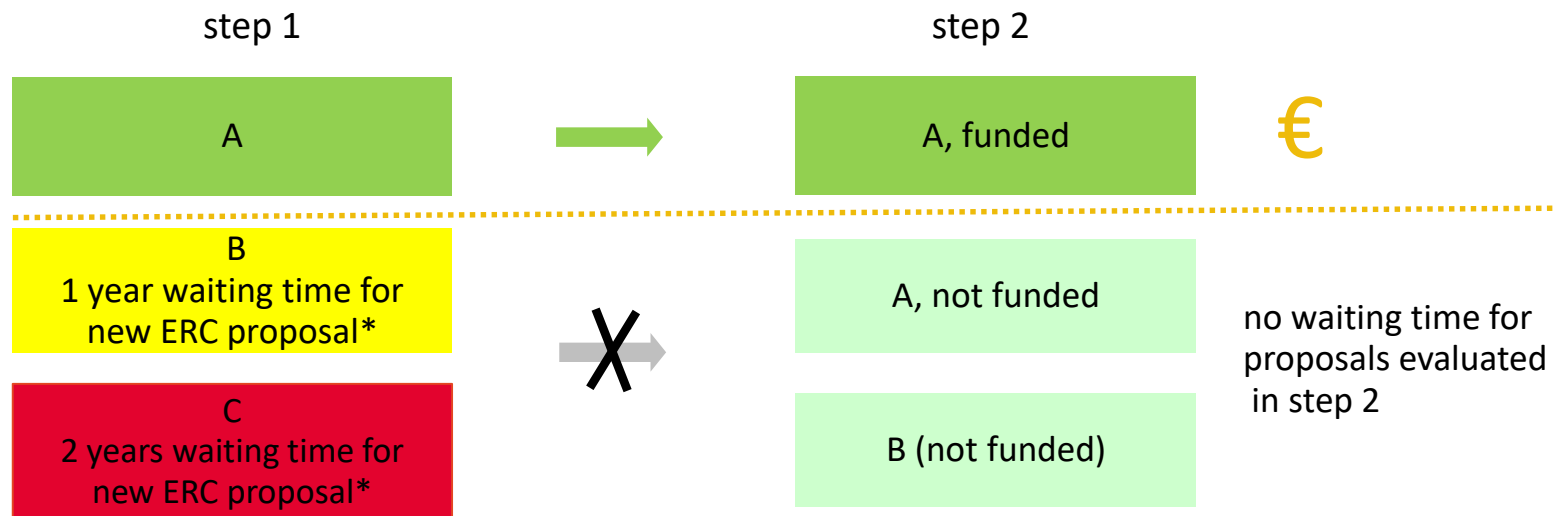
Detailed panel structure 2021/2022 at:

https://erc.europa.eu/sites/default/files/document/file/ERC_Panel_structure_2021_2022.pdf

SCIENTIFIC EXCELLENCE



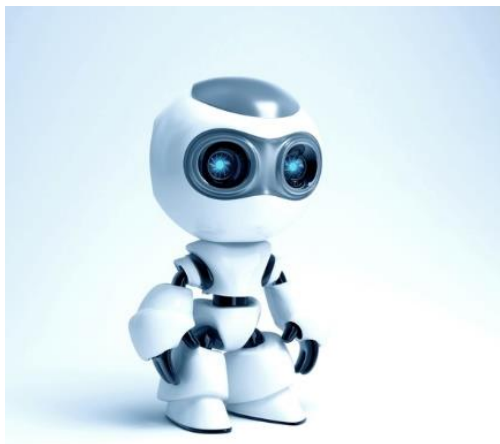
EVALUATION OUTCOMES – ERC CALLS 2021



* exception: Synergy Grant (no waiting time foreseen in ERC Work Programme 2021)

POSSIBLE FUTURE: DYNAMIC PANELS FOR ALL ERC GRANTS?

