

**Quality Assurance System
for Research at Universities of Applied Sciences**

2009-2015

Main Document

Further Development of the Sector Protocol for Research Quality Assurance in a Quality Assurance System

The Netherlands Association of Universities of Applied Sciences, December 2008,
adopted during the general meeting

Contents

Contents.....	2
Introduction.....	3
1. Context.....	5
<i>Stage of Development for Research</i>	5
<i>Extent of Research</i>	6
<i>Nature of Research</i>	7
<i>Diversity and Variation</i>	8
2. The Quality Assurance System.....	9
<i>Mission and Objectives</i>	9
<i>The Three Elements of the System</i>	9
3. Quality Assurance by Universities of Applied Sciences.....	11
<i>Self Evaluations</i>	11
<i>Evaluation Committees</i>	14
<i>Quality Assurance as a System</i>	14
4. Validation Committee for Research Quality Assurance.....	16
<i>Remit</i>	16
<i>Approach</i>	17
<i>Validation Framework</i>	19
<i>Validation Report and Follow-up</i>	21
<i>Profile and Composition of the Validation Committee for Research Quality Assurance</i>	23
<i>Support for the Validation Committee for Research Quality Assurance</i>	24
<i>Communication and Information Provision</i>	24
<i>Plan for Validations</i>	25
<i>Growth Model</i>	25
5. National Monitoring.....	27
Addendum 1 Information, Consultation and Decision-making Process Followed.....	29
Addendum 2 Literature.....	32

Introduction

In 2007, all of the universities of applied sciences funded by the Dutch government bound themselves to the sector Protocol for Research Quality Assurance [*Brancheprotocol Kwaliteitszorg Onderzoek*]. This protocol establishes the basis for a national quality assurance system for practice-based research at universities of applied sciences. This system will focus on permanently maintaining and, where possible, improving the quality of research and the organisation surrounding this research. The system will also yield information that can be used both for policy development by universities of applied sciences and for information provision to professional practice, the government and society. This information will provide these 'stakeholders' with an insight into the extent, nature and results of the research done.

The system envisaged is being developed in 2008 and will be operational with effect from January 2009, in accordance with agreements with the Ministry of Education, Culture and Science. Once operational, research quality assessment will no longer be effected via the Knowledge Development Foundation for Higher Professional Education [*Stichting Kennisontwikkeling HBO (SKO)*], but via the quality assurance system operated by individual universities of applied sciences. This system will include the evaluation of research units by external independent peers and experts every six years. The quality assurance system in place at a university of applied sciences will then be evaluated once every six years and validated by a national validation committee for research quality assurance [*Validatiecommissie Kwaliteitszorg Onderzoek (VKO)*]. Added to this, the universities of applied sciences will work together to monitor the national development of practice-based research via an annual sector report.

In the sector protocol, a deliberate choice is made for the national assessment of *quality assurance*, not *research quality*. The quality of research will be assessed subject to the responsibility of the university of applied sciences itself, not via a national committee. After all, research-unit evaluation must reflect the specific mission and vision, character, culture, quality policy, etc. applicable for the university of applied sciences in question. The individual universities of applied sciences are responsible for the quality of their research and this includes responsibility for monitoring and improving this research quality. It is also important for both stakeholders in the research at universities of applied sciences and for the proper positioning of this research for evaluation and improvement to be transparent, independent and expert. To this end, a global framework has been agreed on in the sector protocol for research quality assurance for the organisation of quality assurance within universities of applied sciences. These agreements relate to a number of aspects, including the system, unity and frequency of evaluation, the subjects to be evaluated and composition of the evaluation committees. The protocol also includes agreements on a national validation committee for research quality assurance, which will evaluate and validate quality assurance once every six

years. These agreements include the global profile for this committee, the central evaluation questions for a validation and the ultimate report. Finally, the protocol also contains agreements about how universities of applied sciences will work together at a national level to monitor the development and progress of research via an annual sector report.

When adopting the sector protocol for research quality assurance during the general meeting in October 2007, it was also decided to opt for a process focusing on the further development of the protocol into an operational system. A project manager was appointed to this end at the beginning of 2008, linked to a temporary steering group. The general meeting adopted the project plan in April. In the interest of the achievement of broad support for the system to be developed, two sounding board groups were created (see Addendum 1).

This document is a result of the project and was produced in close consultation with the relevant individuals within universities of applied sciences and stakeholders for practice-based research. As such, the sector agreements have been translated into more concrete guidelines for the development of quality assurance within the universities of applied sciences on the one hand and the validation of this quality assurance by the validation committee for research quality assurance on the other hand. In this sense, two sides of the same picture are concerned.

Section 1 will look at the context in which the system will function. It will identify the aspects to be taken into account, such as the stage of development, extent, nature and diversity of research at universities of applied sciences. By doing this, alignment is achieved with the starting points indicated in the sector protocol. Section 2 will describe the interrelationships between the objectives and elements of the system. Subsequently, attention will zoom in on each of the three elements of the system: quality assurance by universities of applied sciences (Section 3), the national committee to validate this quality assurance (Section 4) and the annual monitoring of research (Section 5).

Addendum 1 contains information on the consultation and decision-making process followed, while Addendum 2 contains the written sources consulted.

NB: An informal *guide*¹ has been written separate to the present document. This may help universities of applied sciences when developing (or continuing to develop) their quality assurance systems with a view to the system described in this document.

¹ Research quality assurance; a guide for universities of applied sciences [*Kwaliteitszorg van onderzoek; een handreiking aan hogescholen*] (Netherlands Association of Universities of Applied Sciences, 2008)

1. Context

When developing the system, careful attention was and is paid to developments in – and experiences with – existing systems in the Netherlands and abroad (also see Addendum 2). Added to this, the system must give optimal consideration to the stage of development applicable for research at the Dutch universities of applied sciences and the nature and extent of the type of research referred to as practice-based research.

This means that the system must reflect:

- the stage of development applicable for research at universities of applied sciences
- the (still) limited extent of research
- the nature of (practice-based) research
- variation and diversity between universities of applied sciences and domains

These points will be explained in more detail below.

Stage of Development for Research

Although universities of applied sciences have been engaged in research activities for some time now, the introduction of research groups at universities of applied sciences in 2001 has meant that the research function is gradually becoming more structural. The year 2001 was also the year in which the Knowledge Development Foundation for Universities of Applied Sciences was created, on the basis of a covenant between the Netherlands Association of Universities of Applied Sciences and the Ministry of Education, Culture and Science. The main tasks applicable for the Knowledge Development Foundation for Higher Professional Education are to issue subsidies on the basis of a quality assessment of applications for research groups submitted by universities of applied sciences. A research group consists of a professor and a research group that work together to promote knowledge development and knowledge circulation in relation to a certain theme within and beyond a university of applied sciences, in the interest of education, professional practice and society as a whole. In 2003, the research group is given a strong boost with the introduction of the so-called SIA-RAAK regulations. These regulations are intended to promote knowledge circulation between regional parties, particularly between knowledge institutions like universities of applied sciences, SMEs and public institutions.

