Appendix 5 Thesis evaluation form with rubric

Quality standards for PhD theses differ worldwide, and so do evaluation procedures and grades such as cum laude (with distinction). Wageningen University provides the thesis committee and external experts with detailed information concerning the evaluation procedure (see appendix 5a) and a rubric (appendix 5b or 5c) for the evaluation of a thesis. This information provides transparency of Wageningen University's thesis requirements to PhD candidates and their (co-)promotors.

Doctoral theses can be mainly disciplinary, multidisciplinary, interdisciplinary and/or transdisciplinary. There are two rubrics available:

- a rubric for the assessment of mainly disciplinary and multidisciplinary PhD research (appendix 5b);
- a rubric for the assessment of mainly interdisciplinary and transdisciplinary PhD research (appendix 5c).

The main criteria for the rubrics are the same, but in the operationalisation of the criteria in the rubric in appendix 5c puts a relatively heavier weight on the level of integration achieved between different bodies of knowledge and the extra effort and skills that were demonstrated to achieve this, and puts – compared to the rubric in appendix 5b- relatively less weight on the expected scientific impact of the research chapters in the dissertation.

The promotor decides after consultation with the candidate under which category the thesis is submitted to the examining committee, and thus which rubric is going to be used by the thesis committee.

The rubric for the assessment of <u>disciplinary and multidisciplinary</u> research is targeted at dissertations that either:

- consist mainly of research chapters that each belong to the same discipline, usually involving a supervisory team that is relatively homogeneous in terms of the scientific backgrounds/disciplines included.

or:

- consist mainly of disciplinary research chapters that belong to several disciplines, usually involving a supervisory team that is heterogeneous in terms of the scientific backgrounds/disciplines included.

The rubric for the assessment of interdisciplinary and transdisciplinary research is targeted at dissertations that either:

- attempt mainly to connect and integrate questions, concepts, theoretical frameworks, methodologies and/or findings from different scientific disciplines, possibly leading to the breaking of boundaries between disciplines and the formation of new domains of science, and usually involving a supervisory team that is heterogeneous in terms of the scientific backgrounds/disciplines included.

or:

- report mainly on research that is based on active engagement with non-academic groups during part of the research process - usually with the aim of addressing real-life societal challenges - whereby the knowledge and understanding of stakeholders is connected to and integrated with scientific understanding.

Appendix 5a Thesis evaluation form as sent to the thesis committee

Dear members of the thesis committee,

Thank you for your willingness to evaluate this PhD thesis. Wageningen University PhD theses are evaluated on five criteria using a standard form and a rubric which is provided at the end of this document. The aim of using a rubric is to enhance homogeneity of assessments and the ability to discuss assessments with other examiners and the (co-) promotor(s) (main supervisors). Also, it clarifies the expectations for a thesis to PhD candidates. The standard evaluation form also has comment fields to elaborate on your evaluation for each of the five criteria. The use of these comment fields is highly recommended for providing additional feedback. In the rubric:

- each row represents one criterion, e.g. originality of the research;
- each column represents a level for the grading, e.g. 'good';
- each cell describes the level for that criterion.

Please start at the lowest mark in the rubric and test whether the PhD thesis is better described by the next higher level. Achievements at lower levels are implicit at higher levels and not again included in the criteria.
You are kindly asked to describe in 25 – 100 words your evaluation of each of the five criteria. You could do this by comparing representative examples from the thesis to the descriptors in the rubric.

It could be that the PhD thesis scores 'unacceptable' on one criterion and 'good' on another. An 'unacceptable' for one of the first four criteria designates that the thesis is not defendable in which case it is important to provide detailed feedback to enable the candidate to develop a revised version.

Your thesis evaluation will be made available to the Dean of Research and is used to decide whether the PhD candidate can be allowed to defend the thesis. Moreover, the Dean will use your evaluation to decide whether the PhD thesis should be considered for a cum laude designation in which case two additional reviewers will review the thesis[1]. In addition, directly after the public defence of the thesis, the committee will discuss the quality of the thesis and the defence in a joint meeting chaired by the Rector Magnificus, or a replacement and it is here where your anonymized evaluation report will be used by the Rector Magnificus. Your anonymized thesis evaluation report will only be disclosed to fellow committee members when the PhD thesis is considered for a cum laude.

