Guide for dealing with research delays of PhD candidates, postdocs and tenure trackers as a result of COVID-19
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1. Introduction

The corona crisis has had its effects on the research carried out at Dutch universities and university medical centres (umc's). This particularly affects researchers with a temporary employment contract. Their research may be delayed due to a range of factors.

This guide sets out such factors and possible directions for solutions for three groups of researchers: PhD candidates, postdocs and tenure tracks. In the chapters you will find the factors and possible solutions for each specific group.

This guide can serve as a starting point to facilitate discussions between researchers and research institutions. The document does not offer ready-made solutions; tailor-made solutions must be offered for each individual situation, in which all factors are taken into account. Appendix 2 contains an overview of possible scenarios for the researcher and a questionnaire. This questionnaire can serve as a starting point and preparation for a discussion between the researcher and the research institute about possible delays.

Because the umc's also have caring responsibilities, additional or different measures are and have been necessary during the corona crisis. Researchers can, for example, be deployed in health care. These and other measures put extra pressure on employees in UMCs, who are also subject to a different collective labour agreement. Despite these factors, umc's will try to work in line with the solutions proposed in this guide.

At the moment of writing this document, we see a start of research at the universities, in line with RIVM regulations. The start of research can therefore also be taken into account.
2. PhD candidates

PhD candidates must meet certain requirements in order to obtain their doctorate. The current situation means that this is not always possible in the given time. In this chapter, we discuss the causes and possible solutions, in which customization is the starting point: in determining which solution paths best fit, all the factors mentioned must be taken into account - in consultation between the PhD candidate and the supervisors.

An accelerated transition to the new recognition and rewards can offer a solution for some situations. Only the quality of the dissertation is important for the 'aptitude test' of the PhD candidate, not the 'quantity' (e.g. the number of articles). It is important for the PhD candidate to check whether the aptitude test is met. It can be looked into how the PhD candidate can demonstrate this aptitude. Think also of the recognition of other tasks of the PhD candidate that can demonstrate competence, such as in health care (especially the case in the umc's) and the contribution of the PhD candidate to online education. There may be some room for manoeuvre in the doctoral research budget. Money for travel expenses, for example, could be used to extend the project, whereby we ask funders to let go of any ear tags. In extreme cases, the possibility of extending the doctoral research could be considered.

1. Factors of delay
Factors influencing the degree of delay are the following.
If we look at these factors in conjunction, we see seven broad scenarios (a to g). These can be found in Annex 2.

a) Type of research
Research in which PhD candidates has to make observations themselves will as a rule be delayed more than research in which this is not necessary. Within the research where observations have to be made, the delay will not be the same everywhere.
We have distinguished the following types of research:
- Research with existing data that is accessible.
- Research with existing data that is difficult or inaccessible.
- Research with data still to be collected.
- Research with data still to be collected which, due to the measures, cannot be collected now.

Special attention is needed for PhD candidates in the medical field who are now temporarily working in healthcare because of COVID-19 and therefore are not able to execute their research.

b) Stage within the investigation at the time of the COVID-19 measures
Whether the investigation is delayed also depends on the stage the investigation was at during the government measures. To this end, we distinguish the following stages of research:
- Literature study and elaboration method (start).
- Actual research (in progress).
- Process data and write publication (finishing).
These phases can be intertwined within a PhD trajectory, as multiple studies are often carried out simultaneously.

c) Type of PhD candidate

The type of PhD candidate affects any additional problems and the further (financial) settlement of delays. We distinguish the following types of PhD candidates:

- Employee PhD candidate.
- Employee pursuing a PhD.
- Scholarship PhD candidate, scholarship financed by own uni/umc.
- Scholarship PhD candidate, scholarship externally funded.
- Externally funded PhD candidate.
- External PhD candidate.

Some types of PhD candidates (employees pursuing a PhD, externally funded PhD candidates and external PhD candidates) often have another job in addition to their PhD trajectory. As a result of the corona crisis, this job can take up more time than normal, allowing these PhD candidates to spend less time on their research.

In addition to the above, the financial consequences of delay also depend on the type of funding via which the PhD candidate is paid.

d) Education

A large number of PhD candidates have to provide and follow education/courses. PhD candidates who have to teach in this lockdown period will spend extra time adapting their education to an online version. This allows them to spend less time on their research than usual, which may delay the research.

