



SLOVENIAN RESEARCH AGENCY

Annual Report 2012

Slovenian Research Agency



ANNUAL REPORT
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Slovenian Research Agency
Annual Report for 2012

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Edited by: dr. Marko Perdih, Tina Glavič Novak
Translated by: Trans Linguis, Ltd.
Photography: Marjan Smerke
Design: mag. Žak Priničič
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The most important achievements resulting from the operation of the Slovenian Reserch Agency (hereinafter Agency) are:

- funds gained by research organizations from international sources and the economy was greater than the year before, while funding gained from Ministries was reduced (data for 2011);
- relative impact factor has raised to 0.76 (data for the 2007–2011 period),
- Slovenian citations rating has improved from 12th to 11th place in the EU (data for the 2007–2011 period);
- the number of highly cited publications in the WoS database (1 % of the most cited publications) has increased to 101 publications per million of inhabitants (data for the 2001 - 2011 period), marking an increase of over 50 percent in comparison to the starting value in the 1998 - 2008 period,
- the number of highly cited publications in the Scopus database (10 % of the most cited publications) has increased to 183 (2008 - 2011 pe-

riod), marking an increase of over 50 percent in comparison to the 2005 - 2008 period,

- the number of European patent applications has settled at 65 European patent applications per million of inhabitants, while the index of European patent applications has maintained its level at approximately 50 % of EU average (data for 2011);
- the number of ERC projects co-financed in the complementary scheme has increased from 9 in 2011 to 16 in 2012. This type of incentive for applications to ERC tenders also gave rise to the first ERC project for established researchers,
- 53.3 % of assets for international bilateral cooperation in 2011 have been used for bilateral international cooperation with third countries. 12.5 % were used for cooperation with Western Balkans countries (and Turkey), 40.8 % of funds were used for cooperation with third countries (USA, BRIC, Japan);
- the scope of Agency electronic operations has increased further in 2012; the Agency uses electronic operations in applying to public ten-

ders and calls for applications, reporting (annual and final reports) and partially in other operations; The share of documents signed using a digital certificate, namely documents submitted solely in electronic form, has surpassed 60 % and has achieved 65 % for certain purposes and even 95 % in reporting on allocation of research hours.

Agency operations in 2012 can be assessed as successful. The Agency has fulfilled annual objectives by separate areas and has upgraded its normative, organizational, professional and executive systems of operation used in the performance of its tasks. With implementation of economy measures, Agency tasks were carried out in such a way as to limit negative consequences to the greatest extent possible. One of the chief measures was the reduction of pricing categories for research programmes and projects. The Agency did not begin financing new research projects in 2012, but deferred the initiation of financing to the year 2013. 2012 also saw no financing of purchases of new research equipment.

The Agency carries out its main activities in the field of Science and Technology Development.

The nominal value of scientific research activities financed through the Agency in 2012 amounted to 154,583,273 EUR, more than 21 million Euros or 12 % less than in the previous year. Division of funds by activity sectors is presented in Figure 1, division by scientific disciplines is presented in Figure 2.

Allocation by activity sectors is practically the same as in the past year, as differences fall within a tenth of a percent.

The classification of funds by scientific disciplines is mostly constant with slight differences between separate years. Deviations from last year's data do not surpass a percentage point

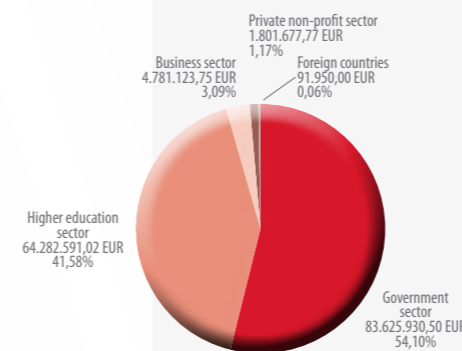


Figure 1
Division of funds by activity sectors in Euros and shares in percentage points

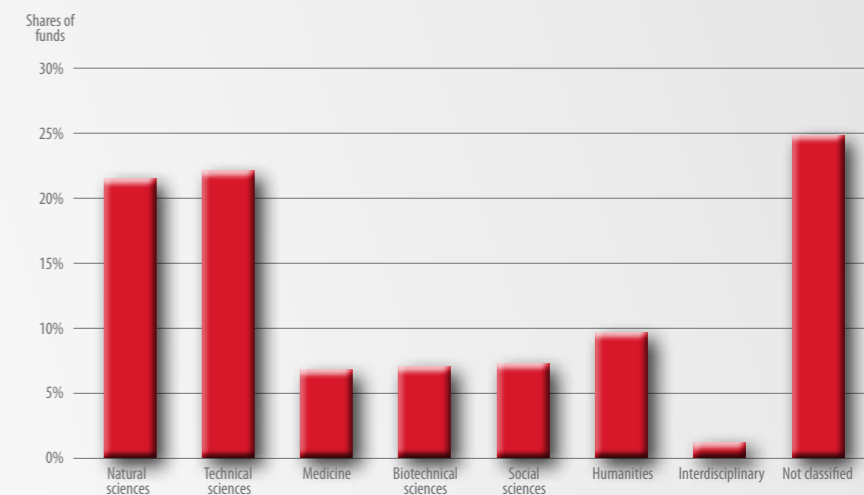


Figure 2
Shares of funds by scientific disciplines in percentage points. Funds which cannot be classified by scientific disciplines include funding for founders' obligations, infrastructural programmes and similar.

General data

The Slovenian Research Agency (hereinafter: Agency) performs expert, developmental and executive tasks related to the performance of the Resolution on Research and Innovation Strategy of Slovenia and other tasks related to the promotion of research activities.

The Agency is a public law entity subject to the provisions of laws and other regulations applying to public agencies, unless provisions of the Research and Development Act (Official Gazette of RS, no. 22/2006 – official consolidated text, 61/06-ZDru-1, 112/07 and 9/11) provide otherwise. Pursuant to Article 2 of the Resolution on the establishment of the Slovenian Research Agency, the Agency enters into legal transactions independently within the scope of its undertaking with all rights and obligations and acts on its own behalf and for its own account. The Agency was founded by the Republic of Slovenia by the Resolution on the establishment of the Slovenian Research Agency (Official Gazette of the Republic of Slovenia, no. 123/03 and 105/10) for permanent performance of legally prescribed tasks in public interest with the purpose of assuring permanent, professional and independent decision-making on the selection of programmes and projects financed from the national budget and other sources of financing.

Agency bodies

- The agency bodies are as follows:
- Management Board of the Agency,
- Director and
- Scientific Council.

The Management Board directs and oversees the entire scope of Agency operations. The Board consists of seven members.

The Director represents the Agency, organizes and manages work and operations of the Agency and performs other tasks as prescribed by relevant regulations. The Director is responsible to the Management Board, the Minister in charge of science and the Government.

The Scientific Council is the highest expert and advisory body of the Agency. It consists of six members who represent all scientific disciplines.

Mission

Through the pursuance of its mission, the Agency has a decisive impact on the implementation of a new development paradigm which emphasizes the strengthening of the abilities of managing global knowledge and technological progress as the main source of increased labour productivity, national competitive ability and improved quality of life for individuals and society as a whole. Knowledge is a key factor in promoting competitiveness of the national economy while increased investments in knowledge and human development are necessary for transition to a knowledge-based society. Investments in development and research are a key prerequisite for creating knowledge and strengthening the level of technology in the economy which increasingly defines its competitiveness.

By pursuing its mission, the Agency contributes to the achievement of key strategic development objectives:

- creation of new knowledge and cognizance and the transfer of this and internationally ac-

cessible knowledge into the public domain and economic use for increased public benefit;

- strengthening of the ability to manage social and technological progress as the main source of increased labour productivity and national competitiveness in the global arena.

Activity

The Agency performs the following tasks in the interest of its founder - the public:

- decides on the selection of research and infrastructure programmes which represent a public service in the field of research, and provides financing;
- assures the execution of the young researchers programme and other programmes and projects the Agency is tasked with in accordance with the Research and Innovation Strategy of Slovenia and annual policies of the competent Ministry;
- monitors the relevance, innovation, efficiency and quality of operations, competitiveness and professionalism of the work of natural and legal persons that benefit from Agency funding or other incentives;
- monitors and oversees the execution of programmes and projects;
- promotes international cooperation, cofinances and executes obligations assumed through international agreements, memoranda and protocols entered into by the Republic of Slovenia;
- manages databases specified with the Research and Development Act and other regulations;
- assures the acquisition of additional funding for the implementation of the Research and Innovation Strategy;
- monitors and analyzes the implementation of research and development activities;

- participates in the planning of national research and development policies;
- cooperates with the relevant agency operating in the field of technological development and other agencies and organizations;
- in accordance with regulations, submits annual work programmes, financial plans, annual reports and periodic self-evaluation reports on the quality of the Agency's operations to the Ministry competent for science;
- promotes cooperation of public research organizations with users;
- performs other expert tasks in accordance with the purpose for which it was established.

Tasks are centred on the assurance of conditions for the performance of research activities and monitoring of the purpose of performing research activities. A more sizeable section of operations is represented by the financing of research programmes, basic and applicative projects and post-doctoral projects. The Agency provides financing from the national budget on a continuous basis and monitors:

- execution of research and infrastructure programmes;
- execution of research projects;
- execution of the young researcher programme;
- execution of the research infrastructure programme;
- execution of the "Excellent Foreign Prominent scientists in Slovenia" programme;
- execution of founders' obligations;
- execution of the information-communication systems programme;
- execution of the programme of scientific meetings;
- execution of the programme of international cooperation.

With regard to its status, the Agency carries out part of the expert, developmental and executive tasks in the realization of specific policy objectives in the field of science and technology and

- it is the central public organization involved in the financing of research activities in Slovenia;
- promotes the excellence and applicability of research in Slovenia;
- decides on the selection of research programmes and projects on the basis of an independent and internationally comparable research evaluation system;
- transparently organizes and manages research activities in Slovenia;
- promotes international cooperation within the framework of obligations accepted by the Republic of Slovenia,
- analyzes the execution of research and development activities in the Republic of Slovenia and cooperates in the planning of national research and development policies.