The (co-)promotor(s) will receive your anonymised thesis evaluation report:

- in case the thesis is graded as 'unacceptable', to allow the candidate to improve the thesis. Your comments and reasons for your judgement are important as the candidate has the possibility to revise the thesis and/or provide a rebuttal;
- immediately after the defence, as feedback to the (co-)promotor(s) regarding the quality of this particular thesis and to clarify the expectations for possible next PhD theses under her/his supervision.

[1] Please note that after the defence, a thesis can only qualify for the judgement of excellent if the cum laude procedure has been followed. Despite the procedure followed, the defence can qualify for the judgement of excellent.

If you propose the candidate can defend the thesis, you can only identify grammatical, formatting and minor errors. Your suggestions for correction of these errors will be forwarded to the (co-)promotor(s), who will then confer with the PhD candidate whether or not to incorporate your suggestions in the thesis.

Requirements for the degree of doctor awarded by Wageningen University

In order to be awarded the degree of doctor, the candidate must have demonstrated the capability of:

1. functioning as an independent practitioner of science who is able to:
   a. formulate scientific questions, either based on social issues or scientific progress;
   b. conduct original scientific research;
   c. publish articles in peer-reviewed scientific journals, publish books with scientific publishers or make a technical design;
2. integrating her/his research in, or placing it within the framework of, the own scientific discipline and against the background of a broader scientific area;
3. placing the research aims and research results in a societal context;
4. postulating concisely worded propositions in scientific and societal areas, formulated in such a way that they are subject to opposition and defence.

Your evaluation of the PhD thesis

Name of the PhD candidate : ……

Planned date of the public defence : ……

Title of the PhD thesis : ……

Note: After the public defence your anonymised evaluation form will be provided to the promotor.

1. Originality of the research

Grade: unacceptable / acceptable / satisfactory / good / very good / excellent
Reason for evaluation (25-100 words):

2. Scientific quality of the research chapters

Grade: unacceptable / acceptable / satisfactory / good / very good / excellent
Reason for evaluation (25-100 words):

3. Reflection on the research as shown in the Introduction and General discussion

Grade: unacceptable / acceptable / satisfactory / good / very good / excellent
Reason for evaluation (25-100 words):

4. Quality of written presentation

Grade: unacceptable / acceptable / satisfactory / good / very good / excellent
Reason for evaluation (25-100 words):

The PhD candidate will only be allowed to defend the thesis if none of the above criteria are marked as 'unacceptable'. If you score 'unacceptable', please provide your arguments for that qualification in the box below. The candidate will be given the opportunity to submit a rebuttal to be re-evaluated by you within 2 weeks after receipt. In case the changes to the thesis are substantial, the other members of the thesis committee will be informed about the changes but will not be asked to re-evaluate the thesis.

5. Overall Assessment (based on the above evaluation categories 1 – 4)

Grade: unacceptable / acceptable / satisfactory / good / very good / excellent
Reason for evaluation (25-100 words):

Keep on separate page so that the form can be anonymised easily

Name of committee member : ……

Chair / Function / Affiliation : ……

Date : ……

Appendix 5b Rubric for evaluation of disciplinary and multidisciplinary PhD theses

