

COUNTRY REPORT

Social Sciences and Humanities in SLOVENIA

2010 Report

European Commission DG-Research



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a news service;

annual monitoring reports for all countries covered;

an annual synthesis report bringing together key points;

links to relevant reports and websites

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1. Country Overview

1.1 Overview of SSH System

1.1.1 Brief Description of the structure of the SSH research system

The level of research and development (R&D) investment in Slovenia has been approximately 1.5% of Gross Domestic Product (GDP) for the last several years. The figure for 2006 is 1.59% and 1.53% for 2007 according to the Statistical Office of the Republic of Slovenia. The share of social sciences and humanities is relatively stable - around 10% of total GERD (in 2007 9.5%). Most of the resources for SSH research come from the government; for example, in 2007 only 3% of R&D funding for SSH was provided by the business sector and 28% from HEI - the rest was government funding. The split between social sciences and humanities is approximately 60:40.

Slovenia introduced the Lisbon and Barcelona targets into its R&D policy and was hoping to achieve 3% investment in R&D by 2010. However, the current trends, particularly the inability to increase public sector financing at the rate of growth of GDP, means that these targets have proved difficult to reach. The postponement of the achievement of both the Lisbon and Barcelona targets to 2013 was announced in the 2008 Reform Programme for Achieving the Lisbon Strategy Goals.

During the past few years Slovenia has experienced a very high GDP growth rate (the rate of growth of GDP for 2007 was 6.1%). However, public-sector financing of R&D activity has not increased at the same rate. In terms of R&D input indicators (the number of researchers, the amount of public R&D investment, and the positive trends in the growth of business R&D investment), Slovenia scores relatively well in comparison to the EU average. More problematic are the weak output indicators, particularly the number of innovative firms or the number of patents (European Innovation Scoreboard, 2007).

Key policy documents in the R&D area, the National Research and Development Programme, prepared for five-year periods, and the legal documents regulating research (currently, the 2002 Law on Research and Development) provide the legal and policy frameworks for R&D. Public research funding to date has emphasised scientific excellence above other factors and only very broad priority setting has been attempted. However, the current National Research and Development Programme (NRDP 2006-2010) argues in favour of more specific priority setting and for the introduction of socio-economic relevance as one of the important criteria in the programme/project selection process. The field of social sciences and humanities had not been set as a priority, except for the very general statement that one of the overall priorities is research relevant to questions of Slovenian nationhood, culture and history.

Several different financing schemes were developed in the 1990s, with five-year research group programme financing being the best funded. This is also the scheme under which most public financing is allocated to SSH. Public funding is available for applied projects and for supporting participation in international research projects. Also, various infrastructure co-financing programmes are available for research organisations. The special scheme for targeted research projects, whereby research



is commissioned by different government offices to support their decision-making process in the implementation of long-term policies, is also available to SSH researchers. Even though this scheme is not specifically dedicated to SSH, these two fields take the large share of the funding. However, overall the limited amount of funding available has contributed to the relatively small size of the research community and, especially in the field of SSH, to the research groups remaining fragmented and often very small. This fragmentation goes some way to explaining the relatively low impact that SSH researchers have had on policy and funding allocation and, partly because of this, the share of SSH in public research funding has remained unchanged.

Government research promoting bodies Slovenia have undergone a number of changes during recent years: for example, the Ministry of Science and Technology first changed its name to the Ministry of Education, Science and Sports before assuming its present form as the Ministry of Higher Education, Science and Technology. In 2004, the Slovenian Research Agency was established, acting as an executive agency for science. In technology development, the Slovenian Technology Agency was established focusing on business sector R&D and innovation. The establishment of other agencies kick-started by the 2002 law on R&D activity aimed at following the Scandinavian model and with the objective of implementing more efficient R&D and innovation policy. Organisationally, Slovenia is still a single region and there is no special regional S&T policy or regional institutional structures.

During the transition period in early 1990s, Slovenia managed to preserve its public R&D sector relatively untouched since the increase in public expenditures outweighed the loss of business funds. In particular, research institutes in SSH were not seriously affected by the transition. The availability of new levels of public resources and the criteria for programme/project selection (which were weighted in favour of the publication of results) led to a shift towards more basic research in the public institutions. The lack of cooperation between public research institutions and universities on one hand and the business sector on the other has often been identified as one of the key deficiencies in the Slovenian R&D and innovation system; however, this criticism applies more to technical and natural sciences than SSH.

In the policy documents accepted by the government in 2005 (the Slovenian Development Strategy, the National Research and Development Programme, the National Reform Programme for Achieving the Lisbon Strategy Goals and the Framework of the Reforms), the important role played by R&D in creating more dynamic economies and societies was recognised and comprehensive reform of the R&D and higher education sectors was suggested. This reform was aimed at linking research in the public sector with the needs of the business sector, thus contributing to more innovation and increased competitiveness in the Slovenian economy. Practically no special attention was given to research in SSH which remains dominated by public sector research institutes and HEI.



1.1.2 Overview of structure

The structure of the SSH system does not significantly differ from the overall structure of S&T system. The **National Assembly** is the top legislative body, and its **Committee on Higher Education, Science and Technological Development** is in charge of discussing the legal and policy documents related to R&D policy. Once cleared by the committee, the main legal documents (the Law on Research and Development, the National Research and Development Programme) are passed on to the Assembly for approval.

