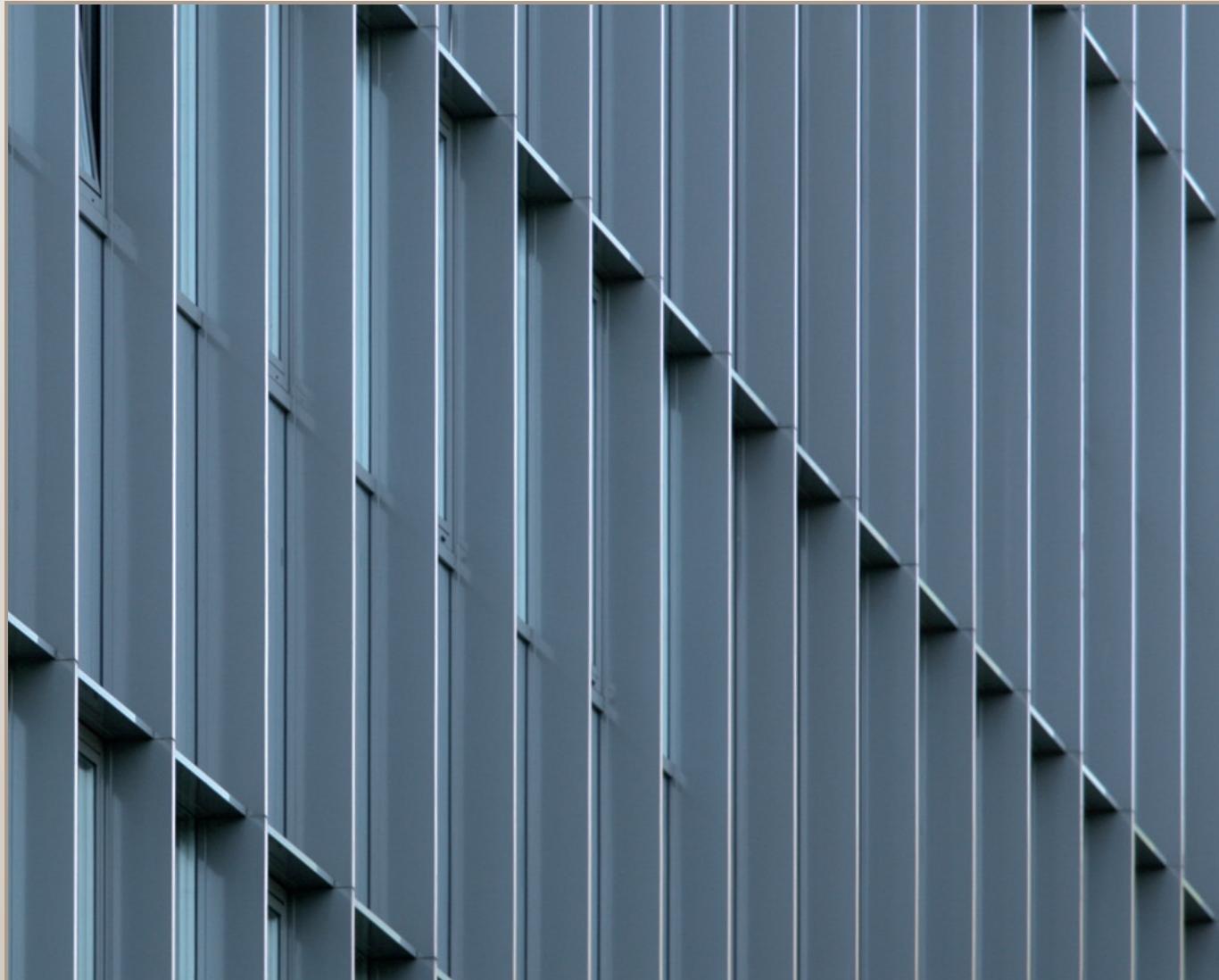


## SLOVENIAN RESEARCH AGENCY



**ANNUAL REPORT FOR THE YEAR 2011**

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SLOVENIAN RESEARCH AGENCY

Slovenian Research Agency  
**Annual Report for 2011**

Publisher: Slovenian Research Agency  
Bleiweisova cesta 30  
1000 Ljubljana

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Layout: Illumina, Ltd.  
Print: Collegium Graphicum, Ltd.  
Release Date: Ljubljana 2012  
Circulation: 150 copies

Cover Photography: Premises of the Slovenian Research Agency

<http://www.arrs.gov.si/en/annrep/11>

ISSN 1854-5750

**Annual Report**

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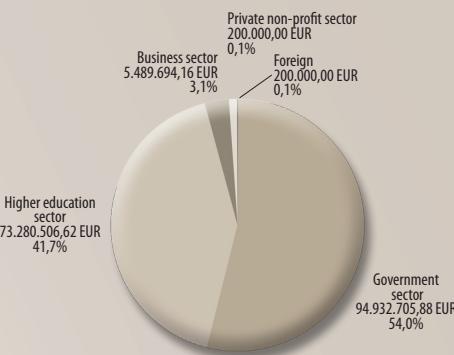


Figure 1  
Division of funds by activity sectors in Euros and shares in percentage points

The most important achievements resulting from the performance of the Slovenian Research Agency (hereinafter: Agency) tasks are:

- growth of funds gained by research organizations from international sources and users of knowledge was greater than the year before at 19 %, mostly due to growth of funds from the business sector and the EU at 20 % and 16 % respectively (data for 2010);
- relative impact factor has raised to 0.74 (data for the 2006–2010 period),
- Slovenian citations rating has improved from 13th to 12th place in the EU (data for the 2006–2010 period);
- the number of European patent applications has increased to 67 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 2010);
- the number of ERC projects co-financed in the complementary scheme has increased from 2 in 2010 to 9 in 2011. Among ESF and ESF and ERC projects, cofinanced through the complementary scheme, 75 % of the funding was received by social sciences and humanities.
- 46 % of assets for international bilateral cooperation in 2011 have been used for bilateral international cooperation with third countries. 13 % were used for cooperation with Western Balkans countries (and Turkey), 34 % of funds were used for cooperation with third countries (USA, BRIC, Japan);
- funds for additional cofinancing of programming groups – inclusion in projects of the Framework Programmes of the European Union have increased for almost 7 %;
- the number of libraries offering access to foreign literature and databases has in 2011 surpassed the target value for 2014 (71);
- funding for research equipment has increased by 6 %;
- the scope of Agency electronic operations has increased further in 2011; the Agency uses electronic operations in applying to public tenders 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 50 % and is currently between 52 % and 55 %, depending on spheres of operation;

The European Science Foundation (ESF) has in 2011 carried out an evaluation of the Agency as part of its Member Organisation Forum on Peer Review activities. ESF assessed the following areas of Agency operations:

- mission, strategy and scope of Agency operations in national and international frameworks;
- quality and efficiency of financing research activities in Slovenia (from public calls for proposals through project evaluation to financing and monitoring of results);
- quality and efficiency of information infrastructure as a support system for Agency operations;
- suitability and efficiency of Agency cooperates with regard to programme scope and tasks.