Criteria	Unacceptable	Acceptable	Satisfactory	Good	Very good	Excellent
1. Originality of the research	Does not make (or has not made) a contribution to any discipline, either because it is a copy, or nearly so, of work done before by others, or because the research question is trivial.	Makes (or has made) a small and not very original contribution to one of the disciplines involved, uses a cookbook approach, is not really interesting but shows the ability to do research.	Makes (or has made) a modest contribution to one of the disciplines involved by addressing relevant, but small and traditional questions that are interesting for those who work on the same subject.	Makes (or has made) a substantial contribution to one of the disciplines involved by addressing relevant questions that are interesting for others within the field. It is a solid part of normal science but does not open up the field.	Makes (or has made) **either** an important contribution to one of the disciplines involved by solving old problems in a new way, or by addressing new and relevant questions, however without completely exploring and solving those new questions; **or** makes substantial contribution to more than one discipline (see 'good').	Makes (or has made) **either** an exciting, major contribution to one of the disciplines involved, either by solving old problems in a brilliant, innovative way or by asking and answering new and intriguing questions; **or** makes an important contribution to more than one discipline (see 'very good').
2.Scientific quality of research chapters **see footnotes:** **1, 2, 3**	Chapters are incoherent and choices and interpretations are mostly not convincing. The chapters are not publishable in any reputable journal or by any reputable book publisher and are not expected to be cited nor have any scientific impact. In case of a monograph, it is not likely to be cited nor have any scientific impact	Chapters lack clear cohesion and choices and interpretations are not always convincing. One or two chapters are publishable in a reputable journal or by a reputable book publisher, but they are expected to be cited below the norm in the discipline(s) involved and have a lower than average scientific impact. In case of a monograph, it is likely to be cited considerably below the norm in the discipline(s) involved and have considerably lower than average scientific impact.	Chapters have sufficient cohesion and choices and interpretations are mostly convincing. Most chapters are publishable in a reputable journal or by a reputable book publisher, but only some chapters are expected to be cited in line with the norm in the discipline(s) involved and have an average scientific impact, while others are expected be cited below the norm and have a lower than average impact. In case of a monograph, it is likely to be cited in line with or slightly below the norm in the discipline(s) involved and have at most an average scientific impact.	Chapters are coherent and mostly well justified and convincing. Most chapters are published or likely to be published in reputable journals or by a reputable book publisher, and they are expected to be cited at least as well as the norm in the discipline(s) involved and have an average scientific impact. Some chapters are expected to be cited above the norm and have a higher than average scientific impact. In case of a monograph, it is likely to be cited in line with or slightly above the norm in the discipline(s) involved and have at least an average scientific impact.	Chapters are coherent, very convincing and some of them are thought provoking and exciting. All chapters are published or likely to be published in reputable journals or by a reputable book publisher, and they are expected to be cited above the norm in the discipline(s) involved and have higher than average scientific impact and some will be cited substantially better than the norm and have a substantially higher than average scientific impact. In case of a monograph, it is likely to be cited above the norm in the discipline involved and have a higher than average scientific impact.	Chapters are very coherent and convincing, all are exciting and some of them ground-breaking. All chapters are published or likely to be published in reputable journals or by a reputable book publisher, and they are expected to be cited substantially better than the norm in the discipline(s) involved and will have a substantially higher than average scientific impact. In case of a monograph, it is likely to be cited substantially above the norm in the discipline involved and have a scientific impact.

