Research Review
Psychology 2011

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1. THE REVIEW COMMITTEE AND REVIEW PROCEDURES

Scope of the assessment

The Psychology Committee was asked to perform an assessment of the research in psychology at Leiden University (LEI), Tilburg University (UvT), Maastricht University (UM), University of Groningen (RUG), University of Twente (UT), Utrecht University (UU), VU Amsterdam (VU) and University of Amsterdam (UvA). This assessment covers the research conducted in the period 2005-2010.

In accordance with the Standard Evaluation Protocol 2009-2015 for Research Assessment in the Netherlands (SEP), the committee's tasks were to assess the quality of the institutes and the research programmes on the basis of the information provided by the institutes and interviews with the management and the research leaders, and to advise on how they might be improved.

Composition of the Committee

The composition of the Psychology Committee was as follows:

- Prof. G.J. (Don) Mellenbergh (chair), emeritus professor of Psychological Methods at the University of Amsterdam;
- Prof. M. (Marc) Brysbaert, professor of Experimental Psychology at Ghent University, Belgium;
- Prof. D. (David) Guest, professor of Organizational Psychology and HRM at King's College London, UK;
- Prof. K. (Kenneth) Hugdahl, professor of Biological and Medical Psychology at the University of Bergen, Norway;
- Prof. A. (Annette) Karmiloff-Smith, Professorial Research Fellow at the Centre for Brain & Cognitive Development, Birkbeck , University of London, United Kingdom;
- Prof. J. (Jürgen) Margraf, Alexander von Humboldt Professor in Clinical Psychology and Psychotherapy at Ruhr University Bochum, Germany;
- Prof. I. (Iven) van Mechelen, professor of Quantitative Psychology and Individual Differences at the KU Leuven, Belgium;
- Prof. C. (Constantine) Sedikides, professor of Social and Personality Psychology at the Centre for Research on Self and Identity School of Psychology, University of Southampton, UK.

Dr. M.J.V. (Meg) Van Bogaert of QANU (Quality Assurance Netherlands Universities) was appointed secretary to the committee. A short curriculum vitae of the committee members can be found in Appendix C.

Prior to composing the committee, the programme leaders of a number of programmes indicated that the subject of their programme would not lie within the expertise of any of the committee members. For these programmes external assessors with the appropriate expertise were requested to provide a written assessment, based on the self-evaluation report and the key publications of the programme. The written assessment of the external assessors was used by the committee members in their preparation of the site visit, the assessment of the programme and the writing of the report. The external assessors were:

- Prof. I. (Ilana) Ritov, professor of Education and Psychology at the Hebrew University of Jerusalem, Israel: assessor of the Social Decision Making programme at Tilburg

University:

- Prof. P.B. (Peter) Smith, emeritus professor of Psychology at the University of Sussex, UK: assessor of the Cross-Cultural Psychology programme at Tilburg University;
- Prof. T. (Tim) Bates, professor of Psychology at the University of Edinburgh, UK: assessor of the Genes, Behaviour and Health programme at the VU University Amsterdam;
- Prof. E. (Edmund) Wascher, professor of Ergonomics at the Leibniz Research Centre for Working Environment and Human Factors: assessor of the Cognition and Media programme at the University of Twente;
- Prof. H. (Hans) Spada, professor of Cognition, Emotion and Communication at the University of Freiburg, Germany: assessor of the Educational Psychology programme at the University of Twente.

Independence
All members of the committee signed a statement of independence to guarantee that they would assess the quality of the institutes and research programmes in an unbiased and independent way. Any existing personal or professional relationships between committee members and the programmes under review were reported and discussed in the committee meeting.

The chairman (professor Mellenbergh) is Emeritus Professor of Psychological Methods at the University of Amsterdam. To guarantee independence of the methodological programmes, a methodologist from abroad (professor Van Mechelen) was appointed to the committee, and to guarantee independence of the University of Amsterdam, the following measures were taken. First, the visit to the University of Amsterdam was chaired by another committee member (professor Guest). Second, professor Mellenbergh was absent at the interview with the methodological programme of the University of Amsterdam. Third, he was present at the other interviews, but he did not contribute to them. Fourth, he was absent when the assessments of the programmes of the University of Amsterdam were made.

Data provided to the committee
The committee received detailed documentation consisting of the following parts:

1. Self-evaluation reports of the units under review, including all the information required by the Standard Evaluation Protocol (SEP), with appendices;
2. Key publications per research programme, with a maximum of five articles and five books;
3. Publication lists of staff members per research programme;
4. Results of the bibliometric study carried out by the Centre for Science and Technology Studies (CWTS).

Committee remarks regarding the data provided
A draft version of the CWTS report was provided to the committee only four days prior to the first part of the site visit. The final report was provided two weeks later. Unfortunately, some participating universities criticized the outcomes of the report. Due to a misunderstanding, data about personnel attached to the institutes in the first years of the analysis (2001-2004) were collected in different ways for the various institutes. Therefore, the results for the period 2001-2009/2010 produced by CWTS were less reliable than expected. For some universities, not all personnel appointed in those first years had been included in the analysis. Moreover, some programme leaders expressed their concerns about the set of journals that was used as references for the publications of their programmes. The council of

deans of the psychology institutes (letter by prof.dr. E. de Haan, dated 12 December 2011) informed the committee that the majority of the deans wanted the revised CWTS report to be included in the assessment, and simultaneously asked the committee to use this report prudently. The committee agreed and handled the criticism as follows. First, the committee ignored the bibliometric results of the first years, and concentrated on the results of the period 2005-2009/2010. Second, programmes that had citation scores substantially below the Dutch average were asked for explanations of this result in the interview. Third, the committee used the CWTS bibliometric report only to complement its qualitative assessment of the institutes and research programmes. The committee would like to emphasize the relevance of the key publications as well as the information that was provided in the self-evaluation reports and interviews.

Procedures followed by the committee

The committee proceeded according to the Standard Evaluation Protocol (SEP) 2009-2015. Prior to the site visit, each programme was assigned to two reviewers, who independently formulated a preliminary assessment. The first reviewer was chosen on the basis of their expertise in the domain of the programme; the second reviewer was chosen to provide a more general, complementary perspective.

Preceding the interviews, the committee was briefed by QANU about research assessment according to SEP, and the committee discussed the preliminary assessments. The committee also agreed upon procedural matters and aspects of the assessment. For each university the committee discussed the self-evaluation report, key papers or books and the preliminary findings of all research programmes and the institute before starting with the interviews. The first reviewers opened the interviews, and then the second reviewers and the other committee members were given the opportunity to ask questions. After each interview the committee took five minutes to prepare their preliminary assessment. After concluding the interviews at each university, the committee discussed the scores and comments of the institute and programmes.

At the end of the entire site visit, the committee discussed the scores and comments of all programmes and eight institutes. The final assessments are based on the documentation provided by the institutes, the key publications, and the interviews with the management and the leaders of the programmes. The texts for the committee report were finalised through email exchanges. The first assessor was responsible for writing the draft assessment and for sending it to the second assessor, who had to amend and/or approve the assessment. With the approval of both assessors, the assessment was inserted into the report. After receiving all assessments, the secretary compiled the report and returned it to the committee for a final approval. The approved version of the report was presented to the faculties for factual corrections and comments. The final report was presented to the Boards of the participating universities. Seven Boards accepted the report, and the Board of the University of Groningen accepted the report after withdrawing its History and Theory of Psychology programme from the assessment.

The interviews took place on 20, 21 and 22 September and on 17, 18, 19, 20 and 21 October 2011 (see the schedule in Appendix B) on site at the institutes. Each of the visits consisted of 40-minute interviews with (1) the management of the research institutes, (2) leaders of each of the research programmes, (3) a selection of PhD students (the secretary of the committee selected one PhD student per programme), and (4) a guided tour of the institute's facilities.

The Standard Evaluation Protocol (SEP) 2009-2015 uses a 5-point rating scale (see Appendix

A). The committee slightly adapted this rating scale for the following reasons. In general, Dutch psychological research is of a high level (see Chapter 2), which implies that the range of the ratings will be restricted to the higher scale points. To increase differentiation between programmes, it was decided to extend the 5-point scale to a 9-point scale (1, 1.5, 2, ..., 4.5, 5). The .5 was used to indicate that a programme is in-between two integer ratings. For example, 4.5 for quality means that the quality of the research is at the international top, but that some improvements are possible.

A large part of psychological research addresses problems that come from society. Examples are the study of patients' depressive states, employees' burn out, students' learning problems, and human conflicts. This type of research is inherently of societal relevance. Other parts of psychology study problems that do not directly come from society, but their solutions have the potential to contribute to society. An example is the study of human memory, which can contribute to the treatment of dementia patients. Most psychological research is inherently or potentially relevant for the solution of societal problems, which implies that the 'standard' rating of societal relevance will be high. To deviate from the standard societal relevance rating, the committee decided to focus on clear added efforts with regard to the indicators that were proposed by the directors of the eight research institutes: (1) development and introduction of new norm values or guidelines (e.g., for clinical protocols), (2) development and practical application of new measurement instruments (e.g., questionnaires), (3) development of methods for the practical application of research equipment (e.g., neuropsychological test batteries, biofeedback equipment), (4) development of new software, with non-university applications (e.g., as included in SPSS, internet therapy, e-health, m-health, telemedicine), (5) development of protocols or therapies (e.g., e-therapy, stepped care), (6) public appearances (e.g., interviews for television, newspapers), (7) publications of popular science books, (8) information for the general public (e.g., leaflets for patients, newsletters), and (9) contract research for practical applications (e.g., clinical medication trials). The committee thus differentiated between the potential for societal relevance and efforts of the groups to actively forge societal relevance. Programmes that excelled in these indicators were rated above 4 for societal relevance, and programmes that did not show any of these indicators were rated below 4.

Committee remarks regarding assessment of Social Psychology research programmes
Two weeks before the first part of the site visit, a press release by Tilburg University indicated that one of the professors of its Social Psychology programme had been accused of fraud. He was expelled, and a committee (chaired by Professor W.J.M. Levelt) was installed to investigate the extent and nature of the breach of scientific integrity committed.

The Psychology committee was initially requested to assess the research programme in Social Psychology in which the accused was one of the professors. In close consultation with the programme leader and the acting dean and at the request of the Rector Magnificus of Tilburg University (letter dated September 16th 2011), the research programme in Social Psychology was adjusted before assessment by the Psychology Committee. The adjustment consisted of removing all contributions by the accused from the self-evaluation report and the publication list and by excluding him and his PhD students from the assessment. A similar procedure was followed by the University of Groningen, where the accused worked until early 2006. Several of the other universities had co-publications with the accused and also removed these publications from their publication lists. The above-mentioned CWTS analysis did not take any of the publications with the accused as (co)author into consideration. It was agreed and understood by the committee and programme leaders that non-fraudulent papers may be deleted from the publication lists and the CWTS analysis. However, it is not the Psychology Committee's task nor responsibility to decide whether a publication is fraudulent or not.

The Psychology Committee decided not to publish its assessment report until more clarification was provided by the Levelt Committee. The reason for this is that the Psychology Committee wanted to know the extent to which the fraud was committed. On 31 October 2011 the Levelt Committee published an interim report which stated that at least several dozen publications were based on fictitious data. In the final report a full list of fraudulent publications will be published by the Levelt Committee.

Although the Levelt Committee was still investigating the situation at the time of writing this report, it was stated in the interim report that no signs were found that co-authors knowingly cooperated with the accused in tampering with data. Therefore, the Psychology committee is of the opinion that by removing all information regarding the accused, it is able to assess the research programmes at the eight participating universities without his fraud interfering with the assessment.

Nevertheless, the fact that the accused was involved in the social psychology research discipline and the effect that his fraud has had on the research groups in the Netherlands and internationally cannot be separated from the assessment.

2. GENERAL REMARKS

The institutes provided qualitative and quantitative information on their research. The committee appreciated the joint efforts to provide quantitative information, but encountered difficulties with the accuracy and standardization of this information. Members of some institutes criticized the bibliometric study, and during the assessment period, one institute corrected its number of tenured staff members and another institute corrected its number of discontinued dissertation projects. Moreover, the committee found that not all of the quantitative information was sufficiently standardized across the institutes. For example, the reporting of ftes and dissertation completion times differed between institutes.

Funding

The funding of research falls into three categories: (1) direct funding from the universities, (2) funding from grants (NWO, KNAW, and the EU), and (3) funding from contracts and other organizations. Table 1 reports the funding per year and funding category, computed across the eight institutes.

Table 1: Funding and percentage per year (between parentheses) and funding category, across the eight psychology institutes (x1000 euros).

Year	Funding category			Total
	Direct	Grants	Contracts & Other	
2005	28373 (62%)	12375 (27%)	5077 (11%)	45825
2006	31125 (62%)	13074 (26%)	6151 (12%)	50350
2007	33383 (65%)	12014 (23%)	5840 (11%)	51237
2008	36011 (61%)	15985 (27%)	6909 (12%)	58905
2009	38010 (59%)	19150 (30%)	7476 (12%)	64636
2010	40762 (59%)	20679 (30%)	8153 (12%)	69594
Total	207664 (61%)	93277 (27%)	39606 (12%)	340547

In total, 61% of the funding was direct, 27% from grants, and 12% from contracts and other. The total funding increased by about 52% from €45,825,000 in 2005 to €69,594,000 in 2010. An increase occurred in each of the three categories, but the increase was larger for grants (67%) than for direct funding (44%).

Trends

Comparing the review of this year with previous reviews of 1999 and 2006 shows a clear trend in the content of psychological research. In line with international developments,

research on the neuroscientific aspects of behaviour is rapidly increasing. This trend is seen in all subfields, not just the biopsychological and neuroscientific subfields. Clinical and developmental psychology focus more and more on neuroscientific aspects; social, work and organizational psychology apply neuroscientific methods; and methodologists develop statistical methods for the analysis of complex neuroscientific data. One consequence of this trend is that psychological research is becoming far more expensive than it used to be, and this threatens the funding of other types of research.

The former relative reliance on correlational and student-based approaches has been replaced by more advanced methods. Today, much of Dutch psychological research is characterized by a strong emphasis on experimental methods. This is reflected in the establishment of elaborate laboratory structures, that typically are administrated on the level of the whole department or institute. The committee was impressed with the overall quality of the equipment and the technical staff although significant differences between programmes existed. Laboratory-based research is typically complemented by field-based approaches such as epidemiological or ambulatory monitoring methods.

Another trend is that the international impact of Dutch psychological research has increased. The previous review of 2006 reported a citation score for publications in the period 1998-2001 that was computed across six institutes. The current review's bibliometric study reports citation scores for the period 2005-2009 that are computed across eight institutes (including the six from the previous review). The two results are not completely comparable because the current review covers two institutes that were not included in the previous review, and the previous review does not report the method that was used to compute the citation score. However, the trend is unmistakable: The citation score of 1998-2001 was at the world average, while the scores of 2005-2009 are about 25% above the world average.

Quality

The committee concluded from the self-evaluation reports and publication lists that Dutch psychological research is of very high quality. This conclusion is supported by the bibliometric study: the citation scores are about 25% above the world average. The committee notes that the institutes differ in the quality of their research, but that in general the quality is very good to excellent. This is also reflected in the citation scores: the scores of all institutes are at or above the world average, and range from about the world average to 40% above this average. Another quantitative indicator of research quality is the capacity to obtain grants. On average, across institutes and years, 27% of the funding comes from grants (see Table 1). Quality is further underlined by the fact that many programme leaders enjoy an excellent international reputation. Their publications often appear in the leading journals of their field and in several cases in the leading transdisciplinary outlets. In addition, a very significant number of already very visible young researchers has been produced and weaker programmes and subfields have managed to enhance their quality. Overall the international committee was very impressed with the achievements of the past evaluation period.

Productivity

The committee also concluded from the self-evaluation reports and publication lists that research productivity is high. To support this conclusion, the committee computed some productivity indices. For example, the total number of refereed articles (computed across the eight institutes and six years) was divided by the total number of research ftes (tenured staff, non-tenured staff, and PhD students), and the total number of book chapters was divided by the total number of research ftes. Moreover, the total number of dissertations was divided by the total number of tenured research staff ftes. These indices will be unreliable when the

computation of research ftes is not sufficiently standardized across the institutes. Therefore, the indices were only used to check the committee's qualitative assessments.

The number of refereed articles and the number of book chapters per year and per research fte are 2.76 and .45, respectively. In total, across the eight institutes, about 80 (internal and external) dissertations were defended per year, and the number of dissertations per year and tenured staff fte is .60. These figures support the committee's conclusion that productivity is high. In the future, a possible trade-off between quantity and quality may become more of an issue. At the same time the relationship between bottom-up and top-down steering processes in academic management may need to be discussed.

Societal relevance
Most psychological research is relevant for the solution of societal problems. Subfields such as clinical, health, educational, and work and organizational psychology are inherently relevant for society because they address problems that come from society. Other subfields study basic problems that do not come from society but are potentially relevant for society because their solution can contribute to solving societal problems. The committee assessed societal relevance by considering the added effort with regard to the nine indicators that were formulated by the directors of the research institutes (see Chapter 1). The committee found many of these indicators in each of the institutes. A quantitative indicator of societal relevance is the potential to obtain contract research. The committee's conclusion that societal relevance is very high is supported by this qualitative indicator: on average, across institutes and years, 12% of the funding comes from contracts.

Viability
The assessment of viability was rather different between research programmes as well as between institutes. This results from the differences in group size, constitution of the groups (seniority and age of staff members), their position in the national and international field. In essence, the committee assessed if a programme was aware of its situation and realistic about their position. In addition, the committee verified if the programme had a strategy to tackle the near and further future and if so, assessed this strategy.

Subfields
Seven main subfields were distinguished by the directors of the research institutes: (1) clinical and health psychology, (2) cognitive neuroscience, (3) cognitive psychology and biopsychology, (4) developmental psychology, (5) quantitative methods, (6) social psychology, and (7) work and organizational psychology. It is striking that the subfield of educational psychology was not mentioned. The Netherlands has a substantial amount of research in educational psychology, but this research is mostly done within departments of pedagogics and education. The committee finds an almost complete disappearance of research programmes focusing on personality and individual differences. This deserves at least some reflection.

The comments that were made on the quality, productivity, and societal relevance of Dutch psychological research largely apply to each of the subfields. Some specific comments are made in the remainder of this section.

Clinical and health psychology
Seven institutes have programmes in the subfields of clinical and health psychology. This subfield represents the largest vocational area for psychologists and therefore attracts many students who are mainly interested in practice and not in research. In the past, Dutch research

in this subfield was rather weak. Fortunately, this situation has completely changed. Nowadays, the research in this subfield is very strong, and yields important contributions to the solution of societal problems. All but one programme range between very good and excellent with respect to quality, productivity and relevance, several clinical programmes are at the international forefront of their research areas.

At present, the Dutch contribution to clinical psychology is characterized by a strong emphasis on experimental methods, which are complemented by epidemiological and psychobiological approaches. In addition, several programmes have contributed highly original theoretical insights and very well acknowledged controlled treatment studies. Medical psychology, which mostly is more application-oriented, appears to be more prominent in Dutch psychology departments than in many other countries. Several clinical programmes have a strong focus on the mechanisms underlying psychopathology and successful treatment and are striving to establish a bidirectional translational approach that should profit both research components. There are close connections to neuroscience, developmental, and cognitive psychology, but apparently cooperation with social psychology is less frequent. Clinical publications frequently appear in psychiatric, psychophysiologic or neuroscience journals which needs to be taken into account in bibliometric analyses. In spite of these overall positive developments, the field faces a number of specific challenges of which five are listed here: (1) The necessity of parallel clinical/psychotherapeutic training leads to overburdening and delays in completion of PhD's. (2) The lack of a truly academic clinical infrastructure in most programmes makes recruitment of patient populations much more difficult and represents a serious disadvantage for clinical research. If not corrected, this problem will lead to a competitive disadvantage compared to European neighbour countries such as Austria, Germany or Switzerland, where almost all clinical programmes have their own outpatient units for research and training. (3) The PhD candidates especially criticised the at least partial dependence on medical ethics committees, which poses the threat of disciplinary bias and frequently leads to excessive delays that are highly problematic for PhD candidates with their time-limited contracts. Here the comprehensive establishment of psychological ethics committees should be considered. (4) An integral part of the mission of academic clinical psychology is the development of scientifically grounded practical tools such as treatment manuals or diagnostic instruments. These typically need to be published in the national language. Even when published in English, such materials are not included in citation systems such as the Web of Science, which leads to a field-specific underestimation of the scientific output. (5) Due to the especially close connection to clinical application, public attention and high student interest, the demands on experts of this subfield are comparatively strong and sometimes excessive.

Cognitive neuroscience

Four institutes have programmes in the subfield of cognitive neuroscience. The subfield is rapidly expanding and is spreading across the whole of psychology. Neuroscientific studies are done within other subfields. In general, the programmes are strong. They focus on basic research but offer many opportunities for practical applications.

The research groups in cognitive neuroscience are among the top internationally, which is reflected in their very high marks and their excellent research quality. Cognitive neuroscience in the Netherlands is cutting-edge, in particular when it comes to functional neuroimaging, both with respect to the development of methods and analysis tools, and with regard to applications to novel fields like consciousness and biological models of perception and cognition with the potential of real breakthroughs. Also the research group in behavioural genetics that was evaluated has an outstanding position both in the Netherlands and

internationally. The excellent position of this group is impressive considering that the field of genetics has a very strong competitive edge internationally, making it difficult to be in the top ranks. The heavy investments in new ultra-high field strength MR scanners and other technology is a sign that cognitive neuroscience and behavioral genetics will continue to blossom in the years to come. Taken together, the groups in behavioral genetics and cognitive neuroscience collectively achieved the highest marks among all the evaluated groups, which speak to the very strong position held by these sub-fields in the Netherlands. The committee also noted an interest from other sub-fields to apply methods and approaches from cognitive neuroscience, in particular fMRI. This is particularly evident in the crossing of traditional borders between cognitive psychology and cognitive neuroscience, with shared methods and analyses. An interesting and exciting development, however, is that other, more socially and developmentally oriented sub-disciplines also see new opportunities to incorporate a cognitive neuroscience view into their fields. It is the hope that future funding structures recognize the importance of enhanced cross-disciplinary collaboration between biologically oriented and socially oriented sub-fields of psychology. Such cross-disciplinary collaborations are likely to gain in importance in the coming years.

Cognitive psychology and biopsychology
Seven institutes have programmes in the subfield of cognitive psychology and biopsychology. Formerly, this subfield was known as psychonomics or experimental psychology.

The Netherlands have a strong tradition in cognitive psychology and biopsychology, and this was confirmed in the present assessment. All universities have a long-standing programme of fundamental, cognitive research and everywhere they scored very high on the SEP-criteria, making them among the easiest programmes to judge. Furthermore, several researchers are internationally outstanding in their field of expertise. Labs are well equipped and are often made available to other research groups, leading to interesting cross-disciplinary interactions.

Various topics are covered, ranging from attention allocation to task performance (including bilingualism, cognitive control, conscious and unconscious processing, cross-modal perception, memory, and social-affective processes). Several groups have been at the cutting-edge in theory development during the time period assessed. Other highly visible contributions were critical empirical tests of existing theories and much appreciated methodological improvements.

Traditionally, cognitive psychology and biopsychology in the Netherlands also has a strong applied component, and this tradition continues. Examples are traffic safety and ergonomics.

There is an increasing use of and interest in neuroscientific methods, making that the distinction between cognitive psychology and cognitive neuroscience is likely to decrease. All labs currently have EEG-equipment and several have transcranial magnetic stimulation (TMS). Most also have easy access to brain scanners, either at the own university of as part of a collaboration. To keep at the current level, it will be necessary to have access to funds that cover the higher costs of this type of research.

Finally, there were several bestselling books written about cognitive psychology and biopsychology for non-specialists. This too is part of a fine tradition in the Netherlands, making that the outcome of fundamental cognitive research is known to the wider public.

Developmental psychology
Six institutes have programmes in the subfield of developmental psychology. As clinical psychology, this subfield attracts many students who are interested in practice and not in

research. This subfield was also rather weak but has improved considerably during the last two decades. The quality and productivity of the programmes within this subfield vary somewhat between institutes. One programme is below the high Dutch standards of psychological research, while other programmes are above these standards. Moreover, the research in this subfield is both inherently and potentially relevant for society.

Developmental psychology is generally a very strong area of research within Dutch psychology, with several groups doing excellent research at the international forefront, particularly as they increasingly move into the field of developmental neuroscience. The fact that some groups focus on the early neonatal period while others concentrate on childhood and adolescence, often with longitudinal designs studying both typical and atypical development, is most welcome because it illustrates how the Netherlands covers the entire developmental period, researching numerous populations, domains of development and using multiple methodologies. The training of PhD developmental students across the Netherlands seems particularly good, with the students themselves expressing clear satisfaction. However, PhD completion is relatively long compared to international rates, partly due to working part time and to the longitudinal nature of the research. Many PhD students in developmental psychology are interested in clinical or educational applications, and links with both clinical and educational psychology seem effective, with a number of joint projects in place. In general, quality of Dutch developmental psychology is very good, as is societal relevance. Productivity in two groups is excellent, whereas in other developmental groups improvements in overall productivity require more explicit targets. Because of imminent retirements, two of the groups need to formulate strategies for their future. While several groups have strong international collaborations, there is less collaboration within each institute with other psychology groups nor amongst developmental psychologists across Dutch universities. Joint developmental initiatives could be strengthened in future in a small country. Overall, two of the six developmental psychology groups in the Netherlands are good, with the remaining four being truly excellent.

Methodology
Six institutes have programmes in the methods subfield. Methodology is a broad subfield that applies to all aspects of empirical research: theory construction, research design, measurement, data collection, data analysis, and reporting. Therefore, the content of the subfield ranges from philosophical to statistical issues. The six programmes cover almost the whole range of methodological topics, while their overlap is rather small. Methodology was and is a strong subfield of Dutch psychological research. The subfield also yields important contributions to society, such as psychological tests and software for non-university applications.

The performance of the methodology programmes ranges from very good to excellent for all evaluation criteria. This means that, taken as a whole, the programmes do very well according to both national and international standards. All programmes have to cope with the tension between preserving a methodological research track of their own (with both a clear focus and sufficient room for innovation), and taking care of a service function to other programmes. The former constitutes a breeding ground and core expertise that is essential for the long-term viability of any methodological programme, whereas the latter often constitutes an important element for short-term viability (in addition to a possible source of inspiration). In general, the methodological programmes are most successful in dealing with this field of tension (although they do so in different ways); nevertheless, this issue will remain a challenge in the future.

The option that so many Dutch psychology institutes include a distinct methodology programme is somewhat unusual from an international perspective. The performance of the Dutch methodology programmes and their numerous collaborations with substantive programmes, however, convincingly shows that this option clearly pays off. Moreover, the absence of a separate methodology programme in a few institutes seems to be somewhat at the expense of substantive programmes, and especially those performing at levels below the absolute top.

Social psychology
Seven institutes have programmes in the subfield of social psychology. Dutch social psychology has developed very well during the last two decades. All of the programmes are strong and yield relevant contributions to society.

The state of social psychology in The Netherlands is excellent. Social psychology programmes manage to thrive producing first-rate research and providing graduate student training of the highest caliber. The programs show tremendous variability in theoretical orientation and methodology. They are guided by medium-level theories embedded in larger theoretical frameworks; they focus on all level of analysis from the specific (e.g., social neuroscience) to the general (e.g., societal); they implement a wide range of methodological approaches (from laboratory to field research; from experimental to correlational research); and they showcase an eclectic mix of data-analytic procedures. In all, the programmes publish research of international standards and of high societal relevance, while preparing competently the future generation of scholars.

Work and organizational psychology
Two institutes have programmes in the subfield of work and organizational psychology, and one institute has a programme that combines work and social psychology. Work and organizational psychology declined in the Netherlands. The 1999 review included seven institutes that also participated in the 2011 review. These seven institutes had five autonomous programmes in the subfield of work and organizational psychology. These programmes were very successful in obtaining contracts for research, but less successful in their scientific output and impact. Therefore, some departments decided to incorporate work and organizational psychology into other subfields, especially social psychology. A risk of this development is that Dutch psychology is losing a subfield that is highly relevant for society and that attracts many students. Fortunately, the two autonomous programmes that survived are both very healthy, scientifically and societally.

The field of Work and Organizational Psychology appears to be at something of a cross-roads. As our report notes, the number of programmes submitted to QANU has dropped from five in 1999 to 2.5 in 2011. The research output presented in 2011 is generally of a high quality, including some of outstanding quality. It has contributed to the development of influential concepts, measures and applications that are used nationally and internationally. But judged as a whole, the research is also somewhat uneven and there is a bit of a risk that it in some cases the specialism survives largely as a taught subject due to high levels of student demand. Furthermore, the content of the research is quite diverse and has clearly been influenced by the "neuro tendency" in the field of psychology. This has meant that an increasing proportion of the research is undertaken in the laboratory, sometimes using fMRI scanners. While this can be interpreted as an encouraging sign of the ability of the sub-discipline to draw on other areas of psychology, and to undertake "fundamental" research, there is a risk that the distinctive focus of work and organizational psychology, namely that it is based on activities in or directly connected to work organizations, is lost. In effect, it

becomes difficult to distinguish from, in particular, social psychology. A consequence of the developments within psychology is that many work and organization psychologists have moved to Management Departments. This is a trend that is taking place world-wide and may be difficult to stop. There are parallels with educational psychology which is typically conducted in Education Departments. Therefore research in work and organizational psychology appears to be flourishing, but it is increasingly doing so outside psychology institutes.

There is therefore a difficult decision, which may need to be considered at the national as well as at the university and institute level, about whether to promote work and organizational psychology within psychology departments, with the risk that it will be colonised by medical and social psychology (and from outside by economics) and will undertake a decreasing proportion of research in work-settings where experimental controls are typically lacking; or whether to accept the trend and allow the sub-specialism to flourish in what appears to be the more fertile ground of Management Departments. We have argued that there is a case for promoting work and organizational psychology research within psychology institutes, where there are considerable potential benefits of cross-fertilisation of ideas and methods. In doing so, we are mindful of the need for psychology institutes to recognise the distinctive requirements and constraints of conducting research in work settings and to support this kind of research rather than encouraging the pull into the laboratory.

Research training

In 2003 the Dutch universities started 2-year research master programmes. The psychology research master programmes focus on general methodological knowledge and skills, and specific knowledge and research skills in the subfields of psychology. The programmes produce a self-contained training in research and provide an excellent preparation for dissertation research. The number and subfields of these programmes differ between the institutes. However, jointly, they cover almost all subfields of psychology.

Two types of dissertation students are distinguished. The 'internal PhD students' work within the universities and are financed directly by the universities or by grants from NWO and the EU, by contracts with others, or by scholarships from the universities. The 'external PhD students' ('buitenpromovendi') work outside the universities and are financed by their employers or are unpaid for their dissertation work. The dissertation students are supervised by at least one 'promotor' (a full professor). Usually, the internal PhD students are co-supervised by one or two 'co-promotors' (associate professors) who are responsible for the daily supervision of their dissertation research. Moreover, the internal PhD students have a training programme. Usually, the general parts of this programme (e.g., writing in English, giving presentations, etc.) are taught by the universities, while the specific parts are taught by national graduate schools. These national schools also organize conferences and other academic activities for PhD students from different universities within the same subfield. Recently, the policy of most university administrations has been to keep PhD training within their own university, and to reduce the role of the national graduate schools. In general, the psychology departments have reacted by decreasing the formal tasks of the national schools, but keeping their network functions.

The committee interviewed PhD students about their supervision, research facilities, national graduate schools, and possible constraints of their research. The PhD students mentioned some specific problems, for example, the sometimes extreme delays in decisions from medical ethical committees. However, in general, they were satisfied with their supervision and research facilities. Moreover, they emphasized the value of the national graduate schools.

They appreciated the courses, conferences, and contacts with PhD students from other universities. From an international perspective, the Dutch approach to internal PhD candidates can be seen as a success story. Satisfaction of the candidates and their mentors as well as the quality of the theses is far above international average. The PhD candidates see themselves as (junior) partners in the scientific endeavour rather than as dependent students. The funding of the PhD candidates, the way their supervision is organized and the widespread utilization of national and local research schools can be seen as relevant factors that have contributed to this positive state.

On the other hand a concern of Dutch policymakers is that the success rate of the PhD system is rather low, and that PhD students take too long to complete their thesis. However, it is hard to get reliable information on these issues. The standard is a 4-year full-time PhD contract (80% of the time on research and 20% on other academic activities), but other contracts are possible (e.g., a 5-year contract, 4 days a week). Moreover, PhD contracts can be lengthened because of, for example, maternal and paternal leave or subfield-specific necessities such as parallel clinical/ psychotherapeutic training. To get some insight into PhD success rate and completion times, the committee considered the internal PhD students who started their research in 2002 and 2003. These PhD students had had at least 7 years to complete their thesis. In total, across the eight institutes, 193 PhD students started their research in 2002 and 2003. The completion status of the dissertations of these PhD students is given in Table 2.

Table 2: Frequencies and percentages completed and discontinued dissertation projects of 193 internal PhD students who started their research in 2002 and 2003, computed across eight psychology institutes.

Completion status	Frequency	Percentage
Completed within 5 years	104	54%
Completed within 6 years	143	74%
Completed within 7 or more years	165	85%
Not yet completed	8	4%
Discontinued	20	10%

Conclusions

This section gives some conclusions that apply to all eight institutes. Conclusions about the separate institutes are given in the chapters regarding the individual institutes.

In line with the international developments, Dutch psychological research is continuously moving in the direction of the natural sciences. A consequence of this development is that psychological research is becoming more expensive, and this is threatening the financing of other types of research.

The quality and productivity of Dutch psychological research are in general very high, and it yields relevant contributions to the solution of societal problems. These conclusions are not restricted to specific subfields, but apply to almost all of Dutch psychology. The quality and productivity of the research differ between institutes, but all institutes perform at or above international standards.

The research master programmes provide excellent preparation for dissertation research. PhD supervision and training are good, and the national graduate schools lend added value to the PhD training. The success rate of the PhD training is good: 85% of the 2002 and 2003 cohorts completed their thesis within 7 years. It is hard to evaluate whether the time to complete a thesis is too long. However, the committee got the impression that some improvement is possible.

Recommendations
This section gives some general recommendations, while specific recommendations are given in the next chapter.

Overall, the development of Dutch psychology in the evaluation period is a success story. The task for the future will be to continue this positive development and to counter threats that are already appearing.

It is to be expected that in the near future, the financial support of scientific research will decrease. Therefore, it is not realistic to ask for more money for psychological research. However, policymakers who allocate the available means to different disciplines should be aware that modern psychological research resembles research in the natural sciences more than research in the social sciences and the humanities. Therefore, the allocation of means has to comply with the guidelines that are used for the natural sciences.

In the last decade the number of research programmes within the subfield of work and organizational psychology has been halved. The subfield attracts many students and is relevant for society. There is a worry that work and organizational psychology will disappear from psychology and be absorbed by other disciplines (e.g., economics). The committee is not in favour of such a development and recommends the psychology departments to stimulate high-quality research in work and organizational psychology.

The rise of clinical research to a generally very high level of quality and relevance is remarkable. However, the specific challenges that endanger the competitiveness of Dutch research in the clinical and health fields such as the lack of a clinical infrastructure or the partial dependence on medical ethics committees should be discussed at a broader level. Practical solutions to these issues may not necessarily lead to elevated costs. Instead, the establishment of specific outpatient units devoted to research and training could generate additional funds as the example of neighbouring countries has shown.

PhD students profit from their participation in the national graduate schools. These schools organize courses and conferences that cannot be organized at the level of single institutes. Moreover, it is useful for PhD students to meet other PhD students and staff members of other universities within their own subfield. The committee recommends keeping the national graduate schools.

The directors of the research institutes started discussing the bibliometric information that was provided to the review committee. The committee recommends continuing and intensifying this consultation to optimize the accuracy and standardization of all quantitative information on the research institutes and their programmes. In addition, the relationship between the quantitative and the more content oriented approaches to the assessment of scientific quality should be discussed. In this respect, the provision of a (limited) number of key publications has been very useful in the view of the committee.

Assessment at institute and programme level

3. LEIDEN UNIVERSITY

Assessment at Institute level
University: Leiden University
Faculty: Social and Behavioural Sciences
Institute: Leiden Institute of Psychology

The institute
The institute exerts great efforts for the development of a strong and highly visible research profile, with particular emphasis on theoretically guided empirical research. The research is organized around five research programmes:

- Action control;
- Social decision-making;
- Self-regulation models for health behaviour and psychopathology;
- Pathways through adolescence;
- Multivariate analysis of psychological data.

All five research programmes subscribe to and converge on the shared vision of *motivated cognition*. Together with the emphasis on theory-driven applications, this stimulates research that crosses the traditional borders between psychological sub-disciplines and those with other disciplines. The institute has made efforts to develop individual research programmes and to increase thematic cross-fertilization. The institute helped establish the Leiden Institute for Brain and Cognition (LIBC).

Formal leadership of the institute rests with the Scientific Director, and each research programme is led by a full professor. A shift in staff from tenured to non-tenured was observed in the period under review.

Quality and academic reputation
As a consequence of the institute's integration policy, collaboration has led to numerous joint papers with co-authors from different programmes, departments and faculties from Leiden and other universities (Dutch and foreign).

The self-evaluation report states that programme directors and principal researchers are internationally visible, as is evident from their election onto executive committees and presidencies, as well as their editorships of some of the leading international journals in the field. Prestigious grants include a Spinoza award, NWO Veni, Vidi, Vici awards, and ERC starting grants. The institute also played a role in the establishment of two of the eleven interdisciplinary Leiden University Research Profiles.

Resources
An overview of the resources and funding of the institute is shown in Appendix D. There is an increasing focus on the brain-cognition interface and on health fits with the thematic and financial emphasis of national (NWO) and international (EU) funding agencies. Direct funding for research resulted in a fixed surplus of 27% of the budget provided for teaching. A temporary drop in students and re-allocation of direct funding resulted in a 17% reduction of the total budget between 2005 and 2008. Success in external grant applications and an increase in student numbers slightly improved the financial situation in 2010. The research budget is distributed over the research programmes, mainly based on the research output,

according to an internal scoring system that depends on the number of publications and the journal's impact factor. Bonuses can be received if external grants are acquired and for promotions.

The increase of total funding for research in 2010 was mainly the result of increased success in research grant applications. This success is visible for all programmes of the institute. According to the institute, crucial factors for this success are the availability of many research facilities and infrastructure and the interdisciplinary orientation of the institute.

The five research programmes are well-established and productive, and have collaborative links to labs all over the world. All of the researchers have access to a wide range of facilities. Labs now include 35 cubicles for behavioural experiments, 3 larger behavioural labs, 1 baby lab for visual research, 1 baby lab for auditory research, 1 drivers lab with a driving simulator, 1 video lab, 4 physiological labs, 4 electrophysiological labs, 1 public speaking lab and 10 workspaces for analyses. Associations with other groups within the faculty provide access to additional research facilities such as eye-tracking systems and EEG systems.

Productivity
The number of publications has stabilized over the evaluation period, with an output of approximately 175 refereed articles per year, which is an increase over the mean of 125 articles per year in the previous evaluation period. According to the self-evaluation report, this increase is the result of the institute's output-dependent research funding. An overview of the output of the institute and of the research programmes is provided in Appendix D.

Societal relevance
Fundamental and applied research are interconnected in all research programmes to the degree that applied and 'applicable' approaches are informed by the scientific state-of-the-art. This strategy had an effect on the scientific quality of contract research and generated numerous lines of fundamental research that address and speak to societal issues and problems. These research lines have attracted interest from the broader public and media; researchers from the institute have been increasingly approached by the media. In 2010 three symposia for the general public were organised.

Several researchers were rather successful in presenting their findings and insights to a wider audience through popular books and newspaper columns; others played leading roles in initiatives to present research to a wider audience.

Part of the institute's policy is to collaborate with external PhD students, and the research programmes entertain long-term research collaborations with companies and the government. This allows researchers and students to stay in touch with real-life issues, and it provides a basis for the new emphasis of EU policy on joint research projects of universities and private companies.

Strategy for the future
According to the institute, all research programmes are well established, and the research is effectively organized and fits with the relevant priority areas of the university and related interdisciplinary research networks. The recently announced increase of partial natural sciences funding, from 2012, will allow for modernisation and maintenance of laboratory facilities.