As far as following courses is concerned, there are three possibilities. Some courses for PhD candidates have now also been digitized, allowing PhD candidates to continue to follow these courses. In those cases, the training plan can continue as planned. For other courses, this may not be the case, which means that PhD candidates cannot follow planned courses now. These courses may be taken at a later date. Finally, PhD candidates who would normally carry out other activities that cannot be continued now, could perhaps use this time to follow a (digital) course that was originally planned at a later moment.

e) Personal circumstances

Personal circumstances also influence the extent to which one has been able to continue the research at home. This is important for the nature of the solution chosen in the customization. Personal circumstances that influence this can be considered:

- Taking care of (young) children.
- Informal caregiving.
- Experiencing mental stress from the corona crisis.
- Experiencing problems working from home (including the quality of a possible home workplace).
- Some non-Dutch PhD candidates have been forced to return to their country of origin.
2. Solution directions
This section discusses solutions that can be used to deal with the delays that have occurred. Customization is crucial in determining the most appropriate solution direction(s). It is important that problems are discussed with the supervisor when the problems occur.

a) Short term
Flexibility within the project: if the PhD candidate is primarily engaged in the actual research (in progress), it is possible, in consultation with the supervisors, to consider whether it is possible to switch to another phase in the research. Perhaps it is possible to move to the concluding phase, or to start the starting phase of another research. The delayed research can then perhaps be overtaken at a later stage.
If part of the PhD candidate's work is discontinued, we can look into whether it might be possible to use this time for a (digital) course that was actually planned later in the process. The delayed research can then perhaps be made up for at a later moment.

b) Recognise and reward
It is important that the PhD candidate discusses with the supervisor the possibilities to deal with delays. For example, the reuse of existing datasets can be considered when research is currently hindered. It may also be possible to reconsider the content of the project, in line with the transition to recognising and valuing the new:
- For doctoral research, the criterion 'test of ability to practise science independently' is leading. The ability of the PhD candidate must be demonstrated. Can this competence be demonstrated in other ways or by other methods? For example: can the aptitude of the PhD candidate also be demonstrated by means of a review of the literature instead of the planned, currently stagnant research? The re-use of already collected datasets (Open Science) can also be considered. Do other activities currently carried out by the PhD candidate also demonstrate this competence? This could also include qualities in the field of impact and leadership.
- Is all the planned research necessary for the 'aptitude test' of the PhD, or are fewer studies than the planned number also sufficient to demonstrate the aptitude of the PhD candidate? For example: is it possible to obtain a PhD with one article or chapter less (given that the remaining articles are of sufficient quality)? Does such an option fit in with the career path that the PhD candidate envisages?

Any adjustments will of course take into account the promotion requirements, standards and agreements that apply from the PhD regulations. Solutions that, moreover, fit within the standard of the field of study are preferred, also for the later development of the PhD candidate.
c) Identify expected delay and compensate where possible with extension

It is possible that some of the projects will remain delayed. The extent of this delay will depend on the course of the corona crisis, how long restrictive measures persist and the factors mentioned above. For some delays, compensation in the form of extension is desirable. The guiding principle here is that, first of all, the delay should be limited as much as possible, then a solution will be sought within the department and - if this does not succeed - other possibilities can be considered. Ideally, extensions should be financed from resources within the project that have not materialised, such as travel and accommodation costs. The extent to which extension is legally and/or financially possible partly depends on the type of PhD candidate, the extent to which, due to the corona crisis, a one-off exception may be made to the rules regarding extension of temporary contracts (‘chain provision, ketenbepaling in Dutch) and the extent to which there is financial room, for example through extra funding from the government. All knowledge parties in the Netherlands are jointly discussing the latter with the government in order to find solutions from all sources of funding.

- For employee PhD candidates who are covered by the collective agreement (CAO) of the Dutch Universities, the promotion contract can, in principle, be extended without any problems from a legal point of view. The chain provision does not apply to them. Financial scope is the most limiting factor here. Extensions are ideally financed from resources within the project that have not materialised (non-materialised costs), such as travel and accommodation expenses. This is done in agreement with the PhD candidate. Different scenarios are possible for employee PhD candidates who fall under the collective labour agreement of UMCs. If the PhD candidate is appointed for the duration of the training, the contract can easily be extended. The chain provision does not apply to them. Financial leeway is the most limiting factor. If the PhD candidate is appointed for a fixed period of time, the chain provision does apply. In that case, the contract cannot be easily extended. In addition to this legal restriction, financial scope is also a limiting factor. Extensions are ideally financed from non-materialised costs.

