

UNIVERSITY OF MALTA GRANTS WEEK

ERC Panel Discussion

Venue: Valletta campus / Online

Date: July 7, 2021

Panel Members

Jadranka Šepić (ERC Starting)

Marc-André Gutscher (ERC Advanced)

Nahid Talebi (ERC Starting),

Cheryl Makarewicz (ERC Consolidator),

Martina Gerken (Proof of Concept),

Michał Roman Szymański (ERC Starting)

Maria Attard, ERC Evaluator



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Meet our confirmed ERC Panelists for this year's Grants Week and find out more about their background and work.



**Prof. Jadranka Šepić (ERC Starting),
University of Split**



BIO:	<p>Jadranka Šepić is an Assistant Professor at the Faculty of Science, University of Split, Croatia.</p> <p>Before obtaining a PhD in geophysics at the University of Zagreb (Croatia), she was a Research fellow at the Institute of Oceanography and Fisheries in Split (Croatia). She also spent part of her PhD training at the Institute of Ocean Sciences in Sidney (BC, Canada), and at the University of the Balearic Islands in Palma de Mallorca (Spain).</p>
ERC Starting Grant	<p>Prof Šepić is a principal investigator of the ERC-funded “Estimating contribution of sub-hourly sea level oscillations to overall sea level extremes in changing climate” (SHExtreme) project, dedicated to the climate change and how it will affect the strength and frequency of tsunami-like flooding events along European coastlines.</p>

More info: watch the [ERC Info Day with Prof. Jadranka Šepić participation](#)

Read [ERC Stories page dedicated to Prof. Jadranka Šepić](#) and her research

Prof. Michał Roman Szymański
(ERC Starting)
University of Gdansk



BIO: Dr Michał R. Szymański is the Head of the Structural Biology Laboratory at the Intercollegiate Faculty of Biotechnology of the University of Gdansk and Medical University of Gdansk (IFB). Dr. Szymański completed his studies in Biochemistry and Biophysics at the University of Houston, USA and earned his PhD in Biochemistry and Molecular Biology from the University of Texas, USA. Carried out Postdoctoral Fellowship at the Department of Biochemistry and Molecular Biology and Department of Pharmacology, UTMB, USA where he later was a Research Scientist. After receiving POLONEZ (NCN) and FIRST TEAM (FNP) grants, he joined the IFB in 2017. In 2019 he won the prestigious ERC Starting Grant, EMBO Installation Grant. The research group headed by Dr Szymański studies the structures of enzymes responsible for the replication and repair of genetic material in the cells of humans, viruses and bacteria.

ERC Starting Grant Dr Michał R. Szymański have received the ERC Starting grant (1.5 million Euro of funding) for his project entitled as “Dissecting the mechanism of DNA repair in human mitochondria” (MitoRepaosome).
The research conducted as part of the grant will offer an insight into the fundamental principles of human mitochondrial DNA (mtDNA) repair,
The spatial organisation of the mitochondrial repair complex, thanks to which mtDNA is repaired, is not well known.
The aim of Dr Szymański project is to provide a basic structural model and a mechanistic understanding of the functioning of the DNA repair complex in human mitochondria, which will be pivotal for dissecting molecular basis for ageing, cancer and mitochondrial diseases.

More info: Check [Dr Szymanski research group webpage](#)

Read [Dr Szymanski interview](#) about his research career and his idea for ERC grant

Professor Martina Gerken
(Starting and Proof of Concept Grants)
Institute of Electrical and Information Engineering,
Kiel University



BIO:	<p>Professor Martina Gerken is a Professor for Integrated Systems and Photonics at the Institute of Electrical Engineering and Information Technology, Kiel University.</p> <p>In 2008 Prof. Martina Gerken was appointed as the first female professor at the Faculty of Engineering at Kiel University.</p> <p>In 2012 Prof Gerken succeeded in applying for an ERC Starting Grant. This project was dedicated to studying the optical technologies and integrated systems for intelligent surfaces for the new types of mobile sensors, that can be switched on and off with the help of light stimuli. Gerken and her team were particularly interested in the materials in which the surface properties of hydrophobic (water-repellent) and hydrophilic (water-loving) can be switched.</p>
ERC Proof of Concept Grant	<p>Professor Gerken have received the ERC Proof of Concept grant (150.000 Euro of funding) in order to finalise the concepts developed under her ERC Starting Grant “PhotoSmart” (2012-2018).</p> <p>Project “Nanostructured OLEDs for Biosensors” (BEAMOLED) is concerned with light-emitting diodes based on organic semiconductor materials (OLEDs) and their use as a light source for biosensor applications. Within BEAMOLED project Professor Gerken will be validating her innovative approach for the OLEDs sensor application, and carry out an evaluation of market needs, review IP with the goal to start a spin-off company.</p>