The **Ministry of Higher Education, Science and Technology** is responsible for the preparation of the policy documents in the R&D area, for implementation of R&D policy (that is, implementation of the National Research and Development Programme), the public R&D budget and international cooperation in the area of R&D. An advisory body to the government in the R&D area is the **National Science and Technology Council**, with members from the research community, higher-education institutions, the business community and the government. For the execution of R&D and innovation policy, two special public agencies have been established: **Slovenian Research Agency** and **Slovenian Technology Agency**. The first is responsible for the execution of public research financing, for the professional and independent selection/evaluation process of projects and programmes and the monitoring of research implementation. The Slovenian Technology Agency is in charge of programmes promoting technology development.

The **four universities and several public research institutes** constitute the main public research capability. Most of the financial resources for their work come from the government and are channelled through the **Slovenian Research Agency**. All research organisations and individual researchers must be registered with the Slovenian Research Agency if they wish to apply for public funding. The SSH research is to the largest extend dependent on the public resources, which are mainly distributed through Slovenian Research Agency. Only the Slovenian **Academy of Science and Arts (SASA)** is directly financed from the national budget, but it does not play the same role as in some other ex-socialist country as a research funding agency. SASA has more of an advisory role in shaping the science policy and its members are distinguished researchers from various scientific fields and arts, who are elected on the basis of their outstanding scientific or artistic achievements.

The **business sector** is increasingly important in R&D in general, both as a source of financing and as an R&D performer, but significantly less so in SSH: of 2660 researchers in business sector only 19 work in the area of social sciences and 2 in humanities. Also, only 0.5% of total business R&D expenditures are dedicated to SSH research. Major industry sectors in R&D are pharmaceuticals, communications equipment and machinery and equipment: in SSH research; there are only a few private research organisations, mainly in economics/ business and law.



Figure 1: Structure of the SSH system



Source: Own elaboration

1.2 Policy challenges and developments

1.2.1 Main societal challenges translated into SSH research

Social sciences and humanities have not received much attention in R&D policy. The basic policy document in the area of R&D (the National Research and Development Programme (NRDP 2006-2010)) gives priority to: information and communication technologies; complex systems and innovative technologies; technologies for sustainable development; new materials, including nanoscience; health and life sciences as well as research in humanities to the extent that it is relevant to questions of national history, culture and the preservation of Slovenian language. Social sciences such as economics, political sciences or law are not mentioned in this or in any other relevant policy document such as the Slovenian



Development Strategy or the National Reform Programme for the implementation of the Lisbon Strategy. Policy priority in R&D focuses on technical and natural sciences which are believed to be essential for the technological restructuring of the Slovenian economy.

More attention to the social sciences is given in the Targeted Research Programmes (TRP), a special research scheme under which different government offices and ministries commission research as policy support for their work. The annual public calls for research on specific topics reflect the societal challenges in different areas as perceived by the government. The topics selected invariably reflect the issues on the policy agenda of any particular ministry very closely. The TRPs are now well established and the identification of topics is usually done in cooperation with the research community. Activities often include background research for a particular policy paper (for example, national strategy on development of culture) or evaluation of specific policies and measures (for example, the Ministry of higher education, science and technology commissioned an evaluation of all its measures to support R&D in the business sector). The level of detail in the specification of the research topic differs quite markedly from one Ministry to the next: some ask for broad policy-relevant research while others tend to commission narrower, more focused research on a particular issue from an expert or team of experts.

1.2.2 New SSH policy developments

In spite of the change of government after the elections in 2008, no major developments have taken place lately in SSH policy. The appointment of a new head of the directorate for science at the Ministry of Higher Education, Science and Technology (MHEST) in February 2009 signals that a possible redefinition of science policy is going to take place in the near future. Due to various personnel problems and organisational difficulties, R&D policy has not been receiving sufficient attention from the MHEST in recent years and has been left largely in the hands of the Slovenian Research Agency (SRA). The SRA has a "bottom-up" approach to scientific priority setting (described in more detail in the section on the policy setting system) and decisions on financing are based solely on the scientific record of the applicants rather than on policy fit.



2. Policy Setting System

2.1 Government policy making and coordination

2.1.1 Policy formulation and coordination

S&T policy is formulated by the Ministry of Higher Education, Science and Technology (MHEST). The key document that specifies mid-term, 5-year objectives in research policy is the National Research and Development Programme. The programme is prepared by the MHEST and by the National Council on Science and Technology as the top policy advisory body. The programme needs to be passed as a legally binding document by the National Assembly. The procedure, and especially the content of the policy document, which sets research priorities, specifies funding mechanisms, positions the role of research performers, sets guidelines as to R&D evaluation, etc. is what makes the National Research and Development Programme (NRDP) so important. The National Council on Science and Technology is made up of representatives of different scientific fields including SSH. A draft of the NRDP is debated within academia and the research community and at the Slovenian Academy of Science and Arts - an institution which is organised according to scientific disciplines and has a special "class" for both the social sciences and humanities.

During the discussion at the governmental level all ministries are invited to comment but there is a particular emphasis on receiving input from the Ministry of Finance and the Ministry of Economy. The Ministry of Finance needs to check the resources available and the dynamics of R&D financing, while the Ministry of Economy must check the compatibility of R&D policy with both the innovation and entrepreneurship policies.

Upon government approval, the NRDP is submitted to the National Assembly, first to its Committee on Higher Education, Science and Technological Development and then to the Assembly itself. The NRDP is the basis for both the annual work programme of the MHEST and of the budget for research. The budget allocation is negotiated first at the level of government and finally agreed to by the National Assembly. On the basis of resources available, the MHEST funds various programmes, including those of the Slovenian Research Agency (SRA).

