

DOCTORAL REGULATIONS (translation of doctoraatsreglement versie 20220516)

1) Aim of the mandate

Doctoral research mandates are intended for graduates of university-level higher education who carry out a research project with the aim of obtaining a PhD, under the guidance of a promoter from the concerned university and a promoter from VITO. The financing of the doctorate is limited to a continuous period of 48 months.

Financing options:

- The doctoral student receives a PhD grant from or a position as doctoral student at the university involved.
VITO concludes a financing agreement with the university involved, with VITO undertaking to provide an annual allowance. The university involved will pay the selected doctoral student a PhD grant or a salary matching the beforementioned amount; or
- VITO concludes an agreement with the doctoral student, who is given the status of VITO-employee. VITO applies the social legislation required to apply to employees.

2) Degree requirements

Persons who comply with one of the following degree requirements may submit their candidature:

1. holder of a master's degree from a Flemish university in the study area of sciences, applied sciences, agricultural sciences and applied biological sciences, pharmaceutical sciences, veterinary medical sciences, medicine, dentistry or biomedical sciences;
2. holder of a master's degree from a university in the Walloon community in Belgium that is recognised as being equivalent to one of the degrees stated in sub 2a);
3. holder of a foreign degree that is recognised as being equivalent to one of the degrees stated in sub 2a);
4. holder of a degree from extended higher education (HOLT) or a final degree from a foreign university or foreign institute of academic education, who has been exempted from the entry conditions to prepare a doctoral thesis in one of the study areas stated in sub 3a);

Holders of a foreign degree, a HOLT degree or a university degree from the Walloon community in Belgium must also possess a declaration from the university where the doctorate will be carried out (from at least faculty level), which indicates that the degree requirement has been sufficiently achieved and that s/he has been accepted to the concerned faculty to perform doctoral activities.

Final year students in study areas that result in the higher education degrees above, may also submit their candidature under the rescinding condition that the candidate attains the final degree in the year that s/he submits the candidature.

3) Award conditions

The doctoral candidates must comply with the following conditions:

- a) Grade requirements
The doctoral candidate must have attained the above-mentioned master's degree with (at least) a "distinction", or equivalent.
- b) Maximum period after attaining the master's degree
A doctoral candidate can submit a grant request at the latest, 5 years after attaining the master's degree. If a doctoral candidate possesses more than one master's degrees, this rule only applies to degrees from the study area applicable to the doctoral proposal. In this case, the first master's degree must (at least) have been attained 10 years prior to the grant application.
- c) The doctoral candidate must have a perfect record of conduct;

After a substantiated written request from the VITO-promoter, submitted no later than 8 weeks prior to the defence before the Selection Board, deviations to the award conditions may be allowed by VITO's Board of Directors. The Board of Directors makes an ad-hoc and discretionary decision on the deviation request from the VITO supervisor; refusal of the deviation does not have to be substantiated.

4) Project-related conditions

- a) The subject of the research project
Considering that doctoral research is part of its strategic research, subjects will be defined in advance by VITO and an agreement will be made by VITO with the concerned promoter. The subject and the promoter will be announced in advance on the VITO website. Based on this subject, the doctoral candidate must consult with the promoter and the VITO -promoter to present a detailed design for the doctoral programme, with accompanying work plan and scientific approach strategy, with the intention of completing the doctorate in a maximum of four years in consultation with promoter and VITO-promotor.
- b) Supervision
The research project must be carried out under the scientific supervision of a member of the Senior Academic Staff (ZAP) at a Flemish or foreign university and a staff member at VITO.
- c) Place of research
In principle, the doctoral research will take place at the VITO site and, if necessary, partially at a university or technical academy. With regards to activities that must be carried out at VITO, the doctoral student must comply with all safety and access procedures applicable at VITO. In certain cases, after support from their promoter and VITO promoter, the doctoral student may be permitted a temporary stay abroad in order to further his/her doctoral thesis.