- For PhD candidates at a university or umc with a fixed-term contract (not UFO profile P), the chain provision applies. The contract cannot be easily extended. In addition to this legal restriction, financial scope is also a limiting factor. Extensions are ideally financed from non-materialised costs.

- For PhD candidates with a scholarship from their own university, the chain provision does not apply because there is no employment (for tax purposes, this is seen as a fictitious employment). From a legal point of view, these scholarships can easily be extended. Financial scope is the most limiting factor in this respect. Extensions are ideally financed from non-materialised costs.

- For PhD candidates with a scholarship from an external financier, the chain provision does not apply, because there is no employment. These are often international PhD candidates. It depends on the agreements with the external financier whether it is legally possible to extend the scholarship. It also depends on the financier whether there is financial scope for extension.

- For externally funded PhD candidates, who do not have an employment contract with the university, the possibility of compensation depends on their external financier. This is often the organisation that gives them time and/or funding to follow a PhD trajectory. If this PhD candidate has a fixed-term employment contract with his or her own employer, the chain provision applies. If this employer does not fall within the higher education sector, any exception to the
chain provision for higher education does not apply. The PhD candidate will have to discuss the possibilities with his/her own employer. One option is that the employer offers the PhD candidate a permanent contract. Extension is ideally financed by the PhD candidate's external employer.

- For external PhD candidates, in most cases there is a great deal of freedom in structuring the PhD trajectory, because there is no employment contract and the PhD candidate writes the thesis in his own time. In principle, compensation for delays does not apply here, because the deadline is flexible. However, for some PhD candidates, agreements have been made about when the dissertation must be completed. There are no legal or financial restrictions to postpone this deadline. No funding is required.

- International PhD candidates often have a visa for the duration of their project. If their project can be extended, it should be checked whether the visa can also be extended without problems.

d) Long term
Some PhD candidates fear that their thesis may be 'less valuable' if they have fewer articles in it than originally planned. They also fear for the consequences of gaps on their CV for the further course of their career, for example because they publish less and attend fewer conferences. The Dutch and international academy should propagate that reduced productivity as a result of the corona crisis is force majeure and by no means an indication of the quality of scientists.

- (Inter)national agreements on corona clause: given the global scale of this crisis, steps can be taken to make (inter)national agreements to take into account possible consequences of the corona crisis for scientists. It is important to form the broadest possible coalition on this, so that scientists who develop gaps in their CVs as a result of the corona crisis do not become unjustified victims of this in their future careers. Ideally, this coalition brings together all institutions, knowledge institutions, umbrella organisations, financiers, government bodies and scientific societies.

PDEng / TOIO
The PDEng (Professional Doctorate Engineering) / TOIO (Temporary Researcher in Training) forms a special group of researchers within the universities. They are not PhD candidates, but generally follow a two-year training programme with an employment contract with the university, which in most cases is completed with a large design project of approximately one year for a company or hospital. For PDEngs/TOIOs it also applies that the type of research, the stage of the research and personal circumstances can result in a delay of their PDEng/TOIO trajectory. Teaching does not apply to them. Attending education is inherent to their pathway, as they earn 120 ECTS from their work in those two years.

Short-term, long-term solutions and the adjustment of expectations can also apply to this group. For compensation in the form of extension, PDEng/TOIO programmes are not covered by the chain provision and can therefore be extended without legal problems. Because PDEng/TOIO are often largely financed by companies or hospitals, the financial impact of the PDEng/TOIO programme is limited.

The possibility to extend the contract of the PDEng/TOIO depends on the financial space at the company/hospital. If this financial scope is lacking, extension should ideally be financed by the university or from additional government funding.
3. Postdocs

The purpose of this helping hand
This paper elaborates on six factors (see 1. Factors for consequences, a-f) that cause postdocs to encounter problems in their research in the current situation. Some factors apply to every researcher. Other factors are specific to postdocs, e.g. the type of employment.

Consequences for postdocs
The delay as a direct consequence of the corona measures also affects the longer-term career prospects of postdocs. Generating output in these times can be difficult due to a number of factors. Not being able to gain new connections and collaborations can also complicate the situation of postdocs. In addition, it can be difficult to find new employment.

There are specific problems for international postdocs, such as uncertainty about housing, relocation and residence permits. Postdocs are employed on temporary or permanent contracts and are therefore even more severely affected than other groups.