- Model: ERC Synergy Grant
- AI used for allocation of panel members to proposals





SOME REFLECTIONS ON WRITING THE PROPOSAL

source: iStock FFG

FUNDAMENTAL KNOWLEDGE GAP



CORE NOVELTY



CONTEXT/ BIG PICTURE



**-DRIVING RESEARCH QUESTIONS
-TESTABLE HYPOTHESES (?)**



A BIG LEAP,
NOT AN INCREMENTAL IMPROVEMENT



A person wearing safety glasses and a dark long-sleeved shirt is leaning over a piece of scientific equipment. The equipment is emitting a bright green laser light. The person's right hand is adjusting a component of the machine. The background is a white lab coat hanging on a rack.

AMBITIOUS SCOPE ↔ WELL JUSTIFIED FOCUS

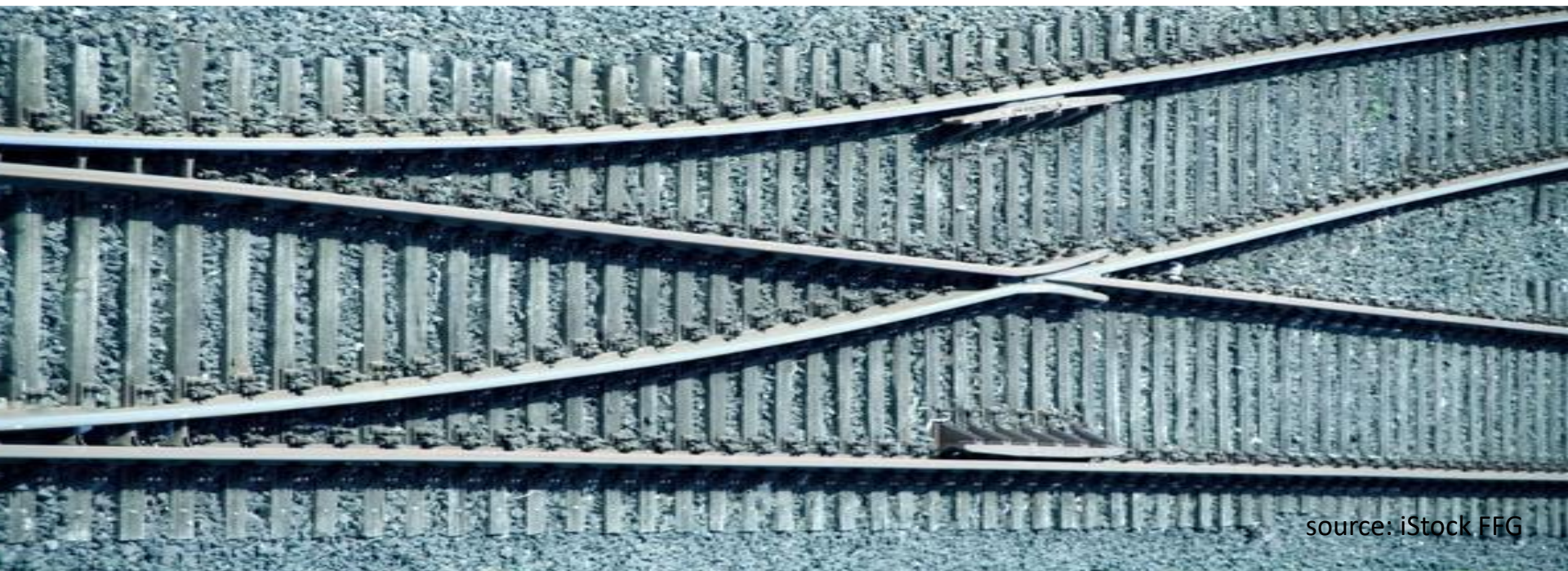



OUTLINE ALSO YOUR MORE LONG-TERM VISION



RESEARCH OBJECTIVES CLEAR AND MEASURABLE

FAVOURABLE RISK-GAIN-BALANCE (PLAN B)



A photograph of two scientists, a man and a woman, in a laboratory setting. They are both wearing white lab coats over blue shirts. The man is seated and looking at a computer monitor, while the woman stands behind him, also looking at the screen. The background shows various pieces of laboratory equipment, including glass tubes and metal frames. The text "HOW WILL YOU VALIDATE YOUR RESULTS?" is overlaid on the image in a bold, black, sans-serif font.

**HOW WILL YOU
VALIDATE
YOUR RESULTS?**

UNIQUE FEATURES

-> **COMMAND OF LITERATURE &
COMPETING APPROACHES**



SOME REFLECTIONS ON WRITING THE PROPOSAL- SUMMARY

- fundamental knowledge gap, core novelty
- context/big picture
- driving research questions
- testable hypotheses (?)
- groundbreaking approach: big leap, not incremental
- outline also more long-term research vision (e.g. 5-10 years)
- ambitious scope ↔ well-justified focus
- demonstrate favourable gain/risk-balance; back-up plans
- central research objectives - clear and measurable
- how will you validate and interpret your results? → explanatory power, significance
- clear proposal structure
- think of the interview already when writing the proposal

WHAT MAKES AN ERC PROFILE?



STARTER

Must have already **shown the potential for research independence** and evidence of maturity. E.g. at least **one important publication as main author** or without the participation of the PhD supervisor



CONSOLIDATOR

Must have already **shown research independence** and evidence of **maturity**. E.g. **several important publications as main author** or without participation of the PhD supervisor.



ADVANCED

Promising **10 years track record**

WHAT MAKES AN ERC PROFILE?



Starter, Consolidator: Promising **track-record of early achievements** appropriate to the research field and career stage



e.g.:

- **significant publications** as main author in major international peer-reviewed multi-disciplinary journals, or in the leading international peer-reviewed journals of the field
- **monographs**
- **invited presentations** in well-established international conferences
- **granted patents**
- **prizes/awards**
- **academy memberships**
-consider also other aspects to to **demonstrate your recognition in the field**, e.g. organization of conferences, chairing of sessions, reviewing activities, teaching, supervision, services to the community, ...? → **CV &Track Record section**

HOW CAN YOU PRESENT YOUR PROFILE?

- **CV-Template – 2 pages:**

Education; Current and previous position(s), Fellowships and Awards, Funding ID; Supervision of students, organisation of scientific meetings, institutional responsibilities, commissions of trust; memberships of academic societies, major collaborations; career breaks

- **Track Record – 2 pages:**

Early achievements Track Record (Starter/Consolidator)

- **Extended Synopsis (B1) and Scientific Proposal (B2):**

e.g. references: - As we could show in [ref],...
preliminary results,...

CV-TEMPLATE – SOME TIPS

- Panel members appreciate the template → follow it where possible, adapt where necessary/useful
- Current and previous position(s); → + declined offers
- Supervision of Graduate Students and Postdoctoral Fellows
→ provide also info on informal supervision (without habilitation)
- Reviewer for Journals, for other funding agencies, PhD advisory committee,...? field-specific “merits”? -> demonstrating your visibility in the community
- Mention also concluded grants (in addition to extra annex on current grants); you can also indicate total funding raised so far
- Major collaborations: To illustrate that you are well connected with top researchers, built a network independently,...

- **Publications:**

Major international peer-reviewed multi-disciplinary scientific journals, and/or in the leading international peer reviewed-journals, peer-reviewed conferences proceedings and/or monographs,... → **up to 5** (Starter) or **up to 10** (Consolidator, Advanced) representative publications → **describe significance and your role**

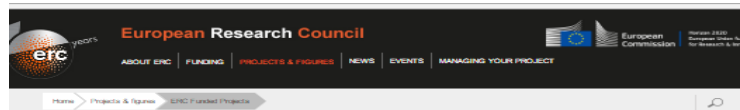
**overview
+ highlights**

- Research monographs and any translations thereof
- **Granted patent(s)**
- **Invited presentations:** internationally established conferences, international advanced schools
- **Prizes, awards, academy memberships**

“I WANT TO SEE SOMETHING SPECIAL”



ERC PROFILES: FIND A GRANTEE NEAR YOU



ERC FUNDED PROJECTS

The ERC operates according to a "curiosity-driven", or "bottom-up", approach, allowing researchers to identify new opportunities in any field of research. Accordingly the portfolio ERC funded projects spans a wide range of topics and research questions.