Research programmes are headed by international experts, and the institute's strong emphasis on research attracted further young researchers with expertise in programme-relevant areas. According to the self-evaluation report, the interdisciplinary orientation of the institute and the combination of fundamental and applied research provide an excellent basis for innovation.

The SWOT analysis provided by the institute can be found in Appendix D. The main strategy will be to continue and perhaps expand the possibilities for high-quality research. For this purpose, and considering its strengths and opportunities, the institute aims to:

- continue its investment and dedication to be visible as a major centre for brain and cognition research by engaging in the LIBC and both university profile areas;
- keep promoting collaboration between research groups to conduct cutting-edge research and retain viability;
- promote and initiate the acquisition of large-scale grants (e.g. EU), possibly by exploiting opportunities that emerge from the planned collaboration between Leiden, Delft and Rotterdam;
- combine contributing to the Leiden University Graduate School of Social and Behavioural Sciences with continued participation in the national research schools.

PhD training
Internal PhD students were members of national research schools and were following courses offered by them. There is a monitoring system for annual progress assessment of the project, and for checking the satisfaction and motivation of the student and supervisor. In addition, PhD students and their supervisors were monitored by the programme director and, if necessary, by the scientific director of the institute. Prior to starting a project, the plan has to be approved by the institute's scientific committee, taking into account scientific quality, feasibility, and fit with the institute's mission.

PhD education is situated in the Leiden University Graduate School of Social and Behavioural Sciences, which offers additional courses. The research programmes created a number of mono- and multi-disciplinary lab meetings, symposia and open days. Finally, PhD students are encouraged and financially supported to present their findings at both national and international meetings and conferences.

Assessment
The institute is part of the Faculty of Social and Behavioural Sciences. The institute has five research programmes that cover a broad range of subfields of psychology.

The funding pattern of the institute deviates from the average funding pattern of the eight institutes shown in Table 1. The share of direct funding (44%) is below average (61%), the share of grants (30%) is slightly above average (27%), and the share of contracts and other sources (26%) is greater than average (12%). At present, internal PhD students have to be financed from grants and contracts because the institute has no direct funding of PhD students. The institute has a substantial amount of natural sciences research, but the direct funding was not adjusted to this situation. Recently, the direct funding has improved, and the institute gets special funding for natural sciences research (partial natural sciences funding). However, psychological research is continuously going in the direction of the natural sciences, and the committee doubts whether the partial natural sciences funding is sufficient to keep up with the national and international developments.

The institute is well organized. The management is adequate, although it seems to be rather top-down.

The infrastructure for doing research is adequate. The laboratory facilities are appropriate for doing different types of research, such as psychonomic, neuroscientific, clinical, developmental, and social psychological research.

The institute has a research master programme that provides good preparation for research in most subfields of psychology. The PhD training is adequately organized. PhD students participate in local and national graduate schools. They are very satisfied with their supervision and training. The success rate is high: 94% of the 2002 and 2003 PhD cohorts completed their thesis. However, the time to complete the thesis is rather long: Only 50% of the 2002 and 2003 cohorts completed their theses within five years.

The quality of the research is very good. The bibliometric study confirms this conclusion. On average, the citation scores of the institute are above the world average. The citation scores of the research programmes vary from about the world average to considerably above this average.

In general, the productivity of the institute is adequate, but varies between programmes. It is rather low for two of them.

The societal relevance of the institute is excellent. The institute obtains a large share (26%) of its funding from contracts and other sources. Each of the five programmes showed a substantial number of the indicators for societal relevance that were mentioned in Chapter 1.

The institute is a good research institute. It produces high-quality research that covers a broad range of areas, and it makes excellent contributions to society. On average, the productivity is sufficient, but the productivity of two programmes could be raised. The success rate of the PhD students is excellent, but the time to complete a thesis could possibly be shortened. The share of the direct funding is small compared with the other institutes. The institute receives a relatively large amount of money from contracts and other sources, without sacrificing the scientific quality of its research. However, without more partial natural sciences funding, the institute will not be able to keep up with the national and international development of psychology in the direction of the natural sciences.

LEIDEN UNIVERSITY

Assessment at programme level

The committee comes to the following overall programme scores for quality (Q), productivity (P), relevance (R), and vitality/feasibility (V) for the five programmes at the Leiden Institute of Psychology:

Code	Programme name	Q	P	R	V
UL1	Action Control	5	4.5	5	4.5
UL2	Social Decision-Making	4.5	3	5	4
UL3	Self-Regulation Models for Health Behaviour and Psychopathology	4.5	4	5	4
UL4	Pathways through Adolescence	4.5	3.5	5	5
UL5	Multivariate Analysis of Psychological Data	4.5	4.5	5	4

Programme UL1:	**Action Control**	
Programme director:	Prof. B. Hommel	
Research staff 2010:	11.44 fte	
Assessments:	Quality:	5
	Productivity:	4.5
	Relevance:	5
	Viability:	4.5

Introduction
The programme aims at conceptualizing and investigating cognitive processes with respect to their ultimate function: the control of voluntary action. It thus focuses on how manual, verbal and other actions are organized and controlled by perceptual and affective processes, working memory, attentional and intentional selection processes and mental sets, and in turn how planning and performing actions affect perception, emotion, cognition, and memory. In particular, the programme aims at integrating insights on perception, emotion and action planning, working memory, and executive functions into a comprehensive theory of action control.

The research perspective considers different levels of analysis and abstraction. The methods used in studying these issues include behavioural experiments, psychophysiological, psycho-pharmacological, and brain imaging measurement techniques, behavioural genetics, neurocomputational simulations, and studies in applied settings.

Assessment of the criteria
The Action Control Group at the time of the evaluation had one full professor, four associate professors, and six assistant professors. Over the period of evaluation the research fte had a maximum value of 18.4 (2007) and a minimum of 11.4 (2010). Research has focused on motivated cognition grounded in and emerging from sensorimotor experience, with an important and increasing neuroscientific component. Key results provided by the programme are: the discovery of how adaptive action control is modulated by mood, reward and religious practice, the finding that future performance is affected by the same mechanisms as error detection, research on the influence of drugs on self-control and on the role of the noradrenalin system in human attention and performance. The group also has an applied component related to industrial safety and legal advice.

In the review period the group produced 475 research outputs, including 242 refereed articles; 15 students completed their PhD. Average funding was € 1.1 million per year, with a maximum of € 1.2 million in 2006 and a minimum of € 0.9 million in 2008.

The group has been productive in the review period in terms of successfully finished PhD theses and the number of refereed articles per research fte per year, despite decreased direct university funding. In addition, members of the group have been clearly visible as editors of major journals, members of the executive committee of societies related to experimental psychology and cognitive neuroscience, advisors, and organizers of conferences. Less fortunate elements are that the group lost three PhD students related to a project and that the productivity is unevenly distributed.

The relevance of fundamental research can be seen from the considerable number of citations made to the group's publications. In addition, the group has actively reached out to the wider

society by its applied research, which was awarded the Communication Prize by the Energy Institute of London.

The group has very good ideas for further progress, which is likely to shift more in the direction of cognitive neuroscience as part of the Leiden Institute for Brain and Cognition. A further interesting development is the acquisition of an ERC start-up grant in 2011 (i.e., after the period of review).

At the same time the group is vulnerable because the focus is concentrated on a single full professor, and the financial situation of the university seems to hinder promotions. A lot of work is done by a very small number of staff members. These are factors that threaten the viability of the research group.

Conclusion
The Action Control Group has been very successful in the evaluation period with a distinct and influential research programme. Prospects for the future look good, although remaining at the top level will be challenging given that research is heavily concentrated on a small number of researchers.

Programme UL2: Social Decision-Making
Programme director: Prof. N. Ellemers, Prof. E. van Dijk
Research staff 2010: 19.16 fte

Assessments:	Quality:	4.5
	Productivity:	3
	Relevance:	5
	Viability:	4

Introduction
The programme in Social Decision-Making focuses on the behavioural consequences of motivated cognition in situations of interdependence. The group boasts expertise on interdependence relations and identity processes. Its mission is to combine these perspectives in order to examine social decision-making in small group settings, organizations, and society at large. The programme aims to contribute to scientific knowledge on all these levels of analysis. The research is characterized by the use of multiple research methods that aim to integrate social and organizational psychology.

Assessment of the criteria
This is quite a large programme containing two distinct groups, one focussing primarily on issues of identity and the other on group social interaction as well as interdependence in decision-making. Each group has a distinguished leader. There is a smaller, emerging third group that addresses aspects of economic decision-making. The programme has a consistently good track record in raising research funding. The staff is well embedded in the national scene, notably through their roles in the Kurt Lewin Institute, and has good international links. The programme claims to focus on both social and organizational psychology. While there is evidence of research in organizational settings, no convincing evidence was presented of the centrality of this work, and it was notable that the five key publications all reflected laboratory-based experimental social psychology. The bibliometric evidence confirms that the quality of output from this programme is very high and above average international standards; much of this can be attributed to the two senior figures. There does not appear to be much integration across the two main groups; for example, there are no joint articles between the two programme directors who represent the two distinct theoretical perspectives.

The productivity of the group is below the institute average and quite considerably below the national average in psychology as well as within social/organizational psychology. This appears to reflect the disproportionate role played by the two senior professors compared with the rather below-par productivity of several of the other staff. While many of the junior faculty are at an early stage in their career, there was some acknowledgement that the research quality among the staff was uneven. The programme, overall, is in a rather weak position on this criterion.

The topics addressed are potentially of considerable relevance to organizations and to society. There appears to have been a recent effort to extend the communication outside the academic community. There is good evidence of research collaboration with a range of organizations and of interaction with, and influence upon, policy-making bodies, illustrated by a software programme for social dilemmas.

The plans are to move into new areas of research including economic and consumer psychology and to link social decision-making to cognitive and brain methodologies. While

this sounds attractive, it tends to neglect existing strengths. Furthermore, it is unclear how this will be achieved with rather static staff numbers. What is being given up? Also, it is unclear how this will be attained with some relatively inactive staff members. The weak area of the programme is organizational psychology (despite some good publications on work-life balance), and the focus seems to be shifting to economic psychology. The strategy around research on organizational psychology needs to be clarified.

Conclusions

This is a strong programme, featuring exciting developments in the areas of social identity and interdependence. The programme is well-led, well-funded, and high in quality and social relevance. Yet there are some concerns about the programme's productivity and viability. Output is uneven except for the two senior professors, and the synergy between social and organizational psychology is not what it could be. There seem to be plans to address the latter issue, and they may materialize, although they will need to be more carefully thought out.

Programme UL 3:	**Self-Regulation Models for Health Behaviour and Psychopathology**	
Programme director:	Prof. Ph. Spinhoven, Prof. S. Maes	
Research staff 2010:	20.22 fte	
Assessments:	Quality:	4.5
	Productivity:	4
	Relevance:	5
	Viability:	4

Introduction

The programme in Self-Regulation Models for Health Behaviour and Psychopathology has its emphasis on self-regulation and stress-regulation theories of health, disease and psychopathology. The clinical psychology sub-programme aims to improve the assessment, understanding and treatment of stress-related psychopathology: How do distinct, recent and current stressors interact with cognitive processes, behavioural processes and biological processes to produce psychopathology? Research into this interaction is aimed at uncovering an underlying vulnerability for mental disorders. The approach is experimental and translational. In the health psychology sub-programme, Ford's motivational system theory is used as the main theoretical framework. The role of personal goals in the adoption of health behaviours and the adaptation to chronic disease is a central research focus. The sub-programme aims to investigate the adoption of health-enhancing behaviours and the avoidance of health-compromising ones in healthy and diseased populations. The primary aim is to develop empirical knowledge that will enhance the effectiveness of psychological interventions based on self-regulation. Overall, this is a very active group headed by senior researchers who are internationally renowned.

Assessment of the SEP criteria

Overall, the scientific publications make very important contributions to the fields with especially the latest results of the clinical sub-programme being at the international forefront in aetiological research on depression and related conditions. Many of the group's best contributions appear not in clinical psychology but rather in psychiatry or multidisciplinary outlets, which might lead to an underestimation of the clinical output. The contribution of the health psychology sub-programme seems to address more applied issues, with publications in somewhat less prestigious outlets, but nevertheless is strongly connected to international partners. The programme directors are strong leaders but are struggling with an uneven distribution of scientific contributions within their groups and resource issues. Taken together, the publications are cited significantly above the field-corrected international average, while at the same time there is a low percentage of non-cited papers and an average value of self-citations. The programme has papers among the 2% and 1% most cited publications.

The programme has remained at a very good level of productivity in spite of the unresolved problems with patient recruitment and lack of research contributions from the one-year master programme mentioned in the self-assessment report. Productivity in terms of peer-refereed publications per research fte is slightly above the Dutch average, which itself is clearly above the international average.

The health issues studied are unequivocally of the highest relevance to modern societies. National collaboration in vast study programmes such as NESDA adds to the overall relevance of the group's work.

Overall, this is a strong programme with strong leaders. Questions arise with respect to the dependency on others for patient access (lack of a clinical infrastructure such as, e.g., an outpatient unit), the lack of student research commitment resulting from the one-year master programme, lack of hard figures on the placement of programme graduates especially in health psychology, and the uneven distribution of research results within the programme. It also remains unclear to what degree health psychology interventions translate into concrete and tested interventions and whether the combination of the two sub-programmes leads to added value. It is not fully clear how the programme leaders want to address these strategic issues as well as the recently accentuated budget restrictions (limited natural sciences funding). On the other hand, some programme members have recently moved into very attractive and potentially fruitful new research areas as witnessed by several key publications, and there are strong collaborations on the national level as well as international ties.

Conclusion

The programme has produced results of an excellent quality in a field of the highest societal relevance. It has maintained its productivity in spite of unresolved strategic issues endangering its viability. While several members of the clinical group have moved into highly promising new subfields, the contribution of the health psychology group has remained more within the realm of its earlier work. Changes in infrastructure (e.g., direct patient access, strengthening of research commitment in the master programme) as well as answers to strategic questions (e.g., basic, experimental and translational vs. applied research; synergistic potential between sub-programmes) may have to be implemented in order to keep up the viability of a programme which is otherwise at an highly competitive level internationally.

Programme UL 4: Pathways through Adolescence
Programme director: Prof. M. Westenberg
Research staff 2010: 13.86 fte

Assessments:	Quality:	4.5
	Productivity:	3.5
	Relevance:	5
	Viability:	5

Introduction
The main focus of the Pathways through Adolescence programme is on adolescence, which is a key transitional period in human development. The programme combines fundamental research using experimental behavioural, brain and longitudinal approaches to applied research which connects basic developmental research to the domains of educational and clinical assessment and interventions. The programme puts emphasis on combined experimental, behavioural and psychophysiological analysis of normative transitions and deviations in adolescent development. Experimental behavioural research, in the period of this review, focussed on brain correlates of risk-taking behaviour, perspective-taking, social decision-making, performance monitoring, and sensitivity to social rejection. Insights gained from four large-scale, longitudinal studies are applied in research on cognitive training programmes and the treatment of anxiety-based school refusal.

Assessment of the criteria
This is a very cohesive, interactive group focused on various neural, cognitive and behavioural changes that occur during the period of adolescence, a critical stage of human development. One member of the group can be considered an international star, having received numerous awards and having published in very high-impact journals. Although this is a small group compared with the other programmes in the Department of Psychology, it is to be noted that since the previous evaluation period, the senior tenured faculty, research funding and PhD students have increased significantly. Access to state-of-the-art experimental equipment, to a research-dedicated scanner, as well as to behavioural lab space seems very well organised. PhD training appears to be excellent, with the students expressing a very positive experience at all levels.

The very coherent programme with a distinctive focus on adolescence clearly makes the Netherlands a leader in this particular area of developmental psychology, as well as one of the major contributors to research on the adolescent brain on the international scene. The embedding of the programme within the Leiden Institute for Brain and Cognition is a particular strength, leading to numerous collaborations. Excellent grant funding has made this expensive research possible. This programme is the lowest in the Institute in terms of impact as judged by bibliometrics, but clearly a minority of the programme members are publishing in very high-impact journals.

While faculty, funding and doctoral students have substantially increased since 2005, productivity in terms of peer-reviewed papers has only increased very slightly. The focus on longitudinal studies may explain why productivity is somewhat low within the Dutch and international scenes. Nonetheless, the five selected papers were clearly of a high standard.

This research has high relevance to society in that adolescence is a period during which multiple changes occur which can derail development. The group is to be applauded in bringing a deeper understanding of the relationships between neural and behavioural changes

during this important period of ontogeny. The longitudinal nature of several studies is particularly useful for policy-making and educational decision-making for this vulnerable age group. Publications for bringing science to the general public were most successful.

The group has clear plans for the future and a good sense of leadership. If it continues to attract generous research funding, it will be able to meet the costs of the brain imaging work. Clear plans were enunciated to preserve a balance between basic lab research and applied clinical/health research in the form of prevention and intervention strategies.

Conclusion

This is an extremely coherent programme targeting neural, cognitive and behavioural change over the adolescent period, with very strong national and international visibility, excellent research grant funding, as well as an important relevance for the general public. Although some publications are appearing in very high-impact journals, with popular books having impressively strong sales, the publication strategy of the group as a whole needs to be improved.

Programme UL 5: Multivariate Analysis of Psychological Data
Programme director: Prof. W.J. Heiser
Research staff 2010: 9.15 fte

Assessments:	Quality:	4.5
	Productivity:	4.5
	Relevance:	5
	Viability:	4

Introduction
The aims of the programme in Multivariate Analysis of Psychological Data are twofold:

1) The development of a new multivariate statistical methodology and the investigation of properties of existing statistical methods
2) Empirical applications of advanced multivariate statistical methods in psychological research, in cooperation with staff members of the other units within the Psychological Institute.

The two aims are interconnected: Issues resulting from aim 2 will lead to new research questions in 1, and new methodologies developed in 1 can be applied in 2.

Areas of investigation within the first goal are multidimensional scaling and clustering, latent variable modelling, and methodology for fMRI research. Another area of research within the second goal is mathematics education.

Assessment of the SEP criteria
The group publishes in good journals, and the scientific contributions included in the publications are considered original and well thought out; methodological innovations arise both from creative work on the level of modelling and from challenges implied by applications that involve very complex designs for data collection. Otherwise, the quality of the publication output is also evidenced by high normalized citation and journal scores (although the number of papers with high citation numbers is slightly lower than what could be expected). Likewise, the excellent academic reputation of the group is reflected in the presence of several prominent international visitors.

The quality of the leadership of the group is implied by its clear strategy with two distinct objectives and by the collaborations within the group, which will be further increased in the future. The committee also appreciates the fact that the leadership of the group did not stand in the way of all group members contributing to the discussions with the committee during the site visit. The group has a good earning capacity, as shown by a very good rate of total funding over direct funding.

The strategy to enhance the publication of refereed articles is laudable and has been clearly successful. Consequently, there is a very positive trend in the number of refereed articles, and in recent years there has been a very good ratio of refereed articles to the number of research ftes.

There is a good ratio of the number of PhD students to the number of potential promoters and daily supervisors (i.e., tenured staff research ftes). In addition, the (co-)supervision of quite a few PhD theses by other research groups and abroad is to be noted.

The societal relevance of the work on mathematics education is obvious, as is the way in which basic elements of this work have been communicated to responsible politicians. Societal relevance is also implied by the long-term collaboration with Cito.

Important elements of valorisation are the inclusion of novel methodological contributions in a key general purpose statistical software package (SPSS) and the research collaboration with Philips.

The programme has a clear strategy for the future. In it, a strong emphasis is put on the service function of the programme, not only in terms of the important research track of neurostatistics, but also in terms of statistical consultancy, an increasing emphasis on applied psychometrics, and participation in central (non-methodological) research profiles. In the past, the programme was looking for a complementary balance between its own methodological research and its consultancy function; in general, it has been quite successful in achieving this. This issue, however, will remain a major challenge for the future, because a breeding ground in terms of a proper methodological research track of its own can be considered indispensable for the viability of any methodological research group. A related concern is that, with an increasing range of application domains, the group may run the risk of spreading itself too thin.

Conclusion
This programme involves a number of excellent methodologists, with a highly valuable output, both qualitatively and quantitatively. Moreover, the programme plays a key role in the institute as a whole. This also appears from the programme's strong connections with clinical psychology, and from its many collaborations with developmental psychology (which often, but not always, becomes visible through joint publications); moreover, Prof. Rombouts is involved in almost all other programmes of the institute.

The advantages of having a separate methodological programme with a clear identity are self-evident. Yet, at this moment, the level of direct funding for the multivariate analysis programme seems prohibitively low. Obviously, the programme itself, with its excellent earning capacity, cannot be blamed for this. The institute, however, may wish to consider whether an adjustment of the presently very small share of direct funding for the programme would not be desirable.

4. TILBURG UNIVERSITY

Assessment at institute level
University: Tilburg University
Faculty: Tilburg School of Social and Behavioural Sciences (TSB)

The institute
The Tilburg School of Social and Behavioural Sciences (TSB) strives to:

- offer excellent, student-oriented education in the areas of Psychology, Sociology, Organization Studies, Human Resource Studies and Leisure Studies;
- conduct research at the frontiers of knowledge in the core areas of the social and behavioural sciences.

The mission of the TSB is consistent with the university's mission, summarized as *Understanding Society*. The specific research mission is *to advance the frontiers of knowledge on issues and subjects of direct value to society*.

Multidisciplinary research is considered essential, and some of the TSB research is organized in 'multidisciplinary centres'. Tilburg University believes in the importance of valorisation. The research of TSB is both fundamental and applied.

Research activities at TSB are organized into 12 research programmes, of which five are in the field of Socio-Cultural Sciences and are not part of this review. The seven programmes reviewed here are:

- Attachment, Emotion Regulation and Psychopathology
- Cognitive Neurosciences
- Cross-Cultural Psychology
- Developmental Psychology
- Latent Variable Models
- Medical Psychology
- Social Decision-Making

Quality and academic reputation
The research of TSB is internationally embedded; all research programmes collaborate with top international institutes. Individual researchers collaborate with researchers elsewhere and often publish joint papers in international, peer-reviewed journals.

TSB stimulates high-quality, empirical research that is publishable in top international journals with a high impact factor in their specific research areas. Communication in science goes mainly through top journals, but edited books and monographs are also considered useful means of communication. TSB faculty members are editors of international journals and serve on national and international grant committees. Several staff members have received national and international awards.

Resources
Direct research funding is allocated to the research programmes based on quality criteria such as publications and PhD theses. The majority of the research funding depends on external sources. TSB supports senior researchers in seeking funding, e.g. by training the applicants.

TSB researchers have been successful in acquiring external research grants and with respect to contract research. With the tenure-track system, TSB is constantly looking for talent to invest in. It is getting more successful at attracting excellent scientists.

Societal relevance
The strategic plan of Tilburg University includes continuously strengthening the scientific and societal relevance of research. TSB associates itself with this profile. About 60 external PhD students are supervised, who typically have jobs elsewhere in organizations and business.

Strategy for the future
The SWOT analysis provided by the institute can be found in Appendix E. TSB wants to further improve the quality of its research. TSB intends to concentrate research along a limited number of high-quality research lines. Valorisation is becoming more important, and TSB considers itself the place to further expand the societal impact of psychological research. TSB intends to intensify internal and external collaborations to strengthen its position.

PhD training
TSB has a large number of PhD students with different kinds of backgrounds. PhD students are affiliated with the TSB Graduate School. A promotor and one to two co-promotors supervise them. The objective of the PhD programme is to produce researchers who can function independently and as a team player. The training is geared to the individual needs of a student and is put together by the student and the supervisors. The plan is updated every year. Both general courses and specialization courses can be followed. PhD students are expected to attend international conferences and to present their work at these conferences.

The PhD coordinator of the Graduate School monitors the progress of each PhD project and has performance assessment interviews with all PhD students (twice a year). Most PhD students complete their projects in time, and few projects fail.

Assessment
Tilburg University has two characteristics that distinguish it from other Dutch universities. First, it has only humanities and social sciences faculties, and no natural sciences or medical faculties. Second, it emphasizes the contribution of research to society.

The institute has seven research programmes that are embedded in the Tilburg School of Social and Behavioral Sciences. The Attachment, Emotion Regulation, and Psychopathology programme was founded in 2007, and was understaffed at the beginning of its existence.

The funding pattern differs from the average pattern shown in Table 1. The institute has more direct funding than average (71% versus 61%), and less funding from grants (23% versus 27%), and contracts (6% versus 12%). The university has no natural sciences or medical faculties, but the institute has two natural science-type research programmes. The Cognitive Neuroscience programme uses laboratory facilities, and the Medical Psychology programme cooperates with external medical centres and hospitals. These programmes are vulnerable because the university does not provide partial natural sciences funding to the institute.

The organization of the institute is adequate. The management is bottom-up, and strongly focuses on the stimulation of individual talent and performance. For example, the institute has a tenure-track system which permits every excellent researcher to move up to full professor.

In line with the university policy, the institute has not invested in expensive equipment for natural sciences research. However, the facilities are adequate for the research that is done by the institute.

The Faculty of Social and Behavioral Sciences has a research master programme. This programme trains students mainly for research in psychometrics and social psychology, but not for other subfields of psychology. PhD training is mainly done within the faculty, and only a few PhD students participate in national graduate schools. The success rate of the 2002 and 2003 PhD cohorts was 71%, and 53% of these cohorts completed their thesis within five years. Recently, the success and completion rates have been considerably improved: 92% of the 2004, 2005, and 2006 cohorts completed their thesis, and 83% did so within five years. The PhD students are very satisfied with their supervision and training. Their only wish for the future is to have more contacts and cooperation with other programmes.

Overall, the quality of the research is good, but it varies between programmes. This is confirmed by the bibliometric study. The institute's citation scores match the world average, but vary between the programmes from substantially below to substantially above this average. A similar remark applies to productivity. The productivity of the entire institute is good, but varies between programmes from rather low to high.

The remark also applies to societal relevance. The institute's societal relevance is good, but varies between programmes.

Tilburg University has a profile of humanities and social sciences research, and partial natural sciences funding of psychological research does not fit in this profile. However, a full psychology department needs natural sciences research, which requires additional financial means to keep up with international developments. The committee asks policy-makers to take into account the special needs of natural sciences research in psychology. The quality, productivity, and societal relevance of the entire institute are satisfactory, but the between-programme variance is rather large. A challenge for the future is to decrease between-programme variance by improving the performance of some programmes. The research master programme prepares students only for dissertation research in two subfields of psychology. The committee recommends extending the research master programme to more subfields of psychology. The success and completion rates of recent PhD student cohorts show that PhD supervision and management are successful and efficient. The PhD students are very satisfied with their supervision and training, but they would like to have more professional contacts. The committee seconds their wish, and recommends the stimulation of professional contacts between programmes and participation in national graduate schools. Finally, the committee recommends making clear plans for the future of research in the areas of clinical and cross-cultural psychology.

TILBURG UNIVERSITY

Assessment at programme level

The committee comes to the following overall programme scores for quality (Q), productivity (P), relevance (R), and vitality/feasibility (V) for the seven programmes at the Tilburg School of Social and Behavioural Sciences:

Code	Programme name	Q	P	R	V
UvT1	Attachment, Emotion Regulation and Psychopathology	no score	no score	no score	no score
UvT2	Cognitive Neurosciences	5	4	5	4
UvT3	Cross-cultural Psychology	3	5	4	3
UvT4	Developmental Psychology	4	3	4.5	3
UvT5	Latent Variable Models	4.5	4	4.5	5
UvT6	Medical Psychology	3.5	5	5	4
UvT7	Social Decision-Making	4	4	5	4

Programme UvT 1: Attachment, Emotion Regulation and Psychopathology
Programme director: Prof. M.H.J. Bekker
Research staff 2010: 7.95 fte

Assessments:	Quality:	no score
	Productivity:	no score
	Relevance:	no score
	Viability:	no score

Introduction
As this is a newly established programme, the committee was not able to give scores for quality, productivity, relevance and viability. The committee judged it possible to formulate statements on these topics that it hopes will prove helpful for the development of the programme.

The main stated objectives of the programme are: understanding, explaining, developing and testing relevant theoretical models and, where possible, implementing them in clinical practice. Accordingly, intervention studies (experimental) also belong to the programme, such as ones on the effects of autonomy-targeted interventions. Acknowledging the adaptation problems of current mental health care to the cultural diversity of the client population, the research results are additionally aimed at contributing to an increase of cultural competence within mental health care and the development of suitable therapeutic interventions for the largest ethnic minority patient groups. The research objectives also concern people with intellectual disabilities. The mission of the programme is the development of theoretical models for understanding the relationships between attachment, emotion (regulation) and psychopathology, including the psychosocial consequences of psychopathology and quality of life. Anxiety disorders, mood disorders, eating disorders, adjustment disorders and personality disorders including anti-social subtypes belong to the types of psychopathology under study. At present, the programme is characterized by a strong workload outside of scientific research and limited capacities that represent a challenge to the faculty.

Assessment of the SEP criteria
The research results of the programme are clearly visible nationally and sometimes achieve international visibility in specific subfields. There is an emphasis on correlational research based on self-reports of widely defined concepts. Overall, the programme's publications are underrepresented in the top publications of the field and are cited below the field-corrected international average while at the same time it has a high percentage of non-cited papers and an average value of self-citations. This programme was created by the faculty in order to attract students, but the limited resources and high workload in addition to research (primarily education-related activities) represent major challenges that need to be addressed.

Productivity in terms of peer-refereed publications is somewhat above the Dutch average, which itself is clearly above the international average. However, the productivity strategy did not become clear from either the self-evaluation report or the site visit. The combination of academic and clinical work holds both a positive potential and the negative risk of overburdening.

The overall field as well as some of the phenomena already studied are very relevant. In addition, the objective to include understudied areas such as intellectual disability and forensic topics holds promise for its relevance. The models and methods chosen to study the clinical phenomena, however, may limit the relevance.

In its present state the programme's viability is debatable. The programme leaders are hard working, productive and devoted, but confronted with structural problems. The workload is too high, especially with respect to non-research activities (teaching load) and student numbers, the scientific and administrative strategies are not clear, and support by the faculty seems insufficient, but is needed.

Conclusion

This is a newly established programme with an unbalanced relationship between tasks and resources. In spite of the active role of the programme leaders, their high workload, productivity and clinical credibility, the structural limitations and strategic questions endanger the viability of the programme in its present form. While the notion of the faculty to attract students by offering them a clinical programme is well founded, the faculty needs to come to a decision about whether the programme should be given adequate means or whether it cannot afford a competitive programme in the clinical field. It may be worthwhile to consider new measures such as opening an outpatient unit that could contribute funds, offer direct patient access, and guarantee an infrastructure for clinical research and hiring additional staff with a strong research track record at an international level.

Programme UvT 2: Cognitive Neurosciences
Programme director: Prof. J.H.M. Vroomen
Research staff 2010: 14.02 fte

Assessments:	Quality:	5
	Productivity:	4
	Relevance:	5
	Viability:	4

Introduction
The Cognitive Neurosciences programme has a long research tradition in examining perceptual, cognitive, and affective processes in normal healthy subjects and neurologically damaged patients. The research focuses mainly on the integration of multisensory information, like interactions between hearing and seeing. Several domains of intersensory integration are investigated, like the perception of faces, body gestures, speech, space, emotions, and time.

Its clinical research focuses on experience-based neuroplasticity via cognitive and behavioural stimulation. Here, the programme tries to acquire knowledge about how the brain interacts with the environment. It explores new forms of neuro-rehabilitation for acquired disorders and for neurodevelopmental disorders, and for new forms of cognitive enhancement in healthy people. The programme uses classic psychophysical methods like reaction times, and a variety of neurophysiological measures.

Assessment of the criteria
The Cognitive Neurosciences Group at the time of the evaluation had three full professors, two associate professors, and three assistant professors. Over the evaluation period, the number of fte rose from 8.7 (2005) to 14.0 (2010). Research has been focused on face processing (including multisensory processing and emotional integration), perception of intersensory synchrony, neurofeedback, and neuro-cognitive rehabilitation. Key results provided by the group are: effects on EEG of the combination of facial expression with emotional voice, the finding that the perception of intersensory synchrony is adaptable, the development of a new method of neurofeedback, and the development of a new cognitive rehabilitation programme.

In the review period the group produced 143 research outputs, including 102 ISI-refereed articles; 10 students completed their PhD. The total amount of research funding in the period under review was € 2.7 million.

The group explicitly aims for quality rather than quantity and, according to the citation figures, has been successful in this respect. As a result, the productivity is lower than what it could be. In addition, members of the group have been visible as editors of major journals, members of the executive committee of societies related to experimental psychology and cognitive neuroscience, advisors, and organizers of conferences.

The fundamental research has had the most impact on the processing of emotional expressions and the issue of sensory integration. The group has actively reached the wider public by its involvement in educational programmes like the 'Dementia Experience' and its contribution to popular science television programmes. More applied relevance is expected from the recently developed neurofeedback and cognitive rehabilitation programmes. A

member of staff also published a popular book that brought psychology (in particular neuroscience) to a wider audience.

The group has interesting ideas for more progress and plans for further expansion. At the same time the one member of staff with the highest impact is about to retire, and there are no guarantees that the group will be able to attract a replacement of a similar standing. The ambition of the group to become a strong player in the cognitive sciences also may be hindered by the limited financial resources the group has access to.

Conclusion

The Cognitive Neurosciences Group has performed well in the evaluation period with interesting papers in leading journals. The challenge for the future will be to remain at this level given the limited direct funding and the retirement of the most senior staff member.

Programme UvT 3: Cross-Cultural Psychology
Programme director: Prof. A.J.R. van de Vijver
Research staff 2010: 5.78 fte

Assessments:	Quality:	3
	Productivity:	5
	Relevance:	4
	Viability:	3

Introduction
The Cross-Cultural Psychology programme attempts to unravel relationships between individual behaviour (broadly defined) and cultural factors. This is accomplished by (a) studying psychological phenomena in their cultural context; (b) investigating acculturation, ethnic identity, and multiculturalism in plural societies; (c) studying the intersection between culture and developmental trajectories as a means of explaining cultural differences; (d) performing meta-analyses of psychological phenomena to identify correlates of cross-cultural differences. Finally, the programme continues to be characterized by a focus on cross-cultural research methods, test adaptations, and contributions to the dissemination of cross-cultural knowledge through books.

The stated mission of this programme is the understanding of cross-cultural differences and similarities, along with their underlying causes. The programme focuses on the study (including meta-analyses) of psychological phenomena in cultural contexts, acculturation, multi-culturalism, ethnic identity, and cultural differences underpinning developmental trajectories. The programme also maintains its traditional concentration on methodology.

Assessment of the criteria
The programme features a strong leadership by a prominent cross-cultural researcher, who is particularly known for his work on cross-cultural methodology. The programme also consists of two talented junior members. Organization and resources seem to be adequate. The quality of the output is acceptable, but not what it could be. In particular, there is a relative dearth of publications in high-impact, peer-reviewed journals: according to bibliometric analyses, the programme lags substantially behind the institute average on all quality categories. There is no evidence of a concerted effort toward theory development and testing, although recent sporadic attempts are evident. There are multiple foci of research (too many!), often seemingly determined by the availability of cross-cultural collaborators rather than by deliberate design; the programme may be spreading itself too thin.

The programme is very productive, although a good deal of the productivity is accounted for by an overabundance of chapters and/or books. Members of the programme join forces routinely with international collaborators. Members also supervise a high number of PhD students, many of whom are externally based.

The research conducted by this programme (e.g., acculturation, ethnic identity) has great relevance for a multicultural society such as the Netherlands. The relatively new emphasis on the role of culture in developmental trajectories is a nice touch. Yet the majority of the research focuses on Turkish immigrants; this is a historically grown focus and an important endeavour that deserves to be nurtured. Arguably, though, the programme would do well to diversify and become more relevant to other immigrant groups, to their immersion in Dutch society, and to the way the home culture perceives them and integrates them.

The programme consists of talented and dedicated researchers, but its viability is called into question by at least three factors. First, the size of the programme is too small. Second, the programme appears to be heavily dependent on its leader, with no one seemingly close in succession. Third, the programme is trying to do too much, having an unusually broad scope of objectives and thus lacking in cohesiveness. No clear strategies appear to be in place in order to deal with these issues.

Conclusions

This programme is the only one dedicated to the study of culture in the Netherlands. It has done so for decades, and against the odds (some would say); it must have been an uphill battle. The utility and relevance of the programme are evident, although its quality is rather below par. In general, it is unusual to have and sustain such a small programme. Strategic decisions may need to be made about its strengthening or its integration into other programmes.

Programme UvT 4: Developmental Psychology
Programme director: Prof. B.R.H.M. van den Bergh, Prof. H.J.A. van Bakel
Research staff 2010: 7.87 fte

Assessments:	Quality:	4
	Productivity:	3
	Relevance:	4.5
	Viability:	3

Introduction
The programme is mainly focused on the impact of early life events (i.e., prenatal and early postnatal stress; quality of parent-child interaction, adoption, chronic diseases) and on the cognitive, social and emotional development of individuals. The programme has a fundamental (RL1) and an applied research line (RL2).

This is a small group centred mainly on early life events, a critical stage of human ontogeny, the effects of which cascade on subsequent development. The focus is on prenatal and early postnatal stress, parent/child interaction, adoption and chronic illness as they affect cognitive, social and emotional development. The group was formed quite recently, as was their Baby Lab. The new PhD students appear to be undergoing excellent training and receive full support from the senior faculty.

Assessment of the SEP criteria
The multidisciplinary approach of this programme and the use of converging methodologies (behavioural, electrophysiological, biochemical) to measure the effects of stress on infant outcome are to be commended; it seems to be unique in the Netherlands and has a good standing on the international scene. Sufficient external research funding has been obtained. It is rare for any research team to follow children from fetus to childhood, and in this sense the work is fundamental. Citations are above average seen in relation to the world average for the field and to the journals in which the group publishes.

Productivity in terms of peer-reviewed papers is somewhat low, also when seen in relation to tenured research ftes. The research group has a very large number of clinical master students to supervise each year, and the longitudinal nature of the research can slow productivity. However, cross-sectional data could sometimes be pulled from the longitudinal cohorts to enable interim publications. PhD thesis productivity seems low, with just two candidates graduating in the evaluation period, although the group is relatively new.

The focus on the mechanisms of vulnerability has strong societal relevance as detecting it at the earliest stages of development encourages biomedical and behavioural intervention strategies, which are more likely to be successful, changing the trajectory of development.

It is unclear how the recent appointments of experts in personality and behavioural genetics will fit into the focus of this group, and no plans were explained for doing so. The evaluation committee had the impression that these appointments may not have been done in consultation with the current group leaders. Behavioural genetics might be integrated if the research were to focus on individual differences, e.g., taking mouth swabs from infants, and then used to consult the huge genetics databases for polymorphisms linked to stress-related traits. There seems to be little strategy for future plans and little sense of strong leadership nor coordination/collaboration across individual researchers.

Conclusion

This is a small, relatively newly re-formed group with much promise, but no clear strategy for future development. Productivity is somewhat low, in part due to their concentration on longitudinal designs and the large clinical component, but could be targeted for future improvements. New PhD students are faring well, and it is too early to say whether they will complete their research within reasonable time limits. There is no doubt that the main focus of the group – the impact of early life events – is a very important one for Dutch psychology.

Programme UvT 5: Latent Variable Models
Programme director: Prof. J.K. Vermunt
Research staff 2010: 15.75 fte

Assessments:	Quality:	4.5
	Productivity:	4
	Relevance:	4.5
	Viability:	5

Introduction
The area of expertise covered by the Latent Variable Models programme is methodology and statistics for social and behavioural science research, including psychometrics and sociometrics. The research programme's main focus is on latent variable models, which include structural equation models and factor analysis, latent class and finite mixture models, item response models, random effects models, and combinations of these methods.

The objective of the programme is the development of improved methodological strategies for survey research (item quality, response styles, missing data, outliers), for dealing with complex data structures (multivariate, hierarchical, longitudinal, mixed measurement levels), and for test construction. The programme's mission is to further develop methods that are useful for social and behavioural sciences research, to develop user-friendly software for applied researchers, and to contribute to substantive research via collaborations in which the knowledge present in the programme is used.

Assessment of the SEP criteria
This programme has a very clear profile. The scope of the topics it addresses is very broad, yet the theme of latent variable models is strong and unifying. It gives rise to a clear synergy and many collaborations, both within the programme and with researchers from other programmes.