	Unacceptable	Acceptable	Satisfactory	Good	Very good	Excellent
3. Reflection on the research as shown in 'Introduction' and 'General discussion'	There is no explanation of the added value of conducting this disciplinary or multidisciplinary research in either scientific or societal terms.	Argument for conducting this disciplinary or multidisciplinary research is trivial; it is made plausible that the proposed disciplinary or multidisciplinary research lines can be interesting (in scientific and/or societal terms), but choices made remain arbitrary.	There is a reasonably plausible argument (in scientific and/or societal terms) for pursuing the proposed disciplinary or multidisciplinary research lines.	There is a convincing argument of why it is relevant (in scientific and/or societal terms) to pursue the proposed disciplinary or multidisciplinary research lines.	There is a compelling and original argument of why it is relevant (in scientific and/or societal terms) to pursue the proposed disciplinary or multidisciplinary research lines.	There is a compelling, original and exciting argument of why it is relevant (in scientific and/or societal terms) to pursue the proposed disciplinary or multidisciplinary research lines.
	The work does not show how the results fit in existing knowledge, or what the societal relevance is.	Trivial reflection on how results fit in the existing knowledge and what the societal relevance is.	Narrow view on how results fit in the existing knowledge and what the societal relevance is.	Obvious correspondences and conflicts with existing knowledge are identified. Most obvious societal relevance is indicated.	Most correspondences and conflicts with existing knowledge are identified. Societal relevance is mostly well indicated.	Results are critically confronted with existing knowledge. Societal relevance is addressed in full.
	The results from the different chapters are not connected to each other in any way.	The results from the different chapters are connected to each other in a loose manner that is not very convincing.	The results from the different chapters are partially connected to each other in a manner that is partially convincing.	The results from the different chapters are partially connected to each other in a manner that is mostly convincing.	The results from the different chapters are fully connected to each other in a manner that is mostly convincing.	The results from the different chapters are fully connected to each other in a manner that is entirely convincing.
	Possible weaknesses in the research are not discussed.	The most obvious weaknesses in the research are indicated, but not how they affect the conclusions.	Most weaknesses in the research are indicated, but less clearly how they affect the conclusions.	Most weaknesses in the research are indicated, and also how they affect the main conclusions.	All weaknesses in the research are indicated, and also how they affect the main conclusions.	All weaknesses in the research are indicated, and also how they affect each of the conclusions.
4. Quality of the written presentation	Writing, tables, figures and layout are so poor that it is hard to understand what the candidate wants to say. Reading is very difficult.	Writing, tables, figures and layout are not always correct and clear, level of detail varies widely, but with effort the text is understandable. Reading is difficult.	Writing, tables, figures and layout are mostly adequate, but level of detail varies, and text could be more concise. Reading is laborious.	Writing is correct and mostly clear, but text could be more concise. Tables, figures and layout are mostly clear, with few errors. Reading is effortless.	Writing is clear and concise, tables, figures and layout are functional and flawless. Reading is a joy.	Writing is crystal clear and compelling, concise but balanced with sufficient detail, with attractive, functional tables, figures and layout. Reading is exciting.
	The thesis is unstructured, often information is missing or presented in the wrong place.	Main structure of the thesis is adequate, but placement and structure of sections are often not logical.	Main structure of the thesis is correct, placement and structure of sections are not logical in places.	Main structure of the thesis is correct, but some sections are less well placed or less well structured.	Main structure of the thesis is clear and correct, most sections are well structured and well placed.	The thesis is very well structured with each chapter and section having a clear function and presented in a logical order.

	Unacceptable	Acceptable	Satisfactory	Good	Very good	Excellent
5. Overall assessment	In case one of the five criteria is marked as 'unacceptable' by any of the opponents/ reviewers, the PhD candidate will not be allowed to defend the thesis without major revision.	Based on the above categories the overall quality of the thesis is considered acceptable. The PhD candidate will be allowed to defend the thesis.	Based on the above categories the overall quality of the thesis is considered satisfactory. The PhD candidate will be allowed to defend the thesis.	Based on the above categories the overall quality of the thesis is considered good. The PhD candidate will be allowed to defend the thesis.	Based on the above categories the overall quality of the thesis is considered very good. The PhD candidate will be allowed to defend the thesis.	Based on the above categories the overall quality of the thesis is considered excellent. This PhD thesis belongs to the top of the scientific field. This may be reason for awarding the designation 'cum laude' ('with distinction').[4]

[1] The precise criteria for assessing quality may differ per discipline and type of research. Accordingly, quality criteria may relate to use of theory, research design, methods of data collection, analytical approaches, modelling, validation, conclusion and discussion. More general quality criteria in relation to such building blocks include depth of argumentation, justification of choices, creativity, clarity, sophistication and the level of coherence between the building blocks.

[2] In the case of a design, please consider the originality of the design and the contribution to technology. Consider the candidate's technological competence, application of design methodologies, and analytical and integrative skills.