More info: read [Professor Martina Gerken interview](#) about her early research career.
Watch [Professor Gerken presenting](#) at the Future Energies Science Match 2019 (in German).

Dr Nahid Talebi
(ERC Starting)
Kiel University



BIO: Dr Nahid Talebi is a Leader of the NanoBeam, an independent group funded by the European Research Council Starting Grant Grant 2018 (NanoBeam). In 2019, she joined the Christian Albrechts University in Kiel as an associate professor and a director of the Institute for Experimental and Applied Physics, holding the chair for Nanooptics. Her work concerns exploring the interaction of electron beams with light and nanostructures, to both investigate fundamental quantum mechanical aspects of electron-light interaction, and to propose and realize novel characterization techniques with electron beams. She has also expertise in computational physics, particularly numerical electrodynamics and plasmonics.

ERC Starting Grant Dr Nahid Talebi is a principal investigator of the ERC Starting grant (2019-2024) with 1.5 M€ of funding.
Quantum Coherent Control: Self-Interference of Electron Beams with Nanostructures (NanoBeam) project proposes to develop a Maxwell-Schrödinger self-consistent numerical toolbox to fully understand the interaction of electron wave packets with light and nanostructures in a bid to develop novel methodologies for coherent control and shaping of the electron beams. On the experimental side, Dr Talebi will develop a novel spectral interferometry technique with the ability to retrieve and control the spectral phase in a scanning electron microscope to overcome the challenges in meeting both nanometer spatial and attosecond time resolution.

More info: read [Women in Science interview with Nahid Talebi](#)

Watch [Nahid Talebi talk about "Coherent control of single electron wave packets with light and nanostructures"](#).

**Prof. Cheryl Makarewicz
(ERC Consolidator),
Institute of Archaeology at Kiel University**



BIO:	<p>Dr Cheryl Makarewicz is a Professor in the Institute of Archaeology at Kiel University, where she directs both the Zooarchaeology Laboratory and the Archaeological Stable Isotope Laboratory. Her research focuses on the origins of food production, animal domestication, and tracing mobility and dietary dynamics through the stable isotopic record.</p>
ERC Consolidator Grant	<p>Professor Makarewicz from Kiel University is a principal investigator of the ERC Consolidator grant (2018-2023) with 2 M€ of funding.</p> <p>In her project “From herds to empire: Biomolecular and zooarchaeo-logical investigations of mobile pastoralism in the ancient Eurasian steppe”, in short ASIAPAST, Professor Makarewicz will explore the emergence, transmission, and the intensification of mobile pastoralism across the Eurasian steppe and how it transformed the diets, social, and symbolic worlds of the people who lived there.</p> <p>This inter-disciplinary project tackles the exact subsistence and social mechanisms that promoted the transition from hunting to herding in the Eurasian steppe over 4500 thousand years ago in a bid to tackle fundamental questions that so far no one else has tried to answer.</p>

**More info: Listen to [Dr Makarewicz interview to the BBC](#)
Watch Cheryl Makarewicz [talking at 'Ethnoarchaeology of Fire' symposium](#)**

Marc-André Gutscher
(ERC Advanced)
Université de Bretagne Occidentale



BIO:

Marc-André Gutscher is a department chair of the Research Lab Géosciences Océan, [Université de Bretagne Occidentale](#) (“directeur de recherche”) and also CNRS senior researcher (directeur de recherche).

His main expertise is geodynamics, seismotectonics, modelling (analogue and numerical) and earthquake and tsunami generation in active margins, with a particular emphasis on subduction zones.

He has participated in two EU FP6 funded projects, including the NEAREST project on Tsunami Hazard and was the French PI.