The solution directions
The institutions aim to provide tailor-made solutions to these consequences for researchers in order to limit delays. Where delays still remain as a result of the corona crisis, our guiding principle remains that we want to complete all existing research projects, regardless of whether they are temporarily halted. The extent to which extension is legally and/or financially possible partly depends on the extent to which a one-off exception may be made to the chain provision due to the corona crisis and the extent to which there is financial scope, for example through additional government funding. All knowledge parties in the Netherlands are jointly discussing the latter with the government in order to find solutions from all sources of funding. It is important that problems are discussed with the supervisor when the problems arise.

The two most important elements to reduce the delay and problems of postdocs include flexibility in the research design and working towards a corona clause for future employment or scholarship applications. Due to the tightly defined projects, this flexibility is only partly possible. Sector-wide agreements are needed on corona clauses, and this only limits consequential damage. Compared to PhD candidates and tenure trackers, however, this group can be achieved less by assessing more qualitatively rather than quantitatively because final attainment targets such as a doctorate or a permanent position (tenure trackers) are lacking. That is why contract renewal may be needed more often.

1. Factors for (individual) consequences
The following factors determine the impact of the COVID-19 measures on postdocs. These factors will have to be taken into account when finding tailor-made solutions.

- Kind of research.
- Stage of research at the time of COVID-19 outbreak.
- Type of employment.
- Funding.
• Education.
• Personal circumstances.

Appendix 2 provides an overview of possible scenarios for researchers.

a) Type of research
We have distinguished the following types of research:

• Research with existing data that is accessible.
• Research with existing data that is difficult or inaccessible.
• Research with data still to be collected.
• Research with data still to be collected which, due to the measures, cannot be collected now.

b) Stage of research at the time of COVID-19 outbreak
Whether the investigation is delayed also depends on the stage at which the investigation took place during the government measures. To this end, we distinguish the following stages of the investigation:

• Literature study and elaboration method (start).
• Actual research (in progress).
• Process data and write publication (finishing).

Projects in the middle phase (the actual research) often experience the greatest impact of the COVID-19 measures. In practice, these phases can be intertwined within a project, as multiple studies are often carried out simultaneously. What also makes a difference is the scope of other tasks that the postdoc performs at that time in addition to the actual research (education, supervision, administrative tasks, etc.).

c) Type of employment
There are many different forms of employment, the most common of which are:

• Temporary contract.
• Fixed contract with financing clause.
• Fixed contract with other clause (e.g. linked to certain project).

Postdocs who are most severely affected are those with a short-term employment contract or an employment contract that is about to expire. The delay caused by the corona crisis, and in particular its unforeseen duration, makes the outcome of short postdoc projects, e.g. of only one year, very uncertain. Postdocs that are at the end of their contract period have fewer alternatives to complete their project as planned or with some modifications. For postdocs who are in their last temporary employment (4th year), there is no possibility to extend their contract as a result of the current flex law.
d) Financing
Most postdocs are assigned to temporary second or third level funds. They often have to raise their own funding and are affected by the coronation measures in different ways.

Ongoing funding:
- Deadlines for deliverables for ongoing funding will not be met and it is still unclear what the consequences will be.
- Projects cannot be completed within the lifetime of the funding (see also a. and b.).

Future funding:
- In the current crisis situation, many people lack the time and focus to write new grant applications or answers in current NWO rounds. ¹
- Application procedures are suspended or rescheduled: for postdocs dependent on external research funding, this significantly reduces the likelihood of their employment being extended.
- Requests requiring preliminary data cannot be written because the collection of data is at a standstill.
- Some applications require an embedding guarantee or cooperation in the form of an employment contract with a ‘host’ institute. However, they, too, are in a state of uncertainty and cannot make any promises about (guest) employment.
- Postdocs are generally concerned about an economic recession caused by the corona crisis and its negative impact on the financing system on which they are so dependent.

e) Education
- Postdocs also experience pressure because of the extra time and effort they invest in education and guidance. Alternative forms, such as digitisation, must be devised for education. The supervision of PhD candidates and Master’s students who often depend on postdocs for their daily progress now takes more time.
- The practical work of students that often contributes to their research almost all falls away.
- Postdocs are also dependent on education for their own development, such as obtaining the (partial) basic qualification in education. This may also be delayed.

f) Personal circumstances
Personal circumstances also influence the extent to which one has been able to continue the research at home. This is important for the nature of the solution chosen in the customization. Personal circumstances that influence this can be considered:
- Taking care of (young) children.
- Informal caregiving
- Experiencing mental stress from the corona crisis.