Agency operations in 2011 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.

The nominal value of scientific research activities financed through the Agency in 2011 amounted to 175,917,614.03 EUR, almost the same as last year. Division of funds by activity sectors is presented in Figure 1, division by scientific disciplines is presented in Figure 2.

The Agency received a positive grade in all evaluated segments. The report of the assessment panel, consisting of six presidents and directors of the most renowned European agencies involved in financing research activities, noted that the Agency has since its inception in 2004 established itself as an efficient and modern agency, comparable to well established agencies involved in financing research activities with a much more extensive tradition. The ESF report is available at the Agency website<sup>1</sup>.

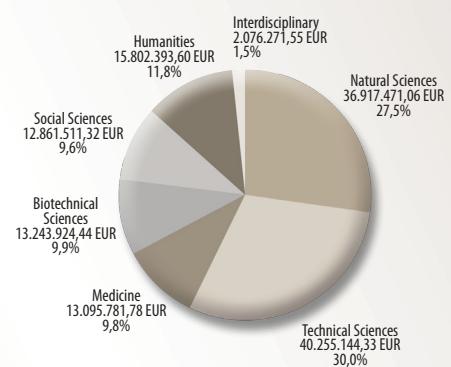


Figure 2  
Shares of funds by scientific disciplines in percentage points.  
Funds which cannot be classified by scientific disciplines include funding for founders' obligations, infrastructural programs and similar. The share of unclassifiable funds is 23,7 %.

<sup>1</sup> <http://www.arrs.gov.si/sl/analize/publ/inc/ESH-OrgEvalRepSRA-Dec2011.pdf>

**GENERAL DATA**

Agency performs expert, developmental and executive tasks related to the performance of the National Research and Development Plan 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 programs 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,
- 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 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. 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 and transfer of new knowledge and cognition into the public domain and economic use for the increase of social welfare;
- 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 interest:

- decides on the selection of research and infrastructure programs which represent a public service in the field of research, and provides financing;
- assures the execution of the young researchers programme and other programs and projects the Agency is tasked with in accordance with the National Research and Development Programme 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 research programs 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 National Research and Development Program;
- 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 programs, 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 programs, 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 programs;
- execution of research projects;
- execution of the young researcher programme and the "Science to Youth" program;
- execution of the programme of research infrastructure;
- execution of the "Excellent Foreign Prominent scientists in Slovenia" program;
- execution of founders' obligations;
- execution of the programme of information-communication systems;
- 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 programs 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; and
- 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 LONGTERM 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 program, 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:

- to increase international recognizability and competitiveness of Slovenian science at a European and global level;
- to increase the share of researchers in the active working population 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 program, the Agency cofinances applicative research projects and interdisciplinary targeted research programs. 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

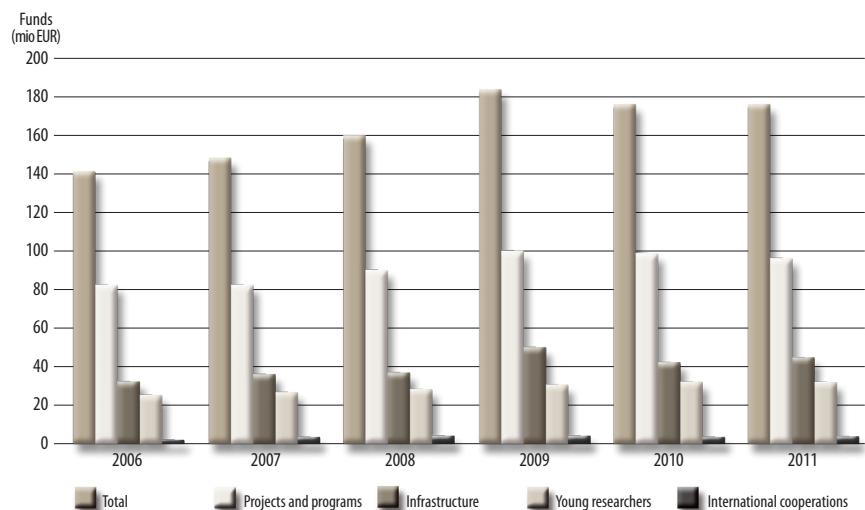


### GENERAL LONG TERM OBJECTIVES IN THE FIELD OF SCIENTIFIC RESEARCH ACTIVITIES

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 investments 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 2011



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

Funds for research programs and projects have remained almost unchanged in comparison to last year. Realization amounted to 175,917,614.03 Euros. The trend of growth, observed in previous years, has

stopped. The difference in structure with regard to previous years is seen in projects and programs and infrastructure, where the difference amounts to approximately 2 million Euros.

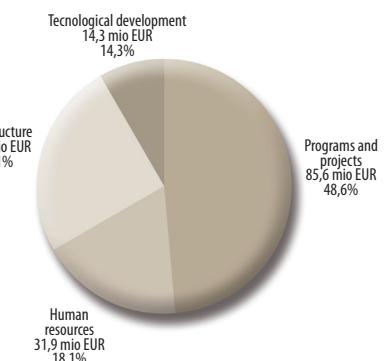
#### b) Scope of Agency funds by subprograms, activities and measures in 2011

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

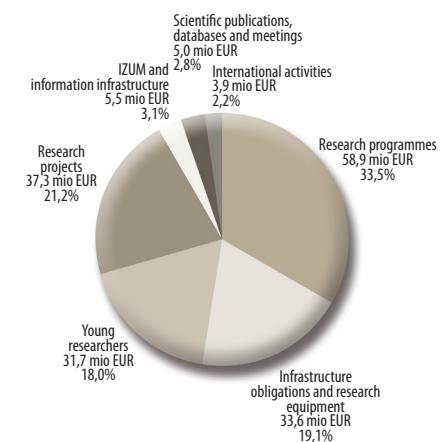
The majority of Agency funds are distributed for programs and projects. The subprogramme dedicated to technological development includes funding for applicative projects and targeted research programs. The structure by activities is identical to the structure by

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 programs (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.



