Sector Protocol for Quality Assurance in Research

Quality Assurance System for Practice-Based Research in Universities of Applied Sciences 2023-2028



July 2022

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1 Introduction

1.1 Practice-based research

Researchers at universities of applied sciences (also referred to as 'institutes' in this document) carry out practice-based research in which they formulate the research questions through question articulation together with the professional field. This research is evidence-based, methodologically sound and ethically designed. In co-creation with various regional, national and/or international partners, researchers look for insights, solutions, innovations or ways to address different societal issues. The strength of practice-based research at universities of applied sciences lies in the interplay between professors, researchers, students, external partners and lecturers in conjunction with professional education, professional practice and the research domain. This leads to creativity, entrepreneurship and critical innovation capacity and contributes to sustainable knowledge development, knowledge sharing and the application of knowledge. The practice-based research of universities of applied sciences makes for institutes with substantive state-of-the-art education that train students to become valuable professionals. Moreover, practice-based research contributes to talent development; not only the talents of students, but also of lecturers, researchers, staff of the institute, and professionals in the field in the region and beyond¹.

1.2 Past, present and future of the BKO

As early as from the start of practice-based research in 2001, the importance of its quality has been recognised. From 2003, the professorships have been subject to regular assessment by the nationwide *Stichting Kennisontwikkeling* (abbreviated in Dutch as 'SKO' and translated to English as 'Knowledge Development Foundation'). In 2007, accountability for quality assurance in research was placed with the universities of applied sciences. In that year, the *Brancheprotocol Kwaliteitszorg Onderzoek 2009-2015* (abbreviated in Dutch as 'BKO' and translated to English as 'Sector Protocol for Quality Assurance in Research') was established in the general membership meeting of the *hbo-Raad* (the legal predecessor of the Association of Dutch Universities of Applied Sciences (*Vereniging Hogescholen*)). Part of this *BKO* was a system of evaluation of research units, every six years, by external independent peers and experts. A unit consisted, for example, of one or more professors with an associated group of researchers and lecturers. The quality assurance system of the institutes was evaluated and validated once every six years by a national *Validatiecommissie Kwaliteitszorg Onderzoek* (abbreviated in Dutch as '*VKO*' and translated to English as 'Validation Committee for Quality Assurance in Research).

In the *BKO 2016-2022*, the assessments of research units and the development monitor of practice-based research continued to make up the foundation. In this protocol, five standards were described to evaluate research. In this process, the fifth standard was meant to ensure quality assurance in practice-based research. The validation of the quality assurance system for research from the previous sector protocol ceased to exist. In its place, the independent *Commissie Evaluatie Kwaliteitszorg* (abbreviated in Dutch as '*CEKO*' and translated to English as 'Evaluation Committee for Quality Assurance in Research') was set up to consider whether the assessments of the individual research units of universities of applied sciences were conducted in accordance with the *BKO* and whether the institutes acted on the recommendations resulting from the assessments.

¹ This vision of practice-based research is in line with the definition formulated in the *Visie op het lectoraat* (2020), written by the Association of Dutch Universities of Applied Sciences.

In its annual sector report, the committee reported on this to the Association of Dutch Universities of Applied Sciences, also covering the development of practice-based research.

By the year 2022, the societal necessity of innovation and transition, and the contribution of practice-based research of universities of applied sciences to these issues, had become widely recognised. The *BKO* operates in a context of mission-driven innovation policy and frameworks around the impacts of the *NWO* (Dutch Research Council) and *Regieorgaan SIA* (Taskforce for Applied Research SIA). At the beginning of 2022, nearly all research units of universities of applied sciences were assessed by external assessment panels in accordance with the *BKO 2016-2022*. Based on the experiences of the past few years, the assessments as well as the monitoring of practice-based research of universities of applied sciences will continue to be the guiding principle in the *BKO 2023-2028*. In this new *BKO*, standard 5 is no longer formulated as an independent standard, but has been incorporated in the other standards. This manner of embedding emphasises the *development-oriented character* of the *BKO*, even more than in the first two sector protocols. This is also reflected in the replacement of the four-point assessment scale by a three-point scale. In addition, given the standards formulated, the development of the research units is reviewed and reflected upon.

In this *BKO*, the role of the *CEKO* will also continue to exist for the purpose of monitoring the proper implementation of the *BKO*. Due to the development-oriented approach, the decision was made to have *CEKO* operate less 'remotely', by assigning a greater advisory role to this committee, and to add expertise from the universities of applied sciences to this committee. *CEKO's* independence is partly ensured through a chair and secretary who are not employed at any university of applied sciences.

