COUNTRY REPORT

Social Sciences and Humanities in

Germany

2012 Report

European Commission DG-Research

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annual monitoring reports for all countries covered;

synthesis reports bringing together key points;

links to relevant reports and websites

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The report covers the period from September 2011 to December 2012.

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1. Country Overview

1.1 Overview of SSH System

1.1.1 Overview of the structure

The public sector of the German research system is characterized by a division of responsibilities between the Federal Government and the sixteen Laender (states). This holds true not only for the SSH but for the research system as such. The general distribution of competencies is defined by the Basic Law for the Federal Republic of Germany (Grundgesetz) [1]. The competencies for teaching and education are exclusively assigned to the Laender. This concerns the education on all levels in terms of the International Standard Classification of Education (ISCED) from primary and secondary to higher education. Hence, university policies fall within the remit of the Laender. Since a reform of the federal system (Föderalismusreform I). which entered into force on September 1, 2006, the Federal Government is no more allowed to finance universities in any institutional way, not even by investments in buildings, facilities or large devices as it was possible before due to the Act on Furthering Construction in Higher Education (Hochschulbauförderungsgesetz). The responsibility for research is shared, however, as long as the universities are not prejudiced. [2] This is the reason why next to universities there is a multitude of non-university institutions such as the institutes of the Max Planck Society (Max-Planck-Gesellschaft, MPG), the Helmholtz Association (Helmholtz-Gemeinschaft Deutscher Forschungszentren, HGF), the Fraunhofer-Gesellschaft (FhG), and the Leibniz Association as well as the German Academies of Sciences and Humanities (Akademien). HGF and FhG institutes are largely financed by the Federal Government while normally the costs for the other institutions are shared equally between the Laender and the Federal Government. As a consequence, the non-university research institutions play a prominent role in the German research system as a whole—especially in comparison with other countries. With regard to science and research in universities the Federal Government and the Laender may only co-operate on a projectbased level in cases of supraregional importance. Special agreements such as the Excellence Initiative need to be concluded. On an institutional level federal cooperation, i. e. cooperation between the Federal Government and the Laender, is prohibited by law. Moreover, there are research units which fall directly under the competence of a ministry. This so called departmental research (Ressortforschung) is solely funded by the responsible ministry in one of the Laender or of the Federal Government. Besides the universities and the non-university research institutions, there are several private nonprofit organizations which offer opportunities for the acquisition of third-party funding. The German Research Foundation (Deutsche Forschungsgemeinschaft, DFG) is one of the largest providers of third-party funding, especially for university research, and basically financed by the Federal Government (58 %) and the governments of the Laender (42 %) itself.

In 2009 (data for 2010 and later not available on this level), the funding of the government and of private non-profit organizations for research and development totaled 21.6 billion euros. Moreover, the private sector in Germany is of importance for research and development. In 2009, business

enterprises spent 46 billion euros on research and development. It must be considered—especially when looking at SSH—that this money is strongly oriented towards application and products and thus largely remains in the business sector itself. [3] The gross domestic expenditure for research and development (GERD) is 2.82 percent of the gross domestic product (GDP). [4]

Figure 1 gives an overview of the overall research system in Germany. This structure applies to all research fields in Germany. Concerning SSH research, no special structure or system exists.

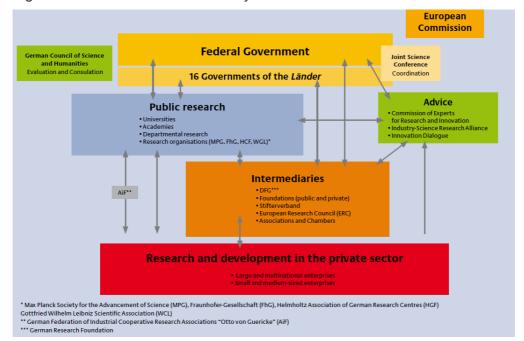


Figure 1: The German research system and its stakeholders

Source: Federal Ministry of Education and Research (BMBF) (2012): Federal Report on Research and Innovation 2012. Abstract. Berlin. p. 34.

Since the German research landscape is diversified in general, research in SSH in particular bases on a broad spectrum of actors from the higher education system, especially universities, non-university research institutions, private non-profit organizations as well as business and industry. One mentionable distinctive feature of the SSH research structure is that the research activities are carried out in the public sector more strongly than in the private sector. This is why governmental funding is the most important source for SSH research. When analyzing the importance of SSH research in the German science system, we primarily have to take into account the public research in universities and in non-university research organizations as well as the departmental research.

1.1.2 Recent changes in the system

There have not been any remarkable changes in the German research system during the reporting period. However, currently a political debate is going on about changing the federal system in a way to relax the ban of federal cooperation in regard to education, including the universities. The Federal Government already showed interest to get more political and

monetary influence on the higher education level. This is also confirmed by a few cases of new cooperation models between universities and non-university organizations. The Karlsruhe Institute of Technology is a recent example since it was founded in 2009 by a merge of a university of the federal State of Baden-Wuerttemberg with research and teaching tasks and a large-scale research institute of the Helmholtz Association conducting program-oriented research on behalf of the Federal Government. There is also a similar process going on with the Berlin Institute for Health Research (Berliner Institut für Gesundheitsforschung) which is going to merge the Charité – Universitätsmedizin Berlin and the Max Delbrück Center for Molecular Medicine in terms of research activities. [5]

1.2 Policy challenges and developments

1.2.1 Main societal challenges translated into SSH research

Germany, like all modern societies, has been facing significant changes over the last decades. The following issues can be considered as being very relevant in general and widely discussed in different social subsystems:

- The demographic shift with an increasing share of older people of the population;
- Political, cultural, and economic developments in relation with globalization, economic crises, and transformations of the labor market;
- Changes in the family situations and personal lifestyles;
- Rising importance of information technologies, ecological sustainability, education, and health care;
- The consolidation of state budgets, especially in the context of the European Union and the international debt crisis.

Most of these social challenges strongly interdepend, so e.g. the demographic shift highly impacts the consolidation of state budgets because of the cost increase that can be particularly expected for the social security system and the health care system. Moreover, the majority of the above mentioned problems is not specific to Germany but relevant at least for a substantial number of industrial countries.

The importance of societal challenges for the research system has gradually risen over the last year. Research and development is more and more taking into account social challenges. This can be recognized for the research system in general but also for the SSH providing knowledge of cultural, economic and social structures and developments. The increasing reflection and consideration of societal challenges probably applies both to single projects and to special funding programs, but as a matter of course it can be proved more easily when looking on research that is based on a stronger top-down approach. In this regard the BMBF considers the following aspects to be the key societal challenges translated into SSH:

 The German government perceives demographic change as a cross sectional task and therefore adopted a concept named "The new future of Old Age" with a multidisciplinary research agenda. Research in SSH plays a key role with regard to "Principal Issues in a Society of longer

Lives", "Benefiting from the Skills and Experience of the Elderly in Economy and Society", "Social Inclusion: Staying Mobile and in Touch", and "Living Safely and Independently". SSH research analyzes the developments and provides input and advice to adequately deal with the consequences of demographic change for the social security system and for economic and regional development. On a European level, the program is also part of the Joint Programming Initiative "More years, better lives – The challenges and potentials of demographic change".

- In 2009, the BMBF started a program that is entitled by "Framework Program Research for Sustainable Development" and refers to sustainability in a wide sense. It consists of the following five fields of action that are at least partly relevant for the SSH: "Global responsibility International networking", "Earth system and geotechnologies", "Climate and energy", "Sustainable management and resources", and "Social development". SSH are expected to critically accompany the sustainability research strategy as well as issues of acceptance, technology transfer and impacts of technology, cultural resources, design and development. The program aspires to achieve a networking with the funding initiatives in the European framework program for research and innovation. [6]
- The BMBF is also funding research and development in the field of future-oriented new technologies, especially by its "High-Tech Strategy 2020". Fields of action are "Climate/Energy", "Health/Nutrition", "Mobility", "Security", and "Communication". SSH are invited to participate in general but without any specifications for the fields of action in particular. [7]
- Education is also an important field of BMBF funding. Among others, this
 concerns aspects of educational equality, literacy, integration through
 education, and lifelong learning. Since 2007, the promoting of empirical
 educational research is one of the most interesting fields with regard to
 SSH. The "Framework Program for the Promotion of Educational
 Research" aims to strengthen empirical education research structures in
 Germany, promoting the internationality and interdisciplinarity in this field
 of research, and generate finding with regard to reform processes in the
 education sector. [8]
- As the name implies, the BMBF's "Framework Program for the Humanities, Cultural and Social Sciences" is solely addressed to the SSH and therefore of special interest when analyzing the translation of societal changes into SSH research. It is discussed in the following chapter because the program and its policies have recently changed.

1.2.2 New SSH policy developments

In 2007, the BMBF started a program called "Freedom for Research in the Humanities". [9] It will be continued and extended by the "Framework Program for the Humanities, Cultural and Social Sciences" from 2013 to 2017. The total budget for this program amounts to 380 million euros. Six new initiatives are included (cf. Chapter 2.5 for more detailed information about the single initiatives and its budgets):

- Building of new Institutes for Advanced Studies strongly cooperating with universities and other research partners;
- Strengthening the Area Studies by funding six new centers of excellence in universities:
- Special support for information infrastructure in SSH with a nexus to the European initiative for "Digital Research Infrastructure for the Arts und Humanities";
- Promoting young researchers;
- Funding for cultural heritage and research museums;
- Funding on research about religion, cultural diversity and cohesion.

Furthermore, as a part of the framework the BMBF together with the Laender continues to finance some non-university research institutions in the field of SSH, such as the Humanities Research Centers (Geisteswissenschaftliche Zentren) in Berlin and Leipzig, the Berlin Institute for Advanced Study (Wissenschaftskolleg zu Berlin), the Käte Hamburger Collegia (Käte Hamburger Kollegs), and the Social Science Research Center Berlin (Wissenschaftszentrum Berlin für Sozialforschung). [10]

Though the framework refers to societal benefits from SSH research and emphasizes the necessity of cultural and social orientation several times, it is striking that the reflection of single societal challenges and possible practical advances are not described as precisely as they are in other funding programs. Instead, the program has a comparatively stronger emphasis on the performing disciplines and on improving their basic conditions for research. Thus, we can conclude that SSH research is aware of the main societal challenges mentioned above and sensitized for it by the policy system in general, but in terms of nameable potentials for application still clearly to be distinguished from natural, technical or life sciences.

2. Policy Setting System

2.1 Government policy making and coordination

2.1.1 Policy formulation and coordination

Top-down policy formulation and coordination with regard to SSH research mainly arises from a governmental level. Due to the described division of responsibilities between the **Federal Government** and the sixteen **Laender** (cf. Chapter 1.1.1), the BMBF—the main body for the Federal Government—and the respective ministries for education and research on the Laender level can be mentioned as the most important top-down policy makers.

Besides, the German research system is also characterized by the idea of science-driven research policies formulated and coordinated on a **non-governmental intermediary level** (cf. Figure 1). The German Research Foundation (Deutsche Forschungsgemeinschaft, DFG) (http://www.dfg.de) as one of the largest providers of third-party funding, especially for university research, can be characterized as the self-governing organization for science and research. Even though it receives the large majority of its funds

from the Federal Government and the Laender, procedural regulations, votings, and also funding objectives and even programs to some extent are independently determined by scientists themselves. This can be seen as a prime example for the importance of bottom-up processes that have to be taken into account when talking about policy making in the German research system. This is also the case for the SSH research system since—as has been explained before—there are no special structures for it in particular.

While the Federal Government and the Laender may co-operate on a project-based level in cases of supraregional importance, there are two bodies highly significant for the policy making process.

The Standing Conference of the Ministers of Education and Cultural Affairs of the Laender in the Federal Republic of Germany (KMK) (http://www.kmk.org) unites the ministers and senators of the Laender responsible for education, higher education and research, as well as cultural affairs. The KMK deals with issues relating to educational policy at school and university level and research policy, as well as cultural policy of supraregional importance with the aim of achieving joint opinion and decision-making and of representing joint concerns. One key goal of the KMK is to ensure the highest possible degree of mobility throughout Germany for pupils, students, teaching personnel and those working in the academic sector by means of consensus and cooperation. Deriving from this, the tasks of the KMK can be defined as follows:

- Agreements on the equivalence and comparability of certificates and final qualifications;
- Working towards safeguarding quality standards in schools, vocational training and higher education;
- Promoting cooperation among educational, scientific and cultural institutions. [11]

In matters of research policy, the **Joint Science Conference (GWK)** (http://www.gwk-bonn.de) is even more important. It was founded in 2007 following the "Bund-Laender-Kommission für Bildungsplanung und Forschungsförderung" (BLK). The GWK is a joint committee for ministers and senators of the Federal Government and the Laender responsible for science and research as well as for finance, so there is an overlap with regard to the KMK. According to the agreement between the Federal Government and the Laender, the GWK "shall deal with all questions of research funding, science and research policy strategies and the science system which jointly affect the Federal Government and the Laender" [12]. Its tasks are defined as follows:

- Close coordination on questions of common interest in the field of national, European and international science and research policy with the aim of strengthening Germany's position as a location for science and research in the international competition;
- In cases of supra-regional importance, joint promotion of
 - institutions and projects in the field of non-university scientific research,

- scientific and research projects at institutions of higher education,
- the construction of research buildings at institutions of higher education, including large facilities, in accordance with the detailed definition of this agreement;
- Information about major plans and decisions which are not the object of joint funding. [13]

2.1.2 SSH policy advice

Quite a number of private and public players provide policy advice. In the following we mainly concentrate on institutions that are characterized by a comparably greater independence and continuity in their work. In addition, there are temporarily set-up commissions focusing on specific topics that are not listed here in detail.

The German Council of Science and Humanities (Wissenschaftsrat) (http://www.wissenschaftsrat.de) is an advisory body to the Federal Government and the Laender. Its function is to draw up recommendations on the development of science, research and the university sector as well as to contribute to the safeguarding of the international competitiveness of German science and humanities in the national and European system. These recommendations involve both considerations concerning quantitative and financial effects and the implementation of such considerations; they must be in line with the requirements of social, cultural and economic life. The main task of the Wissenschaftsrat is to provide recommendations which concern the further development (content-wise and structural) of science, research and higher education. In particular it provides recommendations and statements concerning the following issues of science policy:

- Overarching issues of the science system such as selected structural aspects of research and teaching as well as planning, evaluation and control of individual areas and disciplines;
- Scientific institutions (institutions of the higher education sector and non-university research institutions), in particular concerning their structure and performance, development and financing, and general questions relating to the system of higher education, selected structural aspects of research and teaching as well as the strategic planning and assessment of specific fields and disciplines.

The Wissenschaftsrat also facilitates a continuous dialogue between the scientific community and policy-makers on these issues.

The **Deutsche Akademie der Naturforscher Leopoldina** (http://www.leopoldina.org) was appointed as the German National Academy of Sciences in 2008. In founding a national academy, the idea was to create a legitimized institution that work scientifically on important social topics of relevance to the future, independently of economic or political interests, communicate its results in the political sphere and to the public, and represent these topics both nationally and internationally. Thus, the Leopoldina has a clear advicing role. Under its auspices, interdisciplinary groups of experts publish policy-guiding statements on issues of current interest. Looking at the classes that the members of the Leopoldina are

organized in, one can see that SSH plays a significant role, even though the Leopoldina traditionally focusses on natural and life sciences.

The German Council of Economic Experts (Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung) (http://www.sachverstaendigenrat-wirtschaft.de) established in 1963, is an academic body which advises the German Government and Parliament on economic policy issues and the overall economic developments. The Council's task is to analyze the current economic situation and its potential development as well as to investigate options and means of concurrently ensuring—within the framework of the free market economy—price stability, high employment, external equilibrium, and steady and adequate economic growth. In line with its legal mandate, the Council compiles and publishes an annual report.

The Commission of Experts for Research and Innovation (Expertenkommission Forschung und Innovation) (http://www.e-fi.de), established in 2006, provides scientific advice to the Federal Government on matters of research, innovation and technology policy, based on an interdisciplinary discourse combining expertise on research of innovation of economic and social sciences, education economics, engineering and natural sciences, and technology foresight. The commission provides reports on structures, trends, performance, and prospects of the German research and innovation system in a temporal and international comparison and examines priority issues of the German research and innovation system. It elaborates possible options for action and recommendations for further development of the German research and innovation system.

The Council for Social and Economic Data (Rat für Sozial- und Wirtschaftsdate) (http://www.ratswd.de) provides advice on the development of the German data infrastructure for empirical research in the social and economic sciences. This includes better access to microdata and improving data quality, as well as jointly developing long-term data surveys with official government (official statistical offices, social insurance institutions, government research units, etc.) and non-governmental institutions (universities and non-university research institutes).

Another relevant body providing advice is the **German Ethics Council** (**Deutscher Ethikrat**) (http://www.ethikrat.org), which was established in 2007 by the German Parliament. The main tasks of the council are to inform the public and encourage public discussion on issues of ethics relating to society, science, medicine and law and the consequences that may arise for the individual and the society as a result of research and development, in particular in the field of life sciences and their application to humanity. The council prepares opinions and recommendations for political and legislative action. In order to do so, the council co-operates with respective institutions in other countries or international organizations.

The Council for Sustainable Development (Rat für Nachhaltige Entwicklung) (http://www.nachhaltigkeitsrat.de) was established by the German Government in 2001. Its mandate was renewed in 2007. The council advises the government on its policy for sustainable development. It presents proposals for targets and indicators aiming at an advancement of the strategy of sustainable development. It also proposes projects aiming to

implement the strategy. The council also fosters social dialogue on issues of sustainability.

Germany or German representatives, often also SSH researchers, are participating in a wide range of international organizations, agencies, and bodies providing policy advice. The discussions there are also taken up and transmitted to the relevant bodies in Germany. As an example here the OECD Working Group on Innovation and Technology Policy (TIP) could be mentioned, which was established by the OECD Committee for Scientific and Technological Policy (CSTP) in March 1993. TIP brings national representatives together. The objective is to conduct analytical research on the links between innovation and growth, including productivity and job creation, and to evaluate national science and technology support systems in order to facilitate benchmarking and the identification of best practice policies. TIP reports the results gained and provides policy recommendations to the CSTP, where the information and best practices in order to improve science and technology policy making at the national level are exchanged and discussed between member countries. Similar bodies exist on other issues and other organizations.