**Figure 4**  
Structure of Agency funds by subprograms in the year 2011 in million Euros and shares in percentage points



**Figure 5**  
Structure of Agency funds by measures in the year 2011 in million Euros and shares in percentage points. Measures are ordered by scope of funds

RESEARCH PROGRAMS  
AND PROJECTS



Greenhouse at the Botanical Gardens of the University of Ljubljana,  
in 2010 celebrating its 200<sup>th</sup> anniversary

**SPECIFIC FOUR YEAR OBJECTIVES**

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

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

Unit	Starting value in 2009	Year 2011	Target value 2014
%	0.67*	0.74**	0.72

\* Period 2004-2008 \*\* Period 2006-2010

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 relative impact factor is calculated on the basis of publications and citations in the Web of Science international bibliographical database. 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	Unit	Starting year	Baseline value	Year 2011	Target year	Target value
Citations: to achieve 10 <sup>th</sup> place in terms of citation among EU states (number of citations per million inhabitants)	placement	2009	13*	12**	2014	10
Number of highly cited publications per million inhabitants - to achieve 70 highly cited publications per million inhabitants by 2014	no.	2009	62#	76##	2014	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	2014	48,0
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	14,0	2014	15,0
Increase share of funds for postdoctoral projects to 15 % of all research project funds by 2014	%	2009	10,2	8,6	2014	15,0

\* Period 2004-2008, \*\* Period 2006-2010, # Period 1998-2008, ## Period 2000-2010

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

Indicator	Unit	Starting year	Baseline value	Year 2011	Target year	Target value
Number of patent applications	no. per million inhabitants	2009	59	67*	2014	75

\* Last available data is for 2010

The dynamic of the number of patent applications shows that the objective will most likely be reached in the coming years.

As mentioned before, Slovenia has in the past shown an above-average growth of the number of citations. Consequentially the placement has improved by one place. Considering current positive trends, we can expect further improvements in the coming years.

As above for the relative impact factor, similar applies 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.

The share of funds intended for the higher education sector has been high in 2009 also due to a one-time transfer for infrastructure programs 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. No such transfers were made in the following years, so the share of funds for the higher education sector is smaller.

In the Public call for proposals for cofinancing of research projects for the year 2011 (call in 2010), the Agency has dedicated a large share of funds to financing postdoctoral projects. The share of postdoctoral projects in all the approved projects has been 18 percent. However, the increased share is not yet evident in realized financing for postdoctoral projects in 2011. The public call for proposals also placed special emphasis on projects lead by younger Doctors of Science (a maximum of 7 years following the defence of their doctorate). By this indicator the target value has practically been achieved.

**AGENCY OPERATIONS**

The Agency has continued with the introduction of information solutions for electronic operations: the number of public calls for proposals, public calls and reports with the option of submitting solely electronic applications has increased and the publication of all relevant indicators of financing science and research activities for current years is continuing and expanding. 23 public calls for proposals and public calls with the option of electronic submittal of applications were published in 2011. The Agency received 2980 applications for those calls for proposals and public calls, 53,2 percent of which were submitted exclusively in electronic form, meaning that they were signed using a qualified digital certificate. The Agency received 884 applications for annual and final reports, 55,5 percent of which were signed using a qualified digital certificate. Agency operations and financing of activities has also been supplemented with information solutions for electronic operation. The Agency has received 10238 applications and forms, 52,3 percent of which were submitted exclusively in electronic form or signed using a qualified digital certificate.

For the purpose of assuring accessibility and comparability, the Agency has published information on the financing of science and research activities from 1954 onwards in electronic form at its website.

The European Science Foundation (ESF) has in 2011 carried out an evaluation of the Agency as part of its Member Organisation Forum on Peer Review activities. The Agency received a positive grade in all evaluated segments. The ESF report is available at the Agency website.

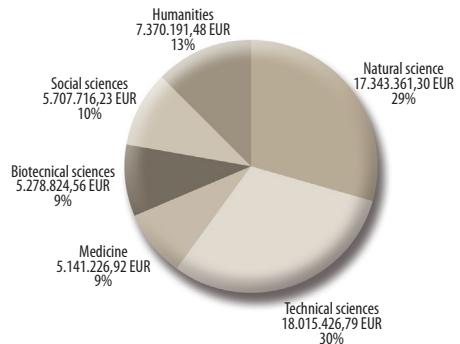


Figure 6  
Scope of financed research programs by scientific disciplines in Euros and shares in percentage points

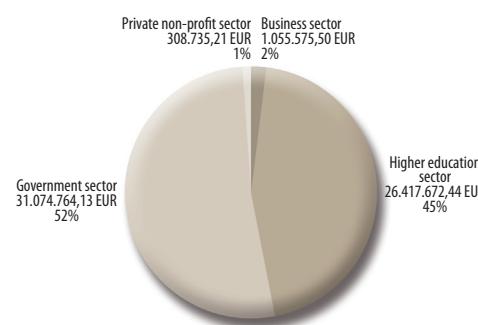


Figure 7  
Scope of financed research programs by activity sectors in Euros and shares in percentage points

## RESEARCH PROGRAMS

### BUDGET ITEMS 6036 AND 6564: RESEARCH PROGRAMS AND PROJECT RESEARCH CENTRES

#### MECHANISM DESCRIPTION

The Agency finances public service in the field of research activities using public budget funding. Research programs 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 58,856,747.28 Euros in 2011. The structure of the use of funds by scientific disciplines and activity sectors is shown in figures below.

Programs were selected on the basis of a new methodology for the assessment of research programs, 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.

In 2009, the Agency has begun executing 288 research programs for the second programming period (3 do 6 years) after having completed research programs of the 2004–2008 period.

No new public calls for proposals for research programs have been published in 2011. The annual scope of research programs has remained unchanged.

## RESEARCH PROJECTS

#### MEASURE DESCRIPTION:

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

Indicator	Unit	Starting year	Baseline value	Target year	Target value	Realis. 2011
Number of projects with Slovenian participation within the ESF EUROCORES and ECRP schemes	no.	2010	3	2011	13	13

The European Science Foundation was reformed in 2011 and will not carry out calls for proposals within the EUROCORES and ECRP schemes. The number of projects with Slovenian participation within the ESF EUROCORES and ECRP schemes includes projects the Agency cofinances with national budget funds as part of the so-called complementary scheme. Two such projects were cofinanced in 2010 and a further 10 in 2011. Nine projects, cofinanced in the complementary scheme in 2011, received a positive grade in interna-

tional review, but were not selected for cofinancing at public calls of the European Research Council (most are applications for the so called Advanced Grant call). Another exciting development beside the exceptional increase in the number of Slovenian applications for ERC projects is the fact that the first Slovenian project was selected for financing in 2011 (doc. dr. Nedeljka Žagar, Faculty of Mathematics and Physics of the University of Ljubljana, Department of physics).