¹ As an example one can think of the NWO call for COVID-19 related data collection that closed earlier than expected because the maximum number of applications had been reached quickly. As a result, researchers with care and/or teaching duties were not given the opportunity to submit their applications because they were unable to prioritise them and had anticipated the original planning.
• Having problems in the home situation (including the quality of a possible home workplace).
• Some foreign postdocs were forced to return to their homeland.
• There is also a group of postdocs who - instead of being called up to work at home - have been asked to perform clinical or diagnostic tasks and who therefore do not or only to a limited extent benefit from their scientific work.

2. Solution directions
a) Short Term: What can you do now to reduce the delay as much as possible?
• Wherever possible, the project planning can be adjusted in such a way that in the short term everything that is possible is first done, for example literature research and the elaboration of existing data.
• Following courses (although possibilities for this may also be limited in the current situation).

b) Adjusting expectations: rethinking the content of the project
Is all the planned research needed to complete the project properly? What is (still) needed to make a meaningful contribution to science and/or society? This question mainly concerns the expected output. For example, also look at negative results. There is a clear link to the new recognition and rewards: less emphasis on numbers of publications and more emphasis on the other domains in which the scientist works, such as education and impact.

c) Identify expected delays and compensate where possible
• Extend employment contracts where possible: Ideally, the government should offer a temporary COVID-19 exemption from the ban on extending a temporary contract once again after four years (as advocated by the VSNU and partners).
• Project implementation: the consequences of the delay for the project must be mapped out, for example on the basis of the scenarios outlined above. The parties involved, e.g. the manager, the department and/or the financier, must reconsider the project and the desired results together with the post-doc. See also point b above: adjusting expectations.
• Education/guidance: the extra time that postdocs spend on (adaptting) education and counselling and possible delays due to students not being able to contribute to the project must be mapped out and taken into account. Here, too, there is a link to the new recognition and rewards. The (extra) educational performance would then weigh more heavily in the general appreciation and assessment of each researcher.
• Funding:
  o There is a need to actively explore with funding bodies where coulance is possible in the case of ongoing funding, e.g. moving deadlines for milestones, adapting the quantity of milestones, adapting their content (see also above: point b: Adjusting expectations) or extending the project overall.
  o For future funding, account should be taken of later (clarity on) allocation of new funds. A postdoc must not be penalised for not having obtained a particular subsidy within a given period of time.
  o Agreements must be reached with institutions and funders on the financing of any extensions or bridging periods. Additional support from
the government is essential for this. What also plays a role here is that many vacancies in the current situation have been withdrawn or postponed. As a result, it is (even) more difficult for postdocs to find work elsewhere after their contract expires. This also has financial consequences for universities and other higher education institutions that have to finance their own WW because of their own risk-taking. Financing a bridging phase is therefore in the interest of both postdocs and universities.

- **Long term: what effects does the current situation have on individual careers and how can it be dealt with?**
  
  In future assessments, employment contracts, promotions and grant applications (especially for personal grants), adverse effects of the current situation on the CV and scientific track record of current postdocs should be taken into account. This could include, for example, the lack of publications on a project, but also the forced premature termination of certain projects or experience abroad. The knowledge institutions will jointly examine whether national agreements on this are necessary, for example in the form of a 'corona clause'. The nature and necessity of this will be dictated by the extent to which we are able to resolve these effects and what international standard will be created for this.

**Recognise and reward**

Once again, at this special time, we call for a broader look at 'recognising and rewarding' everyone's contribution. It is not quantity but quality that is important: for example, is someone involved in education, has he/she developed new resources? Counselling others? What was the result of that? Have alternative projects been started? Or has anyone else committed to science, for example by being active (administratively) in a scientific association? We need to look broader at the impact. By doing so, we not only contribute to solving the current situation, but also to the irreversible transition to the new recognition and rewards. The current situation may even offer an opportunity to accelerate the wider recognition and rewards of scientific achievements.
4. Tenure tracks

Tenure tracks
In a tenure track (usually in the position of university lecturer), a scientist is given a period (e.g. five years) to achieve certain goals in the field of research, education, governance and sometimes impact. If he or she has succeeded in this in the set time, he or she is given a permanent contract and is often promoted to associate professor or a comparable position.

