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1. Mission

The mission of the BSI is to conduct top level research on the fundamental principles and processes that govern human behaviour. In addition to this fundamental aim ('understanding behaviour') we aim at societal relevance ('influencing behaviour'). BSI's research is integrated in six closely linked programs: Developmental Psychopathology (Rutger Engels); Experimental Psychopathology and Treatment (Eni Becker); Learning and Plasticity (Ludo Verhoeven); Social Cognition (Ap Dijksterhuis); Social Development (Toon Cillessen) and Work, Stress and Health (Michiel Kompier, Sabine Geurts). The ambitions of the BSI are: 1) to be a cohesive top-level institute in behavioural science; 2) to have collaborating world leading research programs; 3) to train future generations of highly qualified researchers in behavioural science; and 4) to be an attractive workplace for its employees. Whereas in the founding years the emphasis of most programs was on fundamental research, we have now also strengthened our societal orientation and make a stronger effort in making our research results available to society.

2. Research context

This part of this document refers to the recent (December 2011) SEP evaluation ([Appendix 1](#)), and to the BSI-Self-evaluation Report 2011 (Part A-B) <http://www.ru.nl/publish/pages/621422/ser11bsipartapartb.pdf>.

The 2011 SEP evaluation lists the following assessment of the six BSI research programs (**Quality**; **Productivity**; **Societal Relevance**; **Vitality and feasibility**) (1=Unsatisfactory, 5=Excellent):

	Q	P	SR	V
Developmental Psychopathology	5	5	5	4.5
Experimental Psychopathology and Treatment	5	5	5	4.5
Learning and Plasticity	4.5	4.5	5	5
Social Cognition	5	4.5	5	4.5
Social Development	4.5	4.5	5	4.5
Work, Stress and Health	5	4.5	4.5	4.5

From 2005 to 2010 the total budget of BSI increased from € 5.6 mln (2005) to € 8.1 mln (2010). BSI has a sound funding position with (2010) 55% direct funding, 25% funding from research grants, and 20% from contract grants. Especially funding from research grants and from contract grants increased compared to the 1999-2004 period.

a1. Research program

According to the SEP evaluation: *“the BSI is a remarkably well balanced collection of six research programs. All programs were given either a 4 or 5 on quality for the 1999-2004 period and again in this accounting of the 2005-2010 period. Most important, all six programs reported increases in the common indicators of quality (e.g., number of publications in higher impact journals, indicative Hirsch-indices for senior scholars) from 2004 to 2010. The primary feature of these quality enhancing efforts appears to have been a collaborative leadership process among program leaders and senior staff in the BSI”.*

“Clearly, the BSI is highly effective in fostering and supporting a remarkably high level of functioning in its constituent units” (p.10).

“Today, the BSI is strongly emerging as a center of excellence in behavioral science research, it is multiply connected to leading networks of behavioral scientists, and it is in an excellent position to continue to produce compelling research findings of both scientific and applied significance” (p.13).

a2. Scientific output

In recent years BSI has refined its productivity and publication strategy through a process of learning from each other. The following targets were set: 1) define clear (yearly) targets for each program with regards to number and type of publications, aiming at top-journals; 2) take care of high quality training and supervision of PhD-students; 3) improve monitoring of PhD students; 4) set clear targets for writing research grant and contract research proposals, at the level of the institute, the program and the individual researcher.

The scientific output of BSI has been at a very high level. Whereas in the 1999-2004 period a total of 666 scientific papers in international peer reviewed journals were published, 1425 were published in 2005-2010 (2.1 times as much). Forty to fifty per cent of all international refereed journal articles are now in the top 25% of scientific journals. Detailed information for BSI's research programs can be found in <http://www.ru.nl/publish/pages/621422/ser11bsipartapartb.pdf> (p. 70-77).