[3] If the research chapters are multi-authored, it is important to consider the candidate's contribution to each chapter, in particular when s/he is not the first author. To this end, an authorship statement by the candidate has been added to the thesis manuscript. Also, it's good to check whether the research chapters show a level of written presentation similar to the Introduction and General discussion. If the research chapters are written in a better way, this may result in a higher grade for the criterion 'research chapters' but it suggests an important contribution of co-authors. Thus, a higher grade for the research chapters alone should perhaps not be reflected in the overall grade of the thesis

[4] After the oral defence, the committee will be asked to comment on the quality of the defence. At that point the final decision whether or not to award a cum laude designation is made by anonymous voting.

Appendix 5c Rubric for evaluation of interdisciplinary and transdisciplinary PhD theses

Criteria	Unacceptable	Acceptable	Satisfactory	Good	Very good	Excellent
1. Originality of the research	Does not make (or has not made) a contribution to **either** the interdisciplinary field **or** transdisciplinary science, either because it is a copy, or nearly so, of work done before by others, or because the research question is trivial.	Makes (or has made) a small and not very original contribution to **either** the inter-disciplinary field **or** transdisciplinary science, uses a cookbook approach, is not really interesting but shows the ability to do research.	Makes (or has made) a modest contribution to **either** the inter-disciplinary field **or** transdisciplinary science by addressing relevant, but small and traditional questions that are interesting for those who work on the same subject.	Makes (or has made) a substantial contribution to **either** the interdisciplinary field **or** transdisciplinary science by addressing relevant questions that are interesting for others within the field. It is a solid part of normal science but does not open up the field.	Makes (or has made) important contribution to **either** the interdisciplinary field **or** transdisciplinary science by solving old problems in a new way, or by addressing new and relevant questions, however without completely exploring and solving those new questions.	Makes (or has made) an exciting, major contribution to **either** the interdisciplinary field **or** transdisciplinary science, by solving old problems in a brilliant, innovative way or by asking and answering new and intriguing questions.
2. Scientific quality of the research chapters **see footnotes:** 1, 2, 3	Chapters are incoherent and choices and interpretations are mostly not convincing. The chapters are not publishable in any reputable journal or by any reputable book publisher and are not expected to be cited nor have a scientific impact. In case of a monograph, it is not likely to be cited nor have any scientific impact.	Chapters lack clear cohesion and choices and interpretations are not always convincing. One chapter may be publishable in a reputable journal or by a reputable book publisher, and it is doubtful if chapters will be cited. If so, this will probably be far below the norm in the inter- or transdisciplinary field of study involved and have a considerably lower than average scientific impact. In case of a monograph, it is likely to be cited far below the norm in the field of study involved and have a considerably lower than average scientific.	Chapters have sufficient cohesion and choices and interpretations are mostly convincing. One or two chapters are publishable in a reputable journal or by a reputable book publisher, but they are expected to be cited below the norm in the inter- or transdisciplinary field of study involved and have lower than average scientific impact. In case of a monograph, it is likely to be cited considerably below the norm in the field of study involved and have a lower than average scientific impact.	Chapters are coherent and mostly well justified and convincing. Most chapters are publishable in a reputable journal or by a reputable book publisher, but only some chapters are expected to be cited in line with the norm in the inter- or transdisciplinary field of study involved and have an average scientific impact, while others are expected to be cited below the norm and have a lower than average impact. In case of a monograph, it is likely to be cited in line with or slightly below the norm in the field of study involved and have at most an average scientific impact.	Chapters are coherent, very convincing and some of them are thought provoking and exciting. Most chapters are published or likely to be published in reputable journals or by a reputable book publisher, and they are expected to be cited at least as well as the norm in the inter- or transdisciplinary field of study involved and have an average scientific impact. Some chapters are expected to be cited above the norm and have a higher than average scientific impact. In case of a monograph, it is likely to be cited in line with or slightly above the norm in the field of study involved and have at least an average scientific impact.	Chapters are very coherent and convincing, all are exciting and some of them ground-breaking. All chapters are published or likely to be published in reputable journals or by a reputable book publisher, and they are expected to be cited above the norm in the inter- or transdisciplinary field of study involved and have higher than average scientific impact and some will be cited substantially better than the norm and have a substantially higher than average scientific impact. In case of a monograph, it is likely to be cited well above the norm in the field of study involved and have a higher than average scientific impact.