Another example reflecting the way SSH provides policy advice are the activities of the Office of Technology Assessment at the German Parliament (Büro für Technikfolgen-Abschätzung beim Deutschen Bundestag, TAB) (http://www.tab.fzk.de). The main objective of the TAB, which was created in 1990, is to improve the information base for the deliberations and the decision-making processes of the Federal Parliament in Germany relating to research and technology. The TAB is an independent scientific institution which is operated by the Institute for Technology Assessment and Systems Analysis (ITAS), and the Fraunhofer Institute for Systems and Innovation Research (ISI), both based in Karlsruhe. Its main focus is on technology assessment, supplemented by monitoring and analyzing important scientific and technological as well as associated social trends and developments. Meanwhile technology foresight, the analysis of innovation developments and international policies, complement these activities and are reflected in the institute's various reports. Suggestions for projects can be submitted by the various parliamentary political groups. TAB informs the German Parliament and its committees, commissioned by the Committee on Education, Research and Technology Assessment, which also decides on which projects are to be realized by TAB. Projects are commissioned by TAB but can be carried out also by other institutions. Suggestions for projects can be submitted by the various parliamentary political groups. The findings of the various projects are presented to and discussed by the Committee on Education, Research and Technology Assessment and primarily made available via TAB working reports.

Eight foundations (Stiftung Mercator, Volkswagen Stiftung, Bertelsmann Stiftung, Freudenberg Stiftung, Gemeinnützige Hertie-Stiftung, Körber-Stiftung, Vodafone Stiftung and ZEIT-Stiftung Ebelin und Gerd Bucerius) initiated the Expert Council for Integration and Migration (Sachverständigenrat deutscher Stiftungen für Integration und Migration) (http://www.svr-migration.de), which was founded in October 2008. The main tasks of the Council are to critically monitor, analyze and assess recent developments in the area of integration and migration, and to

critically accompany relevant policy making and also provide neutral advice. The council publishes annual reports, expertise and recommendations.

The Stifterverband für die **Deutsche** Wissenschaft (http://www.stifterverband.de) is the business community's innovation agency for the German science system. It represents 3,000 companies, business associations and individuals and is privately funded. The main objective is to support research and higher education and to improve the quality of the science system. The Stifterverband aims at improving the framework conditions for science as such but does not support individual projects. It advocates reforms in the science system by identifying their innovative potential and demonstrating related effects in applied projects. New ideas are made public through recommendations, guidelines, and events. The Stifterverband promotes collaboration between universities and non-academic research institutions as well as science and industry. It also supports the creation of a single European education and research area and by capitalizing on the expertise of its multinational member companies, fosters German universities in developing a stronger international orientation. The Stifterverband initiates discussions between science, industry and politics. For instance in its 'Villa Hügel Talks', a long-standing discussion forum for decision-makers from the scientific, business and political communities, the Stifterverband picks up current societal and science oriented topics. Many of these discussions influence political decisionmaking processes and supply ideas for its programs.

Another important policy instrument is provided by foresight activities, which have a rather long tradition in Germany. The BMBF initiated its first foresight activities in 1991, resulting in the Delphi report, 1996, or the 'Future dialogue'. In September 2007 a new foresight initiative, focusing on the next 10 to 15 years, was started, aiming at the identification of new key areas in research and technology, areas for cross-cutting activities in the field of research and innovation, fields of technology and innovation with regard to their potential for strategic partnerships and priority fields of action for research and development. The recent process integrates various foresight methods ranging from desk research, policy analysis and bibliometric analysis to participative elements such as intensive expert discourse. The process is accompanied by a monitoring process. Workshops and conferences are held to disseminate results and to gain expert knowledge. Questions dealt with are: How can an existing innovation system quickly and effectively take on future topics with a time horizon of "10 to 15 years + X"? How do institutions or companies in other countries deal with future topics which do not fit in with traditional topic areas or which border on other topic areas? This reflects that the process is not only technology-driven but also takes into account issues that are dealt with by SSH research such as identifying adequate structures of the science and innovation system and implementing decision making issues. The results of the search phase became available in May 2010 along with contributions of experts that were generated in an online discussion phase in May/June 2010. Seven "New future fields" were identified in the Foresight process, the ones with SSHrelevance being "Human-Technology Cooperation", "Deciphering Ageing -Understanding Ageing" and "Sustainable Living Spaces". [14]

2.1.3 Main implementing bodies

One of the main bodies implementing research is the **German Research Foundation** (**Deutsche Forschungsgemeinschaft, DFG**) (http://www.dfg.de). As already described, the DFG is as one of the largest providers of third-party funding, especially for university research, and the largest self-governing organization for science and research in Germany, therefore also of importance for policy making (cf. Chapter 2.1.1). The DFG promotes research in all disciplines at universities and other publicly financed research institutions in Germany. The following ways of funding can be distinguished:

- Individual grants;
- Coordinated programs;
- Excellence Initiative;
- Research infrastructures;
- Scientific prizes;
- International cooperation.

In 2011, 318 million euros were spent on SSH research by individual grants and coordinated programs, which represents about 15.3 percent of the total budget of the DFG excluding the Excellence Initiative and the smaller funding programs mentioned above (cf. Chapter 3.2).

In general, research programs that are funded by the Federal Government are administered and managed by **project executing organizations** (**Projektträger**). From a legal perspective, they have to be differentiated from government agencies because the project executing organizations usually have to compete for implementing and managing single programs. The organizations are located within non-university institutions or similar scientifically qualified institutions. At the moment project executing organizations can be found within the following institutions:

- Deutsches Elektronen-Synchrotron (DESY),
- German Aerospace Center (Deutsches Zentrum f
 ür Luft- und Raumfahrt, DLR),
- Project Management Jülich (Forschungszentrum Jülich, FZJ),
- Gesellschaft f
 ür Schwerionenforschung (GSI),
- Karlsruhe Institute of Technology (KIT),
- VDI Technologiezentrum (VDI),
- VDI/VDE Innovation + Technik (VDI/VDE-IT). [15]

For advice concerning EU programs, national contact points are important bodies. The **National Contact Point for SSH** (Nationale Kontaktstelle für das Europäische Forschungsrahmenprogramm, NKS) (www.nks-swg.de), which is commissioned by the BMBF, is located in the German Aerospace Centre.

2.2 Impacting factors

2.2.1 Policy fields influencing SSH policies

On the Federal level the BMBF is the main actor in the policy setting system. However, all ministries influence research, not least by funding. This again is the case for the science system in general and SSH research in particular. When analyzing the expenditures for research and development by each ministry, one can see that following the BMBF with 7.2 billion euros and a share of 56.5 percent of the total expenditure by the Federal Government most of the other research in 2011 is financed by the Federal Ministry of Economics and Technology with 2.5 billion euros (19.1 percent) and the Federal Ministry of Defence with 1.2 billion euros (9 percent). In comparison with the past, the share of these ministries decreased in favor of the BMBF which in 1995 had a share of less than 50 percent (cf. Table 1).

Table 1: Expenditures by the Federal Government on research and development by government departments (in million euros)

Governmental Department	1995	2000	2005	2006	2007	2008	2009	2010	2011
Federal Chancellor and Federal Chancellery	63,0	69,2	91,0	92,6	97,0	99,0	78,1	87,0	79,2
ratio in recent year	0,8%	0,8%	1,0%	1,0%	1,0%	0,9%	0,7%	0,7%	0,6%
Federal Foreign Office	122,9	121,7	123,2	135,7	146,2	155,0	182,4	183,4	164,6
ratio in recent year	1,5%	1,4%	1,4%	1,5%	1,4%	1,4%	1,5%	1,4%	1,2%
Federal Ministry of the Interior	52,4	40,1	52,1	26,5	38,7	55,1	62,3	59,0	40,3
ratio in recent year	0,6%	0,5%	0,6%	0,3%	0,4%	0,5%	0,5%	0,5%	0,3%
Federal Ministry of the Justice	1,3	1,5	1,9	2,1	2,1	2,5	2,5	2,5	2,4
ratio in recent year	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
Federal Ministry of Finance	0,0	3,4	1,4	1,2	1,7	2,3	1,6	0,8	1,3
ratio in recent year	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
Federal Ministry of Economics and Technology	1827,0	1788,3	1770,3	1807,3	1953,4	2127,5	2382,2	2420,2	2526,6
ratio in recent year	21,8%	21,1%	19,6%	19,4%	19,3%	19,5%	19,9%	19,0%	19,1%
Federal Ministry of Labour and Social Affairs	21,1	27,9	39,5	24,1	26,3	31,2	29,6	33,1	36,9
ratio in recent year	0,3%	0,3%	0,4%	0,3%	0,3%	0,3%	0,2%	0,3%	0,3%
Federal Ministry of Food, Agriculture and Consumer Protection	232,6	217,0	217,1	230,5	294,2	345,7	469,5	509,0	477,5
ratio in recent year	2,8%	2,6%	2,4%	2,5%	2,9%	3,2%	3,9%	4,0%	3,6%
Federal Ministry of Defence	1469,5	1192,0	1087,5	1082,0	1257,3	1248,0	1121,1	1154,0	973,5
ratio in recent year	17,5%	14,1%	12,0%	11,6%	12,4%	11,4%	9,4%	9,0%	7,4%
Federal Ministry for Family Affairs, Senior Citizens, Women and Youth	19,9	16,7	20,9	16,3	18,0	22,4	24,1	23,2	23,5
ratio in recent year	0,2%	0,2%	0,2%	0,2%	0,2%	0,2%	0,2%	0,2%	0,2%
Federal Ministry of Health	94,7	91,5	99,6	113,4	110,1	111,7	129,4	124,4	120,4
ratio in recent year	1,1%	1,1%	1,1%	1,2%	1,1%	1,0%	1,1%	1,0%	0,9%
Federal Ministry of Transport, Building and Urban Affairs	106,8	99,9	123,6	122,0	137,2	149,8	174,8	200,6	247,5
ratio in recent year	1,3%	1,2%	1,4%	1,3%	1,4%	1,4%	1,5%	1,6%	1,9%
Federal Ministry for the Environment, Nature Conservation and Nuclear Safety	176,4	163,1	183,1	174,1	171,4	193,4	228,9	234,5	243,8
ratio in recent year	2,1%	1,9%	2,0%	1,9%	1,7%	1,8%	1,9%	1,8%	1,8%
Federal Ministry of Education and Research	4103,0	4536,2	5132,6	5397,9	5808,0	6358,7	6974,2	7207,2	7609,5
ratio in recent year	48,9%	53,6%	56,8%	58,0%	57,2%	58,2%	58,3%	56,5%	57,5%
Federal Ministry for Economic Cooperation and Development	25,4	25,9	35,1	26,8	29,9	29,2	33,2	33,3	34,4
ratio in recent year	0,3%	0,3%	0,4%	0,3%	0,3%	0,3%	0,3%	0,3%	0,3%
General Fiscal Administration	79,5	68,3	56,2	53,8	55,2	0,0	78,8	492,9	644,9
ratio in recent year	0.9%	0,8%	0,6%	0,6%	0,5%	0,0%	0,7%	3,9%	4,9%
Total expenditure	8395,6	8462,8	9035,1	9306,3	10146,7	10931,4	11972,5	12765,1	13226,3
ratio in recent year	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Source: Federal Ministry of Education and Research (BMBF) (2012): Federal Report on Research and Innovation 2012. Abstract. Berlin. p. 77–78.

Specific data on how much of the expenses in each ministry are spent on SSH is not available. However, we can briefly characterize the impact on SSH of some single ministries by having a special focus on the departmental research that is supervised by it or by describing its research interests in general in the following:

The Federal Ministry of Economics and Technology (BMWi) (www.bmwi.de):
While its main focus is on supporting innovation and technology. SSH related
activities in particular concern research focusing on issues relating to shaping
framework conditions to improve the climate for investment and consumption in
order to improve the demand for new products and services (e.g. tax system,
reduced bureaucracy, innovation in public procurement, innovation supporting

- norms and standards, IPR policies) as well as issues concerning optimizing relationships between industry and research.
- Under the auspice of the Federal Ministry of Defence (BMVG) (www.bmvg.de)
 the Bundeswehr Institute of Social Sciences (www.sowi.bundeswehr.de) is
 maintained, which carries out research on various military issues e.g. the
 introduction of business management elements into the Bundeswehr,
 multinational force structures and military integration or recruitment strategies. It
 also performs research that accompanies the Bundeswehr missions abroad.
- The Federal Ministry of Labour and Social Affairs (BMAS) (www.bmas.de) focuses on social integration and the basic conditions for employment. It maintains the Federal Institute for Occupational Safety and Health, (www.baua.bund.de) and the Institute for Employment Research of the Federal Employment Services (www.iab.de). Research commissioned in this area concerns all issues relevant for labor market policies, social security systems, retirement provision, social integration, and professional and medical rehabilitation.
- The Federal Foreign Office (AA) (www.auswaertiges-amt.de) is responsible for maintaining relations with other states and with international and supranational organizations. It maintains e.g. the German Archeological Institute (www.dainst.org) which carries out research in the area of archaeology and in related fields.
- The Federal Ministry of the Interior (BMI) (<u>www.bmi.bund.de</u>) is responsible for a broad range of tasks ranging from internal security, policy on foreigners and asylum, the public service, administrative reform and constitutional law to sport. It maintains the federal Institute for Population Research (<u>www.bib-demographie.de</u>).
- The Federal Ministry for Family, Senior Citizens, Women and Youth (BMFSFJ) (www.bmfsfj.de) is responsible for all issues relating to the promotion of families and represents family interests in the federal government. The German Youth Institute (DJI) (www.dji.de), the German Centre of Gerontology (www.dza.de) and the Institute for Social Work and Education belong to its portfolio.
- The Federal Ministry of Health (BMG) (<u>www.bmg.bund.de</u>) focuses predominantly on the drafting of bills, ordinances and administrative regulations. It seeks to improve the population's health. Departmental research is organized at the National Centre for Health Awareness (<u>www.bzga.de</u>).
- The areas of responsibility of the Federal Ministry of Transport, Building and Urban Affairs (BMVBS) (<u>www.bmvbs.de</u>) are closely related to the basic requirements of citizens. SSH relevant research is done in the federal Office for Building and Regional Planning (<u>www.bbr.bund.de</u>).
- The Federal Ministry for Economic Cooperation and Development (BMZ) (www.bmz.de) aims at contributing to resolve crises and conflicts in a peaceful manner. It aims to help ensure that scarce resources are more equitably shared, that the environment is preserved for coming generations and to reduce global poverty. It maintains the German Development Institute (www.die-gdi.de).
- Also the Federal Ministry for Education and Research (BMBF) (www.bmbf.de) being responsible for research promotion, regulation of general policy in the higher education sector, promotion of basic research and key technologies, maintains a governmental research institute: The Federal Institute for Vocational Training (www.bibb.de) focuses on issues of education.

2.2.2 Influence of European and international developments

European debates influence national SSH policy making in many ways.

Firstly, the **Bologna Process** has restructured the German higher education sector over the last year, especially by the introduction of the Bachelor and Master degrees replacing traditional diploma degrees, usually on a Master's level. In 2012, 87 percent of all study programs at German universities are based on the Bachelor/Master cycle. Only 2.6 percent are still based on a traditional diploma. The rest of the programs lead to state or ecclesiastical examination. This can be seen as a proof for an internationalization of the higher education system in general. Another effect of the Bologna Process is the increasing importance of structured programs for PhD training. While there is a strong debate on the success of the reform, not only in the academic circles but prominently covered also in the media, this debate as well as the results of the OECD PISA studies led already to a stronger focus on educational research. In 2007, a new funding program was initiated by the BMBF focussing on educational research [16].

Internationalization of research—not only focussing on the European Research Area—is another relevant issue that is being discussed and dealt within SSH research. The BMBF consequently developed an internationalization strategy in order to lay the ground for improving international research collaboration with scientifically leading countries and to make use of innovation potential internationally. While collaboration with developing countries is also in the focus of the strategy, it is not addressing particular disciplines (cf. Chapter 4.5.3). [17]

The **AHELO Initiative**, a pilot exercise initiated by the OECD in 2008, aims at developing a methodology to assess students upon graduation. AHELO assesses student performance in order to provide data on the relevance and quality of teaching and learning in higher education. The feasibility study, with special focus on general skills as well as economics and engineering, is expected to the beginning of 2013. Germany is participating in the AHELO group of national experts as an observing country (www.oecd.org/ahelo). Moreover, Germany is implementing a national program focusing on developing methodologies for assessing competencies.

2.2.3 Relevance of European and international SSH research

This section outlines the participation of German researchers and institutions in SSH relevant activities in the last **EU's Framework Programs (FP)**. In FP 5 German researchers from 88 different institutions—the majority being universities—participated in 131 SSH relevant projects, 35 of which were coordinated by German institutions. In FP 6 SSH related research was primarily carried out under Priority 7 "Citizens and Governance in a Knowledge-based Society", which contained eight different research areas. German institutions participated in all eight areas with a total number of 198 projects. Also relevant was research carried out under Priority 8 "Scientific Support to Policies" and the two thematic areas funded under this priority. German institutions participated with 20 projects.

In FP7, SSH research is mainly funded under "Cooperation" and its program "Socio-economic sciences and the humanities". Currently, 180 projects are funded. Among them, 25 projects are coordinated by a German research

institution. 126 institutions in Germany participate in projects as partners. Only the United Kingdom achieved greater participation in both ways (36 project coordinations and 147 partnerships). [18] This shows the high relevance of European SSH research for Germany.

The following table also shows the participation of German research institutions in each area of the program.

Table 2: Participation of German research institutions in the cooperation program "Socio-economic sciences and the humanities" from 2007 until 2012

Area	Project coordination	Partnership
Growth, employment and competitiveness in a knowledge society (innovation, competitiveness and labor market policies; education and life-long learning; economic structures and productivity)	5	35
Combining economic, social and environmental objectives in a European perspective (models within Europe and across the world, economic and social and cohesion across regions, social and economic dimensions of environmental policy)	8	25
Major trends in society and their implications (demographic change, reconciling family and work, health and quality of life, youth policies, social exclusion and discrimination)	2	25
Europe in the world (trade, migration, poverty, crime, conflict and resolution)	0	22
The citizen in the European Union (political participation, citizenship and rights, democracy and accountability, the media, cultural diversity and heritage, religions, attitudes and values)	4	23
Socio-economic and scientific indicators (the use and value of indicators in policymaking at macro and micro levels)	2	15
Foresight activities (the future implications of global knowledge, migration, ageing, risk and the emerging domains in research and science)	1	4
Strategic activities (including research for policy support and international cooperation)	2	12

Source: European Commission (2010): European Research. Socio-economic Sciences and Humanities. List of projects 2007-2010. Brussels. — European Commission (2012): Socio-Economic Sciences and Humanities. Synopsis of FP7 projects 2011-2012 (Provisional addendum). Brussels.

For instance, the HERA (Humanities in the European Research Area) Joint Research Programme on "Cultural Encounters" (http://www.heranet.info/hera-joint-research-programme-2) is a particularly extensive project in which Germany is taking part. Launched in 2012 by the HERA Network, it is establishing a transnational program platform for multi-disciplinary research on the causes and consequences of cultural encounters and its ensuing cultural and political challenges facing Europe. Research funding organizations from 18 countries and the European Commission are providing up to 18.5 million euros to fund humanities-centered projects involving researchers from three or more of the

participating countries. Such a collaborative research project has a maximum budget size of 1 million euro, a maximum length of three years, and will start in 2013. Proposed research may draw from a wide array of arts and humanities disciplines.

Moreover, Germany participates in SSH projects funded by the cooperation specific program of RP 7 in which most of the ERA-NETs are included. In the following only cooperation specific SSH projects are listed which were funded until 2012 at least:

- "POLIcy for NAtural RESouces" (POLINARES) (https://www.polinares.eu) concentrates on the global challenges faced with respect to access to oil, gas and mineral resources over the next 20 years and proposes solutions for the various policy actors, including the EU. Combined theoretical and empirical analyses will use expertise from a wide range of disciplines including political science, economics, geology, engineering, technology, law and security studies. The budget for three years totals 3.4 million euros. From Germany the Fraunhofer Institute for Systems and Innovation Research (Fraunhofer ISI) and the Federal Institute for Geosciences and Natural Resources (Bundesanstalt für Geowissenschaften und Rohstoffe, BGR) are involved as partners.
- Analysis "Prospective for the Mediterranean Region" (MEDPRO) (http://www.medpro-foresight.eu) undertakes a deep foresight analysis of the development issues in eleven countries in the Southern and Eastern Mediterranean participating in the Barcelona process and in the Union for the Mediterranean. The project will undertake an analysis of the current state and prospective development in main areas of socio-economic development: Geopolitics and governance; demography, ageing, migration, health and gender issues: sustainable development, management of resources, adaptation to global warming; energy and climate change mitigation; economic development, trade and investment; financial services and capital markets and human capital, education and development of skills. The budget for three years totals 3.6 million euros. The Centre for European Economic Research (Zentrum für Europäische Wirtschaftsforschung, ZEW) participates as German partner institution.
- "New Opportunities for Research Funding Co-operation in Europe" (NORFACE) (http://www.norface.org) is a partnership between fifteen research councils to increase co-operation in research and research policy in Europe. Germany participates by the German Research Foundation (DFG). There is also the project "NORFACE transnational program on migration in Europe" (NORFACE PLUS) which deals with the multi-faceted phenomenon of migration and the causes, actualities and effects of these movements of people. The total NORFACE PLUS budget for five years is 50.7 million euros.
- "Science, innovation, firms and markets in a globalized world" (SCIFI-GLOW) (http://www.cepr.org/research/SCIFI-GLOW.htm) examines simultaneously the organization of the knowledge sector and the behavior of firms and markets. Therefore it connects economics of science and innovation, economics of incentives and contracts, industrial organization, international trade, and labor economics. The total budget for four years is 1.4 million euros. On behalf of the German side, the Ludwig-Maximilians-Universität München participates. [19]

Germany also participates in the funding of the **European Research Council (ERC)**. During the last four years 14 percent of all Starting Grants and 8.2 percent of all Advanced Grants were granted to German host institutions. More grantees were only hosted in the United Kingdom with regard to the Advanced Grant program and in the United Kingdom and France with regard to the Starting Grant program. Especially the number of

Starting Grants was increasing from 29 in 2009 to 80 in 2012. Analyzing the number of grantees at German host institutions in comparison with other fields of research, one can see that the SSH share is lower than in national funding programs. Even though the ERC is only differentiating between three general fields of research, in 2012 the share of SSH totaled 10 percent for the Starting Grants and 12.5 percent for the Advanced Grants. There had been lower and higher shares during the last years (cf. Table 3).

Table 3: Number of ERC grantees in German host institutions per domain in different years

ERC funding scheme	All fi	All fields of research					Scien ineeri		L	ife Sc	ience	s		SS	SH	
	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012
Starting Grants	29	70	64	80	10	37	31	40	12	28	28	32	7	5	5	8
ratio	100%	100%	100%	100%	34,5%	52,9%	48,4%	50,0%	41,4%	40,0%	43,8%	40,0%	24,1%	7,1%	7,8%	10,0%
Advanced Grants	32	47	53	40	15	24	23	12	12	17	25	23	5	6	5	5
ratio	100%	100%	100%	100%	46,9%	51,1%	43,4%	30,0%	37,5%	36,2%	47,2%	57,5%	15,6%	12,8%	9,4%	12,5%

Source: European Research Council. Online: http://erc.europa.eu/statistics-0 (06-02-2013)

2.2.4 Impact of evaluations

After years of incremental changes, the German public research system now faces radical reforms. In this context evaluation becomes increasingly important [20]. Evaluation is carried out at three different levels: evaluation on an individual, on a program, or on an institutional level. Evaluation of individual performance is mainly organized as peer review processes and used to decide on resource allocations. In the DFG for example this is the preferred instrument for funding decisions, no matter which area is concerned. Program evaluation is becoming increasingly important and is used to assess whether the objectives defined for a program have been accomplished. Institutional evaluation is used to assess the performance of research institutions and large scientific areas in order to provide information for strategic decision making within the institutions and regarding relevant funding bodies, to provide a basis to decide whether and how to continue supporting the institutions or scientific areas, and to facilitate priority setting.

As in other countries, rankings of institutions are compiled and published which attract significant attention in the media. Among the most well-known are the CHE Research Ranking and the Funding Atlas (formerly Funding Ranking) of the DFG.

CHE Research Ranking (<u>www.che-ranking.de</u>):

- Scope: academic research, currently covering seven subjects from natural sciences, humanities and social sciences;
- Aim: to make performance in academic university-based research transparent throughout Germany; to classify universities that are strong in specific areas of research under disciplinary subject headings; to provide overviews on research profile of the respective university;
- Nature: quantitative analysis, standardized surveys, bibliometric analysis, patent analysis;
- Time Frame: one year;

- Frequency: annual, 4-year assessment per subject;
- Key results and policy recommendation: indirect.
- DFG Funding (http://www.dfg.de/en/dfg profile/evaluation statistics/funding atlas/inde x.html):
 - Scope: universities and non-university research institutions in all disciplines, comparative, profiling;
 - Aim: to provide an overview of the distribution of awards to universities and non-university research institutions;
 - Nature: quantitative data on public funding;
 - Time Frame: three years;
 - Frequency: every 3 years;
 - Key results and policy recommendation: indirect.

At the Laender level, another important actor in research evaluation is the **Scientific Commission for Lower Saxony** (www.wk.niedersachsen.de). It carries out evaluations of research institutions and universities or university departments in Lower Saxony. Based on these evaluations advice is provided to the Research Ministry in Lower Saxony concerning the further development of the structure of the science system in Lower Saxony but also to the universities in the context of university internal evaluations.

- Scope: diverse SSH fields
- Aim: evaluation-based policy advice for the research ministry of Lower Saxony
- Nature: descriptive part plus quantitative statistics, site visits
- Time Frame: case related
- Frequency: case related
- Key results and policy recommendation: direct policy advice

More generally, even though the relevance of evaluation is increasing and a dynamic development of new methods and instruments can be observed, evaluation activities are still not systematic and are rather fragmented [21].

Specifically devoted to SSH are the discussions concerning the need for better methods and indicators to assess SSH research activities. Acceleration of the discussion is seen since the Science Year of the Humanities in 2007. There are a number of questions discussed predominantly within academic circles, although the issue of measuring the 'performance' of universities or particular disciplines is also reflected in the media. The main questions are on the adequate indicators for SSH research performance and the consequences in cases where standard indicators are used and taken as a basis for funding decisions. Meanwhile, a number of initiatives can be identified at EU-level such as the European Educational Quality Indicator Project, a collaborative research project that started in April 2008 and ended in 2011. It received 1.5 million euros of funding under FP7

(EERQI, <u>www.eerqi.eu</u>). The assumed impact of the European Reference Index for the Humanities (ERIH) on SSH Quality Assessment is debated in Germany as well. ERIH was developed within a network of European funding organizations as well as the European Science Foundation.

2.2.4.1 Project evaluation

The German Research Foundation (DFG), as the largest research funding organization in Germany, allocates its funds for research projects in all fields of science and the humanities based on scientific review of proposals. Project evaluation thus is an integral part of the DFG's funding process. The external reviewers, who are selected by the Head Office on the basis of their expertise, evaluate the proposals according to scientific excellence, relevance and originality. Their statements form the basis for the subsequent funding decisions. Review boards ensure that reviewers were selected appropriately. DFG reviewers work in an honorary capacity. The review boards, whose members are selected from the scientific community, ensure the quality of the decision. In cases where the reviewers have prepared written evaluations, a separate procedural step is carried out. Here, the review boards assess whether reviewers were appropriately chosen and the content of their statements, in order to prepare a funding decision based on a comparison of all proposals received within the particular subject. The funding recommendation is then forwarded to the decision-making bodies. which take the final funding decision [22]. Project evaluation as exercized by the DFG is the most relevant example. However, also all other funding bodies use project evaluation in order to distribute their funds.

2.2.4.2 Program evaluation

Program evaluations are common in Germany. Especially research programs that are carried out by the two major funding bodies—the Federal Ministry of Education and Research (BMBF) and the German Research Foundation (DFG)—are commonly evaluated. More and more, program evaluations serve as impact analyses for the implementing federal bodies, aiming at assessing if set political goals are being accomplished via the research programs [23]. External research institutes carry out such evaluation studies on behalf of the administration. These institutes apply a rather broad set of evaluation instruments and are organized in the German Society for Evaluation (Gesellschaft für Evaluation, DeGEVal), since 1997 [24].

Concerning the DFG, program evaluations mostly are not SSH-specific but related to funding programs which are set up for all fields of science, such as the monitoring of the German Excellence Initiative or the evaluation of the Emmy Noether Program. As to SSH, currently the "Sondersammelgebiete" of the DFG, a special interest collection of literature that forms part of the DFG's Scientific Library Services and Information Systems, is being evaluated [25].

Some major recent program evaluations—none of them SSH specific, but all including SSH research—are the following:

Evaluation title

Monitoring of the Research Training Group Funding Program

Program title	Research Training Group Funding Program (implemented by DFG)				
Type of program	Non-thematic horizontal				
Type of evaluation	Periodic monitoring of ongoing funding program				
Period covered	2007–2008				
Objectives	To provide new insights into the RTG funding practices. The results are also informative for research policy questions above and beyond the RTG program, as information on doctoral researchers in Germany, in particular, is limited.				
Approaches	Statistically collected information on developments in Research Training Groups (RTG). Data sources were the periodic online surveys as well as the DFG proposal database				
Key results and recommendations	Periodic update on key issues which are used to optimize and adapt the ongoing funding program				
Availability	http://www.dfg.de/download/pdf/dfg im profil/evaluation statistik/programm_evaluation/bericht_dfg_monitoring_grk_2011.pdf				
Tags	Monitoring, non-thematic, DFG, Research Training Group				

Evaluation title	Monitoring of the German "Excellence Initiative"
Program title	German Excellence Initiative (implemented by DFG)
Type of program	Non-thematic horizontal
Type of evaluation	Monitoring
Period covered	Both phases of the Excellence Initiative (2006–2011 and 2011–2017)
Objectives	A monitoring-system that allows the estimation of both intended and unintended effects of the program
Approaches	Interviews, expert interviews, bibliometric analyses, data-based analysis, text analysis (i.e. analysis of proposals), (online surveys)
Key results and recommendations	Results exist for the implementation phase of the Excellence Initiative and the review process.
Availability	http://www.research- information.de/Projekte/Exzellenz/projekte_exzellenz.asp
Tags	Monitoring, non-thematic, Excellence Initiative

Evaluation title	Comparative Evaluation of the Emmy Noether Program
Program title	Emmy Noether Program, young research group leader program of the German Research Foundation (DFG)
Type of program	Non-thematic horizontal
Type of evaluation	Evaluation of on-going funding program
Period covered	Interviews conducted in 2006–2007
Objectives	To analyze the effects of the involved funding policy and explore the specific difficulties and problems of externally funded Postdocs.
Approaches	Mixed-method-design combining a traditional quantitative survey with qualitative methods (problem focused interviews, document analyses) and bibliometric techniques (analyses of publications and

	citations)
Key results and recommendations	http://www.research- information.de/Projekte/Emmy Noether/wp3 executive summary e nglisch.pdf
Availability	http://www.research- information.de/Projekte/Emmy_Noether/projekte_emmy.asp
Tags	Emmy Noether Program, non-thematic, mixed-method design, survey, bibliometrics

2.2.4.3 Institutional evaluation

The number of institutional evaluations is increasing. The **German Council for Science and Humanities (Wissenschaftsrat)** is the relevant actor for institutional evaluation and assessments of large scientific areas [26]. Its evaluation committee carries out evaluations of scientific establishments at the request of the Federal Government and the Laender. In 2006, an assessment of the humanities as such and the six humanities research centers in particular was published providing recommendations concerning the development and advancement of the humanities [27]. The Wissenschaftsrat challenges the universities to increasingly develop concepts for portfolios in the humanities, also taking into account the necessity to base the humanities in an interdisciplinary research environment. As the humanities are also facing the recent changes in the governance system which includes the introduction of performance based funding, the humanities are asked to contribute to the development of adequate methods and indicators for assessing performance.

To support universities and non-university research institutions in their strategic decision making by taking into account subject-specific performance profiles, the Wissenschaftsrat developed a methodology for rating research which was tested in a pilot exercise for the disciplines of chemistry and sociology [28]. So far, the aim has been to test the feasibility and usefulness of the research rating process across a range of methodically diverse subjects. The methodology is based on informed peer review drawing upon an extensive analysis of quantitative and qualitative data. Experts from the individual fields of research define criteria and data in a discipline-specific manner. Research quality is assessed at the level of research units, making it possible to recognize differences within individual institutions. The institutions are assessed by six different criteria, which are not aggregated to an overall result. Thereby, the assessments reflect the institutions' different profiles and missions. For the first time, universities and non-university research institutions in Germany are evaluated in a single, comprehensive exercise. In the result of the so far performed pilot exercises, it was concluded by the steering group, that the research rating system developed by the Wissenschaftsrat can, due to its unique characteristics, perform a number of functions that cannot be fulfilled satisfactorily by existing procedures. Consequently, the Wissenschaftsrat decided to further develop the process for research rating and implement the lessons learned from the pilot study by applying them to one discipline from humanities and one from the technological sciences.

Concerning the humanities, it was decided to carry out the research rating for the subject of Anglo-American studies. The results have recently been published. They demonstrate a strong international and interdisciplinary approach of the field. It is notable that the criteria defined by the experts from the Anglo-American studies differ considerably from those in the other pilot studies. Especially, publications of all types, including monographs and anthologies, and professional activities such as in academic responsibilities or in editorial boards are taken into consideration. [29]

The Wissenschaftsrat has conducted numerous evaluations of non-university institutes, among them the assessment of the Federal departmental research [30], including those institutes focusing on SSH. In the following, for reasons of clarity, only the two last evaluations of institutions focusing on SSH research are characterized:

Organization	Non-university research institutions in the field of Eastern European studies
Type of evaluation	Review of 21 SSH institutions with the aim to promote strategic planning, appraisal and governance of their specific field
Period covered	Long-term development in general, specific periods related to criteria
Objectives	Governance, organization, staff, and financial environment; Missions and profiles; research; Teaching, education, and promotion of young scientists; Cooperations; Infrastructures and services
Approaches	Self-reports and survey, document analysis, consultations, exemplary on-site visits
Key results and recommendations	The German research in the field of Eastern European studies has a good international reputation. However, a structural enlargement is necessary. Especially, more cooperation between the evaluated institutions and universities as well as a more intense exchange with the historical sciences in general and with contemporary social sciences is recommended.
Availability	http://www.wissenschaftsrat.de/download/archiv/2850-13.pdf (06-02-2013)
Tags	Eastern European studies; recommendations, long-term development, overlapping review

Organization	Higher Education Information System (HIS-Institut für Hochschulforschung, HIS-HF)
Type of evaluation	Review with the aim to produce recommendations for further funding
Period covered	Long-term development in general, specific periods related to criteria
Objectives	Assessment of scientific performance, structure, governance, profile
Approaches	Self-report, on-site visit, document analysis
Key results and recommendations	HIS-HF is institute with a large volume of relevant studies and data for higher education research in Germany, such as on

	the educational behavior of potential students, students and graduates. It is recommended to give the HIS-HF a legal independence from the HIS organization, to improve the research performance, and to strengthen the cooperation with other institutions in this field of research. By the way, the evaluation summarized that further improvements for the whole German landscape of higher education and science research is necessary.
Availability	http://www.wissenschaftsrat.de/download/archiv/2848-13.pdf (06-02-2013)
Tags	Higher Education Information System (HIS), higher education and science research, long-term development

Furthermore, the Wissenschaftsrat also carried out the following evaluations with relevance to SSH since 2006:

- Stellungnahme zum Centre Marc Bloch (CMB), Berlin, January 2013, http://www.wissenschaftsrat.de/download/archiv/2847-13.pdf
- Stellungnahme zum Wuppertal Institut für Klima, Umwelt, Energie GmbH, Wuppertal, May 2012, http://www.wissenschaftsrat.de/download/archiv/2181-12.pdf
- Umsetzung der Empfehlungen aus der zurückliegenden Evaluation der Bundeszentrale für gesundheitliche Aufklärung (BZgA), Köln, January 2012, http://www.wissenschaftsrat.de/download/archiv/1841-12.pdf
- Umsetzung der Empfehlungen aus der zurückliegenden Evaluation des Deutschen Jugendinstituts e.V. (DJI), München, May 2012, http://www.wissenschaftsrat.de/download/archiv/2022-12.pdf
- Umsetzung der Empfehlungen aus der zurückliegenden Evaluation des Deutschen Zentrums für Altersfragen e.V. (DZA), Berlin, May 2012, http://www.wissenschaftsrat.de/download/archiv/2021-12.pdf
 - Stellungnahme zum Bremer Institut für Präventionsforschung und Sozialmedizin (BIPS), Bremen, May 2011, http://www.wissenschaftsrat.de/download/archiv/1245-11.pdf
- Stellungnahme zum Deutschen Literaturarchiv Marbach, May 2011, http://www.wissenschaftsrat.de/download/archiv/1243-11.pdf
- Stellungnahme zur Klassik Stiftung Weimar, May 2011, http://www.wissenschaftsrat.de/download/archiv/1242-11.pdf
- Bundesinstitut für Bevölkerungsforschung (BiB), Wiesbaden, January 2010, http://www.wissenschaftsrat.de/download/archiv/9651-10.pdf
- Stellungnahme zum Antrag auf Aufnahme des Instituts für Europäische Geschichte (IEG), Mainz, in die gemeinsame Förderung durch Bund und Laender nach der Ausführungsvereinbarung WGL, November 2010 http://www.wissenschaftsrat.de/download/archiv/10293-10.pdf
- Stellungnahme zum Sozialwissenschaftlichen Institut der Bundeswehr, Strausberg (Drs. 9500-09), November 2009, http://www.wissenschaftsrat.de/download/archiv/9500-09.pdf
- Stellungnahme zum Deutschen Jugendinstitut (DJI), München (Drs. 8783-08), November 2008 http://www.wissenschaftsrat.de/download/archiv/8783-08.pdf

- Stellungnahme zum Deutschen Zentrum für Altersfragen (DZA), Berlin (Drs. 8779-08), November 2008, http://www.wissenschaftsrat.de/download/archiv/8779-08.pdf
- Stellungnahme zum Institut für Sozialarbeit und Sozialpädagogik (ISS), Frankfurt am Main (Drs. 8782-08), November 2008 http://www.wissenschaftsrat.de/download/archiv/8782-08.pdf
- Stellungnahme zum Deutschen Archäologischen Institut (DAI), Berlin (Drs. 8303-08), January 2008 http://www.wissenschaftsrat.de/download/archiv/8303-08.pdf
- Stellungnahme Bundesinstitut für Kultur und Geschichte der Deutschen im östlichen Europa (BKGE), Oldenburg (Drs. 8176-07), November 2007 http://www.wissenschaftsrat.de/download/archiv/8176-07.pdf
- Stellungnahme zum Institut für Arbeitsmarkt- und Berufsforschung (IAB), Nürnberg (Drs. 8175-07), November 2007 http://www.wissenschaftsrat.de/download/archiv/8175-07.pdf
- Stellungnahme zum Deutschen Institut für Internationale Politik und Sicherheit der Stiftung Wissenschaft und Politik (SWP), Berlin (Drs. 7262-06), May 2006 http://www.wissenschaftsrat.de/download/archiv/7262-06.pdf
- Stellungnahme zum Deutschen Institut für Entwicklungspolitik (DIE), Bonn (Drs. 7701-07), Januar 2007 http://www.wissenschaftsrat.de/download/archiv/7701-07.pdf

The **Leibniz Association** regularly carries out systematic evaluations of their institutions. As a rule each institute is evaluated every seven years. This includes the evaluation of their SSH institutes.

- Scope: Leibniz institutes
- Nature: external, quantitative statistics, informed peer review and site visits, international peers; self-assessment
- Time Frame: three years or period since last evaluation
- Frequency: every seven years
- Key results and policy recommendation: internal quality assurance; strategic orientation and decision on further funding

As examples, two Leibniz institutes with SSH focus that recently passed through their 'once every seven years'-evaluation are presented in more detail below.

Organization	Centre for European Economic Research (Zentrum für Europäische Wirtschaftsforschung, ZEW), 2010
Type of evaluation	Leibniz institutional evaluation
Period covered	2003–2009
Objectives	Decision on further funding by the Leibniz Association and optimization
Approaches	Self-report, on-site visit
Key results and recommendations	Further funding is recommended. ZEW is well visible in Germany and abroad and is one of the leading economic research institutes in Europe.

Availability	http://www.wgl.de/?nid=ssn&nidap=&print=0
Tags	Leibniz Association, evaluation, institutional, ZEW, self-report, on-site visit

Organization	Leibniz Research Centre for Working Environment and Human Factors (Leibniz-Institut für Arbeitsforschung an der Technischen Universität Dortmund - IfADo)
Type of evaluation	Leibniz institutional evaluation
Period covered	2004–2010
Objectives	Decision on further funding by the Leibniz Association and optimization
Approaches	Self-report, on-site visit
Key results and recommendations	Further funding is recommended. Unique basic research, general improvement since last evaluation, development of a systematic research strategy strongly recommended.
Availability	http://www.wgl.de/?nid=ssn&nidap=&print=0
Tags	Leibniz Association, IfADo, evaluation, institutional, self-report, on-site visit

The following SSH institutes of the Leibniz Association were evaluated since 2006. All reports are available via http://www.leibniz-gemeinschaft.de/ueber-uns/evaluierung/das-evaluierungsverfahren-des-senats/senatsstellungnahmen/:

- Deutsches Institut f

 ür Wirtschaftsforschung, Berlin (DIW), 2012
- Rheinisch-Westfälisches Institut für Wirtschaftsforschung, Essen (RWI), 2012
- Herder-Institut für historische Ostmitteleuropaforschung Institut der Leibniz-Gemeinschaft, Marburg (HI), 2012
- Deutsches Institut f
 ür Erwachsenenbildung, Bonn (DIE), 2012
- Institut f
 ür Weltwirtschaft an der Universit
 ät Kiel (IfW), 2012
- GESIS Leibniz-Institut für Sozialwissenschaften, Köln, Mannheim, Berlin, 2012
- Wissenschaftszentrum Berlin für Sozialforschung gGmbH (WZB), 2011
- Leibniz-Institut f
 ür ökologische Raumentwicklung e.V., Dresden (IÖR), 2011
- Technische Informationsbibliothek Hannover (TIB), 2011
- Deutschen Zentralbibliothek für Wirtschaftswissenschaften Leibniz-Informationszentrum Wirtschaft, Kiel und Hamburg (ZBW), 2011
- Institut f
 ür Wirtschaftsforschung Halle (IWH), 2011
- Fachinformationszentrum Karlsruhe Leibniz-Institut für Informationsinfrastruktur GmbH (FIZ Karlsruhe), 2011
- Leibniz-Institut f
 ür Regionalentwicklung und Strukturplanung, Erkner (IRS), 2011
- Institut f
 ür Deutsche Sprache, Mannheim (IDS), 2010

- Leibniz-Institut f
 ür die P
 ädagogik der Naturwissenschaften und Mathematik an der Universit
 ät Kiel (IPN), 2010
- Zentrum f
 ür Europäische Wirtschaftsforschung (ZEW), 2010
- Leibniz-Institut f
 ür Arbeitsforschung an der Technischen Universit
 ät Dortmund (IfADo), 2010
- Institut f
 ür Wirtschaftsforschung an der Universit
 ät M
 ünchen (ifo); 2009
- GESIS Leibniz-Institut f
 ür Sozialwissenschaften; GESIS, 2008
- Leibniz-Institut f
 ür Altersforschung Fritz-Lipmann-Institut e. V. (FLI), 2008
- Leibniz-Institut f
 ür Globale und Regionale Studien (GIGA), 2008
- Akademie f
 ür Raumforschung und Landesplanung (ARL); 2008
- Leibniz-Institut f
 ür Laenderkunde (IfL), 2008
- Germanisches Nationalmuseum (GNM), 2008
- Deutsches Forschungsinstitut f
 ür öffentliche Verwaltung Speyer (FÖV), 2007
- Institut f
 ür Wirtschaftsforschung Halle (IWH), 2007
- Institut für Zeitgeschichte (IfZ), 2007
- Römisch-Germanisches Zentralmuseum (RGZM), 2007
- Institut f
 ür Wissensmedien (IWM), 2006
- Rheinisch-Westfälisches Institut für Wirtschaftsforschung (RWI), 2006

2.2.5 Impact of infrastructures

Infrastructures are an integral part in the more quantitative-oriented SSH research, especially in the empirical social science and economics. Especially in the field of large surveys and data archiving, the impact of infrastructures is high and highly valued. In contrast, the discussion about the impact of infrastructures in the more qualitative-oriented SSH is comparatively new. In the last three years, the Wissenschaftsrat repeatedly recommended to strengthen the digitalization of collections in libraries, archives, and museums as well as relevant virtual working environments. In an overlapping recommendation the Wissenschaftsrat suggests to develop infrastructure platforms for six different cross-sectional types of SSH research. These six types are:

- Experimental research;
- Observational research;
- Hermeneutical research;
- Terminological research;
- Designing research;
- Simulations.

It is recommended to strengthen the infrastructure funding, to establish a council for information infrastructure, and to support individual initiatives opened by the research community. [31]



2.3 Important policy documents

The following recent¹ documents are relevant:

SSH specific documents

- Wissenschaftsrat (2011): Empfehlungen zu Forschungsinfrastrukturen in den Geistes- und Sozialwissenschaften. Drs. 10465-11. Berlin. Online: http://www.wissenschaftsrat.de/download/archiv/10465-11.pdf (08-02-2013).
- Bundesministerium für Bildung und Forschung (BMBF) 2012: Rahmenprogramm Geistes-, Kultur- und Sozialwissenschaften. For an overview in English, please visit http://www.bmbf.de/en/4630.php.

Further important documents

- Federal Ministry of Education and Research (BMBF) (2010): Ideas. Innovation. Prosperity. High-Tech Strategy 2020 for Germany. Berlin, Bonn.
 Online: http://www.research-in-germany.de/dachportal/en/downloads/download-files/74058/high-tech-strategy-2020-for-germany.pdf (08-02-2013).
- EFI-Commission (2010): EFI-Report 2010. Research, Innovation and Technological Performance in Germany. Berlin. Online: http://econstor.eu/bitstream/10419/43843/1/644453559.pdf (08-02.2013).
- Deutsche Forschungsgemeinschaft (2012): Förderatlas 2012. Kennzahlen zur öffentlich finanzierten Forschung in Deutschland. Bonn. Online: http://www.dfg.de/download/pdf/dfg_im_profil/evaluation_statistik/foerderatlas/dfg-foerderatlas_2012.pdf (08-02-2013).
- Federal Ministry of Education and Research (BMBF) (2012): Federal Report on Research and Innovation 2012. Abstract. Berlin. Online: http://www.bmbf.de/pub/bufi 2012 en abstract.pdf (08-02-2013).

2.4 Thematic priorities at national level

Due to the diversification of the German research system and the relevance of bottom-up research, it is not easy to describe priorities categorically. The following overview therefore represents only the priorities in more top-down oriented programs funded by the Federal Government, (cf. Chapter 1.2.1) especially taking into account the new BMBF Framework Program for the Humanities, Cultural and Social Sciences (cf. Chapter 1.2.2).

¹ Older documents are included in the previous country reports as well as in the METRIS website.

	Priority	
х	Behaviour, cognition	
	Competitiveness, Innovation	
	Conflicts, peace, security and human rights within the EU and beyond	
	Crime and Crime prevention (including drugs, organized crime etc.)	
X	Cultural heritage (including preservation and conservation)	
X	Democracy, governance, accountability and responsibility	
X	Demography (Ageing, Fertility)	
X	Economy and finance	
X	Education, skills, knowledge and life-long learning	
	Employment, Work, Working conditions	
	Ethics	
	Families, life-styles and well-being	
	Gender, gender equality	
X	Globalisation	
X	Health and Health systems	
X	Identity, religion, language, multiculturalism	
	International relations	
	Migration	
	Social cohesion, exclusion, inequalities, poverty	
X	Sustainable development	
	Urban and rural development	
	Others	

2.5 Important research programs

Single Initiatives of the Framework Program for the Humanities, Cultural and Social Sciences of BMBF (2013–2017)

Program title	International Research Collegia – New Locations for International Research (part of BMBF-framework program)
Start date	2013
Planned end date	2017
Planned total budget	€ 44 mio.
Budget 2012	Not available
Implementing organisation	BMBF
Target group	International groups of researchers
Key goals	Establishment of five international research centers
	Provision of a platform for international exchange about research in Asia, Latin America and Africa
	Establishment of research partnerships between the international collegia and German research institutions
	Facilitate literature exchange
Website	http://www.bmbf.de/en/4630.php
Tags	Research collegia, international exchange

Program title	Consolidation of Area Studies (part of BMBF-framework program)
Start date	2013
Planned end date	2017
Planned total budget	€ 32 mio.
Budget 2012	Not available
Implementing organisation	BMBF
Target group	HEIs, Researchers
Key goals	Establishment of six Competence Centers for Area Studies in Germany to complement the International Research Collegia (see above)
	Extension of the Berlin Forum for Transregional Studies and development into a national network
Website	http://www.bmbf.de/en/4630.php
Tags	Area Studies, Transregional Studies, Competence Centers

Program title	Development of New Information Structures in Humanities ("eHumanities") and Social Sciences and Opening Up of New Research Fields (part of BMBF-framework program)
Start date	2013
Planned end date	2017
Planned total budget	€ 20 mio.
Budget 2012	Not available
Implementing organisation	BMBF
Target group	Individual Researchers
	Provide funding for networks that allow to access international data and literature in the area of humanities
Key goals	Create favorable conditions for an international digital, cooperative work in humanities and social sciences
	Establishment of new centers in eHumanities
Website	http://www.bmbf.de/en/4630.php
Tags	eHumanities, international data/literature access

Program title	Investments in Young Talents – Opening Up of New Career Paths: Post-Doc-Initiative, Scholarships for Young Researchers (part of BMBF-framework program)
Start date	2013
Planned end date	2017
Planned total budget	€ 30 mio.
Budget 2012	Not available
Implementing organisation	BMBF

Target group	Young Researchers, Post-Docs
	Support for Young Researchers finishing their dissertation: Integration into the Labor Market
Key goals	Establishment of Groups of Researchers, especially for Post-Docs
	Specific Scholarships for Young Researchers in Humanities and Social Sciences
Website	http://www.bmbf.de/en/4630.php
Tags	Post-Docs, Young Researchers, Scholarships

Program title	Envision the Cultural Heritage: From Research to Education (part of BMBF-framework program)
Start date	2007
Planned end date	2017
Planned total budget	€ 45 mio. (2013-2017)
	Project "Translation Function of Humanities": € 14 Mio. (2009-2012)
	Research Museums: € 70.54 Mio. (2012)
	Coordination research collections: € 0.4 Mio. (2012-2014)
	Academy program: € 27.2 Mio. (2012)
Budget 2012	Not available
Implementing organisation	BMBF
Target group	HEIs, researchers
Key goals	 Increase research about the cultural heritage in museums, libraries, archives, collections etc.
	Improve access to rich collections/libraries at universities
Website	http://www.bmbf.de/en/4630.php
Tags	Cultural heritage, access to museums/libraries/collections

Program title	Cultural Diversity and Civil Society – Use potential for social cohesion and participation (part of BMBF-framework program)
Start date	2013
Planned end date	2017
Planned total budget	€ 20 mio.
Budget 2012	Not available
Implementing organisation	BMBF
Target group	Researchers from all related disciplines in humanities and social sciences
Key goals	 Improve integration of science and the civil society Develop common spaces of exchange and research

	Promote research about the cultural and social diversity actively including the civil society
Website	http://www.bmbf.de/en/4630.php
Tags	Civil society, research and society, cultural diversity

Program title	Freedom for the Science System (part of BMBF-framework program)
Start date	2007
Planned end date	Not defined yet
Planned total budget	Not defined yet
Budget 2012	Max-Weber-Foundation: € 38 mio. (2012)
	Humanities Research Centers: € 36.7 mio. (2008-2013)
	Berlin Research Network (Wissenschaftskolleg): € 3.3 mio. (2012)
	Käte Hamburger Kollegs / Centres for Global Cooperation Research: € 109 mio. (2007-2011)
Implementing organisation	BMBF
Target group	Research institutions
Key goals	Funding of the following institutions:
	Max-Weber-Foundation
	Humanities Research Centers
	Berlin Research Network (Wissenschaftskolleg)
	Käte Hamburger Kollegs / Centers for Global Cooperation Research
Website	http://www.bmbf.de/en/4630.php
Tags	Research Foundations, Research Collegia

Program title	Area Studies (part of BMBF-framework program)
Start date	Between 2009 and 2011
Planned end date	After a period of 4 years (+possibly 2 more)
Planned total budget	€ 27.5 mio. (for the first period of 4 years)
Budget 2012	Not available
Implementing organisation	BMBF
Target group	HEIs, Research Institutions
Key goals	Integration of different disciplines in order to improve and extend research in are studies
	Funding for seven research networks and three university centers
Website	http://www.bmbf.de/en/4630.php
Tags	Area Studies, Research Networks

Program title	Infrastructure for Research (part of BMBF-framework program)
Start date	2007
Planned end date	Not defined yet
	Research Data Centers: € 11.7 mio. (2007-2013)
	German Council for Social and Economic Data: € 2,9 mio. (2011-2014)
	GESIS: € 14.5 mio. (2012)
Planned total budget	Socio-Economic Panel: € 4.4 mio. (2012)
Trained total budget	eHumanities: € 20 mio. (since 2012)
	Institute for the German Language, Mannheim: € 4.9 Mio. (2012)
	European Strategic Forum on Research Infrastructure: € 8.1 Mio. p.a.
Budget 2012	Not available
Implementing organisation	BMBF
Target group	Research Institutions
Key goals	Provide funding for different research institutions in order to improve research infrastructure (access to data, sources and objects etc.)
Website	http://www.bmbf.de/en/4630.php
Tags	Research infrastructure, research data centers

Program title	Young Researchers (part of BMBF-framework program)
Start date	2010
Planned end date	Not defined yet
	Project "Europe from outside": € 8.3 Mio. (2010-2014)
Planned total budget	Researcher group theology/religion: € 9 Mio. (2011-2015)
Budget 2012	Not available
Implementing organisation	BMBF
Target group	Doctoral Candidates, Post-Docs
Key goals	Creation and funding of groups of young researchers (doctoral candidates and post-docs)
Website	http://www.bmbf.de/en/4630.php
Tags	Groups of Young Researchers