The programme concerns methodology, yet with a distinct and highly valued 'Tilburg touch'. The high academic reputation of the programme leaders is indisputable. Their publications appeared in a broad range of journals, including top journals of the field. The contributions in the key publications are sound, although somewhat heterogeneous with regard to pioneering value. The average number of citations is satisfactory but modest. The programme has a good earning capacity. The approach to grant applications as a collective activity is highly laudable.

The programme has a well-thought-out publication strategy: For collaborative, applied papers, the choice of the substantive publication outlet largely depends on the other researchers involved in the collaboration; for methodological papers, there is a clear preference for top methodological journals; but in general the strategy is to remain realistic and look for a balance between quality and quantity. One of the explicit aspects of the latter is to stimulate all PhD students (strong and less strong) to keep publishing, which is a praiseworthy aspiration.

The ratio of the number of refereed articles to the number of research ftes is satisfactory but modest. The ratio of the number of PhD students to the number of potential promoters and daily supervisors (i.e., tenured staff research ftes) is fair.

The programme has made major contributions in terms of writing up monographs, the organization of statistical workshops, and especially also the development of user-friendly

software for applied researchers. All these elements can be considered as additional efforts to raise the societal relevance of the research conducted. The group also contributes to the activities of the Dutch Commission for Monitoring Test Quality and to several publications stemming from this committee.

The robustness and stability are good. Key elements in the strategy for the future are the consolidation of the current programme and the attraction of new, young staff with great potential (because trying to hire a more senior staff member is not yet possible) who bring in new expertise that does not overlap with that of the current staff. This approach makes sense because the programme is doing quite well and wants to continue to do so in terms of, e.g., receiving funding.

The committee wondered whether a somewhat higher level of ambition and a more programmatic hiring plan (along with a choice of a few innovative common research spearheads) would be desirable. It could, however, be that within the specific context of Tilburg University, the pragmatic strategy of the programme is the only feasible one.

Conclusion
This programme has a high level of quality. On an international level, it can be considered a key player in the area of methodology, with a well-recognized and distinctive approach. The programme has a real critical mass. This allows it to address a broad range of topics. When doing so, however, the programme never loses its core identity. The overall approach of the programme is well thought out and exhibits a sound pragmatism.

Programme UvT 6: Medical Psychology
Programme director: Prof. S.S. Pedersen
Research staff 2010: 29.21 fte

Assessments:	Quality:	3.5
	Productivity:	5
	Relevance:	5
	Viability:	4

Introduction
The primary objective of the programme is to examine the role of psychological factors (e.g. anxiety/depression and personality) in patient self-care, compliance, health status, morbidity and mortality (i.e., the mind-body relationship) in cardiovascular disorders, diabetes and hypertension, cancer and cancer survivorship, and neurological disorders. These conditions were chosen as primary targets due to a high level of disease burden and the co-morbidity between conditions and the role of psychology in their onset and progression. The mission of the programme is to contribute to and enhance disease management care for patients with a chronic medical condition.

Assessment of the SEP criteria
The programme is at an internationally competitive level and makes valuable contributions to medical psychology. While some of its publications have appeared in prestigious journals, the average citation rate is at the field-corrected international average. In addition, the percentage of non-cited papers reaches the Dutch average, while the number of self-citations is above average. Representation among the most cited publications decreases from the expected value for the top 20% to values below expected numbers for higher percentages. Several of the best-placed key publications are editorial comments and policy papers rather than original research. The group has a very good earning capacity.

The group is highly productive in terms of number of publications. Productivity in terms of peer-refereed publications is significantly above the Dutch average, which itself is clearly above the international average. However, the productivity strategy seems to a certain degree to favour quantity over quality. As a related concern, the ratio of the number of PhD students to the number of potential promoters and daily supervisors (i.e., tenured staff research ftes) is prohibitively high. On the other hand, the group is well connected to a network of medical institutions that provide the necessary basis for medical psychological research.

Overall, the application of psychological expertise to widespread chronic medical conditions is of great societal relevance. Also, several indicators (interviews, symposia for health care professionals, publications for laypeople) clearly demonstrate the group's commitment to contributing to societal impact. Nonetheless, some of the psychological concepts and variables (e.g., personality) are somewhat broad, and their relationship to mechanisms of pathogenic and/or salutogenic action as well as the translation of correlational results into interventions seems less emphasized.

There has been a strong increase of output in recent years, which underlines the viability of the programme and the dedication of its members. The strategic aims discussed are primarily quantitative in nature and seem to address content and quality less. Although they see some dependency on high-end equipment as a potential weakness, the programme leaders make a convincing argument for running their operation at a university without a medical school but with a vast non-academic medical network instead. They have proven to be capable of

organizing the considerable workload and of motivating their group for high productivity and are now striving to develop additional systematic training models to enhance the retention of junior staff.

Conclusion

This is very active group that has increased its already high productivity even further. It builds on a well-established network of medical collaborations and is led by internationally renowned leaders with high organizational skills and strong motivation. Its strategy addresses some of the points that could still be enhanced (e.g., retention of junior staff) but might also have to give more room to the question of quantity vs. quality and the relationship between studying phenomena vs. mechanisms. The group is internationally very well connected and seems to be well positioned to address its challenges given its past track record of progress.

Programme UvT 7: Social Decision-Making
Programme director: Prof. M. Zeelenberg
Research staff 2010: 10.28 fte

Assessments:	Quality:	4
	Productivity:	4
	Relevance:	5
	Viability:	4

Introduction
The general objective of the programme is to reveal the psychological processes underlying judgement and behaviour and to elucidate how these processes are influenced by the social context. The programme has a strong focus on fundamental social psychological processes and their relation or application to economic or organizational factors and concentrates on the psychological (i.e., cognitive, motivational, affective) and socio-contextual aspects of behavioural decision-making. Although based firmly on fundamental research, the programme is also concerned with the interplay between social and economic/organizational factors. Much of the conducted research is laboratory-based, with forays into field research.

Assessment of the criteria
The programme consists of a relatively senior professor, a relatively junior professor and eight assistant professors, two of which are tenured. The programme is well-led and well-organized, with a respectable reputation and adequate resources. The published research is of generally good quality, often appearing in prestigious journals. A reason this research is not as highly cited is most likely because of the youth of many of the programme members, with publications in social psychology needing several years to 'mature'. Yet, it is not entirely clear how the group coheres - where the two leaders and their expertise 'meet' each other. Similarly, it is a bit unclear how the research of the assistant professors fits in. Also, it is not fully evident what exactly is the nature of the link between social psychology and economic/organizational psychology, although the collaboration with marketing researchers is worth mentioning. On the other hand, this somewhat weak focus is arguably compensated for by the fluent, dynamic, and emerging programme structure and research interests; flexibility may be a virtue in that regard.

This is a reasonably productive group, although productivity has shown a declining trend as of late. Productivity appears to be good even among assistant professors, all of whom show signs of energetic involvement in the programme. Part of the relative success in productivity is attributable to the relevant strategy (e.g., interdependence, open-door policy, active dialogue).

The research conducted has highly commendable societal relevance. It examines the underpinning, correlates, and consequences of human decision-making, and this focus is widely applicable along virtually all spheres of human functioning. Significantly, its relevance is punctuated by the established links between this programme and marketing, with connections to economics being fostered.

There are a few factors threatening the programme's viability. For example, the staff attrition rate is high, although this might be attributable to external factors (e.g., programme's location) rather than any managerial peculiarities. On the other hand, it is to its credit that the programme has nurtured an impressive array of young scholars and PhD students, who proceeded to move on, establishing themselves elsewhere. Also, external funding is relatively

low. However, mechanisms have been put in place to encourage grant preparation, internal review, and submission. In all, the viability is not exceptional; however, this programme has demonstrated remarkable resilience and inventiveness in the past, and it will likely come through in the future.

Conclusions

This is a vibrant programme, full of enthusiasm and a sense of purpose. It consists of active staff members who are attempting vigorously to accomplish both fundamental and applied research goals. Better integration between social psychology and organizational/economic psychology, as well as increased immersion of the junior staff into ongoing research, promise to strengthen the programme further.

5. MAASTRICHT UNIVERSITY

Assessment at institute level
University: Maastricht University
Faculty: Faculty of Psychology and Neuroscience

The institute
The Faculty of Psychology and Neuroscience (FPN) has a distinctive profile which emphasizes two contemporary angles in psychology: cognitive psychology and biological psychology. Its research mission is to conduct internationally competitive research at the frontiers of new developments, which is both open-minded and driven by curiosity. The objectives are: to conduct top-quality research on selected themes in cognitive and biological psychology within four internationally oriented research lines and related programmes, to create and maintain active partnerships regionally, nationally and internationally; to continue placing emphasis on fundamental cognitive research and method development; and to apply this in transdisciplinary collaborations. The four research lines are:

- Clinical Psychological Sciences/ Research Centre Experimental Psychopathology
- Cognitive Neuroscience
- Neuropsychology and Psychopharmacology
- Work and Social Psychology

Since the last evaluation the organizational structure has changed. This change was instigated by the growth of the faculty and the removal of a department. The organization of the research has increased from two to four departments/research programmes.

Quality and academic reputation
A recent QS world university ranking placed FPN in the top 100 of the world, with a high citation factor. In the European CHE Excellence ranking 2010, FPN is in the 'excellent' group. FPN is strongly cited. According to the self-evaluation report, this shows that FPN has gained an internationally renowned position.

Resources
FPN is investing in ways to create and maintain an excellent research infrastructure, with 64 laboratories, including (f)MRI, TMS and EEG facilities. New investments include 3.0, 7.0 and 9.4 Tesla MRI apparatus, and two Virtual Reality facilities.

With regard to personal research grants from NWO, 5 Vici, 2 Vidi and 15 Veni, 11 Rubicon (10 outgoing, one incoming) and 4 TopTalent grants were received. Also, EU and NWO funding for the PhD graduate training programme in neuroimaging and ERC grants was received.

Productivity
FPN's number of peer-reviewed publications has remained at a steady level during the evaluation period, while the number of professional publications has grown.

Societal relevance
Increasing attention is being given to the valorisation of scientific knowledge. In 2009 a part-time advisor was hired to help search for new opportunities in valorisation, including identification of sources of external funding. Many researchers participate in contract research

and advisory positions. Intensified cooperation with external institutions is promoted by the UM Executive Board, often leading to semi-structural cooperation contracts on research and education. FPN has an increasing number of external PhD students, resulting to 12 graduations in 2005-2010.

Strategy for the future
FPN has been founded recently, which is reflected in a relative young staff, modern buildings and facilities, resulting in an excellent position for state-of-the-art research with significant capacity for innovation. The UM Executive Board launched two investment programmes for research in the past period, aiming at further strengthening the spearheads of the university. The second programme (2010-2013) is being used to hire extra staff to support departments in the optimal use of the neuroimaging and neurostimulation facilities and to stimulate inter-department collaboration.

A SWOT analysis is provided in Appendix F. FPN's strategy is laid out in a strategic programme. FPN will continue to place a strong emphasis on basic research while at the same time fostering the transfer of knowledge into applications. Project and theme-based collaboration with strong clinical institutions, industry and private partners will be continued. Collaboration networks will be made more explicit to increase visibility. There are risks that growth of the faculty will lead to potential isolation and a limited exchange of knowledge and expertise between departments. To avoid this, the previous integrative postdoc and PhD positions should be continued via participation in interdisciplinary research projects at the university level.

The financial situation in the coming years will limit its opportunity to extend research lines via direct funding, but growth will be possible via increases in indirect funding. Indirect funding rates can be elevated, especially from research organisations. FPN's valorisation strategy is to further emphasize and stimulate public-private partnership collaborations, contract research for the pharmaceutical industry and health care institutions, and start-up/spin-off business development.

PhD training
FPN hosts the bi-faculty selective Research Master in Cognitive and Clinical Neuroscience, consisting of four tracks that span the entire domain of basic and applied clinical research. PhD training is embedded within the Graduate School of Psychology and Neuroscience, which is responsible for coordinating the PhD educational programme, monitoring the progress of the students, and providing them with an independent confidential advisor. The Graduate School organizes general courses. Specialized courses are organized by the national and international research schools in which most PhD students participate. The success rates of the contract PhD students are provided in the self-evaluation report.

Assessment
Psychological research at Maastricht University focuses on cognitive and biological psychology. This focus clearly distinguishes the institute from other institutes.

Since 2007 the university has its own Faculty of Psychology and Neuroscience. The research institute has four programmes that are embedded in the faculty. Two of these programmes are clearly natural science programmes, the other two programmes focus on mental health problems and work & organizational and social psychology issues. Moreover, the faculty finances a small number of research ftes (1.6 fte in 2010) of the Statistics and Methodology

programme, which is a joint programme of the Faculty of Psychology and Neuroscience and another faculty.
The funding pattern resembles the average pattern of the eight institutes: 64% is from direct funding (average: 61%), 25% of the funding is from grants (average: 27%), and 11% from contracts (average: 12%).

Psychology has its own faculty, and the research is focused on a limited number of topics. These two characteristics foster a good atmosphere, cooperation, and informal and efficient management.

Recently, the university invested strongly in new equipment for doing brain research. At present, the research facilities are excellent.

The faculty has a research master programme that prepares students for dissertation research in cognitive and biological psychology. A track for work and social psychology combined with other faculties is planned. The PhD students participate in local and national graduate schools. The success rate is high (92% of the 2002 and 2003 PhD cohorts completed their thesis), and the completion rate is good (65% of the 2002 and 2003 cohorts completed their thesis within five years, and 80% within six years). The PhD students are very satisfied with their training and supervision and the research facilities. Most PhD students have a promotor and a daily supervisor. PhD students who do not have a daily supervisor prefer to have one. Finally, PhD students wish to be better informed about jobs after graduation.

On average, the quality of the research is good. The bibliometric study showed that the impact varies between the four programmes from below the world average to far above this average.

The productivity of the entire institute is somewhat below the average of the eight institutes. However, the productivity varies considerably between the four programmes.

The institute stimulates the societal relevance of its research by employing an advisor on external funding and valorisation of research. Moreover, the institute values participation in grant review committees by giving a bonus for these activities (.2 fte student assistant per year). The societal relevance of the research is high, which is shown by many of the indicators that were mentioned in Chapter 1.

The research is well embedded and organized within an autonomous psychology faculty. The institute focuses on cognitive and biological psychology. It excels in these areas, but it is not as strong in work and social psychology. The committee thinks that the productivity of the Cognitive Neuroscience programme can be increased, and it recommends that the management pay special attention to the Work and Social Psychology programme. The committee regrets that the Methodology and Statistics programme is not completely included in the faculty. PhD training and supervision are good, and the success and completion rates are very good. The PhD students wish for a daily supervisor and to be better informed about jobs after graduation. The committee thinks that these wishes can easily be fulfilled.

MAASTRICHT UNIVERSITY

Assessment at programme level

The committee comes to the following overall programme scores for quality (Q), productivity (P), relevance (R), and vitality/feasibility (V) for the four programmes at the Maastricht University Faculty of Psychology and Neuroscience:

Code	Programme name	Q	P	R	V
UM1	Experimental Psychopathology	4.5	4	5	4
UM2	Cognitive Neuroscience	5	4.5	5	5
UM3	Neuropsychology and Psychopharmacology	5	5	5	4
UM4	Work and Social Psychology	3.5	4	5	4

Programme UM 1: Experimental Psychopathology
Programme director: Prof. A. Arntz
Research staff 2010: 44.3 fte

Assessments:	Quality:	4.5
	Productivity:	4
	Relevance:	5
	Viability:	4

Introduction
The Experimental Psychopathology research centre (EPP) aims to test (bio-)psychological theories on causal mechanisms in the development, maintenance and recovery (incl. treatment) of psychopathology. There is a strong focus on experimental methods to unravel causality, but other methods are used in specific research stages or for specific aims (e.g., development of measurement instruments). Within the broad domain of psychopathology, the group focuses on anxiety, depression, personality disorders, chronic pain, sexual disorders, eating disorders, addiction, and forensic psychopathology. The type of studies ranges from fundamental laboratory studies of basic mechanisms in both patients and non-patients to applied research, e.g., to test psychological treatments. With its research programme EPP aims to contribute both to an improved scientific understanding of psychopathology and to improvements in applied areas like psychological treatment and diagnostics. Thus, the programme has a strong translational and transdiagnostic character. EPP/CPS has four sections: Behavioural Medicine, Eating Disorders & Addiction, Clinical Psychology, and Psychopathology & Law. The present programme is the result of the integration of the EPP groups into the Faculty of Psychology and Neuroscience, which was a major change but is unanimously perceived as a very positive development.

Assessment of the SEP criteria
Overall, the programme has a substantial impact on the field of clinical psychology, experimental psychopathology and psychotherapy, with several groups being at the international forefront of their respective areas. Its publications appear in the leading journals of the various subfields and are cited slightly above the field-corrected international average, while at the same time it has a slightly lower percentage of non-cited papers and an average value of self-citations. The programme is well represented in the 20% and 10% most cited publications; it is somewhat underrepresented among the most cited publications, but absolute numbers are still high (four papers in the top 1%, and nine in the top 2%). The senior researchers enjoy an excellent international reputation, and so far the Maastricht group has produced a large number (N=9) of leading professors at other Dutch universities.

The leadership puts quite a lot of emphasis on freedom, and the working relations within the programme look excellent. Nonetheless, one may wonder whether something could be gained from a slightly stronger central steering and more synergies within the programme.

The absolute output is very high, and fair in relation to the group size. Productivity in terms of peer-refereed publications is slightly below the Dutch average, which itself is clearly above the international average. However, the range of 'products' is surprisingly broad and includes treatment manuals, assessment instruments and training materials which have an international impact (e.g., treatment of borderline personality disorder, eating disorders, chronic pain).

The mental health issues studied are of the greatest relevance, and the combination of a basically experimental approach with psychophysiological, diagnostic and intervention studies

is especially well suited for the field. Moreover, translation into clinical applications is not only proclaimed, but also tested in randomized, controlled trials that are very well published.

The greatest challenge to the programme has been the past political turmoil and the move of about 50% of this large group from one faculty to another. The group seems to have mastered these tasks very well, and there is general satisfaction with the move. A very flat hierarchy in which the various leaders apparently get along very well characterizes the leadership. Currently the group does not have its own clinical infrastructure (e.g., outpatient unit). Despite this, the group has entree to many clinical facilities, althoug the recruitment of ample clinical participants is problimatic. This is the result of the changing strategy of the CMHC, leading to a decrease in influx of participants making recruitment more difficult. In addition, the separation of clinical psychological teaching/training (still in the Medical Faculty) and clinical psychological research (now concentrated in the Faculty of Psychology and Neuroscience) poses significant organizational problems, adds to the high teaching load, and produces an artificial split between research and teaching. Inasmuch as this internationally unusual arrangement may be a historical leftover, it should be reassessed.

Conclusion

This large, very active and internationally very renowned group has made major contributions to the fields of clinical psychology, experimental psychopathology and empirically based psychotherapy. It has been able to replace the many major researchers that have gone on to other universities and has managed the integration of the EPP group into the Faculty of Psychology and Neuroscience very well. The hierarchy is very flat, and the atmosphere seems very cooperative. The high proportion of long PhD durations needs to be addressed, and the group as a whole may have to formulate a more coherent strategy than the present list of desirables. In addition, the idea of founding a 'truly academic health care service' as its proper clinical infrastructure should be assessed concretely, and the separation of clinical teaching from clinical research should be reassessed.

Programme UM 2: Cognitive Neuroscience
Programme director: Dr. E. Formisano
Research staff 2010: 42 fte

Assessments:	Quality:	5
	Productivity:	4.5
	Relevance:	5
	Viability:	5

Introduction
In 2010 the Cognitive Neuroscience (CN) Department had a research fte of 10.6 for the tenured staff, and a total research staff fte of 42.0. After an increase in 2007, the tenured staff fte has stayed relatively stable. The non-tenured staff fte showed an increase from 5.9 to 9.4 in the years 2005 - 2006, with slight variations over the rest of the evaluation period, with a fte of 8.6 in 2010. The Cognitive Neuroscience programme combines psychophysical and cognitive paradigms with cutting edge functional neuroimaging to derive detailed and biologically inspired models of human perception, cognition and behaviour. Core research topics include vision, audition, language, spatial cognition, attention and learning. CN also studies the normal and abnormal (e.g. dyslexia, ADHD, autism) development of perceptual and cognitive functions, especially during childhood and adolescence. This multi-modal and methodological approach enables investigating and modelling different levels of neural information processing, from the activity of single neurons or groups of neurons to the activity of neuronal populations in localized brain areas or in widely distributed brain networks.

Assessment of the criteria
The CN Department and the M-BIC centre form one of the leading research groups in functional neuroimaging in the world, although it may not yet have achieved the very top position that was projected at the previous assessment. However, with the establishment of the BUI Centre and the instalment of the new ultra-high field strength MR scanners, the group will be able to further establish its position as world leader. Key findings have been published in major impact journals like *Science* (3), *PNAS* (1), and *Neuron* (1), which reflects the quality of the research output and the ground-breaking nature of some of the findings. Overall citations are above average, also when compared to the citation and journal averages for their field. Members of the CN Department have received both ERC Advanced Grant and Starting Grants in addition to EU Marie Curie training grants, which show the competitive edge the group has when it comes to funding. Another sign of the group's leading role internationally is the numerous collaborations they have with all other major neuroimaging centres and groups worldwide, with students and guest researchers visiting Maastricht. It is therefore indisputable that its quality is excellent.

The CN Department has an overall total of 330 refereed articles, with 31 PhD students graduating in the evaluation period, which is very good to excellent, but with some room for improvement when also taking into account the number of research fte. External funding was in excess of €2.5 million in 2010, with 48% external funding. The Department should however address the problem of PhD students tending to take a long time to finish their thesis and may want to make more use of the midlevel researchers for day-to-day supervision of beginning PhD students. Productivity is therefore very good, but not excellent.

The societal relevance is excellent where members of the CN Department have contributed to valorisation and industrialization of research products from the group, and with the

instalment of the new ultra-high field MR scanners. This initiative was carried out in collaboration with the Province of Limburg and Community of Maastricht, which further emphasises the societal relevance of the research.

The group has a young profile with an enthusiastic and charismatic leadership, which promises excellent vitality and energy in the group for the coming years. They should however address the potential weakness of not having top in-house expertise in MR physics and allocate resources to alleviate this potential problem.

Conclusion
The Cognitive Neurosciences Department and research group belong to the best international centres when it comes to advances in functional neuroimaging, with researchers in the group leading the field in both software development for data analysis and applications of new approaches, like multi-modal imaging to further advance the field of cognitive neuroscience and functional neuroimaging. The group is young and enthusiastic and shows a clear dedication to their work, not the least seen in their large international collaborations and network participations, and the number of students and researchers visiting the department every year. With the instalment of the new ultra-high field MR scanners, the group should be in a position to excel further in the years to come. Although it is admirable that the group publishes in high-quality and high-impact journals, the overall output of the group in relation to research fte should be monitored in the near future.

Programme UM 3: Neuropsychology and Psychopharmacology
Programme director: Prof. J. Ramaekers
Research staff 2010: 20.5 fte

Assessments:	Quality:	5
	Productivity:	5
	Relevance:	5
	Viability:	4

Introduction
The Neuropsychology and Psychopharmacology programme (NP&PP) operates two distinct research lines that aim to assess cognitive function and human performance from a neuropsychological as well as a psychopharmacological perspective:

- Cognitive and clinical neuropsychology: this research line includes fundamental and clinical research on brain-cognition relationships in a developmental perspective.
- Psychopharmacology: Fundamental research concerns the use of pharmacological agents as tools to study brain function, cognition, mood and behaviours in humans as well as in animal models. Clinical research can be described as the neuropsychopharmacology of cognitive and affective disorders and focuses on brain mechanisms involved in normal and deviant cognitive behaviours as well as on drugs that impair or enhance cognitive function.

Assessment of the criteria
The programme at the time of the evaluation had two full professors and 13 associate and assistant professors (of whom two are parttime). Over the evaluation period, the number of research fte's rose from 10.5 (2005) to 20.5 (2010), partly due to a reorganization of the previous Biological Psychology section in 2007. One of the chairs of the department left Maastricht University in 2009 and has not yet been replaced because of financial restraints. There are two distinct research programmes: neuropsychology and psychopharmacology. The neuropsychology track focusses on brain-cognition relationships in a developmental perspective (in particular aging). The psychopharmacology side examines the use of pharmacological agents as tools to study brain function, cognition, mood, and behaviour (both in the normal and deviant range). Key results provided by the group are: determination of blood concentration thresholds above which impairment emerges in cannabis intoxication, use of fMRI for the assessment of cognitive (dys)function due to prefrontal processing, the finding of a deficit in controlled visuomotor preparation in participants with ADHD (measured by the finger precuing test), and the further development of the tryptophan depletion model of function deficits.

The academic relevance of the fundamental research can be seen from the high number of citations made to publications of the group. The group has a relatively high number of high-impact papers (up to the level of 1% most cited papers).

In the reporting period the group produced 436 research outputs, including 374 refereed articles. Five PhD students started the programme between 2002 and 2006, and all graduated within 5 years. Average funding was €764 million per year, increasing from €0.4 million in 2005 to €1.3 million in 2010.

The group has been very successful, with an average of over four refereed articles per research fte per year in the review period. Some of these articles have been published in

journals with the highest impact in psychology (e.g., *Psychological Bulletin*). In addition, members of the group have been visible as editors of major journals, members of the executive committee of societies related to experimental psychology and cognitive neuroscience, advisors, and organizers of conferences. In contrast, the number of PhD students who graduated in the review period was very limited. This has to do partly with the fact that a considerable percentage of students graduated in the medical faculty.

The excellent societal relevance can be seen from the development of assessment and intervention techniques for various dysfunctions.

The group has good ideas for further progress and plans for expansion. At the same time the Chair of Cognitive Neuropsychology is still put on hold due to the financial situation of the university. Certainly within the Dutch context of limiting the government-funded promovendi and the application for some grants to full professors only, this is a serious threat to the department.

Conclusion
The programme with its two distinct research lines has been very successful in all aspects during the evaluation period. Remaining at this level will be a challenge, certainly if there is no rapid appointment of a new Chair of Cognitive Neuropsychology.

Programme UM 4: Work and Social Psychology
Programme director: Prof. F. Zijlstra
Research staff 2010: 19.2 fte

Assessments:	Quality:	3.5
	Productivity:	4
	Relevance:	5
	Viability:	4

Introduction
The Department of Work and Social Psychology comprises two research groups: the Applied Social Psychology (ASP) group and the Work and Organizational Psychology (WOP) group. The ASP group focuses its research on the application of social psychological theory to intervene in societal problems through the use of Planned Behavioural Change of individuals. The WOP group was formed more recently and has developed projects that focus on cognitive aspects of work behaviour at the individual and team levels with a view to enhancing work performance and/or employee well-being.

Assessment of the criteria
By international comparative standards, the quality of output is rated below average, but not by much. This must be set in the context of the fact that this is a new department, formed in 2006, half of which (the WOP group) has been brought together despite a lack of clearly linked research interests and with a need, in some cases, to change their research direction or, as the committee was told, to be 're-positioned'. Nevertheless, the department has 1% of its papers in the top 1% of most-cited publications. Despite its diverse make-up, some members of the WOP group publish work in some of the best journals in their field. Quality must be judged not just in terms of output but also in terms of the coherence of the programme of published work. While the ASP group scores quite well in this respect and has a distinctive and identifiable approach, the same cannot at present be said of the WOP group. Attempts are underway to improve integration both within the WOP group and between the two groups, but to date they have borne only limited fruit. There is therefore evidence of good quality work, but on a comparative basis, it currently lacks depth.

The productivity of the department, judged by articles per research fte, matches the institute average. The choice of outlet is very wide-ranging and rather uneven within the department. However, the level can be judged to be reasonably satisfactory, particularly given the number of young staff and the absence of an integrated publishing vision with the WOP group.

Much of the department's work has direct application in a range of applied settings, and there is strong evidence of a serious impact on policy and practice. The application of social psychology to address health problems, particularly among those who are likely to be stigmatised, is impressive. So, too, is the related work on the employment of those who are in certain ways disadvantaged. The general application of planned behavioural change as well as the work on aviation also have considerable relevance. There are a number of apparently strong links with external organizations that have a direct interest in the applied work and in supporting research to extend it.

The department is rather new, having been formed in 2006, and has been working under certain constraints. Firstly, we were informed that the programme had been built up partly in response to teaching pressures rather than for research purposes. Secondly, the strength of the health school within the university, reflected in the work of the other three psychology

groups, imposes pressure to join the focus on health-related research and, for example, to collaborate with the cognitive neuroscience group. This was illustrated in the potentially highly innovative project involving Zijlstra and Goebel and using fMRI scanning to explore mental effort. It is strongly reflected in the research on health improvement of the ASP group. The committee was informed of the strategy to integrate the two groups, and some evidence was provided that this is indeed happening, for example in relation to stigmatisation and esteem in employment. The over-arching theme was presented in terms of corporate social responsibility. However, it seems that this is unlikely to lend itself to powerful theoretical development, although the alternative term used, the inclusive organization, may have more potential. At present, the WOP group is largely comprised of individuals who share a broad interest in cognitive psychology and, to some extent, in shared mental models, but whose specific research interests remain diverse. There is some evidence of a focus on aviation, including safety, but neither this nor cognitive testing fit comfortably within the proposed overarching theme. The research strategy therefore needs to be considerably developed as an actual strategy rather than as a broad framework within which to communicate to external organizations.

One view is that this group has not yet gelled and seems unlikely to do so in a way that will result in a research output of the highest quality, and its future therefore needs to be carefully considered. A second view is that it is too early to make a judgement, and any overall evaluation at this stage is unreasonable, given the basis on which the department was set up and its current staffing, as well as the dominance of health within the department and university. A third view, which on balance we would endorse, is that this is still a very young department that needs support and nurturing. One quite compelling argument for this is that the present Faculty of Psychology and Neuroscience is very narrowly focussed and would benefit greatly by having a stronger 'social' (and perhaps developmental) psychology as a counter-balance; perhaps the development of 'social neuroscience'. Furthermore, while it cannot ignore its distinctive context, the department needs time to re-focus the careers of some of the staff, most of whom have shown the potential to produce high-quality work, albeit not within a coherent programme of research, and some of whom seem to have been given rather a rough deal.

Related to the research, there is a strong one-year MSc programme with around 50 students and a shared responsibility for the one year Health and Social Psychology MSc programme (also around 50 students per year), and some plans to join in the proposed two-year research MSc that involves other faculties, but only a modest number of internal PhD students, albeit complemented by a number of external PhD students. The research grant income is below average, but contract income is well above average, reflecting the perceived value of the work to external organizations.

Conclusion

This is quite a large department, split in two groups (WOP recently established; ASP with a longer history in the faculty), and still struggling somewhat to develop a more integrated programme of research. It has some distance to go, although the coherent focus within the ASP group should be acknowledged. The onus is therefore on the WOP group to establish and deliver a distinctive research contribution that can complement the ASP group. In the context of the current dominant focus within the institute, there would appear to be a case for fostering this department since it addresses the more 'social' aspects of psychology. Given this support, we would expect to see advances in the quality of the output by the time of the next review.

6. UNIVERSITY OF GRONINGEN

Assessment at institute level
University: University of Groningen
Faculty: Heymans Institute for Psychological Research

The institute
The Heymans Institute (HI) consists of six research programmes:

- Information Processing and Task Performance
- Interpersonal Behaviour
- Experimental Psychotherapy and Psychopathology
- Developmental Processes
- Psychometrics and Statistics
- Neuropsychology across the Life Span

The general mission is to generate, disseminate, and apply psychological knowledge through research that meets international standards of high quality. The focus is on long-term fundamental knowledge, but applications of fundamental research are also highly valued and adequately promoted and supported.

After the last evaluation, the Information Processing and Task Performance programme was reorganized into two separate programmes: the present Information Processing and Task Performance programme and the Neuropsychology across the Life Span programme.

Quality and academic reputation
The output of HI is considered more or less stable. However, a large proportion of the current research staff was only appointed in the last 2 years, which may explain the slight reduction in output. Newly developed research lines take some time to come to fruition.

Both the quality and quantity of research productivity of individual staff members are evaluated annually by the HI director, based on the publications over the last three years. When considered necessary, and after conferral with the supervising professor, a reduction in research time assigned to the individual could be considered. Likewise, additional research time may be granted to researchers with outstanding research productivity and success.

Resources
The total research staff has grown since 2008. An increase in non-tenured staff and PhD students primarily reflects a steady increase in grant funding and contract funding. The increase in tenured staff is closely associated with the start of an international Bachelor-Master programme in Psychology in 2008. According to the self-evaluation report, the rapid addition of many young researchers presents opportunities and has invigorated the research climate, but obviously also poses substantial organizational challenges to provide adequate support and coaching.

Total funding has increased recently, both as a result of the above-mentioned international programme and as a result of the successful acquisition of grant funding and contract funding sources.

Productivity
The research is primarily published in international journals and books and is directed at experts and researchers in psychology and related fields.

Societal relevance
HI specifically aims to promote and suitably support research with a clear potential for societal relevance. For relevant results, see the assessment of the individual programmes.

Strategy for the future
According to the self-evaluation report, the programmes have proven to be successful and have shown themselves capable of adapting to new challenges and opportunities. All recently appointed staff members have entered the faculty tenure-track system.

Appendix G provides the SWOT analysis of HI. At the HI level, the most pressing issue is to sensibly navigate the changing overall economic outlook for research. Future staff reductions are expected, but HI will be able to selectively continue investing in replacements. The issue is complicated, and strategic options are still open.

PhD training
All internal PhD students are members of the newly established faculty graduate school. Targeted and specialized training of PhD students is primarily organized by national research schools, or by the interfaculty RUG institute BCN (School for Behavioural and Cognitive Neurosciences). Annual interviews are held between PhD students and a professionally qualified counsellor, who is also in charge of 'intervision' groups of students. The faculty organizes introductory courses for PhD students. All PhD students have a formal assessment with their supervisor after one year. Finally, a PhD student training load coordinator monitors the amount of time a PhD student spends on teaching (roughly 15%).

Assessment
The research institute is part of the Faculty of Behavioural and Social Sciences. The institute has seven programmes that cover a broad range of psychology.

The funding pattern is similar to the average pattern of the eight institutes: 64% direct funding (average: 61%), 24% funding from grants (average: 27%), and 13% from contracts (average: 12%). The funding is unbalanced between the programmes: about 40% of the funding goes to the Interpersonal Behavior programme. The Developmental Processes programme is below the Dutch standards for quality and productivity.

The organization and management of the institute are bottom-up. The institute has a tenure-track system to attract and keep young talented researchers. The management is aware that in the near future important decisions will have to be made because of the retirement of the leader of the Developmental Processes programme, but has not yet made concrete plans.

The research facilities are adequate for the research that is done. In the past, the institute had difficulties recruiting participants for research. This year, the institute set up a pool of volunteers who are paid for their participation in research studies.

The research master programme prepares students for dissertation research in most of the subfields. The PhD students participate in local and national graduate schools. The institute has a professionally qualified PhD counsellor who can be consulted confidentially. The success rate of the 2002 and 2003 PhD cohorts was 79%, and 47% of these cohorts

graduated within five years. The PhD students are very satisfied with their supervision and training. PhD students doing research in the hospital find the waiting time for decisions of the Medical Ethical Committee too long, and they would like to have more flexible lab spaces. Moreover, PhD students think that the technical department should pay more attention to their needs.

Overall, the quality of the research is good, but it varies considerably between the programmes. This conclusion is supported by the bibliometric study. On average, the citation scores are at or above the world average, but they vary between programmes from far below to far above this average.

The same remark applies to productivity. Overall, the productivity is sufficient, but it varies widely between programmes.

Each of the programmes is inherently or potentially relevant for society. As shown by the indicators mentioned in Chapter 1, some programmes contribute more than usual to the solution of societal problems.

The institute is rather unbalanced. The programmes vary in size, quality, and productivity. The Developmental Processes programme faces major changes in the future because of the retirement of its programme leader. The management has postponed making plans for this programme. The committee recommends reconsidering the imbalance of the institute, and making concrete plans for the future of the Developmental Processes programme. The PhD supervision and training are good. The PhD success rate is sufficient, but the time to complete a thesis could possibly be shortened.

UNIVERSITY OF GRONINGEN

Assessment at programme level

The committee comes to the following overall programme scores for quality (Q), productivity (P), relevance (R), and vitality/feasibility (V) for the seven programmes at the Heymans Institute for Psychological Research at the University of Groningen

Code	Programme name	Q	P	R	V
RUG1	Information Processing and Task Performance	4	3	4	4
RUG2	Interpersonal Behaviour	4.5	4	5	5
RUG3	Experimental Psychotherapy & Psychopathology	4	4.5	5	4
RUG5	Developmental Processes	3	2	4	3
RUG6	Psychometrics and Statistics	5	4	4	5
RUG7	Neuropsychology across the Life Span	4	4.5	4	4

Programme RUG 1: Information Processing and Task Performance

Programme director: Prof. A. Johnson
Research staff 2010: 12.8 fte

Assessments:	Quality:	4
	Productivity:	3
	Relevance:	4
	Viability:	4

Introduction

The global mission of the programme is to explore attentional, cognitive and state variables in human task performance and skill acquisition. Researchers in the programme collaborate to address the topics of: 1) Attention, consciousness and inhibition; 2) Measurement of mental load and effects of operator state and mental load; 3) Cognitive control and flexibility in task performance; and 4) Memory, skilled performance and skill acquisition. Research is theory driven and is conducted using laboratory tasks and simulated environments. Psychophysiological measures and modelling techniques are central to the research programme, both in and of themselves and as windows on performance.

The Information Processing and Task Performance Group had three full professors, two associate professors, and 10 assistant professors at the end of the evaluation period. Over the review period tenured staff first decreased from 3.6 fte (10 members) to 3.1 fte in 2007 (8 members) and then increased again to 5.8 fte (16 members) in 2010. Research has been focused on attention, mental load, cognitive control, memory, and traffic safety. Key results provided by the group are: showing that TMS can be used to induce perception, the development of a new fMRI analysis, new findings on the attentional blink effect, generalization of the failure-to-engage theory of switch costs, and research into the costs and benefits of binding for memory.

Assessment of the SEP criteria

Members of the group have been visible as editors of major journals. The impact of the papers was slightly higher than the international average, but below the Dutch average. Also, the number of high-impact papers was lower than expected on the basis of the group size. Part of the reason for this is related to the changes the group has undergone in the evaluation period, with a dip in 2007-2008 and a surge of new appointments since 2008.

In the review period the group produced 237 research outputs, including 131 refereed articles; 12 students completed their PhD. Average research income from external funding was € 276,000 per year. In line with the other indicators, productivity showed a U-shaped curve with a dip in 2007, but over the review period it remained below the Dutch average. The ratio of the number of PhD students to the number of potential supervisors (tenured staff research fte) was extremely low during the first three years of the evaluation period, but has improved recently.

The group has an applied component (traffic safety) and has also been involved in applied aspects of fundamental research, such as the measurement of mental workload and lie detection. Much of the applied research was sponsored by corporate or government clients.

The group is adamant that with the new appointments of young tenured staff it is on an upward trajectory. In this respect it refers to the facts that junior staff are encouraged and helped to create their own research lines, and that the tenure-track system (from assistant

professor to full professor) rewards such performance. The group will have to work out an effective strategy to realize this in the light of its high teaching commitments, especially for junior faculty in a tenure-track position. Another concern is the broad scope of the topics covered by the programme, which may become even broader given that junior faculty in tenure-track positions are stimulated to develop their own research lines.

Conclusion

The Information Processing and Task Performance Group has gone through a difficult time with a major change in personnel and much attention devoted to the implementation of the new Bachelor and Master programme (including the international programme). This is now over, and the group is looking forward to returning to its previous level. The assessment committee is willing to agree with this view and hopes that the group's performance will be better at the next assessment. The potential is certainly there. Preserving coherence within the programme and fostering within-programme synergies constitute challenges for the coming years.