	Unacceptable	Acceptable	Satisfactory	Good	Very good	Excellent
	Integration between different bodies of knowledge and understanding (within science or between science and society) is not achieved or discussed at the level of results in any chapter.	Integration between different bodies of knowledge and understanding (within science or between science and society) is loosely achieved or discussed at the level of results in one or two chapters but is not very convincing.	Integration between different bodies of knowledge and understanding (within science or between science and society) is partially achieved or discussed at the level of results in one or two chapters and only partially convincing.	Integration between different bodies of knowledge and understanding (within science or between science and society) is partially achieved or discussed at the level of results in three or four chapters and mostly convincing.	Integration between different bodies of knowledge and understanding (within science or between science and society) is fully achieved or discussed at the level of results in three or four chapters and mostly convincing.	Integration between different bodies of knowledge and understanding (within science or between science and society) is fully achieved or discussed at the level of results in three or four chapters and entirely convincing.
		Set of research approaches combined within chapters demonstrates that candidate employed very little extra effort and skill to deliver this inter- or transdisciplinary thesis.	Set of research approaches combined within chapters demonstrates that candidate employed modest amount of extra effort and skill to deliver this inter- or transdisciplinary thesis.	Set of research approaches combined within chapters demonstrates that candidate employed fair amount of extra effort and skill to deliver this inter-or transdisciplinary thesis.	Set of research approaches combined within chapters demonstrates that candidate employed high amount of extra effort and skill to deliver this inter- or transdisciplinary thesis.	Set of research approaches combined within chapters demonstrates that candidate employed very high amount of extra effort and skill to deliver this inter- or transdisciplinary thesis.
3. Reflection on the research as shown in 'Introduction' and 'General discussion'	There is no explanation of the added value of integrating different bodies of knowledge and understanding in this inter- or transdisciplinary research in either scientific or societal terms.	The argument for integrating different bodies of knowledge and understanding in this inter- or transdisciplinary research is trivial; it is made plausible that it can be interesting (in scientific and/or societal terms) to link different bodies of knowledge but the choices made remain arbitrary.	There is a reasonably plausible argument of why it is relevant (in scientific and/or societal terms) to integrate the different bodies of knowledge and understanding chosen in this inter- or transdisciplinary research.	There is a convincing argument of why it is relevant (in scientific and/or societal terms) to integrate the different bodies of knowledge and understanding chosen in this inter- or transdisciplinary research.	There is a compelling and original argument of why it is relevant (in scientific and/or societal terms) to integrate the different bodies of knowledge and understanding chosen in this inter- or transdisciplinary research.	There is a compelling, original and exciting argument of why it is relevant (in scientific and/or societal terms) to integrate the different bodies of knowledge and understanding chosen in this inter- or transdisciplinary research, and this may give rise to altogether new areas of study, collaboration and/or professionalism.
	The work does not show how the results fit in the existing inter- or transdisciplinary knowledge, or what the societal relevance is.	Trivial reflection on how results fit in the existing inter- or transdisciplinary knowledge and what the societal relevance is.	Narrow view on how results fit in the existing inter- or transdisciplinary knowledge and what the societal relevance is.	Obvious correspondences and conflicts with existing inter- or transdisciplinary knowledge are identified. Most obvious societal relevance is indicated, and - in case of transdisciplinary research- there is already some evidence that non-academics build on	Most correspondences and conflicts with existing inter- or transdisciplinary knowledge are identified. Societal relevance is mostly well indicated, and -in case of transdisciplinary research- there is clear potential for altering, policies, designs	Results are critically confronted with existing inter- or transdisciplinary knowledge. Societal relevance is addressed in full, and - in case of transdisciplinary research – there is clear evidence that non-academics build on findings to alter