Since 2007, more than 7,000 projects have been selected to receive ERC funding throughout the EU Member States and the associated countries. The ERC has received over 65,000 project proposals for its calls.

Use the search facility to quickly and easily find examples of ERC funded projects.

HOW CAN YOU SEARCH?

Projects can be filtered according to funding scheme, call year and/or country of host institution. You can also use the search box and enter free text words, for instance names of universities or principal investigators.

The filter for panels will be enabled soon again.

WHERE DOES THE DATA COME FROM?

Information displayed is automatically updated through the information available on the **CORDIS** platform and can partially be exported in PDF format. Only funded projects, whose grant agreements have been signed, appear in this section.

Please note that the structure and descriptions of ERC panels have changed over the years. The panel structures for each year can be found in ERC annual work programmes. Panels displayed in this tool are the panels the projects were selected in.

DATA PROTECTION

Individuals' personal information contained in this database is published for information concerning their involvement in an ERC project. It shall only be used to contact them for matters related to their function. Processing this information for other purposes (such as further transmission, further publication, direct marketing and requests for information, which differ from the matters indicated) is illegal and liable to consequences according to applicable legislation.

SEARCH

FILTER BY FUNDING SCHEME:

Starting Grant (StG) (3410)
Advanced Grant (AdG) (2180)
Consolidator Grant (CoG) (1170)
Proof of Concept (PoC) (549)
Synergy Grants (SyG) (24)

FILTER BY CALL YEAR:

- ☐ 2007 (305)
- ☐ 2008 (284)
- ☐ 2009 (492)
- ☐ 2010 (707)
- ☐ 2011 (838)
- ☐ 2012 (957)
- ☐ 2013 (985)
- ☐ 2014 (1058)
- ☐ 2015 (1089)
- ☐ 2016 (630)

FILTER BY COUNTRY:

- ☐ Austria (190)
- ☐ Belgium (297)
- ☐ Bulgaria (3)
- ☐ Croatia (3)
- ☐ Cyprus (14)
- ☐ Czechia (25)

ERC FUNDED PROJECTS

Displaying 1 - 10 of 47. Show **10** | 20 results per page.

Project acronym	A-LIFE
Project	Absorbing aerosol layers in a changing climate: aging, lifetime and dynamics
Researcher (PI)	Bernadett Barbara Weinzierl
Host Institution (HI)	UNIVERSITÄT WIEN
Call Details	Starting Grant (StG), PE10, ERC-2014-STG
Summary	+

Project acronym	ABINITIODGA
Project	Ab initio Dynamical Vertex Approximation
Researcher (PI)	Karsten Held
Host Institution (HI)	TECHNISCHE UNIVERSITÄT WIEN
Call Details	Starting Grant (StG), PE3, ERC-2012-StG_20111012
Summary	+

SEARCH

FUNDING SCHEME

Starting Grant (StG) (47)
Consolidator Grant (CoG) (12)
Advanced Grant (AdG) (25)
Proof of Concept (PoC) (0)
Synergy Grants (SyG) (0)

CALL YEAR

RESEARCH DOMAIN

<https://erc.europa.eu/projects-figures/erc-funded-projects>

USEFUL LINKS/FURTHER ONLINE RESOURCES TO GET STARTED

- New: ERC Classes – ERC Youtube Channel
- Several successful ERC Proposals published online, e.g. OpenGrants, Academia, FigShare
- ERC Homepage: <https://erc.europa.eu/>
- Previous ERC Panel Members: <https://erc.europa.eu/document-category/evaluation-panels>



<https://www.youtube.com/watch?v=xbFbzkVWgCU&list=PLtv6FnsXqnXAYRk6HCErwMxwML0ZKoMcy>

ERC-RELATED SERVICES BY FFG



- Webinars/interactive online sessions on **proposal writing**
- **Proposal Reading Days**
- Individual **consultancy**
- **Proposal checks**
- **Notes and Tips**-document for all ERC calls
- **Interview Trainings**
- Homepage: <https://www.ffg.at/erc>
- Contact: ylva.huber@ffg.at

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