Tenure trackers experience many of the same problems as postdocs. An essential difference, however, is that they are working towards final attainment levels for an appointment decision on permanent employment. This provides knowledge institutions with an additional solution, certainly for those at the end of their contract: we do not make a decision about a permanent contract and do this (actually) at an early stage on the basis of adjusted attainment targets based on quality instead of quantity, using methods from the new recognition and rewards. Where this is not possible and the appointment decision has to be made later, delays occur.

Classification
These general frameworks give a certain homogeneity to the group of tenure trackers. However, there are differences within them:

- The interpretation of the assessment criteria and the contract period differ per institution and faculty or department.
- Cash flow: tenure trackers are financed from first, second and third cash flow.
- Phase of employment: on average, a tenure tracker at the beginning of the trajectory will have even more opportunities to make up for the delay and still meet the conditions than someone at the end of the trajectory. However, this will already (almost) meet various criteria. This may differ per tenure tracker.

Financing form
In principle, the financing does not affect the type of tenure track contract. However, different sources of financing do lead to different consequences. For example:

- Tenure trackers who are paid temporarily and/or partly from project funding from the second or third flow of funds run the risk of not being able to achieve the objectives of projects (in full) or only with delays due to the crisis. In the worst case, this can lead to the discontinuation of funding.
- In public-private partnership projects, there is a risk that the private partner will not be able to (fully) fulfil financing agreements.
- Tenure trackers with a stipulated contract usually have to (partly) earn their own salary. This becomes more difficult due to delays and/or postponement or withdrawal of calls.

In all these cases, institutions incur higher costs than foreseen to meet their contractual obligations with tenure trackers.

Problem description
The performance criteria cover education, research, impact and organisational tasks, often including a fundraising component. For all these conditions, the corona measures may hinder the (timely) achievement of the agreed targets. Delays are caused by, for
example, the postponement of calls to financiers and delays in research and education. Personal circumstances are also important here, as are the type of research that is being conducted and the type of education that is being provided (see also the general framework).

This delay means that a tenure tracker may not be able to meet the performance criteria within the agreed time and would therefore not be eligible for the permanent contract and promotion.

**Solution directions**

For tenure trackers, the main problem is not being able to meet the agreements in the contract. In order to meet them there are two directions that can be followed, also a combination can be chosen. Depending on the chosen solution direction, the costs can be calculated.

1. The primary option is to assess a tenure tracker on the performance up to the previously determined time of assessment. This can also include the possible adjustment of assessment criteria in such a way that the quality of the trajectory remains guaranteed. This can be done for both the promotion and the permanent contract or only for the permanent contract. At a later stage, a continuation of the assessment could take place for the promotion according to the original or adjusted performance criteria.
   - **Advantages:**
     - No uncertainty on the part of the researcher about the permanent contract.
     - Opportunity to recognize and reward.
   - **Disadvantages:**
     - There may be discussion on how the performance criteria can be adjusted. This will result in a lot of customization, given the different situations tenure trackers are in. However, tenure tracks are usually custom made.
     - The tenure tracker and the trajectory can (rightly or wrongly) suffer reputational damage.

2. Postponing the assessment in order to have more time to meet the agreed performance criteria is an alternative if the primary option is not possible. Generally or on the basis of an assessment framework, a maximum of three months may be granted to meet the criteria. Extension is only possible if the tenure tracker has not previously worked on a temporary contract with the same employer. In a number of cases, the tenure tracker has an employment contract with an end date in which all kinds of delays are already taken into account. In that case, extension is not necessary and the delay is sufficient.
   - **Advantages:**
     - There can be no discussion about the quality of the trajectory and the performance of the tenure tracker.
   - **Disadvantages:**
     - The tenure tracker remains longer in uncertainty whether or not he gets a permanent contract and promotion.
Recognise and reward

When the employer and employee think about option two together, they should take into account the position paper *Room for everyone's talent*. This offers an excellent opportunity to give concrete form to the ambitions to recognise and value researchers in a different way. These developments not only contribute to solving the current situation, but also contribute to and are part of the irreversible transition to the new recognition and rewards. The current situation offers an opportunity to accelerate the wider recognition and rewards of scientific achievements. It is not a temporary adjustment of criteria in a different situation, but the application of these new insights, which can be continued after this special period.

Tenure trackers will also have to find a solution for the renewal of contracts if they are faced with the chain provision for the succession of temporary contracts. This applies to tenure trackers who have already had previous temporary employment contracts with the same university or when use is made of the one-off employment contract for a longer period of time (only a three-month extension is possible).
Annex 1: Questionnaire

This questionnaire can serve as a preparation for the interview between researcher and research institute on the personal consequences of the corona crisis. The answers can be used during the interview to map out the personal situation, which can help in finding a tailor-made solution. The questions can be adapted and supplemented as desired.

The first six questions are directly derived from the six factors for individual consequences discussed in the handbook. The last four questions are derived from the possible directions for solutions offered by the guideline.

a) **What kind of research do you do (mainly)?**

- □ Research with existing data that is accessible.
- □ Research with existing data that is difficult or inaccessible.
- □ Research with data still to be collected.
- □ Research with data still to be collected which, due to the measures, cannot be collected now.

Space for explanation

b) **At what stage was your (main) investigation during the government measures?**

*In practice, these phases can be intertwined within a project, as multiple investigations are often carried out at the same time. If necessary, the answer can therefore be broken down for several subprojects.*

- □ Literature study and elaboration method (start).
- □ Actual research (in progress).
- □ Process data and write publication (rounding). Space for explanation

C) **How are you employed by your institution?**

- □ Temporary contract; period:
- □ Fixed contract with financing clause.
- □ Fixed contract with other clause (e.g. linked to certain project).
- □ Permanent contract for an indefinite period.
- □ Different, that is:
d) Consequences for financing

How is your research funded?
□ 1st flow of funds (by the university itself).
□ 2nd flow of funds (NWO).
□ 3rd flow of funds (EU or other external financier).

Which of the following consequences apply to your ongoing funding?
□ Deadlines for deliverables will not be met.
□ Projects cannot be completed within the duration of the funding.
□ Different, that is:

Which of the following consequences apply to future funding of your research?
□ In the current situation, I don't have enough time to write new grant applications or replies.
□ Because many application procedures are suspended or postponed, my chances of future financing/provision of my employment are reduced.
□ I cannot write a request because I need preliminary data that I cannot collect now.
□ I cannot get an embedding guarantee because institutions in this uncertain situation cannot make promises about (guest) employment.
□ I am worried about an economic recession caused by the corona crisis and its negative impact on the financing system on which I depend.
□ Different, that is: ___________________________________________ Space for explanation

e) What consequences of the current situation are you experiencing in your education?
□ Education and guidance now require more time and effort.
□ The practical work of students that contributes to my research falls away.
□ I am no longer able to follow certain courses or learning pathways (e.g. BKO) myself, as a result of which I am delayed in my own professional development.
□ Different, that is:

Space for explanation
f) What personal circumstances affect your work in the current situation?

☐ I take care of children who in the first period of the corona measures could not go to school or shelter, or could only go to school to a limited extent.
☐ My location has a negative effect on well-being and productivity.
☐ I take care of family members (whether or not abroad).
☐ I need to perform additional clinical or diagnostic tasks.
☐ I’m experiencing mental stress because of the current situation.
☐ Different

t,
name
\gamma:

Space for explanation

Solution directions
The final questions relate to your ideas for possible solutions for your personal situation.

g) Short term: what could you do yourself to reduce the delay?

Think, for example, of adjusting (parts of) the project planning in order to be able to first do everything that is still possible.

h) To what extent could the objective of the project be reconsidered?

Is all the planned research needed to bring the project to a good conclusion? What is (still) needed to make a meaningful contribution to science and/or society? This question mainly concerns the expected output. For example, also look at negative results. A reconsideration of the project objectives is in line with current developments in the field of recognition and rewards of scientists: less emphasis on numbers of publications, more emphasis on the other domains in which the scientist works, such as education and impact.

i) How much delay do you expect to run into and what do you think you will need to be able to continue?

Think of extension of employment, adjustment of project planning and execution, adjustment of financing conditions, bridging financing etcetera. Think also of the extra performance that education currently requires.

j) Long term: what effects do you expect the current situation to have on your further career and what do you think would be necessary to limit negative effects?
Specific part tenure trackers

k) What parts does the uniform have in common?
   - Education.
   - External funding.
   - Leadership / board / organization.
   - Research
     - Publications.
     - External funding.
   - Knowledge utilization / outreach / science communication.
   - Otherwise,

   i.e: ... Space for explanation

l) Which of these will be delayed? How much delay? Are there parts that cannot be executed (anymore)?
   - Education.
   - External funding.
   - Leadership.
   - Otherwise, i.e: ... Space for explanation
Annex 2: Scenarios

Seven scenarios are described below, each with an estimate of how much delay an investigation will incur (ranging from little delay to very much delay). These include factors

(a) type of investigation and (b) stage of the investigation. The other factors (c-f), as well as the size of the project, are not included because the individual differences are too large. The home situation in particular determines to a large extent the delay that each individual postdoc faces, even in the scenarios where this is not explicitly stated.