1.3 Positioning

In 2017 the professor (Dutch: *lector*) was legally incorporated in the Dutch higher professional education sector (*hbo* sector) and in 2023 this sector will launch a Professional Doctorate (PD) pilot programme, enabling continuous progression from associate, bachelor's, master's, to doctorate degree in the higher professional education system. With the PD in the *hbo* sector, the national range of education programmes at doctorate level is enriched with a variant that focuses on learning to intervene in complex (professional) practices. Quality assurance of this new education programme in the *hbo* sector falls outside the scope of this *BKO*. However, the input of PD candidates in research can be taken into account in the research assessments. Centres of Expertise, for the time being, use their own quality framework complementary to the *BKO*. Aligning the various quality assurance frameworks will become important in the coming years. In the future, we will look at whether and how the different systems can be better aligned or integrated to create a better coherence.

1.4 Functioning of the protocol

The Sector Protocol for Quality Assurance in Research (*BKO*) 2023-2028 describes (a) the objectives and set-up of the assessments of the research units of universities of applied sciences, (b) the Evaluation Committee for Quality Assurance in Research that supervises the implementation of the protocol, and (c) the national monitor reflecting quantitative and qualitative developments in practice-based research at universities of applied sciences.

The *BKO* targets all those working with the protocol: professors, lecturer researchers, researchers, lecturers, research policy officers, quality assurance policy officers, members of Executive Boards, members of assessment panels, and members of the Evaluation Committee for Quality Assurance in

Research. In this document, they can find information about the aims, organisation and implementation of quality assurance in practice-based research.

The *BKO*, complementary to the quality assurance systems of the individual institutes, lays the foundation for a national quality assurance system for practice-based research at universities of applied sciences. Its aim is to permanently sustain and develop the quality and impact of practice-based research and its organisation.

The *BKO* relates to the research units (to be distinguished) of universities of applied sciences. The institutes themselves will establish what their research units are. The individual institutes will prepare a six-year schedule for the research assessments of their research units.

Structure of the document

Chapter 2 sets out how independent assessment panels will evaluate the quality of the research units of universities of applied sciences. The assessments serve: 1. as a research policy instrument, 2. as a source for further development of research and 3. as a tool for accountability. Chapter 3 addresses the guiding principles of the indicators to be used and describes a number of indicators for practice-based research. The institutes will demonstrate their progress on the objectives formulated under standard 1 by means of indicators. Chapter 4 explains the way in which the Evaluation Committee for Quality Assurance in Research will supervise the assessments. The committee will provide an annual monitor on quality assurance of practice-based research based on the review of the quality of the research assessments, with recommendations on the functioning of the BKO. With this report, universities of applied sciences account for developments in the field of quality assurance in practice-based research.

1.5 Guiding principles of the quality assurance system

General

General guiding principles for quality assurance in practice-based research are that:

- assessments of research units constitute the foundation. In this process, the research unit's own ambitions and objectives are the starting point. By means of indicators, the research unit conducts a critical reflection on the ambitions and objectives set.
- the BKO is development-oriented;
- the practice-based research is integrated in the national knowledge infrastructure. In the BKO, the National Plan Open Science (2017) and the Netherlands Code of Conduct for Research Integrity (2018) are endorsed. Institutes are working to fulfil the corresponding duties of care. The Code of Conduct makes explicit the principles of honesty, scrupulousness, transparency, independence and responsibility. Both the Netherlands Code of Conduct for Research Integrity and the National Plan Open Science are reflected in standard 3 and;
- the CEKO establishes whether the assessment panels conduct the assessments of the individual research units of the institutes in accordance with the BKO, and that the CEKO, given the analysis carried out, is able to give advice to individual institutes about their quality assurance system. The committee reports annually to the Association of Dutch Universities of Applied Sciences.

Assessment of the research units

Guiding principles for the assessment of the research units are that:

- the basis for the assessment is the self-evaluation report. Central to this are four standards (see chapter 2) for which the research units render account. In the self-evaluation report, the research unit – in the light of its own objectives and strategy and with the use of data – describes the results achieved over the past period. The report discusses the output of the past six years and the ambitions for the coming years. In this process, the research unit also details how its research is organised and carried out in order to achieve these ambitions;

- the BKO contains a limited number of nationally defined indicators (see chapter 3), referred to as 'basic indicators', which are used by all universities of applied sciences within the context of their quality assurance mechanisms (demonstrating progress and goal achievement). In addition, there are optional indicators, defined by the universities of applied sciences themselves, for the purpose of evaluating the chosen research unit. The optional indicators are aimed at the three areas of impact of practice-based research: professional practice/society, education, and the research domain. The optional indicators provide insight into the output, use and valuation of the practice-based research;
- further requirements are set to the composition of the assessment panels in relation to the BKO 2016-2022 (see chapter 2).