The number of completed PhD-theses in 1999-2004 was 76. In 2005-2010 it was 118: an increase of 64%. Of these completed PhD theses, 40% were products of collaboration outside the 'own' BSI group. BSI's enhanced internationalization and orientation on (higher impact) scientific journal is combined with international book chapters and professional publications. For a detailed overview of research output by category we refer to <http://www.ru.nl/publish/pages/621422/ser11bsipartapartb.pdf> (p.10).

This increase in scientific output was realized despite comparable amounts of tenured staff.

As follows from the high marks for our research programs (four programs '4.5', two programs '5'), the SEP evaluation of our scientific output has been very positive.

b. Cohesion

Several steps were taken to further improve the focus and cohesion of our research. Based on the 1999-2004 assessment, we discontinued two sub-optimally performing programs. The remaining six collaborating research groups constitute the backbone of BSI. Because it was assessed as overly complex, we also abandoned BSI's previous matrix structure that combined its research programmes (on one axis) with four priority themes (on the other axis). We have put much effort in promoting a 'BSI identity' and in increasing 'bottom up' cooperation between research staff across the six programs, for example through regular meetings of researchers from different groups with joint interests, so called 'lab groups'. We have also stimulated joint applications from more than one research group for research

grants and contract research. In this respect BSI also has been successful. Moreover we stimulate and realise joint publications and joint supervision of PhD-students. Intensive collaboration between researchers from different groups takes place in the two-year Research Master's program and in the training of PhD-students. A cooperative research climate is further promoted through the yearly BSI-Day and BSI PhD-conference, high quality colloquia, the bimonthly BSI newsletter, and our new and improved website (www.ru.nl/bsi/).

The SEP evaluation made a very positive assessment of BSI's cohesion: *"The committee found that the BSI is a remarkably well balanced collection of six research programs" (p.10). "Clearly, the BSI is highly effective in fostering and supporting a remarkably high level of functioning in its constituent units" (p.10). "The changes posted in the 2004-2010 period provide an impressive example of a research institute that works effectively at all levels. All programs show signs of having benefitted from deliberate strategies generated and supported by BSI and the programs working in concert. One remarkable feature of the improvements is that, despite program diversity and concerted efforts to build the strength of individual programs, BSI has created an atmosphere in which collaborations flourish across the lines that traditionally divide and isolate programs and even individuals within programs. This collaborativeness in scientific activities and in the governance and goal-setting of the institute as a whole may be the single most laudatory change in the BSI in the past 5 years" (p.12-13).*

c. Composition of research groups, scale of involvement of senior-researchers in research school

BSI's research is integrated in six closely related and collaborating research programs. The BSI director is authorized to make managerial decisions within the confines of the institute's budget, and is responsible for the institute's performance to the Dean. The director chairs the BSI Advisory Board, which consists of the professors that lead the six research programs, the RM program director and the PhD-coordinator (both also professors). A policy advisor and management assistant support the director. For financial, HRM and other managerial and operational issues support is provided by the Bureau of the Faculty. To facilitate and support BSI management processes, five advisory committees have been installed, each with six members, one from each program. These are: Science committee, Lab committee, Colloquium committee, Field research committee, and the PhD-platform (see also 3.1).

BSI's tenured (senior) staff was relatively stable from 2005 to 2010 (25.9 fte). The scale of involvement of senior researchers in the research school thus was around 26 research fte.

d. Positioning in (inter)national field and cooperation with research groups in the Netherlands and abroad

A unique feature of BSI is its integrative approach to human behaviour that transcends the traditional disciplinary boundaries of psychology and education. The interdisciplinary nature of BSI is also reflected in its collaboration with other research centres within and outside of Radboud University.

BSI strongly invests in international collaboration. In many MSc and PhD-projects, researchers and students collaborate with internationally renowned scholars. Often BSI-GS students spend time at the foreign institutes of these collaborators, which both BSI and the Faculty of Social Sciences (Internalization fund) encourage and support financially. PhD-students from other countries also visit BSI for joint research. Further, approximately 25 international workshops and colloquia are being held annually <http://www.ru.nl/publish/pages/621422/ser11bsipartapartb.pdf> (p.57). These workshops, that are often organized by PhD-students, lead to intensive collaborations between international renowned scholars and students. Further, BSI appoints international BSI-Fellows (see section 3.2., under 'c').