Program title	Cultural Diversity and Cohesion (part of BMBF-framework program)
Start date	2011
Planned end date	Not defined yet
	Islamic Theology: € 22 Mio. (2011-2015)
	Centre for Jewish Studies: € 7 Mio. (2012-2017)
	Religion and Dialogue in Modern Societies: € 3.4 Mio. (2013-2014)
Planned total budget	Funding for Research Institutions like the Social Science Research Center Berlin: € 13.6 Mio. (2012)
	Contemporary history: € 25.45 (2012)
	Support for European project applications: € 1.9 Mio. (2007-2011)
Budget 2012	Not defined
Implementing organisation	BMBF
Target group	Individual researchers in the area of theology/cultural diversity
Key goals	 Improve/extend research about religion, theology and about cultural diversity in general Further development of religious sciences in the German Research System
Website	http://www.bmbf.de/en/4630.php
Tags	Cultural diversity, theology, religion in modern societies

Programs by DFG

	Individual Grants Program (program not specifically
Program title	developed for SSH)
Start date	
Planned end date	Ongoing
Planned total budget	€ 954.9 Mio. for <i>all</i> research fields, no detailed information about SSH
Budget 2012	Not available
Implementing organisation	DFG – German Research Foundation
Target group	Individual (young) researchers
Key goals	Funding of individual research projects, particularly focussing on young researchers
Website	http://www.dfg.de/en/research_funding/programs_/individual/index.html
Tags	Young researchers, individual grants

Program title	Coordinated Programs (programs <i>not</i> specifically developed for SSH)
Start date	
Planned end date	Ongoing
Planned total budget	Not defined yet
	Collaborative Research Centers: € 54.0 Mio.
Dudget 2014 (anh. CCII)	Research Training Groups: € 32.2 Mio.
Budget 2011 (only SSH)	Priority Programs: € 14.0 Mio.
	Research Units: € 28.6 Mio.
Implementing organisation	DFG – German Research Foundation
Target group	HEIs, Research Institutes
	Promotion of cooperation and structural innovation
Key goals	Encouragement of national and international collaboration in areas of current relevance, concentration on scientific potential at the universities
Website	http://www.dfg.de/en/research_funding/programs /coordinated_programs/index.html
Tags	Research Centers, Cooperation

Program title	Excellence Initiative (program <i>not</i> specifically developed for SSH)
Start date	2006
Planned end date	2017
Planned total for the 2 nd period (2012-2017)	Graduate Schools: € 59.06 Mio. (only SSH) Clusters of Excellence: € 198.21 Mio. (only SSH)
	Institutional Strategies: € 565.6 Mio. (for <i>all</i> fields of research)
Budget 2012	Not available
Implementing organisation	DFG – German Research Foundation
Target group	HEIs
	Promotion of top-level research
	Improvement of the quality of German universities and research institutions in general
Key goals	Make Germany a more attractive research location, make it more internationally competitive and focus attention on the outstanding achievements of Germany universities and the German scientific community
Website	http://www.dfg.de/en/research_funding/programs/ excellence_initiative/index.html
Tags	Institutional strategies, competitive research, training facilities

Program title	Indian-European Social Sciences Networks
Start date	2011
Planned end date	Not defined yet
Planned total budget	Not available
Budget 2012	Not available
Implementing organisation	(DFG, Deutsche Forschungsgemeinschaft), the French Agence Nationale de la Recherche (ANR), the British Economics and Social Sciences Research Council (ESRC), the Dutch Organisation for Scientific Research (NWO), and the Indian Council for Social Sciences Research (ICSSR)
Target group	Researchers from more than one of the four participating countries
Key goals	To support intense networking and research cooperation along with the promotion of young researchers between India and the four European participating countries in well defined topics of mutual interest; including economic growth and development, energy and climate change, and health and well-being.
Website	http://www.dfg.de/foerderung/info_wissenschaft/archiv/2011 /info_wissenschaft_11_19/index.html
Tags	Indian European Social Sciences Networks, DFG, India, ANR, France, ESRC, UK, NOW, Netherlands, international, cooperation, young researchers, economy, climate change, health

Program title	Open Research Area in Europe for the Social Sciences (ORA)
Start date	2010
Planned end date	Not defined yet
Planned total budget	Not available
Budget 2012	Not available
Implementing organisation	Agence Nationale de la Recherche (ANR, France), Deutsche Forschungsgemeinschaft (DFG, Germany), the Economic and Social Research Council (ESRC, UK) and the Nederlands Organisatie voor Wetenschappelijk Onderzoek (NWO, Netherlands)
Target group	Researchers from more than one of the four participating countries
Key goals	To fund the best joint research integrated projects in social sciences
Website	http://www.dfg.de/en/research_funding/international_cooper ation/open_research_area/
Tags	Open Research Area, ORA, Europe, ANR, France, DFG, ESRC, UK, NWO, Netherlands, international, cooperation

Program title	Digital Humanities
Start date	2008
Planned end date	Not defined yet
Planned total budget	Not available
Budget 2012	Not available
Implementing organisation	DFG / NEH (National Endowment for the Humanities, USA)
Target group	Individual Researchers
Key goals	U.SGerman partnerships: funding for either joint digitization projects working on the enrichment of digital collections, or symposia and workshops in the area of digital humanities.
Website	http://www.dfg.de/en/research_funding/programs/infrastructu_re/lis/international/dfg_neh_humanities_program/index.html
Tags	Digital humanities, US, Germany, DFG, NEH, international, cooperation, digital humanities

Programs by German Foundations

Program title	Post-doctoral Fellowships in the Humanities at Universities and Research Institutes in the U.S. and Germany
Start date	2011
Planned end date	Not defined yet
Planned total budget	Not available
Budget 2012	Not available
Implementing organisation	Volkswagen Foundation
Target group	Post-Docs
Key goals	Strengthen transatlantic academic relations, especially in the field of the Humanities.
Website	http://www.volkswagenstiftung.de/en/funding/international-focus/post-doctoral-fellowships-in-the-humanities.html
Tags	Post-Docs, Transatlantic Relations

Program title	Key Issues for Academia and Society (formerly "Key Issues for the Humanities")
Start date	1998
Planned end date	Not defined yet
Planned total budget	Since 1998: € 27.5 Mio.
Budget 2011	€ 1.5 Mio.
Implementing organisation	Volkswagen Foundation
Target group	Groups of researchers in the fields of humanities, cultural studies and social
Key goals	Focus on complex research issues which have the quality, significance, and relevance to make them "key

	issues" for research and society
	Encourage research groups from the humanities, cultural studies, and the social sciences to adopt new approaches to tackle such "key issues"
Website	http://www.volkswagenstiftung.de/en/funding/challenges-for-academia-and-society/key-issues-for-academia-and-society.html
Tags	Society, cultural studies, complex research projects

Program title	Opus Magnum (emerged from the former initiative "Focus on the Humanities")
Start date	2012
Planned end date	Not defined yet
Planned total budget	Not available
Budget 2011	Not available
Implementing organisation	Volkswagen Foundation
Target group	Researchers, especially teaching professors, in the humanities and the social sciences.
Key goals	provide more freedom for writing a larger scholarly treatise to professors from the humanities and social sciences
Website	http://www.volkswagenstiftung.de/en/funding/persons-and- structures/opus-magnum.html
Tags	Professors, teaching substitute

Program title	Fellowships, Grants and Special Programs for Research in Historical Humanities						
Start date	Depending on specific program						
Planned end date	Not defined yet						
Planned total budget	Not available						
Budget 2011	€ 10.1 Mio.						
Implementing organisation	Gerda Henkel Foundation						
Target group	Researchers in the field of humanities						
	Funding of individual research projects						
Key goals	Provision of grants for international research projects abroad						
Website	http://www.gerda-henkel- stiftung.de/home.php?nav_id=15&language=en						
Tags	Historical humanities						

Other programs

Program title	The Academies Program / Union of the German Academies of Sciences and Humanities (Akademienprogramm)
Start date	1979
Planned end date	ongoing
Planned total budget	Not available
Budget 2012	ca. € 49 Mio. yearly
Implementing organisation	Federal Government and Laender
Target group	German national academies
Key goals	Funding of long-term research projects in the humanities and the natural sciences
Website	http://www.akademienunion.de/forschung/english.html
Tags	Academies Program, Union, Bund, Federal Government, excellence, long-term

Program title	AHRC-DFG Bilateral agreement
Start date	2007
Planned end date	Not defined yet
Planned total budget	Not available
Budget 2012	Not available
Implementing organisation	DFG, Arts and Humanities Research Council UK (AHRC)
Target group	Individual Researchers in Germany and the UK
Key goals	Facilitate collaborations between arts and humanities researchers in the UK and Germany.
Website	http://www.dfg.de/foerderung/info_wissenschaft/archiv/2009 /info_wissenschaft_09_52/index.html
Tags	AHRC, DFG, Germany, UK, researchers, arts, international, cooperation

Program title	The humanities in social dialogue (Geisteswissenschaften im gesellschaftlichen Dialog)				
Start date	2005				
Planned end date	Not defined yet				
Planned total budget	Not available				
Budget 2012	Not available				
Implementing organisation	BMBF (implemented by PT-DLR)				
Target group	HEIs, research institutes				
Key goals	Promoting the establishment of new, interdisciplinary fields and research by international research consortiums that address specific topic areas, and that are composed of both German and international practitioners. The program currently				

	funds two research topics: "Anthropology: Changes wrought in attitudes toward mankind by information technology and modern science", and "Cultural and social influences on Europe and the Europeans."
Website	http://www.geisteswissenschaft-im-dialog.de/
Tags	Humanities in social dialogue, BMBF, PT-DLR, Higher Education Institutions, interdisciplinarity, international

Program title	HERA Joint Research Programme 2012 "Cultural Encounters"					
Start date	2012					
Planned end date	2016					
Planned total budget	€ 18.5 mio.					
Budget 2012	Not available					
Implementing organization	HERA					
Target group	Researchers of universities and research institutions from the 18 participating countries					
	Funding of humanities-centered projects on cultural encounters involving researchers from three or more of the 18 participating countries					
Key goals	Creating opportunities for collaborative, trans- national humanities-led research that will result in new academic insights relevant to major social, cultural and political challenges facing Europe					
Website	www.heranet.info/hera-joint-research-programme-2					
Tags	HERA, cultural encounters, cultural and political challenges					

2.6 SSH research infrastructures

2.6.1 National infrastructures

A major science advice body, the German Council for Science and Humanities (Wissenschaftsrat) supports the idea to consider not only costintensive equipment from life sciences and natural sciences as "research infrastructure" but also knowledge resources such as (data) archives. Taking into consideration similar recommendations on a European level such as the European Strategy Forum on Research Infrastructures (ESFRI) and following a request from the BMBF, the Wissenschaftsrat published recommendations on research infrastructure in the SSH in 2011 and 2012. [32] In its recommendations it assesses the status quo as well as the infrastructure needed and observes an ongoing transformation in German SSH-infrastructure. The infrastructure ceases to be auxiliary only and increasingly becomes an incubator of innovative research questions that arise from data generated within it. Digitally processed information thus opens up new possibilities of research. Given this growing importance, funding for infrastructure in the SSH should be increased with a close focus on international cooperation, especially for digitalization, the build-up of data

centers and the inclusion of "cursory" media such as websites and blogs (cf. Chapter 2.2.5).

Following a request from the Joint Science Conference, the Leibniz Association founded the commission "Zukunft der Informationsinfrastruktur (KII)" in 2009 and delivered a concept for information infrastructure in Germany to the Joint Science Conference in 2011. This concept was integrated into the recommendations on research infrastructure made by the Wissenschaftsrat.

The Council for Social and Economic Data (RatSWD) (www.ratswd.de) provides advice on the development of the German data infrastructure for empirical research in the social and economic sciences. This includes better access to microdata and improving data quality, as well as jointly developing long-term data surveys with official government (official statistical offices, social insurance institutions, government research units etc.) and non-governmental institutions (universities and non-university research institutes, e.g. institutions of the Leibniz Association). In the above named recommendations on research infrastructure the RatSWD was referred positively as a model for the organization of infrastructure in the SSH. Following one of the recommendations of the Council for Science and Humanities, the RatSWD will be extended to cover more sub-disciplines [33].

An important part of the information infrastructure is the huge online surveys that are being carried out regularly and which provide valuable data for SSH. With the **German Socio-Economic Panel Study** (SOEP) and the coordination of **Survey of Health, Aging and Retirement in Europe** (SHARE), implemented in the European Strategy Forum on Research Infrastructures (ESFRI), Germany is already set up quite well in this area [34].

In order to foster the national SSH infrastructure, the **Federal Ministry of Education and Research (BMBF)** provides funding across all key areas of funding in SSH for [35]:

- Measures to improve the basis for scientific work by facilitating access to data in the social and economic sciences and enhancing scientific cooperation and communication on the path towards e-social sciences and e-humanities;
- Innovative methods of reporting on trends in social developments;
- Interdisciplinary research collaborations on selected present-day problems;
- Approaches towards strengthening the structure of and internationalizing research in the humanities within the framework of new forms of work and discourse, e. g. the international Käte Hamburger collegia;
- Developing a modern data infrastructure for internationally competitive research. [36]

Also of interest is the BMBF's funding line "Innovative research infrastructure for the humanities" and funding initiative for "e-humanities". The BMBF currently funds infrastructure for social sciences with ca. 5 million euros and for humanities with around 2.5 million euros yearly [37].

As the major funding agency in Germany, the **German Research Foundation (DFG)** offers centrally-coordinated funding to build and improve scientific infrastructure: Scientific Library Services and Information Systems, Scientific Instrumentation and Information Technology, Central Research Facilities. Relating to the SSH, the DFG funds projects at scientific libraries, archives and other scientific service and information centers in Germany. The aim is to set up nationwide high-performance research information systems. [38]

Furthermore, eight of the 18 institutes in the **Leibniz Association's** "Interdisciplinary Network of Infrastructure Facilities" provide infrastructure for SSH. Mentionable is also the Academies' Program providing long-term funding for infrastructure projects such as editions and lexicons in the SSH. Many of the publicly funded non-university research organizations also provide important research infrastructure for the SSH, e. g. the Max Plank Society (MPG) or the Helmholtz Association (HGF).

Concerning the differences of infrastructure between the new and the old Laender, the 2010 Report "Research, Innovation and Technological Performance in Germany" of the Commission of Experts for Research and Innovation (EFI) states: "Twenty years after unification, Germany now has a largely uniform R&I system. The innovation potential and innovation performance in the new Laender has not yet reached the level of the old Laender, but the evident weaknesses of the eastern German university and research landscape are not fundamentally different from those of the structurally weak regions of western Germany." [39]

2.6.2 International infrastructures

As to projects for the construction of new infrastructures under FP 7 that have been identified by **ESFRI** and listed in the European Roadmap in the field of SSH, Germany participates in all of the projects. The Digital Research Infrastructure for the Arts and Humanities network (DARIAH) for example aims at enhancing and supporting digitally-enabled research across the humanities and arts. DARIAH's objective is to develop and maintain an infrastructure in support of ICT-based research practices, an infrastructure with a national as well as European dimension. DARIAH is a network of 10 European countries. The network's mission is to provide researchers in the arts and humanities in Europe with a digital infrastructure to get access to and join the information and the knowledge that is embedded in digital content. In Germany, DARIAH is financed by the BMBF. The 17 national partners are coordinated by the Goettingen State and University Library (SUB).

The German institutions mainly participating in ESFRI are the following:

- DARIAH Digital Research Infrastructure for the Arts and Humanities
 - BMBF (financing in Germany)
 - Goettingen State and University Library (coordination in Germany)
- CLARIN Common LAnguage Resources and technology INitiative
 - German Research Center for Artificial Intelligence (as partner organization)

- <u>University of Tübingen</u>, Department of Linguistics (as partner organization)
- CESSDA Council of European Social Science Data Archives
 - GESIS <u>Leibniz Institute for the Social Sciences</u> (as member organization)
- SHARE Survey of Health, Ageing and Retirement in Europe
 - Mannheim Research Institute for the Economics of Aging (MEA) (coordination)
- ESS The European Social Survey
 - GESIS <u>Leibniz Institute for the Social Sciences</u> (Central Coordinating Team)

The **German Research Foundation (DFG)** has signed an international agreement on knowledge exchange, with national funding organizations in the United Kingdom, the Netherlands and Denmark aiming to expand the information and communication technologies (ICT) in education and research. The cooperation focuses on the development of joint strategies and standard or compatible technical solutions to ensure that researchers and students have access to user-friendly scientific information systems across national borders. Also, the DFG and the National Endowment for the Humanities (NEH) in the United States are working together to offer support for projects in the area of digital humanities [40].

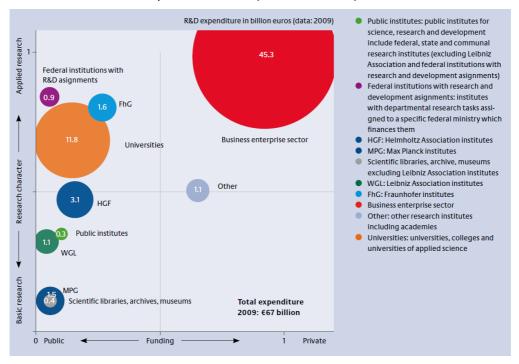


3. Funding System

3.1 Overview of funding flows

In 2009 (data for 2010 and later not available on this level), the funding of the government and of private non-profit organizations for research and development totaled 21.6 billion euros. Moreover, the private sector in Germany is of importance for research and development. Business enterprises spent around 46 billion euros on research and development in 2009. It must be considered—especially when looking at SSH—that this money is strongly oriented towards application and products and thus largely remains in the business sector itself (cf. Figure 2). [41]

Figure 2: The German research system and its expenditures on research and development in 2009 (in billion euros)



Source: Federal Ministry of Education and Research (BMBF) (2012): Federal Report on Research and Innovation 2012. Abstract. Berlin. p. 36.

Since the German research landscape is diversified in general, the funding flows are of a high complexity. The following diagram reflects the funding flows for the German research system as such.