The Evaluation Committee for Quality Assurance in Research (see chapter 4)

The guiding principles with regard to the Evaluation Committee for Quality Assurance in Research (CEKO) are that:

- the CEKO supervises the implementation of the BKO during a period of six years;
- the committee delivers an annual monitor in which it evaluates the functioning of the BKO and
 makes recommendations for improvement. The assessment reports and the response to them from
 the Executive Boards of the universities of applied sciences concerned constitute the foundation on
 which the CEKO bases its findings, and;
- the CEKO is able to, given the analysis carried out, give advice to individual institutes about their
 quality assurance system. An institute and/or assessment panel may also contact the CEKO
 themselves at any time to seek advice with regard to the implementation of the BKO.

Duration

Each research unit of each university of applied sciences is assessed once every six years. The *BKO* provides guidelines for the evaluation of research and the *BKO* gives universities of applied sciences and research units the opportunity to monitor and improve the quality of research within the context of their own quality assurance cycle.

2 Assessment of the Research Units

2.1 Set-up

A university of applied sciences is responsible for the quality and efficiency of its own research. The aim of assessing research units is to provide an assessment of the relevance and quality of the research and how it is organised in the research unit. The guiding principle is that each research unit is assessed at least once every six years by an independent external assessment panel. The panel conducts the assessment on behalf of the university of applied sciences. The university of applied sciences itself establishes what its research units are. A research unit is broadly defined as: a cohesive group of researchers conducting their research on the basis of a common mission; such as professorships, research groups or knowledge centres. The size of the research unit may vary across and within universities of applied sciences. A substantiated choice for the research unit by the Executive Board is more important than the unit's size. The university of applied sciences publishes a schedule of research assessments and communicates this to the CEKO, which publishes it on its website. The institute monitors the schedule's progress and informs the research units well in advance of the upcoming assessment.

For the purpose of the assessment of a research unit, the university of applied sciences concerned sets up an assessment panel. The assessment is conducted by means of four standards. On these standards, the assessment panel gives a substantiated judgement on a three-point scale: unsatisfactory, satisfactory and excellent. Subsequently, the panel gives a substantiated final judgement, also on the three-point scale, about the quality of the research unit as a whole. This final judgement, supplemented with suggestions for further improvement, is part of the assessment report.

2.2 Assessment framework

The core of the assessment is assessing the quality of the research carried out by the research unit. This is done by means of four standards, focusing successively on the research profile and research programme, the impact of the research, the quality of the research (including quality assurance), and the organisation of the research unit. Each of the four standards involves the past development of the research unit (where do we come from), the current situation (where are we now) and a look to the future (where are we going). In its assessment report, the assessment panel reflects on the follow-up of recommendations from the previous assessment.

2.3 The standards

Standard 1: The research unit has a relevant, ambitious and challenging research profile and research programme.

With its research profile and research programme, the research unit indicates in which direction and to what extent the research unit is distinctive, relevant, ambitious and challenging for the development of professional practice, for education, and for the research domain. The research profile is consistent with the institute's research vision and can count on the support of internal and external stakeholders. The research programme contains concrete objectives. To measure and

demonstrate these objectives, the research unit has established indicators. These indicators are in line with the research unit's own mission, strategy and stage of development (see chapter 3). The research unit makes transparent how it periodically adjusts its vision, research profile and research programme.

Standard 2: The research unit makes transparent what its contribution is to the development of professional practice and society at large, of education, and of the research domain.

This standard is about the impact of research, on the three areas mentioned. This impact is made clear by means of the chosen indicators (both quantitative and qualitative) and the way they are monitored by the research unit. Research impact occurs on:

- professional practice and society at large. Research carried out by universities of applied sciences is rooted in professional practice and strongly linked to an application context. The questions are prompted by professional practice (real-life situations) in both for-profit and not-for-profit sectors. The research generates knowledge, insights and products that contribute to the solution of problems in professional practice and/or to the development of this professional practice and/or to society at large;
- education. The research at universities of applied sciences is strongly connected with other higher professional education activities. This broadly occurs along two routes: the connection with education and the professional development of teaching staff (from lecturer to lecturer-researcher), and:
- the research domain. The research at universities of applied sciences contributes to knowledge development within the research domain concerned.

Standard 3: The research unit's research complies with the standards applicable in the field with regard to conducting research.

This standard concerns the quality of the research process. Paramount is that practice-based research is practically relevant, methodologically sound and ethically responsible². The research unit has explicit substantive quality criteria for preparing and conducting practice-based research and regularly evaluates the quality of its research. The substantive criteria may differ per research domain (e.g. technology/engineering or healthcare) and per discipline (e.g. marketing or logistics). The standards for good research practices from the Netherlands Code of Conduct for Research Integrity serve as guidelines. The research unit reflects on its contribution to open science and in principle makes its research findings public (open access, open data). If this is not possible or desirable, the research unit clarifies why it was not possible to apply the principles of open science.