Programme RUG 2: Interpersonal Behaviour
Programme director: Prof. T. Postmes
Research staff 2010: 21.4 fte

Assessments:	Quality:	4.5
	Productivity:	4
	Relevance:	5
	Viability:	5

Introduction
The focus of the Interpersonal Behavior programme is on evolutionary, emotional, and cognitive influences on human behaviour. The programme pursues this focus at the inter-individual level (evolution), the intra-group or inter-group level, and the organizational level. The programme has a strong theoretical foundation which feeds into application or societal relevance. Also, the programme is eclectic in terms of research methodology, ranging from laboratory experimentation to large-scale community studies.

Assessment of the SEP criteria
The programme consists of several eminent senior investigators and many highly talented junior staff. The programme has been making important contributions to the literature, as its members publish consistently in high-impact, empirical and theoretical journals; this is reflected in citation indices that are mostly comparable to the Institute average and above international standards. Also, the members have been very successful in securing funding. Members have been awarded prestigious prizes. The programme is very well-led and managed, with a relatively high degree of coherence and interaction among its members. The resources seem to be adequate at present, and the programme members are to be applauded for their inventiveness in maximizing resources through external (especially inter-departmental) collaborations and their diligence or care in mentoring new recruits (i.e., assistant professors) and guiding PhD students.

The programme has a good productivity strategy and a satisfactory productivity, although productivity has been below average compared with national standards. However, there are strong signs of recovery. The programme strives for quality rather than quantity and, indeed, this strategy has been working. Programme members are active in journal editing, reviewing, and general engagement with the field (e.g., keynote addresses, invited colloquia, conference presentations).

This programme is a prime example of how fundamental research can impact on society. The research of this programme has a high relevance for policy-making (e.g., through advising government ministries, agencies, and political parties), organizational processes (e.g., stress management, organizational diversity), psychological well-being (e.g., smoking prevention, successful ageing, quality of life in cancer patients), and society at large (e.g., re-integration of former terrorists). In addition, programme members have been actively engaging the media with interviews or the making of documentaries on such topics as leadership and job performance.

The programme has adopted a very sensible strategy for healthy continuation in the future by ascertaining the right balance between senior and junior researchers. Also, the programme is diversified in its empirical pursuits, a strategy that contributes to versatility. The programme further aims to strengthen its diversity in areas of traditional strength (e.g., personality) or emerging areas (e.g., culture). Finally, the relatively high number of younger and energetic

researchers constitutes an asset to the programme's future, a prospect that would warrant expansion of the programme's resources.

Conclusions

This is a very strong programme, both in terms of theory development and application. The programme is coherent, energetic, and with good links at the local, national, and international levels. Productivity is not as high as it could be, but this is compensated by the high quality. Prospects are very good and will become excellent following appointments in such complementary areas as personality and culture.

Programme RUG 3: Experimental Psychotherapy & Psychopathology
Programme director: Prof. P.J. de Jong
Research staff 2010: 9.8 fte

Assessments:	Quality:	4
	Productivity:	4.5
	Relevance:	5
	Viability:	4

Introduction
The global mission of the programme is to help explain key features of psychopathology that are shared by many of the mental disorders and to translate these findings into clinical applications. A transdiagnostic approach is followed with a focus on cognitive-motivational processes. Two central features that are highly invalidating and shared by many disorders are the unintentional/automatic occurrence of (i) negative intrusive thoughts or memories and (ii) invalidating impulsive/reflexive behaviours. In the past few years the main focus has been on explaining the origin, persistence, and recurrent nature of apparently uncontrollable symptoms, to identify risk factors for the development of these symptoms, and to design and test interventions that may help to reduce and/or prevent the occurrence of these symptoms across disorders.

Assessment of the SEP criteria
The programme has a clear and coherent focus. The group is internationally very well known for original research on implicit associations and other types of automatic information processing across a broad range of clinical phenomena. In addition, it has contributed important findings to the preventive treatment of recurrent depression and cognitive mechanisms implicated in posttraumatic stress disorder and other clinical conditions. At present, the impact of the group's research is primarily seen in experimental psychopathology and psychotherapy. Combining experimental psychopathology with epidemiologic strategies has added substantial strength to both of these fields and may lead to a higher impact on the whole mental health field. Its publications are of high quality and appear in the leading outlets of the field, but not in more general journals. The group has a strong leader with a very good international reputation and a number of very important national and international collaborations. The group is successful in acquiring grants and supporting its PhD students to finish their theses in a reasonable time. In addition, it is slowly growing. Overall, the group's research is internationally competitive and makes a significant contribution to the field of mental health, it can be considered the leading national centre.

Its productivity is very good, with indicators somewhat above the Dutch and clearly above the international average, although the group is underrepresented in the most cited papers. At present, the group aims to increase productivity and the proportion of publications in top journals. The scientific publications are substantially complemented by professional publications and articles/books for wider audiences. The group has been able to attract an above average number of PhD students per tenured research fte.

The societal relevance of the clinical phenomena and the transdiagnostic processes studied is very high. In addition, the group is very actively participating in the valorisation of their findings for society at large.

Its viability profits from the relevance of the group's research topics, but is impaired by the high teaching load and small group size. The strategy aims at slowly growing via tenure-track

appointments, among which are two holders of Veni grants. The programme has strategically relevant collaborations with mental health institutions, which may counteract the lack of its own integrated clinical infrastructure. Its cooperation with large-scale national studies (e.g., NESDA) and highly promising international groups (e.g., Institute of Psychiatry, London) strengthens its vitality. The envisioned broadening of its research strategy toward greater visibility in defined mental disorders may lead to an enhanced impact on the larger field of mental health. The recent participation in the research master programme should also strengthen the vitality of the programme, while time-consuming clinical duties represent a challenge.

Conclusion

This is a comparatively small group with a short history of independence and - with the exception of the director - primarily young faculty members. Within these limits the programme has done very well. An issue to be addressed appears to be a possible lack of balance of programme sizes and the distribution of resources and tasks within the institute. A second issue to be addressed is the potential conflict between doing excellent research in the subfield of experimental psychopathology and trying to have a greater and broader impact on the whole field of mental health.

Programme RUG 5: Developmental Processes

Programme director: Prof. P.L.C. van Geert
Research staff 2010: 4.1 fte

Assessments:	Quality:	3
	Productivity:	2
	Relevance:	4
	Viability:	3

Introduction
The programme's main line of research is to apply the dynamic systems view to developmental processes such as early language, cognition, learning, personality and identity, with an emphasis on the age range from birth to young adulthood. The research is a combination of basic and applied approaches and aims to carry out basic research in the context of real-life applications, in particular educational contexts. There are two themes: 1) the domain of cognitive development in the broadest sense, and 2) the dynamics of identity formation, particularly as concerns risk behaviour and conflict in adolescence up to young adulthood.

In the 1990s, this group was at the very forefront of the field of developmental psychology, with a strong national and international reputation. It was, and still is, the only group in the Netherlands studying the micro-developmental details of change and represents Dutch science on the international scene in this respect. However, the international scene has evolved since 1990, which is not reflected in the methods and theoretical approaches for the Groningen group, although the research is now extending to the adolescent and educational fields.

Assessment of the SEP criteria
Completion time for PhDs is relatively long, but the micro developmental approach is admittedly a very labour-intensive one. While applauding the group's in-depth approach, the group is below the average of the evaluated research programmes.

The number of research ftes has increased over this period, but the number of refereed articles per total staff fte and per tenured staff fte is low in each of the six years. The number of refereed articles per total research fte and per tenured staff fte across all years is far below the average of the eight institutes, and the number of dissertations per tenured staff fte is slightly below the average of the eight institutes.

The group is quite strong in the areas of educational relevance and adolescent development, and recent years have seen closer ties with the fields of education and linguistics, with efforts to extend the group's methodological/theoretical approach into the applied area, which is to be applauded.

The group often recruits its own PhD students or others with a similar theoretical/methodological perspective. According to the committee this has left little room in recent years for debate and scientific advancement.

The programme Director will soon retire (in 2015), and a major challenge will be to revitalize the programme taking recent developments in the field into consideration. No clear future strategy was enunciated in terms of future leadership.

Conclusion

The Developmental Processes programme was very successful two decades ago in terms of high-impact publications. It is recommended that strategies for future developments of the programme be discussed in light of the Director's imminent retirement. The possibility was raised of merging the programme with clinical or neuropsychology, or perhaps more suitably with educational psychology, with the latter being considered a particularly fruitful strategy because of joint interests in intervention research.

Programme RUG 6: Psychometrics and Statistics
Programme director: Prof. R.R. Meijer
Research staff 2010: 5.7 fte

Assessments:	Quality:	5
	Productivity:	4
	Relevance:	4
	Viability:	5

Introduction
The programme is concerned with quantitative techniques for the analysis of various types of empirical data. The research on techniques of interest is problem-oriented, proceeding in the following successive steps:

1. evaluation of the usefulness of existing techniques for answering the data analysis question at hand;
2. improvement of existing techniques or development of new techniques;
3. evaluation of the usefulness of the resulting new or improved techniques.

The first goal of the programme is to provide researchers with concrete advice about which techniques to use for particular data analysis problems. The second goal is to improve, where necessary, access to particular data analysis techniques. A third goal is methodological consultation.

Assessment of the SEP criteria
The programme has achieved a very nice balance between making original and well-thought-out methodological contributions on the one hand, and paying a service function to the broad community of appliers of methodological tools on the other through its problem-oriented focus; in this endeavour, usefulness acts as a key word. This approach has resulted in a high mean normalized citation score (which also exceeds the average citation score of the journals that have been chosen as publication outlets). In contrast to the very sharp problem-oriented focus, the range of models that are studied is very broad. Its earning capacity is excellent, with a successful acquisition of competitive funds. The academic reputation of the tenured staff members is very good.

The number of papers in international, refereed journals is very high. Taken over the whole period of evaluation, the ratio of the number of PhD students to the number of potential supervisors (tenured staff research fte) is somewhat lower; for the future, however, this can be expected to improve, taking into account the rather recent move of the programme director to Groningen, and the expectation that the junior group members will soon be working at full capacity. Although some general principles have been put forward, the productivity strategy of the programme and its overall internal organization are somewhat less clear.

Apart from the intrinsic orientation of the programme towards usefulness for consumers of methodology, additional efforts of the programme to achieve societal relevance are fair. Highlights at this point include the development of freely available and user-friendly software, and involvement in the revision of the Dutch rating system for test quality.

The research focus of the programme, with a clear balance between making original methodological contributions and a problem-oriented focus, constitutes a sound basis for the

future. Another element of strength is the presence of a promising young generation of researchers. A challenge for the future will be to preserve the coherence of the programme in spite of the breadth of the range of models under study, and to search for valuable within-programme synergies.

Conclusion
This is a high-quality programme with a strongly viable research focus. Challenges for the future include keeping the generation of young, promising researchers on track, strengthening within-programme coherence by looking for valuable synergies, and strengthening the external communication of the programme's strategy and organization.

Programme RUG 7: Neuropsychology across the Life Span
Programme director: Prof. O.M. Tucha
Research staff 2010: 5.2 fte

Assessments:	Quality:	4
	Productivity:	4.5
	Relevance:	4
	Viability:	4

Introduction
The missions of the programme are to increase the understanding of the associations between neuropsychological limitations and underlying brain dysfunctions and to contribute to the theory and evidence base of neuropsychological assessment and rehabilitation. The aim/vision is to improve the assessment, management and rehabilitation of individuals with neurological and psychiatric conditions. Particular areas of expertise are the fields of attention, driving abilities, executive functions, laterality and social cognition as well as ADHD, dementia, developmental coordination disorder, Parkinson's disease, schizophrenia, stroke and traumatic brain injury.

Assessment of the SEP criteria
The programme is characterized by a clear neuropsychological focus as well as widespread national and international cooperation. Within this domain its research is internationally competitive and makes a significant contribution to the field that can be considered nationally prominent. There are publications in leading journals of the field, although the bibliometric indices are somewhat below the Dutch average, but match the international average.

The newly appointed programme leader, who enjoys a good international reputation, has noted the decreasing funding capacity and options for more traditional neuropsychological approaches as compared to more neuroscience-oriented approaches.

Productivity is excellent in terms of original publications per research fte. It reaches the Dutch average for the number of finished PhD theses, even considering a temporary slowing due to the departure of the previous programme director. While the programme is somewhat underrepresented in the top cited publications of its field, its international cooperation strategy could improve this situation. In addition, the group is very active in professional publications and output for wider audiences.

Overall, the neuropsychological problems that are the focus of the programme have high societal relevance. The aim of improving the assessment, management and rehabilitation of these conditions is relevant, and the methods chosen to achieve these goals have a successful track record. In addition, the group participates actively in valorisation measures.

The viability of the programme is good, although some challenges exist. At present, it is run by a relatively small group headed by only one chair. This newly appointed chair is currently very active in building group spirit, which may have been impaired in the past by having the staff spread over many different clinical institutions and having many members with relatively small research appointments. The programme's dependency on clinical collaborations for its research is a problem that many neuropsychological research groups face. However, a number of newly appointed young faculty members have recently added to the programme's viability. The life-span approach is attractive if the danger of leading to an overly broad focus can be dealt with. The value of traditional neuropsychological vs. neuroscience approaches

will have to be discussed, and the programme leadership is aware of this issue. The success rate of grant applications and the limited access to the research master are currently being dealt with.

Conclusion

The programme was established in 2006 as a result of the previous assessment, its chair has since changed and the new occupant has taken the initiative to form a more cohesive group that addresses the challenges that neuropsychology faces, and not only in the Netherlands.

7. UNIVERSITY OF TWENTE

Assessment at institute level
University: University of Twente
Faculty: Institute for Behavioural Research

The institute
The University of Twente has a focus on new technology where behavioural sciences are considered crucial for design and acceptance and has the motto 'High Tech, Human Touch'. Research at the University of Twente is carried out in departments, which are coordinated and partly funded by research institutes. The research carried out by departments is embedded in one or more research institutes. Each institute is headed by a scientific director who is responsible for the development and implementation of research programmes. One of the six institutes is the Institute for Behavioural Research (IBR), which brings together most behavioural research at the Faculties for Behavioural Sciences and Engineering Technology into four research programmes:

- Cognitive Psychology and Ergonomics
- Inquiry Learning in Powerful Learning Environments
- Psychology and Communication of Health and Risk
- Psychometrics and Statistics

The research is conducted in the field of human behaviour, focusing on safety, health, learning, design, cognition and communication, and the role of technology in these areas. The institute is based on the notion that quality and growth of research can improve only if there is both an in-depth focus within disciplines as well as a broad focus on application. The research approach is consequently both fundamental and applied (multidisciplinary). The institute's main objective with regard to psychology research is to increase the impact and reach of the research in a technological and applied context.

The management of the institute is responsible for planning, coordination, and evaluation of the research programmes. Each programme director makes a five-year research plan with measurable key quality indicators for each year, and the funding of the programme is based on these research plans. Yearly evaluations of the research plans take place, where the progress is reported to the management of the institute.

The Board of the university recently decided to reduce the number of research institutes from six to four, and the IBR will therefore cease to exist by the end of 2011. The Psychology departments are currently considering which other research institute to join.

Quality and academic reputation
Psychology at the entrepreneurial University of Twente is oriented on multidisciplinarity. The working assumption is that true innovative application of scientific knowledge is possible only with a solid background in basic psychological research. The institute therefore contributes to the development of scientific knowledge with high-level publications, while it also engages in research that is aimed at solutions to concrete societal problems that cannot be published in high-ranked journals. Since 2002 the institute has developed an explicit combination of high-level basic and technique-oriented research.

Resources
The scientific directors have strategic funds at their disposal to support particularly promising research programmes. The institute also has funds to stimulate the collaboration between the social sciences and the technical research groups.

The research staff is generally recruited in open procedures, both for tenure-track positions and for temporary positions.

Societal relevance
The management of the institute stimulates initiatives to further interact with stakeholders in society who are interested in input from scientific research by organizing and funding conferences and by organizing courses aimed at professionals and practitioners. The institute participates in local, national and international consortia with stakeholders from industry, non-governmental organizations and government.

The research environment in Twente allows for easy collaboration with other disciplines. Existing collaborations have led to interdisciplinary solutions for societal issues. Various types of collaborations exist with Communication Sciences and Health Sciences. The institute is convinced that the focus on developing applicable knowledge is key to the success of psychology in Twente.

Strategy for the future
For each research programme, a SWOT analysis was provided in the self-evaluation report, but no SWOT analysis was provided at the institute level. Furthermore, all research programmes provided a strategy in the self-evaluation report. Therefore, the strategy will be assessed at the programme level.

PhD training
PhD students start their research project with an education and supervision plan that outlines their scientific assignment, educational activities and general planning of supervision. PhD students are supervised by a promotor and co-promotor. Each project is evaluated annually, with a go/no go decision after the first year. PhD students follow formal training and can opt for specialized courses and are expected to present their results at international conferences and seminars. There is a PhD mobility fund to stimulate PhD students to spend a short period of time at a university abroad.

Assessment
The University of Twente focuses on the development, application, and valorisation of new technologies. Psychological research was part of the Institute for Behavioral Research, but this institute will be closed by the end of 2011. The institute has four programmes of psychological research, and these programmes will be spread across three different research institutes. Moreover, in 2011 the Psychology and Communication of Health and Risk programme was split into two separate programmes.

The funding pattern seems to differ from the average pattern of the eight institutes (more direct funding and less funding from grants). However, this was based on the reported combined research and education funding, the institute was not able to separate the research funding from the funding for education. The committee thinks that this is an incorrect situation and strongly insists that in the future the institute separates its research funding from education funding.

The future for psychological research is uncertain. The spread of psychological research across different research institutes might be useful for other disciplines, but it is certainly not profitable for psychology. It stimulates dispersion of psychological research, hampers cooperation between psychological researchers, and undermines the bachelor and master programmes in psychology.

At present, the management of the institute and the programme leaders have to work under great uncertainty. The committee fears that both psychological research and education will suffer from the organizational changes.

The institute organized a very informative and efficient demonstration of its research facilities. The committee appreciated this demonstration very much and was impressed by the new research technologies.

Psychology has no research master programme that prepares students for dissertation research. The PhD students participate in national graduate schools. The success and completion rates are excellent: 100% of the 2002 and 2003 PhD cohorts completed their thesis, and 89% of these cohorts completed their thesis within five years. The sizes of these cohorts are small, but the figures for later cohorts are similar: 100% of the 2004 and 2005 cohorts completed their thesis, and 88% of these cohorts completed their thesis within five years. The PhD students are very satisfied with their training, supervision, and research facilities, and they appreciate their participation in the national graduate schools, the courses in general academic skills, and the four-weekly PhD meetings.

The quality of the research is sufficient. This conclusion is supported by the bibliometric study. Overall, the citation scores are at the world average, but they are below the average of the eight institutes.

The productivity is also sufficient, but varies moderately between the programmes.

In line with the university's focus on new technologies, the institute makes technological contributions to society. Examples are the development of new household robots (with Philips), the development and dissemination of educational software, and the development of e-health interventions. The societal relevance of the research is good and complies with the university's technological mission.

Psychology at the University of Twente is in a transition phase. The Board of the university has decided to incorporate psychology into other disciplines, such as biomedical, ICT, and governance studies. A consequence is that psychology has to provide input to other disciplines, which is at odds with full bachelor and master programmes in psychology. The committee prefers a completely different option, that is, an autonomous psychology unit that focuses on the incorporation of new technologies into psychology. This option is viable for a full bachelor programme in psychology and some specialized master programmes. Given the Board's decision, the committee is not optimistic about the viability of psychology at the University of Twente.

UNIVERSITY OF TWENTE

Assessment at programme level

The committee comes to the following overall programme scores for quality (Q), productivity (P), relevance (R), and vitality/feasibility (V) for the four programmes at the Institute for Behavioural Research at the University of Twente:

Code	Programme name	Q	P	R	V
UT1	Cognitive Psychology and Ergonomics	4	4	4	4
UT2	Inquiry Learning in Powerful Learning Environments	4	3	5	4
UT3	Psychology and Communication of Health and Risk	4	3	5	no score
UT4	Psychometrics and Statistics	3.5	4	4	3.5

Programme UT 1:	**Cognitive Psychology and Ergonomics**	
Programme director:	Prof.ir. W.B. Verwey	
Research staff 2010:	6.5 fte	
Assessments:	Quality:	4
	Productivity:	4
	Relevance:	4
	Viability:	4

Introduction
The mission of the department is doing research in the areas of cognitive psychology and human factors. The expertise of the group consists of a mixture of cognitive neuroscientists and human factors/cognitive ergonomics. The mission is to build a strong and distinctive cognitively oriented Human Factors research group relying heavily on existing and new cognitive theories, and having a strong synergy with the technical research groups at the University of Twente.

Assessment of the SEP criteria
At the end of the evaluation period the group had one full professor, one part-time full professor, two associate professors, and two assistant professors (total = 2.3 tenured research fte). Over the review period the research fte of the group has stayed stable around 6.5 fte, with a slight increase in tenured staff but a slight decrease in PhD students. Research has been focused on sequential motor learning, attention (EEG-based), and human factors. Key results provided by the group are the successful completion of three PhD theses combining applied and fundamental research and the successful bid for co-editorship of *Advances in Cognitive Psychology*.

In the review period the group produced 298 research outputs, including 104 refereed articles; five students completed their PhD. Separate funding figures for the research group have not been provided, but the research income made up about 10% of the total budget of the group.

The group has been reasonably successful with publications at the average level of the eight institutions. The mean citation score is slightly above the world average and the programme has more highly cited articles than is expected on the basis of the programme's number of articles. Members of the group have been visible as members of scientific committees, invited speakers, and editors of journals.

Because the research combines fundamental and applied aspects, there clearly is societal relevance. The group has been involved in the development and testing of several products (one patented). The group has also taken the lead in several local IT projects. On the other hand, the group has not been really visible to the wider public.

As for the viability of the group, there are both positive and negative factors. On the negative side, there are the declining university funds for research and another planned restructuring of the local research institutes. The lack of a Research Master programme further limits the opportunities for funding. On the positive side, there will be the appointment of new members of staff (including a Chair) in Technical Cognition. Given its limited size, however, the group may want to centre its research towards an explicitly stated, shared goal, which could improve its visibility.

Conclusion

This group has identified a broad area of research interests and has successfully combined fundamental research and application. The university context is a potential constraint on development, and it is important to find a satisfactory and supportive research environment within which the group can operate. With the arrival of a new chair, the group may also wish to review its key research priorities and focus.

Programme UT 2: Inquiry Learning in Powerful Learning Environments

Programme director: Prof. T. de Jong
Research staff 2010: 9.2 fte

Assessments:	Quality:	4
	Productivity:	3
	Relevance:	5
	Viability:	4

Introduction
The mission of the programme is to develop the theory of learning and instruction for inquiry-based, technology-enhanced learning environments. To fulfil this mission, the programme uses a multidisciplinary approach with contributions from psychology (educational), educational science, didactics and computer science. The goals of the programme are to a) investigate learning processes that underlie inquiry; b) identify characteristic problems in the inquiry process; and c) evaluate instructional designs for inquiry-based learning environments. The research approach involves (quasi-)experimental designs in ecologically valid settings.

Assessment of the SEP criteria
The Inquiry Learning in Powerful Learning Environments group had two full professors, two associate professors, and six assistant professors at the end of the evaluation period (total tenured staff = 3.8 research fte). Over the review period the research fte of the group grew from 9.8 (2005) to 12.8 (2010). Research has focused on the development of a theory of learning/instruction based on active inquiry in a technology-enhanced learning environment. The key result provided by the group is the change of focus from passive learners who individually received predetermined scaffolds for the inquiry of given models, to more complex situations in which students create models themselves on the basis of adaptive scaffolds and collaborative inquiry.

The citation analysis suggests that the group publishes in good journals but seems to attract fewer citations than could be expected for such a programme in the Netherlands. One highlight was the invitation of the journal *Science* to publish a review paper on inquiry learning with computer simulations. Another highlight mentioned by the group was the publication of a book on cognitive neuroscience and education. A reason for low productivity could reside in the slow nature of data acquisition and analyses of applied research, which suggests that the group should explorer more effective methods of conducting and publishing their work.

In the review period the group produced 362 research outputs, including 73 refereed articles; 12 students completed their PhD. Separate funding figures for the research group have not been provided, but the research income made up about 26% of the total budget of the group. The group has been particularly successful in attracting EU funding.

The number of refereed articles is rather low in comparison with other psychology units in the Netherlands. However, in other respects the group seems productive, with members visible as editors of ISI journals, executive members of societies, and invited speakers.

The rather modest output in terms of refereed articles is partly due to the fact that the group focuses on the development of software that makes active learning on the basis of computer simulations possible. Two particularly successful products are the ZAP simulations (allowing students to take part in classical psychological experiments) and SimQuest (allowing students

to understand scientific notions on the basis of computer simulations), which are also used outside the Netherlands.

Its viability looks good with the recent acquisition of a major European grant. Given its success in the past, the group may want to consider writing a few more review papers in major journals, which would improve its productivity component. A potential danger is that much of the current assessment seems to be centred on a single person. It may be more prudent to try to broaden the basis a bit. This might also increase the group's flexibility to keep on making optimal use of new IT opportunities.

Conclusion

A distinctive feature of this group is that it operates on the boundaries of psychology, informatics and education. This helps to ensure the great relevance of the work. The challenge is to remain at the forefront of research in each of these fields, and it will be important to ensure that the levels of output, judged in terms of quality and productivity, are able to meet the typical Dutch standards. It will also be important to ensure that high-quality outputs are broadly spread within the group.

Programme UT 3: Psychology and Communication of Health and Risk

Programme director:	Prof. E.R. Seydel	
Research staff 2010:	28.18 fte	
Assessments:	Quality:	4
	Productivity:	3
	Relevance:	5
	Viability:	no score

Introduction

The Psychology and Communication of Health and Risk programme endorses the mission of the application of psychological knowledge to health and risk. The programme conducts research in seven areas: (1) health assessment from the perspective of the patient, (2) interventions for patient well-being, (3) mental health promotion, (4) e-health technology, (5) risk perception and communication, (6) conflict management, and (7) crime, disorder, and risky behaviour in context. The programme, then, has a decidedly applied orientation and is guided by the theme of implicating technologies in measurement and intervention.

Assessment of the SEP criteria

The programme seems to have a rather high organizational complexity. One contributor to this complexity is (or has been) the number of areas of concentration: it is difficult, no doubt, to excel in seven areas. Another contributor is (or has been) the somewhat vaguely defined staff duties or project involvement. And yet, despite this seeming complexity, the programme managed to do reasonably well (but not laudably – the international average) in terms of quality of publications such as articles in outlets like *Pain* or *Psychological Medicine*. Also, the programme has demonstrated an impressive earning capacity mainly through entrepreneurial sources. Moreover, programme members can boost esteem indices such as winning best paper awards, organizing scientific conferences, and being members of journal editorial boards. Finally, the programme seems to be doing a good job with PhD student supervision.

The productivity of the programme is satisfactory but can stand some improvement. Perhaps the somewhat low productivity is due to organizational complexity or the attempt to juggle too many research responsibilities at once.

The relevance of the programme is highly commendable. The programme manifests its relevance to society in three important ways. First, it pioneers user-centred design, meaning the active involvement of users in the development, implementation, and assessment of technological innovation including projects on rheumatoid arthritis, smoking cessation, and e-health interventions. Second, the programme is involved in advising policymakers (e.g., on public campaigns such as children and alcohol or Aids in Africa), law enforcement agencies, and judicial bodies. Third, programme members have contributed an abundance of lay publications, speeches, and conferences.

No score is given for viability, because the programme was discontinued in January 2011 to give way to the establishment of two departments (Psychology, Health, and Technology; Psychology of Conflict, Risk, and Safety).

Conclusions

This programme was devoted to the application of psychological knowledge to the health domain. The research has been of crucial social relevance, its quality has been high, but its productivity has been comparatively low. This gives the impression that its mission was

fragmented, having tried to do too many things at once. As such, the decision to break it into two programmes appears justified.

Programme UT 4: Psychometrics and Statistics
Programme director: Prof. C.A.W. Glas
Research staff 2010: 7.65 fte

Assessments:	Quality:	3.5
	Productivity:	4
	Relevance:	4
	Viability:	3.5

Introduction
The programme focuses on modern test theory, in particular on item response theory (IRT). The topics addressed by the research programme include computerized adaptive testing, optimal test assembly, linking and equating of tests, test bias and differential item functioning, and application of IRT in survey research.

Assessment of the SEP criteria
The programme has a well-described core expertise, with a sharp focus on IRT models. Within this area, the members of the programme are highly skilled. Over the evaluation period, the programme has broadened with regard to the type of applications it has addressed, from its original niche in educational measurement to behavioural sciences more generally (including psychology, and communication) and epidemiology. Yet, the programme has retained its original methodological focus (estimation and testing of IRT models). Furthermore, the contributions made within this focus are rather specific; this may also account for the fact that the publications of the programme received a low number of citations. Within the IRT domain, the expertise of the programme leader is well recognized; overall, the academic reputation of the programme members is fair.

The earning capacity of the programme is rather limited, as evidenced by the high percentage of direct funding; in fairness, however, it has to be mentioned that external PhD students funded by CITO have not been included in this percentage.

The number of international, peer-refereed journal publications is good. Overall, the average number of PhD students is fair, but there appears to be a slightly decreasing trend. The productivity/publication policy raises some questions, in that the programme's strategy exclusively pertains to research questions and applications, with publication channels and visibility being considered of secondary importance.

Its societal relevance is good. Laudable additional efforts on this level include the participation in PISA and ESS, and the foundation of the Research Centre for Examination and Certification as a valorisation effort.

The programme intends to further broaden its scope of applications to the domains of health and language. Also, it intends to capitalize on its strong expertise in locally focused model fit. Another laudable element is the plan for developing "useful" software. Yet, the globally rather narrow focus on IRT modelling and the fairly specific choice of topics within that focus look somewhat limiting.

Conclusion
This programme has a very strong expertise in IRT modelling. Yet, by its highly focused and specific orientation, it may be somewhat at risk to end up isolated within the methodological

community. Given the high level of skill of the programme members, however, all necessary elements to break out of these confines are in place. The new organizational arrangements for the psychology research groups may offer additional opportunities at this point.

8. UTRECHT UNIVERSITY

Assessment at institute level
University: Utrecht University
Faculty: Faculty of Social and Behavioural Sciences
Institute: Linschoten Institute for Psychological Research

The Linschoten Institute for Psychological Research is part of the Faculty of Social and Behavioural Sciences, consisting of seven research programmes:

- Clinical: Trauma, Grief and Anxiety Disorders
- Developmental: A Transactional Approach
- Experimental
- Health: Stress and Self-Regulation
- Social: Social-Cognitive and Interpersonal Determinants of Behavioural Regulation
- Work & Organizational: Occupational Health Psychology
- Methodology and Statistics

The overall strategic focus is driven by the view that understanding human functioning requires a confluence between different disciplinary perspectives. The objective is to strive towards a broadly focused interdisciplinary and multilevel approach to understanding human functioning and a gradual removal of traditional disciplinary boundaries. The research is described as (a) predominantly experimental and (b) emerging from the dynamic interplay between science and its application.

The major change compared to the previous evaluation period is the institution of the Board of Research at the faculty level. This meant replacing five former disciplinary Research Institutes by one inter(sub)disciplinary Research Institute of the Faculty. This *horizontalization* process was designed to further enhance the interdisciplinary dialogue and coordination.

Quality and academic reputation
The individual programmes enjoy national and international collaborations. The quality and scientific relevance of the research are reflected in the publications and the journals in which they have appeared.

The self-evaluation report describes the ability of the respective programmes to attract external funding and acknowledgement as fellows, occupying key positions in research-related decision bodies, being keynotes at international conferences and receiving invitations to (associate) editorships.

Resources
Staffing revealed a steady increase over the period. The percentages of direct, grant and contract funding did not change much over the years. The total amounts of funding increased over the evaluated period. In general, the research infrastructure and facilities are considered very satisfactory, and the laboratory facilities are currently being updated.

Despite cuts in direct funding and reductions in national science funding agencies, the faculty increased its annual total research funding between 2005 and 2010.

Societal relevance
The fundamental research has found diverse applications and uses including consultancies and research projects commissioned by various ministries, TNO, hospitals as well as private companies. Public dissemination of the research includes newspaper interviews and cooperation with magazines, radio and television.

Strategy for the future
Overall, the programmes and faculty have proven to be able to adapt to changing conditions in funding. The number of PhD students increased over the last two years and is expected to remain stable. Appendix H provides the SWOT analysis for the faculty. The general goal is to stimulate fundamental (multi)disciplinary research of high quality and output and to safeguard the scientific qualification of the researchers. At the same time, researchers should be alert to funding opportunities within thematic national/international framework programmes. Therefore, cooperation with researchers from other disciplines and faculties must be enhanced.

PhD training
The strategic focus of the institute underlies the guidelines for PhD training. PhD training takes place at the graduate school level, with coursework supplied locally and by national research schools. The responsibility for scientific research and training of researchers is to a high degree delegated to national research schools. These schools can offer highly specialized courses that cater for the specializations of PhD students in the respective research programmes.

Assessment
The institute is part of the Faculty of Social and Behavioural Sciences. The institute has seven research programmes that cover a broad range of psychological subfields.

The funding pattern deviates only slightly from the average pattern of the eight institutes. The share of the direct funding is somewhat below the average (56% versus 61%), the funding from grants is somewhat above the average (32% versus 27%), while the funding from contracts is average (12%).

Psychological research is part of a large Faculty of Social and Behavioural Sciences. The organization and management of the faculty are good. However, the committee got the impression that the psychology programmes would like to be more involved in the faculty's decision-making.

The research facilities are satisfactory. At present, the laboratory facilities are updated to the state of the art by an investment of three million euros from the university. The committee expects the research facilities to become excellent after the update.

The faculty has different research master programmes that prepare students for dissertation research in most of the subfields of psychology. The PhD students participate in local and national graduate schools. The completion rate is high: 89% of the 2002 and 2003 PhD cohorts completed their thesis. The time to complete is average: 53% of the 2002 and 2003 cohorts completed their thesis within five years. The PhD students are very satisfied with their supervision and training, but they are less satisfied with the use of the laboratories. Moreover, they complain about the long time they have to wait for decisions from the Medical Ethics Committee, and they would like to get more administrative support in dealing

with this committee. Finally, they wish for more meetings of all psychology PhD students (colloquia, a PhD day, etc.).

Overall, the quality of the research is very good. It varies between programmes, but the variance is at the top of the scale. This conclusion is supported by the bibliometric study. Overall, the citation scores are considerably above the world average, and the citation scores of the programmes vary from the world average to far above this average.

The overall productivity is very high, and the productivity of each of the programmes is above the average of the eight institutes.

The committee found a sufficient number of the indicators of societal relevance mentioned in Chapter 1. In general, the contributions of the research to society are excellent, and this also applies to all of the programmes.

The institute's research is at a high level. The quality and productivity of the institute are high, and its societal relevance is excellent. The PhD success rate is high, but the time to complete a thesis could be shortened. There are differences in quality, productivity, and societal relevance between programmes, but each of the programmes is at or above the standards for very good psychological research.

UTRECHT UNIVERSITY

Assessment at programme level

The committee comes to the following overall programme scores for quality (Q), productivity (P), relevance (R), and vitality/feasibility (V) for the seven programmes at the Linschoten Institute for Psychological Research at Utrecht University:

Code	Programme name	Q	P	R	V
UU1	Trauma, Grief and Anxiety Disorders	4.5	5	5	4
UU2	Developmental Psychology Programme: a Transactional Approach	4	4	5	4
UU3	Experimental Psychology	5	4.5	4.5	4
UU4	Stress and Self-Regulation	4	5	5	4
UU5	Methodology and Statistics programme	4	4.5	5	4
UU6	Social-Cognitive and Interpersonal Determinants of Behavioural Regulation	4.5	5	5	5
UU7	Work and Organizational Psychology: Occupational Health Psychology	5	5	5	4

Programme UU 1: Trauma, Grief and Anxiety Disorders
Programme director: Prof. J. van den Bout, Prof. M. van den Hout
Research staff 2010: 9.28 fte

Assessments:	Quality:	4.5
	Productivity:	5
	Relevance:	5
	Viability:	4

Introduction
The mission of the programme is to systematically uncover the processes underlying post-traumatic stress disorder, grief/complicated grief, and anxiety disorders, especially obsessive-compulsive spectrum disorders. The first of the two thematically related research lines is Experimental Psychopathology focussing on PTSD and OCD, mainly along experimental lines. The second focuses on Trauma and Grief, relying mainly on non-experimental methods, but also on laboratory techniques that until now were less prevalent in this field of research.

Assessment of the SEP criteria
The programme leaders enjoy very good international reputations, they can be considered international leaders in the fields of experimental psychopathology and grief. The research in the experimental psychopathology subprogramme is characterized by a wealth of original ideas that are driven by a stringent and explicitly formulated methodological strategy. This strategy combines highly controlled laboratory experiments with clinically valid intervention studies in a coherent research programme. There appears to have been a cross-fertilization between the two subprogrammes with respect to experimental methodology. While the programme leaders have a long track record of substantial international contributions, they continue to produce new, important insights, e.g., in the fields of the treatment of posttraumatic and obsessive-compulsive problems as well as in loss and grief (normal/pathological). The fact that both subprogrammes focus on smaller subfields within the broader field of mental health may explain why the bibliometric indicators do not fully reflect the high quality and international recognition of the group's scientific work.

The programme's productivity is excellent both with respect to scientific papers and professional publications. There is a clear productivity strategy that is enhanced by the successful establishment of a clinical outpatient facility which provides a highly valuable infrastructure for clinical research. In addition, the methodological strategy discussed above also greatly contributes to successful productivity. The professional publications and other activities reach a wide audience within the Netherlands and in some cases beyond national borders.

Within the broader field of mental health, the programme focuses on the subfields of very high societal relevance apparent in its title (trauma, grief and anxiety disorders). Without losing any basic scientific quality, the group's contributions have had a great societal impact e.g. on dealing with the sequelae of trauma or loss. Overall, the group participates very actively in valorisation measures at all relevant levels.

At present, the programme is very vital and profits from the successful establishment of its methodological and productivity strategies. It will, however, have to face the issue of replacing its current leadership due to retirement. In addition, conceptual questions such as the relative relevance of cognitive psychological vs. more psychobiological approaches may

have to be addressed more explicitly. A concrete strategy of dealing with these issues is not apparent but needs to be formulated in the near future, given the small size of the two subgroups and their dependence on their current leaders.

Conclusion

This is a programme that has yielded a wealth of highly original and internationally very well received findings and concepts. There is significant cross-fertilization between the two subprogrammes. Stringent scientific and productivity strategies represent major strengths, whereas group size and approaching retirement are challenges that need to be met more directly than was the case until now.

Programme UU 2:	**Developmental Psychology Programme: a Transactional Approach**	
Programme director:	Prof. M.A.G. van Aken	
Research staff 2010:	15.15 fte	
Assessments:	Quality:	4
	Productivity:	4
	Relevance:	5
	Viability:	4

Introduction
The Developmental Psychology programme has made significant progress since the previous review. It has as its primary focus socio-cognitive information processing as it relates to personality, temperament and interactional styles between parent/child and child/child. The outcomes of the transactional processes between children and their environment are conceptualized in terms of both 'normal' and 'problematic' development, with a particular focus on transactional processes in the development of aggressive behaviour which need to integrate with expertise on intra-individual factors and vice versa.

To this end, the programme brings together a number of interacting full professors rather than a series of isolated topics. The group is strengthening, with a new programme leader and the hiring of a new fte with an international reputation. The group has a strong theoretical basis to its experimental work and a clear developmental focus beyond simply working on children, i.e., a focus on change over time. Intervention strategies to lower aggressive reactions also play a strong role in the programme's research.

Assessment of the SEP criteria
It is pleasing to note that competitive research grants have increased in the period of assessment (Vidi and Vici), with a corresponding decrease in the need for direct funding. Citations to the group's work are somewhat low, however.

In general, the productivity is somewhat low with respect to the institute's average. This is likely to be due in part to the focus on longitudinal research. PhD recruitment has recently improved.

The group is very active in advising the Ministries of Health and Justice, appears in public debates on how to deal with aggressive behaviour, brings science into schools, and publishes regularly in journals aimed at professional clinicians and educators at the national level.

Plans to develop a social neuroscience programme were mentioned during the site visit, with a new, internationally recognised researrcher being particularly strong on the biological bases of developmental disorders, in particular autism. Lab facilities seem relatively good, with access to eye tracking, fMRI and ERP facililities.