In 2004, the professor covenant [*lectorenconvenant*] is updated to include a quality assurance system to be introduced with effect from January 2009, amongst other things. This is linked to the new funding system, under which research resources are granted to universities of applied sciences in the form of a lump sum. With the introduction of the new covenant, the assessment of quality by the Knowledge Development Foundation for

Higher Education SKO ceases and is replaced by the quality assurance system. In 2007, the general meeting of the Netherlands Association of Universities of Applied Sciences formally adopts the sector protocol for research quality assurance. This adoption marks the agreement on a joint definition of research at universities of applied sciences and on the contours of the quality assurance system to be developed.

In 2004, the *Lectorenplatform* (professor platform) was created. During the first stage of the development of research groups, this platform is responsible, in collaboration with the Netherlands Association of Universities of Applied Sciences, for external communication and for profiling research groups. In 2008, this platform was followed by the more network-oriented forum for practice-based research [*Forum voor praktijkgericht onderzoek*]. This forum plays an important role in the further design, positioning and development of research groups.

So, practice-based research at universities of applied sciences is at an early stage. Added to this, there is a great deal of variation between universities of applied sciences in terms of the stage of development that they have achieved in respect of both research and quality assurance. As such, it is inevitable that the system will focus primarily on development and improvement in initial years. Amongst other things, this will place demands on the composition, role view and approach adopted by assessors. Assessors will need to be critical but constructive advisors who hold up a mirror and use strong analyses and recommendations based on these analyses in relation to improvements and developments. It will also place demands on the criteria used during evaluation and validation. These must focus primarily on development and improvement too. Finally, a restrained attitude to sanctions will be important, in order to prevent a situation where they deter an open and self-critical attitude on the part of institutions. This starting point has resulted in the validation framework and the approach to be taken to it (see Section 4).

Extent of Research

Since the introduction of professors, their numbers have grown quickly from slightly more than 20 in 2001/2002, via more than 100 in 2003/2004, to more than 250 in 2006/2007. In 2008, the Netherlands has almost 400 professors. Nevertheless, with less than 400 professors (for 380,000 students) and a total research budget of approximately 75 million (lump sum and the Knowledge Development Foundation for Higher Professional Education/SIA), the extent of research can be called 'modest' for the time being². So, quality assurance must be 'proportional'. Besides this, the system must be organised such that the burden for researchers and institutions is minimised on the one hand, while work on maintaining and improving quality is optimal on the other hand. This

² For the purpose of comparison: universities receive approximately two billion euro of government money for research and have approximately 2,800 professors for approximately 220,000 students.

dilemma crops up continually when developing (or continuing to develop) quality assurance systems in the Netherlands and abroad. An authoritative and reliable system is required on the one hand, while the system may not lead to bureaucracy, a paper circus and high costs and expenses on the other hand. The balance required must have the ongoing attention of developers and implementers of the system.

Nature of Research

In the sector protocol, the Netherlands Association of Universities of Applied Sciences makes a clear choice for the joint designation and definition of research at universities of applied sciences.

By using the term *practice-based* research as the umbrella term for this research, the sector protocol is giving preference to this term above other terms such as *applied* research and *design-oriented* research. These terms do less justice to the nature and diversity of research at universities of applied sciences.

Practice-based research is defined as research that is rooted in professional practice and that contributes to the improvement and innovation of professional practice. This is achieved through the generation of knowledge and insights, but also through the provision of usable products and designs and concrete solutions for problems in the field. Added to this, this research is usually of a multidisciplinary or transdisciplinary nature and is embedded in a range of internal and external organisational contexts, while retaining the academic reliability and validity of the research itself. Research is closely connected to education, via its contribution to education activities, lecturer professionalisation and curriculum innovation. Because the research done has relevance for – and an impact on – professional practice, education and the broader society, knowledge is circulated and published via a very wide range of channels and to various target groups.

With these characteristics, practice-based research complies with what is referred to as Mode 2 of knowledge development. The term Mode 2 refers to research that, in contrast to Mode 1 research, is less bound by traditional disciplines, and that is effected more in the context of applications. This research is performed in networks of experts from the field and networks of researchers and (as such) the quality of this research is assessed by a number of parties. This is based, on the one hand, on the recognition that scientifically valid research is concerned and, on the other hand, on the basis of the recognition that its impact on education, professional practice and society is the most important gauge for the quality of this type of research.

So, the excellence of practice-based research is measured particularly on the basis of the relevance and impact of research within professional practice, education and society as a whole. Incidentally, the evaluation and assessment of research on the basis of these

perspectives is still in its infancy (worldwide). To date, emphasis in quality assurance systems elsewhere (English, Australian and Dutch universities, for example) has always focused strongly on the quality of research in the sense of scientific and academic impact. So, traditionally, this impact is measured particularly on the basis of publications, citations and peer reviews. Within these countries and systems, steps are already being taken to find indicators and evaluation methods that place the importance and impact of research in a broader perspective. The Netherlands has a reasonable lead in this respect. For example, the ERiC platform (Evaluating Research in Context) has been created. The parties involved in ERiC include the Association of Universities in the Netherlands [*Vereniging van Universiteiten (VSNU)*], the Royal Netherlands Academy of Arts and Sciences [*Koninklijke Nederlandse Akademie van Wetenschappen (KNAW)*], the Netherlands Organisation for Scientific Research [*Nederlandse Organisatie voor Wetenschappelijk Onderzoek (NWO)*], the Netherlands Association of Universities of Applied Sciences and the Ministry of Education, Culture and Science. These organisations work together to promote knowledge exchange and method development (at both a national and international level), with a view to more context-oriented research evaluations.

Diversity and Variation

Because of the diversity and variation that exists between universities of applied sciences and domains, the system leaves responsibility for quality assurance, including the performance of evaluations on research units, with the individual universities of applied sciences. The idea behind this is to promote a situation where it is possible to achieve optimal alignment between the nature and extent of quality assurance and structure, culture and (quality) policy within a specific university of applied sciences. Added to this, professors and other researchers must experience quality assurance as something for which they are responsible and which does actually promote quality. Finally, the system must do justice to the individuality of every research domain and sector.