The SRA prepares its annual work programme (consisting of a financial plan for its own operation as well as the funding of various research programmes) and presents it to its board of directors. Once the programme has been approved, the MHEST presents it to the government for approval. The SRA is responsible for the implementation of the programmes and the correct use of the resources allocated to them. Within the SRA, there are seven Scientific Councils which monitor the Agency's programmes and research proposal evaluation processes. Individual members of the Scientific Councils may be directly involved in the evaluation of proposals responding to public calls under various programmes of the Agency. However, the Scientific Councils as such do not engage in evaluation process itself, just in evaluation criteria setting and may also act is some cases as final arbiters in the case of appeals. Both the social sciences and humanities have their own Scientific Council where representatives from academia and research institutes from different parts of Slovenia and different sub-sectors of SSH are represented.



2.1.2 SSH policy Advice

The Council for Science and Technology is the senior body for science and technology policy making in Slovenia. According to the Law on Research and Development (2002), it is composed of six members coming from the research sector, six from the business sector, one from the public and one from the union representing the researchers. Standing members of the Council are: the ministers of finance, of higher education and science and technology, the president of the Chamber of Industry and Commerce, rectors of all four universities and the president of the National Academy of Science and Arts.

The Slovenian Research Agency is relatively independent in the distribution of public funding support once its budget has been approved by the government. The Agency has its own scientific councils organised according to different scientific fields. There are 7 fields each with a council including one for the social sciences and one for the humanities. The role of the councils is to help set the evaluation criteria for the various funding programmes the Agency runs - research programmes, basic and applied projects, targeted research projects, scientific conferences, etc. The councils have a consultative role only and do not actively participate in the decision-making processes.

2.1.3 Main implementing bodies

Public research funding is implemented by the Slovenian Research Agency (SRA). Within the Agency, the personnel are organised in accordance with the main programmes the Agency runs. For some of the large programmes a dedicated staff member is appointed for each scientific field.

In recent years, especially since 2002, financing has gradually increased for research in humanities and has climbed to 12-13% (2008/ 2009) of the total public funds distributed by the SRA. On the other hand; social sciences have experienced a slight decrease in their share which is down from 10 to 9% of the total.

2.2 Impacting factors

2.2.1 Policy fields influencing SSH policies

Most direct involvement of other policy fields in SSH research comes through targeted funding - in practice, when a ministry commissions a particular piece of research in the targeted research projects scheme. The thematic priorities for these projects are specified by each of the interested ministries with the aim to provide scientific support to policymakers either in the preparation of their programmes and policies, in the evaluation of existing programmes or are of specific interest for the particular ministry. Each of the ministries sets priorities to reflect key issues in the field for which they are responsible and also to address the high level priorities defined by the objectives set out in the Slovenian Development Strategy. Each ministry has its own implementation plan and identifies the particular topics where it needs additional input from the research community in the formulation of its strategies. These priorities or themes to support ministerial strategy development are announced in an annual call for project proposals coordinated by the Slovenian Research Agency. Projects selected can run from one to four years, with semiannual reporting and annual evaluation. While the scheme is not focused only on SSH, most of the research commissioned is in the SSH area.



2.2.2 Influence of European Developments

The EU-level policy debate indirectly affects SSH in Slovenia in the following way: the more attention that is given to SSH issues at the European level, the greater the pressure on the national S&T policy to deal adequately with SSH. The official policy response to EU developments to date has been enthusiastic promotion of participation of Slovenian research organisations in the various activities, projects and programmes at EU level. Recently, however, according to internal sources at the Ministry, more attention has been devoted to better integration of European Research Area (ERA) issues in the national research policy and to gradually improve aligning of the national interests and capacities with EU policy objectives.

In terms of priorities within SSH research, the European level has a significant impact on the research priorities in social sciences since many of the research units participate in programmes run by the European Commission (FP, COST, etc.). Despite the fact that the social science researchers have relative freedom in deciding research priorities within their sciences at the national level, the research units closely follow the research topics at EU level and often propose the topics announced in EU Framework programmes as the topics for the calls for national funding. This is less so in the humanities where national issues are at the centre of attention.

European policies have more direct impact in the area of higher education, especially the Bologna process. So far, the impact of Bologna has been felt primarily in the extensive changes in the programmes of study, with SSH faculties being among the first to change to the new system. However, since the Ministry of Higher Education, Science and Technology allowed universities to follow different timescales for the transition to the Bologna system, some of the faculties (especially in natural sciences and medicine) opted for the latest possible date (academic year 2009/10) to make the necessary changes. No common approach to the transfer was agreed on, so even within the same university one may find both 3+2 and 4+1 systems.

2.2.3 Relevance of European SSH research

Considering its size and capabilities, the Slovenian research community participates quite well in the different EU R&D programmes. According to the final report of the European Commission (June 2008), published by the Ministry of Higher Education, Science and Technology (MHEST), in FP6 Slovenian institutions submitted 3.898 applications and were successful in 616 cases; a success rate of 15.8%. While most applications were filed by higher education and R&D institutions, as many as 22.5% were submitted by SMEs and industrial organisations. Of the 503 projects where institutions from Slovenia participated, most projects were in IT (20%) followed by projects in sustainable development & global change (12%), nanotechnology, materials and processes (9.7%) and scientific policy support (8%). No break down data is available, however, on the basis of scientific field.

Overall, Slovenia participated in all areas of FP6, mostly in STREPs (28.2% of projects), in SSA (19.3% of projects) and CA (16.3% of projects). The total value of the resources that Slovenia received was \in 76.4 million, which compares well with the \in 34.8 million national contribution to FP6. The funding amounts in the different contracts varied significantly depending on the instrument and the programme.