Long term Agency objectives are financed from the national budget of the Republic of Slovenia and are therefore specific policy objectives in the field of science and technology. The Agency realizes these objectives through annual objectives detailed within separate measures within policy 02 - Higher Education, Science, Technology and the Information Society.

Documents of long term development planning

- Development Strategy of Slovenia;
- Framework of Economic and Social Reforms for Increasing the Welfare in Slovenia;
- Reform Programme for the Implementation of the Lisbon Strategy in Slovenia, Operational Programme for Strengthening Regional Development Potentials, 2007–2013;

- Resolution on the Research and Innovation Strategy of Slovenia 2011–2020,
- Operational Programme for Human Resources Development, 2007–2013, Government of the Republic of Slovenia, 2007.

In the implementation of the Scientific Research Activity programme, the Agency realizes the actual policies contained in the Framework of Economic and Social Reforms of the Government of RS related to the second development priority, i.e. efficient creation, bidirectional flow and use of knowledge for economic development and quality jobs, particularly through efficient use of knowledge and the implementation of the following specific objectives:

- increasing international recognizability and competitiveness of Slovenian science at a European and global level,
- increasing the share of researchers in the active working population,
- modernization and to modernize and link together research infrastructure.

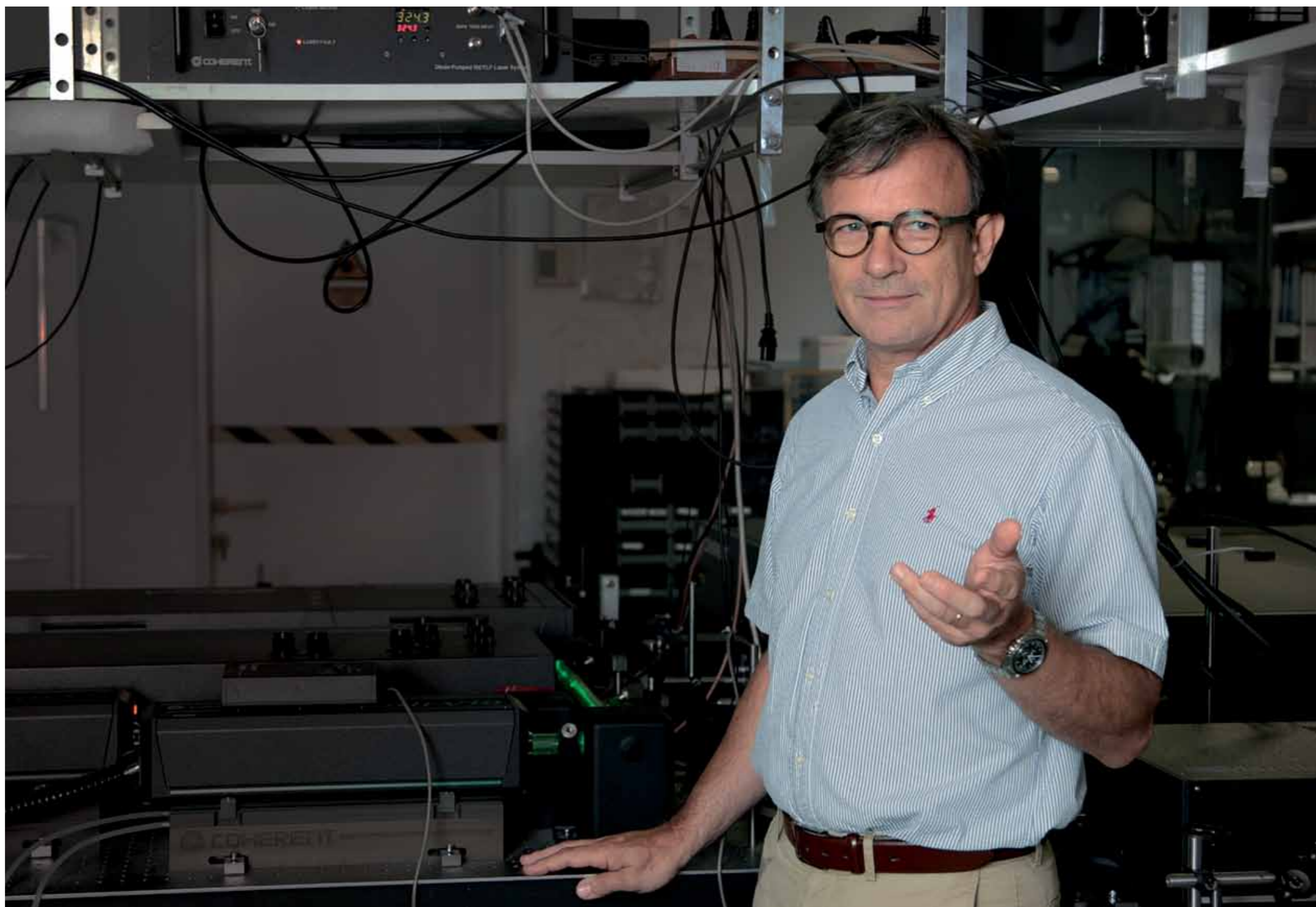
Within the programme of Technology and the Information Society, the Agency finances central research and development activities at Slovenian universities, public and other research institutions and development units in the economy and with private researchers while also promoting the transfer of research findings into the social and economic environment. Within the scope of the programme, the Agency cofinances applicative research projects and interdisciplinary targeted research programmes. In this area, the Agency is pursuing the following specific objective:

- to increase the impact of R&D in all areas of the native environment (public and private sectors).

General long
term objectives
in the field
of scientific
research
activities

"Without knowledge we are not competitive in this world; not in tourism, not in high-technology, nor in culture. Knowledge is a category that is undervalued, be it playing the violin or solving integral equations."

Dragan Mihailović,
physicist



General long term objectives in the field of scientific research activities

1. To within four years achieve an accelerated transfer of knowledge in the triangle of higher education, science and the economy, an increase of global competitiveness of Slovenia through promotion of innovation and entrepreneurial in-

vestments in research and technological development and a sustainable increase of economic growth through increasing the technological complexity and share of knowledge in products, processes and services.

The Agency monitors its share in the achievement of the common objective with the following indicators:

a) Total scope of Agency funds in the years between 2006 and 2012

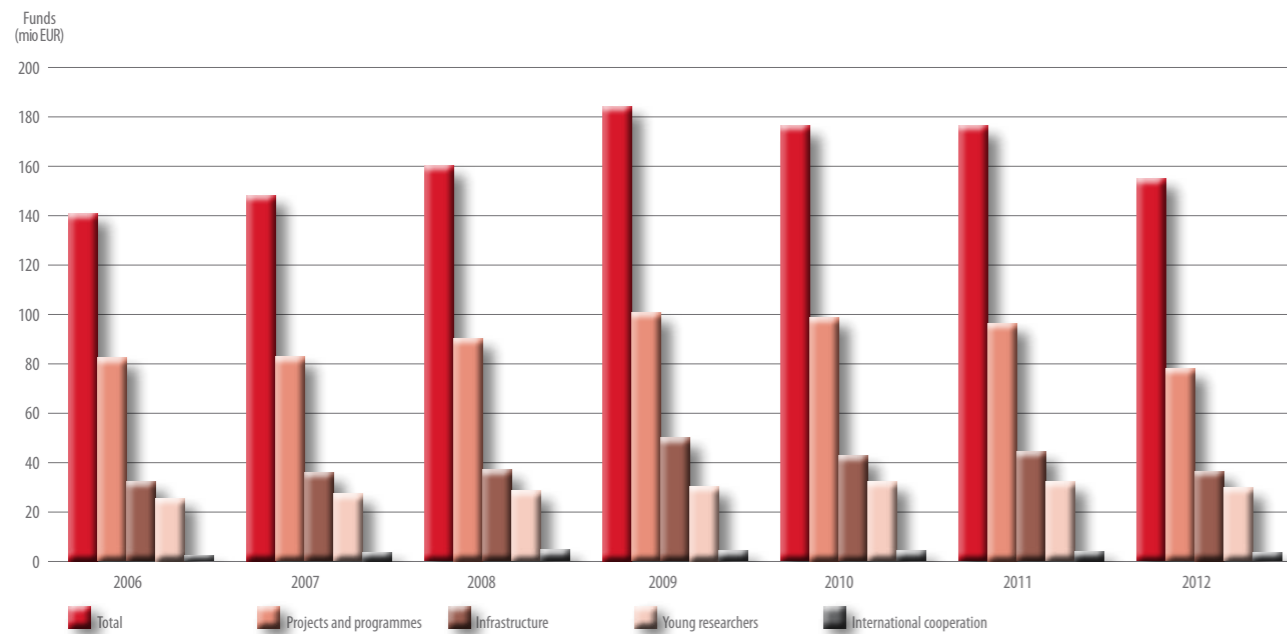


Figure 3
Realized Agency funds by years and funding mechanisms in million Euros

Realized funds amounted to 154,583,273 Euros, which is significantly less than in past years. The

difference in structure with regard to previous years is seen in projects and programmes and in-

frastructure and to a lesser extent in young re-searchers.

b) Scope of Agency funds by subprogrammes, activities and measures in 2012

Structure of Agency funds by subprogrammes is detailed in Figure 4.

