FUNDING EXPERT ACADEMY

LIVE eCourse: The full recipe for developing successful grant applications in ERC(StG,CoG, AdG)

Nikolaos FLORATOS Research Coach

Copyright © Nikolaos Floratos, www.fundingexpert.academy

All rights reserved. No part of this workbook may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the publisher, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law. For permission requests, email to the publisher Nikolaos Floratos at info@keyinnovations.co.uk

"Death by Powerpoint"



- This set of slides is the core material not only for my training on how to develop winning Horizon Europe grant applications but it serves also the purpose of a **manual** for consulting it and applying its step-by-step practices, tools, examples and tips EVERYTIME you are involved in the development of an ERC proposal. No matter, if you are a novice or an expert in ERC, I strongly recommend you to follow slide per slide its instructions for getting all the help and support you need for success in ERC.
- This is the **reason of the large number of slides**, i.e. to have a detailed manual to consult consistently in the ERC proposal development cycle as a compass AFTER THE TRAINING and **not to experience the death by powerpoint incident!**
- I normally run all my courses by using the flipchart for writing notes and having hands on practice but this would take us a week for such a course which is great if you can invest that time but if not, then we have to compromise with powerpoint slides.
- However, even so, I guarantee to you an exciting journey, so welcome on board!

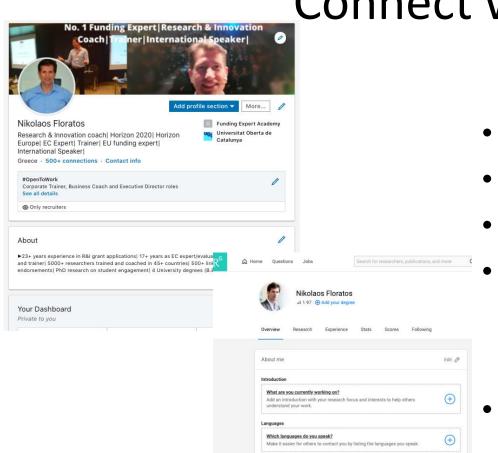
Nikolaos FLORATOS

Who is Nikolaos Floratos

- Founder of Funding Expert Academy (www.fundingexpert.academy) with programmes that master individuals in European research funding programmes and advance successful **proposal developers** across Europe
- Active in european research funding industry since 1997 (23+ years)
- EC expert/evaluator since 2003 (17+ years)
- Author of the ebook "Learn from the Horizon 2020 champions" downloadable from www.NikolaosFloratos.com
- Trained and coached hundreds of organisations and thousands of professionals on exploiting successfully research funds and advancing their sustainability
- Globally recognised as one of the most influential and inspiring speakers and trainers on Horizon 2020 with hundreds of speeches and trainings in 30+ countries including overseas
- 500+ linkedin recommendations and endorsements at https://www.linkedin.com/in/floratos/
- Multidisciplinary educational background with four university degrees (B.Eng, BA, M.Sc, MBA)
- Passionate with training and evangelist of "Anyone can achieve anything with the proper training & coaching"
- Phd Researcher in student engagement and online courses.
- Master in decomposing complex concepts into easy to understand and apply step-by-step recipes



Connect with me at



(Educational Assessment) (Computer and Society) (Software Engineering)

Social ... Marketing (Usability) (eLearning) (Accessibility) (Websites)

30

Citations

Ð

Human-computer Interaction

Skills and expertise (5)

Total Research Interest (

Stats overview

24.8

- www.linkedin.com/in/floratos/
- Email: <u>info@keyinnovation.co.uk</u>
- www.NikolaosFloratos.com
 - www.fundingexpert.academy

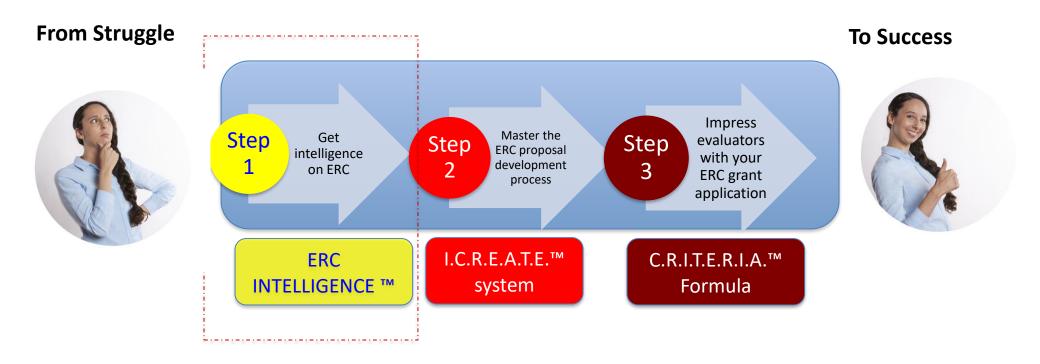
https://www.researchgate.net/pr ofile/Nikolaos Floratos

© Nikolaos Floratos, rungingexpert.acagemy

How researchers will develop winning ERC grant applications

Transformation SETTM Formula

S.E.T. Recipe for successful ERC applicants



Module 1

Intelligence on ERC
Step 1

Intelligence behind ERC Key Purpose

Why ERC

Why ERC

- 1. Support the **best of the best** in Europe across all fields of science, scholarship and engineering
- 2. Promote wholly investigator-driven, or 'bottom-up'
- Encourage the work of the established and next generation of independent <u>top research leaders</u> in Europe
- 4. Reward innovative proposals by placing emphasis on the _____ rather than the research area
- 5. Raise the <u>status and visibility of European</u> frontier research and the very best researchers of today and tomorrow

Eligibility Criteria in 2021

Eligibility Period based on PhD date award			
Starting Grant (StG)	Consolidator Grant (CoG)	Advanced Grant (AdG)	Synergy Grant
> 2 and ≤ 7 years	> 7 and ≤ 12 years	No Specific criteria	No specific criteria
Prior to 1 January 2021 i.e. PhD award date from 1 Jan 2014 to 31 Dec 2018 inclusive	Prior to 1 January 2021 i.e. PhD award date from 1 Jan 2009 to 31 Dec 2013 inclusive		

Main Grant Schemes

ERC STARTING GRANTS

Grants up to 1.5€ million for 5 years

For promising early-career researchers with 2 to 7 years experience after PhD

ERC ADVANCED GRANTS

Grants up to 2.5€ million for 5 years

For established research leaders with a recognised track record of research achievements

SYNERGY GRANTS

Grants up to 10€ million for 6 years

To address ambitious research questions that can only be answered by the coordinated work of a small group of 2-4 principal Investigators

ERC CONSOLIDATOR GRANTS

Grants up to 2€ million for 5 years

For excellent researchers with 7 to 12 years experience after PhD

ERC PROOF OF CONCEPT

Lump Sum Grant of 150.000€

For existing ERC grant holders to bring their research ideas closer to market

ADDITIONAL OPPORTUNITIES

For researchers wishing to work or gain experience in an ERC grantee's team

Outlook on Evaluation Criteria

1. Research Project

Ground-breaking nature, ambition and feasibility

Starting, Consolidator, Advanced and Synergy

Ground-breaking nature and potential impact of the research project

To what extent does the proposed research address in DN 2011 100

To what extent are the objectives ambitious and beyond the stan of the standard concepts and approaches or development between or across disciplines.

To what extent is the proposed research high risk that the research project aces not entirely fulfill its aims)?

Scientific Approach

To what had length a scientific approach feasible bearing in mind the extent that the proposed research is high risk/high gain (based on the Extended Synopsis)?

To what extent does the proposal go beyond what the individual Principal Investigators could achieve alone (for Synergy Grants, based on the Extended Synopsis)?

To what extent is the combination of scientific elements put forward in the proposal crucial to address the scope and complexity of the research question (for Synergy Grants, based on the Extended Synopsis)?

To what extent are the proposed research methodology and was a constitution of the proposed research methodology and the proposed research m appropriate to achieve the goals of the project (based on the full Scientific Proposal)?

To what extent does the proposal involve the development of pred me indicate based on the full Scientific Proposal)?

To what extent are the proposed timescales, resources and PI promiting in the cause and PI PERSON TO THE COURT OF THE COUR properly justified (based on the full Scientific Proposal)?

Criterion 1 - RESEARCH PROJECT

Current score: - / 5.0; Threshold 0

1.0 - Non-competitive 1.5 (2.0 - Good 2.5 (3.0 - Very Good 3.5 (4 - Excellent 4.5 (5 - Exceptional

Ground-breaking nature and potential impact of the research project

To what extent does the proposed research address important challenges?

To what extent are the objectives ambitious and beyond the state of the art (e.g. novel concepts and approaches or development betwee To what extent is the proposed research high risk/high gain (i.e. if successful the payoffs will be very significant, but there is a higher-than Comments: *

To what extent is the outlined scientific approach feasible bearing in mind the extent that the proposed research is high risk/high gain (bas

2. Principal Investigator(s)

Intellectual capacity and creativity

Starting and Consolidator

To what extent has the PI demonstrated the ability to conduct ground-breaking research?

To what extent does the PI provide evidence of creative independent thinking?

To what extent does the PI have the required scientific expertise and capacity to successfully execute the project?

Intellectual capacity and creativity

Advanced and Synergy

To what extent has/have the PI(s) demonstrated the ability to conduct ground-breaking

To what extent does/do the PI(s) has/have the required scientific expertise and capacity to successfully execute the project?

To what extent has the PI demonstrated sound leadership in the training and advancement of young scientists (for Advanced Grant applicants)?

Synergy Grant Group

To what extent does the Synergy Grant Group successfully demonstrate in the proposal that it brings together the elements - such as skills, knowledge, experience, expertise, disciplines, methods, approaches, teams - necessary to address the proposed research question (for **Synergy Grants,** based on the full Scientific Proposal)?

- Criterion 2 - PRINCIPAL INVESTIGATOR



Current score: - / 5.0; Threshold 0

Please click here for more information

1.0 - Non-competitive 1.5 (2.0 - Good 2.5 (3.0 - Very Good 3.5 (4 - Excellent 4.5 (5 - Exceptional

To what extent has the PI demonstrated the ability to conduct ground-breaking research?

ONon-competitive OGood OVery Good OExcellent OExceptional

To what extent does the PI provide evidence of creative independent thinking?