For the final solution, all factors must be taken into account. This requires customization. The scenarios below are a starting point for the further detailing of the individual picture.

In ascending order, the scenarios with little, light, reasonable, heavy and extremely long delay.

a) The project is in the initial phase (literature study and elaboration methods) or final phase (processing data and writing publications). In principle, it makes little difference whether the researcher is in the office or at home, but this obviously depends on the private situation (e.g. young children who need to be taken care of/educated at home). Consultation/discussion/brainstorm with others about the ideas can (only if the private situation allows it) take place more or less as usual. However, the practical work, especially the familiarisation of starting postdocs, is delayed, and the question is when and in what circumstances (keeping a 1.5 m distance) this can be started and to what extent this can lead to delays later in the project.

Delay: little to light if work can be done at home according to need; reasonable to (extremely) heavy if the home situation is strongly influenced or the familiarisation/start-up process is greatly delayed.

b) The researcher does not need to make observations for his/her research. Examples include literature studies and research with data already available and accessible. In principle, it makes little difference whether the researcher is in the office or at home, but this obviously depends on the private situation (e.g. young children who need care/teaching at home). Consultation/discussion/brainstorm with others about the ideas can (only if the private situation allows it) take place more or less as usual.

Delay: little to light if work can be done at home according to need; reasonable to (extremely) heavy if the home situation is strongly influenced.

c) The researcher does not need to make observations for his/her study and uses existing data. However, these data are not easily accessible from home. Examples are data that can only be viewed on location or not digitally (archives) or that can only be accessed via a highly secured connection. The degree of delay depends on the possibilities of accessing these existing data in compliance with the corona measures.

Delay: reasonable to heavy.
d) the researcher should make observations for his/her research. Examples include studies that require tests to be carried out in the laboratory or studies using specific equipment. The study can often not be carried out as usual. The researcher is dependent on laboratories/equipment that are not or only to a limited extent available because of the corona measures (institutional policy, hygiene, one and a half meter distance, etc.). The degree of delay depends on the possibilities of being able to use laboratories/large equipment etcetera, taking into account the specific corona measures taken by the institution.
Delay: reasonable to heavy.

e) the researcher should collect data from living subjects for his/her research. Examples are research with laboratory animals, plant research and research with or about humans. The research cannot take place as usual. The researcher is dependent on laboratories/equipment that are not/not available in a limited way because of the corona measures (institutional policy, hygiene, one and a half meter distance, etcetera) or cannot get in good contact with the research objects. The degree of delay depends on the possibilities that exist to carry out the research, taking into account the corona measures of the government and the institution. In addition, in this scenario there will be research in which complete cell lines, animal lines, plant breeding, interventions, etc. will have to be partially or completely redesigned. As a result, the delay may be longer than the time that the corona measures are in place. It should also be taken into account that research will most likely be initiated in phases, with priority being given to research involving, for example, live animals or clinical research populations. Research on ex vivo material or healthy subjects may therefore be further delayed proportionately.
Delay: low/light/reasonable/heavy/extremely heavy.

f) the researcher has less time for (literature) research, elaboration methods, processing data or writing publications because he/she provides support in health care or related functions such as diagnostics. The degree of delay depends on how much the postdoc is used for these tasks.
Delay: low/light/reasonable/heavy.

g) the researcher conducts research within the medical field and is in the 'actual research' phase. It is possible that interventions will have to be completely redesigned or that data collection cannot take place because the regular care is largely suspended.

2 The following applies to all scenarios: the impact/ delay can be (very) high when the home situation is strongly influenced. Also (additional) educational costs or other factors can cause the actual delay to increase further.
In addition, it should be taken into account that a reservoir of regular care will be created. Research that requires care facilities or clinical populations will be further delayed because the priority will be to put the care in order and only then medical research. Delay: heavy/extremely heavy\textsuperscript{2}.

As indicated above, all other factors also play a role in the final delay: the type of employment and funding as well as educational obligations and - it cannot be emphasised enough - personal circumstances. That is why tailor-made solutions are needed.