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Framework Programmes are very popular among researchers in SSH, yet they seldom managed to become project coordinators. In FP6, 33 SSH research groups participated in Priority 7 and 8. This is relatively significant number as can be seen by the fact that in total under the Slovenian Research Agency (SRA) scheme only 73 SSH research groups are supported and some of these are small groups who are not likely candidates for international cooperation. This total of 33 groups participating in FP6 represents an important increase over the participation in FP5 where 15 research groups in SSH from Slovenia took part.

Slovenia participated in three ERA-NETS in SSH: HERA, NORFACE and SEE-ERA NET. The HERA Joint Research Programme (HERA JRP) partners launched a joint call in 2009 for trans-national Collaborative Research Projects (CRPs) in two humanities research areas: "Cultural Dynamics" and "Creativity and Innovation". Successful proposals will require the building of consortia of three or more partners based in three or more different HERA JRP countries. The total amount of funding available for both HERA JRP themes is 12.4 – 16.4 M€. The Slovenian partner in HERA is the MHEST which also coordinates Slovenian involvement in SEE-ERA NET. The NORFACE programme, which ended in 2008, was coordinated by the SRA since work was focused on improving the quality of national funding agencies.

No publicly released Framework Programme impact studies have so far been conducted, but the SRA carried out an internal evaluation of the participation of Slovenian research units in FP6 in September 2008. The report finds an interesting positive correlation between participation in international research cooperations and development of the national evaluation culture: the evaluation procedures of the European Commission are copied to some extent into national evaluation practice. A noticeable improvement in scientific quality in terms of numbers of scientific articles and received citations can also be attributed to more intensive international cooperation of Slovenian scientists in the FPs. The FPs have offered some research groups important additional resources, enabled employment of young researchers and the purchase of new research equipment. On the other hand, the SRA evaluation found some drawbacks to participation in FPs such as the complex administrative and communications procedures and demanding legal and financial rules. There is also still a lack of complementarity between the R&D activities financed by EU programmes and the national priorities. Despite the fact that in principle the priorities of the Resolution on the National Research and Development Programme (NRDP) are in line with the EU's FPs, Slovenian research policy is still driven predominantly "bottom-up". A positive impact of the FP participation is a gradual re-orientation towards prioritising research themes (not scientific fields) of a broader nature.

2.2.4 Impact of evaluations

The evaluation procedure for research programmes and measures to promote R&D is being developed gradually by the SRA and has become more systematic in recent years. To date, most of the evaluations completed are of the specific programmes the Agency runs. However, more general evaluations of progress at system level are carried out such as, for example, in 2008 when the SRA published a comprehensive analysis of the Slovenian public R&D system.

The procedure for evaluation of research programmes and project results varies depending on the type of programme. In general, the basic evaluation indicator employed by the Ministry of Higher Education, Science and Technology (MHEST) and by the SRA has been quantitative appraisal of bibliographic references of the members and, especially, of the leaders of the research programme or project. A



new regulation on the evaluation of researchers and research organisations and teams was passed in April 2006, introducing a more developed points system for bibliographic references. This system is applied in the evaluation of the annual reports submitted by the research groups and also used to set the eligibility criteria for the selection of both basic and applied research and development projects to be co-financed by the SRA. The criteria do not vary significantly between scientific fields except in the lists of journals and international publishers that apply, where each scientific field has its own list which needs to be approved by the respective Scientific Council of the Agency. An important new evaluation criterion, introduced in 2006, is the socio-economic relevance of the research which is mostly assessed by the size of external financial resources the programmes or projects were able to attract. This criterion is problematic in certain areas of humanities where little additional (non-public) funding is available. A new set of quantitative evaluation indicators (taking into account the bibliography, citations and total project funding received) is used since 1. 1. 2010. Similar indicators have been used for the last three years; each year some modifications are made based on the feedback of the evaluators and the research community in general. The evaluation criteria are subject of every year's discussion at the Scientific Council.

The evaluations of the proposals for research projects at the SRA are usually performed by teams combing internal staff and outside experts. The SRA also uses external foreign evaluators and is doing this systematically with all of the bigger public calls (for research programmes and projects). The agency now performs both ex-ante and ex-post evaluations: the former are carried out in the process of the selection of research programmes and projects to be funded and the latter are done at the end of the funding period. Systematic use of ex-post evaluation results of a particular research group or individual in the selection process for the next round of financing is becoming a more regular practice.

2.3 Important policy documents

There are no SSH-specific policy documents or important think-tank contributions dealing with SSH issues in Slovenia. However, at the more general level, there are several documents covering R&D policy. The key document is the:

National Research and Development Programme- NRDP 2006-2010¹.

This document deals with overall R&D policy and does not discuss SSH specifically. The same is true for the:

Slovenian Development Strategy SDS 2006-2013²

Most attention is given in both documents to the problem of linking of science with business since several evaluations as well as data in the European Innovation Scoreboard describe the relative strength of Slovenia's R&D input side and the weakness of the output side, especially if measured by innovation-indicators (patents, high-tech exports, etc.).

¹ The document is available at http://tinyurl.com/yelhbl9

² The document is available at: http://tinyurl.com/y8ezwz3

2.4 Thematic priorities at national level

The National Research and Development Programme identifies several SSH thematic priorities such as:

- Social cohesion, protection of natural and cultural heritage.
- Supporting the promotion of Slovenian identity with special attention to the Slovenian language and culture in the European, Mediterranean and broader international space.
- Critical assessment of recent history.
- The relationship between democracy and social development in the context of contemporary Slovenian society.