BLK EU, European R&D Institutes/ Federal State Governments Government Organisations Industry WR DFG (58:42) R&D in private Foundations Non-university enterprises research institutions WGL (58:42) AiF Institutes / MPG (50:50) Member FhG (90:10) Organisations HGF (90:10) Private R&D Federal R&D State R&D Institutes

Figure 3: The funding flows in the German research system

Funding Flows (Germany, simplified)

Institutionalized funding relations
Project funding (federal government and industry only)
(58:42) % of federal government funding : % of state government funding

3.2 National public SSH research funding

3.2.1 Overview of funding importance

Governmental funding is the most important source for SSH research. When analyzing the importance of SSH research in the German science system, we primarily have to take into account the public research in universities and in non-university research organizations as well as the departmental research.

3.2.2 Institutional funding

In 2010, 12.6 billion euros were spent on research and development in **universities**. 1.5 billion euros were invested in humanities and 1.2 billion euros in social sciences. Thus, SSH disciplines had a share of 21.7 percent of the total expenditure on university research and development. Over the last 15 years the SSH share grew slightly by around 1 percentage point, especially because of an increase in the social sciences (cf. Table 4).

Table 4: Expenditures by universities on research and development since 1995 (in 1,000 euros)

Field of research	1995	2000	2005	2006	2007	2008	2009	2010
Natural Sciences	2 117 366	2 354 056	2 664 983	2 672 958	2 777 710	3 169 880	3 413 463	3 641 348
					_			
ratio	29,5%	29,5%	29,4%	28,5%	28,3%	28,8%	29,2%	29,0%
Engineering Sciences	1 483 198	1 621 065	1 842 988	1 838 662	1 864 431	2 050 529	2 254 241	2 486 486
ratio	20,7%	20,3%	20,3%	19,6%	19,0%	18,6%	19,3%	19,8%
Life Sciences								
(incl. Veterinary Medicine)	1 803 969	2 084 585	2 366 178	2 659 837	2 814 057	3 117 124	3 187 670	3 355 518
ratio	25,1%	26,1%	26,1%	28,4%	28,7%	28,3%	27,2%	26,7%
Agricultural Sciences	285 397	264 012	251 620	252 531	248 820	301 928	315 770	339 094
ratio	4,0%	3,3%	2,8%	2,7%	2,5%	2,7%	2,7%	2,7%
Humanities	894 654	965 345	1 097 387	1 105 649	1 128 530	1 317 542	1 406 905	1 497 755
ratio	12,5%	12,1%	12,1%	11,8%	11,5%	12,0%	12,0%	11,9%
Social Sciences	588 535	688 305	834 728	846 185	981 087	1 051 728	1 121 834	1 230 518
ratio	8,2%	8,6%	9,2%	9,0%	10,0%	9,6%	9,6%	9,8%
SSH in total	1 483 190	1 653 649	1 932 115	1 951 834	2 109 617	2 369 271	2 528 739	2 728 273
ratio	20,7%	20,7%	21,3%	20,8%	21,5%	21,5%	21,6%	21,7%
total	7 173 119	7 977 368	9 057 883	9 375 823	9 814 636		11 699 882	
ratio	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Source: Statistisches Bundesamt: Bildung und Kultur. Monetäre hochschulstatistische Kennzahlen 2010 (Fachserie 11, Reihe 4.3.2) Wiesbaden 2012. Table 3.1.1 (German only)

In 2010, 7.7 billion euros were spent on **non-university research and development**. Thereof, 260 million euros were spent on research and development in the humanities, and 264 million euros in social sciences. This totals 6.8 percent of the expenses in the non-university system for SSH research and development. However, the SSH ratio differs from the type of organization. Institutes of the Helmholtz Association and the Fraunhofer-Gesellschaft have almost no place for SSH research because of their specific profile, whereas in the other organizations the ratio is getting much higher from 11.5 percent in the Max Planck Society and 18.9 percent in the Leibniz Association to 67.3 percent in the Academies (cf. Table 5). Since there are no consistent data series over a longer time period, we can only observe that the SSH share has not changed significantly since 2007 when it totaled 431 million euros (6.7 percent of the total expenses).

Table 5: Expenditures by non-university organizations on research and development in 2010 (in 1,000 euros)

Non-university organisation	All fields of research	Natural Sciences	Engineering Sciences	Life Sciences	Agricultural Sciences	Humanities	Social Sciences	SSH in total
Helmholtz Association	3 207 513	1 680 771	1 081 173	415 388			24 732	24 732
ratio	100,0%	52,4%		13,0%	0,0%	0,0%		0,8%
Max Planck Society	1 536 834	1 276 225	_	60 306	_	93 741	83 743	177 483
ratio	100,0%	83,0%	0,0%	3,9%	0,0%	6,1%	5,4%	11,5%
Fraunhofer-Gesellschaft	1 624 947	471 069	1 032 526	_	18 603	_	30 249	30 249
ratio	100,0%	29,0%	63,5%	0,0%	1,1%	0,0%	1,9%	1,9%
Leibniz Association	1 209 290	720 494	90 963	118 138	50 850	107 428	121 418	228 845
ratio	100,0%	59,6%	7,5%	9,8%	4,2%	8,9%	10,0%	18,9%
German Academies of Sciences and Humanities	91 963	28 595	_	_	_	58 438	3 487	61 925
ratio	100,0%	31,1%	0,0%	0,0%	0,0%	63,5%	3,8%	67,3%
Total expenses by non- university organisations	7 670 547	4 177 154	2 219 530	666 879	83 295	260 060	263 629	523 689
ratio	100,0%	54,5%	28,9%	8,7%	1,1%	3,4%	3,4%	6,8%

Source: Statistisches Bundesamt: Finanzen und Steuern. Ausgaben, Einnahmen und Personal der öffentlichen und öffentlich geförderten Einrichtungen für Wissenschaft, Forschung und Entwicklung. Berichtszeitraum 2010 (Fachserie 14, Reihe 3.6). Wiesbaden 2012. Table 3.3 (German only)

Complementary, 1.2 billion euros were paid directly for **departmental research**, 80 percent of it by the Federal Government and 20 percent by the Laender. With regard to the fields of research SSH achieved a proportion of 10.1 percent. Here the humanities with 8.5 percent play a considerably more important role than the social sciences with an own contribution of only 1.7 percent of the total expenses (cf. Table 6).

Table 6: Expenditures by departmental research units of the Federal Government and the Laender in 2010 (in 1,000 euros)

	All fields of research	Natural Sciences	Engineering Sciences	Life Sciences	Agricultural Sciences	Humanities	Social Sciences	SSH in total
Total expenses	1 176 242	283 832	157 377	140 155	475 593	99 681	19 605	119 285
ratio	100,0%	24,1%	13,4%	11,9%	40,4%	8,5%	1,7%	10,1%

Source: Statistisches Bundesamt: Finanzen und Steuern. Ausgaben, Einnahmen und Personal der öffentlichen und öffentlich geförderten Einrichtungen für Wissenschaft, Forschung und Entwicklung. Berichtszeitraum 2010 (Fachserie 14, Reihe 3.6). Wiesbaden 2012. Table 3.3 (German only)

If we add up the budget for research and development from the perspective of the most important public performance sectors, it turns out that the SSH received around 3.4 billion euros in 2010, whereas the SSH benefited the most from the university research and development funding (cf. Table 7). Here the share compared to other research fields is particularly high.

Table 7: Expenditures on research and development in the most important public performance sectors in 2010 (in 1,000 euros)

Public source	All fields of research	Natural Sciences	Engineering Sciences	Life Sciences	Agricultural Sciences	Humanities	Social Sciences	SSH in total
Universities	12 550 719	3 641 348	2 486 486	3 355 518	339 094	1 497 755	1 230 518	2 728 273
ratio	100,0%	29,0%	19,8%	26,7%	2,7%	11,9%	9,8%	21,7%
Non-university								
organisations (incl. academies)	7 670 547	4 177 154	2 219 530	666 879	83 295	260 060	263 629	523 689
ratio	100,0%	54,5%	28,9%	8,7%	1,1%	3,4%	3,4%	6,8%
Departmental research	1 176 242	283 832	157 377	140 155	475 593	99 681	19 605	119 285
ratio	100,0%	24,1%	13,4%	11,9%	40,4%	8,5%	1,7%	10,1%
Total expenses	21 397 508	8 102 334	4 863 393	4 162 552	897 981	1 857 496	1 513 751	3 371 247
ratio	100,0%	37,9%	22,7%	19,5%	4,2%	8,7%	7,1%	15,8%

Source: Statistisches Bundesamt: Finanzen und Steuern. Ausgaben, Einnahmen und Personal der öffentlichen und öffentlich geförderten Einrichtungen für Wissenschaft, Forschung und Entwicklung. Berichtszeitraum 2010 (Fachserie 14, Reihe 3.6). Wiesbaden 2012. Tabelle 3.3 — Statistisches Bundesamt: Bildung und Kultur. Monetäre hochschulstatistische Kennzahlen 2010 (Fachserie 11, Reihe 4.3.2) Wiesbaden 2012. Table 3.1.1

Viewed from the perspective of public funders and not—as done before from the performing public sectors the Federal Government is most important. In 2010, more than 1 billion euros were spent on research and development in the SSH (including educational research which is separately defined in the funding area "innovations in education") by the Federal Government. This is 8.2 percent of the total federal budget for research and development and 10.4 percent when not including cross-disciplinary funding (defined as "funding organizations, restructuring of the research field in acceding areas, construction of universities and primarily university-specific special programs" in the data). [42] The share in the federal funding for SSH amounted to 5.2 percent of the federal budget without cross-disciplinary funding in 2000 and to 6.6 percent in 2005 [43]. Thus, the share of the budget for SSH research and development grew significantly over the last years. However, this finding must be treated with caution because the classification of disciplines has changed over time and cannot be examined unambiguously. [44] The Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung, BMBF) is the key ministry for the SSH. Other important government departments are the Federal Ministry of Labor and Social Affairs (Bundesministerium für Arbeit und Soziales, BMAS) and the Ministry of Economics and Technology (Bundesminsterium für Wirtschaft und Technologie, BMWi). Other ministries provide R&D funding to a significantly lower degree. [45]

Unfortunately, at the **Laender** level no statistics on funding for research fields in detail are available. Nevertheless, we can assume that the sixteen governments of the Laender contribute the majority of the remaining public sources.

3.2.3 Individual funding

As described above, the Federal Government and the Laender do not only fund research and development directly through institutional funding but also by implementing project-based funding programs and individual funding instruments. We can gain an important overview of indirect public funding when focusing on the **German Research Foundation** (Deutsche Forschungsgemeinschaft, DFG) as the most important third-party funder in

Germany, especially for universities. The funds can be differentiated in individual grant programs and coordinated programs. The programs in these categories are in particular as follows:

- Individual Grants programs:
 - Research grants;
 - Scientific Networks;
 - Research Fellowships;
 - Emmy Noether Program;
 - Heisenberg Program;
 - Reinhart Koselleck Projects;
 - Clinical Trials;
 - Workshops for Early Career Investigators.
- Coordinated programs
 - Priority Programs;
 - Research Training Groups;
 - Collaborative Research Centers;
 - Research Units;
 - Clinical Research Units;
 - Humanities Centers for Advanced Studies.

Due to data availability and a lack of a clear discrimination between "individual" and "program" funding, we first of all subsume all these programs under "individual funding" of the DFG in this section. The Excellence Initiative however is excluded (cf. Chapter 3.2.4). Hence, we can observe that in 2011 318 million euros of the DFG funding were spent on SSH research, which represents about 15.3 percent of the total budget. This share slightly increased since 2005 when it had a value of 14.6 percent (cf. Table 8).

Table 8: Expenditures by the German Research Foundation on individual grants and coordinated programs without Excellence Initiative (in million euros)

V	All fields of	Natural	Engineering	Life	0011
Year	research	Sciences	Sciences	Sciences	SSH
2005	1378,5	347,5	307,7	522,4	200,9
ratio	100,0%	25,2%	22,3%	37,9%	14,6%
2006	1488,9	387,8	313,1	576,6	211,4
ratio	100,0%	26,0%	21,0%	38,7%	14,2%
2007	1569,0	397,1	345,7	606,5	219,7
ratio	100,0%	25,3%	22,0%	38,7%	14,0%
2008	1655,0	430,3	357,0	630,7	237,0
ratio	100,0%	26,0%	21,6%	38,1%	14,3%
2009	1795,5	453,6	398,4	684,5	259,0
ratio	100,0%	25,3%	22,2%	38,1%	14,4%
2010	1963,9	470,0	440,3	766,9	286,7
ratio	100,0%	23,9%	22,4%	39,0%	14,6%
2011	2077,1	498,8	451,9	808,1	318,3
ratio	100,0%	24,0%	21,8%	38,9%	15,3%
Total expenses					
from 2005 until 2011	11927,9	2 985	2 614	4 596	1 733
ratio	100,0%	25,0%	21,9%	38,5%	14,5%

Source: Deutsche Forschungsgemeinschaft: Jahresbericht 2008–2011. Aufgaben und Ergebnisse. Bonn 2009–2012. — For an English overview, please visit: http://www.dfg.de/en/dfg_profile/annual_report/index.html (30-01-2013).

Between 2008 und 2010 the annual average for individual grant programs totaled 0.8 billion euros. The majority was spent on Research Grants. For coordinated programs the annual average during the time period was 1 billion euros. Most of this budget went to Collaborative Research Centers. Due to data availability, we cannot differentiate here between fields of research and single years. [46]

3.2.4 Program Funding

It was reasonable to analyze the coordinated programs funded by the DFG in the context of individual funding in the last section because there is no similar data available for a longer time period. Therefore we do not repeat it in this section, even though it might also be interpreted as "program" funding as well. Instead, in this section we focus on programs which have a significant impact on SSH research but are limited in time.

According to this understanding, we have to highlight the German **Excellence Initiative** as a special funding program. It was initiated in 2005 to promote top-level research and the quality of German universities as such. The Excellence Initiative consists of the following three funding lines:

- Graduate Schools to promote early career researchers;
- Clusters of Excellence to promote top-level research;
- Institutional Strategies to promote top-level university research.

The total budget amounted to 1.9 billion euros for a funding period of five years (2006–2011). It was raised to 2.7 billion euros for another five year period (2012–2017). Funding the SSH is explicitly part of the Excellence

Initiative. While the Institutional Strategies have a non-disciplinary approach, we are only able to analyze the SSH share for the first two funding lines. Here we can see that the 11 Graduate Schools in the field of SSH received funding of 11.8 million euros a year and the 6 Clusters of Excellence of 39.6 million euros a year. In total, the SSH share for the first two lines of the Excellence Initiative was 18.3 percent.

Table 9: Expenditures for the Excellence Initiative (without Institutional Strategies) for the first five year period by fields of research (in million euros)

Funding line	All fields of research	Natural Sciences	Engineering Sciences	Life Sciences	SSH	trans- disciplinary
Graduate Schools	223,7	49,0	35,3	66,9	59,1	13,4
annual funding average	44,7	9,8	7,1	13,4	11,8	2,7
ratio	100,0%	21,9%	15,8%	29,9%	26,4%	6,0%
Clusters of Excellence	1179,8	297,3	316,2	368,1	198,2	0,0
annual funding average	236,0	59,5	63,2	73,6	39,6	0,0
ratio	100,0%	25,2%	26,8%	31,2%	16,8%	0,0%
Both funding lines	1403,5	346,3	351,5	435,0	257,3	13,4
annual funding average	280,7	69,3	70,3	87,0	51,5	2,7
ratio	100,0%	24,7%	25,0%	31,0%	18,3%	1,0%

Source: Deutsche Forschungsgemeinschaft: Jahresbericht 2011. Aufgaben und Ergebnisse. Bonn 2012. p. 194. (in German only)

Due to the non-disciplinary approach of the third funding line, we cannot exactly identify to what extend the SSH in detail additionally benefited from the 565.6 million euros (for a five year period) that were spent on 9 Institutional Strategies.

Furthermore, we have no detailed statistics for the second period of the Excellence Initiative yet. However, there is an increase regarding the numbers of Graduate Schools from 11 to 20 and an equal number of 6 Centers of Excellence. These are as follows (including hyperlinks to DFG database with detailed information):

Graduate Schools:

- International Graduate Centre for the Study of Culture (GCSC)
- Graduate School of Economic and Social Sciences: Empirical and Quantitative Methods
- Graduate School of North American Studies
- Berlin School of Mind and Brain
- Bayreuth International Graduate School of African Studies
- Berlin Graduate School Muslim Cultures and Societies
- Integrated Studies of Human Development in Landscapes
- Friedrich Schlegel Graduate School of Literary Studies
- Bremen International Graduate School of Social Sciences (BIGSSS)
- Bielefeld Graduate School in History and Sociology (BGHS)
- Graduate School of Decision Sciences
- Bamberg Graduate School of Social Sciences (BAGSS)

- <u>Learning</u>, <u>Educational Achievement</u>, <u>and Life Course Development</u>: <u>An Integrated Research and Training Program</u>
- Graduate School of East Asian Studies
- Distant Worlds: Munich Graduate School for Ancient Studies
- Graduate School for East and Southeast European Studies
- Darmstadt Graduate School of Energy Science and Engineering
- Karlsruhe School of Elementary Particle and Astroparticle Physics: Science and Technology
- Berlin School of Integrative Oncology (BSIO)
- a.r.t.e.s. Graduate School for the Humanities Cologne (AGSHC)
- Clusters of Excellence:
 - Cultural Foundations of Social Integration
 - Religion and Politics in Pre-Modern and Modern Cultures
 - The Formation of Normative Orders
 - Topoi The Formation and Transformation of Space and Knowledge in Ancient Civilizations
 - Asia and Europe in a Global Context: The Dynamics of Transculturality
 - Image Knowledge Gestaltung. An Interdisciplinary Laboratory

3.3 Private research funding

As already shown in the overview (cf. Chapter 3.1), in 2009 business enterprises spent around 46 billion euros on research and development which is around two thirds of the whole budget in Germany. Nearly the same amount (45.3 million euros) is used for research performed in the private sector with a minor exchange between private and public sector. [47] Concerning SSH research, private research funding is even of less importance.

3.4 Foundations/ not-for-profit funding

Funding for SSH is also provided by foundations. Important players are the Volkswagenstiftung, the Fritz-Thyssen-Stiftung and the Gerda-Henkel-Stiftung.

The **Volkswagenstiftung** (www.volkswagenstiftung.de) is the largest private science founder and one of the major foundations in Germany. It provides support for individuals (grants and professorships), for structural measures like the promotion of collaboration and exchange and project funding. Research projects in all disciplines are supported. An important SSH initiative is the "Focus on the Humanities" jointly funded together with the Fritz-Thyssen-Foundation, including the following components: "Dilthey Fellowships", "opus magnum" grants, funding of workshops and symposia. Another relevant activity is the initiative "Future Issues of our Society". The table reflects the funding provided in the SSH related topics.

	Total Funding (in mio €)	SSH (in million €)	Share SSH on total
2000	60,7	22,8	37,6%
2001	62,0	25,1	40,5%
2002	60,3	20,7	34,3%
2003	51,7	22,9	44,3%
2004	49,2	21,8	44,3%
2005	50,7	15,7	31,0%
2006	53,4	21,8	40,8%
2007	51,4	23,5	45,7%
2008	57,6	30,6	53,1%
2009	44,9	23,4	52,1%
2010	53,6	23,3	43,5%
2011	48,4	25,5	52,7%

Source: Annual Reports of the Volkswagenstiftung 2000 to 2011, own calculations

The **Gerda Henkel Foundation** (www.gerda-henkel-stiftung.de) is specifically focussing on SSH. The foundation provides project funding in the areas of History, Archaeology, Art History and other historical disciplines. In 2011, 344 SSH projects were funded with 10.1 million euros. [48] In 2010, the foundation launched its online portal L.I.S.A.. The Science Portal of The Gerda Henkel Foundation. L.I.S.A. wants to provide comprehensive topic files, invite young academics to online lectures and expert discussions, offer a platform for video articles from everyday academic life, stimulate professional discussions and create a public for book reviews, exhibition criticism and event announcements.

The **Fritz-Thyssen-Stiftung** (<u>www.fritz-thyssen-stiftung.de</u>) supports research and provides scholarships to universities and research institutes. Its specific focus is on the support of young scholars. Thematically it focuses on SSH as well as natural and life sciences. Three areas are of relevance for SSH research:

- History, language, and culture with a funding of 8.8 million euros;
- Image and imagery with a funding with a funding of 0.2 million euros;
- State, economy and society with a funding of 3.1 million euros in 2010. [49]

The **Robert Bosch Stiftung** (<u>www.bosch-stiftung.de</u>) is not only an operating foundation that pursues its goals by programs of its own, but also a funding foundation that enables others to develop and implement projects and initiatives that meet social needs in Germany and abroad. The following areas can be characterized as funding of SSH research:

- Society and culture with a funding of 6.8 million euros;
- Education and society with a funding of 10.2 million euros in 2011. [50]

The **Stiftung Mercator** (<u>www.stiftung-mercator.de</u>) supports science and research in the broad field of education related issues. Funding priorities of the Stiftung Mercator are concentrated on:

- Support for universities to improve their quality of research and education and, thus, to improve their international competitiveness with a funding of 28 million euros;
- Support for children and adolescent persons to encourage their cultural, scientific and societal engagement with a funding of 20.1 million euros;
- Improvement of cultural understanding and foster international cooperation with a funding of 11.5 million euros. [51].

3.5 European and international funding

As already shown before, funding provided by the EU is of increasing importance for the German research system and the SSH in particular (cf. Chapter 2.2.3). 3.1 billion euros of the FP 7 were spent on German research institutions. Thereby, Germany is the largest recipient of EU funding followed by the United Kingdom and France. [52]

While focusing on the universities, one can recognize that third-party funding has increased over the last ten years from 2.8 billion euros to 5.9 billion euros. Funding by international organizations has an essential part in this process. In 2000, the share of funds by international organizations, especially by the European Union, totaled 7 percent, whereas in 2010 it already had an amount of 10.3 percent (cf. Table 10). This highlights the increasing importance of international funding for the German science system.

Table 10: Third-party funding of universities by funding source (in 1,000 euros)

Source	2000	2005	2006	2007	2008	2009	2010
European/international							
organizations	198 088	340 526	400 942	383 602	451 313	508 062	608 513
ratio	7,0%	9,3%	10,4%	9,0%	9,3%	9,5%	10,3%
national organizations	2 631 738	3 321 044	3 454 270	3 878 645	4 401 512	4 839 962	5 299 382
ratio	93,0%	90,7%	89,6%	91,0%	90,7%	90,5%	89,7%
Third-party funding in							
total	2 829 826	3 661 570	3 855 212	4 262 247	4 852 825	5 348 025	5 907 895
ratio	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Source: Statistisches Bundesamt (2012): Bildung und Kultur. Monetäre hochschulstatistische Kennzahlen 2010. Fachserie 11 Reihe 4.3. Wiesbaden.

Performing System

4.1 Overview of the performers

As already explained in the overview of the SSH system in general and recognizable in nearly all sections of this report, it is reasonable to differentiate between universities and similar higher education institutions on

the one hand and non-university organizations as well as departmental research institutions on the other (cf. Chapter 1.1).

4.2 Higher Education Institutions

4.2.1 HEIs as education performers

Recently, there are 392 institutions of higher education in Germany, among 111 universities, 225 universities of applied (Fachhochschulen), and 56 colleges of art and music. [53] Traditionally, universities are more research-oriented than universities of applied sciences, thus offering a wide range of disciplines. Some universities specialized in particular fields such as technology or medicine. Only universities and a few so called "institutions of equivalent status to universities" have the right to confer doctorates. Universities of applied sciences are characterized by a stronger emphasis on practical work and application and have a smaller range of disciplines. A majority of them focusses on engineering, business, and social sciences. The majority of higher education institutions is financed by the state and falls under its regulatory control. However, there are also higher education institutions run by the Protestant and Catholic Churches as well as by private institutions that are officially recognized by the state. Recently, 113 higher education institutions are under ecclesiastical or private responsibility. Most of them are universities of applied sciences. [54]

However, the number of institutions does not reflect the education performance. For this purpose, it is more suitable to take a look at the staff and the students. In 2011, 721,350 people were employed by a higher education institution, nearly 120,000 of them in SSH. More than two thirds of these employees work at university. At the same time, 2.4 million students were enrolled in a study program, half of them in SSH. Again, the universities contribute around two thirds of the higher educational training on the basis of the total numbers of students (cf. Table 11).

Table 11: Staff and students at German higher education institutions by type in 2011

	Higher education institutions in total	Universities	Universities of applied sciences	Other types of higher education
Staff	721 350	494 731	102 117	124 502
ratio	100,0%	68,6%	14,2%	17,3%
Staff in SSH	119 868	77 173	36 990	5 705
ratio	100,0%	64,4%	30,9%	4,8%
Students	2 380 974	1 546 136	743 447	91 391
ratio	100,0%	64,9%	31,2%	3,8%
Students in SSH	1 183 659	812 148	322 073	49 438
ratio	100,0%	68,6%	27,2%	4,2%

Source: Statistisches Bundesamt (2012): Bildung und Kultur. Personal an Hochschulen 2011. Fachserie 11, Reihe 4.4. Wiesbaden. — Statistisches Bundesamt (2012): Bildung und Kultur. Studierende an Hochschulen Wintersemester 2011/2012. Fachserie 11, Reihe 4.1. Wiesbaden.

A majority of the higher education institutions are members of the **German Rectors' Conference** (Hochschulrektorenkonferenz, HRK). The HRK is a forum for the higher education institutions' joint opinion-forming process. Topics dealt with are research, teaching, studies, advanced continuing

education and training, knowledge and technology transfer, international cooperation, and self-administration issues. The tasks of the HRK are defined as follows:

- Providing member institutions with information;
- Formulating and representing the joint higher education policy positions of the member institutions;
- Keeping the general public informed;
- Advising Federal and Laender political and administrative bodies;
- Promoting quality assurance in teaching and studies as well as student mobility, cooperation with other organizations and associations, promoting international higher education cooperation;
- Collecting and documenting relevant literature and records.

4.2.2 HEIs as research performers

As already stated below, 12.6 billion euros were spent on research and development in universities in 2010. 1.5 billion euros were invested in humanities and 1.2 billion euros in social sciences (cf. Chapter 3.2.2).

The following ten universities reached the highest DFG funding totals in the area of SSH between 2008 and 2010 and can, therefore, be described as being important SSH research performers in Germany:

- Freie Universität Berlin: 94.6 million euros;
- Humboldt-Universität zu Berlin: 55.7 million euros;
- Universität Münster: 50.2 million euros;
- Universität Konstanz: 41.1 million euros:
- Universität Heidelberg: 40.5 million euros;
- Universität Frankfurt a. M.: 37.7 million euros;
- LMU München: 37.4 million euros;
- Universität Tübingen: 31.4 million euros;
- Universität Bielefeld: 27.8 million euros;
- Universität Hamburg: 23.7 million euros. [55]

More details about the performance of single universities and institutions as well as about cooperation and profiles in the field of SSH can be found in the DFG Funding Atlas (cf. Chapter 2.2.4).

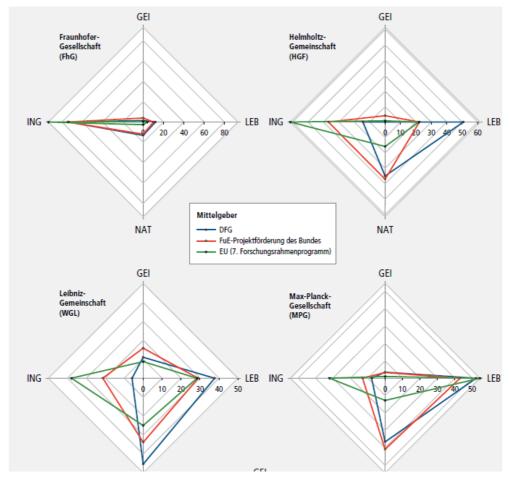
An interactive "research map" presents institutions, including HEI institutions, which are funded by the BMBF in the fields of humanities (http://www.bmbf.de/de/Landkarte-Geisteswissenschaften.php). Another map provided by the BMBF represents those institutions actively involved in studies in the area of "Innovation and technology analyses". Initiated by the Hochschulrektorenkonferenz and funded by the BMBF, the "Arbeitsstelle kleine Fächer" (the office for small subjects) at the University of Potsdam

documents and maps the small subjects at German universities, most of which belong to the SSH (www.kleinefaecher.de).

4.3 Public Research Organizations

Besides the universities, the non-university research institutions play a prominent role in the German research system as such (cf. Chapter 1.1). We already showed in reference to the funding system that especially the Leibniz Association and partly the Max Planck Society is important for non-university SSH research (cf. Chapter 3.2.2). This is also illustrated by the disciplinary profile analyzed in the DFG Funding Atlas (cf. Figure 4).

Figure 4: Disciplinary profiles of the four non-university research organizations in Germany



GEI = SSH, LEB = life sciences, NAT = natural sciences, ING = engineering sciences. The lines show different funding sources of the research organizations.

Source: Deutsche Forschungsgemeinschaft (2012): Förderatlas 2012. Kennzahlen zur öffentlichen finanzierten Forschung in Deutschland. Bonn. p. 100.

The Leibniz Association is a scientific organization assembling 86 non-university research institutes and service facilities. The institutes are demand-oriented and interdisciplinary. They consider themselves as cooperation partners for universities, industry, public administration, and politics. In 2011, the total budget amounted to 1.5 billion euros. [56] Most important for SSH research are the following Leibniz institutes in section A

"Humanities and educational research" and section B "Economics, social sciences and spatial sciences" (including hyperlinks to DFG database with detailed information):

- Section A "Humanities and educational research":
 - Deutsches Bergbau-Museum (DBM), Bochum;
 - <u>Deutsches Institut für Erwachsenenbildung Leibniz-Zentrum für</u> Lebenslanges Lernen (DIE), Bonn;
 - <u>Deutsches Institut für Internationale Pädagogische Forschung</u> (DIPF), Frankfurt am Main;
 - <u>Deutsches Museum (DM), München;</u>
 - Deutsches Schiffahrtsmuseum (DSM), Bremerhaven;
 - Georg-Eckert-Institut für internationale Schulbuchforschung (GEI), Braunschweig;
 - Germanisches Nationalmuseum (GNM), Nürnberg;
 - Herder-Institut für historische Ostmitteleuropaforschung Institut der Leibniz-Gemeinschaft (HI), Marburg;
 - Institut f
 ür Deutsche Sprache (IDS), Mannheim;
 - Institut f
 ür Zeitgeschichte M
 ünchen Berlin (IfZ);
 - <u>Leibniz-Institut für die Pädagogik der Naturwissenschaften und Mathematik (IPN), Kiel;</u>
 - Leibniz-Institut f
 ür Europäische Geschichte (IEG), Mainz;
 - Leibniz-Institut für Wissensmedien (IWM), Tübingen;
 - <u>Leibniz-Zentrum für Psychologische Information und Dokumentation</u> (ZPID), Trier;
 - Römisch-Germanisches Zentralmuseum (RGZM), Mainz;
 - Zentrum f
 ür Zeithistorische Forschung Potsdam (ZZF).
- Section B "Economics, social sciences and spatial sciences"
 - Akademie für Raumforschung und Landesplanung Leibniz-Forum für Raumwissenschaften (ARL), Hannover;
 - <u>Deutsche Zentralbibliothek für Wirtschaftswissenschaften Leibniz Informationszentrum Wirtschaft (ZBW), Kiel;</u>
 - <u>Deutsches Forschungsinstitut für öffentliche Verwaltung Speyer</u> (FÖV);
 - DIW Berlin Deutsches Institut f
 ür Wirtschaftsforschung (DIW);
 - GESIS Leibniz-Institut für Sozialwissenschaften (GESIS), Mannheim;
 - GIGA German Institute of Global and Area Studies / Leibniz-Institut für Globale und Regionale Studien (GIGA), Hamburg;

- Hessische Stiftung Friedens- und Konfliktforschung (HSFK), Frankfurt am Main;
- <u>ifo Institut Leibniz-Institut für Wirtschaftsforschung an der Universität München e. V. (ifo);</u>
- ILS Institut für Landes- und Stadtentwicklungsforschung (ILS), Dortmund;
- Institut f
 ür Weltwirtschaft an der Universit
 ät Kiel (IfW);
- Institut f
 ür Wirtschaftsforschung Halle (IWH);
- <u>Leibniz-Institut für Agrarentwicklung in Mittel- und Osteuropa (IAMO)</u>, Halle;
- Leibniz-Institut für Länderkunde (IfL), Leipzig;
- <u>Leibniz-Institut für ökologische Raumentwicklung (IÖR), Dresden;</u>
- <u>Leibniz-Institut für Regionalentwicklung und Strukturplanung (IRS),</u>
 <u>Erkner;</u>
- Rheinisch-Westfälisches Institut für Wirtschaftsforschung (RWI), Essen;
- Wissenschaftszentrum Berlin für Sozialforschung (WZB);
- Zentrum f
 ür Europäische Wirtschaftsforschung (ZEW), Mannheim.

The **Max Planck Society** currently maintains 80 institutes, research units, and working groups that are devoted to a wide range of basic research areas. The institutes work largely in an interdisciplinary setting and in cooperation with universities and other research institutes in Germany and abroad to generate cutting-edge knowledge and technological breakthroughs as well as to produce highly qualified, internationally competitive junior scientists and researchers. In 2011, the total budget amounted to 1.7 billion euros. 222.5 million euros were spent on SSH research in the following institutes: [57]

- Bibliotheca Hertziana Max-Planck-Institut für Kunstgeschichte, Rom;
- Max-Planck-Institut für Bildungsforschung, Berlin;
- Max-Planck-Institut f
 ür ethnologische Forschung, Halle (Saale);
- <u>Max-Planck-Institut zur Erforschung multireligiöser und multiethnischer</u> <u>Gesellschaften</u>, Göttingen;
- Kunsthistorisches Institut in Florenz Max-Planck-Institut, Florenz;
- Max-Planck-Institut für europäische Rechtsgeschichte, Frankfurt/Main;
- Max-Planck-Institut für Wissenschaftsgeschichte, Berlin;
- Max-Planck-Institut zur Erforschung von Gemeinschaftsgütern, Bonn;
- <u>Max-Planck-Institut</u> <u>für Immaterialgüter- und Wettbewerbsrecht</u>, München;
- <u>Max-Planck-Institut für ausländisches und internationales Privatrecht</u>, Hamburg;

- <u>Max Planck Institute Luxembourg for International, European an</u> <u>Regulatory Procedural Law, Luxemburg;</u>
- Max-Planck-Institut für europäische Rechtsgeschichte, Frankfurt/Main;
- Max-Planck-Institut für Sozialrecht und Sozialpolitik, München;
- Max-Planck-Institut für Steuerrecht und Öffentliche Finanzen, München;
- <u>Max-Planck-Institut für ausländisches und internationales Strafrecht,</u>
 Freiburg;
- <u>Max-Planck-Institut für ausländisches öffentliches Recht und Völkerrecht,</u> Heidelberg;
- Max-Planck-Institut f
 ür demografische Forschung, Rostock;
- Max-Planck-Institut für Gesellschaftsforschung, Köln;
- Max-Planck-Institut für Ökonomik, Jena;
- <u>Max-Planck-Institut für evolutionäre Anthropologie</u>, Leipzig;
- Max-Planck-Institut f
 ür Kognitions- und Neurowissenschaften, Leipzig;
- Max-Planck-Institut für biologische Kybernetik, Tübingen;
- <u>Max-Planck-Institut für Psychiatrie</u>, München;
- Max-Planck-Institut für Psycholinguistik, Nijmegen.

The **Fraunhofer-Gesellschaft** undertakes applied research of direct utility to private and public enterprise and of wide benefit to society. The work is organized in more than 80 research units, including 60 institutes with 40 different locations in Germany. In 2011, the Fraunhofer-Gesellschaft's annual research budget was 1.9 billion euros, 1.5 billion euros of it generated through contract research. Its work is characterized by interdisciplinary studies, so it is not possible to specify the budget spent on SSH purposes. Fraunhofer institutes providing SSH studies are the following:

- Fraunhofer-Institut für Algorithmen und Wissenschaftliches Rechnen (SCAI);
- Fraunhofer-Institut f
 ür System- und Innovationsforschung (ISI);
- <u>Fraunhofer-Institut für Naturwissenschaftlich-Technische Trendanalysen</u> (INT);
- Fraunhofer-Institut f
 ür Arbeitswirtschaft und Organization (IAO);
- Fraunhofer-Informationszentrum Raum und Bau (IRB);
- Fraunhofer-Institut f
 ür Produkationstechnik und Automatisierung (IPA).

Moreover, there are the following public research organizations with relevance for SSH research in Germany directly financed by the government, in most cases as departmental research institutes:

 German Institute for International and Security Affairs (Stiftung Wissenschaft und Politik) (www.swp-berlin.org)

Research and services emphases include:

- European integration;
- EU's foreign relations;
- Security policy.
- German Archaeological Institute (Deutsches Archäologisches Institut) (http://www.dainst.de/)

Research and services emphases include:

- Classical highly developed cultures of the old world (Mediterranean cultures);
- Celtic, Roman, Germanic and Slavic cultures of central Europe;
- Highly developed Oriental cultures;
- General and comparative archaeology of world cultures.
- Federal Institute for Population Research (Bundesinstitut für Bevölkerungsforschung) (www.bib-demographie.de)

Research and services emphases include:

- Ongoing observation and analysis of demographic trends;
- Advising the federal government and informing the public, the press and enterprises;
- Research relative to demographic issues.
- Federal Institute for Occupational Safety and Health (Bundesanstalt für Arbeitsschutz und Arbeitsmedizin) (<u>www.baua.de</u>)

Research and services emphases include:

- Maintenance and improvement of work capability and employability;
- Improvement of prevention of work-related health problems and disorders;
- Development and implementation of effective, cost-effective prevention concepts for small and medium-sized companies and selected sectors;
- Promotion of work systems designed in keeping with safety and health criteria;
- Improvement of health protection in activities involving hazardous substances and biological agents.
- Institute for Employment Research of the Federal Employment Services (Institut f
 ür Arbeitsmarkt- und Berufsforschung der Bundesagentur f
 ür Arbeit) (http://www.iab.de)

Research and services emphases include:

- Labor-market statistics and observation (methods, models and theoretical principles; preparation of data suitable for evaluation);
- Research into the impacts of active labor-market policies under Social Codes II and III (SGB II and SGB III).

Max Rubner-Institut (http://www.mri.bund.de/)

Research and services emphases include:

- Nutrition-relevant economics, sociology and human behavior patterns.
- Federal Institute for Risk Assessment (Bundesinstitut für Risikobewertung) (www.bfr.bund.de)

Research and services emphases include:

- Risk assessment;
- Communication of risks;
- National tasks:
- Advising of policy-makers.
- German Federal Armed Forces institute of social sciences (Sozialwissenschaftliches Institut der Bundeswehr) (www.sowi.bundeswehr.de)

Research and services emphases include:

- Military-oriented research in social sciences, along with pertinent basic research;
- Problem-oriented contract based empirical research.
- German Youth Institute (Deutsches Jugendinstitut) <u>www.dji.de</u>

Research and services emphases:

- Social reporting on situations of children, adolescents, women and families: continuous monitoring of living conditions, as related to social structures, and of the objective well-being of society; continuous monitoring of the condition and impacts of the state's social assistance systems for children and young people;
- Practical research in the area of assistance for children, adolescents and families: initiation and testing in innovative practical environments; evaluation of model programs of the federal Government and the Laender;
- Scientific services: offices as clearinghouses for documentation, networking, development of proper practice, policy consultation and initiation of research; support for the federal government's reporting; advising of relevant staff and policy-makers, and collection and dissemination of information and materials.
- German Centre of Gerontology (Deutsches Zentrum f
 ür Altersfragen)
 (http://www.dza.de/)

Research and services emphases include:

 gerontology, national surveys, international comparative studies on issues of age and ageing;

- Special library on social gerontology, including the "GeroLit" literature database, the "GeroStat" statistics database and the "GeroLink" address database;
- Advising of the government, Parliament and senior-citizens' assistance institutions; dissemination of gerontological expertise, to help shape policies oriented to senior citizens and social affairs ("Age-issues information service").
- Institute for Social Work and Social Education (Institute for Social Work and Social Education) (www.iss-ffm.de)

Research and services emphases include:

- Life-situation research, with an emphasis on poverty and socialeconomic deprivation;
- Migration and integration;
- Evaluation of, and scientific support for, model projects, structures and services in social work;
- Research into actual practice.
- National Centre for Health Awareness (Bundeszentrale für gesundheitliche Aufklärung) (http://www.bzga.de)

Research and services emphases include:

- Promotion of awareness about health;
- Prevention of selected risks with regard to diseases caused by civilization and to communicable diseases;
- Planning, execution and evaluation of nationwide campaigns;
- Development and implementation of quality assurance procedures in the area of prevention and health awareness;
- Development of scientific procedures for showing the effectiveness of prevention.
- Federal Office for Building and Regional Planning (Bundesamt für Bauwesen und Raumordnung) (http://www.bbr.bund.de)

Research and services emphases include:

- Sustainable regional and municipal development;
- Sustainable city development;
- Availability of housing;
- Regional development in Europe;
- Regional information system;
- Transfer tasks.
- Federal Institute for Vocational Training (Bundesinstitut für Berufsbildung) (http://www.bibb.de)

Research and services emphases include:

- Mobility pathways and career paths for vocationally qualified persons;
- New occupations new areas of employment;
- Individualization and differentiation of vocational training, via curricular, organizational and didactic measures.

4.4 Private research performers

We already stated that private funding is of little importance for the whole SSH research system (cf. Chapter 3.3). However, there are a few private institutes that can be mentioned:

The **Institute for Applied Social Sciences** (Institut für angewandte Sozialwissenschaft, infas) (www.infas.de) is a private and independent market and social research institute in Germany rendering research and consultancy services for enterprises of all branches of trade, the scientific world, and the administration on federal and federal state level as well as politics in general.

TNS Emnid (<u>www.tns-emnid.com</u>) is a private and independent market and social research institute and conducts studies in the fields of media research, politics and social research.

The forsa Gesellschaft für Sozialforschung und statistische Analysen (www.forsa.com) conducts market, opinion and social research studies, in which the methods of empirical social research can be employed, works closely with experts in both science and praxis in developing and executing empirical surveys.

The Institut für Demoskopie Allensbach (www.ifd-allensbach.de) conducts studies in the area of media research, social research and present opinion research. Members are engaged in the private sector as well in the academic sector, give lectures and publish scientific results from their work.

The **GfK Group** (www.gfk.com) is one of the largest market research companies in the world with a staff complement of more than 10,000 employees working in 115 operating companies covering more than 100 countries of the world. GfK delivers services in all major consumer, pharmaceutical, media and service sector market segments. The GfK Group headquarter is located in Nuernberg, Germany.

The **Bertelsmann Stiftung** (<u>www.bertelsmann-stiftung.de</u>) aims to identify social problems and challenges at an early stage and develop exemplary solutions to address them in topics like politics, society, economy, education, health and culture. The Bertelsmann Stiftung functions exclusively as a private operating foundation; it carries out its own project work and does not provide grants or support to third-party projects.

4.5 Research performance

4.5.1 Scientific publications

The number of publications in the field of SSH has grown from 6.580 in 2005 to 11.397 in 2011, which is an increase of 73 percent or an average annual growth rate of 9.6 percent. In comparison to other countries, this is a lower increase of SSH publications but built on a relatively strong basis of

publications. In 2011, only in the United Kingdom more articles and reviews were published in total (26.234) with regard to the European countries.

Analyzing the co-publications, it appears that from 2005 until 2011 the United States (5,139), the United Kingdom (3,857), Switzerland (2,136), the Netherlands (1,932), and Austria (1,230) were the five most important partner countries for SSH publications. [58]

4.5.2 Interdisciplinarity

Before giving an overview of interdisciplinarity or multidisciplinarity, one has to take into account that what is called a "discipline" in academia differs over time. While looking at social sciences and humanities (SSH) in Germany, we have to consider important processes of redefining traditional academic fields, especially concerning the German humanities. During the last decades the cultural turn for instance stimulated the traditional "Geisteswissenschaften" to raise new questions and topics, to develop new theories and methods. As a consequence, new disciplinary self-constructions came into being, and new linkages between them became possible. [59] There is still an ongoing methodological discussion whether "culture" can be seen as a new unifying paradigm for the whole field of the humanities or not, but one cannot ignore that the shift to cultural sciences (Kulturwissenschaften) broke down many disciplinary boundaries of the past both within SSH and with regard to other areas of the scientific landscape. Therefore, interdisciplinarity or multidisciplinarity and how it is funded have to be seen in the context of a developing and diversifying understanding across the field of SSH.

Moreover, the requested distinction between "interdisciplinarity" and "multi-disciplinarity" is hardly useable for the German science system if not in general because of two reasons. Firstly, the definition implicitly confounds the difference between the way disciplines work together on the one hand (interdisciplinarity) and the numbers and characteristics of the entities working together on the other (multidisciplinarity). Secondly, it excludes cooperation between the engineering sciences, natural sciences, life sciences etc. but without SSH disciplines from being multidisciplinary. Nevertheless, we can outline some important research programs to illustrate the status quo of inter- and multidisciplinarity with regard to the SSH in Germany.

In 2006, the German Council for Science and Humanities (Wissenschaftsrat) proposed to develop new comprehensive funding programs to strengthen SSH. Institutes for Advanced Studies as units within the universities (Forschungskollegs) were recommended as a new type of supporting and organizing SSH. Hence, the **BMBF** started a program called "Freedom for Research in the Humanities" in 2007. [60] It will be continued and extended to social sciences by the Framework Program for the Humanities, Cultural and Social Sciences from 2013 to 2017 (cf. Chapter 1.2.2). [61] Explicitly, this program focusses on interdisciplinary and multidisciplinary research collaborations on selected topics. Most of the thematic priorities are characterized by an emphasis on societal challenges—as we can see it for many other governmental and mostly more top-down orientated programs. One of the thematic priorities of the SSH specific BMBF program mentioned above aims to make use of new findings in the fields of technology and the

natural sciences in particular. Besides the thematic priorities, the program aims to strengthen structures of research and the facilitating access to data across all disciplines.

Furthermore, the **BMBF together with the Laender** contributes to finance some non-university research institutions that usually have an interdisciplinary focus, such as

- the Humanities Research Centers (Geisteswissenschaftliche Zentren) in Berlin and Leipzig;
- the Berlin Institute for Advanced Study (Wissenschaftskolleg zu Berlin);
- the Käte Hamburger Collegia (Käte Hamburger Kollegs);
- the Social Science Research Center Berlin (Wissenschaftszentrum Berlin für Sozialforschung).

Some of the research areas of these research organizations can also be interpreted as being multidisciplinary partially.

The institutes of the four big **non-university research organizations** in Germany complementarily cover the whole spectrum of research disciplines. Following the problematic definition of multidisciplinarity with a compulsory portion of SSH disciplines (as described above), especially the institutes of the Leibniz Association are of relevance here (cf. Figure 4).

A variety of collaborative research programs at universities are funded by the **DFG** and its coordinated programs. For most of these programs the respective guideline points out inter- or multidisciplinarity as an obligated criterion. Since the DFG guidelines do not fall within the definition dividing "interdisciplinarity" and "multidisciplinarity", we can only assume that the more stringent an interdisciplinary portfolio is required for the type of program, the more the relevant projects tend to be multidisciplinary in the requested form here. Therefore, we can expect most of the multidisciplinary projects in the following three types of collaborative research funded by the DFG:

- Priority Programs: In addition to novelty in terms of topic, cooperation or methodology and networking, interdisciplinary cooperation is one of three characteristics of this program.
- Collaborative Research Centers: Along with cooperation across organizational entities (institutes, departments, faculties) and support of prioritization at a university as a whole, interdisciplinarity is a characteristic feature of projects funded by this DFG program.
- DFG Research Centers: Among other things, this program aims to enhance scientific networking and cooperation by entailing a high degree of interdisciplinarity.

In most of the other DFG funding programs "interdisciplinarity" is desired, at least. [62]

Furthermore, within the Excellence Initiative a strong multidisciplinary approach was one of the important criteria. [63] Concurrently, a survey of the peer reviewers who were involved in the assessment of the proposals submitted for the next round of the Excellence Initiative conducted by the iFQ

indicates that there are several criteria such as that quality of the participating researchers or the quality of the research environment which were even more important for the personal judgement. With regard to the graduate schools the "multidisciplinary approach and added value of interdisciplinary cooperation" can be ranked as number 8 of 13 general criteria. While reviewing the clusters of excellence the "added value of interdisciplinary cooperation" is the 6th most relevant criteria of 12 as a whole. [64] Finally, we cannot say how many of the funded projects in the programs above have a real multidisciplinary profile because statistics of DFG and others concentrate on the allocation between the four big areas—life sciences, natural sciences, engineering sciences, and SSH (e.g. DFG 2012: 40)—and not across them. However, there are some **single positive examples** listed below.

- The Berlin School of Mind and Brain (http://www.mind-and-brain.de/) is funded by the Excellence Initiative as a graduate school since 2006. It focuses on topics such as conscious and unconscious perception, decision-making, language, brain plasticity and lifespan ontogeny, mental disorders and brain dysfunction, or human sociality and the brain. Thus, it focuses on cooperations of quite a number of different disciplines such as molecular neuroscience, neurobiology, cognitive neuroscience, neurology, and psychiatry to psychology, linguistics, and philosophy.
- In 2006, the Freie Universität Berlin constituted the cluster of excellence "Languages of Emotion" (www.languages-of-emotion.de). It focuses on interdependencies between language and affect bringing together researchers from several disciplines. In the self-definition the following disciplines are addressed: anthropology, near eastern studies, biology, film studies, Japanese studies, history of art, literary history and criticism (comparative literature, classical Greek and Latin studies, English and American studies, German studies, Romance languages and literatures, Slavic studies), musicology, philosophy, political science, (neuro-)psychology, psychiatry, religious studies, sociology, linguistics, and theater studies and dance studies.
- Furthermore, there are different universities which developed centers for area studies. Some of them are funded by the BMBF program mentioned above. Most commonly, the centers are characterized by a multidisciplinary approach. Typical disciplines that are integrated from the natural and engineering sciences are geoscience, agronomics, ecotrophology, and computer science.

Since firstly, there is a methodological problem of defining precisely what an academic discipline is in general and in a field that is intensively differentiating in particular, and secondly, the distinction between "interdisciplinarity" and "multidisciplinarity" is problematic as described above, we have no applicable empirical basis for analyzing interdisciplinarity and multidisciplinarity. In reflection of the funding programs above, however, we can conclude that there are several programs stimulating and rewarding research projects with an inter- and multidisciplinary focus.

Even so, current debates on recent funding programs indicate that for the scientific community as well as for the policy-makers the question whether the SSH disciplines are getting enough support in comparison with the

natural sciences or life sciences is even of more importance. With regard to nearly all of the funding programs mentioned above there was a debate whether the instruments to attract third-party funding in Germany discriminate unreasonably against SSH. While this had a positive impact on cooperation between SSH disciplines, it might have curtailed distinctly multidisciplinary research in the recent past.

4.5.3 International Cooperation

The BMBF fosters international cooperation in education and research and international exchanges in all subject areas in various programs. Within the federal government's "Strategy for Internationalization of Science and Research" various bilateral initiatives for collaboration (e.g. with Israel, Russia, Ukraine) are set up. They are not addressing particular disciplines, but we can assume an important impact on SSH research. The federal government also supports German institutions of higher education in their efforts to assert themselves in growing international competition. [65] The International Bureau (IB) has been commissioned by the BMBF with the conception, coordination and planning of the relevant BMBF activities. The IB advises German universities and research institutes in all subject areas (not only SSH related) on the subject of international research cooperation and provides financial support for the development of new contacts and collaborations. The main focus in international cooperation in the humanities fostered by the BMBF/IB is intercultural comparative research and the protection of cultural assets. [66]

The Alexander von Humboldt-Foundation (AvH) promotes academic cooperation between excellent scientists and scholars from abroad and from Germany via research fellowships and awards and several services. There are programs that support postdoctoral and experienced researchers from other countries to come to Germany (e. g. Humboldt Research Fellowship or Georg Forster Research Fellowship with a special focus on developing countries) as well as those which help researchers from Germany to go abroad (e. g. Feodor Lynen Research Fellowship, Research Fellowship from the Japan Society for the Promotion of Science). The AvH considers itself to be an intermediary organization for German foreign cultural and educational policy which promotes international cultural dialogue and academic exchange.

The **DFG** runs various bilateral collaboration agreements in order to facilitate international collaboration e.g. with Russia, the UK and the USA. Scientists and researchers in Germany can apply for funding for research projects—not only in SSH, but in all areas—carried out in cooperation with colleagues (cooperation partners) from abroad, either as part of the Individual Grants Program or in connection with Coordinated Programs. This funding is partly covered by agreements that the DFG has entered into with its more than 50 partner organizations in Europe and worldwide [67].

According to a survey on the international positioning of the SSH in Germany, published by the German Higher Education Information System (HIS) in 2010, individual researchers in SSH in Germany cooperate mainly with SSH researchers in the USA (43 %), the UK (30 %) and France (23 %),

followed by Austria (20 %) and Switzerland and Italy (16 %). Cooperation with all other countries is beneath 10 percent [68].

Some **important ongoing SSH programs** with international cooperation by various funding agencies are the following:

- DARIAH Digital Research Infrastructure for the Arts and Humanities (BMBF, European partner network, 2011–2014)
- Indian- European Social Sciences Network (DFG, since 2011)
- Open Research Area in Europe for the Social Sciences (DFG and ANR/France, ESRC/UK, NOW/Netherlands, since 2010)
- The Martin Buber Society of Fellows in the Humanities at the Hebrew University (BMBF, since 2010)
- <u>Europe seen from the outside Promoting young researchers in the humanities</u> (BMBF/DLR, since 2009)
- <u>Digital Humanities</u> (DFG and NEH (USA), since 2008)
- Program Point Sud (DFG, since 2008)
- German-French Funding agreement for the humanities and social sciences (DFG and ANR/France, since 2007)
- International Käte-Hamburger collegia (BMBF, since 2007)
- Humanities in social dialogue (BMBF/DLR, since 2005)
- German-Russian collaboration in the SSH (DFG, since 2005)
- Key issues in the humanities (Volkswagenstiftung, since 2004)
- Mobility for experienced researchers in historical humanities including <u>Islamic studies</u> (M4HUMAN) (European Commission/Gerda Henkel Foundation, since 2011)

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