Standard 4: The way in which the unit is organised, the deployment of people and resources, and the internal and external partnerships, networks and relationships, make it possible to achieve the research profile.

This standard contains the conditions for being able to achieve the research profile and the research programme based upon it. The portfolio and the way the unit is organised support the implementation and sustaining of the research programme in relation to the set objectives. In this process, the deployment of people and resources is sufficient in terms of both quality and quantity. The internal and external partnerships, networks and relationships here are sufficiently relevant, intensive and sustainable. This standard does not only involve looking back; future-proofing is also part of it, in which panels take into consideration how earlier partnerships contributed to the future-proofing of the research unit. The research unit regularly evaluates whether it is possible for the ambitions as articulated in the research profile and programme to be achieved.

² See, for instance, the advice of the Werkgroep Kwaliteit van Praktijkgericht Onderzoek en het Lectoraat (2017).

2.4 Assessment panel

For the purpose of assessing a research unit, the institute sets up an assessment panel. The management ensures, together with the research unit to be evaluated, that the panel's profile as a whole fits well with the strategy and substantive domain of the research unit. It is not necessary for every individual panel member to comply with all the conditions.

- The assessment panel consists of independent experts. In the composition of the panels, the same guidelines for independence are used as the ones applied by the NVAO (Accreditation Organisation of the Netherlands and Flanders) for the members of the education assessment panels (see appendix 2 for an example of a statement of independence);
- Experts are defined as: peers (professors from both universities of applied sciences and research universities, and other researchers) and stakeholders, representative of:
 - research expertise: the expert is familiar with recent developments in the disciplines and/or research domain concerned, is capable of placing this research in the current national and/or international context, and is able to assess the methodological quality of practice-based research;
 - research-related education: the expert is familiar with the significance of practice-based
 research for higher professional education, training/education, and Lifelong Development;
 - relevant professional practice: the expert is familiar with the applicability and societal relevance of the research unit's research, and;
 - research quality assurance: at least one of the panel members has demonstrable experience and expertise in quality assurance relating to practice-based research.

A secretary with demonstrable experience in evaluation processes in the context of practice-based research in the Netherlands supports the panel. Just like the panel members, the secretary signs a statement of independence. The secretary is not formally part of the assessment panel. Prior to the assessment, the members of the assessment panel sign a statement of independence (see appendix 2). In the assessment report, a short CV of each panel member is included, making clear what relevant expertise a member adds to the assessment panel. A guide for assessment reports is made available through the *Landelijk Netwerk Kwaliteitszorg Onderzoek* (abbreviated in Dutch as 'LNKO' and translated to English as 'National Network for Research Quality Assurance').

2.5 Assessment process

Self-evaluation report by the research unit

The research unit carries out a self-evaluation that is in line with the research unit's system and conception of quality. This self-evaluation results in a self-evaluation report about the research unit. The research unit sends this report, including any appendices, to the assessment panel so that it is able to assess the research unit in advance. Through the *LNKO* (National Network for Research Quality Assurance) a guide for self-evaluation is made available.

This self-evaluation report follows the standards of the assessment framework, in which the research unit describes its own strengths and development points, accompanied by appealing examples (also see chapter 3, the use of narratives). Furthermore, the research unit indicates what improvement measures it has taken following the previous assessment. The self-evaluation report also contains an introduction in which the research unit accounts for the establishment of the unit, the working methods applied by the unit, and those involved in the research unit, as well as a conclusion in terms of strengths and development points, actions and priorities for the coming time. The research unit substantiates the observations from its self-evaluation by using 'basic indicators' (chapter 3) and specific, 'optional indicators'; examples can be found in appendix 2.

The self-evaluation report is a stand-alone document, which can be read independently. Where necessary, the research unit adds relevant (existing) documents to the self-evaluation report in which more (background) information can be found on the points described in the self-evaluation.

Assessment visit

The self-evaluation report is assessed by an assessment panel, which considers the developments and results of the unit over the past six years, as well as the research plans for the coming years. The set objectives and strategy of a research unit are leading in this respect (see standard 1). Based on the self-evaluation report and accompanying appendices, the assessment panel prepares interviews with a representation of internal and external stakeholders. In doing so, the panel speaks at least to management, professors, associate professors, representatives of education, including students, and representatives of professional practice. The interviews take place during a visit to the research unit which lasts one day in principle. The research unit proposes a programme for the site visit, in which it can again use the leeway afforded by the assessment framework to highlight the uniqueness of the research unit. Subsequently, the assessment panel establishes the programme for the visit, in consultation with the research unit.