2. The Quality Assurance System

Mission and Objectives

The following overarching mission has been formulated for the quality assurance system:

The system contributes to the development and innovation of professional practice, education and society as a whole, by means of structure and explicit attention for the permanent evaluation and improvement of the quality of research and the knowledge development, knowledge application and knowledge circulation based on this.

The concrete objectives of the system are as follows:

- To safeguard and improve the quality of research and the organisation surrounding it
- To strengthen the position and image of practice-based research
- To generate management information for the university of applied sciences and the sector
- To account to government and society on how public resources are spent

As such, many parties have an interest in the quality assurance system. Firstly, the individuals involved within the universities of applied sciences: directors/governors, professors, management, staff, lecturers and students. Secondly, primarily professional practice, the Netherlands Association of Universities of Applied Science as the sector organisation, society and the government. As such, the system will be developed (and be subject to ongoing development) and implemented in close collaboration with these interested parties.

The Three Elements of the System

The system consists of three connected elements:

1. The quality assurance systems in place at the universities of applied sciences, including the external independent evaluation of research units.
2. A national validation committee that will validate these quality assurance systems every six years.
3. Annual *monitoring* of the development and results of research at universities of applied sciences.

The quality assurance systems in place at the universities of applied sciences form the point of application for the joint quality assurance system. The evaluation of research units – these could be professors, groups and/or knowledge centres – by independent evaluation committees are key here. Each research unit will be evaluated once every six years. These evaluations will be effected by committees consisting of external

independent experts, such as professors, researchers and stakeholders. The Board at a university of applied sciences will be responsible for the composition and creation of these committees.

Once every six years, the quality assurance system in place at a university of applied sciences will be evaluated and validated by a validation committee for research quality assurance (this committee is still to be created). This committee will use a self-evaluation and an audit based on this self-evaluation to form an opinion on the functioning and performance of the quality assurance system in question.

Finally, the universities of applied sciences will jointly monitor the national development of practice-based research. They have placed this task with the Netherlands Association of Universities of Applied Sciences. The Netherlands Association of Universities of Applied Sciences publishes an annual progress report on research at universities of applied sciences. This report provides information to the relevant ministries, to politicians and to society as a whole.

The three elements of the system can be summarised as follows:

Subject	Object	Cycle	Section
Quality assurance system in place at the institution (including external independent evaluations)	Research group, research group or knowledge centre	At least once every six years	3
Validation committee for research quality assurance	Quality assurance system in place at the institution (including external independent evaluations)	Once every six years	4
Monitoring system in place at the Netherlands Association of Universities of Applied Sciences	Quantitative data at institution level, evaluation reports and validation committee for research quality assurance reports	Every year	5

Each of these three elements is elaborated on in more detail in the three sections below.

3. Quality Assurance by Universities of Applied Sciences

Via the sector protocol, it has been agreed that each university of applied sciences will be responsible for its own quality assurance policy, which, if nothing else, will lead to the evaluation of selected research units (research groups, groups and/or knowledge centres) every six years. So, these external independent evaluations of research units are positioned centrally in the quality assurance system in place at universities of applied sciences. A research unit is generally defined as a connected group of researchers that perform their research on the basis of the same mission. So, it will be possible to use the organisational model applicable for a university of applied sciences to logically deduce which evaluation unit is the obvious choice. Substantive and/or efficiency considerations may also play a role in the combination of units within the same domain or theme, for example, into one evaluation. A university of applied sciences will be able to use the above as the basis for its six-yearly plan for research evaluations.

The sector agreements on evaluation relate to the nature and content of the self-evaluation reports to be delivered and also to the composition of the evaluation committees and the remit to be issued to these committees. These aspects have been specified in more detail below.

Self Evaluations

An external independent evaluation of a research unit will be preceded by a self-evaluation. This will result in a self-evaluation report. On the one hand, the self-evaluation report must provide a factual overview of the unit in terms of objectives, organisation, composition, activities and results. On the other hand, the report will answer a number of critical questions in relation to the achievement of the mission and objectives applicable.

As regards the first – factual – side, the self-evaluation report (including addenda) will provide a proper description, insight into and overview of:

- o the mission for the research unit
- o the research themes and the research portfolio
- o the research profile in terms of academic standards and research methods and techniques
- o the embedding and positioning of the unit within the institution from an organisational, strategic and HRM point of view
- o the size of the unit in terms of people and (financial) resources
- o the quality of the researchers, expressed in education, degree, experience and ancillary activities
- o the collaborative arrangements and substantive relations applicable within the university of applied sciences, as well as externally with

- organisations, institutions and companies, at a regional, national and international level
- the publications, presentations and other products that research by the unit has yielded recently
- data on impact and appreciation of the research in relation to:
 - knowledge development within the research domain
 - professional practice and society
 - education and training

By way of an introduction, the self-evaluation report will also include a substantiation of the self-evaluation in terms of approach, method, parties involved, etc. and a concluding cohesive final analysis in the form of strengths and weaknesses, improvement measures and priorities for the time ahead. The self-evaluations will (wherever feasible) be based in part on evaluations by internal and external stakeholders. Finally, the self-evaluation must enable the independent evaluation committee to answer the following five evaluation questions:

1. Is there sufficient relevant productivity, impact, appreciation and recognition in terms of:
 - knowledge development within the research domain?
 - valorisation to professional practice and society?
 - significance for education and training?
2. Is work undertaken on the basis of a relevant and challenging mission and a clear research profile?
3. Are the mission and the research profile secured by the portfolio and by the way in which in which the unit has been organised?
4. Is the deployment of people and resources sufficient from a qualitative and quantitative point of view?
5. Are the internal and external collaborative arrangements, networks and relations sufficiently relevant, intensive and long-term?

Notes on the Evaluation Questions

Question 1 actually relates to whether a unit performs research of a 'good' quality in the sense of relevant, scientifically valid and with the impact envisaged. As regards breaking down this question into the three areas mentioned (knowledge development, professional practice/society and education), the following characteristics for practice-based research apply as formulated in the sector protocol for research quality assurance:

- *Knowledge development within the research domain.* Research at the universities of applied sciences is scientifically valid. The knowledge and insights generated must be valid and reliable. Knowledge and insights are communicated to the various target groups via a range of channels: via academic publications, via

contributions to professional journals, via lectures and presentations and via various media, such as the Internet, newspapers, radio and TV. Research at universities of applied sciences is varied. The approach adopted is often multidisciplinary and/or transdisciplinary.

