HEALTHY WORKING CONDITIONS IN THE DUTCH PHD SYSTEM

Recommendation issued at the behest of:

Doctoral Research Administrative Committee
Han van Krieken (RU)
Arthur Mol (WUR)
Thom Palstra (UT)
Vinod Subramaniam (VU)

Drawn up by:

Doctoral Research Working Group

Finette Lips (VU, chair)
Steffie Jampsink (RU, secretary)
Denise Haar-van de Wetering (UvA)
Marjan Koopmans (RUG)
Jantine Spithoven (TiU)
Elke van Cassel/Kim Huijpen (VSNU)
Dov Ballak (NFU)
Paul van Dijk (UT)
Elizabeth Koier (EUR)
Pieter Munster (WUR)
Robin Vossen (UM)

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Introduction

In September 2018, the Rectors' Conference, a gathering of rectors from Dutch universities, tasked an administrative committee comprised of four university rectors with formulating the guiding principles for the supervision, training and assessment of PhD candidates who are seeking to obtain their doctorates at Dutch universities or academic medical centres (UMCs). The various universities and centres are always evaluating their own policies with regard to PhD candidates, which the Rectors' Conference regularly discusses at meetings. Other motivators for formulating the 'healthy practices document' were media attention, questions raised by the Dutch Lower House and areas of concern noted by Promovendi Netwerk Nederland (PNN), the Dutch Network of PhD candidates. A nation-wide working group of policy advisers was tasked with determining guiding principles that should be adopted to ensure healthy working conditions for PhD candidates, and that are in line with the high quality of the Dutch PhD system.

Background

The Netherlands has a high-quality PhD system.[1] However, a great many things have changed for PhD candidates in the last ten years. The number of PhD candidates seeking to obtain doctorates in the Netherlands has increased, as has the number of foreign PhD candidates and the number of candidates not employed by the universities that will confer their doctorates.[2] In addition, all researchers (including PhD candidates) are facing new challenges as a result of the increased importance of data management, open science and societal impact.

Dutch universities and academic medical centres (UMCs) are governed by the Dutch Higher Education Act, the collective agreements for universities and academic medical centres and the Dutch Code of Conduct for Academic Integrity. As part of this requirement, all universities have drawn up PhD regulations that include rules on how to safeguard the quality of the training and supervision of PhD candidates and the independent assessment of the quality of PhD dissertations. The guiding principle is that rules must be in place to ensure that all PhD candidates are supervised and assessed under the same guiding principles. These recommendations are designed to ensure that PhD candidates can successfully complete their doctoral research in the allotted time span.

Procedure

The working group started its investigation in November 2018. In January 2019, the group spoke to the board of Promovendi Netwerk Nederland (PNN) and representatives of the Centre of Expertise for doctoral education. In response to this meeting, PNN drafted a policy advice document that was taken into consideration in drawing up the recommendations, and which was appended to the documents submitted to the Board of Rectors. Together, the members of the working group decided to focus on creating rather than restricting opportunities. Excellent examples of healthy working conditions can be found at all Dutch universities and UMCs. These examples guided the working group in every proposal and recommendation it is now issuing. The working group submitted its recommendations to the administrative committee comprised of four university rectors, who then presented the guiding principles and recommendations to the Rectors' Conference. The rectors indicated that they supported the guiding principles laid down in the memorandum and would take the recommendations into consideration, while allowing the various universities and UMCs some leeway in the implementation of the recommendations. Furthermore,

[1] KNAW (2016) *Promoveren werkt. Verkenning.* Amsterdam, KNAW (Royal Netherlands Academy of Arts and Sciences)
[2] https://www.vsnu.nl/f_c_promovendi.html

the rectors presented the working group with a subsequent task, which will be explained in greater detail on p. 9.

Guiding principles and recommendations
The working group identified several aspects that affect the quality of the training and supervision provided to PhD candidates, as well as the quality of the manner in which they are assessed. Some of the risks inherent in quality assurance methods are related to the visibility and integration of PhD candidates, particularly of candidates whose contracts do not include the UFO (academic job classification) code 'PhD candidate' or the UMC equivalent thereof. The working group felt that all PhD candidates must be supervised and assessed with the same guiding principles, so as to increase their chances of successfully completing their doctoral research in the allotted time span. This will require increased visibility and integration.

The working group formulated the following guiding principles, which are supported by all 14 universities affiliated with VSNU (the Association of Universities in the Netherlands).

1. **More clearly defined categories of PhD candidates**
   In order to obtain the kind of data on PhD candidates that can be compared across all Dutch universities, the various categories of PhD candidates identified by VSNU in 2013 have been more clearly defined.

   It is important that the various types of PhD candidates be properly distinguished and defined, so that they can be assigned to the right categories. PhD candidates need to be assigned to the right categories to allow us to determine the extent to which the universities and UMCs are aware of their PhD candidates, how they are being registered, and how they are being integrated, supervised and monitored. The working group found that there was some confusion as to the difference between 'contracted PhD candidates' and 'external PhD candidates'. In addition, the list of types of PhD candidates used to have a category devoted to employees who were conducting doctoral research without any funding or hours allotted by their universities or UMCs, and are essentially external PhD candidates, as well. As a result of this lack of clarity in the registration system, Dutch universities were unable to provide data on their numbers of external PhD candidates that could be compared directly with other Dutch universities' data.