Conclusion
This is a very good developmental group, with strong theoretical and experimental approaches, although its publication strategy might be improved.

Programme UU 3: Experimental Psychology
Programme director: Prof. A. Postma
Research staff 2010: 24.47 fte

Assessments:	Quality:	5
	Productivity:	4.5
	Relevance:	4.5
	Viability:	4

Introduction
The group has had between 16 and 19 tenured staff in the evaluation period, with 16 tenured staff in 2010 and 6.15 tenured research fte. The programme aims to understand human cognition and emotion in its functional neurobiological, neuropharmacological and pathological aspects. The main focus lies on human perception, attention, memory and social-affective processes, embedded in a fundamental research tradition and a clinical, applied context. The Biopsychology group focuses on Social Affective Neuroscience, Fear and Anxiety, Aggression, and Attention and Impulsivity. The Cognitive Psychology group focuses on adaptive perceptual systems, namely Recalibration and Adaptation, Organisation of Brain Areas, High(er) Level Visual Cognition and Applications of Fundamental Knowledge of Attention. The Neuropsychology group relies on samples with normal and dysfunctional brains and investigates Neurocognition of Space, Somatosensory Perception and Motor Action, Spatial Attention and Eye Movements, and Clinical Neuropsychology.

Assessment of the criteria
The Experimental Psychology programme is of excellent quality, and the research on perception and cognition/emotion is of high international standard. The leadership is excellent, especially after the re-organization in 2007, with three closely interrelated groups and their respective principal investigators (PI). The academic reputation of the PIs is also excellent, as reflected in publications in high-impact journals such as *PNAS* and *Brain and Behavioural Sciences*, invitations, and numerous editorships and memberships of editorial boards. In terms of citations, their work is cited considerably above the world average and slightly above the Dutch average for their field. Overall, their research programme is of excellent quality.

The group published a total of 542 refereed articles in the evaluation period. The number of refereed articles has been declining, however, from 2006 (110) to 2010 (78). PhD production is also very high. Total funding was € 1,747,000 in 2010 but with only 32% external funding in relation to total funding, Thus, overall productivity is very good to excellent.

The research in the Experimental Psychology programme is primarily fundamental experimental research, like the name of the programme implies. As such, societal relevance is not a primary focus for the research. The group has collaborations with various societal partners including clinical institutes, government research organizations, companies and the ministry of Justice. Within these collaborations the group has suggested interesting applications of aspects of their perception research to the design of e.g. banknotes for colour-blind people and to the detection of counterfeit banknotes. These applied projects could have great potential, but will to await to be implemented in practice. Thus, despite being primarily a basic research unit, societal relevance is very good to excellent.

The PIs of the Experimental Psychology programme are relatively young and enthusiastic, which is a good sign for the future viability of the group. They have also recently initiated

new research projects in collaboration with other research groups and industrial partners, with corresponding new grants, which further reinforces the viability of group. However, it cannot be denied that the performance of the group looked stronger in the first half of the evaluation period than in the second. So, remaining at this level will be a challenge for this group.

Conclusion

The Experimental Psychology programme has shown excellent quality in their research, as reflected in high-impact publications, and in particular after merging the previous sub-groups into three main themes with perception as an overarching concept. Productivity is very good to excellent, in excess of the Dutch average for publications and PhD production. Societal relevance is also very good to excellent and will be excellent when the applied projects on banknote design are launched for direct practical applications. Viability may be a point the group leaders will have to monitor over the coming years, in order to keep the stability of research fte in the programme; it is nevertheless very good.

Programme UU 4: Stress and Self-Regulation
Programme director: Prof. D.T.D. de Ridder
Research staff 2010: 11.65 fte

Assessments:	Quality:	4
	Productivity:	5
	Relevance:	5
	Viability:	4

Introduction
The overall mission of this programme is to illuminate the role of self-regulation and stress in health behaviour and adjustment to illness (chronic). The fundamental research is complemented by applied research on health education interventions. The core of the programme examines how basic self-regulatory processes such as goal setting, goal striving, planning and regulation of emotion determine the extent to which people are willing and capable to invest in their long-term health goals when confronted with stress and immediate temptations that are in conflict with these goals.

Assessment of the SEP criteria
Overall, the programme shows very good quality that is internationally competitive and makes a significant contribution to the field of health psychology. Especially the research on eating-related conditions can be considered nationally prominent. Here, substantial contributions include surprising insights on food temptation and the role of negative emotions in food intake. While relevant bibliometric indicators are somewhat below the Dutch average, the group has witnessed a large increase in contract funding and participates in wide-ranging national and international cooperation. The programme director enjoys an international reputation in health psychology. The focus on mechanisms that underlie the health phenomena of interest distinguishes its work positively from much of the more correlational or purely applied contributions of health psychology.

The group is very productive both in terms of the number of scientific publications per research fte and completed PhD theses.

The health issues studied are of very high societal relevance, and the group very actively contributes to the valorisation of their findings. The findings are not only communicated to the wider audience, but members of the group are regularly involved in advising programmes for promoting lifestyles or adjusting to chronic illness.

The group has undergone some major changes, including the departure of a senior researcher and separation from the clinical programme. A strategy for dealing with this departure and other challenges has not been formulated.

Conclusion
After some major changes in the past, this group has emerged as a health psychology programme with a clear focus that distinguishes it from other programs in the same field. It is highly productive in a field of great relevance, but faces challenges for its vitality for which no strategy is apparent.

Programme UU 5: Methodology and Statistics programme

Programme director:	Prof. H. Hoijtink	
Research staff 2010:	16.40 fte	
Assessments:	Quality:	4
	Productivity:	4.5
	Relevance:	5
	Viability:	4

Introduction

The mission of the programme is to develop, evaluate and apply methodology and statistics for the behavioural and social sciences. The programme has chairs in three main areas that are important for behavioural and social sciences: survey methodology, official statistics, and Bayesian statistics. In addition to fundamental research, the programme staff advise other researchers.

Assessment of the SEP criteria

The programme puts a lot of emphasis on its service function for other groups in the faculty, yet it also sustains a stream of fundamental, innovative methodological research. The programme's contributions are sound, yet somewhat heterogeneous in nature. Nevertheless, several instances of within-programme collaborations have been listed. The programme's publications receive a reasonable, though not very high number of citations. On the whole, its earning capacity is fair, with a slightly increasing trend.

The ratio of the number of international peer-reviewed journal publications to the number of research ftes is good. The programme's publication strategy is not entirely transparent. The ratio of the number of PhD students to the number of potential supervisors (tenured faculty) was rather low at the beginning of the evaluation period, but has increased since then.

Apart from the focus on its service function, the programme has made various additional efforts to attain societal relevance. These include several examples of knowledge transfer to enterprises, a considerable amount of societal advice, and the development of user-friendly software in the three areas covered by the programme.

The programme has the clear strategy to develop its service function to such an extent that the other groups in the faculty will not have to hire their own methodologists. Through its teaching tasks, the programme has acquired a solid basis. There is also a strong and laudable wish to acquire EU grants. The programme members have a sound methodological expertise. A number of specific goals for the fundamental methodological research in the three areas of the programme have been advanced. These goals are worthwhile, though perhaps not especially groundbreaking.

Conclusion

This is a solid programme, the members of which have excellent methodological expertise. It puts quite a lot of emphasis on its service function, without neglecting a strong and fundamental methodological research track. Yet, the latter might perhaps benefit from a somewhat higher coherence and a slightly higher ambition (for which all necessary elements are in place).

As an aside, in future assessments the programme may perhaps also wish to invest slightly more in external written communications on its mission, key achievements, and strategic

aims.

Programme UU 6:	**Social-Cognitive and Interpersonal Determinants of Behavioural Regulation**	
Programme director:	Prof. C. van den Bos, Prof. H. Aarts	
Research staff 2010:	13.83 fte	
Assessments:	Quality:	4.5
	Productivity:	5
	Relevance:	5
	Viability:	5

Introduction
The programme is concerned with both theory-testing and application in the domain of social-cognitive and interpersonal determinants of behavioural self-regulation. In particular, the programme comprises three themes. The first theme (representing a social-cognitive perspective) focuses on conscious and unconscious goal pursuit, embodiment, language, and communication. The second theme (representing a self-regulation perspective) focuses on fairness, culture, and uncertainty. The third theme integrates and expands on the previous two themes. The programme then involves multiple perspectives (from the concrete, such as neuroscientific or social cognitive, to the global, such as culture or health) and an eclectic methodological repertoire (e.g., laboratory studies, field studies, community samples) in the study of behavioural self-regulation.

Assessment of the SEP criteria
The programme currently consists of four full professors, two associate professors, and four assistant professors. Most of the members of the academic staff work on all of the abovementioned three themes, and thus the themes interface intimately and efficiently. The programme is well organized and well led, striking a sensible balance between fundamental and applied research. The academic staff (especially the senior staff) enjoy an excellent reputation in the field, as they have (1) contributed consistently high-quality publications in empirical and theoretical journals, (2) have won prestigious awards and prizes, (3) have assumed a leadership role in editorial responsibilities, (4) have given keynote addresses and presented at international conferences. And yet, according to the bibliometric analysis, the quality of the programme's publications hovers around the average of the Institute's standards, with no representation in the 2% and 1% most cited publications. The PhD students are well supervised and assisted. The research facilities are commendable and suited to current research. Its earning capacity is excellent. The programme is not only very energetic but also exceedingly versatile and ready to confront future challenges and incorporate developments in the field.

The programme has a high productivity level, reflected in approximately 260 refereed publications over the reviewed period. The PhD student graduation rate is good. Funding is laudable, with an impressive diversification of sources; again, the versatility of the programme is an asset in that regard as well.

The societal relevance of the programme is commendable. It manifests itself in three activities. The first involves advising policy-making bodies such as the Ministry of Justice and the Ministry of the Interior. The second activity involves research programmes that, while theory-guided, focus on highly applicable domains such as health, dieting, and sexual behavior. The third activity involves numerous publications and lay outlets and interviews in the media.

As to viability, the programme features four levels of seniority. There are two very senior full professors, two mid-career full professors, two associate professors, and four assistant professors. The diversity in career stage among the academic staff promises to ensure long-term viability. Also, the programme aims for further growth and has an impressive strategy on how to attain this growth in staff (expanding in ever-new areas such as nutrition and psychiatry) and funding (through both national and international agencies and internal investment in infrastructure).

Conclusions

This is an excellent programme on all four criteria. It boasts an internationally stellar staff, top-quality research, soaring levels of productivity, high social relevance, and great prospects. Distinctively, the theoretical ideas put forward by the staff are exciting, generative, and leading in the field.

Programme UU 7: Work and Organizational Psychology: Occupational Health Psychology

Programme director:	Prof. W.B. Schaufeli	
Research staff 2010:	7.91 fte	
Assessments:	Quality:	5
	Productivity:	5
	Relevance:	5
	Viability:	4

Introduction
The programme has an established tradition of research in the areas of work-related stress, motivation, and well-being at work. It explores the underlying processes, the measurement, the consequences, and the potential interventions associated with these aspects of occupational health. The group balances its focus on problems such as burnout and workaholism with positive features such as engagement and motivation. The research has led to a number of psychometric measures that have been widely used internationally and to a number of applied interventions that have been extensively adopted in the Netherlands and beyond. These reflect the strong external links of the staff.

Assessment of the SEP criteria
The programme comprises eight tenured staff (2.36 research fte), the same number in 2010 as in 2005, with no non-tenured staff. There are two full professors, one associate professor and five assistant professors.

The programme publishes in high-quality journals and has one of the highest citation rates among all the psychology groups within the Netherlands. This is reflected both in the overall normalised citation rate and the proportion in the top 1% of citations. There is evidence from both the citations and the extensive international collaborations that the work of this programme has a very high international reputation and is a leader in its field. The one query with respect to quality is the lack of grant funding.

The programme has a very high level of output. The average number of articles published per research fte and per annum is one of the best performances across the psychology groups in the Netherlands. This has been achieved partly through the high level of international collaborations, attesting again to the impressive international reputation of the work. The group is a little less impressive when it comes to PhD students. Only nine graduated during the entire evaluation period, which is below what might be expected. However, all finished within five years. There are currently seven 'internal' PhD students and a number of external students. In this context, it is worth noting that there is a strong flow of contract research that has expanded impressively since 2008.

The work of this programme has very high relevance. It addresses some key contemporary issues in organizations where work pressures seem to be ever increasing and where managers are seeking ways to involve and motivate staff. The programme has developed and validated tools that are now widely used both in the Netherlands and in many other countries. Furthermore, they have also developed extensively used interventions to address problems of burnout and facilitate the return to work of those badly affected, for example, collaborating with ArboNed, the largest occupational health and safety service in the Netherlands.

The programme has had a successful track record in identifying and undertaking high-quality theoretical and applied research on topics that have become important in organizational settings. This stream of work seems to be continuing and is reflected in the consistently high quality and quantity of output. Its relevance and scope for innovative fieldwork may be further enhanced by the Programme Director taking up a part-time research consultancy role. The group retains a clear and distinctive focus. However, at present its success rests very heavily with one senior professor, and it would be greatly weakened if he were to depart or to significantly reduce his links to the department. Furthermore, establishment of closer links with applied settings may help to ensure relevance to practice, but it will be essential to retain equally strong links to fundamental research and theory development. It would therefore be reassuring to see more evidence of significant innovative research from other members of the group and success in gaining research organisation grants to develop their work.

Conclusion

In terms of all the main criteria, this is a highly successful programme which has reason to feel proud of its achievements. It is undertaking work that has an immediate great relevance to contemporary organizational life, and group members have been successful in ensuring its application. Furthermore, there is strong evidence of an international impact of the work. The extensive dependence on the group leader is something that will need to be addressed in the coming years, as will the absence of grant funding. Arrangements seem to be in place to ensure strong links to practice; it will be important not to lose sight of theory development.

9. VU UNIVERSITY AMSTERDAM

Assessment at institute level
University: VU Amsterdam
Faculty: Faculty of Psychology and Education (FPP)

Institute
The core mission of the Psychology research programmes is the generation and dissemination of new knowledge about the biological, cognitive, developmental, and social determinants of normal and abnormal human behaviour. The research is organized in six research programmes:

- Attention and Performance
- Mapping the Brain
- Genes, Behaviour and Health
- Social and Emotional Development
- Cognition, Affect, Behaviour, and Intervention in Mental Disorder
- Trust, Leadership and Cooperation

The primary goals of the research programmes are (1) to perform high-quality research that is recognized both nationally and internationally, focusing on excellence and innovation, and (2) to use this research to develop new ways to influence human behaviour in clinical, educational and organizational settings.

Important changes in the content and organization of the research since the previous evaluation are a shift in clinical psychology to evidence-based psychological treatment of mental disorders, merging of the Departments of Social Psychology and Organisational Psychology, and the creation of five research master programmes in the William James Graduate School (WJGS).

Strong orientation on its 'own' subdisciplines provides focus for the research activities. At the same time, sufficient scientific mass and transdisciplinary exchange of ideas are achieved through collaboration with the Educational Departments and participation in VU research institutes.

Quality and academic reputation
Exchange with, and exposure to, the international research community is achieved through collaborations with 76 research institutes in the EU and US, and 21 institutes in Asia/Oceania. The self-evaluation report provides a list of several papers that demonstrate the scientific quality and innovative capacity of the programmes.

Two of the programme leaders are members of the Royal Dutch Academy of Sciences (KNAW). International recognition of the staff is evident from board membership of national and international advisory boards, and personal achievement awards.

Resources
The basement of the building that houses all six departments has an experimental facility.

Productivity
The output total (number of publications) is steadily growing.

Societal relevance
Partnerships with societal stakeholders provide a bridge to society at large, for instance mental health care centres. Part of the research is aimed at disorders with a high prevalence in society. Researchers from several programmes were involved in publishing health policy reports, treatment guidelines and editorial work for Dutch practice journals. The programmes developed new types of clinical and preventive interventions that are now implemented in routine practice. Every year many interviews are given to national newspapers, magazines, radio and television.

Strategy for the future
Appendix I provides the SWOT analysis of the faculty. In the next phase, the present management will be consolidated. Three adaptations are needed: The first is to strengthen the focus on health and life sciences, a major societal theme. The second is to increase further the international orientation in grant writing (EU) and recruitment of talented students and staff. Finally, transparent but stringent criteria for promotion and tenure are needed to provide incentives for personal academic success.

PhD training
All research training of master and PhD students is organized within the William James Graduate School (WJGS). Of the tailored PhD course package, 40% focuses on advanced data analysis and transferrable skills. The remaining 60% derives from various national graduate schools. For each PhD project, a training and supervision plan is submitted. The scientific and ethical review committee judges the scientific content and feasibility and ensures that ethical standards are upheld. The Director of WJGS reviews the training and education part. The WJGS examination committee ensures the proper completion of the course work. The Talent Programme allows students to go on extended international visits. To increase the percentage of PhD students who graduate on time, the Talent Programme awards a bonus when a PhD student finishes on time and rewards a 3-month post-doc salary to departments that successfully guide a finished PhD graduate to a Veni or comparable personal fellowship.

Assessment
The institute is part of the Faculty of Psychology and Education. It has six research programmes that cover a broad range of the subfields of psychology. Work and Organizational Psychology was merged with Social Psychology into one research programme. In contrast to the other institutes, the VU has no methodology research programme (six institutes have an autonomous methodology programme, and one institute participates in the methodology programme of another faculty). The VU methodologists participate in the research of the substantive programmes, and they cooperate in the educational curriculum of methodology and statistics. The management is not planning a separate methodology research programme because it has to compete with the Quantitative Methods programme of the University of Amsterdam. The management prefers cooperation with the methodologists of the University of Amsterdam.

The funding pattern is exactly equal to the average pattern of the eight institutes: the share of direct funding is 61%, 27% of the funding comes from grants, and 12 % from contracts.

The institute is well organized and managed. The programmes seem to have sufficient influence on management policies and decision-making.

The research facilities are good.

The faculty has five research master programmes that prepare students for dissertation research in different subfields of psychology. All PhD students participate in a local graduate school, and some of them also participate in national graduate schools. The faculty gives a financial reward to PhD students who complete their thesis in time, and it gives financial support to PhD students who apply for a Veni or comparable grant. The success and completion rates are high: 93% of the 2002 and 2003 PhD cohorts completed their thesis, and 70% of these cohorts completed their thesis within five years. PhD students are satisfied with their supervision and training. However, they have some complaints and wishes. The waiting time for decisions of the Medical Ethical Committee is too long. The IT staff is hard to approach and cannot work with programmes that they do not know, and students are not allowed to connect their own computers to the network. It is seen as inefficient that PhD students who live outside Amsterdam have to be present every day.

The quality of the research is high. This conclusion is supported by the bibliometric study. The citation scores of the institute are considerably above the world average. The scores of one programme match the world average, and the scores of the other programmes are far above this average.

The productivity of the entire institute is very high. The productivity of one programme is below the Dutch standard, but the productivity of the other programmes is above this standard.

The committee found a sufficient number of the indicators of societal relevance that were mentioned in Chapter 1. The societal relevance of the programmes is at or above the Dutch standard.

The research of the institute is at a high level. The quality and productivity are high, and the institute yields sufficient contributions to the solution of societal problems. The committee doubts whether the merging of Work and Organizational Psychology with Social Psychology will be profitable for the former. Moreover, the committee doubts whether it is a good strategy to embed the methodologists in substantive research programmes without having one's own methodology research programme. The whole faculty could profit from a sound methodology research programme. The PhD success rate is excellent. The institute stimulates PhD students to complete their thesis in time by awarding a financial bonus. Perhaps because of this policy, the PhD completion rate is very good. Nevertheless, the PhD students have some wishes. The committee recommends considering these wishes, and to investigate which ones can be fulfilled.

VU UNIVERSITY AMSTERDAM

Assessment at programme level

The committee comes to the following overall programme scores for quality (Q), productivity (P), relevance (R), and vitality/feasibility (V) for the four programmes at the Faculty of Psychology and Education at the VU University Amsterdam:

Code	Programme name	Q	P	R	V
VU1	Genes, Behaviour and Health	5	5	5	5
VU2	Mapping the Brain	5	5	4	4
VU3	Cognition, Affect, Behaviour and Intervention in Mental Disorder	4.5	5	5	4.5
VU4	Attention and Performance	5	5	4	4.5
VU5	Social and Emotional Development	4.5	5	4	4
VU6	Trust, Leadership and Cooperation	4	3	4.5	5

Programme VU 1: Genes, Behaviour and Health
Programme director: Prof. D. Boomsma
Research staff 2010: 16.6 fte

Assessments:	Quality:	5
	Productivity:	5
	Relevance:	5
	Viability:	5

Introduction
The research staff related to the Department of Biological Psychology and the programme is headed by two professors and consisted of 10 tenured staff in 2010 with a research fte of 2.9, which has been relatively stable for the entire evaluation period (9-10). Non-tenured staff has varied between 5 and 7 (3.2 - 5.8 research fte). The core mission of the Genes, Behaviour and Health programme is to understand the mechanisms and pathways influencing individual differences in behaviour, mental and physical health. The programme is organized around four topics: Genetic Neuroscience, which studies the genetic architecture of cognitive abilities, attention and memory processes; Biobehavioural Medicine, which studies cardiovascular and autonomic nervous system functioning under laboratory and real life situations; Psychiatric Genetics, which studies the genetic and environmental factors and their interactions for the determination of psychiatric disorders, including protocols for the identification of candidate genes and genome-wide association studies; and Causes and Consequences of Twinning, which studies the mental and physical health implications of twinning.

Assessment of the criteria
The Genes, Behavior and Health group has a rich leadership, with a very high global reputation, and strong networks, as reflected in their participation in most of the largest genetic consortia in the world and also in some of the ground-breaking publications from these consortia. The programme is a world leader in the field of behavioural genetics, which is seen in their international impact on the field over the years, with researchers in the group also among the pioneers that established the field of behavioural genetics. Their participation in all the major consortia worldwide for the identification of new genetic markers of major mental disorders emphasises the international visibility and influence of the group, which also goes for the managing of the National Twin Register. The participation in international consortia has resulted in two *Nature* publications and eight *Nature Genetics* papers. The programme director moreover has outstanding personal citation figures with an h-index of 55 (unusual for Dutch psychologists), and she holds one of only three ERC Advanced Grants awarded to Dutch psychologists. In addition, in 2011 a ERC Starting Grant was awarded to a programme member. Normalized citations for the field are well above the world average and Dutch averages. The average of external funding across the evaluation period has been outstanding, with small variations over the years, and with a very high percentage of external funding to total funding. Thus, overall the quality of the group is excellent.

The programme has produced a very high number of refereed articles in the evaluation period, with an excellent ratio of the number of articles/tenured research fte and also an excellent ratio of the number of articles/total research fte. The group has produced 18 PhD theses in the same period, and the ratio of PhD theses/tenured fte is also high. Thus, in relation to resource input, the productivity in terms of output is excellent.
By making the Netherlands Twin Register accessible to a large number of users, the programme produces an invaluable service for the scientific community. Furthermore, in

addition to providing frequent popularized versions of their research to the lay audience, including media appearances, popular books and articles, the group participates in highly societally relevant counselling and advice for expectant parents regarding rearing twins, and they also take part in genetic counselling for society. Thus, the group actively participates in important societal counselling and advisory activities on an excellent level.

The group has remained stable with regard to tenured and non-tenured staff as well as with regard to PhD students, despite some staff being recruited to industry and other universities and departments; thus, they have been very successful in recruiting new staff members. The group has in addition been able to respond to technological and other breakthroughs in the fields of genetics and related disciplines to keep a viable environment with high-quality research output, and thus building competence for future challenges. The way in which the programme has derived strategies for the future from SWOT analyses is exemplary. An illustration of this is the appointment of new part-time staff to strengthen their ties to statistical methodology. Thus, its viability is excellent.

Conclusion
The Genes, Behaviour and Health programme at the Department of Biological Psychology is an internationally prominent research group, and has excellent research quality, productivity, societal relevance, and viability. Thus, the conclusion reflects a research group that deserves the highest marks for its outstanding achievements in an internationally very competitive research field.

Programme VU 2: Mapping the Brain
Programme director: Prof. E. Scherder, Prof. Oosterlaan
Research staff 2010: 10.5 fte

Assessments:	Quality:	5
	Productivity:	5
	Relevance:	4
	Viability:	4

Introduction
The tenured staff was 7 people in 2010, with a research fte of 1.6. The tenured staff fte has stayed relatively stable over the evaluation period, with a peak of 2.1 in 2009. Non-tenured staff had a research fte equivalent of 2.4 in 2010. The programme's view is that higher-level cognitive functions such as executive functions coincide with higher-level motor activity. Its mission is to examine the relationship between neuropsychological functions and motor activity over the lifespan, under both normal and neuropathological conditions, with the development of new treatment strategies as an ultimate goal. The programme consists of various related research lines. One line focuses on disruptive behaviour disorders and ADHD in particular. Another targets medical conditions affecting the central nervous system. Other lines address the relationship between physical activity and behaviour and the relationship between pain, physical activity and behaviour in people with a cognitive impairment. A recently developed line focuses on brain injuries after sports.

Assessment of the criteria
The Clinical Neuropsychology Department and Mapping the Brain programme is of excellent quality with a well-described mission. It has made substantial contributions to the field of neuropsychology of disruptive behaviour, and of ADHD in particular. Researchers in the programme have been pioneers in advancing a neuropsychological model for the understanding of the underlying mechanisms for ADHD. Other lines of research with international visibility are the study of children born prematurely, cognition and physical activity, pain, dementia, and more recently a focus on brain injuries after sports activities. The group has published in very good journals and has received excellent numbers of citations normalized for the field they publish in, and the presence of papers in the top part of the citation distribution for their field is outstanding. Several of the staff members have been or are serving on Editorial Boards for major journals in their fields as well as having a large international network. Its quality is therefore excellent.

The group has published a large number of refereed articles in the evaluation period, with a peak in 2009, and a very high ratio of articles/total research fte; the ratio of PhD graduations/tenured staff members is also very high. Its productivity is therefore excellent.

The research is of relevance to society in the sense that all health-related research has relevance for society, whether this is for the benefit of patients or society at large. Additional efforts to attain societal impact and valorisation in terms of the creation of new values, services and processes have been rather limited, however. Therefore, overall, its societal relevance is very good.

The group is rather small and thus sensitive to the loss of the key researchers who have largely contributed to the group's success over the years. Although the Department of Clinical Neuropsychology has taken steps to fill the vacuum after the recent retirement of a senior professor in 2010, the effects of these steps are still to be seen. Also, strategic concerns have

exclusively been expressed in financial terms. Therefore, its viability is at present very good but not excellent.

Conclusion

The Mapping the Brain group at the Department of Clinical Neuropsychology is an internationally visible and well-respected research group in the areas of neuropsychology and cognitive and brain disorders, with studies of underlying mechanisms in ADHD as a hallmark research for the group over the last few decades. The quality is excellent, as is its productivity, especially when applying quantitative measures. Dealing with the retirement of one of the most visible researchers in the group and elaborating and implementing a comprehensive strategy constitute challenges for the near future.

Programme VU 3:	**Cognition, Affect, Behaviour and Intervention in Mental Disorder**	
Programme director:	Prof. P. Cuijpers	
Research staff 2010:	17.3 fte	
Assessments:	Quality:	4.5
	Productivity:	5
	Relevance:	5
	Viability:	4.5

Introduction
The aim of the programme is to contribute to the reduction of the disease burden of mental disorders, by generating scientific knowledge in that field. Prevention and early interventions for common mental disorders, especially depression, anxiety disorders, as well as suicide, offer good opportunities for further reduction of the disease burden of mental disorders. With the appointment of a new leader, the research focus shifted to public mental health, prevention, early interventions, and Internet treatments.

Assessment of the SEP criteria
The programme's research is at the international forefront of the field of meta-analyses of treatments for depression, and its results have an important and substantial impact on the treatment of depression. The primary focus is on the very well received secondary analyses, which yield the strongest contribution to the excellent bibliometric indicators. In addition, there is the production of original findings with respect to areas such as randomized clinical trials, internet-based interventions or suicide prevention. The latter also includes technological aspects, whereas theoretical or aetiological questions are not prominently represented.

The stated mission of the programme to reduce the burden of mental disorders by generating scientific knowledge is primarily fulfilled through clinical trials and meta-analytic approaches. The scientific publications have a high impact, the group is also present in the top cited papers of their field, and it has very good international ties. The coherence of the programme is very high after the reorganization carried out in the past few years and reflects strong leadership. PhD training is successful in terms of numbers and completion rates, with a clear training, incentive and sanction system.

The programme is very productive and in this respect can be considered an international powerhouse. The number of PhD theses is exceptionally high, and the number of PhD students per tenured staff fte is considerably higher than in other Dutch research programmes which should indicate a particularly strong workload. Altogether, the success of the changes introduced by the current programme leader clearly demonstrates a highly effective productivity strategy.

The societal relevance of the issues studied is very high, and the results of meta-analytic publications are of immediate importance to mental health care. In addition, the group is highly active in valorisation measures and in this way directly fulfils societal needs.

The vitality of the programme is very good, and the performance of the past few years shows no signs of decline. While there is a certain neglect of theoretical development and research into the mechanisms underlying the clinical phenomena of interest, the programme is very well connected to the relevant research infrastructure within VU University and at the national level. It is also very well connected internationally.

Conclusion

With the change in leadership that occurred a number of years ago, this programme has risen to high international visibility, especially in the field of meta-analytic research on depression. Here, the group is at the international forefront and has made contributions of great impact. It is also active in several other fields and overall enjoys an excellent productivity.

Programme VU 4:	**Attention and Performance**	
Programme director:	Prof. J. Theeuwes	
Research staff 2010:	10.6 fte	
Assessments:	Quality:	5
	Productivity:	5
	Relevance:	4
	Viability:	4.5

Introduction
The mission of the programme is to unravel the processes underlying basic human functions such as attention, perception and memory and the associated brain mechanism involved. The group uses a vast array of methods. Since the previous assessment, a research line has been developed that investigates multisensory integration between audition and vision.

Assessment of the SEP criteria
The Attention and Performance programme had 1 full professor, 3 associate professors, 4 assistant professors, and one external part-time member at the end of the evaluation period (total tenured staff = 2.9 fte). Over the review period the total fte of the group first grew from 9.8 in 2005 to 14.3 in 2010 and then decreased to 10.6 in 2010. Research has focused on unravelling the processes underlying basic human functions such as attention, perception and memory, and the associated brain mechanisms. The key results provided by the group involve a study of the role of the hippocampus in learning and memory, the discovery of the 'pip-and-pop' effect as an example of audiovisual integration, and the development of a new computational model regarding temporal attention.

The citation analysis shows that the citation rate is considerably higher than the average of the field with which the group is compared. The committee suggests that the group might even become more ambitious in their publication strategy, given the impact of the journals published in is considerably lower than the impact of the articles of the group itself. Members of the group have also been highly visible as editors of international journals, members of societies, and invited speakers. Some members have further received prestigious awards, both at the junior and the senior level.

In the review period the group produced 230 research outputs, including 205 refereed articles (3 per fte per year); 9 students completed their PhD. External research funding amounted to € 442,000 per year or 43% of the total budget of the group. The group has been successful in attracting national and international grants.

Its societal relevance is good, but not extraordinary. It mainly translates into its members' willingness to give interviews, to supervise PhD projects of non-university-based students (buitenpromovendi), and to provide consultancy work. This is in line with the expectations, given the group's focus on fundamental research.

Its viability looks good on the basis of the present track record and the presence of several productive members within the group. A potential danger is that much of the current assessment seems to be centred on a single person. It may be prudent to broaden this aspect in the future.

Conclusion

The Attention and Performance group was very successful in the evaluation period. It has grown considerably in strength and impact since the previous assessment. The future also looks promising, certainly if the group succeeds in its ambition not to keep everything centred on a single senior member of staff.

Programme VU 5: Social and Emotional Development
Programme director: Prof. H. Koot, Prof. P. van Lier
Research staff 2010: 7.1 fte

Assessments:	Quality:	4.5
	Productivity:	5
	Relevance:	4
	Viability:	4

Introduction
The general aim of the programme is to contribute to scientific knowledge on psychopathology from a developmental perspective. The programme involves studies on the assessment, aetiology, course and outcomes of child and adolescent psychopathology and underlying developmental processes. An important focus is on the interaction between personal competences/ vulnerabilities and social relations in explaining pathological development. A variety of phenotypes are studied, including anxiety and mood problems, oppositional and conduct problems, autism, and intellectual disabilities. The programme is interdisciplinary in that it targets not only psychological phenomena but also genetic and environmental influences.

Assessment of the SEP criteria
Key publications are found in top journals. The bibliometrics are good for this programme, with papers that are well cited internationally, in terms of both the average citation number and the presence in the top 1% and 2% of the citation distribution. The earning capacity for research funding is weaker, although the programme directors brought to the committee's attention new funding that has been secured for the next period.

There is a well-thought-out publication strategy. The productivity of this group is excellent and amongst the best of the developmental programmes in the Netherlands.

This group does not focus on making science available to the general public, and even seemed rather reluctant to do so. However, their research is clearly relevant to the clinical/healthcare fields, and they have made six diagnostic procedures available for professional use in the applied field. They have established good relations with the Dutch organisation for autism, as well as with the field of special needs education, in the planning of intervention studies.

The group has a very clear top-down leadership, and thus there seemed to be less room for initiatives from younger members of the group. The members of the group do interact in terms of data sharing, which is very positive, and there were clearly enunciated research strategies. The leadership will be retiring soon, van Lier and Huinzig are the future planned leaders of the group after the retirement of the current leader of the programme.

Conclusion
To some extent this programme comes across as more focused on child and adolescent psychiatry rather than on being a developmental psychology programme. Nonetheless, this is one of the strongest developmental groups in the Netherlands.

Programme VU 6: Trust, Leadership and Cooperation
Programme director: Prof. P van Lange and Prof. M. van Vugt
Research staff 2010: 12.6 fte

Assessments:	Quality:	4
	Productivity:	3
	Relevance:	4.5
	Viability:	5

Introduction
This newly established programme (in 2009) represents a merger of social psychological and work/organizational approaches to research and theory. It is concerned with the goal-directedness of social interaction: how people interact with each other to attain their goals at the interpersonal, group, or organizational level. The programme has a strong focus on trust, leadership, and cooperation from a multiplicity of perspectives ranging from the relatively micro-level (e.g., neuroscience, justice beliefs, self-regulation) to the relatively macro-level (e.g., interdependence theory, social identity theory, culture, evolution).

Assessment of the SEP criteria
The social psychology side of the programme has had a long tradition of excellence, which was punctuated with the appointment and contribution of the late Prof. Rusbult. The social psychology side continues this tradition with the current programme leaders, talented associate professors, and promising assistant professors. The organizational psychology side of the programme has been strengthened under a new leadership. The committee raised some concerns about the rigor of organizational psychology, its interface with social psychology, and the effectiveness of its integration or synergy with social psychology. Programme members are active in editorships, NWO committees, and the international conference circle. The programme features publications in prestigious journals but the impact of publications is at or below the world and Dutch average. The programme's earning capacity is excellent in terms of number of grants, although the overall income is less impressive, and the earning trajectory has been downward. (It should be noted that, according to the latest indications, the trajectory is becoming positive.) The William James Graduate School is an establishment that effectively promotes the quality of PhD student training. In all, the programme is on a very solid footing, and it will most likely enhance its reputation in the future.

The programme has taken a hit in productivity in the evaluation period (for understandable and uncontrollable reasons). Productivity in terms of refereed publications is below the Dutch average, although that of book chapters is above the Dutch average.

The programme manages to be highly relevant to society. For example, it influenced policymaking (i.e., interventions) in (1) leadership assessment via the development of a value-free test for leadership assessment among ethnic minorities and (2) environmental management by promoting carpooling; the latter came about as a result of successful attempts to persuade government ministries of the potential for carpooling to decrease job absenteeism (an example of how theory - interdependence theory, in particular - can be put to effective societal use). Also, the programme boasts a unique internet magazine ('InMind') whose aim is to increase the accessibility of psychology to the public. Finally, programme members frequent national or international media with interviews and publish regularly in lay outlets or trade books (e.g., a commercially successful book on leadership).
The programme's vitality is very strong. Its long-term financial prospects are sound. The programme has hired numerous, active scholars and plans to add more recruits (at least three

in the next couple of years). Also, the programme is forging links with such research institutes as Phoolan Devi (fairness & crime), EMGO+ (social networks & health), and IVM (environmental issues). Finally, the programme plans to invest in innovative methodologies (e.g., virtual reality, hormones, fMRI, meta-analysis), the organisation of conferences and workshops, and the establishment of an interdisciplinary centre on human cooperation which will capitalize on expertise within the Faculty but will have a strong orientation (especially European) and promises to attract grant support.

Conclusions

The programme has a strong focus on trust, leadership, and cooperation. Although this focus may be a bit narrow, it is compensated for by the inclusion of multiple theoretical perspectives to address central issues in the field. The programme is very young and thus is not yet coherent. The quality of its output is good, although productivity lags behind due to the programme's youth. Its research is of the utmost social relevance, and the future is very promising with the addition of talented staff.

10. UNIVERSITY OF AMSTERDAM

Assessment at institute level
University: University of Amsterdam
Faculty: Faculty of Social Sciences
Institute: Psychology Research Institute

Institute
The Psychology Research Institute (OZI), the School of Psychology and the Graduate School of Psychology make up the Department of Psychology at the Faculty of Social and Behavioural Sciences. The OZI is home to six research groups:

- Clinical Psychology
- Developmental Psychology
- Quantitative Methods
- Brain and Cognition
- Social Psychology
- Work and Organizational Psychology

The OZI aims to
(a) facilitate and coordinate fundamental and applied research into cognitive, affective and motivational processes that drive and modulate human functioning, thereby covering psychology in breadth;
(b) stimulate interdisciplinary cooperation targeted at a thorough understanding of the mechanisms involved in these complex and interacting processes, as they operate under normal and pathological circumstances;
(c) attract prominent expertise and promising young talent from home and abroad to strengthen the efforts to realize cutting-edge research and train a next generation of top scientists.

Six times a year the director of the OZI meets with the directors of the School and Graduate School and the Head of Department, and with the six programme coordinators. In addition, the management team meets the programme coordinators individually at least once a year. Strategic issues are also discussed with the Institute's Advisory Board.

New developments during the period of this review were:
- Founding of the Spinoza Imaging Centre in 2007 by a partnership of the KNAW, UvA, VU Amsterdam and their academic hospitals;
- The proposal for the interdisciplinary university research priority programme Brain & Cognition was rewarded in 2008 and funded by the UvA Board and matched by the faculty;
- In 2010 the research priority programme Affect Regulation was selected and funded by the faculty.

Quality and academic reputation
The scientific quality of the institute can be estimated on the basis of publications in top-tier journals. The OZI received the highest score among Dutch psychology departments for the Academic Reputation Index. Similarly, in the institutional survey for the CHE Excellence Ranking of 2010, the OZI obtained the second highest score.

Resources
A substantial rise in research and support ftes was observed over the period of the review, with a doubling of PhD ftes. The relative contribution of direct versus grant and contract funding changed from 60%-40% to 50%-50%. The institute's facilities are installed and maintained by a technical support unit.

In 2008 the *full-cost model* was introduced, which means that overhead costs are no longer directly paid by UvA central, but charged to the institute. After its introduction, the absolute share of external funds in the budget increased.

Productivity
A significant rise in the number of publications was observed in 2010 compared to 2005. The rise was paralleled by a similar rise in research fte. Publications in high-impact journals increase the chance that a grant proposal will be awarded. Following the award of a grant, the teaching time of the recipient is reduced.

Societal relevance
All research groups receive media coverage and thus attract the attention of potential partners for societally relevant research projects. In 2008 the OZI took the initiative to publish a biannual digizine (digital magazine), designed to boost the visibility of the research output and aimed at academics as well as interested laymen.

Strategy for the future
The OZI director has both structural and incidental meetings with the programme coordinators and with individual staff members on issues related to research projects. Facilities are state-of-the-art and are available for both staff and PhDs.

Appendix J provides the SWOT analysis of the OZI. In the near future, several research groups expect a large proportion of their senior staff to leave because of retirement. It is crucial that these groups anticipate these retirements and reflect on the desired research profile and qualifications of new colleagues. The OZI is gaining success in acquiring grant and contract funding but is not rewarded for this success because of the full-cost model that is used by the Board of the university. Large investments can only be made in cooperation with third parties. Recently, investments were made in facilities to recruit and handle subjects other than the first-year students who have to participate in research for course credit. If the OZI manages to create and maintain a central subject pool, this will prove to be a valuable, long-term addition to the current research facilities.