- *Professional practice and society.* Research at universities of applied sciences is rooted in professional practice and very much bound by an application context. The questions are prompted by professional practice ('real life' situations), in both profit and non-profit sectors. Research subsequently generates knowledge, insights and products that contribute to the resolution of problems in professional practice and/or to the development of professional practice. It also focuses on strategic questions and on the longer term. The type of practice-based research performed, how knowledge and insights are documented and shared, the type of products that this yields and network design are in line with what is effective in the various sectors of professional practice.
- *Education and training.* Research at universities of applied sciences has a strong connection with the other activities applicable within higher professional education. This relates firstly to the connection with education. Lecturers form part of the research groups and research centres. Students are actively involved in research via placements, assignments and learning research. Research has an innovative effect on the curriculum and contributes to the further professionalisation of staff.

What is considered 'good' or 'excellent' research quality here depends in part on individual ambitions in these areas. This is why the relationship with the individual mission is established in the second question. So, the challenging nature and relevance of the mission are quality issues too.

Questions 3 to 5 relate to the conditions important for the ability to achieve the mission and the research quality derived from it, such as organisational embedding (Question 3), the deployment of staff and resources (Question 4) and internal and external relations (Question 5). The following characteristic from the sector protocol for research quality assurance applies for this last question.

- Research at universities of applied sciences, knowledge creation and knowledge circulation are effected within (long-term) networks with external parties. Research at universities of applied sciences is given shape within a range of organisational contexts, including research groups and research centres. These share knowledge and insights with companies and institutions, engage in and develop practice-based research, usually in co-production with external parties, new knowledge insights and products.

Evaluation Committees

The self-evaluation reports are used as input for dialogue with the external evaluation committees. These committees consist of independent experts.

- *Independent* is defined here as independent from the research unit to be assessed. However, the institution can opt to include a constant element in the committee (for example, an internal auditor or a permanent secretary) in order to promote the comparability of the various research evaluations.
- The term *experts* refers to peers (professors and researchers) and stakeholders, representative for:
 - the education related to research
 - the relevant professional practice
 - the relevant research domains
 - the relevant international environment

Based on the self-evaluations, possibly supplemented by other reports that the institutions consider relevant, the evaluation committees, which will consist of peers and stakeholders, enter into discussion with the research units to be evaluated.

The committees will be issued with a remit, elaborated on and placed within a contractual framework. This remit is to:

- study self-evaluation and relevant documents
- on this basis, to speak with representatives for the internal and external parties involved (management, professors and other staff, stakeholders)
- To report on findings and recommendations

The reports provide a substantiated and documented answer to the five evaluation questions formulated above. These reports will first be submitted to the research units evaluated and to the governing board at the institution, so that both sides can be heard, and will ultimately be adopted by the evaluation committees. The university of applied sciences in question will publish the reports and send a copy to the validation committee for research quality assurance, amongst other parties.

Quality Assurance as a System

The research evaluations form part of the quality assurance system in place at a university of applied sciences. As described in the next section, the validation committee for research quality assurance (still to be created) will therefore look not only at the implementation of research evaluations, but also, in particular, at their embedding within the quality assurance system in place at a university of applied sciences. Cohesion, preconditions and improvement policy are important aspects. The guide produced for universities of applied sciences, which was mentioned above, was written on the basis of this approach and offers suggestions for the development (and continued development)

of the quality assurance in place at universities of applied sciences. This guide falls outside the scope of the present document and is available separately.

4. Validation Committee for Research Quality Assurance

This section will serve as a guideline for the creation and functioning of the validation committee for research quality assurance for the period 2009-2015. This section will look at the remit and profile for and the approach to be adopted by the validation committee for research quality assurance, its validation framework and reporting method and matters such as communication, information provision and planning.

Remit

The core task for the validation committee for research quality assurance is:

The six-yearly evaluation and validation of the quality assurance systems in place at universities of applied sciences, at the aggregation level of the institution, where quality assurance relates to (practice-based) research by a university of applied sciences.

This remit requires the clarification and definition of a number of terms. Firstly, a distinction is made between *validation and evaluation*. A number of definitions of the term *validation* can be found in literature. The term *validation* is defined as follows in the context of the quality assurance system for research:

The achievement of documented proof that offers a sufficient degree of certainty that the quality assurance system used by a university of applied sciences actually results in and will continue to result in the permanent monitoring and improvement of research and the organisation of this research.

A substantiated and qualified qualitative conclusion on the performance of the system in a number of respects and in a number of dimensions is involved here and recommendations for improvements on this basis.

In this context, we define *evaluation* as the activities and processes necessary to achieve documented proof of this nature (read: validation report), such as studying relevant materials, engaging in discussions and, on the basis of this, an analysis and conclusions based on the relevant criteria and objectives.

Quality assurance system is another term that requires clarification in the remit above. Very broad, but equally more limited, definitions of the term can be found in literature. The system adopts the following definition of the term:

The systematic and dynamic whole of policy, organisation, procedures, processes and resources, geared towards permanently maintaining and improving the

quality of research within a university of applied sciences, by means of cyclical evaluation and improvement.

The above emphatically concerns quality assurance at institution level. After all, this is the aggregation level at which evaluation and validation by the validation committee for research quality assurance will focus. However, the central element in the quality assurance to be assessed by the validation committee for research quality assurance is the way in which evaluations at research-unit level are performed. The aspects that the universities of applied sciences have agreed on with each other via the sector protocol will serve as a guide here. These agreements relate to the system and frequency of evaluation, the evaluation unit, the independence, expertise and representativeness of committees, the contexts for evaluation and the subjects to be handled. Another important issue for the validation committee for research quality assurance is the follow-up applicable for evaluation outcomes. To be able to ascertain how research-unit evaluations have been performed and the follow-up applicable, the validation committee for research quality assurance will subject one or more recent research evaluations that a university of applied sciences has produced to a further study. Nevertheless, the ultimate validation will have an institution-level focus.

When evaluating and assessing the quality of the quality assurance system, reflection will not be limited to the performance of the system to date, but will extend to the probability that performance will be maintained in the next six years. After all, validation is valid for six years. This means that evaluation will focus not only on the performance of the system to date; the validation committee for research quality will also consider matters relating more to preconditions (in terms of people, resources, long-term policy, etc.). The preconditions in question will emphatically not be those for research, but those for the implementation of quality assurance.

The validation committee for research quality assurance will assess quality assurance on the basis of the mission and objectives applicable for an institution. It will reason on the basis of the strategic choices that a specific university of applied sciences makes and has made. It does not fall within the remit of the validation committee for research quality assurance to determine whether a university of applied sciences does good research; however, it does fall within its remit to assess the relevance, cohesion, consistency and embedding of quality assurance and quality-assurance performance in the light of these choices and objectives. It will use the agreements that universities of applied sciences have made at sector level as a reference framework.

