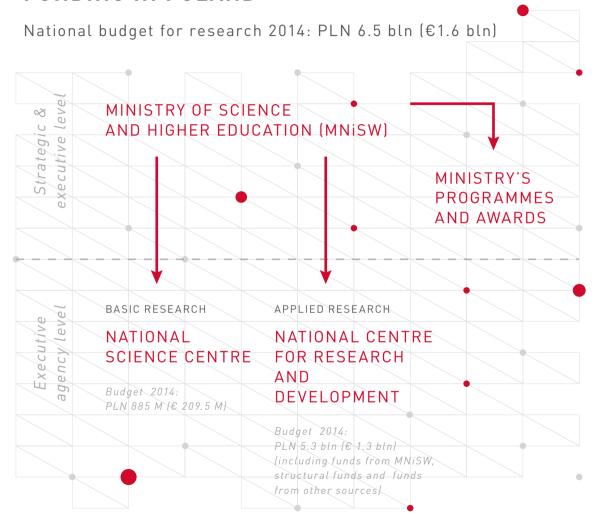


ABOUT THE NCN

The National Science Centre (Narodowe Centrum Nauki, NCN) is a government executive agency set up to fund basic research. Thanks to this institution, researchers themselves can now decide how a substantial portion of research funds is allocated from the state budget.

Basic research is original experimental or theoretical research work that strives to expand knowledge of the fundamentals of phenomena and observable facts. It is not intended to have any direct practical application or use.

THE STRUCTURE OF RESEARCH FUNDING IN POLAND



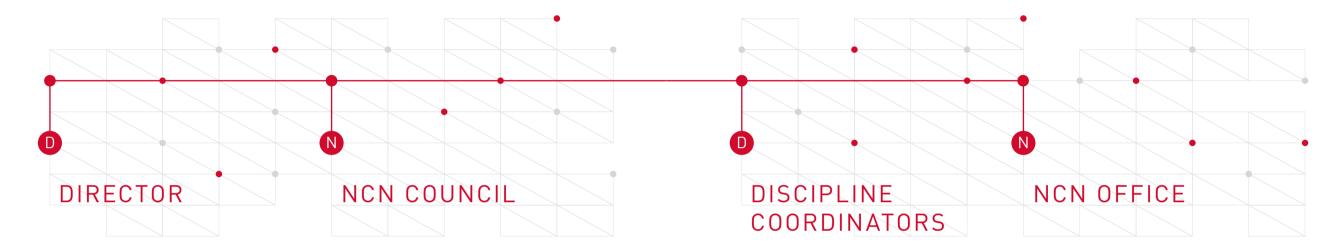
MANAGEMENT

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Andrzei Jaiszczyk is the Director of the National Science Centre and a professor at the AGH University of Science and Technology in Kraków, Poland. He graduated from Poznań University of Technology. He was a visiting professor at the University of Adelaide in Australia, at Queen's University in Kingston, Ontario, Canada, and at Ecole nationale supérieure des télécommunications de Bretagne, France. He is the author and co-author of seven books and more than 290 research papers, as well as 19 patents in the areas of telecommunications switching, high-speed networking, network management, and reliability. He has been a consultant to industry, telecommunications operators, and government agencies in Australia, Canada, China, France, Germany, India, Poland, and the USA. He serves on editorial boards of several renowned journals. He is a corresponding member of the Polish Academy of Sciences and a Fellow of the Institute of Flectrical and Flectronics Engineers (IEEE).

Michał Karoński is the Chair of the NCN Council as well as a professor and head of the Department of Discrete Mathematics in the Faculty of Mathematics and Computer Science at Adam Mickiewicz University in Poznań. He is the author of over 50 publications and has delivered over 30 plenary lectures and guest speaker talks at international conferences. During his academic career he has held several positions including a postdoctoral fellowship at the University of Florida and visiting professorships at Southern Methodist University, Purdue University and The Johns Hopkins University. Since 1992 he has been a visiting professor at Emory University in Atlanta. He has also conducted research in many academic centres abroad, including universities in Moscow, Lund, Bielefeld, Pittsburgh and Singapore, as well as at research centres in the USA. Denmark. South Korea, England and Sweden.

ORGANISATION CHART



The Director of the NCN is the executive responsible for financial management as well as correct and efficient completion of NCN tasks. The Director is also in charge of international cooperation and acts as a legal representative on behalf of the Centre.

The NCN Council is a policy body consisting of 24 distinguished researchers selected from candidates proposed by Polish research institutions. The Council sets priority areas in basic research, decides on the type of programmes, specifies call regulations and selects members of the Expert Teams responsible for proposal evaluations.