Reports

On the basis of the research unit's self-evaluation report, the interviews conducted and the supporting documents, the secretary of the assessment panel draws up an assessment report that reflects and substantiates the panel's judgements on the standards. The assessment panel indicates in its substantiation what is unsatisfactory, satisfactory or excellent. The report is independently readable and makes transparent which findings have led to the judgements awarded. In a separate section, the panel includes the main recommendations. The panel delivers the final report within 12 weeks of the site visit.

Final judgement

The assessment panel gives an opinion on the quality of the research and the organisation of the research unit. In addition to formative feedback aimed at development opportunities and other opportunities for the research unit, the panel also includes summative assessments in its report. The panel does so for each standard and concludes by presenting its final judgement on the quality of the research unit as a whole. In its assessment of the four standards, the panel uses a three-point scale: unsatisfactory, satisfactory and excellent. The final judgement is a substantiated and weighted judgement based on the assessment of the individual standards. The condition to arrive at a positive final judgement is a satisfactory score on at least three of the four standards including in any case standard 3.

The Executive Board of the university of applied sciences concerned discusses the assessment report with the research unit and writes a reflection which also addresses what will be done with the results and what the possible consequences are for the research quality assurance system of the institute. The board makes each assessment report, accompanied by its response, available to the Evaluation Committee for Quality Assurance in Research, no later than three weeks after the assessment report was issued.

Moreover, the university of applied sciences mentions in its annual report which units were evaluated, what the main conclusions and recommendations were, and what actions were taken to follow up on them. Follow-up is regularly monitored and is part of the institute's own research quality assurance system.

3 Practice-Based Research Indicators

Indicators are an important tool to monitor and further develop quality, quality care and quality assurance of practice-based research. We distinguish two types of indicators: basic indicators and optional indicators. The basic indicators provide an insight into the extent and development of the research unit. The optional indicators are aimed at the three impact areas of practice-based research: professional practice/society, education and the research domain. The optional indicators shed light on the output, use and valuation of the practice-based research. Any standard attached to an individual optional indicator is determined by the university of applied sciences itself. After all, this standard depends on, among other things, the context in which the university of applied sciences operates or in which the practice-based research is conducted, and the stage of development in which the research unit finds itself.

Guiding principles

- The indicators are part of the assessment framework for the quality of practice-based research of
 the research unit. With the optional indicators, universities of applied sciences themselves can
 decide on the concrete details of how they want to demonstrate the quality and contribution of
 their practice-based research.
- 2. The indicators are chosen in relation to the level of what has been established as a 'research unit', such as professorships or a knowledge centre.
- 3. The optional indicators focus on the three impact areas of practice-based research:
 - a. professional practice and society at large;
 - b. education;
 - c. the research domain.

The practice-based research generates a quality boost through interaction with professionals operating in professional practice, lecturers in education, and fellow researchers. By means of knowledge development, knowledge sharing and knowledge application, innovations are introduced, contributions are made to professionalisation, and new insights are acquired in these three impact areas.

- 4. The set of indicators has to be clear (transparent and comprehensible) and manageable. To facilitate assessment through site visits, it is recommended to select indicators that a research unit can use for a longer period of time.
- 5. The indicators used do not only focus on the efforts undertaken, such as the basic indicators, but in particular also on what the effect of those efforts has been, such as the impact on the three impact areas
- 6. The institute or research unit can give substance to the indicators in a quantitative as well as a qualitative sense. By means of indicators, the research unit reflects on the ambitions and goals set. The choice of a quantitative or qualitative interpretation of an indicator has to be clear and justified. This applies both to figures presented as evidence and to narratives, for example, where the question must also be asked in advance: what do we want to demonstrate with it?

7. Indicators follow from the ambitions and objectives of the university of applied sciences or the research unit, and the context in which the practice-based research is conducted. For this reason alone, it is important to use the indicators primarily as a driver of discussion, internally and with the assessment panel, about the quality and contribution of practice-based research *and* the choices that were made to demonstrate this by means of the optional indicators.

Indicators

To measure and demonstrate the contribution and quality of practice-based research at universities of applied sciences, indicators are used that provide an insight into:

Basic indicators:

Research input (appendix 2, tables 1 and 2)

Optional indicators:

- Output (appendix 2, table 3)
- Use (appendix 2, table 3)
- Valuation (appendix 2, table 3).

As for the basic indicators, all institutes use the same ones. In appendix 2, definitions have been formulated for these basic indicators. As for the optional indicators of output, use and valuation, each institute chooses appropriate indicators, appropriate in the sense of in line with: 1) one's own mission, strategy and vision, 2) the context in which the practice-based research is conducted, 3) the stage of development of the research unit, 4) that which is considered a research unit.

For all three impact areas, indicators have to be chosen, so that a minimum of three indicators are reported on. Many times, the richness of the research will prompt the use of more indicators. In table 3 of appendix 2, examples of indicators are given from which to draw. The institute is free to choose other optional indicators. When choosing indicators, the research unit may use the quality criteria that exist for indicators³.