Approach

So, the validation committee for research quality assurance will not evaluate and validate the quality of research but the quality of quality assurance. When doing this, it will use the validation framework derived from the sector protocol (see the subsection below).

The validation committee for research quality assurance will not limit its activities to mere 'determination', but will primarily use evaluation activities as the basis for analyses and recommendations for the further improvement of the quality assurance system.

The validation committee for research quality assurance will base its work on the self-evaluation performed by a university of applied sciences. The self-evaluation report and corresponding documentation will provide the validation committee for research quality assurance with a reliable overview of how the quality assurance system work *in respect of research* to date and guarantees for its future performance. To this end, the following matters will form part of the self-evaluation:

- Vision on quality and quality assurance
- The planned and budgeted deployment of people and resources for quality assurance
- Policy, agreements and processes laid down in relation to quality assurance
- The structure within which quality assurance is performed
- Cultural aspects of quality assurance (support, etc.)
- Quality assurance efforts made and quality assurance products delivered to date (particularly evaluation reports on research units)
- The influence of quality assurance efforts on the improvement of research policy, organisation, positioning, embedding, etc.

Quality assurance performance cannot be viewed separately from the research mission, policy and organisation within an institution. Although the validation committee for research quality assurance will not form an opinion on the latter aspects, it will only be able to consider quality assurance in this context. Because of this, the research mission, policy and organisation must also be clear for the validation committee for research quality assurance.

In addition to this paper information, discussions will take place between the validation committee for research quality assurance and the parties involved in the research done by a university of applied sciences. These discussions will be used to obtain depth, clarification and for the purpose of verification.

Ultimately, the combination of a self-evaluation report, the corresponding documentation and discussions must enable the validation committee for research quality assurance to establish with a sufficient degree of certainty that the quality assurance system used by a university of applied sciences actually results in and will continue to result in the permanent monitoring and improvement of research and the organisation of this research.

The findings obtained will be documented in a report, which will be submitted to the Board of the institution in question, after which the validation committee for research

quality assurance will publish the report and make it available to various parties, including the Ministry of Education, Culture and Science.

Validation Framework

The validation framework has been broken down into four relevant (evaluation) questions, which the validation committee for research quality assurance must answer on the basis of an in-depth analysis of the quality assurance system.

The following four evaluation questions apply:

- I. Is there sufficient structure and cohesion in the quality assurance implemented by a university of applied sciences (in respect of research)?
- II. Are there sufficient preconditions for the performance of quality assurance (in relation to research)?
- III. Are the research evaluations performed in a way that is expert and independent and in accordance with the relevant sector agreements?
- IV. Are evaluations used to maintain and improve the quality of research and organisation?

Each of these questions will be elaborated on below.

1. Is there sufficient structure and cohesion in the quality assurance effected by a university of applied sciences?

This question relates to the structural and cohesive way in which the quality of research is monitored within a university of applied sciences. Because quality cannot be unrelated to objectives, it must firstly be clear to the validation committee for research quality assurance what mission the university of applied sciences has in a general sense, but particularly where research is concerned. After all, this mission shows how the stakeholders in a university of applied sciences are served by its research, in which type of development and innovation the research must ultimately result and which requirements this imposes on the nature and extent of the research done within a university of applied sciences. Different details and weighting may apply, depending on the sectors and themes focused on by the different units within a university of applied sciences.

Based on the definition of quality derived from the mission, the validation committee for research quality assurance will zoom in on the way in which a university of applied sciences takes steps to measure and evaluate whether the quality envisaged has and is actually being achieved.

When doing this, it must be clear which agreements apply within the university of applied sciences in question, what the connection is between centralised and

decentralised and how internal accountability works. The connection with other quality assurance areas within a university of applied sciences will also be relevant here. The substantive and structural connection with accreditation is one particular item that cannot be disregarded.

The organisation structure for quality assurance by an institution will be examined too. This will relate to the logical connection between the vision on quality assurance in relation to research and the quality assurance structure chosen.

Finally, the plan adopted by a university of applied sciences will be considered, the guideline for which is that each research unit (research groups, groups and/or knowledge centres) will be evaluated every six years. The university of applied sciences itself will reason out how it defines a research unit and to which classification this leads³.

II. Are there sufficient preconditions for the performance of quality assurance?

Preconditions for quality assurance relate to the availability of people, resources and time, but also willingness, expertise and involvement. Consideration is given to the budget, policy and measures on paper on the one hand and to actual realization and experience in practice – so, effectiveness – on the other hand.

The quality and adequacy of these preconditions are reasoned out on the basis of the institute's own vision on quality assurance, as referred to in the first evaluation question, for instance. So, this primarily concerns the connection between the design and implementation envisaged for quality assurance on the one hand and the preconditions applicable on the other hand. So, the individual universities of applied sciences will themselves also have explicated which quality culture is being pursued with a view to optimal involvement in the quality assurance aspired to.

III. Are the research evaluations performed in a way that is expert and independent and in accordance with the relevant sector agreements?

Where this evaluation question is concerned, the validation committee for research quality assurance will zoom in on the concrete evaluation practice for research in respect of the research units in the sense of self-evaluation and subsequent independent evaluations by committees. When doing this, the validation committee for research quality assurance will examine the evaluation

³ A research unit is defined generally as a group of researchers with an organisational and thematic connection, who perform research on the basis of the same mission.

processes implemented by a university of applied sciences in relation to one or more research units.

The validation committee for research quality assurance will assess whether the agreements made in the sector protocol are being observed in respect of these evaluation processes. This will be carried out on the basis of the agreement implementation given in Section 3.

IV. Are evaluations used to maintain and improve the quality of research and organisation?

This evaluation question relates to structural improvement policy within an institution, particularly on the basis of the evaluation of research units, as described for evaluation question III. The starting point is that these evaluations are primarily geared towards the further improvement of research, in terms of organisation, preconditions, policy and processes, with the ultimate objective of further improving 'output' (products, publications, etc) and 'outcome' (impact, user-value, etc.). Measures may relate to the research unit in the first instance, but may also relate to the institution as such (certainly when a number of research units have been evaluated). It is also important that a system is in place in which research evaluations are connected to the internal policy and improvement cycle for both the research unit and the university of applied sciences in question. This system must have been explicated and developed into agreements. It must also be possible to trace the measures taken and the improvements that these measures may already have yielded.

Validation Report and Follow-up

The validation framework deliberately does not provide for a system of detailed criteria, decision rules and weighting. This prevents the creation of seeming objectivity. Instead, the validation committee for research quality assurance can be expected to ensure that the analyses and opinions in each report are substantiated soundly and thoroughly on the basis of the points for attention mentioned above for each question.