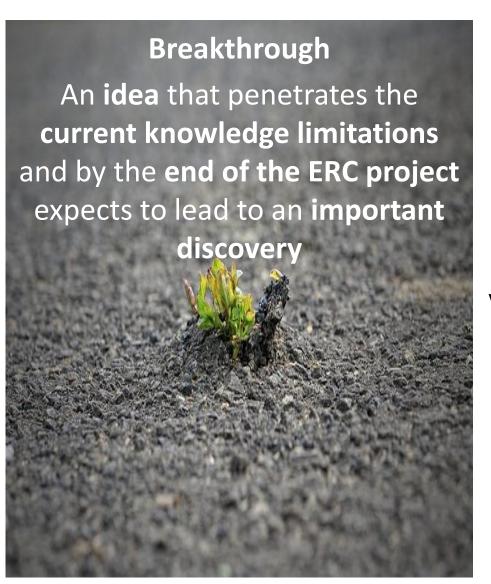
Non-competitive Good Very Good Excellent Exceptional

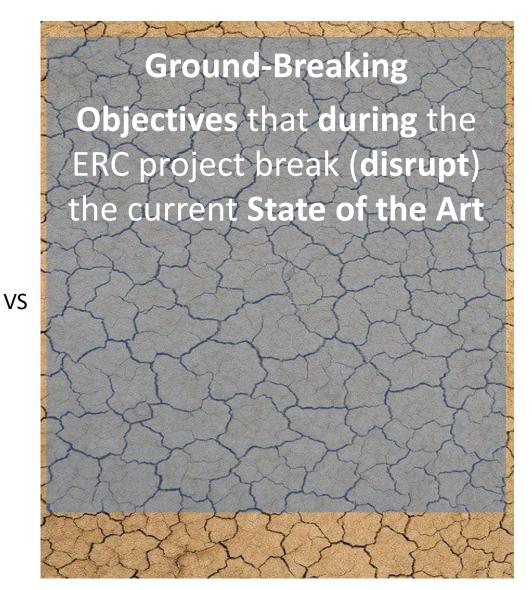
To what extent does the PI have the required scientific expertise and capacity to successfully execute the project? *

ONon-competitive OGood OVery Good OExcellent OExceptional

Comments

Breakthrough vs Ground-breaking

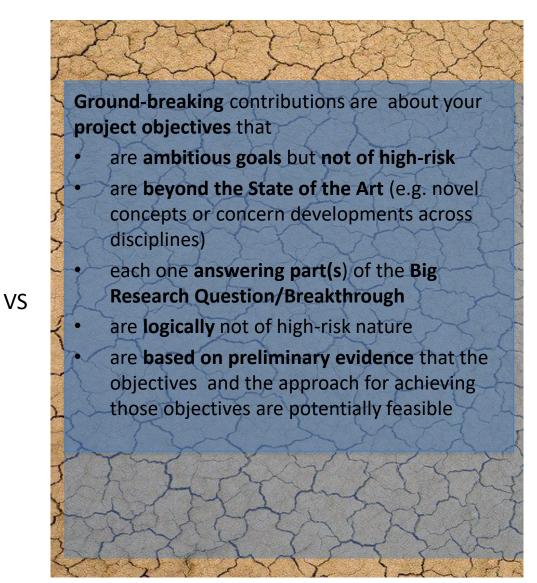




Breakthrough vs Ground-breaking

The **breakthrough** is about your **research idea** that is

- high-risk
- related to a key challenge that your big research question will address (e.g. curing Alzheimer disease)
- related to a challenge that can be theoretical, conceptual and not only of applied nature. i.e. it solves an important problem or addresses an issue that changes how research is thinking
- not necessarily of a known outcome, since it can also be novel to the research community as it is often in Social Humanities.
- opening new research horizons and perspectives in your field and beyond either in basic research or in more applied one
- No incremental research



High risk/High gain

Match

- Gain with "Knowledge" and
- Risk with the "Unknown territories"

i.e.

- Higher the knowledge expected, higher is the gain
- Higher the unknown territories (what we currently do not know), higher the risk



Non-Incremental Research



In order to ensure that your proposed ERC research is **not incremental**,

- you don't necessarily need to propose something totally new
- On the contrary, in many cases preliminary findings are essential for overcoming the current unknown territories (the high risk) or
- you need to publish something first especially in case your ERC research is challenging the current state of the art

Profile of Scientific Excellence

Overarching group	Checklist characteristics for Scientific Excellence
The type of content is	□ Addressing a gap in existing knowledge □ Presenting new data or making new datasets available □ Advancing a new theory □ Synthesising existing knowledge □ Methodological development or technical innovation
The main finding	□ Is a discovery of an entirely novel phenomenon □ Challenges existing understanding or represents a paradigm shift □ Is a disputed finding □ Is a promising early stage idea that calls for further development □ Makes previous contributions obsolete
The research is novel/innovative in that it	☐ Creates and applies entirely new concepts that did not exist before ☐ Applies existing concepts which have never been used in this specific field/context before ☐ Creates and applies new combinations of related scientific principles ☐ Creates and applies new combinations of previously unrelated scientific principles
The research approach is interdisciplinary in that it	□ Brings together concepts from different bur related fields □ Brings together concepts from previously unrelated fields □ Produces findings that could lead to progress in fields other than its own □ Builds on findings from a field other than its own
The research has a potential impact beyond generating knowledge by	□ Informing the direction of future research □ Informing policy □ Contributing to product/process development □ Contributing to economic benefits to society □ Producing benefits in the relevant sector (e.g. healthcare, engineering) □ Producing wider social or cultural impacts

Outlook on Evaluation Criteria

1. Research Project

Ground-breaking nature, ambition and feasibility

Starting, Consolidator, Advanced and Synergy

Ground-breaking nature and potential impact of the research project

To what extent does the proposed research address important challenges?

To what extent are the objectives ambitious and beyond the state of the art (e.g. novel concepts and approaches or development between or across disciplines)?

To what extent is the proposed research high risk-high gain (i.e. if successful the payoffs will be very significant, but there is a high risk that the research project does not entirely fulfil its aims)?

Scientific Approach

To what extent is the outlined scientific approach feasible bearing in mind the extent that the proposed research is high risk/high gain (based on the Extended Synopsis)?

To what extent does the proposal go beyond what the individual Principal Investigators could achieve alone (for Synergy Grants, based on the Extended Synopsis)?

To what extent is the combination of scientific elements put forward in the proposal crucial to address the scope and complexity of the research question (for Synergy Grants, based on the Extended Synopsis)?

To what extent are the proposed research methodology and working arrangements appropriate to achieve the goals of the project (based on the full Scientific Proposal)?

To what extent does the proposal involve the development of novel methodology (based on the full Scientific Proposal)?

To what extent are the proposed timescales, resources and PI commitment adequate and properly justified (based on the full Scientific Proposal)?

2. Principal Investigator(s)

Intellectual capacity and creativity

Starting and Consolidator

Beyond the SoA

To what extent has the PI demonstrated the ability to conduct around beaching

To what Grant by (Gthe Allin) (III) Edence of creative independent thinking?

To what extent does the PI have the required scientific expertise and capacity to successfully execute the project?

Management skills

Intellectual capacity and creativity

Advanced and Synergy

To what extent has/have the PI(s) demonstrated the ability to conduct around-breaking research?

To what extent does/do the PI(s) has/have the required scientific successfully execute the project?

_eadership

To what extent has the PI demonstrated sound leadership in the training and advancement of young scientists (for Advanced Grant applicants)?

Synergy Grant Group

Synergy

To what extent does the Synergy Grant Group successfully demonstrate in the proposal that it brings together the elements – such as skills, knowledge, experience, expertise, disciplines, methods, approaches, teams - necessary to address the proposed research question (for Synergy Grants, based on the full Scientific Proposal)?

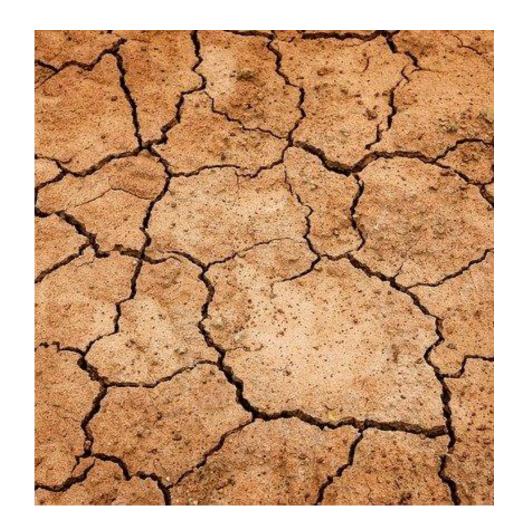
Ability to propose & conduct ground—breaking research

Ability to **propose** ground-breaking research via e.g.

- successful records on attracting funding in the past for your research such as European individual grants (e.g. MSCA IF, or ERC grant), or
- from national research councils or
- even as part of a writing team for a collaborative Horizon 2020/Horizon Europe project

Ability to **conduct** ground-breaking research via e.g.

- supervision of post-docs, PhD researchers or even Master degree students or
- as coordinator or key partner in Horizon 2020/Horizon Europe collaborative projects that significant publications and deliverables were produced.

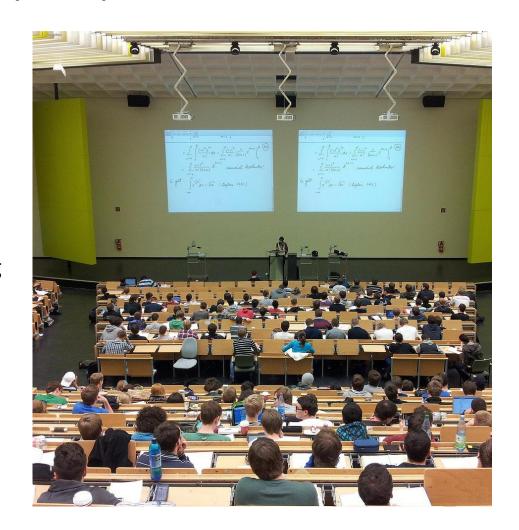


Any achievements beyond the State-of-the-Art (SoA)

Do you have a track record that shows previous work that contributed to advancing the state of the art in a specific area? For example,

- have you published related papers in significant journals that draw a lot of attention (e.g. large no. of citations, or high impact factor)?
- have you received invitations as a visiting lecturer at other universities especially abroad?
- have you received an invitation as a keynote speaker in scientific conferences?

Make sure that that you highlight all these in your CV.



Independent & Creative thinking

Demonstration of **Independent thinking** is well-justified mainly with

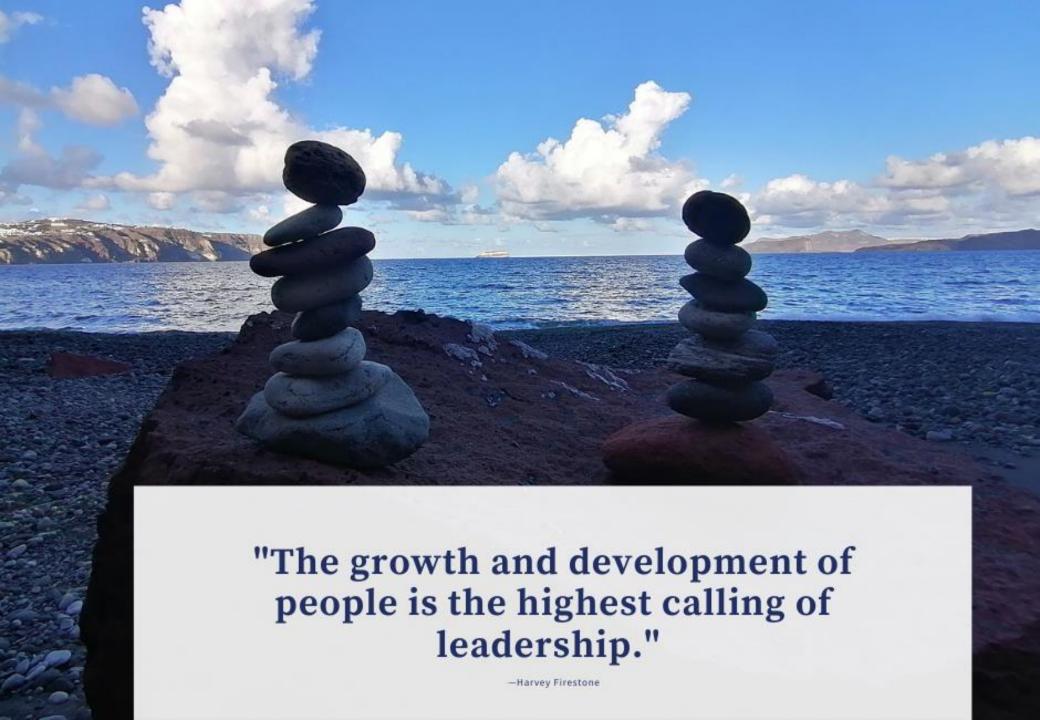
- a) the number of publications without your PhD supervisor and as a rough number something like 1 significant publication every 1-2 years and
- b) your affiliations or collaborations with various universities especially abroad.

Demonstration of **creative (and innovative)** thinking can be directly and indirectly justified. More specifically,

- first consider whether you have conducted research that was novel and opened new horizons and secondly,
- whether you have supported others to conduct novel research that opened new horizons such Post-docs, Phd researchers, master students, etc mainly with publications of international visibility.

Make sure that that you highlight all these in your CV.





Leadership in the training and advancement of scientists

Explain the career achievements of some of the researchers that you have supervised or trained in the past.