## SUPPORT TO TECHNOLOGICAL DEVELOPMENT PROJECTS

#### SPECIFIC OBJECTIVES

- Increasing the impact of R&D in all areas of the domestic environment (public and private sectors)

Indicator	Unit	Starting year	Baseline value	Year 2011	Target year	Target value
Share of Agency funds for applicative projects out of total Agency research project funds	%	2009	39.1	39.2	2014	55.0
Share of funds from the business sector (in % of common funds of public research organisations)	%	2009	12.0	12.3*	2014	15.0

\* Last available data is for 2010

The share of funds for applicative projects in comparison with previous years has not changed in 2011. The Agency has only slightly modified the minimal shares of applicative projects in its public call of 2011. As the procedures of project selection will be completed in 2012, the influence of these changes will only become evident in the coming years.

The share of funds from the business sector in common funds has increased slightly in comparison to previous years, but not enough to be certain in the achievement of the objective. The economic crisis is most likely having an effect on the development of events, so the following years will depend heavily on the state of events in the economy and particularly on the investments of companies into research and development being pursued in cooperation with research organizations of the public sector.

#### RESULTS AND THEIR INDICATORS

- An improved system of developing and monitoring public policies

Indicator	Unit	Starting year	Baseline value	Year 2011	Target year	Target value
Number of different users of target research programs	no.	2009	20	24	2014	20

In 2011 there were 24 users of targeted research programs, which is above the target value.

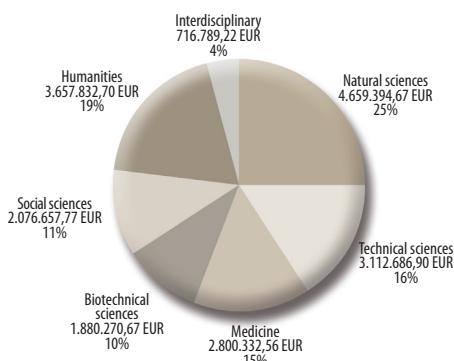


Figure 8  
Scope of financed basic research projects by scientific disciplines in Euros and shares in percentage points

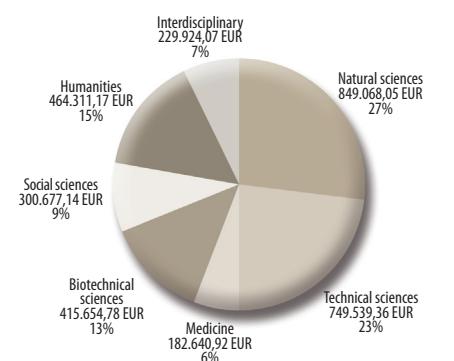


Figure 9  
Scope of financed postdoctoral projects by scientific disciplines in Euros and shares in percentage points

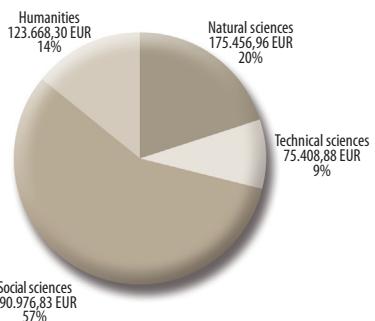


Figure 10  
Scope of financed ESF (and ERC) projects by scientific disciplines in Euros and shares in percentage points

## BUDGET ITEM 6037: RESEARCH PROJECTS

### MECHANISM DESCRIPTION

EUROCORES and ECRP programs of the ESF, but were not selected for cofinancing).

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 receiving their doctorate.

### ANALYTICAL ELEMENTS

#### a. Basic research projects

In 2010 the Agency has used national budget funds to cofinance a total of 441 basic research projects in a total value of 18,903,964.49 Euros, noting a 2,324,602.99 Euro increase over the year 2010.

#### b. Postdoctoral research projects

- 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

### MECHANISM DESCRIPTION

This item is used to cofinance applicative research project and targeted research programs. 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 programs, 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. Targeted research programs are created, executed and financed in cooperation with various ministries and other interested budgetary users.

### ANALYTICAL ELEMENTS

#### a. Targeted research programs

In 2011, 2,690,095.00 Euros have been used for the cofinancing of targeted research programs »Competitiveness of Slovenia 2006–2013« and »Assure safe food for tomorrow«. The structure of the use of funds by scientific disciplines and activity sectors is shown in figures below.

#### b. Applicative research projects

In 2011, 11,650,511.37 Euros have been used for the cofinancing of applicative projects. The structure of the use of funds by scientific disciplines and activity sectors is shown in figures below.

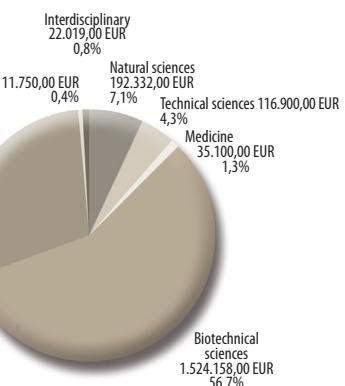


Figure 11  
Scope of funds for targeted research programs in 2011 by scientific disciplines in Euros and shares in percentage points

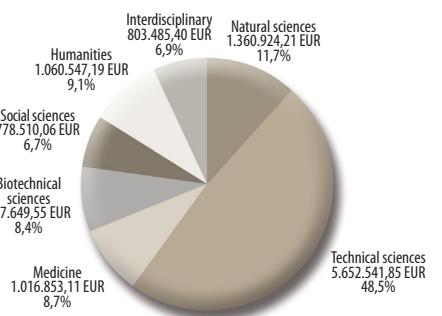


Figure 12  
Scope of financed applicative research projects in 2011 by scientific disciplines in Euros and shares in percentage points

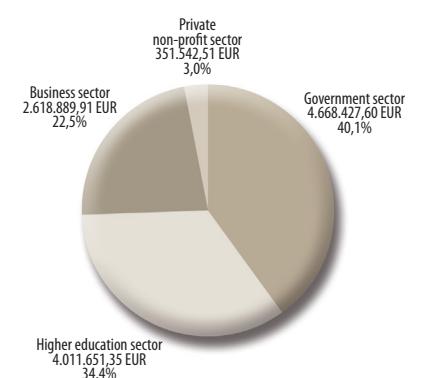
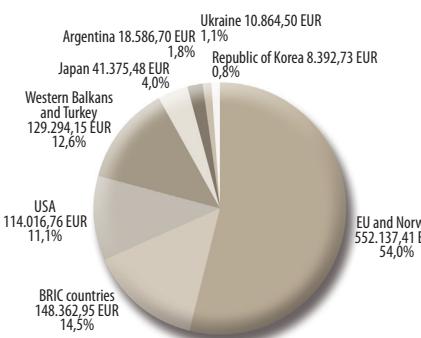


Figure 13  
Scope of financed applicative research projects in 2011 by activity sectors in Euros and shares in percentage points



**Figure 14**  
Scope of funds for international bilateral scientific research projects with regard to geographic location and amount of funds in 2011 in Euros and shares in percentage points

## INTERNATIONAL ACTIVITIES IN THE FIELD OF SCIENCE

### BUDGET ITEM 5703: EUROPEAN FRAMEWORK PROGRAMS 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.

#### c) International projects - 7th European Union Framework Program

The programme and cofinancing from the budget item for this programme encompass the following activities:

- a) CEA, cooperation in the European Union area

The scope of funds for cooperation in the CEA (French Alternative Energies and Atomic Energy Commission) area has reduced in 2011 (294,000.00 Euros, index 7.50), but it has remained well above the 2009 level (index 140.0).