PhD training
The objective of the PhD programme is to train a select group of talented students for a successful research career. Each PhD student is supervised by a minimum of two staff members, is embedded in one of the programme groups, and participates in its research activities. A PhD student has four formal, annual progress interviews with his/her promotor and one or more additional supervisors. In preparation, the PhD student has to fill in a progress report, consisting of an official and a confidential part, and present the official part to the other participants. Each PhD student receives a yearly budget for educational purposes. In addition, a budget for travelling and research-related expenses is available for each PhD student.

Assessment
The institute is part of the Faculty of Social and Behavioral Sciences. It has six research programmes that cover a broad range of psychological research.

The share of the direct funding is somewhat smaller than the average of the eight institutes (56% versus 61%), the share of grants is larger than the average (38% versus 27%), and the share of contracts is smaller than the average (6% versus 12%). The Board of the university has implemented the full-cost model, which charges institutes for all costs, including the overhead costs of grant and contract research. The model makes institutes aware of all costs and complies with EU guidelines.The Dutch funding agencies finance personal and material costs, but most do not finance overhead costs. The institute has been very successful in obtaining grants but is not rewarded for its success. An undesirable consequence is that now the institute has no direct funding of dissertation projects.

The institute is well organized and managed. The programmes have sufficient influence on policy and decision-making.

The infrastructure of the research is good. The institute has excellent research facilities and a competent technical staff to support laboratory research.

The institute has a research master programme that prepares students for dissertation research in a broad range of subfields. The PhD students participate in national graduate schools. The success rate of the 2002 and 2003 PhD cohorts was 71%, and 33% of these cohorts completed their thesis within five years. The sizes of these cohorts are small, but the completion rate of the two subsequent cohorts is the same: 35% of the 2004 and 2005 cohorts completed their thesis within five years. The PhD students are very satisfied with their supervision, training, research facilities, and participation in national graduate schools. The department has its own Psychological Ethical Committee. The waiting time for decisions of this committee is generally short, but the waiting time for decisions of the Medical Ethical Committee of the university hospital is much longer. One wish of the PhD students is to have more professional contacts between PhD students of all the research programmes, for example, via meetings of all psychology PhD students.

The quality of the research is very high. This conclusion is supported by the bibliometric study. The citation scores of the institute are far above the world average, and they vary between programmes at the world average to considerably above this average.

Overall, the productivity of the institute is good. It varies between programmes, and for some programmes it is rather low.

The societal relevance of the research is excellent. For each of the programmes, the committee found many of the indicators of societal relevance mentioned in Chapter 1.

The research of the institute is at a high level. The quality is very high, and the societal relevance is excellent. The productivity of the entire institute is sufficient, but it could be raised for some of the programmes. The PhD success rate is sufficient, but the completion rate is too low. The committee recommends that the institute take measures to improve the PhD completion rate. Finally, the committee recommends the UvA Board to pay attention to the discrepancy between the full-cost model and the policies of funding agencies. For example, as long as NWO does not finance overhead costs, the university should adapt the full-cost model in order to support departments that are successful in obtaining NWO grants.

UNIVERSITY OF AMSTERDAM

Assessment at programme level

The committee comes to the following overall programme scores for quality (Q), productivity (P), relevance (R), and vitality/feasibility (V) for the six programmes at the Psychology Research Institute at the University of Amsterdam:

Code	Programme name	Q	P	R	V
UvA1	Clinical Psychology	5	5	5	4.5
UvA2	Developmental Psychology	4.5	3.5	5	4
UvA3	Quantitative Methods	5	4.5	5	5
UvA4	Brain and Cognition	5	5	5	4.5
UvA5	Social Psychology	5	4	5	5
UvA6	Work and Organizational Psychology	4	4	5	4

Programme UvA 1: Clinical Psychology

Programme director:	Prof. M. Kindt	
Research staff 2010:	22.93 fte	
Assessments:	Quality:	5
	Productivity:	5
	Relevance:	5
	Viability:	4.5

Introduction
The mission of the programme is to conduct fundamental research using methods and models from basic psychology to investigate psychopathology, and to run clinical trials to inform clinical practice. Fundamental research focuses on the neurobiological and psychological underpinnings of emotional memory. A second line of research focuses on treatment-outcome research in a wide variety of psychiatric disorders. Research into technological innovations in psychotherapy was also continued. As of 2008 the existing research lines were complemented by research from an individual differences perspective (applied).

Assessment of the SEP criteria
This group is at the international forefront of their field with a series of substantial and original contributions that have received worldwide attention. This is clearly a leading programme at both the national and international levels. A particular achievement of great relevance for the future work of the programme is the successful establishment of a bi-directional translational research strategy that is beneficial to both the more clinical applied research and the more basic mechanistic research. For this group, bibliometric indicators and the qualitative evaluation yield unequivocally excellent results.

The productivity in terms of outstanding research is very high. With respect to completed PhD theses, the productivity is less pronounced, and the programme management may have to consider systemic reasons for this (e.g., clinical studies take longer than experimental ones, number of papers per thesis, etc.). In contrast to many neighbouring countries such as Austria, Germany or Switzerland, only a few Dutch psychology departments have their own clinical infrastructure. The existence of an outpatient unit provides the UvA clinical programme with such a highly relevant infrastructure for productive clinical research.

In terms of topic, finding, strategy and valorisation the programme can be considered excellent. The results of the groups' work have generated international attention in the media and professional societies.

The vitality of the programme is very good and may improve still further with the successful integration of the individual differences subprogramme. There is a healthy mixture of senior researchers and rising stars, but the programme will have to face the replacement of one of its senior leaders due to imminent retirement.

Conclusion
Overall, this is a strongly growing group with leaders with a longstanding and newly rising international reputation. It has successfully implemented a bi-directional translational approach and is generating international attention for its research which is of the highest societal relevance.

Programme UvA 2: Developmental Psychology
Programme director: Prof. K.R. Ridderinkhof
Research staff 2010: 28.27 fte

Assessments:	Quality:	4.5
	Productivity:	3.5
	Relevance:	5
	Viability:	4

Introduction
The programme aims to integrate and expand life-span research on normal and deviant cognitive development. The subprogramme on normal development covers the entire life span, including healthy ageing, whereas the subprogramme on deviant development focuses on a more limited set of issues. The subprogrammes each have separate aims and foci which do not always feel coherently integrated, although their research is mutually fertilized through the use of common research paradigms and methodologies.

Assessment of the SEP criteria
This is a very good research programme. It is examining new techniques for developmental neuroimaging, an important contribution to the field, by developing statistical modelling techniques for brain/behaviour relations and inventing implicit measures of psychological function. The bibliometrics are excellent. The programme has a large number of national and international collaborations on which it relies rather heavily.

While overall the number of articles has doubled since the previous period, the number of publications per fte is not very high and is in fact below the Dutch average. However, the programme director assured us that he anticipates a strong improvement in publications in the next period due to the recent hiring of new staff and a corresponding rise in research income. The substantial increase in the number of PhD fte's may have contributed to the lower productivity of the group.

This group is very strong in societal relevance. It provides packages for teachers, examines cognitive control within school programmes, disseminates popular-scientific information on cognitive aging to the public, and organises preschool science exhibitions.

The programme has excellent research facilities but as it constantly broadens its interests, there is a risk of overstretching and spreading itself too thin both at the technical and theoretical levels.

Conclusion
Although this is one of the best developmental programmes in the Netherlands, it needs to be somewhat wary of overstretching in the multiple domains and methods it attempts to cover, and thus of becoming overly broad.

Programme UvA 3: Quantitative Methods
Programme director: Prof. H. van der Maas
Research staff 2010: 17.34 fte

Assessments:	Quality:	5
	Productivity:	4.5
	Relevance:	5
	Viability:	5

Introduction
The mission of the programme is to improve psychological science in two ways: by developing research methodology and by contributing novel psychological theory. The cross-cutting vision is that these two are intertwined: Good substantive theories can be represented in mathematical form, and because formalized substantive theories are closely connected to statistical models, developing methodology goes hand in hand with developing theory.

Assessment of the SEP criteria
On the one hand, this programme has a very broad scope, on the other it is based on a very sharp and convincing vision. During the evaluation period, the programme made very strong substantive-theoretical and methodological contributions. These have been published in excellent journals and received a high number of citations. The group enjoys a very good academic reputation. Its earning capacity is excellent.

The ratio of the number of journal papers to the number of research ftes is good, but slightly below expectations. The group has an excellent productivity strategy that takes into account both their own research focus and the invited collaborations that they choose to accept. The ratio of the number of PhD students to the number of potential supervisors (tenured staff research ftes) was on the low side at the beginning of the evaluation period; however, since the new programme director joined the group in 2006, this ratio has improved considerably.

The programme has made significant additional efforts to attain societal relevance. Major aspects of these efforts include the Math Garden project (as well as the associated spin-off company), the production of freely available software packages to enable everyone to benefit from the new methodologies developed by the programme, and efforts to stimulate data-sharing in the psychology domain as a whole.

This is a very solid programme, buttressed by a group of highly talented and ambitious researchers. An especially promising aspect is the obvious strength of the young generation of researchers, although this does not detract from the pivotal role played by the current programme leader.

Conclusion
This is a strong group of highly talented researchers for which the future looks bright. Other key elements of the programme's strength include its position at the crossroads of substantive theorizing and methodological innovation, and the high level of ambition of the programme members. These key elements of success, however, also go with a twofold challenge: (1) to meet the very high standards the programme has set for itself, and (2) to attain great depth on the level of both substantive theorizing and methodological innovation. A not unimportant additional aspect may be to find out which synergies (primarily within the programme itself and secondarily with others) may be needed to successfully address these challenges.

Programme UvA 4: Brain and Cognition
Programme director: Prof. A.M.B. de Groot
Research staff 2010: 25.45 fte

Assessments:	Quality:	5
	Productivity:	5
	Relevance:	5
	Viability:	4.5

Introduction
The group consisted of 17 tenured staff (7.94 research fte) in 2010, an amount which has been rather stable over the evaluation period, non-tenured staff was 7 in 2010 (5.5 research fte), with an increase in the last year. The goal of the programme is to obtain a better understanding of the nature of human cognition and its neural basis. The programme emphasizes theory development, attempts to base explanations for cognitive phenomena on neurobiological principles, and has a focus on using cognitive research to understand clinical findings. The research is focused on three subprogrammes: Perception and Action sub-programme with a focus on how the human brain processes information and transforms it into adaptive behavior; Memory and Language subprogramme with a focus to identify the processes involved in retrieval from memory and how this is affected by other cognitive and individual factors; and Consciousness subprogramme with a focus on finding explanations for unaware information processing and how unaware incoming information affects behaviour and brain function. The different research programmes are highly integrated, and research in the different subprogrammes is carried out in cross-programme collaborations.

Assessment of the criteria
The research is of excellent quality, with an equally excellent research focus and integration across the three subgroups in the programme, with clear leadership and responsibility. The researchers in the Brain and Cognition programme are highly visible internationally and with a leading reputation in some areas. The members have excellent individual citation figures for their work, and normalized citations for their field are above the world and Dutch averages. In addition to publications in the major journals in their field, the group also has publications in high-impact journals like *PNAS* and *Nature Neuroscience* which further attests to the excellent quality of the research in the group. The group also has state-of-the-art knowledge and competence in neuroimaging. The Brain and Cognition group holds one of three ERC Advanced Grants awarded to Dutch psychologists, and the group has achieved major external funding over the years. Thus, the overall quality is excellent.

Productivity is also excellent, with a total of 319 refereed articles and 5 books produced in the evaluation period, plus a total of 20 PhD theses. The group has also contributed to a very high number of popular lectures and the publication of a popular book on consciousness which has become a national bestseller. Overall, the group's productivity is excellent.

The research profile is of basic science with clinical and applied aspects, and as such the work has a general societal relevance. In addition, members of the group have been instrumental in founding and establishing several companies and minor industrial valorisation related to neuromarketing, internet-based tests for patients, and specialized equipment for monitoring physiological systems. Its societal relevance is therefore excellent.

The group is relatively young, and with strong ambitions, which emphasises viability over time. However, the reduction of expected PhD students in the years to come could be a

concern for the group, which should be addressed. Overall, its viability is therefore very good to excellent.

Conclusion
This is an excellent research programme and group, especially when it comes to the quality of the research and the international reputation and visibility of the group members, with some being world-leaders in their respective subfields. The productivity and societal relevance are also excellent, in particular the ability to link basic research results to potential valorisation and industrialization of the findings. A small concern may be future PhD recruitment, which should be monitored by the programme leaders in the coming years.

Programme UvA 5: Social Psychology
Programme director: Prof. J. van der Pligt
Research staff 2010: 19.64 fte

Assessments:	Quality:	5
	Productivity:	4
	Relevance:	5
	Viability:	5

Introduction
The Social Psychology: Social Cognition, Affect, and Motivation programme is concerned with determinants, correlates, and consequences of human social behavior, as well as relevant applications. The programme concentrates on three complementary themes. The first is discrete emotions (e.g., guilt, happiness, fear). The second is motivation (e.g., goal setting, goal pursuit, temptation resistance). The third is social cognition (e.g., perception, attitudes, decision-making). The three themes are more generally embedded in the UvA's research priority of 'Affect Regulation' and, to some extent, the priority of 'Brain and Cognitive Sciences'.

Assessment of the SEP criteria
The programme is structured and led in an exemplary manner. There is an unusually high degree of interaction among members working on the various themes. This interface is both formal and informal and has resulted in strong collaborative ties. The quality of publications is excellent. Programme members have won major national and international awards, have served on editorial boards of prestigious journals, and have given keynote addresses at international conferences. The earning capacity is very good in absolute terms but below the Institute's average; this is attributable to the comings-and-goings during the assessment period, and in fact, funding is evincing an upward trajectory as of late. The PhD training is rigorous and nurturing. The programme's reputation has made it a very popular hub of scholarly activity, with over 100 international scientists having visited the programme in the last 6 years.

The productivity of the programme is solid, although it lags a bit behind the Dutch average in terms of refereed articles (but not in terms of chapters or books). The PhD output is highly commendable compared to the Institute.

The programme has been highly relevant to society in several ways. In particular, it has influenced policy-making. As an example with externally funded research, the programme developed a successful intervention to reduce the number of school leavers (based on reward rather than punishment). In another example based again on externally funded research, the programme was involved in setting up curricula to advance democratic values, in a broader attempt to prevent polarization between groups and radicalization. As a third example, the programme developed an effective intervention to increase pro-social behaviour among secondary school pupils in Germany. Finally, the programme has been advising relevant ministries on cultural integration and the emotionalization of society. In addition to influencing policy-making, programme members are actively engaged with the media and society at large, giving interviews and writing popular books (e.g., on the merging of energy companies in a multi-cultural environment and on self-regulation).

The vitality of the programme is very strong, and its versatility remarkable. The programme consists of a settled, stable staff. Senior members appear to mentor junior ones effectively.

Also, the programme aims to establish two professorships in the near future, responding to emerging challenges such as the increasing emphasis of funding agencies on (1) applied research and (2) a research-oriented master's degree.

Conclusions

This historic programme has been the flagship social psychology programme in the Netherlands. It has shown remarkable versatility in revamping itself into a three-pronged group, showcasing the three central foci of the field (i.e., social cognition, affect, motivation). Its quality, relevance, and vitality are excellent, although its uncompromising orientation toward quality has hampered its productivity somewhat. It is very well-positioned to take on future challenges and maintain in high international visibility.

Programme UvA 6: Work and Organizational Psychology
Programme director: Prof. A. van Vianen
Research staff 2010: 16.08 fte

Assessments:	Quality:	4
	Productivity:	4
	Relevance:	5
	Viability:	4

Introduction
The Individuals and Groups at Work programme aims to develop and test theory around individual development and behaviour, group processes and performance, and cross-level interaction between them. It undertakes both fundamental research and applied research.

Assessment of the SEP criteria
The tenured staff has grown from 12 in 2005 to 15 in 2010, and their research fte has risen from 5.6 to 6.71. Overall ftes including PhD students have increased from 11.1 to 16.08. The group has two full professors.

The group undertakes research in contexts ranging from the neuropsychology laboratory to work settings. It is distinctive for a group within Work and Organizational Psychology in undertaking a significant amount of research in laboratories, exploring the neurobiological bases of human cooperation and conflict. This has resulted in articles in journals such as *Science*. More generally, the group has an impressive proportion of articles published in high-quality journals in the fields of social psychology and work/organization psychology. In the majority of cases, the same single professor is either a principal or co-author, and the output and research focus appear to depend heavily upon him. Some of the research has resulted in models for potential organizational application. The level of citations, based on the mean normalised citations score in the five years to 2010, for the research output is above the international average for the subject area but well below the national Dutch average in Psychology. The financial position of the group is reported to be healthy, and the proportion of overall research funding within the Institute that comes to the group has fallen only slightly from 13.6% in 2005 to 12.4% in 2010.

The group produced 102 articles between 2005 and 2009. The productivity, judged in terms of article output per fte per annum is adequate, but it is some way below the national average. One explanation for this may be the claimed focus on publication in high-quality, English-language journals (though this is not borne out by bibliometric analysis). However, arguably, this strategy should be reflected in a higher citations score.

The broad subject area has the potential to be highly relevant, and there is evidence of an impressive application of the research. This is confirmed in a number of ways. For example, the model of employability developed from the group's research is used by the Dutch social security service. The Dutch Judicial Council uses some of the findings from research on group decision-making to inform its judgement and decision-making. And there is a contribution to national test validation. There is also evidence of involvement in professional and policy bodies and of communication to the wider public.

The group has a good mix of experienced and young, highly promising staff. There is an interesting, albeit quite diverse range of research activity. Plans for the future, reflected both in the strategy statement and the SWOT analysis section on 'Opportunities', imply a further

range of research activities. Some thought may need to be given to the risk of spreading the research too broadly and more particularly to the balance between laboratory and organizational research and between drawing on analytic frameworks from social psychology or from work/organizational psychology. Although he might deny it, the group currently seems to depend heavily for its focus and output on a single professor, which also reflects a pull towards social psychology. It is important that the younger staff deliver on their promise in the future.

Conclusion

This is an impressive group undertaking research of world-class quality. This research is distinctive within work and organizational psychology and is successfully published. The group may wish to reflect on the balance between what they term curiosity-driven research and organizational research. While there may be some questions about the balance of the research and in particular its organizational focus, the outlook for the future is promising.

APPENDICES

Appendix A: Explanation of the SEP criteria and scores

The four main criteria for assessment are: Quality, Productivity, Relevance, and Vitality & Feasibility. The assessment at the institute level primarily focuses on strategy and organisation, whereas the assessment at the level of the research group or programme primarily focuses on the performance and activities of researchers and the results of their work (output and outcome).

Quality	The level or degree of excellence of the research, compared to accepted (international) standards in that field. The scope of the term 'research' is not limited to the research results. Research management, research policy, research facilities, PhD training and the societal relevance of research are considered integral parts of the quality of work in an institute and its programmes.
Productivity	The relationship between input and output, judged in relation to the mission and resources of the institute.
Relevance	Social, economic and cultural relevance. Aspects to be considered are: ▪ *Social quality*: efforts of the institute or group to interact in a productive way with stakeholders in society ▪ *Social impact*: how research affects specific stakeholders or procedures in society ▪ *Valorisation*: activities aimed at making research results available and suitable for application in product, processes and services. Committee members can also remark on the relevance for the academic community, but the assessment should be on societal relevance.
Vitality & Feasibility	The ability to react adequately to important changes in the environment. Also vision for the future.

The scores on a five-point scale are:

5 Excellent	Research is world leading. Researchers are working at the forefront of their field internationally and their research has an important and substantial impact in the field.
4 Very Good	Research is considered nationally leading. Research is internationally competitive and makes a significant contribution to the field.
3 Good	Research is considered internationally visible. Work is competitive at the national level and makes a valuable contribution in the international field.
2 Satisfactory	Research is nationally visible. Work adds to our understanding and is solid, but not exciting.
1 Unsatisfactory	Work is neither solid nor exciting, flawed in the scientific and/or technical approach, repetitions of other work, etc.

Appendix B: Programme for the site-visits

Leiden University

19-sep-11

	19.30	Arrival of the committee	Dinner committee

20-sep-11

8.45	9.00	Arrival at Leiden University (UL)	prof. Ph. Spinhoven (dean), prof. M. Westenberg, prof. E. van Dijk, A. Zandvliet
9.00	10.30	Preparation - explanation of SEP and procedures during the site visit	C&S
10.30	11.30	Preparation UL	C&S
11.30	12.10	Institute UL	prof. Ph. Spinhoven (dean) prof. M. Westenberg prof. E. van Dijk A. Zandvliet
12.10	12.40	Lunch	C&S
12.40	13.20	Guided tour of the facilities	C&S
13.20	14.00	Programme UL3 - Self Regulation Models for Health Behaviour and Psychopathology	prof. Ph. Spinhoven prof. W. van der Does prof. S. Maes W. Gebhardt
14.00	14.40	Programme UL1 - Action Control	prof. B.Hommel S. Nieuwenhuis G. Band L. Colzato
14.40	14.55	Break	C&S
14.55	15.35	Programme UL4 - Pathways through Adolescence	prof. M. Westenberg prof. E. Crone prof. C. Rieffe D. Heyne
15.35	16.15	Programme UL5 - Multivariate Analysis of Psychological Data	prof. W.J. Heiser M. de Rooij C. van Putten prof. S. Rombouts
16.15	16.30	Break	C&S
16.30	17.10	Programme UL2 - Social Decision Making	prof. N. Ellemers prof. E. van Dijk W. van Dijk
17.10	17.50	PhD students	van Steenbergen (UL1) van Nunspeet (UL2) Verhoeven (UL3) Schel (UL4) Ninaber (UL5)
17.50	18.30	Evaluation UL	C&S
18.30	18.40	Formal completion of the site visit	Delegation UL
19.00 20.30		Dinner and evaluation Travel to Tilburg	C&S

Tilburg University

21-sep-11

8.45	9.00	Arrival at Tilburg University (UvT)	Delegation UvT Committee and Secretary (C&S)
9.00	10.00	Preparation UvT	C&S
10.00	10.40	Institute UvT	prof.K. Sijtsma (Vice Dean Research) drs. J.H. Dieteren (Director)
10.40	11.20	Programme UvT1 - Attachment, Emotion Regulation and Psychopathology	Prof. M.H.J. Bekker prof. A.J.J.M. Vingerhoets
11.20	12.00	Programme UvT2 - Cognitive Neurosciences	Prof. J.H.M. Vroomen prof. M.M. Sitskoorn dr. G.J.M. van Boxtel
12.00	12.30	Lunch	C&S
12.30	13.10	Guided tour of the facilities	C&S
13.10	13.50	Programme UvT3 - Cross-Cultural Psychology	prof. A.J.R. van de Vijver dr. A. Chasiotis dr. M. Bender
13.50	14.30	Programme UvT4 - Developmental Psychology	prof. B.R.H.M. van den Bergh prof. H.J.A. van Bakel dr. E. E. Hartman
14.30	15.10	Programme UvT5 - Latent Variable Models	prof. J.K. Vermunt dr. L.A. van der Ark dr. J.P.T.M. Gelissen
15.10	15.25	Break	C&S
15.25	16.05	Programme UvT6 - Medical Psychology	prof. S.S. Pedersen prof. J. Denollet prof. W.J. Kop dr. L. van de Poll dr. F. Pouwer
16.05	16.45	Programme UvT7 - Social Decision Making	prof.dr. M. Zeelenberg prof.dr. I. van Beest
16.45	17.25	PhD students	L. Zijlmans (UvT1) M. Baart (UvT2) R. Dimitrova (UvT3) R.A. Otte (UvT4) M.A.Mittelhaëuser (UvT5) K.A.H. Nicolaije (UvT6) J. van Wolferen (UvT7)
17.25	18.30	Evaluation UvT	C&S
18.30	18.40	Formal completion of the site visit in Tilburg	Delegation UvT C&S
19.00		Dinner	C&S
20.30		Travel to Maastricht	

Maastricht University

22-sep-11

8.45	9.00	Arrival at Maastricht University (UM) - entry UNS40	Rector Magnificus and/or Dean, Committee and Secretary (C&S)
9.00	10.00	Preparation UM	C&S
10.00	10.40	Institute UM/FPN	prof. B. Jansma (Dean) prof. M. Peters (board member research) prof. P. de Weerd (dir. Research Institute) S.Nederkoorn PhD (dir. Graduate School) prof. A. Sack (Director Research Master) R. Hoekstra MSc (Policy Advisor Research)
10.40	11.20	Programme UM1 - Clinical Psychological Science / Experimental Psychopathology (CPS/EPP)	prof. M. Huibers (chair & leader Clinical Psychology) prof. M. Peters (leader Behavioural Medicine) prof. A. Jansen (leader Eating Disorders) prof. D. Bernstein (leader Forensic Psy.)
11.20	12.00	Programme UM4 - Work and Social Psychology (WSP)	prof. F. Zijlstra (chair & leader work and Organisational Psychology) A. Bos PhD (ass.leader Applied Social Psy.)
12.00	12.30	Lunch	C&S
12.30	13.10	Guided tour of the facilities	C&S
13.10	13.50	Programme UM3 - Neuropsychology and Psychopharmacology (NPPP)	prof.dr. J. Ramaeker (chair) P. Hurks PhD (leader Neuropsychology) prof.W. Riedel (leader Psychopharmacology)
13.50	14.30	Programme UM2 - Cognitive Neuroscience (CN/M-BIC)	prof. E. Formisano (chair, leader Perception/ methods) prof. R. Goebel (leader Neurofeedback/ Methods) prof. A. Sack (leader Spatial Cognition/TMS) L. Jonkman PhD (leader brain development)
14.30	14.45	Break	C&S
14.45	15.25	PhD students	J. Zimmermann (UM2) J. Feilhauer (UM1) Y. Meevissen (UM1) I. Klinkenberg (UM3) A. Goulas (UM3) T. Otto (UM4)
15.25	16.45	Evaluation UM	C&S
16.45	17.00	Formal completion of the site visit in Maastricht	

Groningen University

16-okt-11

From	19.00	Arrival Committee	Dinner (optional)

17-okt-11

8.45	9.00	Arrival at Groningen University	Delegation RUG, Committee and Secretary (C&S)
9.00	10.00	Preparation RUG	C&S
10.00	10.40	Institute RUG	R. de Jong, H.A.L. Kiers, N. van Yperen
10.40	11.20	Programme RUG1 - Information Processing and Task Performance	A. Johnson, H. van Rijn, K. Brookhuis
11.20	12.00	Programme RUG2 - Interpersonal Behaviour	T. Postmes, N. van Yperen, R. Spears
12.00	12.30	Lunch	C&S
12.30	13.10	Guided tour of the facilities	C&S
13.10	13.50	Programme RUG3 - Experimental Psychotherapy & Psychopathology	P.J. de Jong,
13.50	14.30	Programme RUG4 - Theory and History of Psychology	
14.30	14.45	Break	C&S
14.45	15.25	Programme RUG5 - Developmental Processes	P.L.C. van Geert, S. Kunnen, H. Steenbeek
15.25	16.05	Programme RUG6 - Psychometrics and Statistics	R.R. Meijer, H.A.L. Kiers
16.05	16.45	Programme RUG7 - Neuropsychology across the Life-Span	O.M. Tucha
16.45	17.00	Break	C&S
17.00	17.40	PhD students	Selection (at least one PhD student/programme), C&S
17.40	17.50	Formal completion of the site visit in Groningen	
18.00		Dinner	C&S
20.30	22.30	Travel to Enschede	

University of Twente

18-okt-11

8.45	9.00	Arrival at University of Twente (UT)	Delegation UT, Committee and Secretary (C&S)
9.00	10.00	Preparation UT	C&S
10.00	10.40	Institute UT	prof. dr. E. Seydel
10.40	11.20	Programme UT1 - Cognitive Psychology and Ergonomics	prof.dr.ir. W.B. Verwey, C&S
11.20	12.00	Programme UT2 - Inquiry Learning in Powerful Learning Environments	Prof.dr.T. de Jong, C&S
12.00	12.30	Lunch	C&S
12.30	13.10	Guided tour of the facilities	C&S
13.10	13.50	Programme UT3 - Psychology and Communication of Health and Risk	Prof.dr. E.R. Seydel, C&S
13.50	14.30	Programme UT4 - Psychometrics and Statistics	Prof.dr. C.A.W. Glas, C&S
14.30	14.45	Break	C&S
14.45	15.25	PhD students	M. Ruitenberg, L. Buitinga, Y. Mulder, M. Avetisyan
15.25	16.25	Evaluation UT	C&S
16.25	17.30	Preparation UU	C&S
17.30	17.40	Formal completion of the site visit at University of Twente	
18.00		Dinner	C&S
20.00	21.30	Travel to Utrecht	

Utrecht University

19-okt-11

8.45	9.00	Arrival at Utrecht University (UU)	Delegation UU, Committee and Secretary (C&S)
9.00	9.20	Preparation UU	C&S
9.20	10.00	Institute UU	prof. W. Koops (dean), prof. M. van Aken
10.00	10.40	Programme UU6 - Social-Cognitive and Interpersonal Determinants of Behavioural Regulation	Prof. C. van den Bos, prof. H. Aarts, C&S
10.40	11.20	Programme UU1 - Trauma, Grief and Anxiety Disorders	Prof. J. van den Bout, prof. M. van den Hout, C&S
11.20	12.00	Programme UU3 - Experimental Psychology	Prof. A. Postma, prof. F. Verstraten, prof. L. Kenemans, C&S
12.00	12.30	Lunch	C&S
12.30	13.10	Guided tour of the facilities	C&S
13.10	13.50	Programme UU7 - Occupational Health Psychology	Prof.W.B. Schaufeli, prof. T. Taris C&S
13.50	14.30	Programme UU2 - Developmental Psychology Programme: a Transactional Approach	Prof. M.A.G. van Aken, prof. B. Orobio de Castro, C&S
14.30	15.10	Programme UU4 - Stress and Self-Regulation	Prof. D.T.D. de Ridder, C&S
15.10	15.25	Break	C&S
15.25	16.05	Programme UU5 - Methodology and Statistics Programme	Prof.dH. Hoijtink, prof. P. van der Heijden, prof. J. Hox, C&S
16.05	16.45	PhD students	Selection (at least one PhD student/programme), C&S
16.45	18.00	Evaluation UU	C&S
18.00	18.10	Formal completion of the site visit in Utrecht	
18.30		Dinner	C&S
20.30	21.15	Travel to Amsterdam	

VU University Amsterdam

20-okt-11

8.45	9.00	Arrival at VU University Amsterdam (VU)	Delegation VU, Committee and Secretary (C&S)
9.00	10.00	Preparation VU	C&S
10.00	10.40	Institute VU	Jan Passchier (Dean), Eco de Geus (vice-dean & research director), C&S
10.40	11.20	Programme VU4 - Cognitive Psychology: Attention and Performance	Prof.dr. J. Theeuwes, C&S
11.20	12.00	Programme VU2 - Clinical Neuropsychology: Mapping the Brain	Prof.dr. E. Scherder, prof.dr. Oosterlaan, C&S
12.00	12.30	Lunch	C&S
12.30	13.10	Guided tour of the facilities	C&S
13.10	13.50	Programme VU1 - Biological Psychology: Genes, Behaviour and Health	Prof.dr. D. Boomsma, C&S
13.50	14.30	Programme VU5 - Developmental Psychology: Social and Emotional Develoment	Prof.dr. H. Koot, prof.dr. P. van Lier, C&S
14.30	15.10	Programme VU3 - Clinical Psycology: Cognition, Affect, Behaviour, and Intervention in Mental Disorder	Prof.dr. P. Cuijpers, C&S
15.10	15.25	Break	C&S
15.25	16.05	Programme VU6 - Social and Organizational Psychology: Trust, Leadership and Cooperation	Prof.dr. P van Lange en prof. dr. M. van Vugt,C&S
16.05	16.45	PhD students	Selection (at least one PhD student/programme), C&S
16.45	17.40	Evaluation VU	C&S
17.40	17.50	Formal completion of the site visit at VU Amsterdam	
18.00		Evaluation meeting and dinner	C&S

University of Amsterdam

21-okt-11

8.45	9.00	Arrival at Amsterdam University (UvA)	Delegation UvA, Committee and Secretary (C&S)
9.00	10.00	Preparation UvA	C&S
10.00	10.40	Institute UvA	prof.dr. Edward H.F. De Haan, Dean prof.dr. Gerard A. Kerkhof, Director Res Institute prof.dr. Agneta H. Fischer, Head Dept prof.dr. Han L.J. van de Maas, Director Grad School
10.40	11.20	Programme UvA1 - Clinical Psychology	prof.dr. Merel Kindt prof.dr. Jan Henk Kamphuis prof.dr. K.Richard Ridderinkhof
11.20	12.00	Programme UvA2 - Developmental Psychology	prof.dr. Reinout Wiers dr. Hilde Huizenga prof.dr. Maartje Raijmakers
12.00	12.40	Programme UvA3 - Quantitative Methods	prof.dr. Han L.J. van der Maas dr. Denny Borsboom dr. Eric Jan Wagenmakers prof.dr. Paul A.L. de Boeck
12.40	13.10	Lunch	C&S
13.10	13.50	Guided tour of the facilities	C&S
13.50	14.30	Programme UvA4 - Brain and Cognition	prof.dr. Annette M.B. de Groot prof.dr. Victor A.F. Lamme prof.dr. Jeroen G.W. Raaijmakers dr. Hilde M. Geurts
14.30	15.10	Programme UvA5 - Social Psychology	prof.dr. Joop van der Pligt prof.dr. Agneta H. Fischer prof.dr. Jens A. Förster dr. Gerben A. van Kleef
15.10	15.25	Break	C&S
15.25	16.05	Programme UvA6 - Work and Organizational Psychology	prof.dr. Annelies E.M. van Vianen prof.dr. Carsten K.W. de Dreu dr. Edwin A.J. van Hooft dr. Lindy L. Greer
16.05	16.45	PhD students	M.G.N. Bos Denise S. Van Deursen A.O.J. Cramer Iris I.A. Groen Elise C. Seip Marieke Roskes
16.45	18.00	Evaluation UvA	C&S
18.00	18.10	Formal completion of the site visit at Amsterdam	

Appendix C: Short Curriculum Vitae of the committee members

Professor Gideon J. Mellenbergh (chair) studied psychology at the University of Amsterdam (master's degree: 1965; doctor's degree: 1971). He is emeritus professor of Psychological Methods at the University of Amsterdam, former director of the Interuniversity Graduate School of Psychometrics and Sociometrics (IOPS), and emeritus member of the Royal Netherlands Academy of Arts and Sciences (KNAW). His research is on the development, analysis, and application of psychological and educational measurement instruments. He taught on a large number of methodological topics (designs, measurement, and data analysis) for audiences varying from freshmen to dissertation students. Recently, he taught courses on methodological consultancy for research master and dissertation students.

Professor Marc Brysbaert studied psychology at the University of Leuven (Master: 1986; PhD: 1992). He is Research Professor at the Department of Experimental Psychology of Ghent University since 2008. Before, he was Professor of Psychology at Royal Holloway, University of London. He is specialised in language research and has also written three successful textbooks, which give him a broader range of knowledge. He is or has been action and consulting editor of several journals including Quarterly Journal of Experimental Psychology, Behavior Research Methods, Journal of Experimental Psychology: Learning, Memory, and Cognition, and Journal of Memory and Language. He teaches courses on psychology, cognitive psychology, and research methods.

David Guest is professor of Organizational Psychology and Human Resource Management at King's College, London. He has a first degree in Psychology and Sociology from Birmingham University and has a PhD in Occupational Psychology from London University. He has previously worked at the London School of Economics and Birkbeck, University of London where he was head of the Department of Organizational Psychology as well as a governor and Pro-Vice Master. He has been editor of the Journal of Organizational and Occupational Psychology and the British Journal of Industrial Relations. He is currently Managing Director and Director, Workforce Research Programme, of the King's NIHR Patient Safety and Service Quality Research Centre. His current research is concerned with the relationship between human resource management, organisational performance and employee well-being; the individualization of employment relations and the role of the psychological contract; flexibility and employment contracts; and theories of career boundaries and career regret.

Professor Kenneth Hugdahl took his bachelor degree in Psychology in 1973, and PhD degree in psychology in 1977 at the University of Uppsala, Sweden. He was appointed professor of Biological Psychology at the University of Bergen in 1984. Hugdahl is the Head of the Bergen fMRI Group since 1994 and was Head of the Norwegian Node of the Nordic Center of Excellence in Cognitive Control up to 2010. He has done basic and clinical research in psychophysiology and cognitive neuroscience and brain imaging related to hemispheric asymmetry, speech processing and dichotic listening, cognitive control, and auditory hallucinations in schizophrenia. He has been Chief Editor of Scandinavian Journal of Psychology, and serves as Associate Editor and reviewer for several journals, and has served on numerous international review panels and committees. He has published more than 300 articles and several books, including the 1995 textbook in Psychophysiology, published by Harvard University Press, and he edited the MIT Press three-volume series on brain asymmetry between 1995 - 2010. He is the recipient of an ERC Advanced Grant Award 2009, and has received numerous other awards for his research, including an honorary doctoral

degree at the University of Turku, Finland, 2009.

Professor Annette Karmiloff-Smith studied developmental and experimental psychology at the University of Geneva (licence: 1967; masters and diloma: 1972; 2 years working in Palestinian refugee camps in Beirut, followed by part-time doctorat: 1977, where she also worked as research collaborator of Piaget at the Centre for Genetic Epistemology). After returning to London, she headed the Neurocognitive Development Unit at the Institute of Child Health from which had to retire in 2006, when she joined Birkbeck's Centre for Brain and Cognitive Development, University of London, as a Professorial Research Fellow. She was elected Fellow of the British Academy, Fellow of the Academy of Medical Sciences, Member of the Academia Europaea, was awarded a CBE by the Queen for her services to neurocognitive development, and received honorary doctorates from Louvain, Amsterdam and Zeihjang. Her research focuses on neural and cognitive processes in developmental disorders as well as in infants raised in low socio-economic environments, with a particular emphasis on tracing cognitive-level deficits back to their basic-level roots in early infancy. She also studies genotype-phenotype relations. She is the author of 8 books (3 for the general public) and some 250 articles and book chapters, translated into 23 languages. She also plays a societal role, advising commercial enterprises on product design, child development, parental information, and the scientific correctness of advertising campaigns.

Professor Jürgen Margraf studied psychology, sociology and physiology at the Universities of Brussels, Kiel and Tübingen (Diploma in psychology 1983). After working as a research scholar in Psychiatry and Behavioral Sciences at Stanford University he finished his PhD at the University of Tübingen in 1986 and subsequently held faculty positions at the University of Berlin, Dresden and Basel. In 2009 he was the first psychologist to be awarded an Alexander von Humboldt-Professorship, Germany's most highly endowed scientific award. He now holds the chair of Clinical Psychology and Psychotherapy at Ruhr-University Bochum where his work on mental health focuses on the interplay between psychological, biological and social factors, using a combination of etiological, epidemiological and intervention research strategies. He was president of the European Association for Behavioural and Cognitive Therapies (EABCT) and founding president of the German National Scientific Council on Psychotherapy. He is a member of the Leopoldina - German National Academy of Science, a Fellow of the American Psychological Society and president-elect of the German Society for Psychology.

Professor Constantine Sedikides received his bachelor's degree from Aristotle University of Thessaloniki, Greece, in 1982, and his PhD from the Ohio State University, USA, in 1988. He served academic appointments at the University of Wisconsin—Madison (1988-1993) and the University of North Carolina at Chapel Hill (1993-1999). Since 1999, he has been the Director of the Center for Research on Self and Identity at the University of Southampton, UK. His research is on identity (invididual, relational, collective), self-evaluation, and self-conscious emotions (e.g., nostalgia). He has been a co-editor of Psychological Inquiry and on several editorial boards and grant panels. He has authored more than 220 articles and chapters, and 11 books. He is the recipient of several awards, including the Kurt Lewin Award (European Association of Social Psychology) and the Distinguished Service Award (International Society for Self and Identity).