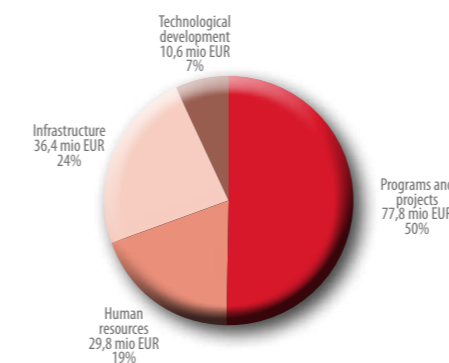


Figure 4
Structure of Agency funds by subprogrammes in the year 2012 in million Euros and shares in percentage points

The majority of funds from the national budget of the Republic of Slovenia is distributed for programmes and projects. The subprogramme dedicated to technological development includes funding for applicative projects and targeted research programmes. A reduction of the total funds has changed the allocation of funding by subprogrammes, but changes do not exceed two



Dragan Mihailović

Prof. Dr. Dragan Mihailović got his PhD from the University of Oxford in 1983. Since then he has continued his scientific research mostly at the Jožef Stefan Institute, where in 2001 he became the head of the Department for Complex Matter. In 2003 he was appointed full-time professor at the Department for Mathematics and Physics of the University of Ljubljana, and has been managing the Centre for Excellence for Nanoscience and Nanotechnology since 2004. In 1988 he received the award from the Boris Kidrič Fund and in 2002 the Zois Award for top-class scientific achievements. Dr. Dragan Mihailović is the recipient of the grant from the "Ideas" programme, which is being implemented under the European Research Council (ERC). He received advanced investigators grant for his project "Coherent Trajectories Through Symmetry Breaking Transitions."

"In our little crystal we have found another universe!"

Dr. Dragan Mihailović is the head of the basic research project *Cosmology in the Laboratory - femtosecond phasic transitions in real time* and head of the programme group *Dynamics of complex nanomatter*, which currently involves nine young researchers. ¹

"We are interested in systems, e.g. materials that we systematically describe in a related manner, just as we describe space or collision of elementary particles. In all cases the fundamentals come from theories, which describe the transition from a normal state to a superconductive state." Dr. Dragana Mihailović's research team deals with discovering new phenomena in materials they research with the help of lasers.

"Human curiosity is one of the neglected characteristics, although it is extremely important for our existence. Scientists are lucky to be able to respond to this curiosity."

In his scientific research Dr. Dragan Mihailović places a great deal of emphasis on innovation. In addition to innovation he emphasises the importance of good collaboration between institutes and universities, including the role of industry with ambitious development goals. *"As far as industry goes, companies shouldn't focus just on the interim balance sheet, but rather on their ten-year vision."* He emphasises that in order to guarantee development, we need a consensus between science and industry about the question which fields are interesting to Slovenia. A case study of good collaboration is cited as the Centre for Excellence for Nanoscience and Nanotechnology, where they understand the importance of development, while collaboration and employment under said institutions support young scientists. Collaboration between science and industry in the field of physics is also being materialised through incorporation of spin off companies.

The view of science held by Dr. Dragan Mihailović is a holistic one, as it emphasises the importance of all scientific fields, while in particular emphasising the category of

knowledge. He does not understand science as a dominant sphere remote from everyday life, but rather sees within it creative potential that helps society to develop the ability to comprehend, adapt and create innovations. In his opinion the most obvious results of deeper understanding and new nanotechnology tools will be advances in the field of medicine. In relation to financing scientific research he stresses that *"to operate successfully at the global level there is a minimum level of financing required. If we want to be competitive in the field of science, we need to have competitive conditions in place. An alternative to knowledge is general mental, material and cultural poverty."*

"What today is unconceivable to most will be understandable to the majority tomorrow."

percentage points. The share of funding for programmes and projects has increased for almost two percentage points, funding for human resources has increased by just over one percent, while the share of funds for infrastructure has reduced by two percent and funding for technological development has decreased for one percent. The structure by activities is identical to the structure by subprograms, so it is not presented separately. Structure of Agency funds by measures is detailed in Figure 5.

The greatest share of funding is aimed at research programmes (approximately one third), followed by infrastructure obligations and equipment and young researchers with approximately a fifth of the funds respectively. The remaining measures have smaller shares. Changes in funding structure do not exceed a single percentage point, with the exception of young researchers and equipment, where deviations are somewhat greater. The share of funding for young researchers has increased while funding for research infrastructure has reduced. No new funding for research equipment was available in 2012.

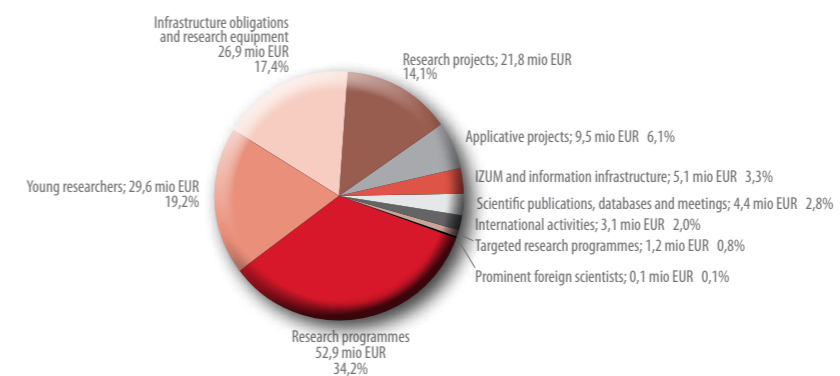


Figure 5
Structure of Agency funds by measures in the year 2012 in million Euros and shares in percentage points. Measures are ordered by scope of funds

Research programmes and projects

"To produce one litre of oil we need to squeeze seven kilograms of olives, whereby there are also two and a half litres of residual water and a kilogram and a half of pulp. Therefore, the remaining of antioxidants in oil are only two per cents, while as much as ninety-eight per cent ends in waste products, which can be harmful for microorganisms in case of uncontrolled disposal in the environment."

Tina Jerman Klen,
food technologist



Research programmes and projects

Specific four year objectives

1. To increase international recognizability and competitiveness of Slovenian science at a European and global level.

Relative impact factor: increase the relative impact factor to 0.72 in comparison to the starting year 2009

ME	Initial value in 2009	Year 2011	Year 2012	Target value 2014
%	0.67*	0.74**	0.76***	0.72

* Period 2004–2008. ** Period 2006–2010. *** Period 2007–2011.

The impact of scientific results is measured using the standardized international bibliographic indicator of relative impact factor which measures the ratio between the number of received citations and number of publications with respect to the global average impact factor in a certain field of research. The basis for the calculation of the relative impact factor are publications and cita-

tions in the Web of Science international bibliographical database. It is statistically relevant and an established practice in bibliometrics to consider overlapping five year periods in analysis of bibliometric trends. The relative impact factor value for Slovenia has remained the same over three five-year periods prior to the setting of a baseline value, so the setting of a higher target

value would be overly optimistic. Greater growth has been achieved in the periods following the setting of a baseline. This was indicated in the analysis which showed that the growth of the number of citations of publications co-authored by Slovenians has surpassed average growth of EU states by over 20 percent.

Results and their indicators

Production of internationally comparable and socially relevant knowledge

Indicator name	ME	Starting year	Initial value	Year 2011	Year 2012	Target value 2014
Citation: to achieve 10th place in terms of citations among EU states (number of citations per million inhabitants) by 2014	placement	2009	13*	12**	11***	10
Number of highly cited publications (1%) per million inhabitants – to achieve 70 highly cited publications per million inhabitants by 2014	no.	2009	62 [#]	76 ^{##}	101 ^{###}	70
Increase Agency funds for financing research in the higher education sector by 5 % until 2014 with regard to baseline value in 2009	%	2009	43.0	41.7	41.6	45.0
Share of funds for projects, the leaders of which are younger researchers (up to 7 active years since the defence of their doctorate)	%	2009	10.2	14.4	14.3	15.0
Increase share of funds for postdoctoral projects to 15 % of all research project funds by 2014	%	2009	10.2	8.6	7.9	15.0

* Period 2004–2008. ** Period 2006–2010. *** Period 2007–2011. [#] Period 1998–2008. ^{##} Period 2000–2010. ^{###} Period 2001–2011.

Production of new knowledge, directed towards a practical objective or purpose

Indicator name	ME	Starting year	Initial value	Year 2011	Year 2012	Target value 2014
Number of patent applications	no. per million inhabitants	2009	59	67*	65*	75

* Data is shifted by one year, so the data listed below relates to the years 2010 and 2011.

The dynamic of the number of patent applications shows a stunted growth. Since most of the applicants are commercial companies, the decrease in growth is most likely a consequence of the state of the economy.

As mentioned before, Slovenia has in the past shown an above-average growth of the number of citations and has now improved its standing by one place with regard to the past year or two places in comparison to the starting score.

As above for the relative impact factor, similar applies also to highly cited publications. No greater shifts were seen over a long period of time in the past. These are publications which make up the top one percent of the most cited publications in a certain area of research. A sizable growth is also present in publications with Slovenian co-authorship which are among the 10 % of the most cited publications. The number of such publications has increased greatly in the recent period, from 120 in 2005 (citation window 2005-2008) to 183 publications per million inhabitants in 2008 (citation window 2008-2011).

The share of funds intended for the higher education sector has been high in 2009 also due to a one-time transfer for infrastructure programmes in the amount of ten million Euros. Due to above,

the share of funds in the Agency budget intended for financing research in the higher education sector has in 2009 surpassed the average of the last few years. A precondition for growth in the coming years were major systemic changes in higher education that would cause an increase in the share of research activities in higher education. These changes did not occur. If the changes do not occur in the future, the objective will not be achieved.

The share of funding for projects managed by junior researchers has remained at the same level because due to economy measures the Agency could not initiate financing of projects from the public tender for co-financing of research projects in 2012 (tender in 2011) in the same year. In this tender, the Agency paid special attention to projects led by younger doctors of science. Funding awarded to younger doctors of science represented 27 percent of the total value of tendered funds, so increases in share will become apparent in 2013. Achievement of the objective is thus safe.

In the above tender, the Agency allocated an important share of the funds to financing of post-doctoral projects, the share of which in the total number of approved projects amounts to 19 %. This share of funding in the project tender will also influence an increase of the share of financing for post-doctoral projects in 2013.



Tina Jerman Klen

Tina Jerman Klen is a young researcher employed at the Wine Research Centre at the University of Nova Gorica. She is a qualified food technologist, while her doctor's thesis is based on researching the transfer of phenolic compounds from olives into products, which are created in the process of producing olive oil. Phenolic compounds of olives have antioxidant features, which can have a positive effect on health and prevent disease, which is why her interest is focused particularly on research of the quantity transfer and changes in antioxidants during olive processing. In her research she identifies the main representatives of phenols in different sorts of olives from the Goriška Brda, Vipava Valley and Slovenian Istria regions.

The aim of the research conducted by Tina Jerman Klen is to find a way to increase the transfer of antioxidants in the process of producing olive oil. In the process of research they tested thirteen different technologies. With chemical changes to antioxidant characteristics they could perhaps improve their solubility in fats and thus increase their benefit.

The research opens the possibility of producing olive oil of better quality and subsequent use of waste products, which could be interesting for the market distribution to the cosmetic and pharmaceutical industries thanks to the high content of phenol antioxidants. For potential use in industry, however, the study would have to be applied from the laboratory scale to larger systems. **"The economy has its own developmental interest, namely in my field how to extract as much oil from olives as possible. However, there is no interest in the sense of basic research; it's all governed by the market."**

Tina Jerman Klen is a recipient of the scholarship under the national programme for Women in Science, which is awarded by L'OREAL Slovenia, the Slovenian National Committee for UNESCO and the Slovenian Scientific Foundation. She is involved in the research programme "Analytics and chemical characterisation of materials and processes" and in the basic research project entitled "Genes influencing wine aroma."

Agency operations

The Agency has continued with the introduction of information solutions for electronic operations: the number of received applications for tenders and calls, number of reports and forms detailing the allocation of hours and employment has increased with the option of exclusively electronic reporting. The publication of all relevant indicators of financing science and research activities for current years on the Agency website is continuing and expanding. 8 public tenders and calls for applications with the option of electronic submission of applications were published in 2012. The Agency received 2247 applications for those tenders and calls for applications, 64.8 percent of which were submitted exclusively in electronic form, meaning that they were signed using a qualified digital certificate (in 2011 the share was 53.2 %). The Agency received 1817 applications for annual and final reports in electronic form. 65.6 percent of those were signed using a qualified digital certificate (in 2011 the Agency received 884 applications, 55.5 % of those exclusively in electronic form). Agency operations and financing of activities has also been supplemented with information solutions for electronic operation and reduction of applications lodged in paper form. In 2012, the Agency received 7491 applications containing data on allocation of hours and employment, 57.1 percent of which were submitted exclusively in electronic form.

Research programmes

Budget items 603610 and 656410: Research programmes and project research centers

Mechanism description

The Agency finances public service in the field of research activities using public budget funding. The research activities are performed in the form of research programmes by programme groups in public research institutions and as project research centers of programme groups at universities and independent higher education institutions and programme groups formed on the basis of concessions with legal persons subject to public or private law. Research programmes represent a coherent area of research work which is expected to remain current for ten or more years and is important enough for Slovenia to create a public interest in long term research of the group. For this purpose, the Agency paid out 52,935,149 Euros in 2012, just under 6 million less than in 2011. The structure of the use of funds by sciences and activity sectors is shown in figures below.

In 2009, the Agency began financing the implementation of 288 research programmes for the programming period (3 to 6 years) after having completed research programmes of the 2004-2008 period.

Programmes were selected on the basis of a new methodology for the assessment of research programmes, adopted in 2008 with the purpose of promoting quality and high impact research work, better cooperation between Slovenian and international research, more efficient links between research and the economy and other public activities and removal of shortcomings and issues with the organization and execution of research work in separate areas.

2012 saw the execution of the Public Call for Submission of Research Programmes for the Next Fi-

ancing Period and Reports on the Results of Research Programmes for the period 2009 - 2012 and Public Tender for Awarding of Concession for Performance of Public Service in the Field of Research Activity in the Form of Research Programmes (Official Gazette of RS, no. 47/12) and evaluation of received applications of research programmes for the next financing period (3 to 6 years). The Public Call was aimed at public research organizations, whose agreements on financing of research programmes, concluded for the period between 1 January 2009 and 31 December 2012 expired and PROs which had no Agency financing for their research programmes. The Public Tender was aimed at public research organizations which did not have research organization status and whose agreements for financing of research programmes, concluded for the period between 1 January 2009 and 31 December 2012 expired.

The Agency received 64 applications for the Public Call and Public Tender. One application was re-

jected due to non-fulfilment of tender conditions and three applications were withdrawn by the applicants themselves. Assessment of applications was carried out pursuant to the Rules on Procedures of Co-financing, Assessment and Monitoring of the Performance of Research Activities and the Methodology of Application Assessment no. 6319-1/2011-7 of 4 June 2012. Each application was assessed by two foreign reviewers, as directed by the Methodology.

59 research programmes were selected for financing and one application was rejected. Research organizations without public research organization status were granted concession in the field of research activities for the performance of the approved research programme by decision of the science Minister.

Analytical elements

In 2011, 25,214,646 Euros have been used for the co-financing of research programmes.

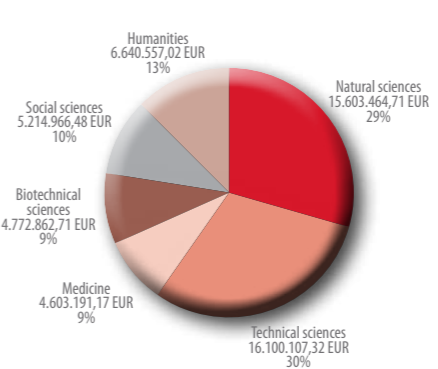


Figure 6
Scope of financed research programmes by sciences in Euros and shares in percentage points

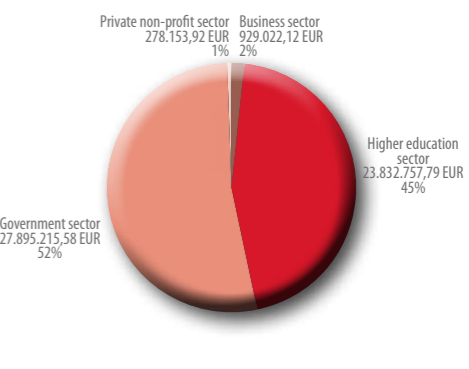


Figure 7
Scope of financed research programmes by activity sectors in Euros and shares in percentage points

Research projects

Measure description

To increase the scope of research in priority fields of research.

Indicator name	ME	Initial value in 2010	Realisation 2011	Target value 2012	Realisation 2012
Number of basic research projects in FTE	no.	260	315	385	330
Number of projects with Slovenian participation in ESF schemes: EUROCORES and ECRP	no.	3	13	16	16

Target value for the number of basic research projects was set in consideration of the planned initiation of implementation of research projects in December 2012. Initiation in December 2012 would mean that first payments would be made in January 2013, using 2013 budget funds that would count towards 2012 realization. As the 2013 budget was not adopted in time and even the proposed 2013 budget was smaller than the 2012 budget, the Agency was obliged to observe the legal limitation of assumption of obligations to credit budgets for coming years. Due to the legal limitation of assumption of obligations, the

Agency could not initiate financing of research projects at the end of 2012. This is the most influential reason for deviations. Another reason is also the fact that both the implementers of research programmes and implementers of basic research projects were given an opportunity in 2012 to propose a change in the categorization of the price of an hour, whereby the overall scope of funding did not change. The change in pricing category did, however, create a reduction in the number of FTE. The option was used by implementers of 14 basic research projects.

The European Science Foundation was reformed in 2011 and will not carry out calls for applications within the EUROCORES and ECRP schemes. The number of projects with Slovenian participation within the ESF EUROCORES and ECRP schemes includes projects the Agency co-finances with national budget funds as part of the so-called complementary scheme. In two years, the number of projects grew from 3 to 16. The most important effect of the complementary scheme was the granting of the first ERC Advanced Grant to prof. dr. Dragan Mihailović of the Jožef Stefan Institute in 2012.

Support to technological development projects

Specific objectives

1. To increase the impact of R&D in all areas of the native environment (public and private sectors).

Indicator name	ME	Starting year	Initial value	Year 2011	Year 2012	Target value 2014
Share of Agency funds for applicative projects out of total Agency research project funds	%	2009	39.1	39.2	32.8	33.0
Share of funds from the economy (in % of common funds of JRO)	%	2009	12.0	12.3*	12.1*	15.0

* Data is shifted by one year, so the data listed below relates to the years 2010 and 2011.

The share of funds for applicative projects has in 2012 reduced in comparison to previous years, which is a consequence of reduced funds. Among projects that were scheduled to begin drawing finances in 2012, but were deferred to 2013 due to economy measures, the share of tendered funds for applicative projects was 36 % of the to-

tal funding. Due to this, indicator values in 2013 will improve.

The share of funds from the economy in common funds has decreased slightly in comparison to the previous year, which is a consequence of altered funding structure, although funds PROs gain from

the economy have actually increased. The share of funds from the economy was reduced due to a greater increase of funding from abroad. More importantly, the share of Agency funds in the overall funding structure of PROs was actually somewhat reduced. Further dynamic in the coming years thus remains unpredictable.

Results and their indicators

An improved system of developing and monitoring public policies

Indicator name	ME	Starting year	Initial value	Year 2011	Year 2012	Target value 2014
Number of different users of targeted research programmes	no.	2009	20	24	20	20

In 2012 there were 20 users of targeted research programmes, which is in line with the target value.

Budget item 603710: Research projects

Mechanism description

Under this budget item the Agency uses national budget funds to finance key research projects representing original experimental and/or theoretic works aimed at gaining new knowledge on basic phenomena and perceivable facts. The Agency as an important instrument for connecting, mobility and movement of researchers uses national budget funds to cofinance post-doctoral research projects in the form of basic or applicative research projects being carried out in order for researchers to gain additional experience and knowledge after gaining their doctorate.

Under this item, the Agency also uses national budget funds to cofinance

- international projects, proposed and selected within EUROCORES and ECRP projects with the European Science Foundation for financing and
- projects of the so called complementary scheme (projects of Slovenian applicants which received positive assessments at ERC public calls or within EUROCORES and ECRP programmes of the ESF, but were not selected for co-financing).

The purpose of this mechanism is to promote quality applications to the most demanding public calls in the European research environment with the guarantee of national-level cofinancing for positively assessed projects.

Analytical elements

a. Basic research projects

In 2012 the Agency has used national budget funds to cofinance a total of 331 basic research projects in a total value of 17,802,198 Euros, which is over a million less than in 2011.

b. Postdoctoral research projects

c. ESF and ERC projects

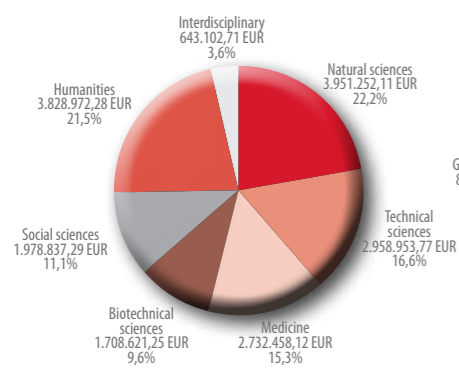


Figure 8
Scope of financed basic research projects by sciences in Euros and shares in percentage points

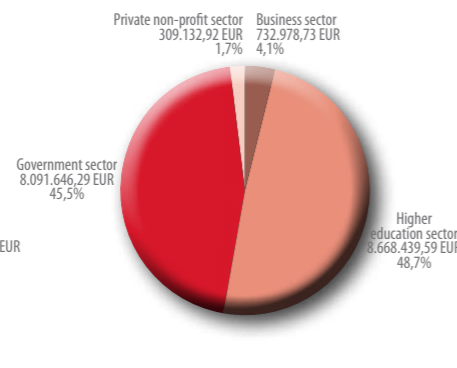


Figure 9
Scope of financed basic research projects by activity sectors in Euros and shares in percentage points

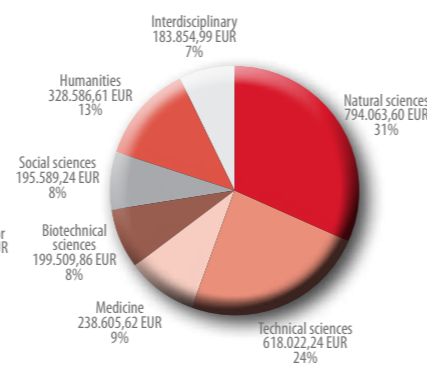


Figure 10
Scope of financed postdoctoral projects by sciences in Euros and shares in percentage points

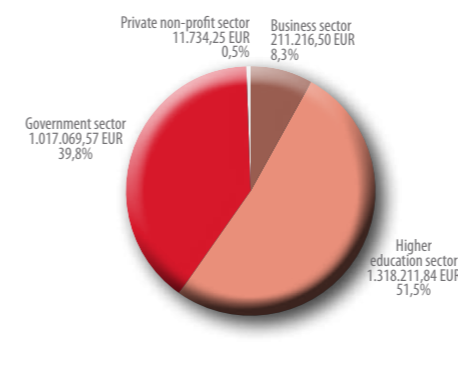


Figure 11
Scope of financed postdoctoral research projects by activity sectors in Euros and shares in percentage points

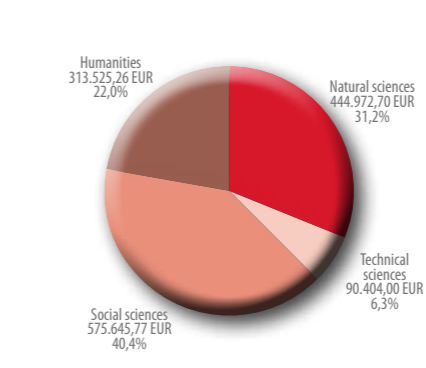


Figure 12
Scope of financed ESF (and ERC) projects by sciences in Euros and shares in percentage points

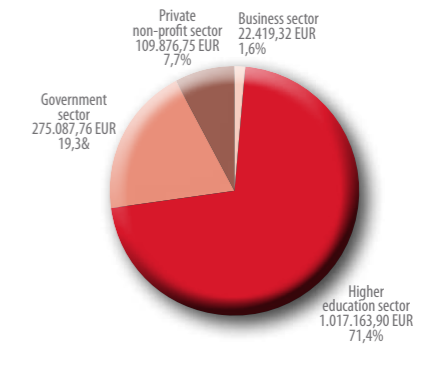


Figure 13
Scope of financed ESF (and ERC) projects by activity sectors in Euros and shares in percentage points

Budget item 568610: Development projects and infrastructure

Mechanism description

This item is used to co-finance applicative research project and targeted research programmes. The purpose of applicative research projects is the acquisition of new knowledge directed at a practical objective or purpose. Projects can be thematic or general in terms of content.

By cofinancing targeted research programmes, the Agency helps assure research support for various lines tasked with developing of Slovenian strategic development goals and support for deciding on basic development tasks that are of key importance for increasing competitiveness, adaptability and innovation. Research programmes are created, executed and financed in cooperation with various ministries and other interested budget users.

Analytical elements

a. Targeted research programmes

In 2012, 1,180,656 Euros have been used for the cofinancing of targeted research programmes »Konkurenčnost Slovenije 2006–2013« and »Zagotovimo.si varno hrano za jutri«, constituting a 56 % reduction in comparison to last year. The structure of the use of funds by sciences and activity sectors is shown in figures below.

b. Applicative research projects

In 2012, 9.457.170 Euros have been used for cofinancing of applicative projects, constituting a 19 % reduction in comparison to last year. No new applicative projects commenced cofinancing in 2012. The structure of the use of funds by sciences and activity sectors is shown in figures below.

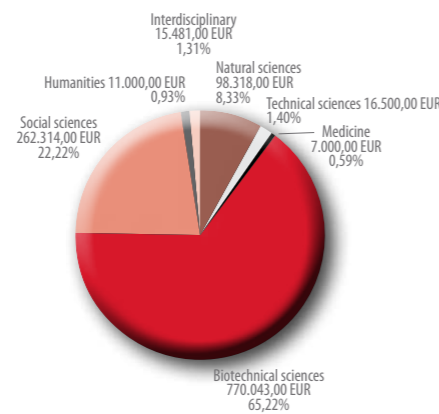


Figure 14
Scope of funds for targeted research programmes in 2012 by sciences in Euros and shares in percentage points

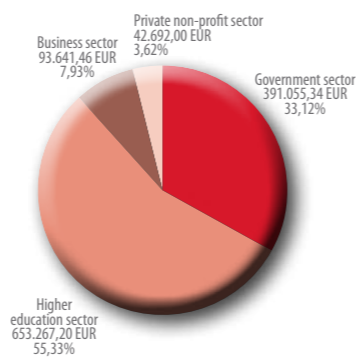


Figure 15
Division of funds for targeted research programmes in 2012 by activity sectors in Euros and shares in percentage points.

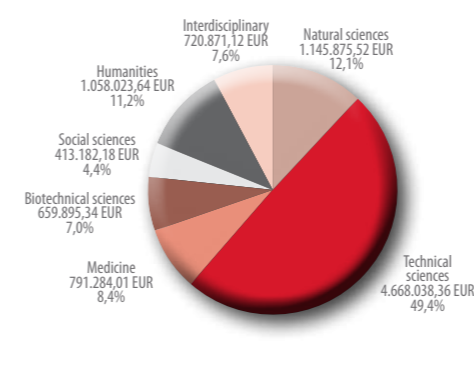


Figure 16
Scope of financed applicative research projects in 2012 by sciences in Euros and shares in percentage points

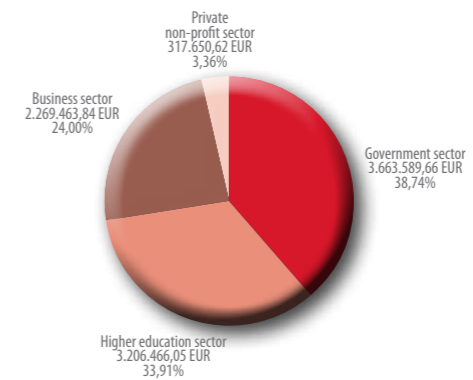


Figure 17
Scope of financed applicative research projects in 2012 by activity sectors in Euros and shares in percentage points

International activities in the field of science

Budget item 570310: European Framework Programmes and international research

Mechanism description

The main purposes are greater and faster progress of Slovenia and intensive and quality inclusion of the Slovenian research sphere into international research currents. The Agency also supports cooperation in the Joint Programme Initiative (JPI) for neurodegenerative illnesses with special emphasis on Alzheimer's disease (JPND).

The programme and co-financing from the budget item for this programme encompass the following activities:

a) CEA, cooperation in the European Union area

Scientific and research cooperation between the Republic of Slovenia and the Alternative Energies and Atomic Energy Commission (CEA) of France is carried out via a public tender. The subject of the tender is co-financing of international scientific research projects in the following areas: new energy technologies, nuclear energy, adaptation to climate changes, basic research in physics, life science and global security research. Projects have a two year duration.

b) International projects - bilateral cooperation

Coordinated efforts of the Ministry of Higher Education, Science and Technology and the Agency in 2012 gave rise to effective international bilateral scientific cooperation, particularly with countries that are global leaders in their priority fields and most compatible with Slovenia and other rapidly developing countries (USA, Japan). The programme of international bilateral scientific research project cooperation assures the transfer of knowledge from a wider global environment into Slovenia and vice-versa.

International bilateral scientific research projects are carried out for 24 to 36 months mutually in both countries. It should be emphasized that in terms of financing Slovenia only contributes half the funding required for project implementation. The other half is always assured by the other cooperating country.

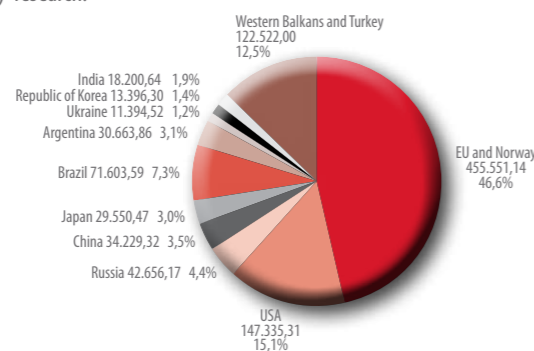


Figure 18
Scope of funds for international bilateral scientific research projects with regard to geographic location and amount of funds in 2012 in Euros and shares in percentage points

c) International projects - 7th European Union Framework Programme

Through financial support for applications of Slovenian research organizations for tenders of the 7th Framework Programme and Slovenian coordinators in projects, which the European Commission has found to be legally and formally complete and has sent to reviewers for assessment and were assessed above a certain grade, the Agency promotes quality inclusion and increases the scale of inclusion of the Slovenian scientific sphere into the common European research space.

By supporting applicants of the 7th Framework Programme, the Agency aims to increase the number and share of Slovenian applicants and project coordinators. Agency support also aims at increasing the number and share of successful project applications with Slovenian partners or coordinators in the 7th Framework Programme.

Budget item 579710: Promotion of international cooperation within the European Union

Mechanism description

In 2012 the Agency continued to implement the instrument for research and programme groups participating in projects of European Union Framework Programmes adopted in 2007. Article 13 of the Rules on Assessment and Financing of Research and Infrastructure Programmes allows for additional co-financing of a programming group if it shows this type of international cooperation, and additional co-financing, if the project includes a commercial organization from the Republic of Slovenia as a cooperating partner.

In April of 2012, the Agency called all research organisations implementing research programmes to submit data on the inclusion of programme group members in running projects of EU framework programmes. In 2012 the scope of funds for additional co-financing of research programmes decreased by over 20 percent (1,429,645 Euros).

The foremost receiver of funds is the Jožef Stefan Institute, followed by the University of Ljubljana and the University of Nova Gorica. These research organizations together received 71.8 percent of funds. The greatest share of funds was received in the government sector and the higher education sector - a common total of 94.3 percent of funds.

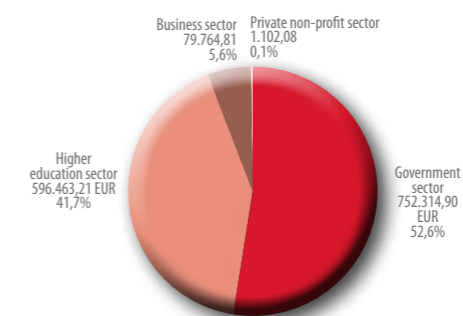


Figure 19
Additional cofinancing of research programmes - inclusion in projects of the EU framework programmes by activity sectors in Euros and shares in percentage points

¹ Project application achieves over half of the maximum available score in each individual review procedure.

Human
resources
supporting
science, higher
education and
technological
development

*"The enlightenment model,
which held that science
is separate from society,
has long been outlived.
I feel that as scientists we need
to try to explain what we do
in a relatively simple manner
and debate openly on the risks
and anxious reactions of the public,
which are predominantly based
on ignorance or a result of
bombardment with media
and pompous statements."*

Simon Horvat,
geneticist



Human resources supporting science, higher education and technological development

Specific objectives

Increasing the share of researchers in the active working population of the Republic of Slovenia

Indicator name	ME	Initial value in 2008	Year 2011*	Year 2012*	Target value 2014
Share of researchers in active working population in RS	%	1.11	1.11	1.18	1.25
Number of researchers	no.	10,124	10,444	11,056	12,000
Share of women among researchers	%	35.0	35.7	36.3	38.00

* Last available data for 2009 and 2010, source: SORS

The share of researchers in the active working population in the Republic of Slovenia has in 2010 increased in comparison to 2009. The number of

researchers has increased with an index of 105.9, showing that the target number may realistically be reached in 2014. The same applies to the share

of women among researchers, which has grown by 0.6 percent.

Results and their indicators

Greater share of researchers in the higher education and business sectors

Indicator name	ME	Initial value in 2008	Year 2011*	Year 2012*	Target value 2014
Share of researchers in active working population in RS – higher education sector	%	0.42	0.45	0.50	0.50
Share of researchers in active working population in RS – government sector	%	0.25	0.26	0.26	0.25
Share of researchers in active working population in RS – business sector	%	0.35	0.40	0.42	0.45

* Last available data for 2009 and 2010, source: SORS

In the higher education and business sectors, the share of researchers among the entire active working population of the Republic of Slovenia has increased

in 2010. The share of researchers in the government sector has remained the same as in 2009, when it already exceeded the target value for 2014. A possi-

ble cause for future concern is the lagging of the share of researchers in the business sector, but this too can be improved with appropriate measures.



Simon Horvat

Prof. Dr. Simon Horvat is a researcher and full-time professor for genetics and is employed at the Department for Zootechnics at the Biotechnical Faculty of the University of Ljubljana, and the Institute of Chemistry, where he is an associate of the Laboratory for Biotechnology. Dr. Simon Horvat is the main initiator and coordinator of setting up the laboratory for work with embryonic stem cells and transgenic technology in animals, with the associated infrastructure for development and rearing of laboratory transgenic animals. This research infrastructure was introduced in the period from 2004 to 2006 and constitutes a major social-economic achievement in Slovenia.

Through research of genetics, Dr. Simon Horvat touches on issue of obesity, which is becoming an ever greater threat to health on the global level, as well as in Slovenia, and is closely related to chronic disease, such as diabetes, cardiovascular disease and certain forms of cancer. In his article published in 2012 in the

journal *Cell Metabolism*, Dr. Simon Horvat worked with international colleagues to explain the activity of the DEPTOR protein. Dr. Simon Horvat draws caution to the fact that obesity is often misunderstood as a static and not as a developmental characteristic, where the environment plays a major role. Most of the population still has genes that conserve energy. Dr. Simon Horvat explains the tendency to store fat as a result of evolution, as this was important for survival in conditions of food deprivation. An environment where we have regular meals and a sufficient amount of calories is, evolutionary speaking, relatively short-lived. However, nutritional habits have lately certainly been affected by a larger amount of processed, easy to digest and high-calories food.

The second scope of research undertaken by Dr. Simon Horvat represents development of animal models. As part of this research he worked with his early stage to develop the first

transgenic mouse models in Slovenia, which represent a unique tool for study of the bio-logical function of genes. The study of eliminating the function of the gene in the biosynthesis of cholesterol (*Cyp51*) proves that cholesterol biosynthesis is essential for normal development of a foetus and represents a good animal model for study of the Antley Bixler syndrome, as well as other disorders of cholesterol homeostasis in people and animals.

The research of Dr. Simon Horvat represents an important contribution to basic science. He works actively with the paediatric clinic and deals with prevention of accumulation of fat in domestic animals together with the colleagues from Biotechnical Faculty. He is currently continuing his research with his associates from the Institute of Chemistry to establish a link between obesity and immunity, as obesity has a distinctly inflammatory component.

Budget item 570610: Training and development of scientific personnel

Mechanism description

An important instrument of the Agency science policy is the financing of postgraduate studies and research training of young researchers with funds from the national budget of the Republic of Slovenia. The programme has been successfully implemented since 1985 and has made significant contributions to increasing the quality and scope of research and to new recruitment for research teams. By funding young researchers, the Agency strives to renew human resources in research and research and education organizations, increase the research capacity of groups involved in the execution of public service programmes in basic, applicative and development projects and raise the human resources potential for the needs of other users from the private and the public sector.

In selecting young researchers, the Agency has been giving a greater role to research organisations since 2005. The Agency selects mentors

based on a public call for proposals. Young researchers are selected by the research organisations themselves

An important feature of the young researchers programme is that young researchers are employed full time during their postgraduate studies and are included in research work on research programmes and projects. Funding for the training of young researchers is granted for a fixed term - a maximum of four years and six months for a doctoral degree. Funding includes gross salary for the young researcher, legally prescribed contributions and direct material and non material costs of the performance of the training programme.

In 2012 the Agency selected 160 mentors and in 2011 it selected 203. The lower number of mentors approved in 2012 in comparison to 2011 is a

result of budget restrictions. The share of female mentors has increased from 22.7 percent to 25.6 percent.

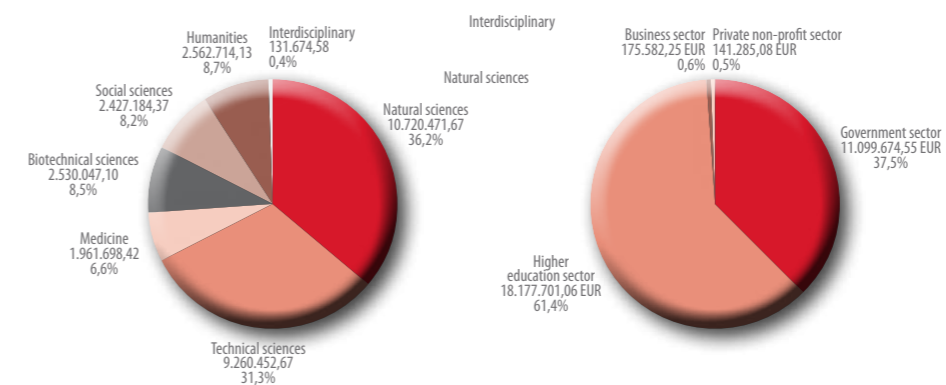
A total of 1395 young researchers have received financing in 2012, slightly over three percent less than in 2011 when 1441 were granted financing.

190 new young researchers were selected in 2012, which is less than in 2011 (239). The share of female young researchers in 2012 was 48.4 percent, slightly more than in 2011 (47.7%).

The difference between the number of mentors and young researchers is due to the fact that some young researchers who are scheduled to begin training in a certain year actually do not begin training until the following year. The issue often arises with foreigners where the acquisition of work permits often takes a lot of time.

Analytical elements

Funding for young researchers in 2012 has reduced in comparison to 2011 by about 7 percent. The average interest rate of financing sources in 2012 amounted to 29.6 million Euros, while the figure for 2011 was 31.7 million Euros. Distribution of funds among sciences and activity sectors is presented in the figures below.



² The public tender for selection of mentors to new young researchers for 2013 - tender in 2012 provided for selection of 160 mentors in the annual value of 4.8 million Euros. The public tender for selection of mentors to new young researchers for 2012 - tender in 2011 provided for selection of 200 mentors in the annual value of 6 million Euros.

³ The number of newly selected young researchers includes young researchers selected by mentors who were in turn selected at the Public Tender for the Selection of Mentors to New Young Researchers for 2012 - tender in 2011 and have begun receiving financing in 2012

Research infrastructure

*"We are aware
that we can not do everything
and that even science will not
bring us to understand everything,
yet science always strives
for improvement and we could not do
without science in medicine."*

Peter Radšelj,
medical doctor



Research infrastructure

Specific objectives

Modernize and link together research infrastructure

Indicator name	ME	Starting year	Initial value in 2010	Year 2011*	Year 2012*	Target value 2014
Annual expenditures for research infrastructure	million EUR	2010	54	44	36	60

* Agency funds

Funds from the national budget of the Republic of Slovenia, distributed by the Agency for modernization and linking of research infrastructure have in

2010 amounted to 42,395,848 Euros, in 2011 they grew to 44,146,231 Euros and in 2012 reduced to 36,378,537 Euros. Due to economy measures, the

Agency was not able to co-finance any purchases of research equipment in 2012 and funding allocated for other purposes was also somewhat reduced.

Results and their indicators

Accessibility of the latest scientific knowledge for a wide range of researchers

Indicator name	ME	Starting year	Initial value	Year 2011	Year 2012	Target value 2014
Access to foreign literature and databases in specific areas through libraries (no. of libraries that enable access)	no.	2009	70	71	73	70
Number of foreign databases accessible via the Institute of Information Sciences	no.	2009	7	9	10	7

Access to international scientific literature and databases has in 2012 remained at the level of 2011. Access to international scientific literature and databases has increased in 2011 with 73 libraries being granted access through consortium links, including purchases of printed periodicals.

The Agency co-financed access to 52 libraries with an additional 21 libraries of research organizations joining in via consortium links.

Number of foreign databases accessible via the Institute of Information Sciences (hereinafter:

IZUM) has increased to a total of 10 information packages in 2012, thus also increasing the number of database users. The increase of the share of electronic resources and greater number of included libraries has improved the access of researchers to international scientific literature and databases.



Peter Radšel

Dr. Peter Radšel is employed in the Clinical Department for Intensive Internal Medicine at the University Clinical Centre in Ljubljana. In 2012 he finished his young researcher training at the Faculty of Medicine. In his doctor's thesis he addressed treating patients with cardiovascular disease, which lead to cardiac arrest. "In the past the main problems in medicine were injuries and infections. Now we mostly deal with degenerative diseases, which are a result of the modern lifestyle and nutrition." He explains that cardiovascular disease is becoming an increasing problem with the younger population: "In the hospital we admit thirty and forty year-old patients who have suffered cardiac arrest in the field. If we help them in time, they can return to normal lives, without any consequences, and can live a quality life for decades."

With cardiac arrest, time is of the essence. The first minutes or hours are vital for the brain, which is the most sensitive to lack of oxygen. Action that can help reduce the level of brain damage soon after cardiac arrest takes place is

slight cooling of the body. With cardiac arrest what we see often is atherosclerosis, i.e. damage of veins feeding the heart. Within this scope Dr. Peter Radšel researched what kind of contraction occurs in veins, what the values of the ECG is in the forecast of coronary disease and what is the success rate of surgery on cardiac veins in case of arrest. When treating patients following cardiac arrest he finds that immediate imaging of the cardiac veins and detecting clogging or contraction, which caused the arrest, is one of the most important tests available. Despite the good prognosis of patients in such circumstances Dr. Peter Radšel warns that identifying cardiac arrest and knowing resuscitation procedures by the lay public is a key factor. "If we begin with external massage of the heart we can maintain minimal blood flow through the brains until the medic or medical team arrive, who can then reinitiate cardiac activity."

A major role in researching the efficiency of treating cardiovascular disease is played by having a sufficient number of treated patients,

which requires harmonised activity between hospitals and research centres. Establishing connections with other hospitals and researchers across the world opens new research questions, enables presentation of results in international circles, and thereby recognition of research centres and integration with international studies. Ultimately, research success is key for the purpose of integration.

"Slovenia is a relatively small country and people or groups that are prepared to work in this field are few and far between, while investments are enormous. In medicine multinational corporations are far ahead of the field, as they have enough funds for research, which improves their development and sales, respectively."

Dr. Peter Radšel is involved in the research programme Emergencies in internal medicine.

Realized expert, development and executive tasks in the field of research activities

Indicator name	ME	Starting year	Initial value	Year 2011	Year 2012	Target value 2014
Agency work programme realization percentage (by accounting principle)	%	2009	96.37	96.09	94.79	96.00

Realization of the work programme by accounting principles is always a few percent lower than planned as funding recipients do not receive all available funds (maternity leave in young researchers programme, lower number of realized travels in international bilateral cooperation programmes and suchlike). Since the 2013 budget was not adopted in time, the Agency was obliged

to observe the legal limitation of assumption of obligations to credit budgets for the coming years. Due to the legal limitation of assumption of obligations, the Agency could not initiate financing of research projects at the end of 2012. Furthermore, the Agency observed proposed assets in the 2013 budget in its assumption of obligations for 2012. Assumption of obligations for

2012, which represents the final installment of the year paid from the 2013 budget, was adapted so that the assumption of obligations would not cause excessive use of the 2013 budget, resulting in a 1.2 % smaller realization than planned. This deviation poses no threat to the achievement of superordinate objectives.

Increase of public interest in science

Indicator name	ME	Initial year 2009	Year 2011	Year 2012	Target value 2014
Number of events and audiovisual presentations for the promotion of science	no.	20	35	46	25

In 2012 the Agency continued its proactive role in the field of promotion of science and innovation in various target publics and has surpassed the target value set for 2014. By cooperating in the creation of the TV programme "Ugriznimo v znanost" (Bite into Science), produced by the national radio and television network, the Agency emphasised the promotion of scientific knowledge and work in the general public.

Further activities were directed at increasing recognizability and promotion of cooperation between fields of research in cooperation with sub-

jects of the private sector through the PRO(MO) GRAM campaign - short presentation films of the most excellent programme groups. Sixteen promotional films were published in 2011 and 2012 alike. Both series are available at the Videolectures.net portal. (<http://videolectures.net/arrs/>).

2012 also saw the continuation of the targeted research project of the Atlas of Slovenian Science, performed by the Jožef Stefan Institute. The main objective of the project is to establish a unified system for simple and open access to research and development data with the aim of promoting

new ideas, cooperation between domestic organisations and manufacturing companies, promotion of scientific research achievements in Slovenia and abroad and developing an environment of innovative and creative culture.

In order to promote science, the Agency organized a presentation of exceptional scientific achievements in 2013. The presentations will be available at the Videolectures page in 2013. Two of a total of eight events that showcased the achievements were organized in 2012.

⁴ Programming archive is available at the following link: <http://www.rtvsllo.si/odprtikop/ugriznimo-v-znanost/all/>

Infrastructural obligations and research equipment

Annual executive objectives - Infrastructural support to research activities

Measure description

To increase the rate of financing for founder's obligations in comparison to 2009. To provide researchers in public research organizations with remuneration for work-related costs and premi-

ums prescribed by the Collective Agreement for the Public Sector. To increase infrastructural support to research activities. To carry out acquisitions of research equipment of Package 14 for the

2009 to 2011 period. To carry out a public tender and the first acquisitions of research equipment of Package 15 for the 2011 to 2013 period.

Indicator name	ME	Initial value in 2010	Target value 2012	Realisation 2012
Number of units of major research equipment acquisitions	no.	20	10	0
Number of executed infrastructural programmes	no.	30	30	29
Number of public research institutions receiving funding for fixed costs of operation, costs of management and renovation of property	no.	15	15	15

Plans for 2012 included provisions for realization of purchases of research equipment, co-financed within a public tender for co-financing of purchases of research equipment (Package 15), but these provisions were dismissed with the adop-

tion of the revised budget of the Republic of Slovenia for 2012. The revision reduced funds for the budget item "research equipment" to a scale that did not allow for adoption of new obligations or execution of a public tender. In the short term,

this did not yet influence the achievement of superordinate objectives, but in the medium term, Slovenia will begin to lag behind other EU member states unless appropriate measures are adopted in the coming years.

Budget item 570410: Research equipment

Mechanism description

Research equipment provides important research and infrastructural support to research personnel in their performance of scientific research activities in research projects and programmes. For this purpose the Agency cofinances acquisitions of medium and high-value research equipment with funds from the national budget through public tenders.

In order to promote the realization of acquisitions of research equipment, the Agency has in 2008 prepared amendments to the Rules on Co-financing Acquisitions of Research Equipment, thereby

simplifying evaluation procedures and selection of research equipment for co-financing.

Pursuant to the new Rules on Procedures of (Co) financing, Assessment and Monitoring of the Performance of Research Activities, the share of co-financing of the purchase value of research equipment is set by a public tender. The public tender for co-financing acquisitions of research equipment (Package 15), published in 2011 and applying to the 2012 to 2015 period, specified, in line with the guidelines from budgetary documents of the Republic of Slovenia, that the amount of

co-financing for acquisitions of research equipment shall not exceed 80 percent of the purchase value per unit of research equipment.

After adoption of the revised budget of the Republic of Slovenia for 2012, the public tender for co-financing of purchases of research equipment (Package 15) was revoked due to reduction of funds for the budget item “research equipment” to a scope that did not allow for adoption of new obligations or execution of a public tender.

Budget item 571910: Infrastructural obligations

Mechanism description

Infrastructural obligations consist of two areas:

- founders’ obligations towards public research institutes;
- reimbursements of work related costs and other personal income.