The SEP evaluation concludes: *"Today, the BSI is strongly emerging as a center of excellence in behavioral science research, it is multiply connected to leading networks of behavioral scientists, and it is*

in an excellent position to continue to produce compelling research findings of both scientific and applied significance” (p.13).

e. Changes in the research school’s research program

The previous (2005) external research assessment of BSI was highly positive for BSI. It noted ‘excellent leadership’, clear mission and goals’, ‘good PhD and research strategy’, excellent facilities’, ‘high international reputation’, and ‘high societal relevance’ (p.19). Several recommendations were formulated by the evaluation committee and many of them have been realized. For a detailed list we refer to <http://www.ru.nl/publish/pages/621422/ser11bsipartapartb.pdf> (p.69). Among these developments were: improvement of our research focus and cohesion; further promotion of BSI-identity instead of primary identification with one research program; further stimulation of external collaboration and internationalization (e.g., BSI fellows); raising performance standards; utilizing ‘learning from each other’ as a leading principle; setting standards for external funding; further improving our personnel and PhD-policy, especially related to supervision and training of the PhD-students; stronger emphasis on societal relevance.

We discontinued two sub-optimally performing programs and firmly stimulated cooperation between the six BSI research programs. We have strengthened our research infrastructure. First, we further improved our research facilities which are excellent (see <http://www.ru.nl/publish/pages/621422/ser11bsipartapartb.pdf>, p.56). Second, we strengthened our already existing committee-structure (Science committee, Lab committee, Colloquium committee, Field Research committee, PhD-platform) with linking pins to each program. Third, as behavioural neuroscience offers exciting approaches to study human behaviour, we appointed an international top scholar as BSI-principal investigator within the Donders Centre for Cognitive Neuroimaging (DCCN). This BSI-appointment is part of a formal affiliation with DCCN.

According to the SEP evaluation the BSI has been successful in its policy: *“The BSI has created remarkably effective strategies for short- and long-term planning, as well as for acting nimbly to pursue new goals, seek additional resources, and supports the efforts of its members both at the level of programs and individuals”*(p.14).

3. Educational context

3.1 Training and supervision program

Since the 2006 accreditation, improving the training and supervision of PhD students has been a major effort. We have strengthened the position of the BSI PhD platform which advises the BSI PhD-coordinator and BSI director on PhD-issues, such as supervision and training courses for PhD-students and on the BSI-PhD-conferences. This platform consists of six PhD-students, one from each research program. The BSI PhD-conference, a yearly highlight, is organized by PhD-students for PhD-students and BSI-researchers. We have also improved and made more explicit the training program for our PhD-students (a total of 728 hours, see below). We have improved and simplified our BSI PhD Guide. This BSI PhD Guide is regularly updated. It serves as an in house information document for our PhD-students. For details see: <http://www.ru.nl/publish/pages/629241/bsi-phd-guide-16-08-2011-final.pdf>. And finally we further improved our already successful BSI-PhD-tracking system (see below).

a1. Structure of the training program

BSI’s PhD-students devote 728 hours (26 ects, 1 ect = 28 hours) to training activities. Upon completion they receive the BSI-GS Certificate. Eighteen ects are obligatory activities offered by BSI. The remaining 8 ects can be earned with training activities, chosen by the PhD-student (after consultation with the supervisor). The training program is aimed at the development of more generic skills (e.g., publishing

skills, presentation skills, research integrity) and at the development of more specific (e.g., methodological and statistical) skills. Obligatory activities are:

1. The course 'Publishing skills' (3 erts), twice a year, presented by some of the top BSI researchers. Its aim is to increase PhD-students' publishing skills. Participants write an English scientific article based on their research data, suitable for publication in an international refereed journal. An integral part of the course is exercise in reviewing manuscripts. Each manuscript is reviewed by fellow PhD-students and course lecturers. The course also pays attention to codes of conduct for research integrity and forms of scientific misconduct.
2. The course 'Presentation skills' (3 erts), twice a year, presented by some of the top BSI researchers. This course aims to improve the skills necessary to give an oral presentation in English in an educational, research and more applied context. It starts with interactive lectures on 'the art of presenting' for students (educational context), for fellow researchers (conference context) or stakeholders (such as patient organizations). A substantial part is devoted to 'hands on' experience with presenting. Therefore, PhD-students present and receive feedback from fellow PhD-students as well as the course lecturers.
3. BSI workshops (organization and attendance) (6 erts). These workshops constitute a major part of the training to PhD-students. They are also open to our RM-students. Coordinators of the research programs together with one or more PhD-students organize these 1-2 day meetings with experts: mostly theory-oriented meetings that offer the opportunity to work with internationally renowned scientists on specific (own) research questions. Each PhD-student is obliged to organize at least one workshop independently. Occasionally, experts from within BSI also give workshops. Some of the workshops are methodologically-oriented and therefore of interest across all research programs. The overall objective of the workshops is to offer PhD-students hands-on experience by actually working with knowledge and skills required from experts. The workshops are in English. Approximately 10 to 15 workshops are organized per year.
4. Symposia and Colloquia, including BSI-PhD-conference and BSI-Day (6 erts). PhD-symposia and colloquia are organized by PhD-students and seniors and cover topics that are central to BSI research. Yearly 10 to 15 colloquia are organized. Each year, a special symposium is organized by the BSI-PhD platform, the annual BSI PhD-conference. It takes place outside university and consists of workshops, presentations and informal meetings with BSI-colleagues and external PhD-students ('buitenpromovendi'). It is an informal day aimed at increasing acquaintance, exchange of information, and training students to present research. In preparing this conference, the coordinator of the PhD-program and the PhD platform make up a shortlist of PhD-students to be invited to present their work. Presentations are not confined to results, but may also concern research plans or the request for feedback on methodological, conceptual or data analysis issues.

a2. Structure of the supervision program

It is a high priority for BSI to support PhD-students in finishing their dissertation on time with the best results possible. Therefore BSI makes every effort to ensure that PhD-students receive optimal supervision and guidance. This process starts at the very beginning of the PhD appointment. Within the first three months of the project the following matters have to be arranged: 1) a detailed project plan, approved by the BSI Science committee; 2) a training and supervision plan; 3) the selection of a competent day-to-day supervisor and promotor; 4) the selection of an independent mentor. PhD-students meet weekly with their supervisor and at least monthly with their promotor. Their project's progress is closely monitored and assessed through a standardized procedure (BSI-PhD tracking system). Each year (November) each PhD-student has a meeting with his/her supervisor and promotor for a

performance evaluation meeting and to discuss progress. This is reported on standardized evaluation forms that are subsequently discussed in a meeting of the PhD-coordinator with all six program leaders in February. PhD-students and supervisors are formally informed on the outcomes of these discussions, and if necessary actions are taken.

b. Final attainment aims of the program

The aim of the training and supervision program is: To offer PhD students high quality supervision and training in order to finish their thesis in time and to become highly qualified, responsible and competent researchers.

c. Description of the objective of the program in terms of professional fields

The educational program for BSI's PhD-students prepares them for a research career within academia but also for more applied research organizations within clinical and educational fields.

d. Rights and duties of instructors and trainee researchers

At the start of the project the supervisor (together with the PhD-student) is responsible for filling in the training and supervision plan. Obviously, the supervisor is responsible for the supervision and guidance of the PhD-student in terms of research, training, and teaching.