5) Characteristics of the mandate

a) *Status*

The doctoral student must have the status of scholarship student at the concerned university. However, for a number of mandates, VITO has established that doctoral students must be VITO members of staff. In this case, the classic VITO recruitment procedure will be implemented.

b) *Cumulation*

Considering the mandate system intends the doctorate to be completed in 4 years, cumulation with other assignments and other grants or other subsidies is, in principle, not permitted. Possible exemptions must be presented to the executive committee of VITO and will be evaluated on an ad-hoc basis.

c) *Interruptions*

Research mandates can only be interrupted in case of force majeure (e.g. medical reasons) or after mutual agreement. Each case of force majeure that results in the scholarship being interrupted must, if possible, be reported in advance to the university and VITO, who will decide about modifications to the mandate's award modalities.

d) *Training courses*

Considering the aim of the mandate system is to result in an original thesis that justifies the title of doctor being awarded, the doctoral student is entitled to follow specific training courses after special consent from VITO and the university. This consent can be awarded under condition that the course may be useful for preparing the doctoral thesis, irrespective of whether this course results in a post-graduate degree being attained that differs from the doctorate. In order to obtain the above-mentioned consent, the doctoral student must submit a detailed request to the university and VITO.

6) The application

a) *Time of the application*

There are no fixed announcement deadlines for open doctorate designs. Doctoral candidates are able to register for an open mandate whenever they choose.

b) *On-line registration*

Registration on-line via the VITO website (<http://www.vito.be/>). VITO enables the applicant to enter relevant personal data and information about his/her scientific curriculum. ¹

c) *The application file*

The doctoral candidate must compile an application file in consultation with the VITO promoter and the promoter. The file must consist of a doctoral plan, a management summary and an administrative section.

d) *The doctorate plan*

The following subjects must be addressed consecutively in the doctoral plan:

- VITO research context: situate the PhD research project in the research programme of the VITO research group;
- Problem identification: the problem must be put in context, including a description of the international circumstances, and a reference to scientific literature (max. 1 page);

¹ The VITO-promoter and the Scientific promoter perform an initial selection of the candidates who have registered. The selected candidates prepare an application file in consultation with them.

- **Objective:** brief and clear description of the concrete technical-scientific objectives of the project, with explicit mention of innovative aspects and clear identification of research activities carried out by the research unit (max. 1 page);
- **Project description:** detailed description of the work packages (experiments/activities that will be carried out and deliverables expected), reasons for them being carried out and the way in which the relationship between the work packages will result in objectives being realised. A contingency plan should be included. (max. 10 pages, including figures and tables, and excluding references);
- **Planning:** explanation of the milestones within the project and a graphic display of the planned execution of work packages on a monthly basis, throughout the 4 scholarship years (max. 1 page);
- **Application possibilities:** a description of possible applications for the intended research results, within industry or the services sector (max. 1 page);
- References

The project must be defined so that it can directly lead to a doctorate being completed within a maximum timeframe of 4 years. The emphasis within the project description may be placed on the first and second years, though it must be clear how later objectives will be realised. The length of the detailed description depends on the complexity of the project and the number of subtasks but may not exceed 15 pages (including title page and contents and excluding references) under any circumstances. When compiling this document, please use font size 12.

e) Management summary

Because the doctoral jury assessing the application is a multidisciplinary jury, with not in all cases detailed knowledge of the specific doctoral topic, a management summary (max 2 A4) is requested. This must be written for a non-expert audience with the following information:

- PhD worthiness of the research?
- Brief description of the problem and the current status of science/research/innovation gap
- Which "core" scientific questions does your PhD focus on?
- What is the novelty in your doctoral proposal? Which innovative/new ideas will you elaborate on?
- Positioning of the doctoral project within the VITO/Unit research strategy.
- Brief description of the expected results and their valorization potential.
- Brief description of the research strategy that you will follow to achieve the intended results.

f) The administrative section. The following documents must be included consecutively in the administrative section:

- The doctoral candidate's curriculum vitae.
- An overview of the courses followed during the master's program with scores obtained

- A summary (max 2 A4) of the thesis or dissertation that is being presented to attain this degree.
- A copy of the degree that entitles registration.
- Approval from the promoter and the VITO promoter concerning the design of the research project.
- For candidates who obtained their master's degree outside Belgium and/or in case of a doctoral training at a non-Belgian university: declaration from the university, which indicates that the doctoral candidate has been accepted for the concerned faculty to perform doctoral activities.