- Any start-ups they have created or
- any articles they have published as main authors with their name appearing first or any awards and recognitions they have been awarded, or
- any involvement as team members in a Horizon 2020/Horizon Europe collaborative project that you are coordinating or you are the key partner.



Intelligence behind ERC & Horizon Europe Structure and Budget

Pillars and Budget

ERC budget intelligence between Horizon 2020 and Horizon Europe

VS

Horizon 2020 ERC budget Intelligence

13.1 bn €

5634 ERC grants (StG, CoG, AdG)

30% of excellent ERC projects not funded (unfunded As)

StG: 2334 projects, 3,47bn €

CoG: 1925 projects, 3,73 bn €

AdG: 1375 projects, 3,28 bn €

Horizon Europe ERC budget
Intelligence

16.1 bn €

~1450 more ERC projects funded

~ 7000 ERC grants (StG, CoG,
AdG)

20% more excellent projects to
be funded

26

Intelligence behind ERC workprogramme

ERC EVALUATION PANELS AND KEYWORDS

ERC Evaluation Panels and Keywords

Physical Sciences and Engineering

PE1 Mathematics

All areas of mathematics, pure and applied, plus mathematical foundations of computer science, mathematical physics and statistics

- PE1 1 Logic and foundations
- PE1 2 Algebra
- PE1_3 Number theory
- PE1_4 Algebraic and complex geometry
- PE1_5 Lie groups, Lie algebras
- PE1 6 Geometry and global analysis
- PE1_7 Topology
- PE1 8 Analysis
- PE1 9 Operator algebras and functional analysis
- PE1_10 ODE and dynamical systems
- PE1_11 Theoretical aspects of partial differential equations
- PE1 12 Mathematical physics
- PE1 13 Probability
- PE1_14 Mathematical statistics
- PE1 15 Generic statistical methodology and modelling
- PE1 16 Discrete mathematics and combinatorics
- PE1 17 Mathematical aspects of computer science
- PE1 18 Numerical analysis
- PE1 19 Scientific computing and data processing
- PE1 20 Control theory, optimisation and operational research
- PE1_21 Application of mathematics in sciences
- PE1_22 Application of mathematics in industry and society

PE2 Fundamental Constituents of Matter

Particle, nuclear, plasma, atomic, molecular, gas, and optical physics

- PE2 1 Theory of fundamental interactions
- PE2 2 Phenomenology of fundamental interactions
- PE2_3 Experimental particle physics with accelerators
- PE2_4 Experimental particle physics without accelerators
- PE2_5 Classical and quantum physics of gravitational interactions
- PE2 6 Nuclear, hadron and heavy ion physics
- PE2 7 Nuclear and particle astrophysics
- PE2 8 Gas and plasma physics
- PE2 9 Electromagnetism
- PE2_10 Atomic, molecular physics
- PE2_11 Ultra-cold atoms and molecules
- PE2_12 Optics, non-linear optics and nano-optics
- PE2 13 Quantum optics and quantum information
- PER_15 Quantum optics and quantum miormatio
- PE2_14 Lasers, ultra-short lasers and laser physics
- PE2_15 Thermodynamics
- PE2_16 Non-linear physics
- PE2_17 Metrology and measurement
- PE2_18 Equilibrium and non-equilibrium statistical mechanics: steady states and dynamics

PE3 Condensed Matter Physics

Structure, electronic properties, fluids, nanosciences, biological physics

- PE3_1 Structure of solids, material growth and characterisation
- PE3_2 Mechanical and acoustical properties of condensed matter, lattice dynamics
- PE3 3 Transport properties of condensed matter
- PE3_4 Electronic properties of materials, surfaces, interfaces, nanostructures
- PE3 5 Physical properties of semiconductors and insulators
- PE3_6 Macroscopic quantum phenomena, e.g. superconductivity, superfluidity, quantum Hall effect
- PE3_7 Spintronics
- PE3 8 Magnetism and strongly correlated systems
- PE3 9 Condensed matter beam interactions (photons, electrons, etc.)
- PE3 10 Nanophysics, e.g. nanoelectronics, nanophotonics, nanomagnetism, nanoelectromechanics
- PE3_11 Mesoscopic quantum physics and solid-state quantum technologies
- PE3_12 Molecular electronics
- PE3_13 Structure and dynamics of disordered systems, e.g. soft matter (gels, colloids, liquid crystals), granular matter, liquids, glasses, defects
- PE3_14 Fluid dynamics (physics)
- PE3_15 Statistical physics: phase transitions, condensed matter systems, models of complex systems, interdisciplinary applications
- PE3 16 Physics of biological systems

PE4 Physical and Analytical Chemical Sciences

Analytical chemistry, chemical theory, physical chemistry/chemical physics

- PE4_1 Physical chemistry
- PE4 2 Spectroscopic and spectrometric techniques
- PE4 3 Molecular architecture and Structure
- PE4_4 Surface science and nanostructures
- PE4_5 Analytical chemistry
- PE4 6 Chemical physics
- PE4 7 Chemical instrumentation
- PE4 8 Electrochemistry, electrodialysis, microfluidics, sensors
- PE4 9 Method development in chemistry
- PE4_10 Heterogeneous catalysis
- PE4 11 Physical chemistry of biological systems
- PE4_12 Chemical reactions: mechanisms, dynamics, kinetics and catalytic reactions
- PE4_13 Theoretical and computational chemistry
- PE4_14 Radiation and Nuclear chemistry
- PE4_15 Photochemistry
- PE4_16 Corrosion
- PE4_17 Characterisation methods of materials
- PE4_18 Environment chemistry

PE5 Synthetic Chemistry and Materials

New materials and new synthetic approaches, structure-properties relations, solid state chemistry, molecular architecture, organic chemistry

- PE5_1 Structural properties of materials
- PE5_2 Solid state materials chemistry
- PE5_3 Surface modification
- PE5 4 Thin films
- PE5_5 Ionic liquids
- PE5_6 New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles
- PE5_7 Biomaterials synthesis
- PE5_8 Intelligent materials synthesis self assembled materials
- PE5_9 Coordination chemistry
- PE5_10 Colloid chemistry
- PE5_11 Biological chemistry and chemical biology
- PE5 12 Chemistry of condensed matter
- PE5 13 Homogeneous catalysis
- PE5_14 Macromolecular chemistry
- PE5_15 Polymer chemistry
- PE5_16 Supramolecular chemistry
- PE5_17 Organic chemistry
- PE5_18 Medicinal chemistry

PE6 Computer Science and Informatics

Informatics and information systems, computer science, scientific computing, intelligent systems

- PE6_1 Computer architecture, embedded systems, operating systems
- PE6_2 Distributed systems, parallel computing, sensor networks, cyber-physical systems
- PE6_3 Software engineering, programming languages and systems
- PE6_4 Theoretical computer science, formal methods, automata
- PE6_5 Security, privacy, cryptology, quantum cryptography
- PE6_6 Algorithms and complexity, distributed, parallel and network algorithms, algorithmic game theory
- PE6_7 Artificial intelligence, intelligent systems, natural language processing
- PE6_8 Computer graphics, computer vision, multimedia, computer games
- PE6_9 Human computer interaction and interface, visualisation
- PE6_10 Web and information systems, data management systems, information retrieval and digital libraries, data fusion
- PE6_11 Machine learning, statistical data processing and applications using signal processing (e.g. speech, image, video)
- PE6_12 Scientific computing, simulation and modelling tools
- PE6_13 Bioinformatics, bio-inspired computing, and natural computing
- PE6_14 Quantum computing (formal methods, algorithms and other computer science aspects)

PE7 Systems and Communication Engineering

Electrical, electronic, communication, optical and systems engineering

- PE7_1 Control engineering
- PE7_2 Electrical engineering: power components and/or systems
- PE7 3 Simulation engineering and modelling
- PE7 4 (Micro- and nano-) systems engineering
- PE7_5 (Micro- and nano-) electronic, optoelectronic and photonic components
- PE7 6 Communication systems, wireless technology, high-frequency technology
- PE7 7 Signal processing
- PE7_8 Networks, e.g. communication networks and nodes, Internet of Things, sensor networks, networks of robots
- PE7_9 Man-machine interfaces
- PE7_10 Robotics
- PE7_11 Components and systems for applications (in e.g. medicine, biology, environment)
- PE7_12 Electrical energy production, distribution, applications

PE8 Products and Processes Engineering

Product and process design, chemical, civil, environmental, mechanical, vehicle engineering, energy processes and relevant computational methods

- PE8_1 Aerospace engineering
- PE8_2 Chemical engineering, technical chemistry
- PES 3 Civil engineering, architecture, offshore construction, lightweight construction, geotechnics
- PE8 4 Computational engineering
- PE8 5 Fluid mechanics
- PE8_6 Energy processes engineering
- PE8_7 Mechanical engineering
- PE8_8 Propulsion engineering, e.g. hydraulic, turbo, piston, hybrid engines
- PE8_9 Production technology, process engineering
- PE8_10 Manufacturing engineering and industrial design
- PE8_11 Environmental engineering, e.g. sustainable design, waste and water treatment, recycling, regeneration or recovery of compounds, carbon capture & storage
- PE8_12 Naval/marine engineering
- PE8_13 Industrial bioengineering
- PE8_14 Automotive and rail engineering; multi-/inter-modal transport engineering

PE9 Universe Sciences

Astro-physics/-chemistry/-biology; solar system; planetary systems; stellar, galactic and extragalactic astronomy; cosmology; space sciences; astronomical instrumentation and data

- PE9 1 Solar physics the Sun and the heliosphere
- PE9 2 Solar system science
- PE9 3 Exoplanetary science, formation and characterization of extrasolar planets
- PE9_4 Astrobiology
- PE9 5 Interstellar medium and star formation
- PE9_6 Stars stellar physics, stellar systems
- PE9_7 The Milky Way
- PE9_8 Galaxies formation, evolution, clusters
- PE9_9 Cosmology and large-scale structure, dark matter, dark energy
- PE9 10 Relativistic astrophysics and compact objects
- PE9 11 Gravitational wave astronomy
- PE9_12 High-energy and particle astronomy
- PE9 13 Astronomical instrumentation and data, e.g. telescopes, detectors, techniques, archives, analyses

PE10 Earth System Science

Physical geography, geology, geophysics, atmospheric sciences, oceanography, climatology, cryology, ecology, global environmental change, biogeochemical cycles, natural resources management

- PE10_1 Atmospheric chemistry, atmospheric composition, air pollution
- PE10_2 Meteorology, atmospheric physics and dynamics
- PE10_3 Climatology and climate change
- PE10_4 Terrestrial ecology, land cover change
- PE10 5 Geology, tectonics, volcanology
- PE10 6 Palaeoclimatology, palaeoecology
- PE10 7 Physics of earth's interior, seismology, geodynamics
- PE10_8 Oceanography (physical, chemical, biological, geological)
- PE10 9 Biogeochemistry, biogeochemical cycles, environmental chemistry
- PE10_10 Mineralogy, petrology, igneous petrology, metamorphic petrology
- PE10_11 Geochemistry, cosmochemistry, crystal chemistry, isotope geochemistry, thermodynamics
- PE10_12 Sedimentology, soil science, palaeontology, earth evolution
- PE10 13 Physical geography, geomorphology
- PE10 14 Earth observations from space/remote sensing
- PE10_15 Geomagnetism, palaeomagnetism
- PE10_16 Ozone, upper atmosphere, ionosphere
- PE10_17 Hydrology, hydrogeology, engineering and environmental geology, water and soil pollution
- PE10_18 Cryosphere, dynamics of snow and ice cover, sea ice, permafrosts and ice sheets
- PE10_19 Planetary geology and geophysics
- PE10 20 Geohazards
- PE10 21 Earth system modelling and interactions

PE11 Materials Engineering

Advanced materials development: performance enhancement, modelling, large-scale preparation, modification, tailoring, optimisation, novel and combined use of materials, etc.