2.5 Important research programmes

Programme 1

While the Slovenian Research Agency (SRA) does not fund any major research programmes dedicated solely to SSH, it does provide substantial support to basic research in social studies and humanities. In the largest SRA programme currently running – i.e., the programme of funding for the research groups - humanities account for nearly 14% of all financed research hours and social sciences for 11%. The research topics are proposed by the research teams themselves i.e., the programme has a "bottom-up" approach. The content of the research of the largest three programme groups (ranked according to the number of research hours approved) for each field is presented in Table 2 below. All together, 32 research groups are currently funded in social sciences and 41 in humanities. The size of the research groups varies significantly: from 12 FTE to as little as 1.1 FTE. The programmes run from 3 to 6 years starting from 2009. Traditionally, the average size of the research groups is smaller in SSH than in natural sciences.

Programme 2

The largest programme group in the area of social sciences with 5.5 FTE from 2009 on is at the Educational Research Institute. The research proposed by the group there is in the area of new educational theories, teaching methods and contemporary didactics.

Programme 3

The second largest research programme in terms of number of FTE (5.4) is run by the Institute of Criminology at the Faculty of Law at the University of Ljubljana. It addresses issues of social control, the criminal justice system, violence and security in a technological society.

Programme 4

Third largest research programme group in social sciences is at the Institute of Ethnic Studies - 5 FTE. The group conducts research in the area of ethnical and minority studies as well as other research issues relevant to the Slovene national question.



Programme 5

The most important research group in the area of humanities (12 FTE) is the group working on various aspects of the Slovene language (lexicography, lexicology, language technologies, Slovenian language, linguistics, corpus linguistics and language resources). The research group is based at the Institute of the Slovenian Language, which is part of the Scientific Research Centre at the Slovenian Academy of Science and Arts where several other research groups in the area of humanities are based.

Programme 6

The second largest research group in humanities is at the Institute of Archaeology which is also based at the Scientific Research Centre at the Slovenian Academy of Science and Arts. The group is funded to support 9 FTE and conducts archaeological and paleontological research in various areas of Slovenia.

Programme 7

The Karst Research Institute at the Scientific Research Centre at the Slovenian Academy of Science and Arts has a research group of 7.6 FTE focusing on the complex phenomena of karst; the evolution of its surface and subsurface, the evolution and function of karst aquifers and karst ecosystems, the origins of karst terminology and the history of karst science. Their research focuses also on social and historical developments related to karst.

3. Funding System

3.1 Overview of funding flows

In 2007 €500.5 million were spent on R&D. Table 1 provides the overall financial structure of R&D (funders and performers), the break-down of R&D allocation for natural and social sciences and the allocation of R&D expenditures to social sciences and humanities. The share of SSH in the total R&D budget is 9.5% (SURS, 2009). The largest funder of the SSH research is the government which supplies 67% of the SSH total, followed by the HEIs with 29.6%. The business sector funded 3.4% of total SSH research in 2006, which meant that only 0.5% of the total business sector R&D expenditures were allocated to SSH. The least important player in the funding of SSH is the private non-profit sector, contributing only 0.2% of total resources.

Performers Funders	Higher education sector	Public research institutes	Business enterprises	Total	Share of GERD
Government	33.0%	53.5%	13.4%	100% (€178.2m)	35.6%
Business	2.8%	5.5%	91.5%	100% (€287.8m)	58.3%
Abroad	30.7%	38.3%	30.0%	100% (€28.8)	5.8%
Higher education sector	100.0%	0.0%	0.0%	100% (€1.7m)	0.3%
Share of total R&D expenditure	15.5%	24.5%	59.0%	100% (€500.5m)	100.0%

Table 1 Funding matrix

Source: Statistical Office of the Republic of Slovenia (SURS), February 2009.

3.2 National public SSH research funding

3.2.1 Overview of funding importance

According to national statistical data for 2007, public spending (GOVERD) accounted for 67% of the resources for SSH research. This figure has increased by almost 22% in the last three years. In the same period, higher education expenditure (HERD), which represents 28% of all SSH R&D expenditure, increased by 11%. The business sector's share of 2.9% of total SSH expenditures have increased by 23.6% during the same period while the non-profit expenditures have been declining. (Statistical Office of the Republic of Slovenia- SURS, February 2009).

Most public funding for R&D in Slovenia is provided through the SRA.

Total funding for SSH research increased slightly in 2008 compared to the 2007 figure (Table 2). However, within the SSH programmes the distribution of funds between programmes altered. For applied projects, social sciences received 4% less, post-doctoral research projects received 6% less while funding for basic-



research projects remained quite stable. Social sciences received 24% more funds through the targeted research programmes and the programme for research groups; this is worth highlighting since the overall budget for the research groups' programme decreased (SRA, 2009). In addition to the programmes specified in the table bellow, Slovenian Research Agency finances also the Young Researchers' Programme, under which financial support for young researchers who are involved in their doctoral studies is provided. In 2008, there were 109 young researchers from SS and 133 in the humanities. The share of SS in financing of Young researchers was 6.5% and of humanities 9.5, with total amount provided for this programme by SRA €28.238 million (SRA Annual report on financing, 2009).

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Programme	Total budget (in mio €)	Total SSH expenditures/ % of total budget	Total Social Sciences expenditures/ % of SS in SSH	Total Humanities expenditures/ % of H in SSH
Applied research projects	9.39	1.542/(16.4 %)	0.52/(33.7 %)	1.022/(66.3 %)
Basic research Projects	11.06	3.28/(29.7 %)	0.86/(26.4 %)	2.42/(73.6 %)
Post-doctoral Projects	4.58	1.26/(27.5 %)	0.55/(43.65 %)	0.71/(56.37 %)
Targeted Research Programmes	2.99	1.257/(42 %)	1.205/(95.9 %)	0.052/(4.1 %)
Research Programme Groups	27.81	6.1/(22 %)	3.8/(59 %)	2.3/(41 %)

Table 2	SSH funding by	Slovene Research	Agency (vear 2008)
			J J (J /

Source: SRA, 2008.