#### b) International projects - bilateral cooperation

In 2011, 17 bilateral public calls have been carried out in cooperation with 16 countries. 510 projects with 31 countries have been cofinanced with national budget funds. The Agency has used 729,030.68 Euros (without CEA) of national budget funds for cofinancing projects of bilateral international cooperation.

The Public Tender for Applications for Cooperation of Slovenian Researchers in the Materials World Network (MWN) was carried out for the second time in 2011 together with the National Science Foundation (NSF)<sup>2</sup>. The year also marked the second time the Agency cooperated in the SCIEX programme of scientific exchange which is carried out as part of the Convention on Scholarship Fund, made with the Swiss Federal

The public call shall remain open until applications for the EURATOM programme or the 7th European Union Framework Programme are closed in 2011 and 2013 respectively.

The Agency has dedicated 272,500.00 Euros from national budget funds for cofinancing financial contributions towards the costs of applications for projects in the 7th European Union Framework Programme and the EURATOM programme.

<sup>2</sup> The public call received six applications for Slovenian sections of common Slovenian-American projects. NSF has informed us they received six applications of American sections of the same projects, but only two were accepted for assessment. The remaining four were discarded for formal reasons. Pursuant to tender conditions, the Agency may only review applications which are formally appropriate in both the Slovenian and American sections, so only two applications were sent in for review.

## BUDGET ITEM 5797: PROMOTION OF INTERNATIONAL COOPERATION WITHIN THE EUROPEAN UNION

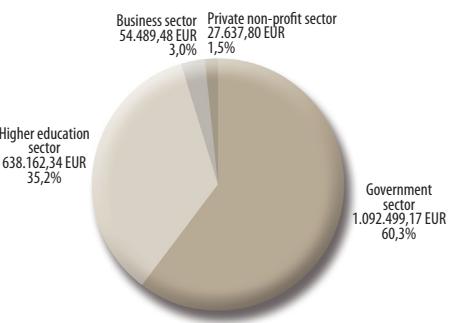
#### MECHANISM DESCRIPTION

In 2011 the Agency continued to implement the instrument for research and programme groups participating in projects of European Union Framework Programs adopted in 2007.

In March of 2011, the Agency called all research organisations implementing research programs to submit data on the inclusion of programme group members in running projects of EU framework programmes. In 2011 the scope of funds for additional cofinancing of

research programs due to their inclusion in EU framework programmes increased with the index of 106.8 (1,812,788.79 Euros in 2011).

The foremost receiver of funds is the Jožef Stefan Institute, followed by the University of Ljubljana and the University of Maribor. These research organizations together received 81.8 percent of funds. The greatest shares of funds were received in the government sector and the higher education sector - a common total of 95.5 percent of funds.



**Figure 15**  
Additional cofinancing of research programs - inclusion in projects of the EU framework programmes by activity sectors in Euros and shares in percentage points

HUMAN RESOURCES  
SUPPORTING SCIENCE,  
HIGHER EDUCATION AND  
TECHNOLOGICAL DEVELOPMENT



*Grand reading room at the National and University Library,  
work of renowned Slovenian architect, Jože Plečnik*

## SPECIFIC OBJECTIVES

Increasing the share of researchers in the active working population

Indicator	Unit	Starting year	Baseline value	Year 2011*	Target year	Target value
Share of researchers in active working population in the Republic of Slovenia	%	2008	1,11	1,11	2014	1,25
Number of researchers	no.	2008	10.124	10.444	2014	12.000
Share of women among researchers	%	2008	35,0	35,7	2014	38,00

\* Last available data for 2009, source: Statistical Office of the Republic of Slovenia

The share of researchers in the active working population in the Republic of Slovenia has in 2009, the latest year with available data, remained at the same level as in 2008. The number of researchers has increased with

an index of 103.2, 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 0.7 percent.

## RESULTS AND THEIR INDICATORS

- Greater share of researchers in the higher education and business sectors

Indicator	Unit	Starting year	Baseline value	Year 2011*	Target year	Target value
Share of researchers in active working population in RS - higher education sector	%	2008	0,42	0,45	2014	0,50
Share of researchers in active working population in RS - government sector	%	2008	0,25	0,26	2014	0,25
Share of researchers in active working population in RS - business sector	%	2008	0,35	0,40	2014	0,45

\* Last available data for 2009, source: Statistical Office of the Republic of Slovenia

In 2009 (latest available data), the share of researchers among the entire active working population of the Republic of Slovenia has increased in all the monitored sectors, in higher education, government and business.

While the share of researchers among the active working population in the government sector has already surpassed the target value for 2014, the remaining two sectors appear to reach the target value by 2014.

## BUDGET ITEM 5706: 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 education organizations, increase the research capacity of groups involved in the implementation of public service through research programmes, basic, applicative and development projects and raise the human resources potential complementing 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 to young researchers based on a public call. 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 involved in research work of 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 training programme.

The Agency selected 201 mentors in 2011 and 251 mentors in 2010. The lower number of mentors approved in 2011 in comparison to 2010 is a result of budget restrictions<sup>3</sup>. The share of female mentors has reduced from 26.0 percent to 22.7 percent. A total of 1441 young researchers have received financing in 2011, slightly over one percent more than in 2010 when 1425 were granted financing.

239 new young researchers were selected in 2011<sup>4</sup>, slightly less than in 2010 (258). The share of female young researchers has remained at the same level at 47.7 percent.

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 is often very time consuming.

### ANALYTICAL ELEMENTS

Funding for young researchers in 2011 has remained the same as it was in 2010 at 31.7 million Euros. Distribution of funds among scientific disciplines and activity sectors is presented in the figures below.