- PE11_1 Engineering of biomaterials, biomimetic, bioinspired and bio-enabled materials
- PE11_2 Engineering of metals and alloys
- PE11 3 Engineering of ceramics and glasses
- PE11 4 Engineering of polymers and plastics
- PE11 5 Engineering of composites and hybrid materials
- PE11_6 Engineering of carbon materials
- PE11_7 Engineering of metal oxides
- PE11_8 Engineering of alternative established or emergent materials
- PE11_9 Nanomaterials engineering, e.g. nanoparticles, nanoporous materials, 1D & 2D nanomaterials
- PE11_10 Soft materials engineering, e.g. gels, foams, colloids
- PE11_11 Porous materials engineering, e.g. covalent-organic, metal-organic, porous aromatic frameworks
- PE11_12 Semi-conducting and magnetic materials engineering
- PE11 13 Metamaterials engineering
- PE11_14 Computational methods for materials engineering

Life Sciences

51 Molecules of Life: Biological Mechanisms, Structures and Functions

For all organisms:

Molecular biology, biochemistry, structural biology, molecular biophysics, synthetic and chemical biology, drug design, innovative methods and modelling

- LS1_1 Macromolecular complexes including interactions involving nucleic acids, proteins, lipids and carbohydrates
- LS1_2 Biochemistry
- LS1_3 DNA and RNA biology
- LS1 4 Protein biology
- LS1 5 Lipid biology
- LS1_6 Glycobiology
- LS1_7 Molecular biophysics, biomechanics, bioenergetics
- LS1 8 Structural biology
- LS1_9 Molecular mechanisms of signalling processes
- LS1 10 Synthetic biology
- LS1_11 Chemical biology
- LS1_12 Protein design
- LS1_13 Early translational research and drug design
- LS1_14 Innovative methods and modelling in molecular, structural and synthetic biology

LS2 Integrative Biology: from Genes and Genomes to Systems

For all organisms:

Genetics, epigenetics, genomics and other 'omics studies, bioinformatics, systems biology, genetic diseases, gene editing, innovative methods and modelling, 'omics for personalised medicine

- LS2_1 Genetics
- LS2 2 Gene editing
- LS2_3 Epigenetics
- LS2 4 Gene regulation
- LS2_5 Genomics
- LS2_6 Metagenomics
- LS2 7 Transcriptomics
- LS2 8 Proteomics
- LS2 9 Metabolomics
- LS2 10 Glycomics/Lipidomics
- LS2_11 Bioinformatics and computational biology
- LS2 12 Biostatistics
- LS2_13 Systems biology
- LS2 14 Genetic diseases
- LS2_15 Integrative biology for personalised medicine
- LS2_16 Innovative methods and modelling in integrative biology

LS3 Cellular, Developmental and Regenerative Biology

For all organisms:

Structure and function of the cell, cell-cell communication, embryogenesis, tissue differentiation, organogenesis, growth, development, evolution of development, organoids, stem cells, regeneration, therapeutic approaches

- LS3_1 Cell cycle, cell division and growth
- LS3_2 Cell senescence, cell death, autophagy, cell ageing
- LS3_3 Cell behaviour, including control of cell shape, cell migration
- LS3_4 Cell junctions, cell adhesion, the extracellular matrix, cell communication
- LS3_5 Cell signalling and signal transduction, exosome biology
- LS3_6 Organelle biology and trafficking
- LS3_7 Mechanobiology of cells, tissues and organs
- LS3_8 Embryogenesis, pattern formation, morphogenesis
- LS3_9 Cell differentiation, formation of tissues and organs
- LS3 10 Developmental genetics
- LS3 11 Evolution of developmental strategies
- LS3_12 Organoids
- LS3_13 Stem cells
- LS3_14 Regeneration
- LS3_15 Development of cell-based therapeutic approaches for tissue regeneration
- LS3_16 Functional imaging of cells and tissues
- LS3_17 Theoretical modelling in cellular, developmental and regenerative biology

LS4 Physiology in Health, Disease and Ageing

Organ and tissue physiology, comparative physiology, physiology of ageing, pathophysiology, interorgan and tissue communication, endocrinology, nutrition, metabolism, interaction with the microbiome, non-communicable diseases including cancer (and except disorders of the nervous system and immunity-related diseases)

- LS4_1 Organ and tissue physiology and pathophysiology
- LS4_2 Comparative physiology
- LS4_3 Physiology of ageing
- LS4_4 Endocrinology
- LS4_5 Non-hormonal mechanisms of inter-organ and tissue communication
- LS4 6 Microbiome and host physiology
- LS4_7 Nutrition and exercise physiology
- LS4 8 Impact of stress (including environmental stress) on physiology
- LS4 9 Metabolism and metabolic disorders, including diabetes and obesity
- LS4 10 The cardiovascular system and cardiovascular diseases
- LS4_11 Haematopoiesis and blood diseases
- LS4_12 Cancer
- LS4_13 Other non-communicable diseases (except disorders of the nervous system and immunity-related diseases)

LS5 Neuroscience and Disorders of the Nervous System

Nervous system development, homeostasis and ageing, nervous system function and dysfunction, systems neuroscience and modelling, biological basis of cognitive processes and of behaviour, neurological and mental disorders

- LS5 1 Neuronal cells
- LS5_2 Glial cells and neuronal-glial communication
- LS5 3 Neural development and related disorders
- LS5 4 Neural stem cells
- LS5_5 Neural networks and plasticity
- LS5_6 Neurovascular biology and blood-brain barrier
- LS5_7 Sensory systems, sensation and perception, including pain
- LS5 8 Neural basis of behaviour
- LS5 9 Neural basis of cognition
- LS5 10 Ageing of the nervous system
- LS5_11 Neurological and neurodegenerative disorders
- LS5 12 Mental disorders
- LS5_13 Nervous system injuries and trauma, stroke
- LS5_14 Repair and regeneration of the nervous system
- LS5 15 Neuroimmunology, neuroinflammation
- LS5_16 Systems and computational neuroscience
- LS5_17 Imaging in neuroscience
- LS5 18 Innovative methods and tools for neuroscience

LS6 Immunity, Infection and Immunotherapy

The immune system, related disorders and their mechanisms, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases, innovative immunological tools and approaches, including therapies

- LS6_1 Innate immunity
- LS6 2 Adaptive immunity
- LS6 3 Regulation of the immune response
- LS6_4 Immune-related diseases
- LS6_5 Biology of pathogens (e.g. bacteria, viruses, parasites, fungi)
- LS6 6 Infectious diseases
- LS6_7 Mechanisms of infection
- LS6_8 Biological basis of prevention and treatment of infection
- LS6 9 Antimicrobials, antimicrobial resistance
- LS6 10 Vaccine development
- LS6_11 Innovative immunological tools and approaches, including therapies

LS7 Prevention, Diagnosis and Treatment of Human Diseases

Medical technologies and tools for prevention, diagnosis and treatment of human diseases, therapeutic approaches and interventions, pharmacology, preventative medicine, epidemiology and public health, digital medicine

- LS7_1 Medical imaging for prevention, diagnosis and monitoring of diseases
- LS7_2 Medical technologies and tools (including genetic tools and biomarkers) for prevention, diagnosis, monitoring and treatment of diseases
- LS7 3 Nanomedicine
- LS7 4 Regenerative medicine
- LS7_5 Applied gene, cell and immune therapies
- LS7_6 Other medical therapeutic interventions, including transplantation
- LS7_7 Pharmacology and toxicology
- LS7 8 Effectiveness of interventions, including resistance to therapies
- LS7_9 Public health and epidemiology
- LS7_10 Preventative and prognostic medicine
- LS7_11 Environmental health, occupational medicine
- LS7_12 Health care, including care for the ageing population
- LS7_13 Palliative medicine
- LS7_14 Digital medicine, e-medicine, medical applications of artificial intelligence
- LS7_15 Medical ethics

LS8 Environmental Biology, Ecology and Evolution

For all organisms:

Ecology, biodiversity, environmental change, evolutionary biology, behavioural ecology, microbial ecology, marine biology, ecophysiology, theoretical developments and modelling

- LS8 1 Ecosystem and community ecology, macroecology
- LS8_2 Biodiversity
- LS8_3 Conservation biology
- LS8_4 Population biology, population dynamics, population genetics
- LS8_5 Biological aspects of environmental change, including climate change
- LS8_6 Evolutionary ecology
- LS8_7 Evolutionary genetics
- LS8_8 Phylogenetics, systematics, comparative biology
- LS8_9 Macroevolution and paleobiology
- LS8_10 Ecology and evolution of species interactions
- LS8_11 Behavioural ecology and evolution
- LS8_12 Microbial ecology and evolution
- LS8_13 Marine biology and ecology
- LS8_14 Ecophysiology, from organisms to ecosystems
- LS8_15 Theoretical developments and modelling in environmental biology, ecology, and evolution

LS9 Biotechnology and Biosystems Engineering

Biotechnology using all organisms, biotechnology for environment and food applications, applied plant and animal sciences, bioengineering and synthetic biology, biomass and biofuels, biohazards

- LS9 1 Bioengineering for synthetic and chemical biology
- LS9_2 Applied genetics, gene editing and transgenic organisms
- LS9_3 Bioengineering of cells, tissues, organs and organisms
- LS9_4 Microbial biotechnology and bioengineering
- LS9_5 Food biotechnology and bioengineering
- LS9_6 Marine biotechnology and bioengineering
- LS9_7 Environmental biotechnology and bioengineering
- LS9_8 Applied plant sciences, plant breeding, agroecology and soil biology
- LS9_9 Plant pathology and pest resistance
- LS9_10 Veterinary and applied animal sciences
- LS9 11 Biomass production and utilisation, biofuels
- LS9_12 Ecotoxicology, biohazards and biosafety

Social Sciences and Humanities

SH1 Individuals, Markets and Organisations

Economics, finance, management

- SH1 1 Macroeconomics; monetary economics; economic growth
- SH1_2 International trade; international management; international business; spatial economics
- SH1_3 Development economics; structural change; political economy of development
- SH1_4 Finance; asset pricing; international finance; market microstructure
- SH1_5 Corporate finance; banking and financial intermediation; accounting; auditing; insurance
- SH1_6 Econometrics; operations research
- SH1_7 Behavioural economics; experimental economics; neuro-economics
- SH1_8 Microeconomic theory; game theory; decision theory
- SH1_9 Industrial organisation; entrepreneurship; R&D and innovation
- SH1_10 Management; strategy; organisational behaviour
- SH1_11 Human resource management; operations management, marketing
- SH1_12 Environmental economics; resource and energy economics; agricultural economics
- SH1_13 Labour and demographic economics
- SH1_14 Health economics; economics of education
- SH1_15 Public economics; political economics; law and economics
- SH1_16 Historical economics; quantitative economic history; institutional economics; economic systems

SH2 Institutions, Governance and Legal Systems

Political science, international relations, law

- SH2_1 Political systems, governance
- SH2_2 Democratisation and social movements
- SH2 3 Conflict resolution, war, peace building, international law
- SH2_4 Legal studies, constitutions, human rights, comparative law
- SH2_5 International relations, global and transnational governance
- SH2_6 Humanitarian assistance and development
- SH2_7 Political and legal philosophy
- SH2_8 Big data in political and legal studies

SH3 The Social World and Its Diversity

Sociology, social psychology, social anthropology, education sciences, communication studies

- SH3_1 Social structure, social mobility, social innovation
- SH3_2 Inequalities, discrimination, prejudice
- SH3_3 Aggression and violence, antisocial behaviour, crime
- SH3 4 Social integration, exclusion, prosocial behaviour
- SH3_5 Attitudes and beliefs
- SH3_6 Social influence; power and group behaviour
- SH3 7 Kinship; diversity and identities, gender, interethnic relations
- SH3 8 Social policies, welfare, work and employment
- SH3 9 Poverty and poverty alleviation
- SH3_10 Religious studies, ritual; symbolic representation
- SH3_11 Social aspects of teaching and learning, curriculum studies, education and educational policies
- SH3_12 Communication and information, networks, media
- SH3_13 Digital social research
- SH3_14 Social studies of science and technology