   Appendix 1 presents the newly redefined categories, featuring the revisions proposed by the working group. These broadly amount to the following distinct categories: 'PhD candidates in the university's employ', which includes both employee PhD candidates (type 1a) and employees who are seeking to obtain doctorates with their university's support in the form of hours allotted to research and/or funding (type 1b); 'PhD candidates not in the university's employ', which includes both PhD candidates on a grant from their own university (type 2a) and PhD candidates on a grant awarded by a different/external party (type 2b); 'PhD candidates funded by external parties' who are receiving support in the form of funding and/or hours allotted to research (type 3) and 'external PhD candidates', who are seeking to obtain doctorates on their own time and without funding (type 4).

   The working group strove to achieve a new categorisation system that was not too great a departure from the current system, so as to safeguard the continuity of management information. It should be noted here that PhD candidates will continue to be listed in the first category they were ever entered into, even if their situation changes in a way that should technically see them assigned to a different category. Employee PhD candidates will

continue to be registered as employee PhD candidates, even if some of their work on their dissertations is carried out outside the scope of an employment contract with a university or UMC, while PhD candidates who do not receive any funding or resources from a university or UMC will continue to belong to that category of PhD candidates, even if, due to temporary funding, these candidates are able to conduct research at a university or UMC for a while.

2. Registration and commencement date

Starting from 2021, Dutch universities will be required to record all data listed in Appendix II and to report on them to VSNU annually. VSNU has asked universities to submit data on these numbers annually for several years now; the categories have merely been further defined. The universities and UMCs will use clearly formulated definitions of what constitutes the commencement of a PhD candidate's doctoral research; this will be different for each type of PhD candidate.

At present it is unclear how many external PhD candidates and PhD candidates on a grant there are in the Netherlands. One of the reasons we do not know how many external PhD candidates there are in the country is because the moment at which external PhD candidates are deemed to have commenced their doctoral research is not clearly defined. In many cases, external PhD candidates' doctoral research is not registered until a fairly late stage, and few arrangements (if any) are made for their supervision and training until quite late. Moreover, external PhD candidates are not always embedded in a graduate school, research school or institute, do not always have access to research facilities, and do not always have the opportunity to attend training sessions or courses. For the sake of the PhD candidates' progress towards their doctorates, their wellbeing and the quality of their dissertations, it would be best to ensure that all types of PhD candidates are registered, integrated and granted access to research facilities at an early stage.

The working group issued the following recommendations with regard to defining the commencement date of PhD candidates' doctoral research. Since all universities are different, and since it is up to the universities themselves to ensure that their PhD candidates' dissertations meet the quality requirements, the various universities and UMCs are allowed some leeway in this respect.

1. If a PhD candidate has an employment contract whose primary UFO (academic job classification) code is 'PhD candidate' or the UMC equivalent thereof, or if the PhD candidate has a different type of contract or agreement with the university or UMC, the commencement date of the contract or agreement will be considered the first day of the candidate's doctoral research.
2. If a PhD candidate does not have an employment contract or any other type of contract or agreement with the university or UMC, the date on which they registered with the university will be considered the first day of their doctoral research.
    a. In principle, PhD candidates who are conducting research on their own time and without funding (type 4) must register with the university at least two years before the intended date of their PhD viva.
    b. PhD candidates who are conducting research on their own time and without funding (type 4) must first draw up a dissertation proposal. The following aspects of the proposal will be examined: 1) whether the proposed research project can be completed in the allotted time span; 2) the feasibility of the study design; 3) the quality of the proposal. Once

the proposal has been approved, the PhD candidate's training and supervision plan will be drawn up and the candidate will register with the university.

c. Exceptions to a. and b. will be assessed by the Doctorate Board.
d. The commencement date of the PhD candidate's doctoral research cannot be revised after the fact and must be included in the training and supervision plan.

3. Embedding

The guiding principle is that all PhD candidates must be embedded in (and/or members of) a community of PhD candidates, such as a graduate school, research school or institute (hereinafter collectively referred to as 'graduate schools'). In addition to administrative embedding, PhD candidates must also be embedded in terms of training, in the form of an academic network in which the PhD candidates take part.

Not only is it beneficial for PhD candidates to be able to collaborate with others, debate subjects with other candidates and be part of a network, but embedment in a graduate school is useful because it allows PhD candidates to grow in the school's culture of quality and take part in the school's internal peer review system. PhD candidates receive their training (or some of it) at their graduate schools, are familiarised with the concept of academic integrity and introduced to research data management, open science and privacy regulations, and they can access facilities and services through their graduate schools. PhD candidates who are embedded in a graduate school can give each other support, inspire each other and correct each other. Embedding PhD candidates raises their level of satisfaction, the quality of their research and their level of engagement with their university or faculty. Graduate schools contribute to their PhD candidates' professional development, but also to their personal growth. The majority of PhD candidates will have careers outside academia after obtaining their doctorates. Graduate schools can help ensure that these PhD candidates are properly prepared for such careers.

The working group issued the following recommendations with regard to embedding PhD candidates:

1. All PhD candidates, even those not employed by a university or UMC, must have access to an independent hotline at the university or UMC where they can report academic integrity issues, harassment or discrimination, and where they can discuss issues related to their supervision, workload and wellbeing (perhaps different hotlines or confidential advisers can be created/appointed for different types of issues).
2. All PhD candidates, even those not employed by a university or UMC, must have access to the university or UMC's online facilities and services. At the very least, PhD candidates must have a formal university or UMC e-mail account, as well as access to the university or UMC's library and intranet. It is up to the universities and UMCs themselves to decide what other online facilities and services to offer to their PhD candidates. Arrangements with regard to access to the facilities must be incorporated into the PhD candidate's training and supervision plan.

4. Training and supervision

The guiding principle is that all types of PhD candidates must receive supervision that is subject to the four-eyes principle, which means that all PhD candidates must have at least two PhD supervisors or doctoral advisers. Furthermore, these PhD supervisors and doctoral

advisers must draw up training and supervision plans for all PhD candidates once they embark on their doctoral research. The training and supervision plan will be discussed regularly when the PhD candidates meet with their supervisors/advisers. At the very least, the training and supervision plan will contain the information that must be included pursuant to the collective agreements for Dutch universities and UMCs:

1. Training and development plan
2. Names of the PhD candidate's supervisors/advisers
3. Scope of the personal supervision

All PhD candidates must meet with their supervisors and/or doctoral advisers at least once per year.

Universities and UMCs must offer training sessions and courses to PhD candidates and determine how they can provide their own PhD candidates and possibly PhD candidates from other universities with more information on the courses they are teaching, and possibly grant them access to the courses, too. The range of courses on offer must be in line with the arrangements laid down in relation to this subject in the collective agreements for Dutch universities and UMCs (e.g. training in drafting grant applications, access to career development activities, etc.). Rather than just preparing PhD candidates for an academic career, the training and development courses on offer must also expressly prepare PhD candidates for a career outside academia. In addition, where necessary, PhD candidates must be required to take an academic integrity course at their universities, in line with the Dutch Academic Integrity Code of Conduct. Where necessary, PhD candidates at UMCs must attend the Basic Legislation and Organisation in Clinical Trials (BROK) Course.

The working group issued the following recommendations with regard to the training and supervision of PhD candidates: Since all universities are different, and since it is up to the universities themselves to ensure that their PhD candidates' dissertations meet the quality requirements, the various universities and UMCs are allowed some leeway in this respect.

1. If a university is unable to assign two supervisors/doctoral advisers to a PhD candidate, the university may choose to appoint a day-to-day supervisor instead of a supervisor/doctoral adviser.
2. The training and supervision plan will be drawn up and approved once the PhD candidate has started their doctoral research. Once the plan has been adopted, it can be revised following arrangements agreed by the supervisor/doctoral adviser and the PhD candidate. The working group recommends that the training and supervision plan be considered regularly in meetings between the PhD candidate and their supervisor/doctoral adviser. In addition to the requirements under the collective agreements for Dutch universities and UMCs, the working group recommends that the following subjects be included and laid down in training and supervision plans:
    a. Scheduled date for the go/no go decision (i.e., the decision on whether or not the PhD candidate will be given the green light to continue)
    b. Membership of a graduate school and/or institute
    c. Research proposal
    d. Planning
    e. Access to the university's training and development courses
    f. Access to the facilities the PhD candidate will need to complete their doctoral research

3. The training and supervision plan must be approved by the dean or a delegate of the dean, preferably within three months of the candidate embarking on their doctoral research, but within one year at the latest.
4. After formally commencing their doctoral research, all PhD candidates must have a *go/no go* meeting with their supervisors/doctoral advisers. During that meeting, the candidate and their supervisors and doctoral advisers will either commit to continuing the doctoral research project and express their faith in the successful completion of the research project or decide not to continue the research project. The scheduled date for this meeting will be laid down in the training and supervision plan. Ideally, PhD candidates in the university or UMC's employ should have this meeting within the first year of their contract. For PhD candidates belonging to other categories, the timing of the meeting will depend on the research timeline. The working group recommends that the *go/no go meeting* be scheduled and actually take place no later than two years after the PhD candidate has commenced their doctoral research.
5. When the PhD candidate enters what is expected to be their final year as a PhD candidate, the PhD supervisor, doctoral adviser and PhD candidate will draw up a timeline for the final year (including preparations for the publication of the dissertation), to be included in the training and supervision plan.
6. Universities must offer professional development courses to PhD supervisors and doctoral advisers, to allow them to become more effective supervisors. Universities that do not yet offer training courses for PhD supervisors and doctoral advisers must make an effort to develop such courses. Such training courses are particularly helpful for beginning PhD supervisors, but experienced supervisors and doctoral advisers may benefit from them as well. Such training courses may also focus on the latest developments in RDM, Open Science, privacy regulations, external funding, commercial knowledge transfer, ethics reviews, etc. Universities may want to consider getting experienced PhD supervisors and doctoral advisers involved in such training courses by assigning them as mentors to beginning supervisors and advisers taking the courses.
7. All PhD supervisors and doctoral advisers must regularly (preferably annually) discuss the progress made by the PhD candidates they supervise, the duration of their doctoral research projects and their doctorate conferral rates with the dean. During that meeting, the dean or a delegate of the dean will discuss with the supervisor/doctoral adviser all PhD candidates that they supervise, the progress they are making towards their doctorates, the amount of time the supervisor or adviser can allocate to the PhD candidates' supervision, any PhD candidates who have not yet registered, and whether or not the supervisor's PhD candidates will be able to defend their dissertations by the scheduled PhD viva date as included in the training and supervision plan. The working group decided not to cap the number of PhD candidates that one supervisor can supervise. The differences between the various disciplines are too significant. When a supervisor is supervising an excessively large number of PhD candidates, this issue should naturally be raised during the aforementioned meeting. PhD supervisors must be guided through that particular conversation, rather than by limiting the number of PhD candidates.

5. The assessment of the dissertation

The high quality of PhD dissertations produced in the Netherlands is safeguarded by the procedures outlined in each university's doctoral research regulations. These regulations lay down the rules with regard to the assessment procedure. The working group inspected all

universities' doctoral research regulations and observed many similarities in several fundamental aspects. However, there are local differences with regard to specific details. As far as independent assessments are concerned, there is always a committee that assesses a PhD candidate's dissertation and issues a recommendation on whether or not the candidate should be allowed to defend their dissertation. Furthermore, there is always an examining board that asks penetrating questions at the PhD candidate's public defence ceremony (the viva voce examination, a.k.a. the PhD viva) and decides on whether or not the candidate will be awarded a doctorate. Each university bears responsibility with regard to quality assurance and for the assessment process for PhD dissertations. They will continue to have some leeway in this respect. However, all universities observe the following guiding principles: the committee that assesses a PhD candidate's dissertation must be independent; stakeholders must not be involved in the assessment; and any semblance of a conflict of interest must be avoided.

The working group issued the following recommendations with regard to the composition of the committee that assesses the manuscript. Since all universities are different, and since it is up to the universities themselves to ensure that their PhD candidates' dissertations meet the quality requirements, the various universities and UMCs are allowed some leeway in this respect.

1. The committee that assesses the manuscript (the examining board) must have enough members: at least three members, but preferably four or five.
2. Ideally, all examiners hold a doctorate or are experts in the field of research to which the dissertation pertains.
3. The candidate's PhD supervisor and/or doctoral adviser must not be on the examining board, and at least one (and preferably two) examiners must not be affiliated with the university that is conferring the doctorate.
4. The examiners must not be people who have an interest in the doctorate being awarded, such as the PhD candidate's family members or significant other.
5. Ideally, none of the articles making up the dissertation was co-authored by an examiner. In the interests of transparency, the composition of the examining board must be published in the dissertation.
6. The working group recommends that all universities and UMCs seek to ensure that all examining boards have at least one male member and at least one female member.
7. For an independent distinction assessment, and in order to avoid any semblance of a conflict of interest, the working group recommends that if the members of the examining board wish to award a degree with distinction, they must only share this intention with the chair of the committee and/or the dean and must not mention it to the PhD candidate's supervisor or doctoral adviser.
8. Furthermore, the working group recommends that the various universities and UMCs all draw up their own criteria that a PhD dissertation must meet in order to be awarded a degree with distinction.

The working group's subsequent task

The Rectors' Conference set the four-rector committee and the working group the following subsequent task:

1. In order to prevent inequality between the various types of PhD candidates, and in order to prevent potentially perverse incentives on the part of the universities, the working group will map out the universities' and UMC's current policies with regard

to supervision fees. The working group will draw up its guiding principles for this by the summer of 2019.

2. In order to prevent the potentially perverse incentives provided by the allowance universities receive for each doctorate conferred, which is wrongfully perceived to be a 'bonus' or a type of funding that is dependent on performance, the working group will formulate some guiding principles with regard to the use of these allowances by the summer of 2019.
3. By the summer of 2019, the working group will take stock of the current situation with regard to the guiding principles outlined in this document and present an overview of the number of PhD candidates in each newly reformulated category.
4. Lastly, by the summer of 2019, the working group will present a proposal on how to monitor the guiding principles on which a consensus has been reached.

Appendix I

Types of PhD candidates

VSNU's categorisation as of 2019

Each year, VSNU asks the Dutch universities to submit their data on their PhD candidates. These data are used as benchmarks for the association's own member universities and for nationwide statistics and are published on VSNU's website.

There are many different ways in which people can be awarded doctorates. The universities and UMCs distinguish four types of PhD candidates. Definitions of the various types of PhD candidates can help the universities correctly register their PhD candidates, thus allowing the universities to submit high-quality data. Categorisation involves a flow chart that helps universities assign PhD candidates to the right category.

The distinctions between the categories were defined in greater detail because there was some confusion as to the phrases 'contracted PhD candidates' and 'external PhD candidates' and as to the categorisation of candidates who are employed by a university or UMC but are not allotted any hours or funding to work on their dissertations. The new categorisation system comes with new, clearer names, and the distinctions between the various types of PhD candidates depend on the source of the funding the PhD candidate receives. This distinction does not always provide the right definition, but does largely determine the extent to which a university or UMC is aware of the PhD candidate.

Lastly, it should be pointed out that as far as statistics are concerned, PhD candidates are always assigned to their primary category (which is the one in which they were initially registered), even if their status later changes. Employee PhD candidates will continue to be registered as employee PhD candidates, even if they do some of their work on their dissertation outside the scope of an employment contract with the university or UMC, while PhD candidates who do not receive any funding or resources from a university or UMC will continue to belong to that category, even if, due to temporary funding, such PhD candidates are able to conduct research at a university or UMC for a while.

Category 1: PhD candidates employed by the university or UMC

1a Employee PhD candidates

An employee who has an employment contract with their own university, and for whom arrangements have been made designed to help them complete a doctoral research project.

Indicators:

a. Arrangements designed to help the PhD candidate complete a doctoral research project (access to graduate school, training and supervision plan, research plan, the assignment of a supervisor and doctoral advisers).
b. Employee ID number and salary paid by the university or UMC > 0.
c. Primary UFO code is 'PhD candidate' or the UMC equivalent thereof.

This category also includes PhD candidates who were already employed by the university or UMC at any point prior to starting their doctoral research, even if their contract had expired by the time they commenced their doctoral research.

1b Employees who are conducting doctoral research

An employee who has an employment contract with their own university, and for whom arrangements have been made designed to help them complete a doctoral research project.

Indicators:

a. Arrangements designed to help the PhD candidate complete a doctoral research project (access to graduate school, training and supervision plan, research plan, the assignment of a supervisor).
b. Employee ID number and salary paid by the university or UMC > 0.
c. Primary UFO code is something other than 'PhD candidate' or the UMC equivalent thereof.

This will be a PhD candidate who has been allotted funding and/or hours by their university or UMC to conduct doctoral research. This category includes medical specialists whose regular hours at the UMC are reduced to allow them to conduct doctoral research. Employees who are working towards a doctorate without funding and who are not allotted any hours by their university or UMC to conduct their doctoral research fall under category no. 4.

In some cases, a secondary UFO code pertaining to the same appointment may come with the 'PhD candidate' code. Or alternatively, one person may have two employment relationships, one of which is employee PhD candidate.

VSNU uses the following algorithm to determine which is the primary employment relationship:

a. Whichever employment relationship carries the greatest FTE allocation is considered the primary employment relationship.
b. If both employment relationships have the same FTE allocation, a permanent contract takes precedence over a temporary one.
c. If both employment relationships come with the same type of contract, the one with the higher pay scale takes precedence.
d. If both employment relationships come with the same pay scale, the UFO code with the lowest number takes precedence.
e. If none of these rules results in an outcome, the employment relationship that is first listed in the WOPI file (i.e., the employment relationship that commenced first) will be considered the primary employment relationship.

<u>Categories 2, 3 and 4: PhD candidates NOT employed by the university or UMC</u>

2 PhD candidates on a grant

These are PhD candidates who are not on an employment contract with the university where they are completing their doctoral research, but whose main objective is to obtain a doctorate, and who have been awarded funding by a third party to do so.

Indicators:

a. Arrangements designed to help the PhD candidate complete a doctoral research project (access to graduate school, training and supervision plan, research plan, the assignment of a supervisor).
b. No salary paid by the university or UMC (except perhaps a supplement to the third-party grant).
c. The PhD candidate receives funding from a third party for the purpose of obtaining a doctorate.

2a PhD candidates on a grant awarded by their own university or UMC. The grant is provided by the PhD candidate's own university or UMC (this includes candidates who are part of the so-called 'PhD education' experiment).

2b PhD candidates whose grants were awarded by another or external granting agency. The grant is provided by an organisation other than the university within the meaning of section 2a, e.g. NUFFIC, the European Union, a foreign university, granting agencies and foundations (Fullbright, banks). The PhD candidate may receive a supplemental grant from their own university or UMC.

3 PhD candidates who receive external funding

PhD candidates who receive external funding differ from external PhD candidates in that they either receive funding to conduct doctoral research or have been allotted time by their boss to conduct doctoral research (regardless of the amount of time they have been allotted).

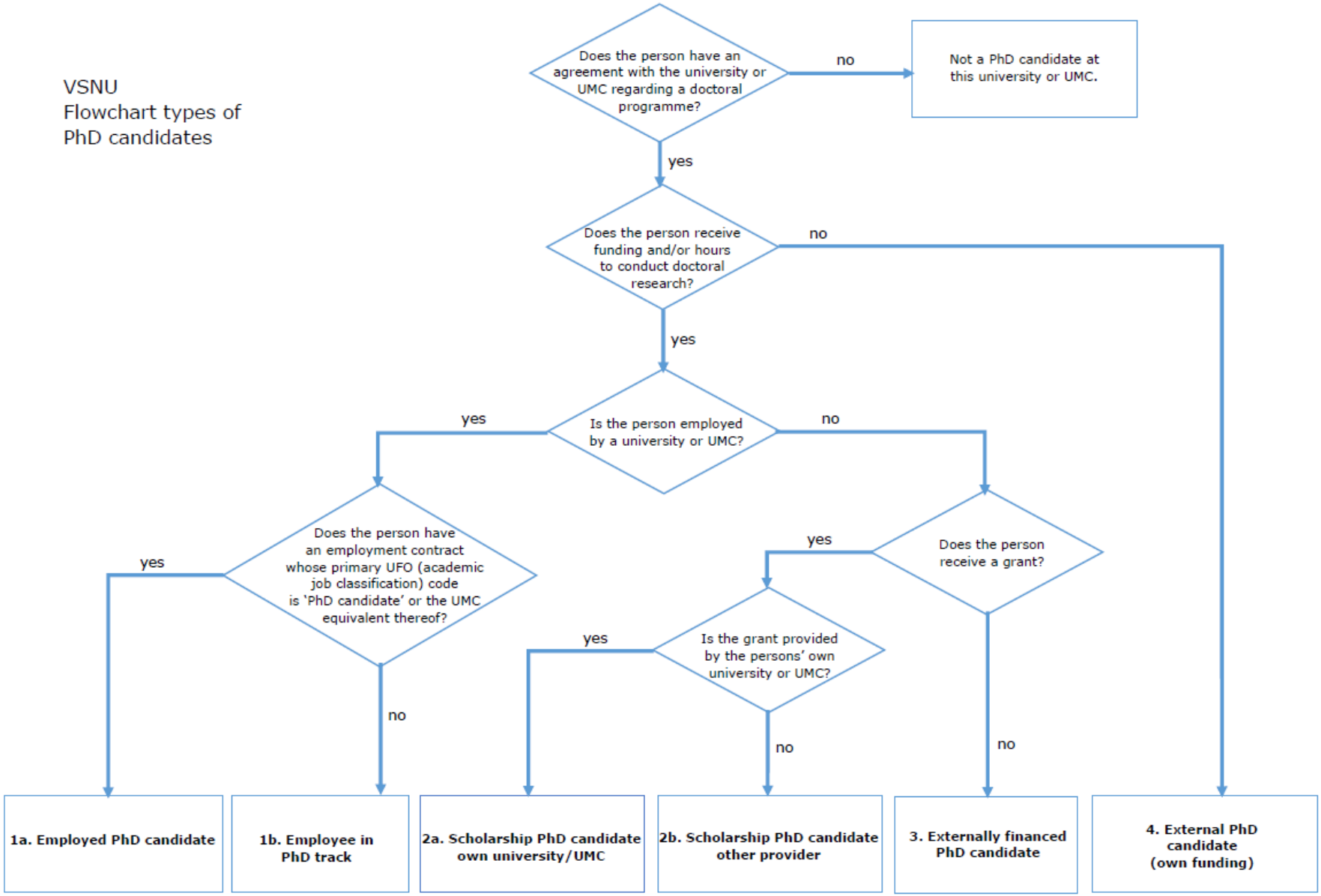
4 External PhD candidates (self-funded)

These are PhD candidates who are not allotted any hours or funding to conduct doctoral research by an external party but do wish to obtain a doctorate. They fund their own research, or use funding placed at their disposal by their relatives. For example: a pensioner who conducts doctoral research, an employee of a company who conducts doctoral research on their own time on top of their regular job, a university employee whose UFO profile does not say 'PhD candidate' and who is not allotted any hours or funding by the university to conduct their research either (formerly known as 'employees seeking to obtain a doctorate'), or a medical specialist whose UMC is not reducing their regular hours to allow them to conduct doctoral research.

Indicators:

a. Arrangements designed to help the PhD candidate complete a doctoral research project (access to graduate school, training and supervision plan, research plan, the assignment of a supervisor).
b. No salary or grant paid by the university or UMC.
c. No funding and/or hours allotted by an employer or third party (including the PhD candidate's own university) to allow the candidate to conduct their research.

VSNU
Flowchart types of
PhD candidates



Appendix II

PhD candidate registration

Objective

The objective was to arrive at nationwide agreements with regard to the registration of PhD candidates and their progress towards their doctorates. The main question to be answered was what data must be recorded and for what purpose. The registration of PhD candidate data must be in line with the annual questionnaires issued by Statistics Netherlands (CBS), VSNU, the annual Academic Research Performance Indicator (KUOZ) reports and the SEP reports.

Given the objective, the working group chose to focus on doctoral research projects currently being undertaken. Generally speaking, PhD candidates will be recorded in a PhD candidate monitoring system (Hora Finita or a similar system). Unlike KUOZ reports, this system will not include dissertations as an output indicator. Typically, those data are obtained from a different source (Metis/Pure/Converis). The working group recommends that the revised categorisation system be used for the annual VSNU questionnaire, KUOZ reports and SEP tables, so as to arrive at uniform categories of PhD candidates.

It has been agreed that all universities and UMCs will record the following data at the very least:

1. Full name (in external reports: ID number)
2. Gender
   Registration may no longer be allowed under the General Data Protection Regulation. The universities and UMCs will be asked how they are dealing with this type of registration.
3. Date of birth
   Registration may no longer be allowed under the General Data Protection Regulation. The universities and UMCs will be asked how they are dealing with this type of registration.
4. Nationality
   Registration may no longer be allowed under the General Data Protection Regulation. The working group suggests that the universities and UMCs be asked how they are dealing with this type of registration.
5. VSNU position type
   Use the revised categorisation system. The VSNU questionnaire has a separate column for 'PhD candidate at UMC'. The working group is not sure what the added value of this column is; no such separate category is used in reports. The working group suggests that this column be eliminated.
6. FTE count
   The FTE count of the PhD's employment contract must be registered as part of the SEP (table no. D3d). The underlying question is whether a PhD candidate is conducting doctoral research full time or nearly full time. 'Contract' must here be understood to refer to an agreement between the PhD candidate and their university or UMC -- i.e., more than just an employment contract. In other words, international PhD candidates on a grant must be included here, as well. The working group proposes that the following distinction be made: 1) ≥0.8 FTE 2) <0.8 FTE and ≥0.3 FTE 3) <0.3 FTE.
7. HOOP field and/or ISCED categorisation (linked to faculty or group)
   The Ministry of Education uses the categorisation by HOOP field, whereas Statistics Netherlands uses the internationally acknowledged ISCED categorisation method. These categorisation methods are so different that it is impossible to create a table that directly links both. There is not a single HOOP field that fits in its entirety into an ISCED category, or vice versa. We expect that universities and UMCs will be asked to submit both sets of data, so both will have to be registered.

8. Commencement date
    a. If the PhD candidate has an employment contract or some other type of contract or agreement with the university or UMC, the commencement date of the contract will be considered to be the first day of their doctoral research.
    b. If the PhD candidate does not have an employment contract or any other type of contract or agreement with the university or UMC, the date on which they registered with the university will be considered the first day of their doctoral research.
        i. In principle, PhD candidates who are conducting research on their own time and without funding (type 4) must register with the Graduate School at least two years before the intended date of their PhD viva.
        ii. PhD candidates who are conducting research on their own time and without funding (type 4) must first draw up a dissertation proposal. The following aspects of this proposal must then be assessed by an independent committee: 1) whether the proposed research project can be completed in the allotted time span; 2) the feasibility of the study design; 3) the quality of the proposal. Once the proposal has been approved, the PhD candidate's training and supervision plan will be drawn up and the candidate will register with the Graduate School.
        iii. Exceptions to i. and ii. will be assessed by the Doctorate Board.
        iv. The commencement date of the PhD candidate's doctoral research cannot be revised after the fact and must be included in the training and supervision plan.
9. Date of the PhD viva
10. Degree with distinction (y/n)
11. PhD candidate at UMC (y/n)
12. Date on which the candidate prematurely stopped conducting their doctoral research
    At present, VSNU's questionnaire asks the universities and UMCs to indicate the date on which a PhD candidate's contract was prematurely terminated. If the idea here is to get a proper picture of the number of PhD candidates who drop out, this question must also be asked regarding PhD candidates who are not employed by their university or UMC. If a PhD candidate prematurely stops conducting doctoral research, it is vital that the name of the party who made the decision to stop the research project be recorded. The working group recommends that the following answer categories be used: 1) at the PhD candidate's own initiative 2) at the supervisors' initiative 3) by mutual consultation between the PhD candidate and the supervisors 4) other.
13. Post-doctoral careers
    These data will be collected as part of the SEP, and the answers will fit into the four following categories: research, business, government, not for profit.

Background

What types of data are currently being collected in the Netherlands?

- Statistics Netherlands (annually)
  Number of doctorates conferred each academic year, subdivided into ISCED categories and gender.
- VSNU (annually)
  Data on employee PhD candidates (in accordance with VSNU's own categorisation system)
    - University
    - Identification number
    - Date of birth
    - Commencement date
    - Intended date of PhD viva
    - Degree with distinction (y/n)
    - Date of (premature) termination of contract
    - HOOP field

    - ISCED categorisation
    - Nationality
    - PhD candidate at UMC (y/n)

  Data on contracted PhD candidates (in accordance with VSNU's own categorisation system)
    - University
    - Identification number
    - Date of birth
    - Commencement date
    - Intended date of PhD viva
    - Degree with distinction (y/n)
    - Date of (premature) termination of contract
    - HOOP field
    - ISCED categorisation
    - Nationality
    - PhD candidate at UMC (y/n)
    - Sub-type
        - Grant awarded by university or UMC
        - Grant awarded by a different party
        - Other data on the contracted PhD candidate
- Academic Research Performance Indicators (KUOZ, annual, see appendix)
    - FTE allotted to research
      The same subcategories used in the SEP and VSNU questionnaires are used here: employee PhD candidates and contracted PhD candidates in accordance with VSNU categorisation.
    - Research output
      Four types of PhD dissertations are distinguished:
        - Doctorate conferred by the university itself; PhD candidate affiliated with the unit in question (DIV);
        - Doctorate conferred by the university itself; the PhD candidate was not affiliated with the unit in question, but their PhD supervisor or doctoral adviser was (DEV);
        - Doctorate conferred elsewhere; the PhD candidate was affiliated with the unit in question (EDIP);
        - Doctorate conferred elsewhere; the PhD candidate was not affiliated with the unit in question, but their PhD supervisor or doctoral adviser was (EDEP).

In addition, Dutch universities and UMCs collect the following data pertaining to doctoral research projects as part of their SEP evaluations:

- SEP table no. D3a (Research staff) requires universities and UMCs to use KUOZ categories of PhD candidates and follows the VSNU categorisation method:
    - Standard PhD (employed)
    - Contract PhD (externally or internally funded but not employed)
- SEP table no. D3b (Research output) requires universities and UMCs to use the KUOZ categorisation method to categorise dissertations. Universities and UMCs are not required to include this table in their self-evaluations.
- The following information must be provided in SEP table no. D3d (PhD candidate enrolment and success rates): All PhD candidates conducting research with the primary aim/obligation of obtaining a doctorate, based on a 0.8-1.0 FTE contract. This includes PhD candidates with employee status (AIO/promovendi) and contracted PhD candidates without employee status, receiving external funding or a university scholarship, who are conducting research under the authority of the research unit with the primary aim of obtaining a doctorate (beurspromovendi)'.

- In their self-evaluations, universities and UMCs must provide information on their PhD candidates' subsequent careers, subdivided into four categories: research, business, government, not for profit.

Appendix III

PNN's response to 'Healthy Working Conditions in the Dutch PhD System'

The recommendation entitled 'Healthy Working Conditions in the Dutch PhD System' constitutes an important step towards addressing and tackling difficulties in the current Dutch PhD candidate system. PNN believes it is a good thing that the sector itself is presenting recommendations. The suggestions made in the recommendation are both necessary and feasible. PNN is pleased to note that many of the suggestions made in the recommendation correspond to actions PNN, too, has proposed in the past - proposals that were based on input from people on the work floor. However, while PNN applauds these positive aspects, we would also like to make a few critical observations. In particular, PNN feels that several additional measures will be required to give proper effect to the recommendations and to address the perverse incentives inherent in the current system.

The report contains important recommendations that will raise the quality of the Dutch PhD system. Although many aspects of the system could do with some improvement, one issue that deserves particular attention is the fact that the supervision of external PhD candidates and the quality assurance with regard to their research and dissertations are not highly standardised, meaning that they are somewhat problematic. Therefore, PNN was pleased to learn of the proposed measures designed to put a stop to the unequal treatment of various types of PhD candidates (ranging from employee PhD candidates to external PhD candidates). For instance, the working group has proposed the following measures for all PhD candidates in the Netherlands:

- Enrolment in a graduate school - at least two years prior to the scheduled date of the PhD viva in the case of external PhD candidates;
- drawing up a training and supervision plan;
- access to an independent hotline;
- access to selected online facilities and services provided by the PhD candidate's university or UMC.

With respect to bullet point no. 1, it should be noted that this is most certainly an improvement on the current situation, in which external PhD candidates tend not to be enrolled until right before their PhD viva. However, PNN would like to take things a step further, and would like to suggest that external PhD candidates, too, must be enrolled in a graduate school as soon as they start a doctoral research project.

The quality of the PhD system depends on more than just the PhD candidates themselves. Proper PhD candidate supervision is crucial, as well. For this reason, PNN was pleased to learn that the working group's recommendation included the following suggestions:

- More monitoring of PhD supervisors by means of (ideally annual) meetings with the deans to discuss the supervisors' PhD candidates' progress towards their doctorates, the duration of their research projects and the doctorate conferral rates;
- Four-eyes principle: two supervisors for all PhD candidates.

In addition, PNN supports the idea of developing and providing a training course to promote the professional development of PhD supervisors. As far as PNN is concerned, such training courses should be mandatory for all PhD supervisors who do not have an extensive and successful track record. Lastly, PNN is very happy with the recommendations made to ensure that examining boards are independent, diverse and have the right level of expertise.

Many of these measures are not new, but have proven to be very useful at several Dutch universities and UMCs. It is good that these best practices are now considered major prerequisites for healthy working conditions in the Dutch PhD system.

It should be noted, however, that the recommendations leave several major aspects open for follow-up research. For instance, further research will be conducted in 2019 to determine to what extent the courses on offer can be made accessible to all PhD candidates in the Netherlands. This is an important topic to many PhD candidates -- particularly to external PhD candidates and other PhD candidates who only have limited access to training courses, or none at all. PNN feels that all PhD candidates who are enrolled in a graduate school should be able to take the school's courses. This will help ensure that all PhD candidates, regardless of what category they belong to, have equal opportunities to develop their ability to conduct research and write high-quality dissertations.

The report also fails to suggest measures to eliminate the perverse incentives inherent in the current PhD system: incentives that cause universities to accept as many PhD candidates as possible, rather than focus on quality. Nor does the report present any solutions to the exorbitant supervision fees charged by universities to supervise external PhD candidates: a more in-depth study of this phenomenon will be conducted as well. PNN would have liked to see the report address several clear 'worst practices'. For instance, PNN advised the Committee to speak out against university policies that result in PhD supervisors being under great pressure to produce more PhD graduates. In some instances, full professors are being required to supervise a minimum number of PhD candidates or given a stake, financial or otherwise, in the number of dissertations. The Committee explicitly rejected PNN's recommendation that the number of PhD candidates supervised by one supervisor be capped. PNN was very sorry to see that, as several universities in other countries do cap the number of PhD candidates supervised by one supervisor[3], which prevents supervisors from ending up supervising an irresponsibly large number of PhD candidates.

One final concern is the near-total lack of actual control and enforcement mechanisms. Control and enforcement mechanisms are particularly necessary, because the Dutch PhD system is characterised by significant power imbalance between supervisors and managers on the one hand, and PhD candidates on the other. This need is emphasised by the worrying and persistent problems regarding the mental health of PhD candidates[4]. As a result, problems will not always be recognised (in time). For this reason, PNN recommends that exit interviews be held with all PhD candidates, because many PhD candidates are not willing to openly discuss the problems they encountered during their doctoral research until after they have obtained their doctorates and they are no longer dependent on their supervisors and university/UMC. Furthermore, universities and UMCs could monitor the general quality of PhD research programmes with annual surveys of all PhD candidates, which several universities are already doing. This should help the universities identify and prevent many of the more common problems. In addition, there should be clear consequences for supervision that continues to be sub-par. At the very least, PhD candidates should be offered the opportunity to switch supervisors if supervision-related problems persist. Another solution could be that Universities/UMCs require their PhD supervisors to attend further training. If PhD supervisors continue to provide sub-par supervision, universities or UMCs should strip them of the right to supervise PhD candidates as a final resort. If none of the aforementioned measures are implemented, the recommendation will be in danger of remaining ineffective. It is therefore good that the recommendation noted that further recommendations for monitoring will be published. PNN hereby encourages the Committee to issue proposals regarding actual enforcement mechanisms, as well.

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[3] A brief search resulted in the following maximum numbers: University of Queensland (5 full-time candidates), University of Melbourne (8 full-time candidates), University of Auckland (8 full-time candidates) and University College London (6 full-time candidates).

[4] Wellbeing survey 2018, RUG https://www.rug.nl/education/phd-programmes/about/phd-survey/wellbeing-2018.pdf, Mental wellbeing 2017, Leiden https://www.cwts.nl/news?article=n-r2r234&title=almost-40-of-leiden-university-phd-candidates-are-at-risk-of-serious-mental-health-problems

All things considered, with the publication of 'Healthy Working Conditions in the Dutch PhD System', the Dutch universities and VSNU have given an important impetus for improvements to the PhD system in the Netherlands. Now the suggestions made in the recommendation must be implemented, monitored and enforced. PNN is looking forward to being presented with the recommendations still to be made, such as the recommendations designed to counteract perverse incentives. PNN believes that these subsequent measures will be equally vital to eliminating the difficulties encountered in the Dutch PhD system.