The PhD-student is responsible for organizing the annual progress meeting with the supervisor (November) and for collecting the information for this meeting. Evidently, the PhD-student is responsible for performing the research, training and teaching need for the graduation and to obtain the BSI-GS certificate.

e. Procedure for selecting, prioritizing and approving research projects for PhD students

It is BSI policy to yearly start 6-7 new PhD-projects through direct funding (first stream), that is, within the BSI Graduate School. Submitted research proposals should fit the mission of the BSI and are evaluated first by the BSI Science Committee that advises the director on their quality. The chair of the Science committee organizes the selection committee for the yearly 6-7 positions. Positions are open to our Research Master-students but also to candidates from other (inter)national Research Master programs. Positions are publicly advertised.

In case of dissertation projects on research grants (second stream, e.g. NWO) the scientific quality of the project has been evaluated by the grant agency. These positions are also open to RM-students and other candidates.

f. Policy on male/female ratio among PhD students

Most of our PhD-students (83%; see also section 9) are female. Our policy is to hire the best candidate, irrespective of their sex.

3.2. Quality Assurance in Education and Supervision Programs

a. Criteria for senior researchers responsible for training and supervision

Senior researchers should be BSI member. They should meet the publication standards that are issued by the Dean of the Faculty of Social Sciences. Standards are based on the number of publications and the impact of the journals in which they appear. We use a five-year time window and take into account part time research appointments. Senior researchers should have a qualification in teaching (BKO: Basis Kwalificatie Onderwijs, or Basic Teaching Qualification).

b. Male/female ratio among the research school's senior researchers

BSI's tenured staff (2010) comprised 25.9 fte: 14.72 were male (57%) and 11.18 were female (43%).

c. Appointment of and budget for guest researchers and guest lecturers

BSI strongly invests in international collaboration (see also section 2, heading 'd'). BSI appoints international BSI-Fellows who receive an appointment to stay at the BSI and teach several weeks each year in the BSI-GS. Currently, profs. Perfetti (Pittsburgh), Todorov (Princeton), Van Hell (Penn State), Prinstein (North Carolina), Brass (Ghent), Bukowski (Concordia), Hofmann (Boston), and Kuntsche (Lausanne) are BSI-fellows. As a rule of thumb, each research group can appoint one or two international BSI-fellows (BSI-budget). Under the conditions that they present their research and actively search for funding themselves, BSI also provides resources for conference attendance and international visits for PhD-students.

d. System of internal quality assurance for training and supervision

We consider our progress with respect to the training and supervision of PhD-students as the largest improvement in PhD-policy. Our progress evaluation system has been described in the above section 3.1 (under a.2), and is supervised and safeguarded by our BSI-PhD coordinator and the BSI management assistant. Training and supervision of PhD-students is also one of the points on the agenda of each monthly meeting of the BSI director and the BSI Advisory Board (program leaders, RM program director, PhD-coordinator). The quality of training and supervision is also discussed in the yearly performance evaluation meetings between the professors that lead the research programs and their research staff members.

4. Education in Bachelor's and Master's phase

BSI-staff also teach (basically on a 50% research-50% teaching basis) in the School of Psychology and Artificial Intelligence and the School of Education. Therefore the BSI director has bimonthly meetings with the directors of these Schools. Our PhD-students have a 10% teaching obligation within these Schools. This means that they teach a total of 640 hours during their appointment. By fulfilling this teaching obligation, PhD-students have the opportunity to obtain their 'BKO', a certificate of teaching qualifications and abilities.

According to the SEP evaluation: *"The committee applauds that giving education, for example to undergraduates, recently became obligatory for PhD students. The committee emphasizes the importance of not only training PhD students in research activities, but also in supervising bachelor or master students and giving lectures. These activities will be part of their future academic jobs and should be trained adequately"* (p.12).

In 2010 BSI received official recognition as a graduate school by NWO. Since then, the BSI Graduate School combines our two-year Research Master in Behavioural Science and the training and supervision of our PhD-students. For details on our Research Master: <http://www.ru.nl/master/behaviouralscience/>.