SH4 The Human Mind and Its Complexity

Cognitive science, psychology, linguistics, theoretical philosophy

SH4_1 Cognitive basis of human development and education, developmental disorders; comparative cognition

- SH4_2 Personality and social cognition; emotion
- SH4_3 Clinical and health psychology
- SH4_4 Neuropsychology
- SH4_5 Attention, perception, action, consciousness
- SH4_6 Learning, memory; cognition in ageing
- SH4_7 Reasoning, decision-making; intelligence
- SH4_8 Language learning and processing (first and second languages)
- SH4_9 Theoretical linguistics; computational linguistics
- SH4 10 Language typology; historical linguistics
- SH4_11 Pragmatics, sociolinguistics, linguistic anthropology, discourse analysis
- SH4_12 Philosophy of mind, philosophy of language
- SH4_13 Philosophy of science, epistemology, logic

SH5 Cultures and Cultural Production

Literary studies, cultural studies, study of the arts, philosophy

- SH5_1 Classics, ancient literature and art
- SH5_2 Theory and history of literature, comparative literature
- SH5_3 Philology; text and image studies
- SH5_4 Visual and performing arts, film, design and architecture
- SH5_5 Music and musicology; history of music
- SH5_6 History of art and architecture, arts-based research
- SH5_7 Museums, exhibitions, conservation and restoration
- SH5_8 Cultural studies, cultural identities and memories, cultural heritage
- SH5_9 Metaphysics, philosophical anthropology; aesthetics
- SH5_10 Ethics and its applications; social philosophy
- SH5 11 History of philosophy
- SH5_12 Computational modelling and digitisation in the cultural sphere

SH6 The Study of the Human Past

Archaeology and history

- SH6_1 Historiography, theory and methods in history, including the analysis of digital data
- SH6_2 Classical archaeology, history of archaeology, social archaeology
- SH6_3 General archaeology, archaeometry, landscape archaeology
- SH6_4 Prehistory, palaeoanthropology, palaeodemography, protohistory, bioarchaeology
- SH6_5 Palaeography and codicology
- SH6 6 Ancient history
- SH6_7 Medieval history
- SH6_8 Early modern history
- SH6_9 Modern and contemporary history
- 3rio_3 Wodern and contemporary mistor
- SH6_10 Colonial and post-colonial history
- SH6_11 Global history, transnational history, comparative history, entangled histories
- SH6_12 Social and economic history
- SHG 13 Gender history, cultural history, history of collective identities and memories, history of religions
- SH6_14 History of ideas, intellectual history, history of economic thought
- SH6_15 History of science, medicine and technologies

H7 Human Mobility, Environment, and Space

Human geography, demography, health, sustainability science, territorial planning, spatial analysis

- SH7_1 Human, economic and social geography
- SH7_2 Migration
- SH7_3 Population dynamics: households, family and fertility
- SH7_4 Social aspects of health, ageing and society
- SH7_5 Sustainability sciences, environment and resources
- SH7 6 Environmental and climate change, societal impact and policy
- SH7_7 Cities; urban, regional and rural studies
- SH7_8 Land use and planning
- SH7_9 Energy, transportation and mobility
- SH7_10 GIS, spatial analysis; big data in geographical studies

Intelligence from the ERC Evaluation Panels

Panel synthesis per year

Panel member synthesis most likely is repeated every two years per Funding Schema

COMPOSITION OF EVALUATION PANELS

ERC Starting Grant 2020:

Panel Chairs

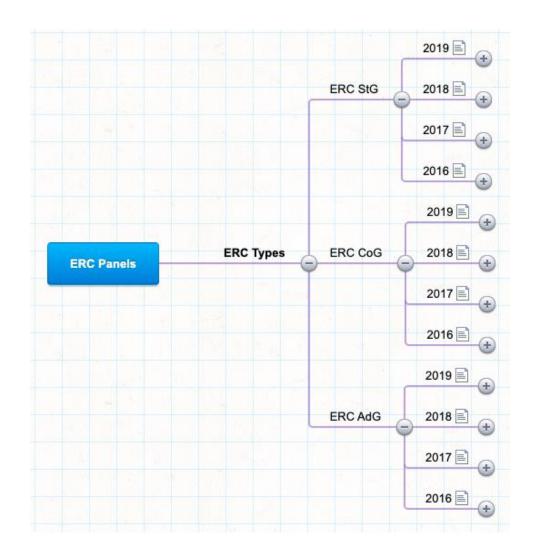
Panel Members

ERC Starting Grant 219:

Panel Chairs

Panel Members

Click here to check Panel Chairs and Panel Members from previous calls



https://mind42.com/mindmap/f34593c9-a97d-4ef0-8496-c1db534e4e35

Keywords define who- PM/external referee- will evaluate your proposal. Check them carefully!!!

PE9

- Georges Meylan (Panel Chair)
- João Manuel Alves
- Luciana Bianchi
- Robert H. Brandenberger
- Marc Chaussidon
- Carsten Dominik
- Eva Grebel
- Luigi Guzzo
- Richard Harrison
- Carole Mundell
- Hagai Netzer
- Guy Perrin
- Peter Schneider
- José-María Torrelles

Source: ERC NCP Oficina Europea

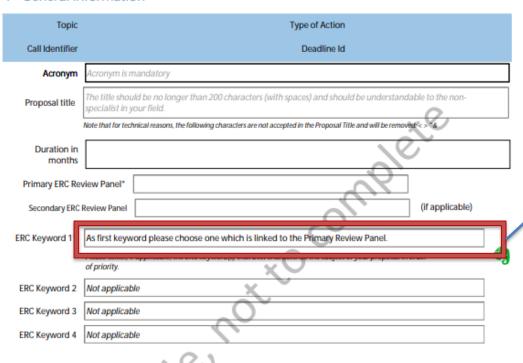
PE9

- PE9_1 Solar and interplanetary physics
- PE9_2 Planetary systems sciences
 - PE9_3 Interstellar medium
 - PE9_4 Formation of stars and planets
 - PE9_5 Astrobiology
 - PE9_6 Stars and stellar systems
- PE9_7 The Galaxy
- PE9 8 Formation and evolution of galaxies
- PE9_9 Clusters of galaxies and large scale structures
- PE9_10 High energy and particles astronomy
 X-rays, cosmic rays, gamma rays, neutrinos
- PE9_11 Relativistic astrophysics
- PE9_12 Dark matter, dark energy
- PE9 13 Gravitational astronomy
- PE9 14 Cosmology
- PE9_15 Space Sciences

Select just one ERC keyword (1)



1 - General information



Defines the lead panel evaluator and other panel evaluators for Stage 1 and Stage 2 evaluations

Defines the remote referees (external evaluators at stage 2 evaluation

Free keyword In addition, please enter free text keywords that you consider best characterise the scope of your proposal. The choice of keywords should take into account any multi-disciplinary aspects of the proposal.

Intelligence behind the targeted Panel insights

Seek intelligence on call insights wherever applicable

Insights

- Official Success Rate = no. of proposals funded/no. of proposals submitted
- 2. Actual Success Rate: no. of proposals funded/no. of proposals > passed to Step 2
- The total mark the <u>last in the rank</u> funded proposal received in the previous related call

Hence,

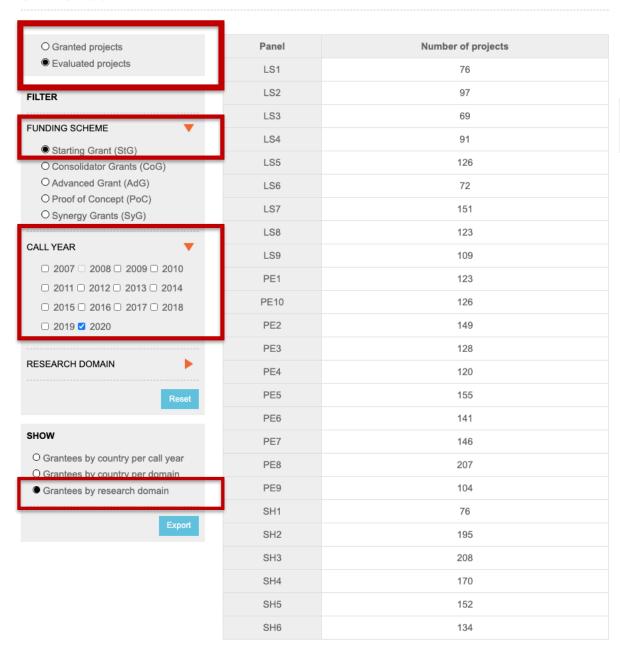
Are you feeling comfortable with the above 3 numbers in your panel?

From ERC erc.europa.eu/projects-figures/statistics

From NCP

From Panel member/NCP

STATISTICS



Success rates from the ERC website as an example StG

<u>erc.europa.eu/projects-</u> <u>figures/statistics</u>

Granted projectsEvaluated projects

Panel	Number of projects
LS1	11
LS2	13
LS3	9
LS4	13
LS5	18
LS6	10
LS7	17
LS8	17
LS9	15
PE1	16
PE10	16
PE2	19
PE3	17
PE4	16
PE5	21
PE6	20
PE7	19
PE8	25
PE9	14
SH1	11
SH2	25
SH3	28
SH4	23
SH5	20
SH6	19

© Nikolaos Floratos, Fundingexpert.academy

2020 Official Success Rate StG per panel

Pa	anel	StG projects funded	StG projects submitted	Success rate
LS1		11	76	14.47%
LS2		13	97	13.40%
LS3		9	69	13.04%
LS4		13	91	14.29%
LS5		18	126	14.29%
LS6		10	72	13.89%
LS7		17	151	11.26%
LS8		17	123	13.82%
LS9		15	109	13.76%
PE1		16	123	13.01%
PE10		16	126	12.70%
PE2		19	149	12.75%
PE3		17	128	13.28%
PE4		16	120	13.33%
PE5		21	155	13.55%
PE6		20	141	14.18%
PE7		19	146	13.01%
PE8		25	207	12.08%
PE9		14	104	13.46%
SH1		11	76	14.47%
SH2		25	195	12.82%
SH3		28	208	13.46%
SH4		23	170	13.53%
SH5		20	152	13.16%
SH6		19	134	14.18%

Actual Success Rate

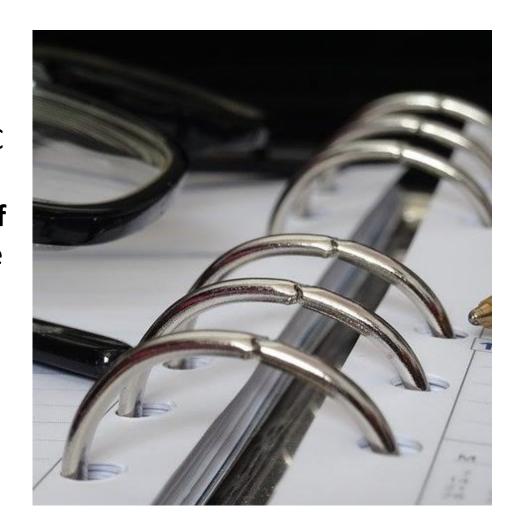
i.e. The ranking range of successful proposals out of the proposals evaluated by the panel is Step 2, indicatively in various years (Not provided)

- For panel LS1 is 1%-46% in StG, i.e. the top 46% in panel LS1/StG received an ERC grant
- For panel PE2 is 1%-37% in AdG, i.e. the top 37% in panel PE2/AdG received an ERC grant
- For panel PE3 1%-38% in AdG, i.e. the top 38% in panel PE2/AdG received an ERC grant
- For panel PE5 1%-65% in CoG, i.e. the **top 65%** in panel PE5 in CoG received an ERC grant
- For panel PE6 1%-34% in StG, i.e. the top 34% in panel PE6/StG received an ERC grant

Homework #0

Set a day in your calendar to

to contact your NCP or your Research Support Office in ERC and provide you for the last two years the ranking range of successful proposals, since the larger it is, the easier may be for your application to be funded. However, this may be useful only in cases that you have a dilemma which of two panels to target according to your research focus.



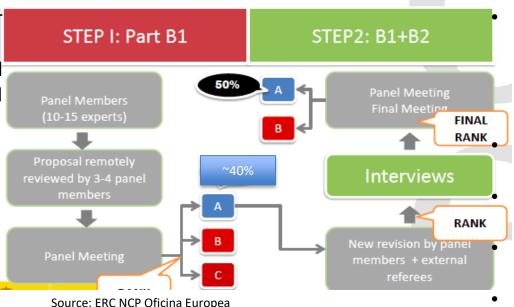
Intelligence from ERC Guide for Peer Reviewers per funding scheme

Per Funding Scheme (e.g. StG, CoG, AdG)

Step 1 Evaluation

- **100-150** proposals per panel
- 1 lead expert and 2-3 panel members as co-readers per proposal
- Each panel member is lead
 expert in 2-3 proposals and
 12-40 as co-readers
- Each lead expert or coreader evaluates individually each proposal based on B1
- Based on averages of individual markings, panel discusses the ranking and proposals with 4/5 (i.e. A) pass to step 2
- ~3x proposals pass to step 2 that can be funded
- A list of potential referees
 (~12 external reviewers) for
 proposals in step 2 is
 prepared based on free
 keywords and references

Evaluation Process



Step 2 Evaluation

- Each panel evaluates 25-40 proposalsEach panel member is lead
 - Each panel member is lead
 expert in 2-3 and co-reader
 3-10 proposals that
 evaluates individually each
 proposal based on B1&B2
 An external reviewer
 evaluates just one proposal
 All proposals in step 2 are
 invited to an interview
 ~50% receive an A and 20%
 are granted
 Panel members with no load
 - Panel members with no lead or co-reader role in one proposal, they read just B1 to participate in panel discussions and interview.

Restrictions in 2021 based on previous evaluation results

Call to which the PI applied under previous ERC WP	Evaluation Outcome	Calls to which a PI is NOT eligible in 2021
2019 and 2020 Starting, Consolidator, or Synergy Grant	Rejected for breach of research integrity	StG, CoG, AdG
2019 Starting, Consolidator or Advanced Grant	C at Step 1	StG, CoG, AdG
2019 Synergy grant	A, or B at Step 3	No restriction
	B at Step 1 or 2	No restriction
	C at Step 1	AdG
2020 Starting, Consolidator, or Advanced Grant	A, or B at Step 2	No restriction
	B or C at Step 1	StG, CoG, AdG
2020 Synergy Grant	A, or B at Step 3	No restriction
	B at Step 2	No restriction
	C at Step 1	AdG

Intelligence from the ERC Application Template

Parts B1 and B2

Intelligence on ERC Proposal Structure

PART A - online forms

A1 Proposal and PI info A2 Host Institution info

A3 Budget

Annexes – submitted as .pdf

- Statement of support of HI
- If applicable: explanatory information on ethical issues; copy of PhD (StG, CoG); document for extension of eligibility window (StG, CoG)

PART B1

- Extended Synopsis
- CV
- Track Record

Make it more general with the use in addition of words and concepts that can be understood by all the panel members (generalists)

PART B2

Scientific Proposal

15 p.

5 p.

2 p.

2 p.

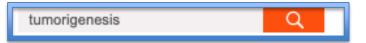
Make it more specialised with the words and concepts that can be understood by experts in the research area (specialists)

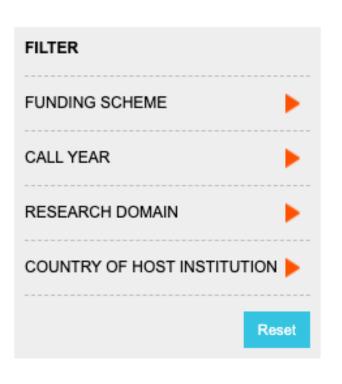
Intelligence from previous ERC projects

erc.europa.eu/

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

ERC FUNDED PROJECTS





Displaying 1 - 10 of 48. Show 10 | 20 results per page.

Project acronym	AUROMYC
Project	N-Myc and Aurora A: From Protein Stability to Chromosome Topology N-Myc and Aurora A: From Protein Stability to Chromosome Topology Myc and Aurora A: From Protein Stability to Chromosome Topology
Researcher (PI)	Martin Eilers
Host Institution (HI)	JULIUS-MAXIMILIANS-UNIVERSITAT WURZBURG
Call Details	Advanced Grant (AdG), LS4, ERC-2014-ADG
Summary (

Project acronym	CAN-IT-BARRIERS
Project	Disruption of systemic and microenvironmental barriers to immunotherapy of antigenic tumors
Researcher (PI)	Douglas HANAHAN
Heat Institution (HI)	ECOLE DOLVTECHNIQUE EEDERALE DE LAURANNE.





About 14,300 results (0.69 seconds)

Including results for Martin Eilers @ JULIUS-MAXIMILIANS-UNIVERSITAT WUERZBURG

Search only for Martin Eilers @ JULIUS-MAXIMILIANS-UNIVERSITAT WURZBURG

www.uni-wuerzburg.de > people > principal-investigators *

Martin Eilers - GRK 2243 - Universität Würzburg

Sep 30, 2019 — Prof. Dr. Martin Eilers. Department of Biochemistry and Molecular Biology Biocenter, University of Würzburg Am Hubland D-97074 Würzburg.

Email: martin.eilers@biozentrum.uni-wuerzbur...

www.biozentrum.uni-wuerzburg.de > research-groups *

AG Eilers - Biozentrum der Universität Würzburg

May 19, 2020 — Dr. Martin Eilers. Prof. Dr. Martin Eilers. Lehrstuhl für Biochemie und Molekularbiologie Biozentrum Am Hubland 97074 Würzburg. Tel: 0931 ...

Missing: MAXIMILIANS- | Must include: MAXIMILIANS-

wuerzburgwiki.de > wiki > Martin_E... ▼ Translate this page

Martin Eilers - WürzburgWiki

Prof. Dr. Martin Eilers (* 1960 in Bonn) ist Biochemiker, Krebsforscher und Professor an der Julius-Maximilians-Universität Würzburg.



JNDERSTANDING UBIQUITYLATION: FROM R MECHANISMS TO DISEASE"

> GRK 2243 > PEOPLE > PRINCIPAL INVESTIGATORS > MARTIN EILERS

Martin Eilers Property of the property of the

Prof. Dr. Martin Eilers

Department of Biochemistry and Molecular Biology Biocenter, University of Würzburg

Am Hubland D-97074 Würzburg

Tel.: 0931 31-84111 Fax.: 0931 31-84113

Email: martin.eilers@biozentrum.uni-wuerzburg.de
Web: www.pch2.biozentrum.uni-wuerzburg.de

Biochemistry, Molecular Cell Biology, Tumor Biology

Many cancers are life-threatening diseases and there is an urgent need for novel therapeutic strategies.

The Eilers lab works on the human MYC protein family, which is involved in the development of the majority of all human cancers. Our aim is both to understand the function of MYC proteins and explore new strategies to inhibit their function.

Martin Eilers

Caroline Kisker

Vera Kozjak-Pavlovic

Sonja Lorenz (vicespokesperson)

Thomas Rudel

Hermann Schindelin

Andreas Schlosser

Christoph Sotriffer

Elmar Wolf

ЭT

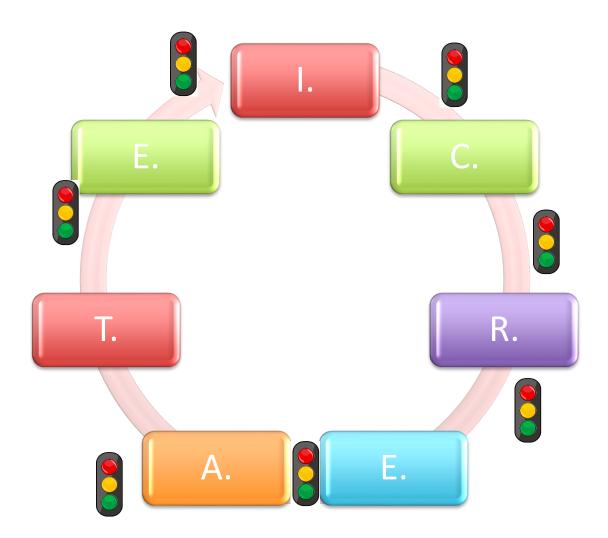
Recipe for successful ERC applicants

From Struggle To Success Impress Master the Step Get evaluators Step Step **ERC** proposal intelligence with your development on ERC 3 **ERC** grant process application I.C.R.E.A.T.E.™ **ERC** C.R.I.T.E.R.I.A.™ **INTELLIGENCE** ™ **Formula** system

Module 2: I.C.R.E.A.T.E.S.™ formula

Full Proposal Development Cycle of an ERC proposal- Step-by-step

The Full Proposal Development Cycle



The I. Element from the I.C.R.E.A.T.E. System

Winning proposals and successful projects start with an **I.** <u>Idea</u> that supports the following 7 principles

- 1. Mission of you as a researcher
- 2. V<u>ision</u> of you as a researcher
- Addressing a key scientific challenge/problem
- 4. Creation of <u>forefront</u> (<u>novel and with high</u> <u>impact</u>) knowledge
- 5. Unique with new horizons for research and society
- 6. Challenging to be fully achieved
- 7. Not possible to be implemented by others now



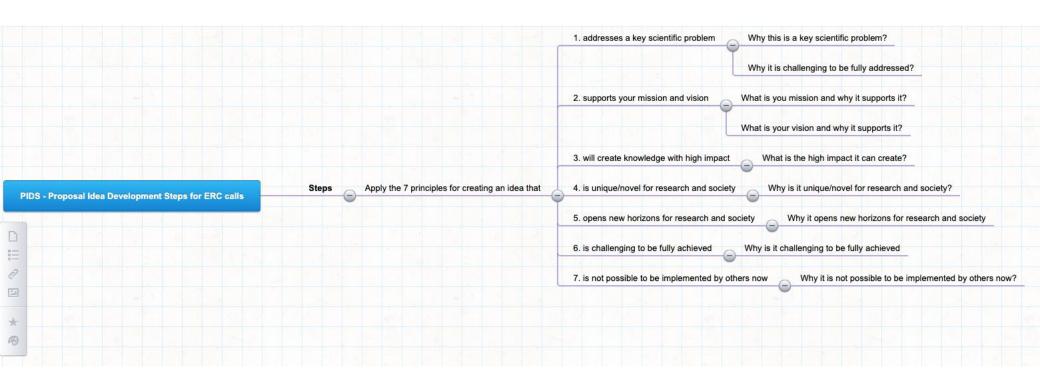
How to create innovative ideas for your Horizon Europe proposal

Everything starts with problem(s) & opportunities

- We cannot have great ideas if they are not based on big problems, challenges and opportunities
- Albert Einstein emphasized the 80/20 ratio between problems and solutions



Idea creation process for ERC calls



Mind map can be accessed here

The **C**. Element from the I.**C**.R.E.A.T.E.S. System

The C. Element from the I.C.R.E.A.T.E.S. System

C. _____

- Input to Connections is our <u>idea</u> (3-4 sentences) that we have internally validated.
- Output is to
 ______ validate
 the idea



The **C**. Element from the I.**C**.R.E.A.T.E.S. System

Home » Funding » National Contact Points NATIONAL CONTACT POINTS National Contact Points (NCPs) are independent organizations of different nature (Ministries, Academies of Science, Research agencies, etc) that act as information providers to ERC applicants in their native language. They are based in all EU countries and Associated States, as well as in some non-European countries. NCPs do not represent the ERC. Their mission is to raise awareness, inform and advise on ERC funding opportunities at a national and -- Select Country --**ERC FUNDED PROJECTS** tumorigenesis Displaying 1 - 10 of 48. Show 10 | 20 results per page FILTER AUROMYC FUNDING SCHEME N-Myc and Aurora A: From Protein Stability to Chromosome Topology N-Myc and Aurora A: From CALL YEAR Protein Stability to Chromosome Topology Myc and Aurora A: From Protein Stability to Chromosome RESEARCH DOMAIN Topology Martin Filers Researcher (PI) COUNTRY OF HOST INSTITUTION | Host Institution (HI JULIUS-MAXIMILIANS-UNIVERSITAT WURZBURG Summary Project acro Researcher INDERSTANDING UBIQUITYLATION: FROM Martin Eilers – WürzburgWiki Prof. Dr. Martin Eilers (* 1960 in Bonn) is

2 essential groups to **c**onnect with:

 ERC <u>National</u> Contact Points: <u>https://erc.europa.eu/funding/n</u> ational-contact-points

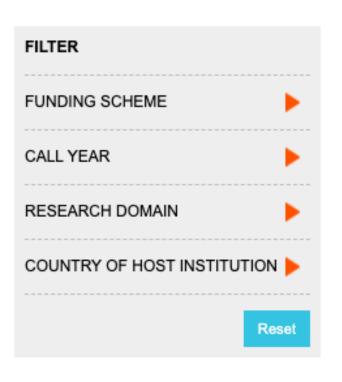
• ______in ERC in your research topic

erc.europa.eu/projectsfigures/erc-funded-projects

erc.europa.eu/projects-figures/erc-funded-projects

ERC FUNDED PROJECTS

tumorigenesis



Displaying 1 - 10 of 48. Show 10 | 20 results per page.

Project acronym	AUROMYC
Project	N-Myc and Aurora A: From Protein Stability to Chromosome Topology N-Myc and Aurora A: From Protein Stability to Chromosome Topology Myc and Aurora A: From Protein Stability to Chromosome Topology
Researcher (PI)	Martin Eilers
Host Institution (HI)	JULIUS-MAXIMILIANS-UNIVERSITAT WURZBURG
Call Details	Advanced Grant (AdG), LS4, ERC-2014-ADG
Summary (

Project acronym	CAN-IT-BARRIERS
Project	Disruption of systemic and microenvironmental barriers to immunotherapy of antigenic tumors
Researcher (PI)	Douglas HANAHAN
Heat Institution (HI)	ECOLE DOLVTECHNIQUE EEDERALE DE LAURANNE.





About 14,300 results (0.69 seconds)

Including results for Martin Eilers @ JULIUS-MAXIMILIANS-UNIVERSITAT WUERZBURG

Search only for Martin Eilers @ JULIUS-MAXIMILIANS-UNIVERSITAT WURZBURG

www.uni-wuerzburg.de > people > principal-investigators *

Martin Eilers - GRK 2243 - Universität Würzburg

Sep 30, 2019 — Prof. Dr. Martin Eilers. Department of Biochemistry and Molecular Biology Biocenter, University of Würzburg Am Hubland D-97074 Würzburg.

Email: martin.eilers@biozentrum.uni-wuerzbur...

www.biozentrum.uni-wuerzburg.de > research-groups *

AG Eilers - Biozentrum der Universität Würzburg

May 19, 2020 - Dr. Martin Eilers. Prof. Dr. Martin Eilers. Lehrstuhl für Biochemie und Molekularbiologie Biozentrum Am Hubland 97074 Würzburg. Tel: 0931 ...

Missing: MAXIMILIANS- | Must include: MAXIMILIANS-

wuerzburgwiki.de > wiki > Martin_E... ▼ Translate this page

Martin Eilers - WürzburgWiki

Prof. Dr. Martin Eilers (* 1960 in Bonn) ist Biochemiker, Krebsforscher und Professor an der Julius-Maximilians-Universität Würzburg.



R MECHANISMS TO DISEASE"

★ > GRK 2243 > PEOPLE > PRINCIPAL INVESTIGATORS > MARTIN EILERS



Prof. Dr. Martin Eilers

Department of Biochemistry and Molecular Biology Biocenter, University of Würzburg

Am Hubland D-97074 Würzburg

Tel.: 0931 31-84111 Fax.: 0931 31-84113

> Email: martin.eilers@biozentrum.uni-wuerzburg.de Web:
>
> www.pch2.biozentrum.uni-wuerzburg.de

Biochemistry, Molecular Cell Biology, Tumor Biology

Many cancers are life-threatening diseases and there is an urgent need for novel therapeutic strategies.

The Eilers lab works on the human MYC protein family, which is involved in the development of the majority of all human cancers. Our aim is both to understand the function of MYC proteins and explore new strategies to inhibit their function.

JNDERSTANDING UBIQUITYLATION: FROM

Martin Eilers

Caroline Kisker

Vera Kozjak-Pavlovic

Sonja Lorenz (vicespokesperson)

Thomas Rudel

Hermann Schindelin

Andreas Schlosser

Christoph Sotriffer

Elmar Wolf

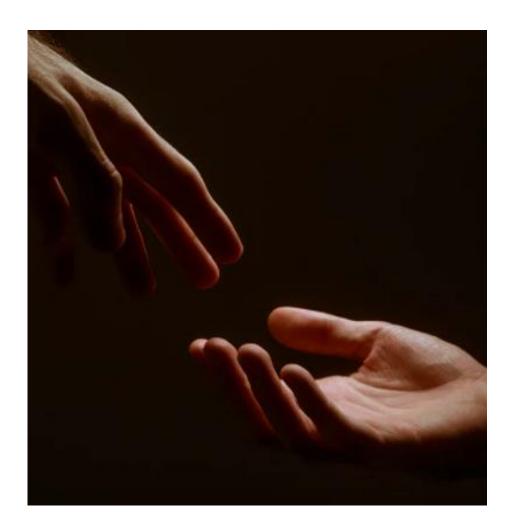
Communication Approach to successful ERC applicants in your research area



- Send an email as follows
 - 1. Start with an **honest compliment** (e.g. congratulate about their project and explain why)
 - Elaborate on your high interest and expertise in their key research area
 - 3. Express your <u>offer</u> to get more involved in their project (if still running), e.g. as peer-reviewer, co-author, Advisor, etc. (NB. Give and shall receive ©)
 - 4. Express your plan to submit an ERC proposal at the same panel and your high appreciation in case you could receive a feedback on your proposal idea
 - **5. Conclude** with your desire **to virtually meet** and have a discussion on any ideas in your common research area
- Ensure you get a response. e.g. Follow-up over the phone (You never send an email to anyone if you are not determined to follow-up and should persist to get a response)
- The main purpose here is to receive some external feedback on your idea and whether it stands as the foundation of an ERC proposal
- Additionally, it is always nice to extend your network with thinking alike researchers ©

Create your own list of actors active already successfully in similar **specific** research areas

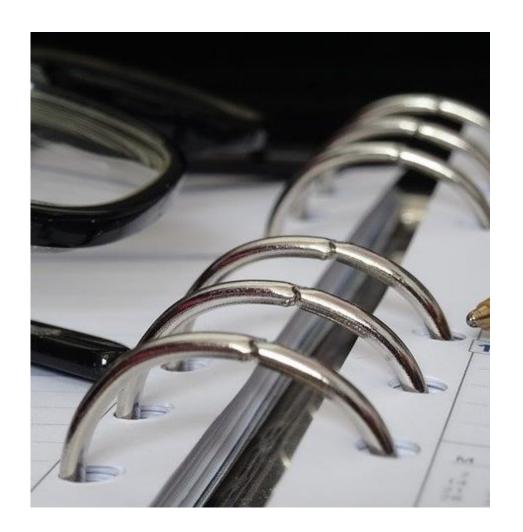
- CV Profile models
- Advisors of your ERC proposal idea
- Advisors of your ERC proposal summary
- Advisors of your ERC Extended Synopsis (B1)
- Advisors of your ERC whole proposal (B1&B2)
- Advisors/experts of your ERC project
- Collaborators on your ERC project



Homework #2

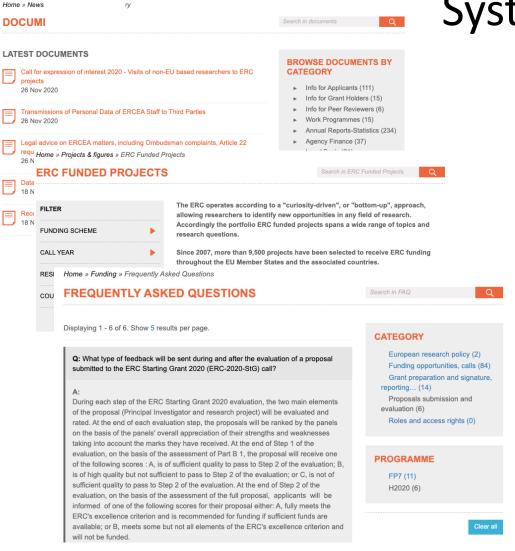
Set a day in your calendar to

- Identify actors successfully active in similar research domain
- Connect with them via email, linkedin, researchgate and other tools
- Give them an honest compliment about their work
- Ask them to provide you feedback on your ERC idea



The **R**. Element from the I.C.R.E.A.T.E.™ System

The **R**. Element from the I.C.R.E.A.T.E.™ System



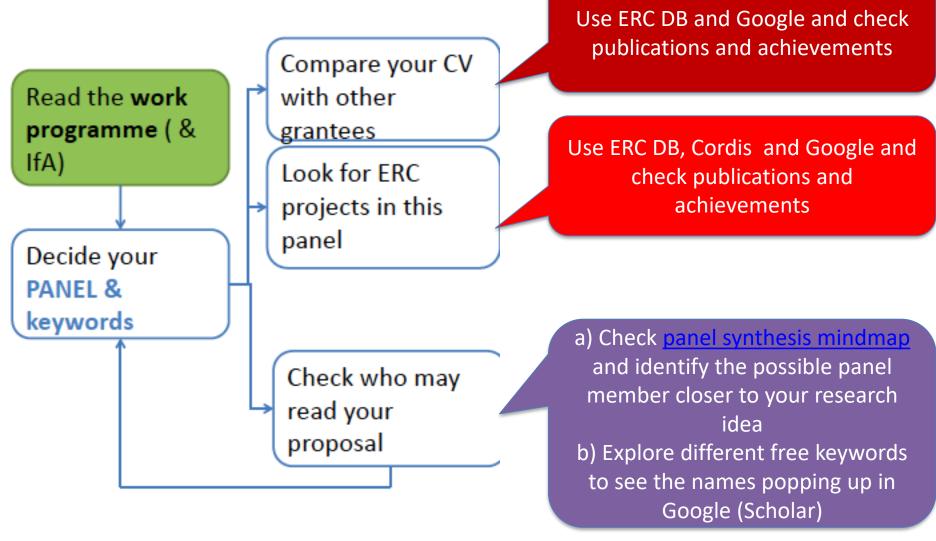
- R. <u>Read</u> and in specific **study** the reference material related to the ERC call mainly from <u>erc.europa.eu/document-library</u> and in specific the related
- 1. ERC Workprogramme
- 2. Info for applicants
- 3. Info for peer-reviewers
- 4. Publication "Spotlight on ERC projects" related to your topic
- Outlook on <u>previously related projects</u> funded from your targeted topic/panel (from <u>erc.europa.eu/projects-figures/erc-funded-projects</u>
- Frequently Asked Questions by participants on Horizon Europe targeted call from https://erc.europa.eu/funding/frequently-asked-questions

The **R**. Element from the I.C.R.E.A.T.E.™ System

The output of the Read action/step should be a well-structured 2 page summary of the ERC call topic with the following information:

- Eligibility Criteria
- Submission Deadline
- Evaluation Criteria
- Key documents (links to consider)
- Previously projects funded <u>similar</u> to your project idea
- Success Rates
- <u>Contact</u> details of NCP representatives, HI support office, and/or an expert/successful ERC grantee to provide you further feedback