Applications must be compiled in English and submitted to VITO. The registered office of VITO is Boeretang 200, 2400 Mol.

If case of incompleteness and/or non-conformity of the application with regard to the award conditions, the application can be refused and the file cannot be brought before the jury.

7) Defence of the application for the jury

Doctoral candidates with an approved application file will face a jury, which will have been appointed by VITO, and subjected to a verbal examination about their general scientific knowledge, their doctoral programme and their work plan. The jury assesses the candidates using the assessment form as attached as appendix 1. The jury formulates a recommendation regarding the granting of the mandate to the VITO management.

8) Award

The mandates will be awarded by the executive committee of VITO. As part of a pre-concluded agreement between VITO and the concerned university, an appendix will be compiled containing the name of the doctoral candidate and the start date. The award will take place based on the application file, the jury report and possible additional guidelines established by the Board of Directors at VITO.

Upon approval, the doctoral candidate must, in consultation with the VITO promoter and the promoter, register as doctoral student at a university.

The start date will be determined after consultation between VITO, the university and the selected doctoral student. The mandate will end once the selected person has obtained the doctorate for which the mandate was awarded, or after a period of four years.

9) Follow-up and supervision

For the entire period of his mandate, the doctoral student undertakes to work on the research project for which the research mandate was awarded. The mandate can be withdrawn at any given moment if the doctoral student no longer fulfils the award criteria for the research mandate.

Formal follow-up will take place annually at VITO, for which the doctoral student must prepare a file. The annual evaluation file consists of a progress report, a brief overview of the main results achieved, the advice of the university promoter, a proposal for further planning and proposed adjustments to be submitted to the VITO promoter.

On (11*), 18, (22*) and at 30 months, the doctoral student will explain the progress report to a VITO jury, consisting of VITO staff. This jury draws up a reasoned opinion about the further course of the doctoral mandate. Based on this advice, VITO decides on the further financing of the mandate

agreement in line with the provisions included in the financing agreement concluded with the university.

The following timetable shows the complete evaluation cycle:

- After 9 months: evaluation by the VITO promoter; in the event of a negative assessment, a remedial process is set up and the doctoral student can propose a revised file for the VITO jury in 11 months;
- *After 11* months: evaluation by the VITO jury if negative evaluation at 9 months;*
- After 18 months: evaluation by the VITO jury; if there is a negative opinion, a remedial process will be drawn up and the doctoral student can propose a revised file at 22 months;
- *After 22* months: evaluation by the VITO jury if negative evaluation at 18 months*
- After 30 months: evaluation by the VITO jury.

* The jury evaluations marked with * only take place in the case of a previously negative evaluation.

**Assesment for PhD mandates VITO
Evaluation form month 20xx**

Average Score (Total)

Name candidate:

PhD subject:

QUALITY CANDIDATE	1	2	3	4
1. Basic scientific knowledge • Education/CV is relevant knowledge in view of the topic • Knowledge is evident from the answers to the questions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Research ability • Demonstrates critical thinking skills • Shows reasoning ability-methodical thinking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Indipendence • Dares to defend own opinion • Made an independent contribution to the project proposal/file • Demonstrates a sence of reality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Communication skills • Clarity of the presentation/slides • Way of answerng questions • General appearance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Understanding the broader framework • Can situate the subject an a borader context • Demonstrates insight into the economic social importance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Motivation of the candidate • Has familiarized himself with the topic • Shows enthusiasme	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Frequency
(sum=6)

x1

x2

x3

x4

Scoring: graduated master student is the reference::

1. unacceptable below expectation
2. less than expected but possible to remedy
3. as expected
4. exceeds expectations

Information for the VITO team

QUALITY PROJECT	weak	sufficient	good	excellent
1. PhD-worthyness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Originality and innovative character	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Quality supporting framework	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Feasibility of the project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments on project proposal relevant for VITO supervision: