PD Quality Assurance Framework

Quality assurance framework for the Professional Doctorate Pilot within Dutch universities of applied sciences

Netherlands Association of Universities of Applied Sciences

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Introduction

Universities of applied sciences are launching a pilot for their own doctorate track: the professional doctorate (PD). In doing so, higher professional education (hbo) introduces a new research-intensive learning pathway aiming to push back frontiers in professional practice. Within this pilot, candidates are trained to be highly skilled inquisitive professionals who learn to make interventions in complex practices, such as the energy transition or health care. This pilot has been initiated by the Netherlands Association of Universities of Applied Sciences (hereinafter: VH) in conjunction with the Ministry of Education, Culture and Science (OCW) and the Taskforce for Applied Research SIA, and starts in early 2023.

A PD track in hbo is an important and necessary addition within the higher education system. The PD enables a continuous learning pathway ranging from Associate Degree via bachelor's and master's programmes to doctorate programmes in the higher professional education system, and will be closely linked to other hbo programmes.

It aims to enable professional bachelor's and master's students – as to their course content - to reap the benefits of the research conducted by PD candidates into the latest developments in professional practice. Hence, the introduction of the PD is also an investment in the broader alignment of hbo and employment.

As from 2023, universities of applied sciences will start with a first cohort of candidates in seven domains: Art & Creative, Health & Well-being, Maritime, Education: Learning & Professionalisation and Technology & Digitisation, Leisure, Tourism & Hospitality, and Energy and Sustainability.

To ensure the quality and recognised value of this unique learning track a quality assurance framework has been developed – in line with international standards – which enables organisers to assess and safeguard the added value of the PD for the candidate, practice-based research and education, professional practice and society.

The guiding principles for this framework have already been described in the plan of approach for the pilot of the PD[1] , which was submitted to the minister of OCW in March 2021.

1 Vereniging Hogescholen. (2021). *University of Applied Sciences Professional Doctorate. A professional degree programme focusing on practice-based research.* Vereniging Hogescholen: The Hague.

A Context of national and international QA frameworks

This quality assurance framework (here: PD Quality Assurance Framework) follows the European standards and guidelines for quality assurance in higher education ((ESG)[2]. In view of the research-intensive character of the PD relevant quality assurance features of both research and education were taken into account when detailing out the framework. The drafted assessment framework therefore is in line with the criteria stated in the Dutch Higher Education and Research Act (WHW), the ESG – and the NVAO framework derived from it – and the Sector protocol for quality assurance in research (BKO) (2023-2028), and states the criteria on the basis of which the quality of the professional doctorate is ensured within the pilot..

As a whole, the main sources of the PD Quality Assurance Framework are as follows:

- Standards and guidelines for quality assurance in the European Higher Education Area (ESG) of the European Association for Quality Assurance in Higher Education (ENQA) (2015);
- Sector protocol for quality assurance in research (BKO 2016-2022; 2023-2028) of the *VH* (2015 and 2022, resp.);
- Assessment framework of the Dutch accreditation system of the NVAO (2018);
- Plan of approach for the PD pilot by the *VH* (University of Applied Sciences Professional Doctorate (2021). *Een beroepsopleiding waarin praktijkgericht onderzoek centraal staat*. Vereniging Hogescholen: The Hague);
- Regulations of the Dutch Certification Commission for training courses for Technological Designers (CCTO) (2014);
- Professional Doctorate in Engineering Regulations of Delft University of Technology (2021);
- Strategy Evaluation Protocol (SEP) 2021-2027 of UNL, KNAW and NWO.

Since one of the guiding principles of the PD pilot is that domains can add domain-specific elements to their PD programme within guidelines and quality requirements established nationwide, what has been emphatically made use of when drafting this framework is (practical) experiences and information from the various domains, so that when the framework is implemented, it is not considered too burdensome or inappropriate by the various domains.

2 European Association for Quality Assurance in Higher Education (ENQA). (2015). *Standards and guidelines for quality assurance in the European Higher Education Area* (ESG).

B Levels of the PD Quality Assurance Framework

The above-mentioned frameworks and protocols focus on different levels. The ESG and NVAO framework, for example, mainly focus on the level of the institute (the university of applied sciences) and degree programme, and the BKO focuses on the research unit. The following four levels can be distinguished for the PD:

national	At the national level, the VH (in conjunction with the Ministry of OCW and/or the Taskforce for Applied Research SIA in some cases) has made agreements about the structure and funding of the pilot. The PD Quality Assurance Framework is established at the national level, and is the basis for internal and external quality assurance of the PD during the pilot.
domain	The pilot with the PD takes place in seven (thematic) domains. A PD programme is drawn up per domain, within which it is stated how the PD tracks are designed within this domain, and how quality assurance is organised (at a programme level and at a track level). The nationally established PD Quality Assurance Framework is leading here.
UAS	A university of applied sciences that participates in the pilot makes a contribution to one or more PD programmes. This means that a UAS can allow one or more PD candidates to start and/or makes a contribution in the form of supervision or assessment of individual PD tracks or supportive (learning) activities. The PD programme per domain is leading here.
individual	An individual student, the PD candidate, can do a PD track in a domain within an approved PD programme. Requirements as to admission requirements, track structure and supervision and assessment of the PD track have been established in the PD programmes at the domain level.

The PD Quality Assurance Framework focuses primarily on the domain and national levels. The framework presents standards (including quality requirements) which the programmes must meet at the domain level. This is elaborated and safeguarded in the individual PD track within these programmes. Furthermore, external quality assurance is described at the national and domain levels in the structure of an external quality assurance agency.

At every participating UAS, quality assurance is further elaborated as it was agreed upon within the domain (in line with the national framework). At the same time, organising professionalisation of supervision, internal (pre-)selection, facilitating the learning environment and embedding quality assurance for the PD within other forms of quality assurance also require an effort to be made by the UAS as an entity. During the pilot, experience will be gained in detailing out the organisation of quality assurance for the PD at the UAS level. In doing so, PD candidates and their supervisors are important focal points for improving the quality (e.g. around supervising candidates, administering exams, supportive learning activities). This will be monitored well. These further details can be incorporated into a following edition of this quality assurance framework.

C Structure of the PD Quality Assurance Framework

The PD Quality Assurance Framework serves as a basis for both internal and external quality assurance, and follows the subdivision of the ESG into three parts (internal quality assurance, external quality assurance, organisation of quality assurance):

1 Internal quality assurance
2 External quality assurance
3 VaCo-PD

The guiding principle for internal quality assurance of the PD programmes per domain as described in **chapter 1** are the four standards the quality of the PD is tested against and monitored. These four standards are based on the four standards from the BKO and the NVAO framework. In accordance with the ESG, these standards apply to both internal and external quality assurance. The domains themselves are responsible for monitoring the quality of their PD programme.

Chapter 2 addresses external quality assurance. It illustrates how assessment of the quality of the PD is ensured externally. The domain-specific validation committees established by the VaCo-PD use the quality framework from chapter 1 for the four-yearly assessment procedures of the PD programmes. Finally, **chapter 3** describes how the VaCo-PD and domain-specific validation committees, the organisation of quality assurance in the context of the PD, are composed and how they operate.

Appendix 1 shows the definition of terms used in this framework. It gives definitions of and explanations of key concepts in the PD quality assurance framework.

Appendix 2 describes how the PD Quality Assurance Framework follows and has operationalised standards and guidelines for the three parts of the ESG. Where applicable, standards and guidelines have literally been copied from the ESG framework. The wording has been adjusted and operationalised in certain places for the specific situation of the PD. On the one hand, this appendix aims to show that the quality assurance framework for the PD follows the ESG, and on the other hand, it aims to provide users of the framework with additional information, guidelines and context with regard to considerations and substantiation of the quality assurance framework.

D Disclaimers

- An important goal of the pilot is to learn together how the PD can be designed optimally within the several domains, and what this means for quality assurance at the four levels mentioned above: national, domain, UAS, and individual. A lot is being developed prior to and during the pilot. On the eve of the launch of the pilot, there is an intended curriculum (established in the several domain-specific PD programmes) and an intended quality assurance plan (this document). As from the launch of the pilot, we see the curriculum and quality assurance system in action, and afterwards, we have the experienced curriculum and quality assurance system. All three manners in which they appear should be known to arrive at definitive quality criteria. This framework will be improved periodically on the basis of experiences from practice – and as well as possible within the ESG framework (and adopted by the *VH*).

- This national PD Quality Assurance Framework is established by the General Meeting of the VH, and is therefore **binding** for colleagues working in the several domains on forming and implementing the domain-specific PD programmes.

- This national PD Quality Assurance Framework is **valid for the pilot** starting in 2023. This framework can be a source of inspiration for the situation after a successful pilot in which the PD is legally incorporated, but it is not a blueprint for it beforehand.

E Monitoring and evaluation

As indicated above, the pilot is a learning process. This means that it is crucial to have good monitoring and evaluation in place with a view to the success of the pilot and the functioning of the proposed quality assurance framework. It is important to know very clearly when we can speak of a successful functioning. This aspect is part of the Monitoring and evaluation framework that is drafted nationally.

The forums and organisations featuring in the following chapters (among others, graduate committees, graduate networks, VaCo-PD and domain-specific validation committees, the Taskforce for Applied Research SIA, VH, Vereniging van Lectoren) set up processes to learn from each other during the pilot. Not only learning within the several domains, but also across domains is important here. Just think of graduate committees who learn from each other; benchmark sessions across domains to encourage jointly setting standards, getting familiar with validation processes in the various domains, disseminating results/things worth knowing by the VaCo-PD, presenting progress reports of the scholarship programme by the Taskforce for Applied Research SIA. The VaCo-PD will explicitly monitor learning within the pilot and across domains, and make recommendations for that purpose if required.

1 Internal quality assurance

Introduction

The quality assurance framework is the basis for learning, directing and continuously improving the quality of the Professional Doctorate, as well as for monitoring and accountability. The quality assurance framework for the Professional Doctorate (PD) consists of four standards. The standards are looked at together and together they give a picture of the quality of the PD. The quality assurance framework serves as a guideline for both internal (chapter 1) and external quality assurance (chapters 2 and 3) of the PD.

The internal quality assurance is formed by what are termed 'standards'. Within these standards a certain basic quality is defined. Basic quality and own ambitions are talked of within each standard. These two guiding principles are forerunners of setting standards which no agreements have been made on in the pilot. The basic quality is the minimally required quality **to ensure** quality, but to a lesser degree it says something about the **development and ambition** that the PD has in the required development of the standards. For that purpose, the element 'own ambitions' was added.

As stated above, the PD Quality Assurance Framework focuses on the domain and national levels, in which all aspects around the PD concerning their structure are described in PD programmes both for the domain as a whole and at the track level. It concerns requirements for units of study, but also e.g. quality assurance, assessment and admission. This means that a domain – the relevant graduate committee to be precise – approves a PD programme. This programme is leading for all participating universities of applied sciences and the PD tracks that are started within a domain. The programme is subjected to an assessment by the PD Validation Committee (VaCo-PD) and a domain-specific validation committee[3].

3 At the start of the programme, an assessment takes place by the VaCo-PD. After four years the programme is validated by a domain-specific validation committee which was set up by the VaCo-PD, where the VaCo-PD eventually makes the final assessment, on the basis of the advice issued by the domain-specific validation committee. See chapter 3 of this framework.

1.1 Standards for internal quality assurance

Standard 1 Aims & objectives, vision and ambitions

The PD programme is relevant, ambitious and challenging. The aims of the PD programme fit in with the level and orientation of the PD and have been brought in line with the expectations held by the professional field and the discipline and to international requirements.

Basic quality: The intended aims and objectives of the PD programme – and hence, its various PD tracks – demonstrably reflect the doctorate level (EQF 8) in the Framework for Qualifications of the European Higher Education Area (QF-EHEA) – also known as the Dublin Descriptors – and the European Qualifications Framework for lifelong learning (EQF) and orientation (innovation / professional practice). Furthermore, they fit in with current requirements set to the content of the PD by the professional field, the discipline and research conducted within the discipline from a regional, national and international perspective. Continuous improvement and safeguarding processes around vision building and goal definition in conjunction with professional practice are part of this standard.

Monitoring and accountability: To demonstrate standard 1 to the validation committee[4], the domain submits at least information about the aspects below. These aspects have been synchronised with and contain additional information in Parts 1 and 2 of appendix 2:

a Aims & objectives and mission of the PD (ESG 1.1)
b Professional roles/profiles of the PD (ESG 1.2)
c Learning outcomes at EQF 8 (ESG 1.2)
d Validation of aims and objectives and relevance for the industry (ESG 1.2, 1.8)
e Continuous improvement and safeguarding of processes around vision building and goal definition is an explicit part of assessing this standard (ESG 1.7; 1.9)

Own ambitions: The additional ambitions of the PD programme in relation to the vision and goals are described and it is clear how these will be achieved.

4 Depending on the moment, this is either the VaCo-PD (at the start) or the domain-specific validation committee (when revalidating).

Standard 2 Effect, impact and achieving learning outcomes

The PD programme makes visible what the contribution is to the development of professional practice, broader community, education and the research field. The PD programme demonstrates that the intended objectives are achieved.

Basic quality: The impact and effect that are realised in the three subareas by intervening in complex practices is demonstrated. The distinction between end product and effect[5] is explicitly made visible. NB: At the launch, i.e., in 2022-2023, it concerns the intended impact here. In four years' time, it can be defined per domain what the achieved learning outcomes are, and how the intended impact is looked back on and looked ahead at.

Monitoring and accountability: To demonstrate standard 2 to the validation committee[6] the domain submits at least information about the aspects below. These aspects have been synchronised with and contain additional information in Parts 1 and 2 of appendix 2.

a* The effect and impact on professional practice and broad society (with fitting indicators[7]

b* The effect and impact on education[8] (with fitting indicators)

c* The effect and impact of research on knowledge development within the domain with fitting indicators)

d* Candidates' careers upon completion of their track (alumni success)

e* Organisation of storage, accessibility, transparency of what PD candidates have produced within the programme

f Continuous improvement and safeguarding of achieving learning results, impact and effect is part of assessing this standard (ESG 2.1, 2.7, 2.8, 2.9)

Eigen ambities: The additional ambitions of the PD in relation to the impact, effect and results of the PD programme are described, and it is clear how these will be achieved.

* The monitoring and accountability elements without reference to Part 1 and Part 2 of the ESG are as important as the other elements, and refer in particular to characteristics appropriate to the research and intervention nature of the PD.

5 When a change has been realised, an effect can also be an end product.

6 Depending on the moment, this is either the VaCo-PD (at the launch) or the domain-specific validation committee (when revalidating).

7 During the pilot, attention will be paid to the development of fitting indicators for this purpose (and for the following two points).

8 This could be education within, and also outside the university of applied sciences, if necessary.

Standard 3 Quality, testing and assessment

PD programme staff assure the quality of research and educational aspects of the PD candidate's track. PD programme staff design a process of periodic evaluation of research by PD candidates. PD programme staff have set up a sufficient assessment system focusing on learning goals in terms of research and intervention competencies to be developed by PD candidates. The tracks of PD candidates within the programme meet the standards that apply in the domain.

Basic quality: Activities within the PD tracks of the candidates[9] must meet the applicable standards in the domain. For that purpose, the PD programme itself designs processes that monitor them and ensure the educational and research quality of the PD track. There are guidelines in place within the PD programme for assessing the development track and PD candidates' results, among other things, the research carried out.

Monitoring and accountability: To demonstrate standard 3 to the validation committee[10], the domain submits at least information about the aspects below. These aspects have been synchronised with and contain additional information in Parts 1 and 2 of appendix 2:

a* Activities at PD track level meet the standards that apply within the domain
b Reviewing a PD track is custom-designed: formative/summative; quality criteria; ensuring the quality of the review process; quality requirements concerning assessors (ESG 1.3)
c* Ensuring and developing the quality of the PD track: methods fitting the industry; the track is practically relevant with appropriate thoroughness, and ethically responsible
d* The way in which it is safeguarded that the portfolio and interview is assessed reliably and independently at the end of the PD track
e* The way in which the quality of the output is ensured in accordance with standard EQF 8
f* Compliance with the Netherlands Code of Conduct for Research Integrity where applicable
g* (Reflection on) the contribution to Open Sciences – where, in principle, research results are publicly disclosed
h Continuously improving and ensuring the quality of the programme is an explicit part of this standard (ESG 1.1, 1.7, 1.8, 1.9)

Own ambitions: The additional ambitions of the PD programme in relation to the research quality of PD candidates, testing and assessment of the PD programme are described, and it is clear how they will be achieved.

* The monitoring and accountability elements without reference to Part 1 and Part 2 of the ESG are as important as the other elements, and refer in particular to characteristics appropriate to the research and intervention nature of the PD.

9 In view of the learning outcomes of the PD these will be activities focusing on development within roles, such as innovator, researcher, professional and change agent with, most of all, an important role for practice-based research.
10 Depending on the moment, this is either the VaCo-PD (at the launch) or the domain-specific validation committee (when revalidating).

Standard 4 The organisation

The way in which the PD programme is organised, the deployment of people and resources and internal and external collaborative ventures, networks and relationships enable the realisation of the PD in accordance with the standards set.

Basic quality: Basic quality: The organisation's workforce and working methods within the PD are appropriate, and there is a sustainable vision on deployment of personnel as regards supervision. The domain has a multiannual vision on deployment of personnel in the PD. The PD is part of relevant internal and external collaborative ventures and networks and actively works on relevant, intensive and sustainable relations. The candidate's track has been designed in such a way that the candidate has an active role in compiling learning activities to be able to demonstrate learning outcomes.

Monitoring and accountability: To demonstrate standard 4 to the validation committee[11], the domain submits at least information about the aspects below. These aspects have been synchronised with and contain additional information in Parts 1 and 2 of appendix 2:

a Design of the PD track enables the candidate to achieve learning outcomes (ESG 1.2)
b Candidate's active role in designing the track (ESG 1.3)
c Guidelines on admission, progress and certification (ESG 1.4)
d The quality and quantity of supervision (ESG 1.5) and the quality of the learning environment or research culture (ESG 1.6)[12]
e Continuous improvement and safeguarding of the organisation of the PD is an explicit part of this standard (ESG 1.1, 1.7, 1.8, 1.9)

Own ambitions: The additional ambitions of the PD programme in relation to the organisation of the PD programme are described and it is clear how they will be achieved.

* The monitoring and accountability elements without any references to Parts 1 and 2 of the ESG are just as important as the other elements, and particularly refer to the characteristics fitting the research and intervention character of the PD.

1.2 Quality assurance of the Graduate Committee

In the pilot, the PD is a joint programme which is delivered by a collaborative venture of universities of applied sciences in a certain discipline (domain). This collaborative venture is called a Graduate Network. The network is responsible, among other things, for the quality of the PD tracks of a specific domain and the PD programme in its entirety. The Graduate Network is headed by the Graduate Committee (+ name of the cluster). The Graduate Committee carries an important responsibility as to ensuring the quality of the PD programme. The table below shows the minimum tasks of the Graduate Committee. It is also indicated which of the four standards the activity is linked with.

11 Depending on the moment, this is either the VaCo-PD (at the launch) or the domain-specific validation committee (when revalidating).
12 As far as this aspect is concerned, the domain depends on the available workforce and available learning environment within the participating universities of applied sciences.

	Standard 1 Aims and objectives	Standard 2 Effect	Standard 3 Quality	Standard 4 Organisation
The Graduate Committee establishes a training profile for the PD programme.	●			
The Graduate Committee establishes a joint assessment model.	●	●	●	
The Graduate Committee determines the content of mandatory or suitable elective supportive learning activities (in other words, education through one course at a time) and monitors its quality.			●	●
The Graduate Committee establishes a multiannual PD plan with themes[13] for which candidates must be recruited.	●			
The Graduate Committee selects – with the aid of the training profile – the pool of professors who are qualified to both supervise candidates as primary supervisor and nominate them to the assessment committee			●	●
The Graduate Committee assesses the PD plan before the start of a PD track and the starting qualification of the intended candidate	●	●	●	●
The Graduate Committee composes the assessment committees[14] on the recommendation of the supervising professor and monitors if they are a reflection of stakeholders involved in the real-life issue of the PD track				●
The Graduate Committee organises periodic benchmark sessions[15] with professors from the pool of supervisors to encourage setting standards together			●	●
The Graduate Committee awards the degree (after the PD has been legally incorporated) and is represented in this context by one of the participating universities of applied sciences				●

Please note: The specific details of what the Graduate Committee does and division of tasks between e.g. Graduate Committee and Graduate Network – and possibly other forums – might differ from domain to domain. There might be, for example, more co-creation between Graduate Network and Graduate Committee or administrative involvement. This depends on, among other things, the number of universities of applied sciences involved, existing way of organising work and degree of organising the domain, and relation/involvement of the industry.

13 This could be types of approaches, such as artistic research or design thinking.

14 During the pilot, a VaCo-PD member will be added to the assessment committee for testing matters against national guidelines and bringing in experiences gained nationwide around quality and assessment.

15 A handbook is available for benchmarking purposes: Andriessen, D. (2015). Handreiking kalibreersessies. Utrecht: Utrecht University of Applied Sciences.

Composition of Graduate Committees

The Graduate Committee has a mandate to perform the above tasks within the domain on behalf of the Graduate Network and the participating institutions within the relevant domain. To be able to perform the above tasks well, the following areas of expertise are covered by each Graduate Committee – because of the combined expertise of its individual members:

- have up-to-date knowledge of (professional) practice within the relevant domain;
- be actively involved within (professional) practice within the relevant domain;
- have an overarching international orientation to the relevant domain;
- have expertise in the field of research, interventions and innovation of (professional) practice;
- have expertise in assessing (practice-based) research proposals;
- have expertise in assessing proposals for doctorate tracks;
- have expertise in supervising and assessing doctorate tracks;
- have a clear view of the way in which universities of applied sciences are organised with regard to education and research.

Moreover, its members have the following competencies: communicatively skilled, proficient in English, critical, and analytical.

The size of the Graduate Committee is such that the Graduate Committee can perform the above tasks properly. In view of the character of the PD, this committee has a fitting mix of researchers and industry partners[16]. Since this committee has to assess the proposals for PD tracks, at least half of the committee members have completed a degree programme at the level of EQF 8, and committee members who have not earned this formal degree can function at the level of EQF 8. Lastly, attention is paid to diversity within the committee (male/female, age, and cultural diversity).

Graduate Committee members will perform their activities ethically, and therefore they endorse the following five principles[17]: honesty, scrupulousness, transparency, independence and accountability. Specifically with regard to assessing the PD track proposals the members endorse the NWO code for Dealing with Personal Interests.

16 Within Art + Creative many professors have their own art practice, and in this way, they are also industry partners.

17 The principles have been further detailed out in the Netherlands Code of Conduct for Research Integrity. In the code of conduct these principles are presented as the foundation for the practice of conducting research ethically, but they can also be considered principles for acting ethically.

In addition to the above components of internal quality assurance per domain, it is also essential when the pilot is being carried out that people learn from each other across domains. Working conferences, for example, will be organised together with the various graduate committees to discover how quality assurance has been designed in other domains, and additionally, periodic benchmark sessions can be organised with professors from all participating domains in order to encourage setting standards across domains.

2 External quality assurance

Introduction

In addition to the four standards stated in the previous chapter for internal quality assurance of PD programmes in the domains, it is important for a properly functioning quality assurance system that agreements and actual realisation of internal quality assurance are tested periodically by external experts, in order to be able to learn from this and improve the processes with regard to quality assurance.
As indicated in the plan of approach for the pilot with the PD[18], a national PD Validation Committee (abbreviated to VaCo-PD) has been set up for external quality assurance for the pilot with the PD. The PD programmes are assessed with regard to quality and certified by the VaCo-PD. These programmes are periodically certified on the basis of the findings of domain-specific validation committees set up by the VaCo-PD. Chapter 3 will further detail out the composition of the VaCo-PD and the domain-specific validation committees as quality assurance agencies. This chapter illustrates the processes for external quality assurance.

External quality assurance of the PD consists of:
1. An assessment of the PD programme by the VaCo-PD when a programme is launched
2. Periodic validations per domain
3. Periodic meta-analysis of all programmes ('The State of the PD')

As stated above, the four standards as described in the previous chapter form the basis for external quality assurance.

18 Vereniging Hogescholen. (2021). *University of Applied Sciences Professional Doctorate. A professional degree programme focusing on practice-based research.* Vereniging Hogescholen: The Hague.

2.1 A preliminary assessment of the PD programme by the VaCo-PD

When a PD programme is launched, the VaCo-PD[19] makes an assessment of the situation on the basis of the four above-mentioned standards for internal quality assurance. In doing so, they pay attention to at least the four standards presented in the previous chapter:

- Standard 1: aims & objectives, vision, and ambitions
- Standard 2: impact, effect and achieving learning outcomes
- Standard 3: quality, testing, and assessment
- Standard 4: the organisation

Each standard in chapter 1 states what information the Graduate Committee must submit to the VaCo-PD.

2.2 Periodic validation per domain

A validation takes place every four years[20]. What is also looked at here is the achieved quality of the past four years on the basis of a (random sample of) portfolios submitted by candidates.

The basis for the validation of a domain is a self-evaluation report[21]. Central elements are the four standards, which the domain gives account for. The domain evaluates in this report, in light of their own aims and objectives and strategy and by using data, the results achieved during the past period. The self-evaluation report addresses what has been achieved in the past four years, and the ambitions for the coming years. Furthermore, the domain describes how the PD tracks have been organised and will be executed to achieve these ambitions. Another component of the self-evaluation is the critical review of how advice and recommendations from the previous assessment/validation within the PD programme were followed up by the domain.

After the domain-specific validation committee – which was set up by the VaCo-PD – has been able to take note of the self-evaluation, an assessment procedure will follow with an inspection visit if necessary.

19 Since at the launch it concerns assessment of plans, this is done by the VaCo-PD itself, and for the time being domain-specific validation committees are made use of.

20 After the pilot period, it may be decided to extend this evaluation period to 6 years, so that this will be in line with the evaluation periods of the BKO and NVAO.

21 For this purpose, the monitoring to be set up per domain could serve as an important basis/input.

After the domain-specific validation committee – which was set up by the VaCo-PD – has been able to take note of the self-evaluation, an assessment procedure will follow with an inspection visit if necessary.
The domain-specific validation committee draws up a report as a result of the assessment procedure, and this report pays attention to at least the following elements:

- description of the contents (to place the programme in the specific context);
- description of the procedure followed, including the experts who have participated;
- proof, analysis/analyses and findings – with attention being paid to decision-making processes and how one has learned from actions and activities, and how candidates' own development, talent and requirements have been accommodated;
- conclusions;
- examples of good practices which the programme shows;
- advice for measures to be taken.

It may be useful to draw up a summary report.

The domain for which the assessment procedure was gone through by the domain-specific validation committee will be given an opportunity to point out factual inaccuracies before the report is adopted, which enhances the factual accuracy of the report.
The report of the domain-specific validation committee will be assessed by the VaCo-PD, after which the programme will keep its certification if a favourable recommendation is delivered. Afterwards, the report will be publicly disclosed.

2.3 Periodic meta-analysis of all PD programmes

Every year the VaCo-PD discloses a report entitled The State of the PD, in which the committee describes and analyses general findings with regard to its duties in the field of external quality assurance. Furthermore, the developments in the field of relevant themes regarding the character of the pilot will be reported on. What also will undoubtedly be addressed are reflections on internal quality assurance within the several PD programmes. This report may contribute to the reflection on and improvement of the PD Quality Assurance Framework and the quality assurance policy and processes within and across domains.

3 VaCo-PD and domain-specific validation committees

Introduction

As indicated in the previous chapter, a national PD Validation Committee (abbreviated to VaCo-PD) has been set up for external quality assurance for the pilot with the PD. The new PD programmes are assessed on quality and certified by the VaCo-PD. The revalidation of existing programmes takes place periodically on the basis of the findings of domain-specific validation committees set up by the VaCo-PD. These domain-specific validation committees are set up by the VaCo-PD. This chapter further details out the composition and procedures of the VaCo-PD and domain-specific validation committees as quality assurance agencies.

3.1 Activities of the VaCo-PD

The VaCo-PD performs at least the following activities:

- drawing up regulations (the regulations concerning the CCTO[22] may be taken as an example);
- assessing and certifying the PD programmes when a programme is launched;
- installing and instructing (training) domain-specific validation committees – where independence and expertise is crucial;
- assessing the assessment reports by the domain-specific validation committees, where the certification may be renewed if a favourable recommendation is delivered;
- evaluating the performance of the quality assurance framework, in other words: reflecting on one's dealings, documenting experiences, bottlenecks, consensus/good points;
- benchmarking this quality assurance framework with similar frameworks from abroad;
- component of assessment committees of PD tracks;
- disclosing an overarching, thematic meta-analysis entitled The State of the PD every year. This analysis is publicly disclosed, preferably on the VaCo-PD's own website.

22 CCTO (2014). Reglementen van de Nederlandse Certificatie Commissie voor opleidingen tot Technologisch Ontwerper (CCTO)

3.2 Activities of domain-specific validation committees

From the point of view that there is quite a variety of domains within which the pilot with the PD takes place, the VaCo-PD will set up an independent domain-specific validation committee per domain for revalidating a PD programme. These validation committees get to work with the framework given to them by the VaCo-PD.
The domain-specific validation committees perform at least the following activities:

- studying the self-evaluation of the relevant PD programme by the relevant domain;
- preparing and implementing the assessment procedure with an inspection visit if necessary;
- reporting as a result of the assessment procedure.

3.3 Composition of VaCo-PD and domain-specific validation committees

Independence is important when both the VaCo-PD and domain-specific validation committees are composed, so a conflict of interest should be avoided. Members of the VaCo-PD or a domain-specific validation committee cannot play a part in assessing portfolios of individual candidates. Furthermore, the role of the VH to be played in this external quality assurance process should be as minimal as possible.

Composition of the VaCo-PD

The VaCo-PD is appointed by the VH for the duration of the pilot, and are accountable to them. The VaCo-PD consists of members who have 'gained prestige' to give this committee a certain stature. The VaCo-PD consists of at least three representatives from universities of applied sciences, and at least three representatives from outside hbo; these may be industry representatives and external members experienced in quality assurance. A fitting industry representation will be established together with the Confederation of Netherlands Industry and Employers (VNO-NCW) and the Dutch Federation of Small and Medium-Sized Enterprises (MKB Nederland). Lastly, the director of the Taskforce for Applied Research SIA participates in the VaCo-PD as an informal member, as a result of which the expertise of the Taskforce and observations regarding the scholarship programme and the PD Incentive Regulations for Quality Assurance can be integrated into the work of the VaCo-PD.

The intended chair is deemed - even more strongly than the members – to radiate authority, see the overall picture, and convey nuances. He/She has wide experience in fulfilling the role of chair, is a connecting link and result-oriented.

The VaCo-PD will get back-office support; in the first instance, facilitated by the VH, but it is independent at a later stage.

The following areas of expertise are covered in the VaCo-PD due to the expertise of its individual members:

- knowledge of the qualification framework/auditing;
- affinity with quality assurance of research and education;
- supervisory and administrative experience;
- a clear picture of hbo, research and education;
- overarching international orientation;
- research expertise.

The members have the following competencies: communicatively skilled, proficient in English, critical and analytical.

The members' term of office is, in principle, six years. In order not to lose all expertise, a roof tile structure is in place. It is determined at the start of the term of VaCo-PD members which four members of the VaCo-PD will be given a three-year term of office. It is possible to re-appoint members immediately. Members can be re-appointed max once (so max two terms of office).

The members of the VaCo-PD will perform their activities ethically, and therefore they will endorse the following five principles[23]: honesty, scrupulousness, transparency, independence and accountability. Furthermore, the members will endorse the NWO code for Dealing with Personal Interests in as far as applicable. Lastly, the members of the VaCo-PD will sign a Confidentiality and Non-conflict of Interest Statement.

They receive remuneration for volunteers (on the basis of hours worked) and an expense allowance[24].

Composition of domain-specific validation committees

Domain-specific validation committees consist of peers (professors and researchers) and stakeholders (professional practice). There is no fixed number of members, but there are at least three, and all required expertise (see below) should be covered. The domain-specific validation committee is complemented with one candidate who is doing a PD track or has just completed one. The chair of the committee is appointed by the VaCo-PD, or elected by the committee itself from its midst. Domain-specific validation committees are supported by a secretary with experience in evaluation processes. Each domain-specific validation committee is allocated at least one member of the VaCo-PD to ensure that the committees

23 The principles have been further detailed out in the Netherlands Code of Conduct for Research Integrity. In the code of conduct these principles are presented as the foundation for the practice of conducting research ethically, but they can also be considered principles for acting ethically.

24 The number of hours (half days per meeting) will be established annually and is equal for all members. The chair will be allocated more hours per meeting.

work in such a way that the VaCo-PD can base its assessment for certification purposes on the work done by domain-specific validation committees.

In the domain-specific validation committees, the following areas of expertise are covered by the expertise of individual members:

- education and testing expertise;
- expertise in practice-based research (recent development of discipline, methodology);
- knowledge of relevant professional practice of a PD programme (applicability and societal relevance);
- international orientation to the discipline;
- experience with accreditations/auditing.

The members have the following competencies: communicatively skilled, proficient in English, critical and analytical.

The members of the domain-specific validation committees have not worked at one of the participating universities of applied sciences of the relevant PD domain in the past two years or in the past five years in PD tracks within the PD programme to be assessed.

a) More specifically, what is **not** allowed for the past two years: 1) a panel member has or had an employment contract with one of the participating universities of applied sciences; 2) a panel member works/worked on research projects carried out by one of the participating universities of applied sciences.

b) More specifically, what is **not** allowed for the past five years: 1) a panel member has not been engaged in preparing and implementing the PD programme in the domain to be assessed; 2) a panel member had a seat in advisory councils or evaluation committees of the PD in higher professional education; 3) the panel member was a candidate or graduate of the PD track to be evaluated; 4) a panel member has personal connections with the management and professors involved in the PD.

The members of the domain-specific validation committees will perform their activities ethically and – just like VaCo-PD members – they endorse the following five principles: honesty, scrupulousness, transparency, independence and responsibility. Furthermore, the members endorse the NWO code for Dealing with Personal Interests where applicable.

Appendices

Appendix 1

Definition of terms of PD Quality Assurance Framework

ability to reflect ability to achieve professional deepening by critically reflecting on one's own actions, the choices taken, and the development gone through (among other things, after giving and receiving criticism)

assessment committee the PD track is assessed by an assessment committee. The assessment committee consists of a member from the community of professors within the relevant domain and three members who are nominated by the supervisory committee, and reflect the stakeholders in the supervisory committee. In the pilot phase, the role of chair is taken up by a member of the VaCo-PD.

assessment framework a framework developed by an accreditation body on behalf of accreditation/ assessment of study programmes in higher education. In the case of a PD programme, it concerns a training profile and an assessment model validated by the VaCo-PD.

benchmarking comparing the quality of a (research) product or performance aimed at setting standards, for example when determining when a PD candidate's portfolio meets the requirements that may be set for the qualification at EQF level 8.

candidate the person applying for, starting and going through a PD track.

demand articulation the way in which an actual practical issue in a certain (e.g. professional) context is articulated together with industry partners to become a relevant assignment realising effect for a PD track

domain a field of knowledge or activity characterised by a collection of concepts, terms, and/or values. The PD comprises seven domains: Energy & Sustainability; Health & Well-being; Leisure, Tourism & Hospitality; Maritime; Art + Creative; Education: Learning & Professionalisation; and Technology & Digitisation.

effect the impact of both the process of research and intervention and research results on education, professional practice, the research domain and the broader community.

experimental a research setup in which an intervention is tested and where conditions are also examined and underpinned both in advance and afterwards, and which are reflected upon within the research framework and the research context.

graduate committee the Graduate Network is led by the Graduate Committee per domain. The Graduate Committee carries an important responsibility in ensuring the quality of the PD programme.

graduate network the PD programme per domain is developed in and offered by a collaborative venture of universities of applied sciences. This collaborative venture is called a Graduate Network. The network is responsible, among other things, for the quality of PD tracks of a specific domain.

impact (cultural, economic, industrial, ecological or social) changes in society which are (partly) the results of knowledge and skills generated by research (definition of the Netherlands Organization for Scientific Research (NWO definition).

intervention a set of acts, a process, a method, an approach, action knowledge, a product or a prototype (demonstrator, simulation models, dashboards, software, (treatment) protocols, etc. which is developed by the candidate to make a contribution to the issue that is central to a PD track.

learning outcomes learning outcomes are descriptions of what a PD candidate is deemed to know, understand, and can do (apply) upon completion of the PD track as specified in the programme.

level 8 level 8 from the European Qualification Framework (EQF) – and the Netherlands Qualification Framework (NLQF) derived from it, by which research and education at the level of the third cycle is meant (Cf: master's programmes and research are delivered at EQF/NLQF level 7).

method a certain procedure to achieve or approach something. This may be a research method, or a design method, or a change method within a PD track.

monitoring collecting data on the course and progress of a process, with great regularity, and according to a pre-determined system, in order to be able to adjust the process during the process period, and evaluate it upon completion.

open science Open Science stands for a more open and participative research practice, in which publications, data, software and other forms of knowledge production are shared at the earliest possible stage.

portfolio a collection of materials gathered by the PD candidate (projects, texts, etc.) showing his/her activities, progress and performance in a certain domain. A portfolio can be used to map out and supervise (formatively) the learning process of the PD candidate and as an evaluation tool (summative).

programme *a programme describes how the curriculum of the PD looks like and are designed ideally in a certain domain, including prerequisites and conditions, where attention is paid to the structure as a whole at the domain level and track level (individual). It concerns requirements for study units, and e.g. quality assurance, admission, testing, etc.*

quality assurance *quality assurance is all the measures taken by an organisation to direct the monitoring of, enhancing of and carrying responsibility for – attention paid to – the quality of activities and/or products delivered. Quality assurance can take place internally and externally. In the case of the PD, 'internal' means: within the university of applied sciences or the domain. 'External' means having domains/ programmes validated through assessment procedures and evaluations by external committees.*

quality assurance framework *a quality assurance framework describes the most prevalent quality requirements (for example, at the level of research and/or education) and addresses the links between them.*

supervisory committee *this committee supervises the PD candidate doing his/her PD track, and is chaired by a professor who has a PhD himself/herself, or completed a PD. This professor acts as supervisor. The daily supervisory activities can be performed by the professor or a member (having a PhD/PD) of the research group. Furthermore, two external professionals from practice are members of the supervisory committee. They are directly involved in the real-life issue, have at least a master's degree or an equivalent professional and intellectual ability and act as 'critical friend' and as representatives from the industry.*

testing *when candidates are tested, the purpose of testing partly determines the aspects that are looked at to establish whether a candidate's performance has achieved the intended level 8. In the case of summative testing (final judgement) the validity of the PD track is looked at. In the case of formative testing (interim judgement) it mainly concerns consequential validity: what are PD candidates and their supervisors going to do with the feedback.*

track *an individual training course to be gone through in which learning at the workplace is complemented with specific supervision of a supervisory committee and additional learning activities that are all aimed at achieving one's learning outcomes.*

VaCo-PD *the Validation Committee Professional Doctorate (VaCo-PD) consisting of representatives from the industry/employers, representatives from the profession and representatives from knowledge institutions, is in charge of the periodic quality assessment of PD programmes*

validation committee *training profiles are certified periodically by the VaCo-PD on the basis of the findings of domain-specific validation committees set up by the VaCo-PD. Participants in these validation committees are experts in the relevant theme who come from trade and industry and the industry hiring graduates of the relevant theme and the higher education world*

Appendix 2

Substantiation of the framework on the basis of ESG

Introduction

The PD Quality Assurance Framework describes internal quality assurance (chapter 1), external quality assurance framework (chapter 2) and the VaCo-PD (chapter 3). This appendix shows how the PD Quality Assurance Framework follows and has operationalised standards and guidelines for the three parts of the ESG framework[25]. Where applicable, these standards and guidelines have been literally copied from the ESG framework. The wording in certain places have been reviewed and operationalised for the specific situation for the PD. On the one hand, this appendix aims to show that the quality assurance framework for the PD follows the ESG, and, on the other hand, it aims to provide users of the framework with additional information and context with regard to considerations and substantiation of the PD Quality Assurance Framework.

Part 1 Standards and guidelines for internal quality assurance

Internal quality assurance has come to exist bottom-up for the greater part: working groups within a domain (domain-specific taskforces) have set up a quality assurance system in the design of their programmes. They based it on the plan of approach for the pilot with the PD of the VH[26] and it has been further detailed out together in close consultation with the participating universities of applied sciences and the seven domains.

It is indicated for each of the standards and guidelines from the ESG how these affect one or more of the four standards of the PD Quality Assurance Framework. These are explicitly referred to in the descriptions of the guidelines. The guidelines indicate how the relevant standard is substantiated for the pilot with the PD. It mainly concerns matters that have been specified before in the above plan of approach, and so they have been agreed on at a national level. Guidelines might be deviated from in certain cases with substantiated reasons.

The table below shows the interfaces between the four standards in the PD Quality Assurance Framework (chapter 1), which are the guiding principles for internal and external quality assurance, and the nine standards for internal quality assurance according to the ESG framework.

25 European Association for Quality Assurance in Higher Education (ENQA). (2015). *Standards and guidelines for quality assurance in the European Higher Education Area (ESG)*.

26 Vereniging Hogescholen. (2021). *University of Applied Sciences Professional Doctorate. Een beroepsopleiding waarin praktijkgericht onderzoek centraal staat*. Vereniging Hogescholen: The Hague.

	Internal PD Quality Assurance (chapter 1)			
ESG standards for internal quality assurance	**Standard 1** Aims and objectives	**Standard 2** Effect	**Standard 3** Quality	**Standard 4** Organisation
1.1	●	●	●	●
1.2	●	●		
1.3		●	●	
1.4		●		
1.5		●		
1.6	●	●		
1.7	●	●	●	●
1.8	●	●	●	●
1.9		●	●	●

ESG 1.1 Policy on quality assurance

Standard: **Professional Doctorate programmes need to have policy on quality assurance in place which is made available publicly. Internal stakeholders implement fitting structures and processes in line with this policy. Ex¬ternal stakeholders need to be engaged in all this.**

Relation with PD quality framework in chapter 1

The internal quality assurance of PD programmes is a specification of and is brought in line with general quality assurance, and is related to all four standards.

Guidelines:

The PD has elements of both education and research, which is reflected by the quality policy. As stated above, the general quality framework for the PD is based on the Sector Protocol for Quality Assurance in Research BKO, and the above-mentioned ESG framework is made use of gratefully in the specification and elaboration of the general quality framework for the PD. The PD programmes follow the same line in their quality policy.

The PD programmes contain a chapter about their internal quality assurance system, in which external stakeholders play a part.

The quality policy of the programme will be disclosed publicly: at least in the PD programme, but ideally, on e.g. the website of the PD programme as well.

ESG 1.2 Structure and approval of PD programmes

Standard: **Professional Doctorate programmes have processes in place for structuring and approving their programmes. The structure of a programme needs to be of such quality that they meet the intended learning outcomes at doctorate level, according to the EQF and NLQF.**

Relation with PD quality framework in chapter 1:
Standard 1 of the general PD Quality Assurance Framework states that the professional doctorate needs to be relevant, ambitious and challenging, and that the intended aims and objectives fit in with level 8 of the EQF[27] and NLQF[28].

Standard 2 of the general PD Quality Assurance Framework states that the professional doctorate has been organised in such a way that realisation is feasible.

Standard 4 of the general PD framework states that the PD needs to contribute to the development of professional practice, broader society, education and the research field.

Guidelines:
The PD programmes state the intended exit levels, in the form of learning outcomes. They give an insight into the learning outcomes being defined at level 8 of the EQF and NLQF. The PD candidate demonstrates that he/she has these intended exit levels through a portfolio.

The structure of the PD track has been detailed out in the PD programme in such a way that every PD candidate who starts a PD track can achieve the intended learning outcomes in principle.

The PD programme has been brought about in close consultation with all participating universities of applied sciences within the relevant domain, coordination between domains and at a national level. Eventually, the VaCo-PD (PD validation committee, see chapter 3) will formally assess each PD programme. Approval from the VaCo-PD is required to start a PD programme.

27 The European Qualification Framework (EQF) describes knowledge, skills, responsibility and independence for eight levels. Level 8 has been described in great detail as regards knowledge and skills.
28 The Netherlands Qualification Framework (NLQF) is based on the European Qualification Framework. In the NLQF Level 8

ESG 1.3 Candidate-oriented learning, teaching and testing

Standard: **Professional Doctorate programmes have been set up in such a way that candidates are encouraged to play an active part in the bringing about of the learning process and this approach is also reflected in the testing of candidates.**

Relation with PD quality framework in chapter 1:
Standard 2 of the general PD Quality Assurance Framework states that the PD has been organised in such a way that realisation is feasible. Standard 3 prescribes that each PD programme has established a proper system of testing and assessment.

Guidelines:
PD programmes give lots of scope to PD candidates for structuring their individual PD track. PD candidates gather evidence during the PD track with which they demonstrate they meet the learning outcomes (and so the required exit level at EQF/NLQF 8).

PD programmes are strongly advised to have a Go/No Go conversation with every individual PD candidate after the first year. The domain develops a format for the Go/NoGo conversation in line with the starting point that the PD candidate also plays an active part in it.

Candidates are examined on the basis of a portfolio and a criterium-oriented interview.

ESG 1.4 Admission, progress, recognition and certification of PD candidates

Standard: **Professional Doctorate programmes need to consistently meet the requirements that are previously set up and disclosed, which comprise all phases of the 'life cycle' of a PD candidate, such as admission, study progress and recognition and certification.**

Relation with PD quality assurance framework in chapter 1:
Standard 2 of the general PD Quality Assurance Framework states that the PD has been organised in such a way that realisation is feasible.

Guidelines:
During the pilot, a limited number of places will be available for PD candidates per domain. These places are allocated beforehand between the universities of applied sciences participating in a PD programme in a certain domain. Every participating university of applied sciences was given drawing rights. On the basis of the drawing rights granted, universities of applied sciences can nominate candidates for a PD track to the graduate

committee of a domain. One of the tasks of the graduate committee is to assess the research plan and starting qualifications of the intended PD candidate before the PD track starts.

The selection procedure of candidates aims to admit those candidates who are assumed to be able to complete the PD track successfully to the PD. The below-mentioned admission requirements used by graduate committees correspond with the above plan of approach and have been coordinated with the Taskforce for Applied Research SIA, who will grant scholarships to the PD candidates admitted.

Graduate committees are advised, especially as far as the first cohorts are concerned, to make sure that the candidate is aware that it concerns a pilot, and that in advance no legally recognised degree can be guaranteed. Pioneers are sought for the first cohorts, who 'dare to jump into the deep end'.

A point of attention is candidates' diversity. Diversity is strived for in the fields of gender and cultural and ethnical backgrounds. And diversity of target groups; in other words, in addition to colleagues working at universities of applied sciences, also colleagues from professional practice.

Criteria with regard to the application

De PD-kandidaat dient – al dan niet via de betrokken hogeschool – een aanvraag in bij de betreffende Graduate Commissie. Deze aanvraag bestaat uit tenminste de volgende onderdelen:

I **Personal information** with, among other things, attention paid to personal details, intended starting date and intended size of employment.

II **PD proposal** with, among other things, attention paid to the proposed supervisory committee, alignment with the domain, industry partners involved, practical problem, research question and goal, research and change approach, intended contribution of the PD track to practice and knowledge development, an activity plan and attention paid to ethical aspects.

III **Curriculum Vitae** with, among other things, information about master's and bachelor's certificates, relevant work experience, activities and products and (if relevant) level of English.

IV **Motivation for PD track** in which the candidate gives his/her motivation for the PD track, the choice of organising it, and the way in which the PD track contributes to the candidate's professional development[29]. A motivation is also expected from the supervising professors and company/industry supervisors.

V **Statements of agreement** of PD candidate, supervising professors and company/industry supervisors.

29 At the start of the pilot, the candidate will be asked to sign explicitly that he/she is aware of the fact that, in view of the extralegal character of the pilot, no legally protected title can be guaranteed in advance.

When submitting his/her application, the PD candidate in fact makes a plausible case that he/she can achieve the learning outcomes of the relevant PD track within the stated time. The graduate committee assesses the application, paying attention to at least the following:

- assessing a candidate's aptitude, determining at least in how far he/she meets the required admission requirements:
  - completed academic or professional master's programme (or equivalent);
  - demonstrable relevant practical experience and practical insights;
  - (if the language of instruction of the PD is English, a C1 level of PD candidates is emphatically required).
- assessing the suitability of the PD proposal
- assessing the aptitude of the consortium, including the team of supervisors, and establishing that there is/are at least:
  - two supervising professors at EQF level 8;
  - two supervisors from the industry organisation(s) involved;
  - a suitable professional context, which can be used to enable the interventions intended in the track to take place[30].

If no criteria regarding the quality of practice-based research can be derived from the learning outcomes and the profile of a PD programme, at least the following criteria will apply:

- **Demand articulation:**
  - The research question is demonstrably coming from (professionals working in) the relevant domain. By means of the intended effect, the answer to the question meets an actual need coming from professional practice;
  - The question is socially relevant and connected to a concrete challenge from professional practice.
- **Intended impact:**
  - Plans for realising effect in professional practice are feasible and relevant industry partners are engaged;
  - Plans for realising effect in education are feasible.
- **Methodological thoroughness:**
  - The research design meets the criteria that apply within the domain in the research tradition used for carrying out practice-based research;
  - The chosen methodology fits in with the research question.
- **Ethical responsibility:**
  - The degree to which the question pays attention to ethical responsibility and its quality.

30 This is not meant theoretically or hypothetically, but mostly practically whether relevant parties/players in this professional context are committed, so that the PD candidate can also actually make the intended interventions.

The Netherlands Code of Conduct for Research Integrity is applicable to the candidate's research activities. During the course of the track, the candidate should make timely agreements with relevant stakeholders about property rights of the products to be made and about Open Access of results.

A PD candidate's progress is registered at least by the PD programme. Additionally, the Taskforce for Applied Research SIA tracks information in the context of granting scholarships with a view to monitoring and evaluating the pilot.

ESG 1.5 Supervisors/lecturer

Standard: **Each PD programme makes sure that employees supervising PD candidates are competent. Transparent processes are used for involving lecturers and supervisors from universities of applied sciences in the programme. Furthermore, each domain is in charge of proper information provision to supervisors and lecturers.**

Relation with PD quality assurance framework in chapter 1:
Standard 2 of the general PD Quality Assurance Framework states that, among other things, hiring staff needs to enable the realisation of the PD.

Guidelines:
Candidates are supervised by a supervisory committee, chaired by a professor having a degree at EQF level 8. He/she will act as supervisor. The supervisory committee (including the chair) has at least two professors having a degree at EQF level 8.
In addition, two external professionals from practice will be members of the supervisory committee. They will be directly involved in the real-life issue, have at least a master's degree or an equivalent professional and intellectual ability and are able to act as 'critical friend'.

The eventual goal is that candidates are supervised efficiently and effectively with as low an administrative burden as possible. The very pilot is meant to design this optimal supervision process iteratively.

Ideally, a PD track makes a deepening contribution to the research within a professorship and as a result, it is of added value to professors, professorships and professionalisation of practice-based research.

ESG 1.6 Educational resources and support of PD candidates

Standard: **Each PD programme needs to have adequate finances for learning and research activities and make sure there are adequate and easily accessible educational resources and support for PD candidates available.**

Relation with PD quality assurance framework in chapter 1:
Standard 2 of the general PD Quality Assurance Framework states that the PD has been organised in such a way that realisation of the proposed PD track is feasible.

Guidelines:
The quality of supervision is crucial to the learning effect of learning-on-the-job. Learning-on-the-job does not only mean becoming more proficient, but also getting familiar with a professional community. The 'significant others' (supervisors) support candidates by being their role model, colleague and critical friend all at the same time. Candidates will be supervised by a supervisory committee. Supervision will be intensive (some 30 to 40 person days per year for the entire team – of which some 20 are to be borne by professors, and will commence right from the start of the PD track. The PD track has been advised to compile a format/checklist for supervision conversations.

The development of PD programmes is largely financed by the universities of applied sciences participating in each programme. PD candidates and developing and executing supportive learning activities and supervision are funded for some 50% by using extra resources for practice-based research by participating universities of applied sciences. Furthermore, at the launch of the pilot there is a scholarship available for each starting candidate for the institute where the PD candidate starts.

Amenities, learning and research activities will be facilitated at one or several locations of the participating universities of applied sciences and/or participating research parties. Through internal quality assurance it will be ensured that all resources and activities are fit for purpose, are admissible and that PD candidates are properly informed about the provisions made available to them.

Moreover, support staff and administrative staff play an important role in realising an attainable PD track.

ESG 1.7 Information management

Standard: **Within the PD programme, information needs to be collected, analysed and used which is relevant for managing PD tracks effectively.**

Relation with PD quality assurance framework in chapter 1:
Monitoring and evaluating PD tracks is an important component of internal quality assurance and will indirectly contribute to the quality of the four standards.

Guidelines:
Within a PD programme, the graduate committee is in charge of evaluating and monitoring PD tracks within the relevant domain. Just think of progress, and financial and technical management. The graduate committee will assist in the national monitoring and evaluation plan that is drawn up for the pilot with the PD in higher professional education.

NB: Furthermore, the Taskforce for Applied Research SIA will play an important part in evaluating and monitoring the pilot. The efforts of what is exactly tracked per programme and what the Taskforce for Applied Research SIA takes responsibility for will be coordinated.

ESG 1.8 Public information

Standard: **PD programmes need to disclose information that is clear, accurate, objective, up to date, and easily accessible.**

Relation with PD quality assurance framework in chapter 1:
This standard for internal quality assurance pleads for disclosing information which (indirectly) concerns all four standards of the PD quality assurance framework.

Guidelines:
Information about the PD programme is useful for prospective PD candidates and the ones who already commenced their track, and for alumni, the industry, other stakeholders and the public.

Therefore, the PD programmes – preferably – present themselves on a website, providing information about their activities, selection criteria they use, intended exit levels (learning outcomes), legal status and information about the learning environment and testing.

ESG 1.9 Continuous supervision and periodic assessment procedures of PD programmes

Standard: **Each PD programme needs to undergo an external assessment procedure periodically, according to the PD quality assurance framework (Part 1).**

Relation with the PD quality assurance framework in chapter 1:
The PD Quality Assurance Framework in chapters 1 through 3 will be used by domain-specific validation committees as the quality framework for periodic assessment procedures.

Guidelines:
Every four years, each PD programme will participate in an external evaluation by a domain-specific validation committee in the context of external quality assurance. This external evaluation can verify effectiveness of internal quality assurance of a PD programme, act as a catalyst for improvement, and hold out new prospects for the PD programme.

Quality assurance is a constant process that does not end with external feedback given or a report drafted by a domain-specific validation committee. PD programmes will follow the recommendations made by a domain-specific validation committee, and take them into account when developing the PD and preparing for a following evaluation.

Procedures for external quality assurance are further illustrated and described in chapter 2 of the PD Quality Assurance Framework.

Deel 2 Standards and guidelines for external quality assurance

ESG 2.1 Attention to external quality assurance

Standard: **External quality assurance needs to pay attention to effectiveness of internal quality assurance processes described in Part 1 of the PD quality assurance framework.**

Guidelines:
PD quality assurance is based on the responsibility of Graduate Committees per domain for the quality of their programmes; that's why it is important that as far as external quality assurance is concerned, domain responsibility for quality assurance is recognised and supported by participating universities of applied sciences and the VH.

To safeguard the connection between internal and external quality assurance, the standards from the PD Quality Assurance Framework are paid attention to in the case of external quality assurance.

ESG 2.2 Detailing effective methods

Standard: **External quality assurance needs to be described and detailed in a way that guarantees that the set objectives and targets can be achieved. Stakeholders need to be engaged in detailing and continually improving things.**

Guidelines:
For the purpose of safeguarding effectiveness and objectivity, it is essential that stakeholders should agree on clear targets for external quality assurance. Targets and execution of processes:
- take the burden into account they cause for programmes in terms of work and costs;
- take the necessity to support programmes into account when improving quality;
- give programmes an opportunity to demonstrate these improvements;
- provide clear information about results and the subsequent course of action.

The ESG states that the external quality assurance system could function more flexibly if programmes can demonstrate effectiveness of their own internal quality assurance – analogous to quality assurance of, for example, bachelor's and master's degree programmes. Since this concerns a pilot with a brand new type of learning track, this flexibility will not be offered during the pilot.

ESG 2.3 Implementation processes

Standard: **External quality assurance procedures need to be reliable and useful, pre-determined, executed consistently, and disclosed. They comprise at least:**
– a critical self-evaluation;
– an assessment procedure with, if necessary, an inspection visit;
– a report after the assessment procedure has been finalised;
– a consistent follow-up process.

Guidelines:
The domain provides the basis for external quality assurance for the relevant PD programme by means of a self-evaluation and if necessary, by collecting other material, among which supporting evidence. Written documentation is usually complemented with conversations that are held with stakeholders during an inspection visit. The findings of the assessment procedure are summarised in a report (see ESG 2.6) drawn up by a committee of external experts (see ESG 2.4).

External quality assurance does not end with the experts' report. The report shows clear guidelines for measures to be taken by the domain concerning the PD programme.
The VaCo-PD and domain-specific validation committees organise a consistent follow-up process for considering the measures taken by the domain within the programme in response to the report.

ESG 2.4 Peer review by experts

Standard: **External quality assurance needs to be executed by a committee of external experts, which at least one PD candidate has a seat on.**

Guidelines:
A broad base of expertise of experts from the discipline who contribute to the work of the VaCo-PD (and domain-specific validation committees) is at the heart of external quality assurance by giving input from various angles, among which input from universities of applied sciences, (practice-based) research, students, and employers/professionals.

To guarantee the value and consistency of the work carried out by experts:
– experts are selected carefully;
– experts have relevant skills and are empowered to carry out their assignment;
– experts are given relevant training and/or a briefing.

The VaCo-PD ensures that experts are independent by using a mechanism that rules out conflict of interests.

It is advised to involve international experts in external quality assurance, for example, as members of a committee of colleagues since this gives an extra dimension to working out and executing procedures.

ESG 2.5 Criteria for results

Standard: **All results or judgements ensuing from external quality assurance need to be based on explicit and disclosed criteria that are applied consistently, irrespective of the fact whether or not the process leads to an official decision.**

Guidelines:
External quality assurance, particularly its results, has a considerable impact on the programmes evaluated and assessed.

To safeguard independence and reliability, results of external quality assurance are based on standards from the PD Quality Assurance Framework which are interpreted consistently and substantiated by evidence.

A judgement about the quality of the relevant PD programme follows from the work of the VaCo-PD.

ESG 2.6 Reporting

Standard: **The full reports of experts need to be published, so they are clear and accessible for the research community, external partners and other people interested. If the VaCo-PD takes an official decision on the basis of reports, the decision needs to be disclosed together with the report.**

Guidelines:
The report of experts is the basis for measures the domain takes after the external evaluation, and provides the wider community with information about activities within a programme. The report needs to be clear and concise as regards structure and wording to be able to serve as a basis for the measures to be taken. The report should contain:

- a description of the content (to place the programme in the specific context);
- a description of the procedure followed, including experts who have cooperated;
- evidence, analysis/analyses and findings;

– conclusions;
– examples of good practices shown by the programme;
– recommendations for the measures to be taken.

It could be useful to write a summary report.

The domain will be given an opportunity to point out factual inaccuracies before the report is definitively established, which enhances the factual accuracy of the report.

ESG 2.7 Complaints and objections

Standard: **Complaints and objection procedures need to be specified clearly as part of the external quality assurance processes and the domains need to be informed about these procedures.**

Guidelines:
To safeguard the rights of the programme and to ensure a just decision-making process, external quality assurance takes place in a transparent manner for which accountability could be required. Nevertheless, misunderstandings could arise or people might be dissatisfied with the process or formal results.

A process will be developed enabling the domains to discuss points of concern, if any, with the VaCo-PD. The VaCo-PD should deal with such issues professionally through a clearly defined protocol which is applied consistently.

A complaints procedure enables the domain to communicate about their dissatisfaction with the course of the procedure or the people executing it.

An objection procedure enables the domain to raise doubts about formal results of the process, when the domain can demonstrate that the result is not based on fair evidence or arguments, that the criteria have not been applied correctly or that processes/protocols have not been executed consistently.

Deel 3 Standards and guidelines for quality assurance agencies

ESG 3.1 Activities, policy and processes regarding quality assurance

Standard: **The PD Validation Committee (VaCo-PD) and domain-specific validation committees need to regularly carry out activities in the context of external quality assurance as defined in chapter 2 of the PD Quality Assurance Framework. They need to have clear and explicit objectives and targets which are part of their public mission statement. These objectives and targets need to be addressed in the daily activities of the VaCo-PD. The VaCo-PD and domain-specific validation committees need to engage stakeholders in their administrative work and activities.**

Guidelines:

To ensure the use of external quality assurance, it is important that domains, universities of applied sciences and the professional public should trust the VaCo-PD and domain-specific validation committees.

Therefore, the objectives and targets of these activities in the context of quality assurance are described and disclosed, together with the nature of the interaction between the VaCo-PD and domain-specific validation committees and relevant stakeholders in higher education, particularly the domains and universities of applied sciences, and the scope of the work done by the VaCo-PD. Expertise within the VaCo-PD will be extended by allowing foreign members to have a seat on the several committees of the organisation.

The VaCo-PD and domain-specific validation committees perform all sorts of activities in the field of external quality assurance with different purposes. It could concern, for example evaluations, inspection visits, audits, assessment, accreditations or any other similar activities at the programme level that are sometimes carried out in a different way. When the VaCo-PD also carries out other activities, a clear distinction should be made between external quality assurance and other fields of work.

ESG 3.2 Official status

Standard: **The VaCo-PD needs to have an established legal basis and be officially recognised by the competent authorities.**

Guidelines:
In particular, when external quality assurance takes place to comply with the statutory provisions, the institutions concerned need to be sure that the results of this process are accepted within their higher education system, by the government, stakeholders and the public.

The VaCo-PD will not yet be legally incorporated properly during the pilot phase. During the pilot it will also become clear how the PD will be legally incorporated in higher professional education in the period following the pilot. Then the statutory basis of the VaCo-PD or a legal successor should be arranged.

ESG 3.3 Independence

Standard: **The VaCo-PD and domain-specific validation committees need to be independent and function autonomously. They need to bear full responsibility for their activities and results of these activities, without third parties having an influence on them.**

Guidelines:
The following is important as regards the VaCo-PD:

- **organisational independence** appearing from official documents (e.g. the articles of association of an organisation) in which it has been established that the organisation is independent of third parties as to its activities, such as higher education institutions, authorities and other stakeholder organisations;
- **operational independence:** procedures and methods of the organisation are established and implemented, and external experts are nominated and appointed independently of third parties, such as higher education institutions, authorities and other stakeholders;
- **Independence of official results:** although experts coming from circles of relevant stakeholders, particularly students, play a part in quality assurance processes, the eventual results of these quality assurance processes remain the responsibility of the organisation.

Everyone who contributes to activities carried out by the VaCo-PD (e.g. as an expert) will be informed that he/she acts in a personal capacity, and not as a representative of the institution he/she works for when carrying out activities for the VaCo-PD. It is important to be independent to make sure that all procedures and decisions are solely based on expertise.

ESG 3.4 Thematic analysis

Standard: **The VaCo-PD and domain-specific validation committees need to disclose reports at regular intervals describing and analysing the general findings from their work in the field of external quality assurance.**

Guidelines:
The VaCo-PD will report on its activities in a report entitled The State of the PD at least annually.

When carrying out its activities, the VaCo-PD gathers information about PD programmes that may be useful outside the scope of a certain process as well and can provide material for structured analyses of the entire higher education system. These findings can contribute to the reflection on and improvement of quality assurance policy and processes in the institutional, national and international context.

A thorough and careful analysis of this information gives insight into developments, trends and aspects showing strong performance or persistent problems.

ESG 3.5 Resources

Standard: **The VaCo-PD and domain-specific validation committees need to have sufficient and appropriate financial and human resources for performing their tasks.**

Guidelines:
It is in the general interest that the VaCo-PD and domain-specific validation committees are financed sufficiently and appropriately, in view of the high impact that higher education has on the development of society and individuals. The resources available to the VaCo-PD enable its members to organise and perform their activities effectively and efficiently in the field of external quality assurance. Furthermore, the resources enable the VaCo-PD to improve themselves, reflect on their practice, and inform the public about their activities.

ESG 3.6 Internal quality assurance and acting professionally

Standard: **The VaCo-PD and domain-specific validation committees need to have procedures for internal quality assurance in place that relate to defining, ensuring and improving the quality and integrity of their activities.**

Guidelines:

The VaCo-PD (and indirectly the domain-specific validation committees) needs to account to its stakeholders – universities of applied sciences, the ministry of OCW, and the industry of the domains which the pilots take place in. Therefore, high professional standards and integrity of the work of the VaCo-PD are indispensable. Its activities are continually looked at critically and improved to be sure about an optimal service rendered to the institutes and society.

The VaCo-PD pursues a policy for internal quality assurance which can be seen on its website. This policy:

- ensures that all people engaged in its activities are competent and act professionally and ethically;
- comprises mechanisms for internal and external feedback which lead to continuous improvement within the VaCo-PD;
- protects people from intolerance in whatever form and from discrimination;
- outlines communication with relevant authorities of the areas of law they operate in;
- ensures that activities performed by subcontractors and materials produced correspond with the ESG, if some or all elements of its work in the field of quality assurance are contracted out to other parties;
- gives the VaCo-PD the possibility to establish the status of the programmes which it performs external quality assurance for.

ESG 3.7 Periodic external assessment procedures of organisations

Standard: **The VaCo-PD needs to undergo an external assessment procedure at least every five years to demonstrate they comply with the ESG.**

Guidelines:

A periodic external assessment procedure helps the VaCo-PD to reflect on its policy and activities. It provides certainty to the VaCo-PD and its stakeholders that the organisation still acts in accordance with the guiding principles set out in the ESG. The VH will organise this external assessment procedure in due course. During the duration of the pilot it is desirable to organise it in short cycles.

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