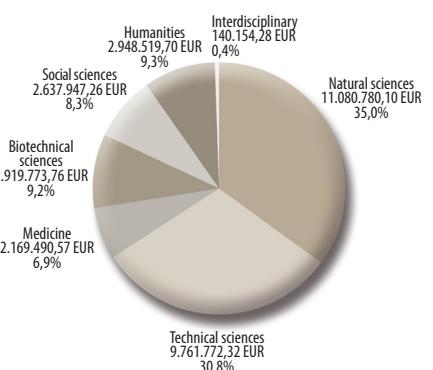


Figure 16  
Distribution of funds for young researchers in 2011 by scientific disciplines in Euros and shares in percentage points

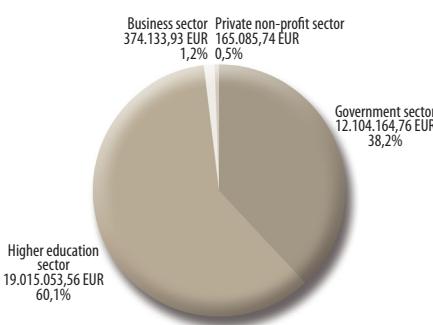
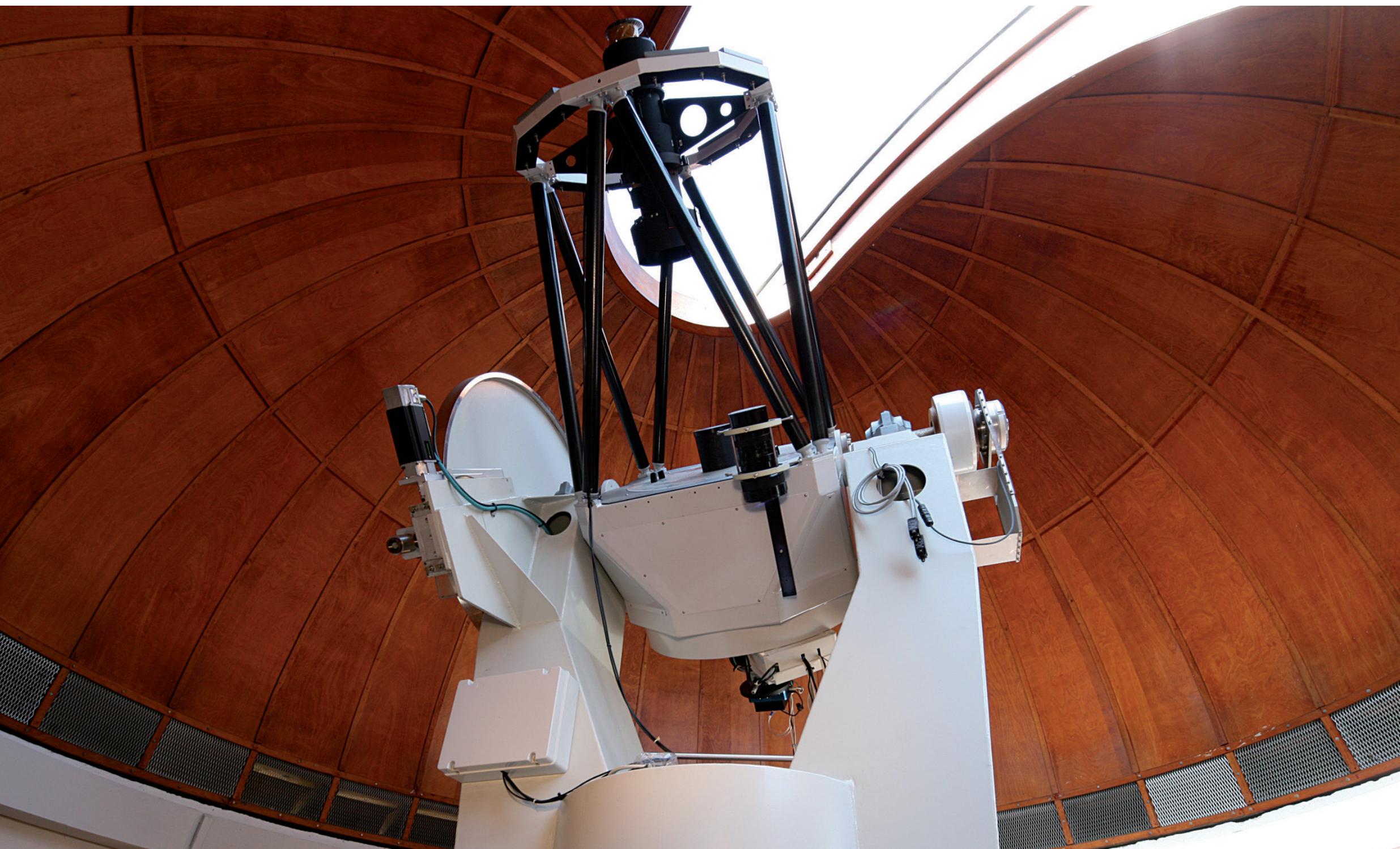


Figure 17  
Distribution of funds for young researchers in 2011 by activity sectors in Euros and shares in percentage points

<sup>3</sup> The Public call for selection of mentors to new young researchers for 2012 - call in 2011 provided for selection of 200 mentors in the annual value of 6 million Euros. The public call for selection of mentors to new young researchers for 2011 - call in 2010 provided for selection of 250 mentors in the annual value of 8.3 million Euros.

<sup>4</sup> The number of newly selected young researchers includes young researchers selected by mentors who were in turn selected at the Public call for the selection of mentors to new young researchers for 2012 - call in 2011 and have begun receiving financing in 2011 or young researchers selected by mentors who were in turn selected at the Public call for the selection of mentors to new young researchers for 2011 - call in 2010 and have begun receiving financing in 2011.

RESEARCH INFRASTRUCTURE



Vega Telescope at the Astronomical and Geophysical Observatory,  
Golovec, Ljubljana, founded in 1959

**SPECIFIC OBJECTIVES**

- To modernize and link together research infrastructure

Indicator	Unit	Starting year	Baseline value	Year 2011*	Target year	Target value
Annual expenditures for research infrastructure	million EUR	2010	54	44	2014	60

\* Agency funds

Funds distributed by the Agency for modernization and connecting research infrastructure in 2010 reached 42,395,848.26 Euros and were increased further to 42,395,848.26 in 2011.

**RESULTS AND THEIR INDICATORS**

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

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

Access to international scientific literature and databases has increased in 2011 with 71 libraries being granted access through consortium links. Despite 57 libraries receiving funding in 2011, the number of libraries with access to information sources has in-

creased. The number of foreign databases accessible via the Institute of Information Sciences (hereinafter: IZUM) has increased by two databases in 2011, causing a further increase in the number of database users.

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

Indicator	Unit	Starting year	Baseline value	Year 2011	Target year	Target value
Agency work programme realization percentage (by accounting principle)	%	2009	96,37	96,09	2014	96,00

The Agency has reached its objective in 2011.

- Increase of public interest in science

Indicator	Unit	Starting year	Baseline value	Year 2011	Target year	Target value
Number of events and audiovisual presentations for the promotion of science	no.	2009	20	35	2014	25

In 2011 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 2011. Agency support for the television show Lets bite into science, produced by the national television station Radiotelevizija Slovenija<sup>5</sup>, 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 subjects of the private sector through the PRO(MO)GRAM campaign - short presentation films of the most excellent programme groups.