	Research input	Output	Use	Valuation
General	Income realised for research Staffing realised (Basic indicators)			
Professional practice / society		Optional indicators	Optional indicators	Optional indicators
Education		Optional indicators	Optional indicators	Optional indicators
Research domain		Optional indicators	Optional indicators	Optional indicators

³ For more information and examples about indicators and quality criteria (in Dutch), see: <u>doorwerking-hbo-onderzoek.nl</u>

4 The Evaluation Committee for Quality Assurance in Research

4.1 Set-up and aim

The Evaluation Committee for Quality Assurance in Research (*CEKO*) was established by the Association of Dutch Universities of Applied Sciences (*VH*). The *CEKO* monitors the implementation of the Sector Protocol for Quality Assurance in Research (*BKO*). It ensures that the assessment panels are independent and competent and the assessment reports contain substantiated quality judgements on the four assessment standards as well as a final judgement. The *CEKO* evaluates the functioning of the *BKO* and makes recommendations for improvement to the Association of Dutch Universities of Applied Sciences. The *CEKO* communicates its findings and recommendations through a monitor on quality assurance in practice-based research. In this way, the *CEKO* has a monitoring, evaluating and advisory role. These roles match the development-oriented character of the *BKO* and the idea that the proper functioning of the *BKO* may increase the learning capacity of universities of applied sciences with regard to quality assurance in research.

4.2 Procedure

Each institute makes its own schedule for the research assessments of its research units, taking into account the requirement that a research unit is assessed at least once every six years. For the purpose of the assessment, the institute sets up an assessment panel. The self-evaluation report is assessed by the assessment panel. The panel also visits the unit and writes an assessment with recommendations for future improvements (see chapter 2). The Executive Board makes each assessment report, accompanied by its response, available to the *CEKO*, no later than three months after the assessment report was issued. The *CEKO* will make the report including the Executive Board's response public on the website of the *VH*. The Evaluation Committee for Quality Assurance in Research evaluates all incoming assessment reports and applies the following focal points as a touchstone:

- Are the research units assessed by an external panel at least once every six years?
- Do the assessment panels comply with the requirements in terms of expertise and independence?
- Are the quality judgements on the four assessment standards sufficiently substantiated and are each of them accompanied by factual findings?
- Are the recommendations from the previous assessment included in the current assessment?
- Does the assessment result in clear and actionable recommendations for the research unit and the institute?
- Does the final judgement correspond with the judgements on the various standards?
- Is there a response from the Executive Board, indicating what concrete steps the institute will take,
 based on the judgements and recommendations in the assessment report?

If the *CEKO* has any interim recommendations for an institute or for the Association of Dutch Universities of Applied Sciences resulting from the evaluations and analyses it carries out, it will contact the institute concerned or the association. Institutes and/or assessment panels may also contact the *CEKO* themselves to ask for advice with regard to the implementation of the *BKO*.

4.3 The Evaluation Committee for Quality Assurance in Research

The VH appoints the Evaluation Committee for Quality Assurance in Research for a period of six years. The following profile applies to the composition of the committee. The members should collectively have:

- a good understanding of higher professional education in general;
- experience in the development and positioning of practice-based research at universities of applied sciences and awareness of the significance of this research for education (and innovation of education), professional practice, and the research domain;
- a good track record and reputation in terms of authority, valuation and acceptance by institutes and stakeholders;
- extensive governing experience and, because of that, a good feel for governing relations and processes;
- affinity with research quality assurance; and
- a critical and analytical mindset, always with the development and improvement function of quality assurance in mind.

Even more than the other members, the chairperson envisaged possesses authority, overview and a capability for nuance. They have extensive experience in the role of chairperson, bring people together, and have a results-oriented approach.

The committee consists of a permanent core of five persons:

- a chair;
- a deputy chair;
- two regular members, and
- an independent secretary.

The secretary ensures proper preparation of the committee meeting(s) and writes the annual monitor under committee approval. To properly fulfil this role, the secretary should possess knowledge in the area of practice-based research. The secretary should be independent and is not formally part of the committee.

The chair, deputy chair and secretary are not affiliated to any of the universities of applied sciences and can as such be regarded as independent. The other two members are staff members of the institutes, such as quality assurance staff, professors, or other specialists in practice-based research. Due to the combination of people from inside and outside the institutes, the independent view is guaranteed on the one hand, and brings the *CEKO* closer to the institutes on the other hand, as a result of which the development-oriented character and learning capacity can be strengthened.

4.4 Financial resources

The *CEKO* is a key linchpin in the development process that the institutes, each at its own pace, undergo throughout the duration of the sector protocol. The committee, including secretarial support, and the annual reports are funded by the *doelcontributie* (earmarked funds) of the Association of Dutch Universities of Applied Sciences, to be indexed annually.