3.2.2 Institutional funding

There are several mechanisms for R&D funding in Slovenia. The main funding organisation is the Slovenian Research Agency (SRA) which provides funds for R&D through different programmes and projects. So-called "infrastructure funding", which corresponds closely to what is more commonly known as institutional funding, is provided for pubic research institutes by the government. These funds are calculated on the basis of the national annual budget and usually cover between 15-30% of the total expenditures of a particular public institute. The percentage of budget covered by institutional funding is usually higher in the case of research institutes in SSH since their material and equipment costs are lower. On the other hand, in absolute terms the amounts allocated are lower than for public research institutes in natural sciences and technology. The total amount dedicated by the SRA to institutional funding in 2008 was €14.4 million, of which 1.6 million (11.4%) went to public research institutes in SSH. The latter figure does not include the institutional funding for the Scientific Research Centre of the Slovenian Academy of Science and Arts which combines research groups from all scientific fields not only SSH and is granted €2 million annually.

Most of the public funds are, however, distributed through research programmes which fund projects through periodic open calls.



In 2008, the allocation of funding by the Slovenian Research Agency (SRA) to SSH through their research programmes amounted to €11.8 million or 21% of total funds allocated to all research programmes.

There is a public call issued every year for basic and applied projects and postdoctoral research projects. The 2008 call also included a set of specific priorities for all scientific fields and established the percentage of funding available for each of them. These "national priorities" were decided by the MHEST. The topics however remained relatively broad: Slovenian language culture and history for humanities and the democratisation processes for the social sciences. In 2008, 24 % of all resources for basic and applied research were allocated to SSH with clear preference for the projects in humanities which received 16% of the total which amounted to ϵ 6.1 million.³

3.2.3 Individual funding

There are no public sources that provide funding for R&D activities directly to researchers or research groups for specific projects of their own choosing. The open public calls are a permanent feature of the financing scheme of the Slovenian Research Agency (research programmes, applied and basic research projects and targeted research projects) and are open to legal entities but not to individual researchers.

Some ministries, such as the Ministry of Foreign Affairs, have their own R&D divisions which can contract individuals to carry out project work which they treat as a consultancy service and which has special commissioning rules (i.e., a ceiling (in 2009) of €10.000, a requirement to secure three separate bids or a special justification explaining why a particular individual was selected) and does not represent an important source of funding for SSH researchers.

3.2.4 Programme Funding

Most public resources for R&D are distributed through the Research Group Programme which is a scheme to support long-term basic research. The programme was introduced in the second half of the 1990s as a response to the requests from the scientific community, in particular by large research institutes who found it difficult to develop longer-term basic research under a regime of annually changing budgets. This led to the creation of the Research Group Programme where three-tosix-year contracts are awarded for basic research in the field of natural sciences, engineering, medical sciences, biotechnology sciences and the social sciences and humanities. Since its inception this has been the largest source of public funding for research.

In the last call in 2008 for the funding period 2009 to 2014, 32 research groups in the social sciences and 41 research groups in humanities were selected for support. However, the value in terms of FTE for the different scientific fields varies. For the social sciences 97 FTE's were approved in total for 32 research groups compared to 123 FTEs in the humanities spread across 41 groups.

The funding scheme known as Targeted Research Projects is also relevant in this context. The thematic priorities are specified by each of the interested ministries and aim at providing scientific support to policy-makers in the preparation of their

³ Financial report for 2008, Slovenian Research Agency, see also: http://www.arrs.gov.si/sl/finan/letpor/08/).



programmes and policies or in the evaluation of existing programmes. Each of the Ministries sets the priorities to address the issues which are most relevant in the field for which they are responsible. The ministerial priorities also respond to the high level objectives set out in the Slovenian Development Strategy. Each Ministry has its own implementation plan and identifies the areas where it needs additional input from the research community to help formulate strategy. These strategy support research topics are finally announced in the annual calls for project proposals.

An annual call which is coordinated by the Slovenian Research Agency set out the topics against the different thematic priorities of the Slovenian Development Strategy and links the project work to a specific ministry. In each priority, the responsible ministry defines the topics for the research to support its policies (some do this broadly while others are more focused) and invites the research community to submit project proposals. Projects can run from one to four years, with semi-annual reporting and annual evaluation. While the scheme is not focused only on SSH, most of the research commissioned is in SSH.

3.3 Private research funding

There is a small amount of extramural funding in SSH in Slovenia. In 2007, the business sector accounted for 3% of total R&D expenditure allocated to SSH (\in 1.495 million). Businesses usually co-finance specific applied research projects in public R&D institutions, for example, the Slovenian Research Agency requires 25% of funding for applied projects to be extramural funding. This means that when a research team is proposing a project they need to provide evidence of guaranteed extramural funding.

3.4 Foundations/ not-for-profit funding

The only non-profit organisation in the area of R&D in Slovenia is the Slovenian Science Foundation (SSF). The SSF is involved with the promotion of science and in providing scholarships for young researchers but not in direct research funding. Currently, there are no charitable foundations operating in R&D in Slovenia.