Both the PRO(MO)GRAM and Lets bite into science videos are available at the Videolectures.net portal (<http://videolectures.net/arrs/>).

2011 also saw the continuation of the targeted research project of the Atlas of Slovenian Science, performed by the Jozef Stefan Institute. The main objective of the project is to establish a unified system for simple and one-stop-shop 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.

<sup>5</sup> Programming archive is available at the following link:  
[http://www.rtvslo.si/spored/modload.php?&c\\_mod=rtvoddaje&op=web&func=read&c\\_id=25554](http://www.rtvslo.si/spored/modload.php?&c_mod=rtvoddaje&op=web&func=read&c_id=25554).

## INFRASTRUCTURAL OBLIGATIONS AND RESEARCH EQUIPMENT

### ANNUAL EXECUTIVE OBJECTIVES - INFRASTRUCTURAL SUPPORT TO RESEARCH ACTIVITIES

#### MEASURE DESCRIPTION

To increase the rate of financing for founders' obligations in comparison to 2009. To provide researchers in public research institutes with remuneration for work-related costs and premiums 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 call for proposals and the first acquisitions of research equipment of Package 15 for the 2011 to 2013 period.

Indicator	Unit	Starting year	Baseline value	Target year	Target value	Realis. 2011
Number of units of high-value research equipment acquisitions	no.	2010	20	2011	20	29
Number of executed infrastructural programs	no.	2010	30	2011	30	29
Number of public research institutions receiving funding for fixed costs of operation, costs of management and renovation of property	no.	2010	15	2011	15	15

Package 14 was completed in 2011 and it is usual for the realization of equipment acquisitions to be greatest in the final year of the tendering period. The public call

for proposals for Package 15 was published in 2011, but there has not been any realization in the framework of this package yet.

### BUDGET ITEM 5704: 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 calls for proposals. Pursuant to the new Rules on Procedures of (Co)financing, Assessment and Monitoring of the Performance of Research Activities, the share of cofinancing of the purchase value of research equipment is set by a public call for proposals. The public call for proposals for cofinancing 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 cofinancing for acquisitions of research equipment shall not exceed 80 percent of the purchase value per unit of research equipment.

In order to promote the realization of acquisitions of research equipment, the Agency has in 2008 prepared amendments to the Rules on Cofinancing Acquisitions of Research Equipment, thereby simplifying evaluation procedures and selection of research equipment for cofinancing.

In 2011, cofinancing for purchases of research equipment amounted to 5,134,924.61 Euros.

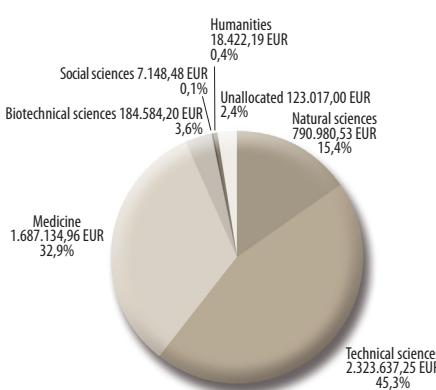


Figure 18  
Financing of research equipment by scientific disciplines in 2011 in Euros and shares in percentage points

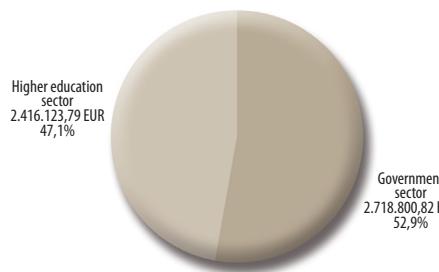


Figure 19  
Financing of research equipment by activity sectors in 2011 in Euros and shares in percentage points

### BUDGET ITEM 5719: INFRASTRUCTURAL OBLIGATIONS

#### MECHANISM DESCRIPTION

Infrastructural obligations consist of two areas:

- founders' obligations towards public research institutes;
- work related reimbursements and premiums of collective supplementary pension insurance.

Total costs for founders' obligations have increased minimally in 2011 in comparison to the previous year.

3,940,841.45 Euros were used for (co)financing reimbursements of work related costs and other personal income costs.

The Agency has in 2011 used national budget funds to finance founders' obligations in the amount of 15,697,184.68 Euros. All the funds allocated for founders' obligations were received by the government sector.

### SCIENTIFIC PUBLICATIONS, DATABASES AND MEETINGS

#### MEASURE DESCRIPTION:

To carry out the most important scientific meetings. To assure access to foreign scientific literature and databases for the purposes of research activities, profes-

sional development work and higher education studies in the Republic of Slovenia.

Indicator	Unit	Starting year	Baseline value	Target year	> Target value	Realis. 2011
Number of held scientific meetings	no.	2010	150	2011	90	92

Target value of the number of scientific meetings held in 2011 has been realized. Planned obligations were

fulfilled and set objectives have been achieved.

GENERAL ASSESSMENT OF  
OPERATIONS IN 2011



*Stairway and ceiling decoration by Slovenian painters J. in J. Šubic at the Slovenian Museum of Natural History, 1821*

## ASSESSMENT OF THE ACHIEVEMENT OF OBJECTIVES

Agency operations in 2011 can be assessed as successful. The year 2011 was the seventh year of Agency operations in which we further 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 programs in the period between 1 January and 31 December 2011.

## ASSESSMENT OF SUCCESS IN COMPARISON TO 2010

The Agency has met all set objectives in 2011 and 2010.

## 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 fulfilled all its set objectives.

## 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

Management Board			
Scientific council	Director		
Permanent expert bodies	Research projects	Finance and accounting	Commissions
Temporary expert bodies	Research infrastructure	General affairs	
Reviewers	Research programs and young researchers	Informatics	
	Analyses		
	International cooperation		

Organizational structure of the Agency

Staff at the Agency has been coordinated with the Collective Personnel Plan of Legal Persons of Public Law.