4.5 Sector report on quality assurance in practice-based education

The *CEKO* reports its findings once a year to the board of the Association of Dutch Universities of Applied Sciences. This quality assurance monitor produced by the *CEKO* is made public by the board of the Association of Dutch Universities of Applied Sciences, accompanied by its response.

Appendices

Appendix 1 Statement of Independence (Assessment)

The undersigned
Member/secretary of the research unit's assessment panel
Assessment date
herewith declares that they have not maintained or had any private or professional relationships or ties with the research unit to be assessed (in the past five years) and with the university of applied sciences (in the past two years) that could influence, either positively or negatively, a wholly independent judgement on the quality of the research unit.
This limitation, however, does not exclude the possibility of general, detached, non-committal, collegial contacts as are common in professional and societal interactions. More specifically, this means in any case that the panel member, in the past five years: has not taken part in the research and consultancy activities of the research unit concerned; has not produced any joint publications with the professor and/or staff member(s) of the research
unit; has not served on any advisory boards or assessment panels of the research unit concerned; has not issued any assignments/research assignments to the research unit nor subsidised any activities of the research unit;
has not been a doctoral thesis supervisor of the members of the research unit; has not had any personal relationship (family, friends or personal conflict) with the members of the research unit, and;
t the time of the assessment, there was no (intended) hierarchical relationship between the panel member and: – the professor(s); — the staff members of the research unit;
 the staff members of the research unit; the other interlocutors of the assessment day; the other panel members.
Name
Date of birth
Date

Appendix 2 Explanation of the practice-based research indicators

All universities of applied sciences use a limited set of indicators for practice-based research for the purpose of the national monitor. This concerns realised income and realised staffing for research. An explanation of this can be found in table 1 and table 2 respectively.

Table 1: Research income realised in 202x

Nat	ure of the income realised for the research unit	Income realised in K€
1	Income from primary sources of funding	
2	Income from secondary sources of funding	
3	Income from tertiary sources of funding	
4	Other income not falling under the categories above	
	Total	

Any explanatory notes on the source of other income (category 4)			
Rationale	Identifying the extent/scope/mass of the research. Various sources of funding		

Rationale Identifying the extent/scope/mass of the research. Various sources of are relevant from the perspectives of: how much does the institute its on research, how successful is the institute at securing grants, how suc at raising funds from the market/professional practice?			
Primary sources of funding Annual departmental research funding received (Ministry of Education/Agriculture). Depending on the institute's research policy amount may be higher or lower than the research part in the lump s			
Secondary sources of funding	Research funds disbursed in any year by independent public organisations (e.g. NOW, Regieorgaan SIA, ZonMW) and acquired in regional, national and/or international competition. This does not concern the entire budget of a multi-year research project but the funds paid out in any year within the multi-year project. If the university of applied sciences is the leader of a consortium, this does not concern the entire consortium budget but only the part of the budget for which the university of applied sciences has implementation responsibility. This concerns funds allocated regionally, nationally and internationally.		

Tertiary sources of funding	Research funds disbursed in any year on the basis of a contract with a commissioner for carrying out practice-based research. This does not concern the entire budget of a multi-year research project but the funds paid out in any year within the multi-year project.
	If the university of applied sciences is the leader of a consortium, this does not concern the entire consortium budget but only the part of the budget for which the university of applied sciences has implementation responsibility. This concerns funds allocated regionally, nationally and internationally.
Other income	Research funds disbursed in any year, which do not fall under any of the categories above. If relevant, please briefly specify these funds in the explanatory notes.

Table 2: Research staffing realised in 202x

Category	Total number (N)	Total number (FTEs)	Number of PhD degree holders (N)
Professors			
Lecturers and other researchers			
PhD candidates			
Professional Doctorate candidates			
Support			

Rationale	Identify the extent/scope of the research and the level at which people can conduct research. This concerns the number of professors, lecturers, PhD candidates (in numbers and FTEs) who are involved in the research of the research units.		
General	 Research staffing relates to all research activities that are part of the research lines, research programmes and research projects in which one or more professors are involved, either directly or indirectly. Research staffing relates to staff employed on a permanent or temporary basis by the institute and any affiliated legal entities. In addition, staffing relates to seconded staff from external organisations involved in the conduct of the research. Moreover, staffing also involves staff cooperating on a reimbursement basis in the conduct of the research. A staff member who conducts research at more than one institute may be listed in absolute terms with all these institutes; however, their FTEs should be distributed across the institutes according to reality. The four categories of staff are mutually exclusive. 		