5. Career prospects for alumni

An analysis (May 2011) demonstrates a clear link between our Research Master program and our PhD-training program. Approximately 30 PhD-students also obtained their Research Master within the BSI Graduate School (approximately 30%). Although it is hard to collect follow up information on all our RM-graduates, it is safe to state that between 50% and 60% successfully obtained a PhD-position at Radboud University or elsewhere after completing their Research Master-degree.

6. Graduation rate

a.

Table 1: Standard PhD-candidates (SEP-Table 5.5)

Cohort	Enrolment			Success rates (graduated within x years)								Current status [1-12-2011]					
	M	F	Total	x<=4		4<x<=5		5<x<=6		6<x<=7		graduated		not yet finished		dis-continued	
2002	4	12	16	0	0%	4	25%	7	44%	1	6%	12	75%	0	0%	4	25%
2003	0	9	9	0	0%	0	0%	4	44%	5	56%	9	100%	0	0%	0	0%
2004	3	8	11	0	0%	6	55%	3	27%	1	9%	10	91%	0	0%	1	9%
2005	4	7	11	0	0%	2	18%	3	27%	1	9%	6	55%	3	27%	2	18%
2006	5	12	17	0	0%	5	29%	3	18%		0%	8	47%	7	41%	2	12%
Total	16	48	64	0	0%	17	27%	20	31%	8	13%	45	70%	10	16%	9	14%

Note:

Standard PhD-candidate with employee status and conducting research with primary aim/obligation to graduate. Percentages are related to the total number of each cohort.

From 2002 to 2007 64 PhD-candidates were enrolled. Per 1 December 2011, 45 graduated (graduation rate of 70%) whereas 10 PhD-candidates have not yet finished. Nine persons discontinued.

According to the SEP evaluation: *"The success rate of the PhD training is good, from the PhD students who started between 2002 and 2004 a total of 86% completed their thesis" (p.12).*

b. What is the median time (in years) to be graduated? What are the outliers?

Table 2: Standard PhD-candidates, median time to graduation and outliers ('fastest and slowest' graduation) in years

Cohort	M	F	Total	Graduated		'outliers'		
				Count	Percentage	Fastest	Median	Slowest
2002	4	12	16	12	75%	5.21	4.37	6.59
2003	0	9	9	9	100%	6.08	5.56	6.64
2004	3	8	11	10	91%	4.94	4.48	6.03
2005	4	7	11	6	55%	5.05	4.67	6.04
2006	5	12	17	8	47%	4.41	4.06	5.59

7. Measures taken in response to criticisms made at the time of the previous accreditation

Upon its 2006-accreditation as a research school, the main criticism of ECOS concerned the graduation duration and the graduation success ('promotierendement en promotieduur') within BSI. To deal with these issues, we improved our PhD training and supervision. We took the following measures:

- We strengthened the position of our PhD-coordinator;
- We strengthened the communication with PhD-students via the PhD platform;
- We improved, simplified and regularly updated our BSI PhD-Guide (see also 3a2);
- We improved and better maintained our BSI-PhD tracking system;
- We developed the two year Research Master program in behavioural science in order to 'improve the input' (higher qualifications for PhD candidates);
- We successfully aimed at recognition as a graduate school by NWO, thus strengthening the ties between the Research Master and the PhD-training in one organization (BSI).

According to the SEP evaluation: *"Concluding, the committee is of opinion that the BSI has invested strongly and successfully in PhD training in the past evaluation period. In a competitive setting, the BSI Graduate School is officially recognized and granted by NWO. This is clearly the consequence of the high quality training and supervision of PhD students" (p.13).*

8. Measures proposed in response to the most recent external peer review

The 2011 research assessment was highly positive for BSI. The committee concludes: *“Today, the BSI is strongly emerging as a center of excellence in behavioral science research, it is multiply connected to leading networks of behavioral scientists, and it is in an excellent position to continue to produce compelling research findings of both scientific and applied significance”* (SEP evaluation, p.14). Also: *“BSI collectively and programs individually report high and increasing levels of vitality and, despite economic conditions and shrinking research dollars, feasibility (p.13).*