NCN Discipline Coordinators are scientific officers responsible for launching calls for proposals for research projects and project evaluation process management. Their responsibilities also include evaluation of the impartiality of the peer review process

In particular cases, the Coordinator, following consultation with the opinions of the Expert Teams, may change the order of research proposals on the ranking list.

The NCN Office is a structure combining the efforts of a number of the NCN's departments and teams. On a day-to-day basis, the Office is responsible for processing calls for proposals and organising meetings for experts at the peer review evaluation stage. The Office also provides support to the applicants and answers their queries. Furthermore, its major responsibilities include administrative and financial management of grant agreements and fostering international cooperation.

GRANTS

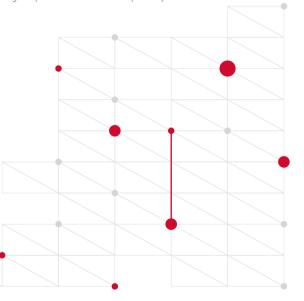
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The National Science Centre funds research projects carried out by scientists, academics, national and international research teams, as well as doctoral scholarships and post-doctoral internships. One of the priorities of the Centre is to support and develop the scientific careers of pre-doctoral and doctoral researchers about to embark on a career in research (maximum 5 years since PhD award). The Centre allocates more than 20% of its budget towards grants for this group of researchers.

The NCN finances some research equipment, however large-scale research infrastructure is financed by the Ministry of Science and Higher Education. The funding programmes are open to a wide range of applicants and the proposals must be written in both Polish and English. Although parties signing contracts with the NCN are required to be Polish institutions, their research teams may include foreign researchers.

NCN SUBJECT AREAS

The NCN announces calls for proposals four times a year. Applications from the academic disciplines covered by 25 discipline panels may be submitted in response to calls for proposals. The NCN panels are grouped into three disciplinary domains.



NCN SUBJECT AREAS

Materials and synthesis

ST10 Earth system science

Computer science and informatics

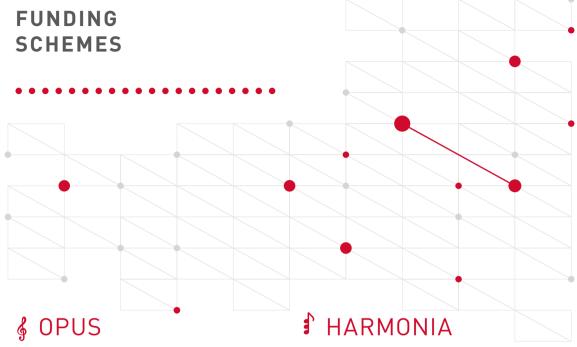
Products and processes engineering

Astronomy and space research

Systems and telecommunications engineering

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N7 - Life Sciences HS – Arts, Humanities and Social Sciences HS1 Fundamental questions of human existence NZ1 Molecular and structural biology and and the nature of reality biochemistry Cultures and cultural creativity Genetics, genomics The study of the human past Cellular and developmental biology Individuals, institutions and markets Biology of tissues, organs and organisms Social norms and governance Human and animal noninfectious diseases Human nature and human society Human and animal immunology and infection Public health ST - Physical Sciences and Engineering Evolutionary and environmental biology Mathematics Applied life sciences and biotechnology Fundamental constituents of matter Condensed matter physics Physical and analytical chemical sciences



Intended for a wide range of applicants, irrespective of their research experience. The research proposal submitted under this funding scheme may include the purchase or construction of research equipment.

Aimed at applicants wanting to carry out research in cooperation with foreign partners. This funding scheme offers the researchers the opportunity to develop scientific ideas in collaboration with international peers and gives them access to large-scale international research infrastructure.





Designed for advanced researchers wanting to conduct pioneering research, including interdisciplinary research which is important for the development of science. Projects within this funding scheme should surpass the current state of knowledge, lead to the creation of new paradigms, or forge pathways to new frontiers in research.

Addressed to researchers with 2-12 years scientific experience since their PhD award. This funding scheme gives the scientists an incentive to establish a new research team and become independent research leaders.



™ SYMFONIA

Applicants in this funding opportunity should be advanced researchers wanting to carry out interdisciplinary or cross-domain research in collaboration with teams representing different areas of research. Projects submitted under this funding scheme are expected to surpass current frontiers of knowledge and gain new perspectives in science and humanities.

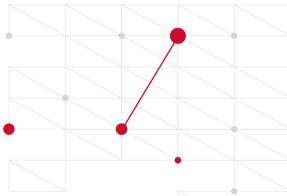


J TANGO

A funding scheme created to support the application of results of basic research, launched in cooperation with the National Centre for Research and Development (NCBR). Only proposals by researchers who have already received funding for projects in basic research which show promise of successful implementation are eligible. The Principal Investigator must be a person who either was the Principal Investigator of the basic research project or acted as Key Investigator or supervisor in it.

FUNDING SCHEMES FOR EMERGING **RESEARCHERS**





♪ PRELUDIUM

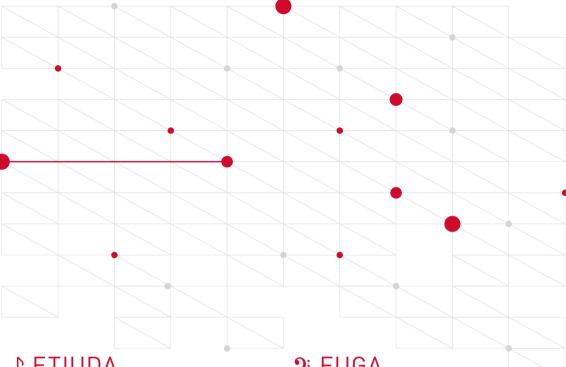
Aimed at pre-doctoral researchers starting their career in research. This funding scheme seeks to inspire the scientists to develop innovative ideas and helps them gain research experience, thus becoming



% SONATA

Targeted at emerging researchers with up to 5 years scientific experience since their PhD award. This funding opportunity strives to encourage the researchers to create an innovative scientific or academic approach or equipment, thus helping them become independent researchers.





♪ ETIUDA

This funding opportunity, addressed to PhD candidates, intends to provide the best young researchers with financial support and the optimal working conditions. The applicants in this scheme should plan a research stay abroad which will be funded solely by the NCN. The awardees will also receive a monthly salary and are obliged to obtain their PhD degree within 12 months of completing the scholarship.

9: FUGA

Targeted at researchers holding a doctoral degree. The programme intends to facilitate mobility of Polish researchers between different research institutions in Poland and encourage the exchange of scientific ideas. The grantees will be employed in an academic unit or other research institution on a fulltime basis and will receive funding for their research.





PROPOSAL EVALUATION

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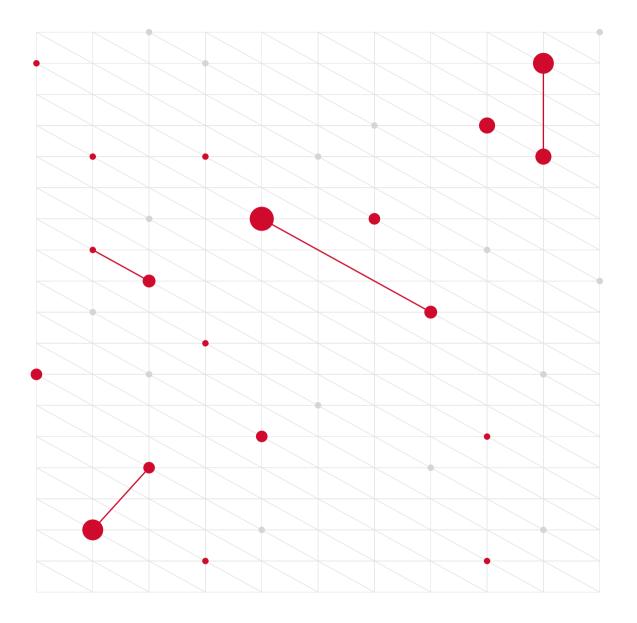
As the National Science Centre seeks to select the very best proposals for funding, it employs an evaluation procedure based on a two-stage peer review process. The NCN Council has adopted the general principle of carefully weighing up the quality of the project against the achievements of its authors.

The eligibility of research projects submitted to the NCN is examined by NCN Coordinators. The projects are afterwards peer reviewed by members of the NCN's Expert Teams (excellent Polish researchers appointed by the NCN Council and the director as reviewers of research proposals) and External Reviewers, among whom are also international researchers. The approximate structure of the peer review process is described below.

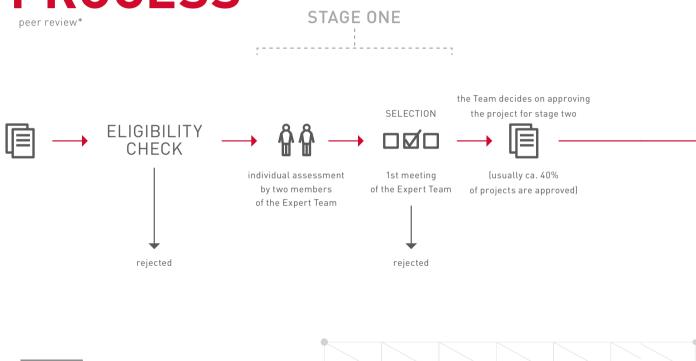
STAGE ONE – each Expert Team has its Chair who is in charge of assigning the proposals for review to respective members of the Expert Team. The Expert Team members (Expert Reviewers) prepare individual assessments of the assigned proposals. Afterwards, the team meets to discuss and

assess the proposals based on the evaluation criteria; they attempt to reach a consensus on individual reviews, calibrate their marks and draft a ranking list of proposals that qualify for stage two of the review.

STAGE TWO - NCN Coordinators select External Reviewers, based on the recommendation of the Chairs of the Expert Teams, taking into account respective fields of expertise. The External Reviewers work remotely, sending their reviews of proposals electronically, and they do not take part in the meetings of the Expert Teams. Once the external evaluation is completed, the Expert Teams meet for a second time, to consult the external reviews, discuss them and draw up final ranking lists.



PROPOSAL EVALUATION PROCESS*



STAGE TWO FINAL LIST OF QUALIFIED PROPOSALS ETIUDA, FUGA, SYMFONIA interview \longrightarrow RESULTS \longrightarrow \bigcirc ca. 23% qualified 2nd meeting signing of the grant of the Expert Team for funding agreement PRELUDIUM, OPUS, SONATA, SONATA BIS, MAESTRO, HARMONIA, SYMFONIA rejected individual assessment by External Reviewers, including foreign-based reviewers

^{*} The following process does not apply to the TANGO funding scheme as the second stage of evaluation in this scheme is conducted by the National Centre for Research and Development (NCBR)

STATISTICS

Number of proposals submitted Resources awarded under funding and grants awarded in calls conschemes concluded in 2013, by cluded in 2013 by research domain, research area including success rate*/** HS 40 25% 21% 22% 4,000 107.5 3.000 82.5 - - 2,000 mln EUR - · 1.000 NZ 3.786 959 3.443 740 3.295 728 HS ST NZ proposals submitted proposals approved for funding success rate *the SYMFONIA funding scheme is not included here as research projects financed under this initiative are interdisciplinary in their nature ** success rate is the percentage of proposals that were awarded funding; it is calculated as the ratio of the number of proposals awarded to the number of proposals submitted

INTERNATIONAL COOPERATION

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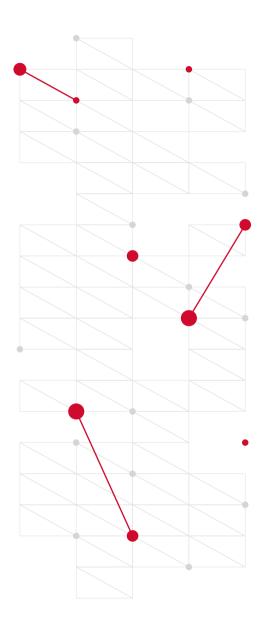
It is one of the National Science Centre's priorities to support international actions that give Polish researchers the opportunity to work in cooperation with their colleagues from other countries. Once a year, the NCN opens a call for proposals under the HARMONIA funding scheme which provides funding for research projects carried out in international collaboration; it also participates in network programmes and initiates schemes of bilateral cooperation with foreign agencies funding research.

The NCN has joined a number of the Era-Net and Era-Net+ initiatives which are components of the European Union's framework programmes. The Centre has been active in such international networks as:

- ApPEC (Astroparticle Physics European Coordination) Astroparticle Physics,
- HERA (Humanities in European Research Area)
 Humanities,
- NORFACE (New Opportunities for Research Funding Agency Cooperation in Europe) – Social Sciences.

- Infect-ERA Infectious Diseases,
- JPND (Joint Programme Neurodegenerative Disease Research) – Neurodegenerative Diseases.
- CHIST-ERA (European Coordinated Research on Long-term Challenges in Information and Communication Sciences & Technologies - II) – Information and Communication Technologies.

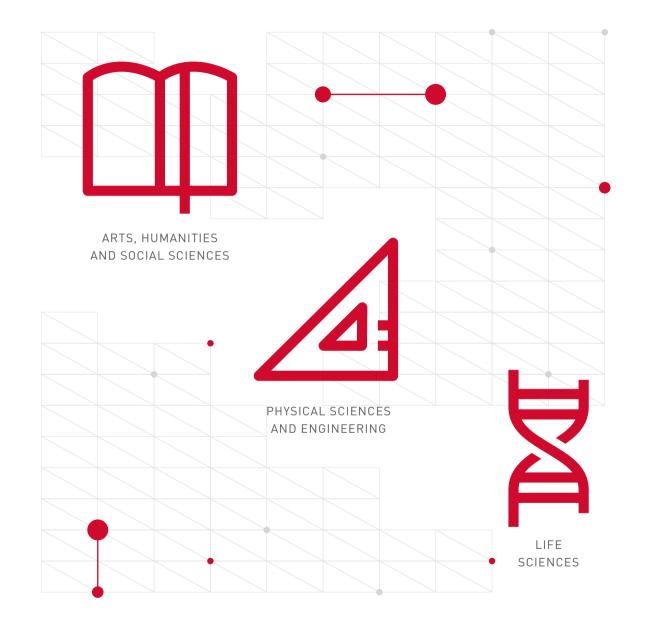
In 2014, the National Science Centre entered into cooperation with the Deutsche Forschungsgemeinschaft (German Research Foundation, DFG) – a German agency supporting research. Consequently the two organisations intend to launch a joint call for proposals in Arts, Humanities and Social Sciences. The NCN also cooperates with the European Research Council (ERC) – an institution funding groundbreaking research projects. As an agency funding basic research, the Centre is a member of Science Europe (SE) – an association of research funding agencies from all over Europe.



NATIONAL SCIENCE CENTRE AWARD 2013

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The National Science Centre Award is a prize conferred on young investigators for outstanding basic research carried out in Polish organisations. The award was founded by the NCN Council in February 2013. It is given to researchers in three categories, corresponding to three critical areas of study: Arts, Humanities and Social Sciences; Physical Sciences and Engineering; Life Sciences. Laureates are chosen by a jury consisting of the Director and the NCN Council, as well as representatives of the co-founders of the award. On 9th May 2013 the award was granted for the first time.



ARTS, HUMANITIES AND SOCIAL SCIENCES

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dr ANNA MATYSIAK

Warsaw School of Economics

The award in Arts, Humanities and Social Sciences was granted to Anna Matysiak based on her research into transformations of the modern family model from a comparative perspective. In her studies Anna Matysiak explores the processes of formation, development and dissolution of families as well as the factors determining those processes. She combines demography, labour economics and social politics, using a wide range of advanced methods of quantitative analysis. Her work is unique as it is the only comparative study of the relationship between the number of women active in the labour market and fertility rates where countries of East-Central Europe have been presented symmetrically along-side countries with developed market economies.



LIFE SCIENCES

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dr hab. ANDRZEJ STANISŁAW DZIEMBOWSKI

Institute of Biochemistry and Biophysics, the Polish Academy of Sciences; University of Warsaw

The award for remarkable achievements in the field of Life Sciences has been given to Andrzej Dziembowski, an eminent young molecular biologist whose notable achievement is having discovered the function of the human USB1 gene. Until recently the role of the gene in cells had remained entirely enigmatic despite its mutation incidence in such rare diseases as poikiloderma with neutropenia, Rothmund-Thomson syndrome or dyskeratosis congenita.

Dziembowski and his collaborators found out that the protein encoded by the USB1 gene is the enzyme responsible for the process of gene expression. In their research the team used a number of advanced experimental techniques, including yeast cell screening, biochemical tests of pre-mRNA splicing in vitro,

or analyses employing RNA interference in human cell cultures. These studies will bring us closer to understanding the cause and nature of the disease poikiloderma with neutropenia.



PHYSICAL SCIENCES AND ENGINEERING

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dr hab. PIOTR GARSTECKI

Institute of Physical Chemistry, the Polish Academy of Sciences

Piotr Garstecki, representing the area of Physical Sciences and Engineering, obtained an award for his innovation in research on the dynamics of complex fluids and their potential use in microbiology and biochemistry. His research interests include microfluidics and dynamic self-organisation in complex fluids. Piotr Garstecki was the first to explain the process of formation of droplets in microscale. His research team also works on the problem of transport of droplets through mazes of microfluidic channels and explores the use of microfluidics for precisely tailored preparation of drops, bubbles, particles and capsules. Piotr Garstecki's new discoveries will have a huge impact on research areas such as microbiology, biochemistry and material science.