Professor Iven Van Mechelen studied mathematics at the University of Antwerp (master's degree: 1980), and psychology at the University of Leuven (master's degree: 1984, doctor's degree: 1989). He is professor of Quantitative Psychology and Individual Differences at the University of Leuven, Fellow of the Association of Psychological Sciences, and President-

elect of the International Federation of Classification Societies. His methodological research is on classification models, and models for multiway data and data fusion; his substantive research focuses on contextualized personality psychology, the psychology of emotions, and applications in systems biology.

Appendix D: Additional information regarding the Leiden Institute of Psychology Resources and Funding, Output, research staff and the SWOT analysis

Resources and Funding at institute level – Leiden Institute of Psychology

	2005	2006	2007	2008	2009	2010
Leiden Institute of Psychology						
Funding						
Direct funding	47%	42%	43%	41%	44%	48%
Research Grants	21%	22%	23%	36%	36%	39%
Contract research	16%	21%	21%	8%	11%	9%
Other	16%	15%	13%	15%	9%	4%
Total Funding (k€)	**4559**	**4808**	**4749**	**5066**	**5200**	**6166**
Expenditure						
Personnel costs	91%	89%	88%	89%	89%	90%
Other costs	9%	11%	12%	12%	11%	10%
Total Expenditure (k€)	**4273**	**4865**	**5148**	**5604**	**5782**	**6405**

Funding at programme level

	2005	2006	2007	2008	2009	2010
Funding						
Action Control	24,8%	25,1%	23,3%	18,2%	18,9%	16,5%
Social Decision Making	30,9%	28,9%	30,6%	30,2%	24,6%	27,5%
Self Regulation Models for Health Behaviour and Psychophathogy	28,0%	25,9%	24,8%	28,7%	26,8%	27,4%
Pathways through Adolescence	9,4%	10,4%	11,5%	12,8%	19,7%	18,4%
Multivariate Analysis of Psychological Data	7,0%	9,7%	9,9%	10,1%	9,9%	10,1%

Research output at institute level – Leiden Institute of Psychology

	2005	2006	2007	2008	2009	2010
Leiden Institute of Psychology						
1. Scientific publications:						
1a. Refereed articles	150	177	192	159	181	188
1c. Books	4	5	6	3	0	3
1d. Book chapters	41	32	38	46	21	20
1e. PhD theses	6	6	13	15	15	13
1f. Refereed conference papers	4	9	4	5	2	5
Total scientific publications	**205**	**229**	**253**	**228**	**219**	**229**
2. Professional publications[2]	31	30	30	26	25	22
3. Publications for general public[3]	16	28	47	102	101	103
4. Other research output:	45	56	55	67	61	67

Research output at programme level

	2005	2006	2007	2008	2009	2010
1. Action Control						
1. Scientific publications:						
1a. Refereed articles	40	49	46	31	35	41
1c. Books	2	0	1	2	0	0
1d. Book chapters	6	6	3	3	2	4
1e. PhD theses	2	0	4	4	3	2
1f. Refereed conference papers	4	9	4	5	2	5
Total scientific publications	**54**	**64**	**58**	**45**	**42**	**52**
2. Social Decision Making						
1. Scientific publications:						
1a. Refereed articles	27	32	41	41	39	43
1c. Books	0	1	0	1	0	2
1d. Book chapters	13	13	13	13	7	5
1e. PhD theses	2	2	3	3	7	3
Total scientific publications	**42**	**48**	**57**	**58**	**53**	**53**
2. Professional publications[2]	7	18	12	8	14	8
3. Publications for general public[3]	1	4	13	6	16	51
4. Other research output:	10	14	19	23	21	18
3.Self Regulation Models for Health Behavior and Psychopathology						
1. Scientific publications:						
1a. Refereed articles	49	58	65	42	62	59
1c. Books	1	4	3	0	0	2
1d. Book chapters	10	9	16	20	10	8
1e. PhD theses	1	3	5	5	5	2
Total scientific publications	**61**	**74**	**89**	**67**	**77**	**71**
2. Professional publications[2]	12	5	13	6	3	4
3. Publications for general public[3]	9	8	7	38	45	16
4. Other research output:	5	6	6	8	7	11
4. Pathways through Adolescence						
1. Scientific publications:						
1a. Refereed articles	26	26	26	25	30	29
1c. Books	1	0	1	0	0	0
1d. Book chapters	7	3	2	6	1	1
1e. PhD theses	0	0	1	2	0	5
Total scientific publications	**34**	**29**	**30**	**33**	**31**	**35**
2. Professional publications[2]	1	0	2	3	2	2
3. Publications for general public[3]	1	10	15	49	23	14
4. Other research output:	11	14	13	19	16	18
5. Multivariate Analysis of Psychological Data						
1. Scientific publications:						
1a. Refereed articles	8	16	24	25	21	29
1c. Books	0	0	1	0	0	0
1d. Book chapters	5	1	4	4	1	2
1e. PhD theses	1	1	0	1	0	1
Total scientific publications	**14**	**18**	**29**	**30**	**22**	**32**
2. Professional publications[2]	4	1	0	4	6	4
3. Publications for general public[3]	0	0	4	0	3	1
4. Other research output:	9	9	5	7	7	5

Research staff at institute level – Leiden Institute of Psychology

	2005	2006	2007	2008	2009	2010
Leiden Institute of Psychology						
	fte	**fte**	**fte**	**fte**	**fte**	**fte**
tenured staff	31,1	24,08	24,38	23,95	20,98	21,68
non-tenured staff	8,46	9,16	8,49	8,24	13,07	14,62
PhD students	37,33	40,82	42,36	37,7	37,53	37,53
total research staff	*76,89*	*74,06*	*75,23*	*69,89*	*71,58*	*73,83*
Support staff	3,91	2,02	3,05	2,76	2,60	4,17
Total staff	*80,80*	*76,08*	*78,28*	*72,65*	*74,18*	*78,00*

Research staff at programme level

1. Action Control						
Tenured staff	3,32	4,63	4,98	4,92	3,15	3,32
Non-tenured staff	4,32	3,81	3,71	2,75	3,33	1,74
PhD-students	7,71	8,53	9,69	8,21	5,81	6,38
Total research staff	*15,35*	*16,97*	*18,38*	*15,88*	*12,29*	*11,44*
2. Social Decision Making						
Tenured staff	8,05	8,38	7,88	6,22	5,77	6,54
Non-tenured staff	1,80	2,80	2,13	1,80	2,97	4,94
PhD-students	11,19	12,57	11,17	9,60	6,84	7,68
Total research staff	*21,04*	*23,75*	*21,18*	*17,62*	*15,58*	*19,16*
3.Self Regulation Models for Health Behavior and Psychopathology						
Tenured staff	6,93	5,45	6,73	6,92	6,37	6,88
Non-tenured staff	1,97	1,25	1,33	0,08	0,83	1,64
PhD-students	11,50	10,44	8,62	7,81	12,09	11,70
Total research staff	*20,40*	*17,14*	*16,68*	*14,81*	*19,29*	*20,22*
4. Pathways through Adolescence						
Tenured staff	3,40	3,69	3,89	4,33	4,00	3,79
Non-tenured staff	0,13	0,55	0,58	0,91	1,43	1,77
PhD-students	4,56	6,65	9,55	9,40	10,51	8,30
Total research staff	*8,09*	*10,89*	*14,02*	*14,64*	*15,94*	*13,86*
5. Multivariate Analysis of Psychological Data						
Tenured staff	1,40	1,93	0,90	1,56	1,76	1,67
Non-tenured staff	0,24	0,75	0,74	2,70	4,51	4,53
PhD-students	2,37	2,63	3,33	2,68	2,28	3,47
Total research staff	*4,01*	*5,31*	*4,97*	*6,94*	*8,55*	*9,67*

SWOT analysis of the Leiden Institute of Psychology

Strengths

Thanks to the Partial Beta Funding and investments of the university in the LIBC and the related priority areas, the research facilities and infrastructure of the institute are excellent. This research environment has enabled the researchers to conduct cutting-edge research and thereby attract further top researchers in the field. The joint facilities also stimulate collaboration and innovation , and increase the competitiveness for attracting new grants.
The expertise and research interests within the institute are tuned to the broader developments in both science and society, such as the growing interest in the dynamics and the development of the brain, the cultural impact on cognition and group performance, the rationality of neural and behavioural decision-making, or the interaction between self-control and emotions.
The institute is near to having an equal participation of men and women; in the evaluation period, 47% of the researchers were female.
The research programmes have a recognizable profile and the programme directors have an excellent national and international reputation. The interdisciplinary spirit in the institute and the university is high, and there is ongoing collaboration with researchers from other universities in and outside of the country.
The local research master programme is very successful, as witnessed by the fact that almost all students in that programme have been offered PhD positions in excellent universities and research institutes. As the programme is offered in English, it also attracts students from abroad, which creates an international climate and provides the institute with a broad range of skills and talents for PhD projects.

Weaknesses

The difficult financial situation of the institute mostly allows for temporary positions, which in several cases have shown to be not sufficiently attractive to keep young talent and to attract excellent researchers. Moreover, even though the strong emphasis on experimental research in general, and on research on the brain-cognition interface in particular has helped the institute to occupy a central position in the LIBC network and the university's priority areas, this emphasis is rather costly in terms of apparatus, maintenance, technical and research assistance, genetic and endocrinological analyses, and subject payment. Most of these extra costs are not covered by the first-stream or partial-natural sciences research funding, and generally external funding schemes do not allow for covering them either. Moreover, increasing numbers of studies have ethical implications that (due to the required approval from ethics committees) slow down the research process considerably.

Opportunities

The institute's focus on combining both theory with application, as well as its interdisciplinary orientation fit well with the current public and political interests and research foci. They also fit with the EU's current and, even more so, future policy (Innovation Union plan) to concentrate funding on, among other things, brain processes, health, and innovative technology (e.g., cognitive robotics). With regard to brain processes, the institute entertains particularly intense and fruitful research collaborations with several units of the local hospital (LUMC), such as psychiatry, neurophysiology, neuropsychology, and radiology, and has access to cutting-edge technology, such as a 7T MRI scanner. With regard to health, there is a well-established collaboration with the local hospital (LUMC) and a number of mental-health facilities in and around Leiden. With regard to technology, the institute entertains research collaborations with both private companies and technical faculties in Leiden and Delft – which is likely to further benefit from the planned collaboration between the universities of Leiden, Delft and Rotterdam. Taken together, the institute is well-equipped for grant acquisition in the near and far future in terms of research orientation and expertise.

Threats

A major problem is the uncertainty regarding first-stream funding. Whereas the Institute of Psychology generates a stable market share for psychology students, the share of Leiden University as a whole is decreasing. This is expected to lead to future cutbacks. Given the recent cuts, which have effectively eliminated the available reserves, it will be difficult to maintain the current amount and quality level of (the rather expensive) research. Moreover, the present funding policy of the national NWO puts severe restrictions on submitting project-grant proposals: from the two main funding schemes that are available for psychologists, one (TOP) prohibits applicants to submit a new proposal for three years, independent of the success of the proposal, and the other (TALENT) permits only full and associate professors to submit proposals.

Appendix E: Additional information regarding the Tilburg School of Psychology Resources and Funding, Output, research staff and the SWOT analysis

Funding and Expenditure at institute level

	2005	2006	2007	2008	2009	2010
Tilburg School of Social and Behavioral Sciences						
Funding						
Direct funding	68%	71%	75%	69%	71%	65%
Research Grants	21%	20%	22%	26%	24%	27%
Contract research	11%	9%	3%	5%	6%	8%
Other	0%	0%	0%	0%	0%	0%
Total Funding (k€)	**2668**	**2799**	**4314**	**5801**	**6571**	**6811**
Expenditure						
Personnel costs	85,0%	83,0%	84,0%	84,0%	86,0%	82,0%
Other costs	15,0%	17,0%	16,0%	16,0%	14,0%	18,0%
Total Expenditure (k€)	**2684**	**2874**	**3420**	**4460**	**5509**	**6308**

Funding and Expenditure at programme level

	2005	2006	2007	2008	2009	2010
Funding						
1.Attachment, Emotion Regulation and Psychopathology				2%	5%	5%
2. Cognitive Neuroscience	20%	22%	19%	14%	17%	15%
3. Cross-Cultural Psychology	9%	10%	5%	6%	6%	6%
4. Developmental Psychology	6%	6%	4%	8%	7%	6%
5. Latent Variable Models	17%	17%	16%	19%	14%	15%
6. Medical Psychology	30%	29%	22%	23%	31%	32%
7. Social Decision Making	18%	16%	34%	28%	20%	21%

Research output at institute level

	2005	2006	2007	2008	2009	2010
Tilburg School of Social and Behavioral Sciences						
1. Scientific publications:						
1a. Refereed articles	106	116	193	220	223	218
1c. Books	3	4	1	5	2	5
1d. Book chapters	34	39	26	44	41	40
1e. PhD theses	6	6	14	14	12	14
1f. Refereed conference papers	4	3	5	4	8	6
Total scientific publications	**153**	**168**	**239**	**287**	**286**	**283**
2. Professional publications[2]	13	4	21	25	12	29

Output at programme level

	2005	2006	2007	2008	2009	2010
1.Attachment, Emotion Regulation and Psychopathology						
1. Scientific publications:						
1a. Refereed articles				25	26	26
1c. Books				3	0	2
1d. Book chapters				8	2	7
1e. PhD theses				3	0	1
1f. Refereed conference papers				1	2	2
Total scientific publications	**0**	**0**	**0**	**40**	**30**	**38**
2. Professional publications[2]				3	1	7
2. Cognitive Neuroscience						
1. Scientific publications:						
1a. Refereed articles	15	12	19	25	22	16
1c. Books	0	0	0	0	0	1
1d. Book chapters	1	1	0	2	0	3
1e. PhD theses	2	1	4	0	0	3
1f. Refereed conference papers	1	0	1	0	2	1
Total scientific publications	**19**	**14**	**24**	**27**	**24**	**24**
2. Professional publications[2]	4	0	1	1	3	2
3. Cross-Cultural Psychology						
1. Scientific publications:						
1a. Refereed articles	10	9	11	22	16	10
1c. Books	0	1	0	1	0	0
1d. Book chapters	9	15	10	12	14	9
1e. PhD theses	0	1	3	2	1	1
1f. Refereed conference papers	0	2	1	0	0	0
Total scientific publications	**19**	**28**	**25**	**37**	**31**	**20**
2. Professional publications[2]	0	0	1	1	0	1
4. Developmental Psychology						
1. Scientific publications:						
1a. Refereed articles	2	10	10	14	13	12
1c. Books	0	0	0	0	0	0
1d. Book chapters	0	0	1	2	1	0
1e. PhD theses	0	0	0	0	1	1
1f. Refereed conference papers	0	0	0	2	1	1
Total scientific publications	**2**	**10**	**11**	**18**	**16**	**14**
2. Professional publications[2]	0	1	1	1	0	14
5. Latent Variable Models						
1. Scientific publications:						
1a. Refereed articles	10	19	49	34	24	34
1c. Books	1	1	0	1	2	1
1d. Book chapters	12	4	7	7	7	10
1e. PhD theses	1	0	1	3	2	4
1f. Refereed conference papers	2	0	3	1	1	0
Total scientific publications	**26**	**24**	**60**	**46**	**36**	**49**
2. Professional publications[2]	3	0	1	5	0	2

6. Medical Psychology						
1. Scientific publications:						
1a. Refereed articles	45	50	75	83	110	106
1c. Books	2	1	0	1	0	0
1d. Book chapters	5	5	0	4	4	4
1e. PhD theses	2	4	4	5	6	3
1f. Refereed conference papers	0	0	0	0	0	0
Total scientific publications	**54**	**60**	**79**	**93**	**120**	**113**
2. Professional publications[2]	4	3	15	13	8	3
7. Social Decision Making						
1. Scientific publications:						
1a. Refereed articles	26	18	35	32	23	19
1c. Books	0	1	1	0	0	1
1d. Book chapters	7	15	11	11	16	8
1e. PhD theses	1	0	2	1	2	1
1f. Refereed conference papers	1	1	0	0	2	2
Total scientific publications	**35**	**35**	**49**	**44**	**43**	**31**
2. Professional publications[2]	2	0	2	1	0	3

Research staff at institute level

	2005	2006	2007	2008	2009	2010
Tilburg School of Social and Behavioral Sciences						
	fte	**fte**	**fte**	**fte**	**fte**	**fte**
tenured staff	10,66	12,2	13,48	14,98	19,74	21,44
non-tenured staff	7	7,4	8,7	18,35	18,55	12,65
PhD students	23,52	23,69	29,41	37,23	43,35	56,78
total research staff	**41,18**	**43,29**	**51,59**	**70,56**	**81,64**	**90,87**
Support staff	7,50	7,90	9,50	10,80	11,50	13,40
Total staff	*48,68*	*51,19*	*61,09*	*81,36*	*93,14*	*104,27*

Research staff at programme level

1. Attachment, Emotion Regulation and Psychopathology						
Tenured staff				1,44	2,34	2,56
Non-tenured staff				0,00	0,80	0,80
PhD-students				0,00	0,85	4,59
Total research staff				*1,44*	*3,99*	*7,95*
2. Cognitive Neuroscience						
Tenured staff	1,04	1,68	1,68	2,00	2,58	2,50
Non-tenured staff	2,60	2,60	3,00	3,00	2,20	2,00
PhD-students	5,10	5,10	5,78	7,65	8,33	9,52
Total research staff	*8,74*	*9,38*	*10,46*	*12,65*	*13,11*	*14,02*
3. Cross-Cultural Psychology						
Tenured staff	0,80	0,80	1,20	0,80	0,88	1,38
Non-tenured staff	0,80	1,80	1,00	2,00	2,00	1,00
PhD-students	2,21	1,53	1,53	2,55	3,40	3,40
Total research staff	*3,81*	*4,13*	*3,73*	*5,35*	*6,28*	*5,78*
4. Developmental Psychology						
Tenured staff	1,12	1,26	1,54	1,76	2,26	2,26
Non-tenured staff	0,00	0,00	0,00	1,00	0,00	0,00
PhD-students	0,85	1,53	1,53	4,93	5,95	5,61
Total research staff	*1,97*	*2,79*	*3,07*	*7,69*	*8,21*	*7,87*
5. Latent Variable Models						
Tenured staff	3,20	3,20	3,20	3,70	4,20	4,70
Non-tenured staff	0,00	0,00	0,00	1,00	1,20	1,20
PhD-students	3,97	4,82	7,82	9,01	10,03	9,86
Total research staff	*7,17*	*8,02*	*11,02*	*13,71*	*15,43*	*15,76*
6. Medical Psychology						
Tenured staff	2,80	3,06	3,66	3,40	3,80	3,86
Non-tenured staff	2,60	2,00	2,70	5,35	8,35	6,65
PhD-students	6,29	5,61	6,80	9,69	12,24	18,70
Total research staff	*11,69*	*10,67*	*13,16*	*18,44*	*24,39*	*29,21*
7. Social Decision Making						
Tenured staff	1,70	2,20	2,20	1,88	3,68	4,18
Non-tenured staff	1,00	2,00	4,00	6,00	4,00	1,00
PhD-students	5,10	5,10	5,95	3,40	2,55	5,10
Total research staff	*7,80*	*9,30*	*12,15*	*11,28*	*10,23*	*10,28*

SWOT analysis – Tilburg School of Psychology

Strengths

- High quality of research, apparent from a high output of publications and PhD theses and a high volume of external funding
- TSB is key player in two unique multidisciplinary research centres (TIBER and C*o*RPS)

Weaknesses

- Due to fast growth, in some groups the supervision of PhD students asks a lot from faculty members, because of a small Faculty/ PhD student ratio.
- Vulnerability of research groups that are strongly associated with one or two key professors

Opportunities

- Investing in joint ventures with outside partners to test basic knowledge in more applied settings using new technologies that are not available at Tilburg University (e.g., no Medical School available)
- Valorisation of themes with societal impact, especially within the multidisciplinary research areas
- Collaborations with Fontys and Avans Universities of Applied Sciences with respect to PhD projects
- Acquiring more funding from 7th and 8th EU Framework Programme

Threats

- Narrow profile of Tilburg University: Absence of medical laboratories and equipment (thus far resolved successfully by setting up intensive collaborations with teaching hospitals)
- Research in specific niches sensitive to the economic situations and economic trends

Appendix F: Additional information regarding the Faculty of Psychology and Neuroscience, Maastricht University: Resources and Funding, Output, research staff and the SWOT analysis

Funding and Expenditure at institute level

		2005	2006	2007	2008	2009	2010
Faculty of Psychology and Neuroscience							
Funding							
	Direct funding	65%	63%	64%	66%	65%	63%
	Research Grants	24%	26%	26%	23%	24%	25%
	Contract research	11%	11%	10%	11%	11%	12%
	Other	0%	0%	0%	0%	0%	0%
	Total Funding (k€)	**5931**	**6622**	**7281**	**8560**	**8819**	**9072**
Expenditure							
	Personnel costs	73,0%	78,0%	77,0%	80,0%	76,0%	77,0%
	Other costs	27,0%	22,0%	23,0%	20,0%	24,0%	23,0%
	Total Expenditure	**8107**	**8462**	**9421**	**10709**	**11529**	**11781**

Funding and Expenditure at programme level

Programme:	2005	2006	2007	2008	2009	2010
1. Clinical Psychological Science	40,5%	42,4%	42,6%	38,8%	33,4%	33,0%
2. Cognitive Neuroscience	32,9%	30,0%	28,2%	27,7%	28,4%	27,5%
3. Neuropsychology & Psychopharmacology	6,3%	6,7%	7,9%	11,8%	14,5%	14,3%
4. Work & Social Psychology	9,7%	11,1%	10,7%	12,0%	12,7%	12,6%

Research output at institute level

	2005	2006	2007	2008	2009	2010
Faculty of Psychology and Neuroscience						
1. Scientific publications:						
1a. Refereed articles	179	260	285	241	272	265
1c. Books	0	3	1	1	0	1
1d. Book chapters	16	26	23	23	23	10
1e. PhD theses	12	22	21	15	20	10
1f. Refereed conference papers						
Total scientific publications	**207**	**311**	**330**	**280**	**315**	**286**
2. Professional publications[2]	48	68	66	75	72	109
3. Publications for general public[3]	2	2	2	2	0	0
4. Other research output:						

Output at programme level	2005	2006	2007	2008	2009	2010
1. Clinical Psychological Science						
1. Scientific publications:						
1a. Refereed articles	84	102	139	107	116	92
1c. Books	0	1	0	0	0	0
1d. Book chapters	4	13	12	6	9	5
1e. PhD theses	5	8	12	8	8	3
1f. Refereed conference papers						
Total scientific publications	**93**	**124**	**163**	**121**	**133**	**100**
2. Professional publications[2]	29	42	49	68	56	89
3. Publications for general public[3]	2	1	1	1	0	0
4. Other research output:						

2. Cognitive Neuroscience						
1. Scientific publications:						
1a. Refereed articles	31	53	60	54	65	67
1c. Books	0	1	0	0	0	1
1d. Book chapters	7	7	5	6	2	2
1e. PhD theses	4	9	5	3	7	3
1f. Refereed conference papers						
Total scientific publications	**42**	**70**	**70**	**63**	**74**	**73**
2. Professional publications[2]	6	7	9	2	2	1
3. Publications for general public[3]	0	0	1	0	0	0
4. Other research output:						
3. Neuropsychology & Psychopharmacology						
1. Scientific publications:						
1a. Refereed articles	50	82	70	49	65	58
1c. Books	0	0	0	0	0	0
1d. Book chapters	2	0	1	3	11	0
1e. PhD theses	2	1	2	2	2	0
1f. Refereed conference papers						
Total scientific publications	**54**	**83**	**73**	**54**	**78**	**58**
2. Professional publications[2]	9	7	3	1	3	12
3. Publications for general public[3]	0	1	0	0	0	0
4. Other research output:						
4. Work & Social Psychology						
1. Scientific publications:						
1a. Refereed articles	21	37	21	35	35	52
1c. Books	0	1	1	1	0	0
1d. Book chapters	4	8	7	8	1	3
1e. PhD theses	1	4	3	2	4	4
1f. Refereed conference papers						
Total scientific publications	**26**	**50**	**32**	**46**	**40**	**59**
2. Professional publications[2]	4	16	7	4	13	10
3. Publications for general public[3]	0	0	0	1	0	0

Research staff at institute level

	2005	**2006**	**2007**	**2008**	**2009**	**2010**
Faculty of Psychology and Neuroscience						
	fte	**fte**	**fte**	**fte**	**fte**	**fte**
tenured staff	28,1	32,5	36,4	35,5	36,3	36,7
non-tenured staff	11,8	17,4	19,6	24	23,7	26,1
PhD students	59,3	59,6	52,8	54,5	63	64,5
total research staff	**99,2**	**109,5**	**108,8**	**114**	**123**	**127,3**
Support staff	29,90	25,20	28,70	29,20	27,50	27,10
Total staff	*129,10*	*134,70*	*137,50*	*143,20*	*150,50*	*154,40*

Research staff at programme level

1. Clinical Psychological Science						
Tenured staff	11,40	13,30	14,30	12,70	13,20	13,30
Non-tenured staff	2,80	4,90	6,60	5,90	3,90	8,10
PhD-students	25,40	30,20	22,50	21,10	26,80	22,90
Total research staff	*39,60*	*48,40*	*43,40*	*39,70*	*43,90*	*44,30*

2. Cognitive Neuroscience						
Tenured staff	8,80	9,90	11,20	11,30	11,00	10,60
Non-tenured staff	5,90	9,40	8,10	10,50	10,50	8,60
PhD-students	23,10	17,80	16,90	19,20	18,30	22,80
Total research staff	*37,80*	*37,10*	*36,20*	*41,00*	*39,80*	*42,00*
3. Neuropsychology & Psychopharmacology						
Tenured staff	2,80	3,50	4,70	5,30	6,10	6,00
Non-tenured staff	2,30	2,30	3,60	3,60	5,10	3,70
PhD-students	5,40	4,50	4,50	8,10	9,90	10,80
Total research staff	*10,50*	*10,30*	*12,80*	*17,00*	*21,10*	*20,50*
4. Work & Social Psychology						
Tenured staff	4,10	4,80	5,10	4,60	4,40	5,30
Non-tenured staff	0,90	0,90	1,40	4,10	4,30	5,80
PhD-students	5,40	7,10	8,90	6,20	8,00	8,10
Total research staff	*10,40*	*12,80*	*15,40*	*14,90*	*16,70*	*19,20*

SWOT Analysis for the Faculty of Psychology and Neuroscience, Maastricht University

Strengths

- Pioneer spirit of scientific staff: motivation, quality and competence are high. Staff members are relatively young, and actively take part in forming science at an internationally competitive level in the context of psychology and neuroscience.
- Strengths are well distributed across programmes
- High international impact and visibility as evidenced by QS world university and CHE excellence ranking
- Influx of high quality (international) Research Master PhD students develops new talents, which guarantees the continuation of scientific expertise in coming years
- Strong collaboration in the Netherlands, Europe and world wide
- Active valorisation (TMFI BV, Brain Innovation BV, Health Care Centres)
- Inter-faculty collaboration, especially within Health, Medicine & Life Sciences (cognition and health care), Law (forensics), and the Schools of Business & Economics and Governance (decision sciences)
- Extensive collaborations within FPN across programmes and departments in joint research projects, e.g. in the context of the UM central financed 'FPN goes Neuroscience' project
- The excellent research infrastructure with numerous dedicated labs and recent investments in two Virtual Reality labs, and in new (f)MRI systems of 3.0, 7.0 and 9.4 Tesla

Weaknesses

- FPN is almost fully developed in terms of its BA/MA programmes and their related directed government funding, resulting in less opportunities for developing new research lines
- FPN has a budget deficit in 2010 and the following years. This will likely lead to problems in retaining young talents and filling vacancies for two vital chairs (Neuropsychology and Neuroimaging Methods), and to an inability to appoint new PhD students and postdocs on direct funding or to continue to co-finance (match) externally funded projects
- The educational system of Problem Based Learning leads to a high teaching load for staff members (on average 10% higher compared to peers in NL)
- FPN grows, however this has not been accompanied by an increase in NOW successes. Whilst NOW MaGW is the main target for grant applications from FPN, it also has the lowest success rate.
- An alternative for indirect funding is the EU, where FPN's success has increased, however competition is extremely high. Project administration is also complex
- Room for investment in new initiatives is limited due to the budget situation and additional governmental cuts

Opportunities

- New infrastructural investments in two Virtual Reality labs and ultrahigh field imaging facilities create opportunities for cutting-edge research and new external funding options
- The establishment of the Maastricht Forensic Institute (TMFI) and TMFI BV is developing well, showing a

growing demand for services from FPN staff. This allows FPN to attract and retain new talent and to develop a critical mass of researchers within the forensic field.

- Developments in the context of post-academic education (life-long learning) and creation of privately funded Master programmes increase opportunities to retain young research talent
- Many staff members are young high potentials with excellent likelihood of obtaining prestigious personal grants (e.g. NOW Innovational Research Incentives Scheme, EU Marie Curie and ERC grants); the successful development of these talents via the FPN funding guidelines to spot and craft talent will be continued
- FPN has much required expertise regarding important societal problems (aging, health and health education, inclusive organisations, life long learning); FPN plays and will continue to play a visible and significant role in understanding and solving problems and societal challenges
- FPN has a tradition of multidisciplinary cooperation and may profit from the central UM strategy to invest in inter-faculty collaborative research (UM policy for 20011-2014)

Threats

- The planned governmental budget cuts for higher education and research and development
- The changed budget allocation system for universities work out negatively for the UM; young universities receive less funding for research compared to established universities;
- As a consequence of both budgetary measures, it will be difficult for FPN to attract new staff members and to retain talent, and to support new research initiatives
- The Brains Unlimited project is still financially risky: FPN signed commitment to deliver a significant amount of the running costs, based on indirect funding. The Province guaranteed risk coverage, but Brains Unlimited BV should ultimately be self-supporting
- FPN has not grown in NOW MaGW performance. To allow room for new investments, FPN has to find funding elsewhere. Europe is a target, but competition at EU level is high
- Pressure and time investment for grant writing grants is increasing. FPN has to guide the balance between funding acquisition and actually conducting excellent research.

Appendix G: Additional information regarding the Heymans Institute for Psychological Research, University of Groningen: Resources and Funding, Output, research staff and the SWOT analysis

Funding and Expenditure at institute level

		2005	2006	2007	2008	2009	2010
Heymans Institute							
Funding							
	Direct funding	64%	67%	67%	60%	66%	60%
	Research Grants	29%	30%	23%	22%	18%	23%
	Contract research	7%	3%	10%	17%	16%	17%
	Other	0%	0%	0%	0%	0%	0%
	Total Funding (k€)	**5289**	**4855**	**5174**	**5618**	**6301**	**8335**
Expenditure							
	Personnel costs	86,7%	84,3%	86,8%	88,0%	87,1%	82,2%
	Other costs	13,3%	15,7%	13,2%	12,0%	12,9%	17,8%
	Total Expenditure (k€)	**4749**	**5188**	**5500**	**5562**	**7099**	**8300**

Funding and Expenditure at programme level

	2005	2006	2007	2008	2009	2010
1. Information Processing and Task Performance	15,2%	14,0%	12,6%	13,7%	17,9%	17,7%
2. Interpersonal Behavior	47,0%	44,2%	43,5%	43,7%	39,8%	39,7%
3. Experimental Psychotherapy & Psychopathology	11,0%	12,3%	15,3%	14,8%	12,9%	12,1%
5. Developmental Processes	8,6%	9,3%	10,0%	10,7%	9,4%	9,3%
6. Psychometrics and Statistics	10,5%	12,2%	10,0%	8,9%	9,1%	8,2%
7. Neuropsychology across the life-Span	4,5%	4,5%	5,4%	4,6%	7,2%	9,1%

Research output at institute level

	2005	2006	2007	2008	2009	2010
Heymans Institute						
1. Scientific publications:						
1a. Refereed articles	133	145	113	161	199	204
1c. Books	1	2	0	2	2	1
1d. Book chapters	32	28	19	43	32	31
1e. PhD theses	14	13	12	16	19	12
1f. Refereed conference papers	0	0	0	3	0	3
Total scientific publications	**180**	**188**	**144**	**225**	**252**	**251**
2. Professional publications[2]	87	42	41	55	64	64
3. Publications for general public[3]	0	0	0	0	0	3
4. Other research output:	0	0	0	0	0	0

Output at programme level

	2005	2006	2007	2008	2009	2010
1. Information Processing and Task Performance						
1. Scientific publications:						
1a. Refereed articles	21	25	11	16	20	38
1c. Books	0	0	0	0	0	0
1d. Book chapters	8	6	1	3	3	8
1e. PhD theses	2	2	1	0	6	1
1f. Refereed conference papers	0	0	0	0	0	0
Total scientific publications	**31**	**33**	**13**	**19**	**29**	**47**
2. Professional publications[2]	18	11	16	8	6	6
2. Interpersonal Behavior						
1. Scientific publications:						
1a. Refereed articles	45	43	53	62	79	68
1c. Books	0	2	0	1	1	1
1d. Book chapters	15	17	10	27	26	9
1e. PhD theses	3	3	2	8	5	7
1f. Refereed conference papers	0	0	0	0	0	0
Total scientific publications	**63**	**65**	**65**	**98**	**111**	**85**
2. Professional publications[2]	34	13	14	14	13	12
3. Publications for general public[3]	0	0	0	0	0	1
3. Experimental Psychotherapy & Psychopathology						
1. Scientific publications:						
1a. Refereed articles	28	33	26	42	46	54
1c. Books	0	0	0	0	1	0
1d. Book chapters	5	2	5	8	2	4
1e. PhD theses	4	3	5	3	5	1
1f. Refereed conference papers	0	0	0	0	0	0
Total scientific publications	**37**	**38**	**36**	**53**	**54**	**59**
2. Professional publications[2]	14	6	4	7	19	15
3. Publications for general public[3]	0	0	0	0	0	1
5. Developmental Processes						
1. Scientific publications:						
1a. Refereed articles	10	6	5	9	5	9
1c. Books	0	0	0	0	0	0
1d. Book chapters	1	2	0	4	5	2
1e. PhD theses	2	1	0	2	1	1
1f. Refereed conference papers	0	0	0	1	0	2
Total scientific publications	**13**	**9**	**5**	**16**	**11**	**14**
2. Professional publications[2]	10	7	2	16	13	21
3. Publications for general public[3]	0	0	0	0	0	1
6. Psychometrics and Statistics						
1. Scientific publications:						
1a. Refereed articles	13	25	13	25	29	16
1c. Books	1	0	0	0	0	0
1d. Book chapters	4	1	1	2	1	3
1e. PhD theses	2	0	1	1	2	2
1f. Refereed conference papers	0	0	0	1	0	1
Total scientific publications	**20**	**26**	**15**	**29**	**32**	**22**
2. Professional publications[2]	6	4	5	5	1	5

7. Neuropsychology across the life-Spam						
1. Scientific publications:						
1a. Refereed articles	16	21	18	22	30	31
1c. Books	0	0	0	1	0	0
1d. Book chapters	5	0	3	2	3	5
1e. PhD theses	1	4	3	2	0	0
1f. Refereed conference papers	0	0	0	1	0	0
Total scientific publications	**22**	**25**	**24**	**28**	**33**	**36**
2. Professional publications[2]	7	1	0	5	3	5

Research staff at institute level

	2005	**2006**	**2007**	**2008**	**2009**	**2010**
Heymans Institute						
	fte	**fte**	**fte**	**fte**	**fte**	**fte**
tenured staff	19,6	19,1	19,2	22,7	27,5	30,4
non-tenured staff	5,3	5,3	3,9	5,4	7,2	13,4
PhD students	30,5	32,8	33,8	33,7	38,7	50,0
total research staff	**55,4**	**57,2**	**56,9**	**61,8**	**73,4**	**93,8**
Support staff	9,30	9,50	9,60	10,30	10,80	11,30
Total staff	*64,70*	*66,70*	*66,5*	*72,10*	*84,20*	*105,10*

Research staff at programme level

1. Information Processing and Task Performance						
Tenured staff	3,60	3,50	3,10	4,10	5,00	5,80
Non-tenured staff	1,00	1,90	0,60	1,10	1,00	2,00
PhD-students	3,60	2,40	3,20	3,90	6,80	9,40
Total research staff	*8,20*	*7,80*	*6,90*	*9,10*	*12,80*	*17,20*
2. Interpersonal Behavior						
Tenured staff	7,00	6,30	6,20	7,70	9,70	10,60
Non-tenured staff	1,90	1,00	1,00	1,40	2,80	5,20
PhD-students	17,20	17,70	17,80	18,80	21,40	23,20
Total research staff	*26,10*	*25,00*	*25,00*	*27,90*	*33,90*	*39,00*
3. Experimental Psychotherapy & Psychopathology						
Tenured staff	2,70	3,10	3,90	4,00	3,40	4,20
Non-tenured staff	0,00	0,20	0,00	0,20	1,00	0,80
PhD-students	4,20	4,60	5,70	5,40	5,40	7,20
Total research staff	*6,90*	*7,90*	*9,60*	*9,60*	*9,80*	*12,20*
5. Developmental Processes						
Tenured staff	1,90	1,90	1,90	2,10	2,20	2,50
Non-tenured staff	1,00	0,80	0,90	1,60	1,00	2,60
PhD-students	2,40	3,20	3,80	3,50	4,10	4,20
Total research staff	*5,30*	*5,90*	*6,60*	*7,20*	*7,30*	*9,30*
6. Psychometrics and Statistics						
Tenured staff	2,40	2,30	2,10	2,80	3,60	3,30
Non-tenured staff	1,40	1,40	1,40	0,90	1,20	2,10
PhD-students	2,50	4,10	2,50	1,50	0,90	2,90
Total research staff	*6,30*	*7,80*	*6,00*	*5,20*	*5,70*	*8,30*
7. Neuropsychology across the life-Span						
Tenured staff	2,00	2,00	2,00	1,80	3,60	4,00
Non-tenured staff	0,00	0,00	0,00	0,20	0,40	0,70
PhD-students	0,60	0,80	0,80	0,60	1,20	3,10
Total research staff	*2,60*	*2,80*	*2,80*	*2,60*	*5,20*	*7,80*

SWOT Analysis

Strengths
The programmes have proven to be successful and have shown themselves capable of adapting to new challenges and opportunities. Provided adequate and effective coaching, such success and adaptivity may reasonably be expected to be further enhanced, and for some programmes perhaps to be more firmly established, by the recent influx of many talented young staff members. The institute's major asset is a strong empirical tradition (grounded in up-to-date statistical methodology), paired with a strong international orientation – many of the researchers routinely publish in high-ranking journals. The recent influx of talented international staff associated with the English BaMa programme provides a natural and fertile basis for international collaboration.

Weaknesses
Individual programmes do not equally contribute to overall success at the HI level, both with regard to research productivity and acquisition of external funding. For most programmes, EU funding has been minor or absent.

Opportunities
The English Ba-programme in conjunction with strongly internationally oriented research master programmes (Faculty GMW and BCN) provides the HI with unique opportunities for early spotting and recruiting of international talent for potential PhD positions – some of this potential has already been realized. The geographical location of Groningen makes interdisciplinary collaboration with other groups at the RuG an attractive and practical alternative to within disciplinary collaboration with other groups at other universities – however, this could also be considered a potential threat. The RuG has selected 'Healthy ageing' as a key focus area for research – this strategically choice may be expected to offer many programmes interesting possibilities for funding and interdisciplinary collaborations.

Threats
An important threat is the uncertainty regarding research funding in the near future. At this time it is likely that direct research funding at Faculty level may be significantly reduced, and it may not be realistic to expect that this can be compensated for by a similarly substantial increase in external funding. However, financial projections indicate that this challenge can be largely met by a measured and modes reductions of the overall number of staff, which can be realized by only selectively opening positions after retirements or departure of staff for other reasons. Should financial conditions deteriorate further, the HI is prepared to increase average teaching load from the current, and comparatively luxurious 50% level to 55 or, at most, 60%. Underpinned by the very healthy student intake in the BaMa programmes, such measures should allow research in the HI to continue to flourish despite financial headwinds.

