

FOR 2017



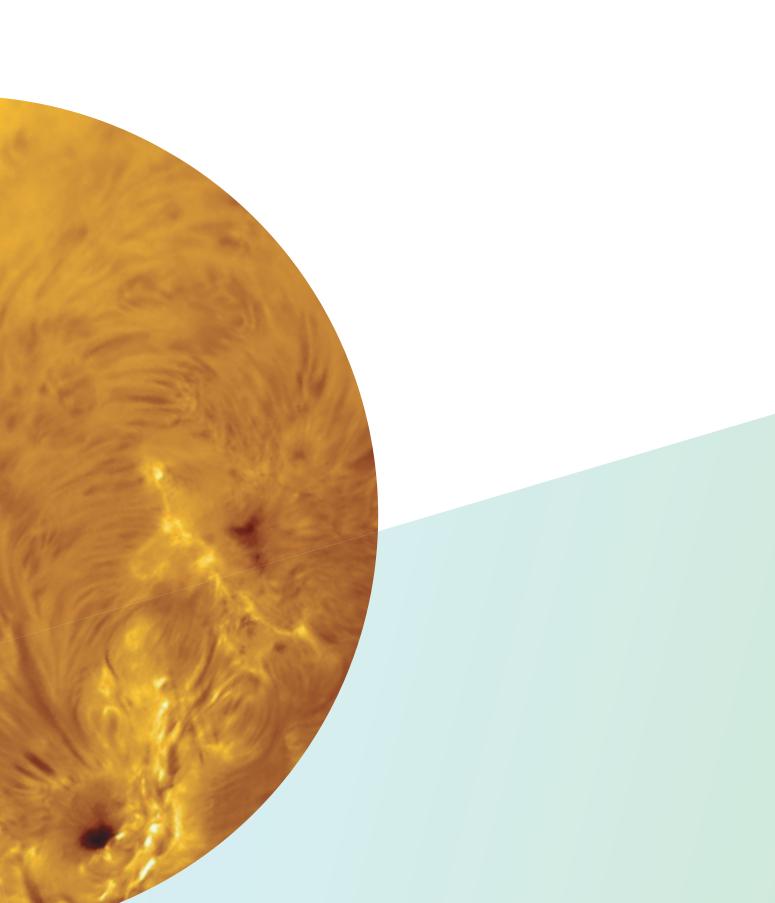


## TABLE OF CONTENTS

#### Introductory Address by President of the Board 5

#### Activities in 2017 12

Organisational Structure 14 Calls in 2017 19 Installation Research Projects (UIP-05-2017) 20 Research Projects (IP-01-2018) 24 Young Researchers' Career Development Project – Training New Doctoral Students (CALL 01-2018) 28 Support to Researchers for Applying to European Research Council Programmes (CALLS 05-2017 and 11-2017) 30 Building Croatian Professional Terminology (STRUNA-09-2017) 31 Croatian-Swiss Research Programme 2017-2023 (CSRP) 33 Partnership in Research (PAR-02-2017) 35 "Unity through Knowledge" Fund (UKF) 36 Results of the funded projects 38 International collaboration 42 Science Europe 42 Collaboration with the Swiss Confederation 44 Programmes to be financed from the European Social Fund (ESF) 46 Colloquia of the Croatian Academy of Sciences and Arts and the Croatian Science Foundation 48



# INTRODUCTORY ADDRESS BY PRESIDENT OF THE BOARD



Science and scientific research are considered fundamental infrastructure and are a key factor for the development of any modern society. The system of science is based on a wide range of fundamental, applied, development and innovation research conducted at universities and public and private scientific institutes. In most European countries, fundamental and applied research is

financed through national foundations or agencies, whose main task is to conduct the evaluation process and establish a competitive system of financing scientific projects. National bodies set strategic priorities in science and provide the necessary budgetary funds, while the foundations set up an independent system of calls, selection and financing the best scientific projects and researchers. In Croatia, this role is held by the Croatian Science Foundation (CSF).

In 2017, the Foundation's Board entered the final year of its five-year term of office. The Board assumed management of the Foundation in 2013 and defined the following strategic goals for the period 2013-2018: 1) stable financing of competitive research and installation research projects in regular and predictable multi-annual cycles, ensuring uniform development of research in all areas of science; 2) connecting researchers from public scientific institutions and universities with researchers from the economic and social/ public sector; 3) establishing an integral programme for career development of young researchers at doctoral and post-doctoral levels in all scientific areas; 4) developing a programme of permanent collaboration of Croatian scientists, public scientific institutions and universities with the scientific diaspora; 5) inclusion of the Croatian scientific community into the European Research Area.

Even though the Foundation's budget is several times lower when compared to the European average and that of similar countries of Central and Eastern Europe, we have tried to accomplish the majority of the strategic goals above with a number of new measures and activities. This is particularly true for programmes aimed at developing young researchers' careers. In 2017, the Foundation financed more than 600 scientific research projects and 309 doctoral students within the programme "Young Researchers' Career Development Project – Training New Doctoral Students". For the first time, we opened a Call for the programme "Support to Researchers for Applying to European Research Council Programmes", stimulating collaboration of Croatian researchers with Principal Investigators of European Research Council (ERC) projects. Seven new Calls were opened with a total annual budget of HRK 116,444,690.00:

- Installation Research Projects (UIP-05-2017)
- Research Projects (IP-01-2018)
- Young Researchers' Career Development Project Training New Doctoral Students (Call 01-2018)
- Support to Researchers for Applying to ERC Programmes (Call 05-2017)
- Support to Researchers for Applying to ERC Programmes (Call 11-2017)
- Croatian-Swiss Research Programme 2017-2023
- Building Croatian Professional Terminology (Struna-09-2017)

In 2017, we signed an implementation contract for the "Young Researchers' Career Development Project – Training New Doctoral Students" to be co-financed from the European Social Fund. The total value of the project, which will be implemented between 2017 and 2022, is slightly above HRK 81 million and is coordinated by the Foundation. We have also started the Croatian-Swiss Research Programme 2017-2023 (CSRP) with CHF 4.67 million in funding. This will be the first time that the Foundation will be financing a significant portion of new projects and activities with funds not originating from the State budget. The "Research Excellence Programme in Science and Higher Education – the Tenure Track Pilot Programme" will commence in the first half of 2018 within the same Swiss-Croatian Cooperation Programme, with Ecole Polytechnique Fédérale de Lausanne (EPFL) as the Foundation's partner.

Even though one of the measures of the Strategy for Education, Science and Technology of the Republic of Croatia is increasing budgetary funds for competitive scientific programmes and projects to at least 0.15% of GDP, in reality, the budgetary funds available to the Croatian Science Foundation are several times lower. Insufficient investment in education and science prevents the Foundation from achieving its set strategic goals. What is especially worrying is the relatively poor participation of the Croatian scientific community in the European Research Area. The financing of higher education and scientific research clearly needs to be increased, while the culture of excellence needs to be promoted. Through its programmes and activities, the Croatian Science Foundation created the basic prerequisites for enhancing the science system and increasing the capacity for absorbing additional funds: a core of prominent and recognised scientific teams with the capacity of proposing internationally competitive projects has been created, permanent collaboration with a large number of Croatian scientists abroad has been established, programmes for funding doctoral students and deploying young researchers' careers and the potential for multidisciplinary research have been launched. The Foundation's Board would like to use this Annual Report to emphasise the need to continue and increase the financial support of these Programmes, as well as the need to develop new instruments that would not only prevent Croatian science from lagging behind, but would also provide new momentum to the development and strengthening of the higher education and science system.

> President of the Board Academician Dario Vretenar, PhD



# Vision

Promotion of international performance indicators for research.

Establishment of a funding system for young researchers' career development.

Strengthening of international cooperation and integration of Croatian scientists into the European Research Area

# Mission

Central body responsible for funding scientific research through independent system of calls, evaluation, selection and funding the best scientific projects and researchers.

### STRATEGIC GOALS

- Securing regular financing of competitive research projects
- Connecting scientists from public research organisations and universities with researchers from business sector and social/public sector
- Establishing an integral programme for young researchers' career development at doctoral and postdoctoral level
- Establishing a programme for permanent collaboration programme for permanent cooperation of Croatian scientists, public research organisations and universities with scientific diaspora
- Involvement of Croatian scientific community into the European Research Area

# 2017 in Numbers

183	project proposals evaluated
344	international peer reviewers involved
85	projects accepted for funding
500	
592	projects monitored
496	periodic reports processed
482	report evaluators (Croatian scientists)
309	doctoral students funded
82	post-doctoral researchers employed
1472	publications related to the Foundation's projects published
11	patents related to the Foundation's projects

Terra

11

207	publications published by doctoral students from the 2014 Call

- **331** conference presentations held by doctoral students from the 2014 Call
  - **39** UKF projects evaluated
    - 9 UKF projects monitored

# more than

- HRK 100 million allocated (HRK 100,239,684.62)
  - 22 Board meetings held
  - 41,206 visitors to the Foundation's website and the EPP system
  - 415,112 views of www.hrzz.hr
  - **15,012** registered users of the EPP system

# ACTIVITIES IN 2017

In 2017, the Foundation resumed with establishing the conditions and structure so that financing of scientific activities would be exclusively guided by criteria of scientific excellence and expertise. In its previous work, the Foundation proved its professionalism in implementing evaluation and monitoring of funded projects, which arises from several years of work and harmonising the processes with other international organizations.

#### FEBRUARY

Results of Calls published in 2016 and announcements of new Calls presented at the University of Zagreb

#### MARCH

Launch of Colloquia of the Croatian Academy of Sciences and Arts and the Croatian Science Foundation

#### MARCH

Grant Award Contract signing ceremony for the Call "Programme of Supporting Research and Development Activities in the Area of Climate Change"

#### APRIL

Presentation of Programme "Installation Research Projects" at the University of Rijeka

#### APRIL

Presentation of CSF's programmes and projects held at the University of Osijek

#### ΜΑΥ

Call "Installation Research Projects" opened

Presentation of CSF's programmes and projects held at the University of Split

#### OCTOBER

Call "Support to Researchers for Applying to ERC Programmes" opened

#### S E P T E M B E R

Call "Building Croatian Professional Terminology" opened

#### Ο C T O B E R

Call "Croatian-Swiss Research Programme 2017-2023" opened

#### DECEMBER

Call "Young Researchers' Career Development Project – Training New Doctoral Students" opened

Four informative workshops regarding the open Call "Young Researchers' Career Development Project – Training New Doctoral Students" held

Signing of the Implementation Contract for the "Young Researchers' Career Development Project – Training New Doctoral Students", co-financed from the European Social Fund

#### NOVEMBER

Call "Research Projects 2018" opened

Video conference for the "Croatian-Swiss Research Programme 2017-2023" held

# Organisational structure

Pursuant to the Act on the Amendments to the Croatian Science Foundation Act (Official Gazette 78/2012), the Foundation's Bodies are the Board and Executive Director.

Besides the Foundation's Bodies, the work of the Foundation in 2017 also involved evaluation panels, peer reviewers and administration, i.e. the Foundation's office, organised into five departments.

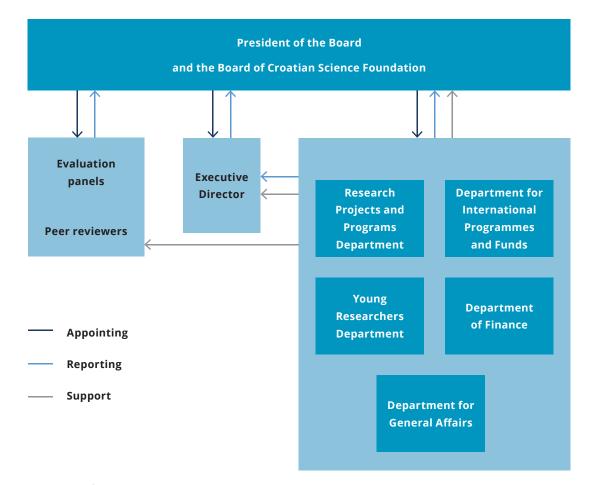


Figure 1. Organisational structure

#### THE BOARD

The Board is the body that adopts the Foundation's legal acts and grant award decisions, manages and monitors the Foundation's activities, proposes the Foundation's strategic plan and conducts other activities pursuant to the Act and the Statute.

Board members are appointed from excellent Croatian scientists, especially those with results recognised at the international level, taking into account that all scientific areas are represented. They are appointed by the Croatian Parliament, upon nomination by the Government of the Republic of Croatia, while the candidates for Board members are nominated by scientific institutes, the Croatian Rectors' Conference, University Senates, the Croatian Academy of Sciences and Arts, the Croatian Chamber of Commerce, employers' associations, the National Council for Science, Higher Education and Technological Development as well as scientists and academia members. The Board members are elected to a five-year term, renewable once. 15

President of the Board is the Academician Dario Vretenar, PhD, from the Faculty of Science at the University of Zagreb, while his Deputy is Professor Dejan Ajduković, PhD, from the Faculty of Humanities and Social Sciences at the University of Zagreb.

The Board held 22 sessions in 2017, 10 of which were live session and 12 electronic sessions.

#### MEMBERS OF THE BOARD:

Academician Dario Vretenar, PhD, President Professor Dean Ajduković, PhD, Deputy President Smiljana Goreta Ban, PhD Professor Stipan Jonjić, MD, PhD Professor Ljiljana Marks, PhD Professor Dragan Poljak, PhD Academician Pavao Rudan, MD, PhD

#### **EVALUATION PANELS**

Evaluation panels for project proposals submitted to the Croatian Science Foundation's calls were established in 2016 following a public call to public scientific institutions. They are divided into scientific areas, hence evaluation panels have been formed for the natural sciences, technical sciences, biotechnical sciences, biomedical and health sciences, social sciences and the humanities. Upon agreement of panel members and if the need arises, interdisciplinary panels may be formed.

The panels' basic tasks include assessing project proposals for referral to the next stages of the evaluation procedures, nominating peer reviewers and ensuring that the evaluation procedures is conducted in accordance with the Project Proposal Evaluation Manual and other general acts of the Foundation. The panels analyse all received reviews and adopt recommendations for funding of project proposals. The panels may submit to the Board their proposals for improving the evaluation procedures for future calls.

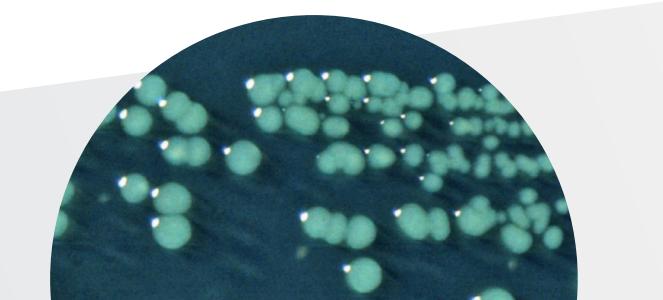
23 evaluation panels have been formed with 146 members in total, appointed to a three-year term, renewable once. The names of panel members are publicly available and published on the Foundation's website. Also, during their term, panel members may submit project proposals to the Foundation's calls, take part in the Foundation's projects in the capacity of associates or apply for mentoring doctoral students. In that case, the panel member shall not be involved with the evaluation within the subject Call.

#### **EXECUTIVE DIRECTOR**

The Executive Director manages the Foundation's administrative work. Pursuant to the provisions of the Act on the Amendments to the Croatian Science Foundation Act (Official Gazette 78/12), the Executive Director is selected on the basis of a public call to a five-year mandate, and is appointed and released from duty by the Board.

#### **ADMINISTRATION**

On 31 December 2017, the Foundation had 27 employees. The Foundation is divided into five Departments: Research Projects and Programs Department, Young Researchers Department, Department for International Programmes and Funds, Department for Finance and Department for General Affairs.



# Calls in 2017

The Foundation published seven Calls in 2017:

- Installation Research Projects (UIP-05-2017)
- Research Projects (IP-01-2018)
- Young Researchers' Career Development Project Training New Doctoral Students (Call 01-2018)
- Support to Researchers for Applying to ERC Programmes (Call 05-2017)
- Support to Researchers for Applying to ERC Programmes (Call 11-2017)
- Building Croatian Professional Terminology (Struna-09-2017)
- Croatian-Swiss Research Programme 2017-2023.

The evaluation of project proposals submitted to the Call "Partnership in Research" (PAR-02-2017) was finalised in 2017.

## Installation Research Projects (UIP-05-2017)

The aim of the Programme is to support the development of individual research careers of young scientists and new research teams that address internationally recognised and nationally relevant topics. The Call is a logical sequel to postdoctoral training, focusing on the point in the career of a young researcher at which he/she is prepared to develop new research topics and/or methodologies.

The Call is intended for researchers that obtained their doctorate at least two years and at most seven years before the Call deadline, who would like to form or develop a new research team and become independent researchers.



#### AIMS OF THE PROGRAMME

- encouraging internationally competitive research teams;
- developing the Croatian scientific research area;
- enhancing the mentorship capacity of Croatian scientific institutions;
- encouraging the education of young scientists (doctoral students and post-doctoral researchers);
- acquiring new knowledge that contributes to enhancing the Croatian economy and social welfare.

#### SUBMITTED PROJECT PROPOSALS

A total of 165 project proposals were submitted to the Call. Figure 2 below shows the distribution of submitted project proposals by scientific areas.

27% 18% 27% 13% 22% 13% 50 cial sciences 22% 7% 13% 50 cial sciences 11; 7% Humanities 37; 22% Natural sciences 45; 27% Technical sciences

Figure 2. Number of submitted project proposals by scientific area

#### **EVALUATION RESULTS**

If one observes the results presented in Figure 3, it can be seen that the ratio of submitted proposals and funded projects in all scientific areas is approximately the same and that the average pass rate within this Call is around 50%, except in the area of social sciences, where only 6 projects of the 21 submitted proposals (28.5%) were accepted for funding.

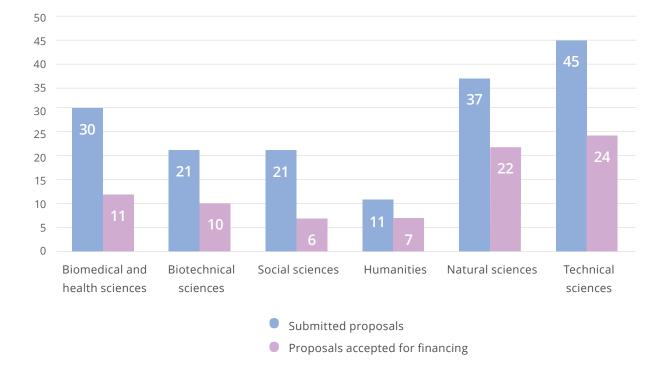


Figure 3. Overview of evaluation results from the Call UIP-05-2017 by scientific areas

# Research Projects (IP-01-2018)

Through the Programme "Research Projects", fundamental research that is aimed at creating new and enhancing existing knowledge about a specific area is funded, as well as research directed at better understanding of the research topic and applied research that is conducted with clear technological, economic or social aims in mind.

#### AIMS OF THE PROGRAMME

- creating new knowledge with the ultimate aim of strengthening the Croatian economy and social welfare;
- encouraging the networking of researchers and creating recognisable research teams that address internationally and/or nationally important problems, whose principal investigators are prominent scientists with internationally recognised achievements;
- creating a critical mass of research teams that can be competitive at the international level and scientists that would be able to mentor a new generation of young researchers;
- developing the Croatian scientific research area.

#### SUBMITTED PROJECT PROPOSALS

A total of 320 project proposals were submitted. Figure 4 below shows the distribution of submitted project proposals by scientific areas.

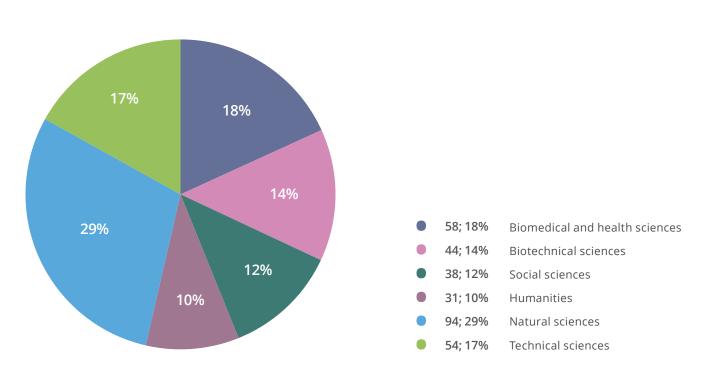


Figure 4. Number of submitted project proposals by scientific area

### COMPARISON OF THE NUMBERS OF FUNDED PROJECTS WITHIN THE CALLS IP-11-2013, IP-09-2014, IP-05-2016 AND IP-01-2018

The largest number of financed projects is in the area of natural sciences, just like the largest number of submitted proposals. The total number of financed projects decreased at the 2014 Call, but slightly increased at the 2016 Call. However, the number of proposals also decreased at the 2014 Call, which can be explained by the fact that the largest number of interested Principal Investigators submitted their project proposals to the first Call, published in 2013. The number of proposals increased again at the 2016 Call and decreased slightly at the ensuing 2017 Call.



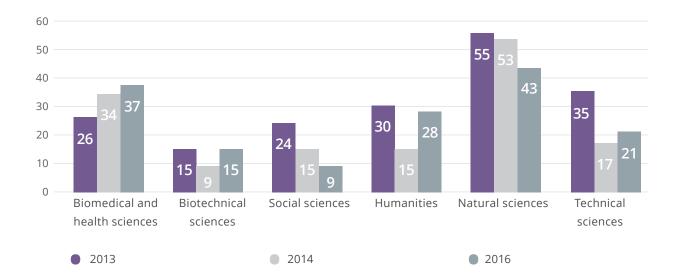


Figure 5. Financed projects at the Calls IP-11-2013, IP-09-2014, IP-05-2016

Young Researchers' Career Development Project – Training New Doctoral Students (CALL 01-2018)



The Strategic Plan of the Croatian Science Foundation for 2014-2018 anticipates financing between 200 and 250 new doctoral students every year, depending on the available funds from the State budget, so that the intended number of 1,000 doctoral students in the Foundation's system could be reached.

To ensure sustainability of such a financing model, in the period 2016-2017 the Ministry of Science and Education and the Foundation prepared a project through which a new generation of young researchers would be financed from the European Social Fund (ESF) within the Operational Programme 10.II.3. Improving Conditions for Croatian Researchers and with funds from the State budget of the Republic of Croatia. The Call provides for funding of doctoral students' gross Il salary in a four-year period. The final aim is producing a doctoral dissertation and adopting knowledge regarding basic postulates of scientific work and research.

A total of 202 applications were submitted, 63 of which in the area of natural sciences, 50 in the area of biomedical and health sciences, 39 in the area of technical sciences, 23 in the area of biotechnical sciences, 13 in the area of social sciences and 13 in the area of humanities (Figure 6). 201 applications passed the administrative eligibility check. The applications that passed the eligibility check were referred to the evaluation process.

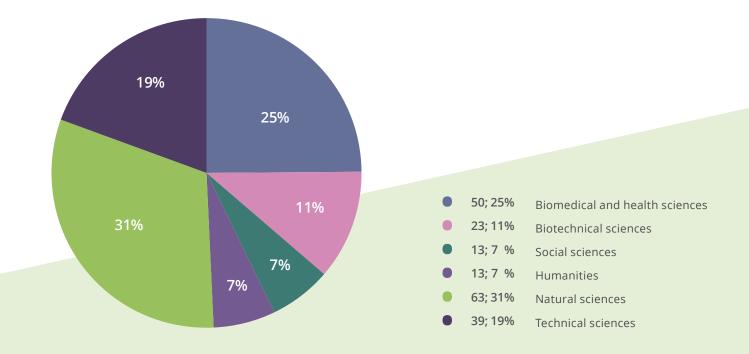


Figure 6. Number of submitted applications by scientific area

## Support to Researchers for Applying to European Research Council Programme (CALLS 05-2017 AND 11-2017)

The aim of this Programme is to encourage collaboration between a Croatian researcher (Guest Researcher) and a current Principal Investigator of an ERC project for the purpose of gaining experience and developing and preparing his/her own project proposal to be submitted to one of the ERC Programme Calls (Starting Grant, Consolidator Grant or Advanced Grant).

In March 2017, the Foundation opened the first Call within the Programme "Support to Researchers for Applying to ERC Programmes". Two applications were submitted and funds were awarded to one researcher in the area of social sciences and humanities. The second Call was opened in October. Three applications were submitted and two researchers were funded, one in the area of social sciences and humanities, and the other in the area of technical sciences. Building Croatian Professional Terminology (STRUNA-09-2017)

#### SUBMITTED PROJECT PROPOSALS

A total of 12 project proposals were submitted. Figure 7 below shows the number of submitted project proposals by scientific areas.

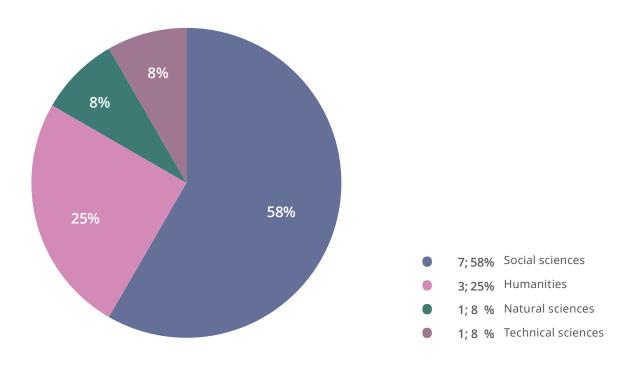


Figure 7. Number of submitted project proposals by scientific areas

#### **EVALUATION RESULTS**

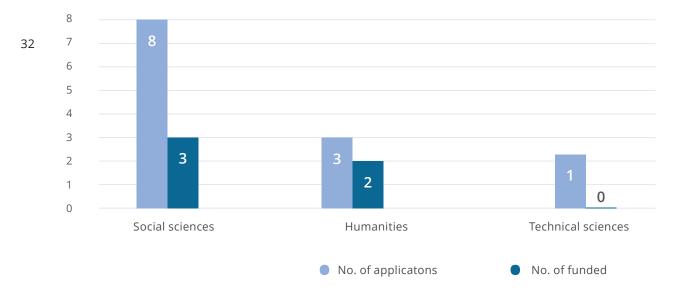


Figure 8. Overview of evaluation results by scientific areas

## Croatian-Swiss Research Programme 2017-2023 (CSRP)

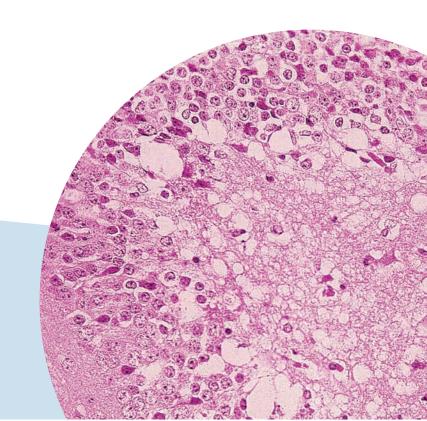
Switzerland is taking part in the enlargement of the European Union by financially supporting activities that contribute to the reduction of economic and social disparities between Member States. One of the selected areas for collaboration with the Republic of Croatia is scientific research, which resulted in the development of the Croatian-Swiss Research Programme 2017-2023 (CSRP).

The object of financing is scientific collaboration and research as part of joint research projects (JRPs) between Switzerland and Croatia. Project proposals from the area of social sciences and the humanities will be particularly encouraged, such as social inclusion, marginalised social groups, etc. Besides research, mutual visits and short stays of Croatian scientists in Switzerland and vice versa will be financed.

A total of 111 project proposals were submitted and the evaluation process is in progress. The distribution of the 111 submitted project proposals per area is the following:

- 19 social sciences and the humanities
- 55 mathematics, natural sciences and technical sciences
- 37 biology and medicine.

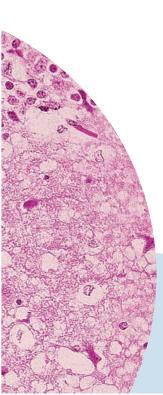
Project proposals will be evaluated on the basis of an international peer review process and the results are expected to be publicised in September 2018. The organization responsible for programme implementation is the Swiss National Science Foundation, while the Croatian Science Foundation is a Partner in programme implementation.



## Partnership in Research (PAR-02-2017)

The Programme is intended to support partnerships in research between public universities or public scientific institutes in Croatia or extra-budgetary sources of funding (not funded from the State budget) from Croatia or from abroad (private companies, local administration units, foreign foundations and agencies for funding research, foreign scientific organisations).

The researchers choose their own research topic. The basic elements that are evaluated are scientific value, originality and innovation of the project, proposed research methodology, potential for economic development and previous achievements of the researcher/Principal Investigator and his/her associates.



## "Unity through Knowledge" Fund (UKF)

The Ministry of Science and Education, on behalf of the Government of the Republic of Croatia, started the programme "Unity through Knowledge" Fund (hereinafter UKF) in 2007. The UKF was supported by a loan from the World Bank as part of the Science and Technology Project (STP). The aims of UKF are supporting internationally competitive research, supporting research that creates new values in Croatian economy and supporting projects that contribute to the development of research infrastructure in Croatia.

In 2013, the Republic of Croatia and the International Bank for Reconstruction and Development signed a Loan Contract for the Second Science and Technology Project (hereinafter: STP II), which builds on the previous Science and Technology Project. The aim of STP II is supporting the Republic of Croatia in the absorption of EU funds in the area of research and innovation. The Croatian Science Foundation assumed the implementation of the UKF Programme in 2014.

In March 2017, the Call "My First Collaboration" within the "Scientific Collaboration" Programme for new UKF support was closed and contracts for 12 projects were concluded in the areas of technical, biotechnical, natural and biomedical and health sciences, which will enable young scientists at the post-doctoral level to establish collaboration with Croatian scientists living abroad to increase their professional experience and develop a career in science or the economy. The funds for these 15-month-long projects have been secured by reassignment within the restructuring of STP II and the total value of the 12 projects contracted in 2017 is HRK 3,520,491.

In December 2017, following two years of implementation, nine projects from the "Cross-border Support" within the "Scientific Collaboration" Programme were finished with a total value of HRK 11,370,117. This Programme enabled Croatian scientists to collaborate with scientists in the diaspora and create networks with prominent scientific and research institutions in the world to strengthen the capacities of Croatian scientists for applying to European (primarily Horizon 2020), international and structural Funds. Six doctoral students and fourteen post-doctoral researchers were employed as part of these projects.

# Results of the funded projects

When it comes to the project results achieved by the end of 2017, we should point 1,471 scientific articles published in internationally peer reviewed journals, some of which have been published in the most prestigious international scientific journals.

#### PROJECT EVALUATION AND MONITORING DATA

**496** reports for the financed projects received

**482** Croatian evaluation experts took part in the monitoring process of the financed projects The reports of the financed projects in 2017 received the following marks:

A - 44.07% B - 51.98% C - 4.56% D - 0.30%

#### **RESULTS OF CSF'S PROJECTS**

**90** workshops organised within the projects

**303** participants at workshops

**11** patents registered within the projects

**1,472** scientific papers published

**1,953** conference presentations held

#### **RESEARCH TEAM**

749 doctoral students took part in the Foundation's projects, 309 doctoral students employed within the projects

4,287 scientists took part in the Foundation's projects, of which 3,901 Croatian and 386 foreign scientists

**541** trainings for Principal Investigators and collaborators **82** post-doctoral researchers employed within the Foundation's projects

#### DOCTORAL STUDENTS FINANCED WITHIN THE 2014 AND 2015 CALLS

40

The Foundation opened two Calls for financing doctoral students, the first in May 2014 and the second in September 2015. The doctoral students employed within these Calls have been properly meeting their obligations. Eight of them graduated from their doctoral studies in 2017.

#### **RESULTS OF DOCTORAL STUDENTS OF CLASS 2014 IN 2017**

Besides the report on the doctoral student's work, the supervisor and the doctoral student are required to attach a list of all dissemination activities undertaken by the doctoral student and his/her papers published in the reporting period. Of the second periodic reports (after 36 months) received, it can be seen that valuable results were obtained in 2017. The doctoral students held 331 conference presentations and published 207 papers. Of this number, the doctoral student is registered as the first author of 41 papers, and the sole author of 19 papers.

116 reports on the doctoral students' work received

**331** conference presentations held

207 papers published

The remaining reports are to be delivered by summer 2018.

# International collaboration

International collaboration is one of the crucial factors that guarantees and improves the quality of scientific institutions. Therefore, one of the Foundation's goals is to enhance its international collaboration, i.e. the internationalisation of its activities and programmes.

## Science Europe

Science Europe is an organization with its headquarters in Brussels, established in 2011, which gathers European institutions that finance scientific research and institutions that implement research.



The Organization's goal is to promote common interests of all member institutions and support the members in their efforts to advance scientific research in Europe, taking into account the interests and opinions of scientists from all European systems.

Science Europe is currently composed of 43 member organizations from 27 different countries. The Croatian Science Foundation joined in 2013.

## Collaboration with the Swiss Confederation

In June 2015, *the Framework Agreement between the Swiss Federal Council and the Government of the Republic of Croatia concerning the Implementation of the Swiss-Croatian Cooperation Programme to Reduce Economic and Social Disparities within the Enlarged European Union* was signed, whereby Croatia received a donation in the amount of CHF 45 million (HRK 326.5 million) for projects that are to be implemented between 2016 and 2024. The Framework Agreement was ratified by the Croatian Parliament in December 2016 and came into force on 9 January 2017. The Croatian Science Foundation will be implementing two programmes to be financed from the donation mentioned above:

#### 1) Croatian-Swiss Research Programme, in progress

The aim of the Croatian-Swiss Research Programme is to contribute to the Croatian knowledge-based economy and enhance research collaboration between Croatia and Switzerland by means of transfer of knowledge, skills and technologies. The total value of the donation is CHF 4 million, while the Republic of Croatia will provide cofinancing in the amount of CHF 0.67 million. Ten to twelve grants for joint research projects will be awarded as part of the Programme. The Programme will enable Croatian and Swiss scientists to set up a consortium for the purpose of conducting research activities.

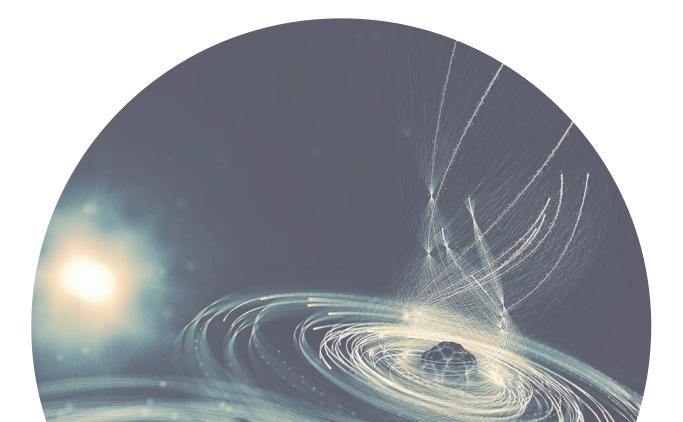
#### 2) Tenure Track Pilot Programme, announced

Ensuring a supportive environment for pursuing a scientific career in Croatia in collaboration with the Swiss partner *Ecole polytehnique fédérale de Lausanne* (EPFL). The Swiss donation for the "Research Excellence Programme in Science and Higher Education – the Tenure Track Pilot Programme" amounts to CHF 4 million, while the Republic of Croatia will provide co-financing of the programme with national funds in the amount of CHF 0.7 million.