The purpose of this item is to provide public research institutions with the basic conditions for research work, whereby the Agency uses national budget funds to cofinance costs under three items:

- investment maintenance;
- management costs and
- fixed costs of operations.

In 2012, funds for the item “Infrastructure obligations” were divided by public research organizations in accordance with applicable rules and used in accordance to plans. Total costs for founders’ obligations have increased minimally in 2012 in comparison to the previous year.

Due to a limited 2012 budget, the Agency did not consider applications of research institutions for exceptional increase of funds for founders’ obligations under Article 10.

3,415,960 Euros were used for (co)financing reimbursements of work related costs and other personal income.

Scientific publications, databases and meetings

Measure description

To carry out the most important scientific meetings. To assure access to foreign scientific litera-

ture and databases for the purposes of research activities, professional development work and

higher education studies in the Republic of Slovenia.

Indicator name	ME	Initial value 2010	Realisation 2011	Target value 2012	Realisation 2012
Number of executed scientific meetings	no.	150	92	115	113

Target value of the number of executed scientific meetings in 2012 has been realized (115 scientific

meetings were approved, three were subsequently cancelled and one was added later to the list of

co-financed meetings). Planned obligations were fulfilled and set objectives have been achieved.

General assessment of operations in 2012

"Science is related to general social trends and economic development requires that scientific research, at least some of it, leads to profit. The key role in regulating research and finance is played by the state. Science that is not financed by the state and consequently becomes dependent exclusively on capital requirements is actually shutting its eyes in the face of trouble rather than engaging in provocative research."

Renata Salecl,
philosopher, sociologist



General assessment of operations in 2012

Assessment of success in achievement of set objectives

Agency operations in 2012 can be assessed as successful. The year 2012 was the eighth year of Agency operations in which we upgraded the normative, organisational, expert and executive system for the performance of tasks in its area of operations. The Agency has carried out its planned tasks and fulfilled annual objectives by separate areas.

Occurrence of inadmissible and unexpected consequences

No such consequences occurred in the performance of Agency work programmes in the period between 1 January and 31 December 2012.

Assessment of success in comparison to 2011

The Agency has met all set objectives in 2012 and 2011. Satisfactorily achieved goals in 2012 included those bound directly to the scope of financial assets.

Assessment of efficiency

The Agency assesses that it has acted economically in its operations, both with regard to core

Agency operations and the execution of procedures for financing scientific research activities as specified in implementing regulations. All procurement was made in full accordance with the Public Procurement Act with selection of the lowest bidder without exception.

Assessment of the operation of internal financial control

The Agency has ordered financial operations and appropriate embedded internal controls. The Agency has an established system of internal control. The establishment of the internal control includes the system of financial management, the internal control system and internal auditing. The Agency has no internal auditor, so it utilizes appropriate external services.

Unfulfilled objectives

The Agency has met all set objectives with reasonable success, including those bound directly to the scope of financial assets. The scope of financing of science and research activities has in 2012 reduced by 21,867,612 Euros or 12.4 percent in comparison to the previous year. In agreement with the Ministry of Education, Science, Culture

and Sport, reductions were implemented in such a way as to create a minimal negative impact on science activities. This did, however, cause lower results on certain indicators that are linked directly to the budget, but the Agency had no power in the matter.

Assessment of the effects of operations on other areas

Through the pursuance of its mission, the Agency has an impact on the implementation of a new development paradigm which emphasizes the strengthening of the abilities of managing global knowledge and technological progress as the main source of increased labour productivity, national competitive ability and improved quality of individual and social life. Knowledge is a key factor in promoting competitiveness of the national economy while increased investments in knowledge and human development are necessary for transition to a knowledge-based society.

Other notes (personnel, replacement investments)

Personnel - organizational structure

Organizational structure of the Agency in 2012:

Management Board			
Scientific council	Director		
Permanent expert bodies	Office of Director	Finance and accounting service	Commissions
	Sector for research projects		
Temporary expert bodies	Sector for research infrastructure and international cooperation	General affairs service	
Reviewers	Sector for research programmes, young researchers and analyses	Informatics service	



Renata Salecl

Prof. Dr. Renat Salecl is a philosopher and sociologist who works as a lecturer and researcher at the Institute for Criminology at the Faculty of Law in Ljubljana. She heads the programme group "Social monitoring, criminal law system, violence and preventing victimisation in the context of high-tech society" and is a regular visiting professor at the University of London and the Yeshiva University in New York. As part of the project "Law and brains - criminology, philosophical and psychoanalytical findings on the subject in the age of neuro-science" she is currently dealing with questions of applying neuro-science in the field of criminology. In the field of delinquency studies, several theories discuss criminal characteristics in relation to heredity, gene expression or brain changes. On the subject, Dr. Renata Salecl warns that: "we often justify such research with the idea that we will be able to intervene and prevent some future criminal. In fact it is a very short step from this to a society of control and exclusion." In relation to forensic analysis she is interested in legal regulation in cases of erroneous forensic results. The second field of her general analysis is the concept of the

society of the future and the question how criminology is related to new ideological twists in society.

"Science should always be full of doubt, particularly doubt on what it has already researched."

In her scientific research, Dr. Renata Salecl also tackles the issue of social control, power, women, art, capitalism and ideology, whereby she maintains a strong bond with psychoanalysis. She warns against the danger of complete subversion of science to capital.

Dr. Renata Salecl supports gender equality. Despite the positive experience she had as a woman working in science, she highlights the issue of the double burden placed on women who work professionally, while their assigned social role is often housework and raising children. In her opinion there could be done more by politics and media to promote gender equality.

In her reflection on the state of the science she emphasises the meaning of interdisciplinary thinking and integration of natural science, social science and humanities: "We know that within the natural sciences the application of philosophical concepts is very important. Effects that science has in a certain field, for instance biological and medical research, are always related to some sort of subjective perception." With the advent of the 60th anniversary of the discovery of DNA Dr. Renata Salecl was invited to the conference on genetics at Cambridge University, which in her opinion represents a useful approach to link different branches of science.

Dr. Renata Salecl is the author of the book "Choice (Izbira)", which has been translated into twelve languages. She takes her idea further in her upcoming book "Passion for Ignorance (Strast do nevednosti)", which she recently presented as the first Slovenian at the non-profit organisation TED Global.

In 2012, the Agency employed an average of 52 public employees. Two permanent employees were on maternity leave on 2012 and were sub-

stituted by two temporary contractual public employees. At the end of 2012, employment at the agency was as follows:

Dates	No. of permanent employees	No. of temporary employees	Reason for temporary employment	Total
31 December 2012	52*	2	substitution for maternity leave - 2	54

* the number was coordinated on 1 January 2013 with the Collective Personnel Plan of Public Bodies as one employee retired on 31 December 2012. The overall number does not observe the solution of an "old error" in the Agency personnel plan in relation to employment of two persons (part-time) which should be allocated to separate employment positions in accordance with one of the prior amendments of the rules on content and procedures for drafting and submittal of personnel plans (they should be considered as two separate employments).

Investments

The Agency received 100,055 Euros from the budget for the purpose of funding investments in 2012. The Agency also funded investments with the remainder of investment funds from 2011 in the amount of 6,772 Euros and the surplus of receipts over expenditures for 2011 in the amount

of 15,504 Euros. 122,330 Euros of the 2012 funds were used in 2012 for acquisition of fixed assets. The share of funds unrealized up to 31 December 2012 is 926 Euros. A more detailed presentation by separate types is contained in the notes to financial statements.

Financing scientific research activities

Financing scientific research activities in 2012

The Agency has used funds from the national budget of the Republic of Slovenia to finance scientific research activities within aforementioned programmes in accordance to items listed in the work programme. A total of 154,583,273 Euros were received from the national budget for this purpose for the year 2012. The Agency distributed

154,583,273 Euros of the received funds for scientific research purposes for the year 2012.

To ensure correct recording of expenditures in the national budget by purpose and beneficiary, the Agency proposed the necessary reclassifications between accounts within the item to the Ministry

for Education, Science, Culture and Sport. Funds received for financing scientific research are not accounted as revenues of the Agency and are recorded in books of account under balance accounts. A more detailed presentation of financing by separate programmes is shown in the table below.

Overview of the financing of scientific research activities in 2012 by budget items

Item code	Item title	Realized 2011	Planned 2012	Realized 2012	Realisation percentage
568610	Development Projects And Infrastructure	14,340,606	11,510,000	10,637,826	92.4
569410	Programmes Of International Scientific Cooperation	630,006	410,000	389,274	94.9
570310	European Framework Programmes And International Research	1,295,531	2,180,000	1,250,103	57.3
570410	Research Equipment	5,134,925	0	0	
570610	Training And Development Of Scientific Personnel	31,690,412	32,820,000	29,634,119	90.3
571910	Infrastructural Obligations	19,638,026	19,592,000	19,060,870	97.3
572210	Scientific Publications And Meetings	400,477	380,000	368,710	97
572410	Izum And Other Library Information Activities	5,500,000	5,085,918	5,085,917	100
573210	Foreign Periodicals And Databases	4,598,889	4,200,000	4,010,000	95.5
579710	Promotion Of International Research Within The Eu	1,812,789	1,430,000	1,429,645	100
582610	Infrastructural Programmes	8,873,914	7,920,000	7,853,040	99.2
603610	Research Programmes	28,033,035	26,000,000	25,214,646	97.0
603710	Research Projects	22,961,291	22,920,000	21,784,977	95.0
603810	Excellent, Established Foreign Scientists In Slovenia	184,000	150,000	143,641	95.8
656410	Project Research Centres	30,823,712	28,500,000	27,720,503	97.3
	Total	175,917,614	163,097,918	154,583,273	94.8

The Agency has financed scientific research activities in 2012 with funds from the national budget in a timely manner in accordance with concluded agreements. The listed programming items have

provided financing for 3646 projects, programmes and tasks. Individual accounting items are explained in more detail by programming sub-items below. The Report on Financing, avail-

able at the Agency website, presents the amount of financing by separate projects, programmes and tasks.