The validation report to be delivered by the validation committee for research quality assurance will contain:

- a substantiation of the evaluation and validation process
- the names of the members of the validation committee for research quality assurance (sub-committee for the validation committee for research quality assurance) who performed the validation
- per evaluation question, a quality assessment and a substantiation in terms of findings in relation to the points for attention
- an analysis in which the individual findings are linked together

- a concluding statement on the extent to which *the quality assurance system used by a university of applied sciences actually results in and will continue to result in the permanent monitoring and improvement of research and the organisation of this research*. This statement will be qualified on the basis of the four aspects to be distinguished, to which the four central evaluation questions relate
- Any recommendations for the improvement of quality assurance

Once the validation committee for research quality assurance has formulated the draft report, it will be discussed with the governing board from the relevant university of applied sciences. Where prompted by this discussion, the report will be revised and the final version adopted by the validation committee for research quality assurance. The report will then be a public report and may be accompanied by an addendum in which the governing board from the university of applied sciences describes aspects of its vision. This may apply where there is a difference in views, opinions or otherwise between the university of applied sciences and the validation committee for research quality assurance.

At this stage, research and quality assurance for research will be served best by what is an independent, critical and clearly external opinion and, more in particular, constructive and focused on improvement. For this reason, one of the two validation opinions below will always be issued initially:

Validated. There is sufficient certainty that the quality assurance system used by the university of applied sciences actually results in and will continue to result in the permanent monitoring and improvement of research and the organisation of this research.

Validated conditionally. A number of aspects require improvement before there can be sufficient certainty that the quality assurance system used by the university of applied sciences actually results in and will continue to result in the permanent monitoring and improvement of research and the organisation of this research.

In the case of conditional validation, the validation committee for research quality assurance and the university of applied sciences in question will make agreements on the period (a maximum of two years) in which improvements are to have been implemented. After this period, the validation committee for research quality assurance will visit the university of applied sciences again. If the validation committee for research quality assurance feels that the relevant improvements have been implemented properly, (unconditional) validation will apply. If the improvements have *not* been implemented satisfactorily, the following qualification will apply:

Not validated. There is insufficient certainty that the quality assurance system used by the university of applied sciences results in and will continue to result in the permanent monitoring and improvement of research and the organisation of this research.

Because of the young age and the stage of development applicable for (the quality assurance for) research at universities of applied sciences, a public sanctioning arrangement will not be expedient in the first six-year round. The expectation is that the public nature of reports, both as regards research evaluations and in respect of the validation committee for research quality assurance validations, will have a self-corrective effect. Where this aspect is concerned, evaluation of the national system after the first six-year round may result in an arrangement in line with the next stage of quality assurance for research, amongst other things.

Profile and Composition of the Validation Committee for Research Quality Assurance

The above-mentioned tasks and the role-view envisaged will lead to the following profile for the validation commission:

- A good record and reputation with a view to authority and recognition and acceptance by universities of applied sciences and stakeholders.
- Extensive governing experience and, as such, a good feel for governing relationships and processes.
- A good insight into the development and positioning of research at universities of applied sciences and its significance for (innovation of) education, professional practice and society and embedding within the region.
- A knowledge of – and preferably experience with – knowledge development in a context of intensive collaborative arrangements and networks, at a regional, national and preferably also international level.
- Preferably, experience with the researching, auditing, reviewing or analysis of organisations on the basis of a study of documents and engagement in (audit) discussions.
- A critical and analytical approach, always with the development and improvement function of quality assurance in mind.

The Chairman envisaged must have authority, overview, intellect and the ability to differentiate, even more so than the other members. He will have extensive experience in the role of Chairman, bring people together and have a results-oriented approach.

The members will have an affinity with quality assurance. The field of quality assurance must particularly be well represented in the expertise possessed by the Secretary. Amongst other things, this requires knowledge of and experience with the use of quality assurance within an institution.

Seven institution validations form the starting point for the annual workload for the validation committee for research quality assurance. A university of applied sciences will be visited by the Chairman or a Vice Chairman and three 'ordinary' members. In principle, both the Chairman and the members will each perform three to four validations per year⁴. The Secretary will be involved in each validation.

Based on the above-mentioned starting points, a permanent core of seven people will be sufficient:

- o Chairman
- o Vice Chairman
- o Five ordinary members

The above will be appointed for one six-year cycle. Depending on the extent and complexity applicable, extra expertise may be engaged on an incidental basis.

Support for the Validation Committee for Research Quality Assurance

The Validation Committee for Research Quality Assurance will be offered support from the *bureau* at the Netherlands Association of Universities of Applied Sciences. This support will be such in terms of nature and extent that members of the validation committee for research quality assurance can limit their activities to the substantive preparation and performance of evaluations and validations. They will not be responsible for coordination, organisational or administrative activities.

The extent of the above-mentioned support will be 1.6 FTEs. This will be broken down over the substantive secretary (1.0 FTEs) and secretarial support (0.6 FTEs).

The substantive secretary will be the first point of contact for members of the validation committee for research quality, the Board and the office of the Netherlands Association of Universities of Applied Sciences, contact people representing the universities of applied sciences and other stakeholders. The substantive secretary will act as secretary during validations, including substantive preparation, the report and settlement at the central management level. He will also act as secretary during general meetings of the validation committee for research quality assurance. Added to this, the Secretary will be responsible for staff and financial settlement, planning, communication (including the website), evaluation and improvement and publications.

Communication and Information Provision

⁴ This makes it workable for individuals who are, after all, required to have an authoritative status (and often a busy diary too).

For the sake of an independent image, the validation committee for research quality assurance will have a website with a logo and house style that deviate recognisably from the style used by the Netherlands Association of Universities of Applied Sciences.

The website will include the following:

- A description of the system
- The composition, duties and approach adopted by the validation committee for research quality assurance
- News in the field of research quality assurance
- Relevant links
- Archive of evaluation and validation reports
- Planning
- FAQs
- Contact details

Content management for this website will be the responsibility of the Secretary for the validation committee for research quality assurance.

Plan for Validations

The target for 2009 is to validate four universities of applied sciences. For subsequent years, the object is to achieve the annual validation of quality assurance for seven universities of applied sciences. Naturally, this long-term plan will be achieved in close consultation with the universities of applied sciences. Based on the preferences that the universities of applied sciences have, an attempt will be made to formulate the six-year plan, which will be expected to reflect the above-mentioned numbers on an annual basis. With a view to the annual evaluation of the system, it would also be advisable for some spread to be created in the nature and extent of the universities of applied sciences to be validated. The definite plan will ultimately be adopted by the Board of the Netherlands Association of Universities of Applied Sciences.

Planning for the process that culminates in validation per university of applied sciences is a matter for the relevant university of applied sciences in conjunction with the validation committee for research quality assurance, all this in accordance with its procedures.

Growth Model

After two years, the framework, approach and performance of the validation committee for research quality assurance will be subjected to an in-depth evaluation based on experiences in the preceding period. In this sense, everything described in this basis document (as a further elaboration of the sector protocol) must be regarded as a growth model. Obviously, the universities of applied sciences that have experienced validation for themselves will be involved in the evaluation of the system. However, the input

provided by members of the validation committee for research quality assurance and of the stakeholders in the research done will be crucial too.

It would also seem obvious for the validation framework to grow with the development of research and quality assurance. Growth in a quantitative sense (the size of the framework) is not intended here in any way at all, but in a normative sense. As more validations have taken place, universities of applied science have had more time to develop (and to continue to develop) research and quality assurance, drawing on experiences within the association when doing so, certain shortcomings will start to play a greater role in the validation assessment arrived at by the validation committee for research quality assurance.

5. National Monitoring

The 'third element' in the quality assurance system is what the sector protocol refers to as 'national monitoring'. At a national level, the universities of applied sciences jointly monitor the development and progress of research. This monitoring has been placed with the Netherlands Association of Universities of Applied Sciences. Based on a joint set of indicators, each member of the Netherlands Association of Universities of Applied Sciences will deliver the relevant quantitative data to the Netherlands Association of Universities of Applied Science every year. This will be done on the basis of a fixed format⁵:

Number of Staff

	Number	FTEs, converted to a whole year
Professor(s)		
Associate professor(s)		
Internal research group		
External research group		
Doctoral students		
Researchers (other than indicated above)		
Other		
Total		

Budget Size

	Expressed in Euros
First flow of funds (government grant)	
Second flow of funds (national subsidies)	
Third flow of funds	
International subsidies	
Total	

Each year, the Netherlands Association of Universities of Applied Sciences publishes a sector report on research at universities of applied sciences that is numerical in part. This report serves as a source of information for the relevant ministries, politicians and society as a whole. Where relevant, the numerical report will be accompanied by a summary report on the evaluation reports published in the year in question by research units and reports that have been published by the validation committee for research quality assurance.

⁵ This format is still to be operationalised further on the basis of uniform definitions and procedures (in respect of the method of delivery).

On the one hand, the sector report must contain factual information of a qualitative and quantitative nature, while on the other hand it must zoom in on developments, results, stakeholder recognition, social returns and good practices, etc.

More specifically:

- Information about mission(s) and research profile(s)
- The characterisation of research at universities of applied sciences
- Key figures on (research) staff and flows of funds
- Numbers of research groups, research groups, etc.
- Information about networks and collaboration arrangements
- List of domains and themes for research groups
- Knowledge circulation and knowledge development achieved
- Successful projects
- Publications, patents and products delivered
- Recognition from various stakeholders
- Media attention
- Relevant political and social developments
- In-depth exploration of a specific theme
- Developments in quality assurance

So, the sources for this are as follows:

- The research evaluation reports published during the year
- The validation reports on research quality assurance published during the year by the validation committee for research quality assurance
- Key figures on extent (people and money), obtained via the format given above in respect of research

However, other existing sources can be tapped too. For example:

- Factual information about the research groups (how many, which universities of applied sciences, which themes, etc.), to be obtained via sources such as www.lectoren.nl
- Publications by the Knowledge Development Foundation for Higher Professional Education and Innovation Alliance Foundation (SIA)/Regional Attention and Action for Knowledge Circulation (*Raak*)
- Publications by the Netherlands Association of Universities of Applied Sciences on research (policy) in relation to social developments
- Attention for our research from third parties (stakeholders, the media, etc.)
- Publications from the research itself

A report of this nature could be structured as follows:

1. State of affairs (reflective)
2. Summary of the research evaluation reports and reports published by the validation committee for research quality assurance
3. In-depth exploration of a point for attention X (thematic)
4. Quantitative staff and financial indicators

Addendum 1 Information, Consultation and Decision-making Process Followed

Composition of temporary steering groups and sounding board groups when developing the quality assurance system on the basis of the sector protocol for research quality assurance

Steering group:

- Henk Pijlman (Chairman), Chairman of the Executive Board, Hanze University Groningen
- Anja de Groene, Professor/Head of Research, HZ University
- Huib de Jong, member of the Executive Board, *Hogeschool Utrecht*
- Ineke van der Meule, General Director, the Hague University of Applied Sciences
- Jos Willems, member of the Executive Board, Zuyd University
- Marcel de Haas, (Secretary), Project Manager, Netherlands Association of Universities of Applied Sciences

Internal Sounding Board Group:

- Ineke van Halsema, Head of Research, INHolland University
- Gerialien Holsbrink-Engels, Professor in Health and Welfare, Saxion University
- Bob Koster, Professor of Changing Knowledge, *Hogeschool Domstad*
- Noël Maertens, *Kennispoort* Programme Manager, HAN University of Applied Sciences
- Johan Sevenhuijsen, Director of Group Strategy, Rotterdam University
- Jan Steyaert, Professor of Social Infrastructure and Technology, Fontys University of Applied Sciences
- José Teunissen, Professor of Fashion Design, ArteZ Institute of the Arts

External Sounding Board Group

- Mariken Elsen, Coordinator for Strategic Policy Information, Netherlands Organisation for Scientific Research
- Ignace Karthaus, Manager of Strategic Relations, Syntens
- Saskia Rijghard/Bert Broerse, Policy Officers, Ministry of Education, Culture and Science
- Chiel Renique, Education Secretary, Confederation of Netherlands Industry and Employers (VNO-NCW)
- Jack Spaapen, Coordinator of Research Evaluation and Quality Assurance, the Royal Netherlands Academy of Arts and Sciences

Important Dates in the Process Followed

Date	Body	Form	Handling
28 March 2008	Board for the Netherlands Association of Universities of Applied Sciences	Meeting	Project plan adopted
18 April 2008	General meeting, Netherlands Association of Universities of Applied Sciences	Meeting	Project plan adopted
22 May 2008	ERIC	Meeting	Inform and consult
6 June 2008	Steering group	Meeting	Exploration of instruction, questions and the results envisaged
13 June 2008	Internal sounding board group	Session	Exploration of instruction, questions and the results envisaged
27 June 2008	Board for the Netherlands Association of Universities of Applied Sciences	Meeting	Support, external legitimisation, contacts at universities of applied sciences, connection with other themes.
9 July 2008	Chambers for all universities of applied sciences	Brief	Inform about progress. Request for contact person.
29 August 2008	Board for the Netherlands Association of Universities of Applied Sciences	Meeting	Feasibility of plan.
2 September	External sounding board group	Session	Inform and consult.
12 September	Steering group	Meeting	Basis document for the validation committee for research quality assurance, guide, six-year plan, profile and funding for the validation committee for research quality assurance.
18 September	<i>Nederlands Netwerk Kwaliteit</i>	Session	Inform and consult.
22 September	Chambers for all universities of applied sciences	Letter	Announcement of sessions with contacts.
26 September	Internal sounding board group	Session	Consultation in relation to validation committee for research quality assurance basis document and guide, universities of applied sciences.
10 October	Board for the Netherlands Association of Universities	Meeting	Inform about progress. Decisions on six-year plan, profile and funding for the

Date	Body	Form	Handling
	of Applied Sciences		validation committee for research quality assurance.
22 October	External sounding board group	Session	Consultation in relation to basis document and guide for universities of applied sciences.
5 and 6 November	Contacts from universities of applied sciences	Regional sessions	Inform and consult
12 November	Steering group	Meeting	Final advice to BV
13 November	General meeting	Meeting	Decisions on plan, profile and funding for the validation committee for research quality assurance.
21 November	Board	Meeting	Final decision-making on operational system.
11 December	General meeting	Meeting	Discussion of Board resolution.

Opmerking [A1]: Afkorting onbekend in deze context.

Addendum 2 Literature

The following sources were used when preparing this basis document and the guide for universities of applied sciences (this document was based on the basis document):

Adviesraad voor het wetenschaps- and technologiebeleid (2005), De functie en plaats van onderzoeksactiviteiten in hogescholen.

Australian Research Council (2008), Excellence in research for Australia (ERA) initiative (consultation paper).

Donovan, C. (2008). The Australian Research Quality Framework: a live experiment in capturing the social, economic, environmental and cultural returns of publicly funded research.

Gibbons, M., C, Limoges, H. Nowotny, S. Schwartzman, P. Scott & Martin Trow (1994), The new production of knowledge: the dynamic of science and research in contemporary societies.

Hazelkorn, E. (2005), University research management: developing research in new institutions.

Hogeschool Utrecht (2007), Evaluatie kenniscentrum Innovatie van zorgverlening. Evaluation committee led by C. Frederiks, as commissioned by *Hogeschool Utrecht*.

Innovation Alliance Foundation (2006), *RAAK-evaluatie 2005-2006*.

Innovation Alliance Foundation (2007), *De opbrengst van RAAK programma's*. Telematica instituut.

KNAW (2008), *Kwaliteitszorg in de wetenschap: van SEP naar KEP, balans tussen rechtvaardigheid en eenvoud*. KNAW quality assurance committee.

KNAW/ VSNU/ NWO (2007), *Trust, but verify* First report by the Meta Evaluation Committee (MEC) quality assurance for scientific research.

KNAW/NWO/VSNU (2001), *Kwaliteit verplicht. Naar een nieuw stelsel van kwaliteitszorg voor het wetenschappelijk onderzoek*. Report by the working group on quality assurance for scientific research and position determination.

Knowledge Development Foundation for Higher Professional Education (2004), *Een steen in de vijver: de introductie van lectoraten in het hbo*. Committee for the interim

evaluation of professors and research groups, commissioned by the Knowledge Development Foundation for Higher Professional Education.

Knowledge Development Foundation for Higher Professional Education (2005), *Succesfactoren voor lectoraten in het hbo*. Committee for the interim evaluation of professors and research groups, commissioned by the Knowledge Development Foundation for Higher Professional Education.

Knowledge Development Foundation for Higher Professional Education (2006), *Lectoraten in het hbo*. Consort, commissioned by the Knowledge Development Foundation for Higher Professional Education.

Knowledge Development Foundation for Higher Professional Education (2008), *Lectoren, kweekvijvers van innovatie*. Evaluation committee for research groups, commissioned by the Knowledge Development Foundation for Higher Professional Education.

Knowledge Development Foundation for Higher Professional Education (2008), *Onderzoek naar het profiel van de lector in het HBO*. Alons & Partners Consultancy bv in collaboration with OSA (Tilburg), commissioned by the Knowledge Development Foundation for Higher Professional Education.

Langfeldt (2006), Risk avoidance; the policy challenges of peer review: managing bias, conflict of interests and interdisciplinary assessments.

Lectorenplatform (2005), *Het KOP-model als kwaliteitsimpuls voor Lectoraten*.

Leijnse, F. & M. v.d. Wende (2006), *Kwaliteitszorg lectoraten als voertuig voor ontwikkeling van de kennisfunctie*.

Merkx, F., I. van der Weijden, A. Oostveen, P. van den Besselaar, J. Spaapen, (2007), Evaluating of Research in Context: a quick scan of an emerging field.

Netherlands Association of Universities of Applied Sciences (2007), *Brancheprotocol Kwaliteitszorg Onderzoek*.

Netherlands Association of Universities of Applied Sciences (2007), *Kwaliteitszorg onderzoek aan de hogescholen*. Interim advice from strategic research work group.

Netherlands Association of Universities of Applied Sciences (2008), *Forum voor praktijkgericht onderzoek* (annual plan).

Netherlands Association of Universities of Applied Sciences/Ministry for Education, Culture and Science (2005), *Vernieuwd convenant Lectoren en Kenniskringen in het hoger beroepsonderwijs*.

Renique, C. (2008), *Hogescholen als belangrijke schakel in de kennisketen*. In Thema, 2-08.

Spaapen, J. & F. Wamelink (ed.) (2007), *Zichtbaar maken van maatschappelijke relevantie van kennis; gids voor de praktijk van de sci_Quest methode voor universiteit en hbo*.

Spaapen, J., H. Dijkstra & F. Wamelink, 2007. Evaluating research in Context.

Taylor, J. (2006), The evaluation of research: motives, methods and misunderstandings (paper).

Vanhoof, J. & P. van Petegem (2005), *Kwaliteitsvolle zelfevaluaties*.

Vos, J. van der, H. Borgdorff & A van Staa (2007), *Kennis in Context, onderzoek aan hogescholen*.

VSNU/KNAW/NWO (2003), Standard Evaluation Protocol 2003-2009 for public research organisation.

Weert, T. van & D. Andriessen (2005), *Onderzoeken door te verbeteren: overbruggen van de kloof tussen theorie en praktijk*.