3.5 European and international funding

Slovenian SSH researchers are involved in various programmes worldwide. The EU's Framework Programmes are very popular among researchers although they seldom take the role of project coordinators. In FP5, 15 research teams from Slovenia participated in SSH projects. In FP6, 33 research groups participated in Priority 7 and 8. This is a relatively significant number as in the SRA scheme for research groups there are only 73 groups in total and some of these are quite small and are not likely candidates for international cooperation. Other EU programmes like COST, Jean Monnet, Erasmus Mundus, etc. are also quite popular among SSH researchers.



Table 3:Funds from abroad by sector of performance and by type of
financing institutions (in mill. €; year 2006)

	Business enter- prises	Govern- ments	European Commis- sion	Int'l organizati ons	Higher Education sector	Private non-profit organisati ons	Total
Business sector	8.96	0.02	2.45	0.047	0	0.02	11.497
Government	0.34	0.027	7.43	0.92	0.018	0.018	8.753
Higher Education	0.68	0.07	5.13	0.015	0.23	0.92	7.045
Private non- profit	0.031	0.007	0	0	0	0	0. 038
Total R&D	10.01	0.124	15.01	0.982	0.248	0.958	27.333

Source: SURS, 2008.



4. Performing System

4.1 Overview of the perfomers

In SSH, the most important R&D performers are in the public sector, at the higher education institutions and public research institutes. Any full fledged university is required to also have SSH programmes, so all four currently recognised public universities have programmes in SSH, with the largest being University of Ljubljana. The departments (Faculties) in the area of SSH have traditionally been the biggest in terms of number of enrolled students. Each faculty can organise the research activity in its institutes, which are legally a part of the Faculty/ University, but have certain level of independency in terms of contracting research projects and cooperating internationally. Still, research is seldom the primary occupation of the staff employed at the University.

The 15 government sponsored public research organisations can be considered as the backbone of public research. Out of 15, 6 are in the area of SSH. The largest one is the Scientific Research Centre at the Slovenian Academy of Sciences.

SSH research is not present much in the private research sector: only 65 of the registered researchers work in private research organisations.

A detailed explanation of each type of performers is given below.

4.2 Higher Education Institutions

4.2.1 HEIs as education performers

Slovenia has 4 universities. There are 28 independent higher education institutions not linked to a particular university. The four universities have 60 different faculties (departments) in all academic fields. Participation in tertiary education is on the rise. In 2002–2006, the number of students enrolled in tertiary education relative to the population aged 20–29 increased at a faster pace than in most other European countries and faster than the European average. The number of students enrolled in tertiary education relative to the population aged 20–29 increased at a faster pace than in most other European countries and faster than the European average. The number of students enrolled in tertiary education relative to the population aged 20–29 increased by 11.2 % between 2002 and 2006 to reach 39.5% in 2006. This compares with a 4.7 % increase and a 28.1% share in the EU-27. Furthermore, the participation rate of the generation at enrolment age is gradually approaching the Slovenian Development Strategy's target of at least 55%. According to the Institute of Macroeconomic Analyses and Development (IMAD) calculations, the share of 20-year-olds enrolled in tertiary education in the academic year 2007/2008 was 54.8%.

According to national statistics, a total of 115.445 students were involved in tertiary education in 2007, of which 9.365 studied humanities and arts while 45.372 were enrolled in social sciences. Enrolment in S&T programmes is being promoted very heavily and yet SSH remains the most popular choice.

Among the 16.680 graduates in 2007, 983 completed humanities and arts programmes and 8.282 social sciences.

The funding is allocated by the Ministry of Higher Education, Science and Technology (MHEST) to the HEIs for research and teaching according to a rather



complex set of criteria, taking into account the number of students enrolled, the number of graduates, estimated costs of undergraduate and graduate programmes, infrastructure costs, etc. There is no specific breakdown by academic field available for the entire HEI sector. In the universities the internal distribution of resources among the faculties is done independently by each institution.

The latest published available data (2005) show that the student/professor ratio for Slovenia was 23.0 against an OECD average of 15.6. Again, breakdown by academic field is not available.

4.2.2 HEIs as research performers

The HEI sector employs 1,740 FTE research personnel (Statistical Office of Slovenia, 2009). Usually, the research teams at universities are small since the current regulations allow teaching staff with 100% teaching commitment to participate on top of this with another 20% in publicly funded research and this extra 20% effort means they are counted in the total for R&D-active staff. This explains the difference between the head count of the people employed in R&D in higher education (3,552) and the figure expressed in FTE (1,740). Each department carries out research into the key issues in its field and most HEIs and universities also have their own research institutes. For example, the Faculty of Economics at the University of Ljubljana has its own research centre with 137 researchers who mostly also teach but who are counted in the total figure for research staff at HEIs. As a rule, these research units at HEIs are not registered as independent legal entities so it is very difficult to disaggregate data according to scientific field. One of the main reasons for the establishment of separate research institutes is to allow more flexible management of small units and to promote more focused research as well giving the teams a platform to apply for research funding nationally and abroad. Often the faculties allow such institutes to maintain their own accounts and use the research money for their own costs (travel, equipment and topping-up of salaries). While the universities receive 4% of their total funding from the government earmarked as research funding which they can allocate among its different units most of the funding for research comes from the public calls run by the Slovenian Research Agency. Up to now, no assessment has been made of the different faculties within the universities or among the universities regarding their research intensity.

4.3 Public Research Organisations

The backbone of Slovenian knowledge production is the network of 47 research institutes. These institutes employed more than 30% (1,805 FTE) of the total number of researchers in 2006. Apart from the largest public institute which is the Jozef Stefan Institute with more than 800 employees in the field of natural sciences few research institutes employ more than 50 people.

Of the 47 registered research institutes, 15 are National Research Institutes, which receive institutional funding from the Slovenian Research Agency (SRA). Of these 15, 6 are dedicated to SSH fields. In terms of institutional funding, the six SSH institutes receive 22.5% of all the resources allocated by the government to research. The largest share of this 22.5% goes to the Scientific Research Centre at the Slovenian Academy of Sciences which receives 65% of the total. The Institute is predominantly working in the SSH fields but also has certain departments in other scientific areas.



The six national research institutes in the area of SSH are:

- 1. The Institute of Contemporary History (Inštitut za novejšo zgodovino)
- 2. The Institute of Economic Research (Inštitut za ekonomska raziskovanja)
- 3. The Urban Planning Institute of the Republic of Slovenia (Urbanistični inštitut Republike Slovenije)
- 4. The Institute for Ethnic Studies (Inštitut za narodnostna vprašanja)
- 5. The Educational research institute (Pedagoški inštitut)
- 6. The Scientific Research Centre of the Slovenian Academy of Sciences and Arts (Znanstvenoraziskovalni center SAZU)

4.4 Private research performers

The database on research organisations (there are 737 in total) does not allow for disaggregation according to ownership. By looking at the statistical data on employment of researchers by sector and scientific field, we can estimate that the role of private SSH research performers are insignificant. Out of 1.617 researchers employed in SSH in 2007 only 64 are employed in business sector.⁴

4.5 Research performance

4.5.1 Scientific publications

The increased attention to publishing in the Slovenian research system over the last decade has resulted in strong growth of output in the public research sphere. Slovenia ranks 6th among OECD+ countries in terms of the ratio between scientific publications and R&D expenses in the period 2004-2006. Between 2002 and 2008, Slovenia had an annual average publications growth rate of 8%⁵. The publication output increased by 11.7% in SSH between 2000 and 2006 from 51 papers published in 2000 to 99 in 2006 (Thomson Scientific, treatment CWTS/ Leiden University).

Another important indicator of the quality of research is the citation index which has been built into all the evaluation systems currently applied by the SRA and also by the universities in their staff promotion criteria. The share of Slovenian science in all citations is rather small (0.11%), but the growth rate is again quite impressive with more than 16% growth during the period 2002-2006 (Sorcan et al, 2008, data taken from Thomson ISI Science Indicators, 2006). In terms of impact factor, Slovenia is below the OECD (5.05) and the EU (4.89) averages with 3.13. At 0.68, the relative impact factor for Slovenian scientific output is also below the figures for the OECD (1.1) and the EU (1.07). More encouraging is the comparison of publication results with the level of GDP (seventh place) and the resources available for R&D (publications/ GERD) where Slovenia was in the sixth place for the period 2004-2006 (Thomson ISI Science Indicators, 2007, reproduced in Sorcan et al, 2008, p. 78).

⁴ Statistical Office of Slovenia, February 2009.

⁵ Sorcan et al. (2008) Znanstveno raziskovanje v Sloveniji – Primerjalna analiza (Science research in Slovenia- a comparative analysis), Ljubljana, ARRS; pp71-78.

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Concerning the sectoral distribution of publication results in the ISI database, the greatest share (59%) comes from natural sciences, followed by technical sciences (19%) and medicine (15%). Social Science contributed 3% of publications (68 in total) and humanities 1% (27 in total) in 2006. The relative impact factor shows a somewhat different ranking: for technical sciences, the relative impact factor is 0.81, followed by agricultural sciences with a factor of 0.78 and natural sciences with a factor of 0.69. The relative impact factor for social science was 0.49 and for humanities 0.55 during the period 2001-2005. All fields show a gradual increase in their relative impact factor from 2002 onwards.

The most productive field in SSH during 2002-2006 was economics with a total of 74 papers published followed by psychology with 58 and sociology with 36. In total, 351 SSH publications are included in the Thomson ISI Science Indicators database, which also records a total of 335 citations⁶.

4.5.2 International Cooperation

According to the data of the Slovenian Agency for Research (SRA), Slovenia has established scientific and technological co-operations with 70 countries on the basis of 134 bilateral agreements.

International scientific and technological co-operation is conducted in accordance with the "Policy and Strategy for the Development of Scientific and Technological Co-operation between the Republic of Slovenia and Other Countries" adopted by the Government of the Republic of Slovenia on 14 July 1994. The former Slovenian Ministry of Science and Technology was responsible for monitoring, co-ordinating and implementing this policy.

In line with government decisions the priority countries for bilateral co-operation include:

- The European Union Member States,
- Neighbouring countries, and
- Developed overseas countries and regionally important countries.

The Ministry of Higher Education, Science and Technology has transferred the bilateral and some of the multilateral science cooperation to the SRA. SRA annually publishes calls through which bilateral research projects are funded. The calls usually do not specify the field and so projects can be proposed by research teams in any scientific field.

4.5.3 Main prizes

The prize known as the Ambassador of Science prize is one of the most prestigious in science in Slovenia. The prize is given annually to four selected scientists whose work has achieved substantial international recognition. Traditionally, the selection was carried out so that different scientific fields are represented. The candidates can be nominated by research institutions or individuals and a special Board convened for the selection of the winners assesses the candidates and proposes final nominations to the Minister of Higher Education, Science and Technology. Also, an

⁶ See Sorcan et al. (2008) Znanstveno raziskovanje v Sloveniji – Primerjalna analiza (Science research in Slovenia- a comparative analysis), Ljubljana, ARRS.



annual Zois award and a Zois distinction are given. The Zois award is given for the lifetime achievement in science and for having made for a breakthrough in a particular scientific field.⁷

⁷ More about the prizes and awards can be found at http://www.mvzt.gov.si/nc/en/splosno/cns/news/article//5930/