Professors	The number of professors who as such have a permanent or temporary appointment with the institute as well as professors who carry out work at the institute via secondment or on a reimbursement basis. Associate professors or similar positions are counted under the category of lecturers and other researchers. The FTEs refer to the total appointment at the institute and may therefore relate to research duties, teaching duties and other duties.
Lecturers and researchers	All staff members who are not professors but who do carry out substantive research activities which are part of a research programme or project, in which one or more professors are involved. PhD candidates are not part of this category but should be counted under the separate category of 'PhD candidates'. As for the number of FTEs, only those FTEs should be counted that relate to the execution of research duties (and not any teaching duties).
PhD candidates	The number of PhD candidates who carry out PhD research affiliated to the research lines, research programmes and research projects of the institute. External PhD candidates are not counted under this category. As for the number of FTEs, only those FTEs should be counted that relate to the execution of PhD research duties (and not any teaching duties).
Support	All staff performing support activities for the conduct of the research (secretarial/support/organisational), but not as professors, researchers / lecturer researchers, or PhD candidates.

Table 3: Examples of optional indicators

To gain more insight into the output of the practice-based research, its use, and valuation, every institute chooses appropriate indicators for each of the three impact areas. The optional indicators and matrix below serve as an example, depending on how a research unit defines 'impact'.

	Output	Use	Valuation
Professional practice / Society	 Professional journal papers Lectures Workshops Prototypes Measurement instruments Learning community 	 Implementation in policy or professional practice Participation in professional practice in research Consultancy activities Participation in public debate 	 External assignments Follow-up assignments Satisfaction of commissioners / partners Being asked for advisory boards, as a speaker, expert in the media, etc. Awards from the discipline
Education	 Course modules Research oriented curriculum Curriculum renewal Minors Teaching materials 	 Degree programmes that use the research output Students participating in the research oriented curriculum 	 Student satisfaction Lecturer satisfaction Assessment of research ability
	Graduation theses Placement reports and	Research minors etc. Lecturer participation in research Participation of professors / researchers in committees/ management of a degree programme	Satisfaction of supervisors (e.g. placement supervisors) in the industry

Research domain	Academic/scientific publications Expert mee- tings Patents, licences Share of openaccess publications	 Citations Use of research data Use of knowledge products in research of third parties Reviews Income from patents, licences 	 Awarding of grant applications for knowledge development or valorisation Academic/scientific awards Being asked for academic/scientific advisory boards/editorial boards, as a speaker, expert in the media, etc.
			•

Appendix 3 List of definitions

List of BKO definitions

- assessment panel: An ad hoc panel of independent external experts commissioned by a university of applied sciences to assess one or more of its research units.
- assessment report: A report drawn up by the assessment panel on the basis of the research unit's self-evaluation report, the interviews conducted, and the supporting documents. In this report, the panel's judgements on the standards are presented and substantiated. See 2.5 for more information.
- basic indicator: Indicators used by all universities of applied sciences within the context of their quality assurance practices (demonstrating progress and goal achievement).
- BKO: Dutch abbreviation of Sector Protocol for Quality Assurance in Research CEKO: Dutch
 abbreviation of Evaluation Committee for Quality Assurance in Research, for a description and the
 procedure, see chapter 4.
- Executive Board's response: The board's response to the assessment report, indicating the concrete steps that the institute will take, based on the judgements and recommendations in the assessment report.
- final judgement; the assessment panel's judgement. The judgement will be satisfactory if standard 3
 and at least two other standards are satisfactory.
- impact: The impact of both the process of research and the research results on education,
 professional practice, and the research domain.
- indicator: A tool to monitor and further develop quality, quality care and quality assurance of practice-based research. There are basic indicators and optional indicators. See chapter 3.
- judgement: The assessment committee's judgement on one of the four standards.
- optional indicator: Indicators established by the institute itself for the evaluation of the chosen research unit. The optional indicators are aimed at the three impact areas of practice-based research: professional practice/society, education, and the research domain. The optional indicators provide insight into the output, use and valuation of the practice-based research.
- quality assurance monitor: Annual report by the CEKO based on the evaluation of the quality of the research assessments, including conclusions and recommendations with regard to the functioning of the BKO.
- research unit: A research unit is broadly defined as a cohesive group of researchers conducting their research on the basis of a common mission, such as professorships, research groups or knowledge centres. The size of the research unit may vary across and within universities of applied sciences. A substantiated choice for the research unit by the Executive Board is more important than the unit's
- self-evaluation report: The research unit conducts a self-evaluation that is in line with the research unit's system and conception of quality. This self-evaluation results in a self-evaluation report about the research unit. Through the *LNKO* (National Network for Research Quality Assurance) a guide for self-evaluation is made available. See 2.5 for more information.
- standard: Guideline for the assessment within the framework of the BKO. There are four standards
 in the BKO on which the assessment panel gives its substantiated judgement.



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July 2022