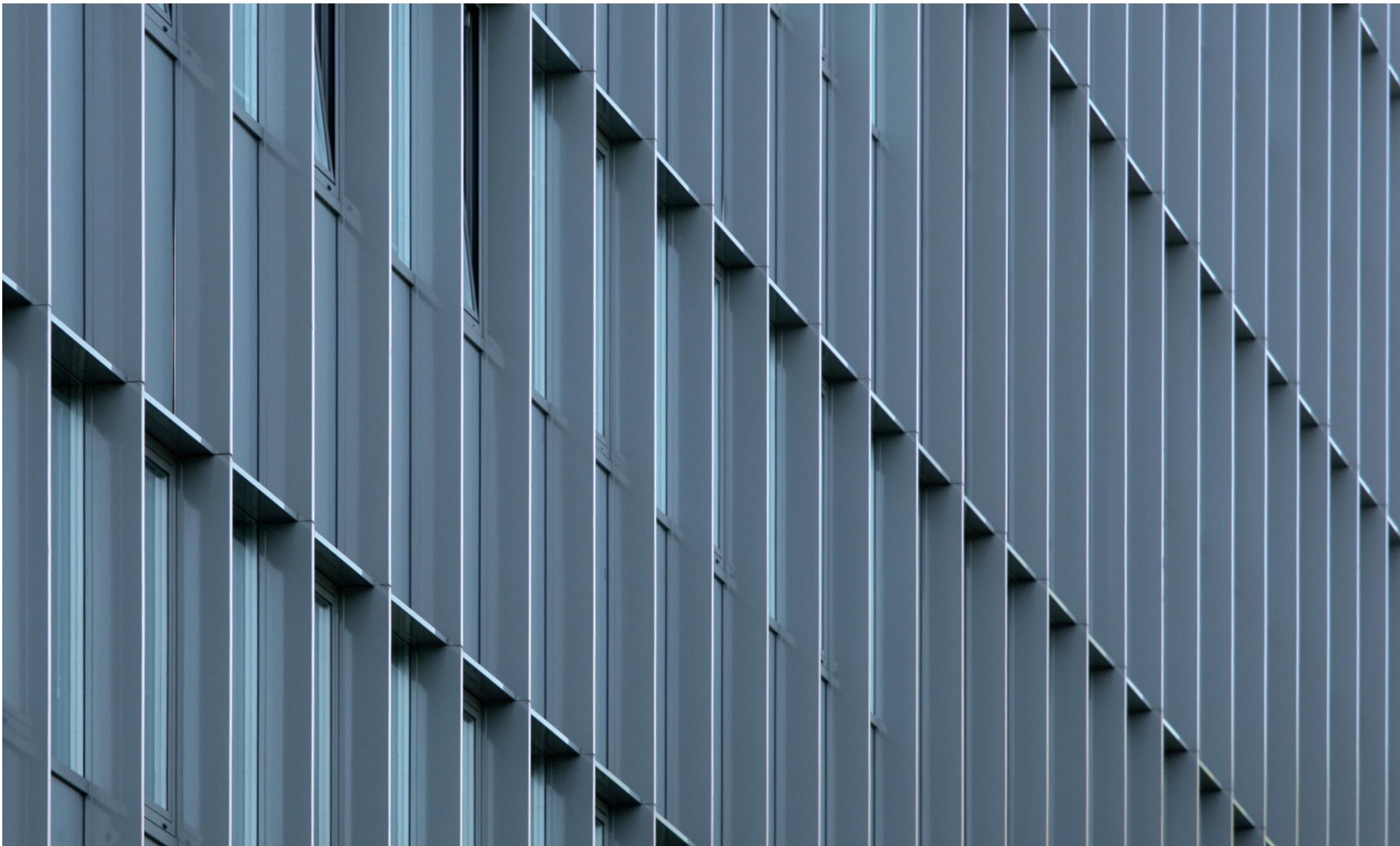
No. of permanent employees	No. of fixed term employees	Reason for fixed term employment	Total
			substitution-maternity leave - 2
52	2	substitution-maternity leave - 2	54

The education structure of personnel (permanent and fixed-term) in 2011 has been as follows:

- doctor of science	5	The Agency received 102,527 Euros from the budget for the purpose of funding investments in 2011. The Agency also funded investments with the remainder of investment funds from 2010 in the amount of 21,102 Euros and the surplus of receipts over expenditures for 2010 in the amount of 10,000 Euros. 125,088 Euros of the 2011 funds were used in 2011 for acquisition of fixed assets. The share of funds unrealized up to 31 December 2011 is 8,541 Euros.
- specialization, master's degree in science	3	
- higher education	37	
- post-secondary education	1	
- secondary school	9	

The Agency is experiencing a shortage of personnel in its operations. The issue was also emphasised by ESF in its evaluation of Agency operations where it establishes that we are among the three most burdened agencies in Europe.

**FINANCING  
SCIENTIFIC  
RESEARCH ACTIVITIES**



*Premises of the Slovenian Research Agency*

## FINANCING SCIENTIFIC RESEARCH ACTIVITIES IN 2011

The Agency has used funds from the national budget of the Republic of Slovenia to finance scientific research activities within aforementioned programs in accordance to items listed in the work programme. A total of 175,917,614.03 Euros were received from the national budget for this purpose for the year 2011. The Agency distributed 175,917,614.03 Euros of the received funds for scientific research purposes for the year 2011.

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 Higher Education, Science and Technology. 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 programs is shown in the table below.

Table 6: Overview of the financing of scientific research activities in 2011 by budget items

Item code	Item title/subitems	Realisation 2010	Financial plan 2011	Realisation 2011	Realisation percentage
5686	Development projects and infrastructure	14.185.241	14.500.000	14.340.606	98,9
5694	Programs of international scientific cooperation	304.320	675.000	630.006	93,3
5703	European Framework Programs and international research	1.360.044	2.770.000	1.295.531	46,8
5704	Research equipment	4.846.273	6.022.815	5.134.925	85,3
5706	Training and development of scientific personnel	31.728.448	33.225.594	31.690.412	95,4
5719	Infrastructural obligations	19.521.857	19.640.645	19.638.026	100,0
5722	Scientific publications and meetings	519.547	436.987	400.477	91,6
5724	IZUM and other library information activities	5.040.717	5.500.000	5.500.000	100,0
5728	Information and communication infrastructure	310.172	0	0	"/"
5732	Foreign literature and databases	4.242.175	4.600.000	4.598.889	100,0
5797	Promotion of international research within the EU	1.698.162	1.900.000	1.812.789	95,4
5826	Infrastructural programmes	7.915.107	8.982.132	8.873.914	98,8
6036	Research programmes	28.033.305	28.614.935	28.033.035	98,0
6037	Research projects	25.342.152	25.638.014	22.961.291	89,6
6038	Excellent prominent foreign scientists in Slovenia	115.000	184.963	184.000	99,5
6564	Project research centres	30.881.220	31.212.343	30.823.712	98,8
<b>Total:</b>		<b>176.043.741</b>	<b>183.903.428</b>	<b>175.917.614</b>	<b>95,7</b>

The Agency has financed scientific research activities in 2011 with funds from the national budget in a timely manner in accordance with concluded agreements. The listed programming items have provided financing for 4,029 projects, programmes and tasks. The Report on

Financing, available at the Agency website (<http://www.arrs.gov.si/sl/finan/letpor/Report/fin-por.aspx?Leto=2011>), presents the amount of financing by separate projects, programmes and tasks.



SLOVENIAN RESEARCH AGENCY