	Unacceptable	Acceptable	Satisfactory	Good	Very good	Excellent
				the research findings.	or courses of action in society.	policies, designs or courses of action in society.
	The results from the different chapters are not connected to each other in any way.	The results from the different chapters are connected to each other in a loose manner that is not very convincing.	The results from the different chapters are partially connected to each other in a manner that is partially convincing.	The results from the different chapters are partially connected to each other in a manner that is mostly convincing.	The results from the different chapters are fully connected to each other in a manner that is mostly convincing.	The results from the different chapters are fully connected to each other in a manner that is entirely convincing.
	Possible weaknesses in the research are not discussed.	The most obvious weaknesses in the research are indicated, but not how they affect the conclusions.	Most weaknesses in the research are indicated, but less clearly how they affect the conclusions.	Most weaknesses in the research are indicated, and how they affect the main conclusions.	All weaknesses in the research are indicated, and how they affect the main conclusions.	All weaknesses in the research are indicated, and how they affect each of the conclusions.
4. Quality of the written presentation	Writing, tables, figures and lay-out are so poor that it is hard to understand what the candidate wants to say. Reading is very difficult.	Writing, tables, figures and lay-out are not always correct and clear, level of detail varies widely, but with effort the text is understandable. Reading is difficult.	Writing, tables, figures and lay-out are mostly adequate, but level of detail varies, and text could be more concise. Reading is laborious.	Writing is correct and mostly clear, but text could be more concise. Tables, figures and lay-out are mostly clear, with few errors. Reading is effortless.	Writing is clear and concise, tables, figures and lay-out are functional and flawless. Reading is a joy.	Writing is crystal clear and compelling, concise but balanced with sufficient detail, with attractive, functional tables, figures and lay-out. Reading is exciting.
	The thesis is unstructured, often information is missing or presented in the wrong place.	Main structure of the thesis is adequate, but placement and structure of sections are often not logical.	Main structure of the thesis is correct, placement and structure of sections are not logical in places.	Main structure of the thesis is correct, but some sections are less well placed or less well structured.	Main structure of the thesis is clear and correct, most sections are well structured and well placed.	The thesis is very well structured with each chapter and section having a clear function and presented in a logical order.
5. Overall assessment	In case one of the five criteria is marked as 'unacceptable' by any of the opponents/ reviewers, the PhD candidate will not be allowed to defend the thesis without major revision.	Based on the above categories the overall quality of the thesis is considered acceptable. The PhD candidate will be allowed to defend the thesis.	Based on the above categories the overall quality of the thesis is considered satisfactory. The PhD candidate will be allowed to defend the thesis.	Based on the above categories the overall quality of the thesis is considered good. The PhD candidate will be allowed to defend the thesis.	Based on the above categories the overall quality of the thesis is considered very good. The PhD candidate will be allowed to defend the thesis.	Based on the above categories the overall quality of the thesis is considered excellent. This PhD thesis belongs to the top of the scientific field. This may be a reason for awarding the designation 'cum laude' ('with distinction').[4]

[1] The precise criteria for assessing quality may differ per discipline and type of research. Accordingly, quality criteria may relate to use of theory, research design, methods of data collection, analytical approaches, modelling, validation, conclusion and discussion. More general quality criteria in relation to such building blocks include depth of argumentation, justification of choices, creativity, clarity, sophistication and the level of coherence between the building blocks.

[2] In the case of a design, please consider the originality of the design and the contribution to technology. Consider the candidate's technological competence, application of design methodologies, and analytical and integrative skills.

[3] If the research chapters are multi-authored, it is important to consider the candidate's contribution to each chapter, in particular when s/he is not the first author. To this end, an authorship statement by the candidate has been added to the thesis manuscript. Also, it's good to check whether the research chapters show a level of written presentation similar to the Introduction and General discussion. If the research chapters are written in a better way, this may result in a higher grade for the criterion 'research chapters' but it suggests an important contribution of co-authors. Thus, a higher grade for the research chapters alone should perhaps not be reflected in the overall grade of the thesis.

[4] After the oral defence, the committee will be asked to comment on the quality of the defence. At that point the final decision whether or not to award a cum laude designation is made by anonymous voting.