**ERC
Advanced
Grant**

Dr Gutscher is a principal investigator of the ERC advanced grant (2018-2023) with 3.5 M€ of funding.

“Fiber Optic Cable Use for Seafloor studies of earthquake hazard and deformation” (FOCUS) project is poised to revolutionize seismic monitoring of the seafloor through a novel use of fiber optic cables to improve hazard assessment and increase early warning capability.

More info: [read CNRS NEWS](#)

Read the [home page of The Ocean Geosciences Laboratory](#)

**Prof. Maria Attard,
ERC Evaluator
University of Malta**



BIO:

Professor Maria Attard is Head of Geography and Director of the Institute for Climate Change and Sustainable Development at the University of Malta.

Professor Attard is an experienced Evaluator for the European Research Council and other European National evaluation panels.

More info:

Check [Prof Attard UM webpage](#)

Discussion Points

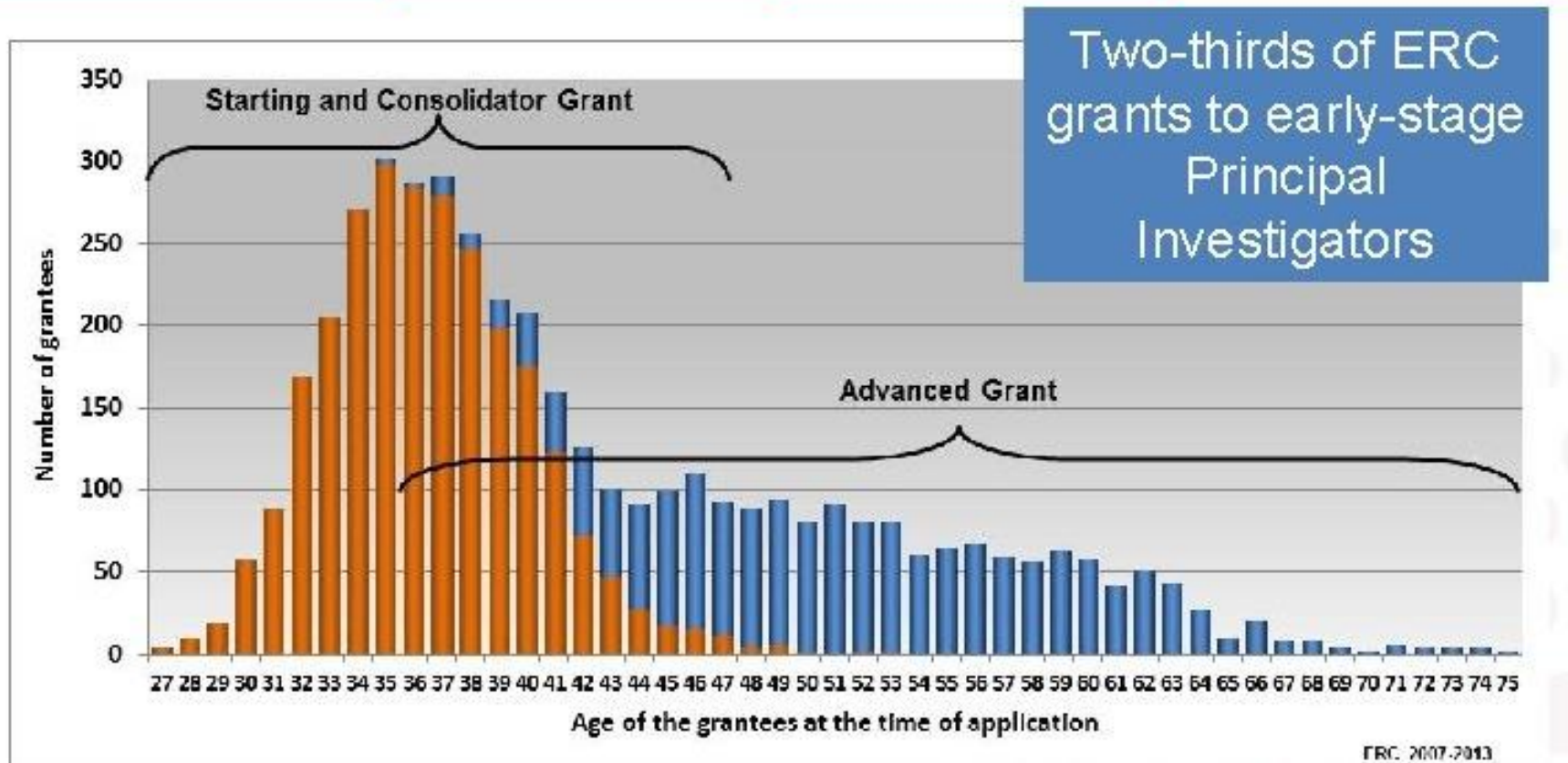


- Following your experience in preparing and submitting your respective proposals, what are the main **tips and tricks** you can give to the **potential applicants**?

Priority to Young Scientists



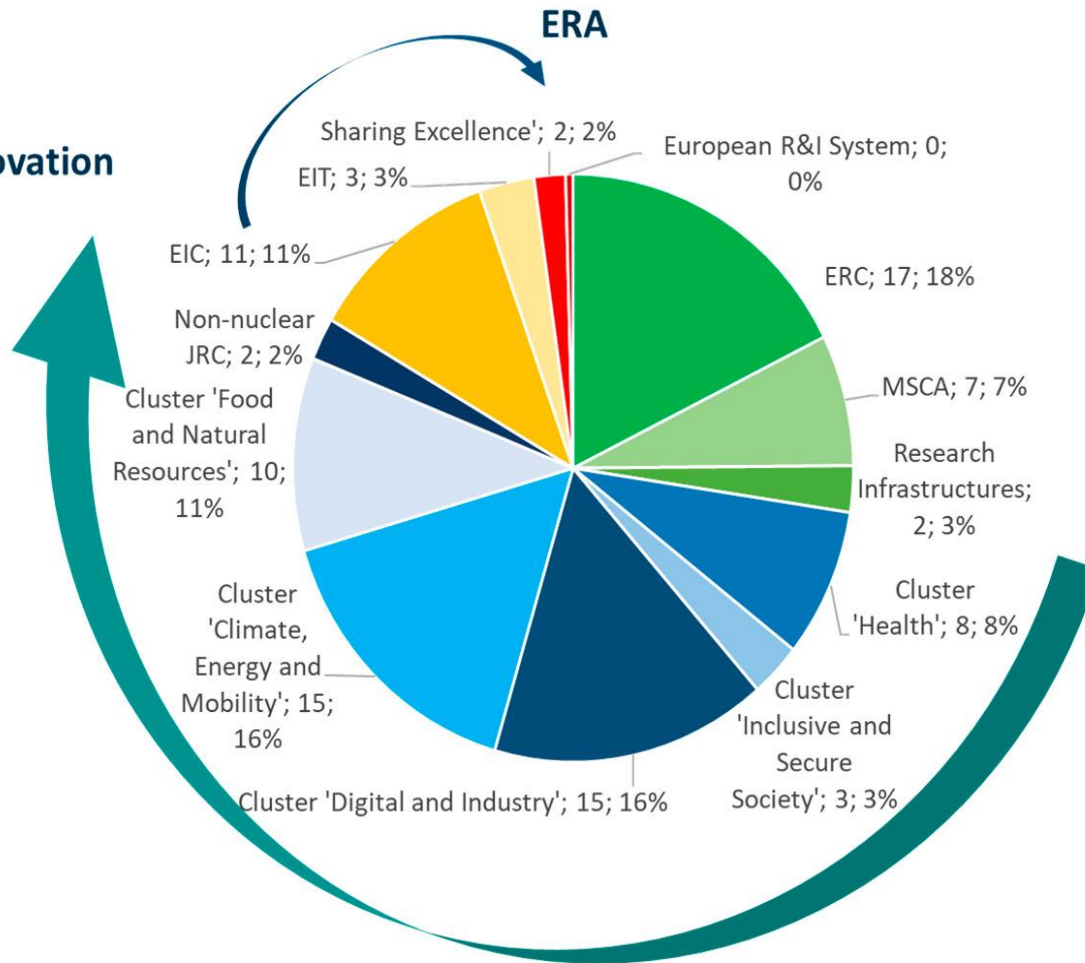
European Research Council
Established by the European Commission



- How has your ERC experience enhanced your career as a researcher? What is the next step beyond your ERC?

Discussion Points

**Pillar III:
Open Innovation**



**Pillar I:
Open Science**

**Pillar II:
Global Challenges &
Industrial
Competitiveness**

- What are the winning tactics of a good proposal? Please share any tips and tricks with the audience.
Is it all in Part A?

Discussion Points



- What is your general feel about the ERC programme application procedure? How much did you enjoy it?

Discussion Points

- Any tips on how to find the right host institution to apply for the ERC grant?

Discussion Points

- What impact did the project/s have on your **entity**?

Discussion Points

- High risk, high gain; but evaluators comment that it has to be doable...how do you suggest you can achieve this balance? How much details to disclose? How many details to put in the Risk contingency plan?

Discussion Points

- One should move beyond his discipline, but how can you tackle not having much experience in that area/discipline?

Discussion Points

- What were the wins, losses, lessons learnt, etc from **running** an ERC project?

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Obrigado

Danke!

Merci!

Thank you!

Gracie!

Gracias!

Ευχαριστώ!

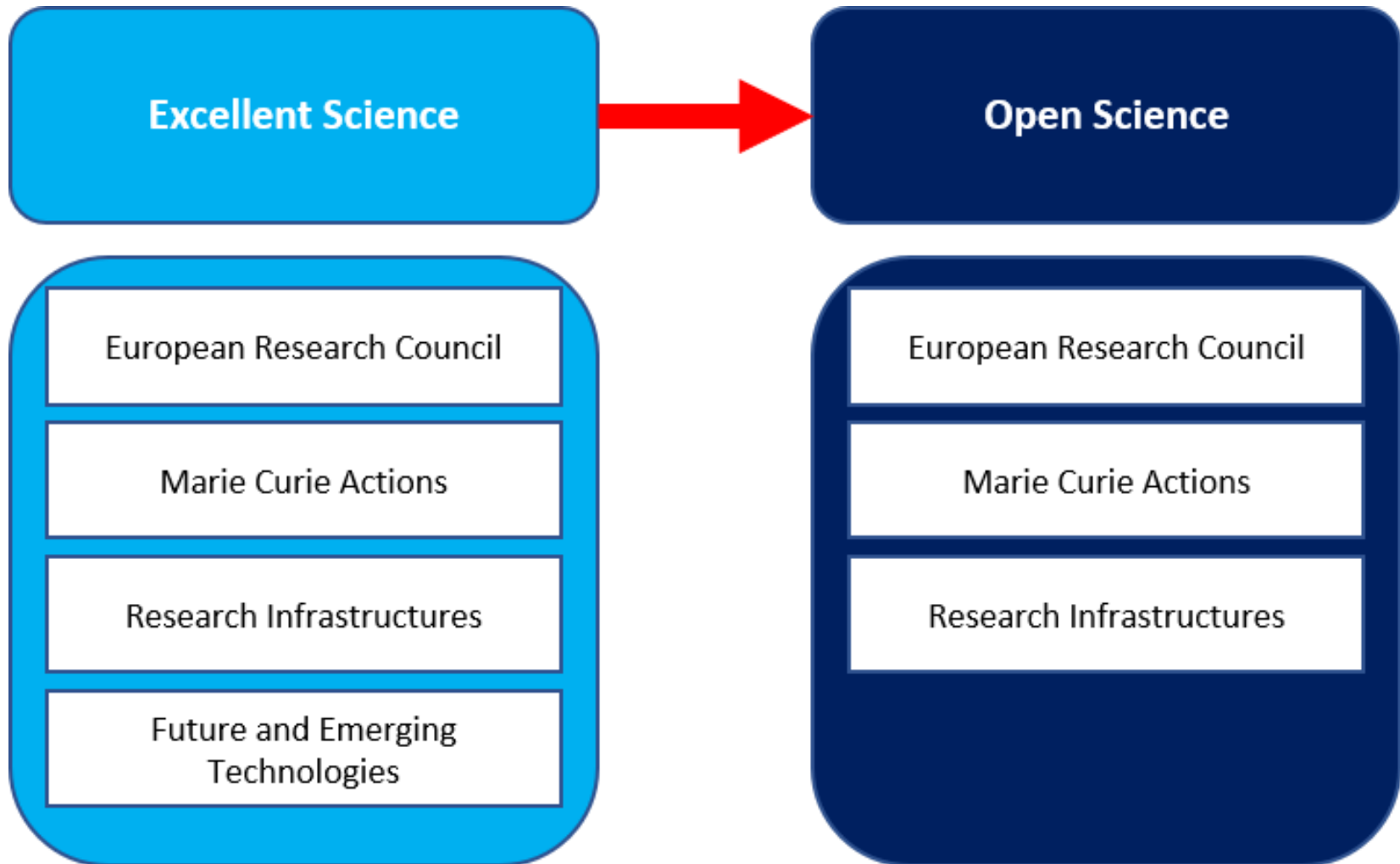


ERC Grant schemes

3R

Aim: **Retain** – **Repatriate** – **Recruit** exceptional researchers in any field of science, engineering and scholarship to pursue **pioneering frontier** research

ERC Grant schemes



ERC Grant schemes

Who can apply? – General requirements

1. Principal Investigator (PI)

- Nationality, age or current place of work not relevant - but: working or moving to work in Europe (EU member state, FP7 Associated Country)

2. In conjunction with a **Host organisation**

- Legally recognised public or private research organisation
- To be located in MS or AC

3. Frontier Research Project

- All fields of science, engineering and scholarship are eligible (investigator-driven, bottom-up)

4. Individual research team

- PI has freedom to choose National or trans-national character, if scientific added value proven

What is frontier research?

- Research **at the frontiers** is:
 - Intrinsically risky
 - Characterised by an absence of disciplinary boundaries
 - of ground-breaking nature: addresses important challenges, has ambitious objectives, has novel or unconventional concepts and/or approaches
- The ERC wants to avoid outmoded distinctions:
 - Between “basic” and “applied” research
 - Between “science” and “technology”
 - Between “traditional” disciplines

ERC Grant schemes

Operational Principles

- **Application in response to calls for proposals**
 - Principal Investigators applies in conjunction and on behalf of a research-performing host institution
 - Electronic Proposals Submission System (EPSS)

- **Single submission, staged evaluation procedure**
 - to manage a large number of applications

- **Panel-based international peer review process**
 - Scientific Council selects panels and peer reviewers
 - Panels assess and select proposals

ERC Grant schemes

All fields, budget pre-allocation in 3 + 1 areas

- ERC covers **all fields of science, engineering and scholarship**

ERC Grant Schemes

Evaluation: Scientific Excellence is the sole criterion

Evaluation of *Excellence* at three levels:

- Quality of Principal Investigator
- Quality of Research Project
- Research Environment

Referees and panels **evaluate and score** criteria under **Heading 1** and **Heading 2** numerically which will **result in the ranking** of the projects:

- 1-4 per criterion (4:Outstanding, 3: Excellent, 2:Very Good, 1: Non-Competitive)
- Threshold ≥ 2 per criterion. Note: Proposals passing quality thresholds **and** which lie above the budgetary cut-off level will be retained.

Criteria under **Heading 3** will be considered as "**pass/fail**" and commented but **not scored**

ERC Starting Grant

Profile of the PI

- **Eligibility window: 2-10 years after PhD award** - certain types of career breaks are accepted up to a maximum of **4.5 years** **read the Guide for Applicants!**
- **Starters** : award of PhD from 2 to 6 years prior to call publication
- **Consolidators** : award of PhD over 6 and up to 10 years prior to call publication.
Note: In order to assure comparable success rates for the starters and the consolidators the indicative budget of each panel will be divided in proportion to the budgetary demand of the proposals submitted by these two categories
- Potential for research independence and evidence of maturity
- at least one important publication without participation of PhD supervisor and significant publications as main author.
- Monographs, invited presentations in well-established international conferences, granted patents, awards, prizes, etc

ERC Advanced Grant

Profile of the PI

- **Any nationality or age**
- **Any current place of work** – but: working or moving to work in Europe (EU member state, Associated Country)
- **Applicants must be scientifically independent**
- **Strong leadership profile (impact, recognition)**
- **Excellent track record (in recent years, achievements not older than 10 years) [read the Guide for Applicants!](#)**

Applicants Services

Information and helpdesks

- **ERC News Alert**
<http://erc.europa.eu/newsalert>
- **ERC National Contact Points**
- **ERC helpdesk**
<http://ec.europa.eu/research/enquiries>