The aim of the Programme is to offer young and talented researchers the possibility to achieve a long-term career in Croatia. Four to five research teams will be financed within the Programme. The financed projects shall be implemented in a five-year period. The Call is expected to be opened in the first half of 2018.

# Programmes to be financed from the European Social Fund (ESF)

Following the Call for Proposals regarding operations to be financed from the funds within Priority Axis 4 "Proper Management" of the Operational Programme "Efficient Human Resources 2014-2020", more specifically within Investment Priority 10.II "Improving the quality and efficiency of tertiary and equivalent education and access to it for the purpose of increasing participation and attainment, especially for disadvantaged groups" and specific goal 10.II.3 "Improving work conditions of Croatian researchers", the Foundation assumed the implementation of the following programmes:



#### 1/"Young Researchers' Career Development Project - Training New Doctoral Students", with the total value of HRK 81.090.000, in progress

The aim of the Programme is to support the employment of young researchers in early stages of their career development (at post-doctoral level) in the science and higher education system. At least 154 doctoral students are estimated to be financed with the funds above. The duration of the Programme is 66 months.

### 2/Collaboration Programme with Croatian scientists in diaspora "Scientific Collaboration", with the total value of HRK 44,997,300, announced

The aim of the Programme is to develop and strengthen the scientific community in the Republic of Croatia by means of knowledge transfer, collaboration and networking with prominent Croatian scientists in diaspora. 19 research teams are estimated to be financed. The total duration of the Programme is 66 months.

#### 3/"Post-doctoral Researchers' Career Development", with the total value of HRK 81.090,000, announced

The aim of the Programme is to support the career development of young researchers in the science and higher education system. The duration of the Programme is 66 months.

# Colloquia of the Croatian Academy of Sciences and Arts and the Croatian Science Foundation

In order to make interesting scientific topics more approachable and present the latest results of research projects in Croatia, the Croatian Academy of Sciences and Arts and the Croatian Science Foundation started a series of lectures where Croatian scientists introduce themselves and their work. Video recordings of every colloquium held are available at the Foundation's website.

11 colloquia were held in 2017:



- Academician Mladen Obad Šćitaroci, PhD; lecture title: Unaprjeđenje kulturnog naslijeđa u kontekstu urbanizma naslijeđa (Improving Cultural Heritage in the Context of Heritage Urbanism), 23 March 2017;
- Associate Professor Mile Šikić, PhD; lecture title: Metode sekvenciranja u preciznoj medicini (Sequencing Methods in Precision Medicine), 5 April 2017;
- Professor Marina Ajduković, PhD; lecture title: Kako (društvene) znanosti mogu pridonijeti izlasku iz "začaranog" kruga posljedica siromaštva djece i mladih? (How Can the (Social) Sciences Contribute to Breaking the "Vicious Circle" of Povery Consequneces of Children and Youth?), 19 April 2017;
- Academician Ivica Kostović, PhD; lecture title: Što je posebno u razvitku ljudskog mozga? (What Is So Special in the Development of the Human Brain?), 3 May 2017;
- Academician Nenad Vekarić, PhD; lecture title: *Metoda "reprezentativne kapi" i genealoška metoda u povijesnoj demografiji* (The Method of the "Representative Drop" and the Genealogical Method in Historical Demography), 23 May 2017;
- Associate Professor Igor Karšaj. PhD; lecture title: *Aneurizma abdolinalne aorte – numeričkim modeliranjem do optimalnog liječenja* (Abdominal Aorta Aneurism – Getting Optimal Treatment through Numerical Modelling), 8 June 2017;
- Professor Dinka Čorkalo Biruški. PhD; lecture title: *Jezik* roda moga: integracijski izazovi djece i mladih, pripadnika većine i manjina u Hrvatskoj (The Language of My Kin: Integration Challenges of Majority and Minority Children and Adolescents in Croatia), 12 October 2017;

- Hrvoje Marjanović, PhD; lecture title: Od tokova CO<sub>2</sub> preko satelita do goda - izazovi praćenja i modeliranja šumske produktivnosti (From CO<sub>2</sub> flows through Satellites to Tree Rings - the Challenges in Monitoring and Modelling Forest Productivity, 26 October 2017;
- Associate Professor Mario Vašak, PhD; lecture title: *Hijerarhijsko koordinirano upravljanje velikim potrošačima s ciljem njihove integracije u napredne energetske mreže* (Hierarchical Coordinated Management of Large Consumers with the Aim of Their Integration into Advanced Energy Networks), 13 November 2017;
- Academician Slobodan Vukičević, PhD; lecture title: *Regulacija hepcidina u metabolizmu željeza pomoću koštanog morfogenetskog proteina 6* (Controlling Hepcidin in Metabolism of Iron through Bone Morphogenetic Protein 6), 22 November 2017; and
- Robert Vianello, PhD; lecture title: Što je računalna kemija i kako nam pomaže u borbi protiv neurodegenerativnih bolesti? (What is Computer Chemistry and How It Can Help Us Fight Neurogenerative Diseases?), 7 December 2017.