R. Read Outcomes



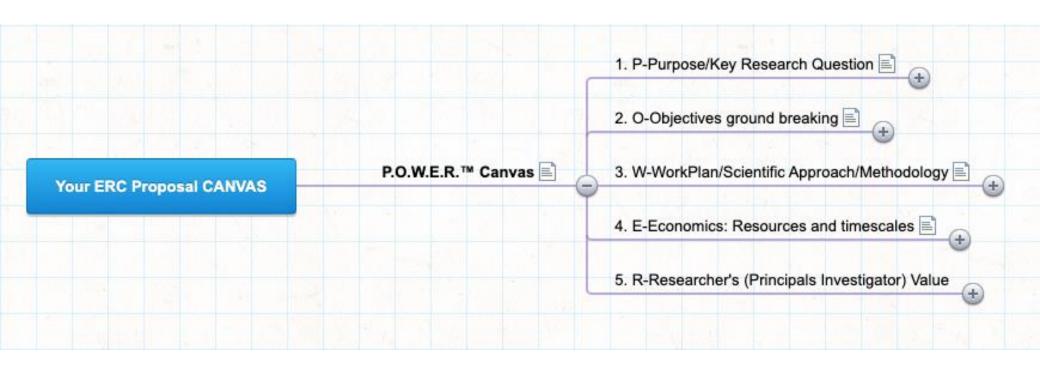
The **E**. Element from the I.C.R.**E**.A.T.E.™ System

The **E**. Element from the I.C.R.**E**.A.T.E.™ System

- E. _______ the essentials of your proposal idea and approach in 2 pages summary as shown in the next slide:
- Output of this step is the proposal
- It can be described in a word document or via a mindmap



ERC proposal structure based on POWER C.A.N.V.A.S.™ tool

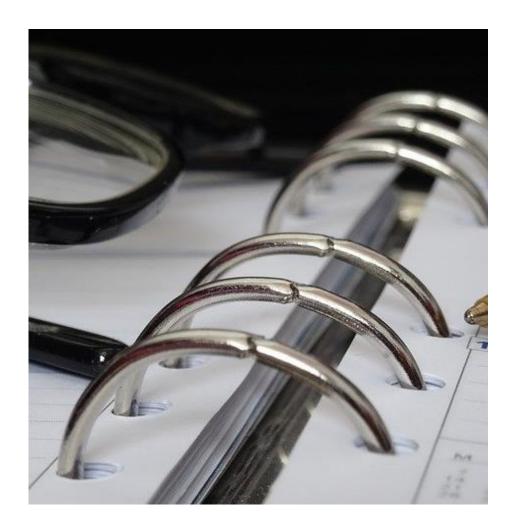


A mindmap structure similar to the example

Homework #3

Set a day in your calendar to

- Prepare your ERC proposal summary based on P.O.W.E.R.™ template
- Use a word document based on the given ERC P.O.W.E.R.™ CANVAS template



Proposal Summary Uses



A great proposal summary (max 2-3 pages) is your main tool for

- Receiving <u>fruitful feedback</u> on your ERC project
- Engaging competent individuals as experts/collaborators_(if applicable/necessary)
- Building the Section B1: Extended Synopsis by adding elements comprehensive for generalists also
- Building the Section B2 by going into more detail and deeper in details for specialists in your research topic
- Engaging resources for developing further the proposal.

The A. Element from the I.C.R.E.A.T.E.™ System

The **A**. Element from the I.C.R.E.**A**.T.E.™ System

- A. <u>Attract</u> competent researchers (direct and indirect ones)
- Direct team members that expect to join your team as experts/collaborators/assist ants
- Indirect team members are mainly stakeholders that have strong interest in your research and they will have an advisory role to your project



The **A**. Element from the I.C.R.E.**A**.T.E.™ System

- **A.** ____ competent team members
- B. Sources for competent direct and indirect individuals
 - Your own <u>network</u>
 - Actors successful in previously ERC funded projects related to your topic!!! - (very useful)
 - Experts/top researchers in a specific topic essential in your methodology and/or with access to special infrastructure needed



The **T**. Element from the I.C.R.E.A.**T**.E.™ System

The **T**. Element from the I.C.R.E.A.**T**.E.™ System



- **T.** _____ an empty application form into a great and winning proposal
- The high quality of the proposal content and approach will be enhanced with the C.R.I.T.E.R.I.A. formula (See next Modules)
- Step-by-step guidance for writing B1 and B2
- Register and use the <u>OpenERC platform</u> for step-by-step guidance based on winning examples on how to write each of the two parts (B1 and B2) in your proposal

The **E**. Element from the I.C.R.E.A.T.**E**.™ System

The **E**. Element from the I.C.R.E.A.T.**E**.™ System

- E. _____ the final draft by an external, i.e. someone that hasn't been involved in the preparation of the proposal
- Possible candidates:
 - A colleague
 - Your ERC support Office
 - An already successful applicant in ERC in your panel/research area
 - An external expert with a fee
 - Output: The final proposal ready to be submitted



Tip!



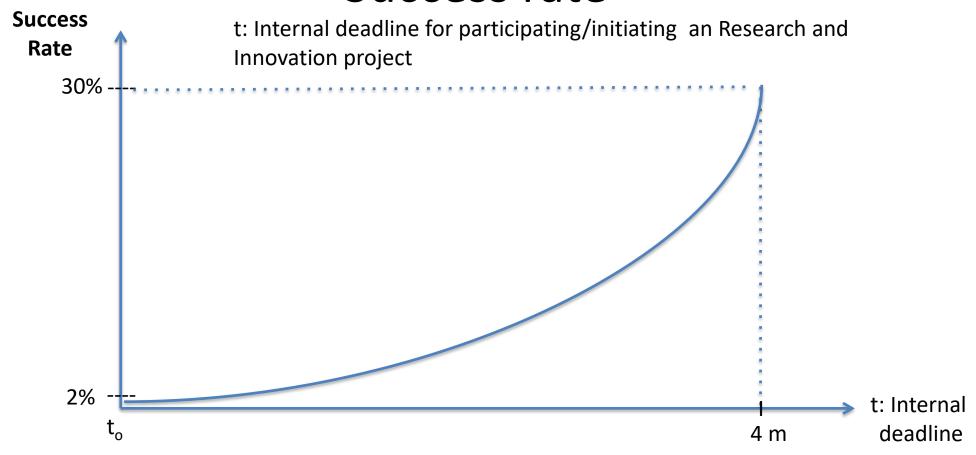
Evaluation feedback should be critical and based on

- How convincing the proposal is against each subsection criterion
- On <u>weaknesses</u> on the approach based on the text provided
- Evaluation can <u>also</u> take place earlier on the proposal <u>summary and/or on the</u> <u>proposal idea</u>

You address the evaluation feedback and ...

- **S.** _____ the final proposal
- Send a thank you message to all partners/team members
- <u>Tidy-up</u> your office and e-folders
- Last but not least _____ with your team that supported you!

Internal deadline for participating/initiating an R&I project vs Success rate



t_o: Submission deadline/Internal deadline

Source: EARMA conference 2017

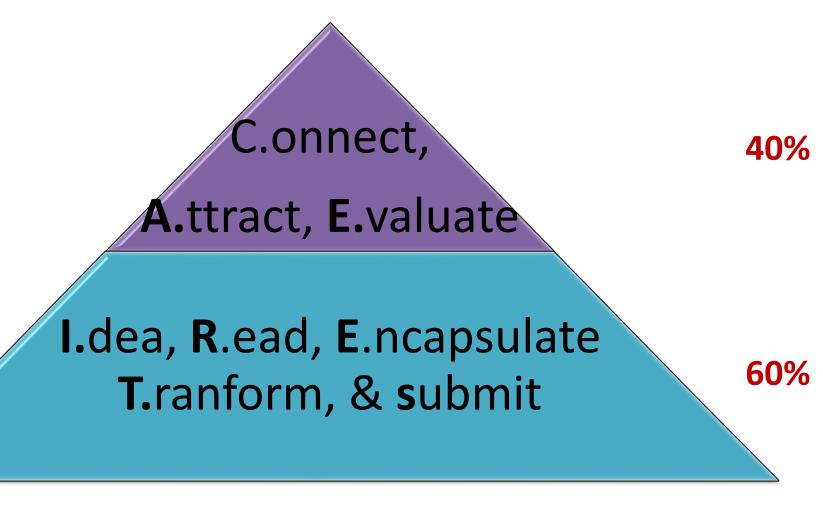
I.C.R.E.A.T.E.™ Timeline (thumb rule)

• t0>4 months: **Idea** to be worked • t0-4 months: Although **connecting& sharing** is a continuous process • t0-3 months: **Reading** and studying the suitable call • t0-2.5 months: **Encapsulating** and preparing the proposal summary • t0-2 months: Attracting Milestone: Finalise any collaborators/experts • t0-1.5 months: Transforming your proposal into a great one after the finalisation of the consortium • t0-1 week: **Evaluating** your proposal by an external and address their comments • t0 is Submission deadline

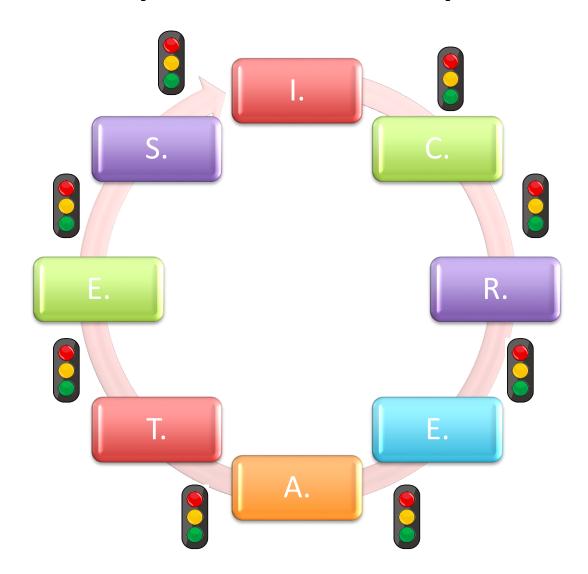




As rule of tumb: Effort for reaching the top as ERC applicant



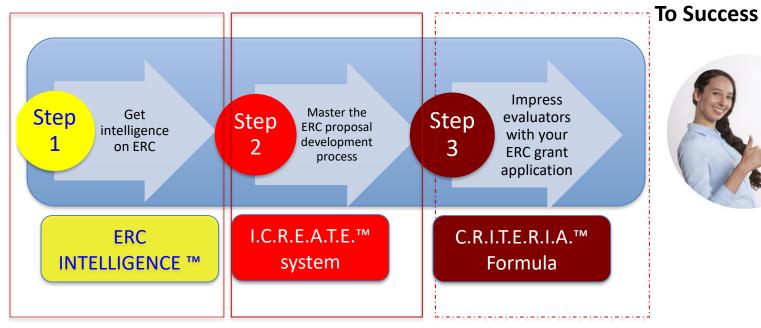
The Full Proposal Development Cycle



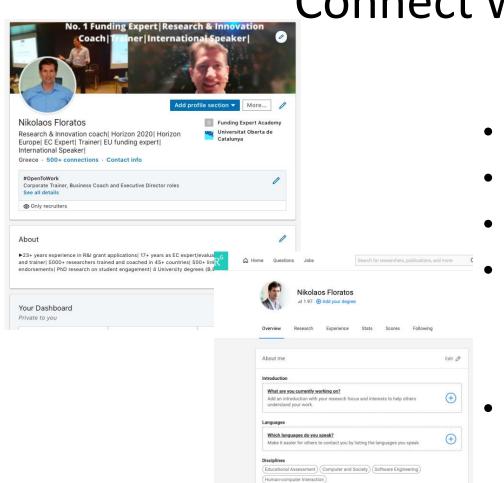
Recipe for successful ERC applicants

From Struggle





Connect with me at



- www.linkedin.com/in/floratos/
- Email: <u>info@keyinnovation.co.uk</u>
- www.NikolaosFloratos.com
 - www.fundingexpert.academy

https://www.researchgate.net/pr ofile/Nikolaos Floratos

91

Skills and expertise (5)

Stats overview

24.8

Total Research Interest (

Social ... Marketing (Usability) (eLearning) (Accessibility) (Websites)

2 of your research items don't have full-texts yet

30

Citations

Ð