Although the assessment committee did not provide a specified list of recommendations, several suggestions were formulated for our research programs. One point that stands out throughout the report is the suggestion to increase the number of tenured staff. In response to this suggestion, and in response to the need to intensify teaching in the School of Psychology and Artificial Intelligence and in the School of Education, the Dean of the Faculty of Social Sciences will appoint nine new assistant professors within BSI, thereby strengthening the relationship between research and teaching. These are structural positions that are directly funded. Another stimulus for BSI will be additional possibilities to appoint PhD-students or post-doctoral researchers, also through direct funding.

9. Male/female ratio among permanent staff, post docs and PhD students

BSI’s tenured staff in 2010 comprised 25.9 fte: 14.72 were male (57%) and 11.18 were female (43%). BSI’s non-tenured staff (2010) comprised 12.33 fte: 3.85 were male (31%) and 8.48 were female (69%). BSI’s PhD-students comprised (2010) 63.99 fte: 53.38 were female (83%) and 10.61 were male (17%).

10. Organisation and Management

As explained under 2b (‘Cohesion’) we discontinued two sub-optimally performing programs and abandoned BSI’s previous matrix structure because it was too complex. Furthermore, except for regular changes in management positions (e.g., change of directorship and committee memberships and chairs), there have been no major changes in the management and organization structure since the application for accreditation.

11. Financial resources

A. Expectations for coming period

The anticipated number of PhD-students in the coming years will be around 20-25 per year. As part of its societal orientation, BSI is trying to attract more external PhD-students (“buitenpromovendi”). If successful, this will positively affect the reported number.

We expect the available capacity for training and supervision in the next four years (2012-2015) to increase from the current 26 fte research to approximately 30.5 fte research (tenured staff). The financing of these research fte will primarily follow from direct funding.

(B. Not applicable)

C. Financial track record

Table 3: Funding at BSI and at program level (fte), and expenditure at BSI level (x1000€) (SEP-Table 5.4)

Funding BSI	2005		2006		2007		2008		2009		2010		Total	
Direct funding	41.73	55%	42.35	57%	49.57	61%	49.04	58%	54.65	57%	55.99	55%	293.33	57%
Research grants	21.43	28%	19.33	26%	19.88	24%	20.87	25%	24.97	26%	26.15	25%	132.63	26%
Contract research	12.11	16%	12.69	17%	11.75	14%	14.12	17%	15.69	16%	20.08	20%	86.44	17%
Total funding	75.27		74.37		81.20		84.03		95.31		102.22		512.40	

Expenditure	2005		2006		2007		2008		2009		2010		Total	
Personnel costs	4772	85%	4468	85%	5079	85%	5743	84%	6285	81%	6600	81%	32947	83%
Other costs	863	15%	811	15%	924	15%	1129	16%	1466	19%	1530	19%	6723	17%
Total expenditure	5635		5279		6003		6872		7751		8130		39670	

12. Organisation and management

Table 4: Research staff within BSI (in fte) (SEP-Table 5.2)

	2005	2006	2007	2008	2009	2010	Total
Tenured staff	26.62	27.86	27.48	26.59	25.36	25.90	159.81
Non-tenured staff	3.61	4.34	7.23	7.44	10.11	12.33	45.06
PhD-students	45.04	42.17	46.49	50.00	59.84	63.99	307.53
Total	75.27	74.37	81.20	84.03	95.31	102.22	512.40

Tenured staff: professor, associate professor, assistant professor

Non-tenured staff: researchers, post docs

BSI's tenured staff was relatively stable from 2005 to 2010 (25.9 fte), whereas there was a steady increase in non-tenured staff and in PhD-students. As a consequence the total research staff increased from 75.27 fte (2005) to 102.22 fte (2010), a rise of 33%.

Appendix 1: Report of International Peer Review (December 2011)

Appendix 2: List of publications

Appendix 3: Formal Basis