Appendix H: Additional information regarding the University of Twente: Resources and Funding, Output, and research staff

Funding and Expenditure at institute level

		2005	2006	2007	2008	2009	2010
Institute for Behavioral Research							
Funding							
	Direct funding	71%	75%	76%	76%	71%	77%
	Research Grants	17%	12%	12%	11%	16%	11%
	Contract research	11%	12%	11%	13%	13%	12%
	Other	1%	1%	1%	0%	0%	0%
	Total Funding (k€)	**6404**	**7755**	**6646**	**7260**	**7324**	**7262**
Expenditure							
	Personnel costs	83,0%	81,0%	82,0%	82,0%	83,0%	85,0%
	Other costs	17,0%	19,0%	18,0%	18,0%	17,0%	15,0%
	Total Expenditure (k€)	**6547**	**7749**	**5232**	**5917**	**7845**	**7849**

Funding and Expenditure at programme level

	2005	2006	2007	2008	2009	2010
Funding						
1. Cognitive Psychology and Ergonomics		9%	13%	12%	10%	10%
2. Inquiry learning in powerful learning environments	26%	23%	30%	29%	28%	24%
3. Psychology and Communication of Health and Risk	58%	56%	36%	36%	40%	47%
4. Psychometrics and Statistics	16%	12%	21%	23%	22%	19%

Research output at institute level

	2005	2006	2007	2008	2009	2010
Institute for Behavioral Research						
1. Scientific publications:						
1a. Refereed articles	68	85	76	94	97	117
1c. Books	1	0	1	3	2	6
1d. Book chapters	21	11	10	22	20	37
1e. PhD theses	10	5	6	8	12	9
1f. Refereed conference papers	14	16	15	17	30	15
Total scientific publications	**114**	**117**	**108**	**144**	**161**	**184**
2. Professional publications[2]	9	14	11	19	28	29
3. Publications for general public[3]	3	1	2	5	15	5
4. Other research output:	54	59	76	97	114	133

Output at programme level

	2005	2006	2007	2008	2009	2010
1. Cognitive Psychology and Ergonomics						
1. Scientific publications:						
1a. Refereed articles	16	24	15	17	16	16
1c. Books	0	0	0	0	0	0
1d. Book chapters	1	0	2	1	2	0
1e. PhD theses	0	0	0	0	3	2
1f. Refereed conference papers	2	10	3	5	14	3
Total scientific publications	**19**	**34**	**20**	**23**	**35**	**21**
2. Professional publications[2]	0	0	1	0	0	0
3. Publications for general public[3]	0	1	2	3	5	1
4. Other research output:	29	43	51	58	30	25
2. Inquiry learning in powerful learning environments						
1. Scientific publications:						
1a. Refereed articles	14	9	9	12	16	13
1c. Books	0	0	0	1	1	1
1d. Book chapters	6	3	4	10	8	5
1e. PhD theses	3	2	2	2	1	2
1f. Refereed conference papers	10	6	10	9	12	10
Total scientific publications	**33**	**20**	**25**	**34**	**38**	**31**
2. Professional publications[2]	3	3	1	1	17	8
3. Publications for general public[3]	0	0	0	0	0	0
4. Other research output:	28	20	24	20	23	33
3. Psychology and Communication of Health and Risk						
1. Scientific publications:						
1a. Refereed articles	24	33	36	41	31	52
1c. Books	0	0	1	2	1	3
1d. Book chapters	6	4	1	6	5	11
1e. PhD theses	2	3	2	6	4	4
1f. Refereed conference papers	1	0	2	0	1	1
Total scientific publications	**33**	**40**	**42**	**55**	**42**	**71**
2. Professional publications[2]	6	11	9	17	10	21
3. Publications for general public[3]	3	0	0	2	10	4
4. Other research output:	15	28	24	45	59	72
4. Psychometrics and Statistics						
1. Scientific publications:						
1a. Refereed articles	14	19	16	24	34	36
1c. Books	1	0	0	0	0	2
1d. Book chapters	8	4	3	5	5	21
1e. PhD theses	5	0	2	0	4	1
1f. Refereed conference papers	1	0	0	3	3	1
Total scientific publications	**29**	**23**	**21**	**32**	**46**	**61**
2. Professional publications[2]	0	0	0	1	1	0
3. Publications for general public[3]	0	0	0	0	0	0
4. Other research output:	1	3	0	0	2	3

Research staff at institute level						
	2005	**2006**	**2007**	**2008**	**2009**	**2010**
Institute for Behavioral Research						
	fte	**fte**	**fte**	**fte**	**fte**	**fte**
tenured staff	9,22	10,4	10,97	13,93	15,22	16,18
non-tenured staff	2,58	4,85	5,46	3,97	5,68	6,49
PhD students	13,62	17,17	21,15	22,62	27,57	28,86
total research staff	**25,42**	**32,42**	**37,58**	**40,52**	**48,47**	**51,53**
Support staff	1,80	1,80	0,80	3,07	3,60	3,60
Total staff	*27,22*	*34,22*	*38,38*	*43,59*	*52,07*	*55,13*
Research staff at programme level						
1. Cognitive Psychology and Ergonomics						
Tenured staff		0,90	1,60	1,70	1,70	2,30
Non-tenured staff		1,60	1,30	0,80	1,20	1,60
PhD-students		3,40	4,80	3,70	3,20	2,60
Total research staff	*0,00*	*5,90*	*7,70*	*6,20*	*6,10*	*6,50*
2. Inquiry learning in powerful learning environments						
Tenured staff	2,36	2,28	2,25	3,47	3,83	3,76
Non-tenured staff	0,40	0,40	0,40	0,70	0,70	0,70
PhD-students	5,23	4,93	5,43	4,73	4,68	4,74
Total research staff	*7,99*	*7,61*	*8,08*	*8,90*	*9,21*	*9,20*
3. Psychology and Communication of Health and Risk						
Tenured staff	3,86	4,22	4,12	6,06	6,79	6,72
Non-tenured staff	2,18	2,85	3,76	2,47	3,78	4,19
PhD-students	4,99	4,59	5,82	7,39	14,59	17,27
Total research staff	*11,03*	*11,66*	*13,70*	*15,92*	*25,16*	*28,18*
4. Psychometrics and Statistics						
Tenured staff	3,00	3,00	3,00	2,70	2,90	3,40
Non-tenured staff						
PhD-students	3,40	4,25	5,10	6,80	5,10	4,25
Total research staff	*6,40*	*7,25*	*8,10*	*9,50*	*8,00*	*7,65*

Appendix I: Additional information regarding the Faculty of Social Sciences, Utrecht University: Resources and Funding, Output, research staff and the SWOT analysis

Funding and Expenditure at institute level

	2005	2006	2007	2008	2009	2010
Faculty of Social Sciences						
Funding						
Direct funding	55%	60%	61%	55%	52%	55%
Research Grants	35%	32%	28%	30%	36%	31%
Contract research	10%	8%	11%	15%	12%	14%
Other	0%	0%	0%	0%	0%	0%
Total Funding (k€)	**6146**	**5763**	**6592**	**7817**	**8208**	**8673**
Expenditure						
Personnel costs	90,0%	90,0%	89,0%	89,0%	90,0%	92,0%
Other costs	10,0%	10,0%	11,0%	11,0%	10,0%	8,0%
Total Expenditure (k€)	**6301**	**5509**	**6273**	**7574**	**8537**	**8824**

Funding and Expenditure at programme level

	2005	2006	2007	2008	2009	2010
1. Trauma, Grief and Anxiety Disorders	13,1%	16,1%	15,0%	12,4%	13,2%	11,9%
2. A Transactional Approach	15,5%	14,4%	17,7%	15,9%	17,7%	16,7%
3. Experimental Psychology	27,8%	28,1%	24,6%	22,0%	19,4%	20,1%
4. Stress and Self-regulation	14,3%	10,2%	7,7%	14,3%	14,1%	16,6%
5. Methodology and Statistics	9,6%	14,1%	17,2%	13,6%	15,1%	15,9%
6. Social-Cognitive and interpersonal determinants of behavioural regulation	12,2%	10,0%	10,0%	14,6%	14,1%	11,8%
7. Occupational Health Psychology	7,3%	7,0%	7,8%	7,2%	6,3%	6,9%

Research output at institute level

	2005	2006	2007	2008	2009	2010
Faculty of Social Sciences						
1. Scientific publications:						
1a. Refereed articles	309	293	323	342	365	375
1c. Books	10	13	12	15	16	18
1d. Book chapters	51	47	57	44	52	37
1e. PhD theses	31	18	22	13	22	24
1f. Refereed conference papers	5	8	7	13	2	7
Total scientific publications	**406**	**379**	**421**	**427**	**457**	**461**
2. Professional publications[2]	49	71	53	59	41	62
3. Publications for general public[3]	0	2	16	30	26	37
4. Other research output:	38	81	81	221	213	290

Output at programme level

	2005	2006	2007	2008	2009	2010
1. Trauma, Grief and Anxiety Disorders						
1. Scientific publications:						
1a. Refereed articles	40	44	37	38	47	64
1c. Books	1	2	1	3	1	6
1d. Book chapters	6	1	9	14	10	0
1e. PhD theses	4	3	1	1	4	0
1f. Refereed conference papers						
Total scientific publications	**51**	**50**	**48**	**56**	**62**	**70**
2. Professional publications[2]	4	11	21	22	10	21
3. Publications for general public[3]	0	0	0	0	0	2
4. Other research output:	0	0	0	29	15	32
2. A Transactional Approach						
1. Scientific publications:						
1a. Refereed articles	26	25	27	35	46	48
1c. Books	3	2	2	4	6	3
1d. Book chapters	6	15	16	7	15	13
1e. PhD theses	6	3	2	5	1	5
1f. Refereed conference papers						
Total scientific publications	**41**	**45**	**47**	**51**	**68**	**69**
2. Professional publications[2]	9	12	2	8	10	10
3. Publications for general public[3]	0	0	0	0	0	0
4. Other research output:	16	15	25	65	56	50
3. Experimental Psychology Programme						
1. Scientific publications:						
1a. Refereed articles	89	110	89	94	82	78
1c. Books	1	0	1	0	0	0
1d. Book chapters	7	5	0	0	1	1
1e. PhD theses	9	5	6	2	5	5
1f. Refereed conference papers	3	5	2	3	0	0
Total scientific publications	**109**	**125**	**98**	**99**	**88**	**84**
2. Professional publications[2]	0	1	1	4	2	3
3. Publications for general public[3]	0	0	5	21	13	23
4. Other research output:	6	7	11	77	82	97
4. Stress and Self-regulation						
1. Scientific publications:						
1a. Refereed articles	42	38	58	30	38	50
1c. Books	1	2	1	0	0	0
1d. Book chapters	4	9	7	0	0	4
1e. PhD theses	4	2	6	1	2	4
1f. Refereed conference papers						
Total scientific publications	**51**	**51**	**72**	**31**	**40**	**58**
2. Professional publications[2]	25	20	12	13	9	8
3. Publications for general public[3]	0	1	11	9	12	12
4. Other research output:	0	35	15	4	16	51

5. Methodology and Statistics Programme						
1. Scientific publications:						
1a. Refereed articles	43	26	57	44	48	45
1c. Books	2	0	4	2	3	3
1d. Book chapters	2	3	1	4	4	6
1e. PhD theses	2	3	1	1	4	3
1f. Refereed conference papers	2	3	5	10	2	6
Total scientific publications	**51**	**35**	**68**	**61**	**61**	**63**
2. Professional publications[2]	9	11	8	6	6	13
3. Publications for general public[3]	0	0	0	0	0	0
4. Other research output:	12	20	21	23	25	38
6. Social Cognitive and Interpersonal determinants of behavioural regulation						
1. Scientific publications:						
1a. Refereed articles	32	20	32	58	52	66
1c. Books	2	3	2	4	2	2
1d. Book chapters	9	4	8	10	18	4
1e. PhD theses	4	1	4	3	4	6
1f. Refereed conference papers	0	0	0	0	0	1
Total scientific publications	**47**	**28**	**46**	**75**	**76**	**79**
2. Professional publications[2]	1	4	4	0	2	1
3. Publications for general public[3]	0	1	0	0	0	0
4. Other research output:	4	4	9	19	19	21
7. Occupational Health Psychology						
1. Scientific publications:						
1a. Refereed articles	37	30	23	43	41	24
1c. Books	0	1	4	0	3	1
1d. Book chapters	5	7	12	9	4	9
1e. PhD theses	2	1	3	0	2	1
1f. Refereed conference papers						
Total scientific publications	**44**	**39**	**42**	**52**	**50**	**35**
2. Professional publications[2]	1	12	5	6	2	6
3. Publications for general public[3]	0	0	0	0	0	0
4. Other research output:	0	0	0	4	0	1

Research staff at institute level

	2005	**2006**	**2007**	**2008**	**2009**	**2010**
Faculty of Social Sciences						
	fte	**fte**	**fte**	**fte**	**fte**	**fte**
tenured staff	28	28,49	27,69	28,14	28,12	27,5
non-tenured staff	15,12	13,59	15,6	13,85	15,88	18,95
PhD students	40,33	36,1	38,5	45,21	47,97	52,23
total research staff	**83,45**	**78,18**	**81,79**	**87,2**	**91,97**	**98,68**
Support staff	9,16	9,61	10,34	10,63	9,27	11,20
Total staff	*92,61*	*87,79*	*92,13*	*97,83*	*101,24*	*109,88*

Research staff at programme level

1. Trauma, Grief and Anxiety Disorders						
Tenured staff	4,05	3,89	3,64	3,84	3,68	3,54
Non-tenured staff	2,67	2,20	1,53	0,81	0,52	1,80
PhD-students	3,29	3,23	3,00	2,73	3,84	3,94
Total research staff	*10,01*	*9,32*	*8,17*	*7,38*	*8,04*	*9,28*

2. A Transactional Approach						
Tenured staff	3,71	3,46	3,46	3,39	3,92	3,95
Non-tenured staff	2,27	2,80	3,78	3,06	3,67	3,46
PhD-students	3,63	2,63	3,94	5,11	5,69	7,74
Total research staff	*9,61*	*8,89*	*11,18*	*11,56*	*13,28*	*15,15*
3. Experimental Psychology Programme						
Tenured staff	7,90	7,69	6,42	5,52	6,12	6,15
Non-tenured staff	3,93	3,31	2,19	2,85	2,59	5,84
PhD-students	17,60	15,83	16,54	14,21	12,14	12,48
Total research staff	*29,43*	*26,83*	*25,15*	*22,58*	*20,85*	*24,47*
4. Stress and Self-regulation						
Tenured staff	2,77	2,16	2,36	2,78	2,48	2,56
Non-tenured staff	3,42	3,50	4,22	1,72	1,85	2,34
PhD-students	3,27	1,94	2,13	5,76	6,72	6,75
Total research staff	*9,46*	*7,60*	*8,71*	*10,26*	*11,05*	*11,65*
5. Methodology and Statistics Programme						
Tenured staff	4,30	6,49	7,11	6,76	6,57	5,95
Non-tenured staff	1,53	0,83	0,50	0,63	0,90	0,99
PhD-students	2,36	3,36	5,70	5,04	7,54	9,46
Total research staff	*8,19*	*10,68*	*13,31*	*12,43*	*15,01*	*16,40*
6. Social Cognitive and Interpersonal determinants of behavioural regulation						
Tenured staff	2,58	2,40	2,12	3,63	3,15	2,99
Non-tenured staff	1,30	0,84	3,06	4,42	6,17	4,52
PhD-students	8,67	7,93	5,37	7,96	7,17	6,32
Total research staff	*12,55*	*11,17*	*10,55*	*16,01*	*16,49*	*13,83*
7. Occupational Health Psychology						
Tenured staff	2,87	2,40	2,58	2,22	2,20	2,36
Non-tenured staff	0,00	0,11	0,32	0,36	0,18	0,00
PhD-students	1,51	1,19	1,83	4,40	4,87	5,55
Total research staff	*4,38*	*3,70*	*4,73*	*6,98*	*7,25*	*7,91*

SWOT analysis

Strengths

- The international positioning of the staff (editorships, service on important scientific national and international organizations)
- Ability to attract funding from competitive internal (Dutch Scientific Organization – NWO, and external sources (e.g. Ministries, Companies)
- Attracting considerable numbers of young talent, typically as part of NWO projects as well as internationally renowned senior faculty
- Multidisciplinary research co-operation with the Faculty of Medicine, Biology, Pharmacy
- National and international cooperation both with other universities and research institutes and with external institutions.

Weaknesses

- Heavy teaching loads (50-60% for senior faculty)
- Little technical support staff
- Laboratory facilities have been sub-optimal, but partially have been and are currently being upgraded fully

Opportunities

- European funds from Framework programmes (DG Research)
- Active involvement in current Focus and Mass programmes subsidized by the university to enhance multidisciplinary research cutting across disciplines and Faculties. Psychology is prominently represented in these programmes.
- Growing social recognition of the value of psychological knowledge and research in the areas of e.g.

(mental) health, human development, work related psychological problems

- The strengthening of co-operations with organizations supporting fundamental and strategic research (e.g., Unilever, NIVEL and TNO).
- Notable, the University is investing over 3 million Euros to refurbish the laboratory facilities starting 2011, which will give rise to excellent facilities

Threats

- Reduction of direct research fund at Faculty level
- The emphasis of person-centred funding by NWO, which excludes senior staff from applying for larger funding possibilities
- Cross-fertilization of research between programmes could be enhanced
- The trend of Dutch universities to take full responsibility for PhD-training by setting up local graduate schools has led to a shift away from the successful National Research Schools. A new balance has to be struck between the overall responsibility of the university for the quality control of the training of all PhD's and the content of training courses, colloquia etc. to be delivered by the national schools.
- In addition to the increasing costs of large-scale data-collection, the strong experimental basis of psychology requires substantial investments in laboratory facilities (including brain scanning facilities) and technical staff at a natural science level (see however opportunities).

Appendix J: Additional information regarding the Faculty of Psychology and Education, VU University Amsterdam: Resources and Funding, Output, research staff and the SWOT analysis

Funding and Expenditure at institute level

		2005	2006	2007	2008	2009	2010
Funding							
	Direct funding	59%	57%	69%	69%	55%	56%
	Research Grants	32%	27%	22%	22%	33%	28%
	Contract research	9%	16%	10%	9%	12%	16%
	Other	0%	0%	0%	0%	0%	0%
	Total Funding (k€)	**7437**	**8450**	**7979**	**7943**	**9276**	**8988**
Expenditure							
	Personnel costs	70,0%	81,0%	89,0%	83,0%	73,0%	75,0%
	Other costs	30,0%	19,0%	11,0%	17,0%	37,0%	35,0%
	Total Expenditure (k€)	**7437**	**8450**	**7979**	**7943**	**9276**	**8988**

Funding and Expenditure at programme level	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Funding						
1. Genes, Behaviour and Health	25%	29%	26%	22%	31%	27%
2. Mapping the Brain	10%	7%	6%	10%	11%	12%
3. Cognition, Affect, Behaviour and Intervention in Mental Disorders	11%	13%	14%	16%	16%	19%
4. Attention and Performance	10%	11%	12%	13%	12%	12%
5. Developmental Psychology: Social and Emotional Development	13%	13%	12%	15%	12%	11%
6. Trust, Leadership and Cooperation	31%	28%	31%	24%	19%	18%

Research output at institute level

	2005	**2006**	**2007**	**2008**	**2009**	**2010**
FPP						
1. Scientific publications:						
1a. Refereed articles	227	254	248	317	298	307
1c. Books	5	6	8	6	7	10
1d. Book chapters	39	53	52	53	42	41
1e. PhD theses	15	11	18	26	15	20
1f. Refereed conference papers	2	1	3	9	13	2
Total scientific publications	**288**	**325**	**329**	**411**	**375**	**380**
2. Professional publications[2]	22	18	18	15	11	18
3. Publications for general public[3]	4	6	3	4	4	4
4. Other research output:	1	7	9	1	4	1

Output at programme level	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
1. Genes, Behaviour and Health						
1. Scientific publications:						
1a. Refereed articles	49	60	61	69	63	77
1c. Books	0	0	2	1	0	0
1d. Book chapters	3	4	5	19	5	1
1e. PhD theses	1	4	3	6	3	1
1f. Refereed conference papers	1	0	0	0	3	0
Total scientific publications	**54**	**68**	**71**	**95**	**74**	**79**

2. Professional publications[2]	0	1	0	0	1	0
3. Publications for general public[3]	1	1	1	1	1	1
4. Other research output:	0	5	2	1	3	1
2. Mapping the Brain						
1. Scientific publications:						
1a. Refereed articles	53	38	24	67	43	26
1c. Books	0	0	0	0	0	0
1d. Book chapters	0	0	0	5	1	1
1e. PhD theses	5	0	3	2	0	1
1f. Refereed conference papers	0	0	1	0	8	1
Total scientific publications	**58**	**38**	**28**	**74**	**52**	**29**
2. Professional publications[2]	4	1	0	2	0	0
3. Publications for general public[3]	0	0	0	0	3	3
4. Other research output:	0	0	0	0	0	0
3. Cognition, Affect, Behaviour and Intervention in Mental Disorders						
1. Scientific publications:						
1a. Refereed articles	24	51	62	64	80	92
1c. Books	3	1	4	4	4	3
1d. Book chapters	2	15	12	10	8	12
1e. PhD theses	2	3	4	4	3	6
1f. Refereed conference papers	0	0	0	0	0	0
Total scientific publications	**31**	**70**	**82**	**82**	**95**	**113**
2. Professional publications[2]	3	11	11	3	7	13
3. Publications for general public[3]	0	2	0	0	0	0
4. Other research output:	0	0	3	0	1	0
4. Attention and Performance						
1. Scientific publications:						
1a. Refereed articles	38	34	22	41	32	38
1c. Books	0	0	0	0	0	0
1d. Book chapters	2	1	1	0	0	3
1e. PhD theses	1	1	2	1	3	1
1f. Refereed conference papers	0	0	0	1	2	0
Total scientific publications	**41**	**36**	**25**	**43**	**37**	**42**
2. Professional publications[2]	1	0	0	0	0	0
3. Publications for general public[3]	0	1	0	1	0	0
4. Other research output:	0	0	2	0	0	0
5. Developmental Psychology: Social and Emotional Development						
1. Scientific publications:						
1a. Refereed articles	26	38	42	41	40	33
1c. Books	0	2	2	1	2	4
1d. Book chapters	12	8	5	6	7	10
1e. PhD theses	3	3	3	4	4	6
1f. Refereed conference papers	0	0	0	8	0	0
Total scientific publications	**41**	**51**	**52**	**60**	**53**	**53**
2. Professional publications[2]	6	2	2	4	2	5
3. Publications for general public[3]	0	0	0	0	0	0
4. Other research output:	1	2	0	0	0	0
6. Trust, Leadership and Cooperation						
1. Scientific publications:						
1a. Refereed articles	37	33	37	35	40	41
1c. Books	2	3	0	0	1	3
1d. Book chapters	20	25	29	13	21	14
1e. PhD theses	3	0	3	9	2	5

1f. Refereed conference papers	1	1	2	0	0	1
Total scientific publications	**63**	**62**	**71**	**57**	**64**	**64**
2. Professional publications[2]	8	3	5	6	1	0
3. Publications for general public[3]	3	2	2	2	0	0
4. Other research output:	0	0	2	0	0	0

Research staff at institute level

	2005	**2006**	**2007**	**2008**	**2009**	**2010**
FPP						
	fte	**fte**	**fte**	**fte**	**fte**	**fte**
tenured staff	17,4	18,3	19,9	17,9	17,7	16,2
non-tenured staff	17,5	15,1	17,1	15,2	14,2	17,7
PhD students	33,9	38,4	38,6	38,6	39	41,1
total research staff	**68,8**	**71,8**	**75,6**	**71,7**	**70,9**	**75**
Support staff	6,30	6,20	8,30	5,50	8,40	6,90
Total staff	*75,10*	*78,00*	*83,90*	*77,20*	*79,30*	*81,90*

Research staff at programme level

1. Genes, Behaviour and Health						
Tenured staff	3,60	3,80	4,40	4,00	3,00	2,90
Non-tenured staff	4,00	5,00	4,80	3,20	4,50	5,80
PhD-students	7,60	8,80	7,80	7,90	8,70	7,90
Total research staff	*15,20*	*17,60*	*17,00*	*15,10*	*16,20*	*16,60*
2. Mapping the Brain						
Tenured staff	1,50	1,60	1,80	1,70	2,10	1,60
Non-tenured staff	1,90	0,70	1,00	1,30	1,80	2,40
PhD-students	3,40	3,00	1,90	3,40	4,90	6,50
Total research staff	*6,80*	*5,30*	*4,70*	*6,40*	*8,80*	*10,50*
3. Cognition, Affect, Behaviour and Intervention in Mental Disorders						
Tenured staff	1,50	1,90	2,00	2,10	2,00	1,80
Non-tenured staff	2,20	1,50	2,50	3,40	3,40	4,60
PhD-students	3,10	3,60	6,30	8,90	9,50	10,90
Total research staff	*6,80*	*7,00*	*10,80*	*14,40*	*14,90*	*17,30*
4. Attention and Performance						
Tenured staff	1,70	1,70	2,10	2,30	2,80	2,60
Non-tenured staff	3,00	3,00	4,30	2,90	2,50	2,70
PhD-students	4,90	6,90	7,90	7,30	5,10	5,30
Total research staff	*9,60*	*11,60*	*14,30*	*12,50*	*10,40*	*10,60*
5. Developmental Psychology: Social and Emotional Development						
Tenured staff	3,00	3,20	3,40	3,10	2,60	2,50
Non-tenured staff	2,60	2,70	1,80	1,80	1,40	0,30
PhD-students	1,50	2,00	2,30	5,10	4,60	4,30
Total research staff	*7,10*	*7,90*	*7,50*	*10,00*	*8,60*	*7,10*
6. Trust, Leadership and Cooperation						
Tenured staff	6,10	6,10	6,20	4,70	5,20	4,80
Non-tenured staff	3,80	2,20	2,70	2,60	0,60	1,60
PhD-students	13,40	14,10	12,40	6,00	6,20	6,20
Total research staff	*23,30*	*22,40*	*21,30*	*13,30*	*12,00*	*12,60*

SWOT analysis

Strengths

- High societal relevance of research themes (e.g. gene-environment interaction, prevention and treatment of anxiety and depression in childhood and adulthood, internet-therapy, attention regulation and attention deficits, human cooperation and social dilemmas)
- Pool of talented junior and senior researchers with extensive international networks
- Excellent infrastructure for experimentation and good technical soft- and hardware support
- Valuable longitudinal data collection and bio bank resources
- Increased earning capacity

Weaknesses

- The programmes are based on relatively small groups, and the loss of the programme leadership (even a single person) could potentially deal a vital blow to earning capacity
- Non-research related workload (e.g. reporting obligations) of senior staff has strongly increased as has the time spent on acquisition. This erodes the quality of education (further development/adjustment of a course) and the quality of PhD and junior scientist supervision

Opportunities

- Campus wide collaboration in the new Health and Life Sciences cluster offers new research opportunities. Health and Life Sciences was elected to be one of the 10 focus science fields in the Netherlands
- Faculty is well positioned to import the ongoing stream of breakthroughs in the characterization of the genome, transcriptome, metabolome, and microbiome in Psychology
- The huge increase in internet and mobile phone use opens up novel ways to collect behavioural data and to research, develop and apply e-Health
- Positioning in Amsterdam helps attract (inter)national talent

Threats

- Less research funds from university and national funding agencies, particularly for basic science
- Potential downside of pressure towards interdisciplinary research is that psychology may lose its specific identity and its strengths in theory-building, experimentation and statistical methodology
- Current funding mechanisms may drive a wedge between fundamental and clinical and applied (valorised) research.

Appendix K: Additional information regarding the Psychology Research Institute, University of Amsterdam: Resources and Funding, Output, research staff and the SWOT analysis

Funding and Expenditure at institute level

	2005	2006	2007	2008	2009	2010
Psychology Research Institute UvA						
Funding						
Direct funding	66%	61%	63%	51%	51%	51%
Research Grants	31%	35%	30%	43%	41%	43%
Contract research	3%	2%	3%	6%	7%	5%
Other	0%	3%	4%	1%	2%	1%
Total Funding (k€)	**7380**	**9297**	**8520**	**11216**	**13079**	**14855**
Expenditure						
Personnel costs	72,8%	82,5%	77,6%	57,3%	60,6%	62,3%
Other costs	27,2%	17,5%	22,4%	42,7%	39,4%	37,7%
Total Expenditure (k€)	**7380**	**9297**	**8520**	**11216**	**13079**	**14855**

Funding and Expenditure at programme level

	2005	2006	2007	2008	2009	2010
Funding						
1. Clinical Psychology	12%	12%	15%	18%	19%	18%
2. Development Psychology	19%	25%	23%	22%	24%	22%
3. Quantitative Methods	8%	10%	15%	16%	15%	13%
4. Brain and Cognition	21%	24%	17%	13%	17%	20%
5. Social Psychology	26%	15%	16%	17%	12%	15%
6. Work and Organizational Psychology	14%	14%	14%	14%	12%	12%

Research output at institute level

	2005	2006	2007	2008	2009	2010
Psychology Research Institute UvA						
1. Scientific publications:						
1a. Refereed articles	186	181	223	226	227	345
1c. Books	1	2	5	0	4	3
1d. Book chapters	35	28	32	46	41	33
1e. PhD theses	19	10	17	7	9	8
1f. Refereed conference papers	2	0	3	0	6	3
Total scientific publications	**243**	**221**	**280**	**279**	**287**	**392**
2. Professional publications[2]	65	55	59	55	82	45
3. Publications for general public[3]	35	47	47	32	44	68
4. Other research output:	227	232	270	242	167	291

Output at programme level

	2005	2006	2007	2008	2009	2010
1. Clinical Psychology						
1. Scientific publications:						
1a. Refereed articles	55	41	59	71	51	92
1c. Books	0	1	1	0	2	1
1d. Book chapters	6	2	6	5	8	8
1e. PhD theses	5	2	3	1	1	4
1f. Refereed conference papers	0	0	0	0	1	0
Total scientific publications	**66**	**46**	**69**	**77**	**63**	**105**
2. Professional publications[2]	42	28	28	17	33	14
3. Publications for general public[3]	13	8	10	12	18	25
4. Other research output:	53	42	53	46	52	42
2. Development Psychology						
1. Scientific publications:						
1a. Refereed articles	31	24	27	28	43	83
1c. Books	0	0	0	0	0	0
1d. Book chapters	1	0	4	3	5	6
1e. PhD theses	1	1	1	1	2	1
1f. Refereed conference papers	0	0	2	0	3	0
Total scientific publications	**33**	**25**	**34**	**32**	**53**	**90**
2. Professional publications[2]	3	1	2	2	9	8
3. Publications for general public[3]	0	1	4	0	2	1
4. Other research output:	7	12	16	15	9	18
3. Quantitative Methods						
1. Scientific publications:						
1a. Refereed articles	33	44	23	32	31	45
1c. Books	1	0	1	0	0	0
1d. Book chapters	1	0	1	4	6	2
1e. PhD theses	1	2	1	1	1	0
1f. Refereed conference papers	0	1	0	0	0	2
Total scientific publications	**36**	**47**	**26**	**37**	**38**	**49**
2. Professional publications[2]	3	9	2	4	8	2
3. Publications for general public[3]	2	7	7	0	5	9
4. Other research output:	8	14	15	10	15	21
4. Brain and Cognition						
1. Scientific publications:						
1a. Refereed articles	39	44	70	46	56	67
1c. Books	0	1	2	0	1	1
1d. Book chapters	7	8	4	8	6	3
1e. PhD theses	5	2	4	3	5	1
1f. Refereed conference papers	2	1	2	0	2	1
Total scientific publications	**53**	**56**	**82**	**57**	**70**	**73**
2. Professional publications[2]	11	7	15	11	8	5
3. Publications for general public[3]	9	11	13	12	9	25
4. Other research output:	47	40	55	55	45	56

5. Social Psychology						
1. Scientific publications:						
1a. Refereed articles	25	30	35	39	41	37
1c. Books	0	0	1	0	0	1
1d. Book chapters	8	11	8	21	14	11
1e. PhD theses	5	1	5	1	2	3
1f. Refereed conference papers	0	0	0	0	0	0
Total scientific publications	**38**	**42**	**49**	**61**	**57**	**52**
2. Professional publications[2]	2	1	3	7	2	5
3. Publications for general public[3]	10	1	5	1	2	3
4. Other research output:	70	72	88	65	70	83
6. Work and Organizational Psychology						
1. Scientific publications:						
1a. Refereed articles	22	17	29	28	25	41
1c. Books	0	0	0	0	1	0
1d. Book chapters	12	7	9	5	2	3
1e. PhD theses	2	2	2	1	0	2
1f. Refereed conference papers	1	0	0	0	0	0
Total scientific publications	**37**	**26**	**40**	**34**	**28**	**46**
2. Professional publications[2]	4	9	9	14	22	11
3. Publications for general public[3]	1	19	8	7	8	5
4. Other research output:	53	52	45	50	76	72

Research staff at institute level

	2005	**2006**	**2007**	**2008**	**2009**	**2010**
Psychology Research Institute UvA						
	fte	**fte**	**fte**	**fte**	**fte**	**fte**
Tenured staff	27,01	25,91	33,40	34,15	40,34	38,28
Non-tenured staff	13,85	13,19	11,12	12,66	17,55	21,81
PhD-students	41,05	30,97	38,26	53,66	66,53	69,62
Total research staff	*81,91*	*70,07*	*82,69*	*100,47*	*124,42*	*129,71*
Support staff	10,64	11,46	12,73	15,24	15,30	18,81
Total staff	*92,55*	*81,53*	*95,42*	*115,71*	*139,72*	*148,52*

Research staff at programme level

	2005	**2006**	**2007**	**2008**	**2009**	**2010**
1. Clinical psychology						
Tenured staff	3,98	4,64	5,87	6,74	8,49	6,17
Non-tenured staff	1,48	0,51	1,36	4,99	4,57	5,12
PhD-students	4,35	3,35	5,49	6,81	11,11	11,64
Total research staff	9,81	8,50	12,72	18,54	24,17	22,93
2. Development psychology						
Tenured staff	3,10	3,45	4,87	6,70	7,04	7,19
Non-tenured staff	5,55	6,13	4,34	3,59	7,76	4,59
PhD-students	7,16	8,16	9,49	11,40	15,59	16,49
Total research staff	15,81	17,74	18,70	21,69	30,39	28,27
3. Psychological Methods						
Tenured staff	2,53	2,56	4,73	4,65	4,70	5,17
Non-tenured staff	1,48	2,26	1,00	1,00	1,80	2,80
PhD-students	2,61	1,84	6,64	10,33	11,83	9,37
Total research staff	6,62	6,66	12,37	15,98	18,33	17,34

4. Brain and Cognition						
Tenured staff	5,86	6,91	6,47	5,65	7,14	7,94
Non-tenured staff	2,50	1,45	2,08	1,75	3,31	5,50
PhD-students	8,72	8,42	5,74	5,21	10,89	12,01
Total research staff	17,08	16,78	14,29	12,61	21,34	25,45
5. Social Psychology						
Tenured staff	5,94	3,22	5,56	5,30	6,68	5,10
Non-tenured staff	1,84	1,84	2,34	1,33	0,11	2,80
PhD-students	13,71	5,52	5,53	10,70	8,74	11,74
Total research staff	21,49	10,58	13,34	17,33	15,53	19,64
6. Work and Organizational Psychology						
Tenured staff	5,60	5,13	5,90	5,11	6,29	6,71
Non-tenured staff	1,00	1,00	0,00	0,00	0,00	1,00
PhD-students	4,50	3,68	5,37	9,21	8,37	8,37
Total research staff	11,10	9,81	11,27	14,32	14,66	16,08

SWOT analysis

Strengths

- The Psychology Research Institute has consolidated its existing strengths:
  - A strong consensus within its research groups to pursue fundamental research
  - An extensive high-quality infrastructure for research
  - Large and viable research groups
  - A strongly international orientation
- It has played a pivotal role in the coming about of new initiatives, such as the foundation of the Spinoza neuroimaging Centre and the formulation and management of the research priority programmes *Brain & Cognition* and *Affect Regulation* . These recent investments in interdisciplinary collaborative research on cognition, emotion and neuroscience have brought the OZI in an optimal position to get a grip on the mechanistic analysis of normal and pathological cognitive and emotional processes
- Within the OZI, there has always been a strong cooperation between different research groups and this has only increased in the past few years. This has allowed the institute to benefit greatly from the trend towards integration of psychology and neuroscience. Many important research themes in the institute transcend individual groups, for example, sleep, emotions, learning and memory, individual differences in cognition, consciousness, decision making, aging, affective processing, creativity and intelligence. In addition, the institute is particularly strong in mathematical and computational modelling that address a broad range of research lines as in the case of model-based fMRI or modelling of data from individual differences in cognition
- Despite repeated budget cuts and university-level reorganizations, the OZI has managed to hold on to its own technical support staff. This group is a storehouse of knowledge about many crucial aspects of experimentation and it also implements new technologies, such as internet-based recruitment and testing of subjects and virtual reality environments. Moreover, the infrastructure has been enriched by a 3 Tesla MRI research scanner at the Spinoza Centre in which the Institute participates and which augments existing EEG labs and other excellent experimental facilities.
- Despite severe financial pressures, the Institute has managed to grow and increase its research output. Tenured staff members have been successful in securing grants from a variety of funds. This has fuelled a sizable and vibrant pool of PhD students and postdocs and has allowed tenured staff members to spend more time on research
- The international orientation of the Institute has always been strong, with many prominent visitors and frequent working visits abroad of Institute staff members. Quite often PhD students return to assistant professorships after having spent a few years as a postdoc abroad after their graduation. The recent foundation of several Master's programmes brings in new groups of master's students from all over the world to the Psychology Department each year. These international students take part in research and often continue as PhD students at the Institute. Also, many Dutch master students opt for a research internship abroad, further strengthening the existing international networks.

Weaknesses

The institute has done well in the past years and survived several budget cuts. However, most of the growth has come from external funds, which are temporary. Currently the hiring of Institute funded PhD students is frozen, many research groups no longer have funds to employ student assistants, and there has been some reduction of

the technical support staff of the Institute. If the financial pressure is not alleviated in the coming years, the core of the institute may suffer. This is particularly precarious as many new research techniques require extra - not less- support staff. It is, therefore, necessary to have sufficient staff members with time available to support researchers in carrying out analyses. As psychology becomes more and more integrated with neuroscience, the costs of research will continue to increase. It is vital that the university realizes this. Also, on the non-neuroscientific side of research, there are new developments that demand high levels of technical expertise, such as Internet-based testing and virtual reality modelling. It is necessary to continue to develop or acquire such expertise and to have sufficient support staff to facilitate this type of research

Opportunities

The emphasis on fundamental research has resulted in the accumulation of a significant amount of knowledge, much of which can in principle be applied to the solution of practical problems. This body of 'Intellectual Property'(IP) so far has hardly found its way to the market. There is currently a small number of UvA-based companies, working in close concert with the OZI, that suggest that such valorisation of IP may not only be profitable but also strengthen fundamental research. For example, internet- based training or testing may yield a large database of user data. These data may form the basis of new research. Part of the profits of these UvA related companies' flows back to the OZI, via licence agreements, so that new staff can be appointed to analyze the data and improve the training or testing methods. The (paying) end-users will receive increasingly high quality training or tests. OZI thus has a potential flywheel from research to market to data and profits, and back tor research. The UvA Knowledge Transfer Bureau is currently actively pursuing the valorisation of IP at the Institute. This is a good thing, as psychologists are largely unfamiliar with valorisation and marketing, and hence they need a certain amount of coaching initially.

Threats

- By far the most serious threat is: as a result of the implementation of the full cost model at the UvA in 2008, the matching budget that is needed to cover the overhead costs associated with personnel paid from second and third stream sources is totally inadequate. Over the past three years a matching deficit of nearly 6 M€ had to be compensated from the first stream budget of the institute. The institute is thus harshly punished for its growing success in fund raising, where instead it should have been rewarded. Evidently, this situation is untenable for the prospects of the institute.
- The current trend towards 'neurofication' of psychology at times occurs at the expense of non-neuroscientific psychology research. There are indications that it is easier to obtain funds if the research proposal includes brain imaging or other new techniques. While it is true that much exiting research involves novel techniques, it would be a mistake to no longer pursue innovations in 'classical' approaches to psychology. To avert such threats the institute must not only invest in brain imaging and related technology, but also continue to invest in other infrastructure, such as facilities for the recruitment and testing of representative samples of subjects.